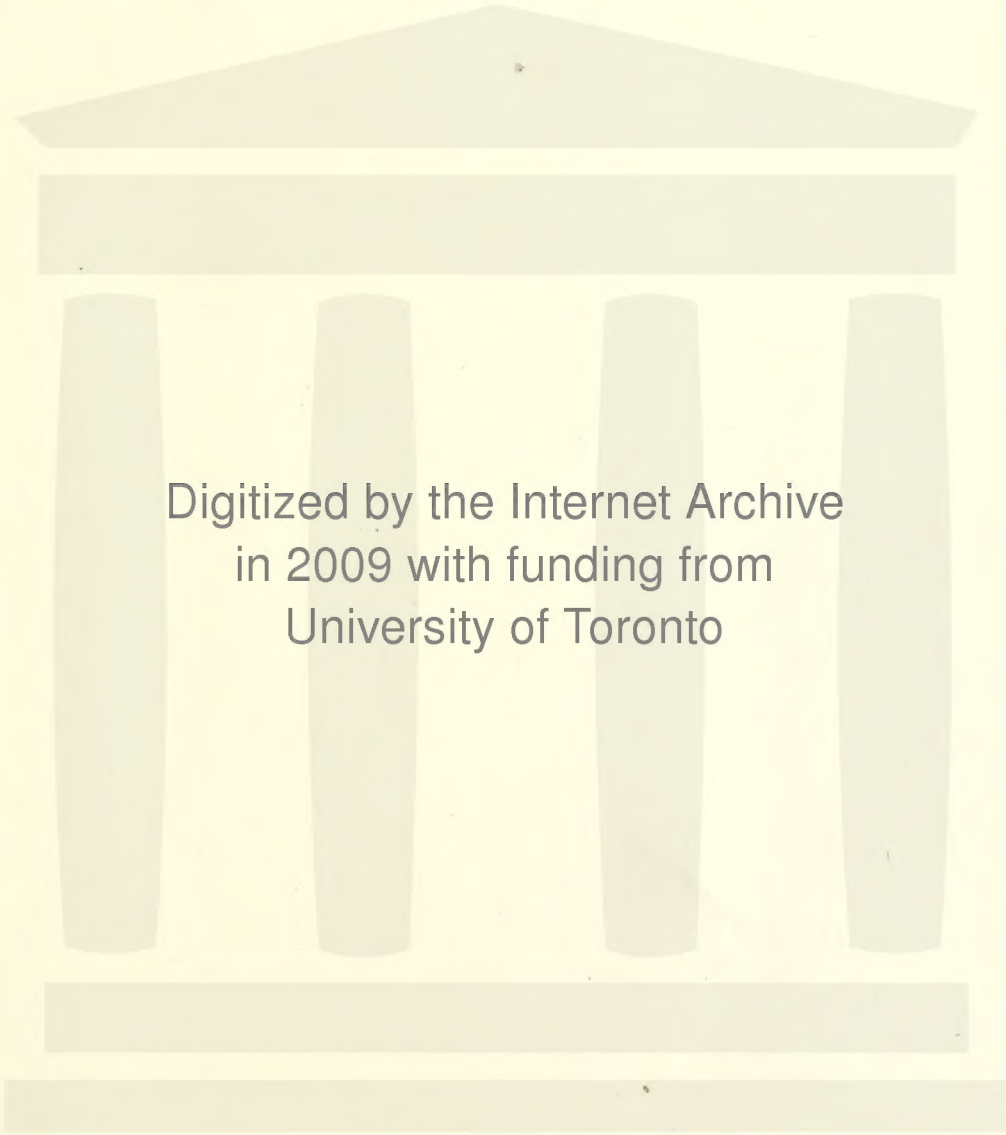

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BRITISH MEDICAL JOURNAL:

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A CLINICAL LECTURE
ON
A CASE OF UNILATERAL (HEMIPLEGIC) SPASM AND CONTRACTURE WITHOUT PARALYSIS.

Delivered in the University of Edinburgh,

By Sir T. GRAINGER STEWART, M.D., LL.D.,

Professor of the Practice of Physic, Physician-in-Ordinary to the Queen for Scotland, and President of the British Medical Association.

I show you three cases presenting considerable superficial resemblance. The first is an example of old-standing hemiplegia with descending degeneration and spasmodic contracture of the muscles of arm and leg. The second is a typical case of the cerebral palsy of childhood exhibiting along with a



Fig. 1.—Showing general appearance and attitude of J. J. From a photograph by Dr. Dingwall Fordyce.

degree of paralysis very well-marked spasm of many muscles interfering with the action of the limbs. And the third, the case which is to be our special subject to-day, is a man suffering from unilateral spasm, and at first sight closely resembling the hemiplegic patient, but really differing in most important particulars.

You observe that each of these cases exhibits the ordinary features of spasticity. You see the tense contraction of the affected muscles; you see how this has in some regions passed into a condition of contracture, with alteration of the muscular tissue and of the joints and even bones associated with them. You see how in each of the three the deep reflexes are exaggerated, although it is not easy to show this fact in some parts, in consequence of the state of contraction or contracture in which the muscles habitually are.

But when I proceed to test the motor power of these three patients, a great contrast emerges. With regard to the legs you notice that while all of them can stand, the hemiplegic walks only in a very awkward way, and is unable to run, while when he attempts to step up on a chair he signally fails. You will notice that the second patient stands well enough,



Fig. 2.—Showing impression of footprints of J. J. From a photograph by Dr. Dingwall Fordyce.

but is rendered unsteady by the occasional spasms as well as by the deformity which the disease has caused in his foot, that he walks fairly, but is distinguished by many associated involuntary movements which attend it, that his running is so

awkward as to be scarcely possible, and that it is with extreme difficulty if at all that he can manage a high step. But in the case of the third patient, you notice that notwithstanding the deformity of his left foot he stands as steadily as if on drill with his regiment, he walks quite well, though with a peculiar gait, and planting his left foot in a peculiar way, as the photograph taken by our usual method shows, but he runs better than he walks, showing no tendency to stumble, nor anything like the amount of disability one would expect. When I ask him to step on to this table he raises the foot of the affected side with little difficulty, and by the power of the leg alone steps up to this height of 3 feet.

Examination of the arms of the three patients brings out corresponding results, although the arms being more affected than the legs in all of them, they act much more imperfectly. You perceive that the hemiplegic patient can make no use of the hand at all, cannot extend the spasmodically bent fingers, can scarcely move the wrist, flex or extend the elbow-joint, or make much movement with the shoulder, while the infantile case, although more capable of purposive action, is much embarrassed in movement by the irregular spasmodic contractions of many muscles.

On the other hand the patient whom we are especially to study shows that although his hand is so spasmodically contracted as to be quite useless, he yet can in a measure move some of the fingers, while he definitely can make movements at the wrist, and his power of flexion and extension at the elbow, although hindered by the simultaneous action of opposing muscles, is yet so powerful as to rival the best efforts of the athletic student whom I have asked to endeavour to hinder the patient's movement. You see that notwithstanding the best the student can do the patient holds his own. And then as regards the shoulder-joint the patient can, though with difficulty against much opposition by the antagonistic muscles, raise his arm above his head.

With regard to the muscles of the face in the three patients, you will notice that in the hemiplegic they show some degree of paralysis, the two sides of the face moving therefore unequally. In the second case you will observe that spasmodic movements similar to those occurring elsewhere affect the muscles of both sides of the face, so that grimaces and contortions are commonly present. But in our special case of to-day you notice there is little difference between the two sides of the face, and it is only when we carefully compare the two halves of the tongue that the left is found slightly more voluminous than the right, and when we compare the facial muscles there seems to be a condition of hypertonicity on the left side, but I have had difficulty in making up my mind on this point.

This third case is thus really quite distinct from the others, and it is to be for the rest of our lecture our special subject of study. I shall first give you an account of the history and present condition of the patient, and then demonstrate certain points of special interest.

J. J., aged 25, soldier, and lately a miner, was admitted to the Royal Infirmary on November 4th, 1898, complaining of stiffness of the left arm and leg, which condition had lasted three years and a-half. His family history shows no unfavourable point. He was a healthy child, and originally began work underground when 12 years old. He continued that employment for six years, but at the age of 18 he enlisted. After two years' soldiering at home he was sent to India in 1894. On April 23rd, 1895, while serving in the Argyll and Sutherland Highlanders at Meean Meer, he took typhoid fever, and passed through a long and severe attack. He says he was unconscious for five or six weeks, and the Netley authorities, who have kindly favoured me with an extract from their notes and reports, say he was ninety-three days in hospital, and then transferred to Kasauli for change. He states that on recovering consciousness he found himself unable to bring together or to bend the fingers of his left hand, and that he dragged his left foot on attempting to walk.

Gradually the disability as to his fingers increased. They became strongly flexed, and his hand bent to the ulnar side. Then his wrist became flexed, and early in 1896 his arm had twisted round, so that his hand was behind his back, and he was quite unable to bring it forward. At the same time his toes gradually got more and more bent, the great toe upwards and the others downwards, especially the smallest toe, and so walking became painful and difficult, but he thinks that he had no real weakness in the leg. The army report states that in the course of his typhoid he had thrombosis of the right femoral vein, and lost power of extension in fingers of the the left hand, so that he was useless as a soldier. The illness was not aggravated by intemperance or other vice, or by misconduct.

The summary of causes of invaliding on being examined at Netley, December 18th, 1895, are stated as follows: "Much worse; has spastic contraction of fingers and wrist, left extremity, and all toes of left foot; cannot pronate or supinate left arm, or raise it above head; can flex elbow slowly; has no loss of sensation; is pale, but fairly well-nourished; the spleen but slightly enlarged; left leg smaller than right; vision good. Disability points to brain lesion; unfit for further service; invalided; will not be able to earn a livelihood."

He says that after leaving Netley he gradually became worse, and since I began to prepare this lecture I have ascertained that he was for a while in Glasgow Royal Infirmary under the care of Dr. Lindsay Steven, who published the case in the *Glasgow Medical Journal*. From that record I find that he was admitted on April 11th, 1896; the description of the arm and leg given by Dr. Lindsay Steven is as follows: "The fingers are flexed upon the palm of the hand more or less. They can passively and slightly, by voluntary effort, be extended within narrow limits. The thumb is turned outwards and flexed at the inter-phalangeal joint. Forcible extension of the fingers is accompanied by considerable pain, but the thumb is less painful in this respect. The wrist-joint is fixed, evidently largely by muscular spasm, and not by definite ankylosis. Movement of flexing the forearm on the arm is perfectly easily accomplished, but it is accompanied by considerable fine tremor of the whole arm. On attempting to raise the left arm above the head it becomes evident that there is little movement at the shoulder-joint. Most of the movement is accomplished by moving the arm and shoulder *en masse*, and, as a result, the range is much more limited than on the other side. There is no definite wasting of any of the arm muscles. The position of the thumb in relation to the other fingers is very noted. It is turned round in such a way that it rests upon the radial aspect of the first phalanx of the forefinger. As regards the foot, there is noted a spastic condition, evidently involving the extensors, so that the toes are all drawn well up upon the dorsum of the foot, the first phalanx in each case being drawn far back upon the metatarsal bone. The extensor tendons stand out like cords. Despite this, movement of the ankle-joint is fairly free, although rather jerky. The power of the muscles of the thigh, as tested by making and resisting movements of flexion and extension of the knee, is fairly good in both lower extremities, and no appreciable difference is made out between the two sides. Sensation is tested in both upper and lower extremities, and found to be normal. The reflexes (tendon) in the left upper extremity are abolished, in the right normal. The superficial abdominal and cremasteric reflexes on the right side are easily elicited; the former can be faintly brought out on the left side, but the latter on the left side cannot be elicited. The knee reflex is distinctly exaggerated on the left side, and ankle clonus is very marked, while on the right side the knee reflex is normal, and there is no ankle clonus. There is no facial paralysis, but there is a fine tremor of the eyelids of each side when they are closed.

The right calf, 5 inches below patella, measures 14 inches, the left 12⅞ inches.
Girth of wrist just above styloid process (narrowest part of forearm), 6⅜ inches on both sides.
Three inches below external condyle of humerus, right side 9⅜ inches, left side 9½ inches.
At deltoid insertion, on right side 9¾ inches, on left side 9½ inches.
At mid-upper arm, right side 10½ inches, left side 10⅜ inches."

From this report it is clear, as will be seen when we complete our own examination, the state of matters was in April, 1896, substantially the same as it is now.

We have further ascertained that the patient has twice been in Stirling District Asylum at Larbert suffering from mania. He was there from July 11th, 1896, till March 13th, 1897, and from June 15th, 1897, till February 12th, 1898.

Dr. McPherson, the medical superintendent, and Dr. McGilchrist, the assistant physician to the institution, have

kindly favoured me with notes of their observations as recorded in the case books of the institution: "Patient is an alcoholic. State on admission: Upper limb flexed at every joint, and forearm pronated; fingers flexed at metacarpo-phalangeal joints; toes of left foot distorted, and left leg weak, kept stiff, and dragged after him in walking; toes appear flexed on themselves, but (especially the great toe) over-extended at proximal joint. There does not appear to be any atrophy of muscles in either limb; sensation is undisturbed; any attempt to straighten the arm appeared to be consciously resisted, in fact the more it was tried the more exaggerated became the flexion; reflexes are exaggerated on left side. Progress, August 1st, 1896: No change in arm or leg; he has never been observed to straighten out the arm; the contraction is not diminished during sleep; he complains much of pain in wrist, especially when, as at times it happens, the contraction is increased. There are many things about him which suggest hysteria. September 20th: An attendant says he saw him stretch out his arm when, as patient thought, no one was looking. There is still no sign of atrophy. He has been treated with faradism for three or four weeks without any improvement. Six attempts were



Fig. 3.—Showing usual position of fingers, hand and wrist. From a photograph by Dr. Dingwall Fordyce.

made with hypnotic treatment but without effect. December 1st: Only change is appearance of atrophy of affected parts, probably from disuse. January 4th: Under chloroform flexion and pronation disappeared, and arm could be freely moved into any position. The only remaining trace was that the fingers, though relaxed, could not be straightened at metacarpo-phalangeal joints. The first sign of returning consciousness was a reappearance of flexion and pronation. Veins in left arm and leg were more apparent than on right side and more distended. During his second stay in this asylum his physical condition was much the same as above."

Dr. McPherson writes: "After careful consideration of the symptoms, I came to the conclusion that they were due to hysteria and not to toxic action upon the cells of the cord. No doubt the typhoid fever occurring in a neurotic and predisposed subject, probably also an alcoholic subject, may have been the starting point of the neurosis. The patient was sent here on both occasions labouring under mania, with mild intellectual excitement and exaltation, and complete absence of the moral sense and general mental instability, which I suspect is congenital. I failed to discover any cerebral or cortical lesion, while the absence of atrophy and the disseminating character of the contractures appeared to me inconsistent with degeneration of the spinal ganglia either anterior or posterior. I therefore looked upon the case as a functional neurosis. Of course, by this time organic changes in the nerve centres involved may probably have occurred." We shall return to these observations and that expression of opinion when we discuss the nature of the process.

His medical history is thus unusually complete, for he left the asylum in February of the present year and came under my care in November. He says that notwithstanding his disability he has been able to work occasionally as a miner. On his admission, we found him a robust-looking young man weighing 11 st. 6½ lbs; his height was 5 ft. 8 in. He presented the appearance of a patient suffering from hemiplegia with post-hemiplegic spasticity.



Fig. 4.—Skiagraph of hand showing outline of hand and wrist with position of bones. Taken by Dr. Dawson Turner.

On examination we found all the systems, except the nervous and the locomotory, quite healthy. On detailed examination of the nervous system the sensory functions were found normal. It is true that he complained a good deal of pain, but this was due to cramp-like contractions of his muscles. The testing as to all kinds of sensory impressions gave normal results; his field of vision was normal, as was also his colour perception. The ophthalmoscope revealed a normal fundus. With regard to motor functions, the organic reflexes were normal; the skin reflexes, and especially the plantar, were exaggerated, the epigastric and abdominal were difficult to elicit on the left side, apparently because of the muscular rigidity. The deep reflexes were difficult to elicit, owing to the habitual condition of the muscles, but it was clear that the knee-jerks on

both sides were exaggerated, though in a different manner, being sharper in the right and stronger in the left, and there seemed to be occasionally a tendency to ankle clonus on the left side, although for the most part attempts to evolve it produced no response and it was rather a pseudo-clonus than a true one. No reflex could be obtained in the arm owing to the spastic rigidity. With regard to voluntary movement, when asked to wrinkle his brow the right side moved much more than the left, and was more elevated. When making a forced inspiration the muscles on the right side of the nose act strongly, while there is sinking in on the left side. There is no marked difference between the sides when the patient is told to close the eyes firmly. The tongue, when protruded, deviates slightly to the right, and the left half is seen and felt to be rather more voluminous. The left half of the face also appears slightly fuller than the right. Dilatation of the left pupil is occasionally observed. The movements of the eyes are normal.



Fig. 5.—Showing the contrasted condition of the toes of each foot. From a photograph by Dr. Dingwall Fordyce.

When clinching the teeth tightly and opening the lips the right side of the mouth opens up more widely, the left side appearing not paralysed but stiff. The patient is unable to shrug the left shoulder, the shoulders being in a constant state of extreme shrug, and can make only very slight movement at the shoulder-joint, the whole shoulder girdle for the most part acting as one, and the muscles being almost constantly rigid. The left sterno-mastoid is larger than the right. The upper part of the trapezius is sometimes lax, usually spasmodically contracted. The same is true of the deltoid. In both of them the contraction is so strong that voluntary effort seems to have no effect. The biceps and triceps are always more or less rigid, but can be made to contract further at will, still the antagonistic action prevents free movements. He is unable to touch his left shoulder with his left hand, and can get no nearer than his chin. After some time, and considerable exertion, he is able to straighten his arm, but cannot supinate his hand. He has power of movement in his thumb and slight power in the fingers. The hand is kept twisted to the ulnar side. Movements in the leg are comparatively good except in the toes, especially the small toe, which is constantly kept flexed. The great toe is bent upwards almost to a right angle at the metatarso-phalangeal joint, while at the interphalangeal joint it is flexed to an obtuse angle. A reference to the skiagraph shows the direction in which the distal phalanges are distorted. Measurements show the right arm at insertion of deltoid 11 in., left $10\frac{3}{4}$ in. Right over centre of biceps 11 in., left $10\frac{3}{4}$ in. Right forearm $11\frac{1}{4}$ in., left 10 in. Right wrist 7 in., left $6\frac{3}{4}$ in. Leg: right ankle $9\frac{1}{4}$ in., left $8\frac{1}{2}$ in; right calf 15 in., left $12\frac{3}{4}$ in.; right thigh 21 in., left 20 in. The left or affected side is thus smaller than the right, although its muscles are constantly contracted and their consistence distinctly firmer.

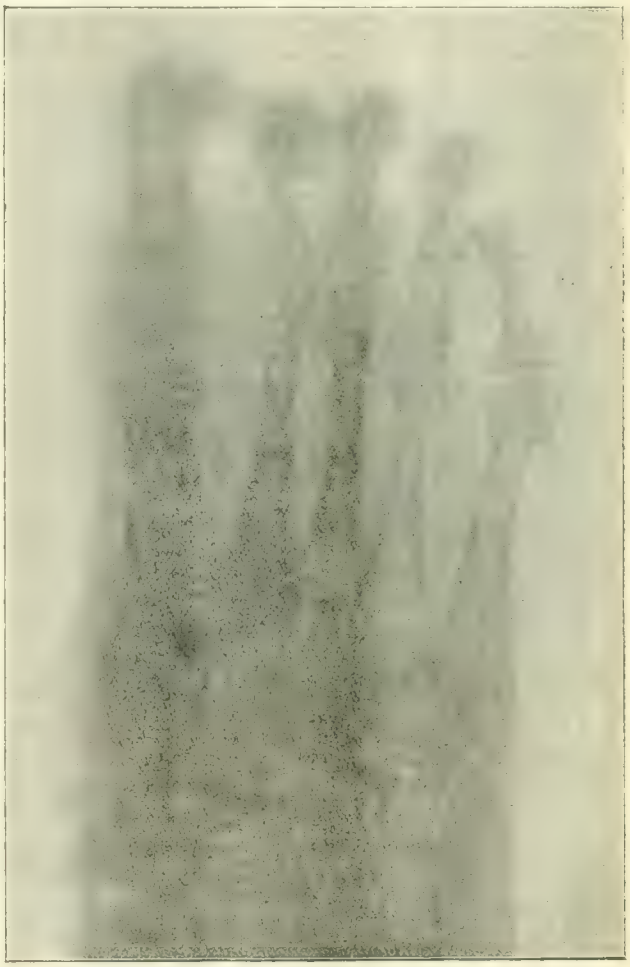


Fig. 6.—Skiagraph of left foot showing the position of the phalanges of the toes. Taken by Dr. Dawson Turner.

With regard to the motor functions, I wish to insist on the fact that his disability is mainly or indeed exclusively due to a contraction of the opposing groups of muscles occurring when he seeks to bring any particular muscle or group of muscles into play—as, for example, when he wishes to flex his arm the biceps acts readily, but the triceps also follows suit and hinders the work of its antagonist. Secondly, it is worthy of note that on sudden or rapid action the antagonists do not come into play quickly enough to tell, and so he runs better than he walks, and even with the arm makes a sudden movement better than a slow one. (As is implied

in what has been already said, co-ordination shows no deficiency.)

The condition of the electrical reactions was carefully studied by Dr. Alex. Bruce and myself; but we thought it well to get a special report from Dr. Milne Murray, the accomplished electrician to the Royal Infirmary, and his report is as follows:

Motor Points.	Galvanic.				Faradic.	
	KCC	ACC	AOC	KOC	Coil.	Ratio.
1 Flexor carpi radialis, right ...	0.5	1.4	9.0	—	135	4
2 " " " left ...	6.5	6.0	14.0	—	90	9
3 Peronei right ...	1.0	1.3	2.9	—	115	10
4 " left ...	1.0	5.0	4.0	—	110	13

Test No. 1 gives nearly normal reactions, except that KCC comes rather early, while ACC is considerably deferred. Faradic excitability is nearly normal.

Test No. 2 shows great lowering of the galvanic excitability, especially in KCC. This requires about twelve times as much as in the right side, while ACC requires 4⅔ times and AOC 1⅔ times as much as on the right side. The faradic excitability is also considerably reduced, the minimal contraction requiring 2⅔ times as much as on the right side.

Test No. 3 (lower limb) gives a normal reaction both to galvanic and faradic stimuli.

Test No. 4 gives a normal KCC, while ACC and AOC approach each other, the latter slightly preceding the other. The faradic excitability is depressed as compared with the right side, in the ratio of 10 to 13.

The result of the examination shows great lowering of the galvanic and faradic excitability in the left upper limb and a smaller lowering in the left lower limb. The character of the response on the left side is not in any way abnormal. There is none of the "laziness" of contraction so often seen in certain stages of the reaction of degeneration.

Now if you refer to the table on the board you will see in the three columns into which it is divided, first, the normal relations of the faradic and galvanic current to healthy muscle and nerve; secondly, the conditions found by Dr. M. Murray in case of J. J.; thirdly, the conditions of reaction of degeneration.

	Normal.	J. J. (Affected Side).		Reaction of Degeneration.
Faradic:	Reaction readily obtained	Excitability diminished especially in arm		Reaction greatly diminished.
Galvanic:	Reaction prompt and sharp	No laziness in contraction		Reaction lazy, sluggish, and prolonged.
		Arm.	Leg.	
Appearance of contraction:	1. KCC	1 & 2. KCC and ACC (practically simultaneous)	1. KCC	1. ACC
	2. ACC		2. AOC	2. KCC
	3. AOC	3. ACC	3. ACC	3. KOC
	4. KOC	4. KOC	4. KOC	4. AOC

The condition thus bears no resemblance to the reaction of degeneration. With regard to vasomotor and trophic functions, the only point to be noted is that not only does the left leg measure less in circumference than the right, which might be explained by the old thrombosis, but the left arm also measures less than the right one, notwithstanding the fact that its muscles are generally in a state of violent contraction, and are so vigorous. The measurements taken in Glasgow compared with those we made here are as follows:

	Glasgow Infirmary.	Edinburgh Infirmary.
Right calf	14	15
Left calf	12⅜	13½
Girth of wrist just above styloid process—right ...	6⅜	7
" —left ...	6⅝	6¾
At deltoid insertion—right	9⅞	11
" " —left	9¼	10½

Comparing these measurements, we find that the girth has increased on both sides during the past two years and a-half; that the left or affected side is smaller than the right; and that the growth on the left side has been less than that of the right at all points measured excepting one—namely, the insertion of the deltoid.

These differences appear to imply a trophic change in the muscles of the left half of the body, and the appearance of a distinct degree of increased growth on both sides since he was examined in Glasgow. The shortening of the muscles, and the changes in joints and bones which the skiagraphs reveal appear to be secondary results of the long-standing spasm rather than of neurotrophic origin.

The cerebro-mental functions are at present natural, as are also both the spine and the cranium.

It is necessary to restate the facts of the case in brief form:

A soldier, aged 25, had severe typhoid in India; on recovering from coma, found himself unable to use his left hand on account of stiffness of the fingers. Gradually they became flexed, and the arm, foot, leg, and left side of face became rigid with constant hypertonicity and frequent tonic spasms. This condition makes him resemble a case of hemiplegia with descending sclerosis, but there is no paralysis, and all the muscular disability is due to antagonistic action of opposing muscles. Otherwise at present no abnormality of any system or of the nervous system in any respect, except the unilateral spasm. The locomotory system is interfered with only in so far as the spasm, the contracture, and the consequent changes in joints and bones are concerned. He has, since his illness began, had two attacks of mania.

It should be particularly noticed, as to the state of the muscles, that the deep reflexes are exaggerated, and that, although the electric relations differ in the two sides of the body, there is no trace of the reaction of degeneration.

(To be continued).

ON THE ORGANISATION OF LABORATORIES IN HOSPITALS.

By PROFESSOR DR. CARL VON NOORDEN,
Chief Medical Officer of the Municipal Hospital in Frankfort-on-the-Main.

IF we cast a glance back over the scientific literature of medicine we shall see that a remarkable change has come about in the last decades. Only the literature which is concerned with clinical description has retained its ancient character; this will always be the case, since the varieties of the pathologic-clinical processes are inexhaustible. There will always present themselves to the attentive observer at the bedside novel phenomena which broaden our knowledge of diseases, and are full of importance in diagnosis.

If, however, we look beyond the records of symptoms, we are struck by the fact that the subjects to which our scientific investigations are directed have become altogether different. The journals and periodicals of the seventh and eighth decade of this century are filled with contributions on physical diagnosis, especially on the employment in diagnosis of auscultation and percussion. He who came to the study of his patients with acute senses and good powers of observation could at that time count upon making new discoveries and rendering important services to scientific diagnosis. Physical diagnosis in the narrower sense of the term was rendered complete down to its finest details upon the basis of the comparison of clinical phenomena with the results of *post-mortem* examination; what later years have added is very little. Beyond the pleximeter hammer and the stethoscope, the thermometer, the as yet imperfect microscope, and in rare cases the sphygmograph, were almost alone of service to the practitioner of medicine. A place of great importance was assigned to the thermometer. The investigations and discussions upon thermometry, on the course of febrile diseases, and on the therapeutic means of influencing the course of fever were scarcely less numerous and important than those on percussion and auscultation. At a later date and more slowly the microscope attained to a position of general importance in scientific work at the bed-

side. Clinical microscopy down to the end of the eighth decade made only a few noteworthy advances after its earlier important discoveries in the morphology of the urine, the blood, the sputum, and the fæces had been achieved. The microscope did more for the investigation of *post-mortem* material. It is very noteworthy and very instructive to observe that towards the end of the eighth decade, and also at a later date, numerous clinical observers in all countries devoted their scientific labour to the field of pathological and especially of microscopical anatomy. It was like an invasion into a foreign territory. When diseased organs were submitted to accurate microscopical examination, when anatomical changes were described down to the minutest details, and when experiments on animals were performed in addition, work was done which appertained rather to the anatomist than to the clinician. The consequence of this tendency was that for a young practitioner who desired to obtain a post as assistant in a clinical department there was no better recommendation than that he had occupied himself for some time in pathological anatomy—not only with naked-eye anatomy, which nevertheless is undoubtedly of great importance to every practitioner, but it was also desired, and, indeed, required that he should be able to make detailed investigations into the minutest microscopical anatomy.

We must, indeed, admit that during that period a great quantity of admirable and important work was produced by clinical professors, by assistants in clinical schools; and by other young practitioners who worked in the clinics, nevertheless we must note that this kind of work was along a wrong road, which led scientific clinical work away from its true function. It was a dangerous, false track, for it usurped the time and thought which the clinical observer should devote to the pathological processes of the living human being. The cause of this invasion of the territory of the anatomist by the clinical observers lie near at hand. Observation at the bedside had exhausted nearly all the methods at that time available; there was no more valuable fruit to be gathered either for diagnosis or for treatment through clinical work. Diagnosis and symptomatology thirsted after new ways of gaining knowledge; the therapeutics of the diseases which fall within the domain of medicine followed the old and oft-trodden road, and when contrasted with the gigantic achievements of modern antiseptic surgery gave rise to the same feeling of despair as in the days of Skoda. Thus the desire to work on scientific lines drove men into the foreign territory of pathological anatomy. It is a very noteworthy fact that in the many countries where the more recent auxiliaries of modern clinical work in hospitals are not available, the best investigations which issue from the clinical institutes still deal with pathological anatomy and histology; while in Germany, France, and Italy at the present day important work of this kind is undertaken by clinical teachers or their assistants only in very rare instances. Neurology alone affords an exception; the best investigations within its domain whether undertaken by clinical observers or by anatomists are concerned with microscopical pathology. This is due to the way in which neurology has during the last two decades grown to be a special study. I entertain the strongest doubts whether this direction which neurology has taken is the right one.

At the period to which we went back at the beginning of this article clinical chemistry was still in long clothes. Although some important discoveries were made in the field of the pathology of metabolism, yet the practitioners could be counted on the fingers who knew more about clinical chemistry than how to look for albumen and sugar in the urine. The poverty of the researches were in sharp contrast with the mighty strides which physiological chemistry and the study of metabolism had made in those days. It is true that some valuable observations on the pathology of the urine have come down to us from those days, but they were rather solitary unconnected observations than systematic studies. Still the new methods of studying metabolic changes quantitatively were employed at the bedside by some investigators, although few works of fundamental importance were published, these few works were all the production of German clinical teachers. What was done, however, showed that investigations in clinical chemistry promised to be extremely fruitful. Thus it is that we see that at the end of the eighth and the beginning of the ninth decade a large number of young and ambitious medical men began to give serious attention to chemical studies and to look upon them as affording an important preparation for scientific work at the bedside, with what success is made plain by the many men who began their scientific career at that time whose names are now famous. Since that epoch the share of the clinical physician in chemical investigations has increased year by year. A large amount of original work of fundamental importance has been done by pathologists who have been equally accomplished as practitioners at the bedside and as experimenters in the laboratory.

The study of the chemical changes in the blood, and in the secretions and excretions, has grown ever more important and more rich in results, affording means for an understanding of the diseased processes which occur in the body. Every piece of knowledge gained afforded a suggestion for new researches. Most of these investigations into the pathological constitution of the blood in pathological states (proportion of water, quantity and nature of the proteids; hæmoglobin and its modifications, salts, acids, alkaloids, specific gravity, sugar, etc.), and into the chemistry of pathological urine (proportion of nitrogenous constituents, uric acid, alloxur bases, proportion of ammonia, rare nitrogenous bodies, and various forms of albuminous bodies and of carbohydrates, the proportion of salts, the excretion of aromatic substances, and of urinary pigment, etc.) could have been carried out by no one except hospital probationers well equipped chemically. The chemist, without this close contact with clinical practice, and without an acquaintance with pathological occurrences, could never have advanced our knowledge so far. This is still more clear in regard to investigations relating to metabolism, the immense importance of which in deepening our knowledge of pathology is very apparent, and is more appreciated every day. The study of metabolism was, as it were, born in the physiological laboratory. It was there that the foundations on which we all stand to-day were laid by many experiments on animals and by some few on man. But these physiological inquiries were not sufficient for the needs of clinical medicine. We are indebted far more largely to assiduous work at the bedside during the last two decennia for the accumulated knowledge which has been gained of the pathology of metabolism, and for the foundations on which modern rational dietetic treatment rests. I will mention here only some of those important researches: The assimilation of proteids; oxidation and assimilation in fever; nutritional conditions in diabetes mellitus; the relation between proteid assimilation and fat destruction in obesity cures; the relative excretion of uric acid in health, in gout, and in other diseases under various kinds of diet; the secretion of hydrochloric acid in the stomach and its influence on digestion; the assimilation of food, especially of the various forms of proteid and fat in gastric and intestinal diseases; the assimilation of food after the complete or partial occlusion of the bile duct and pancreatic duct; the influence of a diet rich in proteids and of one poor in proteids on diseases of the kidney, especially in the degree of albuminuria; the influence of anæmia on the total proteid assimilation and on the oxidation processes, and on the absorption of nitrogen; the amount of food necessary for the sick in comparison with that required by the sound.

I have here referred only to a few selected examples of the important subjects with which the study of metabolism has been concerned during recent years. The reader who wishes to convince himself that these researches possess not merely a theoretical interest, but have exercised also a very great influence on the growth of modern therapeutics should consult the new *Handbook of Dietetic Therapeutics* which is now in course of publication by E. von Leyden with the co-operation of numerous investigators. On every page he will find proof of the dependence of therapeutics on the researches in metabolism carried out during the last two decades. No one who reads this book can fail to receive the impression that through the careful study of the pathology of metabolism, through the investigations of metabolic exchanges by various methods, medical treatment has been very greatly advanced, and has reached a position which is no longer inferior to that to which its brilliant achievements have raised surgical treatment. Contemporaneous with the development

of clinical chemistry was the triumphal appearance of clinical bacteriology. It is scarcely fifteen years since bacteriology attained to a position of importance in clinical medicine owing to Robert Koch's discovery of the tubercle bacillus. Within a few years bacteriology became of quite unanticipated importance in diagnosis. It brought about a complete change in our conception of very many pathological processes. It became a sure guide in the etiological differentiation of disease, whereas previously differentiation by symptoms alone had had a prominent place. In the gigantic work which was done, work which embraced every part of medicine, all countries and all hospitals took an assiduous part. We did not altogether escape mistakes; they were inevitable. But on the whole scientific medicine can look back with justifiable pride on the victories won by clinical bacteriology. From its first beginnings and throughout the whole course of its development down to the present day bacteriology has had the good fortune to be able to rely confidently on clinical medicine. The great results which have been attained have been reached through combined work done simultaneously at the bedside and in the laboratory. The bacteriologists were clinical physicians, and the clinical physicians were bacteriologists. Only in this way could such rapid developmnt have taken place as has been effected in the etiological and therapeutic study of tuberculosis, of cholera, of rabies, of diphtheria, of septic diseases, etc. Whatever might be the direction in which the great pioneers of bacteriology succeeded in making a new discovery clinical institutions always at once co-operated in the work. Bacteriological diagnosis, etiological inquiry, the study of immunity, of immunisation, and of serumtherapeutics could never have attained so quickly to their present far-reaching importance had not all clnical institutes, large and small, been most readily provided with the means of taking part in the great work common to them all. In spite of the great results already achieved we are still, unless we are all mistaken, only at the beginning of an immense undertaking which is to be accomplished by theoretical research and practical medicine working together in close alliance.

The development which scientific medicine has undergone in recent years has imposed on hospitals duties which are entirely new. All the larger hospitals, and not those only which undertake to teach medical students and young practitioners, are under the obligation to co-operate in the further development of medical science. If to-day progress in scientific medicine is to be continued, medical men who are called to such work, that is to say, all hospital physicians, must have at their disposal the full equipment necessary for modern scientific investigation.

That it is the duty of the members of the medical staff of all hospitals to advance science and to incite the younger members of the profession to undertake scientific inquiries is self-evident, and does not call for further argument. To circumscribe the opportunities for work in medical teaching institutions, and to give instruction only in those ancillary methods which were found sufficient in past times, would be a crime against science which would be bitterly revenged in future generations.

But the justice of this claim seems to be equally self-evident in the case of these hospitals which are not teaching institutions, inasmuch as it is required of the medical staff of such hospitals that in every respect they should rise to the height of their science, and that in their practice, both in matters of diagnosis and of treatment, they should give the best which is possible in the existing state of the medical art. In order that they may do this and afford to their patients the service we have the right to required from them, they must have the opportunity of bringing to he bedside all the means of assistance provided by modern science. We do not demand from the medical officers of these hospitals independent original researches, but we do demand that they should be able to make the discoveries of others available in the fullest measure for their patients. We do demand of them a living contact with the progress of their profession. So soon as an advance has really been made in clinical chemistry, bacteriology, and microscopy, the fact must be taken into account, and every hospital should take care that the necessary auxiliary means are supplied. It is useless to raise opposition to this. Those hospitals which fail to recognise the new needs and their medical officers likewise stand still, and where things are at a standstill there is always in scientific matters backsliding. Where the access to the sick-bed of our flourishing clinical medical science is hindered, there, in spite of all book learning, an understanding of the achievements of pathology, diagnosis, and therapeutics which we owe to the auxiliary sciences will also be wanting.

Medical men must recognise with thankfulness that the State and municipal authorities, and the governing bodies of smaller institutions, have already to a large extent taken cognisance of the modern progress of medicine, and have done much to provide a better equipment of scientific appliances for hospitals. If we who are medical men would count upon further advances, we must have a clear understanding as to the scope of the provision necessary to be made, and we must indicate what arrangements have proved themselves to be the best. I believe that I am in a position to express an opinion on this point because I have made myself acquainted with the organisation of most of the large municipal and State hospitals in Germany, and with no small number of those in Austria, England, and Italy.

In the first place I would utter a warning against making exaggerated demands. I have laid down the principle that as a rule hospitals should only be provided with means for undertaking such investigations as have a direct connection with clinical questions. All investigations which do not present this connection can be relegated without loss to other special scientific institutes.

The following organisation is sufficient:

I.—An Institute for Pathological Anatomy.

A special prosector should be appointed to the institute, whose duty it would be to make all *post-mortem* examinations for the various departments of the hospital, and to carry through microscopical and bacteriological investigations desired to the ward physicians. Material obtained from the living patient by operation (tumours, etc.) will be handed handed over to the prosector for examination and report. In large hospitals the prosector would be assigned one or two assistants, since he will not be in a position adequately to meet all the demands on him. The position of the prosector should be such that he is not made subordinate to the members of the medical staff in charge of wards, but is responsible as they are to the governing body of the institution. His salary must be sufficient to enable him to abstain from private practice. In Germany at municipal hospitals, which are not designed to be teaching institutions, such as the Moabit, Friedrichshain, and Urban Hospitals in Berlin, and the hospitals of Brunswick, Hamburg, and Chemnitz the prosector receives a salary of from 3,000 to 5,000 marks (£150 to £250). Further, the prosectors have the right to perform *post-mortem* examinations outside the hospital for medical practitioners in the town. By the fees which the prosector thus receives his receipts are increased by several thousand marks a year. On the other hand, the prosector is forbidden absolutely to engage in private practice. The whole arrangement has proved itself to work well, and several large towns in Germany intend to follow this example. Under the circumstances described it is easy, as experience proves, to find good men for these positions who possess the high scientific qualities necessary, and render to the hospitals much better services than when the necropsies were performed by the young hospital assistants.

There are advantages in this arrangement for the medical practitioners of the town, since they have always a specialist in pathological anatomy with whom they can consult, and since the opportunity is afforded to them of gathering further knowledge from the courses of demonstrations which the prosector may hold.

In the pathological institute of the hospital there should be room enough to allow the medical staff of the hospital, especially the younger members, to have the opportunity of engaging in histological investigations and to examine anatomico-pathological material in which they may be interested under the responsible guidance of the prosector. Where possible there should be room enough to afford working places for a few practitioners of the town who may be interested in microscopical investigations.

II.—The Bacteriological Laboratory.

The bacteriological laboratory should be in structural and organic connection with the anatomical institute. It likewise should be under the direction of the prosector, who in large hospitals should have the aid of special assistants. It would be the duty of the prosector and his bacteriological assistants to carry out all the bacteriological inquiries desired by the staff of the medical, surgical, and gynæcological departments, and thus to give important aid in etiological diagnosis and in therapeutics. The laboratory must contain adequate provision for carrying out the various methods of cultivation employed in bacteriology and for conducting the more important experiments on animals necessary for bacteriological diagnosis. Two or three rooms and a few hutches for small animals suffice. It is not in my opinion necessary in ordinary hospitals to go beyond this, and to make arrangements for serum experiments, for studies in immunity, and for extensive investigations in disinfection. The methods necessary for such inquiries are now so complicated that they presuppose a special establishment. It is therefore better to establish for difficult investigation of this kind special centres, as has been done in Berlin in the Institute for Infectious Disease, and as is about to be done at the municipal hospital in Frankfort-on-Main. Under an agreement made between the State and the municipality the German Reichs-Institut für Serumforschung und Serumtherapie will be connected with this hospital.

In many towns the plan has been tried of permitting the director of the anatomico-bacteriological institute to undertake bacteriological investigations for medical men practising in the town. In practice advantage is taken of this arrangement mainly for the identification of the bacillus of tubercle and the bacillus of diphtheria, and occasionally for the serum diagnosis of typhoid fever.

No rule of general application can be laid down as to the limit of the work which should fall to the prosector. It would be very wrong to throw upon him every task which comes within the range of histology and bacteriology. Now, as formerly, a large part of this kind of work should be done by the ward physician. To this category belong the ordinary microscopical examination of sputum (including examination for tubercle bacilli), the microscopical examination of urine, fæces, blood, etc. These matters have so direct a connection with clinical medicine that they should always be undertaken by the physician who is treating the case. In my experience it is much better that these investigations especially should not be carried on in the rooms of the anatomico-bacteriological institute. Several small rooms in the immediate neighbourhood of each ward should be provided for this purpose. This is a much better arrangement than that every urine glass and sputum vessel should have to be taken to a distant building for the examination of its contents. The facilities provided by the institute should, however, at once be made use of when difficult and lengthy investigations have to be made, as, for example, the identification and cultivation of micro-organisms in the sputum, urine, fæces, nasal, vaginal, and urethral secretions, blood, pus, skin, etc.

III.—Clinical Chemistry.

Clinical chemistry stands in a different position with regard to the anatomico-bacteriological institute. Extended chemical investigations for which much apparatus is necessary have hitherto been limited to the domain of medicine proper. My own opinion is that this is a mistake, and that in the domains of surgery, obstetrics, and dermatology many treasures are to be unearthed by chemical inquiries. But for the moment we must look at the facts as they are, and we must regard it as useless to provide extensive chemical laboratories for these divisions of medicine before those who follow them have begun to display a greater interest and a greater knowledge of the metabolism of the organism. Whereas the anatomico-bacteriological institute ought to be associated in an equal degree with all special departments of the hospital, this is not the case with the chemical laboratory. In consequence it is best to place it under the direction of the chief physicians of the medical wards. This arrangement has already been adopted in Germany in all the university clinics, and in most of the large municipal hospitals, and has worked very well. A very large number of valuable articles on the chemistry of the fluids of the tissues, on secretion, and on excretion, and important contributions on the pathology of metabolism and the therapeutic methods of influencing the metabolic exchanges have during the last two decennia issued from such chemical laboratories established in connection with the medical departments.

The question may be raised whether it might not be advantageous to give to the chemical laboratory, as to the anatomical institute, a special director who, like the physicians of the hospital, would occupy an independent position. I consider that this is only necessary in the largest hospitals where several independent medical departments exist together. The appointment as director of a chemist or of a physician who has made a speciality of physiological chemistry lays us open to the danger that the work undertaken in the laboratory may lose its connection with clinical medicine, and assume a purely chemical character. For such work, however, no clinical laboratory is needed, since the university laboratories for chemistry and physiological chemistry exist for this purpose. The clinical laboratory should only supply the means of bringing to bear the achievements of practical chemistry and the discoveries of physiological chemistry at the bedside for diagnostic purposes and for the advancement of the pathology of metabolism. This, of course, does not forbid that work done in the clinical laboratory may on occasion concern itself with questions of pure analytical and synthetical chemistry, but whenever the appliances of the laboratory do not suffice for these special studies the investigator must continue his work in another institution dedicated to pure chemistry.

The organisation necessary for a laboratory for clinical purposes is neither very extensive nor very costly. Two workrooms corresponding in size to the number of the physicians working in the laboratory will suffice. In addition, there should be a room for weighing and for delicate physical instruments (polarisers, spectroscopes, etc.). Finally, there should be a scullery. If investigations requiring gas analyses are to be undertaken (estimation of oxygen exchange, of CO_2 production, of blood gases, etc.), an additional room will be necessary. I may state, as affording some estimate of the cost, that the complete and very extensive installation of the chemical laboratory of the municipal hospital at Frankfort-on-Main cost 7,000 marks. In this sum is included the exceptionally serious expense of a Geppert-Zuntz respiration apparatus.

As in the case of the anatomico-bacteriological institute the chemical laboratory should be relieved from undertaking the continually-recurring smaller investigations in clinical chemistry. It would be out of place, and a great hindrance to the work were every urine which had to be examined for albumen, sugar, urobilin, indican, bile pigments, etc., at once taken to the laboratory. These every-day qualitative examinations should rather be made in the ward or in an adjoining room. The material should be taken to the laboratory only when quantitative investigations are necessary: or when special exactitude or extensive preparations are required to obtain the qualitative reactions.

Obviously, in hospitals where unlimited funds are available we may go very much beyond the skeleton organisation here described, and provide in connection with it large and magnificent institutes for histology, bacteriology, and chemistry. But these will be rare exceptions, and will only find their justification when the hospitals are concerned with the noble and important task of medical education. What is necessary in this case I need not here describe, because there is no difference of opinion upon the matter. The object of this short article is rather to state the extent to which every large general hospital must find a place for the modern sciences every day growing in importance, which are ancillary to clinical medicine. I have intentionally not made its scope wider than is absolutely necessary. If, avoiding exaggerated demands, account be taken of what is really necessary within the limits I have here set, the scientific education of many practitioners of medicine will be advanced, their living contact with all advances of science will be facilitated, the whole science of medicine will be advantaged, and the sick will be benefited. It must not be contended that by establishing such laboratories hospital physicians will be turned away from the essential business of hospitals, which is the treat-

ment of the sick. Experience proves that this is not the case; the new organisations, especially when they are closely united to the hospital, afford them rather the opportunity of bringing to the service of their patients new means of cure.

ON THE CAUSE OF SO-CALLED PHOSPHORUS NECROSIS OF THE JAW IN MATCH-WORKERS.

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HISTORICAL SUMMARY.

PHOSPHORUS was first used in the manufacture of matches in 1833 at Vienna. Shortly after its introduction, and ever since, cases of necrosis of the bones of the upper and lower jaws have occurred among the workpeople employed in match factories. The condition was first described by Lorimer, who, between the years 1839 and 1845, saw 9 cases in Vienna, but immediately after cases were also reported in Nürnberg, Strassburg, Berlin, Lyons, Paris, Manchester, and London as having occurred among the workers in match factories. Improvements in ventilation and in manufacturing machinery have greatly diminished its frequency, but it has continued to be not uncommon, and is widely recognised as a risk incurred by those who work with phosphorus. The clinical symptoms have been fully described by Lorimer, Heyfelder, von Bibra, and Geist, Harrison, Roussel, and others. In addition to their more systematic descriptions many isolated cases have been put on record by different writers, and all agree substantially in their main features.

SYMPTOMS AND COURSE.

The disease may begin after a few weeks or months, or many years' employment in the factory, generally with toothache, and always in a carious tooth or in the socket of one which has been extracted. Its further progress may be very slow, the pain and inflammation remaining slight, and confined to the immediate area of the one tooth. Sometimes, however, it runs a much more acute course, and may involve a large part of the jaw in a few weeks or months. In either case, when the process once begins to extend, the gum becomes red, tense, and swollen, and the swelling may then resolve itself into a circumscribed phlegmon, or may form a large tumour which spreads to the neighbouring soft parts, causing a swollen appearance of the lips and cheeks, or the regions under the lower jaw. The abscess then bursts or is opened, when it discharges stinking pus, and in its place an ulcer quickly forms, which lays bare the bone. The discharge is greenish, greyish, or sanious, and contains a quantity of bony detritus. The teeth become loose and fall out at the diseased part; the gum becomes livid, and fistulous openings form in it from which pus discharges continuously into the mouth, or the pus may burrow and discharge externally through the skin of the face by several small openings. On probing these openings, bare bone can be felt. Later the gum disappears, and exposes the alveolar arch and other parts of the jaw, the bare bone having a brownish or dirty-grey colour; its surface is roughened and eroded, evidently in a condition of caries, and the pus can be seen oozing from its surface. The salivary and neighbouring lymph glands are hard and swollen. Larger or smaller portions of the jaw-bone then become necrosed, in process of time get loosened and detached from the rest, and ultimately exfoliate or can be easily removed with forceps. There is great difficulty in chewing and swallowing, and the patient has to live on soft food and liquids. The process may last for months or years, and may be entirely confined to the upper or lower jaw, the general health remaining fairly good. It may spread from one part of the jaw to another, or from one jaw to the other.

In the most favourable cases, after portions of the jaw have necrosed and been removed, the whole process may cease, new bone is formed from the periosteum, and cicatrisation of the soft parts takes place. But there is always more or less deformity, sometimes very slight, sometimes very severe, and the alveolar arch is never restored.

In other cases the disease, instead of healing, spreads locally, involving more bone, the patient becomes cachectic, feverish, and wasted, and ultimately dies of pulmonary phthisis, general tuberculosis, or some other tuberculous affection. A few cases run a very acute course, both as regards the local and general conditions, there being very great destruction of bone and very severe systemic disturbance, death occurring in two or three months.

PATHOLOGY.

As regards the bone, the condition is one of cario-necrosis, there is chronic ostitis and periostitis, and it differs in no respect from the same lesion as seen in other bones and from various causes.

It has long been held that this necrosis, or cario-necrosis as it should rather be termed, is due to a specific action of phosphorus fumes on the bone, these being supposed to cause a peculiar and specific kind of inflammation. If one considers, however, the whole circumstances and the clinical histories of individual cases, the conclusion must inevitably be drawn that the process is due to infection from a micro-organism. Phosphorus fumes consist of phosphorous anhydride (P_4O_6) chiefly, with some phosphoric anhydride (P_2O_5), and during the oxidation either ozone or hydrogen peroxide is also formed in small amount. From what we know of suppurative processes, it is inconceivable that any of these bodies can cause a chronic purulent inflammation of bone such as has just been described as occurring in "phossy jaw."

Acting on this idea I applied to Mr. Cornelius E. Garman, surgeon to Messrs. Bryant and May's match factory, who very kindly has supplied me with specimens of pus from six cases of phosphorus necrosis of the jaw under his care at the present time. In every case the pus was very fœtid and was greenish, or brownish, or greyish in colour. Attempts to make cultivations from the pus revealed the presence of staphylococcus albus, streptococci, and numerous other organisms, none of which could reasonably be regarded as the cause of the cario-necrosis.

PRESENCE OF TUBERCLE BACILLI.

It is well known that tubercle bacilli cannot be cultivated from pus, but on staining cover-glass preparations of the pus by the Ziehl-Neelsen method the bacillus tuberculosis was found in every case. As is usual in the discharge from tuberculous bone, the organisms were few in number and difficult to find except on the closest and most careful examination. On centrifuging the pus and then examining the sediment they were more easily detected. Sometimes several cover-glasses had to be examined before any of the organisms were seen. Most of the bacilli were perfectly typical in appearance, others were small and thick, resembling the forms usually found in the urine. They were scattered about singly, or in small clumps, or in groups of one or several dozens.

Inoculation of guinea-pigs with the pus did not infect these animals with tubercle, and hence the bacilli must be regarded as being either dead or as having almost entirely lost their infective virulence. It is now proved, however, that tubercle bacilli in this condition are quite capable of setting up and maintaining local suppuration and irritation for an indefinite time. Besides, they are assisted by the action of the pyogenic organisms with which the pus swarmed. The condition of the tubercle bacilli is probably to be explained by the fact that all the cases which I have had an opportunity of examining are recovering, and have been under treatment for very long periods with antiseptic mouth washes, etc. The condition generally is exactly similar to what is seen in tuberculosis of the jaw in cattle and in tuberculous disease of other bones in man. The presence of the tubercle bacillus can hardly be regarded as fortuitous, seeing that it was found in every case, and its presence is held, so far as our present knowledge goes at least, to be proof positive of the tuberculous origin of any lesion.

If further proof of the tuberculous nature of the jaw disease were wanted, it is to be found in looking through the accounts of *post-mortem* examinations of fatal cases. In most cases death occurs from tuberculosis of the lungs. Whether this is due to infection from the jaw tubercle, or whether the phosphorus fumes damage the lungs, and make them more susceptible to direct infection, I am unable to say.

General tuberculosis is also not uncommon, while tubercle of the abdominal glands, and tuberculous ulcers of the intestine, are almost invariable, these last arising certainly from infection by swallowing the pus. Abscess in the brain, purulent pleurisy and tuberculous meningitis are also occasional causes of death. Hectic fever and emaciation always accompany fatal cases.

The part which the phosphorus plays in the process is not far to seek. The acid fumes (phosphorus and phosphoric acids) produced by its oxidation in the air have no effect on bone covered by gum or mucous membrane: but when they can penetrate to the bone directly through the aperture left by a decayed or extracted tooth or any injury, they erode the bone, weaken its nutrition and resisting power at this small spot, and make it susceptible to infection by tubercle bacilli. The bacilli having made good their foothold, spread slowly in some cases and with disastrous rapidity in others. I think I am correct in saying that the great majority of workers in match factories have carious teeth, and yet only a very small proportion of them become affected with cario-necrosis of the jaw—namely, those of them who, owing to their home surroundings or to individual predisposition, become readily infected by the tubercle bacillus. V. Bibra and Geist state that the disease may occur weeks or months after the patient has left the match factory, and in one of their reported cases the woman had actually been eighteen months away from the work before any symptoms began. This in itself is almost complete proof that the phosphorus fumes are only a predisposing cause, and that the disease depends on subsequent infection. It is well known that v. Bibra and Geist, and later Wegner, produced suppuration and cario-necrosis in the jaws of rabbits by injuring the periosteum and then exposing the animals to phosphorus fumes (on uninjured rabbits the fumes had no effect). The rabbits all died in from five to ten weeks' time and were found to have tubercle of the lungs. I experimented in a different way, as it is evident that these animals had become rapidly infected from the laboratory cages in which they were kept. I got new wooden hutches made, placed them in a room where animals had not been previously kept, and kept them scrupulously clean. In the hutches pieces of phosphorus were placed in a mortar on damp earth (to avoid risk of fire) in such quantity that the cages were constantly filled with the fumes in much greater amount than can possibly occur in any factory. Four rabbits were then placed in the hutches after the periosteum and gum had been removed over a considerable portion of the upper and lower jaws in each. In one a tooth was loosened in addition, the operations being all performed under chloroform. They seemed to suffer no inconvenience either from the operation or from living in the phosphorus-fume atmosphere. It has been very difficult to prevent the gum growing over the exposed bone, and after many weeks there is not the slightest trace of any jaw affection. The exposed surface of bone has become slightly eroded and rough, but whether from the action of the acid fumes or from that of the bacilli of the mouth it is impossible to decide.

TREATMENT.

The treatment hitherto pursued in cases of phosphorus jaw has been to wash out the mouth with deodorant and antiseptic lotions, and wait until the necrosed pieces of bone come away. This is always extremely tedious, and may last many years. In extreme cases the whole lower jaw, or half of it, or parts of the upper jaw have been excised. Sometimes by so doing the whole of the infected portion may be removed, but frequently the disease has again broken out in a neighbouring part of the bone. It is evident, however, that early operative interference is called for, and that the original tuberculous focus at the root of the tooth should be removed at once.

PROPHYLAXIS.

As regards prophylaxis, there is absolutely no risk so long as the bone remains protected by gum, and even when carious teeth are present the entrance of the bacilli can be prevented by careful stopping. Efficient ventilation of the workshops will dilute the acid fumes arising from the phosphorus, and make them less active in injuring exposed bone. The infection with the tubercle bacilli is a matter quite apart from the factories, and cannot be controlled either by State regulations or workshop rules. It is acquired—as other tuberculous affections are acquired—by certain persons and not by others, and owing to the present all-pervading frequency of the organism persons with exposed bone eroded by acid fumes, and living under bad hygienic conditions, are very apt to become infected. Whether the fumes also weaken the mucous membrane of the lung alveoli and predispose to pulmonary phthisis among persons employed in match factories, I have no information which will enable me to decide. It is just possible that actinomyces or other organisms may also occasionally lodge in the weakened bone, and lead to caries and necrosis, but in those cases which I have hitherto examined I have only found the tubercle bacillus.

My great difficulty all along has been to procure a sufficient amount of clinical material to enable me to make my observations more extensive and precise, and I shall be greatly indebted if any surgeon who has cases under his care, and more especially recent ones, will supply me with specimens of the discharge.

In conclusion, I have to express my great indebtedness to Mr. Garman and his son for a great deal of information and assistance, as without their active help and co-operation I could not have made these observations.

THE TREATMENT OF TETANUS BY THE INTRACEREBRAL INJECTION OF ANTITOXIN.

WITH PARTICULARS OF A CASE TREATED BY THIS METHOD, FOLLOWED BY RECOVERY.

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TETANUS TOXIN AND ANTITOXIN.

IT is now a well-established fact that tetanus is a disease caused by the absorption of a toxin elaborated by the tetanus bacillus. The bacteria which produce this toxin are confined to the inner or outer surfaces of the body, site of inoculation, or devitalised tissues. Here they multiply and produce a very strong toxin, which after absorption is taken up by the cells of the central nervous system, is fixed there, and gives rise to the spasms which characterise the disease. All the symptoms of tetanus can be produced in susceptible animals by hypodermic injections of toxin free from bacilli.

In a case of tetanus the toxin reaches the central nervous system from the seat of its production by two paths, one part directly by the nerves, and on this account contractions may occur near the site of absorption before the general contractions set in. The other part reaches the central nervous system by the blood stream, and when it gets there it is, after a time, seized upon and fixed by the nerve cells in the same way that an aniline basic dye is fixed by a cell nucleus or a bacterium. This fixation of the toxin by the central nerve cells takes place in the spinal cord at an earlier period of the disease than it does in the higher nerve centres.

It appears that there exists a strong affinity between tetanus toxin and the cells of the brain and spinal cord. This affinity is easily manifested when they are mixed together *in vitro*.

Wassermann was the first to show that an emulsion of the brain or spinal cord of a susceptible animal, when mixed with tetanus toxin and injected under the skin of a guinea-pig (which is a very susceptible animal) produces no symptoms of tetanus, and the animal remains well. A control guinea-pig receiving the same amount of toxin *minus* the emulsion of brain or spinal cord dies with a typical tetanus. This experiment demonstrates that tetanus toxin is a neurotropic poison—that is, a poison which has a specific affinity for and joins itself on to nervous elements.

If a healthy animal, such as a rabbit, receives tetanus antitoxin hypodermically, it acquires passive immunity, and can resist large doses of tetanus toxin given subcutaneously or intravenously without any ill effects. In this case the tetanus toxin is neutralised as soon as it gets into the circulation by the antitoxin which is already there, and never reaches the central nerve cells at all. The animal is not, however, immune to a very small amount of tetanus toxin injected into

the brain substance, but, on the contrary, after this operation, it readily develops cerebral tetanus and dies. It is evident from this experiment that tetanus antitoxin, whether given hypodermically or intravenously, does not immunise the brain cells.

An animal suffering from tetanus cannot, as a rule, be cured by giving antitoxin in the usual way—that is, hypodermically. The toxin has already been fixed in the central nerve cells, and these cells evidently do not take up the antitoxin from the blood, and are not influenced by it. In this case the toxin may invade new areas by spreading itself from nerve cell to nerve cell under cover of the antidote. On the other hand, animals in the early stages of tetanus can be easily cured by the intracerebral injection of a small quantity of antitoxin.

With the help of these facts, which are the outcome of recent experiments by MM. Roux and Borrel,[1] on tetanus in animals (and which I have been able to verify at Netley and at the Pasteur Institute, Paris), we are in a position to treat tetanus in man on a more scientific basis than formerly.

If tetanus is suspected, but symptoms have not yet appeared, antitoxin given hypodermically, or into the circulation, confers passive immunity, and is a certain and efficacious preventive. If symptoms have already appeared, it almost always fails to cure or to prevent the spread of the disease when given hypodermically, for the central nervous elements have not the same affinity for the antitoxin that they have for the toxin. On this account the toxin already fixed in the lower nerve centres does not meet with the antitoxin which is circulating in the blood, and the higher nerve centres, which have not as yet taken up the toxin, are not immunised against a spread of the toxin from the lower centres, so the disease takes its course.

Intracerebral Injection.

The only way to convey immunity to the vital parts of the nerve centres and to prevent their nerve cells from fixing the toxin, is to inject the antitoxin into the substance of the brain. If this is done early in the disease, while only the lower nerve centres are as yet affected and before the higher nerve centres have become affected, the progress of the disease is arrested, the symptoms already present, which depend on fixation of the toxin in the lower centres, remain for some time and then gradually disappear, the toxin ceases to invade new territories, and recovery is likely to be the result.

The first case of tetanus in man treated by MM. Roux and Borrel's method of intracerebral injection of antitoxin was done by MM. Chauffard and Quenin in Paris on April 26th, 1898, and the patient recovered.[2] Since then some 20 cases have been treated in and near Paris by the same method and with very encouraging results. During a visit to Paris in October last I had the advantage of seeing this method of treatment carried out at the Civil Hospital, Versailles, by M. le Dr. Vilon and M. Borrel. To both these gentlemen I am greatly indebted for their kindness and courtesy in giving me every facility to see the operation and to visit the case afterwards.

The patient was a middle-aged man in the early stages of traumatic tetanus following a ragged wound of the hand. The muscles of the jaw (masseters) and neck only were involved. He could swallow without difficulty. After the intracerebral injection of antitoxin the symptoms remained as they were for a week, and then improvement slowly set in and went on to convalescence.

In the same hospital there was a convalescent tetanus patient who had also been treated by intracerebral injection of antitoxin. In this case tetanus followed amputation through the lower third of the thigh for gangrene of the leg, caused by a suppurating popliteal aneurysm.

On November 17th, 1898, a case of tetanus was diagnosed at the Cambridge Hospital, Aldershot. On receiving a telegram asking for tetanus antitoxin I proceeded to Aldershot to see whether it might be possible to carry out MM. Roux and Borrel's method of treatment in this case. The medical officer in charge of the hospital, Lieutenant-Colonel J. Martin, Royal Army Medical Corps, and the medical officer in charge of the case, Lieutenant G. B. Crisp, Royal Army Medical Corps, expressed their approval.

History.—The patient was Private A. G., Army Service Corps, aged 22, three months service. No previous admissions to hospital. He was a strong, well-nourished man, of good phisique, and a total abstainer. He was admitted on November 14th, for contusion of the testicles caused by a bump on the pommel of the saddle. For a fortnight before admission he had been going through a course of rough riding in the riding school, and stated that he had had several falls and bruises. There were no open wounds, and the contusion of the testicles was not severe.

Onset of Tetanus.—On November 16th, two days after admission, he developed symptoms of tetanus. The masseter muscles, and the muscles of the neck were contracted, and those of the abdomen slightly so. On November 17th, the spasm of the jaw muscles was marked, and there were also spasms of the muscles of the legs and arms, especially on examination. The abdominal muscles were also slightly contracted.

Injection of Antitoxin.—At 9 P.M. he was put under chloroform by Lieutenant Crisp, R.A.M.C., and with the assistance of Lieutenant-Colonel J. Martin, R.A.M.C., I injected 2½ c.cm. of doubly strong antitetanic serum into each frontal lobe of the brain. At the same time 20 c.cm. of antitoxin were given hypodermically in the flank.

After-History.—He had a good night, and on November 18th the tetanic spasms of jaws and stiffness of extremities continued as before, and his condition was unchanged; 20 c.cm. antitoxin were given hypodermically.

On November 19th his condition was about the same; 20 c.cm. of antitoxin were given hypodermically.

On November 20th the spasms were less marked and not so easily excited by noise or other stimuli.

On November 21st the stiffness was less marked.

On November 22nd his condition was improving; he could open his mouth without causing spasms.

On November 23rd the muscles of the jaw and neck were free from spasms, but there was some stiffness of the limbs, and he started and had twitching of the muscles when he heard a noise, notably so when the camp gun went off on the hill a short distance from the hospital. The dressing was removed from the seat of operation and the stitches taken out. The wounds had healed by first intention.

On November 30th he was convalescent, but weak and anæmic. He was able to get out of bed, but had slight spasm of the arms on exertion. He presented no brain symptoms, ate and slept well. The temperature was practically normal throughout, pulse and respiration regular.

Description of the Operation.

The details of the operation are as follows: The patient is given an anæsthetic, and the hair shaved off over the fore part of the scalp, and the skin made aseptic. An imaginary line is taken over the head from one auditory meatus to the other. Another line is taken from the base of the nose to cross the first line at right angles on the top of the head, and a third line from the outer angle of the orbit to where the first two lines cross each other. The centre of the last line is the seat of operation, and is in front of the motor areas of the brain.

Having selected this site, an incision of about ½ or ¾ inch in length is made down to the bone. A small hole is now drilled through the bone with an Archimedean drill having a movable collar, so as to regulate the depth to which it penetrates. The hole in the bone need only be a little larger than the needle of the syringe which is to be inserted through it.

The syringe has a screw piston and the needle is attached by about 3 inches of rubber tubing. The needle is about 2 inches in length, and has a rounded point. It is inserted through the hole drilled in the bone, straight into the brain substance as deep as it will go, and an assistant holds it perfectly steady while the operator very slowly screws down the piston, so as to allow the antitoxin to soak into the substance of the brain drop by drop, to avoid breaking up any brain tissue. It should take at least ten minutes to inject 2½ c.cm.

When this amount has been injected the needle is withdrawn, and the edges of the scalp wound drawn together by two or three stitches, and the wound sealed up with collodion and cotton wool. The same operation is now repeated on the other side.

The object of using a round-pointed needle is to avoid puncturing a vessel. A sharp-pointed needle might possibly transfix an artery and produce hæmorrhage, whereas a round-pointed one would glide off a vessel and go past it.

The antitoxin used is double the strength of ordinary antitoxin, and although only 5 c.cm. are given (2½ c.cm in each side), it represents the amount of antitoxin present in 10 c.cm. of the original serum.

The dried antitoxin from 10 c.cm. of the ordinary antitetanic serum is put up aseptically in glass tubes, and sent out from the Pasteur Institute, Paris, ready to be dissolved. The tube containing the dried antitoxin should be opened without contamination, then 5 c.cm. of sterile water added to dissolve it. When the antitoxin is in complete solution, it is filled into a sterile syringe of the pattern described (Roux's pattern 5 c.cm. syringe), and is now ready for use.

In addition to the antitoxin given intracerebrally, the patient receives 20 c.cm. daily for two, three, or four days, according to circumstances. The antitoxin given intra-

cerebrally immunises the higher nerve centres before the toxin has been fixed there. The antitoxin given hypodermically renders the blood antitoxic, and the toxin, as it becomes absorbed from the source of supply—wound, bruise, abrasion, or any other source, wherever it may be—is neutralised as soon as it enters the blood stream.

The advantage of giving the antitoxin hypodermically in addition to intracerebrally is evident when we reflect that the tetanus bacilli may still be cultivating themselves, and toxin still being absorbed.

In conclusion, it is my pleasant task to thank Lieutenant-Colonel Martin, R.A.M.C., and Lieutenant Crisp, R.A.M.C., for valuable assistance at the operation. I have also to thank the latter officer for the history of the case and notes.

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THYMUS EXTRACT IN EXOPHTHALMIC GOITRE.

BY W. RUSHTON PARKER, M.A., M.D.CANTAB.

THERE being still some difference of opinion about the efficacy of thymus extract in exophthalmic goitre, notes of four cases, in which its effects were closely watched, may be of interest.

CASE I.—Mrs. A. aged 28, had been troubled with palpitation for three years, especially during the past twelve months. Her eyeballs protruded conspicuously; the upper lids were retracted so that the sclerotics were visible all around the corneæ, and blinking was infrequent, giving her a very staring look, and the upper lids had a lagging, jerky movement when lowered, but she was not aware of any unusual appearance about her eyes. A systolic murmur was audible all over her moderate-sized throbbing goitre, but she had only noticed the enlargement a month previously. Her pulse was 140. She had noticed tremblings for some months. The bowels were inclined to costiveness, and the skin was not unduly apt to perspire. She could walk two or three miles, and do her household work. She was rather anæmic, without any menstrual abnormality either during her twelve months of married life or before.



Fig. 1.

During six months she swallowed 2,000 5-grain thymus tabloids, mostly ten or twelve daily, and ate a large number of lightly-cooked lambs' thymus glands without the slightest perceptible effect upon any symptom, especially upon the rapidity of pulse, a note of which was made thrice daily for eight months, or upon the goitre, which remained as large and apparently as active at the end as at the beginning. Nor was she apparently in any way benefited by iron, digitalis, bromide, belladonna, arsenic, or blistering, each of which was persisted in for many consecutive weeks; indeed, the best pulse-record was undoubtedly during a three weeks' holiday, when she was freed alike from all medicinal treatment and from household cares. Nevertheless, she somehow professed to feel better at the end of the treatment than at the beginning. The photograph, taken towards the end of the treatment, represents her appearance throughout the course.

CASE II.—Miss B., aged 35, born of a goitrous stock in a goitrous valley, noticed her goitre in her thirteenth year, and palpitation, tremblings, cramps, and weakness in her nineteenth year. There was slight drooping of the upper lids, but no protrusion of eyeballs or other ocular abnormality; her neck measured 16½ inches, and a systolic murmur was audible all over the large throbbing goitre; she complained of frequent faint feelings, had a pulse-rate of 120, and a systolic murmur at the base; she complained of always feeling hot, with a burning sensation in head and eyes, but no great tendency to perspire; her bowels were loosely moved twice daily; there was no menstrual abnormality; she was too weak to be of much use in household work.

During 18 months she swallowed 5,000 5-grain thymus tabloids, usually twelve daily, and ate many scores of lightly-cooked lambs' thymus glands; the neck continued to measure exactly as before, though she thought it was less tense and more flexible; the looseness of the bowels ceased; palpitation lessened; the sensation of heat, and burning in head and eyes ceased, and also the tremblings and cramps; the pulse slowed to 90; she could bear exertion better, bicycling with ease; she perspired less easily, and had faint feelings less often. Her own impression was that the treatment had a very beneficial effect upon all her most troublesome symptoms; but it is important to note that some improvement had already spontaneously set in five years prior to the treatment, leading to a marked diminution of many annoying symptoms, during the two preceding years more especially. Digitalis, strophanthus, and blistering were persisted in for some weeks without any noticeable benefit; no other drugs were used. The photograph, taken on the first day of treatment, equally well represents her appearance at the end.



Fig. 2.

CASE III.—Mrs. C., aged 45, had suffered about a year from goitre, palpitation, tremblings, nervousness, weakness, looseness of bowels, and easily perspiring skin; she had only lately noticed a peculiarity about the eyes; there was some retraction of the upper lids, so that the entire corneæ were ordinarily just in view, and blinking was infrequent, giving her rather a staring look, and the upper lids were lowered in a lagging and jerky fashion, but there was no obvious protrusion of the eyeballs. Her neck

measured 14½ in., and a systolic murmur was audible all over a smallish throbbing goitre. She complained of frequent faint feelings, had very marked palpitation, and an irregular pulse of 144; her face was flushed, and her skin beaded with perspiration; she had four to eight loose stools daily; she was much too weak to do any household work, her hands continually trembling; she had ceased menstruating six months previously. During the first three months she improved greatly under digitalis and quinine, the pulse being sometimes under 100, the skin often dry, there being less trembling and palpitation, and two or three formed stools daily; she could cook and do other household work, and even walk a mile. During the next three months she swallowed 400 5-grain thymus tabloids, and ate numerous lightly-cooked lambs' thymus glands, besides continuing digitalis most of the time; but while the pulse was commonly between 160 and 180, and occasionally 200, she kept looking better and feeling stronger, passing two formed stools daily, the neck measuring 13⅝ in. instead of 14½, and doing all her household work, and occasionally walking two miles easily. During the next three months, while medicinal treatment was almost abandoned, the neck still appeared to lessen, palpitation was much less, nervousness and tremblings stopped, the eyes looked normal, she was on her feet all day, doing all her household work and walking long distances, yet the pulse remained about 150. During the next three or four months, in only one of which thymus was administered, she continued to look and feel perfectly well, with a pulse of about 140, rarely having palpitation and never tremblings, there being no ocular signs, but still some thyroid enlargement.



CASE III.

This patient, originally severely and dangerously ill, became practically quite well; but the improvement began long before the administration of thymus, and seemed to continue independently of it; moreover, thymus was taken in comparatively small doses of four to six tabloids daily. Digitalis at first seemed beneficial but subsequently did apparently more harm than good. The photograph, taken at the beginning of the treatment, can with difficulty be distinguished from another taken at the end.

CASE IV.—Mrs. D., aged 47, born of a goitrous stock in a goitrous district, had noticed her goitre for three or four years, and had recently observed that, as she sat reading or sewing, she could feel her chin resting upon a throbbing swelling; she had lately been troubled with palpitation, heats, and flushings (which she attributed to the possibly commencing change of life), and occasional tremblings and cramps. Her neck measured about 15½ inches, and by frequent mere blisterings during eighteen months it was reduced to 14½ inches. She was then photographed at the age of 49, the upper eyelids being then slightly retracted so that nearly the entire corneæ were ordinarily visible, and blinking was infrequent, so that she had a staring look, but no obvious lagging or jerkiness was noticeable in lowering the upper lids; throbbing was no longer obviously felt in the goitre, though a systolic murmur was audible all over it; the pulse-rate was 100 and regular; and she was occasionally troubled with palpitation; there was no looseness of the bowels or aptitude to perspire except near a fire. For six weeks thyroid 5-grain tabloids were tried very tentatively, usually only one daily, occasionally two; but the pulse-rate ran up to 140, palpitation became most annoying, and a systolic murmur was heard at the base; she felt more nervous, heated, weak and liable to tremblings and cramps; even slight exophthalmos seemed to develop, and certainly the upper lids seemed more retracted, so that the sclerotic became ordinarily visible above the cornea of the right eye, and the staring look seemed more pronounced; nevertheless the neck seemed to be reduced by another inch during the six weeks. During the next twelve months she swallowed 700 5-grain thymus



tabloids, usually six or eight daily for periods of several weeks at a time, under which treatment the pulse returned to 100, palpitation and nervousness vanished, ocular signs disappeared, but the neck was no further reduced. During three consecutive months of this period she took no thymus, yet the pulse was found at 110, palpitation very rare and slight, nervousness a thing of the past, and no ocular signs discernible.

In this case, while thyroid extract produced most unpleasant effects, no certain benefit could be traced to the use of thymus. Nevertheless the patient was found a year and three-quarters subsequently perfectly free from all discoverable symptoms except a pulse of 96, and a very slightly enlarged thyroid, having throughout that period treasured up her last stock of thymus tabloids, convinced that they cured her of her troublesome symptoms and might therefore be needed at some future time.

EXPERIMENTAL NOTE ON THE FERMENTS OF THE RINGWORM FUNGI.

BY LESLIE ROBERTS, M.D.,
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AMONG the recent additions to our knowledge of the ringworm fungi is the fact that they are zymogenic or ferment-producing organisms. The steps by which this information has been gained may be briefly recapitulated. In the year 1892 I began the method of feeding artificially-reared trichophyta with human and animal hairs, and then observed, for the first time, that the fungus penetrated and disintegrated the hair when removed from the body, just as it does in the natural process of ringworm.

I can well remember the particular species which impressed my mind for the first time that the process of disintegration was essentially one of digestion. It was a Chinese variety of trichophyton, and the original affected hair had been taken from the head of a Chinese boy in the clinic of my brother, the late Dr. Frederic Roberts, of Tientsin. Never before or since have I seen any variety of trichophyton which could match this Chinese specimen in its remarkable power of diges-

tion. It belonged to that group now known as the trichophyta megalospora. And what to me was still more astonishing was the fact that a commensal of this Chinese fungus had likewise remarkable power of digestion; and this observation acquired peculiar significance when I discovered it to be not a trichophyton, strictly speaking, but an aspergillus, an order of fungi which are universally distributed over temperate climes as saprophytic moulds.

In a thesis entitled the *Introduction to the Mould-Fungi Parasitic on Man* (1893) I illustrated the artificial origin of ringworm. The method was again briefly described in the BRITISH MEDICAL JOURNAL of September 29th, 1894. In 1895 Dr. Allan Macfadyen[1] brought forward evidence to prove that "the ringworm fungus" produced a proteolytic enzyme capable of digesting gelatine. Macfadyen, who worked with fresh specimens of a trichophyton (variety not mentioned), based his conclusions upon the examination of the soil in which the fungus had grown. He found that a solution of gelatine in which the trichophyton had grown had active proteolytic powers, and was capable of digesting fresh gelatine apart from the fungus. He further showed that the active agent was destroyed by heating for two minutes at 100° C. He found that acids retarded, while alkalies favoured the action of the enzyme. Macfadyen could find no evidence of a sugar-inverting ferment. He was not able to satisfy himself that the proteolytic ferment had any action on fibrin or on hair; but he made the further observation that his specimens of trichophyta could grow on soils composed almost entirely of keratin.

Four months later I published[2] the evidence which led me to conclude that the keratolytic function, that is, the power to digest keratin and corneous structures, was more extensively possessed by fungi than had been previously suspected. I proposed to call these hair-digesting organisms the keratolytic fungi, a group which included not only the trichophyta proper, but favus, and some species of aspergillus. In 1896 my observations were confirmed by Pelagatti[3] in Parma.

My own observations on the proteolytic ferment of the trichophyta, which I will now briefly record, were made on different lines to those of Macfadyen. This observer dealt with fresh specimens of the fungus in question, and, as I have said, his conclusions in regard to the ferment were based on examination of the soil in which the fungus had grown. On the other hand, the specimens which I examined were all aged, some of them 6 years old, and from which all traces of the original nutrient medium had disappeared. They were in fact simply dry museum specimens, which had long since lost the power of reproduction. The fungi which I tested were trichophyton microsporum (homo), T. megalosporum (homo), T. equinum, T. caninum, and achorion.

Observation 1. Trichophyton Microsporum.—The specimen was 6 years old (less 39 days), and in a perfectly dry state. On the surface of this dried specimen I poured 4 c.cm. of a 5 per cent. solution of gelatine in distilled water, and placed it in the incubator (32° C.). After fourteen hours it was removed, when the gelatine was found to have lost the power of resolidifying at low temperatures.

Observation 2. Trichophyton Megalosporum.—This completely dry specimen, 5 years and 10 months old, was covered with 4 c.cm. of a 10 per cent. gelatine solution, and maintained for nineteen hours in the incubator at the temperature of 32° C. When removed and allowed to cool down to the temperature of the room (16° C.) the gelatine, which was clear, remained perfectly limpid, and refused to set even when surrounded by cold water.

These observations show:

1. That the active agent in the liquefaction of the gelatine is contained in the mycelium itself, and not formed outside the body of the fungus by secondary changes in the soil.

2. That the active agent can retain its activity in a dormant state for a period of six years, when the fungus has been preserved in a perfectly dry state.

3. That the activity of the agent is independent of the life of the trichophyton.

What is this agent which can retain its functional activity and integrity over so long a period, and can resist the common tendency to disintegration?

Observation 3.—A small quantity (0.6 c.cm.) of a previously digested 5 per cent. gelatine solution (Observation 1) was added to 4 c.cm. of a 10 per cent. fresh gelatine solution. After maintaining this for twenty-one hours in the incubator at 32° C., the gelatine was found to have lost the power of resolidifying at low temperatures.

Observation 4.—The same quantity (0.6 c.cm.) of digestive gelatine was placed in a clean watchglass and subjected over a waterbath to a temperature of 85° C. for exactly two minutes. It was then mixed with 4 c.cm. of fresh gelatine solution and allowed to stand for twenty-one hours in the incubator (32° C.). After this period of incubation it was permitted to cool down to the temperature of the room. The gelatine resolidified; there had been no digestion.

The following conclusions can be drawn from these two observations:

1. That very minute quantities of the active agent can digest comparatively large quantities of gelatine.

2. That the activity of the agent is completely destroyed by an exposure of two minutes to the temperature of 85° C.

3. That the active agent is of the nature of enzyme or soluble ferment.

Observation 5.—A small quantity of the enzymed gelatine from the last experiment was evaporated over a water bath at 65° C., and the residue extracted with absolute alcohol. This alcoholic solution was allowed to evaporate slowly at the temperature of the room (20° C.). A whitish, opalescent residue was left, which had the faint odour of a trichophytic vegetation. This residue from the alcoholic extract was now rubbed up with a small quantity of distilled water; but only a small portion appeared to dissolve, most of the residue being held in a state of suspension. This watery mixture of the alcoholic extract residue was then poured on the surface of 4 c.cm. of 10 per cent. fresh gelatine, and maintained for twenty-one hours in the incubator at a temperature of 32° C. After removal, when allowed to cool down to the ordinary room temperature, the gelatine was found to have been unaffected, and resolidified equally as well as the control gelatine.

We may conclude, therefore, that the absolute alcohol is not capable of extracting the enzyme from the mycelium.

Observation 6. Trichophyton Equinum.—The specimen, which was perfectly dry and of a deep brown colour, was covered with 4 c.cm. of distilled water, and made to stand for twelve hours in the incubator (32° C.). This watery extract of trichophyton was then poured over the surface of a 10 per cent. gelatine solution, and maintained for twelve hours in the incubator (32° C.). When removed the gelatine was found to be digested, and to have lost the power of resolidifying at low temperatures. The same specimen (T. equinus) which had already been extracted with the distilled water, was now covered with 4 c.cm. of a 10 per cent solution of gelatine, and made to stand twelve hours in the incubator at 32° C. When it was removed, and allowed to cool down to the ordinary temperature of the room, the gelatine was found to be undigested, and resolidified like ordinary gelatine.

The conclusion of this observation is obvious, namely, that pure water has the power of extracting the proteolytic ferment from the mycelium, which by such treatment ceases in a few hours to be enzymopherous.

In respect of an amylolytic ferment, my observations, so far as they go, point to the conclusion that this does not exist in the trichophyta. I have examined many specimens of British and foreign trichophyta, also T. equinum and T. caninum, and have never been able to detect the slightest evidence of the presence of a starch-digesting ferment. Its absence, howeved, does not surprise me, for the trichophyta can assimilate starch as such without any saccharine transformation.

It may be asked, What is the relation of this proteolytic ferment to the keratolytic ferment? I think there can be no doubt that the two are perfectly distinct and different ferments. The proteolytic ferment, as we have seen, is soluble in pure water, and may excite active fermentations, apart from the life of the fungus. It is simply an enzyme or soluble ferment. On the other hand, the keratolytic or keratine-digesting agent is an organic ferment, whose operations are purely vital, depending not only on the life of the organisms, but varying in intensity and in kind from one species to another.

Another point of much interest is that the keratolytic action of the T. megalosporum in scalp ringworm is directed against the interior substance of the hair, leaving, when this is digested, a hollow shell of cuticle. T. microsporum, on the other hand, directs its keratolytic powers against the cuticle, digesting this first and subsequently attacking the interior cortical matter.

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ON TONSILLAR CALCULI.

BY W. G. AITCHISON ROBERTSON, M.D., D.Sc., F.R.C.P.E.,

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THE occurrence of large calculi in the tonsils is a condition so relatively rare that it merits a description of the following case.

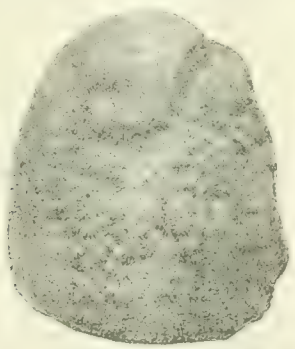
The patient is a healthy man, aged 50. About six years ago he began to suffer from repeated attacks of tonsillitis, which often ended in suppura-

tion. His occupation as reader in a large newspaper office exposed him to chills. These inflammatory attacks laid him up very frequently and especially during spring and autumn. About three years ago the submaxillary glands of his right side began to enlarge and become painful. They ultimately suppurated, and discharged by a small sinus in front of the neck at the level of the thyroid cartilage. This discharge continued more or less persistently for several months, until the outflow was obstructed in some way, when a diffuse cellulitis of the neck set in. This extended from the right ear forwards, and reached as far downwards as the middle of the sternum. His temperature rose, and the breathing became somewhat embarrassed. The sinus was therefore slit up as far as the glands, and a large quantity of pus evacuated. The patient made a rapid recovery from the operation, and since then has had immunity from further attacks of tonsillitis. For the last two years his health has been remarkably good.

At the end of June of the present year, while spending his holiday at the seaside, he thought that he had caught a slight cold, as he experienced a fulness in the throat. He noticed that he could not drink fluids so rapidly as before, and that he had to take them in sips. On July 3rd he retired to rest feeling perfectly well. During the night, however, he was awakened by a feeling of suffocation. He made a strong inspiratory effort, and was nearly choked by some large body in his throat. He sprang out of bed, thinking that his false teeth had slipped back, and, coughing violently, a large, elongated, somewhat oval stone was ejected. There was no bleeding either previously or at the time of expulsion of the stone. On palpating the throat a few days subsequently a rough tuberculated area was felt behind the right pillar of the fauces, and in the centre of this a depression from which the calculus had evidently been extruded. A gland on the right side below the angle of the jaw was enlarged and hard.

The calculus is somewhat oval in shape, and corresponds in size to a rather small hen's egg; one extremity is a good deal broader than the other. It is of a pale yellow colour, and though the surface is fairly smooth it presents a worm-eaten appearance. When fresh it had a very disagreeable smell, reminding one of rotten cheese. Its greatest length measures 1⅜ in. and greatest breadth 1⅛ in., corresponding to 42 and 36 millimetres respectively. It weighs almost 1 oz. (26·8 grammes). The layers of which the stone is composed are arranged concentrically.

This is by far the largest tonsillar calculus which I have been able to find any record of. The most of these described have varied from the size of a pea to that of a small nut. Dr. Nixon[1] removed a calculus as large as the first joint of the thumb from the tonsil of a young man, but this standard of comparison is unfortunately very variable.



Calculus from right tonsil; weight one ounce.

Etiology.—Such calculi seem to occur in persons who have suffered from repeated attacks of tonsillitis. In most of the cases there is a history of suppuration of the tonsil either precedent to or coexistent with the extrusion of the calculus. When once the concretion has formed, however, it may itself be the cause of the repeated tonsillitis. In three cases related by Alexander Munro the attacks of tonsillitis were extremely frequent. One of these cases was that of an old woman who had suffered constantly for twenty years from inflammation and suppuration of the tonsil, with quiescent intervals seldom exceeding three months. In other cases, however, the tonsillar abscess has discharged itself long before the expulsion of the stone, as happened in the case which I have related. Dr. Hewitt[2] narrates the case of a woman who nine years previously had suffered from suppuration of her left tonsil, and from which a calculus the size of a field bean had been expelled. Six years subsequent to this attack and during pregnancy two smaller calculi were expelled without previous inflammation or suppuration, and two years later, during a second pregnancy, the glands of her neck swelled greatly, and one month after delivery the left tonsil again suppurated, and a stone weighing 11 grains was extruded. The concretion in such cases remains evidently for long without giving rise to any disagreeable symptoms. When, however, such a tonsil becomes inflamed as a result of cold or other cause, the symptoms may rapidly become severe, with marked dyspnœa and dysphagia. Dr. Baker[3] records the case of a highly scrofulous woman, aged 43, who was attacked with severe sore throat, accompanied by great pain in the ear. The throat rapidly swelled, and she experienced great pain and difficulty in swallowing, accompanied by a choking sensation. During violent coughing the tonsillar abscess burst, and a calculus as large as a pea was discharged from the right tonsil. In Dr. Bryant's[4] case the patient had suffered from sore throat eighteen months previously. All the symptoms had, however, passed off, and little inconvenience was felt. The right tonsil was large, firm, and painless. While coughing the patient felt sudden pain in the right side of the throat and at the same time a hard and rough calculus, the size of a small nut, came away. The patient of Dr. Nixon was a young man aged 25. He had sung in public two days previous to the expulsion of the calculus, and had felt no inconvenience from the large size of the concretion in the left tonsil until attacked by the general inflammation of the throat due to cold.

Origin of these Calculi.—Some authors affirm that they are of gouty origin, but in most of the cases related no tendency to this affection was present. The father of the patient whose case I have recorded did certainly suffer from gouty troubles, but the son has, up to the present at least, shown no signs of this affection. Other writers think that they are formed by a deposit from the buccal secretion, and that they are similar in nature to the tartar which accumulates round the bases of the teeth. Robin[5] suggests that they may originate in small calcareous crystals which may be seen, he says, in the centre of the tonsil. In all probability, however, the smaller concretions are due to the retention of caseous material in the enlarged follicles of the tonsils. When not extruded, this caseous matter dries up and forms a nucleus round which inorganic salts are deposited or the cheesy matter may be itself replaced by lime salts. It is highly improbable in my opinion that they can have their origin in the retention of particles of food in the cup-shaped depressions left in the tonsil after an attack of follicular tonsillitis. It has been suggested that these particles of food undergo subsequent calcification. The larger calculi probably result from the retention of pus in the interior of the tonsil. The abscess has either never broken or has imperfectly discharged itself, and the residual matter has undergone caseation and subsequent calcification. Such stones when retained may grow in size by a further gradual deposit of lime salts until it may attain the enormous size of the stone from the case I have related.

Size, Shape, and Colour of Concretions.—The calculi are generally small in size, and are compared to grains of barley. The larger ones on account of their rarity, have usually been reported in the medical journals. Calculi thus noted have been said to be equal in size to a pea, bean, small nut, olive kernel, and first joint of thumb. The weight when given has varied from 3½ to 11 gr., or from 0.04 to 3 g. Their shape is generally elongated. Some are described as pyriform. They are usually more or less rough on the surface, and in some cases this is so marked that they are said to resemble small mulberry calculi. One which is described by Dr. Yearsley resembled a piece of rock coral in the irregularity of its shape. The odour which they give off when fresh is disagreeable and fœtid. When they are dry, however, it resembles that of old bone. In colour they are pale yellow or light brown.

Chemical Composition.—Their chemical composition is rarely given. Baker states that the concretion which he had examined was composed chiefly of carbonate of lime, with some oxalate of lime and animal matter. Bryant says that carbonate and phosphate of lime are the chief salts present. The only accurate analysis of a tonsillar concretion is that given by Robin as a result of Langier's analysis:

Water	25.0 per cent.
Phosphate of lime	50.0 ,, ,,
Carbonate of lime	12.5 ,, ,,
Mucus	12.5 ,, ,,
	100.0 ,, ,,

My analysis of the calculus in the case which I have described and in which I had the invaluable help of Dr. Milroy of the Physiological Laboratory, showed that the greater part of the stone was composed of phosphate of lime and magnesia along with a small amount of carbonate, the figures are as follows:

Organic matter	18.40	per cent.
Inorganic matter	81.60	,, ,,
Phosphoric anhydride...	50.00	,, ,,
Calcium and magnesium oxides ...	28.20	,, ,,

Tonsil Affected.—There does not seem to be any special tendency for one tonsil to be affected more than the other. In 14 recorded cases right and left tonsil were in equal proportion the seat of the calculus. In several of these cases both tonsils were enlarged at the same time.

Hereditary Predisposition.—It is hardly possible to say anything definite regarding the influence of heredity as a predisposing cause, as the recorded cases are so few and information on this point is seldom given in those which are reported. In the 3 cases of tonsillar calculus mentioned by Munro the disease affected two sisters and a near relative. A daughter of the patient whose case I have related suffers from chronic sore throat with enlargement of the tonsils.

Diagnosis.—Unless in very evident cases where the concretion is near the surface diagnosis must always be difficult. Patients, however, who suffer from repeated attacks of angina with only short intervals of comparative ease, and whose tonsils are persistently of large size, form fit subjects for the development of tonsillar concretions. In such cases we should make a thorough examination of the throat by palpation. If there be any yellowish ulcers on the surface of such chronically inflamed tonsils the probe should be used. If a calculus be present it will thus be readily detected.

Treatment.—As soon as the exact condition is recognised the concretion ought to be removed, as dangerous symptoms may suddenly supervene. If the stone be large and be spontaneously evacuated there is the possible danger of suffocation as nearly happened with my patient. Had the stone been only a little smaller it might have become firmly impacted in the man's throat as a result of his sudden inspiratory effort and asphyxia might have resulted.

REFERENCES.

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MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ACUTE SUPPURATIVE TONSILLITIS WITH CONVULSIONS.

A GIRL, aged 7, residing in the same house as myself, came home one evening complaining of "sore throat." Her mother (my landlady) asked me to see her. On examination the tonsils were found swollen (the right most so) and very red. The temperature was 101°. I ordered a mild purgative and a gargle of potassium chlorate. The child was fairly comfortable, and did not complain a great deal; towards night she grew restless. In the early morning the right tonsil, which had become distinctly suppurative, burst, after which the child slept some short time. All that day she was restless, eating nothing, until towards evening she again became drowsy, and seemed to sleep. Suddenly, whilst I was in the room, she sat upright, burst out into rambling statements, laughing and crying, and the next minute was seized with a severe and distinct convulsive attack, lasting some five minutes. I immediately placed her in a hot bath, and gave her a dose of ipecacuanha wine. The bath seemed to ease her, the temperature falling from 104.4° to 100°. She dosed off and seemed to sleep well for a short time, and then, waking up, vomited. She immediately seemed quite in her usual spirits, sat up, talked, and wanted to eat. She never had any more trouble, and was out and about again in a few days. Henoch has noted the occurrence of convulsions, I find, but says they must be very rare. The case seems to me interesting, not only from the convulsions, but from the rapid onset of the trouble. The child, although belonging to a neurotic family, has never had any signs of convulsions before, even when teething. She has had so far very fair health, except for a discharge from the left ear, which has been going on for some time.

ROGER K. HAMILTON, M.R.C.S.E., L.R.C.P.L.
Hasland, Derbyshire.

EXTRACAPSULAR FRACTURE OF FEMUR IN A WOMAN OF 82 WITH MORBUS CORDIS: RECOVERY.

MRS. B., aged 81, was attended by me from April till August, 1897, for mitral disease, she being at one time *in extremis* with general anasarca, etc. To my surprise, after continuously taking a mixture containing digitalis and strychnine for eight months, she began to improve, and eventually became much better.

On the evening of March 20th, 1898, I was asked to see her, as she had hurt her thigh. On visiting her, I was told that she had, owing to failing eyesight, missed sitting on a form, and fallen. I found fracture of the neck of the left femur, with the usual signs, but with marked crepitus and a good deal of discoloration. She was very intolerant of examination, and greatly exhausted.

I at once applied a long Liston splint, which she kept on for two weeks. Next I tried a poroplastic splint, but after a week she said it was uncomfortable, so I had a Thomas's splint made to enable her to get up, but she obstinately refused to do so, and as there were no signs of bedsores she was allowed to remain in bed.

After wearing the latter splint for six weeks, it was removed, and I found that union had apparently taken place; in fact active movements were soon performed. She remained in bed for another two weeks—eleven weeks in all—and was then lifted out daily into a chair. Being nearly blind, she was afraid to use crutches, but in a short time she began with help to hobble about.

Since then I have attended her again for her heart, her legs becoming very dropsical, but under the same medicine as before she improved considerably.

At the present time she is fairly well; can bear the whole of her weight on the injured limb, and with the help of a stick, etc., gets about in her cottage very well.

There is at least 1½ inch shortening, but she does not wear a patten, as she is afraid of tripping with it. She has twice to my knowledge fallen down, but no harm has resulted.

The case appears to me worth reporting on account of:

1. The great age of the patient, together with the cardiac affection.

2. The difficulties to be overcome in a cottage with well-meaning but quite inadequate nursing, the neighbours doing everything for her.

From the signs, I take the case to be one of extracapsular fracture, which is unusual in old people, and it is all the more surprising that she should recover on account of the additional severity of the constitutional disturbance in that variety as compared with intracapsular fracture.

Caldicot. CHARLES CORBEN, M.R.C.S.

STRANGULATED HERNIA IN PERICARDIAL SAC.

ON October 24th, 1898, I was requested to make a *post-mortem* examination on a well-built muscular Kaffir, who had died rather suddenly the same morning. The history, as given by his wife, was that up to the morning of October 22nd he was in perfect health, but during the afternoon he complained of pain about the ensiform cartilage and the umbilicus. It appeared to extend upwards into the chest, and to cause breathlessness and an uneasy feeling about the heart. Vomiting began about the same time; it continued at frequent intervals, and the pain increased steadily in severity during the night and the next day (23rd), so that the slightest movement was accompanied by unbearable pain. The abdomen from the first began to swell, and nothing was passed from the rectum. Everything taken by the mouth was promptly rejected. On the morning of October 24th he got up with the aid of a stick with the intention of micturating; he went a few yards, and was found dead a few minutes afterwards.

Post-mortem Examination.—About eight hours after death the abdomen was greatly distended. On throwing back the sternum and cartilages the pericardium was found distended.

On opening it a large quantity of blood-like fluid escaped, and lying within the pericardium, below the heart, were 18 inches of acutely strangulated ileum, slightly adherent by recent lymph. The strangulated hernia was of a dark "prune" colour and intensely congested, and had a rupture half an inch in length on the distal surface to the attachment of the mesentery. The opening in the diaphragm was about the size of a sixpence, and smooth edged. It was situated in the tendinous part. The part of the ileum strangulated was 4 feet from the cæcum.

The following points seem to be of interest:

1. The rarity of the case. Having looked through literature at hand I can find no similar case.
2. No history whatever of injury, accidental straining, etc.
3. Sudden death which I can only account for by rupture of intestine, pressure of fluid on heart, and shock.
4. The difficulty in diagnosis and of operation should the case have been seen in time to allow of surgical interference.

LAURENCE F. MCDOWELL, B.A., M.B., B.Ch.Univ.Dubl.,
Assistant District Surgeon, Hope Town, Cape Colony.

SYMPTOMS OF POISONING BY BORACIC ACID.

A SHORT time ago, while attending a lady suffering from long-standing inflammation of the bowels, I ordered irrigations of boracic acid twice daily—a tablespoonful to a pint of warm water. The result was most satisfactory as regards the disease; but, after three or four injections, she began to complain of headache, slight nausea, and intense dryness of the skin. On discontinuing the use of the boracic acid injections the symptoms ceased, to commence again with the resumption of irrigation. They ceased only when the disease was so far cured that we were able to use a solution of half the strength once daily. This is the first case I have met in which boracic acid caused unpleasant symptoms, and I have used it freely for children.

Cape Colony. SOPHIA GRUMPELT, M.D.Bern.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE MIDDLESEX HOSPITAL.

ACUTE TETANUS TREATED WITH ANTITOXIN; DEATH ON THE FOURTH DAY.

(Under the care of Mr. ANDREW CLARK, Surgeon to the Hospital.)

A. P., aged 19, a porter in a fruiterer's shop, was admitted on December 13th, 1898.

History.—On December 6th he was engaged in emptying a barrel containing apples and ran a splinter into the third finger of his left hand which was not taken out until December 10th. It seems to have given him but little trouble and he was in his usual health till December 12th, on which day he found a difficulty in chewing and swallowing his breakfast; he however went to work, but during the day he noticed that his neck was stiff and his back ached, and in the evening his jaws appeared contracted and he had difficulty in opening his mouth. The following morning, December 13th, all these symptoms had increased in intensity, so he went to the hospital and was immediately admitted.

Condition on Admission.—At 1.30 P.M., shortly after his admission, the facial muscles were rigid, face had a pinched expression, the corners of the mouth were drawn down, and it could only be opened a very little way. On attempting to do so the masseters became very rigid. The muscles of the neck were rigid, particularly at the back; the chest walls were rigid and scarcely moved either with ordinary or extraordinary inspiration; the abdomen moved fairly in ordinary, and more on deep, inspiration, but on palpation the recti were found to be rigid. There was a tendency to opisthotonos with rigidity of the muscles of back, but none of the arms or legs. The knee-jerks were slightly diminished, but the plantar reflexes were well marked.

Treatment.—At 3.30 P.M. 10 c.cm. of tetanus antitoxin was injected under the skin of the abdomen, and this was repeated at 9 P.M.; and the following is a note of his condition at that hour:

The rigidity of the parts mentioned above slightly increased, and now there is some rigidity of the muscles of the arm and thigh, but below the elbow and knee they are quite normal. Patient keeps perfectly quiet. There have been no convulsions or spasmodic contraction of any of the muscles. Pupils dilated. Temperature 100°, pulse 94.

Potassium bromide and chloral, of each gr. XV, was ordered to be given every three hours. The antitoxin injection was repeated on December 14th, at 10 A.M. By this time the symptoms had increased very much; the jaw could hardly be opened at all, the muscles of the neck were very tense, and the head was markedly retracted. There was no movement at all of the chest during respiration; the abdominal muscles were very tense, and there was rigidity of both the upper and lower limbs. Spasmodic contraction of the neck muscles occurred when the patient was touched, but beyond this there had been no convulsive attacks. He had had a few short intervals of sleep, and had managed to swallow about a pint of milk during the night. The temperature was 98.4°, the pulse 128, and the respirations 28. At 2.30 P.M. the condition was much the same, but since he has had several convulsive attacks; chloroform was administered, the sinus laid freely open, and the surface seared with an actual cautery. Another injection of 10 c.cm. was given. He took the anæsthetic very well, but just as he was coming round an attack of spasm of the glottis occurred, almost necessitating tracheotomy to prevent immediate suffocation. At 9 P.M. he had another injection of antitoxin; all the symptoms had grown gradually worse. There had been several severe convulsive attacks, one brought on apparently by the patient attempting to swallow a little milk, and he occasionally called out as if suffering severe pain. The pulse was 160, and the temperature 104.6°. During the night the spasms increased in frequency, seeming to occur without any external cause, and at 6 A.M. on December 15th the rigidity all over the body was very marked; he had had very little sleep, and had scarcely been able to take any nourishment. The chloral and bromide have been continued at regular intervals, one dose during the night being of double strength. He had been quite conscious till this time, but was suddenly seized with a severe convulsion, after which he became comatose, and never rallied. Death occurred at 9.30 A.M. Just before this the temperature in the axilla was 105.2°, and 108.4° in the rectum shortly after death. No *post-mortem* examination could be obtained, the coroner ordering the removal of the body a few hours after death.

REMARKS BY MR. ANDREW CLARK.—The antitoxin appeared to have no effect whatever in this case, five doses of 10 c.cm. at intervals of about six hours were administered, and this was supplemented by chloral and bromide, but the symptoms rapidly increased in intensity, and the patient succumbed in 74 hours from the first manifestation, and in nine days from the time of infection, assuming this occurred when the splinter entered the finger, but it may have been later, as the patient's occupation involved his handling vegetables more or less covered with garden mould. Although he took chloroform well, immediately afterwards the spasms increased in severity and frequency; this is the second case in which I have observed this.

KING'S COLLEGE HOSPITAL.

A CASE OF HÆMATURIA FROM A MOVABLE KIDNEY CURED BY NEPHRORRHAPHY.

(Under the care of Mr. WATSON CHEYNE.)

[For the notes of this case we are indebted to Mr. J. R. BENSON, Surgical Registrar.]

E. W., female, aged 40, unmarried, was admitted on June 16th, 1898, complaining of severe pain in the right hypochondriac and lumbar regions, occasional vomiting, and frequent passage of bright-red blood in the urine.

Previous History.—Her family and previous history apart from her present illness is unimportant. She was quite well and healthy till 1885, when she had a fall and hurt her back severely, and had to go to bed. The pain was somewhat relieved by the rest, but she noticed on first passing urine after the accident that it was bright red in colour. There were

no clots, nor was it increased or decreased in amount to any great extent. After a day or two the pain became more localised, and of a dull, dragging character. It was after a few days chiefly situated in the suprapubic region, but subsequently in the back and right iliac region. She made no mention of this pain being referred to any particular spot, nor did she complain that she had any frequency of micturition at the time. Her medical adviser kept her in bed for about five weeks, and put her upon cold fluid diet, with the result that the pain in the side left her, and the bleeding ceased. Pain, however, still remained in her back, and this was increased on exertion and relieved by lying down. The urine from time to time was very dark coloured, and not always bright red as at first. Although the pain never left her for any length of time, she enjoyed good health until 1895, that is for ten years. In June, 1895, she became very unwell and out of sorts generally, and had to go away for a week's holiday. She returned in July, and noticed that she was again passing blood bright red in colour. This state of things lasted two months, during which time the pain in the back and side became much worse and kept her awake at night. She went to a Manchester hospital, and was treated medicinally and given a belt to wear. The hæmorrhage again ceased, and she saw no more of it until May or June, 1897, when it reappeared and lasted six weeks. Thus the interval this time was only two years.

History of Present Attack.—In November, 1897, the present attack of hæmaturia and pain came on and lasted without interruption until she came to the hospital in June, 1898, nearly nine months. She has never at any time noticed any variations in the amount of urine passed. Also she is quite positive that the urine is generally bright red, and only occasionally dark coloured. Only when she has had more exercise than usual is there any frequency of micturition, and on these occasions she only passes a little at a time. She has no pain during the act of micturition, although there may be a little just before, when she has had much exercise.

Condition on Admission.—The patient is a well-nourished woman, not neurotic, and with no uterine or ovarian troubles. There is tenderness on palpation over the right renal area, but no definite signs of movable kidney are present. The examination is, however, rendered difficult by the increased muscular resistance on that side. On account of the obscurity of the cause of the hæmaturia the patient was watched for some days. The urine was bright red and contained blood, but no albumen that the blood would not account for. The blood was well mixed with the urine, and the reaction was slightly acid. After being under observation for a few days the patient was examined under an anæsthetic. The right kidney could be felt more distinctly than the left, and was slightly movable. The urethra was then dilated and the interior of the bladder examined with Kelly's tubes, but nothing was found; the mucosa seemed healthy, and no increased bleeding followed the examination. Beyond the incontinence from the dilatation of the urethra the patient suffered no inconvenience from the examination, but the bleeding still continued. On a subsequent occasion, however, the blood was seen coming from the right ureter, and therefore Mr. Cheyne decided to expose the right kidney to find and if possible remove the cause of the trouble. All the other organs were apparently healthy.

Operation.—On July 13th Mr. Cheyne cut down upon the kidney from behind in the usual way, except that he as far as possible split the muscles in the direction of their fibres rather than cut them. The kidney having been exposed was drawn out of the wound without any difficulty, and carefully explored, first with a needle, and then by cutting through the cortex; no calculous growth or other lesion could be found, but the kidney was very movable. It was therefore anchored by stitches passed through its substance to the abdominal wall. The muscles were then stitched in their respective layers, and the skin wound sutured and dressed.

After-History.—The patient made an uninterrupted recovery, and left the hospital four weeks after the operation with the wound quite healed. The hæmaturia ceased entirely immediately after the operation; she also lost her pain. This patient has been seen several times since she left the hospital, the last time about the middle of December, when she said that she remained quite free from pain and hæmorrhage, and was able to be at her work again. Her general health is quite normal, and she is better able to follow her occupation than she has been for years past.

Remarks.—Before the operation it was difficult to decide precisely as to the cause of the bleeding from the kidney. Symptoms of stone were entirely absent, and the length of time that the trouble had lasted and the slight degree of enlargement of the kidney seemed also to preclude tumour. For these reasons and the absence of symptoms, tubercle or other morbid deposit seemed also excluded. Hence we could only assume that there was some congestive condition of the kidney due to malposition or mobility, the injury in all probability having led to such displacement. The intermittent character of the bleeding pointed to mobility rather than permanent malposition, and this was confirmed by the ease with which the kidney could be moved and at the time of operation brought out of the wound. At the operation, nevertheless, great care was taken to examine the kidney and pelvis for any morbid condition (the urine was not examined bacteriologically), but none was found, and the immediate cessation of the hæmaturia on fixing the kidney seems to confirm the view that it was due to interruption of the venous circulation as the result of undue mobility of the organ.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. Payne, M.D., President, in the Chair.

Tuesday, January 3rd, 1899.

The President, before the general business of the meeting, made a sympathetic reference to the death of Professor Kanthack, a prominent member of the Society.

Primary Carcinoma of the Liver.

Dr. C. D. Green exhibited the above specimen. The new growth was of the spheroidal-celled kind, and was widely distributed through the liver. There were no growths elsewhere with the exception of the adjacent lymphatic glands. The gall bladder was not involved. The patient was a female who was attacked with paroxysmal vomiting about four months before death; later on pain was felt in the hepatic region, and then swelling occurred. There was no ascites, and no jaundice. Some localised peritonitis was found over the affected organ at the necropsy.

Dr. Parkes Weber observed with regard to a certain degree of round-celled infiltration which was present in the portal spaces that such accompanied obstruction to the bile flow, and had been discovered within so short a space as three days after experimental obstruction; hence he inquired whether any such obstruction had been observed in Dr. Green's case.

Dr. Green could state that no absence of colour was noticed in the stools the week before death, but more than this was not observed in consequence of the constipation present.

Apparent Thickening of Subcutaneous Veins.

Dr. Parkes Weber had made further investigations into the above condition, to which he drew attention at the last session of the Society. If the superficial veins, especially the internal saphenous, were examined in a number of rather cachectic men, the vessel walls in some cases felt as if they were thickened, and the vessels could occasionally be rolled about under the finger like thin solid cords. This apparent thickening, as far as could be judged from *post-mortem* examinations, seems to be due to a contracted condition in the veins, especially if the longitudinal bundles of unstriped muscle fibres, which constitute the inner portion of the tunica media, happened to be well developed. The relative amount of this longitudinal muscle probably differed considerably in different individuals. In transverse sections this inner muscular portion of the vessel wall was seen collected into ridges and projecting into the lumen, as if squeezed together by the circular muscle fibres which formed the main portion of the tunica media. When the vein during the hardening process had been kept artificially distended, this appearance of the sections was not found. The reasons why an apparent thickening of veins was clinically noticeable in men about 30 years of age, who were in hospital for some wasting disease, were probably the following: (1) The active

muscular employment of a working man gives rise before the age of 30 to full development of the unstriped muscle in the walls of the superficial veins of the limbs; (2) the compulsory rest in hospital, diminishing the circulation of blood through the limbs, causes some of the superficial veins to be comparatively empty and contracted; (3) the wasting of subcutaneous fat consequent on disease allows the superficial veins to be more easily felt and rolled about under the finger.

Mr. W. H. Bennett had been clinically familiar for some years with this apparent venous thickening, and he had also found on microscopic examination an exaggerated condition of the muscular wall. He regarded it as physiological rather than abnormal, and as related to the amount of function the vessels had to perform. It was most common in young women about the ankles, and was often associated with, and perhaps related to, dysmenorrhœa. In a certain number of cases the condition was permanent, in others it was transitory, when the application of a hot sponge would cause the hardness to disappear. The speaker could not say what relation this cord-like condition bore to varicosity, whether, that is, it was a precursor of the latter. Clinical observation had led him to associate the condition in some patients with piles. Patients would assert that when the piles were well, after bleeding, the ankles would become painful. In one instance he had removed piles and found an enlarged and hardened saphenous at the ankle to account for the periodical pain the patient was accustomed to experience.

Dr. Parkes Weber had not been able to determine what relation such a condition held to varicosity; it might simulate thrombosis.

Two Cases of Intussusception.

Mr. D'Arcy Power recounted two cases which presented unusual features. One of these concerned a female infant, seized with sudden pain, vomiting, and the passage of blood-stained mucus from the anus. The advancing end of the intussusception was felt *per rectum*. Irrigation with warm saline solution having proved fruitless, the abdomen was opened. The intussusception was irreducible, and enterostomy was unsuccessfully performed. After death a large ileo-cæcal intussusception was found to have occurred; this was rendered irreducible by the remarkable association of a retrograde and second intussusception which had arisen about the primary, the retrograde being increased when the reduction of that within was attempted; that the second was *ante-mortem* was shown by the presence of early adhesions. In the second case, that of a boy 6 months of age, typical symptoms led to the adoption of laparotomy; reduction took place spontaneously on the parts being handled. The wound was closed, but the intussusception recurred with a fatal result.

Mr. R. R. Lucy reported a case, in a girl of 13, closely resembling the first of Mr. D'Arcy Power's. Laparotomy was performed and enterostomy, but death ensued a few hours later from toxæmia.

Congenital Deformities of Limbs.

Mr. Richard Barwell recorded the case of a girl affected with various deficiencies in the limbs, illustrating the subject by means of stereoscopic skiagraphs. The right hand and forearm were wanting, being represented only by a fleshy prominence bearing minute nail beds. The skiagraphs demonstrated the presence of two osseous processes in the soft parts. The author viewed the condition as due not to intrauterine amputation, but to arrest at an early stage before the digits had commenced to bud out. In the right lower limb the arrest concerned the thigh and femur. In the left hand the ring and little fingers were webbed. The author viewed all the arrests as arising from some affection of the central nervous system.

Mr. S. G. Shattock observed that this class of deformity called for no remarks, but that he wholly disagreed with the author in his assumption of a primary defect of the nervous system as the cause. In plants multitudes of examples not only of the duplication of parts but of arrest and of fusion, like those occurring in the human subject were encountered, and here to invoke the influence of a nervous system was obviously not possible. He had long thought that Weissmann's views, when they were applied to such a class of teratological phenomena, offered the best explanation; and he thought it more probable that irregularities in the division of the chromosomes and in the distribution of determinants lay at the bottom of these grosser changes, the cell errors occurring at a period when the development of large tracks or parts of the limbs were dominated by very few of the primitive cells.

Card Specimens.

Mr. P. R. W. De Santi: Central Fibro-sarcoma of the Os Calcis.—Dr. Parkes Weber: (1) Multiple Adenomata of the Kidney. (2) Fibrotic Kidney with Multiple Papillomata.

EPIDEMIOLOGICAL SOCIETY.

H. Franklin Parsons, M.D., President, in the Chair.

Friday, December 16th, 1898.

The Prospect of Abolishing Tuberculosis.

Dr. Arthur Ransome, F.R.S., read a paper on the prospect of abolishing tuberculosis. After referring to the errors incident to the registration of the causes of deaths which might perhaps be to some extent mutually corrective, he stated that the annual death-rate from phthisis had steadily declined from 3,800 per million in 1838 to 1,305 in 1896. Since 1861 this could be shown for each age period and for either sex, as in the table on p. 26 of the last return of the Registrar-General, and it was worthy of note that the decline had been more marked among females, the rates at all ages having been in 1861-70, and in 1896, for males 2,467 and 1,485, and for females 2,433 and 1,138, or a decrease of 40 per cent. and 54 per cent. respectively. If one took the age period of 15 to 35 years, these figures were 3,468 and 1,753 for males, and 3,911 and 1,592 for females, the latter having had the higher, but now showing the lower mortality of the two. The first great fall was observed in the period 1840 to 1850, when land drainage was being extensively carried out. The mortality then remained nearly stationary until 1867, since which time the decline had been continuous, corresponding with sanitary improvement, the better ventilation of houses and workshops, and the higher standard of living among the working classes, from which latter circumstance women who spent more of their time at home had naturally benefited more than men. Meanwhile no attempts at the repression of the disease, such as were suggested by the recent recognition of its infective character, had been attempted; but before undertaking such measures with a view to stamping it out, it was right to obtain some estimate of the amount of disease which had to be contended with. From the calculations of Drs. C. T. Williams, J. S. Pollock, and others, it might be concluded that there were in England and Wales over 160,000 consuptives, and perhaps 40,000 persons suffering from other forms of tuberculosis, or in the United Kingdom about 300 000 actually spreading the disease, besides a large number of concealed cases perhaps equally dangerous to the community, though not known to be so by themselves or others. Nor must one forget the hundreds of thousands of tuberculous cattle and other animals under less control than human beings, spreading the infection broadcast in various ways; above all the use of milk from such cows. The immense number of the bacilli, often two millions in a single expectoration, their tenacity of life, maintaining their vitality out of the body for several months, their resistance to ordinary disinfectants and desiccation, their association with other bacteria, the long incubation and the chronic character of the disease facilitating the spread of the infection, must also be taken into account. But on the other hand there was the rapidity with which the bacillus lost its virulence out of the living body, and perished when exposed to air and light, especially sunshine, the great resistance presented by the healthy organs and tissues of the human body, and the expulsion or destruction of the bacilli entering the respiratory tracts; the influence of hygienic treatment in the earlier stages of the disease, and its diagnosis, especially in cattle, by Koch's tuberculin, even in the absence of manifest symptoms. The predisposing conditions were all debilitating diseases, habits, and surroundings, especially pulmonary catarrh and irritation, inhalation of dust, deficient ventilation, overcrowding, and damp in dwellings. The outlook was encouraging; so much success had attended sanitary progress in the past that we should redouble our efforts towards the attainment of abundance of pure air and light in houses, workshops, places

of public assembly, and the streets, the abolition of blind courts and alleys and back-to-back houses, and the increase of parks and open spaces; employing the machinery already used in the repression of infectious diseases, and educating the public to realise the danger inherent in the sputa of tuberculous persons. Notification followed by appropriate medical and hygienic treatment had been tried with some degree of success in New York, and was, though open to obvious objections, worthy of careful consideration. Disinfection of houses, fomites, and sputa should be inculcated, and after the death of a patient should be carried out by the sanitary authorities; isolation in the case of unteachable or destitute persons, and ampler hospital accommodation for such, especially for patients in hopelessly advanced stages of the disease, with sanatoria for those cases which were still capable of cure. Lastly, they must resolutely aim at the elimination of tuberculosis from their herds, especially of milch cows, for tuberculous milk was undoubtedly the cause of the increased mortality of infants from intestinal tuberculosis. Of course if all milk were boiled this danger would be obviated, but it was vain to hope that the ignorant, the prejudiced, and the careless would observe this precaution, and it would not meet the risk of infection in the cowsheds or do aught to diminish the standing danger arising from the prevalence of tuberculosis in herds. Professor Bang in Denmark had proved the possibility of eradicating the disease in dairy farms at no great expense, and Lord Vernon and others in this country had carried out the same procedure with complete and speedy success. It was only necessary to influence public opinion sufficiently to bring pressure on the farmers to follow this example, and by the use of the tuberculin test, and the isolation and gradual extinction of all reacting animals, to secure a race of cows wholly free from the least taint of the disease. Judging from the success that had already attended past efforts at the general improvement of the public health, and the great though undesigned reduction in the mortality from tuberculosis that had followed, they might confidently look forward to the practical extinction of this disease at no distant future, as the result of the persistent co-operation of the sanitary authorities, the medical profession, and the public in measures intelligently directed to the end in view.

A discussion followed, in which the PRESIDENT, Drs. HECTOR MACKENZIE, KENWOOD, WHITESIDE HIME, W. A. BOND, CHR. CHILDS, GLOVER, LYON, Mr. SHIRLEY MURPHY, Mr. HUNTING and others took part.

SOCIETY OF ANÆSTHETISTS.

DUDLEY BUXTON, M.D., President, in the Chair.

Friday, December 16th, 1898.

THE CHOICE OF THE ANÆSTHETIC.

MR. E. F. WHITE opened a discussion upon the choice of the anæsthetic. He pointed out that while nitrous oxide gas was the safest, having an enormous tale of administrations without any deaths due directly to its influence, ether came next with a death-rate of 1 in 16,000, and chloroform last with 1 in 3,000. In healthy subjects he regarded ether as being practically without risk; under it reflex shock never occurred, and in this it contrasted favourably with chloroform. Prolonged operations were dangerous, as more anæsthetic was taken, and he appealed to surgeons to shorten manipulation whenever possible, and avoid undue delay before commencing the operation. Ether given before chloroform lessened the latter's dangers. The A.C.E. mixture he thought unreliable. In extremes of life chloroform was well borne, but was not free from risk. Ether, if properly applied, was well taken by even young children, and by old people provided organic disease was absent. When much mucus existed, or the rigidity of the thorax interfered with proper respiratory movements, Mr. White used chloroform. With regard to general disease, such as diabetes, he was guided rather by the individual state of the patient than by the character of the lesion. In acute respiratory trouble chloroform was probably best, but in chronic conditions he used ether whenever he could, and found even the most apparently unsuitable cases took it well. Chloroform in his experience caused as much lung trouble as ether. In cardiac affections he employed ether, but in cases of aneurysm he preferred chloroform. Light etherisation was, Mr. White submitted, the best anæsthetic for abdominal surgery. In ophthalmic and brain surgery chloroform was required, but for operations about the jaws, tongue, etc., it was his practice to commence with gas and ether and use chloroform subsequently, as in this way he thought shock was lessened, and the same method answered in removal of post-nasal adenoids. He employed ether in thyroidectomies, as his former practice of giving chloroform gave no better results and increased the risk.

MR. EDMUND OWEN personally preferred chloroform, but was alive to its greater perils. He commented upon the risks incident to the practice so common of entrusting the anæsthetic to the hands of the inexperienced. He advocated some pronouncement from the Society which should guide those less experienced in their choice of an anæsthetic in special cases. The A.C.E. mixture he regarded as dangerous and uncertain and cocaine in the case of children at all events fell into the same category. In staphylorrhaphy, tonsillotomy, and the removal of glands from the neck there was great shock, and consequently children were peculiarly liable in such cases to succumb under the anæsthetic from heart failure.

MR. A. E. BARKER had for some time past felt an increasing fear of ether, especially in long abdominal operations. The surgeon was hampered and disturbed by it and could not work with due precision. He advocated more extensive trial of local anæsthesia.

MR. HERBERT ALLINGHAM believed ether was the safer anæsthetic, certainly so in rectal operations when there was an especial risk of reflex syncope. In abdominal sections he admitted chloroform gave the surgeon greater comfort.

MRS. SCHARLIEB not only believed ether given in succession to nitrous oxide the safest, but considered that absolute quietude could be ensured by its proper administration.

MR. WALTER TYRRELL dwelt upon the personal preferences of surgeons and anæsthetists for particular anæsthetics, and mentioned the plans for obviating shock occurring under chloroform narcosis by the use of ether concurrently. Oxygen obviated the blueness sometimes found in prolonged etherisations.

DR. SILK regarded special knowledge and skill in the management of the anæsthetic, the duration of the operation, and the posture of the patient as important points to be considered in selecting the anæsthetic. In children up to 3 years he gave chloroform, from 3 to 12 the A.C.E. mixture, from 12 to 60 ether, and for people over 60 he selected the A.C.E. mixture. This last anæsthetic he also chose in the case of the fat and plethoric. In acute lung disease chloroform seemed to answer best, but in more chronic cases he commenced with the A.C.E., and gradually increased the proportion of the ether as the operation became prolonged. He did not like ether in cases of uncompensated heart disease, or when the arteries were atheromatous. The A.C.E. mixture was, he thought, best in renal disease, in operations about the head and neck. Abdominal operations involving much shock required ether. Many of the alleged drawbacks to ether in such operations were probably more fanciful than real, and arose from the difficulties incident to the case; but these difficulties should lead the anæsthetist to assist the surgeon as much as possible in these cases.

The PRESIDENT having announced the receipt of letters from surgeons expressing their interest in the discussion, adjourned it to the next meeting of the Society on January 20th.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Sir JOHN BATTY TUKE, M.D., President, in the Chair.

Wednesday, December 21st, 1898.

CASES.

PROFESSOR CHIENE showed two cases of osseous deformity: (1) Coxa Vara; and (2) Double Dislocation of the Hip.—MR. F. M. CAIRD showed (1) a patient after Removal of Rectal Carcinoma by Parasacral Incision; (2) patient after Removal of Appendix and of Renal Calculus.—DR. MELVILLE DUNLOP showed (1) a case of Double Athetosis in a Child; and (2) a boy in the Atrophic Stage of Pseudo-hypertrophic Paralysis.—DR. A. JAMES showed (1) Scleroderma in a young man; and (2) a case of Angio-neurotic Œdema of the Tongue in a little girl; there was enlargement of the cervical glands and pain

in swallowing.—Dr. Graham Brown (for Dr. George Gibson) contrasted a case of Bulbar Paralysis with one of Pseudo-bulbar Paralysis.—Dr. Affleck showed two cases of Friedreich's Ataxia and a case of Addison's Disease.—Dr. John Thomson showed a case of Hemiatrophy of the Tongue (of unknown duration) in a boy of 9.—Dr. George Elder showed (1) in a boy of 6 Congenital Hemiatrophy of the Face, with malformation of the ear, mastoid, etc.; (2) a case of Senile Chorea in a woman of 54, with some mental enfeeblement.—Dr. W. Allan Jamieson showed (1) Papulo-squamous Eruption, apparently Syphilitic, affecting the palms, in a man who had seven healthy children, the youngest of whom was 2½ years, the difficulty was to know how the man had become affected; (2) case of Psorospermosis Follicularis Vegetans (Darier's disease) in a boy; (3) results of treatment in a case of Tylosis in a young woman; (4) case of Elephantiasis in the left leg (beginning at the ankle) of a woman of 43.—Mr. J. B. Hodsdon showed a girl from whom there had been removed a series of Neuromata from the Right Axilla; neuromata existed also in both palms and in the right side of the neck.

Specimens.

Mr. D. Wallace showed: (1) Renal Calculus; (2) Kidneys with Calculi *in situ*; (3) Fibro-adenoma removed from Prostate; (4) Portions of Prostate removed from three cases by Suprapubic Cystotomy; (5) Four Kidneys (three Tuberculous and one Malignant Adenoma) removed by operation; (6) Dermoid Cyst from Floor of Mouth; (7) Biliary Calculi removed by Cholecystotomy; (8) Microscopic Specimens of Tumours and of Prostate.—Dr. Logan Turner showed a Skull with unusual development of Frontal Sinuses.—Dr. Dowden showed: (1) Specimen of Plexiform Neuroma; (2) Microscopic Sections of the same; (3) Specimen of Hydatids.—Mr. C. Cathcart showed: (1) An Abdominal Aneurysm which caused difficulties in diagnosis; (2) Multiple Abscesses in the Brain.—Mr. F. M. Caird showed Preparations and Drawings from an unsuccessful case of Enterectomy and Suture for Carcinoma.—Dr. William Elder showed: (1) Heart and Intestine from a case of Dysentery, with Ulcerative Endocarditis; (2) Brain showing Hæmorrhage into the Occipital Lobe; (3) Brain from a case of Word-Blindness.

Exhibits.

Mr. Cathcart showed Improvement on Microtome.—Mr. Caird: Needlecase for Sterilising Needles and Sutures.—Dr. Graham Browne: A New Form of Æsthesiometer.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

J. A. Scott, F.R.C.S.I., in the Chair.

Friday, December 2nd, 1898.

Some Recent *X*-ray Work.

Dr. Haughton drew attention to the more important recent successes of the process, mentioning observations on normal changes in bone structure, and enumerating the successes of the process in congenital and acquired deformities of bone, in diagnosis, prognosis, and treatment of fractures and their sequelæ, dislocations, epiphysiary separations, diseases of bone in dentistry, and especially in the localisation of foreign bodies by the splendid apparatus devised by Mr. Mackenzie Davidson, referring in this connection to the accurate results obtained by Major Battersby, M.B. (T.C.D.), R.A.M.C., after the recent engagement at Omdurman. Further reference was made to applications in medicine in conditions affecting the outline of heart and aorta, and certain structural changes in lungs. The "traumatism" sometimes associated with *x*-rays was also discussed, and also the advantages of Roentgen process in medico-legal evidence, after which lantern slides illustrating applications of the process were exhibited.

Dr. Scott considered the reducing to figures the comparative lengths of exposure of different tissues was very interesting. The method of measuring the position of foreign bodies was of very great use, because the old methods were not in every way perfect.

Dr. Lane Joynt said that recently some purely electrical experimenters had endeavoured to show that dermatitis was produced by any high electrical discharge quite independent of the *x*-ray tube. In the *Electrical Review* some time ago reports showed that one might exceed about 500,000 volts and get to 1,000,000 volts; that the risk of brush discharges in the neighbourhood was very great and that dermatitis frequently followed, and could be produced at will by any *x*-ray tension or power. He thought that a good deal of false blame had been laid to the charge of the *x*-rays; he himself had never seen a case of dermatitis.

Remarks were also made by Dr. E. J. McWeeney, Dr. Maunsell, and Dr. Knott.

Dr. Haughton, in reply, said that Dr. Joynt's statement confirmed the opinion that very high tension currents were capable of producing skin injury. Referring to Dr. McWeeney's remarks, he said that he had been unable to obtain any good photographs of tuberculous consolidation in the apex of the lungs owing to the movements of respiration. Caseous material was rather transparent, considerably more so than pus, the latter being nearly as opaque as water. In calcareous deposits very considerable opacity resulted, as the calcareous salt contained lime whose atomic weight was about 40, and the higher on the atomic scale the greater the opacity. Phosphatic calculi were rather transparent, oxalic were the most opaque, and uratic intermediate. Cholesterin was extremely transparent. Regarding the relative transparency of tuberculous cases in comparison with normal, strumous subjects were often found with very transparent bones, probably due to a condition of malnutrition. There seemed to be possibly a smaller deposition of lime salts, perhaps associated with an enlargement of the cancellous tissue; but he himself thought the cancellous tissue presented a normal outline, while the transparency was greatly increased. In reply to Dr. Maunsell concerning fracture of styloid process of ulna in Colles's fracture, he agreed with the history of a fall from a considerable height in some cases; but people in falling on the hand were more likely to fall on the ulnar border, and that was a possible cause of fracture of styloid process of ulna. He had not observed dislocation backwards in Pott's fracture. Regarding Dr. Knott's question, the patient who suffered from fracture of olecranon process was about 35. In *x*-ray photographs he had not been able to establish more than one centre of ossification for the olecranon.

Rupture of Ascending Aorta.

Mr. Maunsell read notes of a case of multiple aneurysms in a young woman, and showed the specimen. The report will be published.

Spontaneous Rupture of First Stage of Aorta.

Dr. J. Lumsden showed this specimen. The young woman (aged 23) from whom the specimen was taken was brought dead into Mercer's Hospital in June, 1898. Very little information as to her previous health was obtained, but it would appear she was in apparently good health, and was seen in the active discharge of her duties as a shop assistant a few minutes prior to her death, and she was evidently in the act of lifting down a heavy box from a shelf when she suddenly dropped dead. At the necropsy the body was found to be fairly well nourished, abdominal contents normal, lungs normal. On opening the thorax the pericardium was at once seen to bulge forwards, and when incised was found to be quite full of clots. A small linear rupture, which just admitted an ordinary cedar pencil, was discovered at the root of the ascending aorta on its anterior aspect, immediately above the anterior sinus of Valsalva. When the interior of the vessel was examined a rent was found in the aortic tunics, commencing just above the junction of the right and left posterior aortic cusps, encircling the aorta parallel to the free margin of the valves, about 1¼ inch in length. Except at the point of rupture in front only the intima and media were apparently involved in the rupture, and, doubtless, had not the outer coat given way anteriorly, a dissecting aneurysm might have resulted. Macroscopically there was no evidence of any extensive degeneration of aortic walls, or, indeed, of the heart either, but a few small opaque yellowish-white superficial and irregular patches in the endothelium and irregular patches in the endothelium and subendothelial tissue were to be seen. They projected slightly above the surface, and could be rubbed off in places from subjacent layers, which presented a normal appearance. The left ventricle was perhaps somewhat hypertrophied, but no evidence of valvular lesion was found. The condition was extremely rare, and it was har

to understand how, in the absence of any evidence of advanced degenerative changes, rupture could have taken place. Microscopic sections were to be cut, and then possibly some light might be thrown on the subject.

Aneurysm of Ascending Arch of Aorta Extending into Lung.

Dr. W. J. Thompson showed this specimen. The patient from whom this specimen was got was a well-nourished man, aged 45, a builder's labourer. He was carried by the police into Jervis Street Hospital on November 13th, 1898, in a collapsed state, having had a severe attack of hæmoptysis while walking along the street. The upper part of the right lung, as far down as the fifth rib in the nipple line, was dull on percussion, no tumour on pulsation, but a slight thrill could be felt on palpation. The veins on the right side of the thorax were prominent and distended; there was no swelling of the arm or neck, and there was total absence of pain. The radial pulse on the right side was much weaker than on the left, and occasionally the patient completely lost his voice. There was no difficulty in diagnosing aneurysm of the ascending arch, extending into the right lung, and the case looked hopeless. The patient died suddenly after being three days in hospital. The specimen showed a sacculated aneurysm, embracing the upper half of the ascending arch, lying more posteriorly and laterally than anteriorly, behind the superior vena cava. It extended in an upward and outward direction for about 2 inches, its width being about the same as its length. The sac seemed at its commencement to be made up of pericardium and pleura, but at its apex it was made up of semi-consolidated lung tissue. The whole length of the aorta was studded with atheromatous patches, varying in size from that of a sixpence to that of a two-shilling piece. Evidently the aneurysm had its origin in one of those patches, and had suddenly burst into lung tissue. The two upper lobes of the right lung were consolidated.

Aneurysm of Descending Arch of the Aorta Perforating Œsophagus.

Dr. W. J. Thompson showed this specimen. The patient was also a builder's labourer, aged 47, and presented no appearance of wasting. When brought to Jervis Street Hospital on November 2nd, 1898, life was extinct, but blood was still oozing from the mouth and nostrils. The history given was that when attempting to lift a weight he suddenly collapsed, and that when he had fallen blood came from his mouth. He had never complained of pain about the back or thorax; never had any difficulty in swallowing; was always strong and healthy; had not missed one day's work for years. At the *post-mortem* examination he stomach and intestines as far as the ileo-cæcal valve were found full of blood. Corresponding to the level of the seventh dorsal vertebræ there was a ragged opening in the œsophagus about the size of a sixpence, placed rather posteriorly, laterally, and to the left. This communicated with an aneurysmal sac, which sprang from the aorta anteriorly, laterally, and towards the right. The opening between the aorta and sac had a diameter of about three-quarters of an inch. The sac itself was small, had thin walls, which seemed to be made of the outer covering of the aorta. There was only one small atheromatous patch situated in the transverse portion of aorta.

Dr. Scott said that the suggested influence of syphilis in aneurysm was a point of interest.

Dr. Knott asked Dr. Thompson the cause of death in the case of aneurysm which perforated the œsophagus. Aneurysms opening into serous cavities always burst suddenly, but into mucous canals the hæmorrhage was gradual. He thought that dysphagia in aneurysm was never very prominent, and was always incomplete.

Dr. E. J. McWeeney said that in Dr. Lumsden's case of rupture of the arch of the aorta it would be advisable to have a microscopic examination of the coats of the vessel in the neighbourhood of the rupture, because there could not be an effect without a cause.

Dr. Lumsden, in reply, said he would make known the result of the microscopic examination.

Dr. Thompson, in reply to Dr. Knott, said that *post-mortem* examination showed the stomach to be full of blood, which penetrated even to the ileo-cæcal valve. There were no symptoms of dysphagia, although the aneurysm must have pressed on the œsophagus.

CLINICAL SOCIETY OF MANCHESTER.

A. Hill Griffith, M.D., President, in the Chair.

Tuesday, December 20th, 1898.

Elephantiasis of Vulva.

Dr. Lloyd Roberts described a case of this affection. The patient was a married woman, aged 31 years, who had menstruated regularly, and who had never been pregnant. Twelve months previously the enlargement had commenced, and had progressed steadily. When the patient was first seen a large pendulous mass, about the size of a child's head, had been found growing from the labia minora. The mass had been removed under an anæsthetic, and the patient had made a good recovery. There was no history of venereal disease. Microscopic examination had shown that almost the whole mass was composed of fibrous tissue. The epithelium was thickened in places, and the blood vessels, which were few in number, showed evidence of endarteritis. These growths were usually caused by the irritation of venereal discharges or by traumatism. Their seat of origin was most frequently the clitoris, sometimes the labia minora or labia majora. In some cases great enlargement of the growth had been noticed during pregnancy, with return to the former size after delivery. Increase in size had also been noted during menstruation. Excision was the only treatment which was of any avail.

Suprapubic Prostatectomy.

Mr. J. W. Smith showed a man, aged 58, on whom he had performed suprapubic prostatectomy in July, 1898. Symptoms of hypertrophy had existed for four years, with severe cystitis and urethritis for several months previous to operation. Daily washing of the bladder for three months had given no relief, and the patient was sinking rapidly from toxæmia. A conical middle lobe, projecting for more than one inch into the bladder behind the meatus, had been removed piecemeal with forceps. A tube, retained in the suprapubic incision for two months, had been removed when the urine became normal, and natural urination recommenced. The patient had gained 25 lbs. in weight since the operation, could retain the urine for eight to ten hours, and micturition was prompt and forcible.

Cases of Mental and Nervous Disease.

Dr. E. S. Reynolds showed a large series of lantern slides, illustrating cases of mental and nervous diseases.

MANCHESTER THERAPEUTICAL SOCIETY.

Professor Leech, M.D., President, in the Chair.

Tuesday, December 20th, 1898.

The Various Kinds of Aloes.

The President read a communication on the action and uses of the various kinds of aloes, in which he pointed out the alterations which had been made in the preparation of aloes in the new *Pharmacopœia*, and showed that little if anything was known as to the comparative activity of the various kinds of aloes, two of which (Barbadoes and Socotrine) were official in Great Britain, whilst Cape aloes was the only official variety in some foreign pharmacopœias. Squire stated that Barbadoes aloes was one-third stronger than Socotrine, but gave no authority. Dobson and Tilden from their experiments concluded that Barbaloin was rather more active than Socaloin. Dr. Leech appealed to the members of the Society to aid in the investigation of the relative value of the different kinds of aloes.

The Treatment of Hæmatemesis.

Professor Dreschfeld opened a discussion on the treatment of hæmatemesis. Hæmatemesis was only a symptom; the cause might be extragastric and intragastric. Extragastric causes, such as hæmorrhage from the upper respiratory tract, or from dilated œsophageal veins, or from duodenal ulcer, might give rise to hæmatemesis. Hæmatemesis of intragastric origin might occur from various causes. 1. Trauma. —(*a*) Immediate. (*b*) Remote. (*a*) Injuries might give rise to immediate hæmatemesis which might be profuse or slight.

Such cases often got well with merely rest and milk diet. Gallic acid and other styptics might be used, but were not usually necessary. (*b*) Remote hæmatemesis might occur a few days after the injury, and was thought by some to be due to hæmorrhagic erosion of a vessel. It might recur and often led to gastric ulcer. The treatment was similar to that for gastric ulcer. 2. Hæmatemesis due to arterial hæmorrhage.—(*a*) Hæmorrhage due to gastric ulcer.—In these cases it was best to avoid giving food at all by the mouth, and even the ingestion of fluids was inadvisable. Even drugs by the mouth were better omitted, with the exception of turpentine, which Dr. Dreschfeld believed to be of decided benefit. It might be given in 10-minim doses three times a day in capsule or in emulsion with white of egg. Ergotin injections did no harm and might do good. Subcutaneous transfusion of salt solution might be beneficial, but Dr. Dreschfeld had found it difficult to administer in this way more than half a pint. Operative interference had been tried, the bleeding artery being tied, but this was only justifiable as a last resource. (*b*) Hæmorrhage due to toxic gastritis might be treated by giving appropriate antidotes. (*c*) Hæmorrhage in acute and chronic gastritis occasionally occurred, but rarely required treatment. (*d*) Hæmorrhage in cancer was rarely as free as in ulcer of the stomach. Bismuth might be useful to check the bleeding, and gallic acid, tannic acid, and turpentine might be used. (*e*) Hæmorrhage from persistent vomiting rarely required treatment. 3. Venous hæmorrhage might be due to obstruction of portal circulation, congestion of systemic veins (heart disease), and in diseases of the spleen. In hæmatemesis from portal obstruction, as in cirrhosis of the liver, the hæmatemesis might be great in quantity, the blood was venous in character. There was not so much collapse as after severe arterial hæmorrhage. Treatment.—No food except by rectum. Calomel was useful. Magnesium sulphate had also been given. It was a question whether digitalis might not be useful. Hæmatemesis in chronic venous congestion from heart disease required similar treatment. Hæmatemesis from splenic congestion might be sometimes due to alterations in the blood, but sometimes occurred in splenic enlargement, as in malaria. In Hodgkin's disease it was probably due rather to alteration in the blood than to venous congestion of the spleen. 4. Hæmatemesis due to alterations in the blood might occur in leucocythæmia, jaundice, pernicious anæmia, purpura, hæmophilia, scurvy, etc. Calcium chloride might often be recommended in cases of purpura, arsenic in pernicious anæmia, turpentine might be useful in many cases. 5. Hæmatemesis due to nervous causes might arise in epilepsy, cerebral tumour, hysteria, etc. In the last-named, it might be due to artifices and not from the stomach, but true hæmatemesis was sometimes found. In such cases gastric ulcer might be a possible concomitant. In hysterical cases there was not so much collapse and anæmia. 6. Vicarious menstruation as a cause of hæmatemesis was rare, but it might occur. 7. Hæmatemesis of the newly-born was usually slight. Melæna must always be looked for as well; it was usually marked. Hæmorrhage from other mucous membranes was frequently associated with it; occasionally a gastric ulcer had been found.

Professor Dixon Mann recommended physiological rest in the treatment of hæmatemesis due to gastric ulcer, no food by the mouth, and not even ice or iced water. He had found small hypodermic injections of morphine (not above ¼ gr.) of service. The only drug for arresting hæmorrhage in which he had any faith was turpentine. He had seen profuse hæmorrhage in cases of enlarged spleen with no trace at the *post-mortem* examination of any erosion of the vessels of the stomach.

Dr. Hopkinson expressed his belief in the value of turpentine as a hæmostatic, though most cases did not require it. He endorsed Dr. Mann's opinion of the beneficial effects of small doses of morphine.

Dr. Wild pointed out that in cancer of the stomach hæmatemesis was not so frequent as books would lead one to expect. Ergotin and morphine hypodermically or opium and ergot by the mouth were useful in these cases. If severe, it was best to give nothing by the mouth. He was disappointed with the effect of calcium chloride in hæmophilia. He had given as much as 20 gr. three times a day with little effect.

The President remarked on the infrequency of death from hæmatemesis. He had seen one in a case of enlarged spleen. Most cases tended to stop spontaneously, which led one to doubt the efficacy of many of the drugs supposed to be useful. Rest was the great thing. He did not recommend much ice; he thought sips of hot water much better. Turpentine was probably of service; it certainly did no harm in small doses. Injection of ergot did no harm and seemed to do good; it did not appear to increase tension. Morphine injections were sometimes badly borne by young girls, often causing sickness and faintness. Calcium chloride was not a pleasant drug to take. He did not give it in hæmatemesis, but found it useful in hæmoptysis given along with syrup of lemon.

PATHOLOGICAL SOCIETY OF MANCHESTER.

R. B. Wild, M.D., President, in the Chair.

Wednesday, December 14th, 1898.

Glandular Carcinoma of Œsophagus.

Professor Leech described a case of cancer of the lower third of the œsophagus invading one lung, pleura, and auricle of the heart. Microscopically it appeared to be glandular in structure, not the ordinary squamous epithelioma met with in œsophageal cancer.

Intracranial Suppuration of Otitic and Rhinitic Origin.

Dr. Milligan read a paper entitled Some Observations upon the Pathology of Intracranial Suppuration of Otitic and Rhinitic Origin. He discussed the various paths along which infection might be conveyed from the middle ear to parts within the calvarium, detailing more especially the dangers of osseous erosions in and around the middle ear and adjacent mastoid cells, and the routes along which pathogenic organisms might travel—(1) minute venous trunks, (2) minute lymphatic trunks, (3) periarterial fibrous sheaths, (4) perineural fibrous sheaths, (5) fibrous septa running between the tympanic mucosa and the dura mater, (6) thrombosed vessels running through imperfectly ossified petro-squamosal and petromastoid suture. Various intracranial lesions were then considered in detail and from the pathological standpoint—for example, extradural abscess, subdural abscess, generalised meningitis, cerebral abscess, cerebellar abscess, suppurative encephalitis, and thrombosis of various intracranial sinuses. Various points in the pathology of the subject were illustrated by records of cases coming under the author's care. Numerous specimens and a series of limelight views were also shown.

CHELSEA CLINICAL SOCIETY.

J. Foster Palmer, M.R.C.S., L.R.C.P., President, in the Chair.

Tuesday, December 20th, 1898.

Mitral Stenosis and its Early Diagnosis.

Dr. C. C. Gibbes read a paper on this subject. The question chiefly dealt with was, Are there no reliable signs by which we can diagnose pure mitral stenosis before it has advanced far enough to produce a presystolic *bruit?* He stated that some authorities referred to the advisability of suspecting it in cases where the first sound was short and sharp, others to a first sound of this character followed by a reduplicated second sound. He was unable to accept these signs by themselves, as they occurred so often in other diseases. In mitral stenosis there was a peculiar rhythm heard over a limited area, with or without a presystolic *bruit:* and when this persisted, or became intensified on lying down, in cases where the presystolic *bruit* had not yet developed, he considered it much more diagnostic—it consisted of a prolonged diastole, a short, slapping, abruptly-ending first sound, followed by a reduplicated second sound. He had directed his attention to this for the last two years, and had noted these characters in 192 cases while standing, 75 being cases of mitral stenosis in one or other of Sir W. Broadbent's three stages. In 76 they had entirely passed off on lying down, and in the remaining 41 they had persisted or become intensified in lying. Eight of these he had watched developing into ordinary mitral stenosis. He showed cases and tracings illustrating these points.

A discussion followed, in which Dr. Ewart, Dr. Herschell, and Mr. Blumfeld took part.

Delirium Tremens Treated by Inhalation of Chloroform.

Dr. J. W. E. Mortimer mentioned a case of delirium tremens characterised by troublesome restlessness and prolonged sleeplessness, in which he administered chloroform, in the hope that the brain might be diverted from the vicious circle in which it seemed to be running, and that the hypnotics, which he found had already been given in large doses, might then have effect. The immediate result of the inhalation was six hours' continuous sleep, followed after an interval (during which the patient was quiet) by sleep lasting nearly the whole of the following day and night, accompanied by rapid recovery in all respects. Dr. Mortimer referred to two recorded cases in which similar results were attained, and said he thought chloroform might save time and strength, and be very useful in some instances if carefully administered. Troubles were apt to arise when anæsthetics had to be given to alcoholics for surgical reasons, but the conditions were somewhat different. In his own case there were no contraindications, and there were difficulties in carrying out other methods of treatment.

The President, Mr. Staveley, Mr. Morris, Mr. Gibbes, Mr. Blumfeld, and Dr. Vinrace also spoke.

Intestinal Obstruction due to Gall Stones.

Mr. C. A. Morris read the notes of a case on this subject. A woman, aged 60, who had five years previously had an attack of biliary colic without jaundice, was suddenly seized with acute pain in the epigastrium and severe vomiting; on the following day constipation set in and continued until the end. The vomited matter consisted at first of green bile, but became stercoraceous three days later. On the sixth day of obstruction he performed abdominal section, and discovered a gall stone blocking the ileum a short distance from the ileo-cæcal valve; he incised the bowel, removed the stone, and closed the incision with double suture. The patient rallied for a time, but died from exhaustion eight hours and a-half after operation. The stone weighed $3\frac{1}{2}$ drachms, and measured 1 by $1\frac{3}{4}$ inch. From the notes of forty-two other cases reported during the last four years, he considered this to be fairly typical. He thought the diagnosis was always accompanied with much difficulty, the chief points which assisted being attacks of biliary colic, jaundice, and the discovery by palpation of the stone in the bowel; but in most cases the treatment required for ordinary acute obstruction was necessary, namely, abdominal section. Mr. Morris said the condition was very fatal, and that the statistics up to the present time gave no better results after operation than in those cases left to Nature. He remarked upon the proposal to break up the gall stone *in situ* with needles, but thought that at present general opinion seemed in favour of incision and suture.

Some remarks were made by the President, Mr. Staveley, and Dr. Vinrace.

British Balneological and Climatological Society.—At a meeting on October 31st, 1898, Dr. R. Fortescue Fox (Strathpeffer Spa), President, delivered an address on the Province of the Spa Physician. The descent of the spa physician was traced to the Minister of Asclepios, half physician and half priest, presiding over the "divinely appointed" springs. The gradual dissipation of the supernatural had followed, but the physician still intermediated between Nature and man. The spa practitioner was then considered as a specialist. He was concerned with an ancient art and a new science. It was important that he should realise what his position required of him. The elements of the spa treatment were accidental and essential. The latter were chiefly two—the mineral spring and the various agencies comprised under the general term thermal treatment. To these must be added climate, diet, and different forms of mechanical and electrical stimulations. The general uses of these elements of treatment were described. Speaking generally, spa treatment dealt with chronic conditions and with slight ailments—conditions which often eluded the general practitioners or for which medical advice was but seldom sought in ordinary practice. It was addressed to the removal of intractable and fluctuating constitutional states; it concerned itself with the earliest manifestations of disorder and the prevention of serious disease. Some common phrases of "disordered function" were described, and the use of balneological remedies in painful affections of the muscles, fasciæ, and joints. The misleading terms "rheumatism" and "rheumatic" should be abjured. The qualifications and equipments of the spa practitioner were described and the commonest dangers of spa practice. The spa physician was himself tempted to superficiality, to hurry in his work, to forsake the paths of science, and to become indifferent. He must remember that there was no oblivion. It had been alleged that balneological treatment was empirical. This allegation was examined. Science substantiated true empiricism. The privileges of the spa physician included the opportunity of co-operation with his medical colleagues, and especially in connection with such a Society as the Balneological, of contributing to the common stock of knowledge. The practical balneologist must always remember the psychological factor in his cases and in his treatment, which was addressed to the removal of disorders, in which sometimes the mind played an important part. Above all there must not be lacking to the physician a true intelligence of his patient, a personal regard and hope.

South-West London Medical Society.—At a meeting on December 14th, 1898, Dr. J. J. M. Dunbar, President, in the chair, Mr. H. Temple Mursell read a paper on Some Points in the Diagnosis and Treatment of Urethral Stricture. After referring to the causes of stricture and of the difficulty in treatment of traumatic stricture, and to the chronicity of disease of the urethra as a determining cause of stricture rather than its acuteness, the lecturer discussed the symptoms of stricture in detail: (1) Difficulty in passing water, the most common complaint, might be produced in adults under 50 by other causes than stricture, as by a diminished expulsive force, and in those over 50 the probability of enlarged prostate must not prejudice the mind against the possibility of stricture. (2) Diminution in the size of the stream usually came on gradually, but this might be found in cases of swollen prostate due to prostatitis or masturbation, or obstruction and dilatation of Cowper's duct. Impairment of stream and difficulty in micturition might be found in certain spinal cord lesions, and these were usually accompanied by dribbling of urine, at first at night and later by day, due to the accumulation of urine in an atonic bladder and later to the paralysis of the sphincter. (3) Hæmaturia, an infrequent symptom, when it occurred spontaneously, was most usually caused by bleeding about the neck of the bladder due to straining. Renal hæmorrhage might sometimes occur as the result of sudden loss of support from the distending urine when the latter was drawn off rapidly, and might be very alarming in its amount. In the diagnosis of stricture the usual *bougie à boule* was advocated, the use and advantages of Leiter's urethroscope explained, and the fallacies most commonly to be guarded against, as a swollen Cowper's gland or an impacted calculus, were referred to. As to treatment, beyond those strictures easily amenable to the usual process of dilatation with bougies, very small tight strictures might be safely negotiated by means of the tapering flexible "whips" introduced by Mr. Reginald Harrison, or, with more care, by flexible whalebone bougies, while for resilient and hard cartilaginous strictures internal urethrotomy must be adopted. Mr. Mursell advocated for this the use of the Maisonneuve type of internal urethrotome as most generally applicable, since it could be used without previous dilatation, his experience being that there was no serious danger from hæmorrhage to be feared from its use. A discussion followed, in which the President, Mr. T. A. J. Howell, Mr. Quiller, Drs. Roe, Mackintosh, Duke, Mr. Deas, Dr. Barkwell, and Major Mark Robinson, I.M.S., took part, and a cordial vote of thanks was given to the lecturer.

Glasgow Obstetrical and Gynæcological Society.—At a meeting on December 21st, 1898, Dr. Alex. Miller, President, in the chair, Dr. Edgar showed (1) Retroflexed Fœtus; (2) Exencephalic Embryo of four weeks; (3) An Anencephalic Embryo of four weeks; (4) A Placenta Duplex from a case of placenta prævia centralis.—Dr. Miller

also delivered an interesting address on Twenty Years' Obstetric Practice. This embraced a consideration of 1,000 cases. He referred to many complications, such as eclampsia (2), placenta prævia (5), and to the operations he had performed, such as forceps (125), version (8), induction of premature labour (11). The most interesting of all the cases was probably the one of acute inversion of uterus produced by the woman in attendance dragging on the cord. Dr. Miller found no difficulty in reducing the inversion, which was complete. The fatal cases were six in number. The causes of death were enteric fever, phthisis, valvular disease of heart, cerebral congestion, placenta prævia centralis, puerperal septicæmia. The maternal mortality was thus really only 0.2 per cent., as in only the two last-mentioned cases could the fatal issue be attributed to the labour and puerperium.

Newport Medical Society.—At a meeting on December 7th, 1898, Mr. H. E. Williams (President) in the chair, Dr. Garrod Thomas read notes of a case of Aneurysm of the Descending Aorta and showed the specimen.—Mr. C. Brooke Gratte showed (1) a case of Leucodermia; (2) a case of Nævus of the Tongue.—Mr. P. H. Hacquoil showed a case of Spinal Irritation after Injury.—Mr. C. S. Vines showed a case of Muscular Atrophy following Accident.—Dr. R. J. Paton showed a case of Paralysis of Leg after accident.—Dr. Thurnam (Bristol) read a paper on the Open-air Treatment of Phthisis, describing especially the course followed by Dr. Walther at the sanatorium of Nordrach. The paper was of special interest, and Dr. Thurnam was heartily thanked for the same.

REVIEWS.

Ueber die Wirkung des neuen Tuberculins TR auf Gewebe und Tuberkel bacillen. [The Action of the New Tuberculin TR upon the Tissues and Tubercle Bacilli.] Von Dr. H. Stroebe. Jena: Gustav Fischer. 1898. (Roy.8vo, pp. 114. M.3.)

It is now more than eighteen months ago since Professor Koch introduced his new tuberculin preparations.[1] It cannot, however, be stated that subsequent experiences with tuberculin TR have been such as to lead to its extensive employment. The very first essential before such an agent can be universally used is that its action upon animals, both healthy and tuberculous, should be thoroughly known. From this point of view Dr. Stroebe's work becomes a most important contribution to the subject, and his conclusions, based on minute study, are well worthy of attention. His experiments were carried out chiefly on the guinea-pig, which is very susceptible to tuberculosis, and a few only on rabbits. Their main object was the cure of animals already infected, but an attempt was also made to immunise animals against tuberculosis.

A few days after the animal was infected with a pure and virulent culture of the tubercle bacillus the injections of TR were commenced, and were repeated at first every other day. In another series of experiments as long a time as a fortnight elapsed before the injections were given. In one instance—a guinea-pig, which was allowed to live for seven months—two courses of treatment were instituted. There was an interval of three months between the two, and the animal was killed about a month after the commencement of the second course. The author then records his investigations into the course of the tuberculosis in these guinea-pigs under the TR treatment. He ascertained the action of the remedy upon the tubercle bacilli themselves by making inoculation experiments with the organs and tissues which showed signs of tuberculosis. The effects upon the organs were also investigated as well as the behaviour of the inoculation wound. The experiments as well as the naked-eye and microscopic appearances of the diseased organs are given in full detail.

In the first place Stroebe says that he has never been able to cure tuberculosis experimentally. The animals systematically developed the disease, which spread to the organs. It was only at a later period that any restraining action upon the extension of the tuberculosis became apparent. Two phases were noticed in the tuberculosis under the TR treatment: (1) An inflammatory and proliferative process in the tuberculous focus. This inflammatory reaction was less marked than in the case of the old tuberculin. The author does not look upon this reactionary phase as in any sense curative. (2) A development of a dense spindle-celled tissue, which took the place of the large-celled tuberculous tissue. Thus a cicatricial contraction of the organs was produced, and time was provided for regenerative changes. These later changes are really traceable to the diminished virulence of the tubercle bacillus under the tuberculin treatment. This diminished virulence is to be looked upon as a decidedly favourable action produced by the TR tuberculin. There was no question here of any killing of the tubercle bacilli and the tubercles in a general sense did not disappear.

In regard to the action of TR upon healthy animals Stroebe found distinct evidence of parenchymatous degeneration in the organs, but it was less marked than in the case of the combined tuberculosis and TR treatment. In the experiments upon immunity the author was unable to demonstrate any protective action against tuberculosis. Professor Koch, it is true, claimed that he was able to immunise animals against tuberculosis by the injection of tuberculin TR, but the full details of these experiments have not been published. Other investigators have been, like Stroebe, unable to confirm these conclusions, with the exception of Beck. This last-named writer has quite recently published his experimental researches into the TR treatment, but a sure immunising action was not definitely proved.

In Stroebe's experiments on rabbits the tuberculosis ran a more favourable course under the TR treatment than in the case of guinea-pigs, owing to the lesser susceptibility of the first-named animals. The author thinks that this favourable action is to be looked upon as supporting the view of the restraining effect of TR upon tuberculosis. The immunisation of healthy rabbits was not attempted, owing to the uncertainty of the development of tuberculosis in these animals after inoculation.

It is impossible to read Dr. Stroebe's excellent work without feeling how far we still are from an efficient bacteriological treatment of tuberculosis. The very threshold of the inquiry has hardly been crossed if it is still impossible to immunise animals with certainty against this dreaded disease. The great value of Dr. Stroebe's well-planned and carefully carried out investigation lies in the fact that the exact position of the subject is clearly set forth by it.

Clinical Observations on 2,000 Obstetric Cases. By G. Porter Mathew, M.D.Cantab., late Scholar of Trinity Hall, Cambridge, and University Scholar, St. Mary's Hospital, London: Simpkin, Marshall and Co. (Demy 8vo, pp. 71. 2s.)

Dr. Mathew has attended 2,000 cases of labour—mostly at Queen Charlotte's Lying-in Hospital; he has intelligently watched them, taken notes of them, analysed his notes, reasoned about them, and published the result in this most creditable little book. Although the author's limited experience may prevent those who study midwifery from thinking his opinions quite so weighty as those of distinguished foreign obstetricians who have spent the best part of their professional lives in the supervision of well-organised lying-in hospitals, yet he has given us one of the most considerable contributions to the science of midwifery that England has produced for a good many years. It must be matter of regret to many that our lying-in hospitals are so little used for the purpose of scientific observation.

Turning to a few of the practical points to which Dr. Mathew directs attention, we may note his commendation of the practice of manually rotating the occiput to the front in difficult occipito-posterior cases—a practice recommended by Ramsbotham, overlooked by most subsequent writers, and recalled to professional attention by Dr. Herman.

Dr. Mathew gives an original, and we think a reasonable explanation of the varying mechanism of dorso-posterior breech labours. He attributes the occurrence of hyper-

[1] See also British Medical Journal, April 16th, 1897.

rotation or not, as the case may be, to the position of the shoulders with relation to the sacral promontory. If the breech rotates so completely that it is born with the bis-iliac diameter exactly in the antero-posterior diameter of the pelvis, then the front of the shoulder is in contact with the sacral promontory, and the body goes on rotating in the same direction as at first. But if the bis-iliac diameter does not rotate into the antero-posterior diameter of the pelvis, then the back of the shoulder meets the sacral promontory, and the trunk does not go on rotating, but moves back into the diameter it at first occupied.

A study of puerperal temperature charts has convinced Dr. Mathew that the accounts so often given of cases of puerperal septicæmia, in which the progress of the case is said to have been perfectly satisfactory until the third or fourth day, or even later, are probably erroneous. He has failed to find a single instance of perfectly satisfactory progress followed by septicæmia. There are always present signs and symptoms of mischief before the rigor. This is important, because, as Dr. Mathew says, if septicæmia is to be successfully treated, it is to these early symptoms that we must look for warning. The first thing in treatment is the early exploration and thorough evacuation of the uterine cavity, a method of treatment upon which undeserved discredit has often been brought because it has been deferred too long.

Lastly, we may mention that Dr. Mathew has given much trouble to improving the construction of the axis-traction forceps.

Leçons de Clinique Chirurgicale, faites a l'Hôtel-Dieu. Août-September, 1897. [Surgical Clinical Lectures delivered at the Hotel-Dieu.] Par Pierre Delbet, Professeur Agrégé. Paris: G. Steinheil. 1899. (Royal 8vo, pp. 376. 27 Illustrations. Fr. 8.)

This work embodies a series of twenty clinical lectures delivered by Professor Delbet. The subjects range from Dupuytren's contraction to appendicitis. Where all the lectures are of unusual excellence, it is a matter of some difficulty to select those which may be considered the best. Perhaps those on "Cicatricial Contraction of the Œsophagus," on "The Treatment of Hydatid Cysts of the Abdomen" (three lectures), and on "Congenital Thyro-hyoid Cysts" are in their vividness of description, conciseness of presentation, and apt illustration the most likely to impress the reader. That on "Dupuytren's Contraction" makes no reference to the work of Anderson, which is quite the most important contribution yet made to the subject. Two very interesting cases of complete twist of the whole of the small intestine and its mesentery are recorded. The condition is briefly mentioned by Albert alone among surgical authors. In discussing, as a pupil of Trélat, the operation of uranoplasty, M. Delbet advocates delay, and vigorously emphasises the importance of exercise for the palate muscles.

The lectures are, without exception, full of interest, and are written with a breezy freshness of style and with a candour that render the book unusually fascinating.

Osservazioni e Note Epidemiologiche sulla Recrudescenza della Epidemia di Peste Bubbonica in Bombay, nel 1897-98 [Observations and Epidemiological Notes on the Recrudescence of Bubonic Plague]. Per Drs. G. Galeotti e G. Polverini. Torino: Rosenberg and Seller. 1898.

In their 37 pages of letterpress and 6 illustrative tables and charts the authors have given a clear account of the course of the recrudescence of the plague in Bombay from July, 1897, to May, 1898. It is not overburdened with statistics nor prejudiced by the desire to prove or disprove any given theory on the subject; it aims solely at giving a plain unvarnished tale of what actually occurred. They point out the inverse relation which existed between the height of the temperature and the intensity of the epidemic, and by means of charts show that, contrary to what might be expected, the atmospheric conditions which appeared most favourable to the growth and development of the bacillus were just those in which the intensity of the plague was least and *vice versâ*. If this inverse relation between the temperature and the prevalence of the plague were universally observed throughout India, it would tend strongly to support the authors' view that the increase of plague was rather due to some adverse condition in the subjects than to an increase in number or virulence of the bacilli. It would then follow that treatment should be more strongly directed towards strengthening the resisting power of the organism than to the mere destruction of the bacillus, important as this is. In fact, in their conclusions, the authors say the course of the epidemic was very little if at all influenced by the energetic measures taken to cope with it, and that it decreased just when these—for example, separation of the sick, house-to-house visitation, disinfection, etc.—were less rigorously applied owing to disturbances in the city.

Flashlights on Nature. By Grant Allen. London: George Newnes Limited. 1899. (Crown 8vo, pp. 312; 150 illustrations. 6s.)

This little book is eminently suited to the country practitioner who has time enough and good taste enough to spend some of his rare leisure in the contemplation of Nature. Fortunately there are many men of this type in the United Kingdom. The wearied urban doctor may enjoy this work even more when he takes a rural holiday. Observation of the flora and fauna of the district is a most wholesome intellectual diversion, and the book will be found well fitted for boys, and is certain to interest all sound-minded adults whose rural tastes are above those of Bunyan's character, the man with the muck rake. There are some who say that certain men, not exclusive workers with that agricultural implement, are in these days "science hardened," so that Nature with a capital N does not appeal to them, and that "natural history" has been spoilt by science.

Mr. Grant Allen attempts, not without success, to make a judicious blend. Perhaps the most typical chapter in the book is the sixth, entitled, "Those Horrid Earwigs." Mr. Grant Allen shows that earwigs are not horrid. They do not spend their time in getting into people's ears; they are not ugly—on the contrary, they are very beautifully proportioned; and lastly, their tails are not made to hurt or frighten their foes, but to tuck the insects' wings under the elytra. A series of beautiful drawings demonstrates the process. Again, the earwig has an incomplete aspect. He is clearly above a flea, but less than a beetle or a butterfly. Mr. Allen indicates a long chain of transitional forms of which the earwig is but one link.

As with the chapter on earwigs, so with the others. The author treats of the ways of the ant and the spider. With these invertebrates we find ourselves in the best of company, including two monarchs at least. The relations of the ant to the aphis are charmingly detailed. As to the spider, many of us have verily imitated her even as did Robert Bruce. One of the ribs of that monarch is in the museum at Lincoln's Inn Fields, so that he has a certain posthumous relation to modern science, though his knowledge of the sex and habits of his mentor would not satisfy a modern entomologist. Mr. Grant Allen seems quite in his element when describing the singular behaviour of the spider to her prey and her suitors. He recalls Alphonse Karr's *Voyages autour de mon Jardin*, and Mr. Enock must be congratulated on his excellent drawings of the processes of web spinning and fly catching. The book is evidence that modern science has done no harm to "natural history," but on the contrary, has introduced into it some of the accuracy which was lacking. A lady writer lamented a year or two ago that the naturalist who loved Nature, like White of Selborne, was extinct. This is quite a mistake, as Mr. Allen's chapter on the butcher bird or shrike will prove. He minutely details its habits, but the resources of science enable him to understand more about it than the Rev. Gilbert White could have done. It is now known that this insignificant-looking bird does not winter in the South of France, but actually crosses the equator and passes Christmas in South Africa.

Karr's style was very charming but very Gallic; he was more anxious to please his public by similes about stamens and pistils, and by describing how the spider eats her sweethearts, than to instruct them about webs, nor was he always accurate. Kirby and Spence undoubtedly knew how to unite natural history and science, but their style was a little heavy for their purpose, though they were scrupulously correct in their statements, so that their famous *Entomology* really

taught its readers. Mr. Grant Allen balances science and the observation of Nature as a pleasure perpaps more successfully than any of his predecessors in the same field.

NOTES ON BOOKS.

BOOKS ON CHEMISTRY.

CHEMISTRY, when properly taught, when, that is, practical laboratory work is made to go hand in hand with systematic lectures, is one of the best possible introductions to the study of the biological sciences. Unfortunately, like every other science which is made a compulsory subject in examinations, it has been exploited by the crammer, who too often resorts to shameless devices to force half-trained candidates to pass. Yet it is a subject in which a teacher who knows his business can induce most boys and lads to take an interest. We are, therefore, glad to welcome the second edition of *Practical Organic Chemistry*, by S. RIDEAL, D.Sc., F.I.C. (London: H. K. Lewis. 1898. 12 mo. Pp. 172. 2s. 6d.) the first edition of which was published in 1889. It contains a description of the tests that have been recommended for the detection of about fifty of the more important organic compounds (acids, carbohydrates, alkaloids, and neutral substances). The compounds whose properties are here described include those mentioned in the syllabus of practical chemistry for the intermediate M.B. examination of the University of London. The book may, however, be recommended to any medical man who wishes to have a handy work of reference on qualitative organic analysis. The more characteristic reactions are indicated by an asterisk. Alterations rendered necessary by the new edition of the *British Pharmacopœia* have been noted, and several compounds which were not included in the first edition of the book are now described. A feature of the book is the absence of a chart or table of analysis. The student is thus obliged to go through the various tests himself honestly, and, having learnt by experience their relative value, will be in a much better position for investigating a particular case than he who has merely learned a "table of analysis" by heart. The student who knows nothing of analysis beyond the "chart" will find himself utterly unable to cope with any case that had not been thought of by the person who drew up that "chart," and it is quite impossible for a chart maker to foresee everything, especially when he has to deal with organic compounds. The widespread use of these short cuts to knowledge have rightly brought "test tubing" into disrepute, and it is a hopeful sign that Dr. Rideal's little book should have attained a second edition.

The *Introduction to the Study of Organic Chemistry*, by JOHN WADE, B.Sc. (London: Swan Sonnenschein and Co. 1898. Cr. 8vo, pp. 480, 11 illustrations. 7s. 6d.) is intended for beginners, but covers the ground expected to be studied by candidates for university degrees. The author states that the proof sheets have been collated with Beilstein's standard work to ensure accuracy, and that his object has been to treat the subject experimentally, hypotheses being introduced as the facts require them. The relations between the structural formulæ of a parent substance and its derivatives are exhibited in a large number of diagrams resembling genealogical trees. If chemistry is to be of educational value, anything approaching vague or careless phraseology ought to be rigorously avoided in a textbook intended for students. Mr. Wade is not always mindful of this rule. Thus he says: "The theory of structure postulates that this is effected by actual linking, and that the atomic linkages may be symbolised by bonds." Surely this will be understood by a beginner in a grossly material sense. Would the author say that the earth was linked by one bond to the moon and by another to the sun? On the same page (63) we read: "Oxygen combines at the most with two other atoms." Doubtless the author omitted the words "one atom of" at the beginning of the sentence. On page 31 we read that, when acetic chloride is kept in a bottle in contact with sodium amalgam, it is slowly reduced by the moisture that enters. Would not the reader suppose that moisture was a reducing agent? The equation given for the preparation of acetic chloride has been shown by Dr. Thorpe to be incorrect. The somewhat bald statement on page 123 that ethylene oxide is a strong base would lead most students to suppose it was alkaline. On page 146 we read: "The crystals of optical isomerides are usually hemihedral, that is to say, *only* their alternate faces are developed" (the italics are ours). We were rather surprised to read that ether smells like peppermint only sweeter, and that the natural paraffins are all normal; further, it may be doubted whether nitroglycerine can be hydrolysed by alkalies to glycerol and alkali nitrate.

An Elementary Course of Practical Organic Chemistry, by F. C. GARRETT, M.Sc., and A. HARDEN, M.Sc., Ph.D. (London: Longmans, Green, and Co. 1898. Crown 8vo, pp. 80. 2s.) is especially intended for use in technical schools and colleges. It will, however, be found useful by anyone who wishes to improve his knowledge of organic chemistry by making a few "preparations." Careful details are given of the best way to prepare for oneself, without using expensive apparatus, such substances as marsh gas, acetylene, alcohol, oxalic acid, acetic ether, and urea. Illustrations are given of several of the processes, and the authors describe tests by which the purity of the products may be recognised. The descriptions are clear, and should be easy to carry out.

Mr. NEWTH is to be congratulated on having produced an exceedingly handy and well-arranged textbook in his *Manual of Chemical Analysis, Qualitative and Quantitative* (Longmans, Green, and Co. 1898. Crown 8vo, pp. 462. 6s. 6d.). Qualitative analysis occupies 188 pages, and although the various reactions are concisely described, yet they are so carefully explained that a student cannot help learning a large amount of scientific chemistry while engaged in his analytical work. In his letterpress Mr. Newth has avoided the use of what he calls "slang formulæ," such as H_2T for tartaric acid; but it is to be regretted that he has nevertheless constantly used formulæ instead of names. The student ought to learn that a formula indicates one molecule of a substance, and is not merely a shorthand way of writing a name. The care given to description of details of manipulation is very evident, and descriptions are further illustrated by photographs of operations actually in progress. Indeed, one would have thought that in many cases it was unnecessary to go into such minute details, except in a book intended for students not under the guidance of a competent teacher. The space employed in explaining how to place weights on the pan of a balance would, for instance, have been more usefully devoted to a description of the method of weighing by oscillations. In the account of the contents of a box of weights the reader is given an erroneous impression that riders always weigh a centigramme: the student should have been warned not to use one of Becker's riders on a balance by Oertling. Under quantitative analysis are described determination of metals and acids, some typical cases of separation, volumetric analysis, gas analysis, and ultimate organic analysis. The student should have been told that the method given for estimation of sulphur in organic compounds is not always trustworthy. Notwithstanding these few criticisms, this short textbook of analysis is much to be recommended.

MEDICAL SCHOOLS IN THE UNITED STATES.—According to the latest statistics of medical schools in the United States, Chicago ranks first in order as a medical centre, with over 2,500 medical students; Philadelphia comes second, with upwards of 2,300 students; New York shows a decrease in attendance from 1889 of almost 200, giving her the third place, with 1,900 students; St. Louis ranks fourth, with about 1,400 students; Baltimore has 1,300 students.

SMALL-POX IN CUBA.—A report recently made to General Wood by Captain R. S. Woodson, surgeon of the United States Army, who accompanied Colonel Hood's six companies to Gibara, states that there are more than 5,000 cases of small-pox in Holguin and its vicinity, and several hundred at Gibara. The disease prevailed epidemically for more than three years without interruption, the Spanish and Cuban authorities making little intelligent effort to overcome it. The type of the disease is most malignant and the recoveries few. The mortality is increased by the unhygienic modes of living. Captain Woodson advises sending no more troops till the epidemic is checked, or the isolation of the sick accomplished. He established at Gibara a small-pox hospital with 150 beds, and isolated 200 cases.

REPORTS AND ANALYSES

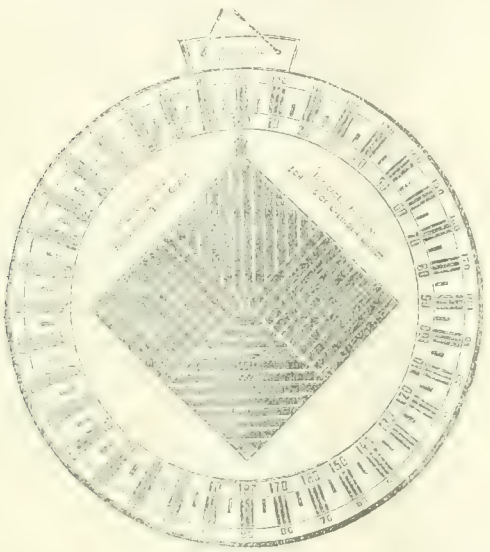
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

An Astigmatic Test Chart.—We have received from Messrs. J. Raphael and Co., 51, Clerkenwell Road, E.C., a specimen of an astigmatic chart invented by Mr. E. Beaumont, of Huddersfield. It consists of a stationary disc divided into radiating degrees numbered on an outer circle, and there is also an inner circle which is numbered in such a way that the degree numbers on the inner circle are those which are at right angles to the degree numbers on the outer circle. The chart has a revolving centre piece made in the form of a

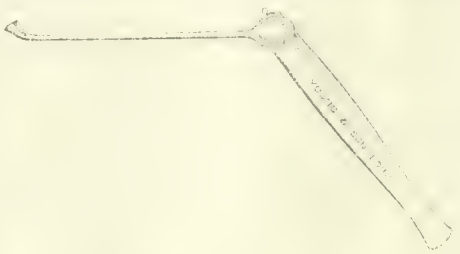


square, which is divided into four smaller squares, on which are black lines forming angles of 45°, 90°, 135°, and 180°, with the horizontal points. When the lines on the square to which the pointer is fixed appear the blackest and most defined, the number on the inner circle to which the indicator points will show the degree number on the trial frame at which the cylinder should be placed. This invention may simplify in a slight degree the finding of the angle of the cylinder, especially in those people whose appreciation of small differences is not great, though even here we are dependent on the patient's statements. This invention, though perhaps useful, is hardly likely to take a prominent place among the instruments which are already used in the estimation of refractive errors.

A Graduated Pocket Probe.—Mr. Collingwood Fenwick, M.R.C.S., L.R.C.P., L.S.A., has designed this instrument, by the use of which the exact dimensions of any wound can, he points out, be gauged. It was for this purpose that he utilised the idea of marking off into inches the ordinary silver probe in daily use. He thinks the graduated probe—which costs the same as the plain one—will be especially serviceable to those practitioners who, by the nature of their occupation—house surgeons, police-surgeons, etc.—are frequently called upon to give evidence and to describe exactly the nature of injuries suffered. The instrument was made for Mr. Fenwick by Messrs. Down Bros., and costs 2s. in silver.

Pictet's Ethyl Chloride Spray.—Since the notice of this apparatus which was published in the British Medical Journal of September 3rd, page 635, Messrs. Christy and Co. have introduced a further modification which they claim as an undoubted improvement. Each tube has now two nozzles, one for a very fine spray, adapted for dental work, and the other an ordinary coarse spray. Whether the modification is so marked an improvement as the agents claim, or whether one nozzle is not enough for all ordinary work with the spray, is, however, open to doubt. At any rate, ethyl chloride is extremely volatile, and at ordinary temperatures in this country rapidly evaporates; unless, therefore, each cap fits its nozzle very accurately, the contents of a tube may soon be dissipated. The risk of this mishap, which to our cost we know to be a real one, is of course doubled by two nozzles being fitted to each apparatus.

Nasal Curettes.—These instruments, illustrated in the drawing, have been designed by Dr. G. Hunter Mackenzie, of Edinburgh, for the purpose of performing *curettement* of the nasal mucous membrane. Each curette consists of a handle and a blade jointed together in such a way as to permit of their being flexed to, and fixed at, any angle that the operator may desire. The curettes, of which there are five in a set, vary according to the size, shape, and angle of their scraping points. They have been made for Dr. Mackenzie by Messrs. Young and Sons, Forrest Road, Edinburgh.



A Urethral Syringe.—At the suggestion of Mr. Ralph Stoney, L.R.C.P. and S.I., Messrs. Arnold and Sons have made a urethral syringe which is a modification of one made by them for him, and described in the British Medical Journal last year. The syringe consists of a reservoir to hold ʒ ij, with a pipe 5½ inches in length (size No. 8 or 9 catheter). Mr. Stoney writes: The earlier form had the pipe channelled on the exterior to allow of the free return of the injection. I find this channelling can be dispensed with if my instructions for using the syringe are carefully carried out, which are as follows: The syringe being filled in the usual manner, the pipe is to be dipped in carbolic oil. Gently insinuating the nozzle into the meatus by a rotatory motion, the pipe is made to glide slowly in to its full length; no pressure is to be made on the penis, which is allowed to lie in the hand. The reservoir is to be slowly compressed, and the injection will be found to return by the side of the pipe. To the advantages which I claimed for this syringe in the treatment of gonorrhœa over other syringes, I may add that the passage of a pipe 5½ inches in length and stated diameter tends to prevent the possibility of stricture in the spongy portion. This syringe will be found much cheaper in price than my previous instrument, and, as the pipe is of gum-elastic, less formidable to a nervous patient. I have used this form of syringe for the last ten years in the treatment of gonorrhœa, and have found it most efficacious.



Permanent Hospitals for the United States Army.—It is announced that preparations are being made for the construction of pavilion hospitals on a large scale in Cuba. It has also been decided to erect a hospital of 1,000 beds at Fort Monroe, and another of the same capacity in Savannah; a hospital of 500 beds in San Francisco, and of smaller hospitals in various other localities, bringing the Government's total hospital capacity, exclusive of outlying possessions, up to between 5,000 and 6,000 beds.

AN ADDRESS BY DR. J. G. GLOVER ON THE PROFESSION AND THE GENERAL MEDICAL COUNCIL.

We have received the following for publication:

Fellow Practitioners,—I have always been of opinion that the chief way in which his constituents can judge as to how a direct representative discharges his duty is by reference to the part he plays and the work he does on the Council, but the absence of frequent opportunities of addressing any large number of one's constituents directly at any length on matters affecting the profession makes the use of occasional opportunities of doing so more agreeable to me as it is respectful to you.

I have headed my address, "The Profession and the General Medical Council." According to my view the profession is much greater than the General Medical Council, and the Council is only great in proportion as it reflects and represents all that is best in the profession. True, it is supposed not to represent the profession only but the State in its relations to medicine—relations which are growing in number and in gravity every day and which have no slight bearing on the subject of direct representation, as I shall hope to show. I think the present moment is a peculiarly fit one for reviewing our legal position, and considering where we are and what is our duty as a profession. Two or three prosecutions under the Medical Acts have lately taken place in which to ordinary lay minds the accused persons had glaringly violated the penal clauses. I refer particularly to the Norwich case, the Eastburn case in Scotland, and, last of all, the case of Steel in the county of Durham.

The boldest champion of the sufficiency of the existing Acts may well begin to have misgivings, and we are all practically agreed that the amendment of the Acts has become urgently necessary if the profession and the public are not to be injured grievously by the defiance of the most arrant quacks under cover of law apeing all the functions of medical practitioners, including that of giving certificates of all sorts and quasi-certificates of death, which are accepted generally by the Registration Department of the State. This monstrous state of matters is not the only reason why we should seek an amendment of the Medical Acts, and review the relations of the State to the profession. There are others. The complete breakdown in the legal provisions for securing universal vaccination and of the public arrangement for teaching students how to vaccinate are among the most grave facts of recent history. In spite of the compliments paid, and honestly paid, by leading statesmen to the medical profession, it has still to fight for the due recognition of its rights and of its authority as a factor in legislation. I tried to show at the recent meeting of the General Medical Council how much depends in the present crisis of vaccination lawlessness on the private and quiet influence of the medical profession, and I have no reason to complain greatly that the consideration of this view was rather deferred than rejected by members of the Council and by Sir Richard Thorne himself, who of course believes in the high official view of this great public question. But the full effect of this quiet influence of the profession through its general practitioners is hindered by the small number of such practitioners on the Council as direct representatives in proportion to the overwhelming numbers representing teaching and examining bodies. The effect of this "disproportion'd sin" is constantly felt by the direct representatives, the more so as there is no direct representation of members in the councils of the individual qualifying bodies, and but a very indirect and ineffectual representation in the councils of the universities. No opportunity should be lost of introducing the principle of direct representation into the government of the individual bodies and of extending the direct representation in the General Medical Council. It is only by such extension of the principle that the agitation of those who advocate it can be allayed, and that the full and beneficial influence of the profession as a whole can be brought to bear on medical education and on legislation for such amendment of the Medical Acts as is admitted on all hands to be necessary.

There may be differences of opinion as to the best means of securing the fuller representation of the profession in the General Medical Council. Some advocate a change in the law defining the individual bodies as consisting of Licentiates, Members, and Fellows, or, in the case of the universities, of the whole body of graduates. By this change it is supposed that the practitioners of the country would make themselves felt more effectually in the government alike of the individual bodies and of the General Medical Council. Others look rather to such changes in the charters or in the law as shall introduce direct representation into the medical corporations and extend it in the case of the General Medical Council. My own belief is that the reform will come sooner in the way of direct representation, which having been already conceded by Parliament in the case of the General Medical Council cannot reasonably be withheld in the case of the individual bodies. That the governing councils of these bodies should set themselves against such a reform has always surprised me. The opposition is a survival of the feelings which ruled in the Medical Corporation eighty years ago, and which was expressed by Mr. Abernethy as an answer to the just demands of Mr. Wakley and his followers for a reform of the constitution of the Royal College of Surgeons of England. The following words occur in the course of a document presented by Mr. Abernethy, and entitled, "Observations in Refutation of Charges publicly made by certain Members of the College against its Legally Constituted Authorities."[1]

"It is represented that the constitution of the College has been the cause of the alleged injuries and grievances.

"The evident object of this representation is the subversion of the present government of the College and the substitution of elections to offices of control and responsibility by members who for the most part exercise the professions of apothecaries and accoucheurs. There can be little doubt that in the event of such an innovation the institution would soon cease to be a College of Surgeons or of Surgery, and a system of continual intrigue and cabal amongst the profession in general would be introduced."

The existence of such feelings in the heads towards the rank and file of the profession two or three generations back was bad enough; it is now quite indefensible when the apothecary is also a surgeon in the eye of the law, if not a physician also—a point upon which we may have soon an authoritative legal deliverance—when there are no fine lines of demarcation between the different grades of practice, when the difference in the severity of the examinations of the various Examining Boards is less, and when degree and diploma alike constitute a licence to practise the art of medicine in all its three equal branches. Surely the time is fully come for the governing bodies of our great corporations to do tardy justice to their own members by giving them a voice in the management of their own corporations. Such an act of justice would do more than anything else to harmonise the profession and to raise it in the estimation of the public. It cannot be expected that the public should treat the profession with due respect when universities give their graduates and medical corporations give their members so little function, denying them all "offices of control and responsibility."

The feelings of distrust and disrespect towards the rank and file which are expressed in Mr. Abernethy's refutation surviving still in the corporations almost necessarily survive in the General Medical Council, which is made up so predominantly of the representatives of corporations and universities. But I have been long enough a member of the General Medical Council to believe that they are undergoing insensibly a considerable modification, and that with a little more mutual consideration between official and direct representatives a very valuable amount of harmony and co-operation between different sections of the profession would be reached which would tell immensely in advancing medical education and the social and political position of the profession.

It is only fair to say that even with its present constitution the General Medical Council has done something for the profession. It has, with a few regrettable exceptions, given a fair and respectful hearing to the direct representatives, and it has put them into its various committees and its offices of trust, it has wellnigh abolished the unqualified assistant. It has presented to the Government a unanimous

[1] *Lancet*, May 30th, 1896 p. 1514.

report on the principles which should regulate legislation on midwives. If these should be adopted by the House of Commons "quacks" will be abolished and the practice of midwives will be shortly regulated by a board and all doubtful "labours" will quickly be brought under the notice of a registered medical practitioner. The General Medical Council has started fairly on a course for securing a fit preliminary education for those entering the profession. No doubt the Council has been late and long in accomplishing some of this creditable work, but let us generously admit that it has done it and that the chief promoters of it have not all or always been direct representatives, though these have taken an important part, and on one memorable occasion had their valuable work somewhat rudely appropriated by others. The General Medical Council further has slowly constructed a set of Standing Orders regulating *inter alia* the procedure of the Council in its penal action against any accused member of the profession, and requiring that such accused person shall be supplied with "the particulars" of the charge against him. It has lately, on the motion of Sir J. Batty Tuke, resolved that no case of complaint shall be considered by the Penal Committee until a statutory declaration as to the facts of the case has been supplied by the complainant. Finally, the General Medical Council, with all its faults, has some interesting features compared with other medical authorities. First, it is the only medical body which acts openly. Its discussions, with few exceptions, are open to the public, and are reported by the medical press and by a considerable section of the lay press. Secondly, the General Medical Council is in its composition a broad and comprehensive body. It represents all the medical authorities, the Crown, and, though imperfectly, the registered practitioners of the empire. I should gladly see it a smaller, but I should be sorry to see it a less representative, body than it is.

These are a few features of the Council which make it an interesting body. However critical we may be we can afford to recognise them and admit that they tend to benefit the profession as well as the public. We may go further and admit that the profession has been benefited. I shall immediately speak of matters needing reform, but I should think it impolitic and unjust to be pessimistic in tone in speaking of the condition of the profession now as compared with the period before the establishment of the General Medical Council and not to recognise improvements in the status of the profession. The numbers in the profession are excessive, but the openings for medical work in the empire have been greatly multiplied by its growth and by reason of the development of sanitary legislation. It is difficult to compare the position of the medical practitioner now with that position prior to the Medical Acts. We are all apt to be oblivious of the grievances of former days, and to place our predecessors in idyllic conditions. But I should be sorry to exchange the conditions of the present day with those of the ante-Medical Acts period. There are many hardships now, but they will compare favourably with those of the former period, and I believe the position and the prospects of the medical man who does not adopt pessimistic theories to be better now than it was then. But with every disposition to allow that the General Medical Council is an interesting and useful body, and that its action has been such as to improve the education of the profession and its status generally, I must point out in conclusion some much-needed reforms in its own constitution and functions, and in the penal clauses of the Medical Act.

THE CONSTITUTION OF THE COUNCIL.

It is too large, and it is not sufficiently in touch with general practice for securing the competency of which it exists. Some of its most eminent members have said almost boastfully that they have never attended a midwifery case. A body which has generally met the demand for an increase in direct representation with the blank proposal of the previous question must be defective in its sympathies with a profession from which it derives its own honour and importance. I look upon the creation of the Conjoint Examining Boards by the Act of 1886 as the first step towards a one-portal system under which there will not be the case or the need for the individual representation on the General Medical Council of all the examining bodies conjoined for purposes of examination; they should be conjoined for purposes of representation. This reform would create vacancies which might be filled with non-direct representatives. My belief is that both as an educational and a disciplinary body the Council would be improved by such a change in its constitution.

THE FUNCTIONS OF THE COUNCIL.

The supervisory duties of the Council in respect of medical education and the standard of examination have reference only to the maintenance of a minimum standard securing a bare competency to practise. The Council has no power to inspect examinations of a higher class as such, or pretending to be of a higher grade, It seems obvious that some body of the profession should have the power and duty of inspecting and reporting on the nature of such ostensibly higher examinations, carrying generally, at any rate, higher titles than attach to the ordinary diplomas. Surely no body can so fitly be endowed with such powers as the General Medical Council, in which by its very constitution all bodies are represented.

THE LAX STATE OF DEATH REGISTRATION.

One of the most urgently needed pieces of legislation is that which would make it essential for the registration of a death to have either the certificate of a registered medical practitioner or that of a coroner as to the cause of death. Pending such legislation, there are large districts in which a statement of the cause of death by a herbalist or any other quack seems as valid for registration purposes as the certificate of a medical man. The Council has taken, partly at my instigation, much trouble to bring this amendment about. The President (Sir William Turner) has been most painstaking in his communications with Government. So far nothing effective has been done. But the Council is still vigilant and active in the matter.

THE PENAL CLAUSES OF THE MEDICAL ACTS.

I have already referred to the glaring inefficiency of Section XL of the Medical Acts as illustrated in the cases I have mentioned. The failure in some of the cases many have been due to the faulty way in which they have been prepared, but this will not suffice to explain all. The uncertainty of getting a verdict is so great as to invalidate the Medical Act of 1858 in its chief purpose, namely, that of "enabling persons requiring medical aid to distinguish qualified from unqualified practitioners." To facilitate such a distinction is surely the very least that law can do for a profession on which it lays such heavy burdens of education and duty. It should do much more. It should punish not only the assumption of all misleading titles by unqualified practitioners, but all practice by them as being essentially against the public interest. Apart from legislation or any change in the constitution of the General Medical Council there are reforms of procedure, penal and general, which would expedite the Council's business. I supported most of the proposals to this effect by Mr. Horsley at the late meeting. I have long urged an enlargement of the Penal Committee and more frequent meetings of it—so far unsuccessfully. Mr. Brown advocated the delegation of the penal business, in the first instance at least, to the Branch Councils. I supported this proposal. But so far we have not succeeded in any plan for making this committee so large and representative as it ought to be. We have, however, succeeded in making it liable to change by annual election.

On the whole, I am not hopeless of considerable reforms. But even with the present constitution of the Council, if they are to be achieved two things are necessary. First, that some attempt be made to secure union in the Council and in the profession. If this cannot be procured, we may give up all hope of any help from Parliament or ministers. Unless we appeal to Parliament with a united front we had better abandon all hope of legislation. Next to union in the Council and in the profession our best hope of amendment in the Medical Acts is in making practical proposals. The extreme reformers and the extreme admirers of things as they are neutralise each other and stop all progress. Parliament is heavily handicapped with work, and has a great dislike to undertake medical legislation. Such legislation appeals to no mere political interest, and past and recent experience may well suffice to show us what blind forces may be let loose in

opposition to the claims and the authority of those who represent medical science. But if a strong committee could be appointed and could agree on reasonable changes in the Medical Acts, we might succeed in getting a short amending Act through. For some of the reforms which I have advocated we can scarcely expect the support of the representatives of the bodies. They will have to be achieved from without. But for others I am not hopeless of such support. The General Medical Council is realising its great functions more and more every year. However small the number a member represents, he begins to realise that the profession is great, and that the Government and the public and the profession itself look to the General Medical Council to perfect its efficiency and its conduct.

NEW YEAR HONOURS.

SIR HENRY THOMPSON, BART.

SIR HENRY THOMPSON, upon whom the Queen has conferred the dignity of a baronetcy, was born at Framlingham in Suffolk in August, 1820. He received his medical education at University College, London, and took the degree of M.B.Lond. in 1851. In 1853 he became a Fellow of the Royal College of Surgeons of England, and in 1856 was appointed Assistant Surgeon to University College Hospital. He became Surgeon in 1862, a post which he retained until 1874, and he is now Consulting Surgeon to that hospital. He early turned his attention to the study of diseases of the male urinary organs, and in 1852 obtained the Jacksonian prize for an essay upon "The Pathology and Treatment of Stricture of the Urethra," and again in 1860 was awarded the same prize for an essay on the "Healthy and Morbid Anatomy of the Prostate," which was the foundation of his well known work on the diseases of that body, a sixth edition of which appeared in 1866. Perhaps the most striking episode in Sir Henry Thompson's career was his attendance upon the first King of the Belgians, the uncle of our Queen. The King was staying at Buckingham Palace about Christmas, 1862, and consulted Sir Benjamin Brodie, who found a stone in the bladder, and being asked who should operate replied, "Before all men, Civiale, of Paris." Mr. Henry Thompson, being asked the same question, made the same reply, having studied with Civiale in Paris. The great French surgeon was accordingly summoned to the King, and many sittings for lithotrity were held, but some fragment still remained in the bladder. The King was afterwards attended by Langenbeck. Finally, the King asked Queen Victoria to recommend an English surgeon. Mr. Henry Thompson was selected, and eventually obtained the King's consent to submit to a further operation, and at the second sitting the bladder was completely emptied, and the distinguished patient entirely recovered from his affection. Sir Henry Thompson received the honour of knighthood in 1867, and with the tact and fine feeling which distinguish him wrote to Civiale that he had really completed the King's cure by the hand of his very grateful pupil Henry Thompson. Civiale returned the compliment by demanding and obtaining from the Académie de Médecine the Prix d'Argenteuil for Sir Henry Thompson's work on the Prostate. Sir Henry Thompson in 1874 operated on the Emperor Napoleon III, but the condition of the patient forbade the hope of a successful issue. In addition to his works on surgery Sir Henry Thompson has written on many subjects on the borderland of medicine and literature, and has in particular dealt with the practical side of diet in a long series of essays, and in his well-known book on *Food and Feeding*. His work with regard to cremation is too well known to need more than passing reference, while we recently had to record that his interest in astronomical studies had led him to present an equatorial telescope to Greenwich Observatory. He is also an artist of no little skill, and many paintings of his have been exhibited at the Royal Academy and in the Paris Salon. Finally, it may be said that he has been for more than a generation the friend of men most distinguished in art and in literature, and that at his round table have gathered many famous guests, including Thackeray and Dickens.

SIR HERMANN WEBER.

The Queen has been pleased to confer the honour of knighthood upon Dr. Hermann Weber, Consulting Physician to the German Hospital, London. Dr. Weber was born in 1823, and studied at Marburg and Bonn. He took his degree in the last-named University in 1848, and was then appointed Assistant Physician at the University Hospital of Bonn. In 1851 he became resident to the German Hospital, Dalston, and two years later was elected Honorary Physician to that hospital; in 1889 he was appointed Consulting Physician. Some years ago he was elected Consulting Physician to the National Hospital for Consumption at Ventnor. He became a Member of the Royal College of Physicians of London in 1855, and a Fellow in 1859. In 1885 he delivered the Croonian Lectures before the College on the Hygienic and Climatic Treatment of Pulmonary Phthisis, which have been translated into several other languages. He has occupied himself by predilection in questions concerned with the prevention and treatment of disease, especially tuberculosis, by diet, hygiene, climate, and waters, and is the author (jointly with his son, Dr. Parkes Weber) of an admirable work on *The Mineral Waters and Health Resorts of Europe*. He has also contributed many papers to the *Transactions* of the Royal Medical and Chirurgical and the Clinical and Pathological Societies of London. He is also an honorary or corresponding member of several foreign medical societies in Europe and America. Dr. Weber, who has long been a naturalised English subject, has identified himself thoroughly with the country of his adoption, and his friendship has been valued by many of the most eminent men who have been distinguished in medicine during the last generation, such as Addison, Parkes, Jenner, Russell Reynolds, Wilson Fox, and Erichsen, while to enumerate the names of his friends among the living would be to compile an immense list, for few men are more esteemed for qualities of mind and heart. Sir Hermann Weber's hobby is the study of Greek numismatics, and he at once indulged his hobby, testified his reverence to the memory of his friend Dr. Edmund Alexander Parkes, and displayed his affection for the Royal College of Physicians of London, by founding the Weber-Parkes medal in 1894. This medal, together with a sum of 150 guineas, is awarded every third year to the writer of the best essay on Consumption and its Treatment. It was first awarded in 1897 to Dr. Arthur Ransome, F.R.S., and at the same time a second medal was awarded to Dr. Peter Paterson, of Glasgow.

SIR GEORGE PLUNKETT O'FARRELL.

Dr. O'Farrell, upon whom the Lord Lieutenant of Ireland will, with the approval of Her Majesty, confer the honour of knighthood, is a graduate of Trinity College, Dublin (1869), and a member of the English College of Surgeons. For some years he was in practice in Boyle, co. Roscommon. He was then appointed an inspector under the Local Government Board, and subsequently Inspector of Industrial and Reformatory Schools in Ireland. From this he was promoted to be Medical Commissioner of Prisons, and finally he became one of the two Inspectors of Lunatic Asylums in Ireland, an office which he now holds. He is also a Commissioner of the Board of Control. He had a distinguished University career, and he is a popular official.

THE ORDER OF THE BATH.

Sir Charles Cameron, on whom Her Majesty has conferred the C.B., is Medical Officer of Health for the city of Dublin. He is an ex-President of the Royal College of Surgeons in Ireland, and Professor of Chemistry in the School. He has devoted himself to the study of public health and chemistry, and he is well known throughout the country. During the past year he was President of the Congress of the Royal Institute of Public Health, which was held in Dublin. He is a member of many learned societies.

THE STAR OF INDIA.

Colonel William Pleace Warburton, who has been appointed C.S.I., joined the Indian Medical Service in 1866, and served chiefly in the Civil Department until he became in 1895 Inspector-General of Civil Hospitals, North-Western Provinces and Oude. His excellent administration of civil medical institutions of these Provinces obtained the repeated thanks of Government. He has recently retired.

Colonel David Sinclair, who has received the same honour, entered the Indian Medical Service in 1869, and since 1871 has served in Upper Burmah. From 1884 he has been In-

spector-General of Gaols and Chief of the Civil Medical Department in Burmah.

The Order of the Indian Empire.

Lieutenant-Colonel Henry Kellock McKay, who has been appointed C.I.E., entered the service in 1873, and since 1894 has been Civil Surgeon and Superintendent of the Lunatic Asylum at Jubbulpore in the Central Provinces. This officer was employed on famine duty during 1897-98.

Major Winthrop Benjamin Browning, who has received the same honour, joined the service in 1880, and was posted to the Madras Presidency. Until 1890 he served in Madura, and from that year he was Surgeon of the Second District, Madras, until 1895. From 1892 he has been Surgeon to the Governor of Madras.

Order of St. Michael and St. George.

Dr. T. E. Macpherson and Dr. R. N. Moffatt, of the Uganda Administration, have been appointed Commanders of the Order of St. Michael and St. George.

LITERARY NOTES.

The third volume of the second series of the *Index Catalogue of the Library of the Surgeon-General's Office, United States Army*, consists of 1,100 pages of text, and carries the vocabulary through the letter C. The librarian, Surgeon James C. Merrill, states that it gives 11,112 author titles, 10,636 book titles, the titles of 34,314 journal articles, and those of 677 portraits.

A correspondent has called our attention to a curious misprint by which the late Dr. Gruby, of Paris—a short account of whom appeared in the British Medical Journal of December 3rd, 1898—was apparently charged with making up his mixtures with *aqua fortis*. Of course the eccentric but blameless old Hebrew prescribed *aqua fontis*. We think it due to his memory to make the correction, though probably not even the most frenzied anti-Semite would take the appalling statement put into our mouths by the printer's devil *au grand sérieux*.

With the new year the *Practitioner* comes to us in a somewhat enlarged form. We are glad to note, however, that although it has grown bigger it has not become heavier. It remains the most readable and the most literary of the medical monthlies. Among the new features are some pages of Literary Gossip, and a Calendar in which the heroes and saints and the historic events are all of specially medical interest. Among the original communications are an article on Tuberculosis by Professor Clifford Allbutt, in which the subject is dealt with in a characteristically independent spirit; an interesting case of Jaundice of sixteen years' standing treated by operation recorded by Mr. Treves; and a Clinical Lecture on the "probably cortical origin of some laryngeal paralyses" by Sir Felix Semon.

Two further instalments of the *Deutsche Chirurgie* (Ferdinand Enke, Stuttgart), started by Billroth and Luecke and now in course of publication under the editorship of Professors E. von Bergmann and P. von Bruns, have just been issued. Lieferung 28 is an exhaustive treatise on the Diseases of the Bones and Joints exclusive of those due to Tuberculosis, by Professor Karl Schuchardt of Stettin; the volume contains 138 illustrations in the text and two coloured plates. Lieferung 28a is devoted to Tuberculous Diseases of the Bones and Joints, which are dealt with by Professor Fedor Krause of Altona; this volume also contains two coloured plates with 98 other illustrations.

A periodical of a decidedly novel character has recently been started in Paris. It is entitled *La Revue des Rhumatisants*, and its aim is the solace and amusement of sufferers from rheumatism. The founder is M. Alexander Hepp, eminent as a journalist and equally eminent as a martyr to rheumatism. All his collaborators are fellow sufferers. Among them are François Coppée, Jules Clarétie, Marcel Prévost, Aurélien Scholl, Emile Bergerat, Léon Daudet, Clovis Hugues, Coquelin the younger, and Caran d'Ache the celebrated caricaturist. This list would appear to suggest some close connection, hitherto unsuspected, between rheumatism and the finer arts. The matter seems to be worth investigation, and if any young physician is "spoiling" for want of a subject to work at, here is one that would be pretty certain to reward his toil.

We have received an intimation from the Medical Magazine Association that at a meeting of directors of the newly incorporated Association on December 21st, 1898, the Medical Board appointed Dr. A. G. Auld to be editor of the new magazine which begins in January.

In mentioning Sir Thomas Grainger Stewart's "Chronicle Play," we referred to the fact that Claude Bernard had begun his career as a dramatic author. Some details of the great physiologist's association with the stage may be interesting. Bernard, after finishing his literary studies, became the pupil of a pharmaceutical chemist of Lyons, who gave him board and lodging in exchange for his services. Every month he had "a day out," of which he took advantage to go to the theatre. He soon became fired with the ambition to write plays, and in the scanty moments which he could snatch from making pills and putting up bottles of physic, he managed to compose a vaudeville entitled *La Rose du Rhône*, which was actually performed at Lyons in 1833. The author's share of the profits on this masterpiece amounted to some £4, and with this capital and a tragedy in five acts young Bernard determined to seek his fortune in Paris. On his arrival there in 1834, he called on the most powerful critic of the day, M. Saint-Marc Girardin, who seems to have cured him of his dramatic aspirations. The tragedy on which Bernard had built his hopes was printed in 1887 by his friend M. Georges Barral, to whom the author had given the manuscript some ten years before. The title of the piece is *Arthur de Bretagne*. The scene is laid in Brittany, Poitou, and Normandy in 1202. Arthur comes forward as a champion of the independence of Brittany, and naturally his relations with the King of France on the one side, and with the King of England on the other, become extremely complicated. The English monarch with the proverbial perfidiousness of his countrymen breaks his pledge and places Arthur in durance vile. He is offered his liberty on condition that he surrenders his province, but prefers death to dishonour. The French suddenly come to the rescue, singing the Ave Maris Stella, but, like the first Khartoum expedition, they are just in time to learn that Arthur has been butchered by the brutal Britons. Bernard seems to have a certain tenderness for this piece, which was written when he was only 20, for he authorised its publication, though not till five years after his death. It was published, but was almost immediately withdrawn in deference to the remonstrances of Mdlle. Bernard, who objected to a statement made in the preface that her father had been abandoned by his wife and daughters in the last years of his life.

Bolton and District Association of Colliery Surgeons.—This Society, which owes its existence mainly to the efforts of Dr. J. H. Marsh, of Little Hulton, has for its object the banding together of all the colliery surgeons of the district, with a view to increasing and equalising the remuneration for attendance upon accident cases. Prior to the Workmen's Compensation Act this was at the rate of 2s. 6d. a head per annum, but thanks to the combination of the surgeons the fee is now 15s. a head per annum. Though the new scale has been generally adopted by the colliery clubs, attempts are now being made to coerce the surgeons to revert to the old terms. These are being strenuously resisted by the Association and with every likelihood of success. The annual dinner was held at Walkden on December 22nd, 1898, when forty-five members and guests assembled under the chairmanship of Dr. Duncan (Honorary President), who gave the toast of "The Queen." "The Association" was proposed by Dr. Nathan Raw, of Liverpool, and responded to by Dr. Kershaw, of Farnworth. "The Guests" was proposed by Dr. Johnston, of Bolton, and "The Pendlebury Association" by Dr. R. Martin and acknowledged by Dr. Eames. During the evening Dr. J. Y. Martin, on behalf of the members of the Association, presented the Honorary Secretary, Dr. J. H. Marsh, with a handsome punch bowl and a silver tea service as a small token of their appreciation of his services as originator, organiser, and conductor of the affairs of the Association. In his reply Dr. Marsh urged the great necessity of unanimity of action on the part of medical men in fighting the "battle of the clubs" and commended the action of this Association to the favourable notice of others.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 7TH, 1899.

SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

I.—The Policy of the General Medical Council.

Amongst the subjects which engaged the attention of the General Medical Council during its last session one of the most important was that of medical education, which presented itself upon two issues—the question of preliminary education and that of the relation of the "preliminary sciences" of chemistry, chemical physics, and elementary biology to the five years' curriculum. These questions are to some extent interwoven with each other, and we have already briefly commented upon the latter, which has been referred for report to the Education Committee.

It is a fact only too familiar both to teachers and examiners that a material number of medical students somehow manage to pass their preliminary examination in general education without acquiring that mental training which is essential in order to place them in a position to take advantage of their opportunities for learning and to enable them to write an examination paper in the Queen's English. A year ago the Education Committee were requested by the Council to revise the list of examinations recognised, with a view to remove from it any which might be found to fall below the standard of the entrance examinations or of the junior local examinations of the Universities of the United Kingdom. This appeared to be the more necessary as it had been found that no fewer than nine-tenths of the students entering upon their medical studies had availed themselves of the lowest grades which are recognised.

The Committee, in the labours of which Dr. MacAlister would appear to have taken a prominent share, spared no pains to make their report both correct and convincing, and their attention was early directed to the second-class certificates of the examinations of the College of Preceptors (of first or second divisions), for of twenty-nine candidates in the Army, Navy, or Indian Medical Services whose mode of entrance could be traced, and of whose general education complaint was made, no fewer than fourteen had passed at the College of Preceptors, the others being distributed over nine different recognised examinations. An exceedingly bad record was also shown by the students who had passed the preliminary carried out by the Society of Apothecaries of Ireland, but this examination has already been discontinued.

Examination papers and the answers of those who had passed at the College of Preceptors were investigated, with the result that the conviction forced itself upon the minds of the Committee that the standard was not adequate, was distinctly below that of the University Junior Local Examinations, and that, over and above this, the stringency with which pass marks were awarded was less. The head masters of some seventy schools in all parts of the kingdom were addressed, and asked their opinion as to the standard of these examinations respectively. Of those whose replies were in such form as to be available, a large majority accorded the first place to the University Junior Local Examinations. The College of Preceptors, whilst affording every facility to the Committee by furnishing papers, answers, etc., strenuously combated the conclusion which was thus pointed at. The balance of evidence, however, derived from all sources can leave no doubt in the mind of anyone who takes the pains to follow it that the conclusion of the Committee is a just one, and that these second-class certificates of the College of Preceptors are the first which should be expunged from the list. Another examination which met with little favour in the eyes of the Committee was that conducted by the Conjoint Boards of the Royal Colleges of Physicians and Surgeons in Ireland, but it is recognised that improvements have been made in this and—at all events until some public and independent body in Ireland can be induced to institute appropriate examinations at times of the year convenient for medical students—it was felt that this might still be recognised. Indeed, to have ceased to do so would, under the conditions which prevail in Ireland, have been productive of grave inconveniences.

In Scotland the Educational Institute, frankly admitting that its standard was not sufficiently high, has issued fresh regulations under which it seems probable that the requirements of the Council will be met, but during 1899 its results will be inspected. Certain other Matriculation Examinations in the Colonies and elsewhere have also been accepted as sufficient.

The recommendations of the Committee thus go no further than to advise that the one second-class certificate shall no longer be recognised, and this is to take effect from January, 1900; but the opinion is expressed that before long other changes in the way of raising the standard of preliminary education will have to be adopted. This did not entirely satisfy the desires of a considerable number of the members of the Council, who were of opinion that others of the junior examinations should be speedily expunged, and the Committee were asked to consider the question whether they could not fix a date at which the further changes which they foreshadowed should take place. A necessary corollary of this was that they should define which examination they consider insufficient for permanent recognition. The debate which ensued brought to light various phases of opinion. A spirit of caution inclined some to think that the recommendations of the Committee went far enough, urging that any increased stringency would starve the supply of medical students, and that it was already difficult for country practitioners

to obtain assistants. One speaker was so pessimistic as to predict that, in the event of a war, the supply of trained men would be found inadequate. But it is difficult to take this quite seriously, and there is so much evidence that the profession has of late years become overcrowded, with downward competition as the disastrous consequence, that there does not appear to be much harm to be anticipated from cutting off a certain number of the least well educated students, unless it be to the funds of the teaching and examining bodies.

The slight dislocation of arrangements caused by the more stringent enforcement of regulations against the employment of unqualified assistants will soon be remedied, and it is a well ascertained fact that the mass of candidates prepare themselves with a very strict regard to the character of the examinations which they have to pass. Increased stringency does not, in practice, lead to a commensurate increase in the number of rejections.

On the other hand, it was urged that the examinations still to be accepted as reaching the minimum standard—namely, the University Junior Local Examinations—are intended for, and as a matter of fact are passed by, boys of an age below that at which it is desirable for a student to commence his medical studies. Fifteen is the age for which they are adapted, and the expression "examinations for little boys" frequently recurred. It was stated that the Senior University Locals were intended for boys of 16 or 16½ years, and that in fact this was the average age of those entering for them; so that this was the lowest standard which was really appropriate to the medical student if he is to be possessed of average attainments for his age. This is further indicated by the regulation that at the Cambridge Senior Locals a boy cannot go in for honours if he has attained the age of 16 years.

It was also pointed out, and with much force, that there was no necessity for giving any very long notice in years, for the final school career of boys did not after all embrace more than three or four years prior to their attaining the age of 16, and that a notice of five years would cover the whole real school time of boys intended for the medical profession if we leave out, as we well may, time spent at schools for very small boys only.

Perhaps the most cogent argument to those who have experience of teaching and of examining will be the statement that the large proportion of rejections of candidates at the purely professional examinations is in great measure due to insufficient general education, the students coming up to the medical schools without having acquired the power of learning and of expressing themselves.

To sum up the impressions gained by a study of the views advanced in the debate, it seems to be quite clear that a majority of the Council are in favour of raising the standard of examinations which give admission to the *Students' Register*, and that it will not be long before practical effect is given to this conviction, and a change brought about which will be hailed with pleasure by every real friend of medical education.

Why we should be content to accept in a lad of 16½ or 17 a standard of knowledge which educational bodies consider that he ought to have attained by the time he is 15 is hard to see, and the position seems not to be logically defensible. We propose in a subsequent article to discuss some of the causes which have contributed to bring about this unsatisfactory state of things, and the remedies which can be suggested.

THE SURGERY OF THE POSTERIOR MEDIASTINUM.

The mediastinal spaces are among the territories most recently conquered by the advancing army of surgeons. Their invasion has, however, been quite gradual. Both Hippocrates and Galen make mention of procedures to be employed in dealing with intrathoracic disease, but it is only within the antiseptic era that any real advance has been made. The simple operation of thoracotomy, which was then in high disfavour, was in 1841 made the subject of an appreciation and approval by Sédillot; but until Moutard-Martin reintroduced the operation in 1872 no general adoption of it can be recorded. Since then, however, it has leaped into general favour, and now it is one of the simplest and most frequent of operations. Emboldened by its success, several operators—Estlander, Letièvant, Schede, and others, suggested and carried out a wide extension of its principle, and the method of thoracoplasty became, through their endeavour and example, a classical operation. But more than this resulted. By multiplying experience it began to be recognised that the pleural sac had been held quite unnecessarily in dread. It was seen that much freer interference with it could be safely tolerated. By experiments upon animals Glück and Schmidt showed that the healthy lung was capable of being removed wholly or in part; and Biondi, after artificially producing tuberculosis of the lungs, dealt with the affected portion by complete removal. In 1885 Omboni fulfilled expectation by showing that wounds of the human lung could be treated by immediate suture with success, and the possible surgical achievements in this direction received their final completion by the successes of Tuffier, Lowson, and Doyen in the operation for removal of diseased human lung.

That other organs lying within the chest might be brought within the reach of the surgeon's knife was first demonstrated by Nasiloff, of St. Petersburg, in 1888 by a series of investigations made on the cadaver. Conclusions very similar to his were arrived at by Quénu and Hartmann in 1891. These three observers had all agreed that the shortest and best method of reaching the œsophagus as it lay within the chest was by means of an incision to the left of the vertebral column. Portions of three, four five, or more ribs were resected and the pleura stripped up. Potarca in 1893, and again more recently,[1] advocated, as a result of many observations made on the cadaver, and by experiments upon dogs, that the shortest and most advantageous route to the posterior mediastinum and the œsophagus lay through an incision to the right of the middle line. Other contributions were made to the subject by Ziembicki and Bryant, but the best, the fullest, and most complete account was furnished by Obalinski in 1896. This author related 5 cases of suppurative posterior mediastinitis treated by Nasiloff's method, with subsequent drainage, which had been under his own observation in Rydygier's clinic, and recorded 8 others observed by

[1] *La Chirurgie Intramédiastinale Postérieure.* By Dr. J. Potarca. Paris: Georges Carré et C. Naud. 1898. (Royal 8vo. pp. 110. Fr.5.)

Morian, Ziembicki, and Krynski. Of the 13 cases, 3 were acute, 10 chronic. The latter were dependent upon tuberculous disease of the dorsal vertebræ. The results were, on the whole, satisfactory.

The most recent contribution to this subject appears in the last number of the *Archiv für klinische Chirurgie* from the pen of Professor Rehn of Frankfort. Two cases are recorded, one of cicatricial contraction of the œsophagus, the result of swallowing some caustic fluid in an attempt to commit suicide by a young man aged 22; and the other a case of malignant stricture of the œsophagus in a man aged 49. In the former the œsophagus was exposed by a curved incision on the right side of the dorsal vertebræ, and the removal of portions of the fourth to eighth ribs. The pleura and the lung were easily drawn away. A sound in the œsophagus showed the site of the stricture. A longitudinal incision was made through the stricture, the sound passed on into the stomach, and the œsophageal wound stitched over the sound. In the second case a large growth in the œsophagus was everywhere adherent. The pleura was wounded. Both patients died—the former after a prolonged illness during which he became progressively exhausted; and the latter after six days, of cardiac failure, due, as shown by *post-mortem* examination, to old-standing pericarditis and myocarditis.

These operations of Obalinski and of Rehn prove, then, that it is physically possible, without wound of any important viscus, to reach the œsophagus as it lies within the chest. It is therefore the question of early diagnosis which requires further elucidation. It may be that in œsophagoscopy lies our means of solving this difficulty. Good work has already been done in this direction by Mikulicz, Rosenheim, von Hacker, and others, and a more extended use of the method may enable us to recognise in their early stage the exact causes of œsophageal obstruction. It seems not improbable that in a case of malignant disease diagnosed early and treated in some such manner as that adopted by Rehn, a successful resection of the diseased portion of the œsophagus may in the near future be recorded. As yet, however, the subject is merely one of promise unfulfilled.

MAGISTRATES AND THE MEDICAL ACTS.

The result of the prosecution of Joseph Steel illustrates once again the difficulty of obtaining a conviction under the Medical Acts. In this case, as will have been seen from the report published in our columns last week, a man who held no medical qualification, who took care, according to his own evidence, to tell his patients that he was not legally qualified, who not many years ago was a miner, who nearly five years ago was prosecuted for using the title M.D.(Bc.) (conferred on him by the "General Council of Safe Medicine"), and convicted by the justices in a penalty of £10 and £4 1s. 6d. costs—a conviction which, on appeal to the Court of Queen's Bench, was upheld—nevertheless continues to practise. He stated in evidence last month that he has a club of 400 members who pay him from 6d. to 9d. a fortnight, and that he employs a collector to get in the subscriptions. It was proved in evidence that he had given a certificate as to the death of a girl, upon a printed form, and as he had had this form printed for himself it would seem that he must be in the habit of giving such certificates. The certificate was not, of course, a legal certificate of death, but it was taken to the registrar of deaths, who registered the death as "uncertified," without, so far as appears, any inquiry being made. This point in the case affords an example of a serious defect in the method of registration of deaths in this country, to which attention has often been called. According to the report of the Registrar-General for England and Wales, 11,628 deaths were registered without formal certificates as to cause during the year 1896. Registrars are, however, instructed to report to the coroners all deaths which are caused either directly or indirectly by violence, or are attended by suspicious circumstances, as well as all deaths the causes of which are stated to be unknown, and all uncertified deaths which are stated to have been sudden. The Registrar-General is unable to give the actual number of uncertified deaths reported to coroners, but he estimates that about 71 per cent. of all the uncertified deaths were thus referred. This would leave about 3,400 deaths as to which no certificate was received and no inquiry held. The Registrar-General states that "a large proportion of these were deaths of infants who had been attended only by midwives, or were deaths of persons who had been attended by unregistered practitioners." Without stopping to discuss the validity of the distinction adumbrated, we may safely assume that between 4,000 and 5,000 individuals of various ages died in England and Wales in 1896 while under the treatment of persons who were not registered medical practitioners. The estimate is probably under the mark, for a very large proportion of the cases referred to the coroners for inquiry as being uncertified were, undoubtedly, uncertified only because the persons had been attended in their last illness by unregistered practitioners. This laxity in our system of registration is, from several points of view, a very serious matter. We are at present only concerned to point out that it greatly favours the practice of quacks by removing out of their path one of the chief obstacles which the law has placed there.

It has been said that the title, for the use of which Joseph Steel was convicted in 1894, was granted to him by a body calling itself the General Council of Safe Medicine, a body which had been registered under the Joint Stock Companies Acts as a company of limited liability. It was established to grant degrees, etc., in the "Magnetic and Botanic System," to students passing a satisfactory examination before the General Council of Safe Medicine, and to those of the botanic profession of good moral character who could produce reliable evidence of qualification, or of ten years' practice, at the discretion of the Council. In August, 1894, the General Medical Council brought an action for a declaration that the objects of the General Council of Safe Medicine were illegal and injurious to the public. In the result the General Council of Safe Medicine agreed to a perpetual injunction not to issue or confer any degree or diploma of M.D.(Bc.), or any like degree or diploma, or any degree, diploma, or licence, certificate, or document purporting to confer on the person to or on whom the same is issued or conferred, a degree, diploma, licence, testimonial, or qualification in medicine, surgery, or midwifery, or any branch thereof, or to qualify or

authorise such person in any other way or by any other method to treat disease. Yet we find Steel now adding to his name the letters F.C.S.M. which he said meant "Fellow of the Council of Safe Medicine."

The failure of the General Medical Council to obtain a conviction in the case of Steel has a bearing upon the interpretation which Mr. Victor Horsley puts upon the Medical Acts, and especially upon Section XL of the Act of 1858, as to which some controversy has recently taken place in our columns. Magistrates display a very great reluctance to convict under this Section, and even some ingenuity in construing it in a defendant's favour. In the recent action against Joseph Steel, it was charged that he did unlawfully and falsely take and use the title of F.C.S.M., thereby implying that he was recognised by law as a medical practitioner. The counsel who appeared for the General Medical Council said that the charge was made under Section XL of the Medical Act, 1858. He urged that the only distinction between this case and the case of 1894, when Steel was convicted, was that instead of using the letters M.D.(Bc.), he had used the letters F.C.S.M.London, and that these letters were used for the purpose of misleading ignorant people to believe that he was in some way qualified to act as a medical practitioner. The defence was that the letters did not imply that he was a medical man, that he had made no pretence that he was a medical man, and that all the people who consulted him knew that he had no legal qualification.

This is exactly the same line of defence as was taken by Samuel Matthews, of Norwich, prosecuted by the Medical Defence Union last August, when the magistrates found that the defendant did not wilfully and falsely pretend to be a doctor, and dismissed the case, though they found against him on the second charge of using the title of "Surgeon," and imposed a fine of £1 and costs. In contrast with this ambiguous result was the ease with which on the following day a conviction was obtained, at the instance of the Medical Defence Union, against the same defendant Matthews for having acted as an apothecary, contrary to the provisions of the Apothecaries Act, 1815. After a short conversation between counsel, the offence was admitted, and the counsel for defendant merely made a speech, in the course of which he referred to the proceedings of the previous day, and added that "Dr. Matthews" was known to everybody to be a quack doctor. As we ventured, in commenting on the case at the time, to say, the defence to the prosecution under the Medical Acts might be summed up as follows: "We all know Matthews to be a quack, therefore there is no fraudulent pretence; it is true that he calls himself 'Dr.,' but he deceives no one thereby."

In the case of Eastburn, in which a conviction by the Sheriff Court of Glasgow for using the title or addition of A.M.S., was quashed on appeal on the ground that there was a flaw in the indictment, the Lord Justice Clerk is reported to have said that what was charged against the accused was made subject to a penalty in order to protect the public against persons professing to practise as medical men or surgeons under qualifications held forth which they did not possess; but this was merely an *obiter dictum*, for the case was decided on technical grounds before the Scottish Court.

If the effect of Section XL could be argued on its merits in the Court of Appeal it would be a great gain, even if the decision went against the view that the Acts do afford efficient protection of practice and not of title only, for we should then know exactly where we stood, and the way would be cleared for the much-needed Bill to amend the Medical Acts.

THE "TREMENDOUS EXPERIMENT."

Now that the new year has begun, that tremendous legislative experiment, the New Vaccination Act, is—theoretically at least—in full operation. Vaccination at public stations, excepting under special circumstances or for special purposes, disappears, domiciliary vaccination begins, and glycerinated calf lymph comes into general use amongst public vaccinators. Most unfortunately, the partial adoption of the new Act within the past few months has already been enough to discredit it in the estimation of the "man in the street." At the Edinburgh meeting of the British Medical Association the Public Health Section passed a unanimous resolution, which was immediately transmitted to the Government by Dr. Saundby, the President of the Council, urging, even at the eleventh hour, the withdrawal of the Bill in order that the whole question in its legislative aspects might be reconsidered in view of all that had emerged in the course of the discussions in Parliament and in the country. Very likely Mr. Chaplin now regrets that he did not, or perhaps could not, accept that advice. Especially is it to be regretted that the conscience clause became law in such a shape as to mean either anything or nothing, in accordance with magisterial fancy or predilection; but Government was determined to pass a Vaccination Bill of some sort, and the result is that they are now in a worse position than if they had never touched the subject. If they desire their five years' experiment to have the slightest value they must now proceed to alter the fundamental condition under which it is to be conducted. The conscience clause in its present form is looked on with contempt alike by friends and enemies of vaccination, and the Government which forced it through Parliament is an object of indignant reproach on the part of many of its ordinary supporters. Unpleasant as it may be to confess to a blunder, it will be much better to introduce in the approaching session of Parliament a proper amendment of the conscience clause than to permit the continuance of those petty-sessional doings which have made Section II of the Act a laughing stock in so many parts of the country. Such an amendment can easily be included in the Bill which the profession expects the Government to introduce for the promotion of revaccination. In that way, and in that way only, can Ministers redeem their reputation which, in this matter, has been tarnished by the mixture of vacillation, hesitation, and haste which characterised last session's proceedings. The memorial of the West Somerset and Dorset and West Hants Branches of the British Medical Association, which was printed in the British Medical Journal of October 29th, 1898, p. 1367, was presented to the Dorset Quarter Sessions, held at Dorchester on January 4th. The memorial urged that magistrates in the counties mentioned should postpone a decision in all applications under the new Vaccination Act for six months, in order to give Parliament an opportunity of expressing its opinion and of amending an Act fraught with disastrous consequences. The court did not take any action on the memorial.

ADMISSION TO THE ROYAL ARMY MEDICAL CORPS.

We venture to suggest that the provision relative to the medical qualifications of candidates in the Revised Regulations (December 1st, 1898) for admission to the Royal Army Medical Corps might be simplified with advantage.

The second paragraph of the Regulations requires the candidate to "possess two diplomas or licences recognised by the General Medical Council—one to practise medicine and the other surgery," and to "be registered under the Medical Act in force in the United Kingdom at the time of his appointment; but a candidate who holds a single diploma from the Society of Apothecaries obtained under the conditions of the Medical Act of 1886 will be deemed to possess the double qualification required." This very prolix provision must, we think, be productive of some confusion in the minds of candidates, and must also cause some amount of trouble to the Department in replying to inquiries, all of which could be easily avoided by the simple elimination from the clause of every condition except that of registration under the Medical Acts. Since the Medical Act, 1886, the mere fact of registration is sufficient evidence of the possession of a diploma or diplomas for the practice of medicine, surgery, and midwifery. No person can now be registered, or could have been registered since the Medical Act, 1886, came into force (July 1st, 1887), without having passed a qualifying examination in medicine and surgery, the efficiency of which is controlled by the General Medical Council. The maximum age of candidates for the Army Medical Corps being 28, it necessarily follows that it would be impossible for any candidate to be registered under the Medical Act without having obtained the triple qualification. We think, therefore, that it would be very desirable that the attention of the authorities should be called to the facts we have mentioned, with a view of excising from Clause 2 of the Regulations the unnecessary provisions to which we have referred, and substituting the simple requirement that the candidate must be registered under the Medical Acts. The point is of more importance than may perhaps at first appear, for it is very desirable that it should be impressed upon the public mind that the only way in which the right to practise in the United Kingdom can be acquired is by registration on the *Medical Register*. The mention of various diplomas in an official document can only tend to confuse the public mind.

VITAL STATISTICS OF LONDON.

The annual report of the medical officer of health of the Administrative County of London for 1897, which has just been issued, is a volume of a bulk and solidity calculated to strike awe into all but those "stalwarts" of statistics who, in Lord Rosebery's phrase, can lunch contentedly on a biscuit and a Blue Book. We can, at the present moment, do little more than notify the appearance of the report. The population dealt with by Mr. Shirley Murphy was estimated to be 4,484,717 in the middle of 1897. The marriage-rate was 18.5 per 1,000 living, this being the highest rate since 1878. In these marriages, 4.57 among the males were under the age of 21, while the corresponding proportion among the females was 16.16 per cent. The birth-rate was 30.0 per 1,000 living, the district heading the list being St. Luke's with 45.2, and the lowest being St. Martin-in-the-Fields with 13.3. The death-rate was 17.7 per 1,000 living. Comparative tables of mortality are given, which show that whereas the London death-rate in 1887-96 was lower than in Paris, Brussels, Amsterdam, and Copenhagen, in 1897 it exceeded the death-rates of Brussels, Amsterdam, Copenhagen, Stockholm, Berlin, and Rome. The deaths of children under 1 year of age were in the proportion of 158 per 1,000 births. The zymotic death-rate and the numerous other important matters dealt with in the report must be reserved for a fuller analysis than can be given here. There is one passage, however, of special interest to which reference must be made. In connection with diphtheria Mr. Shirley Murphy refers to the fact that in addition to the arrangements already made by the sanitary authorities of St. Marylebone, St. Pancras, Holborn, and St. Olave for the bacteriological examination of material from doubtfu cases, similar arrangements have now been made by the authorities of Fulham, Strand, and Clerkenwell, mostly with the Jenner Institute of Preventive Medicine. In Poplar the matter is under consideration. In their reports for 1897 the medical officers of health of Paddington, Stoke Newington, Bethnal Green, St. George Southwark, Lambeth, Wandsworth parish, Woolwich, and Plumstead express themselves in favour of such aid being obtained. The medical officer of health of Marylebone states that the opportunities given by the vestry have not been much utilised, that the number of cases thus examined was 42, and out of these 12 were considered diphtherial. In St. Pancras the corresponding numbers during seven months were 42 and 22 respectively, in Fulham 48 and 30 respectively, in Holborn 37 and 18 respectively, and in St. Olave, a district which had made arrangements with Guy's Hospital, 2 specimens were sent for examination.

THE EDUCATION OF THE FEEBLE-MINDED IN ITALY.

Amongst the attractions of the recent successful exhibition at Turin were, as seems the fashion nowadays, a number of conferences—artistic, literary, scientific, industrial, and others. Amongst these, and perhaps not the least useful, was a Congress of Pedagogues. At this a lady, Dr. Maria Montessori, raised the question of the education of feeble-minded children, and suggested that the Minister of Education, Professor Baccelli, M.D., should be asked to institute, in connection with each elementary school, separate classes for such children. This suggestion was unanimously adopted by the meeting. The reply of the Minister has not yet been received, but as he has already during his term of office distinguished himself by a determination to extend improved educational facilities, it is not doubted that he will view the proposal with favour. But this, like other things, means money. The financial position of Italy is improving, and great hopes are entertained that it will still further improve under the recent fiscal treaty with France. But Italy is still a country which finds it difficult to make both ends meet. Many Italians who are neither jingoes nor alarmists entertain a genuine fear that if the armaments of the country are not kept up Italy may cease to be a separate nation. The recent conflict between the United States and Spain is referred to by serious newspapers as an example of what might happen. Politics, and especially *la haute politique*, are beyond our sphere, and we will not offer an opinion whether ironclads or armies are more likely to be useful than the education of people of all classes. Serious Italian publicists recognise that it is want of education that produces such pitiable monsters as Luccheni and the like. They recognise also that these persons are a serious danger to the political stability of the State. Anarchists have no mental perspective, or even an inverted one; no sense of proportion, or even an inverted one, which causes smaller objects to appear larger than greater ones. Italian publicists also see that the poverty of the masses is a fertile source of anarchical opinion, and they would gladly do much to alleviate the lot of penury, but the necessity of preserving the State by the means above indicated again stops the way. The educational movement just referred to had its first springs in a speech made on June 23rd, 1897, in the Italian Parliament, by Professor Bonfigli, Director of the Lunatic Asylum at Rome, and it was he who inspired the motion of Doctor Maria Montessori. Italians now further recognise that the lower classes of "phrenasthenics," such as idiots, require to be dealt with in a special way—that special institutions must be founded in which they can be boarded. For the better classes one such institution already exists, founded and directed by Professor Gonnelli Cioni. "If it were not for this," somewhat pathetically remarks *La Tribuna* of Rome, "our country would form with Spain and Turkey

a triad but little honourable to the nations who have never practically occupied themselves with this grave problem." It is satisfactory to see a newspaper conducted with so much intelligence and discretion as *La Tribuna* strenuously exerting itself to arouse popular feeling on this subject.

THE INCREASE OF HOSPITAL PATIENTS AT BRADFORD.

IN the course of a correspondence, which, as we have already mentioned, has been for some time carried on in the columns of the *Bradford Observer*, the opinion was expressed that the great increase observed in the number of hospital patients was due to the increase of the population. Dr. Hime has taken this point up, and has published the following table:

Table showing the Increase per cent. of the Population of Bradford and of the Hospital Patients.

	Bradford cases only.			
	Population of Bradford. 1875 to 1896.	Infirmary Patients. 1875 to 1896.	Eye and Ear Hospital. 1875 to 1896.	Children's Hospital. 1889 to 1896.
Increase per 100...	35·9 ...	55 ...	96 ...	1,904

As he observes, these figures show that, while the population only increased 36 per cent., the infirmary cases increased 55 per cent., the eye and ear cases 96 per cent., and the Children's Hospital (1889-96) nearly 2,000 per cent.! The increase of hospital patients has thus enormously outstripped the increase of population. Dr. Hime says: "I have only dealt with the actual Bradford patients, excluding persons from other towns, for an obvious reason. Had I included outsiders, it might have been alleged that the unnatural increase was due to their flocking into Bradford for charity. Now, will anyone say that there has been such an increase of poverty and disease in Bradford between 1875 and 1896 as to warrant this simultaneous increase in the charity patients at all our hospitals to this extent?" In spite of this increase in the number of hospital patients, the improved healthiness and the wealthiness of Bradford are a boast of all her citizens, and Dr. Hime sees as a reason for this increase in the number of charity cases at the hospitals an extension of the feeling that it is not disgraceful for well-to-do people to accept the charity intended for the poor, which is fostered by the false view taken by the hospital Boards, that the more patients they can boast of the more "good work" they have done.

THE BICYCLE AND DISEASES OF WOMEN.

FEW persons deny that moderate exercise with the bicycle is excellent for healthy young women, but in the case of women suffering from pelvic disease the case is different. The matter has recently been discussed at a medical congress at Marseilles. Dr. Leriche, of Nice, succeeded in curing a case of habitual menorrhagia by enforcing bicycle exercise. That malady, however, is really but a symptom, so that it would be interesting to have more precise clinical evidence about such a case. We are not surprised to hear that Dr. Leriche finds that as a rule cycling does harm to those subject to hæmorrhages from uterine and ovarian inflammation. On the other hand the researches of Regnault and Bianchi have shown that this kind of exercise does not depress the abdominal viscera; indeed, it actually raises the organs. Hence the fear of "displacements" is exaggerated; but patients with flexions and versions are often neurotic, and expect that cycling will make them worse; the hyperæsthesia, indeed, will certainly cause them to feel uneasy during this exercise, nor are such persons strong enough to bear a long run on the wheel. The cycle is quite contraindicated when the appendages are inflamed. The effect on the intestinal functions seems remarkably beneficial: constipation, as might be expected, is usually relieved; on the other hand, cycling is said by Leriche to check chronic looseness of the bowels.

A BULLET EMBEDDED IN THE HEART FOR THIRTY-SEVEN YEARS.

DR. O. B. BEER, writing recently in the *Cincinnati Lancet Clinic*, says that not long ago Dr. G. O. Brown and he held a necropsy on an old soldier who had been wounded by "bushwhackers" during 1861. The wound was made by a small rifle ball of the kind used in muzzle-loading rifles. It had entered the thorax posteriorly on the left side between the second and third ribs, and had passed downward and inward through the left lung and pericardium, and had embedded itself in the wall of the heart near the lower part of the left ventricle. There had never been any disturbance of the heart's action and the organ seemed to be perfectly normal. The man had, after recovering from the effects of his wound, served till the close of the war and since had been a farm labourer. Cancer of the arm was the cause of his death.

THE MASTER OF PEMBROKE.

AN Oxford correspondent writes: It would be ungrateful on our part were we to allow the death of the Rev. Bartholomew Price, the Master of Pembroke College, to pass without some reference to his services to science, and more especially to medicine, in Oxford. A member of the Boards of both Faculties, he took a keen and active interest in the development of the medical school. In his earlier days, when it was an uphill fight, we felt that the battle was half won if only we had "Bat" Price on our side. He gave us the benefit of his advice, and we profited much by his experience of University procedure. He may be said to have kept the keys of the University chest in his pocket, for without his approval money was never forthcoming. On the other hand if the Professor said a thing must be done, it generally was, in spite of all opposition. His death is our loss, his memory something to cherish.

THE EMPLOYMENT OF CHEMICAL AND *X* RAYS IN AFFECTIONS OF THE SKIN.

THE influence exerted upon the skin by rays derived from the solar spectrum, or produced by electrical discharges, has of late been the subject of considerable study. As is often the case, the undesirable effects of these agents were the first to make themselves evident; the elucidation of these led subsequently to a search after their therapeutic advantages. The investigation of the uses of the chemical solar rays is being pursued by Professor Finsen of Copenhagen, a brief account of whose results has been published by Dr. Emil Popper.[1] Investigations of the lethal action of natural and artificial light upon bacteria show that the most potent rays in this respect are those which undergo most refraction, which are the coolest and the most chemically active; these are the blue, violet, and ultra-violet rays. Professor Finsen has applied these to the treatment of accessible cutaneous affections by concentrating sunlight or that from an arc lamp through a series of powerful lenses between two of which is placed a solution of methylene blue, which shuts off the hotter but less chemically active rays, namely, the ultra-red, red, orange, and yellow. The arc lamp is hung in the centre of four similar pieces of apparatus, so that four patients can be treated at the same time. The bactericidal action of the light is found to vary as its concentration; with a strength of current of 25 ampères Professor Finsen was able to weaken bacteria in four or five minutes, and kill them in fifteen to twenty. He found that the penetration of the tissues by light was impeded by the blood, and he therefore rendered them anæmic by pressure before exposing them. He has applied the method to the treatment of lupus vulgaris with what Dr. Popper describes as the most striking results; his plan is merely to expose a portion of

[1] *Wien. med. Presse.* 1898, No. 4[illegible].

skin about the size of a halfpenny to the concentrated light for an hour a day. It is interesting to note that the Danish Government has endowed Professor Finsen's institute with a sum of 20,000 kroner. With regard to the *x* rays, dermatologists have hitherto been inclined to regard them as foes rather than friends, and to pillory in the medical journals cases of dermatitis induced by their employment. It seems, however, that they can not only be rendered innocuous, but can actually be tamed and driven triumphantly in the therapeutical chariot of the skin specialist. Dr. E. Schiff showed at a recent meeting of the Imperial and Royal Medical Society of Vienna a case of lupus erythematosus which had almost entirely cleared up after two months' treatment with the Roentgen rays; one portion of the disease which had been left untreated served by contrast to illustrate the value of the remedy. Dr. Schiff stated that he had had good results in the treatment of lupus vulgaris by this means, which was applicable to much larger surfaces than that of Professor Finsen, the value of which he was able to substantiate. Professor Kaposi spoke highly of both methods, and attributed their action partly to the hyperæmia induced, as in the case of insolation, and partly to chemical changes set up in the cells. Dieudonné and Richardson have shown that the chemical action of rays of light is proportional to the amount of peroxide of hydrogen which they cause to be formed. All observers agree that both procedures are innocuous.

THE EVELINA HOSPITAL FOR SICK CHILDREN.

THE very handsome legacy of one hundred thousand pounds has been left to the Evelina Hospital for Sick Children by the late Baron Ferdinand de Rothschild, who was the founder and president of the hospital, which was erected in memory of his late wife. We understand that by the terms of the will this legacy is to be invested and the interest is to be applied to the annual needs of the institution. During his lifetime the late Baron contributed annually a sum of two thousand pounds to the hospital, but in addition he frequently helped with further subscriptions and donations for special purposes; it is to be feared therefore that with the present low rate of interest and with the legacy duty deductions the Committee will find additional efforts must be made to meet current expenses.

THE SPITTING NUISANCE.

SOME time ago reference was made in the JOURNAL to the steps which had been taken by the authorities of several cities in the United States to check the filthy and dangerous practice of spitting in public places. Since then similar prohibitions have been made in other parts of America, the most recent, as far as we are aware, being in the medical department of Columbia University, where not only spitting but smoking is forbidden in every part of the college precincts except in the retiring room and a designated part of the dissecting room. Smoking, say the university authorities, necessarily means expectorating, and the object of the ordinance is said to be the prevention of the spread of disease by means of sputa. We demur to the alleged constant relationship between smoking and spitting, for your practised smoker has his salivary glands well under control. We hold strongly, however, that no one in whom tobacco causes sialorrhœa should be permitted to exhibit his infirmity in public. Unseasoned smokers are not the only offenders but they are the worst, as the knifeboards of omnibuses and tramway cars and the railway carriages reserved for smokers only too plainly testify. But promiscuous expectoration is everywhere too much with us. The National Association for the Prevention of Consumption might well begin its crusade by making a determined effort to put down this abominable nuisance. Notices forbidding expectoration are well enough, but after all the people for whom they are intended are not likely to pay any attention to them unless some penalty is attached to their infringement. The omnibus and railway companies can easily do this by special by-laws, and the police could probably without much difficulty obtain powers to treat public spitting as a nuisance. But by-laws and regulations are nothing if they are not enforced, and it is here that the Association aforesaid might find a field of the greatest usefulness. Let it get the authorities to make the necessary regulations, and then let some energetic members in each centre of population form themselves into a Vigilance Committee for the suppression of spitting in public vehicles and in places where men do congregate. There will be opposition, of course, and those persons who profess to look upon the right to spread disease as one of the privileges of a free-born Briton will denounce this new form of medical tyranny. But the bulk of the community will be with the promoters of a reform which at once makes for sanitary righteousness, and removes a constant source of annoyance to all who have any regard for the decencies of life.

A NEW MILITARY HOSPITAL IN THE UNITED STATES.

A NEW army hospital, the largest under the control of the United States Government, is to be constructed of Georgia pine, at Savannah, Georgia, at a cost of 150,000dols. There will be 149 buildings, all designed and constructed with a view to permanency. The ground plan of the hospital will be rectangular, with covered ways connecting all the buildings with each other, and with the administration building in the centre. Each of the four sides of the quadrangle will contain a ward with a capacity of 250 beds. One ward will be devoted to surgical cases, and an enclosed passage-way will connect it with a modern operating room. In addition to the general wards there will be private rooms for the accommodation of invalid officers. An unlimited supply of artesian water will be provided. Coal gas-burners will supply heat. An ice factory is situated within 50 yards of the site, and the cost of the ice is inconsiderable. The officers' quarters will be of two storeys. The dormitories for the nurses and the hospital corps will occupy two buildings. The chief surgeon will have a private residence.

PRIZES OF THE ACADÉMIE DE MÉDECINE.

ONE of the most interesting annual functions at the Académie de Médecine in Paris is the formal award of the numerous prizes in the gift of that illustrious body. This year, as usual, the most noteworthy features were the decisions of the Académie as to the Audiffred, Laborie, Chevillon, and Adrien Buisson prizes. Two years ago Madame Audiffred gave a capital sum, estimated to produce an income of 2,400 francs (£960), to be awarded as a prize to anyone who shall discover a means of curing or preventing tuberculosis. The prize is offered to the whole world, and last year inventors of nostrums from every part of the globe entered the lists. This year there has been a falling off in the number of such competitors, but, on the other hand, a variety of faddists holding that tuberculosis is curable by magnetism, that the disease originates from inflammation of the intestine and hence is easily dealt with by drinking water and eating bread and butter, that the bacillus is a delusion, and that antisepsis causes general poisoning, have urged their claims. Among the serious workers who competed, special mention is made of Dr. Auclair, of Paris, who has made interesting researches on the substances extracted from the tubercle bacillus, and has shown that the fatty matters contained in excess in the bacillus are necrosing agents, and doubtless play a part in the resistance of the bacilli to phagocytosis. A sum of £80 was awarded to him by way of encouragement,

while £20 was given on the same ground to Drs. Auché and Hobbs of Bordeaux. The Laborie prize was founded in memory of Dr. Laborie, who was for many years Senior Physician to the Asile des Convalescents at Vincennes. Madame Laborie gave for the purpose a capital sum sufficient to produce an income of £200 a year, to be awarded as a prize for the best work in surgery. This prize was divided between MM. Poncet and Bérard of Lyons, authors of a *Traité Clinique de l'Actinomycose*, and M. Kirmisson, Surgeon to the Enfants-Assistés, author of a *Traité des Maladies Chirurgicales d'Origine Congénitale*, published during the past year. The Chevillon prize of £60 is given for the best work on the treatment of cancerous diseases. This year a portion of it (£40) was awarded to Drs. A. Guinard and Livet, who have used carbonate of calcium as a local application with considerable success as far as the relief of pain and the arrest of hæmorrhage and the prevention of fœtor are concerned. The Buisson prize consists of a sum of £420 awarded trienially to the discoverer of methods of curing diseases regarded as incurable. This year there were only three competitors: Dr. Frenkel, who propounded a method of training whereby ataxic patients may be drilled into the recovery of muscular co-ordination; Dr. Jayle, who has made a series of investigations as to the practical utility of ovarian extract in the treatment of nervous and circulatory disorders accompanying dysmenorrhœa and the menopause, whether natural or artificial; and Dr. Petit, who presented a thesis on tuberculosis of the glands of the neck. The Academy did not see its way to award the prize, but gave £40 each to Dr. Frenkel and Dr. Jayle, and £20 to Dr. Petit by way of encouragement.

CHRISTIAN SCIENCE IN THE UNITED STATES.

Christian Science has recently been much before the public of the United States, not only in the newspapers, but in the law courts. On November 15th, Harriet O. Evans, a member of the sect, was arrested at Cincinnati by order of the State Board of Health as being accessory to the death of a man suffering from typhoid fever. She was convicted of practising medicine without a licence. In Rhode Island a judge not long ago, in a case in which two Christian Scientists were charged with the illegal practice of medicine, decided that they had violated the health laws. The accused were Walter E. Mylod and David Anthony. Both of them claimed the right to use the "C.S.D." as an affix to their names on the signs they had hung out. Mylod, in his own defence, said he belonged to the "Providence Church of Christ, Scientist." "Pray without ceasing" is the text adhered to. He had been a scientist for eleven years. Mylod said that beyond a greater realisation of the truth which that science might have given him, he had no greater power over illness than any member of his church. He denied the existence of disease. Several of the patients of Mylod were called, and they testified it was prayer, religion, and God, and not medicine, that made them feel better. The case has been taken to the Supreme Court of the State, which is now called upon to decide whether Christian Science is a method of medical practice or a system of religion. On November 12th Mr. Thomas Greenwood Kershaw, the head of the Christian Science Church of Tacoma, died of acute pneumonia, for which he declined medical treatment. He is said to have been a man of the highest education and intelligence, and until he became an adherent of the Christian Science sect he was one of the most active and successful business men of Tacoma. When taken ill Mr. Kershaw, despite the entreaties of his family, refused to see physicians, and placed himself under the care of a woman Christian Science healer in Savannah (Ill.), who, he said, was able to relieve him regardless of distance. He was visited by several of his Christian Science followers, and at their suggestion he rose from his bed and took a step forward. He would have fallen had he not been caught. It was then found that he was dead. In view of the fierce light which has for some time past been beating on the Christian Scientists, it is not surprising to learn that American insurance companies are beginnng to look askance at them as "risky lives." Yet in spite of all the exposures which have lately come thick and fast, we read that Mrs. Mary Baker Eddy, the founder of Christian Science, has lately completed the examination of a class of about seventy students, and has conferred upon them a degree of the Massachusetts Metaphysical College, empowering them to go forth as "healers and as teachers of this system of medicine, whose only crowned head is divine sovereignty, whose only priest is spiritualised man." And these "healers" are not likely to lack patients if some statements recently made by Mr. Carol Norton in an address delivered at Brooklyn are to be trusted. He said that there are at present 7 Christian Scientist churches in Greater New York City, and 13 in the immediate vicinity of New York City, 38 churches and congregations in the State of New York, and about 30,000 adherents of the faith in the State. Mr. Norton estimates that there are a million Christian Scientists in the United States.

GLASGOW ROYAL INFIRMARY.

At the annual New Year's Day meeting of the managers of the Glasgow Royal Infirmary with the nurses and staff, the Lord Provost, Sir David Richmond, referred to the proposed reconstruction of the infirmary. It was not, he said, easy to plan such a large institution so as to give the greatest satisfaction to everyone, and the trouble experienced in bringing all the different proposals into line had been very great. The managers had had many anxious meetings, and the medical staff had been consulted. He hoped, however, that in a very short time a portion at least of their institution would be reconstructed, and he believed that the plans of the internal arrangements that had been fixed upon were equal to those of any infirmary in Europe, while the buildings would be handsome and ornate, as well as useful. The sum already raised was £80,000. When the scheme was first suggested, the sum asked was £50,000, but it was soon seen that a larger scheme was required, and the public were asked to provide £100,000. He had no doubt they would get that amount, if not before the buildings were begun, at all events before they were completed.

THE SUSPECTED PLAGUE ON THE *GOLCONDA*.

The British India Steam Navigation Company have, it seems, expressed a desire to see contradicted the statement that the suspected plague patient on board their vessel, the *Golconda*, mentioned in the British Medical Journal of December 31st, 1898, complained of illness shortly after leaving Colombo. It would seem indeed that the ship's surgeon was not acquainted with the fact of the reported ill-health of the patient, Mr. Wilcox, until the latter reported himself to the surgeon as ailing the day after the *Golconda* left Marseilles, the last port of call. We are glad to note this emphatic contradiction, the more so as the circumstances of such an apparently prolonged incubation of plague, if plague it be, have in themselves given rise to various conjectures and rumours; and undoubtedly anything that savoured in the slightest degree of concealment of actual fact as regards the existence of plague on board a liner would be greatly to the prejudice, not alone of the company to which the vessel belonged, but also to shipping generally on the passage westwards from Indian waters. At present, however, there would seem to be no complete proof forthcoming that the case in question is bubonic plague. As regards the allegation that a second case of plague had been discovered on board while the vessel lay in dock in the Thames, we cannot learn that there is any truth in

the rumour. But after all, and whether or no the cases on the *Golconda* be in reality of the nature of plague, we must be prepared to see the true disease found on vessels trading between our own shores and India; and the fact need cause no uneasiness, having regard to the conditions under which the lines of steamships enter Channel ports. Equipped as are these ports of call, and as is the Thames port authority, to deal promptly and effectually with exotic diseases, we may rest assured that local authorities will adopt adequate and timely action whenever necessity arises.

SURGEON-GENERAL A. A. GORE.

THE retirement of Surgeon-General Albert Augustus Gore, of the Army Medical Staff, after a continuous service of thirty-nine years, and a tenure of the highest and most responsible position after that of the Director-General of the Medical Department, namely, the Principal Medical Officership of Her Majesty's Forces in India, calls for a few words on the distinguished officer's career. Surgeon-General Gore's appointment has in every respect been a success. Not only had he to organise and distribute the medical arrangements for war, but he was called on to advise on many subjects connected with bacteriological research and sanitation in their application to the health and well-being of our military forces serving abroad. These duties have been carried out with an unswerving fidelity and a fearless independence deserving of the highest commendation. Surgeon-General Gore's war service records "wounds" twice and mention for "conspicuous bravery," with a "special recommendation for promotion" in 1868. It is not generally known that Surgeon-General Gore very nearly got the V.C. for conspicuous bravery in bringing in a wounded officer during the operations on the West Coast of Africa. His contributions to military medical literature comprise *A Medical History of our West African Campaigns: Notes of a Visit to the Military Hospitals of the Continent*, and *The Story of our Services under the Crown*, all of which show laborious research, and contain much matter both instructive and interesting, which army surgeons would do well to read and note. Surgeon-General Gore's first commission as "Assistant-Surgeon" is dated October 1st, 1860, and subsequent promotions, till he reached a General's rank, were by no means rapid. He retires with the regard and respect of the officers with whom he was associated, and we have it on good authority that a high opinion was held at Headquarters Simla of his administrative ability. He studied to promote *esprit de corps*, and to support the dignity of the corps of which he was the head.

AMBULANCE AND HOME NURSING IN THE EVENING CONTINUATION SCHOOLS CODE.

WE have received a copy of a correspondence, extending from July to November, 1898, between Mr. J. Bentall Endean, of Cockington, Devon, and the Lords Committee of the Privy Council on Education, in which the former charges that department and the St. John Ambulance Association with piracy upon his translation of *The Care of the Sick at Home and in the Hospital*, by Dr. Billroth, in compiling their syllabuses for the code on sick nursing and on ambulance. These are special subjects in the new code for evening elementary schools; and the syllabuses in question are alleged by Mr. Endean to have been abstracted and constituted almost wholly from *The Care of the Sick* without his permission, and without any acknowledgment. He complains that in thus taking the results of his brain labour, the department has done him a great wrong. He therefore requests the department to make the teachers throughout the country aware that the principal textbook on the subject is the one in question. In reply, he is informed that the department does not recommend the use of any particular books in public elementary schools. It is admitted, however, that the courses on sick nursing and ambulance were suggested by the St. John Ambulance Association; and it is pointed out that the alternative syllabuses of the schedule are described as "the scheme of the St. John Ambulance Association." The Secretary of that Association (Sir H. Perrott) on being applied to, states that Mr. Cantlie, who assisted Dr. Shepherd in compiling the "first-aid" syllabus, and who alone compiled the "nursing" syllabus, denied *in toto* that any reference whatever had been made to Dr. Billroth's publication; whilst he (Sir H. Perrott) claims that these compiled schemes are entirely original. Mr. Endean, however, returning to the charge, contends that the syllabuses and the book agree closely; he further states that his translation appeared in 1890, that a copy of it was sent in March, 1891, to Sir H. Perrott, whereas the syllabuses were not published until 1893. But, though he expresses himself as indignant that the department should by example place themselves before the children of the country as "receivers of stolen goods," the only reply vouchsafed to him is that "my Lords do not consider that any useful purpose would be served by prolonging this correspondence." Practically, therefore, it would seem that the syllabuses of ambulance and home nursing used in evening continuation schools largely coincides with Mr. Endean's translation of Billroth's book, though no official acknowledgment of the fact has ever been made.

INTERNATIONAL CONGRESS OF OPHTHALMOLOGY.

THE Ninth International Congress of Ophthalmology will be held at Utrecht from August 14th to 18th, 1899. The scientific work of the Congress will be divided among three sections, as follows: (1) Anatomy, Pathological Anatomy, and Bacteriology; (2) Optics and Physiology; (3) Clinical and Operative Methods. Communications may be presented in English, French, or German, which may also be used in discussion. At each meeting of the several sections one of these languages is to have the preference, but without excluding the use of the others. The University of Utrecht has placed its buildings at the disposal of the Congress for the meetings and exhibitions. The Organising Committee is composed of Dr. Argyll Robertson, President, and Mr. George A. Berry, General Secretary, of the Eighth Congress; Professor M. E. Mulder (Groningen), M. Straub (Amsterdam), W. Koster (Leyden), and H. Snellen (Utrecht). The British Secretary of the forthcoming Congress is Dr. Angus McGillivray, of Dundee.

OPERATION ON THE GRAVID UTERUS.

RECENT improvements in the technique of abdominal surgery have effected a marked diminution in the mortality attending operative interference with the gravid uterus. Excluding hysterectomy for malignant disease, there are practically only two conditions under which the gravid uterus comes under the knife of the surgeon—the presence of fibroid tumours, and insuperable obstacles to delivery. Cæsarean section is a historic procedure, and of growing repute; the removal of fibroids during pregnancy is modern, and open to doubt. The attitude of mind of the "advanced" gynæcologist towards fibroid tumours has undergone a remarkable change. Formerly, the presence of these growths was regarded with a large toleration both by the doctor and his patient; now some gynæcologists regard them with abhorrence, and hunt them down with little regard to their size, or location, or the symptoms, if any, to which they give rise. Even the gravid uterus is not exempt from attack. A German gynæcologist has recently collated 55 cases in which myomectomy was performed during pregnancy; the maternal mortality was 11 per cent., and in 32.7 per cent. the ovum was subsequently destroyed. These results, of course, compare favourably with those obtained ten years ago when the mortality as cited by Tourkero and Lange ranged from 25

to 30 per cent. Proof is accumulating, however, that at term surgical interference with the gravid uterus is much safer than at any earlier period. Recent returns of the operation of Cæsarean section show a mortality scarcely exceeding that of ovariotomy in the most experienced hands. Olshausen has reported 29 cases with a mortality of 6.8 per cent., and Leopold 59 cases with a mortality of 8 per cent., and in several instances the operation was performed twice and even three times upon the same individual with a result successful both as regards the mother and the child. It can rarely be necessary to operate upon subperitoneal fibroids during pregnancy. In the great majority of cases such growths cause no complications whatever either in pregnancy or labour. It is usually better either to induce abortion or to allow the pregnancy to go to term undisturbed, and then if the birth of a living child should prove impossible, to remove it by Cæsarean section, and at the same time deal with the fibroids by the most appropriate methods. As a matter of fact, if this rule were observed, many operations contemplated during pregnancy would never be performed at all.

GLASGOW AND ITS LATE MEDICAL OFFICER OF HEALTH.

After a somewhat animated discussion the Corporation of Glasgow adopted the proposal that Dr. Russell, their late senior medical officer of health, should receive an honorarium of £1,000. There was some discussion on the legality of the proposal and upon the danger of forming such a precedent. However the general feeling that the splendid services which Dr. Russell rendered for the city should be specially acknowledged prevailed and the proposed grant was agreed to.

THE CRICCIETH TRAGEDY.

The coroner's court in nearly every case of suicide inquires into and the jury takes cognisance in its finding of the mental state, as is seen in the common verdict "temporary insanity." In a case of suicide complicated by murder it would appear to be still more desirable that the mental state of the deceased should be ascertained. Many homicidal suicides result from the fact that the present state of the law renders it difficult to deal with some of the most dangerous forms of insanity, until they have resulted in an act of violence. It is therefore most desirable in the interests of the community that such cases as the Criccieth tragedy should be very fully investigated, with the object of definitely ascertaining whether such insane murders and suicides could not be prevented by improved legislation. All definite evidence of facts relating to the mental state of the suicide ought to be obtained and received. It rests, however, in the decision of the coroner (as of the judges in criminal cases) whether a medical opinion of the mental state will be received or rejected. Some judges will admit no opinion, others permit opinions to be expressed.

THE LIVERPOOL LYING-IN HOSPITAL.

The resolution to admit unmarried women in the case of a first confinement to the Liverpool Lying-in Hospital has been carried by a large majority of the subscribers. This change in the laws of the institution has been effected after an agitation extending over no less than twenty-two years. Its origin is to be traced to a paper read by Mr. F. W. Lowndes before a meeting of the National Society for the Promotion of Social Science, which took place in Liverpool in 1876. Mr. Lowndes, dealing with the causes and prevention of the terrible destruction of infant life in Liverpool, suggested certain changes in the law which he thought might have the effect of reducing the number of cases of infanticide, and many persons present suggested the establishment of asylums for the reception of pregnant single women, such establishments having authority from the State to proceed against parents for the maintenance of their children. Mr. Lowndes held up for imitation the example of Queen Charlotte's Lying-in Hospital, London, where single women about to become mothers were admitted for a first confinement. In recommending the adoption of this rule by all lying-in hospitals and maternity charities he said: "Let the same humanity which prevails with judges, jurors, physicians, and lawyers after the crime has been committed, be shown by the supporters of these charities before the crime has been meditated." Mr. Lowndes is to be congratulated on the success which, though long deferred, has followed his efforts.

CENTENARY OF THE RUSSIAN MEDICAL MILITARY ACADEMY.

The centenary of the Russian Medical Military Academy was held with great pomp and success at St. Petersburg last week. The celebration began with a solemn service in the chapel of the Medical University, after which an address was given by one of the chief professors, in the presence of the Minister of War, of several of the great dignitaries of the Greek Church, and of a crowded and gay assembly. After the address prizes were handed to the most successful of the students. The chief event of the celebration, however, was a meeting in the Salle de Noblesse, on December 30th, 1898, at 2 P.M. The large hall was crowded with ladies in evening dress, with officers in uniform, and with delegates from various countries in their academic clothing. The Grand Duke Constantine assisted at the ceremony, and the Minister of War presided. After the delivery of an address, which embodied the history of the Academy, the Russian and the foreign delegates were, one by one, shown upon the platform and were introduced, each one saying a few words of greeting from the institution which he had the honour of representing. It was a long affair, as some of the delegates read memorials or made set speeches. All the delegates were heartily received, but Professor Bergmann, of Berlin, had, perhaps, the most enthusiastic welcome of all. Amongst the British representatives were the Rev. H. S. Cronin and Professor Shipley, from the University of Cambridge; Dr. Fergusson, from Edinburgh; Professor Ogston, from Aberdeen: and Messrs. Edmund Owen and F. R. Cross, from the Royal College of Surgeons of London.

The Prince of Wales has been pleased to appoint Sir James Reid, Bart., K.C.B., a Physician in Ordinary to His Royal Highness, *vice* Sir William Jenner, deceased.

Mr. Percy Furnivall has been elected Assistant Surgeon to the London Hospital, and Dr. T. W. Eden has been appointed Assistant Obstetric Physician to Charing Cross Hospital.

The Association of Public Vaccinators has issued to its members a paper of suggestions and recommendations arising out of the Vaccination Order, 1898. The paper has been compiled by Dr. A. E. Cope, one of the Honorary Secretaries, 26, Bessborough Gardens, S.W., and deals with a great variety of questions which will present themselves to public vaccinators in the transition from old to new.

Lectures will be delivered by Dr. E. Symes Thompson, Gresham Professor of Medicine at Gresham College, Basinghall Street, E.C., on January 17th, 18th, 19th, and 20th at 6 P.M. on each day. The subject of the course will be Preventive Medicine. The first lecture will deal with Consumption in relation to Air and Food, the second with the Tubercle Bacillus, the third with the Open-air Treatment of Consumption, and the fourth with Bovine Tuberculosis.

A NEW MIDWIVES BILL.

A new Midwives Bill has been drafted by the body calling itself the Midwives Bill Committee. It is printed on pp. 46 and 47, but it may be well first of all to recall the circumstances which have given it its present form.

The Midwives Registration Bill introduced in the session of 1898 was referred by the Lord President of the Privy Council to the General Medical Council for its opinion. The Bill was considered by a Special Committee of that body, and on April 5th and 6th, 1898, the General Medical Council held a special session for the consideration of the report of this Committee.

The First Report of the General Medical Council.

It may be convenient to reproduce the report as adopted by the General Medical Council on April 6th, 1898, and directed to be forwarded to the Lord President of the Privy Council:

Report of the General Medical Council in regard to the Midwives Registration Bill.

(i) That the title of the Bill should be: "A Bill to promote the training of women as midwives, and to provide for the regulation of their practice."

(ii) That the term "midwife" should be defined as meaning a woman who undertakes for gain to attend cases of natural labour, and who is not registered under the Medical Acts.

(iii) That the answer of the Council to the Lord President of the Privy Council should be as follows:

"(1) That the Council adheres to its previous resolutions affirming that it is desirable that measures should be taken to protect lying-in women of the poorer classes from the grave risk which they now incur from the unregulated practice of midwives, many of whom are ignorant and unskilful, and most of whom pursue their calling without due medical supervision.

"(2) That to this end it is desirable that every woman who, not being a registered medical practitioner, engages for gain in practice as a midwife, should be subjected to legal regulation and control.

"(3) That any measure which proposes merely to protect the title of 'midwife,' however defined, and does not make illegal and penal the unlicensed practice of midwifery for gain, cannot be regarded as offering a sufficient safeguard in the interest of the public health.

"(4) That some central body should be established by Parliament whose functions should include the framing of the conditions under which midwives may be licensed, and of the regulations under which alone they shall be allowed to practise.

"(5) That the conditions and regulations so framed should be subject to the approval of the General Medical Council, and if and when so approved should be issued to the local sanitary authorities by the State Department which is concerned with the public health.

"(6) That provision should be made by Parliament for reimbursing the Council for any expenditure which it may have to incur in performing the duty hereinbefore referred to.

"(7) That every woman, before beginning to practise as a midwife in any district, should be required to take out a licence, to be granted by the local sanitary authority of the district under the prescribed conditions and regulations. That such licence should be subject to annual renewal, and should be revocable at any time in case the holder is proved to have infringed any of the prescribed regulations.

"(8) That any unlicensed woman, whether calling herself a midwife or not, who, not being registered under the Medical Acts, practises as a midwife for gain in any district, should be made liable to a substantial penalty.

"(9) That the conditions under which licences are granted should include the production of satisfactory evidence of character, and of training and experience in the conduct of natural labour, and in the after-care of lying-in women and newborn infants.

"(10) That the regulations under which licensed midwives are required to practise should include provisions securing that the midwife shall immediately seek qualified medical assistance in every case which presents symptoms of difficulty, abnormality, danger, or disease on the part of the mother or of the newborn infant.

"(11) That in so far as the Bill submitted to the Council is not in accordance with the general principles above laid down, the Council do not regard it as offering a solution of the question under consideration, and would earnestly deprecate its passing into law in its present form."

On May 2nd the Lord President received a deputation of the promoters of the Bill then before Parliament, and intimated very clearly that they must come to a "definite understanding with the medical profession as represented by the General Medical Council." In consequence of this intimation the promoters approached the General Medical Council with a view to making such alterations in the Bill of 1898 as would secure the support of the Council, and sought a conference to ascertain "the precise bearing of some of the clauses" of the above report (of April 6th).

The Second Report of the General Medical Council.

On May 25th the General Medical Council appointed a Committee, consisting of Sir Richard Thorne (Chairman), Dr. Glover, Dr. MacAlister, and Sir Christopher Nixon, "to confer with the delegates of the Midwives Bill Committee and to report to the Council." A conference was accordingly held on June 25th,[1] and the deputation, which represented the Midwives Bill Committee and the Association for promoting Compulsory Registration of Midwives, a body stated to represent "a section of the general community in sympathy with the movement," subsequently handed in a summary of the points submitted. The Committee presented a report to the General Medical Council on November 29th. This Report, as adopted by the Council, with certain modifications was as follows. The "points" submitted by the Deputation are interpolated in small type for convenience of reference:

Report by the Committee Appointed by the Council to Confer with Delegates from the Midwives Bill Committee.

Your Committee, appointed by resolution of the Council on May 25th, 1898, to confer with delegates of the Midwives Bill Committee, beg leave to report that the conference in question was held on June 25th, 1898, and they append hereto an account of the proceedings which then took place.

Your Committee made it clear at the outset of the proceedings that the principal objects of the Conference were: (1) To hear from the delegates of the Midwives Bill Committee any suggestions they might wish to make as to modifications of the Midwives Bill of 1898 so as to secure for any future Bill the support of the General Medical Council; (2) to explain to the Delegates the precise bearing of any clauses of the *Report* on that Bill which the Council had adopted on April 6th, 1898, and which might not be fully understood by the delegates; and (3) to express, as far as they were able, the views of the Council on certain matters which were deemed to be of importance by the Midwives Bill Committee, but which, according to that Committee, were not explicitly mentioned in the *Report* of the Council referred to. It was, at the same time, stated that your Committee had no power to make any suggestion or give any assurance which would in any way contravene the terms of the *Report* of the Council, or to bind the Council in any matters not specifically dealt with in that *Report*.

The delegates of the Midwives Bill Committee then brought a number of points before your Committee, which were thereupon discussed. After consideration of the shorthand notes of the discussion which were taken by the Midwives Bill Committee at the Conference, the delegates have, in Appendix II, on pp. 46-47, to the account of the proceedings, set out under six headings the "points" which it has been their desire to bring under the notice of the Council.

[POINT I.—THE GENERAL QUESTION OF LICENSING.

(*a*) What tests of fitness should be applied to applicants for a licence?

We suggest that, in addition to satisfactory evidence of character, training, and experience, as proposed in the *Report* adopted by the General Medical Council (see *Report* iii (9)), a system of examination should be instituted by a Central Board, and that the passing of this examination should be one of the tests of fitness. (See present Bill, Clause 5, (*a*), (*b*), and (*c*).)

(*b*) Restriction of the area of practice. (See *Report* iii (7).)

If the practice of a midwife is to be strictly limited to the district in which she has taken out a licence great inconvenience will arise. An endorsement of her licence or some equivalent formality should enable her to act as a midwife in a neighbouring district. In no case ought her crossing the line into another district in an emergency to be penalised.

(*c*) Annual renewal of the licence. (See *Report* iii (7).)

This would cause unnecessary trouble and expense to the midwives. In country places they might have to travel a considerable distance to the office at which licences are issued. Also the Local Sanitary Authority might refuse renewal on capricious grounds or on the instigation of interested persons. Besides this, many midwives, amounting possibly to thousands in the aggregate, might neglect to renew their licences. In this way an immense number of midwives all over the country might have to be prosecuted. A sufficient safeguard is provided in the present Bill by Clause 5, (*f*) and (*h*). In any case we feel that a reason should be given for every refusal to renew a licence. We would also suggest that a midwife, the renewal of whose licence has been refused, should have the right of appeal to the Central Board.]

The first "point" relates to *The General Question of Licensing*.

Under sub-head (*a*) it is proposed that, in addition to other tests of fitness to be applied to applicants for the midwife's licence, the passing of an Examination shall be imposed. We imagine that Paragraphs (iii) (4) and (5) of the Report of the Council (see p. 12) were not intended to exclude some such

[1] *The Report by the Committee appointed by the General Medical Council on May 25th, 1898, to confer with delegates from the Midwives Bill Committee* forms part of the *Minutes of the General Medical Council* for its last session. It can also be sold separately at the office of the General Medical Council and by Messrs. Spottiswoode and Co., 54, Gracechurch Street, E.C., price 1s. Appended to it is a shorthand writer's report of the proceedings at the conference taken by the Midwives Bill Committee.

test at least in the case of midwives who may not be practising as such at the time of the passing of any Midwives' Act.

Sub-head (*b*) deals with the *Restriction of the Area of Practice*. The delegates at first pointed out that limitation of practice to the district where the licence is taken out would involve difficulties. Your Committee, on the other hand, feel that whilst some consideration might properly be granted for calls across the boundary of a district in cases of real emergency, no proper supervision could be maintained over the practice of a midwife who might, without the knowledge of the local supervising authorities concerned, at any moment and without notice transfer her sphere of work from one district to another. They are of opinion that, whilst a licensed midwife should be free to follow her vocation in any district or districts in England and Wales to which her licence applies, and whilst it may be necessary to make due provision for real emergencies, no midwife should undertake practice in any district the sanitary authority of which has not previously been made officially cognisant of the fact. Midwives residing near the boundaries of several districts could easily get their licences made available for each of those districts.

Sub-head (*c*) deals with the *Annual Renewal of the Licence*. The delegates did not view with satisfaction the proposal in (iii) (7) of the *Report* of the Council (see p. 12) that the licence should be subject to annual renewal. Summarising their objections to this proposal, they now suggest as a difficulty that a midwife might have to travel a considerable distance to the proper office. Considering that even in the more remote sanitary district this means no more than a visit once a year to the principal market town, which can always be reached by one or other class of conveyance, we are unable to accept the view that this requirement involves any substantial difficulty.

The *Withholding of the Licence* is also referred to under this heading, and it is suggested by the delegates that with a view of preventing the withholding of the renewal of a licence on capricious grounds, a reason should be given for any refusal of renewal, and that there should be an appeal in this matter to the Central Board which it is proposed to appoint under the Bill. We imagine that the Council would not propose that when once the statutory licence to practise as a midwife has been acquired, the person possessing it should be deprived of it without a reason being assigned for such deprivation, nor would they be likely to object to an appeal against arbitrary and capricious action in such a matter. But the suggestion that it is unnecessary to require the renewal of licences by the local supervising authority or to confer on that authority the power to revoke the licence, is not one which your Committee can endorse. Action based on that suggestion would in effect deprive the responsible local supervising authority of the chief power they would possess of preventing malpractice in its many forms, and of requiring compliance with the prescribed regulations.

[POINT II.—THE PENALISING OF UNLICENSED PRACTICE.
We propose to substitute for this a clause disabling unlicensed midwives from recovering fees. Parliament would almost certainly refuse to penalise unlicensed practice. A penalising clause would infringe the liberty of the subject, create a monopoly, and tend to raise the fees of midwives. It might prevent, through fear of prosecution, an unlicensed woman from rendering assistance, even in an emergency, to any poor woman in labour. It would alienate the majority of the non-medical promoters of the movement, including many who have consistently supported it in Parliament. Further, if the State were to prevent unlicensed women from acting as midwives, it ought to provide or to ensure for the poor a sufficient supply of licensed midwives.]

The second "point"—namely, that dealing with *The Penalising of Unlicensed Practice*, involves a question of great importance. The Council decided in (iii) (8) of their *Report* "That any unlicensed woman, whether calling herself a midwife or not, who, not being registered under the *Medical Acts*, practises as a midwife for gain in any district, should be made liable to a substantial penalty." The delegates of the Midwives Bill Committee, on the other hand, propose to substitute for this clause one which would simply disable unlicensed midwives from recovering fees. Your Committee believe that adoption of this proposal would defeat one of the principal purposes which the Council have all along had in view—namely, that of protecting parturient women of the poorer classes from the graver risks which they now incur owing to the unregulated practice of midwives; and that it would likewise render nugatory the aim which the promoters of the Midwives Bill set out in a prefatory Memorandum to the Bill in the following words: "The chief object of this Bill is to enable the public, and especially such of the poor as are in the habit of employing midwives, to distinguish between those midwives who have been trained and have given evidences of being competent for their duties and those who have not."

It seems, indeed, almost unnecessary for your Committee to say more on this subject than to point out that a woman whose licence has been revoked for grave malpractice would immediately start unlicensed practice and would remain uncontrolled either by the local sanitary authority or by the Midwives' Board so long as she refrained from claiming her fee by legal proceedings in the few cases where that fee had not been voluntarily paid by those engaging her services, or where she had not insisted on being paid before commencing her attendance. The difficulties urged by the delegates would, we believe, be amply met by a clause recognising the obvious right of any woman to help her neighbour in the process of natural labour without fee in the cases where the services of neither a medical practitioner nor a licensed midwife were available.

Any temporary difficulties which might be experienced in this matter if, as assumed, on the passing of an Act dealing with this subject the number of trained midwives became largely reduced, would, we believe, be fully met by a proposal such as that which we suggest in dealing with Point IV.

[POINT III.—GENERAL LIST OR ROLL OF MIDWIVES.
We suggest that there should be printed a general list or roll of midwives who have passed the qualifying examination and produced satisfactory evidence of character, training, and experience. We do not propose that the fact of a woman's name being found on this list should be accepted as proof that she is licensed to act as a midwife. A general list would tend to secure uniformity in the standard of competency. It would save trouble and expense to the local sanitary authority, who would merely require to find on the list the name of an applicant for licence and to identify the applicant. It would also furnish an easy means of giving general effect to the withdrawal of a licence from any midwife found guilty of a breach of the regulations, as her name would then be struck out of the list, and she would be unable to obtain a licence in any district.]

In the third "point," the compilation of a General List or *Roll of Licensed Midwives*, for certain purposes, is proposed. Provided that the compilation of such roll does not supersede the necessity of each midwife being annually licensed in the district or districts in which she follows her vocation, we see no objection in principle to the proposal. But it would be undesirable to attach any legal privilege to the mere appearance of the name of a midwife on this Roll, such as is conveyed by the appearance of a name on the *Medical* or *Dentists' Register*.

[POINT IV.—EXISTING MIDWIVES.
We suggest that the existing midwives should be admitted to the list only on certain conditions to be laid down by the Central Board and approved by the General Medical Council. Means should be adopted to distinguish those who have given evidence of fitness from those who have not.]

The fourth "point" deals with a proposal to admit existing midwives to the Roll under conditions to be drawn up hereafter, and to be approved by the Council. Your Committee are of opinion that women ascertained to have been in *bonâ fide* practice as midwives prior to the passing of a Midwives' Bill might, subject to the production of satisfactory evidence as to character, be licensed to attend natural labours without passing any special examination. The admission of these women of uncertain qualifications to the status of licensed midwives would be of a transitional nature only; it would be a distinct gain to the poorer classes, in so far as it would bring women whose practices are now altogether uncontrolled under the supervision of the local sanitary authority, and under the control of the Midwives' Board; it would secure the cancelling of their licences for breaches of the rules laid down; and it seems to us to be the only means of meeting the existing demand for midwives in certain parts of the country. It would also not be inconsistent with the precedent under which medical men who were in practice before 1815 were allowed to practise Medicine, Surgery, and Midwifery, and were placed on the *Medical Register* without possessing any formal qualification in any branch of Medicine.

[POINT V.—REGULATION AND SUPERVISION OF THE PRACTICE OF MIDWIVES.

Would Clause 5 (*f*) of the existing Bill meet the views of the General Medical Council? According to it the Central Board would frame for approval by the General Medical Council rules for regulating, supervising, and restricting within due limits the practice of midwives.]

The fifth "Point" raises the question whether Clause 5 (*f*) of the Bill of 1898 would meet the views of the General Medical Council. That clause provides that a Midwives Board, constituted as defined in an earlier part of the clause shall have assigned to it amongst its duties: "To frame for approval by the General Medical Council rules for regulating, supervising, and restricting within due limits the practice of Midwives."

The provision here referred to is only one of several provisions of the Bill in which certain duties are cast upon the General Medical Council; and we feel that we have no authority, in the present uncertain position of the question of legislation for midwives, to express an opinion as to what duties the Council might be willing to undertake under a statute the precise provisions of which have not yet been drawn up. But, at the same time, your Committee expressed to the delegates the opinion that the Council under (iii) (4) of their *Report* (see p. 12) clearly intended that the duty of framing the conditions regulating the practice of midwives should primarily be placed in the hands of some Central Midwives Board. We feel, however, that it is impossible to separate the question of such rules and conditions being submitted to the approval of the Council from the next "Point" to be referred to.

[POINT VI.—EXPENSES OF CARRYING OUT THE ACT.

We desire to point out that our Bill, being a private member's Bill, cannot constitutionally contain a clause directing any payment out of the Exchequer. This prevents our making provision for the reimbursement of any expenditure which may be incurred by the General Medical Council out of moneys provided by Parliament. (See *Report* in (6).) Only a Government Bill can do that.

Also we should like to know how the General Medical Council would propose to provide payment for the medical assistance referred to in the *Report* iii (10). The midwife is to immediately seek qualified medical assistance in every case which presents symptoms of difficulty, abnormality, danger or disease on the part of the mother or of the newborn infant.]

This "Point," the sixth set out by the delegates, relates to the *Expenses of Carrying out the Act*. The delegates point out in their summary that since their Bill is a private members' Bill they cannot insert a clause providing for any payments out of the Exchequer. This, doubtless, is so. But whatever the remedy may be, it seems quite clear that the cost of carrying out the provisions of any such legislation, however desirable that legislation may be in the interests of certain portions of the community, ought not to be paid out of the funds of the General Medical Council. The advantages accruing from such legislation will primarily concern the public, and the licensed midwives; whereas no one can suggest that it will pecuniarily benefit the medical and dental professions, who by payments on registering their diplomas provide the only funds which are at present at the disposal of the Council.

Your Committee have reason to believe that the Lord President of the Council is desirous of receiving some expression of opinion from the Council as to how this matter may best be met; and they would therefore make the following proposals to the Council:

1. That the duty of fulfilling any functions that may be imposed upon the Council under any Act regulating the practice of Midwives should be delegated to a Special Committee, who should report to the Council.

2. That, so long as any such Act is made to apply only to England and Wales, the Special Committee should consist of five members of the English Branch Council.

3. That, in the first instance, the Special Committee should meet in London at least twice a year.

4. That the sum allowed by the Treasury to the General Medical Council for the performance of any duties imposed upon it under an Act regulating the practice of Midwives should, in the opinion of this Council, be adequate to cover both the general and special expenses of the Council and its Special Committee.

Under the sixth "point" the delegates also express the desire to know how payment is to be made for the medical assistance which, according to the *Report* of the Council (iii) (10), the midwife is to seek "in every case which presents symptoms of difficulty, abnormality, danger, or disease on the part of the mother or of the new-born child." This matter is not specifically referred to in the *Report* of the Council. But your Committee would suggest that the necessary fee should be paid by the local sanitary authority, and that this authority should have power to recover the amount, either in whole or in part, according as the patient or other responsible person may be held by a court of summary jurisdiction to be able to pay. A similar provision exists in regard to payments for the treatment and maintenance of persons who are isolated in hospitals for infectious diseases which have been provided at the cost of the rates by local sanitary authorities.

THE NEW BILL OF THE MIDWIVES BILL COMMITTEE.

The Draft Midwives Bill, 1899, as agreed to by the Midwives Bill Committee on December 10th, is a substitute for that promoted by the same Committee in the last session of Parliament. Mr. Rowland Humphreys, L.R.C.P.Lond., Honorary Secretary of the Midwives Bill Committee (12, Buckingham Street, Strand, W.C.), in forwarding a copy of the new Bill, writes:

"It is based on that of 1898, altered in several important respects in view of the requirements of the General Medical Council as formulated in April last.

"The chief alterations are: (1) Licensing is substituted for registration; (2) the habitual practice of midwifery—by other than medical practitioners—by women not licensed under this Bill, is rendered illegal (Section III, Subsection 2); (3) the area within which a midwife may practise is limited to that controlled by the local supervising authority, from whom she has obtained a certificate authorising her to practise (Section X).

"These are the leading requirements of the Council."

The alterations indicated by Mr. Humphreys are set out in the Memorandum issued with the Draft Bill.

NEW FEATURES OF THE BILL OF 1889.

In the Draft Bill as printed below, the words or provisions which are new are printed in italics, but the two Bills differ also by certain omissions from the Bill of 1899.

The title of the Bill has been altered from A Bill for the Registration of Midwives, to A Bill to Promote the Better Training of Women as Midwives and to Regulate their Practice.

Clause 1 is modified sequentially by the omission of the word "registration."

In Clause 2, the definition of the term "midwife" is altered from "a woman who undertakes to attend cases of labour in accordance with the regulations to be laid down under this Act, to "who undertakes for gain to attend women in childbirth." "Roll" is substituted for Register, and the Board is termed the "Central Midwives Board" in the place of Midwives Board. Sequential alterations are made throughout the Bill.

In Clause 3 (1) the concluding words were in the Bill of 1898 "or is specially qualified to act as a midwife unless she be registered under this Act," The word "specially" is omitted in the Bill of 1899.

In Clause 3 (4) the phrase "implying that she is by law recognised as a licentiate or practitioner in medicine or surgery, or that she is qualified to grant any medical certificate, or any certificate of the cause of death" has been modified by the introduction of the term "medical practitioner" in place of the terms "licentiate or practitioner in medicine or surgery" as well as by the omission of the words making special reference to the certificate of death.

From Clause 4 is omitted "for a period of two years," which in the Bill of 1898 was given as the period for which a woman must show that she had been in *bona fide* practice as a midwife. The provision that she shall produce a certificate of character is new.

The modifications in Clause 5 are mainly sequential to the adoption of the principle of local licences in place of registration by a central Board. The Central Midwives Board under the new Bill would consist of six persons in place of eighteen, but the bodies appointing remain unaltered as does also the relative proportion of representatives. The provision that one-third of the elected representatives should retire annually and be inelegible for re-election for one year disap-

pears, and is replaced by the provision that they shall retire two years after the passing of the Act, but shall be eligible for re-election annually. The clause also extends the control of the General Medical Council to the approval of regulations for the issue of licences and the condition of admission to the roll, and for the conduct of "qualifying examinations."

In Clause 6 the alterations are sequential to the substitution of licensing for registration and of the administrative county for the local sanitary authority (see below Clause 9).

Clause 7 is new and makes provision for the manner in which the midwives' roll shall be kept, and in particular directs that the roll shall in every case indicate the qualifications in virtue of which the licence is issued.

With Clause 8 is incorporated Clause 7 of the Bill of 1898, with the substitution of secretary for registrar. The rest of Clause 8 is identical with Clause 8 of the Bill of 1898, with the sequential changes of "roll," "licensed," and "secretary" for register, registered, and registrar.

Clause 9 is modified by the substitution of the "administrative county council" for the "local sanitary authority," and by the insertion of Subclause (3) giving power of suspension; and Subclause (5) directing that the Secretary of the Central Midwives Board shall be supplied with a list of the names and addresses of all midwives practising in the district.

Clause 10 is new, and would require every woman "who holds herself out as a practising midwife" in any administrative county to obtain from the local supervising authority a certificate enabling her to practise in the administrative county, "which certificate shall be granted on proof by the woman that her name is on the midwives' roll." The certificate is to be renewable annually free of charge, and to be available only in the county for which it is issued.

Clause 11, Subclauses (*b*) and (*c*) are new. (*b*) makes it a misdemeanour for any woman to hold herself out as a practising midwife, or to practise in any administrative county without having previously obtained a certificate, as provided by Clause 10. The penalty on conviction of the misdemeanour would be £2, or imprisonment with or without hard labour for a term not exceeding one month. (*c*) permits a midwife to attend a woman in childbirth in another county on an emergency, provided that she gives notice within a reasonable time of having so acted to the local supervising authority of that county.

The remaining clauses of the new Bill are identical with those of the Bill of 1898, with the necessary alteration of terms sequential to the new provisions in the Bill of 1899.

The following is the text of the Bill and Memorandum. The new provisions in the Bill are printed in italics.

MIDWIVES BILL.

MEMORANDUM.

THE chief object of this Bill is to carry into effect the recommendation of the Select Committee of the House of Commons relating to the training and practice of midwives by promoting the training of women as midwives; and by providing for the regulation of their practice.[1]

This Bill provides that henceforth no woman shall call herself, or habitually practise for gain as a midwife unless she has obtained a licence; and that, in order to be licensed, she must *inter alia* produce evidence either (1) of having undergone a proper training and subsequent examination, or (2) of having (at the time of the passing of the Bill) been in *bonâ-fide* practice as a midwife. The Bill does not render it illegal for any person to render assistance to a lying-in woman in an emergency.

A Central Midwives Board is constituted under this Bill whose chief duties will be (1) to organise examinations of a uniform standard; (2) to regulate, supervise, and restrict within due limits the practice of midwives; and (3) to investigate charges of malpractice, negligence, or ignorance against midwives.

The Bill is drafted on the lines of that introduced last year, but the following alterations have been made in view of the requirements of the General Medical Council[2]

1. Licensing is substituted for registration.

2. The habitual practice of midwifery, for gain, by women not licensed under this Bill, is rendered illegal.

3. The area within which a midwife may practise is, in order to facilitate supervision, limited to that of the Local Supervising Authority from whom she has obtained a certificate authorising her to practise.

ARRANGEMENT OF CLAUSES.

Clause.
1. Short title.
2. Definitions.
3. *Licensing.*
4. Provision for existing midwives.
5. Constitution and duties of the *Central* Midwives Board.
6. Fees and expenses.
7. Midwives Roll.
8. Appointment of *Secretary. Supplemental provision as to licence.*
9. Local supervision of midwives.
10. *Midwife's certificate.*
11. Penalty for obtaining *a licence* by false representation, *or acting without a certificate.*
12. Penalty for wilful falsification of *roll.*
13. Prosecution of offences.
14. Appeal.
15. Act not to apply to medical practitioners.
16. Extent of Act.

A BILL *TO PROMOTE THE BETTER TRAINING OF* MIDWIVES *AND TO REGULATE THEIR PRACTICE.*

BE it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. SHORT TITLE.—This Act may for all purposes be cited as *the Midwives Act, 1899.*

2. DEFINITIONS.—In this Act

The term "midwife" means a woman who undertakes *for gain to attend women in childbirth.*

"*Midwives Roll*" means a *roll* of midwives kept in pursuance of this Act.

"*Central* Midwives Board" means the Board constituted under this Act for the purpose of carrying out the provisions of this Act.

3. LICENSING.—(1) From and after the first day of January one thousand nine hundred, no woman shall be entitled to take or use the name or title of midwife (either alone or in combination with any other word or words) or any name, title, addition, or description implying that she is licensed under this Act, or is qualified to act as a midwife unless she be *licensed* under this Act.

(2) Any woman who, after the first day of January one thousand nine hundred, not being *licensed* under this Act, shall take or use the name of midwife or any other such name, title, addition; or description as aforesaid, *or shall habitually and for gain attend women in childbirth*, shall be liable on summary conviction to a fine not exceeding five pounds.

(3) No woman shall be *licensed under this Act* until she *has* complied with the rules and regulations to be laid down in pursuance of the terms of this Act.

(4) The *licence* under this Act shall not confer upon any woman any right or title to be registered under the Medical Acts or to assume any name, title, or designation implying that she is by law recognised as a *medical* practitioner, or that she is qualified to grant any medical certificate.

4. PROVISION FOR EXISTING MIDWIVES.—Any woman who, *within* two years *of* the passing of this Act, claims to be *licensed* under this Act shall be so *licensed* provided she *holds* a certificate in midwifery from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be approved by the Central Midwives Board, or produces evidence, satisfactory to the Board, *of character, and* that at the passing of this Act she has been in *bonâ fide* practice as a midwife.

5. CONSTITUTION AND DUTIES OF THE CENTRAL MIDWIVES BOARD.—On the passing of this Act *the President* of the General Medical Council *shall take steps to secure the election of a Central Midwives Board which shall consist of:*

(1) *Four* registered medical practitioners, *one* to be elected by the Royal College of Physicians of London, *one* by the Royal College of Surgeons of England, *one* by the Society of Apothecaries, and *one* by the Incorporated Midwives Institute; and

(2) *Two* persons to be appointed for terms of three years by the Lord President of the Council.

After two years from the passing of this Act the elected members shall retire, but shall be eligible for re-election annually. Any vacancy occurring by resignation or death shall be filled up in the case of an elected member by the body which elected him, and in the case of an appointed member by the Lord President of the Privy Council.

(3) The duties of the Board shall be as follows:

I.—To *frame* rules, for *approval by the General Medical Council,*

(*a*) Regulating the *issue of licences* and the conditions of admission to the *roll.*

(*b*) *Regulating the conduct of qualifying examinations.*

(*c*) Regulating the admission to the *roll* of women already in practice as midwives at the passing of this Act.

(*d*) Regulating, supervising, and restricting within due limits the practice of midwives.

II.—(*a*) To appoint examiners:

(*b*) To decide upon the places where and the times when examinations shall be held.

(*c*) To publish annually a *roll* of midwives *who have been duly licensed under the Act.*

(*d*) To decide upon the conditions under which midwives may be suspended from practice.

[1] See Reports of Select Committee on Midwives Registration, together with the proceedings of the Committee, Minutes of Evidence, Appendix and Index, ordered by the House of Commons to be printed June 17th, 1892, and August 8th, 1893.

[2] See Report by the Committee appointed by the General Medical Council, on May 25th, 1898, to confer with delegates from the Midwives Bill Committee, together with an Appendix containing a Report of the proceedings at the Conference (adopted by the General Medical Council, November 29th, 1898).

(e) To decide upon the removal from the roll of the name of any midwife for disobeying the rules and regulations from time to time laid down under this Act by the Central Midwives Board, or for other misconduct, and also to decide upon the restoration to the roll of the name of any midwife so removed.

(f) To issue licences.

III.—And generally to do any other *act or* duty which may be necessary for the due and proper carrying out of the provisions of this Act.

6. FEES AND EXPENSES.—There shall be payable by every woman presenting herself for examination or *licence* such fees as the *Central* Midwives Board may, with the approval of the General Medical Council, from time to time determine. All fees paid by *existing* midwives *and* by candidates for examination shall be paid to the *Central* Midwives Board. The said Board shall devote such fees to the payment of expenses connected with the examination and *licence*, and to the general expenses of the Board. Should these fees not equal the expenditure of the Board, the deficiency shall be supplied from the respective local *administrative* county funds, in proportion to the number of *licensed* midwives in the *said* county.

7. MIDWIVES ROLL.—*There shall be a Midwives Roll containing :*

(1.) *The names of those midwives practising at the date of the passing of the Act who have been licensed to practise under the Act :*

(2) *The names of those not already in practice as midwives at the passing of the Act, but who have been licensed to practise under the Act.*

The entry on the roll shall in every case indicate the qualifications in virtue of which the licence was granted.

8. APPOINTMENT OF SECRETARY.—The *Central* Midwives Board shall appoint a *Secretary* who shall be charged with the custody of the *roll*.

SUPPLEMENTAL PROVISION AS TO LICENCE.—A copy of the midwives *roll* for the time being shall be in evidence in all Courts that the women therein specified are *licensed* according to the provisions of this Act; and the absence of the name of any woman from such copy shall be evidence, until the contrary be made to appear, that such woman is not *licensed* according to the provisions of this Act. Provided always, that in the case of any woman whose name does not appear in such copy, a certificate under the hand of the *Secretary* of the entry of the name of such woman on the *roll* shall be evidence that such woman is licensed under the provisions of this Act.

9. LOCAL SUPERVISION OF MIDWIVES.—Every *administrative County Council* throughout England and Wales shall, on the passing of this Act, appoint its medical officer of health or other registered medical practitioner or practitioners, as the local supervising authority over midwives *within the area of the said County.*

It shall be the duty of the local supervising authority :

(1) To exercise general supervision over all midwives practising within the *prescribed area* in accordance with the rules to be laid down under the provisions of this Act.

(2) To investigate charges of malpractice, negligence, or misconduct on the part of any midwife practising within his district, and, if he consider that a *primâ facie* case is established, to report the same to the *Central* Midwives Board.

(3) *To suspend any midwife from practice, in accordance with the rules to be laid down by the Central Midwives Board, if he considers such suspension necessary to prevent the spread of infection.*

(4) To report at once to the *said* Board the name of any midwife practising in his district convicted of a misdemeanour or felony.

(5) *During the month of January of each year to supply the Secretary of the Central Midwives Board with the names and addresses of all midwives practising in his district, and to keep a current copy of the midwives roll, accessible at all reasonable times for public inspection.*

(6) *To* report at once to the *Central* Midwives Board the death of any midwife or any change in the name or address of any midwife in his district, so that the necessary alteration may be made in the *roll*.

10. MIDWIVES CERTIFICATE.—*A woman who holds herself out as a practising midwife in any administrative county, shall obtain from the local supervising authority a certificate enabling her to practise therein, which certificate shall be granted on proof by the woman that her name is on the midwives roll. The certificate shall remain in force till the thirty-first day of December following and shall be revocable at any time by the local supervising authority in case the holder be proved, to the satisfaction of the Central Midwives Board, to have infringed any of the regulations framed under this Act. The certificate shall be renewed annually in the month of January. It shall be issued free of charge, and shall only be available in the county for which it is issued.*

11. PENALTY FOR OBTAINING A LICENCE BY FALSE REPRESENTATION, OR ACTING WITHOUT A CERTIFICATE.—(a) Any woman who procures or attempts to procure *a licence* by making or producing, or causing to be made or produced, any false or fraudulent declaration, certificate, or representation, either in writing or otherwise, and any person assisting her therein, shall be deemed guilty of a misdemeanour, and shall on conviction thereof be liable to a fine not exceeding five pounds, or to be imprisoned, with or without hard labour, for any term not exceeding two months.

(b) *Any woman who, after the first day of January one thousand nine hundred, shall hold herself out as a practising midwife or shall practise in any administrative county without having previously obtained from the local supervising authority a certificate enabling her to practise therein shall be deemed guilty of a misdemeanour, and shall, on conviction thereof, be liable to a fine not exceeding two pounds or to be imprisoned, with or without hard labour, for any term not exceeding one month.*

(c) But a midwife shall not be guilty of a misdemeanour under this section by attending, on an emergency, a woman in childbirth in a county other than that for which she holds a certificate, provided she has within a reasonable time given notice of having so acted to the local supervising authority of that county.

12. PENALTY FOR WILFUL FALSIFICATION OF THE ROLL.—Any person appointed to keep the *roll* of midwives, wilfully making or causing to be made any falsification in any matter relating to the *roll* of midwives shall be deemed guilty of a misdemeanour, and shall be liable to a fine not exceeding ten pounds, or to be imprisoned with or without hard labour for any term not exceeding three months.

13. PROSECUTION OF OFFENCES.—Any offences under this Act punishable on summary conviction may be prosecuted, and any fine under this Act recoverable on summary conviction may be recovered in manner provided by the Summary Jurisdiction Acts.

The expenses of any prosecution shall be defrayed out of the funds of the *county in which* the prosecution takes place.

14. APPEAL.—(1) An appeal shall be allowed to the Privy Council should any disagreement arise between the General Medical Council and the Midwives Board respecting the carrying out of the provisions of the Act, or of any of them.

(2) Where any woman deems herself aggrieved by any order, conviction, judgment, or determination of or by any matter or thing done under this Act by any court of summary jurisdiction, such woman may appeal therefrom to the court of quarter sessions.

15. ACT NOT TO APPLY TO MEDICAL PRACTITIONERS.—Nothing in this Act respecting midwives shall apply to legally-qualified medical practitioners.

16. EXTENT OF ACT.—This Act shall not extend to Scotland or Ireland.

[Copies of the Draft Bill, price 2d. post free, can be obtained from Messrs. J. F. Howell and Co., 87, Malden Road, Kentish Town, London, N.W.]

THE PLAGUE.

THE SPECIAL COMMISSION.

THE Commission has been sitting in Calcutta during the past week. From the telegraphic reports published in the *Times* we learn that the evidence given by the witnesses was as follows :

Colonel Hendley, Officiating President of the Plague Commission in Bengal, stated that the plague began at Sirohi in December, 1897. Colonel Hendley believes that plague is spread by human agency, and that it was brought by *banyas* from Poona. The symptoms of the disease were identical with the Mahumurri or Pali plague recorded in 1836.

Dr. Cook, Health Officer of the Corporation in Charge of Inoculations, stated that the deaths from plague in Calcutta from April 14th to September 24th, 1898, numbered 192. He had carefully tested Haffkine's fluid, and invariably found it sterile, and no lasting evil effects had in his experience occurred from inoculation. Out of 2,490 persons inoculated Dr. Cook had himself inoculated 1,500, and of these persons not one had been attacked by plague. Dr. Cook declared that he was unable to find out how plague was brought to Calcutta, and he believed the disease stopped of its own accord, and not by the measures taken for its limitation. He lamented that there was no registration of native practitioners in India, as the people were imposed upon by native *hakims*, who had no idea of rational medicine.

Major Dyson, Sanitary Commissioner, stated that on the railways converging on Calcutta 1,800,000 persons had been inspected and over 40,000 detained as "suspects;" of these, only 6 developed plague.

Major Green, special health officer to the Corporation, stated that plague was not endemic in the neighbourhood of Calcutta; that the city was divided into six sanitary districts, with a medical officer in each, assisted by a lady doctor and eight British nurses. The last known death from plague occurred on September 19th, 1898.

Major Evans, Resident Physician of the Calcutta Medical College Hospital, said that of the 98 cases admitted to the Hospital, 80 died. The disease, he believed, was introduced by infected articles arriving by rail and sea. He held that the disease did not spread in Calcutta for the same reason that it did not spread in Vienna, namely, that the environment was unfavourable for the development of the bacillus. Neither nurses or friends attending patients in hospital contracted plague. He held the opinion that the bacillus reached the system through abrasions on the hands and feet, and in consequence the poorer classes who could not afford boots were the principal victims.

Colonel Saunders, Superintendent of the Mayo Native Hospitals, declared that isolated segregation was a mistake, and contrary to the habits of the people.

Colonel Harris, Officiating Principal of the Medical College, stated that no curative agents had proved beneficial, and that from *post-mortem* appearances it was impossible to ascertain the method of infection.

Major Charles, Professor of Anatomy at the Medical College, stated that a child contracted plague in October, 1896, through playing amongst a bale of goods imported from Bombay. A rat found amongst the same goods had the plague bacillus in its blood. He believed the disease was brought in 1898 in goods carried by sea, and spread by rats from the landing jetties.

Dr. Clemow, District Medical Officer, stated that for the disinfection of houses perchloride of mercury was used, and that no cases occurred in disinfected rooms. He had inoculate 50 cases with Yersin's serum. He took alternate cases as checks. The results were negative, as 40 died and 10 recovered in each group. Dr. Clemow reported 2 cases of a second attack of plague, and both died.

Dr. Justice stated that plague had not, in his opinion, spread in Calcutta, because the *bustis* (native huts) were better ventilated than in Bombay. In Barisal, where he had seen the plague, the disease was of the pneumonic type.

Dr. Bose, a native practitioner, said that plague was brought to Calcutta from Bombay by six men who had deceived the medical inspectors. He believed they carried the infection in their clothing; he did not believe plague could be carried by grain or other articles of food. Natives who were inoculated by serum were looked down upon by the members of their caste, hence the difficulty in getting them to undergo inoculation.

Dr. Hossack, District Medical Officer, said that at Poona Dr. Cayley had obtained plague cultures from clothing supposed to have been rendered septic by disinfection. He believed that there was a factor in the environment of Calcutta inimical to the spread of plague. The native doctors with Indian degrees rendered no assistance, but resisted the efforts of the officials and concealed cases.

Dr. Banerjee held that the native doctors had rendered valuable assistance, as he had received information from them personally. Native patients did not object to being sent to the Mayo native hospitals, and the people objected to having their houses disinfected, as they believed their effects would be burned.

PLAGUE IN MONGOLIA.

According to information gathered by a Russian traveller, Dr. M. Zolotny, plague has reached the Saliuke Valley in Mongolia. Dr. Zolotny found some 30 persons suffering from bubonic plague in one village. The people were in abject misery, and their habits and surroundings were filthy in the extreme. An extension in this direction is evidence that Thibet has been infected from India, and explains in all probability the appearance of plague in Samarkand.

INDIA.

In India the mortality returns regarding plague correspond with the records of the last few weeks. In the Bombay Presidency the virulence of the disease is subsiding everywhere. In the Mysore and Hyderabad States the epidemic is waning in the large cities, but spreading rapidly through the rural districts. In the Madras Presidency a few villages are daily added to the list of those infected, but nowhere is the epidemic widespread or the death returns high. At a meeting in Bombay the high priest of the sect of Bohras explained to the 5,000 persons present that there was no religious ground for objecting to inoculation as a preventive against plague. An ex-Sheriff of Bombay, who had convened the meeting, set the example by being inoculated, and a large number of those present followed his example.

MADAGASCAR.

In Madagascar the mortality is increasing rapidly. Since the first outbreak of plague there have been 204 cases and 133 deaths. The nationality of the dead is given as follows: 69 natives of Madagascar, 39 Asiatics, 23 Creoles, and 2 Europeans.

THE VACCINATION ORDER.

AGREEMENTS WITH GUARDIANS.

ENQUIRER writes: Early in December I wrote my Board of Guardians expressing my willingness to meet them with a view to coming to an agreement as regards fees before January 1st, as ordered by the Local Government Board's circular of October 21st last. I heard nothing until December 31st, when I received an intimation that the guardians had resolved to pay me the minimum scale of fees. May I ask your opinion as to whether this intimation, received at the latest possible date, can be construed into the "agreement" mentioned in the Act? One would think that at least two parties were required to an "agreement."

*** On December 12th a circular letter was issued by the Local Government Board to every union in England and Wales, and with it was forwarded a memorandum in which the following words occur: "In agreeing what scale of fees shall be submitted to the Board for their approval, it will be for the guardians and the public vaccinator to consider all the circumstances affecting the work which the public vaccinator will be called upon to perform. Specific fees should be agreed upon ..... and those fees should cover all the services of the public vaccinator." At the same time, blank forms were enclosed in which the fees agreed upon were to be entered, and the forms, after being signed by the Clerk to the guardians and the public vaccinator, were to be returned as soon as possible to the Local Government Board for their approval and endorsement. If in any case the guardians have not submitted this form for the signature of the public vaccinator, or if they have submitted it without consulting him beforehand, and he thinks the suggested payments are insufficient, he should at once communicate with the Local Government Board, stating succinctly his reasons for looking on the fees as inadequate, and requesting that they would fix a fairer scale of remuneration.

SCALE OF FEES.

The following notes are in continuation of those already published as to arrangements proposed or accepted;

Ticehurst Union.—(*a*) 2s. 6d., (*b*) 7s. 6d., (*c*) 2s. 6d. (accepted)

St. Columb Major Union.—(*a*) 1s., (*b*) 8s., also a fee for every case where vaccination does not take place because of the insanitary state of the house, or ill-health of child, or refusal of parents, (*c*) 2s. 6d. (accepted).

Guisborough Union.—(*a*) 1s. 6d., (*b*) 5s., (*c*) 2s. 6d., and 1s. per mile after first mile.

Runcorn Union.—(*a*) 1s. 6d., (*b*) 5s. under a mile from public vaccinator's residence, 7s. 6d. over a mile, (*c*) 2s. 6d. (accepted).

Sevenoaks Union.—(*a*) 2s. 6d., (*b*) 5s. under one mile, and 7s. 6d. over one mile from the public vaccinator's residence, (*c*) 2s. 6d. (accepted).

Petersfield Union.—(*a*) 2s. 6d., (*b*) 5s. under two miles, 7s. 6d. over two and under five miles, 8s. 6d. over five miles, (*c*) 2s. 6d. (accepted).

Bodmin Union.—(*b*) Various payments according to districts, varying from 5s. to 9s. A proposal to pay 2s. 6d. in the case of a visit not resulting in vaccination owing to the insanitary condition of the house, or the unhealthy state of the child, or refusal to vaccinate, was lost.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 18th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

December, 1898.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on January 18th, April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-WESTERN BRANCH.—The intermediate meeting of this Branch will be held at 2.30 P.M. on Saturday, January 14th, at the Athenæum, George Street, Plymouth, Hugh M. Montgomerie, M.D., President, in the chair. Luncheon at Risdon's Restaurant opposite the Athenæum at 1.30 P.M. Mr. Paul Swain kindly invites the members present to tea at his residence, 17, The Crescent, at 5 P.M. Agenda.—Cases:—Dr. E. L. Fox: A case of Joint Disease associated with Locomotor Ataxy. Mr. Woollcombe: A case of Inoperable Cancer of the Breast treated by Oöphorectomy and Thyroid Extract. Papers:—Dr. Gordon: Albuminuric Retinitis. Dr. Montgomerie: Notes on a case of Dysentery acquired in the Tropics. Dr. E. L. Fox: A Simple Method of Applying the Treatment of Superheated Air (with demonstration of apparatus). Dr. Bushnell will open a discussion on the Aims and Objects of the National Association for the Prevention of Tuberculosis. Specimens:—Mr. Paul Swain: Stomach (showing malignant pyloric growth), Duodenum and Jejunum from a case of Gastro-jejunostomy by Murphy's Button. Mr. Lucy: Myomatous Uterus removed by Abdominal Panhysterectomy.—H. W. WEBBER M.S., 4, Woodland Terrace, Plymouth, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT. — A meeting of the District will be held at the North West London Hospital, Kentish Town Road, on Wednesday, January 11th, at 4.30 P.M. Dr. Morton will preside. Mr. Jackson Clarke will read a paper on The Early Diagnosis and Treatment of Deformity and Disease of the Spine. Cases of interest will be shown in the wards of the hospital. The District Committee will meet at 4.15 P.M.—H. J. MACEVOY, Broadesbury, N.W., Hon. Secretary.

BORDER COUNTIES BRANCH.—The next meeting will be held in Penrith about the end of January. Members desiring to read papers, etc., will kindly communicate as soon as possible with the Honorary Secretary, W. F. FARQUHARSON, Garlands, Carlisle.

CORRECTION OF LIST OF MEMBERS.

WE find that the name of Dr. J. H. Dauber, 29, Charles Street, Berkeley Square, W., was erroneously inserted in the list of members recently published as "Dead." We hasten to publish this correction, and to express our regret for an unintentional clerical error.

BRITISH MEDICAL ASSOCIATION.

SIXTY-SEVENTH ANNUAL MEETING.

THE sixty-seventh annual meeting of the British Medical Association will be held at Portsmouth on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1899.

President: Sir THOMAS GRAINGER STEWART, M.D., LL.D., F.R.S.E., Professor of Practice of Medicine and Clinical Medicine in the University of Edinburgh, Physician in Ordinary to Her Majesty the Queen for Scotland, Edinburgh.

President-Elect: JOHN WARD COUSINS, M.D., F.R.C.S., Senior Surgeon, Royal Portsmouth Hospital.

President of the Council: ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Physician to the General Hospital, Birmingham.

Treasurer: CHARLES PARSONS, M.D., Dover.

An Address in Medicine will be delivered by Sir RICHARD DOUGLAS POWELL, Bart., M.D., F.R.C.P., Physician Extraordinary to Her Majesty the Queen, Physician to Middlesex Hospital.

An Address in Surgery will be delivered by Professor ALEXANDER OGSTON, M.D., Surgeon in Ordinary to Her Majesty the Queen in Scotland, Regius Professor of Surgery in the University of Aberdeen.

The scientific business of the meeting will be conducted in twelve Sections, as follows, namely:

A. MEDICINE.

President: JOHN MITCHELL BRUCE, M.D. *Vice-Presidents:* EDWARD JAMES WALLACE, M.D.; ROBERT WILLIAM BURNET, M.D. *Honorary Secretaries:* WILLIAM SYKES, M.D., Bury Place, Gosport; HUMPHRY DAVY ROLLESTON, M.D., 112, Harley Street, W.

B. SURGERY.

President: HENRY TRENTHAM BUTLIN, F.R.C.S. *Vice-Presidents:* Deputy-Inspector-General RICHARD SAMUEL PURNELL GRIFFITHS, R.N.; ALFRED LLOYD OWEN, M.D. *Honorary Secretaries:* HENRY RUNDLE, F.R.C.S., 13, Clarence Parade, Southsea; D'ARCY POWER, F.R.C.S., 10A, Chandos Street, Cavendish Square, W.

C. OBSTETRICS AND GYNÆCOLOGY.

President: GEORGE GRANVILLE BANTOCK, M.D. *Vice-Presidents:* JOHN ROBERT KEALY, M.D.; JOHN WM. TAYLOR, F.R.C.S. *Honorary Secretaries:* CHARLES PLUMLEY CHILDE, F.R.C.S., Cranleigh, Kent Road, Southsea; ERNEST WILMER PHILLIPS, M.R.C.S., Victoria Crescent, Victoria Road North, Southsea; WALTER WM. HUNT TATE, M.D., 57, Queen Anne Street, W.

D. STATE MEDICINE.

President: GEORGE WILSON, M.D. *Vice-Presidents:* Surgeon-General CHARLES MACDONAGH CUFFE, C.B.; JOSEPH GROVES, M.B. *Honorary Secretaries:* HENRY RICHARD KENWOOD, M.B., Granville House, Alexandra Villas, Finsbury Park, N.; A. MEARNS FRASER, M.B., Epworth, St. Edwards Road, Southsea.

E. PSYCHOLOGY.

President: DAVID NICOLSON, C.B., M.D. *Vice-Presidents:* SAMUEL RUTHERFORD MCPHAIL, M.D.; PETER WILLIAM MACDONALD, M.D. *Honorary Secretaries:* JAMES NEIL, M.D., Warneford Asylum, Oxford; BONNER HARRIS MUMBY, M.D., Medical Superintendent, Boro' Asylum, Portsmouth.

F. ANATOMY AND PHYSIOLOGY.

President: JOHN JAMES CHARLES, M.D. *Vice-Presidents:* AURELIUS VICTOR MAYBURY, M.D.; ANDREW FRANCIS DIXON, M.B. *Honorary Secretaries:* EDWIN JOHN NORRIS, M.R.C.S., May Villa, Cottage Grove, Southsea; WM. JOSEPH ESSERY, M.B., Netley Lodge, South Parade, Southsea; MARCUS SEYMOUR PEMBREY, M.D., Charing Cross Hospital, W.C.

G. PATHOLOGY.

President: JOSEPH FRANK PAYNE, M.D. *Vice-Presidents:* FREDERICK JOHN DRIVER, M.D.; OTTO JACKSON KAUFFMANN, M.D. *Honorary Secretaries:* EDMUND FAURIEL TREVELYAN, M.D., 40, Park Square, Leeds; WILLIAM CARLING, M.B., 11, Roseberry Terrace, Highland Road, Southsea.

H. OPHTHALMOLOGY.

President: SIMEON SNELL, F.R.C.S.Edin. *Vice-Presidents:* LYSANDER MAYBURY, M.D.; EDWARD TREACHER COLLINS, F.R.C.S. *Honorary Secretaries:* ARTHUR VERNON FORD, M.R.C.S., South View Lodge, Kent Road, Southsea; ARNOLD LAWSON, F.R.C.S., 12, Harley Street, W.

I. DISEASES OF CHILDREN.

President: EDMUND OWEN, F.R.C.S. *Vice-Presidents:* JAMES GREEN, M.R.C.S.; DAWSON WILLIAMS, M.D. *Honorary Secretaries:* ALFRED HERBERT TUBBY, M.S.Lond., 25, Weymouth Street, Portland Place; GEORGE AUGUSTUS TULLIS, M.D., 20, Clarence Parade, Southsea.

J. PHARMACOLOGY AND THERAPEUTICS.

President: JOHN BUCKLEY BRADBURY, M.D. *Vice-Presidents:* C. H. WATTS PARKINSON, M.R.C.S.; SAMUEL GOSS, M.R.C.S. *Honorary Secretaries:* JOHN EDWARD HARRY KELSO, M.B., 67, Elm Grove, Southsea; WILLIAM TUSTINO COCKING, M.D., 277, Glossop Road, Sheffield.

K.—LARYNGOLOGY AND OTOLOGY.

President: E. CRESSWELL BABER, M.B. *Vice-Presidents:* JOSIA GEORGE BLACKMAN, M.D.; PATRICK WATSON WILLIAMS, M.D. *Honorary Secretaries:* HERBERT TILLEY, M.D., 101, Harley Street, W.; LYSTER COLE-BAKER, M.D., Bayfield, Kent Road, Southsea; THOMAS ARTHUR MUNRO FORDE, M.R.C.S., 21, Clarence Parade, Southsea.

L.—TROPICAL DISEASES.

President: GEORGE THIN, M.D. *Vice-Presidents:* Colonel KENNETH MCLEOD, M.D.; JAMES WATSON, M.D. *Honorary Secretaries:* Fleet-Surgeon JOHN TYNDALL, R.N., Tresco, St. Ronan's Road, Southsea; JOHN ROBERT STEVENSON ROBERTSON, M.B., 5, Western Parade, Southsea.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 1ST, 1899.

9.30 A.M.—Meeting of 1898-99 Council.
11.0 A.M.—Church Service; Sermon by the Right Reverend the Lord Bishop of Winchester.
2 P.M.—First General Meeting. Report of Council. Reports of Committees: and other business.
8.30 P.M.—Adjourned General Meeting from 2 P.M. President's Address.

WEDNESDAY, AUGUST 2ND, 1899.

9.30 A.M.—Meeting of 1899-1900 Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Second General Meeting. Address in Medicine by Sir Richard Douglas Powell, Bart., M.D.

THURSDAY, AUGUST 3RD, 1899.

9.30 A.M.—Meeting of Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Third General Meeting. Address in Surgery by Professor Alexander Ogston, M.D.
7 P.M.—Public Dinner of the Association.

FRIDAY, AUGUST 4TH, 1899.

10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Concluding General Meeting.

SATURDAY, AUGUST 5TH, 1899.
Excursions.

Honorary Local Secretaries.

C. C. CLAREMONT, M.D., 57, Elm Grove, Southsea.
C. P. RUEL, M.R.C.S., L.R.C.P., Cromwell House, Kent Road, Southsea.

ANNUAL MUSEUM.

The Annual Museum in connection with the sixty-seventh meeting of the British Medical Association will be arranged in the following Sections:

Section A.—Food and drugs, including prepared foods, chemical and pharmaceutical preparations, etc.

Section B.—Instruments comprising medical and surgical instruments and appliances, electrical instruments, microscopes, etc.

Section C.—Books, including diagrams, charts, etc.

Section D.—Sanitary Appliances and Ambulances.

A fine and well-lighted hall will this year be utilised for the purposes of the Museum. This room is 150 feet in length, and 60 feet in width, and is in close proximity to the Reception Room.

Exhibitors (other than members of the medical profession) will be charged for table, floor and wall space as follows: In Sections A, B, and C, from 2s. 6d. per square foot, depending on the position of the table; tables 3 feet and 3 feet 6 inches wide being provided. In Section D, 6d. per square foot for floor space (all fittings to be provided by the exhibitor). Wall space (where available) will be charged for advertisements at 6d. per square foot. Section D will be held in the Swan Street Board School, a short distance from the Drill Hall.

Advertisements in Museum Catalogue.—A catalogue will be printed, and 2,000 distributed gratis to members of the Association. Prepaid advertisements, to be sent before June 20th, will be inserted. Further particulars will be sent on application.

The plans of the hall and forms of applications for space will be ready early in May.

Regulations.

1. All communications on general matters connected with the Museum, and all applications for space, should be addressed to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth, before June 1st. N.B.—No space will be allotted before that date.

2. A brief description of each exhibit for insertion in the Museum Catalogue must be in the hands of the Secretary before June 20th.

3. Space will as far as possible be allotted in the order of application, and in proportion to the amount applied for, the Committee reserving power to give preference to *bonâ fide* inventions and improvements not previously exhibited, and also to refuse any exhibit they may consider unsuitable.

4. In the event of more space being applied for than is actually available, the allotment will be made at the discretion of the Committee.

5. The Committee reserve to themselves the power to utilise any of the floor space set apart for Section D (if it is not all required for sanitary exhibits) for the erection of additional tables, or for any other purpose they may think fit.

6. All exhibits should be addressed to the Secretaries of the Museum, British Medical Association, Drill Hall, Grigg Street, Portsmouth, with the name of the Section for which they are intended, with the exception of those for Section D, which should be addressed The Board School, Swan Street, Portsmouth. Packages should not be addressed to a firm's representative at the Museum.

7. All exhibits must be delivered between July 27th and July 29th, and each package must bear a card showing the name and address of the exhibitor.

8. All exhibits must be placed in the allotted space by 2 P.M. on July 31st.

9. No signs or placards will be allowed in the hall which may interfere with neighbouring exhibits. No exhibit or placard on the central tables must reach higher than 2 feet 6 inches from the table. The arrangement of signs, placards, exhibits, etc., will in every case be subjected to the approval of the Committee.

10. Intimation of the space allotted to each exhibitor will be sent as promptly as possible after June 1st, marked upon a plan. On receipt of cheque for the cost of such space, a card for the admission of the exhibit will be sent.

12. All cheques to be made payable to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth.

13. No exhibits will be received except on the understanding that the above regulations are strictly complied with.

H. Rundle, F.R.C.S., *Chairman*,
13, Clarence Parade, Portsmouth.
R. Emmett, M.R.C.S., L.R.C.P.,
83, Kingston Road, Portsmouth.
James McGregor, L.R.C.P. & S.Edin.,
9, St. Mary's Crescent, Portsmouth.

Pathological Museum.

Specimens of interest for exhibition in the Museum should be forwarded, addressed to the Secretary of the Pathological Museum, British Medical Association, Boys' School, Seaman's and Marines' Orphan Home, Portsmouth, during the last week in July; and a brief description of each exhibit for insertion in the Museum catalogue must be in the hands of the Secretary by June 20th. Intending exibitors are requested to communicate with the Secretary of the Pathological Museum, Staff-Surgeon L. Lloyd Thomas, R.N., Royal Naval Depôt, Portsmouth. All specimens must be mounted ready for exhibition.

SPECIAL CORRESPONDENCE.

BERLIN.

The Establishment of Sanatoria for Consumptive Patients in Germany.—Revision of the German Pharmacopœia.—Professor Esmarch on the Dum-dum Bullet.—General News.

The German Central Committee for the establishment of lung sanatoria—of which the German Empress is Lady Patroness, and the Imperial Chancellor, Prince Hohenlohe, honorary President—though it has been in existence only for the last three years, can already look back on efforts crowned with signal success. A number of sanatoria have been opened, and the results obtained prove convincingly that persons of the poorer classes attacked with lung disease can be treated efficaciously, and in many cases restored to health, while remaining in close proximity to their homes and places of work. Before long the number of German sanatoria available to the poorer classes will have reached fifty. This result has been achieved thanks to a widespread agitation all through the empire for the collection of contributions, and also to the co-operation of the various workmen's sick and provident societies, to the Red Cross Society, and above all to the State department for insurance of working men and women, the President of which, Geheimrath Gaebel, is one of the most active members of the Committee. The annual meeting of the Central Committee will be held on January 9th, and the report is looked forward to with unusual interest. The local branch society, known as the "Berlin Brandenburg Society for Lung Sanatoria," is also under the special patronage of the German Empress. Professor von Leyden took the chair at the yearly meeting held just before Christmas, and reported progress of the sanatorium in Belzig (near Berlin), at present in course of construction, and which will shortly be ready for occupation. The building and furnishing will cost about 610,000 marks (£30,500), of which four-fifths have already been raised by the Society, while the rest is to be covered by a mortgage. The situation is described in the report as in every way an advantageous one; the ground is dry and sandy. In the wards an air-space of 25 cubic metres is to be allowed per bed. The question of special lung sanatoria is also being considered by the directors of the Prussian State railways, and a meeting—which, however, was more of an informatory character—has been held for the purpose of ventilating the subject. Delegates from the Prussian Ministry of Public Works, the President and Chief Manager of the Railway Officials' Pension Fund (to which all railway officials, high and low, are obliged to contribute a fixed proportion of their salaries), and the managers or presidents of all the railway sick funds were present, and in connection with the meeting a visit was paid to the Red Cross Society's sanatorium near Oranienburg, where the chief physician, Dr. Brecke, explained all the arrangements and the details of the treatment. At the meeting itself statistical tables of the therapeutic results obtained in the new sanatoria were distributed.

The committee for the remodelling of the German *Pharmacopœia* will sit in the Imperial Board of Health building from January 6th to the 10th.

An "open letter" by Professor von Esmarch, pleading for a more humane method of warfare, has appeared in the monthly periodical, *Deutsche Revue*, and is going the round of the daily papers. He discusses the Dum-dum bullet, and Professor Bruns's well-known experiments on corpses with a similar projectile, that is a bullet, the hard metal covering or mantle of which has been removed at the point, and he comes to the conclusion that this bullet, though perhaps permissible in warfare with savage races, should be forbidden in European warfare. At the International St. Petersburg conference of 1868, says Esmarch, explosive bullets of less than 400 grams weight were prohibited in future warfare, and this decision has ever since been strictly adhered to by all the nations of the conference. If the Peace Conference of 1899 were to rule that in future only such small calibre lead bullets should be used in war as are covered entirely, or at least at their point with a mantle of hard metal, it would be acting in a spirit of humanity in harmony with the intentions of its august convener.

In February, that is at the height of the Berlin "season," a musical *soirée* on a large scale is to be held in aid of the funds of the Berlin Ambulance Society. Professor v. Leyden is at the head of the *Soirée* Committee, and has chosen as helpers several persons of influence in the fashionable world.

PARIS.

Medical Experts in the Law Courts.—The Plague at Tamatave —A Memorial to Dr. Feulard.

M. CRUPPI recently laid before the Chamber of Deputies a Bill for reforming medical expert evidence. M. Cruppi proposes that a list of medical experts should be drawn up every year. None but men of undoubted scientific ability should be on the list; the accused person should have the right to name his or her own expert, who should work in co-operation with the expert named by the judge. In cases where the two experts do not agree the matter should be decided by a Committee composed of eminent scientific men. The Commission of Judicial Reform is considering the question.

Owing to prompt and effective sanitary measures the plague epidemic at Tamatave has considerably abated. The European population and the troops have completely escaped. On the other hand, in the neighbouring villages, where the sanitary measures have not been so thoroughly carried out, many deaths from plague have occurred. The Minister of the Colonies has sent out ten doctors and several nurses. M. Thiron, a medical officer of the navy, who for the last two years has been attached to the Pasteur Institute, is placed at the head of the expedition. He takes with him a good supply of serum and disinfecting apparatus recently purchased by the Colonial Minister.

Not long ago a bust was placed in the library of the Saint Louis Hospital in memory of Dr. Feulard, who, it may be remembered, was burned to death at the Charity Bazaar. He believed he had rescued his wife and daughter, but finding to his horror that his child was not with them returned to the burning building to search for her, and both perished. Dr. Napias, Director of the Assistance Publique, presided at the ceremony. Dr. Feulard at the time of his death was Director of the museum and library of the St. Louis Hospital. M. Napias and Professor Besnier in their addresses dwelt on his value as a scientist, and his generous and upright mind. M. Lampère of the Municipal Council recalled the constant help which he gave to charitable and philanthropic work. M. Faillet, also a Municipal Councillor, who obtained a grant of money from the Council for the monument, announced that a Paris street is to be named after Dr. Feulard.

BRISTOL.

Sewage Disposal.—The Advantages of not Ventilating Sewers.

THE report of the Sanitary Committee on the disposal of sewage has just been published, and is of considerable interest, as it negatives the oft-repeated statement that unventilated sewers are dangerous to health. The Committee reported in October, 1897, that the only means in their opinion for disposal of the sewage was by direct discharge into the Bristol Channel, and permission was granted to prepare a scheme or schemes whereby this might be effected. They consulted Mr. Santo Crimp, who recently reported that four schemes were possible: (1) Conveying the sewage to Pill, and after treating it chemically discharging it into the Avon; (2) discharging the sewage untreated at Charlcomb Bay or (3) at Black Nose, both places being lower down the Severn than the mouth of the Avon; and (4) discharging the sewage at Avonmouth. The capital cost of these schemes was (1) £366,000, with a total annual cost for forty-five years of £24,628; (2) £769,272, annual cost £31,376; (3) £522,100, annual cost £23,695; (4) £379,700, annual cost £17,487. Of these No. 4 appears to be the best, for the set of the tide, as measured by floats, would carry the sewage well out into mid-channel, and the chance of fouling the shores at places lower down the Severn would be avoided.

The Committee also reported that, after consultation with Mr. Crimp and the medical officer of health, they do not recommend the ventilation of the city sewers. For the sake of comparison, Brighton—a town with fully-ventilated sewers and a tidal outfall like that of Bristol—was taken. During the eleven years 1880 to 1890 the zymotic death-rate in Brighton was 2.16, in Bristol 2.12, and further analysis shows that by selecting certain diseases generally associated with sewer gas—namely, diphtheria, diarrhœa, and fever—the figures for Brighton are 0.98, for Bristol 0.77. The report states that sewer gas will not be forced back into dwelling houses if the house drains are properly constructed, and that a great outlay (about £40,000) would have to be incurred in ventilating the existing sewers. With this report is one by Dr. Davies, the medical officer of health, who goes still further into statistics, showing that the death-rate from all causes is remarkably low in Bristol, and more so in Clifton, a district which contains many working men's houses. For his comparison he takes Croydon, because it has the lowest death-rate for the thirty-three great towns and has ventilated sewers. The general death-rate of Clifton is lower than Croydon; Bristol as a whole is higher. For fever Croydon and Bristol are the same, while Clifton is much lower. For diphtheria the rate at Croydon is more than double that of Bristol and five times as great as that of Clifton, which is less than a quarter of that of the thirty-three large towns and less than a seventh of the London rate. Fatal diarrhœa is about equal in Bristol and Croydon (49 and 46), but these are much less than London (67) and the other big towns (84); Clifton is only 21. The infant mortality-rate is 146; Croydon is lower (126), but London is 155 and Brighton 149. Dr. Davies points out that these facts speak very eloquently in favour of keeping the sewers in their present unventilated state, and that it would be a most disastrous state of things if an outbreak of diphtheria were to follow on putting in ventilators. The complaint that the street gullies smell is due to the evaporation of the water in the seals, and these complaints are not as frequent or as serious as those which are heard in towns with ventilators in the streets. There seems, in fact, to be little if anything to be gained by introducing ventilators, and it might mean that the present satisfactory condition of things would cease to exist. It certainly would involve a very great outlay which, in the face of the above facts, hardly seems justifiable.

MONTREAL.

College of Physicians and Surgeons of the Province of Quebec.—British Pharmacopœia in Canada.—Interprovincial Registration.—Medical Faculty of McGill University.

UNDER the present provincial law the executive of the College of Physicians and Surgeons of the Province of Quebec consists of a Board of forty-two governors, eight of whom are appointed as representatives of the Medical Faculties of the Universities of McGill, Bishop's, and Laval, and the remainder are elected to office for a term of three years. As voting by proxy is allowed and the elective governors are chosen from the members of the whole College without regard to districts, it is possible for an individual, by obtaining the necessary number of proxies, to determine the election of nearly the whole Board. This, it is asserted, has repeatedly been done in the

past. Some months prior to the last election a Reform Committee was formed whose candidates were pledged, if elected, to obtain legislation for the abolition of voting by proxy, and for the division of the province into electoral districts each having the power of choosing its own representative on the Board of Governors. The reform candidates were elected by an overwhelming majority, and during the coming session of the Provincial Parliament an effort will be made to have the proposed changes become law.

The issue of the new edition of the *British Pharmacopœia* has brought up the question of its status in Canada. For, although it has virtually always been accepted as such, the *British Pharmacopœia* has never been officially recognised as the *Pharmacopœia* of Canada. At the recent annual meeting of the Canadian Medical Association at Quebec a Committee was appointed to endeavour to bring about a Dominion enactment to this effect. By an agreement between the Montreal Medico-Chirurgical Society and the Province of Quebec Pharmaceutical Association October 1st had been fixed upon as the date for the coming into force of the new edition in this province. The Canadian Medical Association recommended that the same date be accepted for the whole Dominion.

Interprovincial registration has long been the dream of the most advanced medical thinkers of our Dominion, and it now seems in a fair way of being accomplished. The main difficulty in the way in the past has been the unwillingness of the Provincial Boards to release control of medical education within their respective provinces. The late President of the Canadian Medical Association (Dr. Beausoleil) devoted the annual address to the consideration of this subject, and a Committee, consisting of representatives from all but one of the provinces, prepared a report as a basis of agreement. It is thought to overcome the difficulty alluded to by having the Central Examining Board for the Dominion appointed by the Medical Councils of the various provinces. A draft of the proposed changes have been sent to the Councils of the different provinces to be ratified, and, when this is done, the necessary Federal legislation will be asked for.

Attendance at the medical schools is somewhat above the average. The figures for the Medical Faculty of McGill University show an increase of the total number of undergraduates from 405 in 1897 to 428 in 1898. The different years are represented as follows: first year, 130; second year, 124; third year, 95; final year, 79. Returns have not yet been received from the other schools.

CORRESPONDENCE.

THE NEW MIDWIVES BILL.

Sir,—Those who objected to the Midwives Registration Bill of 1898 may fairly congratulate themselves on having helped toward the introduction of a much more practical scheme. The new Midwives Bill does what is wanted in a reasonable way, and nothing more. It creates a Central Midwives Board of six persons who shall frame rules subject to the approval of the General Medical Council regulating the conditions on which women can be licensed as midwives, and have their names entered on the roll of midwives. The Central Council will also appoint examiners, decide where and when examinations shall be held, the conditions under which midwives may be removed from the roll, suspended temporarily from practice, or restored to the roll. They will also issue licences.

The midwives licensed by the Central Board will have further to obtain a certificate from the local supervising body appointed by the county council for the locality in which they intend to pursue their calling. This local body will probably consist of the leading medical practitioners of the town or district. It will be their duty to exercise general supervision over the midwives in the prescribed area, and to report to the Central Board if a midwife breaks the law, or if she is convicted of misdemeanour or felony.

It will depend upon the way in which the local supervising authorities do their work how far the licensed midwife becomes a most useful ally or a rival to the general practitioners of her district. If the local supervising body is properly constituted, and if it contains all those practitioners who have any claim to be on it, if it sets itself to train the midwives and then to help them fairly as consultants when occasion arises, the relations between the midwives and the medical practitioners may be as amicable and pleasant as they are between the midwives and consultants of the Royal Maternity Charity. No one ever objected to midwives being properly taught and put upon a roll. What was disliked last year was a scheme which threatened to create a class of very inferior practitioners who would have been in effect quite independent in their work. This need not be the case now if the local supervising bodies go into the business of training and overlooking the women in a thorough and friendly way. It is quite certain that midwives will continue to be employed. If the present scheme meets the objections felt to the Bill of 1898, it will be wise to support it.—I am, etc.,

Upper Berkeley Street, W., Jan. 4th. E. Garrett Anderson, M.D.

THE GENERAL MEDICAL COUNCIL.

Inspection of Documents.

Sir,—As Dr. Glover's account of what passed in the session of the Council last May on the subject of the inspection of documents is not complete, it may unintentionally mislead your readers. Dr. Glover says he has always held it to be the "right and duty" of the members of the Council to inspect as far as possible all documents of the Council, and he says that this "right is so obvious that it does not need discussion." Allow me to point out that this "right and duty" was enjoyed and exercised by the members of the Council without let or hindrance from the original foundation of the Council in 1859 until Sir W. Turner was elected President on April 7th, 1898. On that day he solely on his own responsibility ordered the Registrar to refuse me the exercise of my right which Dr. Glover now finds to be incontestable and, indeed, for that reason not to be worth discussion. Until April 7th, 1898, therefore, there was no necessity for Dr. Glover or anyone else to move any resolution to "facilitate," as he terms it, the inspection of documents. The ordinary meaning, by the way, of the word "facilitate" is to "render easy." We shall see directly what is Dr. Glover's notion of rendering public business "easy."

The President, on my remonstrance, reiterated his confiscation order in language which even Dr. Glover and Dr. Bruce, to whom I showed his letters, did not mistake for politeness; and I quite agree with Dr. Bruce in the letter you publish, that if such "demands" on our liberty and rights, though wholly improper, are going to be made by the President, they would perhaps be better received if "put in more courteous terms" and "not at the point of the bayonet."

The matter, therefore, at the opening of the session in May, 1898, stood thus. The right of the members of the Council to inspect the documents was arbitrarily abrogated by the President.

Yet neither Dr. Glover nor Dr. Bruce made the slightest attempt to recover this right thus wrenched from the members. On the contrary, Dr. Glover made haste to censure me in public debate for daring to report to my constituents what the President had done, and with Dr. Bruce voted that the President's unconstitutional act was perfectly correct! He then proceeded to gravely aggravate the situation by moving a resolution on the subject, the terms of which were drafted (? by Dr. Glover or by Dr. MacAlister), first, so as to hopelessly complicate the legality of the situation, according to Mr. Buckley, Q.C.; secondly, so as to render it impossible for any member to inspect any document relating to the legal and penal business of the Council during the six months' interval between the sessions; and, finally, so as to place the "obvious right" of the members at the mercy of the President, who had already shown to what lengths he was prepared to go in the direction of usurpation.

Nevertheless it seems we are now to understand that Dr. Glover considers this resolution of his to have had two objects—namely, (1) to secure the right of members to freely inspect all documents, (2) to "secure the care of all documents."

To think, as Dr. Glover now suggests we ought, that his resolution, which permanently took away our existing right, also "secured" the same right, is bewildering, but perhaps in your next issue we shall be favoured by Dr. Glover with an explanation how this feat can be performed without the

assistance of Mr. Maskelyne and the resources of the Egyptian Hall.

Now for Dr. Glover's second suggestion, namely, that he intended his resolution "to secure the care of the documents," and that "in its final form as adopted by the Council the care of the documents was more in evidence (!) than the convenience of members who might wish to study them." To correctly appreciate the full meaning of this statement, I must first remind your readers what his resolution was. Dr. Glover's resolution ran as follows:

That members of the Council who desire access to documents which are the property of the Council be required to obtain leave for inspection either from the Council, the Executive Committee, or when neither body is in session or about to be in session from the President. The application for leave to be in writing, and to specify as far as possible the nature of the documents to which access is desired, and also the purpose for which the inspection is to be made. Leave to inspect documents relating to penal cases not to be given except by the Council itself. All information obtained from the inspection of documents to be regarded as strictly confidential.

Dr. Glover says this resolution contains provision for the care of the documents, and above all against their loss.

Will Dr. Glover kindly point out in his next letter where such provision exists in his resolution, and whether any ordinary person can see such provision without employing Mr. Sam Weller's "double million magnifying gas microscopes of hextry power." As to actual provisions for the "care of the documents," no such provisions were ever made, nor even mentioned, during the session of May, 1898, and in fact it was not until November when we carried against the desperate resistance of the President and Dr. MacAlister—which obstruction alone cost the profession over £100—the first of my motions for the production of documents, that any suggestion as to how the documents were to be specially protected was made. It may amuse your readers to know that one of those provisions agreed upon was that, to safeguard the Registrar, who is responsible under the Medical Act, 1858, for the safe keeping of the documents, a clerk should always be in attendance during the whole time that any member of the Council was reading the papers; and yet when I happened to go down to the cellar to which earnest inquirers after facts were relegated for the purposes of documentary research, I discovered Dr. Glover in that "well of truth" inspecting the documents freely in the absence of any clerk or any representative of the Registrar whatever.

No one can deny that Dr. Glover in thus ignoring his own hampering regulations was "facilitating" at any rate his own personal inspection of the documents. Perhaps, however, the most humorous comment on Dr. Glover's letter is the first paragraph of Dr. Bruce's note you publish immediately beneath it. Dr. Bruce on Christmas Eve honestly and frankly says in his first paragraph that he and Dr. Glover voted in May, 1898, "for restrictions on the liberty of members who wished to consult the documents belonging to the General Medical Council." Whereas Dr. Glover, writing on Boxing Day, says that they—that is, Dr. Bruce and himself, voted to "secure" the unrestricted right of members to consult "all the documents belonging to the Council." The profession will forthwith have the opportunity of deciding between these two gentlemen as to which is the more accurate; they cannot clearly both be right, although each at the end of his letter contributes a testimonial to the merits of the other.

Dr. Glover also in his letter travels over other ground in relation to this all-important subject in a manner which is rather more incomplete, and therefore also needs a little reinforcement. He says he is "a lover of light and free discussion," and that he gave his "cordial support" to Mr. Brown and myself to obtain inspection of the documents in the celebrated Hunter case. As one of the officials responsible for the Hunter scandal, Dr. Glover could hardly do less, and it was perhaps also to be expected that subsequently, in reply to a remark of Mr. Brown's on his (Dr. Glover's) responsibility in the Hunter case, he indignantly rose and said "all that he desired was a fair and square inquiry into the facts of the said case." However, as soon as the opportunity was offered to him by my resolution which brought up the matter, Dr. Glover by abstaining from voting on it caused the defeat of my resolution, lost as it was by only a bare majority of one. The innocent members of the Council, I need hardly add, are legally made, by this act of Dr. Glover, unwilling participators in this disgraceful affair.

But after all that Dr. Glover says by way of extenuation or "explanation" of his resolution, the fact remains that at this very moment the members of the Council are deprived of their "obvious right" to inspect the documents, and when one reads what Dr. Glover says he said, and what he thought, and what he meant, one is irresistibly reminded of Mr. Rudyard Kipling's ballad of Tomlinson, and how when that worthy's soul arrived at Heaven's gate and was asked by St. Peter to justify himself by recounting "the good that he did for the sake of men in little earth so lone" gave such an unsatisfactory explanation that—

> Peter twirled the jangling keys in weariness and wrath.
> Ye have read, ye have heard, ye have thought, he said, and the tale is yet to run,
> By the worth of the body that once ye had, give answer—What ha' ye done?

The profession will await with much interest the final reply to this question.—I am, etc.,

Cavendish Square, W., Jan. 1st. VICTOR HORSLEY.

SIR,—I have read and re-read Dr. Glover's letter, but fail to see that he has answered my query asking for an explanation of his motion "curtailing the liberty of members of the Council inspecting documents." What was his original motion, backed by Dr. Bruce, which was to insure perfect freedom of access to, with security of, the documents of the Council? I should have thought that any member of the Council might have been trusted to take due care of documents.

Seeing the strong views that Dr. Glover holds concerning the rights and duties of a member, I would like to ask him another question—namely, Why he did not protest against the arbitrary and unconstitutional conduct of the President on the first opportunity?

Dr. Bruce seems to look upon the question as one of peace. If you get an autocratic President who seems to regard himself as the Council, and on his own responsibility issues orders curtailing the liberty of another member, I cannot look upon it as a question of peace at all, but it is a fight for very existence, even if at the point of the bayonet.

It is not everyone who can regard his duty so lightly as Dr. MacAlister, who appears to think inspection of documents a work of supererogation. Members should be encouraged rather than hampered in doing what they conceive to be their duty.

I look upon this interference with the rights of members as a disgraceful episode, only equalled by the prosecution of the late Mr. Hunter. It may not be good taste for a registered practitioner to put either "physician" or "accoucheur" on his doorplate, but I never knew till now that it was a crime. Surely if an L.S.A. may call himself surgeon, any ordinary person would conclude that he might also call himself physician, seeing that he acts as a physician at least nine times to once as a surgeon.

Clapham Common, Jan. 3rd. EDWIN H. ROE.

SIR,—Dr. Glover's reply to Dr. Roe's plain question can hardly be regarded as satisfactory by any right-minded member of the medical profession. Dr. Glover, like the other direct representatives, was elected to safeguard our highest interests, and not to oppose his colleagues who (in the face of the most strenuous opposition) are honourably endeavouring to fulfil their undertaking to their constituents. Dr. Glover first tries all he can to lock and bar the door, and then tells us that "it is not only the right but the duty of every member of the Council to inspect *as far as possible* (the italics are mine) all its documents." We are not children, to be stultified with such stuff. We all agree that our representatives on the Council have a right to inspect any and every document in the possession of that body. Of what use are our representatives if they are not to be permitted full and complete knowledge of such papers? It is quite clear to me and to all thinking men that the time has come when the profession will no longer be satisfied with so ridiculously small a direct representation on the General Medical Council. We want more men and we mean to have them.—I am, etc.,

Wimpole Street, W., Jan 4th. WILLIAM E. BURTON.

THE MEDICAL ACTS AND THE MEDICAL PROFESSION.

SIR,—It had always been supposed, until Mr. Horsley advanced his now well-known interpretation of the Medical Acts, that they protected titles and did not protect medical practice. If he is correct, the Medical Acts as they stand do protect practice and not title merely. At the meeting of the Parliamentary Bills Committee in July, a subcommittee brought up a draft Medical Acts Amendment Bill, and this is, I believe, to be considered at the meeting of the Committee this month. Certain clauses in this draft Bill deal with this very question, and would forbid any person except a registered medical practitioner to practise medicine, surgery, or midwifery habitually and for gain, under penalties. If we are to go to Parliament with a Bill containing such provisions, ought it not first of all to be settled, as far as possible, whether Mr. Horsley's interpretation of the Acts is or is not correct?

The question is a legal one, and would best be settled by taking a test case to the higher Court, but failing that, it would be helpful to have the formal opinion of some eminent barrister upon the point. It seems to me that in applying to Parliament for new powers, our case will be very much weakened if we are open to the retort that powers already exist under the Medical Acts of which efficient use has not yet been made.—I am, etc.,

Gloucester Place, W., Jan. 3rd. C. HOLMAN.

SIR,—I observe that in the BRITISH MEDICAL JOURNAL of December 31st, 1898, your anonymous "legal correspondent," who is still so uncertain of his law as to be afraid to publish his name, is allowed further space in the JOURNAL and without stint wherein he may continue his (evidently innocent but none the less undesirable) misrepresentations of the Medical Acts while posing as a legal authority. Though compelled by my criticisms at Manchester[1] of the article which he published in the JOURNAL of November 26th, 1898, to confess that he entirely misled your readers *re* the proper use of the stock legal maxim, "*ubi jus ibi remedium*" he nevertheless positively repeats his error, for at the top of page 1995 he recounts what I stated at Manchester in such a way as to convey that our incontestable right to alone sue for fees is somehow or other a remedy against the violation of Section VI, 1886, which Section gives registered practitioners alone the right to practise.

I showed at Manchester that this fee question had nothing whatever to do with the question who has the right to practise, and I exposed your correspondent's constructive misrepresentation of the maxim *ubi jus*, etc., which he employed in support of his indefensible statement that Section XXXII was the remedy for violation of Section VI, 1886. Although he confesses his fault in the first column of his letter, p. 1995, you permit him, a few paragraphs further on, to repeat it in part, under shelter of anonymity.

I now return to your correspondent's misreading of Section (not "Clause," as he, though professedly a lawyer, terms it) XL.

He denied on November 26th *in toto* the existence of "any" Section in the Acts "imposing a penalty on anyone practising without having been registered," and he did not even qualify his denial by laying the stress on titles as he apparently now seeks to do. I exposed the complete fallacy of this assertion by of course referring him to Section XL of the Act of 1858.

Fortunately for your readers he now gives in full the said Section XL, whereby they can see for themselves that if anyone professes (1) to be a practitioner, or (2) assumes any medical title (either of such acts implying that he is registered), he shall be liable to a penalty.

What can be clearer than this? It is quite obvious that your nameless legal correspondent, who a month ago denied the bare existence of Section XL, but who now publishes it (on December 31st) as his own discovery, is also ignorant of another Section of the Act, namely, Section XXXIV, for he evidently does not know what the definition of a qualified practitioner is under the Act.

The Act says (Section XXXIV) that a "duly qualified medical practitioner" is a person registered under this Act. It does not say a word about titles; it refers to practice, and practice only. This defining Section XXXIV when read as it was obviously intended to be in connection with Section VI, 1886, and Section XL, 1858, will show your irresponsible "legal" correspondent that he has only been furnishing the members of the British Medical Association with a very poor *réchauffé* of the pernicious description which several of the senior members of the General Medical Council and pre-eminently Mr. Carter for so many years gave of our legal rights. It may be remembered by some that in the *Lancet* a short time ago Mr. Carter in a strikingly similar way to your correspondent flatly denied the existence of Section XL. Such conduct, unpardonable in a member of the General Medical Council like Mr. Carter, becomes maleficent when sanctioned by the authority of a "legal" gentleman such as we understand your nameless correspondent to be. Of course if a person named "John Jones" calls himself (as your correspondent suggests) "the greatest Healer of the Age," and practises medicine he comes under *b* of your correspondent's queries, for in the language of the Medical Acts he is employing a name, title, addition, or description implying that he is a person qualified to practise medicine.

If John Jones calls himself a "Healer," it occurs to the ordinary person that John Jones wishes to make the public believe that he can heal, that is practise medicine, but evidently many lawyers, among whom I suppose we must include our innominate opponent, though they take very good care to impregnably protect their own professional practice prefer not to look at this simple question in the same way that ordinary persons and medical practitioners do.

In conclusion, I must once more protest in the strongest possible manner against the way in which you, Sir, are permitting this discussion on our legal privileges to be conducted. If my public statements on a surgical or medico-ethical matter are criticised by my professional colleagues, they do not hide behind such *noms-de-plume* as a "Surgical Correspondent," "The Writer of the Article," etc., they sign their own names in a straightforward manner. Why should the question of the legal rights of the medical profession be treated differently by you? Surely if a medical practitioner venture in the public interest his reputation for common sense or accuracy by publishing serious statements on legal subjects over his own name, it is at least due to him that anyone (particularly a putative lawyer) criticising his statements should have sufficient sense of fairness, not to say courtesy, to similarly sign his name as a guarantee of good faith. In the present case I feel the matter especially strongly since I have now twice shown how the valuable space of our own JOURNAL has been misappropriated for the dissemination of injurious misrepresentations of our legal rights, and even for misquotation and misstatement of well-known legal maxims. While welcoming honest criticism, open discussion, and elucidation of this important subject, especially by well-known lawyers, it seems to me an intolerable condition of things in our Association if nameless outsiders are to be allowed to thus freely and irresponsibly use our JOURNAL for publication of articles the only purport of which is the depreciation of our public rights as members and practitioners of a profession the name and interests of which already unscrupulous individuals of the general public take every opportunity to defame and encroach upon.—I am, etc.,

Cavendish Square, W., Dec. 31st, 1898. VICTOR HORSLEY.

*** We have allowed Mr. Horsley to state his views in full, not only on account of their importance as coming from a direct representative of the profession on the General Medical Council, but on the general ground that it is essential for the sake of the cause which we, as well as Mr. Horsley, advocate that the meaning and scope of the existing law relative to medical practice should be made as clear as possible. This can be done only by the freest discussion of the question from every point of view.

[1] BRITISH MEDICAL JOURNAL, December 24th, 1898.

THE SEAMEN'S HOSPITAL SOCIETY AND ITS VISITING STAFF.

SIR,—Dr. Manson's impressions as to his position on the staff of the Seamen's Hospital Society, as set forth in his letter in the BRITISH MEDICAL JOURNAL of December 31st, 1898, are so mistaken, that we are again obliged to draw his attention to the written records on this subject.

On April 9th, 16th, and 23rd, 1892, advertisements appeared in the medical press (*Lancet* and BRITISH MEDICAL JOURNAL) for a visiting physician to the Seamen's Hospital Society's Branch Hospital, Victoria and Albert Docks.

Dr. Manson was a candidate for this post. He was selected on May 4th by a Subcommittee, of which we were members, and duly elected on May 13th to the appointment he sought. Reference to the minute book, to which we referred him, clearly shows this.

It was some considerable time after Dr. Manson was appointed to the Branch Hospital that the physicians of the Dreadnought, as an act of courtesy to him, allowed him the use of six beds in their wards for cases that had been under his care at the Branch. They both lent him three beds, little supposing that this concession would lead him to assume the title of Physician to the Seamen's Hospital, Greenwich.

The annexed letter from us to Dr. Manson (January 21st, 1896) clearly put before him his real position, yet after his apology (copy of which is enclosed), he now writes, "at the time of the correspondence referred to I did consider, as I still consider, that I had a perfect right—in fact, as much right as either Dr. Curnow or Dr. Anderson had—to designate myself Physician to the Seamen's Hospital, Greenwich."

The profession must judge whether it is "in conformity with medical custom" for a physician elected to one hospital to describe himself as physician to another, and whether the officers of the latter have not cause for remonstrance if such is repeatedly done.—We are, etc.,

JOHN CURNOW.
JOHN ANDERSON.
January 3rd. G. R. TURNER.

Dreadnought Seamen's Hospital, Greenwich,
January 21st, 1896.

DEAR DR. MANSON,—With reference to your letter to Mr. Michelli of December 18th last, a copy of which has been sent to one of us, and which we should have replied to sooner but for the Christmas holidays, we wish to draw your attention to the terms of your appointment as shown in the Minute Book of the Seamen's Hospital Society.

On May 4th, 1892, a Subcommittee met to recommend a Physician to the Branch Seamen's Hospital at the Royal Victoria and Albert Docks, and an Ophthalmic Surgeon to the Seamen's Hospital Society.

In the same Minute Book, May 13th, 1892, page 138, it is noted that you were elected to the office of Physician to the said Branch Hospital, and Mr. Gunn Ophthalmic Surgeon to the Seamen's Hospital Society.

We also wish to call your attention to the 74th Official Report of the Seamen's Hospital Society (copy enclosed), in which you are styled "Physician to the Royal Victoria and Albert Docks Hospital," and to the official note paper, in which a distinction is clearly drawn between the Dreadnought Seamen's Hospital, Greenwich (235 beds), and the Branch Seamen's Hospital, Royal Victoria and Albert Docks (18 beds).

It appears clear to us from the foregoing that you should not allow yourself to be described as "Physician to the Seamen's Hospital, Greenwich," as has lately been done in the list of contributors to Davidson's *Hygiene and Diseases of Warm Climates*, the BRITISH MEDICAL JOURNAL, *Kelly's London Medical Directory, 1895*, and *Churchill's Medical Directory, 1896*.

If there is still any misunderstanding we shall be happy to meet you and discuss the matter.

We are forwarding a copy of this letter to Mr. Michelli.—We remain, yours faithfully,

(Signed) JOHN CURNOW, } Visiting Physicians.
JOHN ANDERSON, }
G. R. TURNER, Visiting Surgeon.

[Copy of a letter from Dr. Manson.]

21, Queen Anne Street, Cavendish Square,
February 4th, 1896.

DEAR MR. JOHNSON SMITH,—Many thanks for your very courteous letter. Your interpretation of mine to Mr. Michelli is correct. Therein I explained how I came to call, and allow myself to be called, "Physician to the Seamen's Hospital, Greenwich," a mistake I shall be careful to avoid in future. Please accept and convey my apologies to the medical staff.—Yours very truly, (Signed) PATRICK MANSON.

SYPHILIS IN THE ARMY.

SIR,—In the BRITISH MEDICAL JOURNAL of December 17th, 1898, I notice a letter by Brigade-Surgeon-Lieutenant-Colonel Myers on the above subject, in which he suggests the inunction of mercury as "especially applicable in army hospitals." With reference to this, I would draw his attention to a paper on the subject by Surgeon-Captain Lambkin in the Army Medical Report for 1891, in which that officer states that having proceeded to Aix, and there having got a thorough knowledge of the treatment of syphilis by mercurial inunction he began to use it in all his syphilitic cases, but was obliged to give it up for various reasons which he mentions and which appear sound.

In the same paper Lambkin advocates the treatment of syphilis by intramuscular injections of mercury as being the only method at our disposal whereby the soldier can be treated out of hospital over a lengthened period, and according to this officer this method can be carried out with the greatest ease in the army, and from further papers on the subject it appears to have been a great success.

I would like to ask Brigade-Surgeon-Lieutenant-Colonel Myers how he would propose to carry out inunction in a soldier for a period extending over, say, a year, not at all too long a time to continue treatment if we aim at the cure of the disease?—I am, etc.,

ROBERT F. CAMPBELL, M.B.Aberd.

Cosham, Hants. Dec. 20th, 1898.

SIR,—In the BRITISH MEDICAL JOURNAL of December 17th I notice a letter from Surgeon-Lieutenant-Colonel Myers, suggesting the inunction of mercury as a treatment for syphilis in the army.

From the letter referred to I gather that Surgeon-Lieutenant-Colonel Myers does not hold a very high opinion of the army medical officer as regards his knowledge of syphilis and its treatment. All the same, I would tell him that the suggestion he makes about the inunction method is nothing new to army medical officers, who have known of it and practised it for years back (or, indeed, to any medical man), and it has always been held in their estimation as one of the most valuable modes of dealing with syphilis as long as a man is in hospital and it can be thoroughly carried out.

For further information on the subject of inunction of mercury, I would refer Surgeon-Lieutenant-Colonel Myers to a paper on the subject in the *Army Medical Report* for 1891.—I am, etc.,

F. J. LAMBKIN,
January 3rd. Major, Royal Army Medical Corps.

CLINICAL INSTRUCTION IN MIDWIFERY AND GYNÆCOLOGY.

SIR,—In a paper entitled Is there Room for Improvement in Our Present Mode of Clinical Instruction in Midwifery? which I read before the Glasgow Obstetrical and Gynæcological Society in May of last year, and which was published in the September number of the *Glasgow Medical Journal*, I appended a table, the result of an examination of the annual reports of the Registrar-General for Scotland from the year 1855 up to 1895, showing the maternal mortality due to puerperal fever and other diseases incidental to childbirth during these years. This table brings out the discreditable fact that childbirth mortality has increased slightly during each decade. In the first decade it was 1 in 206, in the second 1 in 202, in the third 1 in 192, and in the last 1 in 188.5. It may be argued, and justifiably so, that the figures in the Registrar-General's reports are not quite accurate; but even admitting this, it must be granted that, considering the strides which have been made of late years in our knowledge of parturition and its management, childbirth mortality in Scotland has not diminished as it ought to have done. The same fact has been proved in regard to England.

In the same paper I go on to state: "But high though the mortality incidental to childbirth is, it bears no comparison with the morbidity. Last year in my wards in the Glasgow Samaritan Hospital for Women nearly 60 per cent. of the patients who had borne children were suffering from various traumatic and septic sequelæ of parturition. Most of them were admitted for the express purpose of being treated for these lesions; some of them required treatment for other conditions, such as ovarian tumour, uterine fibromyoma, etc. Having considered these cases carefully, I feel certain that in many of them the complication could have been prevented had proper care been taken at the confinement by the medical man or midwife in attendance. Now these are serious allegations to make. It is only because I am firmly convinced of the truth of them that I venture to put them before you. Should you agree with me, must it not be our duty to trace the reason for the errors which are committed, and do our best to remedy them? Does the fault lie altogether with the medical practitioners and midwives, or can it be that it lies with the teachers of midwifery, with the directors of our lying-in institutions, with the General Medical Council?

"But even apart from the grave risks to mother and child involved, a thorough knowledge of the subject is necessary to the student, for the simple reason that almost all his future work will be divided between medicine and obstetrics. A knowledge of general surgery and of the specialities will in comparison be required very seldom. Not only so, but a medical man's knowledge of midwifery must be capable of being applied at a moment's notice. Unforeseen complications are of frequent occurrence, and often there is no time to bring in a consultant, or even to sit down to think."

In the able address delivered by Professor A. R. Simpson, at the Edinburgh meeting last year, the latter arguments were discussed in detail, and I was glad to find that we were in entire agreement, not only as to the importance of a thorough knowledge of midwifery in general practice, but also as to the great inadequacy of the present requirements respecting clinical instruction in this subject. In the Calendars of Glasgow and Edinburgh Universities the regulation runs as follows: "The candidate must have attended, under the superintendence of a registered medical practitioner, twelve cases of labour, or such additional number as the Senatus, with the sanction of the University Court, may from time to time determine, or have attended for three months the practice of a lying-in hospital, or of the maternity department of a general hospital or other public institution, and have conducted personally six or such additional cases of labour as the Senatus, with the sanction of the University Court, may from time to time determine." The framers of this regulation were evidently of the opinion that midwifery does not stand in the same category as medicine and surgery. Clinical courses on the latter subjects must be attended daily during three winter and three summer sessions, and must be held in recognised hospitals, while the instruction must be given at the bedside by competent teachers.

Nothing of the sort is evidently necessary in the case of midwifery. I suppose the student is expected to pick it up by intuition. Is this fair to the student, or—and this is of even greater importance—is it fair to the public?

As the lives and health of the women in this country are at stake, it is surely incumbent on the General Medical Council to amend the regulation in question. Bedside instruction by recognised teachers in lying-in institutions ought to be enforced, and, as a corollary to this, the clause relating to the attendance on cases under the superintendence of a registered medical practitioner ought to be deleted. No objection could be raised to students attending extra cases in the latter way, but seeing that general practitioners, who are not in constant touch with hospital work, are prone to lag behind the times, surely such attendance ought not to be reckoned as equivalent to instruction in recognised clinics. What would be thought of the man who nowadays would propose a similar alternative with regard to clinical medicine? Yet wherein lies the difference?

The subject of a clinical examination in midwifery is more difficult to deal with. It is obviously impossible to hold one at the usual final professional examination, but, as it is well known that a compulsory course not followed by a compulsory examination is attended by the average student only for the sake of the ticket, and not for the instruction to be obtained, it ought to be the duty of the General Medical Council to devise some means by which an examination can be held. During the discussion which followed the reading of my paper, one of the speakers made a suggestion which deserves consideration. This was that each student should be examined towards the end of his course on clinical midwifery by the obstetrician of the hospital, and, if he succeed in passing, should receive a certificate that he has done so.

So far I have said nothing of clinical gynæcology. Matters here are even worse than with midwifery. Neither clinical instruction nor clinical examination is made compulsory by the General Medical Council. The conclusion naturally drawn by the student is that a knowledge of it is scarcely at all necessary in practice. That this is far from being the truth any general practitioner with a knowledge of gynæcology can testify. Indeed, I think I should not be far wrong were I to say that, as regards frequency of occurrence in general practice, the diseases peculiar to women stand easily first of the various specialities. Yet the majority of practitioners know little or nothing of the subject, and the consequence is that hundreds of women lead the lives of chronic invalids who might otherwise be relieved, and hundreds more lose their lives simply because the diseases which have carried them off have not been recognised in time. No doubt the patients themselves are often at fault, but we cannot always, unfortunately, acquit the doctor. And yet is it really the doctor who is altogether to blame? Ought not at least a large share of the responsibility rest on the shoulders of those who are responsible for his teaching?

Some day, then, changes will require to be made in the regulations regarding midwifery and gynæcology. Cannot that day come soon?—I am, etc.,

Glasgow. JOHN EDGAR.
Professor of Midwifery and Gynæcology, Anderson's College.

IRISH DISPENSARY DOCTORS.

SIR,—I would like to inform Dr. French that the Irish Poor-law system was modelled from the English, and differs from it only in detail. An English parish doctor is called upon to attend anybody who can obtain a ticket; I have myself received a ticket for a man in receipt of 30s. per week, although I must say nine-tenths of my parish patients are in receipt of out-door relief.

The object of my "criticisms" was to show from the Irish dispensary doctors' own figures as supplied to the Local Government Board that they are not as universally overworked as is represented, and that the remedies suggested are not the best for those who have a real grievance. Dr. French and others suggest that competitive examinations for candidates, promotion when appointed, and tickets only to be issued by relieving officers, should be introduced.

Now, Sir, at this moment, when local government is being extended in Ireland, is not the time to take the appointment and promotion of the most important officers out of the hand of the guardians. The relieving officer is a servant who must issue tickets to anybody. The guardians may direct him to do so. Dr. French mentions that guardians have issued tickets for themselves. I should think that was on account of the rating qualification a guardian had to possess—a very uncommon occurrence. I believe that unless the profession in Ireland co-operates with guardians, now under the new Act all rating qualifications are abolished, the whole Board in some districts may become State patients, and thus establish a very irksome form of socialism. Increase of salary alone would not prevent this.

Lord Beaconsfield said, If you want to govern a people, you must pander to their passions. The Irish ratepayer is compelled to maintain the anomaly of two State hospitals (Poor-law and county infirmaries) in what is often a very small town, consequently cannot be blamed for making use of them. I may perhaps mention in passing that the fees paid in Ireland to medical witnesses at assizes are higher than in this country.

I have been a *locum tenens* during the prevalence of influenza in a poor dispensary district, and have had personal experience of the working of them. I have already trespassed too much on your space, and must leave this subject to more able hands than mine.—I am, etc.,

Moseley, near Manchester, Jan. 2nd. R. H. DREAPER.

THE LIVERPOOL PATHOLOGICAL DIAGNOSIS SOCIETY.

SIR,—Dr. Gordon Sharp seems to think that the opinion of the pathologist is of no value to the patient. Surely, Sir, to take an example, it is of the highest importance to the patient to know whether or no he is suffering from consumption, and the patient ought to pay for the opinion of a pathologist just as he would pay for that of a physician or surgeon. Again, what does Dr. Gordon Sharp mean by the following statement?

> The surgeon who is in the position to receive a large fee is oftener than not attached to a school or hospital where he can get his specimens examined for nothing, the different departments rendering services to each other.

Does he mean that a surgeon attached to a hospital will meet a medical colleague in consultation over a private case without taking any fee? I should not think that there are many surgeons who would do this, and if surgeons will not why should pathologists?

I quite agree with Dr. Hawkins-Ambler that the State

should encourage research. Neither of your correspondents seem to have quite grasped the grounds of my objection.

I do not object to diagnosis societies as such, but I do object to the absence of a restriction limiting the use of such societies to those cases where the patient cannot afford the proper fee, and I also object to the contract system.—I am, etc.,

Leeds, Dec. 26th, 1898. CHARLES POWELL WHITE.

THE VALUE OF VENESECTION.

SIR,—Under the above head Mr. Phillips of Haverfordwest refers to my case of puerperal eclampsia. He thinks that the result might have been different had I employed venesection, and he records two cases in support of his contention. I would point out that both his cases were *ante partum*. In my case there was considerable hæmorrhage after delivery. I have also been taught that the condition points rather to an anæmic condition of the brain.

I have employed venesection in two cases of acute bronchitis with gratifying results, where the right heart had become so overfull that it must have failed. The relief was almost immediate.—I am, etc.,

Faringdon, Dec. 26th, 1898. H. DARWIN HEY.

SUPERANNUATION OF POOR-LAW OFFICERS.

SIR,—It is generally felt that the Poor-law Officers Superannuation Act will before long require some further amendment, and I think that the principle of the Act having already been granted, further improvement will be easily obtained.

The contracting-out clause was a mistake, and no Poor-law officer should be allowed to remain out of the provisions of the Act. Guardians now advertise that successful candidates will be required to join the fund, thus at once disqualifying those applicants who did not in the first instance join it. Great care is taken in the Bill that all new officers shall come under its provisions, but this inequality should be removed, and both old and new placed on equal terms.

The absence of a central fund presses hardly on those seeking appointments in other unions, and I hope shortly to see active steps taken to have it established.—I am, etc.,

January 2nd. POOR-LAW MEMBER.

ERYTHROL TETRANITRATE: A CAUTION.

SIR,—Some manufacturing chemists recently sent me by post a specimen labelled erythrol tetranitrate, a white powder in a small glass bottle. As there were no directions or dose printed on the bottle, I determined not to keep the specimen. It is always a difficulty to dispose satisfactorily of waste drugs. This time I, perhaps carelessly, put it in the waste-paper basket. Result, an explosion occurred next morning, and the cook was partially stunned and received about two dozen small wounds on the hands, arms, and face, three or four containing glass. The housemaid had emptied the waste-paper basket into the dustpan containing hot ashes.

So explosive a compound as erythrol tetranitrate should surely not be sent out without special precautions. Imagine the result of a fire or other accident at a post office when a few hundred of these specimens had been posted.

The dangers of this preparation have been described in the BRITISH MEDICAL JOURNAL, 1898, vol. i, p. 37, but the particular risk here referred to has not, I believe, been pointed out.—I am, etc.,

January 4th. S. D., M.D.

THE PREVENTION OF TUBERCULOSIS.

SIR,—According to your report of the meeting at Marlborough House, Sir William Broadbent stated that "the desirability of insisting on the disinfection of rooms in which consumptive persons had died" was to be urged on sanitary authorities. But the sanitary authorities in London have no power to insist on disinfection except in the dangerous infectious diseases specified in the Public Health (London) Act, 1891, of which phthisis is not one. Perhaps Sir W. Broadbent only meant by "insisting" moral persuasion. This has been tried in Plumstead for the past fourteen months, with the result that in only six cases out of seventy-five deaths have the friends agreed to the offer of disinfection.

Will the National Association for the Prevention of Consumption advocate that the Local Government Board or London County Council shall under Section LVI of the above Act make Section LX applicable to phthisis? If this were done disinfection could be insisted on without the disease being made notifiable. There seems no reason why this course should not be taken, and it seems unlikely that without it any large number of householders will agree to the inconvenience of disinfection.

It is disappointing to find that no active steps are going to be taken for the general elimination of bovine tuberculosis. If the tuberculin test is only applied voluntarily by those who can afford to sacrifice the reacting animals it seems likely that infantile tuberculosis may become somewhat rarer among the rich, but continue quite as prevalent among the poor.—I am, etc.,

SIDNEY DAVIES, M.A., M.D.Oxon.,
December 26th, 1898. Medical Officer of Health, Plumstead.

JENNERIAN LITERATURE.

SIR,—It has been suggested to me that the members of the medical profession might give valuable help in educating the public in the cause of vaccination by allowing samples of Jennerian literature to lie on the tables of their waiting rooms, where they might be seen by their patients and others. The Jenner Society will be happy to supply such literature to anyone who will apply for it.

I am glad to find, from communications I am increasingly receiving, that the members of the profession are beginning to take a much more active part than they have hitherto done in this good work by giving lectures and addresses on the subject, by correspondence in the public papers, and by joining in debates on it. I shall be happy to give any assistance in any direction to any who may desire it.—I am, etc.,

FRANCIS T. BOND, M.D.,
Gloucester, Jan. 3rd. Hon. Secretary Jenner Society.

*** Dr. Bond has sent us some specimens of the literature to which he refers. These include: (1) a pamphlet entitled *A Plea for the Children*, containing a photograph of a sister and brother, the one vaccinated and suffering from modified small-pox, the other unvaccinated and dying of confluent small-pox (reproduced from the BRITISH MEDICAL JOURNAL of June 3rd, 1893), as well as a reproduction of two pages of an old register of burials at Pudsey Chapel in 1787-1792 showing the prevalence of small-pox in the last century and the special ravages it made among children. (2) *The Argument for Vaccination*, giving fifteen reasons for the belief in the efficacy and safety of vaccination. (3) *What do we Mean by Vaccinated?* (4) *Small-pox and Vaccination*, a parish letter by the Rev. Jevon J. Muschamp Perry. (5) *Facts about Small-pox and Vaccination*, reprinted from the BRITISH MEDICAL JOURNAL of March 5th, 1898, together with a report of the Jenner Society and a list of its publications.

INSUSCEPTIBILITY TO VACCINIA.

SIR,—To the question raised by Dr. Shuter, "How far does vaccinia during pregnancy render the child insusceptible to to vaccination?" I am able to contribute one observation in reply. A lady was revaccinated during the ninth month of pregnancy, with a result approaching that of a primary vaccination. The child, when 6 months old, was vaccinated with calf lymph. The result—I must own contrary to my expectation—was perfectly typical vaccine vesicles running a perfectly normal course.—I am, etc.,

Carlisle, Jan. 2nd. STEWART LOCKIE.

DEEP WATERS.

SIR,—The whole subject raised by your correspondent in the BRITISH MEDICAL JOURNAL of December 31st, 1898, in his article upon the Water under London is of considerable importance, and there should be some amendment of the present law upon the question.

As far as the question concerns neighbouring water authorities, it was raised I believe in the House of Lords Committee on the Newark and Nottingham Water Bills two years ago, and some sort of a precedent established. In one Act at least opponents of a water company Act have had clauses inserted preventing the water company sinking any well within a considerable distance (a mile, I believe) of a certain spring,

thus establishing a claim to property in underground water. I am uncertain whether the Great Western Railway Company was obliged to construct certain works of supply when certain parishes in Monmouthshire were drained by the Severn Tunnel Pumping Works.

Can you tell me where I can find a full report of the case, Ballard *v.* Tomlinson, quoted by your correspondent?—I am, etc.,

Leicester, Jan. 3rd. JOHN TUBB THOMAS, D.P.H.

OBITUARY.

JOSEPH TILLIE, M.D.Edin., F.R.S.E.,

Springfontein, Orange Free State, S.A.; formerly University Lecturer on Experimental Pharmacology, and Senior Assistant to the Professor of Materia Medica and Therapeutics, University of Edinburgh.

WE regret to have to record the death, at the early age of 38 years, of Dr. Joseph Tillie, who passed away on November 28th, 1898, at East London, Cape Colony.

Edinburgh men, in many parts of the world, will regret to hear of this premature end to a once promising career.

Joseph Tillie was born and educated in Edinburgh. For some years he was an accountant in the Union Bank of Scotland, and during this time he attended several of the Arts classes in the University.

In 1882 he gave up his appointment at the Bank, and entered the University as a student of medicine. He soon gave evidence of marked ability, and won many honours and distinctions. Of these may be mentioned, besides numerous University class medals, a Grierson Bursary in 1885, the James Scott Scholarship in Midwifery in 1886, and a Vane Dunlop Scholarship in 1887. He graduated M.B., C.M., with First Class Honours in 1886.

On the day of his graduation he went into residence at the Royal Infirmary as House-Surgeon to Mr. Miller. He next became Resident-Surgeon to the Royal Maternity Hospital. In February, 1887, Dr. Tillie married Miss Jean Lamont Barclay. It is characteristic of his devotion to work that the House-Physicianship to Professor Fraser's wards in the Royal Infirmary having become unexpectedly vacant, and being offered to him just at this time, he at once accepted it, and went into residence at the Royal Infirmary for a second time within a few days of his marriage.

The following summer he went to Leipzig to work at pharmacology under Professor Boehm, and remained there for eighteen months. His chief work at Leipzig was an investigation into the pharmacology of curare and its alkaloids. This research established the fact that curare, in addition to its well-known paralysing action on motor nerve ends, has also a tetanising action similar to that of strychnine on the spinal cord itself. Tillie's aim in life now became determined, and until his health failed he continued to work steadily at pharmacology.

Returning to Edinburgh in 1888, he became University Assistant to Professor Fraser. In August, 1889, he received his M.D. degree, and was awarded a Gold Medal and the Gunning Christison Prize for his thesis on Curare. During the next six years he steadily pursued his work at the University, teaching for several hours daily, and diligently prosecuting original research. He was appointed Clinical Tutor to the Royal Infirmary and Physician to the Western Dispensary. In special recognition of his pharmacological work, the University instituted a Lectureship on Experimental Pharmacology, and appointed Tillie to the post.

The results of Dr. Tillie's work, so far as these have reached the stage of publication, have appeared chiefly in the *Journal of Anatomy and Physiology* and in the *Proceedings of the Royal Society*. To the former he contributed papers on Curare and its Alkaloids, Methyl Strychnium, Hæmoglobinuria in Blood Pressure Experiments, An Arrow Poison from New Granada and its Botanical Source, and a Variety of Curare Acting as a Muscle Poison. To the *Proceedings of the Royal Society* of London he contributed in conjunction with Professor Fraser two papers, one on the Arrow Poison of the Wa Nyika and other tribes of East Equatorial Africa and the other on Acokanthera Schimperi, its Natural History, Chemistry, and Pharmacology. In addition Dr. Tillie assisted Professor Fraser in his well-known study of serpent's venom, and he had several other researches in progress when his health failed.

Of good physique, and believing himself to be of perfectly sound constitution, Tillie never spared himself, took no holidays, and worked incessantly from early morning until late at night. Early in 1895 it was noticed that he was not looking well. His vitality had become lowered, and it is believed that he became infected by some tuberculous rabbits which he had under observation in the laboratory. In the early summer his illness took an acute form, active tuberculous mischief developed in the lungs, and he was obliged to relinquish his work, his University appointments, and—for the time being—his ambition.

In December, 1895, he left Edinburgh for South Africa, in the hope of conquering his disease, or—at all events—of being able to provide for his wife and family. For six months he lived an open-air life on a farm in the Orange Free State. Unfortunately, it was necesary for him to make an income, and in the autumn of 1896 he commenced practice at Springfontein. He soon had a considerable practice, which increased as his abilities became known. His successful treatment of a prominent personage in the State brought him a large consulting practice. He threw himself into this work with something of his old vigour and enthusiasm. But his health was never completely re-established. A friend who visited him in June last says that he was rarely a day free from fever, and yet he was hard at work, travelling hundreds of miles in a week, having scarcely time to satisfy the imperious demands of sleep. In July he had an attack of influenza, from which he never fully recovered. In October his wife took him to East London, in the hope of benefit from the sea air. But it was in vain. Repeated hæmorrhages, laryngeal ulceration, and constant vomiting, ended on November 28th in death from cardiac failure.

Dr. Tillie had a remarkable capacity for sustained work, considerable power of minute and accurate observations, and a sound and well-balanced judgment. His laboratory work has therefore a permanent value. But undoubtedly his mental powers found their highest development in the work of teaching. He was a born lecturer and demonstrator. He possessed the rare faculty of being able to realise the mental attitude of the student, and could therefore present his subject in its most clear and convincing form. To this gift of luminous exposition he added a contagious enthusiasm which was an inspiration to good work. Though he gave little time to recreation, he was of active habits and liked an occasional game of golf. He was a fair shot and a good horseman. He once managed to make a voyage to India during the long vacation. He lectured to the Edinburgh Health Society on the Abuse of so-called Patent Medicines. Another lecture of his, to a literary society in an English town, on Heredity and the Modern Novel proved his familiarity with recent biological theories and his extensive knowledge of modern fiction, both English and foreign.

Those who enjoyed the privilege of Dr. Tillie's friendship will consider no notice of his career complete without a reference to his innate kindness of heart and the unselfishness of his disposition. His knowledge and experience were ever at the disposal of his friends, to whom his wise counsel and ready help were frequently of invaluable service. In the words of one of his own teachers in Edinburgh, "he was a good man and true, and a great loss to science and humanity." Edinburgh men will long cherish his memory.

CHARLES EGERTON FITZGERALD, M.D.St.And., M.R.C.S.Eng., L.S.A.

WE regret to record the death of Dr. FitzGerald at his house, West Terrace, Folkestone, on Sunday, December 11th, 1898, from perityphlitis. He was born in London in 1830, and was consequently 68 years of age at his death. His father, who was a Captain, R.N., and was descended from a branch of the family of the Duke of Leinster, died when his son was only three years old. Dr. FitzGerald went to school at Brighton, was articled at the age of 15 to a medical man in Bicester, and received his professional training there and at St. Bartholomew's Hospital, London. He became M.R.C.S. in 1856, L.S.A. in 1857, and M.D.St. Andrews in 1862. He was justly proud of the fact that from the age of 15 onwards he was in no way dependent on his mother. In June, 1856, he went with

Lord Dufferin for a four months' cruise to Iceland, Jan Mayen Land, and Spitzbergen, as related in his lordship's popular work, *Letters from High Latitudes*.

In 1857 Dr. FitzGerald joined the late Mr. S. Eastes, at Folkestone, as partner; but the partnership was dissolved after about ten years by mutual agreement. He obtained an extensive and lucrative practice in the town, and exerted himself in various ways to bring Folkestone into its present prominence as a health resort. His energy showed itself in many directions. When the Volunteer forces sprang into existence in 1859 he joined them. He was at first in the ranks, but afterwards became Surgeon to the Folkestone Rifle Corps. He was one of the founders of the Folkestone Natural History and Microscopical Society, was its President for over twenty years, and its Honorary President at the time of his death. He was the *doyen* of the profession in the town, and had been President of the Folkestone Medical Society since its foundation in 1893. The Society at the meeting in his house in February last discussed the question of prevention of tuberculosis, he himself introducing the subject. This was at the beginning of the present national movement on behalf of the same object, and the hints which were then expressed have since been formulated and published in concise form as a tract, which is now in circulation. Dr. FitzGerald was a frequent contributor to the pages of the *Lancet*. He wrote on influenza, the "Koch treatment," bacteriology, and vivisection. He was also the author of *Semi-scientific Lectures*, being some of his addresses to the Natural History Society; on *Folkestone as a Health Resort*, many points of which are incorporated in the article on Folkestone in *The Climates and Baths of Great Britain*, vol. i. (Roy. Med. and Chir. Society's publication), and *Physiology and Hygiene for Home Nursing*, 1890. He was a member of the Council of the British Gynæcological Society and a Fellow of the Obstetrical Society of London.

He was altogether an original thinker, and the walls of his house bear witness to his skill in oil colours. He was also a good musician and a keen photographer more than 40 years ago. It is not surprising, therefore, that he attracted to himself a wide circle of friends, and that he will be greatly missed by all classes in Folkestone. His fellow-townsmen placed his portrait in the Town Hall some two years ago. Though through failing health he has not for the last four or five years taken quite the same prominent position in the borough as previously, yet up to the last he was always ready to take the lead in any medical question affecting the welfare of the town. He married Miss Hele, of South Devon, in 1858. And this lady, a daughter, and three sons, one of whom, Mr. Desmond FitzGerald, has worked in the practice for some years, survive him.

The interment took place at Folkestone Cemetery on December 14th, the first portion of the burial service being conducted at Christ Church, Folkestone, by the Rev. H. L. Richmond Deck (Vicar), and the Rev. J. Stonehouse. There was a large congregation, amongst those present being nearly all the local members of the profession. The wreaths around the coffin numbered over 80.

WE regret to record the death of Dr. JOHN ALLEN OSBORNE, J.P., at his home, Milford, co. Donegal. He was born at Groarty in 1832; was educated at the Universities of Glasgow and Edinburgh, and graduated M.D. in 1855. He subsequently travelled in America, then held the appointment of Medical Officer in the French Marine Service, and finally settled in Milford in 1858, where he obtained the post of Medical Officer in the Dispensary, which he held until recent years, when increasing infirmities compelled him to resign it. He had a wide range of knowledge and attainments, was an excellent classical scholar, and knew German, French, Italian, and Spanish. In 1896 he published *The Vision and Other Poems*. He also on different occasions contributed to *Science Gossip*, *Knowledge*, and other scientific papers. He was a good botanist and enthusiastic student of natural history, and had made a large collection of beetles, moths, and butterflies. Altogether he was a highly cultured man, but of so retiring a disposition that only those who knew him intimately could be fully aware of his great qualities of heart and head. The cause of his death was aneurysm of the aorta. His funeral was very largely attended, and the constabulary of the district carried the coffin to the graveyard as a mark of respect for their former medical officer. In the house the service was conducted by the Rev. W. J. Young; at the grave by the Rev. Dr. Rodgers, one of Dr. Osborne's oldest friends, who referred most feelingly to their long intimacy; and the service was concluded by the Rev. G. Moody.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are: Dr. A. Laboulbène, Professor of the History of Medicine in the University of Paris, aged 73; Dr. L. Bauer, of St. Louis, one of the pioneers of orthopædic surgery in the United States, and sometime Dean of the St. Louis College of Physicians and Surgeons, aged 84; Dr. Oscar Bulhoes, Professor of Clinical Surgery in the Medical Faculty of Rio de Janeiro; Dr. W. Narkiewicz-Iodko, sometime Professor of Ophthalmology in the Medical Faculty of Warsaw; Dr. Gluge, Emeritus Professor of Physiology in the University of Brussels, aged 86; Dr. C. Eloy, of Paris, Editor of the *Journal des Praticiens*, aged 50; Dr. Hubert Boëns, of Brussels, Corresponding Member of the Belgian Academy of Medicine, Editor of *Le Médecin*, author of several polemical works on Louise Lateau, the *stigmatisée* of Bois d'Haine, etc., and President of the International Antivaccination League, aged 73; and Dr. H. Lotar, Professor of Pharmacy in the University of Lille, aged 62.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

STAFF-SURGEON SAMUEL W. VASEY has been promoted to be Fleet-Surgeon December 19th, 1898. He was appointed Surgeon June 4th, 1878, and Staff-Surgeon June 4th, 1890. He landed with the Naval Brigade of the *Boadicea* during the Zulu war in 1879, receiving the South African medal with clasp, and was present at the destruction of Batorrga, on the West Coast of Africa, in 1880. During the Egyptian war of 1882 he was Surgeon of the *Seagull*, and has the medal and Khedive's bronze star for that campaign.

The following appointments have been made at the Admiralty: R. L. DICKINSON, Surgeon, to the *Majestic*, January 5th; GRAHAM E. KENNEDY, Staff-Surgeon to the *Liffey*, December 29th; EDWARD J. MORLEY, Staff-Surgeon to the *President*, for R.N. Rendezvous and Medical Depôt, December 29th; CHARLES W. SHARPLES, Staff-Surgeon to the *Australia*, temporary, December 29th; VIDAL G. THORPE, Staff-Surgeon to the *Furious*, temporary, December 29th, 1898.

INDIAN MEDICAL SERVICE.

THE promotion Lieutenant-Colonel W. MCCONAGHEY, M.D., Bombay Establishment to be Colonel, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen.

Her Majesty has also sanctioned the retirement from the service of Lieutenant-Colonel F. H. BLENKINSOP, Madras Establishment, dated December 29th, Brigade-Surgeon-Lieutenant-Colonel F. A. SMYTH, Bengal Establishment, July 27th, and Lieutenant-Colonel P. J. DAMANIA, Bombay Establishment, October 28th, 1898. The war services of these officers are as follow: Lieutenant-Colonel Blenkinsop: Burmese Expedition, 1885-7 (medal with clasp); Lieutenant-Colonel Smyth: Burmese Expedition, 1886-7 (medal with two clasps); Lieutenant-Colonel Damania: Afghan war, 1880 (medal), and Burmese Expedition, 1885-7 (medal with clasp).

Twenty-two medical officers are to be admitted to the Indian Medical Service at the examination to be held in February next.

Surgeon-General LEWIS STANHOPE BRUCE, late Bombay army, died at Ealing on January 2nd. He entered the service as Assistant Surgeon, May 6th, 1854, became Deputy-Surgeon-General, September 15th, 1882, and retired with the honorary rank of Surgeon-General, September 15th, 1887. He was with the Persian Expeditionary Force in 1856-7, including the landing at Hallilah Bey, the surrender of Bushire, the expedition to Borazjoon, and the attack of Khooshab (medal with clasp); in the Indian Mutiny campaign in 1858, including the pursuit of Tantia Topee (medal); and in the Afghan war in 1880, when he took part in the march to Kandahar with the force under Major-General Phayre (medal).

THE VOLUNTEERS.

MR. EDWARD OLIPHANT, M.B., is appointed Surgeon-Lieutenant in the 4th (Deeside Highland) Volunteer Battalion the Gordon Highlanders, January 4th.

VOLUNTEER MEDICAL STAFF CORPS.

CAPTAIN LEWIS WAY, Royal Army Medical Corps, is appointed Adjutant, *vice* Captain G. T. RAWNSLEY, whose period of service has expired, December 19th, 1898.

NEW ZEALAND VOLUNTEERS.

SURGEON-CAPTAIN B. LOCKING has been appointed Medical Officer to the 3rd Battalion Wellington (East Coast) Volunteer Rifles, with present rank.

THE ARMY MEDICAL SCHOOL, NETLEY.

THE condition under which the two classes of candidates at present going through the course of instruction at the Army Medical School are serving is deserving of notice. The two classes are: 1. Those who have

passed into the service by competition. 2. The young men nominated by the medical schools and accepted by the War Secretary. The first only get their commissions after the course at Netley is completed, and have already been put to the expense of special preparation before going up for the competitive examination. The second get their commissions as lieutenants on full pay from the date of joining at Netley, and thus become senior to the "competitive" candidates—a somewhat inequitable arrangement seemingly. The places amongst the two sets are settled by an examination at the end of the Netley course.

THE BATTLE OF GEDARIF.

In the note on the despatch from Lord Kitchener reporting the operations in the Soudan subsequent to the defeat of the Khalifa at Omdurman, the name of Lieutenant-Colonel N Leader, late Royal Army Medical Corps, was accidentally omitted from the list of officers brought to the notice of the Secretary of State for War by Lord Kitchener as having distinguished themselves during the recent operations in the Soudan.

THE MEDICAL SERVICE IN THE TIRAH CAMPAIGN.

The most recent tribute to the admirable services rendered by the Medical Department is contained in *The Campaign in Tirah, 1897-98*, by Colonel H. W. Hutchinson, Director of Military Education in India, who was the *Times* Special Correspondent during the war. Colonel Hutchinson speaks of the great military medical services, which, amidst the clash of arms, the hum of camp, the commotion of marches, the turmoil of retreats, and, as one reviewer of the work adds, even in the calm reflectiveness of a concluded campaign, are apt to receive scant notice. The work of the Medical Department during the campaign is fairly dealt with by Colonel Hutchinson.

THE VICTORIA CROSS.

Fairplay writes: All are delighted to see the bestowal of the Victoria Cross on Surgeon Maillard, R.N., for great bravery at Candia on September 6th; it shows that the Admiralty have no scruples in giving that coveted distinction to a medical officer. But, if rumours are true, it is now different at the War Office, where, it is alleged, the bestowal of the Cross on army medical officers is in future to be discouraged. At the same place and on the same date, as reported, Lieutenant Clarke, Royal Army Medical Corps, assisted by some non-commissioned officers of his own corps, and of the Army Service Corps, performed a gallant act similar to that of his naval brother, by succouring a wounded soldier under a very heavy fire; yet there has been no official mention or notice of Clarke's devotion. Can there be any truth in the rumour above alluded to?

MEDICO-LEGAL.

QUALIFICATION OF M.R.C.S.

B. asks us if anyone can practise on the qualification of M.R.C.S. alone and, if so, prior to what date must that qualification have been obtained?

*** Any person whose name appears on the *Medical Register* is entitled to practise. The M.R.C.S. alone, obtained since July 1st, 1887, does not qualify for registration on the *Medical Register*.

COTTAGE HOSPITALS AND THE CORONERS ACT.

J. C. McC. writes enclosing the annual report of a cottage hospital, which report contains the details of a scheme of the Charity Commissioners for the regulation of the hospital. Our correspondent points out that under this scheme admissions to the hospital can only be obtained by means of a recommendation from a governor, and on the certificate of a medical officer that the case is a proper one for the hospital, and on the further condition that the patient pays or has paid for him a weekly sum towards his maintenance. Our correspondent asks whether, this being the case, we are of opinion that this is a public hospital supported by voluntary contributions under the Coroners Act.

*** We can quite understand that our correspondent should have felt some difficulty in this matter, since Section xxii of the Coroners Act, to which we understand that he refers, does not define at all clearly the institutions to which it is intended to apply. We are advised, however, that the hospital in question, which appears to be almost entirely supported by voluntary subscriptions and donations, and is in more than one place pointedly referred to in the report as a public institution, would be held to be a public hospital within the meaning of the Section we have mentioned. We do not think that the regulations as to admittance quoted by our correspondent justify an opposite conclusion.

CIRCULAR TO PATIENTS.

"London and Manchester," who has just severed his connection as medical officer with an insurance society, asks whether there would be any harm or anything unprofessional in sending a copy of the following notice to all the society's patients on his list on behalf of himself and his partner, namely:

Dear Sir, or Madam,—We beg to inform you that on and after ——— we shall cease to attend patients in connection with the ——— Company. We shall be pleased to attend you or any members of your family as private patients. We have also decided as follows:

1. To attend persons over the age of 7 years (whom we consider suitable) under the rules of the ——— Society. Particulars of the Society may be obtained from us or the local Secretary, Mr. ———. This Society provides for sick pay, doctor's fees, funeral fund, and old-age pension.

2. For children between the ages of 1 year and 7 years (whom we consider suitable) we shall endeavour to establish a club, the subscription to which will be at least 6d. per month.

3. We will in no case attend such children at club rates without medical examination by us before joining.

4. We will in no case attend children under 1 year at club rates.

Yours faithfully,

*** We are of opinion that the circulation of such a notice as is above set out would be contrary to the best usages of the medical profession, and would probably involve the writer in very unpleasant if not serious consequences.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 5,417 births and 4,105 deaths were registered during the week ending Saturday last, December 31st. The annual rate of mortality in these towns, which had been 16.6 and 17.8 per 1,000 in the two preceding weeks, further rose to 19.1 last week. The rates in the several towns ranged from 12.6 in Croydon, 13.7 in Huddersfield, 14.1 in Cardiff, and 14.6 in Halifax to 23.5 in Blackburn, 23.6 in Oldham, 24.3 in Wolverhampton, and 24.6 in Gateshead. In the thirty-two provincial towns the mean death-rate was 19.5 per 1,000, and exceeded by 1.1 the rate recorded in London, which was 18.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.0 per 1,000; in London the rate was equal to 1.8 per 1,000, while it averaged 2.0 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.0 in Manchester, 3.0 in Wolverhampton and in Gateshead, 4.0 in Nottingham, and 6.1 in Swansea. Measles caused a death-rate of 1.2 in Salford, 1.5 in Swansea, 1.8 in Manchester, and 2.6 in Nottingham; whooping-cough of 1.1 in Oldham and 1.3 in Preston; and "fever" of 1.0 in Derby and in Gateshead, and 1.3 in Bolton. The mortality from scarlet fever showed no marked excess in any of the large towns. The 106 deaths from diphtheria in the thirty-three towns included 47 in London, 8 in West Ham, 7 in Sheffield, 6 in Birmingham, 5 in Swansea, 5 in Liverpool, 4 in Leicester, and 4 in Leeds. No fatal case of small-pox was registered during the week under notice either in London or in any of the thirty-two large provincial towns, and no small-pox patients were under treatment in any of the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 3,259 to 2,901 at the end of the six preceding weeks, had risen again to 2,939 on Saturday last, December 31st; 225 new cases were admitted during the week, against 276, 260, and 264 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, December 31st, 952 births and 548 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 21.0 to 18.2 per 1,000 in the three preceding weeks, was again 18.2 last week, and was 0.0 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 12.4 in Paisley and 17.4 in Dundee to 21.3 in Greenock and 22.1 in Perth. The zymotic death-rate in these towns averaged 1.9 per 1,000, the highest rates being recorded in Aberdeen and Greenock. The 247 deaths registered in Glasgow included 6 from measles, 6 from scarlet fever, 7 from whooping-cough, and 5 from "fever." Four fatal cases of measles, 3 of whooping-cough, and 2 of "fever" were recorded in Edinburgh.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

Annual Report: Statistics of Students and Graduates.—During the year just ended the total number of matriculated students was 2,813, including 211 women. Of this number 147, including 5 women, were enrolled in the Faculty of Science; 1,387, including 6 women, in the Faculty of Medicine. Of the students of medicine 584, or over 42 per cent., belonged to Scotland; 374, or nearly 27 per cent., were from England and Wales; 94 from Ireland, 60 from India, 231, or fully 16.5 per cent. from British Colonies; and 44 from foreign countries. The number of women attending extra-academical lectures with a view to graduation in Medicine was 89. During the year the degree of Bachelor of Science (B.Sc.) was conferred on 25 candidates, the degree of Doctor of Science (D.Sc.) on 6, Bachelor of Medicine and Master in Surgery (M.B., C.M.) on 60, including 2 women; Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.) on 138, including 6 women; Doctor of Medicine (M.D.) on 73, including 1 woman. The General Council of the University now numbers 8,509.

Honorary Degrees.—There were no fewer than 29 recipients of the honorary degree of LL.D. during the year. This large number was accounted for by the visit of the British Medical Association to Edinburgh in the month of July, when the Senatus Academicus availed themselves of the opportunity thus afforded of conferring the degree on a number of distinguished British and foreign guests, representatives of medicine and surgery. Among the other honorary graduates was Lord Kitchener of Khartoum, who received the degree at a special graduation ceremonial in November last.

Fellowships and Prizes.—The total annual value of the University fellowships, scholarships, bursaries, and prizes now amounts to about £17,790. Of this sum £3,500 belongs to the Faculty of Medicine, and £1,500 to the Faculty of Science. In addition to these sums upwards of £600, being the income of the Earl of Moray Endowment Fund, is annually

available for the encouragement of original research. The great majority of the University bursaries, etc., are awarded by the Senatus after competitive examination. It is expected that a lectureship in tropical diseases will shortly be founded by the University Court under powers conferred by ordinance.

UNIVERSITIES COMMISSION.—The Universities (Scotland) Commission have now completed their work, and recently a number of their ordinances have received the approval of the Queen in Council.

BENEFACTIONS.—Among the numerous benefactions of the year was the sum of £10,000 for library purposes; £1,000 by Sir William Overend Priestley, M.D., M.P., for the purpose of redecorating the Library Hall; a bequest by the late Hon. Bouverie F. Primrose, C.B., Edinburgh, of £100 for the encouragement of original research, and £100 for library purposes; a legacy of £1,500 by the late Mrs. Jane Allan for the purpose of founding a competitive Fellowship in the Faculty of Medicine; gifts of various portraits and zoological and geological specimens. A very generous benefaction has also been intimated by Mr. John Usher, of Norton, who has undertaken to provide for the building and equipment of a laboratory and class rooms in connection with the Chair of Public Health, lately founded largely through his own munificence, to be called "The John Usher Institute of Public Health."

LIBRARY.—While the University Library has not during the year received any great individual bequest, it has had no inconsiderable accessions from a large number of friends.

APPOINTMENTS.—Dr. Charles Hunter Stewart has been appointed the first occupant of the Bruce and John Usher Chair of Public Health. Dr. D. A. Welsh has been appointed Lecturer on Pathological Bacteriology, and Dr. T. H. Milroy as the first Lecturer on Physiological Chemistry.

RESIGNATION.—Lastly, Chapman has retired from the office of Janitor after thirty-three years' service.

UNIVERSITY OF LONDON.

B.S. EXAMINATION FOR HONOURS.—The following candidates have passed their Examinations in the subject undernoted:

Surgery.—First Class: J. P. Maxwell (Gold Medal), St. Bartholomew's Hospital. Second Class: T. V. Cunliffe, Owens College and Manchester Royal Infirmary; D. J. Munro, Guy's Hospital. Third Class: Winifred Secretan Patch, B.Sc., Royal Free Hospital and London School of Medicine.

INDIA AND THE COLONIES.

LEEWARD ISLANDS'

THE sanitary report of the city of St. John, Leeward Islands, for the years 1896 and 1897 has just been issued. The sanitary condition of the city is reported to be very good, and the state of the public health satisfactory. The water supply is chiefly from a reservoir on the hill, and is of good wholesome quality; but in addition there are several private cisterns which are filled with rainwater gathered from the roofs of houses, and in most cases very unwholesome. There are also a number of underground wells, and in consequence of the danger of contamination of the water in them with sewage matter, and the risk of epidemics of waterborne diseases, the Board of Health has attempted to close them, but without success hitherto. The temperature is highest from April to December, and the dew point on the whole corresponds to the temperature. The most unhealthy months for pulmonary and gastro-intestinal diseases and bilious remittent fevers are the rainy and hot months from April to November; typhoid may prevail at any time, while simple malarial fevers occur all the year round, but appear to be more prevalent during the increase of rainfall. The estimate of the population of the city, founded on the census of 1891, is 9,738. The total death-rate from all causes during the year 1896 was 4 0 per mille, and for 1897 11.8 per mille. A large number of deaths attributed to malnutrition and intestinal disorders occurred among infants under 2 years of age. This high mortality is due to the ignorance of the mothers of the principles of infant dieting, and in many cases to the fact that the mother being extremely poor is unable to secure proper food for herself while suckling the child, and having to go to work, is obliged to leave her child to be fed by others with most unsuitable food. Another factor contributing to this high infant mortality is the ignorance of the midwives in the methods of treatment of the navel, and we find as many as 11 deaths attributed to tetanus in the newborn. Bronchitis and heart disease are frequent causes of death. The former is most fatal in children under 4 years of age, and the latter in adults over 30 years. Pulmonary phthisis and pneumonia follow next with a mortality of about 6 per cent. Bilious remittent fever, malaria, and dysentery are less frequent causes of death, while kidney disease, cancer, and puerperal fever show a very small mortality.

MEDICAL NEWS.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—Dr. Isambard Owen has been appointed Joint-Lecturer (with Dr. Ewart) in Systematic Medicine, in succession to Dr. Cavafy. Dr. Lee Dickinson has been appointed Lecturer in Toxicology and Forensic Medicine, and Dr. Cyril Ogle Lecturer in Practical Medicine.

A MEETING of the School Dentists' Society will be held on Friday, January 13th, at the rooms of the Medical Society of London, when Mr. W. T. Elliott, Dentist to the Marston Green Poor-law Schools, Birmingham, will read a paper on Classification of the Ages of Children for the purpose of Statistical Observation.

SANITATION OF GIBRALTAR.—A new drainage system has been completed at Gibraltar, which should result in benefit to the health of the troops quartered there. Hitherto the Rock has had an unenviable reputation for bad odours and defective drainage.

THE TYPHUS FEVER OUTBREAK IN EDINBURGH.—The statement in the BRITISH MEDICAL JOURNAL of December 31st, 1898, that the recent fresh cases of typhus came from Greenside Row, requires correction. Of the five, four came from the neighbourhood of St. James's Square, and one from the original area in Simon Square, An outbreak in Greenside Row would be most undesirable, as it also is a condemned area.

A LARGE and representative gathering of ladies and gentlemen connected with the county of Linlithgow, assembled at St. Catherine's, Linlithgow, on the afternoon of Saturday, December 24th, 1898, to present Dr. James Hunter with a brougham-carriage, horse, and harness, as a taken of the great esteem in which he is held by the community as a medical practitioner. The presentation was made by Mr. Robert Mickel, Bonnytoun, in the unavoidable absence of Sheriff Melville. Mrs. Hunter was also presented with a suitable memento of the occasion.

MUNIFICENT GIFT TO A COTTAGE HOSPITAL.—The Bromley (Kent) Cottage Hospital, the largest institution of its kind in the kingdom, has received a substantial new year gift in the shape of a donation of £4,000 from Mr. J. Wheeler Bennett of Ravensbourne, Keston, for the endowment of the children's ward of eight cots, in perpetuity. The ward, which is to be named the "Jamie Wheeler Bennett Ward" in memory of the son of the donor, is part of the new wing of the hospital, which was erected in 1896.

MUNIFICENT BEQUESTS.—The late Mr. Woolf Joel has, by his will, bequeathed the following sums, among others, to medical charities. In order that the institutions may receive the full bequest, Messrs. Barnato Brothers will themselves pay to the Government the 10 per cent. legacy duty: Middlesex Hospital, £1,050; West London Hospital, £1,050; Charing Cross Hospital, £1,000; Home and Hospital for Jewish Incurables, £1,000; Jews' Hospital and Orphan Asylum, £1,000; London Hospital, £1,000; St. Mary's Hospital, £1,000; St. Thomas's Hospital, £1,000; Westminster Hospital, £1,000; Metropolitan Hospital, £1,000: the Cancer Hospital, City Orthopædic Hospital, Evelina Hospital for Sick Children, Gordon Boys' Home, Chobham; Hospital for Consumption and Diseases of the Chest, Brompton; Hospital for Women, Jewish Board of Guardians, National Hospital for the Paralysed and Epileptic, North-Eastern Hospital for Children, Queen Charlotte's Lying-in Hospital, Royal London Ophthalmic Hospital, City of London Hospital for Diseases of the Chest, and the St. George's Hospital, £500 each; Alexandra Hospital for Children with Hip Disease, Hospital and Home for Incurable Children, National Orthopædic Hospital, Paddington Green Children's Hospital, Public Dispensary, Clare Market; Samaritan Free Hospital, Seamen's Hospital, "Dreadnought," Surgical Aid Society, the Victoria Hospital for Children, £250 each; Central London Hospital, French Hospital and Dispensary, London Lock Hospital, Poplar Hospital for Accidents, Royal Hospital for Diseases of the Chest, Royal Westminster Ophthalmic Hospital, £100 each; Central London Throat, Nose, and Ear Hospital; Asylum for Idiots, Earlswood, Hospital for Epilepsy and Paralysis, Potter's Bar Cottage Hospital, Royal Hospital for Women and Children, Royal Orthopædic Hospital, St. Peter's Hospital, St. Saviour's Hospital, and the Willesden Cottage Hospital, £50 each.

THE PRINCE OF WALES'S HOSPITAL FUND.—We have already referred to the report of this body, and have now received the list of grants recommended by the Distribution Committee. The grants are as follows: London Hospital and Guy's Hospital, £5,000 each; St. Thomas's Hospital, £1,800; University College Hospital, £1,400; Middlesex Hospital, St. Mary's Hospital, King's College Hospital, Charing Cross Hospital, Victoria Park Hospital for Diseases of the Chest, North London Hospital for Consumption, £1,000 (the two latter on condition that certain of the beds now closed are opened); Westminster Hospital, Royal Free Hospital, National Hospital for the Paralysed and Epileptic, £750 each: Seamen's Hospital, Hospital for Sick Children, Great Ormond Street,

£500 each. King's College Hospital receives also a donation of £475 towards reflooring the wards, and the Hospital for Consumption, Brompton, a donation of £500 towards the cost of the proposed country branch and convalescent home, on certain conditions specified. The following donations have also been made: Metropolitan Hospital, London Temperance Hospital, West London Hospital, Alexandra Hospital for Children, Samaritan Free Hospital, London Lock Hospital (female), £500 each; Royal London Ophthalmic Hospital, £450; Hospital for Women, Soho Square, £350; North-West London Hospital, Chelsea Hospital for Women, Queen Charlotte's Lying-in Hospital, £300 each; West Ham Hospital, Mildmay Mission Hospital, Bolingbroke Hospital, East London Hospital for Children, North-Eastern Hospital for Children, £250 each; Miller Hospital, London Homœopathic Hospital, £200 each; German Hospital, Paddington Green Hospital for Children, £150 each; French Hospital, Royal Hospital for Diseases of the Chest (City Road), Royal Hospital for Children and Women, Grosvenor Hospital for Women and Children, £100 each; Establishment for Gentlewomen, Harley Street, £75; Memorial Cottage Hospital, St. Saviour's Hospital (Osnaburgh Street), British Lying-in Hospital, St. Peter's Hospital for Stone, £50 each. A number of small grants are to be made to convalescent institutions, amounting in all to £1,000. The grants made to hospitals amount to £31,500, and the grand total distributed by the fund for the year is thus £32,500.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL, Edmund Street, Birmingham. House-Surgeon. Salary at the rate of £42 per annum, with board, lodging, and washing. Applications to the Secretary by January 14th.

BOURNEMOUTH: BOSCOMBE HOSPITAL.—House Surgeon. Salary, £60 per annum, with board, lodging, and washing. Applications to the Secretary by January 11th.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £80 per annum, increasing to £100, with board, etc. Applications to the Hon. Secretary, 7, Grimshaw Street, Burnley, by January 10th.

COTSWOLD SANATORIUM FOR THE OPEN-AIR TREATMENT OF TUBERCULOSIS.—House Physician. Salary commencing at £80 per annum, with board, lodging, and washing. Applications to Dr. Pruen, Sherborne Lodge, Cheltenham.

DERBY: DERBYSHIRE ROYAL INFIRMARY.—Assistant House Surgeon. Salary, £40 per annum, with board, residence, and washing. Applications to the Secretary by January 18th.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, 17, Bartlett's Buildings, E.C.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Also Honorary Dental Surgeon. Applications to the Secretary by January 21st.

KENSINGTON DISPENSARY.—Resident Medical Officer, under 35 years of age. Applications to the Hon. Secretary, T. W. O. Wheeler, 20, Lower Phillimore Place, Kensington, W., by January 9th.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Resident Junior House Surgeon. Salary, 60 guineas per annum. Applications to the Chairman of Medical Board by January 9th.

METROPOLITAN HOSPITAL, Kingsland Road.—Assistant Surgeon; must be F.R.C.S. Eng. Applications to the Secretary by January 16th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant to House Surgeon. Appointment for six months. Board, lodging, and washing provided. No salary. Applications to the Secretary by January 10th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury.—Senior House Physician. Junior House Physician is applicant. Candidates must state whether they would accept either appointment. Salary for Senior, £100, Junior £50, with board, and apartments. Also Pathologist. Honorarium 50 guineas. Applications to the Secretary, by January 9th.

NEWCASTLE-ON TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £120 for first year, £150 afterwards. Applications to the Hon. Secretary, R. W. Sisson, 13, Grey Street, Newcastle-on-Tyne, by January 18th.

NOTTINGHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum, rising to £120. Applications to the Secretary by January 31st.

OXFORD: RADCLIFFE INFIRMARY.—Surgeon. Applications to the Secretary by January 16th.

PLAISTOW: ST. MARY'S HOSPITAL.—Senior Resident Medical Officer. Salary, £80 per annum, with residence. Applications to the Secretary by January 16th.

ST. ANDREWS UNIVERSITY.—Additional Examiner for Graduation in Materia Medica. Appointment for three years. Applications to the Secretary, University Court, by January 14th.

SOMERSET AND BATH LUNATIC ASYLUM, Cotford, Taunton.—Assistant Medical Officer, not over 30 years of age, unmarried. Salary £120 per annum, rising to £150, with furnished apartments, board, fuel, lighting, and washing. Applications to the Medical Superintendent by January 7th.

STIRLING DISTRICT ASYLUM, Larbert.—Second Assistant Medical Officer. Salary, £100, with board, etc. Applications to the Medical Superintendent.

TOXTETH PARK, LIVERPOOL.—Senior Assistant Medical Officer of the Workhouse and Infirmary. Salary £100 per annum, with board, washing, and apartments. Applications, marked "Assistant Medical Officer," to the Clerk to the Guardians, 15 High Park Street, Liverpool, by January 11th.

TYNEMOUTH VICTORIA JUBILEE INFIRMARY, Spring Gardens, North Shields.—Resident House-Surgeon. Salary, £100 per annum. Applications to the Secretary, by January 11th.

MEDICAL APPOINTMENTS.

ANDERSON, E. L., L.S.A.Lond., appointed Assistant Medical Officer to the Mill Road Infirmary of the West Derby Union, Liverpool.

ARKLE, G. M., L.S.A., appointed Medical Officer for the Epileptic Institution at Belmont Grove of the West Derby Union.

BARTER, William, M.D., M.Ch., etc., appointed Medical Officer to the employees of the London District, Great Central Railway.

BRISCOE, John Charlton, M.R.C.S., L.R.C.P.Lond., appointed House Physician to King's College Hospital.

BURD, Cyril P., M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the Salop Infirmary, Shrewsbury.

COLLS, Percy Cooper, M.R.C.S.Eng., L.R.C.P.Lond., appointed House Surgeon to King's College Hospital.

DAVIES, Richard, M.D., Ch.M.Edin., M.R.C.S.Eng, L.R.C.P.Lond., appointed Medical Officer to the Workhouse of the Cheltenham Union, *vice* S. T. Pruen, M.D.Durh., resigned.

FURNIVALL, Percy, F.R.C.S.Eng., appointed Assistant Surgeon to the London Hospital.

GIBB, George, M.A., M.B., appointed Junior Physician to the Royal Hospital for Sick Children, Aberdeen.

GOUGH, H. E., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Northwich Rural District, *vice* T. W. H. Garstang, M.A.Oxon., M.R.C.S.Eng., D.P.H.Vict.

GREAVES, Frank, M.R.C.S., L.R.C.P., appointed House Surgeon to the Derbyshire Royal Infirmary, *vice* Percy Eycroft Lowe, L.S.A.

HAYNES, George Secretan, M.R.C.S., L.R.C.P., appointed House Physician to Addenbrooke's Hospital, Cambridge.

HOGG, F. S. D., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Bradwell District of the Maldon Union.

HUTCHINSON, M., L.R.C.S., L.R.C.P.I., appointed Medical Officer for the Buckhurst Hill District of the Epping Union, *vice* Alexander Ambrose, M.D.Dub., resigned.

LEVICK, Percy, B.A., M.B., B.C.Cantab., appointed House Surgeon to King's College Hospital.

LEWIS, Colton Taylor, M.R.C.S.Eng., L.R.C.P.Lond., appointed House Accoucheur to King's College Hospital.

LYNCH, Stephen Frederick, M.R.C.S.Eng., L.R.C.P.Lond., appointed House Surgeon to King's College Hospital.

MACGREGOR, G. E., M.D.Aberd., appointed Medical Officer of Health to the Bingley Urban District, *vice* J. W. Craig, M.D.Glasg.

MARSHALL, Charles Robert Shaw, M.A.Cantab., M.B., B.Ch.Vict., appointed Professor of Materia Medica and Therapeutics in St. Andrews University, *vice* W. H. De Wytt, M.B., C.M.Glasg., retired.

MASON, J. J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Bollington District of the Macclesfield Union, *vice* J. Allen, L.R.C.P.Edin., M.R.C.S., resigned.

MATTHEWS, John Cox, B.A.Cantab., L.S.A.Lond., appointed an Assistant Medical Officer to the Gold Coast (Yarkwa) Railway, W. Africa.

MAY, G. E., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Third District of the Ware Union, *vice* A. J. Boyd, M.D., resigned.

PAKES, Walter C. C., D.P.H.Camb., appointed Professor of Hygiene in the Bedford College for Women.

RICHARDSON, A. Y., M.B., B.S.Dunelm, appointed Second Assistant Physician to the Suffolk County Asylum.

RICHMOND, S., M.D.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Dartford Rural District Council.

ROBERTS, C. D. D., M.B.Lond., M.R.C.S.Eng., appointed Medical Officer for the Workhouse and the First District of the Dursley Union, *vice* D. J. Dutton, M.R.C.S.Eng., resigned.

ROBERTS, George Augustus, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House Physician to King's College Hospital.

ST. JOHN, Winstan St. Andrew, M.R.C.S., L.R.C.P., appointed House Physician to the Derbyshire Royal Infirmary, *vice* H. M. Tickell, M.D.

SAUNDERS, Leonard Dimock, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House Accoucheur to King's College Hospital.

SCHOLEFIELD, Geo. E., M.D.Edin., D.P.H.Vict., appointed Medical Officer of Health to the West Lancashire Rural District Council.

WEBSTER, T. L., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer at the Walton Workhouse of the West Derby Union.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M. Sir William Broadbent, Bart.: The Conduct of the Heart in the Face of Difficulties.

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, 4 P.M.— Dr. Harry Campbell: Cases of Locomotor Ataxy, with Observations on its Treatment.

Royal Medical and Chirurgical Society, 8.30 P.M.—Dr. James Calvert: Aortic Aneurysm as a Cause of Hypertrophy of the Left Ventricle. Dr. H. G. Turney and Mr. C. A. Ballance: A Case of Aortic Aneurysm; Involvement of Sensory Nerve-roots; Sudden Paraplegia; Laminectomy; Death.

WEDNESDAY.

Hunterian Society, 8.30 P.M.—Pathological evening. Specimens will be shown by Mr. Targett, Dr. F. J. Smith, Dr. Oliver, and other Fellows.

South-West London Medical Society, Town Hall, Wandsworth, S.W., 8.30 P.M.—Dr. J. B. Ball: Paroxysmal Sneezing and Allied Affections — their Causes and Treatment.

Dermatological Society of London, 11, Chandos Street, W., 5.15 P.M.—Clinical Demonstration.

THURSDAY.

British Gynæcological Society, 8.30 P.M.—Annual Meeting for the Election of Officers. President's Address.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. J. Mitchell Bruce: Cases in the Wards.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

FRIDAY.

Clinical Society of London, 8.30 P.M.—Clinical Evening. Patients in attendance at 8 P.M. The following cases will be shown:— Mr. J. Hutchinson, jun.: Localised Myositis Ossificans from Injury. Dr. Crawfurd: Enlarged Spleen, with Thrill and Bruit. Mr. Curtis: Anterior Displacement of Tuberculous Carpus, with Formation of a False Joint. Skiagraphs and stereoscopic photographs (by Mr. Mackenzie Davidson) will be exhibited. Dr. J. S. Richards: Pemphigus of the Mouth, Pharynx, Larynx, and Skin. Dr. Batten: Progressive Muscular Atrophy after Measles. Mr. Kellock: Two Cases of Complete Hypospadias, with Cleft Scrotum. Dr. Perkins: (1) A Case of Progressive Muscular Atrophy, of unusual distribution; (2) A Case of Muscular Atrophy (Myopathic). Mr. L. A. Dunn: Charcot's Disease of the Hip. And other cases.

Incorporated Society of Medical Officers of Health, 197, High Holborn, W.C., 8 P.M.—Dr. A. Newsholme: The Prevention of Tuberculosis, with special reference to Notification.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

DEATHS.

KELLY.—On December 29th, 1898, at Leeds, Major W. Kelly, R.A.M.C.

MAGORIS.—On December 26th, 1898, at Seamen's Hospital, Royal Albert Docks, Nicholas Magoris, M.D., aged 30, late Surgeon to the P. and O. Steam Navigation Co.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.
CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.
CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.
CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9: Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.
CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.
CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.
EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.
GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.
GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.
HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.
KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.
LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.
LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.
LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.
METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.
MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.
NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.
NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.
NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.
ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.
ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.
ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.
ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.
ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.
ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.
ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.
ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 3.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th.
ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.
ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p. M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.
ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.
ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.
SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.
THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.
UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.
WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.
WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

S. H. W. J. asks for experience of the treatment of hæmorrhoids by injection; and where he can find the literature on the subject.

A. K. desires to hear of an institution or home where a young man of feeble intellect (not an idiot) could be received. He is of gentle birth, and a small sum could be paid for his maintenance.

ANSWERS.

D. L. D.—It would appear to be clear that a separate fee should be paid for each inquest and each *post-mortem* examination.

F. C. E., X. Y. Z.—We have no information as to the operations of the syndicate, but it would appear to hold itself out as the proprietor of a secret remedy. Our correspondent can, therefore, have no hesitation in declining to have anything to do with it.

DOUBTFUL.—An English medical man can practise among his own countrymen at a French watering place, but it is at his own risk and peril. The degree of risk will in practice depend on so many different circumstances that it is impossible to estimate it in a particular case. A certain period of residence in a French university is required for graduation.

MOTOR CARS.

P. W.—The address of the Beeston Motor Company is Coventry. Nearly all the existing motor cars can be seen in the various showrooms on Holborn Viaduct.

EMERGENCY ATTENDANCES.

DR. B. did quite right in complying with the wish of the patient's father and accepting the fee for services rendered and completed. His obvious ethical duty was then to have written to Dr. W., explaining all the facts and enclosing the fee paid. It would rest with Dr. W. either to return the fee, share the fee, or retain the fee; the only guiding rules here are courtesy and mutual obligation. The partner's position is not involved in the question.

PROFESSIONAL RESPONSIBILITY AND PROFESSIONAL SECRECY.

MEDICAL ETHICS.—The question asked by our correspondent raises the point about professional secrecy which has during recent years been so much discussed. In our opinion it was the duty of our correspondent to report truthfully when called upon to do so respecting any case of an employee who had been under his care in his capacity of medical officer to the company, and the company would have been justified in dismissing him for neglect of duty if he had failed to do so.

DUTIES OF CERTIFYING FACTORY SURGEONS.

R.C.M.—It is no part of the regular duty of a certifying surgeon to make an investigation as to whether or no a nuisance arises from any process. He may, however, be called on by the Home Secretary, under the Factory Act of 1895, to do so, and in that case would be entitled to a special fee, which the Home Secretary is authorised by the same Act to pay. Our correspondent does not seem to have been authorised by the Home Secretary or anyone acting directly on his behalf to make the inquiry, and it would seem, therefore, that he has no claim against the Department for a fee. The claim for remuneration must be against the individual personally who asked him to make the report, and it is doubtful how far it would be advisable to press for payment. Certifying surgeons have frequently, in past times, been consulted by H.M.'s Inspectors under the Factory Act on questions of sanitation, and have given their advice freely without remuneration, though they have felt that they should not be called upon to work, directly or indirectly, in the service of the State without adequate payment.

THE RETAINER SYSTEM.

ASSISTANT COLONIAL SURGEON.—With reference to our answer in the BRITISH MEDICAL JOURNAL of November 5th, 1898, to "Colonial Surgeon," our correspondent writes to complain that we had been told only one side of the story. If our correspondent will look at the answer to which he refers he will see that we were asked to express an opinion as to whether an officer should keep practice which had been handed over to him to perform for a brother officer absent on leave, and we can only reiterate the opinion that to do so would be contrary to the ethical principles upon which medical practice is conducted. We do not see that the various grievances of which our correspondent complains alter the aspect of the question. He is of course not under any legal obligation to take the private practice of a brother officer, but if he undertakes it the usual principles applying to such cases should be observed.

NOTES, LETTERS, ETC.

PRELIMINARY EXAMINATIONS.

MR. H. E. ALLEN (Registrar, General Medical Council) writes: I notice that in the table referred to in my letter in the BRITISH MEDICAL JOURNAL of December 21st, 1898, showing the number of candidates reported as being deficient in general education an asterisk indicating that certain bodies are no longer on the Council's list has for some reason dropped out from before the name of the Royal College of Surgeons in Ireland. I should be obliged if you could call attention to this omission.

TUBERCULOSIS AND CANARIES.

DR. TUCKER WISE (Montreux, Switzerland) writes: From cases of pulmonary tuberculosis which have come under my own observation I am of opinion that in many instances diseased cage-birds—such as canaries, linnets, etc.—communicate tuberculosis to a serious extent

amongst human beings. As about 400,000 canaries are reputed to be sold every year in the United Kingdom, the distribution of tubercle by this bird alone, when disease attacks it, must be considerable. In a recent work by Friedberger and Fröhner on *Veterinary Pathology* (translated by M. H. Hayes, F.R.C.V.S., 1898), it is stated that tuberculosis is one of the most common diseases of birds. I hope in a short time to send you evidence from cases which I have investigated in support of my assertion.

HOT-AIR BATHS.

DR. W. S. HEDLEY (Mansfield Street, W.) writes: Several interesting communications have lately appeared in the BRITISH MEDICAL JOURNAL on the curative uses of heated air. In this connection I always feel disposed to ask myself the question, Why rely on heated air? When a person warms his hands at the fire, the heated air plays a very insignificant part in the process. The effect is produced by direct heat rays. Such radiation is, as everyone knows, propagated by the ether, not by the air. The air may be hot or cold, or there may be no air at all—a vacuum—yet the impulses imparted to the ether from the molecular movement of the heated body travel onwards, and impinging upon anything that lies in their path communicate to it the same molecular motion (heat). Therefore why not project heat rays directly on the part to be warmed? Substances that can be incandesced on the principle of the electric glow lamp afford an easy means of doing this; with the very great additional advantage that the source of heat is also the source of light. It is easy to show that in order to get the most intense heat rays the heat-producing source ought to be of a luminous character. It has been proved by direct measurement with the thermopile that if when a heated spiral of platinum appears dark the radiation of the obscure band of the spectrum be represented by 1, at a full white heat it would be represented by 122. The ideal system of getting high temperatures for the purposes in question would seem to be the use of direct radiant heat from a luminous source with suitable arrangements for screening and diffusing it if desired.

HEALTH AND SICKNESS ASSOCIATION.

MR. HENRY BROWN (Sickness, Accident, and Life Association, Limited, Edinburgh) writes: In the BRITISH MEDICAL JOURNAL of December 24th, 1898, a paragraph appears summarising the experience of one of your correspondents of his connection with the Health and Sickness Association, and as a similarity of name has apparently led certain members of the medical profession to assume that this Association is referred to, I beg that you will allow me in your next issue to state that there is no connection directly or indirectly between the two companies. This Association was founded in 1885, and was registered under the Life Companies Act a year ago, £20,000 being then deposited with the Government. Its last issue of shares was made at a premium of over 200 per cent., and no shares have ever been issued in connection with medical appointments. They are in fact not obtainable through other than the recognised market channels.

THE TREATMENT OF SYPHILIS BY INUNCTION.

DR. H. OPPENHEIMER (London, E.C.) writes: It is with the greatest interest and pleasure that I have read Brigade-Surgeon-Lieutenant-Colonel Myers's letter on Syphilis in the BRITISH MEDICAL JOURNAL of December 17th, 1898. From a rather large experience in civil life, I can fully endorse every point he urges in his appeal.

There is, no doubt, a tendency with many medical men to defer active treatment till secondary symptoms set in. I do not know of any theoretical or practical grounds on which this practice is founded; in my opinion it is justified only in those very rare cases where the character of the primary lesion is at all doubtful. In describing the rose rash and the other signs of the secondary stage as constitutional symptoms, we express the fact that while the Hunterian chancre is a mere local manifestation of the disease, the virus not having spread beyond the nearest group of lymphatic glands, the appearance of the secondary symptoms proves that the *materies morbi* has passed the inguinal glands, which for a time act as a filter and retinaculum, and has entered the blood. Why should we not try to prevent the infection of the system, if this is possible? And that it is possible a great number of my own cases prove. In a large proportion of cases I succeeded by early treatment in averting all subsequent manifestations of the disease, while in others the ensuing signs of constitutional syphilis were few and the whole course very mild. But in order to accomplish this large doses of mercury have to be given from the very onset, not the minute or even infinitesimal doses to which Dr. Myers refers, and which are characteristic of the internal method. In many parts of the Continent, and particularly in Germany, the profession does not entertain any doubt as to the superiority of the old plan of mercurial inunction over any other, and my experience fully confirms this, as far as the early stages are in question. I consider it superior to the hypodermic injections, though even these are preferable to the internal plan in the early period, and whenever practicable I insist on at least one eight weeks' course of mercurial rubbing being gone through. Of course, it is easier, more cleanly, and less troublesome for the patient to swallow some pills or medicine, and every single one after his first experience with the ointment comes to me with the question whether there is no medicine that will cure the disease. But wherever the patient has enough moral courage to undergo the cutaneous treatment, I insist on it, as I think it is far more rapid and reliable in its action than any other plan. But it is not sufficient to prescribe the treatment; for in several cases of my own practice it was carried out in such a slovenly manner that I felt myself compelled to advise discontinuing it and to prescribe some other treatment. For this reason, it is imperative personally to keep the patient under supervision while undergoing cutaneous inunction, and I find that the energy and completeness with which it is carried out, are in an inverse proportion to the duration and severity of the disease, and an accurate gauge as regards prognosis.

POST-MORTEM CÆSAREAN SECTION.

MR. J. L. IRWIN MOORE, M.B. (Leicester) writes: In the interesting article on *Post-mortem* Delivery in the BRITISH MEDICAL JOURNAL of December 24th, 1898, reference is made to the question of survival of the child *in utero* after death of the mother, and to the want of evidence that the child *in utero* may survive the death of the mother for more than a few minutes. The following case seems to me to be of interest in connection with the question of time limit. The record of the case is complete, and the evidence of the time of actual occurrence of death satisfactory. It was read before the Edinburgh Obstetrical Society by Peter Brotherston, F.R.C.S., February 26th, 1868, and is published in the *Edinburgh Medical Journal* for April, 1868:

"Patient had fallen down in a fainting fit. She had been sitting by side of fire, and fell forward from the chair on which she had been sitting on her knees, with her face on the ground; her abdomen was not resting on the ground, and her arms were under her." Cæsarean section was performed twenty-three minutes after the death of the patient, a large, healthy female child at full term being extracted. Artificial respiration was begun. "The child's arms and legs, which were quite flaccid before, now became stiff, and its heart was felt to be beating; it gave a convulsive sob or two, and I had no doubt that it would live. In about half an hour from the time I commenced the artificial respiration the child was struggling and crying, and was as fine and healthy a child as I have seen."

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Mr. R. B. Anderson, London; Mr. A. Adams, Kingston-on-Thames; A. K.; Mr. E. L. Anderson, Liverpool; Mr. T. Austen, Devonport; Dr. W. E. Alderson, Newcastle-on-Tyne. (**B**) Mr. H. Brown, Edinburgh; Mr. J. Busfield, London; Mrs. A. M. Blandford, Dublin; Mr. E. C. Bousfield, London; Mr. J. W. Burdwood, Bourne; Dr. M. J. Balfour, Nahan, India; Mr. A. J. Bland, London; Mr. T. Blair, Leeds; Mr. H. F. Belcher, Nottingham; Mr. F. J. Batt, Derby; Dr. F. T. Bond, Gloucester; Messrs. R. Boyle and Son, London; Mr. W. E. Burton, London; W. L. Brown, M.B., London; Dr. Wm. Barter, London. (**C**) Mr. R. Cresswell, Woollacombe Bay; Mr. M. J. Cumming, Evesham; Dr. W. M. Campbell, Liverpool; Mr. J. R. Coates, Newcastle-on-Tyne; Mr. J. L. Croucher, London; Correspondent; F. J. H. Coutts, M.B., Manchester; C. S., Madras; Mr. L. E. Creasy, London; G. E. J. Crallan, M.B., Bournemouth; Dr. R. Clements, Galway; Mr. W. G. Carnt, Derby; Dr. J. Curnow, London. (**D**) Dr. S. Davies, Plumstead; Mr. D. L. Davies, Criccieth; Dr. W. G. Dunwoody, Ely; Mr. R. H. Dreaper, Manchester; Dubious; Denaeyer's Peptonoids and Extract of Meat Company, London. (**E**) Sir P. Eade, M.D., Norwich; Ethics; Messrs. Eyre and Spottiswoode, London; Enquirer: Experentia Docet. (**F**) Mr. R. F. E. Ferrier, Great Yarmouth; Mr. A. W. Fairlees, London; Messrs. Fletcher, Fletcher and Co., London; Messrs. Fassett and Johnson, London; Mr. A. F. Ferguson, London; Mr. W. J. Fisk, Watford; F. C. E. (**G**) Mr. R. P. Gill, Nottingham; Mr. J. Gabb, Bewdley; Dr. A. E. Giles, London; Dr. J. Galloway, London; Mr. J. Gay, London; Mr. J. D. Gimlette, Ulu Pahan. (**H**) Mr. A. J. Hitchcock, St. Heliers; Mr. T. J. Hughes, Pontypridd; Dr. J. Hunter, Linlithgow; Dr. T. W. Hime, Bradford; Mr. S. R. Hodge, Weston-super-Mare; Mr. R. Humphreys, London; Mr. G. S. Haynes, Cambridge; Mr. H. Halder, Arosa; Mr. V. Horsley, London; J. C. Hamilton, M.B., Bray; Messrs. J. F. Howell and Co., London; Mr. C. H. Hartt, London. (**I**) Inquirer; Income Tax Repayment Agency, London; Dr. W. W. Ireland, Polton. (**J**) J. R. W.; Dr. F. W. B. Jones, Charlbury; Justice. (**K**) L. Knuthsen, M.S., Falmouth. (**L**) Mr. B. Locking, Napier, N. Z; Mr. C. T. Lewis, London; Dr. S. Lockie, Carlisle; Mr. E. Lee, Manchester. (**M**) Mr. G. B. Masson, Fincham; Miss R. E. March, Emsworth; J. L. I. Moore, M.B., Leicester; Dr. A. McGillivray, Dundee; Dr. A. Myrtle, Harrogate. (**N**) Mr. N. H. Nixon, London; J. H. Nicoll, M.B., Glasgow; New South Wales Branch, Sec. of, Sydney; Nottingham Medico-Chirurgical Society, Sec. of, Nottingham. (**O**) Omega. (**P**) Dr. C. E. Purslow, Birmingham; Mr. E. P. Phillips, Haverfordwest; Dr. J. E. Platt, Manchester; A. Powell, M.B., Kalain; Mr. W. C. C. Peters, London; Poor Law Member; Messrs. Kegan Paul, Trench, Trübner and Co., London; Dr. J. Priestley, London; Mr. Y. J. Pentland, Edinburgh. (**R**) Dr. F. W. F. Ross, London; Dr. J. Ramsay, York; Mr. E. H. Roe, London; Mr. H. K. Rayson, Lowestoft; A. Y. Richardson, M.B., Melton. (**S**) Mr. T. P. Shearer, Leicester; Dr. E. L. St. B. Sladen, London; Mr. R. Steel, Crook; Mr. L. Stephen, Ryde; W. H. I. Sellers, M.B., Preston; Mr. G. G. Sinclair, Morecambe; Mr. W. H. Stevens, Bristol; Mr. F. C. Simpson, Great Berkhampsted; Dr. J. O. Symes, Clifton; Mr. P. L. Sclater, London; Mrs. Stratford-Maloine, London; Mr. S. Snell, Sheffield; Dr. H. Snow, London; Mr. N. Smith, London; Messrs. Stern Bros., London; Dr. F. J. Smith, London; Dr. W. W. Stoney, Kimberley, C.C.; Mr. W. Stebbing, London; S.D., M.D. (**T**) Mr. C. S. Ticehurst, Petersfield. (**U**) University College Hospital, Sec. of, London. (**W**) Mr. R. G. Williams, Wrexham; Dr. S. West, London; Mr. T. N. Wright, Stroud, N.S.W.; Dr. A. McC. Weir, East Sheen; Mr. J. Wishart, Inverleithen; Dr. H. W. Webber, Plymouth; Dr. T. J. Wood, Bradford.

BOOKS, ETC., RECEIVED.

Atlas der Haut-Krankheiten, von Dr. F. Mracek. Munich: J. F. Lehmann. 1899. M. 14.

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A LECTURE
ON
POLYMYOSITIS.

Delivered at the National Hospital for the Paralysed and Epileptic.

BY SIR W. R. GOWERS, M.D., F.R.S.,
Physician to the Hospital; Consulting Physician to University College Hospital.

GENTLEMEN,—I desire to direct your attention to-day to a rare disease, which is important because it is a formidable malady and, though uncommon, has close relations with others which are more common and more familiar. It is a disease that has been termed "polymyositis." It consists in the simultaneous inflammation of many muscles and of some nerves—an inflammation that is symmetrical in its distribution. I am not sure that it has yet obtained a place in English descriptive medical literature or in the systematic teaching on which you chiefly depend for your knowledge; but the case I have to show you is an extremely well-marked example of the affection in a severe degree, and may therefore serve to impress on you its most characteristic features.

Let me first remind you of some facts relating to polyneuritis, with which this affection is closely allied, and which, indeed, forms part of it; the nerves suffer in association with the muscles, although, it would seem, less widely. You are all, no doubt, acquainted with "multiple neuritis," comparatively new to our nomenclature, but doubtless, beyond comparison, old in undiscerned familiarity. Its causes must have been always with us, and their effects cannot have been absent. The names we apply are not entirely appropriate. We call it "polyneuritis," "multiple neuritis," and "peripheral neuritis." These terms, however, are also applicable to other affections. We meet with inflammation of many nerves of quite different character and distribution. The designation "peripheral neuritis" has also been otherwise used, and it describes three features of inflammation of nerves—the fact that the affection is chiefly localised in their peripheral extremities; the fact that it affects chiefly the peripheral extremities of the limbs; and it has also been employed as a designation of affections of the nerve trunks in distinction from central disease. No term indicates that which is the chief characteristic of the disease, its bilateral symmetry. The motor nerves may be most conspicuously involved, or the sensory nerves may be primarily disordered—excited to spontaneous sensations or to hyperæsthesia—or they may be impaired so as to produce diminished sensibility, but in all cases the symptoms are bilaterally symmetrical. The symmetry is not always absolute; one side may be affected somewhat earlier, or in rather greater degree, than the other; but the correspondence of the affection of the two sides, whether it be in the arms or legs, or both, is the dominant feature. The two seldom present conspicuous differences, either in the area involved or in the character of the symptoms, and the correspondence is often remarkably precise.

This feature is not only the most characteristic; it is also, like most real characteristics of disease, the most significant. It indicates the nature of the cause of the affection. It shows the presence of a cause which is able to act upon structures of similar susceptibility on each side, that is, of a cause reaching all parts but acting only on those which present a special disposition to suffer from its influence. Bilateral symmetry, the correspondence on the two sides of the affected structures, is a feature which is far more than superficial. Not only does it involve correspondence of external conformation of the symptoms; it involves also correspondence of the incidence of the malady and of the vital characteristics of the corresponding structures that are involved. It implies a like susceptibility to morbid influences, and a correspondence in the effects of agents which are able to reach the two sides and to exert their influence, whatever that may be, on the similar structures. For any agent to act in the same manner on these distant but corresponding parts, it must reach them by the only path to which they are equally accessible, namely, the circulation.

It is true we may have a bilateral correspondence in consequence of another process. Similar tissue elements on the two sides may fail in their nutrition because they possess an inherent defective vitality. That which we may call the vital endurance of the tissues is sometimes less in some structures than in others, and in consequence those which have less resistance slowly decay before the rest of the body, fail prematurely in their nutrition and in their function. Such failure is generally a senile change, although by a strange defect of local vitality it is sometimes met with soon after adult life is reached. In these cases, however, the failure of nutrition is an extremely gradual process, and the symptoms are correspondingly slow in their evolution. In the cases with which we are now concerned the symptoms are more or less rapid in their development. Such rapid failure of nutrition and disturbance of function in corresponding structures on the two sides may be safely taken as an indication that a toxic agent exists in the blood, an agent which is carried to all parts, but acts only on those which are specially susceptible to its influence.

Remember this great fact of the bilateral symmetry of symptoms, because it is of extreme practical importance. In the more common forms of the disease of the nerves, due to a toxic agent in the blood, the influence is exerted on the motor fibres, and the result is a symmetrical paralysis of the muscles, especially of the extremities, those that extend the wrist and fingers, or the homologous muscles which flex the ankle-joints and extend the toes, or of both. But not rarely the chief incidence of the toxic agent is on the sensory nerves, causing first subjective sensations in the extremities, and then, if severe, producing diminution and even loss of sensibility. In such cases there is commonly also loss of the knee-jerk. This indeed commonly results from the affection of the motor nerves, but in sensory neuritis it apparently depends on an early interference with the conduction of the afferent impressions through the sensory muscle nerves. There may even be definite ataxy, probably as a result of a greater degree of the same process.

The number of toxic agents which are capable of thus influencing the function of the nerves is great and their nature is most varied. Foremost among them are substances received from without—metallic poisons and some organic poisons, as alcohol. Some of the latter result from the growth of low organisms, and probably other substances of a more or less analogous origin, but of uncertain nature, having the same effect. A similar pathogenic influence may be exerted by poisons produced within the body. Some of these are the result of the growth of bacterial organisms, introduced from without, but generating the toxin, directly or indirectly, in the course of their development within the body. It seems to be in this manner that the polyneuritis occurs with which we have become familiar as the sequel of many acute specific diseases. But besides the poisons of this class, we have evidence of others. The disordered metabolism which takes place as the result of constitutional conditions, such as gout, seems occasionally to result in such toxic agents, the effect of which may be greater in consequence of some predisposition to suffer on the part of the individual, a state of general imperfect nutrition, and therefore of imperfect resistance to deleterious influences, whatever be their nature.

In other conditions there seems to be a state of the system which disposes it to react in a peculiar manner under external influences, so that a special toxic agent is produced under the influence of an external cause which we cannot even associate with a bacterial agency—such a cause as the exposure to cold. You know how various and grave may be the effects of this exposure. It may cause simply tonsillitis; it may cause rheumatic fever with all its manifestations; it may cause pericarditis alone. How the exposure produces its consequences we cannot yet surely discern, or indeed discern at all, beyond the fact that we have no reason to suspect the introduction of toxic agents into the system from without, and we are therefore thrown back on the assumption that the chill induces some disorder of the chemical processes within the body. These are always going on; they constitute the source of all the manifestations of vitality; but their normal course depends on a precise adjustment of many influences, some of

which seem readily to be disturbed. Remember, moreover, that the slightness of a deranging cause may be no measure of the degree of the derangement produced, nor of its extent. In a complex organism, such as our frame, one process set wrong acts upon others, and there seems to be a mutual action and reaction of the interrelated processes, so that a simple wetting of the feet may lead to a grave general disease.

It is a trite observation that but a narrow boundary separates life from death. An equally narrow one separates health from disease, and the same truth may be traced downwards in all the subsidiary processes, the sum of which makes up health and the condition of normal life. The change need often only be small which converts a material that subserves normal nutrition into one which is capable of arresting tissue life. You will remember the researches of Martin on diphtherial paralysis which have shown that a small quantity of a ferment produced by the diphtherial organisms in the throat will set wrong the chemical processes in the spleen and elsewhere concerned in the elaboration of the albumoses for the nutrition of the body. The change is probably one of slight degree, but it results in the production of a poison capable of paralysing the nerve structures of the body, and so leading to that sequel of diphtheria which is only less terrible than the disease itself. These considerations enable us, if not to understand, at least to conceive, that so simple a process as exposure to cold may result in the production of diseases of various and grave character, some of which we are compelled by all analogous facts to refer to toxic material produced in the body by deranged chemical processes.

Such toxic agents seem to have a more varied influence than the definite poisons received from without, and this is true of those that are due to exposure to cold. Among their effects is the polyneuritis of which I have spoken. One feature presented by this form is its frequent severity and acuteness in some cases, chronicity in others. Another important fact is that to which I desire especially to direct your attention to-day—that the inflammatory process may involve the muscles as well as the nerves, and even more widely than the nerves, producing the malady termed polymyositis. This result is met with almost exclusively as a result of exposure to cold. It seems to be a peculiar variety of the rheumatic poison produced in specially susceptible individuals, rendered such by some influence which depresses the general health. In such cases of multiple inflammation of both the muscles and the nerves, the affection presents the general distribution of polyneuritis so far as preponderant loss of power is concerned, but with a far wider implication of the muscles, of which many suffer that escape in ordinary polyneuritis. They are at first very tender, and afterwards undergo hardening and contraction, which may be extreme in degree; and indeed, after a time, may be insuperable, and resist all efforts to overcome it. It is an example of this disease that I have to show you to-day. It is the late stage of the disease which this patient presents, but its results are only too conspicuous, and its late stage may not render it the less instructive. She has been under treatment here for many months, and has improved very much in some parts, although in others we have been less successful. I had better give you the account of her history, which is contained in the hospital notes.

The patient is a married woman, now 36 years of age, the wife of a labourer. She was admitted here ten months ago with almost universal palsy. Her father had suffered twice from rheumatic fever, and his father was the subject of gout. This should be noted; it illustrates the fact that the majority of those who are liable to rheumatic fever are the children of a gouty parent. It is an important fact, and one that curiously illustrates the manner in which important causal facts elude discernment, until they are specially looked for. If you are on the look-out for it you cannot fail speedily to obtain evidence of its truth from your own experience; and yet few persons, surprisingly few, have noted it until their attention was directed to the sequence. It is one of the many points of connection between gout and articular rheumatism. Some change in the process of hereditary transmission seems to convert the gouty diathesis into what we regard as a purely rheumatic diathesis, which finds its expression in the most concentrated form of rheumatism, rheumatic polyarthritis.

This by the way. The patient had the hard-worked life of women in her class. She occasionally took spirits, but close questioning failed to elicit evidence of excess. The affection came on after the death of her mother, whom she had nursed sedulously, with the result that she was constantly over-tired and often exposed to cold at night. The first symptoms were a constant tired feeling and aching pain in the back and around the loins. An irritable rash appeared over the hands and arms. Such a symmetrical eruption is always proof of a morbid state of the blood. Then she began to have pain in the hands and also in the ankles, and both hands and feet became weak. These symptoms slowly increased during two or three months, and in October, 1896, the feet had dropped and she could not get upstairs, and had difficulty in sitting upright. By the end of that year the arms and legs and trunk had become much weaker, and she was taken into a general hospital for seven weeks. At the end of that time she could not stand, and the limbs and trunk were getting stiff so that she could not bend forwards. In a sick asylum, to which she went next, and where she remained eight months, the stiffness steadily increased, and the arms and legs became rigid in the position of flexion, but the pain became slighter.

When admitted here she was so helpless as to be unable to sit up; she was continually perspiring, and complained of shooting pains in the shoulders. The only symptoms in the region of the cranial nerves were in the movements of the face and jaws. The facial muscles acted slowly and imperfectly, apparently from stiffness, and there was contraction of the masseters, which felt firm, and their rigidity prevented the mouth being opened widely. Rigid contracture existed in all the muscles of the neck, limiting its movements. The head was quite stiff upon the trunk, and hardly any flexion of the neck was possible, obviously from the muscular contraction. The same rigidity existed in the muscles of the back, and she could not bend the trunk either backwards or forwards. She had to be moved in bed as one stiff piece. The same condition of rigidity and contracture was most conspicuous in all the muscles of the upper limbs. Slight voluntary contraction could, however, be produced in most of them. But the arm was adducted by contraction of the pectoralis, and passive movement could not draw it from the trunk beyond an angle of 45°. The elbow was flexed, and contraction of the biceps prevented its extension beyond an angle of 60°. The hands were dropped at the wrist, and the fingers flexed and could not be extended completely. All the muscles of the arms and hands were much wasted, but although small they were extremely hard and firm; this was the case in both flexors and extensors. Voluntary movement was abolished in the extensors of the wrist and long extensors of the fingers, but only a very slight degree could be produced in the other muscles of the arms. All the muscles reacted very slightly to strong electrical stimulation, the faradic shock, or the interrupted voltaic current. The response to the latter was normal, so far as the poles were concerned, and it had the sharp, quick, character which indicates, like the faradic irritability, stimulation of the intramuscular nerves and not of the muscular substance itself. The latter contracts with a peculiar sluggishness, which presents a marked contrast with the instant response when even a few normal nerve fibres subserve. Sensation on the arms was quite normal. The rigidity prevented any reflex response to stimulation.

Both legs were extremely rigid, and all the muscles were small and hard. The feet could not be flexed. Neither the hip-joints nor the knee-joints could be passively extended, on account of the contraction of the flexors, and that in the extensors of the knees prevented flexion to more than 15 degrees from the position of complete extension. She had, however, just enough power over the flexors of the hip to raise each foot from the bed, but she could not flex the knee or move the foot at the ankle-joint, although the muscles could be felt to contract slightly on a voluntary effort. The contraction in the calf muscles was so great that the feet could not be passively brought nearly to a right angle with the leg.

In all the muscles of the legs and feet response could be obtained to both faradism and voltaism, but the contraction was slight which could be obtained even with a strong current. The polar reaction was normal in the legs also, except

in the muscles of the calves, in which the A.C.C. was obtained more readily than the K.C.C.

Sensibility in the lower limbs was everywhere normal. No pain or subjective sensation was complained of, but there was some pain in the back. The deep reflexes could not be anywhere obtained. There was no affection of the sphincters. A curious symptom was the excessive amount of perspiration, both on the face and limbs. Apart from exertion the sweat would often stand in beads on the surface.

That was her state on admission. Unfortunately the affection had then reached an advanced and chronic state. The inflammatory process in the muscles had attained its cicatricial stage, in which the newly-formed connective tissue, almost universally distributed, had already contracted. We know, from varied experience, in many places, and in many forms, how strong is the contracting tendency of this abnormal structure. In this patient we have striven to overcome the contraction by passive extension and by massage, and have endeavoured to increase the strength of the muscular fibres by movements and electricity as well as by therapeutic agents. I cannot say that much change has been produced in the arms. But if our success in improving the condition of the arms has been small, we have at least the satisfaction of having done good to the legs and back. Their condition is far better than when she came under our care. We have succeeded in overcoming the contraction of the hip and thigh muscles by passive extension, and so have enabled her to use the limbs, with the result that there has been a great increase of their power. The inability to stand has been exchanged for the ability not only to stand, but also to walk. There is still some contraction in the calf muscles, preventing full passive flexion of the ankle joint, but this residual amount will soon yield under perseverance in standing and walking, the most potent of all agents for the purpose. The state of the arms you can observe. In spite of variously contrived efforts to obtain the extension of the elbows, as you see, the contraction of the biceps prevents the extension of the forearm. That of the flexors of the wrist prevents the full extension of this joint, and the abduction of the upper arm is hindered by the contraction of the adductors, and especially of the pectoralis major. Note how the rigidity of this muscle prevents the movement of the arm far from the side. The deltoid, the chief abductor, is rigid and firm, and presents much less response to the faradic stimulus than does the pectoralis. You may observe the same relation between the voluntary power and the degree of shortening in other opposing muscles, in the biceps and triceps, and also in the forearm muscles. She can produce only very slight contraction by the will in the extensors of the wrist and fingers, while there is considerable voluntary power in the flexors. The electrical irritability agrees in the degree of response to the voluntary power. Accordingly, though both sets of muscles are small and hard, those which are least paralysed are most contracted. We may see in this the correspondence of this affection and polyneuritis. There is the same flexor contraction and extensor weakening in both sets of muscles, although all are involved in the cicatricial inflammatory changes. We must therefore infer that there is polyneuritis as well as polymyositis, that both nerves and muscles are involved in the morbid process; but the affection of the muscles is far more extensive than it is in the pure affection of the nerve. How widely and profoundly the former have been involved is shown not only by the degree of hardening and contraction, but by its extensive distribution. The affection of the facial muscles still exists; you may note not only its stiff aspect, but the small amount of movement which results from voluntary or emotional influence, for still more evident is the contraction of the masseters. As you can see, she cannot open her mouth to much more than half the normal extent, and if you presently feel the muscles as thus extended you will note how hard they are and how distinct it is that their contraction is the agency which prevents a greater depression of the jaw.

I do not doubt that her power of walking will improve to a useful degree. Its influence on the contraction of the calf muscles is, as I have said, steady and maintained. It is surprising how much contracture may be thus overcome in the course of time, even a degree that, at first, seems to permit the expectation of release only from tenotomy. But we have no means to effect the extension of the arms of similar potency. I fear we shall not be able to secure her ability to use effectively what power she possesses in the hands without having recourse to division of the tendons of the biceps. Once developed, such contraction of the flexors of the elbow is a most formidable condition. The extensors act at great disadvantage when the joint is flexed, while the influence of the flexors is then at its maximum, while we have no habitual movement of which to avail ourselves, comparable to that of the weight of the body on the contraction of the calf muscles.

This therapeutic inability brings me to the last point which I desire to impress on you, and like many last words it is the most important. The scope for treatment, at this stage of the affection, is small. If you picture to yourselves the pathological condition, you must conceive the muscles as now containing only a small proportion of normal fibres, and that these are separated by fibrous tissue which has undergone cicatricial contraction. Many muscular fibres have perished in consequence of the acute inflammation and of the degeneration of their nerve fibres. The primary disease had already ceased when she came here, and only its effects remained. You know, in all diseases, what a different task it is to treat the primary affection and to treat its late results when these consist of grave structural damage. So far as recovery of the partially damaged muscles is concerned, these have probably regained as nearly a normal condition of the remaining fibres as they can reach. Some increase of power, however, may result from their voluntary use, if this can be increased by getting rid of the disabling shortening which interferes with all effective employment of the arms. But in this, as in so many diseases, the only opportunity for really effective treatment is that which is presented in the early period of the case, when the malady is in the stage of development. I cannot doubt that, in this patient, rest, diaphoretics, and salicylates, with perhaps small doses of mercury, would then have controlled the inflammation, and lessened very much the subsequent mischief which it has induced. Every degree of diminution of the intensity and duration of the active processes of disease is multiplied many times in the ultimate diminution which is thus caused in the later and permanent condition. I emphasise the fact, because to some of you may come the opportunity of treating such a case in the only stage in which treatment can be really effectual, and because the general lesson is applicable to many maladies of many kinds.

A CLINICAL LECTURE
ON
A CASE OF UNILATERAL (HEMIPLEGIC) SPASM AND CONTRACTURE WITHOUT PARALYSIS.

Delivered in the University of Edinburgh,

BY SIR T. GRAINGER STEWART, M.D., LL.D.,

Professor of the Practice of Physic, Physician-in-Ordinary to the Queen for Scotland, and President of the British Medical Association.

(Concluded from page 5.)

THE outstanding features of the case as explained in the part of the lecture already published are:

A soldier, aged 25, had severe typhoid in India; on recovering from coma, found himself unable to use his left hand on account of stiffness of the fingers. Gradually they became flexed, and the arm, foot, leg, and left side of face became rigid with constant hypertonicity and frequent tonic spasms. This condition makes him resemble a case of hemiplegia with descending sclerosis, but there is no paralysis, and all the muscular disability is due to antagonistic action of opposing muscles. Otherwise at present no abnormality of any system or of the nervous system in any respect, except the unilateral spasm. The locomotory system is interfered with only in so far as the spasm, the contracture, and the consequent changes in joints and bones are concerned. He has, since his illness began, had two attacks of mania.

It should be particularly noticed, as to the state of the muscles, that the deep reflexes are exaggerated, and that, although the electric relations differ on the two sides of the body, there is no trace of the reaction of degeneration.

The condition thus described is, so far as my own observation goes, unique, and I have not been able to find an exactly corresponding case recorded in any books to which I have had access. Neither have any of the eminent authorities in neurology, to whom I have shown or described the case, met with one precisely similar.

It is a difficult task to attempt to settle the probable nature of the process, and in considering such a question I like to inquire, first, what is the seat of the disease, and, secondly, what is the nature of the morbid process.

I.—As to the Seat of the Morbid Action.

The fault might lie (1) in the muscles themselves, (2) in the lower neuron, either in the nerve fibres supplying the muscles or in the white columns or the cells of the spinal cord, (3) in the upper neuron, either in its fibres or in the motor area of the cortex or possibly in one of the basal ganglia.

1. *Is it in the Muscle?*

A. *Myositis.*—It is scarcely necessary to argue against this suggestion for the unilateral distribution of the symptoms, the examination of the muscles themselves, and the condition under chloroform conclusively exclude it.

B. *Hypertonicity of Muscular Origin.*—No such condition has been recognised, and the history of the case as well as the unilateral distribution lend no support to such an explanation.

2. *Is it in the Lower Neuron?*

A study of the case warrants the exclusion of the lower neuron as a possible seat of disease (*a*) because there is no paralysis, (*b*) because there is no trophic change, (*c*) because there is no reaction of degeneration, (*d*) because the reflexes, superficial and deep, are exaggerated.

3. *Is it in the Upper Neuron?*

It is thus clear that the lesion must be proper to the upper neuron, and must be referred (*a*) to the fibres, or (*b*) to the cellular structures of the grey matter.

A. It cannot be referred to the fibres, for no change in them could suffice to produce such a group of symptoms.

B. It must, therefore, be referred to the cellular structures of the grey matter. There are two areas of grey matter which might be suspected, namely, the Cortex and the Optic Thalamus. It is obvious enough that an irritation of the cortical cells might conceivably give rise to such irritative phenomena of muscle, but there are several difficulties in the way of accepting such an explanation. We would have to assume:

1. That the whole of the right motor cortex is affected with this irritation, all the muscles of the left half of the body being involved.

2. That the irritation has lasted for three and a-half years without undergoing any material change in character or degree.

3. That the irritation has never in any muscle or group of muscles passed, as irritations so often do, into other conditions, such as paralysis.

4. The fact that sudden voluntary action is better performed than slower movement seems to imply that the fault does not lie in the psycho-motor areas or the tracts leading down from them, but rather in some structure affecting the movements in a less direct way.

These considerations seem to me to throw considerable doubt upon, though not to disprove, the view that the cortical cells are at fault. I think that they pretty definitely exclude a diagnosis of organic cortical lesion, although not necessarily a functional affection of that area.

Turning now to the *Optic Thalamus* as a possible source of such irritation, the first point in its favour is that other irritative phenomena, such as Athetosis and Hemichorea, occurring in old Hemiplegias are, to say the least, often associated with lesion of the Thalamus, and that presumably in such cases that lesion accounts for the spasmodic contractions, while lesion of the internal capsule or of the cortex accounts for the paralysis. One must admit that we have as yet no adequate explanation of the way in which these lesions produce the movements, although it seems probable that it is by influencing the cortex through fibres afferent thereto, rather than the periphery directly; but the coincidence of the lesion and the symptoms in so many cases cannot be overlooked. It must also be frankly admitted that no case is on record in which lesion of the Optic Thalamus produced irritation phenomena precisely corresponding to that of our patient. Secondly, the fact as to sudden movement, just insisted upon, might perhaps be explained on the supposition that a side nucleus such as the Optic Thalamus came into play and modified the motor action.

4. *Is it in the Cerebellum?*

5. It might be suggested that the cerebellum, or possibly some part of the cerebrum other than those mentioned, might be the seat of morbid action, but I have not been able to lay hold of any facts that would justify or even render probable such a suggestion.

Conclusion.

Thus while I should incline to the Optic Thalamus as a probable seat of disease, I should not venture to give it as a positive diagnosis, but fully admit that the symptoms may originate in the Cortex.

II.—The Nature of the Process.

Turning now to the question of the nature of the process, the first point I like to settle always is

A. The Question of Malingering.

Such a diagnosis seems to me entirely shut out by the facts

1. That the most careful watching of the patient while under my care has failed to discover absence of spasm at any time.

2. That the patient has during the past three years and a half been from time to time under the observation of a number of different members of the profession, and has always exhibited essentially the same symptoms, and never been seen without spasm unless on one doubtful occasion.

3. That a measure of spasm persists during sleep.

4. That the unilateral distribution affecting all the muscles of one-half of the body was in all probability beyond the knowledge or imagination of such a patient.

5. That actual changes in the joints have occurred and are revealed by the skiagraphs.

6. That he was once seen in a state of profound intoxication, and that the spasmodic contraction remained unchanged.

These considerations satisfy me that he is not malingering.

B.—Is it Functional?

The second question is whether we are to regard it as functional, toxic, or organic. We must consider first whether it is of that kind of functional disease which may properly be called hysterical.

1. *Is it Hysterical-Functional?*—The fact that he has had two attacks of insanity manifestly implies instability of the nervous system, and his constitution strong and vigorous as it is, seems not incompatible with hysteria. But while these considerations deserve a certain amount of weight they are by no means conclusive, and we ought not to yield to the temptation to call a thing hysterical simply because it presents out-of-the-way nervous features which we find it difficult to explain.

The complete disappearance under chloroform and the partial disappearance during sleep might be regarded by some as strongly favouring such a diagnosis. But I have found that in Spastic Paraplegia and in post-hemiplegic spasm, which are undoubtedly due to organic lesion, that when the patient is brought fully under the influence of chloroform the muscles become lax, and the deep reflexes disappear. I cannot, therefore, accept the chloroform or sleep argument as conclusive.

In regard to the electrical reactions, while it cannot be denied that they are compatible with a diagnosis of hysteria, no one could assert that they are characteristic of it, and for myself I should incline to regard the evidence as negative, unless I had demonstration, which I do not possess at present, of such electrical aberrations occurring in cases of indubitable Hysteria.

Perhaps the strongest point in favour of a diagnosis of Hysteria is the character of the ankle clonus. It is not of the ordinary kind occurring in organic disease, beginning with depression of the toes, but of the rarer variety seen in hysterical conditions, when the first movement

is made by the anterior muscles of the leg. But the symptom is only rarely to be elicited, and is even when present far from being well pronounced; and I think that altogether it does not constitute a strong piece of evidence as to the nature of the case.

Then, against the hysterical hypothesis, there are the very important facts that the patient has remained with one symptom only for three years and a-half, that it took origin during typhoid, and that there never has been the slightest trace of other hysterical symptom, or, indeed, of any nervous symptom in any part of his body except the attacks of insanity, and that these attacks did not in any way modify the motor phenomena which we are studying.

2. *Is it Non-hysterical Functional?*—As an example of such a malady, I quote the case of a patient whom I saw frequently, a boy, aged 15, of a nervous and rheumatic constitution, who had suffered a good deal from Asthma as well as Pneumonia and Acute Rheumatism. After one of his rheumatic attacks he was taken with rather severe chorea, and as the chorea passed off it was noticed that he held his head in a peculiar position, twisted and partly to one side. It was feared by the surgeons in attendance that there might be disease of one of the upper cervical vertebræ. But there was no definite evidence of this. He was carefully treated by constant extension with weight and pulley, but the muscle, on the whole, held its own and resumed the abnormal attitude as soon as set free. The boy never showed a trace of hysterical tendency. At last it was suggested by Professor Ferrier, after the condition had persisted many months, that profound narcosis with chloroform should be induced. As soon as he was fairly under, the spasm relaxed, and the boy on awaking was free from it, and never had the slightest recurrence. That is a typical instance of a non-hysterical, but still functional, disease. If our patient's case is functional I should refer it to this class. But its behaviour under chloroform and other modes of treatment is very different from that seen in the case of the boy just quoted.

c. Toxæmia.

It might be suggested that the symptoms are caused by some toxic material acting upon the brain. This suggestion seems to me to have practically nothing in its favour. It is impossible to conceive that a poison should be generated continuously for three and a-half years, that a poison should induce spasm in one-half of the body and in one-half only. The mens medica seems to revolt against such a hypothesis.

d. Organic.

It may be best to review the series of possible organic changes.

1. *Congestion.*—It might be a result of congestion; but a limited congestion of such a kind persisting through so long a period does not correspond to the known facts of medicine.

2. *Inflammation.*—The same argument holds good, with the addition that spasm persisting, as this has done, is not the kind of result that flows therefrom.

3. *Softening*, whether due to a pre-existing inflammation, or to a thrombotic or embolic process, could not remain stationary and active through so long a time, even if it could be supposed that mere softening would induce such symptoms.

4. *Sclerosis.*—If there be organic disease this seems to me the most probable. It is quite conceivable that during the typhoid a degree of thrombosis occurred, and that sclerosis followed in the affected area. Such a change would be necessarily permanent, and might be arrested and remain limited. I fail to discover anything justifying the absolute exclusion of this suggestion, although it could not apply to a lesion of the cortex, and could not be more than suggested as a possible lesion of the Optic Thalamus.

5. *Tumour.*—There can be little reason for suggesting a lesion of this kind in the case; for there are neither eye changes, headache, or other symptoms pointing to a lesion of the kind, and a tumour remaining practically stationary for three and a-half years, producing the same symptoms all the time, is not to be conceived.

Conclusion.—On the whole, then, without in the least desiring to dogmatise on the matter, and sitting quite loose to the hypothesis, I would suggest as the most probable diagnosis either sclerosis following upon thrombosis affecting the right optic thalamus, or a non-hysterical functional condition of the whole right psycho-motor cortex, or of the grey matter of the right Optic Thalamus.

Treatment.

Meanwhile, whatever the true pathology of the case may be, we must do what we can in the way of treatment.

It may be well, although there is no history of syphilis, to give potassium iodide a thorough trial, knowing, as we do, that it sometimes proves of unexpected value in obscure cases.

I cannot but hope that as we possess in chloroform a remedy capable of controlling spasm, while at the same time widely affecting the nervous system, we may one day discover a drug or drugs which shall be able to influence spasm without involving the nervous system in other important particulars. Unfortunately we are not yet acquainted with any remedy of such a kind, but I purpose to try any medicines which promise an approach to a fulfilment of the indication.

Lastly, although I very rarely have recourse to treatment by hypnotic suggestion, I have considered myself justified in trying it in this case. My friend Dr. George Kerr has undertaken to apply the method. I am not able as yet to speak definitely of its results. They certainly are not as marked as they generally are in purely functional cases.

CLINICAL MICROSCOPY AT JOHNS HOPKINS MEDICAL SCHOOL, BALTIMORE, UNITED STATES OF AMERICA.

By WILLIAM OSLER, M.D., F.R.S.,
Professor of Medicine, Johns Hopkins University.

Three years ago, in the second year of the organisation of the medical school, the clinical laboratory was built, in part by a bequest of $10,000 from friends interested in medical education. It consists of two storeys, each of which has a main laboratory floor 64 feet by 20 feet, with windows on either side, and accommodation in each for 60 students. There are six smaller rooms for the assistants and for private work. One laboratory is exclusively for the third-year, the other for the fourth-year, students. Before proceeding to speak of the classes, I may refer to the organisation of the medical service of the hospital. There are four more or less permanent officers: a first assistant or resident physician, with two juniors, one of whom takes charge of the private ward, the other of the bacteriology of the service; and a physician in charge of the clinical laboratory. The permanency of these officers is of the greatest advantage to the service. Since the opening of the hospital nine years ago I have had only two first assistants, Dr. Lafleur, now of McGill University, Montreal, and Dr. Thayer, who has been with us seven years. The first assistant gets his quarters and $500 a year from the hospital, and $500 from the medical school for helping with the teaching. He is also allowed the privilege of outside consultation work. These are appointed by the trustees on the nomination of the Medical Board. There are four house-physicians selected each year from the graduating class. The general microscopical and chemical work of the wards is done in three separate rooms under Ward G, the equipment and current expenses of which are paid for by the hospital. The expenses of the clinical laboratory are met by the medical school.

The work of the third year in medicine consists of (1) an out-patient class from 12 to 1 three times weekly. Adjoining the medical dispensary is a class room accommodating 50 students. I take charge of this class, in which are considered the objective features of disease as illustrated in select cases. (2) On Wednesday, at 12, I hold a set clinic in the amphitheatre, at which both third and fourth-year students attend. (3) Twice a week for two hours Dr. Thayer takes the class in physical diagnosis. (4) On Monday and Friday, from 2 to 4.30 P.M., Dr. Futcher meets the class in clinical microscopy. It may be well to state here that our classes are as yet small, and as the students enter the school with laboratory training in both biology and chemistry, they are able to take pathology and bacteriology in the second year, so that they have an excellent preparation for the clinical microscopy.

The microscopes and reagents are provided, each student paying a rental of $5 a year for the microscope.

SYNOPSIS OF COURSE ON CLINICAL MICROSCOPY.

The course begins on October 1st, and continues throughout the academic year (to June 1st). Two laboratory classes of two and a half hours duration are held weekly. In addition, a one hour's recitation on the work already taken up is held each week. The course includes a thorough study of the blood, urine, sputum, gastric juice, and fæces, and other specimens of importance occurring in the wards from time to time.

A. THE BLOOD.

I. Consideration of the various views held concerning the origin of the red blood cells and leucocytes during intrauterine and extrauterine life.

II. Examination of fresh specimens of normal blood: (*a*) Study of the normal red cell, and the changes it may undergo owing to improper manipulation; (*b*) study of the various types of leucocytes in a fresh specimen of normal blood; (*c*) study of blood platelets in normal and diseased blood.

III. Methods of counting the red and white corpuscles, with the Thoma-Zeiss blood counters, including the use of the hæmatocrit.

IV. Methods of determining the hæmoglobin: (*a*) Von Fleischl's; (*b*) Gowers's.

V. Demonstration of methods of determining the specific gravity of blood: (*a*) Schmalz's; (*b*) Hammerschlag's.

VI. Method of taking the coagulation time of the blood by Wright's tubes

VII. Ehrlich's method of blood examination by study of dried specimens: (*a*) Fixing of specimens: (1) By heat, on a copper bar or in thermostat; (2) by alcohol and ether in equal parts. (*b*) Staining of dried specimens to show the various elements of the blood which have an affinity for acid, basic, or neutral dyes: (1) Specimens stained with eosin; (2) methylene blue; (3) dahlia; (4) eosin and methylene blue together; (5) Ehrlich's triple stain; (6) Neusser's modification of Ehrlich's triacid mixture to show perinuclear basophilic granules.

VIII. Examination of blood for malarial parasites: (*a*) Fresh blood, to show the various stages of development of the tertian, quartan, and æstivo-autumnal parasites: (*b*) permanent specimens stained in eosin and methylene blue to show the same.

IX. Demonstration of filaria sanguinis hominis in fresh blood.

X. Study of the leucocytes, with permanent specimens: (*a*) physiological; (*b*) pathological.

XI. Study of the bone marrow, spleen, and lymphatic gland, with especial reference to the origin of the red and white corpuscles, and to the regeneration taking place after hæmorrhages and in grave anæmia.

XII. Study of the various varieties of anæmia, with permanent specimens: (*a*) Primary anæmia: (1) chlorosis; (2) progressive pernicious anæmia; (3) leukæmia. (*a*) spleno-myelogenous, (*β*) lymphatic; (4) pseudo-leukæmia. (*b*) Secondary anæmia: (1) following hæmorrhage, (2) following malignant diseases, (3) following malarial infections.

XIII. Consideration of the blood changes in: (*a*) Various infectious diseases—diphtheria, measles, scarlet fever, typhoid, tuberculosis, etc.: (*b*) syphilis: (*c*) nephritis; (*d*) diseases of the heart; (*e*) pneumonia; (*f*) trichinosis.

B. THE URINE.

I. Theories of the excretion and secretion of urine.

II. Physical examination of the urine. Full consideration of the features to be noted under this heading.

III. Chemical examination of the urine: (*a*) *Organic constituents*: (1) Tests for the various proteids and proteoses in the urine, including (*α*) albumin, with methods for quantitative determination, (*β*) peptone, (*γ*) fibrin, (*δ*) mucin, (*ε*) albumoses, (*θ*) hæmoglobin. (2) Tests for the different varieties of sugars, including methods for the quantitative estimation of sugar. (3) Organic substances which may reduce copper solutions and simulate glycosuria, as homogentisinic acid (alkaptonuria) and glycuronic acid. (4) Tests for acetone, diacetic acid, and *β*-oxy-butyric acid. (5) Colouring matters: normal: (*α*) urobilin, (*β*) urine indican; abnormal: (*α*) colouring matters of the blood, (*β*) bile pigments, (*γ*) vegetable colouring matters. (6) Leucin and thyrosin and xanthin. (7) Urea, qualitative and quantitative determination of. (8) Uric acid. (9) Method of estimating total nitrogen in the urine by the Kjeldahl process. (10) Krüger and Wulff's method of estimating the alloxuric bodies in the urine. (*b*) *Inorganic constituents*: (1) Chlorides, quantitative and qualitative determination of. (2) Phosphates: (*α*) earthy, qualitative and approximate quantitative determination of; (*β*) alkaline: quantitative estimation of total phosphoric acid. (3) Sulphates, qualitative and approximate quantitative determination of.

IV. Miscellaneous tests: (*a*) For Ehrlich's diazo-reaction.

V. Consideration of the toxicity of the urine.

VI. Microscopical examination of urinary sediment: (*a*) Unorganised deposits, including crystalline and amorphous deposits; various microchemical tests for purposes of differentiation. (*b*) Organised deposits, including anatomical elements as epithelial, red blood and pus cells, false and true tube casts, etc. (*c*) Staining for tubercle bacilli; methods recommended for differentiation from smegma bacilli. (*d*) staining for gonococci.

C. THE SPUTUM.

I. General considerations regarding collection of and prevention from contamination.

II. Information obtained from a macroscopical examination of the sputum.

III. Microscopical examination of buccal secretion.

IV. Microscopical examination of sputum. Examination for (*a*) red blood and pus cells, including eosinophilic cells. (*b*) Epithelial cells. Squamous, ciliated and alveolar epithelial cells. Study of the myelin degeneration of the latter, and of the various varieties of pigment they take up giving rise to the different types of "dust cells." (*c*) Elastic tissue; methods of examining for it. (*d*) Curschmann's spirals; (*e*) Fibrinous casts of bronchi. (*f*) Various types of crystals; Charcot-Leyden, hæmatoidin, fatty, etc. (*g*) Examination for amœba coli.

V. Methods of staining for various pathogenic bacteria, tubercle bacilli, pneumococci, etc.

VI. The sputum in the following diseases was studied macroscopically and microscopically: (*a*) bronchitis, various types; (*b*) pneumonia, lobar and acute tuberculous pneumonia; (*c*) pulmonary tuberculosis, various stages; *d*) asthma; (*e*) bronchiectasis; (*f*) hepatic abscess opening into bronchus, with examination for amœbæ coli, etc.; (*g*) pneumonokoniosis.

D. GASTRIC JUICE.

I. General consideration of the anatomy of the stomach and the physiology of gastric digestion.

II. Consideration of the normal constituents of the gastric juice.

III. Various forms of test breakfasts.

IV. Method of removing the gastric contents with a practical demonstration. Amount and appearance of contents in healthy digestion.

V. Chemical examination of gastric contents: (*a*) Reaction to litmus; (*b*) Tests for free acids; (*c*) Tests for free hydrochloric acid; (*d*) Tests for lactic acid: (*e*) Tests for butyric and acetic acids: (*f*) Quantitative estimation of total acidity; (*g*) Estimation of free hydrocloric acid; (*h*) Tests for pepsin, pepsinogen, and rennet; (*i*) Test for starch and its derivatives.

VI. Microscopical examination of gastric contents: (*a*) For food detritus; (*b*) For blood, or portions of mucous membrane and malignant growths; (*c*) For sarcinæ and other vegetable growths.

VII. Method of determining the absorptive and motor power of the stomach.

VIII. Changes in the gastric juice occurring in various systemic and local diseases of the stomach: (*a*) Chlorosis; (*b*) Neurasthenia; (*c*) Gastritis, acute and chronic; (*d*) Atrophy of the mucosa; (*e*) Carcinoma of the stomach; (*f*) Ulcer of the atomach; (*g*) Dilatation of the stomach.

E. THE FÆCES.

I. Macroscopical examination. Effects of medicinal agents on the colour, etc.

II. Microscopical examination: (*a*) Food *débris*: (*b*) Red blood and pus cells; (*c*) Intestine epithelial cells; (*d*) Amœbæ coli; (*e*) Differentiation of amœbæ coli from trichomonas and cercomonas intestinalis, paramœcium coli and monads; (*f*) Examination of fæces for tubercle bacilli; (*g*) Various forms of crystals.

III. Intestinal parasites. These were fully dealt with by Dr. Stiles in his lectures on animal parasites, when a large number of parasites were demonstrated. Dr. Stiles also gave four laboratory demonstrations. Trichinæ in the muscles, adult male and femalæ trichinæ in the rat's intestine, various forms of eggs, etc., were demonstrated. Class received permanently-stained specimens, of tæniæ illustrating the solium and saginata types.

IV. The special features of the stools in various diseases are dealt with.

F.

Specimens of interest from ward cases not coming under the above headings are demonstrated to the class from time to time.

FOURTH YEAR WORK IN CLINICAL MICROSCOPY.

A place in the laboratory is set apart for each fourth-year student. No systematic instruction is given, but the clinical clerks and surgical dressers make here the special examinations, cut sections (under Dr. Futcher's direction), and use the laboratory for general purposes. Some of them are able to carry out research work. The studies of MacCallum and Opie on the hæmatozoa of birds, MacCallum's studies on the flagellate forms of the malarial organism, T. B. Brown's work on *Trichinosis* illustrate the character of the work which the senior students can do.

REMARKS ON TWO CASES OF GANGRENE OF THE LUNG.

BY BYROM BRAMWELL, M.D., F.R.C.P.EDIN., F.R.S.EDIN.,

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WITH A SURGICAL REPORT ON ONE OF THE CASES

BY

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CASE I.—*Gangrenous Inflammation of the Lung, apparently due to the Rupture of an Ulcer of the Stomach into the Lung; Immediate Improvement under Rectal Feeding; Recovery.*—At first sight it was very difficult to explain the clinical phenomena which this case presented, but I am disposed to think that the gangrenous condition of the lung which seemed to be present was the result of the perforation into the thoracic cavity of an ulcer in the upper wall of the stomach, the production of a localised cavity containing fœtid contents in connection with the ulcer, and the sudden rupture of the contents of this cavity into the lung tissue or bronchial tubes. This theory is strongly supported by the remarkable improvement which took place immediately rectal feeding was commenced. The notes of the case are as follows:

Mrs. McG., aged 28, was admitted into the Edinburgh Royal Infirmary on October 9th, 1895, suffering from cough and the expectoration of a large quantity of very foul-smelling sputum.

Previous History.—The history which we obtained was that the patient, whose home was comfortable and surroundings healthy, had suffered from measles and bronchitis in childhood, and pleurisy at the age of 17; that she had been married for seven years: and that during the whole of this time she had enjoyed excellent health, never having been troubled with any symptoms indicative either of disease of the lungs or stomach. The illness for which she was admitted commenced on October 1st, 1895, about ten days before admission. As I have already stated, she was up to this time feeling perfectly well, eating as usual, doing all her household work, not coughing, nor short of breath, and not feeling anything amiss with her digestion or stomach.

On the night of October 1st she went to bed at 10 P.M., feeling in her usual condition of good health. About 11 P.M. she was wakened by one of her children moving. She got up, walked hurriedly across the floor, and, when bending over the child, suddenly felt a sensation as if something had given way in the lower part of the chest on the left side. This was immediately followed by a sensation of hot gas coming up into the mouth, and by an extremely bad taste in the mouth. She then began to cough, and immediately expectorated a considerable quantity of liquid material, which was almost black in colour and of an extremely fœtid odour. During the night she had two or three other paroxysms of coughing, and on each occasion she expectorated a considerable quantity of the same fœtid material. At first the cough was unattended with pain, but a few days after the onset of the illness she experienced a catching pain in the left side, which was aggravated by coughing. She has continued to cough and expectorate ever since. The sputum has become lighter in colour, but has always had an extremely bad taste and smell. On October 5th and 6th she expectorated a very large quantity of this foul-smelling frothy material. Since her illness commenced she has become weak and unfit for work. She states that she has never felt feverish, but has on several occasions suffered from cold sweats; her appetite has been very poor.

The morning before she was admitted into the infirmary the sputum was very black.

The family history is quite unimportant. So far as she knows none of her relations have suffered from any lung disease.

State on Admission.—The patient is a well-developed and well-nourished woman. The face is somewhat florid. Temperature 100° to 101°, pulse 84.

Respiratory System.—The respirations number 26 per minute. She states that she can lie in any position, but that the catching pain in the left chest is aggravated when she lies on her right side. When lying on the back or left side she does not feel short of breath; when she turns on to the right side she becomes short of breath, and has a fit of coughing. She is troubled with a frequent cough. The sputum is copious, very foul-smelling, frothy, somewhat brown in colour. The chest is well formed. The breathing is chiefly diaphragmatic, thoracic expansion being shallow, more especially over the lower part of the left chest, where the expansion is much less free than the corresponding part of the right chest. The vocal fremitus is normal, except in the left infra-axillary regions, where it is markedly diminished in intensity—in fact, almost absent. The percussion note is normal over the whole of both lungs, except in the left inframammary and left infra-axillary regions, where it is slightly impaired. Over the right lung and over the upper part of the left lung the breath sounds are normal, except for the presence of occasional high-pitched rhonchi and a few fine crepitant *râles* with inspiration. Over the lower part of the left chest, anteriorly, laterally and posteriorly, coarse friction, especially marked at the end of inspiration, is heard.

Circulatory System. A well-marked, somewhat rough systolic murmur is audible in the mitral and tricuspid areas. The second sound is accentuated and occasionally reduplicated.

Alimentary System.—The appetite is poor, the tongue somewhat furred. There is no complaint of pain or uneasiness after eating, and there has been no vomiting. The stomach, liver, and spleen appear to be normal in size.

Urinary System.—The urine is dark in colour and loaded with urates. It contains neither albumen, blood, sugar, nor bile.

Treatment.—Intralaryngeal injections of a 10 per cent. solution of menthol in olive oil, and boracic acid and sulphate of quinine internally were prescribed.

Diagnosis.—Such was the condition of the patient on admission. The diagnosis was difficult. There was, of course (1) dry pleurisy involving an extensive area of the left pleura and (2) a fœtid cavity, either bronchiectatic or gangrenous, in the left lung. The extremely foul character of the sputum and its copious frothy character showed this. Bronchiectasis seemed to me to be excluded for the following reasons: (1) The patient had not suffered from bronchitis; and, up to the time of the occurrence of the rupture into the bronchial tubes of the fœtid gas and fœtid sputa, had not previously been troubled with cough or expectoration; (2) marked constitutional symptoms—fever, debility, etc.—were present; and (3) there was extensive dry pleurisy, obviously due to the same cause as the lesion of the lung itself.

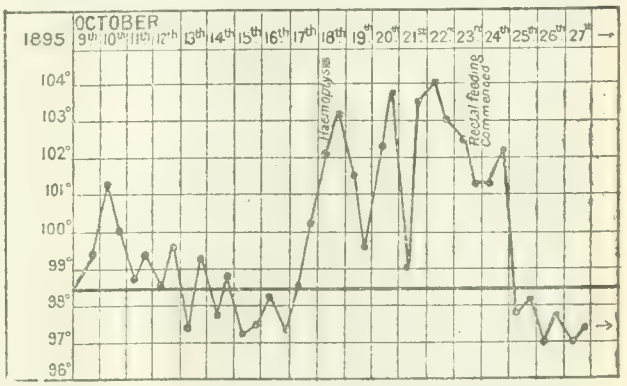
Consequently, having excluded bronchiectasis, we came to the conclusion that the patient was suffering from gangrene, or inflammation of the lung. But gangrene of the lung is very rarely, if ever, developed idiopathically; it is almost always the result either of a pneumonia, or of the introduction into the lung tissue or the terminal bronchi of some septic material, the introduction into the bronchi of food particles, the extension to the lung tissue of a septic inflammation from the wall of a bronchiectatic cavity, the œsophagus, etc.; or compression of the root of the lung (blocking of the bronchi), trophic changes due to pressure on the nerves, septic inflammation in the compressed lungs, etc.

In this case, none of these causes appeared to be at work; the patient was perfectly well up to the time when she suddenly felt something giving way in the lower part of the left chest. This sensation was immediately followed by cough and the expectoration of a considerable quantity of dark and extremely foul-smelling sputa. This rupture was followed, but not preceded, by inflammatory symptoms (fever, etc.), pleurisy, and gangrenous inflammation of the lung.

At this stage of the case, I did not see my way to offer any explanation of the exact mode of causation of the attack—that is, the nature of the rupture; but the course of the case threw considerable light upon this point. The progress of the case was as follows:

October 11th. The patient is feeling much better to-day; has coughed very little; the sputum is not so dark in colour.

October 15th. The temperature is not so high (see chart).



Temperature chart in the case of Mrs. McG., showing the course of the temperature for the first three weeks after admission to hospital.

The sputum, though still very copious, is less dark in colour and less fœtid in odour. The cough is still at times very troublesome. The patient says that she feels fairly well, and that the bad taste in the mouth is not so marked.

October 17th. The cough and expectoration are still very troublesome in the morning; the sputum is less dark in colour, and less offensive. On microscopical examination my house-physician, Dr. Henderson, detected some starch

corpuscles in the sputum. On the evening of this day the temperature, which since the 12th has been normal, began to rise; at 7 P.M. it was 100°.

October 18th. At 3.30 A.M. there was an attack of copious hæmoptysis; and at 8 A.M. a second attack, the bleeding being still more copious; temperature 102°, pulse 112. At 11.30 P.M. the patient stated that she felt rather better than she had done during the previous night. The evening temperature was 103°, and the pulse 96.

On October 19th the patient was rather better, the temperature falling.

On October 20th she was still spitting a little of the foul-smelling sputum, and in addition a good deal of dark blood, chiefly liquid, but partly composed of small clots, which had apparently been lying in a cavity. On the evening of this day the temperature went up to 104°, and the patient complained of feeling very sick. She vomited a teacupful of dirty brown, hare-soup-like liquid, which was, however, free from odour. The vomiting was not preceded by coughing. Since yesterday afternoon the patient has complained of an itchy feeling in her arms and legs; this afternoon a dull, red, papular eruption, which in places was almost confluent, appeared on the arms and legs, and to a slight extent on the trunk. With the appearance of the eruption the itchiness disappeared.

October 21st. The eruption on the legs, forearms, and face is still very marked; it is very symmetrical in its distribution. The papules, especially on the face, are more confluent and of a duller red colour than they were last night. The cough has been very troublesome this morning, and the patient has expectorated a large quantity of brownish, frothy, blood-stained fluid, having a foul smell. She has also vomited a considerable quantity of brownish, clear fluid containing some curds of milk. At 5 P.M., during a fit of coughing, the patient brought up half a teacupful of dirty brown fluid with an offensive odour, followed by some dark frothy blood. So far as could be judged, this material came from the stomach. The patient states that she feels "a rattling in the left side of the chest when she coughs." The physical signs are as follows: The condition of the right chest is normal, the breathing harsh, vesicular, the expiration prolonged, no accompaniments. On the left side, below the second rib, the percussion note seems to be slightly duller and higher pitched than normal; above the second rib it is normal. Above the second rib the breath sounds are harsh, the expiration prolonged and accompanied by some snoring rhonchi. From the second to the sixth ribs the inspiration is blowing and whistling in character, expiration high pitched, markedly prolonged, and accompanied by numerous chirping *râles*, coarse and medium in size, and by snoring rhonchi. The diet was limited to iced beef-tea and iced peptonised milk.

October 22nd. Patient much the same to-day. About 5 A.M. she vomited about a teacupful of reddish-brown material which was not fœtid in character. Has been somewhat drowsy. Is taking a good deal of iced milk. The eruption on the face is now so confluent that it has the appearance of a uniform dark purple blush. Over the limbs, legs, and trunk the eruption is also more copious, but the papules are discrete. Over the lower part of the left chest, inspiration is blowing in character, while expiration is completely masked by coarse gurgling crepitations.

October 23rd. During the night the patient vomited about half a teacupful of dirty, brownish-green fluid containing some curdled milk. This morning she spat up a considerable quantity of bright red blood. The erythematous rash on the body is fading. Since even the iced milk and beef-tea produced sickness, it was decided to feed the patient entirely by rectal enemata.

October 24th. Patient has had a good night, and is feeling much better this morning. The cough has been much less troublesome. She has not vomited since yesterday afternoon, when the rectal feeding (consisting of peptonised milk, meat juice, egg, with thirty minims of laudanum) was commenced. Has been able to take her medicine by the mouth this morning without any sickness. The erythematous rash has almost disappeared. The tongue is much cleaner, and the temperature has fallen somewhat.

October 25th. The patient is very prostrate this morning, having had an attack of diarrhœa during the night. She feels very drowsy, headachy, and inclined to sleep. The rash has entirely disappeared. The cough has not been troublesome, and there has been very little expectoration and no vomiting. The tongue is fairly clean. The temperature has suddenly fallen to below the normal, 97.8° (see chart), pulse 84. The urine contains a trace of albumen and bile. At 2 P.M. the patient vomited a teacupful and a-half of clear, colourless fluid, which was acid in reaction and which contained some brownish masses. At 7 P.M., after a drink of water, the patient vomited two teacupfuls of clear watery fluid, acid in reaction. Is still somewhat drowsy, but looks and feels better. During sleep the breathing is slow, 16 to 18 per minute.

October 26th. The patient feels fairly well, but is dull and drowsy. She slept pretty well during the night, and coughed very little. She expectorated a small quantity of dark, reddish-brown sputum, having a bad odour. This morning, after taking her medicine, she again vomited about half a teacupful of clear, watery fluid without any bad odour. The physical signs are as follows: Over the left chest, from the clavicle to the fifth rib, the respiration is blowing and bronchial in character; this is especially marked between the second and fifth ribs and in the lateral aspect of the chest. Inspiration, but especially expiration, is attended with numerous medium-sized and coarse crepitations having a tinkling character, and also with numerous purring and snoring rhonchi. Below the fifth rib the breathing is harsh, the expiration prolonged, and there is coarse pleuritic friction. The urine still contains albumen and bile.

October 28th. Lips and tongue dry. Distinctly jaundiced. Expectoration much less copious, scarcely a dessertspoonful in the twenty-four hours, thick, muco-purulent, and slightly blood-tinged. When the patient coughs the odour of the breath is still very offensive. Albumen and bile in considerable amount are still present in the urine.

October 31st. Patient slept well last night. Lips and tongue moist; tongue clean; still markedly jaundiced. The urine contains bile and a trace of albumen. Fæces very fluid, pale, just like potato soup, with very offensive odour. Has coughed very little, and has scarcely expectorated at all. The sputum is much less offensive, but the breath after coughing is still very offensive. Twenty drops of laudanum to be added to each enema.

November 1st. The patient still complains of difficulty in lying on the right side; turning to the right side still causes coughing.

November 2nd. After a fit of coughing yesterday, the patient vomited a cupful of clear watery material containing some mucus, curdled milk, and a small quantity of blood.

November 5th. Jaundice less marked. On account of the irritability of the bowel the rectal feeding had to be stopped yesterday. To-day the patient is taking peptonised milk and beef-tea by the mouth without any feeling of sickness.

November 6th. The apex beat of the heart is situated between the fourth and fifth ribs an inch and a-half outside the sternum. The murmurs have disappeared.

November 9th. Still improving. Is coughing very little. The sputum is very small in amount and has almost entirely lost its fœtid character. The patient, however, still complains of a bad taste in the mouth after coughing. Jaundice almost gone. The urine now contains only a trace of bile.

November 14th. There has been a slight rise in temperature in the evening. Yesterday morning after a fit of coughing she felt a bad taste in her mouth and vomited a small quantity of brown-coloured material.

November 17th. The patient was up for a short time yesterday and again to-day. Yesterday and to-day she had fish for dinner and a light-boiled egg and toast for tea. On the evening of this day the temperature rose to 102°, apparently either the result of the exertion of getting up or the more liberal dietary. To be kept in bed and on milk diet.

November 19th. The patient says that she feels a great deal better. Slept well. Tongue clean. The pleuritic friction has entirely disappeared, and the respiratory murmur is now natural over the whole of the left chest. There is no tenderness in the epigastrium. No expectoration. No cough.

November 25th.—The patient remained in bed from the 17th to the 22nd. She was then again allowed to get up.

After this date she made an uninterrupted recovery, the temperature, pulse, and respirations being normal.

She was discharged on December 7th feeling perfectly well in every respect, though still somewhat weak.

REMARKS.

From the detailed account of the progress of the case it will be seen that on the evening of October 17th the temperature, which had previously been subnormal, began to rise. This rise in temperature was followed by the occurrence of copious hæmoptysis. For several days the temperature remained high. During this period an erythematous eruption, evidently due to some form of intoxication, developed, and the patient frequently vomited, the vomited matter on several occasions being brown in colour and containing blood. The irritability of the stomach was so urgent that rectal feeding was commenced. After this, immediate improvement occurred; the vomiting ceased, the temperature suddenly fell, the cough became much less urgent, the expectoration much less copious and less fœtid in character.

The fact that immediate improvement, both in respect to the local (lung) symptoms and the general condition (fever, etc.), resulted as soon as the rectal feeding was commenced throws important light upon the nature of the case, and explains, I think, the manner in which the gangrenous inflammation of the lung was developed.

The only theory which seems to me to satisfactorily account for all the facts of the case is the following: That there had been a latent ulcer in the upper wall of the stomach which had formed adhesions to the diaphragm, and had perforated into the thorax; that a localised cavity, the contents of which were fœtid, had been formed above the diaphragm in connection with this ulcer; that under the effort of suddenly bending forwards this cavity had ruptured into the lung and bronchi; that a localised gangrenous inflammation of the lung with pleurisy had followed; that the introduction of food into the stomach had kept up this irritation and inflammation, and that as soon as the rectal feeding was commenced and the sources of irritation were removed, the intoxication and gangrenous inflammation of the lung had gradually subsided; that the papular erythema, the jaundice and albuminuria were the result of intoxication—the absorption of some poisonous product from the gangrenous cavity.

In confirmation of this view, it is interesting to note that on several occasions the vomited matter, although it was not fœtid, yet resembled the sputa in its other characters; that the vomited matters on several occasions contained blood or blood clots; and that on one occasion at least, before any stomach symptoms were complained of, Dr. Henderson detected starch corpuscles in the sputa.

I cannot explain the facts of the case on any other supposition than that advanced above. The great objection to this theory is that up to the time of the occurrence of the rupture, and indeed for some time afterwards, there were no stomach symptoms; but this objection is not conclusive. I have met with several cases of ulcer of the stomach in which there were absolutely no stomach symptoms until a copious hæmatemesis suddenly occurred. In one of these cases the patient had, a year previously, suffered from all the characteristic symptoms of ulceration of the stomach, including hæmatemesis. This patient remained absolutely free from stomach symptoms for a year, and during this time she was constantly and actively employed as a domestic servant in the family of a skilled observer, a medical man. She was then suddenly again attacked with profuse hæmatemesis.

Further, it is well known that an ulcer situated on the upper surface and at the cardiac end of the stomach is more frequently latent than an ulcer in the usual position—that is, in the neighbourhood of the pyloric orifice. I am, too, disposed to think that an ulcer of the upper surface of the cardiac end of the stomach, which had formed adhesions to the diaphragm, would be more likely to be unattended with symptoms than an ulcer which was free; but I speak with hesitation on this point.

CASE II. *Large Gangrenous Cavity in the Lung: Incision: Drainage: Recovery.*—This case is of great interest from the large size of the gangrenous cavity, the difficulty in accounting for its formation, and the very successful result of the surgical treatment. The notes are as follows:

MEDICAL REPORT BY DR. BYROM BRAMWELL.

G. T., aged 40, a ship's captain, was seen with Dr. Smith of Leith on February 20th, 1897, suffering from gangrene of the lung. The patient and his wife gave us the following account of the previous history:

Previous History.—A year ago the patient was a good deal troubled with his stomach. At that time he suffered from severe pain after taking food, and occasionally vomited, but never vomited blood or "coffee grounds." With this exception he enjoyed good health until his present illness commenced three weeks ago.

On January 27th, 1897, the patient left Leith for Middlesbrough in command of his steamship. He was on the bridge all night. Shortly before getting into Middlesbrough he was seized with pain in the abdomen; he described the exact position as "the middle of the stomach." The pain was so severe that he took three doses of laudanum (25, 20, and 15 drops respectively). On arriving at Middlesbrough he immediately sent for a doctor. He was laid up in lodgings in Middlesbrough for three weeks. The doctor said he had peritonitis and congestion or inflammation of the liver. The patient, however, states that there was not much tenderness on pressure over the abdomen. Soon after the illness commenced he experienced severe catching pains over the region of the liver. He did not, however, feel short of breath until a week ago (the last week he was at Middlesbrough), and he had no cough until after his return to Leith (February 18th). During the first fortnight that he was laid up in Middlesbrough he was feverish; after this the temperature became normal; it rose again above the normal on Sunday last (the first day on which he was allowed to get up). The doctor who attended him in Middlesbrough sent the following note with the patient to Dr. Smith: "Captain T. had a severe peritonitis, which caused me at one time to contemplate laparotomy (as I have little faith in idiopathic peritonitis); however, improvement took place and the idea was abandoned. Subsequently pains occurred over the hepatic region. No pleuritic evidences could ever be detected. Increased dulness and decreased breath sounds are very marked in right chest; I cannot find evidence of effusion. There have not been any pneumonic symptoms throughout. Temperature normal last week; began to rise on Monday, February 15th."

The patient came home to Leith in an invalid carriage on Wednesday, February 17th, and was seen on his arrival by Dr. Smith. The temperature was elevated (102°). The patient was markedly short of breath. There was extensive dulness over the lower part of the right chest.

On Thursday, February 18th, the patient began to cough (there had been no cough previously) and to spit up some very foul-smelling material.

On Friday, February 19th, he spat up large quantities of the same foul-smelling material, the stench of which was so offensive that his wife could hardly remain in the room with him.

Condition on Saturday, February 20th.—When I saw the patient on the afternoon of Saturday, February 20th, he was lying on his right side, looking extremely ill. The temperature was 102°, the pulse 110, the respirations (when at rest) 26. He was spitting up large quantities of extremely fœtid sputum having a distinctly gangrenous odour. The abdomen was now perfectly natural in every respect, and was not tender on pressure; no distension. The liver appeared to be of normal size, and was certainly not enlarged downwards. Percussion showed a localised area of hyper-resonance over the front of the right chest; it extended from the second rib above to the fifth rib below; externally it extended to the nipple, and internally to the right border to the sternum. Over this hyper-resonant area harsh vesicular breathing was audible; but on making the patient cough a very distinct succussion shock or sound, highly suggestive of a cavity, was found to be present. Beyond (externally to) the nipple an area of well-marked dulness extended into the mid-axillary region. Over this dull area the breath sounds could not be heard. Posteriorly there was dulness on percussion up to the middle of the scapula. Over this dull area distant bronchial breathing could be heard; a diagnostic puncture which had been made by Dr. Smith over the dull area at the base of the right lung had failed to demonstrate the presence

of the fluid. At a localised spot just below the inferior angle of the right scapula very distinct metallic tinkling and a succussion sound on coughing were heard. When the patient was turned on to his left side he immediately became very short of breath and began to cough. This procedure (and placing the patient in the sitting position for the purpose of examining the back) produced a notable difference in the physical signs. Over the (formerly) dull area external to the right nipple the percussion note was now resonant, and over the hyper-resonant area between the second and fifth ribs very marked metallic tinkling could now be heard. These facts were independently verified by Dr. Smith.

Diagnosis.—From these physical signs—the extremely fœtid character of the expectoration, the fever, and grave constitutional disturbance which was present—it was obvious that the patient was suffering from pulmonary gangrene, and that there was a large cavity either in the lung or pleura or in both. The exact causation of the gangrene was, however, doubtful. The most likely supposition seemed to me to be either that the case was one of gangrene of the lung following a pneumonia, or that there was a subphrenic abscess, perhaps associated with an ulcer of the stomach, and that the subphrenic abscess had made its way through the diaphragm and produced a localised empyema and gangrene of the lung. Against the latter view were the facts that the onset of the attack had not been preceded or attended by any symptoms distinctly suggestive of ulcer of the stomach, and that the cavity in the lung seemed to be situated too high for a gangrenous cavity due to this cause. Another possibility which was thought of was that an abscess of the liver had perforated into the chest, but there was no evidence of this. The patient had never resided abroad, he had never suffered from dysentery or intermittent fever, and physical examination showed that the liver was not enlarged.

Treatment.—It was agreed to continue the antiseptic inhalations, stimulants, and tonics which the patient was taking, and to send him into the Royal Infirmary as soon as arrangements could be made for his admission, with the object of having the gangrenous cavity incised and drained.

On February 21st Dr. Smith wrote me to say: "The patient's general condition is more satisfactory this morning. Temperature 99.4°; respirations while at rest 18; pulse 102. He had a good night's rest."

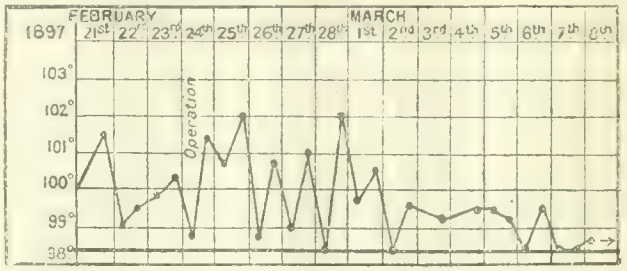
On February 22nd the patient was admitted into the Edinburgh Royal Infirmary under the care of Mr. Cotterill, and immediately after his admission a consultation was held between Dr. Smith, Mr. Cotterill, and myself. The physical conditions were very much the same, except that metallic tinkling was no longer audible. The patient continued to expectorate a large quantity of frothy material, streaked with blood, having a very foul and offensive odour.

February 23rd. The patient had a bad attack of dyspnœa during the night, but is looking better this morning. Temperature only slightly above the normal. Pulse quiet. Still spitting a good deal of foul-smelling material.

Physical signs much the same. The hyper-resonant area extends out as far as the nipple and as low down as the 6th rib (from the 2nd to the 6th ribs), most marked between the 2nd and 4th interspaces. Over this position the vocal fremitus is very marked, and harsh vesicular breathing can be heard. There is to-day no metallic tinkling and much less succussion shock on coughing. It would therefore appear that the opening into the cavity is partially closed, and that a thin layer of adherent lung overlies the cavity.

There is marked dulness external to the nipple. An aspirating needle inserted by Mr. Cotterill into this dull area drew off pus. On turning the patient over on to his left side this dull area becomes quite resonant. There is marked dulness along the spine behind and up to the top of the scapula. Over this area the breath sounds can be heard rather bronchial and harsh in character. The signs of a cavity below the inferior angle of the right scapula are much less obvious to-day.

These physical signs seemed to show that in addition to a large cavity in the lung or pleura or in both, the upper lobe of the right lung was adherent both in front and behind; and further that there was probably some consolidation of the lung, for the breath sounds over the dull area posteriorly were much more marked than one would have expected if the dulness had been merely due to compression of the lung and the presence of pleuritic effusion.



Temperature chart in the case of G. T., showing the course of the temperature before and after the operation.

SURGICAL REPORT BY MR. COTTERILL.

February 24th. The patient, G. T., having been recommended to my care by Drs. Smith and Bramwell, was operated on to-day.

Immediately previous to operation the pulse was 110 and of small volume, the respirations 24, the temperature 98.8°. The patient looked very ill.

An incision having been made over the seventh rib in the anterior axillary line, I removed about 2 inches of that rib and incised the pleura, which was found adherent and considerably thickened. No fluid escaped at first, though a diagnostic puncture made on the previous day about 2 inches in front of this point had demonstrated the presence of pus. I first passed the finger forwards, but found no fluid; then backwards, when I opened into a large cavity containing clear pleuritic fluid, perfectly odourless. As this cavity was evidently distinct from the one from which I had previously drawn pus with the exploring needle, I passed the finger in a forward and downward direction, and eventually found a swelling at some little distance from my original opening. This swelling being explored with a fine needle was found to contain very fœtid pus. I accordingly passed in sinus forceps along the needle, enlarged the opening, and put in a large drainage tube. The patient then began to cough violently and expelled from the abscess cavity about 8 to 10 oz. of thin, flaky, and extremely fœtid pus, after which the cavity was very gently washed out with warm boracic lotion allowed to flow into it by gentle hydrostatic pressure.

In spite of the view held by some surgeons that washing out of such cavities is attended by great risk to the patient, I am of opinion that no risk exists if the following precautions are taken, namely, the fluid should be some mild antiseptic (not carbolic lotion); it should be warmed to about blood heat; it should be injected slowly and without any force, great care being taken that it runs out as easily as it runs in; and the patient should be rolled over into such a position that it is impossible for a large volume of lotion to collect at one time in the chest, and so by its weight embarrass the heart. If these points be observed it is a perfectly safe proceeding, and is obviously of great advantage in washing away the fœtid contents of such an abscess as this, or even in getting rid, as it often does in cases of empyæma, of large masses of lymph which are apt to block the drainage if left behind.

The fluids I prefer to wash out with are boracic lotion, a solution of creolin, or a solution of izal, the latter of which is a particularly useful deodoriser. As for insufflations of iodoform, which are pretty commonly used, I look upon them as of very doubtful use from the antiseptic standpoint; they possess a fœtor not much pleasanter than that of gangrene of the lung itself, and they are not devoid of the risk of causing iodoform poisoning.

The patient stood the operation fairly well, and the wound had to be dressed every two or three hours. He was extremely weak during the night following the operation, but the next morning (February 25th) he was slightly easier, and was able to take more food than he had been doing. To-day it is noticed that the expectoration is less profuse and much less fœtid.

For the next day or two the patient remained in a very precarious condition, the temperature ranging from normal to 102° F. (see chart) quinine, strychnine, and digitalis were prescribed.

After a while, the patient began to make steady though slow progress, and with the exception of occasional severe attacks of dyspnœa there was nothing of particular note.

On March 2nd it was noted that the expectoration was muco-purulent, much less in quantity, and absolutely odourless.

He was discharged from the hospital on May 18th, having been in the wards just over three months.

He returned on May 28th, when it was found that the wound was firmly healed; the expansion of the lungs was good; there was slight dulness on percussion over an area some 8 inches in diameter surrounding the cicatrix, due to thickening of the pleura. He had put on a great deal of flesh, and was looking in very fair health.

He subsequently went a short sea trip, and returned on June 25th, looking in robust condition.

PULSUS BISFERIENS.

BY WALTER BROADBENT, M.D.CANTAB., M.R.C.P.,
Brighton.

WHILE house-physician at Brompton Consumption Hospital three years ago a patient came under my care who presented the curious condition of having a well-marked "bisferiens" pulse on the left side, while on the right the pulse was only that of aortic regurgitation; and since that time I have come across two similar cases, so the condition is apparently not uncommon.

CASE I.—A man, aged 41, who had had rheumatic fever at the age of 16 and again at 20. His radial arteries were large and a little tortuous; the pulse was short and sudden on the right side, but not completely collapsing; on the left side it could be distinctly felt to be double, especially when a little pressure was applied.



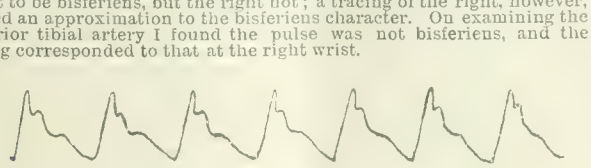
Right Pulse. Case I.



Left Pulse

This state of his pulses was invariably present during his six weeks' stay in the hospital. Three months later he died suddenly. His heart weighed 2 lbs.; both ventricles were greatly dilated and hypertrophied, especially the left. The aortic valve was incompetent and the orifice narrowed, admitting only the tip of a finger; the valves were retracted and rigid. The mitral orifice was also narrowed, admitting one finger easily; its aortic cusp was much thickened and contracted, the other less affected. The aorta was quite normal up to the origin of the left subclavian artery, but just beyond this point was a shallow pocket, the size of a shilling, in the aortic wall, which was here thinned and atheromatous, and from this point a long line of atheroma extended down the left side of the thoracic aorta. Nothing abnormal was found in the carotids or subclavians.

CASE II.—A boy, aged 18, who had had attacks of rheumatic fever at 13 and 16. His radial arteries were larger than in the last case, and they emptied almost completely between the beats; his right pulse was short and sudden, but the left was markedly bisferiens. The left carotid could be felt to be bisferiens, but the right not; a tracing of the right, however, showed an approximation to the bisferiens character. On examining the posterior tibial artery I found the pulse was not bisferiens, and the tracing corresponded to that at the right wrist.



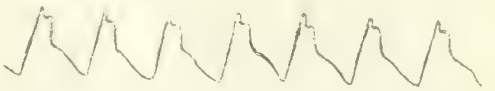
Posterior Tibial. Case II.

This boy died suddenly about a year later; his heart weighed 2 lbs. 1½ oz., both ventricles were greatly dilated and hypertrophied. The aortic valve was incompetent, and the edges of the cusps were thickened, causing slight stenosis; the right posterior cusp had on its aortic surface a calcified prop which kept the cusp stretched across the orifice. The aorta was slightly dilated generally; nothing abnormal was found in the large arteries; the mitral orifice admitted three fingers; the valves were normal; the tricuspid was slightly stenosed, not admitting two fingers its valves were thickened.

Case II.



Right Radial



Right Carotid



Left Carotid



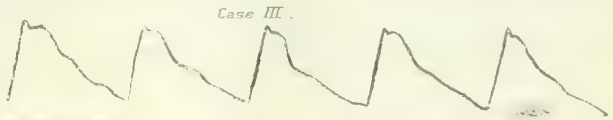
Left Radial



The Aortic Orifice - Case II.

CASE III.—A woman, aged 32, had attacks of rheumatic fever at the ages of 17 and 20. Her radial arteries are larger than normal, and pulsation is visible in them; her right pulse is sudden and moderately collapsing, while the left is strikingly bisferiens to the finger. The left carotid feels bisferiens but the right does not; the dorsalis pedis artery gives a tracing similar to that of the right pulse. Her apex beat is in the sixth

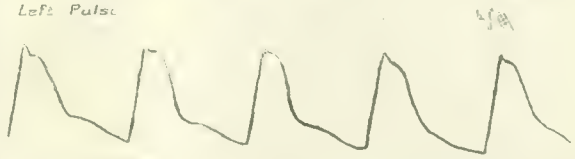
Case III.



Right Pulse



Left Pulse



Dorsalis Pedis

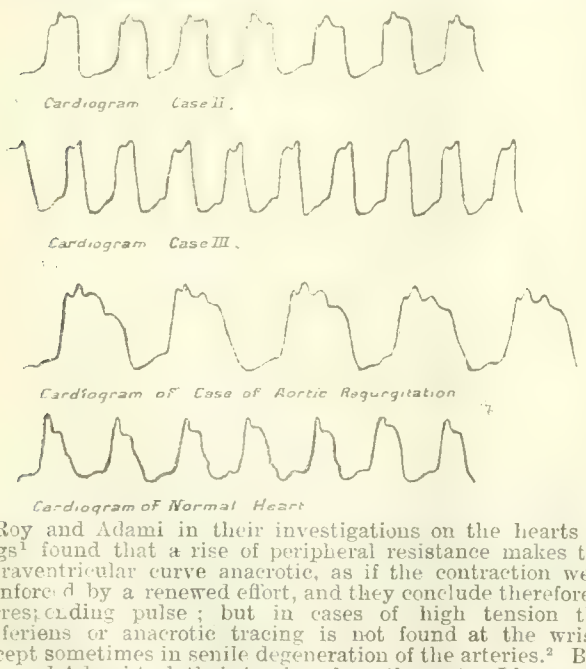
space, 1½ in. below and 1 in. external to the nipple. It is powerfully thrusting. At the apex are heard a low rumbling presystolic murmur leading up to a short loud first sound, a systolic murmur, and a diastolic which runs into the presystolic. At the tricuspid area a loud first sound, blowing systolic murmur, a second sound, and a louder and longer diastolic murmur. At the pulmonary cartilage a harsh rough systolic murmur, loud second sound, and a diastolic murmur. At the aortic cartilage a long rough systolic murmur, faint second sound, and a diastolic murmur. In the neck a loud rough systolic murmur and a faint diastolic murmur, no second sound. The amount of hypertrophy of the heart taken with the artery at the wrist, which is only moderately large and does not collapse entirely between the beats, makes it probable that there is in this case also aortic stenosis as well as regurgitation. Previous to these cases I had seen four patients in whom one radial artery gave an anacrotic tracing, but I do not know whether both arteries gave it or whether it was the right or the left; they all had evidence of aortic regurgitation with stenosis, and in one, *post mortem*, the aortic

orifice was two-thirds occluded by rigid and thickened valves, and there was also mitral and tricuspid stenosis and adherent pericardium; the heart was very large. I give here also the tracings of another case of aortic regurgitation with stenosis, in which there is a striking difference between the two pulse tracings, the left approaching the bisferiens condition, but I was not able with the finger to feel a double impulse.



In the first case the presence of the weakened spot in the wall of the aorta, and the line of atheroma beyond it, taken with the absence of atheroma between the valves and this spot, proved that the main blood stream from the ventricle impinged on this spot close to the origin of the left subclavian, possibly directed by the shape of the contracted valves; and in the second case the rigid condition of the right posterior cusp suggested that the blood stream was similarly directed by the shape of the orifice; but in the third case there is the same condition of the pulses, and it is unlikely that there should be a peculiarity in the shape of the aortic orifice in three cases directing the blood to the same spot, so it may be concluded that it is only the natural direction of the main blood stream (quoted so often as the cause of the greater frequency of cerebral embolism on the left side), accentuated by the increase of the volume of blood driven from the enlarged left ventricle through the narrowed aortic orifice, and it suggests that the anacrotic tracing in the left radial and carotid may approximately represent the intraventricular blood pressure.

In taking cardiograms of the apex beat in the second and third cases, the notch attributed to the contraction of the papillary muscle does not come after the highest point as in the normal apex beat curve, but I find that this occurs also in other cases of aortic regurgitation, and is probably therefore due to the hypertrophied ventricular wall not attaining its full contraction as soon as usual, or not being so much affected by the pull of the papillary muscles as in the normal heart, the relation of the cardiographic trace to the bisferiens pulse is thus uncertain.



Roy and Adami in their investigations on the hearts of dogs[1] found that a rise of peripheral resistance makes the intraventricular curve anacrotic, as if the contraction were reinforced by a renewed effort, and they conclude therefore a corresponding pulse; but in cases of high tension the bisferiens or anacrotic tracing is not found at the wrist, except sometimes in senile degeneration of the arteries.[2] But Roy and Adami took their tracings from the aorta; I have consequently taken a tracing of the pulsation in an aneurysm of the arch of the aorta, as the nearest approach to one taken from the aorta, and find the anacrotic character there, while the pulses do not present it.



Tracing of Pulsation in an Aneurysm of the Aorta.

There is high peripheral resistance in this case, the arteries at the wrists being large and full between the beats. In aortic stenosis and regurgitation increased resistance is given by the narrowing of the aortic orifice, and therefore in all such cases one would expect an anacrotic tracing for the intraventricular pressure. In the aneurysm that tracing appears, and therefore would probably have been found if a tracing of the aorta could have been taken in any of the cases related. It does not occur in either pulse in the case of aneurysm, nor in any arteries in the other cases except in the left carotid and radial. Its presence in them has evidently to do with the direction of the main blood stream on to their points of origin from the aorta; and one must suppose that the elasticity of the walls of the aorta and the eddies of the blood modify the other pulse tracings in some way, just as a normal pulse tracing is very different from the normal curve of intraventricular pressure. When the arterial system becomes degenerate as the result of very long-standing high tension, one would not be surprised to get the curve of intraventricular pressure conveyed in the rigid arteries to the two wrists, and this would explain the occurrence of the bisferiens pulse in senile cases where the arterial tension is still high; and in cases of aortic stenosis supervening on regurgitation, if the arteries had been so damaged as to have lost their elasticity, one would expect a bisferiens pulse in both wrists. I have not had the opportunity yet of investigating whether the anacrotic tracing is often obtained from the pulsation of aneurysms, nor whether it disappears with the lowering of the vascular tension, but if so the anacrotic tracing would be a useful indication of too high pressure in an aneurysm.

The first two cases also had the visible retraction, synchronous with the cardiac systole, of both backs in the region of the eleventh and twelfth ribs, on which sign I published a note in the *Lancet* in 1895, attributing it to adherent pericardium; in neither of these cases was that condition present, though in both cases there were signs of old pericarditis, and I have now seen the necropsies of 4 cases of this sign, in only one of which was the pericardium totally adherent. In all four the heart was much hypertrophied, and adhesion existed between the two layers of pleura in front of the heart. Dr. Kingston Fowler has since pointed out in a case of pyopneumothorax, where portions of ribs had been removed for drainage, that the diaphragm could be seen to be raised at every systole by the normal heart, so that the explanation seems to be that a hypertrophied heart, helped perhaps by adhesion of the pericardium to the chest wall, is able to lift the diaphragm to such an extent as to pull in the lower ribs on each side behind.

Since writing the above my attention has been called to a most interesting paper by Dr. Graham Steell on The Pulse in Aortic Stenosis,[3] in which he describes 6 cases of anacrotic or bisferiens pulse, and concludes that though suggestive of aortic stenosis the condition is not diagnostic. I have differed from Dr. Steell in the use of the terms "anacrotic" and "bisferiens," using the term "bisferiens" when speaking of the pulse, since it conveys the idea of the double effort one feels with the finger in these cases, and the term "anacrotic" as descriptive of the tracing. He does not go into the causation of the pulse, but I think his cases support my theory. His first case had marked aortic stenosis, also incompetence, and as well mitral and tricuspid stenosis and adherent pericardium. The pulse was most commonly rapid (120), and was not then bisferiens, but when it was slowed down by digitalis it became bisferiens. In this case I think the explanation is that, at the rapid rate of heart beat, the left ventricle was not properly filled through the stenosed mitral orifice, that consequently there was not high pressure in it, and thus no anacrotic tracing; the aortic stenosis seems to have been too pronounced for the raising of the peripheral resistance by the digitalis to have had much effect on the intraventricular pressure. The second case had precisely the same condition

of heart *post mortem*, the pulse was 50, and the tracing apparently always anacrotic. The third case had marked aortic stenosis, no regurgitation, a much enlarged heart, and constantly showed the bisferiens condition of pulse.

The next case is most interesting; a man of 49, with fibrosed kidneys, marked mitral stenosis, the aortic valves thickened, allowing slight regurgitation, but with absolutely no stenosis; he was first admitted with a bisferiens pulse (64 to 84); the condition of the arteries is not mentioned, but, if they were rigid from the prolonged high tension of the contracted granular kidney, the anacrotic intraventricular pressure curve could reach the pulse. When next admitted the man had pericarditis and heart failure, with a very rapid pulse not giving an anacrotic trace; either the fever of pericarditis had lowered the vascular tension, or else the mitral stenosis prevented the filling of the ventricle at the rapid rate of heart beat, and the intraventricular pressure was lowered, and the pulse therefore not bisferiens.

In none of the above does Dr. Steell state whether the pulse in both wrists gave the same tracing, but his fifth case corresponds to my second in having an anacrotic tracing in the left wrist, but a tracing of aortic regurgitation in the right. There was a large heart—20 oz.—tricuspid regurgitation, mitral stenosis, and very marked aortic regurgitation, the orifice being a thickened ring easily admitting one finger, so that there was no real stenosis, though, as Dr. Steell remarks, the orifice was smaller than normal, while the ventricle was much larger. The patient had, besides rheumatic fever, suffered from scarlet fever, followed by dropsy, 14 years before; the condition of the kidneys *post mortem* is not mentioned, but if diseased the increased peripheral resistance so caused would help to account for the bisferiens pulse. In the last case in the paper both pulses gave anacrotic or bisferiens tracings; the fall between the two cusps in the right tracing is much greater than in the left, so that the bisferiens condition appears more marked in the right pulse than in the left. But the fall before the dicrotic wave is also greater on the right side, and it appears to me that this means that the column of blood is not so well sustained on the right side as on the left, and that the main blood stream is again carrying a truer tracing of the intraventricular blood pressure to the left pulse. In this case there was very marked aortic regurgitation, no definite stenosis, but a very large left ventricle; also parenchymatous nephritis, which by raising the peripheral resistance must have led to the development of the bisferiens pulse. These last two cases also strengthen my conviction that the difference between the right and left tracings, which was present in my cases of bisferiens pulse, will be found to be the rule rather than the exception.

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THE VISION OF SCHOOL CHILDREN.

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Rochdale.

IN the BRITISH MEDICAL JOURNAL of June 18th, 1898, Mr. Arnold Lawson has published an Abstract of a Report on the Vision of Children attending London Elementary Schools. The report was the result of an inquiry held at the request of the Education Department, and embraced seven typical elementary schools. In some American cities such an examination is carried out annually under the supervision of an officially appointed oculist. The importance of such an investigation to the cause of education and to parents, teachers, and the children themselves is so obvious that it scarcely requires to be dwelt upon. The headaches consequent on refractive errors, and their disappearance when the errors are corrected are well known, and a diagnosis of stupidity has frequently to be reversed after the use of suitable glasses. As to more remote benefits many a boy would be saved from entering on an unsuitable career if he knew at the outset that for him in the near future spectacles would be a necessity for close work. One frequently meets with cases of men discharged, say, from the railway service, because presbyopic changes, superadded to a congenital hypermetropia, prevent them at a comparatively early age from passing the "dot test." Or it may be a mechanic who loses his employment shortly after completing his apprenticeship, because he cannot do his work efficiently without correcting glasses. In such a case a skilled workman must learn a new trade in which spectacles are no disadvantage, or become a labourer, because he did not discover in time that he was hypermetropic.

The importance of examining the refraction of all children's eyes becomes more apparent when the proportion of cases of defective vision is realised. Mr. Lawson, in 2,014 London children, found only 698, or 34.6 per cent., with normal vision in both eyes. My own examination of 398 Rochdale elementary school children gives 177 normal, or 44 per cent. In addition to these I found 126, or an additional 32 per cent., who would have passed Mr. Lawson's test as normal, that is to say, they read $\frac{6}{9}$ with each eye, but I found on testing with weak convex glasses that they had a small amount (1D or more) of manifest hypermetropia. Allport found out of 25,696 children in the Minneapolis public schools, 8,166, or 32 per cent. defective, but he does not seem to have tested for low degrees of hypermetropia, and probably the percentage of emmetropic children was much lower than 68. Another consideration which makes it desirable that the vision of each individual should be tested at as early an age as is practicable is that a child, or a grown-up person for that matter, may be quite content with defective vision through ignorance that the vision of others is any better than his own. This is the case especially in the minor degrees of astigmatism.

The importance of detecting defective vision early in life is then, it seems to me, sufficiently obvious. The difficulties in the way of doing so are few. The method followed by Mr. Lawson is simple, and easily carried out. If adopted by the managers of schools throughout the country it would mark a distinct advance in the performance of the duties of those who have the care of children.

Early in the present year I undertook the investigation of the eyesight of children in the Rochdale Parish Church School at the request of Archdeacon Wilson. I carried out the entire investigation personally, first testing each eye of each child by means of Snellen's types and trial lenses, and then examining with the ophthalmoscope and retinoscope those whose vision was subnormal.

For convenience I may follow Mr. Lawson's method of classification in tabulating my results, except that I shall group all the cases of astigmatism together. Further, among the cases which I have grouped as hypermetropic some would probably, on careful examination, prove to have a certain amount of astigmatism. The percentage figures are approximate.

TABLE I.—*Normal Vision.*

	Boys and Girls.	Per Cent.	Boys.	Per Cent.	Girls.	Per Cent.
Normal vision in both eyes	177	44	96	48	81	41
Ditto but slight Hm...	126	32	45	22	81	41
Defective vision in one or both eyes...	95	24	59	30	36	18
Totals	398	—	200	—	198	—

TABLE II.—*Showing the Various Errors of Refraction and the Relative Frequency of One Form of Error to Another (Cases 221).*

	Boys and Girls.	Per Cent.	Boys.	Per Cent.	Girls.	Per Cent.
Hypermetropia	165	75	66	63	99	85
Astigmatism	40	18	29	28	11	9
Myopia	16	7	9	9	7	6

TABLE III.—*Showing the Relative Frequency of Each Error in all Cases of Normal and Subnormal Vision (Cases 398).*

	Boys and Girls.	Per Cent.	Boys.	Per Cent.	Girls.	Per Cent.
Hypermetropia	165	41	66	33	99	50.0
Astigmatism	40	10	29	14.5	11	5.5
Myopia	16	4	9	4.5	7	3.5

I had not an opportunity of using atropine, and so I am unable to give a table to compare with Mr. Lawson's as to the number of cases of hypermetropia of 4 D and over. Thirteen of the hypermetropes, 7 boys and 6 girls, had convergent strabismus, which in 1 girl had been operated on.

With regard to myopia, there were only 3 cases over 3 D.

No.	Sex.	Age.	Myopia.
1	F.	8	4 D, R. and L.
2	F.	12	4 D, R. and L.
3	M.	13	13 D, R. and L.

Included in the above tables are 13 cases of nebula or other opacity of the cornea. This rendered the vision defective, but I ascertained the refraction by retinoscopy. Of these 13 cases, 7 were emmetropic (2 boys and 5 girls), and are included under the normal vision group, 3 were astigmatic (1 boy and 2 girls), 2 were myopic (both girls), and 1 girl had 1D of manifest hypermetropia.

It is interesting to notice that the Rochdale Parish Church School, which is a new building and a model school as regards lighting, fittings and ventilation, yields almost identical results as regards refractive errors with the Stephen Street School examined by Mr. Lawson. In the Rochdale School 177 out of 398 pupils have normal vision, in the Stephen Street School 174 out of 392. The Rochdale School has, however, only 16 cases of myopia, as against 24 in Stephen Street. It is not easy to compare the figures as regards hypermetropia and astigmatism, for my work was done before Mr. Lawson's paper appeared, and I did not think it necessary at the time to separate accurately the cases of moderately high simple hypermetropia from those complicated with astigmatic errors.

Five of the children whom I examined were already provided with glasses. The parents of those not so provided, and whose sight was defective, were informed by letter of the advisability of having suitable spectacles prescribed by a medical man or at an ophthalmic hospital.

The results of my investigation may be interesting as supplementing Mr. Lawson's work with similar statistics from a Lancashire school. I have already referred to the fact that an annual examination of the eyesight of the children attending the elementary schools in some American cities is carried out under the supervision of an "oculist to the Board of Education." An excellent statement of the method followed in Minneapolis will be found in the *Educational Review* for September, 1897, in a paper by Allport, the Board of Education oculist for that city. It is to be hoped that the School Boards of this country will in time follow the enlightened example of those in America.

THE PASTEUR INSTITUTE OF MARSEILLES.—The following statistics relative to the work of the Pasteur Institute from the date of opening (December 9th, 1893) to January 1st, 1898, have recently been published by MM. Livon and Alezaïs:—1893 (22 days): Number of persons treated, 16: no deaths. 1894: Number treated, 268; 3 deaths (1.12 per cent.). 1895: Number treated, 355; no deaths. 1896: Number treated, 249; no death. 1897: Number treated, 318; 2 deaths (0.63 per cent.). This gives a total of 1,206 persons treated, with 5 deaths, a percentage of 0.41.

ON A CASE OF CYSTITIS OF THREE YEARS' DURATION DUE TO THE TYPHOID BACILLUS.

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A PATIENT suffering from symptoms of cystitis was admitted to the wards of the Belfast Royal Hospital, under the care of Professor Byers. A careful examination of the bladder, kidney, and the uterus having revealed nothing which could throw light on the origin of the cystitis, I was asked by Professor Byers to make a bacteriological examination of the urine.

The urine was of a turbid, opalescent appearance, strongly acid in reaction, and contained a small quantity of albumen. On centrifugalisation, the sediment was found to consist of numerous squamous cells such as are found on the mucous membrane of the bladder, numerous leucocytes with polymorphous nuclei and granular protoplasm (eosinophile and basophile); some bacteria were also recognised in the deposit.

I proceeded to isolate the micro-organism in question, and, suspecting the presence of the bacillus coli communis, I made agar plates with one, two, and three loopfuls of the urine. On the following day the plates showed colonies, all of the same appearance. Nine of these colonies were taken at random, and planted by the stab method on glucose agar, and incubated at 37° C. To my surprise all these colonies grew in an opaque, whitish line exactly resembling the growth of Eberth's bacillus, and without forming any gas. I then planted the bacillus on gelatine, broth, potato-gelatine, agar (stroke culture), potato, and milk. It resembled in every cultural respect the typical bacillus typhosus. Microscopically the bacillus proved to be actively motile, and when stained by both Pitfield's and Van Ermengem's methods showed numerous wavy flagella (12 to 16). A broth culture was kept for six days in the incubator at 37° C., and tested for indol, but gave no reaction. The original milk culture was kept more than two weeks in the incubator, and showed no sign of coagulation; while the gelatine stroke culture has now been kept for four weeks, and there is no liquefaction. Thus in all respects microscopically and culturally the bacillus isolated is the bacillus of Eberth.

The patient's blood was also examined. It was taken in the usual way, and with the bacillus isolated from the urine gave a well-marked agglutinating reaction at a dilution of 1 in 100. The other laboratory cultures of the typhoid bacillus also reacted with the blood of this patient, while several varieties of the bacillus coli, on which serum from a case of typhoid fever has often marked agglutinating power, failed to give the reaction clearly.[1]

As this result was so unique, and in order to exclude any possibility of error, I a second time obtained a sample of the urine with the most aseptic precautions possible (that is, boiled glass catheter, sterilisation of orifice of urethra, etc.), and again succeeded in getting in the plate colonies of a pure cultivation. The colonies are proved to be those of the bacillus of Eberth. The blood was also tested a second time, and again reacted with the bacillus isolated from the urine and with the other laboratory typhoid bacilli. It showed on the second occasion a slightly increased tendency to clump the laboratory cultures of the bacillus coli communis. The power of agglutinating the coli communis cultures was, however, still much less than was commonly seen in typhoid fever.

The patient has been six weeks in hospital without abnormal temperature or other symptoms pointing to typhoid fever. Her history for the last three years, obtained with great care, is as follows:

M. R., aged 35, three years ago was living in a house where two children died, one of bronchitis and the other of diarrhœa (patient's diagnosis). She helped to nurse these children; shortly afterwards she suffered from frequent micturition. This trouble developed gradually, and was afterwards accompanied by pain. She consulted a doctor and was sent into hospital (medical wards) in December, 1895, where she was treated for three months for painful and frequent micturition. At this time there was an occasional passage of blood by the urethra. She left hospital considerably improved, but still suffering from frequent micturition. She returned to her work, but again in May, 1898, she had to consult a medical

man, who, after treating her for some months for cystitis, sent her into the Royal Hospital, where she is at present a patient. During the three years she has suffered from cystitis she has been troubled with headaches, which she states increase with the pain in the bladder region.

I have been unable to find a record of any case of uncomplicated cystitis from which the typhoid bacillus has been isolated in pure culture. In the exhaustive discussion of genito-urinary infections at the Edinburgh meeting of the British Medical Association this year no such case was mentioned.

This case seems of interest for the following reasons. 1. The history gives no evidence that the patient ever had typhoid fever, and the fact that she spent so much of her time in hospital and was under medical treatment at home may be held to exclude any possibility of mistake in this respect. In cases of typhoid fever the bacillus of Eberth is often found in the urine, even some weeks after the temperature is normal.[2] This case is one of typhoid infection without the usual symptoms of typhoid fever, and since there is no point in the history subsequent to the commencement of the cystitis three years ago, which suggests the occurrence of a new infection, the probabilty is that the typhoid bacillus has been present from the beginning. When we consider the fact that typhoid bacilli are so easily destroyed by more vigorous forms, such as Escherich's bacillus, it seems highly improbable that at any time during the course of the cystitis the typhoid bacillus has displaced the coli bacillus in the bladder. The acidity of the urine excludes the probability of other forms commonly found in cystitis ever having been present.

2. The blood serum gave a decided "reaction of infection." This shows that the case is not a simple bacteriuria, but that the bacillus has a nidus somewhere, as for example in the mucous membrane of the bladder, and thereby has such an effect on the blood and tissues as to cause the serum to acquire the agglutinating power.

3. It seems to follow that in this case the bacillus of Eberth was capable of producing a local lesion without the patient suffering from typhoid fever.

4. The fact that the bacillus can grow in the tissues without any symptoms of enteric fever resulting, and produce there a local lesion, is in favour of the view that this fever is a true general infection, and not merely of local origin, in the Peyer's patches of the intestine.

5. It also proves that the bacillus may occur in the tissues, and the blood serum give Widal's reaction, without the infection which we recognise as typhoid fever resulting.

6. To explain the anomalous fact that we have here a lesion, restricted apparently to the urinary organs, produced by the typhoid bacillus, which has persisted for a very considerable time without any symptoms of typhoid fever, three theories seem admissible :

(*a*) This patient for some reason or other was not very susceptible to infection with Eberth's bacillus, so that when the opportunity for infection occurred a local lesion alone resulted, and no general infection. This agrees with the result obtained when a non-susceptible animal is inoculated with a given bacillus.

(*b*) We have here a form of typhoid bacillus which differs in its infectious power from the recognised form of Eberth's bacillus.

(*c*) Typhoid fever is not solely due to the bacillus of Eberth, but other etiological factors must be brought to bear on the patient before the clinical features of typhoid septicæmia result. The researches of Sanarelli,[3] which show how the virulence of the typhoid bacillus is increased by the injections of the toxin of the bacillus coli communis, and also those of Sidney Martin,[4] which confirm his results, make it certain that the bacillus coli communis may be directly concerned in producing a virulent typhoid infection in animals. In the recent report on the Belfast water supply, Dr. Lorrain Smith has shown that the bacillus coli communis had a distinct relation to the etiology of the recent epidemic of typhoid fever in Belfast (1898), and that many of the cases gave evidence of the existence of a mixed infection of the bacillus of Eberth and that of Escherich.

The persistence of the typhoid bacillus in the bladder possibly for three years appears less remarkable when we recall the cases in which abscesses containing typhoid bacilli have been observed six or seven years after the occurrence of typhoid fever in the patient. [6]

I have to express my thanks to Professor Byers for permission to publish the clinical account of this case, and to Dr. Lorrain Smith, in whose laboratory the examination of the urine was conducted, and who not only suggested the line of investigation, but also verified my results.

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ON THE INFLUENCE OF PATHOLOGICAL STATES UPON THE ELIMINATION OF WATER AND CARBON DIOXIDE BY THE SKIN.*

By J. O. WAKELIN BARRATT, M.D.Lond., F.R.C.S.Eng.

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Object of the Investigation.

The object of this investigation has been to study the nature of the process of elimination of water and carbon dioxide as it occurs locally. To this end it has been necessary, in the first place, to ascertain the normal output of these substances at varying temperatures.[1] This done, attention has been turned to the modification of output induced by abnormal local conditions, it being conjectured that in this way further light would be thrown upon the mode in which these functions of the skin are affected. The surface of the upper limb has been submitted to experiment throughout. The pathological states studied have been those produced (1) by the application of a ligature to the limb,[2] and (2) by irritating the skin by the application of carbolic acid so as to excite a condition of inflammation.[3]

The average normal output of water from the skin of the upper limb (up to the level of the insertion of the deltoid) was found to be, at 35° C., about 4 grams per hour, and that of carbon dioxide about 20 mg. The actual output, however, varies from hour to hour, and still more from day to day. The temperature to which the skin is exposed has a marked influence on the discharge of carbon dioxide, and a relatively slighter effect on that of water. Further, the average output varies in different individuals, and also in the same individual at different seasons.

The influence of a ligature applied to the upper limb as close to the shoulder as possible is to cause a diminution of the output of water, amounting, it may be, to as much as 20 per cent., while a still larger variation of the output of carbon dioxide occurs in the opposite direction—namely, that of increased discharge. The extent of the alteration of output corresponds to the degree of tightness of the ligature, and is observed whether the temperature of the water bath surrounding the limb is 35° C. or 25° C.

Method of Experiment.

In order to study the influence of inflammation, the surface of the limb was irritated by the application of carbolic acid, and it was found that the elimination of carbon dioxide was but little altered, such change as occurs being in the direction of a slight diminution of output at first and a small increase subsequently. On the other hand, there is a marked decrease in the output of water, amounting in the experiments made to more than 50 per cent.

The secretion of water by the skin can also be studied qualitatively, and in this way a valuable illustration is afforded of the mode in which inflammation produces its effect. Thus if an injection of $\frac{1}{100}$th to $\frac{1}{500}$th of a grain of pilocarpin nitrate is made into the skin of the palm, sensible perspiration is observed over a small circular area whose centre corresponds with the position of the front of the needle. When this area, which presents to the naked eye a finely glistening appearance, is examined with a lens, it is found to be covered with fine droplets of perspiration, situated at the

* Towards the expenses of this research a grant was made by the British Medical Association on the recommendation of the Scientific Grants Committee of the Association.

funnel-like orifices of the sweat glands, some of which may run together (Fig. 1). If an injection of pilocarpin nitrate is made into the palm where this is hard, dry, and parchment

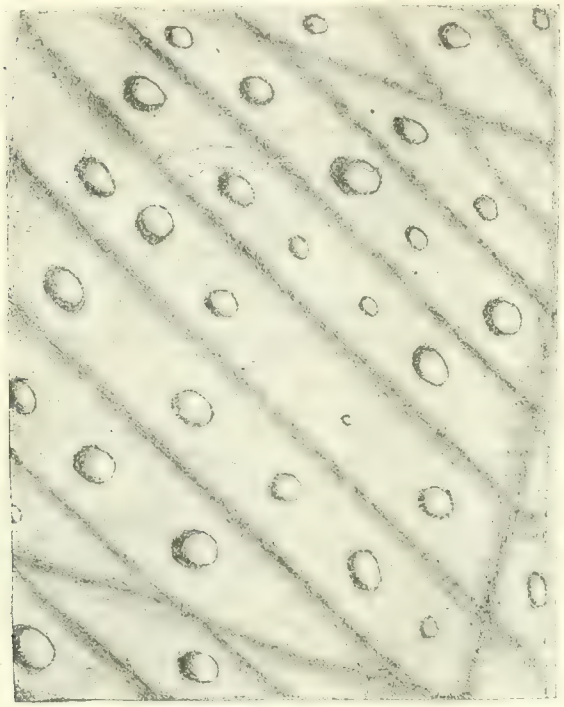


Fig. 1.—Representing the skin of the palm seven minutes after an endodermic injection of $\frac{1}{30}$ gr. of pilocarpin nitrate; the orifices of the sweat ducts exhibit minute droplets of perspiration. × 25.

like as the result of the application of carbolic acid, no droplets are visible as a rule, but should any be present, they are few in number, and appear as excessively fine points (Fig. 2). If a piece of such horny epidermis is peeled off (this cannot be done before about six days from the application of carbolic acid), an opportunity is afforded, when pilocarpin is injected, of contrasting the secretion from the new surface and the old; on the former droplets are seen, which are rather less numerous and somewhat smaller than on the opposite palm, while the latter shows no droplets.

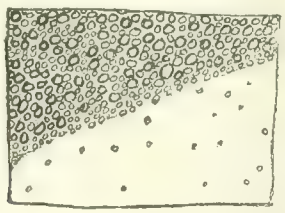


Fig. 3.—Showing the appearance presented by the skin of the forearm when, by enclosing the limb in a glass case kept at 35° C., the sweat secreted is prevented from evaporating and therefore becomes visible; above and to the left the skin is normal and shows numerous fine beads of perspiration; below and to the right the skin is reddened by the application of carbolic acid and shows very few droplets. Natural size.

Similar observations may be made upon the skin of the arm and forearm without the use of pilocarpin. When an incomplete application of carbolic acid to the skin has been made, so that red and white areas appear side by side, it will be found that if the limb is placed in a glass receiver heated to above 37° C. (to prevent the condensation of moisture on the glass), the air in the receiver being stationary, such perspiration as is produced remains in the visible form. After the expiration of a sufficient period of time the white areas will be seen to be covered with beads of sweat, while the red areas will be quite free from perspiration, or will merely contain a small number of fine droplets (Fig. 3).

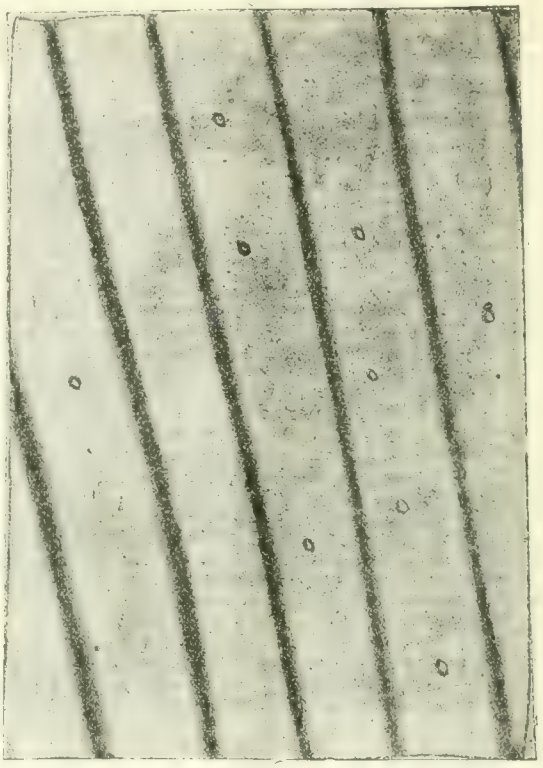


Fig. 2.—Representing the skin of the palm four days after the application of carbolic acid; $\frac{1}{30}$ gr. of pilocarpin nitrate has been injected as in Fig. 1; the number of droplets at the orifices of the sweat ducts is less than in Fig. 1 and the droplets themselves are smaller. × 25.

SIGNIFICANCE OF THE OBSERVATIONS.

We now come to consider the bearing which the experiments above detailed have upon the nature of the processes occurring locally in the skin. Taking first the elimination of carbon dioxide, it is to be observed that the dependence of this upon the temperature of the skin appears to stamp the process as essentially a manifestation of purely local events, and not as an adjustment to general internal or external conditions. The effect of a ligature in causing an increased carbon dioxide output is also significant. The ligature produces compression of nerves and also of blood vessels and lymphatics, but the former is partial in extent and limited in area, not affecting at the most one-fifth of the surface, while the latter is general, and must therefore be regarded as the effective cause of the carbon dioxide increase. Two views of the mode of elimination of carbon dioxide are tenable: one is that it is a respiratory process comparable to that occurring in the lungs, the carbonic acid gas diffusing from the blood through the skin into the external air; the other is that carbon dioxide is produced by the activity of the cells of the skin, in the same way that it is produced elsewhere, and diffuses not only into the blood stream by which it is carried off to be got rid of by the lungs, but also into the external air, the latter being rendered possible by the existence of a free surface. A little consideration will make it clear that these two processes, which are totally dissimilar, would be affected in opposite ways by a ligature. The former would be diminished by diminishing the rate of flow of blood from which the carbon dioxide is derived; the latter would be increased by the arrest of the blood stream by which the carbon dioxide is removed. The increase which actually occurs must be taken to indicate that the formation of carbon

dioxide by the skin is an expression of the general metabolic activity of the skin, and not that of a respiratory function. This view, moreover, is in harmony with the physiology of the tissues generally.

In dry dermatitis produced by carbolic acid, the tendency noted to initial decrease of the carbon dioxide output, followed by increase when desquamation occurs, is presumably related to the thickness of the horny epidermis, which is at first increased owing to the arrest of the normal mode of shedding in fine scales, and subsequently diminished when peeling occurs.

The elimination of water by the skin now remains to be considered. This, unlike the discharge of carbon dioxide, is known to stand in relation to the general needs of the economy, in particular is it associated with heat regulation.

The diminution of the aqueous discharge of the skin caused by the application of a ligature seems to be attributable not to compression of nerves, which is probably too slight in amount and too small in extent to cause such diminution, but to the mechanical obstruction of the blood vessels which presumably in this case, as in that of ligature of the renal artery, tends to throw the secreting epithelium out of action.

The restriction of the output of water caused by the application of carbolic acid to the skin of the upper limb is associated with a remarkable parchment-like hardness of the skin, especially of the palm. That this is due to the horny epidermis becoming abnormally dry is shown by the fact that the stiffness of the skin exactly resembles that which horny epidermis [in the form of shed scales or shavings from a corn] exhibits when dry, and disappears when the skin is soaked in water; and on the other hand when horny epidermis is immersed in liquid carbolic acid it swells up and becomes softened, but on subsequent washing and drying its characters are found to be unchanged, beyond perhaps a slightly greater opacity when soaked in water, and a somewhat increased brittleness when dry. The hard, harsh condition of the epidermis in dry dermatitis is therefore due to the arrest of the secretion of sweat, being not the cause but the effect of the absence of perspiration.

On the other hand, it is quite clear that the epidermis offers a resistance to the passage of perspiration through it, for when the harsh, dry, horny cuticle is pulled off visible perspiration again makes its appearance while, conversely, so long as the hard epidermis remains attached, the surface continues hard and dry.

When vesiculation of the skin or the formation of bullæ occurs the contained fluid does not visibly escape by the ducts of the coil glands, although these may be torn across. The fluid in the cavity of the vesicle or bulla contains coagulated material, part of which is free, while the rest is deposited on the walls of the cavity, some of necessity obstructing the sweat ducts. In dry dermatitis a similar blocking of the sweat ducts occurs, for although there are no macroscopic vesicles, yet the pathological condition which forms a necessary precursor of vesiculation is present—that is to say, there is a moderate degree of spongy transformation of the prickle-layer, the prickles themselves are elongated, and the spaces between them distended with coagulable exudation, some of which finds its way into the sweat ducts and is the cause of the arrest of the secretion of sweat which occurs. The dryness of the skin must therefore be regarded as mechanical in its origin.

In conclusion, I must express my great indebtedness to Professor Vaughan Harley for his kind assistance throughout the course of this research.

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ON THE INCUBATORY PERIOD IN VARICELLA OR CHICKEN-POX.

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Gosport, Hants.

A CONSIDERABLE difference of statement as to the incubatory period of chicken-pox is to be found in the literature of the subject. Dr. Tanner[1] gives it as no longer than four days; Dr. George Gregory[2] four to six days; Dr. Heberden[3] who in 1761 first differentiated chicken-pox from small-pox, believed it to occupy eight or nine days; Dr. Bristowe[4] gives it as in some cases exactly a week, but more commonly a fortnight; Dr. Eustace Smith[5] practically the same, namely, from seven to fourteen days; Dr. Goodhart[6] eight to sixteen days; the German author, Thomas[7] who quotes Körber and Hesse as agreeing with him, fixes the period at thirteen to seventeen days, as does Dr. McCombie,[8] Dr. Liveing[9] at about thirteen days with eruption on the fourteenth; Dr. S. Gee[10] gives the time as a fortnight; Dr. Clement Dukes, of Rugby (a high authority), fourteen to nineteen days, while Trousseau extends the incubation to so long a period as from fifteen to twenty days[11].

With the honourable exception of Dr. Goodhart, all the authors quoted have omitted to supply any details of the cases upon which the statistics of length of incubation were founded, so that it is impossible to compare their statements and reject those which appear untrustworthy. But as their observations differ so widely from each other, it seems worth while recording fresh instances which can be verified, in order to secure some certainty on the subject, and as I have had under observation a limited epidemic of chicken-pox among children of the better classes, in which I have been able to ascertain the incubation period with some approach to accuracy, I venture to bring my observations to the notice of the profession.

M. R., a young lady, aged about 17, was teaching her Sunday-school class of girls in the village school on Sunday, April 17th, 1898, when one of her little scholars complained of feeling ill and asked permission to lean against her teacher, a request good-naturedly granted. The very next day the sick child developed the rash of chicken-pox. M. R. herself exhibited the chicken-pox rash on April 23rd, just six days from this exposure, but as the disease was not recognised by her friends she was not isolated in any way. Seven days later, namely, on April 30th, her youngest brother, O. R., showed a few spots in the evening and was fully out on May 1st.

I am aware that in both these cases there is just the possibility of a fallacy of coincidence. M. R. may not have received the infection from the child who leant against her in school, but from some other source; or, on the other hand, she may have conveyed infection in her clothes from this child directly to her little brother, so lengthening his period of incubation to thirteen or fourteen days, but I do not think either of these errors likely. There were, so far as I can ascertain, no cases of chicken-pox either in class or among M. R.'s friends other than the child mentioned; while, as M. R., who is much attached to her little brother, had both nursed him and played with him frequently while her rash was fully out, it is more probable that he had been infected by her than by any other conveyed infection. It will be noticed that in both these cases when there had been close direct personal contact the incubation period was short, namely, six or seven days. As the nature of the disease was still unrecognised, little O. R. continued to attend a small Kindergarten school for the children of the upper classes. He was there for two hours each day on Monday and Tuesday, May 2nd and 3rd, with the rash fully out upon him. I saw him on the evening of May 3rd for the first time, when he was at once excluded from the school. This little Kindergarten had 16 young scholars meeting in an ordinary sitting-room. Two little boys, elder brothers of O. R., developed rash on May 5th and May 18th respectively. These cases must, however, for the purpose of our inquiry be ignored, since we have no certainty from which relative they contracted the infection. They were, moreover, both too old to attend the Kindergarten. Eleven days after O. R.'s removal from this school, on May 14th, one little pupil, H. C., exhibited a few spots of chicken-pox, and was fully out with the rash on the next day. Three days later, on May 17th, and fourteen days after O. R.'s exclusion, G. C., a brother of H. C.; F. L., T. H., W. G., L. C., and W. C., six pupils of the Kindergarten, all exhibited spots of chicken-pox; while P. L., the little sister of F. L., also an attendant of the school, showed rash the next day, May 18th.

Of one other scholar, who was removed to another town and developed chicken-pox after he arrived there, I have not as yet been able to ascertain the exact date of sickening.

So that of fifteen young children attending the Kindergarten

and brought into contact with O. R. while he was infectious during two days, one developed the eruption eleven days, six fourteen days, and one fifteen days after his removal; while in the case of one child I have no information. Therefore, of fifteen children exposed to infection 60 per cent. succumbed to the disease, and of these, 66 per cent. succumbed exactly fourteen days after their last exposure. On the other hand, H. R., an elder brother of M. R. and O. R., set out for a distant public school on May 3rd, before his brother's and sister's disease had been recognised. He developed rash on May 22nd, exactly nineteen days after last exposure to infection.

Placing these data in tabular form for the sake of ease of comparison, we get the following results:

Initials of Patients.	Date of Infection.	Date of Eruption.	Length of Incubatory period.
M. R.	April 17th	April 23rd	6 days exactly
O. R.	April 23rd and after	May 1st	Not more than 7 days
H. C.	May 2nd and 3rd	May 14th	11 or 12 days exactly
G. C., T. L., T. H., W. G., L. C., W. C., six children in all	,, ,, ,,	May 17th	14 or 15 days exactly
P. L.	,, ,, ,,	May 18th	15 or 16 days exactly
H. R.	May 3 or earlier	May 22nd	19 days at least

REMARKS.

1. We know so little what is taking place during the incubation period of microbic disease that we must not dogmatise on the subject. Two factors, however, we may assume to influence the earlier or later appearance of eruption in this class of cases; (*a*) The tissue resistance of the person infected, and (*b*) the amount of poison, namely, number of microbes received by him. The first factor is an obvious one, and quite sufficiently accounts for the two cases (H.C. and P.C.) recorded above, where two children, who had apparently received the same amount of poison as their schoolfellows, developed the eruption, the one three days before, the other one day after, their companions. Of course there may be accidental causes, such as propinquity or distance of seat in school, belonging to the next class of factors, which may have partly affected these results as well. The second factor requires a little more consideration, but whether we believe the period of incubation to be occupied by the increasing of the invading microbes to such a sufficient number as to be able to produce by their irritation that peculiar inflammation of the skin which constitutes the eruption, or by the development of certain chemical poisons the resultant of bacterial occupation to produce the specific inflammation in question, it seems to me obvious that the more microbes can be introduced either suddenly or continuously during the period of infection the more quickly will they themselves increase and multiply to the requisite saturation of their victims, or the more quickly will they pour out their chemical excreta to the requisitely poisonous extent.

2. In consonance with this last theory one sees why six children exposed to practically the same dose of infection absolutely all sickened on the same day. While two other children exposed to actual close bodily contact with infection sickened in a much shorter time—just exactly as inoculated chicken-pox takes a less time,[12] namely, eight days to incubate—than the average fortnight of the naturally incurred infection. While, again, the elder boy, who was only exposed to infection for a short time and in much less degree than his young brother, required the longest period of nineteen days to develop his eruption.

3. It thus appears probable, as is only reasonable from the above considerations, that the period of incubation of this class of disease is not a fixed quantity, but varies widely within certain limits; thus, while we may take fourteen days as the average period of incubation in chicken-pox, we have no great difficulty in accepting Tanner's four days or Trousseau's twenty-five days as outside limits in different directions to which the incubatory period may in certain, not perhaps very unusual, instances attain.

4. It is interesting to note in this connection that all the older writers quoted give much shorter periods of incubation in chicken-pox than the more modern ones, and that the more modern the author the longer period does he fix. Is this because we are closer and more accurate observers than our ancestors—a statement I for one cannot readily accept—or because, in consequence of our better ventilation and less stuffy rooms, the microbic poison is really less concentrated, and the period of incubation consequently longer than in earlier times? If the latter be the case, we ought to find a corresponding discrepancy in the statements of earlier and more modern authorities on the subject of the incubatory period of other microbic diseases.

[Since writing the above I have ascertained that the young scholar who was reported to have been removed to another town and there developed chicken-pox—of whom at the time of writing I had no information—who was last exposed to infection on May 3rd, developed rash on May 22nd, namely, nineteen days after last exposure to infection. It is a curious coincidence that both this child and the elder brother of O. R. who were each removed directly after infection to distant places, took the long period of nineteen days to incubate the disease, a length of incubation period only given by Dr. Clement Dukes, of Rugby, amongst English writers, who can himself for the most part only see similar cases removed as these were from the scene of infection to Rugby. Can it be that removal from local poison to pure air prolongs the incubation period?]

NOTES AND REFERENCES.

[1] *A Practical Treatise on the Diseases of Infancy and Childhood*, 1858, chap. xii. p. 223. [2] *Lectures on Eruptive Fevers*, Edin., 1843. [3] *Transactions of College of Physicians*, vol. x, art. 17, *vel.* Comment. de Morbis, cap. 96. [4] *A Treatise of the Theory and Practice of Medicine*, 189, s. v. Chicken-pox. [5] *A Practical Treatise on Diseases of Children*, 2nd edit, 1889, chap. iv. p. 50. [6] *The Diseases of Children*, 4th edit, 1891, chap. xiv, p. 225. [7] *Ziemssen's Cycl. of Medicine*, English Trans, 1875, vol. ii. p. 15. [8] Allbutt's *System of Medicine*, 1897, vol. ii. p. 179. [9] *Handbook of Diseases of the Skin*, 1880, s. v. [10] Reynolds's *System of Medicine*, 2nd edit. 1876, vol. i. p. 219. [11] Trousseau's *Clinical Medicine*, N. Syd. Soc. edit., vol. ii, p. 160. Thomas in Ziemssen's *Cyclopædia of Medicine* (*loc. cit.*) gives the incubation period according to Trousseau as 13 to 17 days, while Dr. Gee in Reynolds's *System* repeats the statement as to Trousseau with the slight difference of 15 to 17 days. An illustration of the necessity of verification of references. I may note here, though not altogether *apropos*, that Trousseau describes cases of chicken-pox apparently identical with Hutchinson's varicella prurigo. I note this as I have not seen it remarked before. [12] Steiner quoted in *Ziemssen's Cyclopædia of Medicine*, supplemental volume to English translation of 1881, p. 100. On the same principle inoculated small-pox has a shorter period of incubation than the natural variety. Scarlatina also, accidentally introduced by the obstetrician into the system of the puerperal female, has a decidedly shorter incubatory period than in ordinary cases.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

BROMOHYDRATE OF ARECOLINE AS A MYOTIC.

I WISH to call the attention of the profession to the advantages possessed by bromohydrate of arecoline as a myotic. In this country the drug, from its clinical aspect, seems to be but little known. Slight reference has been made to it in a few of the medical papers,[1] but no one appears to have gone very deeply into the subject. On the Continent also, though Mouquet, Bardet, and Amilcare Bietti,[2] have mentioned it; but one, Lavagna of Monaco,[3] really advocates its employment. Arecoline is one of the alkaloids of areca nut, the seed of areca catechu, and the bromohydrate is a white crystalline soluble salt. Its physiological action is closely allied to those of pilocarpin and pelletierine. Taken internally it causes vomiting and diarrhœa, and it is, in addition, a sialogogue, diaphoretic, and vermifuge.

When applied to the eye, in the form of a half per cent. aqueous solution, a sense of tingling or pricking is experienced. This lasts, however, for only a few moments and

[1] EPITOME BRITISH MEDICAL JOURNAL, October, 1890, page 15; and November, 1895, par. 485. *Pharmaceutical Journal*, November, 1896, page 39. *Manchester Medical Chronicle*, November, 1897, p. 151. *Year Book of Treatment*, 1898, page 368.

[2] *Archivo di Ottomologia*, 1897, vol. v, fasc 1-2.

[3] *La Clinique Ophtalmologique*, No. 16, page 197; and No. 18, page 229.

leaves no conjunctival or ciliary congestion. In from two to three minutes afterwards myosis begins to appear, and reaches its maximum in from ten to twelve minutes, accompanied by a spasm of the ciliary muscle. This ciliary spasm varies in its onset; in some cases it can be noticed prior to any signs of myosis, in others not until the pupil is well contracted. The maximum effect is attained in from ten to fifteen minutes, and lasts for about half an hour. The myosis then gradually becomes less, and at the end of an hour to an hour and a half the eye resumes its ordinary condition.

The tension of the normal eye is very little decreased by it, if at all; but in cases of glaucoma, its superiority in this respect over eserine is decided. Unlike eserine, no headache or other unpleasant after-effects are associated with its use, nor is its instillation by any means so uncomfortable. Its action is more rapid and more powerful, but its effect is of shorter duration. It will overcome the mydriasis produced by homatropine more quickly than will eserine, and it will keep well in solution, retaining its activity, apparently unchanged, for a very lengthened period. In price it compares very favourably with eserine or pilocarpin.

Whilst assisting Mr. Cross, of Bristol, in his private practice and in his clinic at the Eye Hospital I had excellent opportunities of trying the drug and of noting its action, and I am indebted to him for kind advice and help in the matter. Writing to me recently on the subject, Mr. Cross says:

During the past seven months I have been using a-half per cent. solution of arecoline hydrobromate as a substitute for eserine or pilocarpin, while for quite three months it has been used as the routine drug for the production of myosis, in my clinic at the Bristol Eye Hospital. I have not made any physiological experiments, but consider the drug, judged from a clinical standpoint, to be a thoroughly reliable myotic. Its action is much stronger and more rapid than that of pilocarpin, whilst it is distinctly less irritating than eserine. In the treatment of glaucoma I have been so far well satisfied with the results obtained. In one subacute case the pupil became well contracted in about two minutes, in spite of the fact that the eye at the time was under the influence of cocaine. On the whole, recognising the cheapness and stability of the drug the strength and rapidity of its action, and the absence of pain or discomfort after its use, I consider that arecoline hydrobromate is the best myotic which we possess for routine use.

The drug can be obtained from Messrs. Ferris and Co., of Bristol, who will, if required, send it out in solution.

K. C. CHETWOOD-AIKEN,
Truro. Ophthalmic Surgeon to the Royal Cornwall Infirmary.

ACUTE FEBRILE CATARRH ASSOCIATED WITH INFLAMED GLANDS OF HEAD AND NECK.

I HAVE observed several cases of the above corresponding pretty closely to the account given by Dr. Snowman in No. 1980 of the BRITISH MEDICAL JOURNAL, with the exception of the numerous small glands he describes as scattered over the scalp. I notice that no lymphatic glands are described in Gray as occurring there; it is probable that Dr. Snowman is thinking of the hyperæsthetic bumps which appear in some neuralgic patients in the track of cutaneous nerves during the attacks of headache.

Referring to the general condition which, as he says, is not recognised in books, I have often thought of the probable etiology. One patient I have in my mind is a lady of about 45 of neuralgic-gouty habit. She has several times had sudden catarrhal laryngitis, neuralgic headache earache, and inflamed suboccipital and cervical glands. These attacks on two occasions have coincided with spells of cold easterly wind, and I considered that the illness was the effect of cold acting as a local irritant or poison, inflaming each of the structures that came in its way. Applications of medicated steam to the larynx and hot (poppy) fomentations to the glands gave the quickest relief. The enlarged glands subside in about ten days.

Another case is that of a strong, healthy schoolboy who, if a little run down and the victim of a cold, develops a slight tonsillitis and one or two very large glands. These entirely disappear between-whiles. Weakly children with chronically enlarged tonsils also get enlarged glands during the acute attacks, which go down without suppuration. I cannot think all these cases are due to tuberculosis.

Bournemouth. GEORGE MAHOMED.

DR. HENRY E. ARMSTRONG, Medical Officer of Health for Newcastle, has been elected a Corresponding Member of the Royal Medico-Chirurgical Academy of Madrid.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL HANTS COUNTY HOSPITAL, WINCHESTER.

CASE OF ANGINA LUDOVICI: RECOVERY.

[Under the care of Mr. MARGERISON.]

(Reported by W. A. SHARPIN, M.R.C.S., L.R.C.P.Lond., House-Surgeon to the Hospital.)

History.—The patient, a lad of 19, was sent into the hospital with the following history: On September 20th, 1898, a tooth was extracted from the right lower jaw. The next day the face and neck on the same side had swollen considerably; and on September 22nd the symptoms were so acute that he was sent to the hospital.

Condition on Admission.—There was on the right side of the face and neck a large swelling, which was hardest below the jaw in a vertical line with the canine tooth. Around this a puffy œdema extended backwards to the space between the angle of the jaw and the mastoid process, and downwards as far as the sternum. The tongue was much swollen behind and pushed upwards, so that there was great difficulty of speech and swallowing, together with considerable dyspnœa, evidenced by the widely-dilated pupils, cyanosis, and profuse sweating. The temperature was 100.8°, and the pulse 104 and very compressible.

Operation.—A small quantity of A.C.E. mixture was administered, and free incisions made vertically through the deep fascia, one in the middle line, one over the most prominent part of the swelling, and one behind. Some thin watery offensive fluid escaped. A large drainage tube was made to connect the middle and posterior incisions, and the wound dressed with large hot boracic fomentations every four hours.

After-History.—Next day, September 23rd, he could swallow and talk better, whilst the dyspnœa had passed off. The temperature was 100°, and the pulse 132 and very weak. Towards evening he began to get delirious, a symptom which was met by brandy and large quantities of fluid nourishment. On September 24th the temperature was 100°, the pulse 100 and stronger. The incisions were sloughing. The urine was albuminous. After this the temperature fell to normal, and the patient improved rapidly till October 4th, when the temperature ran up again, and remained irregular till October 7th, when a large quantity of blood and pus was brought up through the mouth, the pus having burrowed into the pharynx. After this the progress of the patient was uninterrupted, and on October 29th he was discharged.

REMARKS.—The recovery of the patient was undoubtedly due, in the first place, to the early recognition of the case by the patient's medical attendant, Dr. Burrow, of Petersfield. That tracheotomy was not necessary was probably due to the same reason. The burrowing of the pus into the pharynx, instead of into the mediastinum, was, I think, a more unusual, if happier, termination of the case than the latter.

THE SANITARY CONDITION OF HAVANA.—Colonel Waring, the sanitary engineer, who was commissioned by the American Government to inspect Havana from the hygienic point of view, reported that it was the worst case of filth and carelessness in a city that he had ever known of in his long experience. In addition to a sewage system (of which not the slightest trace exists in Havana) and new pavements for the streets, he urged that 100,000 water-closets should be imported, and each house provided with one. Perhaps the whole cost would amount to nearly £4,000,000, but the result would be that not only yellow fever, but many other infectious diseases which are annihilating the Cuban people, would disappear. Colonel Waring declared that similar work was necessary, not only at Havana, but at every port at which direct communication is had with the United States. A melancholy result of Colonel Waring's sanitary mission is his own death from yellow fever, contracted in Cuba.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. Bryant, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, January 10th, 1899.

Aortic Aneurysm as a Cause of Hypertrophy of the Left Ventricle.

Dr. James Calvert, who read this paper, said that aortic aneurysm certainly was a cause of hypertrophy of the left ventricle, and others were equally positive that it was not. This conflict of opinion was embarrassing to the teacher and very confusing to the student. He had therefore thought it worth while to see what light the *post-mortem* records of St. Bartholomew's Hospital threw upon the subject, and the research had been made a comparatively light task by Dr. Oswald Browne's recent work entitled *Aneurysms of the Aorta*.[1] Dr. Browne's thesis was based "upon an analysis of all cases of aneurysm of the aorta in any of its parts dying in St. Bartholomew's Hospital during the last thirty years, upon whom an examination was made after death, and its results carefully recorded." The result of the research was briefly that with regard to 124 cases of aneurysm of the arch of the aorta, in 68 of them there was no hypertrophy of the left ventricle; in 47 of them the hypertrophy could be perfectly explained by other causes present; in 9 of them the hypertrophy could very probably be explained by other causes present. Therefore, so far as the records of St. Bartholomew's Hospital were concerned, there was practically no evidence in favour of aortic aneurysm being a cause of hypertrophy of the left ventricle.

Dr. W. S. Lazarus-Barlow said that in the last two years there had been 13 cases of aneurysm of either the first or of the second part of the arch of the aorta examined after death in St. George's Hospital; in 8 of these there was expressly stated to be no hypertrophy of the left ventricle; in the remaining 5 hypertrophy of the left ventricle was associated with either aortic reflux or with kidney disease. These figures corresponded very closely with the larger ones of the author. *A priori* he would not have expected hypertrophy of the left ventricle, inasmuch as the aneurysm would tend to increase the area of the vascular system, he further was of opinion that atheroma of the aorta of itself could not lead to hypertrophy.

Dr. A. Morison had noticed twenty years ago that aneurysms of the aorta need not produce hypertrophy of the left ventricle. The important factor in the production of hypertrophy was leakage through the aortic valves. He pointed out that if there was disease of the coronary arteries, interfering with the flow of blood into the walls of the heart, the valves were exposed to greater strain, and were more likely to suffer.

Dr. H. G. Turney had expected that aortic aneurysm would, by diminishing the elastic recoil of the aorta, have given the heart more work to do, and so have led to hypertrophy. But he quoted a case which agreed with the conclusion the author had so completely proved. A man, aged 50 years, died with an aneurysm which had been diagnosed sixteen years before; it was a fusiform aneurysm of the thoracic aorta eroding the spine; there was no hypertrophy of the heart.

Dr. Seymour Taylor had from general impression formed the opinion that aortic aneurysm led to hypertrophy of the left ventricle, and he urged the author to extend his investigations, and to search for other causes of hypertrophy of the left ventricle in aortic aneurysm. In some cases an aneurysm close to the valves might so drag on them as to lead to incompetency. The elastic recoil and the muscular tissue, small though it was in the aorta, if impaired might increase the resistance, and so play an important part. Where an aneurysm arose in an old person the heart might not be capable of hypertrophy. He thought that hypertrophy of the heart might under certain conditions produce an aneurysm.

Mr. H. W. Page had done his pathological work under the late Dr. H. G. Sutton, who had taught that in aortic aneurysm the heart was not only not hypertrophied, but that it might even be atrophied.

[1] *Aneurysms of the Aorta*, by Oswald A. Browne, M.A., M.D. H. K. Lewis, London, 1897.

Dr. Rolleston said that his pathological experience a St. George's coincided with the teaching of Dr. Moore, whic the statistics of the paper proved—namely, that uncompli cated aortic aneurysm did not lead to cardiac hypertrophy This was remarkable, for aneurysm was generally due t atheroma, which in its turn was usually the result of hig arterial tension; and the last factor was in itself sufficient t produce hypertrophy of the left ventricle.

Dr. H. A. Caley inquired as to the incidence of syphilis i the author's cases. It would be interesting to know whethe syphilis was more often present in the younger subjects o aneurysm and arterio-sclerosis in the older.

Dr. Norman Moore had always believed and taught th conclusion so well proved in the paper. He laid stress o the importance of weighing the heart before deciding whethe there was hypertrophy or not, and on the need for micro scopical examination of the kidneys before acquitting them o interstitial fibrosis. If a patient with aortic aneurysm ha hypertrophy of the heart there was some other lesion present such as valvular disease, which was not manifest, or kidne disease.

Dr. E. Cautley said that not only must the heart be weighed but that in estimating the presence of hypertrophy the weigh of the body and the occupation of the patient must be take into account. Atheroma was rather a result of strain than cause. In aortic aneurysms the apex of the heart was ofte displaced without there being any cardiac hypertrophy.

Dr. Calvert, in reply, said that it appeared worth while t bring forward the experience of St. Bartholomew's Hospital o this point. When speaking of atheroma he had it chiefly i his mind as evidence of arterial tension, but in some case rough atheromatous plates might give rise to some obstructio to the blood flow.

Aortic Aneurysm: Involvement of Sensory Nerve Roots: Sudden Paraplegia: Laminectomy: Death.

Messrs. H. G. Turney and C. A. Ballance described th case of W. B., aged 35, admitted to St. Thomas's Hospital o September 14th, 1897. The patient had had a hard chancr 17 years ago. His present illness began two years ago wit pain in the middle of the back of an aching character, no constant at first, but becoming so later. It soon extende round his body at the same level. For the last four month the pain had been continuous and severe: movement had n effect on it. Morphine had been necessary to relieve it. H had lost 2 st. in weight during the last four months. O admission he was found to be a powerfully built man, bu thin, and with a well-marked expression of pain on his face He complained in a wailing voice of intense pain in the uppe abdomen and back. As regarded the nervous system ther was no loss of power or affection of sensation in the extremi ties; all the reflexes were normal; mental condition clear He referred his pain to a triangular area situated between th fifth rib and the ensiform cartilage on the right side in front The skin in this area was intensely hyperæsthetic, border well defined; a similar condition had been present in th corresponding triangle on the left side, but this part was now normal. Rigidity of back at once attracted attention, more marked in the upper half of the spine. There was also a distinct deformity; the site of maximal projection was occu pied by the seventh and eighth dorsal spines. The tenth spine was extremely tender. There was n sign of visceral disease in either chest or abdomen Antispecific treatment was adopted, but without change i the patient's condition. On October 11th the hyperæsthesia was transferred to the left side, and there was some difficulty in swallowing solid food. On October 23rd, while the patient was being washed in bed, he called out with intense pain, and instantaneously lost power and feeling in his legs. The paraplegia remaining unaltered, the following morning lami nectomy was performed. The body of the seventh dorsal vertebra was found to have completely disappeared, its place being occupied by recent clot. The finger was passed into the clot, and no hæmorrhage occurred. Death took place ten hours after the operation. At the necropsy a large aneurysm was found arising from the descending aorta on its posterio aspect, situated exactly in the middle line, and causing destruction of both vertebræ and intervertebral discs. The diagnosis was believed to rest mainly between aneurysm

caries, and new growth, but no final conclusion seemed to be possible even at the operation. The remarkable features of the case were: (1) The insuperable difficulties in the way of a correct diagnosis; (2) the passage of the finger into an aortic aneurysm without hæmorrhage; (3) the localisation of certain sensory root areas; (4) the unusual destruction of the intervertebral discs equally with the vertebral bodies from pressure.

The President asked whether the object of laminectomy was removal of a suspected growth? He did not think the hot sponge test was of any value for spinal disease.

Mr. H. W. Page thought that inasmuch as a suspicion of aneurysm had arisen, the sudden onset of paraplegia would have suggested rupture of an aneurysm. The hot sponge test was quite worthless in examining for spinal disease.

Dr. Turney said that the indication for operation was pressure on the spinal cord, and that it seemed right to try and relieve this. This the operation succeeded in doing to some extent, as shown by movement of the lower intercostal muscles after the laminectomy. The appearances at the time of the operation suggested a soft sarcoma.

MEDICAL SOCIETY OF LONDON.

Edmund Owen, F.R.C.S., President, in the Chair.

Monday, January 9th, 1899.

The Conduct of the Heart in the Face of Difficulties. Sir William Broadbent pointed out that the difficulties which the heart had to face were sometimes of its own making, sometimes imposed upon it from outside. It might be pressed upon by an overdistended stomach, displaced by pleural effusion, by mediastinal tumour or by aneurysm, or the flow of blood towards the right auricle might be impeded by pressure on the superior vena cava. Difficulties of another kind might arise from obstruction in the arterioles and capillaries, in the pulmonic circulation by emphysema or by acute affection of the lungs, and in the systemic circulation by the numerous conditions which give rise to high arterial tension. He commented upon the wonderful power possessed by the heart of adjusting itself to altered conditions, pointing out that flatulent distension of the stomach or other part of the intestinal canal was the cause of most of the functional derangements to which the heart was subject, although it behaved very differently in different subjects when subjected to such pressure. The heart, moreover, had special relations with the nervous system, and reflected all changes therein, not only through the cerebro-spinal system, but also through the vasomotor nervous apparatus and the sympathetic system generally. In a large and increasing proportion of people the nervous system was unduly sensitive, and its reactions were therefore exaggerated. It was of the greatest importance to distinguish functional affections of the heart from troubles due to organic disease, especially when severe pain in the cardiac region was a symptom. Angina pectoris, for instance, might be closely simulated by the effects of dilatation or functional derangement of the stomach. He discussed the differential diagnosis of true angina from attacks brought on by the pressure of abdominal viscera. Speaking generally, angina in women was always spurious, and palpitation or irregular action of the heart or intermission of the pulse or pain in the cardiac region might, with little hesitation, be attributed to some form of indigestion, especially if it soon passed off. In this class of cases if the distant cause were removed there would be little fault to find with the conduct of the heart. The two special factors were the nervous system on the one hand and digestion on the other, and according as the neurotic or the dyspeptic element predominated so the treatment would require to be modified. In this connection he especially cautioned them against the tendency to avoid exercise and to take stimulants or drugs, seeing that exercise and fresh air were often what was most required. He then passed on to consider that much more potent factor in the production of actual heart disease, namely, high arterial tension. He pointed out that hypertrophy was not disease, but it was apt to be associated in the decline of life with fibroid or fatty degeneration. The valves, however, might suffer before the muscular walls with ultimate thickening and contraction, and, in the long run, insufficiency. He insisted on the importance of the recognition of unduly high presure as affording one of the most valuable indications for treatment in a great variety of conditions. He particularly deprecated the administration of digitalis in this condition. Discussing the question of treatment in presence of valvular disease, he said the first thing to do was to make out the physiological significance of the lesion. In cases of mitral incompetence, the rise of pressure in the pulmonary artery gave rise to compensatory hypertrophy in the absence whereof there was no indication for treatment. If, however, in spite of compensatory hypertrophy there were symptoms of cardio-pulmonary inadequacy, great carefulness would be required to neutralise the serious effects of the valvular lesion. In presence of these serious effects the first step in treatment must be to relieve the right heart from the overdistension which was paralysing its efforts, failing which digitalis would simply help the straining ventricle in the work of self-destruction. The nearest approach to a modern therapeutic miracle was seen on bleeding in a typical case of this kind, but this measure should be followed up by a good calomel purge. A dozen leeches over the enlarged liver was a good alternative for the bleeding, while in less severe cases the mercurial aperient alone might suffice. The right heart having been relieved, digitalis might be given with advantage. Œdema and serous effusions should be treated by appropriate means. He lacked time to discuss the difficulties entailed by each particular variety of valvular disease, but he insisted on the principle that when the heart was in difficulties more could usually be done for the relief of the patient indirectly, by removing the difficulties, than directly by aiding it to overcome them. This was equally true whether the disturbing influence was extrinsic or intrinsic. Therefore, in considering the treatment of cardiac disease or disturbance the first question was how to relieve the labouring or harassed heart by the removal of some condition which was causing or aggravating the difficulties with which it was contending. In doing this they often put an end to the symptoms which had given rise to suffering and anxiety, and rendered the action of digitalis or other cardiac tonic more efficacious.

Dr. Sansom commented upon the tolerance of the heart to certain kinds of injury as exemplified by some recent cases. He pointed out that the musculature of the heart was of itself less important than was generally believed. With regard to fatty degeneration, for example, he confessed that his mind was in a condition of "hopeless imbecility." The hearts of patients suffering from intense anæmia were markedly fatty, yet if the patient recovered from the anæmia the heart recovered and did its work. Even in inflammations of the walls of the heart the ultimate results were very variable. In the treatment of these cases it was less a question of pegging away at the muscle than a question of overcoming certain difficulties. The routine administration of digitalis was, he feared, in some cases an immediate cause of disaster. He insisted on the value of moderate venesection in suitable cases.

Dr. Theodore Williams referred to cases of his own, illustrating the disturbing influence of a dilated stomach on the cardiac function, and pointed out that even in cases where organic disease was to be suspected, the relief of these collateral conditions often prolonged life. He concurred in the value of venesection in certain cases, but admitted that in practice it was often difficult to carry out. He also mentioned cases illustrating the tolerance of the heart to injury.

Dr. Morison asked the author whether he had absolutely satisfied himself as to the existence of a non-synchronous action of the ventricles, and related the case of a man with a dilated heart and much ascites who was spared surgical intervention by large doses of strophanthus. He pointed out that there were three factors in the production of functional disturbance, namely, nerve, muscle, and blood, and in each case they must ascertain which of these three factors predominated. He remarked that the maximum of relief followed the withdrawal of about 4 ounces of blood, that was, about the capacity of the right heart.

Dr. Symes Thompson thought they did not adequately recognise the diagnostic importance of irregular action of the heart. The feelings of the patient in this respect were, however, no guide to the gravity of the lesion. He agreed that it was more important to relieve the heart of stress than to assist in overcoming it, and he instanced the parallel condition of kidney disease in which stimulation was to be avoided.

Dr. MAGUIRE insisted on the importance of negative pressure in the heart in assisting its function. This was increased during inspiration and diminished during expiration. This influence might be diminished by disease, as for instance in emphysema, to which fact he attributed the exaggerated shortness of breath from which these patients suffered. With an enfeebled left ventricle the pulsus paradoxus might be produced, the beat corresponding to inspiration not being perceptible at the wrist. That phenomenon could be produced in anyone by movements calculated to increase the chest capacity coincidentally with inspiration.

Dr. CALVERT, in reference to senega, which was described as a stimulant expectorant, and was given in chronic bronchitis possibly associated with a dilated heart, pointed out that its active principle exerted a markedly depressing action on the heart, and its use in such cases was contra-indicated.

Dr. ROBERT JONES asked the author if he could throw any light on the connection that appeared to exist between the heart and certain toxins—notably the toxins of fatigue—instancing the case of a man in whom, when in the status epilepticus, the temperature went up to 103° and the pulse to 140.

Dr. CAYLEY suggested that in some cases of failure of compensation this might be due not so much to an increasing mechanical strain as to a giving way of the myocardium, in the production of which toxins might play a part. He discussed the influence of interference with the coronary circulation in weakening the myocardium.

Sir WILLIAM BROADBENT, in reply, agreed that venesection was not employed to anything like the extent it deserved, but he did not think the removal of 4 ounces of blood would go far towards relieving the strain on the heart. He concurred in the view that interference with the coronary circulation was an element of cardiac trouble long before the stage of degeneration. He was quite satisfied as to the non-synchronous action of the ventricles under certain circumstances, of which he gave a striking example. His explanation of the production of pulsus paradoxus was not that of Dr. Maguire, in that he did not believe any amount of negative pressure would stop the ventricle contracting, though by acting on the auricle it might prevent the ventricle filling.

OBSTETRICAL SOCIETY OF LONDON.

C. J. CULLINGWORTH, M.D., President, in the Chair.

Wednesday, January 4th, 1899.

ECTOPIC GESTATION.

DR. ARCHIBALD DONALD read a paper on a case of ectopic gestation at the seventh month, in which the fœtus was extracted by vaginal incision. The patient, aged 33, was admitted to St. Mary's Hospital, Manchester, on July 20th, 1898. She had been married about a year, and had been regular till January 20th. In February she had a slight discharge, which in March existed continuously for three weeks. On admission the abdomen was uniformly enlarged by a tumour, which reached about 4 inches above the umbilicus. A loud *souffle* was distinctly heard. The cervix was close to the pubes, and the uterus could be mapped out bimanually in front and to the left, and seemed about the size of a two months pregnant uterus. The posterior vaginal fornix was bulged by a hard mass, which almost filled the brim; this mass was the fœtal head, in which the sutures could be felt. On August 18th, 1898, abdominal section was performed, and the placenta was exposed. The wound was therefore temporarily covered, and the child delivered through a posterior vaginal incision by cranioclasm, and the sac packed from the vagina with iodoform gauze. Alarming hæmorrhage occurred when the gauze was removed on the fourth day. The separation of the placenta occupied some weeks, but the patient made a good recovery, and was discharged strong and well on November 12th. The author described the position of the fœtus in the broad ligament, and discussed the advantages of the vaginal route.

Dr. GALABIN said that in intraligamentous pregnancy the vaginal methods of operating when practicable secured several advantages, obviating the necessity of stitching the sac to the abdominal wall, and any temporary sinus caused little inconvenience. In several cases of extrauterine gestation of shorter duration than seven months he had adopted the plan followed by Dr. Donald of making an exploratory abdominal section, and if the case proved to be one of intraligamentous pregnancy unruptured, or if the pelvis was completely shut off by adhesions, opening the sac *per vaginam*. The advantage of abdominal exploration was shown in one case where the sac had been ruptured and a large quantity of blood was effused into the peritoneal cavity. He had removed the placenta in one case through the vaginal incision three days after the operation and the patient rapidly convalesced.

The PRESIDENT said that Dr. Donald could already lay claim to be considered as a pioneer in the treatment of early ectopic gestation by operation through the vagina, and he had now brought before the Society a case of advanced ectopic gestation treated by the same method. Dr. Herman had collected several instances in which in years gone by an extrauterine fœtus had been extracted through an opening in the vaginal roof; but Dr. Donald by opening the abdomen had completed and made certain the diagnosis and had thus made himself master of the situation. He (the President) asked if any opinion had been formed as to the source of the hæmorrhage.

Dr. DONALD, in reply, said that Dr. Walls, who was responsible for the after-treatment of the case, believed that the hæmorrhage came from a placental vessel. Though he had not discussed in his paper early tubal pregnancy he (Dr. Donald) expressed the opinion that the vaginal incision was safer than the abdominal in early cases, namely, up to the third month.

VULVITIS IN CHILDREN.

Dr. DRUMMOND ROBINSON gave the results of his investigation of 50 cases of so-called vulvitis in children. The condition was found to be most common in children under 5, common between 5 and 10, and uncommon over 10 years of age. In 41 of the cases (76 per cent.) the pus cells of the discharges contained cocci that presented characters which, as far as was known, were peculiar to the gonococcus of Neisser. The contagious character of the discharge was illustrated by several cases. The chief symptoms were painful micturition and pruritus vulvæ; occasional complications were ophthalmia, peritonitis, and arthritis. In most cases the inflammation appeared to be superficial to the hymen. Dr. Robinson expressed the opinion that the majority of cases of vulvitis in children were probably gonorrhœal in origin.

Dr. BOXALL said it seemed to him remarkable that if the whole of the 41 cases were to be regarded as gonorrhœal, only 1 showed evidence of conjunctivitis.

Dr. SNELL said that he had seen several cases of vulvitis in children occurring in families where in all probability gonorrhœal infection was impossible. The subjects were usually weakly, but the complaint was easily and quickly cured.

Dr. A. ROUTH thought that though at present these diplococci were indistinguishable from gonococci, it would be found that they were not really identical. He thought that vaginitis might be caused by infection from the vulva during incautious examinations.

The PRESIDENT said that Dr. Robinson's paper was important from the scientific and from the practical medico-legal aspects. He asked whether by culture experiments Dr. Robinson had confirmed the diagnosis. He called attention to a paper published in 1859 by the late Sir W. Wilde on some medico-legal aspects of purulent discharge in children. In Dr. Robinson's cases pain on micturition was recorded as a common symptom. Might not this be due to the inflamed state of the vulva and not to urethritis, which was not an essential feature in acute gonorrhœa in the female? Vaginitis was comparatively rare in the gonorrhœa of the adult.

Dr. HANDFIELD-JONES found it difficult to believe that over 70 per cent. of all vulvar discharges in children depended on gonorrhœal infection. The following points seemed to him to render the gonorrhœal theory doubtful: (1) The disease had not spread to neighbouring tissues; (2) it was readily cured; (3) the inguinal glands were rarely enlarged; (4) the disease was common in delicate, rare in robust children; (5) in undoubted infection during rape the disease was much more severe than in ordinary cases of vulvitis.

Dr. ROBINSON, in replying, stated that he did not think that the absence of vaginitis in these cases was an argument against their gonorrhœal nature, as vaginitis was rare in

gonorrhœa in the adult. He did not agree with Dr. Handfield-Jones that most of these children were sickly; on the contrary, they were generally in excellent health. Absence of enlargement of the inguinal glands, and the ease with which the disease was cured, showed that the disease differed from that in adults. His views were based not on the clinical aspects of the cases, but upon bacteriological investigation.

SPECIMENS.

The following specimens were shown:—Dr. LEA: A Uterine Tumour expelled during delivery.—Dr. ADDINSELL: Microscopical Sections of an Ovary and Tube removed for the relief of intermenstrual pain.—Dr. AMAND ROUTH: Early Pregnancy in the Uterus of a Bitch.—Dr. BOXALL: Dermoid Tumours of both Ovaries.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

R. L. SWAN, F.R.C.S.I., President, in the Chair.

Friday, December 9th, 1898.

COXA VARA.

THE discussion on Sir Thornley Stoker's paper on coxa vara, adjourned from the meeting of November 11th, was resumed by the PRESIDENT, who, referring to Sir Thornley Stoker's statement that they might couple these cases of osteomalacia occurring in adults with coxa vara—a disease of childhood and adolescence—said he himself had never seen osteomalacia, because his experience of any deformed condition of the femur had been an accentuation of the natural convexity of the femur from the habit of leaning on the left leg. He did not think that any practical surgeon would mistake morbus coxæ for coxa vara in infants or children, as coxa vara was a symptom of rachitis; and there would be other conditions, he thought, to mark the difference. For instance, in coxa vara there were no night cries; in morbus coxæ rotation invariably elicited great pain, but not in coxa vara. He thought that the pain was rather confined to the head of the bone, and that it depended on epiphysitis of the upper extremity of the femur in coxa vara.

Mr. LENTAIGNE questioned whether some of the cases of so-called morbus coxæ in early stages, which had been successfully operated on, were not merely cases of coxa vara. He had quite recently seen a case of coxa vara himself, which, he thought, might easily have been mistaken for early hip-joint disease.

Mr. T. MYLES did not agree that the condition of coxa vara was easily diagnosed from morbus coxæ, for it must be remembered that until the condition was described the mistake must have occurred a great many times. As yet the condition had not been accurately defined. Apparently it was applied to all cases in which there was a change in the normal angle of the femur. If caused by osteomalacia or rickets he thought that it could not be called a separate disease.

Mr. CROLY failed to see why coxa vara could not be diagnosed from morbus coxæ. He had seen many dozens of cases of morbus coxæ treated, and could not say that coxa vara had ever attracted his attention. What proof was there that cases which had been treated as morbus coxæ were really coxa vara? He did not believe that such had happened. He believed that cases which he had treated as morbus coxæ were morbus coxæ.

Sir W. THOMSON said that the condition had undoubtedly been overlooked, and was different from morbus coxæ. He did not see why—although he admitted that there were certain cases in which there was plenty of evidence of this general condition—one could claim rickets as a cause when the condition was confined to the neck of the femur, and there was no evidence whatever in the rest of the skeleton of any rachitic condition. But he was satisfied that any condition in the neck of the femur which would lead to softening, whether inflammatory or pretuberculous, was sufficient to allow straightening of the neck or the reduction of the angle.

Sir T. STOKER replied.

THE OPERATIVE TREATMENT OF HERNIA.

Mr. M'ARDLE brought forward the subject of the radical cure of hernia, basing his communication on the results in 342 cases. The ages of the patients ranged from 8 months to 85 years. Of this number but 1 died, and that was an instance of umbilical hernia in a man of 65, very stout, and with weak heart and atheromatous arteries. Mr. M'Ardle advocated (1) Free opening up of the inguinal canal, so as to have complete control of the internal ring; (2) interrupted suture of the internal oblique conjoined tendon to Poupart's ligament, leaving the cord in its normal position. The sac might be ligatured, sutured, or drawn through the external oblique after Kocher's method, but the fundus should be removed, as it could serve no useful purpose however placed. It was a grave mistake in Kocher's method to bring the sac down, and cause it to act as a wedge in the anterior part of the inguinal canal, and in all these cases where the sac was puckered, twisted, or invaginated, its retention was a danger, as proved by many instances of necrosis of the sac, delay of healing, and even of death. Mr. M'Ardle's belief was that the method of dealing with the sac was of no moment so long as the dangerous and ineffective methods mentioned was excluded. A Bantock's ligature placed on the neck close to the internal ring brought the peritoneum to its normal condition. Mr. M'Ardle stated his conclusions as follows:—1. Without opening up the inguinal canal no complete operation can be performed. 2. It is a matter of little importance what you do with the hernial sac; it has no bearing on the case; a new sac forms with the greatest readiness if at any point the mid-stratum of the abdominal wall is defective. 3. There is no evidence in favour of opposing the arrangements of Nature by displacing the cord. 4. To properly reconstruct the canal, the internal oblique and conjoined tendon should be brought down to Poupart's ligament, not merely to the edge of the external oblique. 5. The complete overlapping of the pillars of the external ring forms a firm basis of support for the healing of the underlying conjoined tendon.

The paper was discussed by Mr. CROLY, Mr. T. MYLES, Mr. BALL, Mr. TOBIN, and Dr. KNOTT; and Mr. M'ARDLE replied.

LIVERPOOL MEDICAL INSTITUTION.

W. MACFIE CAMPBELL, M.D., President, in the Chair.

Thursday, January 5th, 1899.

PERFORATING ULCER OF THE STOMACH.

Mr. ROBERT JONES related two cases operated upon for gastric ulcer, one of which recovered, and the other died fourteen days after operation. In the first case, a woman, aged 19, the perforation had existed for three hours, and was situated on the posterior aspect near the pylorus. Some partially-digested milk had exuded. There was no peritonitis. The ulcer was inverted and stitched, and the wound closed without drainage. The patient made an uninterrupted recovery. From the appearance of the ulcer, absence of anæmia, and previous history of tubercle, Mr. Jones suggested the possibility of the tuberculous nature of the ulcer. The second patient, a girl, aged 21, was operated upon fourteen hours after perforation. She was greatly collapsed; a large indurated perforation was found near the cardiac end of the lesser curvature on the anterior aspect. There was exudation of partially-digested food. Adhesions had formed with the liver and the abdominal parietes. There was considerable exudation of lymph, which had to be forcibly scraped. The ulcer was obliterated by a purse-string suture, fortified by Lembert stitches and completed by stitching omentum over the area. She progressed fairly well for fourteen days, when she vomited pus. An incision was made, and a perisplenic abscess containing foul pus was found. She was very collapsed, and died twelve hours later. The *post-mortem* examination showed the perforation to have quite healed. There was no communication between the wound area and the perisplenic and subdiaphragmatic abscess cavities. The diaphragm was burrowed through, and the lung opened into. There was no ulcer on the posterior aspect of the stomach. Mr. Jones agreed with the recent suggestion of Turner that the lesser sac of peritoneum should be irrigated and the posterior aspect of the stomach inspected in nearly all cases.

Mr. FRANK T. PAUL, while fully agreeing with Mr. Jones as to the value of early operation, thought it was sometimes possible to attain success after a longer delay than twenty-four hours. Stomach fluids in the peritoneal cavity were much

less virulent than intestinal matter; the general depression was much less and the inflammatory changes were more plastic. He advised that more pains should be taken in drying out the peritoneal cavity than in flushing it; a complete and thorough flushing was impossible: when the soiling was general a drainage tube should be put in Douglas's pouch through a separate opening. In Mr. Jones's second case, a difficult and severe one, he thought it had been dealt with most ingeniously and it was only an accident that marred its ultimate success.

MYXŒDEMA TREATED WITH COLLOID.

Dr. BUCHANAN related a case in a man, aged 54, treated with colloid matter according to Dr. R. Hutchinson's formula. The disappearance of symptoms was shown to be remarkable, and after four months' treatment the restoration to health was complete. The case was illustrated by a series of lantern slides demonstrating in a marked degree the condition of the patient before and while undergoing treatment.

REVOLVER WOUND OF BRAIN.

Dr. ALEXANDER showed a calvarium from a man, aged 24, who was brought to the parish infirmary by the police from an hotel in the city. He had been found lying on a bed, semi-unconscious and bleeding slightly from one nostril. A revolver was found on the floor with one chamber empty. There was no mark of any injury on his face, nor any discoloration from powder. He remained in a semi-conscious condition, and died the day after admission. *Post mortem* there was found a scarred fracture of the external table of the frontal bone, around which the periosteum was raised. On opening the skull a fracture of the cribriform plate of the ethmoid was found, and a bullet was discovered in the brain substance. Above it impinged on the internal table, and was only visible as a small indentation. The frontal lobes were much damaged.

UTERINE FIBROID.

Dr. BRIGGS showed a fibroid weighing 13½ lbs., removed from a single woman aged 33. The operation was performed on November 26th, 1898, through an abdominal incision by hysterectomy, of which enucleation was the first step. The tumour reached low on the cervix, and encroached on the right broad ligament. The right ovary was cystic. As soon as the tumour was released from its capsule the large veins emptied their contents into the general circulation; there was little shock. The capsule and uterus appeared too big and too loose to be left behind with safety. The growth and uterus were originally equal in size to the pregnant uterus at eight months. In smaller growths the capsule and uterus might be left behind with safety, but enucleation alone of large growths has not yet been shown to be equally safe.

THE VACCINATION ACT, 1898.

Dr. N. E. ROBERTS read a paper on the Vaccination Act, 1898, and the Local Government Board Order of October 18th. He deplored the attitude of hostility which large sections of the community had assumed towards vaccination. On the question of compulsion he was of opinion that, living under democratic institutions as they did, they must not be surprised if, now and again, the drawbacks of their methods of government should become manifest as well as its blessings. The duty of the medical profession was clear: it was by every legitimate means to instruct the people on this question. He particularly deplored the fact that large numbers of objectors were animated by something resembling a high enthusiasm, regarding their action as a kind of holy war, and in a neighbouring town thousands crowded for exemption certificates singing "Christians, awake!" and other hymns. It suggested on the humorous side, a town's meeting gathered to denounce the multiplication table as an unholy invention of the devil; but it had its elements of pathos in it—this potential unconscious slaughter of their innocents by loving parents. He explained the provisions of the Act and Order, and appealed for cordial relations between the public vaccinators and the private vaccinators under the somewhat trying circumstances of the public officer having to visit the homes.

The PRESIDENT said that probably no more retrograde step had ever been taken by Parliament—a step by which the majority had been handed over, bound hand and foot, to a fanatical minority. Calf lymph, he thought, was responsible for a certain amount of insufficient vaccination. He had used calf lymph exclusively during the last fifteen years, and required to operate a second time in about 15 per cent. This gave rise to dissatisfaction among the friends. What, again, was to be done with cases in which only one or two marks took? He generally recommended revaccination in four or five years. The importance of cleanliness in skin and instruments was now well understood, and everything should be done to remove prejudice against the operation.

Mr. RUSHTON PARKER said that in England the public seemed determined to take the risk of small-pox for some of their children. Whether the Government were wise or not in adopting the recent Vaccination Act, it was evident that they were, as individuals, staunch adherents of vaccination, and only adopted this Act as being, in their expectation, more likely in the long run to maintain the practice of vaccination than the order for its compulsion upon a democratic community who largely refused to be coerced in this matter.

Dr. HUGH R. JONES called attention to two statements in the report of the Royal Commission: "That vaccination was protective against small-pox"; and "that vaccination could not be replaced at present efficiently by other preventive measures." There was, however, another side. Isolation, notification, disinfection, as subsidiary measures, ought to receive their full credit, and the hope of the future for the extinction of infectious diseases depended chiefly upon efficient sanitary measures.

Dr. HOPE considered that the present grave condition in respect to vaccination was contributed to by the long period, extending over many years, which the Royal Commission took before publishing their conclusions. During these years the opponents of vaccination were extremely active, and unfortunately very successful. He pointed out that the Bill introduced by Mr. Chaplin differed very widely from the Act as passed—an Act which was in absolute and direct antagonism to the carefully-considered recommendations of the Royal Commission, whose exact words are: "We are of opinion that the State ought to continue to promote the vaccination of the people." And again: "We can see nothing to warrant the conclusion that in this country vaccination might safely be abandoned and replaced by a system of isolation."

Drs. SMART, ARCHER, PERMEWAN, HILL, and GRÜNBAUM also spoke.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

J. W. MARTIN, M.D., President, in the Chair.

Friday, December 16th, 1898.

SPECIMENS.

Dr. DONALD (Manchester) showed a Myoma of the Uterus, about the size of an adult head, removed by abdominal myomectomy. There was considerable difficulty in enucleating the tumour, the capsule measuring half an inch in thickness, and composed of hypertrophied uterine wall. There was very smart hæmorrhage from several vessels in the capsule. Dr. Donald also showed a Uterus removed by vaginal hysterectomy after perforation by sounds. The cervix was being dilated preparatory to curetting; there was no resistance at any part, and the sound passed easily 6 or 7 inches. An examination of the abdomen showed that the point of the instrument was in the abdominal cavity; a No. 12 dilator was introduced with the same result. As it was evident the uterine wall was perforated, and as the contents of the uterus were undoubtedly septic, the anterior vaginal fornix was opened up and the fundus uteri brought into view. Two large apertures which had evidently been made by the dilators were found in the fundus, and the uterine wall was so friable that volsella forceps very easily caused tearing. Vaginal hysterectomy was performed as the safest method of treatment. Probably the degeneration of the uterine wall was due partly to frequent childbearing and partly to septic processes following miscarriage.

ANTISTREPTOCOCCUS SERUM IN PUERPERAL SEPTICÆMIA.

Dr. GRIMSDALE (Liverpool) read notes of a case of puerperal septicæmia treated successfully by injections of anti-streptococcus serum. The woman, aged 35, had an easy labour,

followed by a rigor in forty-eight hours. Her medical attendant treated her energetically by washing out the uterus and curetting it, but the symptoms of high temperature, quick pulse, rapid wasting, and general serious illness persisted. On the ninth day of the disease she was admitted into the Royal Infirmary. Streptococci having been found in the blood, serum injections (10 c.cm.) were made into the flanks. After two injections the temperature (104°) and pulse (120) became normal, and the patient appeared convalescent. The injections were stopped. The temperature remained normal for twenty-four hours, and then rose gradually, so that in in three days it was 103°, and the pulse 120. While the temperature was normal streptococci were found in the blood. After recurrence of the fever injections of the serum (10 c.cm.) were given for fifteen days consecutively. The micro-organisms had then disappeared from the blood, and the injections were discontinued. At this time the temperature was raised to 101°, but gradually fell, and the patient was discharged cured. After admission to hospital no treatment was directed to the uterus, and beyond quinine no drug was used. Urticaria and severe pains in the limbs were complained of towards the end of the serum treatment, but this subsided in about a fortnight.

Dr. Nesfield (Manchester) thought that the treatment of puerperal septicæmia by antistreptococcus serum seemed scarcely a natural plan, inasmuch as it was using an alternative solution of the same poison as produced the disease, and that those cases which lasted a long time usually ended in recovery under very varied plans of treatment.

Dr. Arnold Lea (Manchester) considered that since at one period the streptococci disappeared entirely from the blood, and returned again in a few days, a local source of infection must have been present, and that this was probably in the uterus itself, since there was no evidence of local pelvic trouble. He thought that if in similar cases the serum treatment failed and the patient was losing ground, removal of the uterus through the vagina would be the best treatment.

Dr. Fothergill (Manchester), seeing that there was no physical sign or symptoms of any pelvic trouble, and that there was no foul discharge, considered that this might be one of those cases of infection by the bacterium coli commune through the wall of the intestine. Vaginal and uterine douching would be quite unnecessary in such a case, and when the streptococcus had once got into the blood the use of the serum was the proper treatment.

Dr. Grimsdale, in reply, stated that the streptococci were present in the blood continuously. There was no disappearance and reappearance.

Paper.

Mr. Bishop (Manchester) read a note on the Vagino-abdominal Incision *versus* Morcellation in some cases of Pelvic Surgery.

ULSTER MEDICAL SOCIETY.

Joseph Nelson, M.D., President, in the Chair.

Thursday, January 5th, 1899.

Post-Nasal Growths.

Dr. Cecil Shaw read a paper on post-nasal growths. The usual age for these growths was from 3 to 12. Boys were said to be rather more frequently affected than girls, but Dr. Shaw found that of 69 cases occurring in his own practice, 31 were boys and 38 girls. The predisposing causes and symptoms of the growths were fully discussed. No treatment was of any avail except removal of the growths. An anæsthetic should be used in all cases under 14 or 15. The best instruments are the short cutting forceps described by Dr. StClair Thomson in the British Medical Journal for March, 5th 1898, and Gottstein's curette of a small or medium size. It was well to have two curettes, one more curved at the top than the other, so as to reach the vault of the pharynx better. The gag was important. Chloroform was the best anæsthetic. The results of operation were usually most satisfactory, the great majority of cases showing immediate and marked improvement, though education was often necessary to restore nasal respiration. Recurrence seldom took place, except in very young patients.

Dr. J. Walton Browne had seen alarming hæmorrhage, which stopped when the gag was removed. He thought the inferior turbinated bones were often at fault, and required touching with the electric cautery.

Professor Sinclair regarded the operation as serious in very young children owing to shock.

Dr. Mitchell had seen a case of a young lady who had been operated on several years before for ear disease whose pharynx was simply scar tissue.

The discussion was continued by Professor Byers, Dr. Allen, Dr. Killen, and the President, who said he usually operated without anæsthetic.

Operation for Perforated Typhoid Ulcer.

Dr. E. Coey Bigger and Mr. Robert Campbell read notes of a case of operation for perforated typhoid ulcer. The patient, a man aged 36, was admitted to the Union Fever Hospital on December 12th, 1898. He had been ill for over a fortnight. On the following day he was attacked with severe abdominal pain, accompanied by great tenderness and muscular rigidity. Laparotomy was performed ten hours and a-half later. At that time the temperature was 101°, pulse 108, and liver dulness had entirely disappeared. When the abdomen was opened gas and a quantity of yellowish fluid escaped. The intestines were intensely injected and covered with large patches of lymph. A perforation about the size of a pea, from which intestinal contents were freely escaping, was found in the ileum about 2 feet from the cæcum and half an inch from the mesenteric attachment. This was closed by two rows of Lembert sutures. Gauze sponges, wrung out of a solution of perchloride of mercury, 1 in 2,000, were employed to cleanse the adjacent coils of the intestine and the pelvis, from 8 to 10 ounces of foul-smelling yellowish fluid being removed from the latter. The lower part of the abdomen was irrigated with boiled water, and a glass drainage tube inserted. After the first twelve hours the patient was fed by the mouth as well as by the rectum. In three days his condition was fairly satisfactory; he took his nourishment well, there was no vomiting, flatus was freely passed, and there was no abdominal distension. Towards the end of the third day after operation his pulse began to fail, and he died on the fourth day. On *post-mortem* examination it was found that the signs of peritonitis had greatly diminished, and the perforation was securely closed, no water escaping when the bowel was distended under considerable pressure. The statistics of the operation were referred to, from which it appeared that there had been four recoveries out of twenty-three operations, and that in all four the patients had been convalescent. As all cases of undoubted perforation terminated fatally, the opinion was expressed that operation should be advised, not only in convalescence, but in the acute stage of the disease, if the condition of the patient previous to perforation were such as to give a reasonable hope of recovery from the fever, and if he were not moribund from peritonitis.

Dr. Mitchell thought that operation from perforation during the acute stage of typhoid was hopeless.

Professor Sinclair concurred in this view.

Dr. John Campbell thought the proper question was, Does the patient's general condition (due to typhoid or other cause) warrant a fair chance of recovery after laparotomy for ruptured intestines? If so, he thought the operation should be performed.

Nephrorrhaphy for Movable Kidney.

Dr. John Campbell read notes of a case of nephrorrhaphy for movable kidney. Miss McC., aged 37, was seen on June 25th, 1896, complaining of pain in the left lumbar region. The left kidney was found to be movable. Uterine fibroids and piles were also present. A kidney belt and pad were applied and worn without giving relief. In March, 1898, the patient still complained of pain in the left lumbar region, with frequent micturition and tenderness over the kidney. On June 23rd, 1898, the kidneys were exposed by a horizontal lumbar incision, and sutured to the muscular edges of the wound by fine points of silk. The wound was closed by three points of silkworm gut, and healed by immediate union. The kidney when palpated between two fingers appeared normal. Progress was good until the tenth day, when the temperature ran up, reaching 102° on the twelfth day, after which it rapidly fell to normal. This period of pyrexia corresponded to menstruation. When recently heard of, the patient was feel-

ing well, but still had some pain in the region of the left kidney.

KRASKE'S OPERATION FOR CANCER OF RECTUM.

Dr. JOHN CAMPBELL also read notes of a case of cancer of the rectum removed by Kraske's operation. Miss B., aged 56, was seen on January 9th, 1896. She complained of symptoms of two years' duration, including bearing-down pain, hæmorrhages from the bowel, constipation, great pain on defæcation, and progressive wasting. The sigmoid flexure was found to be full of fæces. The rectum contained friable masses springing from the back and side walls, especially from the left, extending from the internal sphincter to a point about as high as the forefinger could reach, and forming a stricture through which the finger could just pass, as high as could be felt a sacral gland was detected. Free bleeding followed the examination. On January 21st the coccyx and lower end of the sacrum as high as the fourth foramen were excised, and the rectum laid bare. It was separated on all sides, and the peritoneum of Douglas's pouch carefully peeled off its anterior aspect, so that the peritoneal cavity was but slightly, if at all, opened. When the diseased portion had been freely excised, the gut was brought down and stitched to the anus. The hollow of the sacrum was then explored as high as could be reached, and the fat and glands removed. Silk was used throughout for ligatures and sutures, the skin wound being only partially closed so as to allow the wound to be plugged with iodoform gauze. Recovery was protracted owing to some suppuration about the sutures, but at the end of six weeks the patient's condition became good, and she rapidly gained in flesh and strength. For six months she had no trouble with the bowel, the sphincter acting well. After that, however, prolapse occurred, and she wore a Paul's truss. Her health remained good, and she had no symptoms of recurrence till she died from alcoholism a fortnight ago. Dr. Gray of Newcastle saw her a few days before death, and she then made no complaint regarding the bowel.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on December 21st, 1898, Mr. PRICE, President, in the chair, a paper was read by Mr. MORLEY WILLIS on Acute Infective Inflammation in Bone. The difficulty attending the early diagnosis of this condition was remarked upon, and stress was laid upon tenderness of the bone in the neighbourhood of an epiphysis, taken in conjunction with the other signs of acute disease, as being an important aid in forming an opinion. The pathology was usually an acute infective osteomyelitis occurring near the epiphysial line where pathological changes were prone to occur. The treatment should therefore consist of not merely incising the periosteum, but trephining the shaft of the bone near the epiphysial line, enlarging the opening if necessary and removing all the acutely inflamed medulla, irrigating with some efficient antiseptic, and lightly packing with gauze. A case was related showing the futility of the treatment which stopped short when the periosteum had been incised; the disease spread to the knee-joint, and the leg had subsequently to be amputated. This, it was believed, might have been averted had the bone been trephined in the first place. The paper was discussed by Messrs. CHICKEN, MACKIE, A. R. ANDERSON, and the PRESIDENT. Mr. CHICKEN did not share the views expressed as to the pathology of the disease. Mr. MACKIE related a case in which suppurative pericarditis followed the necrosis of a long bone; the pericardium was opened and drained, and the patient made a complete recovery. Mr. WILLIS replied.—Dr. W. B. RANSOM showed (1) a patient, and read notes of the case, who had been affected with Paralysis of the whole of the Left Side, including the face, together with the right leg. The symptoms pointed to a thrombosis of the basilar artery, but he had completely recovered under treatment, only a very slight weakness of the left hand remained, and that was diminishing. (2) A Brain showing Sarcoma of the Cortex. The patient had improved for a time on potassium iodide but then became worse. An operation was undertaken but removal of the whole growth was impossible. (3) The Brain of a patient who had suffered from aphasia, which was discovered to be due to thrombosis of the "central" branches of the Sylvian artery. —Mr. A. R. ANDERSON showed: (1) Patient after Pylorectomy. Duration of the symptoms had been only three months according to the patient's statement. They had consisted of vomiting and pain; no blood had been vomited; there was great dilatation of the stomach at the time of operation. Previous to operation the stomach was washed out. The growth was excised, and union between stomach and duodenum was effected by sutures only. The operation lasted one hour and five minutes. Food was given by the mouth on the third day after operation. The patient left the hospital perfectly well in every respect, and had remained so up to the present time. A section of the growth showed it to be a spheroidal cell carcinoma undergoing colloid change. (2) Osteosarcoma of the Fibula removed by operation. Mr. Anderson also read notes of a case of Transperitoneal Uretolithotomy. This case was one in which the symptoms simulated closely those of appendicitis, of which there had been apparently several attacks. An operation for appendicitis was undertaken in a quiescent interval. The appendix was found to be quite healthy and normal, but on feeling about a stone was discovered lodged in the right ureter at the brim of the pelvis. The original wound was closed and allowed to heal, and when this had occurred another operation was undertaken for the removal of the stone in the ureter. An incision was made in the right linea semilunaris, and the bowels being kept out of the way with sponges, the ureter was incised, and three small stones were removed which formed a chain. The lowest one was of uric acid and the other two of phosphatic nature, soft and crumbling. The ureter was then closed by a continuous suture, and a flap of peritoneum was brought over the wound and sutured in that position; the abdominal wound was then closed. Recovery was uneventful and complete, and the patient remained perfectly well.—Mr. CHICKEN showed: (1) A case (with photograph) of Congenital Obstruction of the Ethmoidal Infundibula. An incision was made down the centre of the bridge of the nose, and the nasal bones were separated. A communication was then established between the middle meatus of the nose and the ethmoidal cells by drilling. The nasal bones were brought back into place and the wound stitched. Only a faint scar remained and the result had been good, but one side showed some signs of a tendency for the passage to close. (2) Some Abnormal Semilunar Cartilages removed from the knees of different patients: they appeared to be undergoing absorption. In some cases they were nearly loose, and Mr. Chicken thought it probable that this was one source of loose bodies in knee-joints. (3) Skiagraphs of three Ununited Fractures produced by direct violence. They had been wired with a successful result in every case. (4) Two specimens of Necrosed Bone. One was a minute sequestrum found in the centre of the shaft of a tibia in a small abscess cavity, containing at the time of operation only a little caseous material; the other consisted of the entire circumference and a considerable length of the shaft, and had been removed by operation, having been divided into two pieces to facilitate removal.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting on December 2nd, 1898, Dr. F. DE HAVILLAND HALL, Vice-President in the chair, Dr. DUNDAS GRANT showed Wall Charts for Teaching Signs of Suppuration in the Nasal Sinuses. Mr. ARTHUR CHEATLE showed a Section of Cyst removed from the Naso-pharynx. Mr. WYATT WINGRAVE exhibited (1) Sections of Enlarged Tonsils for inspection by the naked Eye; (2) Sections of Lupus of Larynx; (3) Microscopic Sections of Papilloma of the Larynx; (4) Microscopic Sections of Rhinoscleroma. Mr. LAKE showed (1) a Specimen of Pachydermia Laryngis; (2) Tuberculous Larynx from a child aged 6 years; (3) Recurrent Nasal Tumour from female aged 23. Dr. DUNDAS GRANT showed (1) a case of Empyema of Antrum cured by repeated irrigations by means of Lichtwitz's trocar and cannula; (2) a case of Chronic Empyema of the Antrum cured by intranasal treatment (anterior turbinectomy—Krause's trocar). Mr. Low showed X-Ray Photograph of Foreign Body (Silver Tube) in the Antrum of Highmore. Mr. WYATT WINGRAVE showed a case of Spreading Ulcer of the Nose. Dr. HERBERT TILLEY showed a case of Syringomyelia, with Paralysis of the Right Side of the Palate and Pharynx and of the Right Vocal Cord. Mr. BOWLBY showed a case of Hyperostosis of Maxillary and other Bones causing Nasal Stenosis. Dr. WILLCOCKS showed a case of Paresis of the Left Side of the Larynx. Mr. ERNEST WAGGETT showed a

case of Varix or Nævus of the Posterior Faucial Pillar, etc. Dr. Hector Mackenzie showed a case of Functional Hoarseness in a woman aged 37. Mr. de Santi showed a case of Papilloma of Tonsil. Dr. Bond showed (1) a case of Malignant Disease of the Nose in an old man. Radical operation on the nose and two operations for removal of glands had been performed, the patient having twice previously been shown to the Society, and reports made on microscopic sections of tissues removed. In May, 1898, the nose was clear of disease, but there was a large mass of glands in the left side of neck. This was cut down upon and removed with all adherent structures—namely, much of the sterno-mastoid, fasciæ, the internal jugular vein, and the spinal accessory nerve. The patient was now apparently free from malignant disease and in good health. (2) A case of Recurrent Papilloma of Larynx in a girl of 18.

REVIEWS.

An American Textbook of Genito-Urinary Diseases, Syphilis, and Diseases of the Skin. Edited by L. Bolton Bangs, M.D., and W. A. Hardaway, A.M., M.D. Two vols. London: The Rebman Publishing Company; Philadelphia: W. B. Saunders. 1898. (Imp. 8vo; 300 engravings, and 20 coloured plates; pp. 1,230. 42s.)

The first volume of this work contains nine articles. The first, on Urine Analysis, and a Consideration of the Urine in Surgical Diseases of the Urinary Tract, is by Dr. Paul Thorndike. The second, on Diseases of the Penis, is by Dr. B. F. Curtis. The third, by Dr. G. F. Lydston, is a long and elaborate article on Diseases of the Male Urethra, including a detailed account of stricture and its treatment. With regard to the treatment of stricture by divulsion, Dr. Lydston states that though that mode of treatment is not very popular at the present time among the leading surgeons in America, it has many advocates in England and on the Continent, "where," he is good enough to inform us, "urethral surgery is far behind that of this country." It seems a little strange, too, to find the author of this article speaking of "the extreme rarity of urethritis in the female." The next article, on Diseases of the Testicle and its Coverings, the Cord, and the Seminal Vesicle, is by Dr. Eugene Fuller. The inflammations of these organs are grouped together and considered under one heading a "classification of inflammations in this connection," which Dr. Fuller states "is new and original;" it is also one which we hope will not be extensively followed.

The Diseases of the Prostate are well and fully treated by Dr. J. W. White and Dr. A. C. Wood. Respecting the much-discussed question of the best treatment of prostatic hypertrophy when operative interference is called for, the authors are of opinion that castration has given better average results than any other form of treatment hitherto employed. They also state that in their personal experience they have not observed any permanent mental change after castration. Vasectomy, they think, should be advised in certain cases in which castration is refused, and in those of the milder type, as the best alternative.

Diseases of the Bladder, including Anomalies, Cystitis, Tuberculosis, and Tumours, are ably dealt with by Dr. E. Martin and Dr. A. E. Taylor. In connection with the treatment of tuberculosis, it is laid down that as it is practicably impossible to render the anterior urethra entirely sterile, instruments should not be introduced into the non-infected bladder unless the surgeon is prepared to operate immediately in case the conditions are favourable.

There is a separate article on Vesical Calculus by Dr. F. S. Watson, and the various operations for its removal are well and adequately described.

The article on Diseases of the Ureter is in all respects excellent. It is written by Dr. C. Fenger, with the collaboration of Dr. S. C. Stanton. Signs, symptoms, methods of examination, and treatment, all receive due attention. There is also a copious bibliography appended to this article, which renders it altogether the most complete in the volume.

The concluding chapter, by Dr. P. R. Bolton, contains a useful and by no means too long account of the Surgical Diseases of the Kidney.

As almost always happens when the different chapters of a book are written by different authors, the various subjects are more or less unequally treated. The diseases of the urethra, for example, occupy more than three times the space allotted to those of the testicle, spermatic cord, and seminal vesicle combined.

The second volume of this work deals briefly with certain functional disorders of the male generative organs, of considerable importance in themselves, which, although they should be understood by medical men in practice, are not much amenable to treatment. A hundred and forty-seven pages are devoted to Syphilis, and there are five coloured plates showing the manifestations of syphilis on the skin, and a number of engravings showing various syphilitic conditions and the histology of syphilitic lesions. The syphilitic affections of the eye are illustrated by three coloured plates, in which primary lesions, gumma of the conjunctiva and sclera, ulcerated mucous patches, iritis gummosa, and parenchymatous keratitis are well shown. In one plate the appearances observed in the retina by the ophthalmoscope are illustrated.

The remainder of the volume—some 440 pages—is devoted to the treatment of skin diseases proper. There is the usual introductory chapter on the Anatomy and Physiology of the Skin, which is written by Dr. Bowen, and is well illustrated by engravings. After short notes on the general symptomology, general etiology, general pathology, general diagnosis, and on classification by Dr. Hardaway, the special part is introduced by a paper on Inflammations by Dr. Atkinson, in which the erythemata and erysipelas, pellagra, acrodynia, furuncle, carbuncle, malignant pustule, equina (glanders), pompholyx by Dr. Robinson (with an excellent woodcut), herpes by Dr. Winfield (with a coloured plate), pemphigus (with a coloured plate), and impetigo herpetiformis and dermatitis herpetiformis are discussed.

The section on Eczema is excellently written by Dr. Hardaway in not more than thirty-four pages, in which the varieties and their treatment are well described. Dr. R. W. Taylor writes of Xeroderma Pigmentosum, which is illustrated by two coloured plates. Dr. Winfield's description of Rhinoscleroma is illustrated by an engraving and also by a coloured plate.

Leprosy is described by Dr. I. Dyer, and illustrated by several characteristic engravings of the general appearances of the leper's skin; the histological appearances are reproduced from Leloir. Adenoma sebaceum is described by the same writer and illustrated by a plate. The histology, symptoms, and treatment of Epithelioma are described by Dr. Robinson, who also gives a brief description of Paget's Disease.

Every known skin disease is described, for the most part clearly and precisely, and copiously illustrated. The space alloted to each skin affection is proportionate to its importance, and is never too long, and the text bears evidence that the editors have been judicious in their selection of authors.

The volume claims to be a complete and authoritative exposition of the diseases of the skin, and its execution justifies the claim. In every respect it is brought up to recent date.

Mechanical Practice in Dentistry. By W. Booth Pearsall, F.R.C.S.I. London: Ash and Sons. 1898. (Royal 8vo, pp. 414, 168 illustrations. 18s.)

This manual, being of a strictly technical character, will only interest dentists, as the field which it covers is one with which the medical practitioner has but little concern. The book is well printed and in general respects nicely got up, but a great deal of space and a good many illustrations have been devoted by the author to plans of his friends' workrooms, to tools in everyday use, and to other matters which, to us at all events, do not appear to be worth illustrating; more especially is this true of the numerous figures of bad examples of artificial teeth which, unhappily, are familiar enough to everyone.

Indeed, a good deal of the book is open to this same criticism; the author too frequently figures and describes difficulties and things to be avoided, and then stops short of giving the means by which they may be avoided. Thus,

he gives a well-known portrait of George Washington as a striking example of a face disfigured by badly-devised artificial teeth; but little is to be gleaned as to how to avoid a similar disaster, and that little is scattered about.

With the exception of about twelve pages of formulæ, etc., the whole appendix, amounting to over a hundred pages, is nothing more than excerpts from trade catalogues, and might have been omitted without the smallest loss.

The blunder of calling alum sulphate of potash occurs several times; and amongst omissions we may note that it is strange to find no mention of making special trays for taking models in all but the easiest cases, a thing which has become a matter of everyday practice; while the chapter upon obturators for cases of cleft palate is very inadequate, and contains not even a casual mention of Suerson's obturator, which is of such frequent applicability. The mechanical treatment of fractures of the lower jaw also might well have received more attention, as might also the process of vulcanisation of various sorts of rubber.

Perhaps the most useful chapter is that dealing with bridge work, though it is difficult to see why the large gold plate figured on page 205 should have been called a bridge at all.

Thus, although much will be found in the book that is profitable reading for the dental practitioner, its perusal produces a sense of disappointment, and a feeling that the writer possesses the knowledge and the ability to have written a far more useful book, which could have been conscientiously recommended to a student as his textbook.

It is of course easy to find fault, and we do so largely because we feel that by a more judicious selection of matter the author has it in his power, should the book reach a second edition, to effect immense improvement in the work. As it is, he has produced a book containing a good many "tips" and a great deal of very useful information, but as a systematic treatise upon the subject it can scarcely be regarded as a success.

RECHERCHES CLINIQUES ET THÉRAPEUTIQUES SUR L'EPILEPSIE, L'HYSTÉRIE, ET L'IDIOTIE PENDANT L'ANNÉE 1897 AU BICÊTRE. [Clinical and Therapeutical Researches on Epilepsy, Hysteria, and Idiocy during the Year 1897 at the Bicêtre.] Par BOURNEVILLE, avec la collaboration de MM. DARDEL, JACOMET, METTEBAL, J. NOIR, PHILIPPE, RELLAY, SCHWARTZ, TISSIER, et WUILLAMIER. Vol. xviii. Paris: aux Bureaux du *Progrès Médical*, et Felix Alcan. 1898. (Demy 8vo, pp. 228. 18 woodcuts and 20 plates. Fr. 6.)

THE course of instruction hitherto given has been pursued during the past year, but no new accomplishments have been introduced. On January 1st, 1897, 483 children were under treatment; during the year 73 were discharged, 2 escaped, 24 were transferred to other institutions, and 17 died, and there remained, including the admissions, on December 31st, 1897, 459 inmates. The thymus and thyroid glands have been given to several patients, but no conclusions on the result have at present been formed. At the Fondation Vallée, where the same system of instruction as that pursued at the Bicêtre is given, there were on January 1st, 1897, 162 children; of these, 26 were discharged, 7 were transferred to other institutions, and 19 died, leaving, including the admissions, on December 31st, 1899, 186 who were undergoing treatment.

There are twelve essays by Dr. BOURNEVILLE and his assistants on cases of special interest. One of the most interesting is a contribution to the study of true and false porencephaly. Three cases are related, two of which suffered from the false, and one from the true, form of porencephalus. In all three a microscopical as well as a naked-eye examination was made, and the appearances observed are described. Following this are two papers giving an account of the microscopical appearances in two cases; one of chronic meningo-encephalitis or meningo-encephalitic idiocy, the other of left hemiplegia and consecutive epilepsy with atrophic sclerosis, pachymeningitis, and meningo-encephalitis, in which there was a strong history of intemperance in the parents. The amount of space given to these microscopical appearances is a feature of this volume, and we hope it will be continued in future years, as information on this subject is much wanted. Dr. Bourneville must be congratulated on the excellence of the plates, which illustrate the conditions of the brains found in some of the cases.

NOTES ON BOOKS.

BOOKS ON CHEMISTRY.

Elementary Chemistry, Practical and Theoretical, by T. A. CHEETHAM, F.C.S. (London: Blackie and Son. 1898. Cr. 8vo, pp. 128. 1s. 6d.) is a useful little school book. It is described as a first year's course, and the use of the balance is rightly introduced at a very early stage. The various experiments given lead up to the laws of chemical combination which are enunciated in the last chapter. Chemical symbols and formulæ are not introduced.

The first three chapters of *Physical Chemistry for Beginners*, by Dr. C. M. VAN DEVENTER, translated by R. A. LEHFELDT, D.Sc. (London: Edward Arnold. 1898. Crown 8vo., pp. 146. 2s. 6d.) are devoted to the laws of chemical combination, Avogadro's law, and molecular weights. These subjects would, of course, be discussed in any good textbook of chemistry. The fourth chapter deals with thermochemistry, and this is the special feature of the book. The fifth chapter treats very briefly of osmotic pressure, of electrolysis, and of the determination of molecular weights by observation of freezing and boiling points of solutions. The last two chapters treat very briefly of photography and of the periodic arrangement of elements. It is to be regretted that the authors rashly state (p. 36) that when a molecule of an organic compound contains an asymmetric atom of carbon the compound is optically active. Van't Hoff and Lebel never claimed as much as this, but only the converse, namely, that active organic compounds always contain asymmetric carbon. A statement and its converse are not necessarily both true. The book is especially to be recommended to anyone wishing to make a beginning in the study of the important question of the relation between chemical equilibrium and the heat evolved in chemical reactions. The reader is supposed to possess very little mathematical knowledge.

Dr. JOHN MUTER'S *Short Manual of Analytical Chemistry*, now in its eighth edition (London: Simpkin, Marshall, Hamilton, Kent, and Co., and Baillière, Tindall, and Cox. 1898. Royal 8vo, pp. 244. 6s. 6d.) was originally written for the use of pharmaceutical students preparing for the examinations of the Pharmaceutical Society. This edition has passed far beyond the original limits, and is now a book in which not only the pharmaceutical but also the medical student and analytical chemist will find concise information upon the qualitative and quantitative analysis of salts, of alkaloids, of certain organic bodies used in medicine, and a general sketch of toxicological procedure. In addition to these are given the methods of ultimate organic analysis, and special processes for the analysis of water, air, food, drugs, urine, urinary calculi, and gases. Polarisation and spectrum analysis are also treated. This edition has been made to accord with the *British Pharmacopœia, 1898*, and in all cases where the legal standard of drugs has been fixed these have all been noted.

Dr. W. R. JACK has published under the title *Methods of Staining the Nervous System* a translation of Dr. BERNHARD POLLACK'S work (Glasgow: F. Bauermeister. London: Whittaker and Co. 1898. Demy 8vo, pp. 143. 4s.), to which we have already referred. As has been pointed out, the author in his second edition, from which the translation is made, has increased the value of his book by some omissions and several useful additions, notably a chapter on the retina. In this chapter the histological methods which have been found most useful in dealing with the retina are set forth with admirable clearness, and here, as, indeed, throughout the English edition, the translator has been very happy in his rendering the clearness of the description of methods being carefully reproduced, a matter by no means always easy. To those who are working at the histology of the nervous system some of the newer methods added in this edition (such as von Frey's gold chloride process for the demonstration of medullated nerves and their nerve endings) will probably be of value, and no doubt to English readers the English edition will be a boon. The translator has wisely "departed to some extent from literal exactitude" in the effort to render the sense of the original as faithfully as possible, and he is to be congratulated on the result of his efforts.

A NEW THEORY OF CEREBRAL ACTIVITY AND SLEEP.

AMŒBOID MOVEMENTS IN NERVE CELLS.

SINCE Wiedersheim's alleged direct observation of amœboid movements in the nerve cells of the superior œsophageal ganglion of leptodora hyalina about eight years ago, the theory of the amœboidism or plasticity of the neurons has been advanced in various forms by many neurologists, chiefly with the object of supplying a physical basis for the different phases of cerebral activity and sleep. Rabl-Rückhard, who was one of the earliest writers upon the subject, supposed that relations are established between nerve cells by means of a reticulum of fibrils connected with the smallest ramifications of the protoplasmic prolongations, and that during functional activity of the brain these prolongations are in a state of amœboid movement, enabling them to break their connections, to push out in new directions, and to establish new temporary connections in correspondence with every change in the association of ideas. This theory seems untenable upon many grounds, one of the chief of which is that it is contrary to the established doctrine of the connection of the neurons by contiguity. The theory of Lépine, who has endeavoured to explain the sensory anæsthesia and motor paralysis in hysteria by a temporary shrinking of the extremities of the neurodendrons, causing interruption of contact and consequent suspension of function, is free from objection. He thinks that sleep may be explained in the same way. Duval has advanced a similar theory, but he does not regard actual contact as an indispensable condition of transmission, but only a certain degree of contiguity, increase and diminution of which respectively facilitates and hinders transmission. Several authorities, among whom Kölliker is specially to be mentioned, have argued that nerve cells are incapable of such amœboid movements. Others have attempted to obtain experimental evidence upon the question. The first to do so was Ramon y Cajal. His results, as well as those of several others who have experimented upon similar lines, have been entirely negative. Demoor, on the other hand, has obtained positive results, finding that the action of chloroform, morphine, chloral, and prolonged electrical stimulation caused loss of the spinous processes or gemmulæ of the dendrons and the formation of moniliform varicosities. This moniliform condition disappeared with a return to normal conditions. Stefanowska has obtained very similar results. Querton concludes from his experiments that physiological excitations cause a contraction of the neurodendrons, which increases in proportion to the intensity and duration of the stimuli, being greatest in fatigue. This retraction results in suppression of the associations, and is the direct cause of sleep.

In the October number of the *Journal of Mental Science* Dr. Ira Van Giessen likens the nerve cell to an octopus. By retraction of its tentacles it is capable of throwing itself out of circuit; by expansion of them again the circuit is restored. He thinks that "this retraction and expansion of the arm of the nerve cell, in groups, systems, and communities of brain cells, drawing it in or out of the circuit of transmission of nervous impulse, is the final unveiling of the secret of a whole host of mental phenomena which hitherto have seemed mysterious to the last degree."

LUGARO'S RECENT OBSERVATIONS.

Dr. Lugaro of Florence, to whom neurological science already owes so large a debt, in a recent paper[1] gives an account of an experimental investigation which he has made into this subject, and discusses the physiological deductions that may be drawn from the results obtained. He also passes in critical review the various theories previously advanced and the experimental observations that have been made. He maintains that no form of movement comparable to that of amœbæ and leucocytes can possibly occur in nerve cells. He points out that a strongly-retracting process could not easily again find its normal position, so that there would be established varying and accidental relations, which could not but result in psychical disorganisation. He thinks that functional plasticity in nerve cells must be limited to their extreme appendages—that is to say, to the gemmulæ of the protoplasmic processes and the terminal arborisations of the axis-cylinder process. Thus while excluding every amœboid movement in the strict sense, he maintains that there occur in these minute terminal organs slow movements of increase and little movements of propulsion and retraction sufficient to establish and break contact. The positive observations of varicose changes in the protoplasmic processes from the action of such influences as fatigue and hypnotics he thinks are to be attributed in most instances to imperfect fixation of the tissues. That such varicosities can be produced artificially by defects of technique he has himself conclusively demonstrated, as has also Ramon y Cajal.

[1] E. Lugaro, Sulle Modificazioni Morfologiche Funzionali dei Dendriti delle Cellule Nervose, *Rivista di Patologia Nervosa e Mentale*, August, 1898.

THE FUNCTIONAL PLASTICITY OF THE NEURONS.

It is to Lugaro that we already owe what is perhaps the most valuable contribution yet made to the question of structural modifications of the cytoplasm of the nerve cell in different functional states. It is to him also that we are now indebted for what is at least a very great advance in our knowledge of this closely-related question of the functional plasticity of the neurons, Recognising how in all previous methods of experimentation it was impossible to be certain that the nerve cells were fixed in any desired physiological state, he has brought to his aid a new and ingenious technique,



Fig. 1.—Terminal dendritic expansions of the molecular layer of the cortex of a dog killed by the cerebral injection of Cox's fluid (Lugaro).

which would almost appear to represent the limit of possible attainment in the direction aimed at. His method is to inject the carotid artery of the living animal with Cox's solution, the fluid employed in that modification of Golgi's sublimate method which is now so largely used by neurologists. The result to the animal is instantaneous death, and the nerve cells of the brain are, as Lugaro aptly expresses it, surprised in whatever functional state they happen to be. An immediate fixation is obtained, and the sublimate impregnation is afterwards completed by immersion of pieces of the brain in the same fluid for the necessary three or four months. Working with this method, Lugaro has carried out a large number of experiments upon dogs, some of which were normal, others subjected to the action of chloroform, ether, morphine, or chloral. The results that he has obtained are of a very striking character, and the physiological deductions that they have led him to formulate are such as must challenge the attention of neurologists throughout the world. The chief facts observed were as follows: Absence of grave alterations affecting the cell bodies, the protoplasmic trunks and their larger branches in all cases; the occurrence of protoplasmic prolongations devoid of gemmulæ and vari-

cose, in very small numbers, and with diffuse localisation in normal dogs killed in a state of consciousness, and in dogs under the influence of morphine; paucity, and even complete absence, of gemmulæ in many of the protoplasmic branches in normal animals; the presence of slight varicosities covered with gemmulæ in normal animals, but more especially in those under morphine; copious investment of the protoplasmic processes with gemmulæ and almost complete absence of varicosities in animals profoundly narcotised with chloroform, ether, or chloral. He thinks that retraction of the gemmulæ is clearly related to the physiological action of stimuli. It was found to occur most markedly in animals which were put into a state of psychical excitement before the injection was made into the carotid, and which must also have suffered a momentary direct stimulation of their cortical nerve cells by the injection of Cox's fluid, a stimulation which was evidenced in normal dogs by a sudden brief spasm of the muscles. The fact that this isolated retraction of the gemmulæ presented itself in a diffuse



Fig. 2.—Terminal dendritic expansions of the molecular layer of the cortex of a dog under chloroform (Lugaro).

manner in the dogs which received by means of the injection of the Cox's fluid an instantaneous stimulation of the cerebral neurons, induces him to believe that this retraction must normally occur in a relatively very short time, and that probably its duration corresponds to the duration of the stimulus. Retraction of the gemmulæ and the formation of varicosities he regards as two independent processes. Varicosities result not from a rapid reaction to stimuli but from a protracted state of excitement. They are slow and late formations corresponding to a condition of fatigue. They were very abundant in dogs subjected to the action of morphine, a circumstance which is to be explained by the fact that this substance acts upon dogs as a violent stimulant rather than as a narcotic, large doses causing excitement and convulsions. If retraction of the spines is an expression of activity and the presence of varicosities in the fine branches an expression of fatigue, it is natural that both should be absent in profound narcosis obtained without antecedent excessive fatigue.

Lugaro's Theory of Cerebral Activity.

Lugaro maintains that when a neuron is in a state of physiological excitement, all its connections do not come into play. If they did so there could not be a logical association, but only a chaotic one, from the "rise in the mind of elementary representations increasingly numerous, and growing with formidable geometrical progression at every transmission from element to element." It is necessary, therefore, that in functional activity the great majority of possible connections should be interrupted in order to impede the access of other stimuli which would be able to deviate or suppress the one that is being elaborated in the cell, and that they should be restored whenever the active state of the single element ceases, in order to render possible the reception of new stimuli from any other province. It is to be understood that the retraction of the spines and the interruptions that follow them are of a relative character, and that the

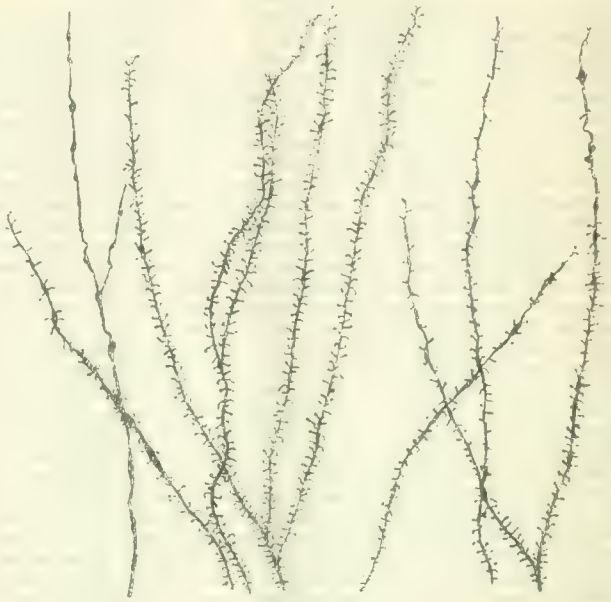


Fig. 3.—Terminal dendritic expansions of the molecular layer of the cortex of a dog under morphine (Lugaro).

space interposed can still be forded by stronger stimuli, such as require an immediate response in the interests of the organism. Thus are to be explained the occurrence of a logical succession of ideas, the fixing of the attention upon a particular set of ideas, the incapacity of ordinary stimuli to enter into the field of consciousness when the attention is directed to another object, and how stimuli of abnormal intensity are able nevertheless to force a way in, to break the pre-existing current of ideas, and to initiate another current of psychical associations. In normal conditions of psychical activity retractions and expansions of the spinous appendages must occur throughout the brain in almost inconceivable numbers. Every spinous process represents for the nerve cell the ingress of an elementary impression. It is known that every external nervous impression diffuses itself widely in the centres, and implicates a very large number of connections. Consequently every elementary state of consciousness ought to be accompanied by modifications of the spines in a very large number of neurons. On the other hand, these modifications should not last longer than the said fact of consciousness, and the gemmulæ ought to be able with the greatest readiness to resume their state of expansion, prepared to receive new impressions. It is probable, he thinks, that in a state of normal activity the mobility of the neurons is limited to these short and rapid movements of the terminal appendages, and that more ample modifications, such as the formation of varicosities, occur not as an integral element of the anatomico-physiological mechanism upon which the state of consciousness depends, but only as an added element, which has probably a purely disturbing action.

Lugaro's Theory of Sleep.

Lugaro abstains from further discussion of these physiological questions until the completion of other experiments that he is carrying out. He proceeds, however, to consider at some length the light which this new view of the mode of action of the neurons probably throws upon the functions of the centrifugal fibres in sensory nerve trunks—a matter which need not be entered into here. The remaining subject of special interest dealt with by Lugaro is his theory of sleep, with an exposition of which he concludes his paper. He maintains that the results of his experiments prove that the theories of Demoor, Querton, and others, according to which

sleep is associated with a retraction of the small protoplasmic prolongations and consequent interruption of contacts, are erroneous. He believes that the inter-neuronic suspension of contact is of quite secondary importance, and that the characteristic condition in natural sleep, as in that induced by chloroform, ether, or chloral, is a general expansion of the gemmulæ, with exhaustion of their contractility at the beginning and renewed capacity to contract at the end of sleep. It is not necessary that the suspension of psychical activity and of functional relations between neuron and neuron should depend exclusively upon the suspension of anatomical connections. It is possible that fatigue and the concomitant auto-intoxication are combined physiologically with a state of greater torpor of those movements that are characteristic of activity. If these premisses are admitted, then it is easy to comprehend the mechanism of sleep in its various phases. If the brain is fatigued, if in it there abound those regressive products which are an obstacle to function, that retraction of gemmulæ which isolates the systems of neurons that are in a state of functional activity and which secures the momentary autonomy of the functional association and of the corresponding psychical process will be carried on in a much more torpid manner and less completely. It follows that the logical association of ideas and the activity of the attention are rendered more difficult. Association will become more and more delayed and incoherent. What is done by the autotoxic action of regressive products can be done also by the inactivity of the neurons through want of stimuli. If the representative psychical activity is weak and there is a scanty inflow of external stimuli, the central elements assume their attitude of repose—that is, of greatest expansion; the contacts are multiplied, the *processi nervosi* become more and more dispersed and incoherent, the associations are enormously diffused, the stimuli subside without provoking reaction, and there results the unconsciousness of sleep.

It is the new conception of cerebral activity as involving a cutting off of the great majority of interneuronic connections and the strengthening of the current traversing the few that are essential for the autonomy of the functional association for which we are chiefly indebted to Lugaro. As we realise something of what such a mechanism implies, the mystery of how the brain works begins at last to be in some degree intelligible.

No doubt many objections might be raised against Lugaro's theory; but, based as it is upon strong experimental evidence, it deserves at least the most careful consideration of all who are interested in such questions. If it is true, it throws a flood of light upon many problems which have hitherto been almost entirely obscure, and most of all perhaps upon some parts of the dark domain of mental disease.

INVESTIGATIONS ON MALARIA IN ITALY.

Report by Professor Celli.

The first annual report was presented by Professor Celli to the Italian Society for the Study of Malaria at its first meeting on December 3rd, 1898. Professor Celli, who occupies the Chair of Hygiene in the University of Rome, stated that the report embodied the results of the investigations on malaria made by members of the Society during the past season of fevers—that is, from the beginning of July, when the Society was formed, till the date of the meeting. It was known that in recent years the life of the parasites of malaria in the blood of man and of animals had been well recognised. Notwithstanding this, two problems of enormous interest for humanity had remained enveloped in darkness—namely, how the malarial germs live in the environment, and how from the environment they return to infect man and the lower animals. When these problems are solved, said Professor Celli, one may hope to find the mode either of killing the maleficent germs where they lodge by means of direct drainage, or of protecting man and the useful animals from them. He proceeded:

But may not this latter scope of preservation, the supreme end of all the studies, also be reached by another way—that is, by means of substances which give artificially that immunity which Nature sometimes concedes both to man and the lower animals? In reference to the first problem it must, above all, be remembered that the Mexican authors Smith and Kilborne have demonstrated, and Koch has confirmed, that certain ticks are undoubtedly the vehicle of bovine malaria.

As to the vehicles of human malaria, in the Institute of Hygiene at Rome the numerous and repeated attempts to reproduce malaria in birds by means of the inoculation both of malarial earths and of cultures of amœbæ which there are found were always fruitless; and water as a vehicle of malaria was also excluded, which has been abundantly confirmed elsewhere. On the other hand, some authors had already thought that mosquitos were in some way connected with the biology of the malarial parasites. Thus, Laveran and Manson had maintained that man is infected by drinking water contaminated by mosquitos, in which, after the puncture and the sucking of malarial blood, the infective parasites are developed as an intermediate host.

Bignami, on the other hand, by the process of exclusion and with indirect proofs, came to the conclusion that malaria bears itself in respect to man as if it were inoculated by mosquitos, and Bignami and Dionisi have also, since 1894, endeavoured directly to prove this; but through want of means they have been unable to continue their researches; and in the past year Dionisi has only been able to initiate some experiments which were favourable to the hypothesis of inoculation.

Meanwhile, under the wise guidance of Manson, Ross of Calcutta succeeded in determining the cycle of life of the malarial parasites of birds in the body of a particular species of mosquitos.

The direct proof of the possibility of transmission of human malaria by these insects was then more than ever urgent; and fortunately it was also possible, thanks to the means that the Society from its initiation had been able to put together.

Our members were able to institute experiments in two ways: that is, to investigate how malarial acted in relation to a certain number of men living in a highly malarious place, and protected in an absolute way from the bites of insects; and to investigate if individuals never subject to malarial fevers, living in a healthy place and bitten by mosquitos captured in malarial places, would catch the fever.

The first mode was attempted by Fermi in the Pontine marshes, but many difficulties were met with in carrying out experiments in a rigorous way. The second was therefore adopted. In a room of the Ospedale di S. Spirito individuals were made to sleep who had resided for some years in the hospital, and who never had had malarial fevers. In this room adult mosquitos brought from malarious places or developed from larvæ collected in the Campagna were set free.

Thus four experiments were made from the end of July onwards. The first on two individuals, with adult mosquitos captured in Porto, was interrupted after a few days for want of sufficient material.

The second, in one man only, with mosquitos developed from a collection of larvæ, was continued from August 8th to the 28th, and was interrupted when the patient had a slight rise of temperature with a sensation of cold and *malaise*, which ceased without further consequences. The third, on a man named Sola, was conducted in the same way from August 24th to September 19th, being interrupted when Sola began to suffer from *malaise* and headache, with a slight rise of temperature. In Sola also all this remained without result. Analogous experiments and with like negative results were made by Fermi at Terracina and by Grassi at Rovellasca. Meanwhile, starting from the consideration that whether the mosquitos truly inoculate the malarial parasites, in the localities where malaria develops there are several species to be found, Grassi undertook a series of comparative researches in the most desolate parts of Italy, during the past æstivo-autumnal malarial season. He came to the conclusion that in the malarious places several species of mosquitos, large and small, exist which do not find the suitable conditions for reproduction in non-malarious places. Taking into consideration the abundance of the above-mentioned species in the season of fevers, Grassi came to the conclusion that these species must be held to be extremely suspicious. They are: the anopheles claviger, the culex penicillaris, and the culex malariæ. To the bites of these three species, captured in Maccarese, the man Sola, in vain bitten by other mosquitos, was subjected by Bignami in association with Grassi.

This experiment lasted from September 28th to October

21st. On November 1st Sola was seized with grave malarial fever, of which he was perfectly cured by means of quinine; in his blood were found parasites of the æstivo-autumnal species. The attendant in the laboratory of comparative anatomy who went to capture the three above-mentioned species of mosquitos, and which he captured as they bit him, was meanwhile also infected with æstivo-autumnal fever.

Grassi has also classified the mosquitos used in the negative inoculation experiments, and he has found the culex pipiens to be the most common of the mosquitos which are diffused even in non-malarious places. He states that the grey mosquito which Ross has proved to be the propagator of the malarial parasites of birds in India is none other than the culex pipiens. Well, Ross himself has seen that the parasites of æstivo-autumnal fevers of man do not develop in the body of this mosquito.

These researches, conducted with all the rigour and with all the precautions possible, give the first experimental proof of the fact that malaria is produced by inoculation; they demonstrate besides that the culex pipiens, the most common mosquito, is innocuous for man, and they indicate how those species which Grassi has found exclusively in malarious places are capable of transporting the infection.

Is malaria contracted solely by inoculation? Is it certain that inoculation is the only means up till now experimentally demonstrated? *A propos* Bignami has made other researches directed to the obtaining of new proofs for or against the theory of inoculation. Thus he has made some experiments which demonstrate that the malaria parasites of the blood do not resist even a brief desiccation; still more he has seen that in the peribronchial glands of individuals coming from highly malarious places no form is found which might be interpreted as of a parasitic nature such as might be presumable if the malaria germs were inhaled like dust.

In his turn Bastianelli has been occupied, together with Bignami, with the morphological study of the parasites of malaria, putting it in relation with the research on the biology of the parasites external to man; directing it, therefore, principally to these parasitic forms which, according to the opinion of many, are destined to ensure in the environment the life of the parasites, that is, the semilunæ of æstivo-autumnal fevers and the flagellate bodies.

Opinions varied in the structure of the semilunæ, and nothing was known of the structure of the flagellate bodies in man.

The results of these beautiful morphological researches may be summarised in a few words:

1. The semilunar bodies constantly contain chromatin, which is found in the central part of the semiluna in a clear space that is the nucleus of the parasite; this result was constantly arrived at with the study of the preparations in which the humidity swelled the nucleus and its chromatin, and Grassi and Feletti have arrived at the same conclusions with other methods.

2. The flagella are constituted principally of a protoplasmic part and of a central part of nuclear substance.

3. The flagella derived from the masses of chromatin of the nucleus of the semilunæ and of the large bodies not divided of tertian, which become swollen, reach the periphery, and lengthen in the form of flagella.

4. Some flagellates exist, where flagellum is constituted exclusively of protoplasm, the central part remaining undivided constituted of the chromatin of the semilunar body.

This observation may be invoked as supporting the doctrine that the flagella have importance in the propagation of the species external to man. Meanwhile it is certain that Bastianelli, Bignami, and Grassi have succeeded in observing the cultivation of the semilunæ of man in the body of the anopheles claviger. Consequently Grassi maintains that this large mosquito with four spots on its wings, already declared by him to be the true index, the true spy of malaria, is the definite host of the malarial parasite of æstivo-autumnal fever, and is, therefore, a terrible enemy of humanity.

(*To be continued.*)

PROFESSOR CHANTEMESSE, of the Pasteur Institute, Paris, has been promoted to the grade of Officer of the Legion of Honour.

LITERARY NOTES.

ACCORDING to the *Publishers' Circular*, the number of new books relating to medicine and surgery published in 1898 was 160, while that of new editions was 36. In 1897 the new books numbered 152, and the new editions 59.

That ancient and most respectable but somewhat dingy periodical, the *Archives Générales de Médecine*, has with the advent of the new year renewed its youth, or, to speak more accurately, has assumed an outward form more worthy of its inward excellence. It now appears as a large and handsome journal, well printed on good paper, while its contents show no falling-off in point of scientific value from the high standard which has been maintained by the *Archives* since the beginning of its career.

Another medical periodical which has, in accordance with the law of journalistic evolution, undergone expansion, is the *Journal of Mental Science*, which clothed in a new cover and with a larger page, presents a greatly improved appearance.

At a meeting of the New York Academy of Medicine on December 15th, 1898, Dr. A. Jacobi announced that a very rare and valuable book had just been presented to the library of the Academy by Dr. Lothar Voss, one of its honorary Fellows. Dr. Voss returned to Germany thirty years ago, being at the time a surgeon of note. He was the second person in New York who practised tracheotomy as a part of the systematic treatment of croup. He has been collecting rare and valuable books all his life, but the one just presented by him to the Academy is considered the best "find" of them all. The book, which deals with the lymph vessels, is by Gaspar Aselli, who discovered these vessels on July 23rd, 1623. He also discovered the valves, and noted that they ran in the opposite direction to those of the veins. Aselli was born in 1581, and died in 1626. The book was printed in 1627, and is said to be the first one containing coloured anatomical plates. It was reprinted twice, the third edition being in 1640, but these two later editions were decidedly inferior to the first. The work had been believed to be almost extinct. There was one copy in the University of Leipzig, and a defective copy in the library of the University of Breslau. The book just given to the Academy is one of the two copies of the first edition now known to be in existence. The Surgeon-General's Library, Washington, D.C., contains a copy of the inferior third edition of 1640.

Mr. Rider Haggard's powerful novel *Dr. Therne*, which was recently reviewed in the BRITISH MEDICAL JOURNAL, has received a mark of approval of a somewhat unusual kind. At a meeting of the Jenner Society held in Gloucester on December 22nd, 1898, Mr. G. E. Lloyd-Baker in the chair, the following resolution was passed unanimously:

> The members of the Executive Committee of the Jenner Society desire to express their appreciation of the recognition of the work of the Society by Mr. Rider Haggard, in the dedication to its members of his powerful story, *Dr. Therne*.
>
> They also desire to assure Mr. Rider Haggard of their warm sympathy with his just and vigorous protest against the dangerous agitation carried on against vaccination, by which many thousands of persons have been misled, and have been induced to deprive their children of the only certain protection against a virulent and fatal disease.
>
> The Committee congratulate Mr. Haggard upon his uncompromising exposure of this evil, and trust his book may have a large circulation, as being calculated to lead a considerable section of the public, who cannot be otherwise interested in the subject, to give serious consideration to a matter of urgent and overwhelming importance, affecting, as it does, the health and lives of multitudes of hapless children who may be exposed to the infection of small-pox without the protection afforded by vaccination.

The *Phonographic Record* for January contains the valedictory address of Sir William Gowers, the retiring President, and the introductory address of Sir William Thomson, the newly-elected President of the Society of Medical Phonographers. Dr. Thomas Eastes records an interesting case of diabetes insipidus which was successfully treated by a six-days' administration of ½-drachm doses of liquid extract of ergot. The same number also contains a symposium by Drs. Atchley, Porritt, Strother, Goyder, Joseph, and Spooner upon the duties of the medical examiner towards the proposer, and an article upon reporters' errors.

THE PREVENTION OF TUBERCULOSIS.

DARLINGTON.

THE Deputy Mayor of Darlington (Dr. Manson) presided on December 23rd, 1898, at a meeting in the Council Chamber, convened in support of the Association for the Prevention of Consumption and other Forms of Tuberculosis. Amongst those present were Dr. Lawrence (medical officer for the borough), Dr. Smale (Honorary Secretary Darlington Medical Society), Dr. Hern, Dr. Martin, Dr. Thompson, and Dr. J. Hartley.

The CHAIRMAN said they had read a good deal about sanatoria for the treatment of patients suffering from tuberculosis, and the idea was abroad that the end-all was the erection of such buildings. To begin with sanatoria was, in his opinion, to take hold of the wrong end of the stick. If they were erected—and that could only be done at great expense—they might not be able to fulfil the expectations of the non-medical public. They might cure some people, but perhaps not all that was anticipated. It was to the prevention of the contraction of the disease that their most strenuous efforts should be directed, and he hoped the outcome of that meeting would be a further meeting, with a view of drawing public attention to it.

Dr. SMALE explained the objects of the National Association for the Prevention of Tuberculosis and the methods by which it proposed to carry them out.

After Dr. HERN, Dr. JOHN HARTLEY, and Mr. GAWAN TAYLOR had spoken, the CHAIRMAN explained that he did not oppose the erection of a sanatorium, but he thought it one of the latest steps.

The VICAR OF DARLINGTON (the Rev. F. W. Mortimer) in proposing a resolution:

That the meeting approves of the efforts of the Association to check the spread of the disease, and to promote the recovery of those suffering from tuberculosis,

thought it the duty of those who had the welfare of the people at heart to forward such projects. The only question in his mind was how far they as a town could afford to erect and maintain a sanatorium. The suggestion thrown out, of joining with other towns might, however, be a feasible one.

Dr. LAWRENCE, in seconding the resolution, gave in his adherence to the idea of educating public opinion, and of proceeding more in the direction of prevention than cure. It would be necessary to educate farmers in the question of the supply of pure milk, and he ventured to suggest that if the farmers were able to-day to guarantee milk pure they would get double price for it.

The resolution was carried unanimously.

Mr. C. H. LEACH proposed:

That they determine to form in Darlington a branch of the Association, and that a provisional committee be formed to draw up a constitution and report to a further meeting.

£20,000 would be required to build a sanatorium, and Boards of Guardians and sanitary authorities having powers to send persons to such a place, paying for their maintenance out of the rates, he felt sure many of them would only be too glad to avail themselves of those powers to aid in the recovery of patients.

Mr. ED. WOOLER seconded, and suggested that farmers in buying cattle should obtain a guarantee of freedom from disease. The test was applied to animals shipped to America and Canada, and it could easily be applied within this country. His experience was that farmers who did do so before sending cattle to market obtained better prices.

This resolution having also been unanimously adopted, a provisional committee of nine was formed, consisting of Dr. Manson, Dr. Lawrence, Dr. Smale, Rev. F. W. Mortimer, Mr. R. C. Pearce, Mr. Gawan Taylor, Mr. Hill, Mr. C. H. Leech, and Councillor Wooler.

HULL.

At a meeting of the Hull Sanitary Committee on December 23rd, 1898, Alderman FRASER in the chair, the medical officer reported that he had issued a circular of precautions against the spread of consumption. It was resolved that the circular be distributed in every house in Hull.

Alderman SHERBURN remarked that the mortality through consumption in the town had decreased 2 per cent. during the last three years. He claimed credit to the committee for the decrease.

MANCHESTER.

At the monthly meeting of the Sanitary Committee of the Manchester Corporation held on December 28th, 1898, Mr. Alderman WALTON SMITH presiding, a deputation was introduced representing the Manchester and Salford Sanitary Association who urged upon the Committee the desirability of steps being taken to reduce the mortality rising from phthisis and tuberculous disease. The deputation included Dr. Leech, Dr. Dixon Mann, Dr. Sawers Scott, Dr. Williamson, Dr. Wild, Dr. Brown, Dr. Lea, Mr. John Angell, and Mr. T. C. Abbott (Hon. Secretary). There was a full attendance of the committee, and there were also present the Medical Officer of Health (Dr. Niven) and Mr. Rooke, Superintendent of the Sanitary Department of the Corporation.

Dr. LEECH said they attended as representing the Manchester and Salford Sanitary Association to ask the Committee to consider the desirability of adopting some further means than those now taken for diminishing the mortality from phthisis and tuberculous disease. Looking at the last report of the medical officer of health, he found that 1,112 people died from consumption in Manchester during the past year, and that about 1,600 died of phthisis and tuberculous disease. When they came to consider what an enormous amount of misery was thus caused, and what an enormous amount of loss of labour was produced by it—how many people were reduced to poverty, and what an immense cost it was at present to the community—he thought there was just reason to ask whether more could not be done than was now done. In England, speaking generally, there was now a feeling that much more was required to be done than had been done in the previous century for the treatment of consumption. It seemed to them, in the first place, that now the cause was known, something more might be done with a view to prevent the spread of the disease. Provision should be made for the segregation of a certain number of cases if possible. They believed much might be accomplished by segregation. The establishment, again, of sanatoria for dealing with phthisis might do much in the way of education, because they might become teaching places, as it were, where people would be taught how to deal with the causes of infection when they returned home. It was most desirable that there should be a process of education, and they believed that by means of sanatoria, by segregation, and also by method of notification, phthisis might be attacked more vigorously than it had been hitherto. It might be said that enormous cost would be entailed, but they should remember the immense cost the disease was to every municipality, and the amount of misery and the loss, direct and indirect, it produced. In view of these facts, he believed that the provision of some means of preventing the disease, even at the expenditure of a considerable amount of money, would be a gain and not a loss to the municipality.

Dr. DIXON MANN also spoke.

Mr. GRIMSHAW, a member of the Committee, said what was needed was some alteration of the Public Health Act, in order to bring phthisis into the same category as other infectious diseases.

Dr. NIVEN pointed out that all that was necessary was that phthisis should be added to the list of infectious diseases. Proposals to that effect had been refused by the Local Government Board, and until sufficient pressure was brought to bear it would not be carried out. No doubt a great public authority such as that of Manchester could exercise a distinct influence in bringing about the possibility of notification.

After some remarks from Dr. WILLIAMSON and Dr. SAWERS SCOTT,

The CHAIRMAN said the subject had been under the consideration of the Committee, but its magnitude was rather appalling. He supposed that no fewer than 3,000 or 4,000 persons suffered from the disease in Manchester; but, notwithstanding, he believed that the attempts that were being made to undermine it were having effect. He did not know what steps the Committee might take, but he could assure the deputation that they would take the views they had laid before them into consideration, under the advice of their medical officer. He was quite sure that publicity was of great importance. They must take the public with them, and there-

fore they would be glad of the assistance of all those interested, so that there might be a wide public co-operation in the endeavour to deal effectively with this disease.

Dr. Leech, in expressing to the Committee the thanks of the deputation, said that they hoped at some future time that a conference might be called to which all those bodies might send representatives in order to discuss the whole question.

Dundee.

At a meeting of the Poorhouse Committee of Dundee Parish Council, on December 26th, 1898, Mr. E. Scrymgeour moved that a Committee be appointed to consult with Dr. Mackie Whyte, the visiting medical officer of the poorhouse, and obtain from the authorities connected with the recently-formed Association in London on the question of consumption all possible information on the subject, and make any recommendation they thought fit as to dealing with poor persons suffering from the disease.

The motion was adopted, and a Committee consisting of the four conveners, the Chairman (ex-Bailie Macdonald), and Mr. Scrymgeour, was appointed.

Lambeth.

A report on tuberculosis and its prevention has been presented to the vestry of Lambeth by the medical officer of health for the parish, Dr. Joseph Priestley. After pointing out that tuberculosis in Lambeth causes far more deaths than all the notifiable diseases put together, Dr. Priestley offered the following suggestions:

(1) That a circular letter be sent round to all the medical men in Lambeth, pointing out that the vestry is prepared to disinfect (free of cost) all rooms (and contents) recently occupied by patients suffering from tuberculosis, and which have become unoccupied owing to the deaths or removals of such patients, when requested to do so by the medical men or others in attendance. (2) That a circular letter be sent to the person or persons in charge of public institutions in Lambeth, pointing out the nature of this disease, and the importance of having disinfection carried out, and other means adopted, for the prevention of this disease spreading to others, and offering disinfection (free of cost) by the vestry's officers where it may be necessary. (3) That a circular letter be sent to the occupiers of those houses in which deaths from tuberculous disease are reported week by week to the medical officer by the Registrar-General, offering disinfection (free of cost) by the vestry. (4) The issuing of leaflets (pointing out in simple language the danger of the disease and the ready means at hand for its prevention), to clergymen, district visitors, school teachers, etc., as may be necessary.

Dr. Priestley's report was adopted by the vestry at a recent meeting, and the recommendations above set forth are now being carried out.

Southwark.

At a meeting of the St. Saviour (Southwark) Board of Guardians on January 5th, Mr. Redman gave notice that at the next meeting he would move the following resolution:

That having regard to the large number of cases of tuberculous disease which find their way into establishments under the care of the Poor-law guardians, and the danger of infection incurred by non-tuberculous patients, it is desirable that some central institution should be established to which all cases of tuberculous disease should be removed. That with the object of eliciting the views of the various Boards of Guardians upon the subject and of providing for concerted action, a conference be convened by St. Saviour's Board of Guardians, to which each metropolitan board be invited to send delegates.

Edinburgh.

In Scotland, as is well known, the honour of having taken the lead in establishing a sanatorium for consumptive patients on the open-air system belongs to Edinburgh. The Victoria Hospital for Consumption and Diseases of the Chest at Craigleith has now been in existence for some four years, under the direction of a representative committee, which includes the names of Sir Alexander Christison as President, Sir Thomas Grainger Stewart, Drs. Joseph Bell, Clouston, and Halliday Croom, and with the services of Drs. R. W. Philip and G. L. Gulland as honorary physicians, and of Mr. David Wallace as honorary surgeon. The report for the year 1897-98 states that since autumn, 1894, when the hospital was opened, up to March 31st, 1898, 297 individual cases have been received for indoor treatment. A considerable proportion of these have been restored to health, as evidenced by their being able to resume and continue regular work. Many more have been instructed how to treat themselves, and brought well on the way to recovery. With a number of these the hospital continues in touch, the patients reporting themselves once or twice weekly until the cure is confirmed. The out-door treatment continues to form a leading feature of the hospital. The experience of another year gives further proof of the fact that the system can be carried out with perfect success in spite of the rigour of the winter and spring months. In the out-patient department, the number of individual cases attended to since the opening of the hospital has been 6,996. The hospital and the out-patient department have done much by practice and by the distribution of printed instructions to spread knowledge regarding the causes and the rational treatment of consumption. The report states that a marked increase in the number of early cases which present themselves at the out-patient department, and a diminution in the frequency of hopeless ones, have already been noted. A large proportion of the more advanced and poorer cases must be treated at their own homes. During the years to which the report refers the number of such attendances was 6,404.

It is clear that the Victoria Hospital is doing excellent work not only in the relief of sufferers from consumption, but in the dissemination of knowledge of the means of limiting the ravages and preventing the spread of the disease.

South Africa.

It has more than once been pointed out in the British Medical Journal that consumptive patients are not infrequently sent to South Africa when they are in a stage of the disease in which there is little prospect of their deriving benefit from the climate. At a recent meeting of the Hospital Board, Capetown, Dr. Anderson, the house physician, stated that a large number of such patients came to the hospital, and he found it hard to send them away. Not a few of them were penniless when they landed from the steamer. At the hospital, at the time he spoke, there was a little boy dying of phthisis, who had been sent out by his friends with only 10s. in his pocket. Such desperate cases were not, it was believed, sent out by medical men. They were patients who staked all in the hope of a cure. A speaker at the meeting described patients as arriving at the Cape in a friendless, exhausted, and almost lifeless condition. It was hoped the English newspapers would notice the matter in order to check this exodus, from which so little good can result.

The Extirpation of Bovine Tuberculosis.

At the annual meeting of the American Public Health Association Dr. Irving A. Watson, of Concord, N.H., read a paper entitled Some Observations from Practical Experience with Bovine Tuberculosis in New Hampshire. He gave a brief history of the official recognition of bovine tuberculosis in New Hampshire and presented the following deductions: (1) That it is impossible to eradicate bovine tuberculosis, but that it may, without inflicting too great a burden upon the State, be reduced to a degree that will subserve the interests of the stock raisers and likewise protect the public health; (2) that a very small percentage of animals infected with tuberculosis in any way endangered the public health, and that the indiscriminate slaughter of the cattle reacting to the tuberculin is wholly unnecessary, inasmuch as many of them either recover or the disease is permanently arrested; (3) that a proper sanitary condition of stables and stable enclosures would do more towards preventing the spread of bovine tuberculosis than any other measure that could be adopted; (4) that the danger from infection from bovine tuberculosis may be reduced to very small proportions, if not wholly eradicated, by sanitary measures, inspections, and physical examinations by the State, in co-operation with the local authorities; (5) that such inspections once inaugurated could be maintained without an expense that would be burdensome to the State.

Presentation.—Dr. Arthur N. Davis, formerly Medical Superintendent of the Plymouth Borough Asylum, has been presented by the officers and staff of the asylum with an engraved electro-plated soup tureen and entrée dish, as a token of their esteem on the occasion of his appointment as Medical Superintendent of the Devon County Asylum.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 14TH, 1899.

SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

II.—The Proposals of the Government.

To define secondary education with accuracy is not only beyond our own powers, but also apparently beyond those of head masters. In a Joint Memorandum drawn up by representatives of the Incorporated Association of Head Masters, and of the Association of Head Masters of Higher Grade Schools and Schools of Science, adopted by both Associations, and issued in a parliamentary return by the Education Department, it is laid down that the differentiation between primary and secondary schools "should not be based upon the subjects taught, but upon the aims of the school as exemplified in the character of the education, and upon economic and school-age conditions." Primary schools are those attended by the children of the industrial classes, either elementary, such as the Board or the National schools, or higher grade, such as those which the School Boards have set up in many towns. Secondary schools are those which train boys who will go on with their schooling till 17 or 18 years of age, and who will eventually "take up higher industrial employment," such as engineering, or will "engage in mercantile, scientific, or professional pursuits." Secondary education, in other words, is the education we give our own children, and the schools they attend, whether they be kindergarten schools or preparatory schools, or grammar schools or public schools, are secondary schools.

There is therefore no question of the importance of secondary education to medical men, both privately as parents and as members of a profession which is recruited from secondary schools.

At the present moment a beneficent Government takes considerable care that the children of the industrial classes shall be thoroughly well taught. Whether voluntarily or compulsorily, large sums of money are drawn from our pockets for the education of other men's offspring, and an army of inspectors is employed to make sure that the money is well spent. But the education of our own class is entirely left to take care of itself. We have no means of knowing whether in any given school either the teaching, or the food, or the sanitary arrangements are adequate, beyond the opinion of private persons who may be well informed or may not.

It cannot be said that the matter is of slight importance, nor that it is very well as it is. Not only to each father and to each profession, but also to the nation at large it is daily becoming plainer that good education is a sheer necessity for survival. And the curious and perhaps unexpected fact is now well known in many other special branches beside our own that to reap the advantage of a technical training it is indispensable to have had a good general, or, to use the parliamentary phrase, a good "secondary," education. So far for its importance. As to its present state, while we are glad to say that in the last fifty years great advance has been made, there is no question that the general result is still highly unsatisfactory.

To take first the question of the subjects taught, the great mass of our schools are still bound hand and foot to classics, which, though excellent in many respects and for many boys, are quite inadequate in some points, and to some natures wholly unsuited. To many boys a classical training means six years of a lounging idleness unadulterated by one trace of interest, uncheered by one ray of success, ending in a state of mind which practically owes all its good qualities not to the teaching received in school, but to the training out of school. The result is often good, but it is absurd that it should not be very much better.

Secondly, while the system of teaching has in many ways improved it leaves still much to be desired. The greatest advance has been made in the preparatory schools. Boys who go to these before entering public schools are often better taught than they ever were or will be at any other period of life. They are indeed in some danger of overteaching and also of overfeeding, for in these schools the boarders are sometimes revictualled six times a day, but on the other hand the arrangements for exercise and the sanitation are of the best. But most of these masters know that when their boys go to a public school they will for the first two years learn practically nothing. They will at the end of that time be reading the same authors and be doing the same sums as when they left the preparatory school. Where the fault lies is difficult to say, but that there is a waste somewhere is plain, and the same thing is equally clear from the phenomenal idleness possible at a public school and from the phenomenal dunces who may issue from it.

It is high time, then, that the question should be taken up, and the State is alone able to do it. By a system of rewards and punishments, it should be possible to work the same improvement in secondary, as has already been brought about in primary, schools. The result would mean far more to us, and we think even more to the country at large than the reform of primary education.

We are glad to say that there are signs that some steps will be taken. Last session the Duke of Devonshire introduced two small Bills into the House of Lords, which he wished to be discussed in the recess, and which he promised to bring in again this year. The proposal of the Government is to establish a Board of Education, which shall deal with the whole of education in England and Wales, and shall replace the Education Department, which takes cognisance of primary education alone. The second is a Bill to establish a Teachers' Registration Council, which is practically modelled on the General Medical Council. It is to consist of eighteen members, six of whom are directly elected by the teaching

profession, and six by the Universities, and is to admit teachers to the register on a degree or certificate of general attainments, and another of efficiency in teaching, both granted by some university or other satisfactory body, is not itself to hold examinations, and is to remove from the register for offences.

According to the Duke's scheme, then, those who wish to pursue teaching as a profession will be expected to register. There is no means of preventing unregistered persons from teaching except by pressure exercised through the Board of Education. In the case of endowed schools, or schools under the Charity Commissioners, the power of the Board would entirely depend upon the Charity Commissioners, since they alone deal with the funds of such schools. In the case of private schools, the Board would have no power at all.

Besides these Bills another was brought in by private members in the House of Commons. This Bill was promoted by the Incorporated Association of Head Masters, and adopted by the Head Masters' Conference, the Hebdomadal Council of Oxford and other educational bodies. It provides, first, a Central Board and Advisory Council of forty-five, representing by equal numbers the Crown, the universities, the professions, local education authorities, and the teachers; and secondly local secondary education committees, under the council of the county or county borough. Money may be granted for secondary education both by the central and by the local authority. Secondary schools are to be registered, classified, and inspected. Secondary teachers are to be registered. The Headmasters' Conference recently held at Shrewsbury added to the principles set forth in this Bill, by unanimously adopting a resolution that elementary and secondary education should be regulated by separate departments. "The danger was[1] lest the whole organism of education should be dominated by those trained in the methods and inspired by the ideals which had governed the development of elementary education."

The two chief points in this Bill are the provisions for central and for local control. If it be feared that our schools will become uniform by the employment of too much red tape, it may perhaps be urged that the local influence will in this respect counteract the central. But unless the Board makes minute regulations for study, which is not very likely, it can hardly have much effect in the production of uniformity of type. Compulsory inspection of the education and sanitation of all secondary schools as contemplated by the Bill, and from which only seven great public schools would be exempt, is a more startling procedure. As is usual in all such cases, it would probably press hard on many schools of the less expensive sort. It may be inferred that it would lead to the more frequent employment of graduates as teachers, and to the alteration of a considerable number of old-fashioned buildings. At present in 1,958 boys' schools the percentage of graduated teachers is only 55.9, and a large increase in their numbers implies a large additional outlay. In sanitary matters inspectors from a Central Board are well joined to local representatives, but are often obstructive when in sole authority.

Local control, though it arouses much opposition in certain minds, is a matter of prime necessity. It will not apply, or at any rate, should not apply, to schools conducted for private profit, and which will receive no grant, nor to those public schools which are national and not local in character; but it will be of great value in the case of those which, like the grammar schools, were meant to be, and are, of local use and interest. Many of these have degenerated into second-class boarding schools, and it requires local spirit to set them on their feet again well equipped for their original purpose. The money grants to be made out of funds set aside for this purpose will probably be applied by the local authority in a way more suited to local needs than the Central Board would suggest. And on the advisory council the local authorities would, with the teachers, prove a valuable check upon the bureaucracy of the Board. Local control has long been recommended by Parliamentary Commissions, and it is to be hoped that now that it has been on the one hand urged by the head masters, and on the other approved by the County Councils' Association, the lukewarm feelings of the Government, which the Duke's speech indicated, will be stimulated sufficiently to include it in their Bill. Like every other Government, they are not likely to risk their places for a reform in which the public evince no interest. Give them evidence of public interest and they will be glad enough to do what is wanted. For this it is before all things necessary that we should realise that the better education of our children is a matter which affects us alike as citizens concerned for the future welfare of the country, and as individuals with a natural desire to receive good value for the money we expend.

[1] *Times* Report December 24th, 1898.

THE LUNACY LAWS AND BORDERLAND CASES.

THE case of Regina *v.* Reichardt, tried at Kingston-on-Thames on January 4th, 5th, and 6th, is one of considerable importance in its bearing on the administration of the lunacy laws in England. The outline of the case—which resulted in a verdict in favour of Dr. Reichardt—is as follows: A single lady, about 30 years of age, went to India on a visit for a considerable time. On her return to England, after a short stay with her friends, she determined to begin training as a nurse probationer. She began her work, but at an early date the matron heard that she had been depressed, and considered her to be unfit to be left alone. She was therefore placed under supervision and then sent to a medical relation. She seemed depressed but not insane at this time; she, however, managed to obtain laudanum and nearly killed herself. She recovered and was seen by Dr. Goodhart, when, she seemed quite reasonable and sorry for what she had done. She was then on his recommendation sent to Dr. Reichardt's, where she was placed under constant supervision, and in rooms in which the windows were stopped and light bars were already placed. Not liking to keep a patient who had already attempted suicide, Dr. Reichardt asked that a specialist might be called in to decide as to the certifiability of the case. Dr. Savage, after an interview with the patient, decided that her condition of mind, though unsound, was not such as would warrant

her being certified as insane. On the strength of this Dr. Reichardt kept the lady, who steadily improved, and in fact, was so well as to be allowed to go about the house alone, to join in various social amusements, and to go visiting with Mrs. Reichardt. This improvement was maintained; but still it was recognised that the patient was not stable, and as menstruation was still absent she was treated as requiring supervision. Unfortunately she saw a paper containing news from India of a distressing nature, and from that time she was worse. In the end she managed to escape from a window and drowned herself in the most deliberate manner.

This is, we believe, a correct summary of the essential points of the case. The accusation made against Dr. Reichardt at the instance of the Lunacy Commissioners was that he received and detained for profit a person of unsound mind. At the trial the chief point of interest was the interpretation of the term "unsound" mind. Mr. Carson, the counsel for the defence, made it clear that a distinction must be made between unsoundness of mind which is insanity and unsoundness of mind which is not. There can be no doubt that hysterical women are unsound in mind, but it is equally certain that few would like to certify hysterical patients as insane. It was admitted that the patient had been treated kindly and in every way satisfactorily; but the end was suicide, and the counsel for the prosecution pointed out that if she had been certified—and, we presume, also placed in an asylum—her life might have been saved.

There must ever be cases which are on the border line—which, as Mr. Carson said, must be a very broad line. In such there must always be a doubt as to whether the individual is certifiable or not. The general and special physician must decide, and when every care has been taken to decide this it is hardly just to proceed against a medical man who has taken all reasonable and legal means to safeguard himself and the public. Public bodies, such as the Lunacy Commissioners, may no doubt be actuated by two very distinct motives in instituting prosecutions. On the one hand it may be desired to punish offenders, or on the other to warn those who are inclined to offend. Judging from the opening speech of the prosecuting counsel the Commissioners in this case were actuated by the latter motive. This method of proceeding bears very hardly on the individual, but we may congratulate Dr. Reichardt on having been completely vindicated by the verdict of the jury.

The prosecution will undoubtedly arouse fresh interest in the present state of the lunacy law by showing the need of a clearer understanding between law and medicine on some points. It is now nearly a hundred years since the mechanical restraint of the insane was found to be intolerable. In the course of the evolution of English society we seem now to have reached another stage in which certain legal restrictions, which are irksome fetters to good treatment of borderland cases, should be relaxed. The time is at hand when it will have to be recognised that some alternative to certification is required. It will be replied that mere certification inflicts no harm on anyone and does no injury to the patient. This is not always or generally true; in many cases it is the reverse of the truth. If a patient is certified and treated in private or single care the fees are probably double those required for an uncertified patient. Further many persons in business or public employment lose their means of living if certified, and many girls who have ephemeral attacks of hysterical depression or excitement are not only, if certified, doomed to live single and isolated lives, but their sisters, and even their brothers, are placed under a ban.

We trust the time is at hand when some system will be put into force which will render it possible in England, as it is already possible in Scotland, to place patients suffering from temporary or slight mental disorder under care for fixed periods without certification, but with safeguards which will commend themselves to lawyers. The Joint Subcommittee on Incipient Insanity of the British Medical Association and the Medico-Psychological Association has already worked out a plan for doing this, and there can be no doubt that a good system of notification to the Commissioners, as contrasted with certification, would be of great value by rendering it possible to submit cases of incipient or doubtful insanity to suitable treatment in doctors' houses at an early date when the hope of recovery is greatest. The machinery would be of use for dealing temporarily with all cases on the borderland, cases such as that of the unfortunate lady whose death gave rise to the recent prosecution, in whom skilled opinion recognises unsoundness of mind not amounting to insanity.

SAFEGUARDS AGAINST ANTIVACCINATION.

IT is not surprising that alarm is being felt and expressed in many quarters as to the probable effects of the increased neglect of vaccination which seems likely to result from the operation of the vague and lax conscience clause of last year's Vaccination Act. As a result of such alarm, various measures are being proposed or adopted for the purpose of helping to counteract, or to obtain protection from, the evils which will naturally result from last session's parliamentary misdeeds. The Peabody trustees, for example, object to receive as tenants people whose children are not vaccinated, or older persons who have not been revaccinated, and they have given a notice to quit to a tenant who has taken advantage of the conscience clause. Evidently they do not accept the antivaccination view that sanitation can be trusted as a preventive of small-pox, but if antivaccination orators will now pay heed to the experiences of the Peabody dwellings, they may get some useful platform data if only they ignore the trustees' proceedings regarding vaccination.

A correspondent of the *Standard* lately suggested the formation of a Vaccination Guild amongst householders, pledged to employ only "properly protected" domestic servants. This is all right so far as it goes, but it should be understood that, as regards persons of the age of domestic servants, the proper protection must include revaccination, if primary vaccination is not recent. Another correspondent of the same journal suggests a much wider sphere of action for such an association, the pledge being proposed to include refusal to let houses to "conscientious objectors," refusal to employ them, and refusal to do business with them. Refusal to let houses to unvaccinated persons has, as we have seen, been initiated by the Peabody Trust, and as to employment, the require-

ment of vaccination or revaccination is already in operation as regards school teachers, and the military and naval services.

The regulation as to teachers is a favourite antivaccinationist grievance; but seeing that the Government and Parliament believe that vaccination and revaccination protect against small-pox, and that small-pox breaking out amongst unvaccinated school children, as at Gloucester, spreads with terrible rapidity and deadly effect, it is obviously right and necessary for the Education Department to insist that its employees shall be themselves protected against the disease. Indeed, as in the case of domestic servants, the requirement should include revaccination, for, though pupil teachers primarily vaccinated in infancy are in great measure protected from fatal small-pox, they are by no means secure against attack by the disease, and especially against mild attack, with its consequent danger of non-recognition, and of spread amongst children susceptible through non-vaccination. There is, however, one point which should be made a *sine quâ non* in any such Guild or Association—namely, the vaccination and revaccination of the members themselves. If this were properly attended to, they would not only be showing a good example to their servants, but would be taking the best means to secure themselves against risks due to inadvertence or concealment. Refusal to do business with antivaccinationists ought not, we think, to be included in any such scheme, as is suggested by the *Standard's* correspondents. It would be unnecessary and in some cases and places impracticable, and would savour of boycotting.

THE NUMBER OF CONSCIENTIOUS OBJECTORS.

THE Local Government Board has, we understand, received returns from vaccination officers, showing the number of certificates of conscientious objections received, but the compilation of the statistics is not yet complete, and some little time must elapse before they are issued officially. The *Pall Mall Gazette*, however, has published in anticipation certain figures from which it would appear that the total number of certificates of conscientious objections to vaccination received up to the end of the year had reference to 275,000 children. It would appear that Oldham holds a bad pre-eminence in this respect, certificates having been granted in relation to over 27,000 children. Keighley is placed next with 15,696; Basford (near Nottingham), Norwich, and Northampton follow with over 11,000; Leicester has over 9,000, Burnley over 8,000, Luton, and Rochdale over 7,000, Ashton-under-Lyne nearly 6,000. In Liverpool, Manchester, and Birmingham the conscientious objector seems to be extremely rare, while in London, though the statistics are far from complete, it would appear that the number is not large. It is stated that in only twenty-one unions have no certificates been received. The fact, if it be a fact, that certificates of conscientious objection have been granted with regard to over a quarter of a million of children during the last four months is undoubtedly alarming; it must, however, be remembered, as some mitigation, that this number cannot be compared directly with the number of births. For the first four months after the passing of the Vaccination Act a certificate of conscientious objection could be made with regard to any child born before the passing of the Act, and some, possibly many, were obtained regarding late arrears of children who were by no means infants, and as to whom it may be assumed that there would have been in any case great difficulty in enforcing vaccination. The position is, however, extremely serious, and the figures are an evidence of the magnitude of the "tremendous experiment" which is being made.

POST-MORTEM EXAMINATIONS.

WE referred a fortnight ago to a charge of perjury brought by Mr. Braxton Hicks, Coroner for the South-Western District of Surrey, against a medical practitioner, and to the extraordinary manner in which Mr. Plowden, the stipendiary magistrate, thought fit to deal with the matter. The charge preferred against Mr. J. J. Mackay, a registered medical practitioner, was that he committed perjury before the coroner by stating on oath that he had made a *post-mortem* examination in accordance with the coroner's order, whereas he had not examined the organs. The charge rested upon the evidence given by Drs. Kempster and McManus, who, acting upon the coroner's instructions, had made a further examination of the body. Dr. Kempster deposed, according to a report in the *South-Western Star*, that there had been no examination of the organs at all, with the exception of a small portion of the brain and a slight view of a small portion of the liver. In reply to the coroner he added that that would not justify anyone in saying that he had made a *post-mortem* examination. Dr. Kempster's evidence was corroborated by Dr. McManus in every detail. The magistrate did not appear to take the trouble to understand the serious nature of the charge, which he treated with almost incredible levity. Apart altogether from the respect which it might have been supposed that the magistrate would have felt for the office of coroner, it is astounding that Mr. Plowden should have allowed himself to believe that medical men would lightly have undertaken the painful duty of showing by their evidence on oath that a member of their profession had conspicuously failed in his duty. The course of conduct which Mr. Plowden thought fit to follow has cast a slur upon the medical profession which cannot be allowed to remain. We understand that the matter has been brought to the notice of the Home Secretary, and we sincerely trust that Sir Matthew White Ridley will appreciate the importance of the reference. As we have already observed, the levity with which the magistrate treated a serious charge was very unbecoming his position, and his action really strikes at the root of the efficiency of coroners' inquiries. A coroner habitually depends with the utmost confidence—and his confidence is, we believe, almost invariably fully justified—upon the statements sworn by medical men directed by him to undertake *post-mortem* examinations. Such examinations are considered to be among the most solemn duties which the profession has to discharge to the public; and to find a charge such as that made by Mr. Braxton Hicks met as it was in this case must be most disquieting not only to the medical profession, but to the public at large.

THE OFFICE OF THE DIRECTOR-GENERAL A.M.S.

HITHERTO the officers of the Royal Army Medical Corps employed in the office of the Director-General of the Army Medical Service have not appeared in the *Army List* with any distinctive appellation indicating the nature of their office. In fact, only the senior officer is mentioned under the very undistinctive title of "Professional Assistant." On the other hand, under the other offices of the Military Department we find deputies, assistants, and deputy-assistants mentioned. In future a similar system will be put in force with regard to the officers employed in the office of the Director-General of the Army Medical Service. Surgeon-General W. Taylor, M.D., C.B., who holds the office of "Professional Assistant" to the Director-General, will be gazetted Deputy Director-General; Lieutenant-Colonel W. L. Gubbins, M.B., R.A.M.C., Assistant Director; and Majors W. G. A. Bedford, M.B., and W. G. Macpherson, M.B., R.A.M.C., Deputy Assistant Directors. Surgeon-

General Taylor sails for India on February 20th to take up the duties of Principal Medical Officer of the British forces in India, and Surgeon-General H. S. Muir is coming home to take up the duties of Deputy Director-General here. The number of surgeon-generals is at present one in excess, and on the retirement of Surgeon-General A. F. Churchill next June, Egypt will again become a colonel's charge. A new badge for the Army Medical Corps has been approved. In the new badge the serpent and rod, the immemorial emblem of the art and practice of medicine, are entwined enclosed in a laurel wreath, surmounted by the Imperial crown, with the motto "In arduis fidelis."

THE REV. MRS. EDDY'S *APOLOGIA*.

SINCE the death of Mr. Harold Frederic, Christian Science has been severely handled in the leading newspapers of the United States. The New York *Times*, of which Mr. Frederic was the London correspondent, has been the most outspoken in its denunciations. In a recent editorial article the following passage occurs:

> Why not enforce the law against these homicidal charlatans who practise their hocus-pocus on patients sick with typhoid fever, heart disease, and consumption? They kill, and, so far, kill unpunished. Not one of them could pass the Regents' examination. It would catch them all, and they would be delivered over to the law if they practised and took fees without a licence. The experience of Massachusetts shows that it may be difficult to draft a statute that will net these pests. Common sense shows that new legislation is not needed. Existing law will protect the ignorant from their deadly impostures if it be enforced.

With the legal aspect of the matter we are not at present concerned. We have referred to the article mainly because it has aroused Mrs. Eddy to reply. The high priestess of Christian Science, who surpasses Miss Marie Corelli in her gift of uttering ineptitudes with an air of inspiration, says loftily that "a person's ignorance of Christian Science is a sufficient reason for his silence on the subject." We cheerfully admit as a general principle that no one should speak of what he does not know, but we take leave to suggest to Mrs. Eddy that she would do well to bear this sound principle in mind when she feels a moving of the spirit to deliver her views on the treatment of disease. When she asks: "What can atone for the vulgar denunciation of what a man knows absolutely nothing about?" we venture to ask in turn, "What more are we expected to know about Christian Science than Mrs. Eddy has set forth in her book?" If the world does not now know all that there is to be known about Christian Science, the fault is Mrs. Eddy's own. She objects to her disciples being described as "pests," but comforts herself and them with the modest reflection that St. Paul and another greater than he were looked upon as pests by "Jewish pagans." She boasts that after her discovery of Christian Science she healed "consumption in its last stages that the M.D.'s by verdict of the stethoscope and the schools declared incurable, the lungs being mostly consumed;" that she has healed "malignant tubercular diphtheria and carious bones that could be dented by the finger, saving them when the surgeon's instruments were lying on the table ready for their amputation," and that she has healed "at one visit a cancer that had so eaten the flesh of the neck as to expose the jugular vein so that it stood out like a cord." We have no doubt that Mrs. Eddy believes herself to have done all these things, but we may be allowed to hint that the statements would be more convincing if she would procure us some better assurance than is here forthcoming. We are all liable to mistakes in diagnosis, and the recognition of such complicated conditions as "malignant tubercular diphtheria," for instance, seems likely to present special difficulties. But after all, the question of diagnosis is of no importance, for if disease be a delusion, it matters nothing what we call it. Mrs. Eddy argues that as homœopathy "is supposed to heal the most violent stages of organic inflammatory disease, to stop decomposition, to remove enteritis, gastritis, gastralgia, hyperæmia, pneumonia, diphtheria, and ossification—the effects of calcareous salts formed by carbonate and sulfate of lime," with highest attenuations which "have not an iota of the drug left in them," Christian Science can do the same things without any medicine at all. She says:

> The difference between metaphysics in homœopathy and metaphysics in Christian Science consists in this forcible fact: The former enlists faith in the pharmacy of the human mind, and the latter couples faith with understanding, and is based on the Divine Mind, knowing that this mind is omnipotent, is infinite, is all. Hence it is the sovereign appeal, and there is nothing therein to attenuate.

That there is nothing in the mind of the Christian Scientist to attenuate we have no difficulty in believing. When Artemus Ward was told that the Red Man was being driven towards the setting sun, he said it was rough on the setting sun. When we see the prophetess of Christian Science seeking a refuge in homœopathy, we cannot help feeling that it is hard on the homœopaths.

THE CENTENARY OF THE RUSSIAN MEDICAL MILITARY ACADEMY.

SUBSEQUENT to the grand ceremony in the Salle de Noblesse, to which we briefly referred last week, various other functions and festivities took place in St. Petersburg. Thus on Saturday, December 31st, 1898, a banquet was given in the Salle Koronof to the members of the Academy and the delegates. About 500 persons, mostly in uniform, sat down. The dinner was excellent in quality and was extremely well served. The Minister of War, General Kouropatkin, was present and made several speeches. On Sunday afternoon some of the delegates were shown round the hospital of the Academy, which seemed to be complete in every detail and far richer in cubic space than most British hospitals. On Tuesday, January 3rd, the delegates were taken round a vast series of buildings upon the Neva in which every kind of material needed by military hospitals in peace as well as in war is prepared. This interesting and instructive visit was followed by a luncheon, at which Dr. Remmert, the head of the establishment, presided. But perhaps the most interesting event of an extremely eventful week took place on Wednesday, January 4th, when the Czar met the delegates in the riding school of one of his palaces. The school is about 200 yards long by about 70 broad; the floor was covered with a firm layer of tan which had recently served in preparing Russian leather; it had, therefore, a delightful and characteristic odour. The ceremony commenced with an impressive and solemn service, at which some high ecclesiastical dignitaries, in the presence of the Czar, consecrated a banner. The musical part of the service was performed by the Imperial choir of men, who sang a considerable amount of concerted music without accompaniment. The singing was rich, pure, and beautiful. Before and after the ceremony a corps of about 500 young officers from the military school were put through evolutions by the Minister of War, whose magnificent voice filled the entire building. During this part of the ceremony the delegates were somewhat scattered amongst the many hundreds of Russian officers of high rank by whom the Czar was surrounded, but on its conclusion they were called to the front and arranged in line. Each delegate was then separately presented by name to the Czar, who shook hands with each in turn, and chatted with him in a friendly and informal way. After this ceremony a luncheon was given by the Minister of War to the delegates. This took place in the Restaurant Cubat. Many speeches were made during the meal. Throughout the entire centenary proceedings the British representatives occupied the third place, as it were. The French were obviously first though their allies made no particular demonstration about them. The French delegates were about five in

number, and were headed by Dr. Dujardin-Beaumetz and two other military surgeons in profusely decorated uniforms. Then came a few Germans, with one of the chief of the army medical department at their head, and Professor Bergmann amongst them. After the Germans came the British, with Dr. Fergusson in the green and gold uniform of the old Royal Archers of Scotland, and Professor Ogston in the scarlet uniform of a Deputy-Lieutenant. Then came Mr. Owen and Mr. Cross, from the Royal College of Surgeons, Professor Shipley, from Cambridge, and the Rev. H. S. Cronin, the Dean of Trinity Hall. Further on were a delegate from Sweden and one from Switzerland. The British delegates express themselves as overwhelmed with the warmth and cordiality of the reception which they received from the moment of arriving in St. Petersburg until the time of leaving it. The Russians were evidently much gratified by their presence at the centenary celebration, and they showed their good feeling towards them in an extremely friendly and unmistakeable manner.

FRANCOIS QUESNAY.

M. QUESNAY DE BEAUREPAIRE, whose resignation of the post of President of the Civil Chamber of the Court of Cassation has brought his name so prominently before the world, numbers among his ancestors a member of the medical profession who helped to lay the foundations of economic science. The judge is the great grandson of François Quesnay, who was for thirty years the trusted medical adviser of Louis XV and his Queen. Quesnay was born at Mérey, not far from Paris, in 1694, the year that saw the birth of Voltaire. Though the son of a lawyer, he received no regular education. At 16 he was apprenticed to a surgeon at his native place, but soon left him to study in Paris. After five or six years of hard work he established himself as a surgeon at Mantes, where he soon had many distinguished persons among his patients. Madame de Noailles introduced him to the Queen, by whom he was consulted when she was in the country. He rose steadily in professional repute, and when the famous Académie de Chirurgie was founded in 1730 by La Peyronnie, Quesnay was chosen to be its perpetual secretary. Soon afterwards Quesnay removed to Paris, where by La Peyronnie's influence he was appointed Surgeon to the King. After a time, being disabled by gout for the practice of surgery, he got the degree of M.D. from the University of Pont-à-Mousson, one of the numerous small universities of old France of which the name has almost perished from the memory of man. On the strength of his degree Quesnay bought the reversion of the post of Physician-in-Ordinary to the King, and in due course he became his first Consulting Physician. In this capacity he occupied apartments in the palace of Versailles. Louis XV had a particular regard for Quesnay, whom he called his thinker. Among the marks of royal gratitude which the physician received was a title of nobility with arms designed by the King himself; these were three flowers of pansy ("that's for *thoughts*") with the motto, *Propter excogitationem mentis*. Quesnay made some useful contributions to medical literature. He wrote on bleeding, on gangrene, on suppuration, on continued fevers, on the preservation of life; and he is the author of a valuable review of the progress of surgery in France. But his reputation as a thinker rests on his work in economic science. He was the founder of the school of so-called *Physiocrates*, which included the elder Mirabeau (*l'ami des hommes*, whom readers of Carlyle will remember), Morellet, and others interested in political economy. In Quesnay's room in the palace Diderot, d'Alembert, Helvetius, Buffon, Turgot, and Marmontel used to meet and discuss the financial and political condition of the French nation with a freedom which might not have been altogether pleasing to the royal ear. Madame de Pompadour, whose apartments were near to those of Quesnay, was sometimes present at the debates of the philosophers. Quesnay took no part in court intrigues. He was an upright, straightforward man, possessed with an unselfish zeal for the public good. His chief works in the domain of political economy are the *Tableau Economique*, which Laharpe called the "Koran of the Economists," and at the printing of which Louis XV is said to have worked with his own hands; *Maximes Générales du Gouvernement Economique d'un Royaume Agricole*, a treatise on Natural Right, and several contributions to the *Encyclopédie*. Adam Smith, who made his acquaintance during a visit to France, thought so highly of him that he would have dedicated *The Wealth of Nations* to him had he been alive at the time of its publication. Quesnay died in 1774, one of his last intellectual exercises being an attempt to square the circle. In the memoirs of Madame de Hausset, lady's maid to Madame de Pompadour, an English translation of which was published not long ago, there is a good deal about Quesnay. The following passage shows the esteem in which he was held, besides giving a picture of the man: "I was afterwards told that M. Quesnay was very learned in certain matters relating to finance, and that he was a great *économiste*. But I do not very well know what that means. What I do know for certain is that he was very clever, very gay and witty, and a very able physician." A statue of Quesnay was erected a year or two ago in his native place, and it would be difficult to name any Frenchman in the eighteenth century who better deserved such an honour.

A NURSING STAFF FOR WEST AFRICA.

MR. ELLIS EDWARDS, an old resident on the West Coast of Africa, has, in a letter to the *Manchester Guardian*, drawn attention to the scarcity of nurses in the West Coast colonies. Mr. Edwards suggests the formation of a trained staff of nurses for service in these unhealthy regions. He thinks that, in addition to Europeans, African women might be trained in Britain, and sent out to work under a European sister or matron. Mr. Edwards suggests that a proper home be formed for the nurses; that they should be well paid, and that the Europeans at the end of each year of service should be granted six months' leave on full pay, with free passages provided to and from the colonies. The increasing trade with the West Coast is beginning to interest Liverpool and Manchester merchants seriously in the question, and it is being realised that the great difficulty in connection with the trade is the maintenance of the health of agents and traders. So keenly has this come home to merchants, that they are ready and willing to subscribe liberally towards the maintenance of a trained nursing staff on the Coast, and the formation of an active Committee is alone required to see the scheme set on foot with every guarantee of success. We hope to see this much-needed organisation speedily at work, and we believe that a great part of the money expended would be returned even directly in fees paid by patients.

THE ISLE OF WIGHT DIAMOND JUBILEE MEMORIAL.

HER MAJESTY has graciously consented to open, on February 8th, the Children's Ward, to contain which the new detached wing of the Isle of Wight Infirmary and County Hospital has been erected by the Isle of Wight people to commemorate the Queen's long reign. This event is anticipated with particular interest, as it is said Her Majesty has not performed a ceremony of the kind since the Prince Consort's death. The ward, which is intended to accommodate ten beds, is 45 feet long, 24 feet wide, and 12 feet high, running east and west. On the south side is a verandah extending the whole length of the ward; and at the east end, opening into the ward by glass doors, is a semicircular day or "sun" room, glazed with plate glass; and communicating with the ward, at its north-east corner, is a sanitary tower with the usual offices. Both the ward

and day room have teak flooring, and the ward will be heated by a double grated Teale stove placed in its centre. At the west end the ward opens by glass doors into a corridor on the north side of which is the children's bath-room and the ward scullery, and on the south side the ward attendant's room. This corridor joins, at right angles, the entrance corridor, in which are cupboards and lockers, and this leads, by a covered way, to the infirmary building. Over the corridors and the three rooms mentioned is a second floor, containing three nurse's bedrooms, 14 feet by 12 feet by 9 feet 6 inches, bath-room, and offices. The wing is built of Bembridge limestone, an exceedingly durable local stone, with facings of Bath stone. In a recess of the south wall, above a commemorative tablet, is to be placed a bronze bust of the Queen by Mr. Onslow Ford, which will be unveiled before the opening ceremony by H.R.H. Princess Henry of Battenberg, Governor of the Isle of Wight, and President of the Isle of Wight Infirmary and County Hospital. The contract for building the wing was let at £3,300, but it will cost more. Six of the ten cots have been already endowed. The endowment for each cot is £1,000; and it is hoped that donors of the other four cots will come forward in order that the already insufficient income of an important institution may not be embarrassed by the maintenance of any portion of this very valuable addition to its means of usefulness.

SUGAR AS A RATION.

Some trials were made during last year's German autumn manœuvres regarding the value of sugar as nourishment for troops. In each of the companies directed to carry out the experiments ten men, chosen from amongst the least vigorous, were told off as the subjects for experiment, another ten being also selected who were strictly confined to the service rations. The amount of sugar supplied daily to the men was gradually increased, and their weight increased proportionately more than that of those who were without it, while the men themselves were in better health and more vigorous than they had been before. When on the march a piece of sugar relieved hunger and appeased thirst, while, thanks to it, it was found easier to fight the exhaustion produced by the heat. No objection was made by the men to taking the sugar. The results of the experiments were considered successful, and Dr. Leitenstörfer, under whose superintendence they were carried out, has suggested that sugar should be added to the rations in one of the three following ways: (*a*) As a supplementary allowance, with the view of improving the men's daily ration; (*b*) as an integral part of the men's reserve store of provisions, and of the supplies for fortresses, hospitals, and ships; and (*c*) as a temporary allowance for strengthening the men and renewing their vigour on the march.

DISINFECTION WITH FORMALDEHYDE.

The growing popularity of formaldehyde as a disinfectant, and the somewhat extravagant claims which have been made for it in certain quarters lends special importance to some investigations made by Schumburg, and reported by him in the *Deutsche medizinische Wochenschrift* (No. 52, 1898). He points out that in an examination of the germicidal properties of a disinfectant it is of paramount importance that the test objects should be freed completely from the disinfectant to which they have been exposed before they are placed in the culture medium. Otherwise, obviously, even a trace of the disinfectant may inhibit the growth of the culture and lead to the erroneous impression that the micro-organisms in question have been killed. In the case of formaldehyde, the common practice is to expose the test object for a short time to the fumes of ammonia, or to place it in a strong solution, in order to convert the formalin into hexa-methylen-tetramin, which is inert. Schumburg's point is that as usually employed this method is useless. Even an exposure of twenty-four hours to the action of ammonia is insufficient to neutralise the formalin which will adhere to a silk thread. The safest plan is to use (as Koch recommended long ago) a fluid nutrient medium in considerable quantity, so as to dilute any adherent formalin to the necessary degree. A thread (covered with staphylococci) to which some formalin still adhered was pressed on the surface of an agar plate. No growth took place. Placed in bouillon a luxuriant crop of staphylococci was obtained.

MUNICIPAL BACTERIOLOGY.

Recently the London County Council circularised the various vestries to ascertain their views upon the foundation of a central bacteriological laboratory for the examination of material from infectious cases occurring in the county of London. This question, however, certain of the vestries appear to be settling offhand for themselves by appointing bacteriologists to fulfil the same function for the area under their jurisdiction. Unless and until a central laboratory such as has been proposed is started, the vestries in so doing are certainly acting for the best both in the interests of the public health and for the ratepayers in their district. According to a statement in the *Daily Telegraph*, 1,200 notifications of diphtheria were received in Camberwell alone in the course of last year; of these, 60 were submitted to bacteriological investigation and 24 proved not to be due to the Klebs-Loeffler bacillus. Arguing from this small number of examinations, 37 per cent. of the cases were not diphtherial. The Camberwell Vestry were, therefore, fully justified in securing the services of Dr. E. C. Bousfield as their bacteriologist. This gentleman, taking a broad view of his appointment, has been imparting instruction to the ratepayers in the district in the form of an illustrated lecture. A large audience assembled in the Camberwell Art Gallery on Tuesday, January 3rd, when an interesting programme was provided by the Public Health Committee of the vestry, which included music, microscopes, Roentgen rays, the electrophone, and Dr. Bousfield's lecture. Dealing generally with the bacteriology of infectious diseases, he made special reference to diphtheria, and the lecture was illustrated by a series of microphotographs of various pathogenic organisms displayed on the screen by limelight. The lecture was closely followed by the audience, who warmly applauded Dr. Bousfield at its close.

DIPHTHERIA AND CHILDBED.

Dr. Whitridge Williams of Baltimore has reported to the *American Journal of Obstetrics* a very grave case in which a physician infected with diphtheria a woman whom he delivered of a healthy child. The result was that the mother suffered from characteristic diphtheria of the vulva followed by diphtherial paralysis of the legs, whilst the child and another, making up the mother's whole family, succumbed to the disease. The doctor admitted that he had several cases of malignant diphtheria under his care at the time when the patient was confined, but as he had disinfected his hands most carefully with bichloride before examining her, he could hardly believe that he had carried infection to his patient. Labour was spontaneous, and all went well till the twelfth day, when the patient began to complain of pain and swelling about the vulva, which gradually increased in severity. The newly-born child a few days later developed all the signs of pharyngeal diphtheria, and died from laryngeal stenosis notwithstanding the use of antitoxin. When it was sinking, the elder child, 18 months old, was taken ill with diphtheria, which proved fatal. The rubber nipple of the bottle used by the elder child was frequently given to the baby to "pacify it." On the fifteenth day after delivery the mother was unable to urinate, and on passing the catheter the physician noticed that the vulva was much

swollen and its inner surface covered with a greyish-white exudate. No alarming symptoms were noticed afterwards, though fever and rapid pulse prevailed during the third week. Dr. Whitridge Williams examined the patient on the twenty-third day. She was a poor German, aged 20, of slatternly habits, and lived over a stable. Her only complaint was of burning during micturition and soreness about the genitals when she sat up in bed. The inguinal glands on both sides were enlarged and sensitive. The diphtherial membrane on the inner side of the vulva was very characteristic; it hardly extended up the vagina; the uterus had undergone involution, and the appendages appeared to be normal. The presence of the Klebs-Loeffler bacillus was demonstrated. Dr. Williams prescribed antitoxin, and the genitals were kept clean with a boracic acid solution. This was followed by the rapid disappearance of the membrane, and ten days later all trace of the disease had vanished. At the end of a few weeks paraplegic symptoms made their appearance, but gradually improved under appropriate treatment. Dr. Whitridge Williams observes that this case illustrates very forcibly the dangers to which a practitioner exposes his patients when he is so injudicious as to attend obstetrical and diphtherial cases at the same time, no matter how carefully he may attempt to disinfect his hands.

LEPROSY IN NEW SOUTH WALES.

THE report of Dr. J. Ashburton Thompson, President of the Board of Health, on leprosy in New South Wales during the year 1896, printed and issued in 1898, shows that on January 1st, 1896, 37 patients remained under detention at the Little Bay Lazaret. During the year 9 persons were reported under the Leprosy Act, 1890, as suspected lepers, but after a careful investigation it was found that 3 only were suffering from the disease; all 3 were Chinese males. Five patients died during the year; and 19 Chinese patients were shipped back to China, at a total expense of £1,946. Not only were their passage paid, but they were accompanied by a male attendant, provided with dressings and comforts, including opium, and at the end of the voyage they were supplied with money to the amount of £5 in some cases and £8 in others, to enable them to purchase Chinese clothes, and pay their way to their homes. At Hong Kong they were transferred to a tug, and dismissed at Canton, under the supervision of the Consul there. This treatment reflects the greatest credit on the New South Wales Government. The number of patients remaining in the lazaret on December 31st, 1896, was 16. The total number of lepers admitted since 1883 is 61. Notification of leprosy was first made compulsory, and the detention of lepers provided for by law towards the end of 1890. Two additional cases were reported to the Board in 1887 and 1889 respectively. Of the 5 Europeans 4 were from the British Isles, and 1 was a German. The total number of Chinese is 32, as against 15 natives of New South Wales of European descent. The first lepers admitted were Chinese—namely, five in 1883; it was not till 1888 that a New South Wales native became an inmate. One Chinese patient became insane, and died in an asylum (1886). Appendix C, published separately, contains the notes of the three cases admitted in 1896. Case LIV (Hing Yung) is interesting. He was first admitted to the Sydney Hospital, where the case was diagnosed as beri-beri. Later he came under observation at the coast hospital, but, as the bacillus leprae could not be found, he was discharged. On readmission soon after, the search was successful, and the case was reported under the Leprosy Act. The radiographs show the changes in the bones of the hands of two other patients, a Fijian of European descent (Case XIII, 58), and a Javanese (Case XVII, 31). The Roman and Arabic numerals correspond to the cases in former reports and in Dr. Ashburton Thompson's *History of Leprosy in Australia* respectively. In conclusion, the report for 1896 is satisfactory, but it is possible that the three cases admitted did not represent all the lepers outside the lazaret at the time.

LEBANON HOSPITAL FOR THE INSANE.

THE first annual report of this hospital, founded by Theophilus Waldmeier, of which Sir R. Tangye is Treasurer, Dr. R. Percy Smith, Chairman of the Committee, and Mr. Francis C. Brading, 35, Queen Victoria Street, E.C., Secretary, has been issued. The asylum is now being built on the cottage system at Asfuriyeh, near Beyrout; and is the first asylum for the insane in Bible lands. It has the warm approval of many eminent physicians in this country, and £3,000 have been subscribed in the British Isles towards the object. In the United States £800, and on the Continent £700, have also been given. The site is healthy and beautiful, six kilometres from Beyrout on the Damascus road, 400 feet above the sea, on a lower slope of the Lebanon range. It comprises about 30 acres, and contains a big building suitable after slight alteration for the central administration, and two farmhouses, orchards of olive, mulberry, and fig trees, and vineyards, from which there will be a regular annual income. The water supply is ample. The cost of the property has been £1,828, and is regarded as economical. Two cottages, one for 20 male and the other for 20 female patients, are to be erected at once, at a cost of about £1,000 each; and a physician and trained European nurses and attendants are beginning to study the Arabic language in Syria, and preparing in other ways for their work in the country. Dr. Maag, a graduate in medicine of the University of Zurich, who has much experience in mental diseases, has offered his services gratuitously to the institution. Further funds are urgently needed, and local committees have been formed in many places in Britain with the object of assisting this beneficent work.

KISSING FROM AN ANTHROPOLOGICAL POINT OF VIEW.

JOHANNES SECUNDUS, in his *Basia*, dealt in a fairly exhaustive manner with kissing from what may be called the physiological point of view; the bacteriologists have had something to say on this form of exercise, or "gesture," as it appears to be called by the learned, in its pathological aspects; now we have M. Paul d'Enjoy (in the *Revue Scientifique*) dealing with the subject from the anthropological standpoint. The yellow races, he tells us, know nothing of the friendly embrace which the Romans called *osculum*, nor of the polite salute termed *basium*. With them the kiss retains its primitive character of an act which is largely an expression of the generative instinct. Hence only married people and lovers kiss. According to M. d'Enjoy, the Mongol kiss is essentially a "gesture of olfaction." An analysis of the "gesture" shows that it is composed of three successive determinate movements, to wit, (1) the application of the nose to the cheek of the beloved one; (2) a prolonged nasal aspiration accompanied by lowering of the eyelids; and (3) a slight smacking of the lips, without application of the mouth to the cheek of the person kissed. M. d'Enjoy sees in these movements the expression of a sexual impulse mingled with the desire for food. The touching of the face is, as it were, the act of seizing the prey; the closing of the eyes denotes the pleasure of possession; the prolonged smelling is at once a sexual stimulant and an instinct inherited from primitive times when man was dependent on his sense of smell in hunting and in selecting his food. As to the smack of the lips which brings the osculatory performance of the yellow peoples to a close, M. d'Enjoy is doubtful whether it is to be interpreted as representing the first movement of mastication or as "the final gesture of sensuality executed at the end of an agreeable repast." To the Chinese and other yellow races the mode of kissing practised by white people appears indecent and disgusting. They seem to have

analysed the act for themselves, and have satisfied themselves that it consists in actual suction—not merely "dry cupping"—with the lips arranged *secundum artem* for the purpose. The jealous Annamites, it appears, tried to frighten their womankind from going too near their French conquerors by telling them that "Europeans bleed women when they kiss them." We gather that the women, following in the footsteps of their mother Eve, have made experiments which have satisfied them that the statements made to them on the subject are incorrect, and the supposed depleting effects of the European kiss are now used only to terrify children. M. d'Enjoy admits that in the white man's kiss the nutritional character is very pronounced, consisting as it does, according to his analysis, of biting followed by suction. But he thinks the Chinese philosophers go too far in regarding it as a form of cannibalism, though if they read Swinburne and Rossetti they might find some warrant for their belief. M. d'Enjoy gravely explains the kiss to mean an attempt to express to the subject of the operation that his or her "presence near us makes us feel a pleasure as violent as the immediate possession of a prey eagerly desired." We think that by this interpretation of the mystery of the kiss M. d'Enjoy rather gives away his case; the idea of "prey" implies the devouring of it, and this comes very near the Chinese notion. Altogether we are in some doubt whether there is much to choose—from the anthropological point of view—between a form of kissing which is the expression of an anthropophagous impulse, however etherealised into symbolism, and a "gesture of olfaction" which is held by those who use it to be "an act of perfect adoration," refined and delicate in itself and of imagination all compact.

MEDICAL HISTORY.

Professor Fossel lately delivered an address in the Graz University on the teaching of medical history. The university has instituted a course of lectures on this subject which has received but little attention even in Germany, where most things are treated "mit Gründlithkeit." Göthe's dictum that "the history of a science is the science itself" applies equally well in the case of medicine. The history of medicine cannot be studied apart from the life-history of the people. Isolated facts have no reality to the mind of the student when separated from the thought and feeling of the time. The study of history would tend towards a feeling of tolerance between the individual members of the profession, especially in international relations. Our views of progress, especially with regard to treatment, are often exaggerated owing to our ignorance of the past. A method of treatment in vogue at the present time can often be shown to be merely a repetition of one used formerly. The study of history might aid in counteracting the purely realistic training which the student receives and which at times threatens to destroy his humanity. Above all, it would be making him a man of culture.

THE KING AND THE AIGUILLETTE.

It will be remembered that some time ago there was a great commotion about an order issued in India forbidding the Viceroy's surgeon to wear the aiguillette, which all the other officers of the Governor-General's staff wore. Had the following anecdote, dating back to the time of George IV, anything to do with it? The anecdote is to be found in a most interesting work, *Collections and Recollections*, by One Who Has Kept a Diary. "The late Lord Charles Russell (1807-1894) when a youth of 18, had just received a commission in the Blues, and was commanded with the rest of his regiment to a full-dress ball at Carlton House, where the King (George IV) then held his court. Unluckily for his peace of mind, the young subaltern dressed at his father's house, and, not being used to the splendid paraphernalia of the Blues' uniform, he omitted to put on his aiguillette. Arrived at Carlton House, the company, before they could enter the ballroom, had to advance in single file along a corridor in which the old King, bewigged and bestarred, was seated on a sofa. When the hapless youth who lacked the aiguillette approached the presence, he heard a very high voice exclaim, 'Who is this d—d fellow?' Retreat was impossible, and there was nothing for it but to shuffle on and try to pass the King without further rebuke. Not a bit of it. As he neared the sofa the King exclaimed, 'Good evening, Sir; I suppose you are the regimental doctor?' And the imperfectly-accoutred youth, covered with confusion as with a cloak, fled blushing into the ballroom and hid himself from further observation." The writer of the book alluded to appropriately adds: "And yet the narrator of this painful story always declared that George IV could be very gracious when the fancy took him; that he was unformly kind to children; and that on public occasions his manner was the perfection of kingly courtesy."

CÆSAREAN SECTION IN THE PHILIPPINES.

Dr. Lobti, of Biarritz, furnishes us with information about obstetrics in the Philippines, even more remarkable than the recent reports as to the strange social and political relations of the inhabitants of those islands. Owing to well-known religious prejudices, craniotomy is doubtless rarely, if ever, practised, but Cæsarean section after the death of the mother is not rarely performed as a religious duty. In 1821, the year when a deadly epidemic of cholera ravaged the Philippines, six *post-mortem* Cæsarean sections were undertaken in Bohol alone. The parish register contains a notification of the baptism of the children, two being reported as strong, and the remaining four likely to live. No serious comment need be made on this alleged saving of all the six infants who survived the algid stage of cholera and the death of the parent. In another village the same operation was undertaken in one case, and the child lived, it is said, seven hours. Even more incredible is the case of a woman in Cabancalan, Isle of Negros, who died pregnant; her abdomen was opened twenty-four hours after death. The child, it is related, showed every sign of life. Six years later, at Mandana, a child is said to have been extracted seven hours after the death of its mother. Not only was it reported as living, but it is said to be yet alive to witness the truth of the report. In the Isle of Negros a living female fœtus was removed from the body of a woman who had been murdered two hours previously. Lastly comes an announcement—as long ago, we must observe, as December 12th, 1854—in the *Official Bulletin* of Manila. Cæsarean section was performed on the body of a woman five months pregnant five hours after her death. The fœtus lived for half an hour. Of the above statements, reproduced in the *Journal d'Hygiène*, it may be confidently asserted that they include two facts mixed up with a mass of what we may gently term inaccuracies: first, that *post-mortem* Cæsarean section is often undertaken in the Philippines, no doubt more frequently than above reported; and secondly, that there is an extreme prejudice in its favour which makes the natives eager and ready to believe that the aim of the proceeding is not missed.

Mr. William Cadge, F.R.C.S., Consulting Surgeon to the Norfolk and Norwich Hospital, has given £10,000 to the endowment fund of the hospital. Mr. Cadge made a similar donation to the same fund a few years ago.

Dr. C. R. Marshall has been appointed Professor of Materia Medica at University College, Dundee. Dr. Marshall has for some years held the post of Assistant Downing Professor of Medicine in the University of Cambridge, and is well known for his pharmacological researches.

SANITARY AUTHORITIES AND TUBERCULOSIS.

The public attention drawn to the prevention of tuberculosis by the action of the National Association, and especially by the recent meeting at Marlborough House, is a sufficient excuse—if excuse, indeed, were needed—for returning again to the subject, and especially for examining into the existing powers of sanitary authorities for preventing the spread of this disease, either by disinfecting premises where a death has occurred, or by providing, or assisting in the provision of, hospitals for the open-air treatment of the sufferers.

Disinfection.

Powers under 1875 Act Cover any Infectious Disease.

The Public Health Act, 1875, gives sanitary authorities, outside the metropolis, certain powers in regard to "infectious disease." Section cxx of that Act enables an authority, on the certificate of any registered practitioner "that the cleansing and disinfecting of any house, or part thereof, and of any articles therein likely to retain infection, would tend to prevent or check infectious disease," to give the owner or occupier notice to carry out such cleansing or disinfecting within a specified time. If he fail he may be fined, and the local authority may do the work, charging him with the cost. By another part of the same section, if the owner or occupier is unable, from poverty or otherwise, "effectually to carry out the requirements of this section," the authority may, with his consent, do the work for him free of expense.

Limitation by the Prevention Act to Certain Diseases.

It will be noted that under this section there is no limitation to the ordering of the cleansing and disinfecting of a house or room, or articles in it, even to "dangerous" infectious diseases, a term used in other sections of the Act. The section clearly might be applied to diseases like chicken-pox or scabies, which could only in extreme cases perhaps be regarded as "dangerous." The section, again without any limitation of the wide term "infectious disease," is made to apply by the Act of 1885 to ships. The adoption, however, by a sanitary authority of Section v of the Infectious Disease (Prevention) Act, 1890, repeals Section cxx of the Public Health Act, 1875, for that district, and substitutes other powers. It will be remembered that the several sections of this Prevention Act are severally and separately adoptable by an authority outside the metropolis. By the definition clause (3) of this Act of 1890, however, the term "infectious disease" has a limited meaning given to it, and the provisions of the adoptable sections, therefore, only apply to those infectious diseases named in the Notification Act of 1889, or to other infectious diseases added to the list in the manner prescribed in the last-named Act. The approval of the Local Government Board is necessary to any such extension of the list of infectious diseases.

Purifying Houses under Section 46.

It follows, therefore, failing any such extension to tuberculous disease, that an authority, which by adopting the, in some respects, stronger section of the Prevention Act of 1890, had *ipso facto* repealed its own powers under Section cxx of the Public Health Act, 1875, would have so far sacrificed its right of dealing not only with chicken-pox and scabies by ordering disinfection, but even with phthisis. We say advisedly "so far" for, by what looks at first sight like a redundancy in the 1875 Act, there is in that Act another section—Section xlvi—which enables an authority, on the certificate to a certain effect of the medical officer of health, or two medical practitioners, to order the "whitewashing, cleansing, or purifying" of any house or part of a house. The required medical certificate is to the effect that such house, or part of a house, is "in such a filthy or unwholesome condition that the health of any person is affected or endangered thereby, or that the whitewashing, cleansing, or purifying ..... would tend to prevent or check infectious disease." Again "infectious disease" is unrestricted, and must be held to include phthisis, even if the "unwholesome condition" of the earlier part of the sentence did not enable cleansing after that disease to be effected. Unfortunately this clause does not give power to remove "articles." The apparent redundancy of the section is due to the circumstance that Section xlvi (the whitewashing and purifying clause) is a survival of Section lx of the Public Health Act of 1848, while Section cxx (the disinfecting clause, applying also to "articles") was Section xxii of the Sanitary Act of 1866. The draughtsmen of the 1875 Act, perhaps wisely, left these two sections practically as they were originally enacted. Owing to their having done so, it seems that an authority desiring it could, by means of Section xlvi, insist upon the purifying of a house in which a phthisical case had occurred, even although they had, by adopting Section v of the Prevention Act, lost the power of disinfecting the house and all articles infected by any infectious disease conferred by Section cxx of the 1875 Act.

Limitation of the Term "Infectious Disease" in London.

London is practically in the position of those provincial districts which have adopted the Prevention Act. "Infectious disease" in the 1891 (London) Act is a term limited to certain specified disorders. In provincial districts which have adopted Section v of the Prevention Act, the term "infectious disease" applies only to diseases named in the Notification Act, and such other diseases as the authority may have been allowed to add to their list for the purposes of the former Act, presumably for use as to all the clauses adopted from that Act. In London, while the initial restriction on the meaning of the term is the same, the extension of the term to other infectious diseases may be for the purpose apparently of the disinfection clause, or other single provision of Sections lix to lxxiv only, if such be deemed advisable. The sanction of the Local Government Board is necessary to such extension of the definition whether determined on by a vestry for its own district, or by the London County Council for the whole metropolis.

Power to Order Articles to be Destroyed.

But the powers conferred by Sections cxx and xlvi are not the only ones by which an authority outside London can deal with articles infected by tubercle bacilli. Section cxxi of the Public Health Act, 1875, allows an authority to "direct the destruction of any bedding, clothing, or other articles which have been exposed to infection from any dangerous infectious disorder," and allows them to grant compensation. The next section, which allows them to provide a disinfecting station and to disinfect any articles brought to them free of charge, could be made to cover the voluntary disinfection of articles from a tuberculous patient. The authority which had repealed Section cxx and not added phthisis to its infectious list could, perhaps, not legally fetch infected articles to its stations, but would probably be willing to do so and risk the criticism of the auditors rather than destroy useful property.

Compulsory Isolation.

Section cxxiv, which provides for the compulsory removal to hospital of a patient suffering from a "dangerous infectious disorder," need not be very lengthily considered. The conditions of such enforced removal are that (1) the patient is without proper lodging or accommodation, or (2) is lodged in a room occupied by more than one family, or (3) is on board ship, and (4) that there is a conveniently-situated hospital, (5) whose managers are willing to receive such patient. When the patient is in a common lodging-house and the hospital authorities are willing, the process is even more summary. This introduces the question of the provision of hospitals.

Other Sanitary Powers against Infection.

It may be mentioned, however, in passing, that Section cxxvi of the Act of 1875, applicable to the English provinces, makes it penal to give, lend, sell, transmit, or expose—without previous disinfection—any article exposed to infection from "any dangerous infectious disorder." In the corresponding section applying to London the term "infectious disorder" is limited in the manner already indicated.

The penalty under Section cxxviii for letting, without disinfection, a house or room occupied by a patient, would apparently, under the 1875 Public Health Act, in the same way apply to any "dangerous infectious disorder," including phthisis, but the usual limitation applies in London.

Provision of Hospitals.

The provision of hospitals by sanitary authorities is apparently a less difficult question. The compulsory removal section (Section cxxiv of the Public Health Act, 1875), already referred to, merely stipulates that the hospital must be one "for the reception of the sick," and it is left to the managers to say whether they will receive the particular case. It is common enough, as everyone knows, to send cases of enteric fever to general hospitals. The hospital need not belong to the local authority, or to any sanitary authority, and need not be within the district of the authority sending in the patient.

Correspondingly broad is the power given to sanitary authorities themselves to provide hospitals. Such hospitals, as they "may provide for the use of the inhabitants of their district," are to be "for the reception of the sick." There is no qualification of the word "sick." Nothing is said in Section cxxxi (Public Health Act, 1875) about infectious disorders, dangerous or otherwise. Clearly, therefore, any sanitary authority may either themselves erect, contract for the use of, or combine with other authorities in providing "hospitals, or temporary places, for the reception of the sick." There is nothing to prevent any sanitary authority from building or contracting with anyone for the use of wards for tuberculous patients. The cost of maintenance of any such patient, not being a pauper, would by Section cxxxii, "be deemed to be a debt due from such patient to the local authority," recoverable if applied for within six months of his discharge.

It is true that in regard to most acute infectious disorders it has been the habit of many authorities to ignore the existence of such debt on the principle that the protection to the public obtained by treating infectious cases within the walls of the isolation hospital is worth the expenditure. This practice avoids the irritation resulting from the action on the part of an authority in first carrying off an infected member of a family and then charging for his maintenance.

Acute v. Chronic Infectious Disease.

The increasing demand made upon the space at the disposal of an authority for the isolation of ordinary infectious cases, and the corresponding increase in outlay, make it not improbable that there would be considerable hesitation about extending the benefits of hospital treatment to all cases of tuberculosis entirely free of charge. There is, of course, an obvious distinction between treating a case of scarlet fever for six weeks, and thus saving the young members of a family not only from risk of the infection, but also from the necessity during the whole of that period of absenting themselves from school—there is an obvious distinction between this and the treatment, perhaps for several years, of a phthisical patient whose disease is less patently infective. The element of the pecuniary saving to the public by checking the disease early, instead of allowing such person to become a hopeless invalid, and eventually chargeable to the rates, is one in which the guardians of the poor are morally, if not legally, as much concerned as the sanitary authority. So far, in fact, as the patient is not immediately dangerous to any large number of the inhabitants, the sanitary authority might hesitate to interfere.

It would seem that, in the first instance, a combination between the sanitary and Poor-law authorities and those voluntary helpers, who in this country are never far to seek, might best meet the immediate requirements for the isolation and treatment of tuberculous patients. A voluntary sanatorium or hospital, subsidised from the rates, seems the likeliest direction in which to look. A small charge for every case, paid by the individual when able, by the guardians or sanitary authority where such was not the case, should cover to a large extent the cost; and the Wernhers and Beits are not the only wealthy persons who would desire to assist—perhaps even to start—institutions for the open-air treatment of consumption.

Charitable Midwifery in Paris.—It is stated that of the fifty to fifty-five thousand women confined every year in Paris more than 30 per cent. are attended at the expense of the Assistance Publique. Of these women, 14,066 are delivered in the maternity hospitals, 5,876 by midwives attached to the hospitals, and 12,015 by the midwives of the Bureaux de Bienfaisance.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD (ENGLAND) FOR 1897-98.

I.

We have already, in the British Medical Journal of December 17th, 1898, commented on some of the matters of which Sir Richard Thorne treats in his annual report, namely, the Bacteriology of Infantile Diarrhœa and Cholera Nostras, and Unvaccinated Children. The words of Sir Richard Thorne concerning the latter subject have been quoted again and again in the short period that has elapsed since the report was issued, and are pregnant with dark forebodings of what may happen if the new legislation as to vaccination continue to be so administered that a large part of the population escapes from acquiring the protection which vaccination and revaccination alone can afford.

Administrative Business.

Sir Richard Thorne, by the aid of a few graphic paragraphs, lifts the curtain that usually veils the internal doings of a Government department, and shows how much goes on of a quiet and informal character that tends to smooth the working of officialdom in the matter of local applications of health bodies which have to do with such subjects as hospital provision for the isolation of infectious diseases, local by-laws, the raising of loans, and the carrying out of the duties of medical officers of health. We cannot wonder that local authorities have availed themselves of these means of discussing important points, nor that results have been thus obtained that could hardly have been achieved by formal correspondence. The same seems to have been true of the visits of the medical inspectors to localities where health matters needed attending to; and Appendix A, No. 5, gives a useful abstract of the more important reports made by the staff relative to the incidence of disease in particular places, and to questions concerning local sanitary administration. The proposals of one kind and another touching on public health that have been investigated were numerous and diversified.

Enteric Fever at Maidstone.

It is clear from the report that Dr. Theodore Thomson had made much progress in an independent investigation of the Maidstone epidemic of enteric fever of 1897 before he became associated in the "public" inquiry which was locally requested, and which resulted in the issue of a joint report by himself and other two inspectors of the Local Government Board, which report, we are told, "did not form part of the proceedings of the Medical Department."

Cholera and Plague.

A few words by Sir Richard Thorne on the action of the Medical Department in regard to the arrival of two vessels at Plymouth and Southampton respectively, the one infected by cholera and the other by plague, incidentally afford evidence of the efficiency of our port administration in respect of the local action needed when these exotic diseases are in question and to the tact displayed by the Central Department in dealing with local and other interests in these matters. As regards cholera prevalences in and out of Europe, Dr. Bruce Low gives a detailed statistical report, which proceeds much on the lines of those which came from the pen of the late Dr. Barry, as to the appearances of the disease both in 1894 and 1895. Dr. Low seems to have a distinct facility for correlating data of the sort, and his report is well deserving of preservation.

Oysters and Enteric Fever.

The very valuable contribution to the literature directly connecting the ingestion of oysters with diseases in the human subject, made by Dr. Buchanan, is reproduced in an appendix, and fully commented upon by Sir Richard Thorne, whose analyses of this and of the other reports in the volumes are masterly summaries of the facts detailed. As a result of complete and exhaustive inquiry into 26 cases of enteric fever in several sanitary districts, it would seem impossible to avoid the conclusion that certain oysters did, as a matter of fact, convey the disease to consumers; and with great exactness Dr. Buchanan indicates whence these oysters came and the

means whereby he believes they derived their infective quality.

Enteric Fever at King's Lynn.

The lesson to be derived from the reinvasion of King's Lynn by enteric fever in 1897, as chronicled in a report by Dr. Mivart, included in the volume—following as it did upon a like epidemic in 1891-92—is that it is, to say the least, false economy to be content with a water service of a doubtful character. Notwithstanding the history of the earlier epidemic, the inhabitants resisted all attempts to substitute a wholesome water service for the sewage-polluted fluid of the river Gaywood; and only by the issue of a provisional order by the Local Government Board has a satisfactory supply at last been secured.

Bury Water Service.

Dr. Bruce Low's account of his visits to the six gathering grounds of the Bury Corporation Waterworks is full of important statements concerning the conditions under which these works procure and distribute the water drainings from grounds whereon human beings are housed and at work, and whereon manure, slop water, privy contents, etc., are placed; "upon some of them at least there exist conditions which must foul the water," and which would favour the spread of disease, should the specific poison "be introduced upon them from without." We are glad to learn that steps have been taken and are in progress for ridding the gathering areas from pollution.

County Council Representation.

Included in the volume is a report by Dr. Thomson on the general sanitary circumstances of the borough of Bewdley, made in consequence of a representation by the Worcestershire County Council that the local authority had made default in not enforcing their powers under the Public Health Act, especially as regards water supply, housing of the working classes, and sewerage. We need say nothing more on this matter than that the report demonstrates that the "county council are evidently justified" in the course they took. We could not expect less with Dr. Fosbroke as their adviser in such matters.

THE TRAFFIC IN ABORTIFACIENTS.

The pestilent traffic in so-called abortifacients has received, we may hope, a heavy blow from the publicity given to its methods and consequences in the recent blackmailing case tried at the Old Bailey before Mr. Justice Hawkins.

In passing, we may note the interesting fact that this was Sir Henry Hawkins's last appearance as a judge at the Old Bailey, and that, in the opinion of those who were present, he has never presided with more ability and impartiality at any of the great trials with which his name has been associated during the twenty-two years in which he has been a veritable pillar of the law.

The facts of the case are remarkable. Three brothers rejoicing in the sinister name of Chrimes had been for some two and a half years carrying on a trade in the sale of "female remedies," described by them in the usual terms as "miraculous," "irresistible," etc. But the brothers contemplated something more ambitious than the establishment of a business in the sale of drugs. Between them they concocted a most nefarious plot. The names and addresses of the women who applied for these "miraculous remedies" were all noted, and in a little over two years the industrious brothers had thus got more or less in their power some 12,000 credulous women! The net was now full, and they proceeded to haul it in. Early in October, 1898, they issued to between 8,000 and 10,000 women a letter stating that the writer—"a public official"—was in possession of evidence that the recipient had committed the awful crime of preventing the birth of a child; that legal proceedings had commenced; and that she would be arrested in a few days unless the sum of two guineas—in postal orders, not cheques—was sent at once to the "public official" to cover his "costs." It requires but little imagination to realise the terrors which must have seized many recipients of such a letter, whether innocent or guilty of the charge alleged.

Copies of the letters were placed in the hands of the police, who acted on the information with promptitude and energy. The three brothers were arrested, and in due time tried, convicted, and sentenced to penal servitude for terms of twelve, twelve, and seven years respectively. Meantime the letters sent to them by their victims were intercepted by the police. Postal orders to the amount of over £800 poured in in a few days, accompanied by protestations of innocence and appeals for forgiveness. The judge, in passing sentence, read two, taken from a large bundle which he held in his hand, for the purpose of illustrating the effect the blackmailing letter would have even on an innocent woman.

The case is important chiefly because it has attracted public attention to, and compelled the authorities to take note of the mischief done by these advertisements of "female remedies for obstructions."

When the case was before Mr. Alderman Newton at the Mansion House he described the publication of advertisements of this class as "an ugly blot on the deservedly high character of our press in general." Mr. Justice Hawkins spoke equally strongly on the subject; and finally, as a rider to their verdict, the jury declared "that such a vile plot, even with all the ingenuity displayed in it, could only have been possible by the acceptance of such immoral advertisements by a section of the press, religious and secular, well knowing their nature." The jury further expressed their conviction that means should be found to suppress such advertisements and the institutions from which they emanate, as they considered them direct incentives to ignorant and evil-minded women to commit crime. Mr. Justice Hawkins received the rider with evident satisfaction, saying, "That is one of the matters, if you will permit me, that I will send to the Home Secretary." We may therefore hope that the police will be instructed to exercise more vigilance than they have done hitherto in suppressing such thinly-veiled incitements to criminal abortion.

The enormous demand for such remedies was brought to light by the trial. This was evidenced not only by the multitude of these costly advertisements, but was proved directly by the startling announcement made by counsel for the prosecution that some 12,000 women in the course of two years walked into the net spread by the Chrimes brothers.

The stuff sent out to their victims by these men was stated to be harmless, in fact a good blood tonic, incapable of producing the effect claimed for it. Mr. Justice Hawkins seemed to regard this as an aggravation of the prisoners' offence because it was getting money under false pretences. But is it not time for medical witnesses to recognise and make known that there are no drugs which have any appreciable ecbolic effect? Women think that there are. Independently of the advertised nostrums there is probably nothing commoner than the sale over the counters of prescribing chemists of pills for the purpose of bringing on a delayed menstruation. The pills generally given for the purpose are those containing iron or aloes, or both; and it is probable that in a few cases the irritation of the lower bowel so produced may bring about the expulsion of an early ovum. In a good many more no effect upon the uterus is produced. In some cases the expected menstruation has not appeared from causes other than pregnancy: from anxiety, from change of residence, anæmia, or some other slight cause; and the drug given may do good by allaying fear, or by improving health. The futility of drugs for bringing on abortion will be illustrated by the following question: There are cases in which medical men for good reasons, and after consultation, think it necessary to induce abortion; but whoever heard of their trusting to drugs to do it?

It is often difficult, in many cases impossible, to make women see any moral difference between early getting rid of the product of conception and using measures to prevent pregnancy altogether. The latter practice is unfortunately far too common, especially among married women. Unmarried lovers, when the hour of temptation arrives, do not stop to think of so-called Malthusian precautions, and it is not wonderful if the one on whom fall the consequences of a moment's folly tries, by what seem to her harmless means, to ward off those consequences, terrible as they are to her.

We have already commented on the state of the law as to constructive murder, and in the lay press there is a general consensus of opinion as to the injustice of treating the induction of abortion, if it happens to be fatal, as murder. There is this to be said for the abortionist: that he at least carries

out his share of the bargain, and relieves the patient from the consequences of her fault. But the rascals who advertise remedies which will cure all female irregularities simply take advantage of their victims' fears to defraud them. In our opinion a conviction for obtaining money under false pretences would never be better deserved than in such cases.

We do not wish to minimise the offence of medical men who prostitute their medical knowledge by using it to relieve—for excessive fees—foolish girls from the consequences of folly. But we think the main cause of illicit intercourse is the desire of young people for a life of luxury and display which is incompatible with early marriage, and that the purity of family life in England is to be maintained by training children in clean, plain, and healthy ways, and by giving them such opportunities of forming desirable acquaintances among the opposite sex as shall make them early wishful to enter into the honourable estate of matrimony. Family training on such lines will do more to repress abortion-procuring than heavy sentences on the few abortionists who have the misfortune to be found out.

THE REPORT OF THE MEDICAL OFFICER OF HEALTH OF LONDON FOR 1897.

I.

VITAL STATISTICS.

MR. SHIRLEY MURPHY'S annual report is always an interesting document, dealing as it does with the vital returns and administrative details of a huge population of 4,484,717 housed upon an area of 75,462 acres, and, although an enormous amount of information is given in a little over a hundred pages, it may be said to be at once a model of lucidity as well as of conciseness in dealing with subjects which do not readily lend themselves to such treatment.

The first part of the report deals with statistics alone. In common with the country as a whole, the County of London in 1897 presented the somewhat discomforting statistical feature of an increasing marriage-rate along with a diminishing birth-rate—the marriage-rate of 18.5 per 1,000 being the highest since 1878, whereas the birth-rate of 30.0 per 1,000 is the lowest recorded. The enormous differences in the social status and age and sex distribution of the different sanitary areas comprised within the county are reflected in the fact that the highest birth-rate (that of St. Luke) was as high as 45.2, whereas the lowest was only 13.3 (that of St. Martin-in-the-Fields). It is mainly due to the same causes that, although the death-rate of the whole county stood at the respectable figure of 17.7 per 1,000 living, there were certain areas with death-rates far in excess of this, and others—such as those of Lewisham, Hampstead, and Plumstead—which were only between 13 and 14. When allowance is made for differences in age and sex distribution the corrected death-rate of St. Luke (27.8) is the heaviest of all the other forty-two sanitary areas in the county, and there are six others with rates above 25—namely, Holborn, Limehouse, St. George-in-the-East, St. George Southwark, St. Saviour, and the Strand. In most of these a high birth-rate in a poor-class community doubtless plays a prominent part in determining the high death-rate, because of the exceptionally high rate of infantile mortality which obtains in such communities. The rate of infantile mortality for the whole county was 158 per 1,000 births—or, in other words, 26.7 per cent. of all the children born died before they had completed one year of life. This is an excessive mortality, and a very large amount of it is preventable, seeing that it is due to parental ignorance and neglect; but, if we take the parish of St. George-in-the-East, we find that the rate of infantile mortality was 197, and that 31.6 per cent. of the children born failed to complete one year of life.

Mr. Shirley Murphy next compares the mean deaths occurring at each age-period in 1891-7 with the deaths which would have occurred at similar age-periods if the death-rates of 1881-90 had still been maintained; the difference between the two sets of figures represents the number of lives gained or lost at each age-period by fluctuations of mortality, and by applying to these differences the figures representing the mean future lifetime, as calculated from the London Life Tables, 1881-90, the actual gain or loss is expressed in terms of "life capital."

A table is given showing that, calculated in this way, there has been a mean annual saving of 3,587 lives, and this represents a mean annual saving of 142,460 years of "life capital." A further table shows that the death-rate at "all ages" for each sex has progressively declined, but that when the figures for separate age-groups are considered, the extent of the decline varies considerably in different age-periods, and that in some periods there has actually been an increase in the death-rate.

Having regard to the special importance of the subject and to the universally recognised necessity for adopting in the immediate future some measures which are calculated to reduce the preventable mortality from tuberculosis, the following facts collected in the report will be of interest. It should be pointed out, however, that these death-rates are uncorrected for differences in the age and sex constitution of the populations—a circumstance which largely detracts from their value as a means of comparing the true incidence of the disease on different London sanitary areas.

Death-rates per 100,000 Living in each Sanitary Area.

Sanitary Area.	Tabes Mesenterica.	Tuberculous Meningitis.	Phthisis.	Other Tuberculous Diseases.	Respiratory Diseases.	Other Diseases.
Paddington	14	19	115	12	240	947
Kensington	10	22	148	27	263	993
Hammersmith	2	29	137	25	295	1,059
Fulham	22	24	154	11	309	1,088
Chelsea	7	27	176	20	314	1,128
St. George Hanover Square	10	21	118	14	213	847
Westminster	25	25	273	19	324	1,169
St. James	13	40	226	22	292	1,055
Marylebone	15	26	175	21	332	1,125
Hampstead	8	28	76	10	175	785
Pancras	18	27	202	25	339	1,172
Islington	26	24	145	19	282	983
Stoke Newington	6	23	117	12	193	976
Hackney	21	24	143	20	270	1,086
St. Giles	26	21	307	18	304	1,076
St. Martin-in-the-Fields	—	8	216	8	244	1,007
Strand	13	34	323	30	361	1,265
Holborn	10	26	272	33	515	1,354
Clerkenwell	23	35	233	30	429	1,400
St. Luke	19	46	310	29	555	1,488
London, City of	3	40	185	23	304	1,384
Shoreditch	29	30	206	21	400	1,382
Bethnal Green	42	31	200	15	445	1,334
Whitechapel	29	40	255	15	400	1,168
St. George-in-the-East	46	27	278	35	566	1,615
Limehouse	26	26	253	27	436	1,643
Mile End Old Town	21	29	139	24	308	1,275
Poplar	38	27	192	20	351	1,260
St. Saviour Southwark	52	60	325	24	450	1,429
St. George Southwark	41	31	291	18	517	1,403
Newington	31	36	222	26	370	1,342
St. Olave	9	26	270	35	418	1,263
Bermondsey	37	35	204	20	425	1,393
Rotherhithe	12	25	162	27	376	1,215
Lambeth	15	30	165	18	283	1,146
Battersea	16	27	150	24	242	1,092
Wandsworth	12	22	113	12	190	899
Camberwell	17	23	150	18	303	1,056
Greenwich	26	16	146	17	253	1,156
Lewisham	16	18	97	14	161	860
Woolwich	29	17	193	22	285	1,156
Lee	23	23	112	18	163	887
Plumstead	21	15	161	16	197	901
London	21	26	172	20	309	1,130

The zymotic death-rate for London in 1897 was 2.56, the lowest rate since 1891, and a lower rate than any of twelve next largest English towns, except Bristol and Bradford. The Eastern groups of sanitary districts had the highest mortality from the principal zymotic diseases—namely, 3.3 per 1,000 living, and the Western group the lowest (2.1).

In dealing separately with the diseases which are included in the zymotic rate small-pox receives consideration at some length. There were 104 cases notified and 16 deaths from small-pox in 1897 in London. Extracts from the reports of medical officers of health are given which furnish information in detail with reference to the cases notified, and the difficulty attending the diagnosis of the disease is exemplified in

the fact that about 25 per cent. of the cases were wrongly notified, the majority proving to be chicken-pox.

The following table, in which the number of deaths at each age-period is expressed as a percentage of the total deaths from small-pox at "all ages," very clearly indicates the relative age incidence of the disease and the value of infantile vaccination.

Age-period.	All Ages.	0–1	1–5	5–20	20–40	40–60	60–80	80 and upwards.
Vaccinated ...	100	1.7	2.6	17.9	57.0	17.6	3.0	0.2
Unvaccinated ...	100	16.6	23.9	33.0	20.4	5.2	0.9	0.0
No statement ...	100	12.8	11.9	23.8	34.9	13.1	3.3	0.2

The London vaccination returns show a record of an increasing proportion of children born in London who are not vaccinated, and in 1895 the number had reached the alarming proportion of nearly 25 per cent. of the total births. Mr. Shirley Murphy points out that the number has especially increased since the appointment of the Royal Commission on Vaccination, and that the figures foretell numerous deaths from small-pox in the future.

THE ROENTGEN RAYS IN MILITARY SURGERY.

AT a meeting of the Roentgen Society on Tuesday, January 10th, Major J. C. Battersby, R.A.M.C., read a paper illustrated by lantern slides on The Present Position of the Roentgen Rays in Military Surgery. Major Battersby was in charge of the Roentgen Apparatus with the Nile Expeditionary Force in the Soudan.

THE EQUIPMENT OF MILITARY HOSPITALS.

He said that he was in a position to state that most of our large military hospitals at home and abroad were now provided with a most efficient *x* ray outfit, and that every inducement and encouragement was offered to officers by the Director-General of the Army Medical Service to acquire a thorough practical knowledge of this most important adjunct to professional methods. Much doubt formerly existed as to whether the process was applicable to the arduous and oftimes difficult requirements of field service. Surgeon-Major Beevor, however, had demonstrated that successful results could be obtained in the cold and mountainous regions of Northern India, and only those who had a knowledge of that country could thoroughly appreciate the difficulties encountered and the manner in which they were overcome.

CLIMATIC DIFFICULTIES.

The Principal Medical Officer of the Egyptian army, in answer to inquiries by Major Battersby, had written: "Beevor worked chiefly in cold regions; your efforts will be carried out in intense heat, where the temperature in tents is frequently over 120° F." Major Battersby expressed his acknowledgements for the great care and attention bestowed upon the construction of the coils before they left London, and also the ready and able assistance he had received from the warrant officer of his own corps who was selected to help him. Before leaving Cairo, Major Battersby took the additional precaution of having very thick felt covers made to surround the outer boxes containing the coils and storage batteries. By keeping these constantly wet the internal temperature was considerably reduced, as evaporation in the Soudan was very rapid. Between Wady Halfa and Abadieh all the apparatus had to travel for two days and a night in an open truck, exposed during the daytime to the fierce heat of a blazing sun, and by keeping the felt wet every two hours the journey's end was reached without mishap. Thermometric observations later on proved that when the felt coverings were kept damp the temperature in the centre of Mr. Dean's coil did not exceed 90° F.

THE VALUE OF THE ROENTGEN RAYS.

After considering the types of cases in which the Roentgen rays were best calculated to render service to the military surgeon, and giving a classification of surgical cases of various kinds founded upon one drawn up by Dr. W. S. Haughton, Demonstrator of Anatomy, Trinity College, Dublin, he proceeded to say that the Roentgen rays had proved of great value in military surgery, as lead was very opaque to the rays. The erratic course often taken by bullets after entering the body rendered their discovery by ordinary means exceedingly difficult, if not in some cases quite impossible. After the battle at Omdurman 121 British wounded were conveyed to the surgical hospital at Abadieh. Of this number there were 21 cases in which the bullet could not be found, nor its absence proved by ordinary methods. In 20 out of these 21 cases an accurate diagnosis was arrived at with the help of the rays. The odd case—a severe bullet wound of the lung, was too ill at the time to be examined. To confirm the beneficial results obtained by means of the Roentgen rays on field service, he quoted with satisfaction the opinion of the senior medical officer in charge of the hospital, who stated:

> The Roentgen rays proved of invaluable assistance in localising the exact position of bullets, and in many cases rendering probing of wounds unnecessary. In many cases the *x* rays prevented much suffering to the patient which would have been caused by probing, the use of the finger, or enlarging the wound in the ordinary search for the bullets, as the skiagraph at once indicated the exact position of the bullet.
>
> In other more complicated cases the Mackenzie Davidson method localised the exact potition of the bullet, so that the surgeon was at once able to come to the conclusion if operative interference was judicious or otherwise. If considered advisable, the removal of the bullet was much facilitated by the diagram previously indicating exactly where the projectile was to be found.

Dr. Haughton, in his address to the University of Dublin Biological Association, had well said:

> The *x* rays have furnished the army surgeon with a probe which is painless, which is exact, and, most important of all, which is aseptic—qualities not possessed by the older though ingenious instrument bearing Nélaton's name.

SCREEN OR PLATE.

Major Battersby said that his own experience had shown that a short exposure might in some cases give better results than a long one. His first experience of this was in a case in which a bullet was supposed to have lodged about the orbital region. He gave a fifteen minutes' exposure with a 10-inch Dean's coil. Not being satisfied with the result, he repeated his observation, when, after seven and a half minutes, the patient's head began to shake, and the coil was immediately stopped. To his satisfaction he obtained an excellent plate.

In the Soudan some sixty observations were made by means of the screen and photographic plates, resulting in this conclusion, that each case had to be studied as a special problem with regard to the intelligent adaptation of detail and method.

The accurate localisation for practical surgical purposes, he continued, of foreign bodies in the tissues is, I think, the consummation of skiagraphic art. A bullet, for instance, in a loaf of bread can be localised, with the fluorescent screen, by means of acupuncture needles, but such a procedure is scarcely applicable to patients suffering more or less from shock and in a depressed and nervous condition. With a bullet situated in the upper or lower extremity it is difficult, from a single skiagraphic observation, to say whether the projectile lay in front or back of the bone. A cross skiagraph at right angles to the first at once solved the problem, and by this method most of the cases were localised in the Soudan. For deeper structures the best results were obtained by the aid of a modification of Mr. Mackenzie Davidson's localising apparatus.

THE ROENTGEN RAYS ON FIELD SERVICE.

Major Battersby then turned to the consideration of the application of the process to the requirements of field service. For this purpose it was essential that the outfit should be made as light as possible in order to be portable and suitable for mule, camel, or human transport, as often narrow defiles and mountainous passes had to be traversed. Another important point was, that the constituent parts of the apparatus should be small enough to fit in panniers, to hook on either side of a pack saddle on a mule's back. The most serious difficulty at present was the best method of generating the primary electrical current for charging the storage batteries or working the coil direct. Primary batteries for many reasons were unsuitable, and not to be recommended. In the Soudan a small dynamo driven by means of a tandem bicycle answered admirably, and was readily transported by rail and river to

Abadieh, but as at present constructed it was unsuited for mule, camel, or human transport.

An ideal apparatus would consist in a statical or friction machine—some modification, for instance, of Mr. Wimshurst's, by which the focus tube could be excited direct. In such a design many physical difficulties arose, but they were not insurmountable, and when surmounted the achievement would render it possible to reduce the present apparatus very considerably, by dispensing with primary and storage batteries, dynamos, bicycles, and the induction coils.

The Outfit in the Soudan Campaign.

The Roentgen ray outfit which was sent out to the Soudan consisted of a 10-inch coil made by Mr. Dean, of Hatton Garden. This coil was specially insulated, and with the condenser, commutator, interruptor, ammeter, voltmeter, small electric lamp, fluorescent screen, and two focus tubes, was enclosed in a strong oak box. It was most complete and satisfactory, but for the requirements of field service, too heavy for canal or mule transport. Consequently a special arrangement of ropes was made, by which means and by the aid of a long pole it could be carried on the shoulders of four men like an Indian dhoolie.

Another 10-inch coil taken was designed by Mr. Apps. At Major Battersby's suggestion it was made in two separate parts, the coil proper being enclosed in a teak case, and the condenser, commutator, contact breaker, etc., in another. By this method the weight was evenly divided, and the two boxes could be readily carried on either side of a mule or camel, or by coolies over very mountainous districts. This coil gave entire satisfaction. In addition, a small 6-inch Dean's coil was taken on to Omdurman from Abadieh, the headquarters of the apparatus and base surgical hospital. The thick felt covers procured at Cairo, by which the internal temperature of the coils was much reduced by the process of evaporation, were constantly kept damp, and no doubt helped to preserve the insulating material of the coils.

The storage battery consisted of eight separate E. P. S. cells, which proved more useful than if they had been permanently fixed in a wooden case, as the voltage could be regulated, increased, or diminished as the case required, and also if a cell become injured or a plate buckled, it could be taken out of the circuit at once, and a spare one substituted. These cells, when put in series, answered admirably, but owing to the excessive heat the water evaporated rapidly from the acid solution, and an apparent tendency for the cells to discharge in some unaccountable manner was observed. A general lowering of the specific gravity of the electrolyte was noticed, presumably owing to the unusually high temperature at which the cells had to be worked. In no case when the cells were fully charged did the hydrometer register a specific gravity of 1.22. Major Battersby laid stress on this observation, as in the absence of a voltmeter, the exact condition of the cells when in use could only be judged by a hydrometer, the discharge being stopped when a specific gravity of 1.15 was recorded at 60° F. A table of revised specific gravities for each increase of temperature above 60° F., for reference in warm climates, was urgently required.

Four 10-inch ordinary bianodic focus tubes were taken. They were obtained from Mr. Dean, and personally tested by Major Battersby before leaving. The platinum wire terminals fused through the glass ends of the tube were protected by a ferrule of thick indiarubber, and each tube wrapped in cotton wool and carefully packed in a small wooden box, which was kept under personal supervision. Two of these tubes did most excellent and extensive work, one being better for screen work, while the other gave more satisfactory photographic results.

The fluorescent screen was most useful at night, but unsatisfactory to work during the day owing to the intense sunlight, which, in spite of all efforts, penetrated the hood, no dark room being available. The surface of the screen was protected by a layer of celluloid, which in a warm and dusty climate was a matter of no mean importance. The great advantage of screen work in military surgery depended upon the fact that, under suitable conditions, any part of the body could be explored without delay. The perfecting therefore of the screen apparatus for daily work was of some importance.

With regard to photographic materials and developers a good deal had to be learnt. Glass plates alone gave satisfactory results. A variety of different sizes were taken—Wratten and Wainwrights, Pagets, Lumière, and a small supply of Cadett lightning. Those with the thinnest film appeared most suitable for the intense heat, but thick or thin plates could not have been saved without the aid of an alum bath, as the water for developing was comparatively hot, no ice being procurable, consequently the more delicate shades of development had to be sacrificed. Of developers rodinal, hydroquinone, metol, and pyrogallol were used. There was a marked tendency for development to proceed at a very rapid pace, often making the picture flash up at once, when the greatest precautions were necessary to preserve the result. As a rule the developing work was performed at 3 A.M. and even then (the coolest time) the temperature in the mud-brick dark room varied from over 90° to 110° F. An atmosphere laden with dust and constant dust storms was most trying. Eleven plates were destroyed one night by a fierce storm which blew off the improvised mud roof. "Tylar's dark bags" were most useful, as the wooden plate holders were apt to shrink and consequently light to gain admission.

It was discovered, fortunately before leaving Cairo for the front, that the July heat, about 95° in the shade, was affecting the gutta percha insulated wire brought out from England. The insulating material had commenced to crack in different places.

Through the kind assistance of M. Marconi, electrical engineer of Cairo, and some Italian-made insulated wire of different grades, similar to that used throughout Cairo, was obtained from the telephone company. It answered admirably, and withstood the heat splendidly.

Major Battersby's headquarters were at Abadieh, a small village on the Nile, about 1,250 miles from Cairo, and 9 miles north of Berber. Here the Egyptian troops had constructed a number of large, well-ventilated, mud-bricked buildings, which admirably suited all the requirements of a large surgical hospital in the field.

The Bicycle as a Generator of Electricity.

The method by which electricity was generated for charging the storage batteries which worked the induction coils and illuminated the lonely desert for the first time with electric light, and also the red developing lamp, after the "specially prepared candles" had been resolved by the excessive heat into their oily constituents, was as follows: The pulley of a small dynamo was connected by means of a leather strap, with the back wheel of a specially-constructed tandem bicycle. The required velocity for the dynamo was thus obtained. Having carefully adjusted the circuit with the storage battery, and also with the voltmeter and ammeter, the warrant officer took his position on the seat of the bicycle and commenced pedalling. When 15 volts and 4 ampères were registered, the switch close to the handle of the bicycle was opened and the charging of the battery commenced. As the resistance became greater a sensation of riding up hill was experienced, and the services of an additional orderly requisitioned for the front seat. This bicycle practice was generally carried out in a shade temperature of 110° F., so that everyone was glad when, the switch having been turned off before pedalling ceased in order to avoid any discharge from the battery, the machine was brought to a standstill.

The cells used were the ordinary E.P.S. cells, 40 ampères per hour type, with a voltage of 2 volts per cell, and a discharge of 4.5 to 6 ampères. The cells while being charged required the dynamo to give a current of 15 volts and 6 ampères. This multiplied together gave an electro-motive force of 90 Watts, and, as 760 Watts = 1 electric horse power, $\frac{1}{8}$ horse power was necessary to drive the dynamo for charging. It was also necessary to have an extra $\frac{1}{8}$ horse power to overcome the resistance of the working parts and the opposing force contained in the full batteries, hence the necessity of tandem seat for an extra man.

Localising Apparatus.

Major Battersby then showed a photograph of a modification of Mr. Mackenzie Davidson's localising apparatus by means of which he was enabled with mathematical accuracy to localise two bullets which had entered through the shoulde

and lodged in each case near the shoulder-blade. Another bullet was localised with similar precision in the pelvic cavity.

Case I.—The patient, a private in the Seaforth Highlanders, while standing half-right firing at Omdurman, was hit about 1 inch behind and 1 inch below the anterior superior spine of his left ilium. When examined at night with the screen, the lateral view distinctly showed the bullet, which next day was localised. The vertical depth from the surface to the centre of the tip of the bullet was 1⅝ inch, the centre of base of bullet 2 inches, so that the depth, direction, and exact position of the bullet were told to the operating surgeon.

After the battle at Omdurman 121 British officers, non-commissioned officers, and men were brought back wounded to Abadieh. Of this number there were 21 cases that could not be diagnosed accurately by ordinary surgical means. By the help of the Roentgen rays, which were used about 60 times, we found the bullet or proved its absence in 20 out of these 21 cases. In the odd case the patient was so ill with a severe bullet wound of the lung that it was not considered justifiable to examine him at the time.

Invaluable aid was afforded by the Roentgen rays in a class of bullet wound of frequent occurrence. Fortunately the powder manufactured at Omdurman and amongst the Chitral Hills was not good, and consequently the initial velocity of projectiles was not great. The result was that a number of wounds were produced by spent bullets. In former days, as there was no wound of exit, much doubt existed as to whether the bullet had lodged in the limb or not, and consequently a good deal of probing had to be resorted to. Now all this was changed.

In conclusion Major Battersly showed a number of skiagraphs taken in the Soudan illustrating among others the following cases:

Case II.—Private W., Lancashire Fusiliers, bullet wound back of left hand. Skiagraph showed that the metacarpal bone of the middle finger was injured but no bullet present.

Case III.—Private W., of the Cameron Highlanders, had a bullet wound of his right forearm. The skiagraph gave a negative result and as in Case II the injury was evidently produced by a spent bullet. In neither of these cases had probing to be resorted to, and each healed in a few days with simple antiseptic dressing.

Case IV.—Private H., 2nd Rifle Brigade, bullet wounds through outer and inner side of left arm and a third wound near inferior angle of left scapula. Three pieces of bullet were found at outer side of humerus. No bullet was seen in the chest and consequently there was no necessity to probe for it.

Case V.—Private J. B., Royal Warwicks, received a bullet wound near the tip of the right shoulder behind the acromial end of the clavicle. The skiagraph taken through the chest without removing the dressings and bandages was faint, but the front view revealed the bullet at right angles to the axillary border of the scapula about 2 inches below the glenoid cavity. The outer tip of bullet just touched axillary edge; it was probably in the subscapular space. This case was localised by Mr. Mackenzie Davidson's method with the following result: The depth from the skin of the back to the centre of the tip of bullet was 2 inches and the centre of the base of bullet 1½ inch from the surface. The bullet was easily extracted in the presence of the Principal Medical Officer, who stated that the result was "highly satisfactory." In order to avoid unnecessary pain and disturbance to the patient suffering a good deal from shock, the skiagraphs were invariably taken without interfering with any of the dressings. Consequently such substances as iodoform and perchloride of mercury preparations interfered materially with the skiagraphic effects, but not with practical diagnosis and surgical results.

Case VI.—Sergeant S., Lincolnshire Regiment, received a bullet wound at the inner part of the left supraorbital ridge. The projectile was supposed to be lodged at the back of the orbit, as the eye was protruding and the sight destroyed. When studied closely the skiagraph showed outlines of the bones of the upper part of the face, including the orbital cavity, as well as the fleshy parts of the forehead and nose, but no trace of a bullet. The eyeball was enucleated a few days afterwards, but no foreign body was found. The injury had evidently been produced by a spent bullet, which drove a splinter of bone into the eye.

Case VII.—Private L., Lincolnshire Regiment, bullet wound of left thigh. The front view showed a bullet projecting from the outer side of the femur about the middle of the shaft. The side view revealed the projectile lying parallel with the shaft on the upper side. The bullet was thus localised by these two photographs, and easily removed.

Case VIII.—Private of the Cameron Highlanders; bullet wound of the left leg. The skiagraph was taken some time after the injury, and showed clearly the fracture of both bones, the tibia especially being very severely damaged and suffering from necrosis. Several splashes of lead were also seen in the wound.

Case IX.—Private L., Seaforth Highlanders, bullet wound of left ankle. The front view showed a bullet with its broad end towards the inner side. In the side view the bullet was seen in the joint between the astragalus and scaphoid. An incision over the place indicated revealed the bullet, which was readily extracted.

Case X.—Private H., Seaforth Highlanders. Bullet wound on the inner side of right knee, over inner condyle of femur, about 2 inches from inner border of patella; knee-joint much swollen and inflamed. The front view revealed the bullet in the inner condyle of the femur, the long axis parallel to the leg. The lower end reached to the articular surface of the condyle; the upper end was about two-thirds up the condyle. The bullet was but a quarter of an inch from inner margin of condyle. The side view showed the bullet about midway between the anterior and posterior borders of the internal condyle of the femur, the lower end touching the articular surface, and the long axis nearly parallel to the limb. The patella was widely separated from the front of the femur, and the front of part of the condyle appeared to be much comminuted. Operation revealed the bullet embedded in the inner condyle. It was easily extracted.

Case XI.—In this case the skiagraph was taken with a small 6-inch coil at Omdurman while the action was going on. Owing to the intense sunlight it was not possible to detect the bullet by means of the screen, as light penetrated through the hood. The plate was much injured during the process of development by the intense heat and want of ice, but it showed the bullet flattened out like a shilling at the lower end of the right leg.

Case XII.—Private T., 1st Northumberland Fusiliers, was brought to hospital, having received a blow on the back of his left hand. There was considerable pain, but no definite diagnosis could be made. His hand was examined in the dark room with the screen, but owing to the constant flicker nothing wrong could be detected. A skiagraph was immediately taken and developed, which at once demonstrated a very fine oblique fracture of the metacarpal bone of the ring finger.

THE MIDWIVES BILL.

Omissions from the New Bill.

We printed last week, in connection with the new Bill promoted by the Midwives Bill Committee, the reports of the Special Committee of the General Medical Council. It will have been noticed that the new Bill meets most of the points raised by the General Medical Council. The most important omission appears to occur with regard to the definition of the term "midwife," which the General Medical Council desired should be "a woman who undertakes for gain to attend cases of natural labour, and who is not registered under the Medical Acts." The rights of persons registered under the Medical Acts are referred to in Clause 15 of the new Bill, although its wording would be materially improved if they were referred to as persons registered under the Medical Acts in place of the phrase "duly qualified medical practitioners." The other omissions from the definition involves a principle of great importance. The General Medical Council has advised the Lord President of the Privy Council "That the regulations under which licensed midwives are required to practise should include provisions securing that the midwife shall immediately seek qualified medical assistance in every case which presents symptoms of difficulty, abnormality, danger, or disease on the part of the mother or of the newborn infant." The only paragraph in the new Bill which can be held to have any bearing upon this point is Clause 5 (3) (*d*), which directs that one of the duties of the Central Midwives Board shall be to frame rules for approval by the General Medical Council "regulating, supervising, and restricting within due limits the practice of midwives." The promoters of the Bill, therefore, appear to contemplate leaving this matter, which the General Medical Council considered sufficiently important to introduce into the definition of the term midwife, to be determined by the proposed Central Midwives Board, with the approval of the General Medical Council. In a matter of so much importance, however, it would have been more satisfactory had the point that a midwife licensed under the Bill would be entitled to attend cases of natural labour only been distinctly laid down in the Bill itself, although, as was recognised in the *Memorandum* appended to the Midwifery Nurses Bill of the British Medical Association, it would be necessary to leave it to the Board to define the circumstances which would render it obligatory on a midwife to demand medical assistance.

When the new Bill is further compared with the Midwifery Nurses Bill of the British Medical Association, it will be seen to differ in little, the full title of the Association Bill being "A Bill for the Protection of Pregnant and Lying-in Women and Newly-born Children, by Promoting the Better Training of Women as Midwifery Nurses, and their Compulsory Registration as such." The principle embodied, first, we believe, in this Bill—that the provisions of the Bill should apply to all persons (not being registered medical practitioners) who habitually and for gain attend or undertake to attend lying-in women—is accepted in the new Bill, but the other principle—that a midwife should attend only cases of natural labour—is, as has been said, omitted.

Another provision which has not been embodied in the new Bill is that which would have enacted that no midwife should be entitled to recover any fee or charge for attendance

as such, unless she has either personally or by a substitute, who must be a person licensed under the Act, performed the duties of a midwife as laid down by the Board.

The new Bill makes no reference to the control of lying-in homes, which was dealt with in Clause 17 of the Midwifery Nurses Bill, and as to which, under Clause 6 (4) (*f*), the Board would be directed to frame regulations both for their conduct and inspection.

These would appear to be the most important differences, but many other points remain unnoticed. Many, however, are sequential to the failure to adopt the principles to which we have referred.

AN ALTERNATIVE SCHEME.

Births, Midwives, and Doctors.

The criticisms of former Midwives Bills have been directed mainly to details of the proposed measure, but it has been clear that the objection on the part of many has been not merely to the details, but to the principle of affording any legal recognition to midwives. This has not always been distinctly stated; perhaps it has not always been realised by the critics themselves. Others, again, who have not concealed their dislike to the principle of recognising midwives have not proposed any alternative.

Dr. Thomas M. Watt, judging from a pamphlet[1] which he published some little time ago, is to be numbered among those who are opposed to a Bill in any shape, but he is ready with an alternative scheme. He sees very clearly the direction in which his arguments lead, and states his conclusions with candour; it has, therefore, seemed to be desirable to give the outlines of his scheme rather fully.

The earlier part of his pamphlet, which is directed to a criticism of the Midwives Registration Bill of 1898, is, in fact, now out of date. With regard, however, to the estimates of the number of women now practising as midwives in England and Wales, which have varied from 10,000 or 15,000 to 4,500, he points out that in the census of 1881—the only recent occasion in which they have been enumerated separately—they were returned at 2,648, but concludes that no reliable estimate can be made. He then takes the number of medical men registered in 1896 (which was 21,565) and the number of births in that year (which was 915,309), and calculates that this gave "an average of 43 births to each qualified practitioner. Consultant physicians and surgeons," he continues, "do not practise obstetrics; but, if we allow only 1 confinement a week to each obstetric practitioner, the work would have engaged only 17,565, or 4,000 fewer than the number registered.

"Moreover," he adds, "the rate of increase in the profession is three times that of the population, so that year by year the average of births to practitioners is becoming less. In 1887 it was 57; in 1896, 43. Surely these authentic facts and figures may be taken as demolishing this pretended deficiency of qualified attendants and the consequent necessity of midwives."

In concluding this part of his argument he writes: "To sum all up, there exists among us, by universal acknowledgment a crying social evil—a torturing and murderous trade affecting women and infants, mostly of the poor. What is required by way of reform is a measure that shall be honest, sane, radical, thorough, and truly humane." He contends that the State recognition of midwives is unstatesmanlike:

> First as failing to take the best and safest guarantees for the safety of the nation's mothers in their time of need, when contributing, with the fruit of their bodies, to the nation's continuance and growth; and, secondly, as being retrograde in its proposal to level down the standard of medical service for needy citizens beneath what is provided now even under the Poor Law—for the Local Government Board has absolutely refused to sanction every endeavour of Poor-law guardians to substitute certificated midwives for medical officers at confinements. The life and well-being of all citizens—be they of high or low degree, rich or poor—are alike the care of the State, while the claims of humanity and generosity are not diminished, but increased and intensified, by poverty. Yet the Bill would penalise poverty with avoidable risks to health and life, by foisting on the poor (and *only because they are poor*), under State sanction and guarantee, a set of women to whom it is not intended or pretended that a thorough knowledge of their calling shall be imparted, but whose only recommendation is their cheapness, based on their incompetency.

He argues that the whole matter turns on the one point of the pretended impossibility of securing, in any conceivably practical manner, the same quality of aid in the perils of childbed as rich lawmakers are careful to engage for their own women. If, on the contrary, such an aim can be shown to be attainable, and without the creation of any new agencies, then I contend with all earnestness that any scheme falling short of this is no better than trifling with the mischief, and savours greatly of a meanly ungenerous proffer, from our property-owning legislators, of a cheap and nasty article that they would disdain to use among themselves.

Medical Relief under the Poor Law.

Dr. Watt next proceeds to the constructive part of his essay. He states that under the Poor Law

> every woman unable to pay a doctor has the right, before or at the time of her confinement, to claim—from the relieving officer or, in his absence, from the local overseer—an order for the services of the district medical officer (commonly known as the parish doctor), or for admission to the union infirmary. The issue of such orders is by no means restricted to the destitute. In the vast agricultural districts, where a labourer's weekly earnings run from 10s. to 12s. (when he can find work), it falls to the general body of ratepayers to supplement his less than subsistence wage by paying the whole cost of medical attendance for him (if he be not in a sick club) and his family. In those parts application for those orders, when a confinement impends, is practically universal among that portion of the community.
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> But orders, he continues, need not be limited in their application to the union medical officers only. Guardians *may*, and some of the more enlightened Boards actually do, arrange that such orders shall be available for other resident practitioners. Thus (as Dr. Rentoul, of Liverpool, informs us in a pamphlet, to which I am indebted for many of my facts on this part of the subject) at Saddleworth, in Yorkshire, any doctor in the union who so desires may be appointed Poor-law district medical officer, and the patient presents the order to the doctor of his or her choice upon the official list. Payment is not made by salary, but at a fixed rate per case, be it one of tooth extraction or pneumonia. For confinements, however, the fee comes under a specific Article of the Poor-law Commissioners affecting the whole country, the minimum being 10s. On somewhat similar lines, the Whitechapel Board intimated in 1895 to all resident doctors their willingness to pay any of them according to a certain scale of fees for a visit and medicine to the destitute person in urgent need of relief when the Board medical officer was not available. Finally, guardians are empowered by statute to pay any medical assistance rendered to any poor person *without any order*, by reason of accident, bodily casualty, or sudden illness.

Dr. Watt argues that the pride which would reject State medical aid is false and unfounded, and that it is no more disgraceful for poor persons "to avail themselves of free *curative* medicine, paid for from the common purse for the common good, than for their 'betters' to accept 'gratuitous' *preventive* medical aid, paid for in exactly the same way, out of the common fund, to which the poorest householder contributes." For persons, he continues, of the wage-earning class who are temporarily embarrassed by being thrown out of work by sickness, and "who are too self-respecting and too honest to remain indebted to their fellow citizens for public medical assistance supplied in that emergency, it is already provided that they can arrange with the guardians to have it *upon loan*, to be refunded as improvement in their circumstances may permit."

Medical Recusants to Pay for Exemption.

Dr. Watt proposes that under the plan he sketches:—

> every registered medical person could claim to act under the local Board of Guardians at the tariff of charges to be fixed by the Local Government Board as representing the State, and in each instance the official order (or, in emergencies, the call from the patient) to attend would be taken to the doctor selected by the patient. Every such doctor would make a return to every meeting of the Board of Guardians, as is done now by the parish doctor, and in every case the patient's right to such free attendance would be determined, as now, by the Board and its officers. Moreover, as the medical profession is a monopoly like the licensed victuallers, created by the State in the interests indeed of the public, but still, like all monopolies, bringing distinct advantages to those enjoying it, there could be, to my thinking, no just ground of grievance if all members of the profession should be required, as a condition of admission to its benefits and privileges, to engage to honour and act upon these calls of the State, accepting the fees fixed by State regulations, or to pay handsomely to the State year by year for exemption.

Medical Relief by Voluntary Agencies.

The voluntary agencies, charitable or self-supporting, which provide all or part of the cost of medical attendance at confinements are then passed in review: 1. The Friendly Societies, it is stated, have not done much. The Hearts of Oak and Royal Standard pay from £1 10s. to £2 to a member when his wife is confined, and the Manchester Unity of Oddfellows contemplate the establishment of a "maternity benefit." 2. By paying from 3d. to 6d. a week during pregnancy to a provident dispensary a woman can secure the attendance of the doctor she prefers. 3. Charitable dispensaries pay their medical officers from subscriptions, and supply

[1] Registration of Midwives; an Appeal to its Supporters. The Bill of 1898; its Futility Exposed and a Practicable and Efficient Alternative Suggested. By Thomas M. Watt, M.A., M.R.C.S.Eng., L.R.C.P.I., L.M. Revised and reprinted from the *Ethical World*. London: Watts and Co., 17, Johnson's Court, Fleet Street. Price 1d.

"attendance and medicine gratis to those who, too proud to claim their statutory rights, are yet not above accepting doles." 4. The maternity club he regards as the organisation most generally applicable. It supplements "members' payments by subscriptions or subsidy from the well-to-do, as in the clothing, blanket, and coal clubs common especially in country villages." "From twenty-five years' experience," he adds, "I can testify personally to the advantages of such a club in a village. It was managed and supported by the good lady at the Hall. Every working man's wife on the estate was only too glad to pay in to it, and would have looked askance at any midwife." 5. Maternity hospitals, he urges, should under the scheme sketched cease to be charitable institutions, as the needs of all unable to contribute to the expense of medical attendance would be met by the State, though—

they might be used by the State (on condition of its being a contributory) in order to supplement any deficiency in the local State provision for operative cases among its clients, or for those of them requiring removal from their abode to more sanitary surroundings. Except for State cases and any of sudden emergency, admission to the hospitals should be made conditional on prepayment from the patient, as with the club. Indeed, every such hospital should be the centre of a maternity club, organising on self-help lines the actually existing extern department for attendance at patients' homes, so far as its service extends to patients above the financial level warranting State aid. Outside practitioners desiring it should be affiliated to the hospital as some are now at Newcastle and Oxford. Whether in the hospital or at her home every patient would thus have at her call her own doctor. The whole medical staff should be paid, as is the nursing staff. If doctor or nurse inclined to lend the charity their support it would be open to them as to the rest of the community to subscribe to the funds.

Provision of Nurses.

Since nurses are necessary as well as doctors, it is suggested that these must be supplied by guardians to those patients who resort to the State for medical aid, and that for lying-in members of clubs and dispensaries they might be supplied by the system known as the Holt-Ockley, which is managed by "The Benefit Association for Providing Nurses for the Sick in Country Parishes" (12, Buckingham Palace Road, London).

Supervision by Local Government Board.

As to the organisation of the system, Dr. Watt has the following observation :

Let the Local Government Board (until a separate department of Public Health shall have been created with a Cabinet Minister at its head) examine these various methods, select and, if need be, improve the most adaptable, and finally, through our local councils, systematise and extend them everywhere, giving them legal status, organising and correlating them into a national service. The task would be comparatively simple. Let us suppose the Local Government Board decided on the Maternity Hospital and Club and the Nursing Association as the forms most generally feasible. It would order the district councils, town councils, and vestries to see that every parish or ward, or convenient group of these, should be provided with these institutions. The Central Board would fix the rate of contributions, the fees or salaries, and the maximum income-limit of beneficiaries. As with our elementary schools, it might be open to voluntary effort to maintain those already in the field, and to form new ones; but if any were not adequately supported and conducted by spontaneous philanthropy, State aid from rates or taxes would be called for, with concurrent popular control. In most cases it would, no doubt, fall to the parish and district councils to institute and administer them subject to the Central Board. When a member's contribution to the fee was paid up, the clerk to the council or secretary of the committee would give her an order. This in due time she would send to a doctor, who would subsequently present it as voucher for his fee.

In conclusion he says :

I think it will be evident that, by the methods suggested, skilled medical attendance could be provided for every child-bearing woman, however poor. In that case to propose anything less would be heartlessly wicked. With such attendance secured the midwife becomes a superfluous nuisance, and in the interests of the common weal it should be made a criminal offence for anyone not legally qualified to undertake attendance at a confinement except until such time as a medical practitioner—to be sent for on the instant—shall arrive to become directly responsible for the case. Let no confinement fee be payable to the latter unless he or she shall have been personally in charge at the birth to earn it. In the other event, let account be taken only of the visits.

THE PLAGUE.

THE SPECIAL COMMISSION.

SURGEON-GENERAL HARVEY, Director-General and Sanitary Commissioner, in his evidence before the Plague Commission in Calcutta on January 3rd, stated that the plague germ had sprung from a pre-existing germ, and that it would not flourish except in an environment of dirt and poverty. The question of sanitation in India was a most serious financial question, and that, were sanitation in India to be placed on the same basis as in England, a sum of £53,000,000 would be required to be spent annually. As the revenue of India is some £36,000,000 all told, it is evident that any such undertaking is impossible. Evolution Surgeon-General Harvey holds to be theoretically excellent, but it is impossible in large towns. Some Indian sects, such as the Jains, objected to inoculation because mutton was used in the preparation of the fluid. He advised that Haffkine's fluid should be standardised. A system of death certificates would be a great gain to Indian sanitation.

Colonel Fullerton, Agency Surgeon in Baluchistan, described the measures adopted to prevent the spread of plague in Baluchistan, Persia, and Afghanistan. Ships and railways were watched, and when necessary segregation camps were formed and passengers were detained for ten days. There were no endemic cases of plague in Baluchistan, although three imported cases occurred amongst railway passengers.

Dr. Ferras, who has been in practice in Calcutta since 1853, expressed the opinion that the cases of so-called plague in Calcutta were merely cases of malignant fever; and he remembered seeing similar cases when a student in Calcutta.

Captain Bingley, who had been employed in plague duty in Bombay, recommended municipal camps as a remedy for overcrowding. They had been started too late in Bombay to be of any value, but he had found them very successful elsewhere, and that natives willingly paid 2 rupees a month, quite enough to cover expenses and pay interest on the buildings, etc. He held the grain granaries to be the foci of plague, and that from them the rats carried the infection throughout the town.

Mr. Griesbach, Director of the Geographical Survey of India, gave evidence as to the formation of the soil in the infected areas, which pointed to the trap and crystalline areas being specially adapted to the spread of the disease. Bombay was situated near the centre of the Deccan trap formation. There was abundant evidence that the tenacity with which epidemics clung to localities was influenced by the geological formation.

Quarantine on the Zanzibar coast, an incident which has caused considerable feeling among commercial circles on the East Coast of Africa, is likely to assume still wider interest. It appears that a British ship left Karachi for Uganda with 1,000 coolies on board on December 15th. The coolies were carefully inspected before they left, and they were enlisted in districts where plague was unknown. During the voyage seven deaths occurred from plague, and on arrival on the coast near Mombassa the British authorities there forbade communication with the shore. The ship then went to Zanzibar to obtain fresh water, but again were forbidden to communicate with the shore, and peremptory orders were issued to return to Karachi. The Foreign Office in London upheld the action of the Uganda and Zanzibar authorities, so there is no help for it but for the ship to return to India.

It is contended that by this decision Britain has been the first to break the term of the Venice Convention. In the Convention, Chap. 2, Section VIII, it is laid down that the sick from a ship shall be landed and detained in hospital, and that other persons shall be landed and detained under observation for 10 days, that the ship shall be disinfected, etc. These rules seem to have been set aside, even although no case of plague has occurred on board the coolie ship for eight days.

COURT APPOINTMENTS.

THE *London Gazette* of January 6th announces that the Queen has been pleased to make the following appointments :

Sir Richard Douglas Powell, Bart., M.D., F.R.C.P., Physician Extraordinary, to be one of Her Majesty's Physicians in Ordinary, in the room of the late Sir William Jenner. He is the second and only surviving son of the late Captain Scott Powell, Royal Welsh Fusiliers. Educated at University College, London, he graduated M.B. in 1865 and M.D. in 1866 (with honours) at the University of London. Having been admitted a Member of the Royal College of Physicians in 1867, he was elected a Fellow of that body in 1873. He is Physician to the Middlesex Hospital, and Consulting Physician to the Brompton and Ventnor Hospitals for Consumption. He is author of a work on diseases of the lungs, and gave the Lumleian Lectures at the Royal Colleges of Physicians in 1898 on Diseases and Disorders of the Heart, besides contributing articles to Reynolds's *System of Medicine*, Quain's *Dictionary*, and Clifford Allbutt's *System*, and many papers to the medical societies and to the meetings of the British Medical Association.

James Edward Pollock, M.D., F.R.C.P., to be one of Her Majesty's Physicians Extraordinary, in the room of the late Sir Richard Quain. Although not a member of the well-

known legal family, which has given also some distinguished members to our own profession, Dr. Pollock comes of a stock with a strong bent to the law, for his grandfather was a judge of county courts in Ireland, his father was a barrister, and one of his brothers county court judge in Liverpool, the other being Archdeacon of Chester. Dr Pollock, who entered the profession in 1840, graduated M.D. at King's College, Aberdeen, in 1850. He was elected a Fellow of the Royal College of Physicians in 1864, and Pro-President and Senior Censor in 1893. He is Consulting Physician to Brompton Hospital for Consumption, and the author of *Elements of Prognosis in Consumption* (1865); and a *Medical Handbook of Life Assurance*.

Thomas Barlow, M.D., F.R.C.P., Physician in Ordinary to Her Majesty's Household, appointed Physician Extraordinary in the place of Sir R. Douglas Powell. Dr. Barlow was educated at University College, London. He is a distinguished graduate of the London University (M.D. 1874, M.B. (honours) and B.S. (honours) 1873, B.Sc. 1867.) He is a Professor of Clinical Medicine and Physician to University College Hospital; Physician to the Hospital for Sick Children, Great Ormond Street; and is well known for his many valuable contributions to medical literature, especially on subjects connected with diseases of children.

THE SALE OF POISONS.

AT a special meeting of the Pharmaceutical Society of Great Britain on January 11th it was formally resolved that the Society should adopt regulations for the keeping, selling, and dispensing of poisons in accordance with the provisions of Section 1 of the Pharmacy Act, 1868. Draft regulations were then brought up and were adopted after some discussion by 111 votes to 5. The following is the text of the regulations as adopted:

1. That in the keeping of poisons, each bottle, vessel, box, or package containing a poison be labelled with the name of the article, and also with some distinctive mark indicating that it contains poison.
2. Also that in the keeping of poisons each poison be kept on one or other of the following systems—namely:
   (*a*) In a bottle or vessel tied over, capped, locked, or otherwise secured in a manner different from that in which bottles or vessels containing ordinary articles are secured in the same warehouse, shop, or dispensary; or
   (*b*) In a bottle or vessel rendered distinguishable by touch from the bottles or vessels in which ordinary articles are kept in the same warehouse, shop, or dispensary; or
   (*c*) In a bottle, vessel, box, or package kept in a room or cupboard set apart for dangerous articles.
3. That in the dispensing and selling of poisons, all liniments, embrocations, and lotions containing poison be sent out in bottles rendered distinguishable by touch from ordinary medicine bottles, and that there also be affixed to each such bottle (in addition to the name of the article and to any particular instructions for its use) a label giving notice that the contents of the bottle are not to be taken internally.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 18th day of January next, at 2 o'clock in the afternoon.

The following Committees will also meet:

Tuesday, January 17th, 1899.—2.0 P.M., Subcommittee of Parliamentary Bills Committee on Medical Acts Amendment. —2.0 P.M., Subcommittee of Parliamentary Bills Committee on Vaccination.—3.0 P.M., Premises and Library Committee. —4.0 P.M., Subcommittee of Journal and Finance Committee on Election of Assistant Secretary.—4.0 P.M., Subcommittee of Parliamentary Bills Committee on Tuberculosis.—4.30 P.M., Committee on Fees to Poor-law Medical Officers.—5.0 P.M., Parliamentary Bills Committee. *Wednesday, January 18th, 1899.*—10 A.M., Journal and Finance Committee.

FRANCIS FOWKE, *General Secretary.*

January, 1899

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

DUBLIN BRANCH.—The annual meeting of the Dublin Branch will be held in the Royal College of Physicians, Kildare Street, on Monday, February 6th, at 5 P.M. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Mr. F. T. Heuston, F.R.C.S., President-elect, will deliver an address on The Position of Poor-law Medical Officers in Ireland. The annual dinner will take place on the same evening in the College Hall at 7.30 P.M.—JAMES CRAIG, M.D., Honorary Secretary, 35, York Street, Dublin.

BORDER COUNTIES BRANCH.—The next meeting will be held in Penrith about the end of January. Members desiring to read papers, etc., will kindly communicate as soon as possible with the Honorary Secretary, W. F. FARQUHARSON, Garlands, Carlisle.

SPECIAL CORRESPONDENCE.

BERLIN.

Death of Professor Gurlt.—Lung Sanatoria in Germany.—A New Medical Journal.—General News.

PROFESSOR ERNST GURLT, the distinguished surgeon, died in Berlin on January 8th, of influenza and inflammation of the lungs. Though already in his 74th year, his intellectual faculties were undimmed by age, and his power of work seemed to be inexhaustible. Up to his last illness—that is, until the Christmas holidays—he lectured, both at the University and at the "Kaiser-Wilhelm-Akademie," and did a great deal of literary and editorial work besides. Gurlt was a Berliner by birth. He accompanied the Prussian troops in all their campaigns from 1848 to 1871, and it is as a military surgeon that his name will go down to posterity. His writings on ambulances and on various branches of military surgery are standard works; he was one of the most active organisers of the German Red Cross societies, and editor of their central organ up to the last. One of the founders of the German Surgical Society, he was its permanent secretary, edited its reports, and supervised and arranged its celebrated inquiry on narcosis. But Gurlt's greatest literary work is *The History of Surgery from the Most Ancient Times to the Renascence*, a life-long labour, which happily he was able to bring to completion just about a year ago.

The third annual meeting of the German Central Committee for the erection of lung sanatoria was held on January 9th, at the house of the Imperial Chancellor, Prince Hohenlohe, the German Empress being present as Lady Patroness. Professors v. Leyden, Gerhardt, B. Fraenkel, General-Surgeon Dr. v. Coler, and other medical notabilities were present, with Prince Hohenlohe, the Cultus Minister (Dr. Bosse), the Duke of Ratibor, the Secretary of State (Count Posadowsky), the Saxon Minister of State (von Metsch), the President of the Imperial Board of Insurance (Gaebel), the Director of the Imperial Board of Health (Koehler), and many other representative men. Prince Hohenlohe opened the proceedings, as Honorary President of the Central Committee, and then resigned the chair to Count Posadowsky. From the report, which was read by the Secretary, Dr. Pannwitz, it appears that thirty-three German societies are at present engaged in the work of establishing lung sanatoria, and that three more will join in it before long. Twenty sanatoria are already in active existence, and others are in course of erection. Unfortunately the number of beds for women is far below that for men, so that new wards for women only are much needed. Special donations for free beds have been received, but more are urgently needed to help those invalids who are either unable to pay even the small fees of the sanatoria or have no

assistance from insurance societies or from State insurance. The report states further that a great part of the success already achieved is due to the Imperial Board of Insurance, which has three sanatoria of its own already in activity, and three more in course of erection. Many of the large industrial and trade establishments of Germany have also taken part in the work, parishes and townships are beginning to join it, and assistance has been given, too, by the war ministries and agricultural ministries of the German States. Turning to another branch of the Central Committee's efforts, namely, the care for the families of the sanatoria patients, the report states that this had been the special work of a Ladies' Committee, presided over by the Princess Hohenlohe. This Committee has also taken over a department instituted for the purpose of assisting dismissed patients to find work. In the sanatoria themselves, employment is given to the patients, wherever this is considered advisable. The Central Committee numbers at present 466 members. At the close of 1898 the balance in hand amounted to 250,000 marks (£12,500), 224 500 marks (£11,225) having already been spent in contributions to the erection of sanatoria. After the reading of the report delegates from various German States and Prussian provinces gave accounts of the progress of the cause in these parts. The Duke of Ratibor introduced the subject of the forthcoming International Congress on Tuberculosis, over which he is to preside. Professor von Leyden then spoke more fully of the objects of the Congress and the subjects which are to be discussed. Director Koehler (Imperial Board of Health) and Geheimrath Krieger of Strasburg are to introduce the discussion on the spread of tuberculosis; Professor Robert Koch and Professor L. Fraenkel one on its causes; Professor Gerhardt and General-Army-Surgeon Schjerning one on prophylaxis; Professor v. Ziemssen (München) and Professor Schrötter (Vienna) one on therapeutical questions; and President Gaebel and Geheimrath Dettweiler one on lung sanatoria. The Oberbürgermeister of Munich, Herr von Borscht, spoke on the position of townships and parishes in this sanatoria question, and strongly urged the duty of taking part in this great fight against the national scourge—tuberculosis. At the close of the meeting, the Empress, the Presidents of the Committee, and several of the more distinguished members, remained to lunch with Prince Hohenlohe and his daughter.

Of medical journals there is surely no want in Germany. But Professor Klemperer's new monthly, *The Therapeutics of the Present Day*, starts with such an array of first-rate contributors that it forces attention. Virchow has a brilliant article on General Therapeutics in the first number, v. Leyden on Food in Fevers, Senator on Diseases of the Kidneys, v. Schrötter on Arteriosclerosis, Eulenburg on Occupation-cures for Nervous Diseases, A. Fraenkel on Treatment of Pneumonia, and Binz on the Effects of Alcohol.

The Berlin magistrates have decided to erect a pavilion with a hundred beds in connection with their casual ward, for the accommodation of slight cases of illness amongst the occupants.

At the annual meeting of the Berlin Medical Society, Professor Virchow reported that the Committee, taking its stand on the Society's statutes, which rule that no one is to be received a member who is not a Doctor promotus, have decided not to admit female medical members. The financial report shows a balance of 130,500 marks (£6,525); the number of members has reached 1,130. Virchow was again elected President for the present year; v. Bergmann, Senator, and Abraham Vice-Presidents.

PARIS.

Sanitation in the French Colonies.—Necropsy of the "Shepherd Killer."—Gratuitous Medical Aid in the Sarthe Department.

DR. PICHEVIN expresses the belief that in the French colonies everything does not go on in a thoroughly satisfactory manner. He suggests that the French nation would do well to compare the state of their colonies with those of Great Britain. In order to facilitate this comparative study of colonisation, he recommends the student who undertakes the task to visit Guadaloupe, Martinique, and Trinidad. The latter is an English colony. In all three islands the climate is the same; the manners and customs are also similar. Dr. Pichevin mentions the commercial activity coexistent with electric tramways, electric lighting, and telephonic communication of Trinidad, which in these respects stands in strong contrast with the other islands. He then turns his attention to the Poor-law budgets of these colonies. At the Port of Spain, the principal town in Trinidad, there is a splendid hospital with a series of isolated pavilions for lying-in women, and for patients suffering from diphtheria, diarrhœa, and dysentery. All the members of the medical staff have good salaries. Dr. Pichevin says he hardly dares describe the state of the Public Assistance in the Martinique island; it is simply deplorable. The future has in it a promise of better things. Owing to Dr. Bouvier's liberality and the administrative ability of the mayor, a new hospital is being built. It will be provided with all the latest improvements in sanitary science. The existing hospital at the town of Saint Pierre is admitted by the bishop to be a disgrace to Martinique. The patients are placed promiscuously in the wards, which are horribly dirty. The sanitary arrangements are indescribable.

At the necropsy of Vacher, the "shepherd killer," who was executed recently, the cerebral convolutions did not present any abnormal conditions. It was concluded that the moral responsibility of the murderer was of the normal degree. Several casts of the brain have been sent to anthropological schools, and a photograph to Professor Lombroso.

Dr. Salomon, practising at Saigne l'Evêque, in the Sarthe department, has published an interesting little book entitled *La Loi sur l'Assistance Médicale Gratuite*. In the Sarthe department there are no rich people. Previous to the enactment of the new medical law the salary for treating the poor was £4, with the title of "Médecin Cantonal." Medical men, says Dr. Salomon, are not angels, and at last are irritated by being frequently called for trivial ailments. The indigent patients believe the medical officer is well paid for attending them, and are therefore exacting as well as rude. Thus there springs up a condition of warfare between the patients and the doctor. The ideal system of gratuitous medical help Dr. Salomon considers would be that the patient should choose his own doctor and pay him by means of tickets (*bons*), the fee being regulated by the minimum of the tariff accepted in the district. The law of 1893 decrees that 6½d. per pauper shall be paid to the medical officer of the gratuitous medical service. Dr. Salomon asserts that in the Sarthe department as well as in many others gratis medical help exists only in theory; and he urges that the law should be repealed or enforced.

ROME.

The Treatment of Phrenasthenic Children in Italy.—Foreign Medical Practitioners in Italy.—The Italian Society "Pro Infantia."—The Italian Society of the Medical Press.—The Italian Society for the Study of Malaria.

IN an interesting article on the Treatment of Phrenasthenic Children in Italy, Dr. Garofalo of Rome refers to a work *On the First Institution for Phrenasthenics founded in Italy in 1889*, by Professor A. Gonnelli-Cioni. According to the census of 1881 (the last taken in Italy, owing to financial reasons), the number of idiots and cretins was 19,671, a figure which exceeds that of the census of ten years before by 2,358. In other nations, such as Switzerland for example, idiocy is diminishing with the increase in education. It is well known that the idiots and cretins are very differently distributed in the various regions of Italy, and the places where cretinism is most endemic are the Alpine chains of Piedmont and of Lombardy. The following are, according to G. Gazzaniga, the proportionate figures of the phrenasthenics for 10,000 inhabitants in the different regions of Italy: Piedmont 15.3, Lombardy 14.7, Liguria 14.3, Marchi 9.9, Venice 9.7, Tuscany 9.3, Emilia 8.8, Umbria 8.0, Naples 7.2, Rome 6.4. In this respect Italy has a lower percentage of idiots than all other countries, excepting the United States, Switzerland, and Belgium. Garofalo then gives a brief account of the institutions existing in England and in France. Italy up to ten years ago shared with Spain, Greece, and Turkey the sad privilege of not having a single

special institution for the treatment of idiocy. To Gonnelli-Cioni is due the first experiment of this kind in Italy. He, formerly a teacher in the public schools and in special schools for the deaf and dumb, began in 1887 to study the mode of educating a few idiots admitted by mistake among his pupils, totally ignorant of what had been done and written before him on the subject. In 1889, with a capital of 50 francs and a single pupil, he founded at Chiavari the first Italian Institution for Phrenasthenics. He was considered a visionary, but his faith conquered, and a short time after he was able to transfer his institution to Vercurago, in Bergamasco, near Lake Lecco, in a most charming situation; and in a few years he was able to show a philanthropic and educational work of the greatest interest. The number of his pupils is not large, but the experiment of Vercurago eloquently demonstrates what good might be done by several of these institutions scattered through Italy, and destined to receive the greater part of the 20,000 phrenasthenics that it contains. The results of the treatment are admirable. Gonnelli-Cioni certainly does not make a man of genius of an idiot or of an imbecile, but he makes him an individual who knows the more necessary affairs of life, the most common moral ideas, who knows how to avoid bad or injurious actions to himself and others, who no longer will be a burden on his family or a danger to society. The method is essentially practical. It is divided into three parts: (1) Physical education. (2) Intellectual and moral education. (3) Technical education. The physical education, directed by a patient and experienced master, is applied in different ways to the individual pupils, and it is intended to correct impulsive and incoordinated movements, to stimulate torpor of the movements, to inculcate the ideas of order and cleanliness; this obtained, it is directed to improve the senses, exercising the hearing with various sounds, the sight with manifold objects, the taste with foods, the touch with heat, cold, etc. The intellectual and moral education has religious teaching as its basis. The technical education, after a sufficient physical development, tends to direct the idiots towards an occupation adapted to their natural dispositions, then to awaken in them the love of work, and, finally, to teach them a trade according to their aptitudes and their social position.

Dr. Santini, the champion in the Italian Chamber of Deputies of the crusade against foreign practitioners in Italy, has again brought up the question in the Chamber. He appealed to the Government to introduce a Bill to prevent illegal practice by foreign medical men in Italy, of whom he still maintains there are 1,500. General Pelloux, the Minister of the Interior, in reply, said that the law permits foreign doctors to practise their profession among foreigners in Italy when they are provided with proper diplomas, and that the existing law gives the Government the means of preventing illegal practice. Statistics showed that only 108 foreign practitioners practised in Italy. Now, for such a small number the Minister did not think such a change useful or opportune, especially when they remembered that the majority of the very large number of foreigners who come to Italy prefer to be treated by their fellow-countrymen. At most the Government would interest itself in a diplomatic way to obtain reciprocity in favour of the Italian medical men who practise their profession in other countries.

The Roman Committee of the National Society *Pro Infantia*, encouraged by the success of the six lectures on Infant Hygiene, held on its initiative in Rome in April, May, and June, 1898, and specially directed to instruct female teachers, has arranged for a new series of twelve lectures with the same scope. The lectures will be held at the Institute of Hygiene during the first six months of 1899. The following are the subjects of the lectures: (1) Introductory Remarks, by Professor Celli; The Factors of Physical Development, by Dr. Pagliani. (2) Nutrition, by Professor Concetti. (3) Dress, by Professor Marzoni. (4) Muscular exercise, by Professor T. Gualdi and Dr. Villa. (5) Gymnastics, Games, by Dr. Ballerini. (6) Manual Labour, by Dr. Baldini. (7) Hygiene of the Voice, by Professor Geronzi. (8) Water, by Dr. Prochet. (9) Summer Colonies, by Dr. Mariotti. (10) Educators and Inquirers, by Dr. Minossi. (11) Hygiene of the Nervous System in Infants, by Dr. Moglie. (12) Perfectibility of Infancy, by Dr. A. Gonfalo.

A Committee has been formed for the purpose of founding a Society of the Italian Medical Press, under the presidency of Dr. Vincenti, the editor of the *Corriere Sanitario* of Milan. The promoting Committee includes some of the most distinguished editors in Italy, but, on the other hand, many of the latter are conspicuous by their absence—for example, Baccelli and Durante of Rome, Bizzozero and Lombroso of Turin, De Renzi and Rummo of Naples, etc.

The Italian Society for the Study of Malaria held its first general meeting at the Institute of Hygiene, Rome, on December 3rd, 1898. Signor Fortunato, the President of the Society, having read the financial statement, proposed that three classes of members should be constituted: Founders, who pay 500 francs; ordinary members, who pay 3 francs per month; contributors, 6 francs a year. Professor Celli then read a report, which showed what excellent work had already been done by the medical members of the Society. Dr. Blessich, representing the Mediterranean Society, proposed the formation of provincial committees for the purpose of assisting the central Society. Professor Grassi next proposed, and the meeting accepted, that a conference should be held for the purpose of popularising the results up to those obtained by the scientific members of the Society.

MELBOURNE.

The Prevalence and Nature of "Tick Fever."—Feeble-minded Children.—Malignant Growths in the Lower Animals.—The Consumption of Tea and Coffee.

TICK fever is still agitating the minds of the agricultural classes of the whole of Australia. The matter is of such vital importance to pastoralists and herd owners that both the veterinary and the medical professions are earnestly implored to assist in devising some means towards neutralising the effects of the pest or doing something towards stamping it out. A quarantine line has been defined in Queensland beyond which cattle from the northern plains, to which the tick is at present confined, are not permitted to pass. About three years ago the tick pest was first discovered in Queensland in the neighbourhood of Rockhampton. Although at that time it was believed that it could not live in subtropical climates, it began to spread southward, and the Government adopted at once certain lines or zones from north of which no exportation of cattle was permitted. As the disease spread this line had to be removed southward, and now it has reached as far south as the Brisbane coast. Over 6,000,000 head of cattle are now quarantined in Queensland, and the mortality is very great. Other pests, like locusts and grasshoppers, have frequently enough after remaining quiescent perhaps even for years suddenly been seized with the migratory impulse, and have then traversed the whole continent of Australia. The inoculation of healthy beasts with the blood derived from animals recovered of the tick fever has certainly proved successful in warding off severe attacks of the fever in bullocks that have eventually contracted the disease through having crossed into infected tracts. But there is another factor to be considered, and that is, Does inoculation do harm? It would seem from recent experiments that it does harm to bullocks susceptible to the disease. The hæmocytometer reveals that anæmia in many cases is produced, and this anæmia does not tend readily to recovery. The hæmoglobin is diminished. The microparasites, pyrosoma bigeminum, may live for years in the blood of recovered cattle. The capillaries of the organs are rich in germs, but they are very scanty in the blood of the general circulation. Since the microparasites persist for long periods in the blood of the capillaries of the principal organs, it is obvious enough that in some cases a chronic anæmia may result from their presence. They invade the red blood cells, and bring about their destruction. They multiply in the blood, producing crescent-shaped bodies stuffed with spores. The capsule containing the spores burst, liberating the contents, and eventually the spores develop into adult form. The tick is the intermediary host for the development of this parasite, and in some way or another the parasite gets out of the body of the tick into the blood of the cattle when infected with the ixodes.

Dr. J. W. Y. Fishbourne, who some years ago was officially connected with our lunatic asylums, delivered a public lecture on the Education of Feebleminded Children. In the

course of his remarks he stated that in proportion to its population Victoria had the largest number of lunatics in the civilised world. The number of lunatics confined on December 31st, 1897, was 4,346, or one for every 271 of the population. He thought that far more may be done towards the development of the faculties of the mentally weak in youth than was once thought to be possible. He thought that 15 per cent. only needed permanent protection, and were unfit to be taught. Special provision was needed for the education in a systematic manner of the rest. From the economic point of view it was shown that weak-minded children under the present general system of education became a burden to the taxpayer. Our education department was unable to account for some 14,500 children, to whom the compulsory provisions of the Act are not being applied. Some of the details of our system, he thought, were unfortunate, as it appears as if part of the teacher's salary depended upon the results of his tuition. The Education Department seems like other Departments of the State, to exist principally for the benefit of the Civil servant. The child is a secondary individual altogether. The teachers, the inspectors, etc., are the department. It was the same with the lunacy department. It existed for the sake of the attendants. Official visitors were appointed by the Government, not to look after the welfare of patients, but to look after the welfare of the attendants.

There has been much discussion of late as to whether malignant growths exist in the lower animals. Quite recently cases of sarcoma, mostly of the melanotic type, have been discovered in horses, sheep, and dogs. Epithelioma has been found in both dogs and cattle. Rodent ulcer is frequently observed in birds, and of the non-malignant forms lymphadenoma is occasionally encountered and fibromata commonly.

Australians still partake heavily of tea and coffee. During 1897 the colonies imported 35,149,205 lbs. weight of tea valued at £1,067,291. The coffee import was for the same period 2,573,935 lbs. of the raw product, and 228,789 lbs. of ground coffee valued at £107,125 and £12 050 respectively. The net amount of tea imported and consumed was about 30,000,000 lbs. Our average is about 7 lbs. a head. West Australia averages 9½ lbs. a head, Victoria about 8¾ lbs., South Australia 8 lbs., New South Wales 7½ lbs., Queensland 6¾ lbs. New Zealand 6½ lbs., and Tasmania 6 lbs. As coffee drinkers we stand on a lower scale, about ½ lb. a head being the average.

LIVERPOOL.

A Sanatorium for Consumption near Liverpool.

The movement in favour of providing sanatoria for the open air treatment of tuberculosis in the vicinity of Liverpool, a movement which has been actively promoted by the Medical Institution, has already enlisted the sympathies of the supporters of the medical charities, the members of the medical profession, and the guardians of the poor. The Committee of the Hospital for Consumption and Diseases of the Chest some time ago acquired a piece of land at West Kirby with a view to erecting a hospital there, and now they have been offered a sum of money sufficient to erect a sanatorium with thirty-six beds on this site. The donors are Lady Willox and Mr. W. P. Hartley, who each give £7,500, in addition to sums they have already promised to the building fund of the hospital. They recommend that the advice of Sir William Broadbent and Sir Douglas Galton should be taken on the proposed plan, and that the medical profession of Liverpool through their leaders should be invited to consult with these gentlemen, and to co-operate actively in making the whole institution efficient and useful. They also point out that it will be necessary to reconstruct the hospital in Mount Pleasant on a moderate scale.

There can be no doubt that the generous offer of Lady Willox and Mr. Hartley has in a great measure solved the most difficult part of the problem with which the advocates of the open-air treatment have to deal. The very poor will doubtless be amply provided for in sanatoria erected by the Poor-law guardians, and the well-to-do are able to take care of themselves. There must always, however, be a proportion of sufferers, though probably they will not be numerous, who are quite unable to afford the cost of a prolonged sojourn in a health resort, and are yet far removed from the class who receive help at the Poor-law or indeed any other hospitals. For these the sanatorium to be erected at West Kirby will be an incalculable boon. It is earnestly to be hoped that the Committee will arrange their institution in such a way that no consumptive cases will receive prolonged treatment in their institution in Mount Pleasant. It will of course be necessary to retain an out-patient department in the city, and a few beds may be desirable for the temporary accommodation of cases which are the subject of some intercurrent acute affection such as hæmoptysis or pneumonia, and are therefore unfit for immediate removal to the country. If, however, the Committee desire to do the best which can be done for consumptive patients who are amenable to curative measures, they will lay out their available funds so as to provide as many beds as possible in the country hospital, and will keep their town establishment within the smallest possible limits.

CORRESPONDENCE.

REVERSION.

Sir,—I had the pleasure last July of showing some of the members of the British Medical Association several instances of reversion. One of the most striking exhibits seen at Penycuik was a litter of young rabbits. Of the three rabbits one is now the image of the mother (a smooth-coated rabbit, white, with the exception of the muzzle, ears, legs, and tail, which are of a light grey colour); one resembles the grandmother, a white angora; while the third is a himalayan with a black muzzle, black ears, and dark legs and tail like the great grandmother. The sire of all three is smooth coated and as white as snow. I have already heard of similar instances of reversion in the human family and I am now in search of instances of reversion to comparatively remote ancestors.

It is supposed that the inhabitants of the British Islands have mainly descended from (1) a small, dark, long-headed (dolichocephalic) race with high cheek bones; (2) a tall round-headed (brachycephalic) race with red hair and long arms; and (3) a tall, long-headed race with fair hair and blue eyes (dolichocephalic blondes). I know of a family which includes two of the three types, but there are doubtless families in which all the three original races are more or less faithfully reproduced. If any of your readers are able to give me instances of two, or of all three, of the above types occurring in one family I shall be greatly obliged. If a few words are added as to the colour of the hair, the height, and the shape of the head of the parents and the other members of the family, the value of the information will be considerably increased.—I am, etc.,

The University, Edinburgh, Jan. 10th. J. C. Ewart.

THE NEW MIDWIVES BILL.

Sir,—There is great improvement in the Bill of 1899 when compared with its predecessors, and if there is to be a Bill at all the promoters are at length proceeding in the right direction. For this the rank and file of the profession have to thank themselves, as I do not hesitate to affirm that the General Medical Council would never have adopted its present attitude towards midwife legislation but for outside persistent and determined pressure. The moral is obvious. Our moral should be that of Goethe: "Use well the moment, and with seeing eyes, peruse the thing that's next thee and be wise." Our gratitude is due to our direct representatives, and especially so to Messrs. Horsley and Brown, whose dulcet tones have enticed Dr. Glover after them.

But having said this, I cannot endorse Dr. Garrett Anderson's almost unqualified approval of the new Bill. The text of the Bill gives no guarantee of a strict personal supervision over the licensed midwives. It is only to be a "general" supervision by the medical officer of health or "some other medical practitioner or practitioners." How easy it would be for the midwife to control her favourite doctor, who might prefer to fulfil the double duty of confidant and consultant to the neglect of his quasi-legal functions under Clause 9. This method of supervision will never do. There must be a local supervising committee of lay and medical men and women who will guarantee the payment of medical fees, and, above all, see that the Act is

worked without fear or favour, and without prejudice to any doctor resident in the district. This done, I agree with Mrs. Garrett Anderson, to whom I have already done some little service in her able opposition to the Bill of 1898. It would be invidious and, indeed, intolerable to put on the shoulders of one medical man the supervising duties enumerated in the Bill of last year and this.

Again, as the Bill is to cover the practice of both midwives by "examination" and by "experience" only, the Gamp with a "character" would be as uncontrolled as she is at present, and I see nothing in the Bill to prevent these women from medically attending both the mothers and children during the lying-in period, and, if necessary, signing "death certificates." Clause 3, Subsection 4 is no prohibitive, not more than the Medical Acts prohibit quacks and other non-registered persons from granting certificates of death, which the registrar may use or not at his discretion. "Supervision and control" are the very essence of any Midwives Bill, and both of these were secured by my own and Sir Blundell Maple's Bill of 1898. No "rules"—no matter how stringent on paper—can control the midwife in the lying-in room unless they secure the presence of a registered practitioner either at or immediately after a confinement.—I am, etc.,

East Sheen, Jan. 8th. ALEX. MCCOOK WEIR.

SIR,—It is more than probable that the great majority of practitioners will concur with Dr. E. Garrett Anderson in the opinion that the Bill of this year is a very different measure to that of last year, but the objection to the latter, I take it, was more than a mere dislike to "a scheme which threatened to create a class of very inferior practitioners who would have been in effect quite independent in their work" for while, if carried, it would have done so, it left the old evils untouched except in name. The practice of midwifery would have been just as open to any woman who imagined herself qualified to undertake the work as it has been in the past; in other words, midwifery would under its empty pretentiousness have been practised by three classes—the medical practitioner, the would-be created new practitioner, and the unregistered practising midwife or common howdie, the first class under the control of the General Medical Council, the second under some control of a Midwives Board, and the third under the control of nobody. Last year's measure was distinctly retrogressive, and naturally the profession strongly resented the idea of a new-fangled order being wedged in between them and the old-fashioned class which it made no attempt to abolish.

To have every practising midwife, as provided for in this year's measure, properly under control and enrolled is a conservating principle which no doubt the profession will ardently support, and so help to free one of the branches of professional work from the exploitations of unpenalised quackery.—I am, etc.,

Leeds, Jan 9th. J. H. WIGHAM.

THE INTERPRETATION OF THE MEDICAL ACTS.

SIR,—Dr. Holman's suggestion seems to me an excellent one, and I hope when the Parliamentary Bills Committee meets that he and Mr. Victor Horsley will be able to agree on one (or may I suggest two?) Q.C.'s to whom this important question of the interpretation of the Medical Acts may be referred for their opinion and advice.

In corroboration of the first sentence of Dr. Holman's letter, I may mention that some twenty years ago I was associated with the late Mr. R. H. S. Carpenter, whom the senior members of our Association will remember as taking an active part at that time in the attempted suppression of quacks, and I had then many opportunities of discussing this question with him, as also with Dr. Lush, M.P., who introduced a Medical Act Amendment Bill in the House of Commons, and also with Mr. W. H. Michael, Q.C., who had been in medical practice before he became a barrister; and these three gentlemen, with the best desire possible to find power given in the Act of 1858 to suppress illegal practice, failed to do so, and Dr. Lush even went so far as to say that not only was there no such power given by the Act of 1858, but that the House of Commons would never consent to give such power, because it contained so many members who themselves consulted bone-setters and quacks. Now I am very far from saying that we may not all have been mistaken, or that the Act of 1886 may not have altered matters; but I do say that Mr. Victor Horsley's speeches and letters do not seem at all convincing, and least of all his latest contribution, in which the question whether the Medical Acts are efficient or not is nearly lost sight of in the ardour of his attack on you and your contributor.

What we all want is an authoritative opinion on a stated case, in which both views of the law should be laid before counsel, and this I hope the Parliamentary Bills Committee will obtain for us.—I am, etc.,

Dulwich, Jan. 9th. H. NELSON HARDY.

SIR,—Although I agree with Mr. Horsley's interpretation of the Medical Acts, yet I think it would be a great pity to defer the question of an amending Bill until, as Dr. Holman suggests, the High Courts have given an authoritative decision. The profession want it made perfectly plain that to practise medicine, surgery, or midwifery for gain is illegal. Moreover, it is most desirable that penalties for second or third offences should be much heavier than they are for the first offence. On this important issue let us be united, and there will be little chance of our failing to convince the Government of the real necessity of an amendment of the existing law.—I am, etc.,

Cardiff, Jan. 9th. T. GARRETT HORDER.

SYPHILIS IN THE ARMY.

SIR,—In the BRITISH MEDICAL JOURNAL of December 31st, 1898, "Inquirer" specially addresses me on two interrogative sentences of my letter (December 3rd, 1898) importing a belief in the attenuating power of the Contagious Diseases Act on venereal disease, which I infer he receives in a spirit of criticism verging on scepticism. To his three queries I reply, as briefly as possible, as follows:

1. The malignant character of the venereal diseases at home which the first Contagious Diseases Act (1864 and its extension in 1866) demonstrated and eliminated. The prevalence and virulence of these in certain seaports, etc., and their ravages in the army and navy initiated this sanitary measure. The character of the demonstrated disease is referred to in Parkes's *Hygiene*, 6th ed., p. 493, and details are to be found in this JOURNAL, especially in 1867-68. The report of the 1870 Commission is very clear on the point of elimination, and corroboration is to be found in that of 1882. The reflex of this amelioration upon the army is officially recorded in 1869: "The protection afforded is demonstrated in respect to those forms of disease which infect the constitution;" and the reduction in the secondary disease is in the 1882 Committee report placed at 29 per cent.

2. Further reports substantiating attenuation of the syphilitic virus. In respect to the women, I would refer to the paper on the Lock Hospital by Mr. Lane,[1] in which the average stay in hospital for all forms of disease among the ordinary and Government protected patients in marked favour of the latter, with corresponding mildness of type in both primary and secondary disease, is brought forward; and also to his important letter in the BRITISH MEDICAL JOURNAL of December 12th, 1874, in respect to the marked modification in syphilis in both stages in quantity and quality. The repeated conclusions of the BRITISH MEDICAL JOURNAL to the same effect is especially noteworthy, particularly that of November 7th, 1868, to the effect "that both as regards the women and men, not only the quantity of disease has been diminished, but its quality has been modified for the better in the most marked manner." And in respect to the army, premising that as criteria of virulence I include not merely "the average stay in hospital of the cases," but the prevalence of both forms and the ratios of deaths and invaliding, I would refer "Inquirer" beyond the report of 1866 and Dr. Balfour's reply in Committee, which he admits have no bearing on "virulence," to those from 1870 to 1884, for example, dealing with a lengthened experience of the Act. There, in respect to the protected and unprotected stations, it is apparent that, taking 14 stations under the Act, and a similar number not under, and commencing with the years preceding legislation with a ratio from syphilis of 130 per 1,000 of

[1] BRITISH MEDICAL JOURNAL, February 15th, 1868.

strength for the first and 116 for the last, 16 years of the Act reduced the former to a ratio of 50, while the unprotected stations stood at 118; while, following the suppression of the Act, these hitherto improved stations reverted in two years to slightly beyond the original intensity—138 ratio. And the influence on the secondary disease is shown in the period from 1870-80 as an example by an annual average ratio of 22.5 admissions per 1,000 in the protected as compared with 36 in the unprotected. If to these figures we append the statement of Dr. Aitken[2] on the greater severity of the disease in the unprotected, and "the very mild forms" of it in the protected stations, and his further statement of the reduction of the annual death-rate from syphilis in the civil population of the latter, I venture to assert that we have conclusive evidence of what this special sanitation wrought in attenuating the virus in our home community despite the defects of administration and shortcomings of the measure. Nor do I think it would be difficult to obtain corroborative data from the foreign segment. Suffice it to mention now the details furnished to the Viceregal Council by the Commander-in-Chief in India, showing an advance of 137 per cent. in the primary disease and 188 in the secondary, an increased stay in hospital from 26 to 31½ days, and an invaliding augmented fourfold; and to contrast the figures from this country in 1880 and 1895—in the first, from secondary disease, 25.0 admissions, 0.06 deaths, and 1.62 invalids per 1 000 of strength, in the latter 97.7, 23, and 6.36 respectively. The Memorandum of the Army Sanitary Committee of March 9th, 1897, acknowledges the effects of the Act in India in "checking not only its increase, but the severity of the disease itself."

3. I am further asked as "to what factors I attribute the remarkable decrease in venereal diseases in the home army since 1886 in the absence of all sanitary control." Now, without acknowledging this statement as an accurate version of the army facts, and limiting the question to syphilis, the statistics do suggest an apparent decrease in the primary form commencing that year, which coincides with a change of nomenclature. No official explanation is forthcoming, and hence any opinion must be based on conjecture, and, besides, my personal view is unimportant; but what is important to the present topic is this: That, whether the primary infecting sore rests in statistics elsewhere than it previously did or was not treated in hospital, the fact of its existence is shown in the secondary ratios, which, since the suppression of the Acts in 1883, have risen with fluctuations from 28.3 admissions, no deaths, 63 invalids per 1,000 of strength to 32.3, 0.05, and 1.30 respectively in 1896—an average advance of 25 per cent. of admissions during the period with a maximum of 50 per cent. in 1887. These figures support the inference that the civil source of the army disease at home, as in most foreign stations, has been intensified since the sanitary and therapeutical environment which held it in check has been removed.

That variations in the virulence of syphilis do follow the presence or absence of personal and communal hygiene, the resisting power of the human soil at the period of implantation of virus, and the therapeutics adopted are, I conceive, recognised; but those referred to by "Inquirer"—"like other zymotic diseases"—seem to require demonstration, and will he detail "the many causes that are at work in producing them"?—I am, etc.,

FRANCIS H. WELCH, F.R.C.S.,
Surgeon-Colonel (Retired) M.S.

Lee, S.E., Jan. 5th.

SIR,—It is satisfactory to note that the subject of mercurial inunctions and intramuscular injections is coming so much to the front. I think it is becoming more and more apparent that when symptoms of any importance are present the internal administration of mercury is an inefficient method of treatment.

We must face the fact that frequently patients are either unwilling or unable from force of circumstances to carry out the principles of a lengthened course of treatment. And so it comes about that to a great extent whether we believe in the theory or not we are forced to adopt the practice of the "symptomatic treatment" of the disease. That is, we often have the opportunity of treating the case only when the patient presents symptoms more or less marked.

Under such circumstances, to make the best of the short time that the patient may be willing or able to place himself in our hands, it is essential to adopt an energetic course of treatment, either mercurial inunctions or intramuscular injections of the insoluble salts of mercury. The technique of the former is of course established.

With regard to the intramuscular injections, I can testify to the very successful results obtained in Finger's clinic with the salicylate of mercury. His formula is:

℞ Hydrarg. salicylat. ... 5.0
Paraffin. liq. 50.0
Sig. One Pravaz syringeful in the week.

I am heterodox enough to believe that a patient thus vigorously treated, even though only for a short period and only when symptoms arise, is in as good a position against the disease as one treated for a lengthened period by the internal method.—I am, etc.,

J. MACLAGAN REID, M.D.Edin.

Perth, Jan. 9th.

THE CONSCIENCE CLAUSE.

SIR,—Whilst agreeing *in toto* with your timely and forcible leader as regards the moral it indicates, yet do I take exception to certain statements therein contained. I object to the statement that it is petty sessional doings which have made Section 11 of the Act—the conscience clause—a laughing-stock in so many parts of the country. The reason why it is not a laughing-stock in every part of the country is either because of the good sense or correct views of the inhabitants or because the anti-vaccinationists have neglected to disseminate their pernicious literature and to enforce their dangerous propaganda amongst these fortunate sections. The magistrates can only administer the law as it is, be the same good or bad, and always act under the very best legal advice obtainable. The views of individual magistrates do not influence the decisions, and cannot influence them in such a case as this.

The law has provided that a parent who has a conscientious objection to vaccination has a legal right to a certificate of exemption, and the magistrates have no power whatever to refuse it, nor even to postpone it. The memorial presented by certain Branches of the Association to certain sessions, urging the justices to postpone the granting of certificates of exemption for six months shows ignorance of magisterial procedure and powers.

We cannot by our whim or caprice, or as a matter of individual opinion, set ourselves above the law and postpone the granting of its relief to those who legally and properly apply for the same. If we attempted to do so, a writ of mandamus would soon bring us to our senses. It is mean, petty, and unjust to attempt to put on the magistrates the terrible consequences of feeble reactionary legislation.—I am, etc.,

WM. HARDMAN, M.B., J.P.

Bispham and Blackpool, Jan. 7th.

CONSULTANTS FOR MEDICAL AID ASSOCIATIONS.

SIR,—The letter of Dr. Leslie Phillips under the above heading in the BRITISH MEDICAL JOURNAL of the 24th ult. is a very important one as affecting the position, not only of the consultant, but also of the general practitioner. Dr. Leslie Phillips states that as far as the Birmingham scheme is concerned it is an attempt destined to failure, and that no respectable practitioner will be found to accept service. This may or may not be a correct forecast; at the same time, however, I should be glad if you would allow me space for a few details as to the medical department of an Association in an important centre in the North of England, and which is already well established. The social position of the members of the Association in question can be gleaned from the following facts. A number are in receipt of incomes of £1,000 a-year and upwards. Some, I am told, live in houses rented at £75 to £100 per annum, whilst others reside in neighbouring counties. A little time ago it was suggested that no one who paid income-tax should be eligible for the medical benefits of the Association. The idea, however, was scouted by the

[2] *Principles and Practice of Medicine*, 7th edition, vol. i, p. 946.

directors of the Association, as it would have struck at the very root of the medical department, which is the most important one; in fact, without it the Association would probably have a very feeble existence. At present its reserve fund is over £30,000, and of course it is managed entirely by laymen. It has secured the services of a large number of consultants. The fee for consultation was recently 5s., now I believe it is 10s. The surgeons-in-ordinary to the Association are paid at the rate of 4s. a member per annum; and, lastly, canvassers are employed, who are paid partly by commission.

It has always appeared to me most unjust and illogical that a body of men, associated with a medical aid society, should be allowed to reap the benefits of advertising and canvassing, whilst the same abuse practised by a private individual would be condemned as unprofessional. Further, I would here call attention to the fact that those consultants who place their services at the disposal of the Association are giving recognition to a system of canvassing and advertising which is very unfair not only to their brother consultants, but also to the general practitioner.

I trust that the resolution, quoted by Dr. Leslie Phillips as having been passed by the Ethical Section of the British Medical Association, may be realised ere long. It would, indeed, cause a revolution in all ranks of the profession if enforced at the present time. For when you have Fellows of the Royal College of Physicians and their colleagues acting in direct antagonism to the spirit of that resolution, by holding such invidious positions, is it any wonder that men, less well off and striving hard to make a living, should accept similar or even meaner appointments?

The outlook, however, is more hopeful. Already medical men are showing a greater confidence in the future, and with it a stronger spirit of independence, and it is to be hoped that they will soon assert themselves, and no longer stoop to a system of prostituting their own services or conniving at the exploitation of others.—I am, etc.,

Levenshulme, Jan. 9th. A. W. SENIOR.

SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

SIR,—Will you allow me to call your attention to a serious error in a leading article in the BRITISH MEDICAL JOURNAL of January 7th, page 33? It is there stated that "of 29 candidates in the Army, Navy, or Indian Medical Services whose mode of entrance could be traced, and of whose general education complaint was made, no fewer than 14 had passed at the College of Preceptors, the others being distributed over nine different recognised examinations."

The absolute inaccuracy of this statement (the number should have been 2 instead of 14), which is quoted from the first section of the Report of the Education Committee of the General Medical Council (November, 1898), has been pointed out in a letter of mine which was published in the JOURNAL of December 17th, 1898, and has been admitted by the Registrar of the General Medical Council in a letter which appeared in the JOURNAL of December 24th, 1898. In another letter of mine which appeared in the JOURNAL of December 31st, 1898, it was clearly shown that the further statistics given by the Registrar were also inaccurate, and that the percentage of complaints against candidates for *all* medical examinations, who had entered through the College of Preceptors' examination, was not above the average of the whole. To this second letter I have seen no answer, nor have I seen—what I think a delicate sense of the ethics of controversy might have prompted—any expression of regret for having been inadvertently betrayed, by the use of incorrect statistics, into misstatements and fallacious arguments injurious to others.

May I take this opportunity of saying that there appear to me to be other questionable statements and arguments both in the report and in the speech by which it was introduced? These will no doubt be considered by the Council of the College at an early date. It is to be regretted that the attention of the General Medical Council was diverted from the object which both they and the College of Preceptors consider of paramount importance—the raising of the standard of preliminary medical education—by an attempt to discriminate between examinations which ought to have stood or fallen together, as all three are distinctly intended for lads under 16, and practically present no difference of standard. Nor does it seem less unfortunate that the burden of drafting the report fell upon Dr. MacAlister, a member of the syndicate for the Cambridge Local Examinations, who was thus placed, as far as part of his work was concerned, in the difficult position of combining the functions of an advocate and a judge.—I am, etc.,

H. W. EVE,
Dean of the College of Preceptors.

College of Preceptors, Bloomsbury Square, W.C., Jan. 10th.

TEMPERATURE ON THE RIVIERA.

SIR,—I should like to call attention to one item with regard to the suitability of the Riviera as a winter residence for patients requiring a warm and fairly equable temperature.

I find that the thermometer in my waiting-room, which faces south, has only on one occasion this winter fallen, night or day, as low as 56° F. No fire has been lighted in the room, and there is no neighbouring source of heat. Several south-facing hotel rooms have even a better record.

I don't know whether anything comparable to this is possible anywhere in England, where the house walls are always much thinner, and sun to warm them less intense and frequent.

As patients are always indoors at night, a low temperature outside, which sometimes occurs, does not affect them, since they are shielded from it by thick sun-warmed stone walls.

Though the average daily temperatures at Penzance and Mentone do not differ, till the late winter, by many degrees, I believe the temperature of a south room, left unheated at any English health resort, would, on several nights this winter, have fallen far below the minimum of 56° F. I have recorded here.

I may say, in addition, that English visitors this winter are better off in France than heretofore, as our political attitude has made us more respected.—I am, etc.,

Mentone, Jan. 10th. D. W. SAMWAYS.

A CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

SIR,—As in your article in the BRITISH MEDICAL JOURNAL of December 24th, 1898, on the payment of superannuation of Poor-law medical officers, you invite Poor-law medical officers to express their opinions on the subject, will you allow me as one of long standing to state that I heartily concur in the views you take, and think the present state of affairs is most unsatisfactory, and that the establishment of a central fund is urgently required.—I am, etc.,

F. W. FOWKE,
Medical Officer, Daventry Union.

Byfield, R.S.O., Jan. 6th.

THE ROYAL ARMY MEDICAL CORPS.

SIR,—With reference to the proposal put forward in Surgeon-General Hamilton's letter, which appeared in the BRITISH MEDICAL JOURNAL of November 26th, 1898, p. 1655, that the age at entrance for the R.A.M.C. should be altered from "21 to 28" to "22 to 25," I should like to make a few remarks. The effect of such a change in the regulations would be to entirely exclude from the competition candidates who hold a degree in Arts or Science, and to almost entirely exclude those who had held resident appointments as house-surgeons or physicians after qualifying. As regards the first class mentioned, they can hardly qualify before reaching the age of 25. I do not presume Surgeon-General Hamilton approves of schoolboys of 15 or 16 entering on university studies. If a student begins his medical education at 18, which the leaders of the profession think soon enough, he cannot now qualify till he is 23 or 24, and if he is successful in obtaining a resident appointment immediately after qualifying, he will be 24 or 25 before he can turn his attention to the examination for the services.

Perhaps such candidates are not considered desirable ones for the R.A.M.C., though seeing that medical officers have to move among men of good education, I should think the possession of an Arts degree an advantage rather than otherwise.

To have held a resident hospital appointment is considered by Mr. Edmund Owen and others as a most important qualification in would-be candidates; certainly such men will find their experience invaluable, and their patients will have reason to be thankful for it. I believe that candidates for the medical service of the United States army must produce evidence that, after qualifying, they have held a resident hospital appointment for one year, or acted as assistant to a medical man for that time.

Surgeon-General Hamilton's proposal, if carried out, would lead to the service being recruited with men fresh from the crammer, with practical knowledge much inferior to that of the average man entering civil practice, for the latter nowadays recognises the necessity of holding hospital appointments or of acting as assistant to a good man if he is to hope for success in practice and do his duty to his patients.—I am, etc.,

December 22nd, 1898. M.B.

AXIS TRACTION WITH ORDINARY FORCEPS.

SIR,—In the BRITISH MEDICAL JOURNAL of December 24th, 1898, Dr. Le Page criticises, somewhat unkindly, a paper of mine on the above subject. I hasten to assure him that I recommend the use of only just so much power as will advance the head; of course this amount may be considerable, and I suppose Dr. Le Page will admit that it is sometimes more than he is able to exert with his mechanical tractor. Yet he says "all difficulty disappears."

Dr. Le Page does not deny that the result of my method is to give axis traction, but he appears to object to the principle it involves, while he advocates his claw-tractor. But the action of this instrument on the forceps is similar to that which I recommend him to perform with his hands. When traction is made from the handle of his tractor it pulls on the lock of the forceps with its claw, while it presses on their handles with its thumb; like as I advise him to pull with the left hand while pressing with the right.

The principle being the same, it is better to transmit these forces to the forceps by the hands instead of by a tractor; of course assuming that the hands of the operator are capable of more tactile sensibility than an iron tractor, and of greater manipulative nicety than a loose claw which allows the lock "considerable play." His own hand is much easier to apply than an artificial claw; and when he has found out the full use of his arms he will be glad to relegate his various tractors to a museum of antiquities.

There are many such mechanical devices, but each of them only allows traction in one straight line in relation to the forceps. With Tarnier's instrument this line passes from the centre of the resistance to the child's head to the pivot where the tractors join the blades; in Dr. Le Page's it passes from the child's head to the handle of the tractor. This line may or may not be the line in which the head must advance; but it is generally better than pulling straight at the ordinary forceps, and so is an advantage to those who do not know how to use their arms properly. But by using one's arms as adaptable tractors the line of least resistance can be felt, and the line of traction be adjusted to the needs of the particular case.

If in his next high operation Dr. Le Page will examine the forceps in their "natural" position he will find that they are close to the pubes, because the perineum presses them there; and if he tries my method he can easily satisfy himself that no compression need be used.—I am, etc.,

Croydon, Dec. 27th, 1898. T. ARCHIBALD DUKES.

THE PREVENTION OF TUBERCULOSIS.

SIR,—In the campaign now being carried on against tuberculosis, there seem to me to be two measures of the first importance upon which sufficient stress has not been laid:

First, the disinfection of the houses in which one or more cases of phthisis have occurred. In such houses one member after another of a family inheriting the same predisposition is exposed to tuberculous infection, and easily falls a victim. I have seen the floors taken up in such a house, with low irregular rooms and no ventilation; loads of foul and mouldy *débris*, amongst which was a coin of last century, were removed. We of the medical profession can recommend families with such a history not only to live in the open air, but also to disinfect the houses thoroughly; and we can awaken the laity to the danger of occupying such houses without taking means to secure their own safety from infection.

Secondly—and this is perhaps more important—the disinfection of lodgings. In Bournemouth, Ventnor, and other resorts, lodgings are occupied for months together by patients exhibiting all stages of phthisis. A patient goes to one of these places, one of feeble lung constitution, or a convalescent from some pulmonary disease; goes to the very room in which a consumptive has lived for months, and in which no disinfection has been carried out. Could they well have a better chance of contracting the deadly disease?

In this direction a reform would not be difficult. Disinfection would become the rule in such cases if we always recommended patients to inquire about previous lodgers, and to insist on the measure before taking rooms which may have become infected. Owners of lodging houses would soon find it necessary to produce a certificate of adequate disinfection. —I am, etc.,

Sevenoaks, Jan. 7th. FRANK M. BURNETT, M.D.Lond.

AMBULANCE AND HOME NURSING IN THE EVENING CONTINUATION SCHOOLS CODE.

SIR,—I observe an article under the above heading at page 41 of the BRITISH MEDICAL JOURNAL for January 7th. Perhaps you will be so kind as to allow me to state that the first aid and nursing syllabuses of the St. John Ambulance Association were not "published in 1893" for the first time as stated, but the first aid syllabus, No. 58, made its appearance in 1878, and the nursing syllabus, No. 60, shortly afterwards, and both have been in daily use all over the world ever since with scarcely any alteration. There is ample corroboration of this assertion in the published reports, regulations, and documentary and printed records which have been here in my custody for the last twenty years. What has misled your correspondent is that for the past five years the date "14th September, 1893" has appeared on the back of syllabus 60. This reference does not allude to the subject matter of the lectures on the front page, but to certain notes on the back, being alterations in previous regulations—namely, the extension of the nursing course to men, and to candidates who do not already hold the first aid certificate. Our circular, "R. R." 1893, calling attention thereto, was issued on that date, which was placed on the back of the syllabus for convenience of reference, as the new rule affected the qualification of candidates for the medallion.—I am, etc.,

HERBERT C. PERROTT,
Chief Secretary, St. John Ambulance Association.

St. John's Gate, E.C., Jan. 9th.

THE CAUSATION OF EPIDEMIC GOITRE.

SIR,—Dr. Fentem's letter in the BRITISH MEDICAL JOURNAL of November 19th, 1898, is interesting. Having paid much attention of recent years to the question of the causation of endemic goitre, I am forced to the conclusion that the cause is to be found either in soil bacteria, or in the decomposition of the metallic sulphides, iron and copper pyrites. Lustig and Carle found a particular bacillus, which they name the "bacillus liquefaciens," in all the goitrigenous waters of the Vale of Aosta examined by them,[1] but they did not prove that the elimination of the microbes deprived the waters of their goitrigenous properties. Moreover, their experiments on animals, carried out with pure cultures of this bacillus, either by subcutaneous injection or by feeding for a length of time by the mouth, were productive of no result. In my opinion this may indicate that the chemical surroundings of this bacillus in its soil-home provide the virulence necessary to produce the disease, and that an artificially-prepared culture is comparatively innocuous. It is curious that St. Lager found minute particles of iron and copper pyrites in suspension in the waters of the "torrente Buthier" used by Lustig and Carle in their researches. The principal facts in favour of a bacillary origin of endemic goitre, in my opinion, are:

1. That filtration diminishes and boiling actually destroys the goitrous principle in water.
2. The occurrence of epidemic goitre.

1 Lustig and Carle, "Sull'Etiologia del Gozzo Endemico," July number of *Journal of Royal (Italian) Academy of Medicine*, 1891.

3. The occurrence of endemic goitre in rural districts where little care is exercised in choosing a water supply, where in many cases surface water only is used, or subsoil water which has merely percolated through a porous superficial stratum, and is recovered for domestic use by the agency of the village pump.

4. The frequency of goitre on the limestones of the carboniferous series, where, it may be, the water from the surface percolates rapidly along the free joints of these limestones, carrying bacteria in its train.

5. The goitrigenous action of many river waters, a great part of whose volume is derived from surface drainage.

6. The occurrence frequently in goitrigenous waters of nitrates or nitrites, indicating the presence and activity of soil bacteria.

7. The lessening degree of poisonous action in goitrigenous waters as they flow away from their source, due in all probability to the bacillus-destroying agencies of exposure to sunlight and oxygen.

Against the bacillary theory the chief arguments seem to me as follows:

1. The rapid disappearance of early goitres when removed from poisonous localities.

2. Absence of recorded constitutional disturbances (for example, fever) in epidemic goitre.

3. The notorious instance of epidemic goitre occurring in midocean recorded by Foster during one of Captain Cook's voyages, where the disease was due to the drinking of melted ice on the part of certain of the crew.

In my own opinion, the causation of endemic goitre is due to the results of the decomposition of the metallic sulphides before mentioned. A nascent sulphate may be the cause, and although the evidence in favour of this is very convincing, yet space will not admit of the numberless instances I might quote being brought forward. Paracelsus thought that iron pyrites was the cause of goitre. "Struma (goitre) ex mineralibus, ut alia quæ oriuntur ex eisdem, sicut intempestiva marchasita (FeS_2), vel mineralia cruda, nascitur."

I do not believe that heredity plays any important part in the etiology of this disease. The children are exposed to the same poisonous influences as their parents. Moreover, in Valais, it has been noted in some goitrous districts that women who had previously given birth to cretins, if they spent the period of gestation in a healthy district, gave birth to healthy children; conversely, women who had previously produced healthy children were delivered of cretins when they came to reside in goitrous localities. In the female the thyroid seems a more sensitive organ than in the male, and the thyroid of the married female seems the most sensitive of all. The worst cases I have seen have been in married women. Women, of course, in this country are greater water drinkers than men, and this probably accounts for the preponderance of the disease in the female sex.—I am, etc.,

LOUIS E. STEVENSON, M.B., F.G.S.

Temple Sowerby, Penrith, Nov. 28th, 1898.

OBITUARY.

SIR JAMES MOUAT, K.C.B., V.C.,

Surgeon-General; Honorary Surgeon to the Queen.

THE death of this distinguished army medical officer, at the age of 83, took place at his residence in London on January 4th. He was born in 1815, educated at University College Hospital, became a Member of the Royal College of Surgeons in 1837, and a Fellow in 1852.

He entered the army as Assistant-Surgeon in December, 1838, became Surgeon in 1848, Surgeon-Major in 1855, Deputy Inspector of Hospitals in 1858, and Inspector-General in 1864; he retired in 1876, with the title of Surgeon-General. In the Crimea he was Surgeon of the 6th Dragoon Guards, and also had charge of the General Field Hospital of the 3rd Division, and was Principal Medical Officer at Balaklava. He served throughout the siege of Sebastopol, and was present in several engagements, including the battles of Balaklava, Inkerman, and Tchernaya, for which he received medal and clasps.

At the battle of Balaklava he won the Victoria Cross for very distinguished gallantry: Colonel Morris, 17th Lancers, was lying wounded in a very exposed position in front of the enemy; at great personal risk Mouat went to him, dressed his wounds, arrested hæmorrhage, and thereby saved his life.

Subsequently he served in the New Zealand wars of 1860 and 1863-5, and was repeatedly mentioned in despatches for meritorious conduct in the field, received the medal and also the thanks of the New Zealand Government for "special and valuable services rendered to the colony" (medal).

He received a good service pension in 1868; was appointed Honorary Surgeon to the Queen in 1888; and made a K.C.B. in 1894. His father was an army medical officer, and his brother was Dr. F. J. Mouat, who, after a distinguished career in the Indian Medical Service, held for many years an appointment in the Local Government Board, died in 1897.

One who served under Sir James and knew him well, furnishes the following reminiscences of him:

"There never was a more thorough soldierly medical officer than Mouat; he was every inch military. A very dapper, well-made man, he was always faultlessly dressed, whether in uniform or in mufti; nothing annoyed him more than slovenly or shabby attire, especially among medical officers. His rather brusque manner and strict military ways were on occasions somewhat unpleasant to those under him; but he was always their champion. If a little mild martinetism was permissible to himself, yet, if any outsider tried to bully a medical officer, he was at once up in arms. As an example of this, the writer can remember, while Mouat was Principal Medical Officer at Aldershot and his office only thinly partitioned from the medical officers' library, overhearing him trouncing an officer of another department who had been discourteous to a young assistant-surgeon. He had a very sharp tongue, and as he usually got hold of the right end of an argument, was formidable in dispute. Himself an admirable regimental surgeon, he long favoured a return to the regimental system; but latterly, seeing that to be impossible, frankly accepted the corps autonomy with military titles. As he set no small value on himself or his military position, he always kept up considerable style, and was the only senior medical officer the writer can recall who made his camp inspections in a well-appointed carriage and pair.

"Sir James Mouat was held in deserved respect by all branches of the service; and in private life was an attached and sincere friend of those who won his esteem."

EDMUND W. DAVY, M.D.,

Dublin.

WE have to announce with much regret the death of Dr. Edmund W. Davy, of Dublin. Dr. Davy graduated M.B. in the University of Dublin in 1848, and took the degree of M.D. in 1872. He became Lecturer on Chemistry in the Carmichael School in 1850, and in 1870 he was appointed Professor of Medical Jurisprudence in the Royal College of Surgeons. He was also a Public Analyst to several counties in Ireland. He was devoted to the study of chemistry, and he communicated many valuable papers to the learned societies. He was the first to effect the complete decomposition of urea by the action of the hypochlorites, for estimation of that substance, a method, modified by other chemists, now in general use. He also described several new salts, particularly of the alkaloids, and chemical tests for strychnine, carbolic acid and nitrous acid, alcohol and arsenic.

He came of a good stock, for his father was also a distinguished chemist and a Fellow of the Royal Society, who was for some time an assistant in the Royal Institution, under the direction of his cousin, the famous Sir Humphry Davy.

Dr. Davy was an able and most courteous gentleman. His modest and retiring disposition was his only fault; but all who knew him liked him well, and truly appreciated his great merits.

SURGEON-GENERAL LEWIS STANHOPE BRUCE died at Ealing on January 2nd, in his 68th year. He was the second son of the late Lieutenant-Colonel Louis Bruce, who fell at the battle of Ferozeshah on December 21st, 1845. Surgeon-General Bruce joined the Indian Medical Service (Bombay Establishment) on May 6th, 1854, became Surgeon-Major July 1st, 1873; Brigade-Surgeon, November 27th, 1879; Deputy Surgeon-General (Bombay Presidency), September 15th, 1882, and retired on September 15th, 1887, with the honorary rank of Surgeon-General. He served in the Indian Navy in 1856-57 in Persia, landing at Hallilah Bay, and being present at the bombardment and surrender of Bushire, and with the 3rd Regiment Bombay Light Cavalry in the expedition to Borazjoon, being present at the battle of Kooshab. For these services he received the medal with clasp. During the Indian Mutiny he served with the 3rd Bombay Light Cavalry in the Central India campaign of 1858, taking part in the pursuit of

Tantia Topee and of the enemy from Rajghur, which resulted in the capture of twenty-seven guns. He was also present at the battle of Sindwahoe and the skirmish at Kural, receiving the medal. In the Afghan war of 1880 he acted as principal medical officer of the 2nd Division of the Candahar Field Force, and subsequently of the South Afghanistan Force, taking part in the march to the relief of Candahar with the force under Major-General Phayre. For these services also he received a medal.

We regret to announce the death of Dr. Henry Kenneth Paxton, a nephew of Dr. John Paxton of Norham, whose assistant he had been for a short time. Dr. H. K. Paxton, who was only 23 years of age, took the degrees of M.B. and C.M. at the University of Edinburgh in October, 1898. During the few weeks he had been at Norham Dr. Paxton had endeared himself to the inhabitants of the village and neighbourhood by his courtesy, kindness, and attention. As his death was sudden, an inquest was held. Dr. R. W. Cunningham, who made a *post-mortem* examination, stated that he had valvular disease of the heart and congestion of the kidneys: the cause of death in his opinion was heart failure caused by acute inflammation of the valves of the heart, possibly accelerated by fatigue. The jury returned a verdict of death from natural causes.

We regret to announce the death of Dr. John B. Hamilton, the editor of the *Journal of the American Medical Association*, which occurred at Elgin, Illinois, on December 24th, 1898. Dr. Hamilton was born in Jersey County, Illinois, on December 1st, 1847, and took his degree at the Rush Medical College, Chicago, in 1869. In 1874 he obtained a commission as Assistant Surgeon in the Medical Department of the United States Army. Two years later he resigned his commission, and entered the Marine Hospital Service as Assistant Surgeon. In 1879 he was appointed Supervising Surgeon-General of the Service. Dr. Hamilton introduced important reforms into the service, among them being the introduction of examinations of the eyesight of pilots and of physical examinations of seamen before shipment. During his tenure of office he succeeded in having the National Quarantine Acts passed. In 1896 Dr. Hamilton resigned his position in the Marine Hospital Service, and soon afterwards he was appointed Superintendent of the Insane Asylum at Elgin, near Chicago, where he died. He was also for some time Professor of Surgery in the Rush Medical College, Chicago, where he held several hospital appointments. Dr. Hamilton did good work as head of the Marine Hospital Service, in which capacity he had to contend with two serious epidemics of yellow fever in the South. As editor of the *Journal of the American Medical Association* he was recognised as an able journalist. He greatly improved the journal, and increased the influence of the Association of which it is the mouthpiece.

Mr. Alfred Kebbell, M.R.C.S.Eng., died at his residence, Flaxton, York, on December 21st, 1898, at the age of 51. A native of London, he received his medical education at the London Hospital, where he took a first prize in minor surgery, and held the post of House-Surgeon. He subsequently held a similar post at the York County Hospital, and then settled at Flaxton, where he had an extensive practice for nearly twenty-four years. He was a member of the British Medical Association, and held the appointments of Medical Officer and Public Vaccinator to the Fourth District of the York Union, and Medical Officer to the Whitwell Convalescent Home from its foundation. He contributed papers on various subjects to the medical journals; and his interest in all sanitary matters was conspicuous. He had a wide circle of friends, by whom deep sympathy has been felt for his widow and seven children.

The death is announced, at the age of 86, of Mr. Timothy Lorkin Walford, the oldest member of the profession residing in Reading. He was born in September, 1812; and obtained the qualification of L.S.A. in 1833, and that of M.R.C.S.Eng. in 1837. He settled at Reading, and became Medical Officer to the Union, holding the post for many years. He entered the Reading Town Council in 1850, and in 1855 was elected Mayor of the Borough. He was subsequently made an alderman and a magistrate. At the time of his death he was the senior magistrate on the local bench. He was for more than fifty years a director of the Reading Cemetery Company. He retired from practice some years ago, and had been lately in failing health. The funeral took place at the Reading cemetery, and several members of the profession in Reading were present at the graveside.

Deaths in the Profession Abroad.—Among the members of the profession in foreign countries who have recently died are Dr. Constantine Vousakis, Professor of Physiology in the University of Athens; Dr. Martinez Pacheco, a member of the Spanish Senate; and Dr. Manuel Tapia y Serrano, for many years Assistant Professor in the Medical Faculty of the University of Madrid.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

Wanted by Major R.A.M.C. under orders for Bombay, leaving probably in February, an exchange to remain at home for a year or nine months longer. Address "Hartlip," care of Messrs. Holt and Co., 3, Whitehall Place, London, S.W.

ROYAL NAVY MEDICAL SERVICE.

Fleet-Surgeon Valentine Duke, B.A., M.B., has been placed on the retired list, with the rank of Deputy-Inspector-General, January 5th. His commissions are thus dated: Surgeon, September 7th, 1867; Staff-Surgeon, December 20th, 1878; and Fleet-Surgeon, December 22nd, 1887. He was Fleet-Surgeon of the *Calliope*, at Apia, Samoa, in March, 1889, during the terrible hurricane, which, according to Captain's Kane's report, "caused disaster unprecedented since the introduction of steam," and when the conduct of the officers and men received the high approval of the Lords of the Admiralty.

The following appointments have been made at the Admiralty: Arthur W. Russell, Fleet-Surgeon, to the *Pembroke*, for Chatham Dockyard, January 17th; James L. Sweetnam, M.D., Fleet-Surgeon, to the *Pembroke*, temporarily, January 17th; Archibald M'Kinlay, Fleet-Surgeon, to the *Howe*, January 17th; Alfred H. Miller, Fleet-Surgeon, to the *Resolution*, January 17th; James C. F. Whicher, Staff-Surgeon, to the *Melampus*, January 17th; Frederick J. Burns, M.D., Staff-Surgeon, to the *Pactolus*, January 17th; William Eames, Staff-Surgeon, to the *Theseus*, January 17th; William S. Lightfoot, Staff-Surgeon, to Plymouth Hospital, January 17th; Jerome Barry, M.D., Staff-Surgeon, to the *Pegasus*, January 17th; George H. Foott, Staff-Surgeon, to the *Pelorus*, January 17th; Hugh W. Macnamara, Staff-Surgeon, to the *Boscawen*, January 25th; J. M.artin Surgeon, to the *Theseus*, January 17th.

ARMY MEDICAL RESERVE.

Surgeon-Captain M. Mackenzie to be Surgeon-Major, January 11th.

Surgeon-Captain Robert Mitchell, M.D., 1st Volunteer Battalion the Lancashire Fusiliers, to be Surgeon-Captain, January 11th.

ROYAL ARMY MEDICAL CORPS.

Captain Alexander J. Chambers is placed on temporary half pay on account of ill-health, January 9th. He was appointed Surgeon-Lieutenant, July 27th, 1892; and Surgeon-Captain, July 27th, 1895.

MILITIA MEDICAL STAFF CORPS.

Mr. Jonathan Clerke is appointed Surgeon-Lieutenant, January 11th.

THE VOLUNTEERS.

Surgeon-Lieutenant-Colonel S. Gourley, 4th Durham Artillery (Western Division Royal Artillery), has resigned his commission, January 11th; he retains his rank and uniform.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated January 11th: Arthur E. Larking, M.D., 1st Volunteer Battalion the Buffs (East Kent Regiment); George B. Masson, 3rd Volunteer Battalion the Norfolk Regiment; William G. Brett, 1st Volunteer Battalion the Dorsetshire Regiment; James McK. Harrison, M.B., 1st Herefordshire Rifles.

Surgeon-Captain H. G. G. Wilkins, 2nd Volunteer Battalion the Duke of Cambridge's Own Middlesex Regiment, has resigned his commission, January 11th.

THE ARMY MEDICAL SCHOOL, NETLEY.

In a note under this title published last week, we were led into error by the somewhat obscure wording of the regulations with regard to nominations to the Royal Army Medical Corps. The fact is that the officers nominated will come after those admitted as the result of competition. Their places in relation to each other will be determined by the result of the examination at the end of the Netley course. We understand that the wording of the regulations will be modified to remove the ambiguity to which we have referred.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From	To
Lieut.-Colonel R. H. Quill, M.B.	Chatham	Ceylon.
,, C. W. M. Keys, M.D.	Belfast	Mauritius.
,, M. R. Ryan, M.D.	Malta	Crete.
,, J. L. Peyton, M.B.	Curragh	Limerick.
Major R. O. Cusack	Limerick	Bengal.
,, W. D. A. Cowen	Egypt	,,
,, A. O. Geoghegan, M.D.	,,	,,
,, P. M. Carleton, M.D.	Templemore	Limerick.
,, F. B. Maclean	Shoeburyness	Punjab.
,, J. Carmichael	Cork	,,
,, H. P. Birch	Bombay	Devonport.
,, G. B. Russell, M.B.	Tipperary	Punjab.
,, B. F. Zimmermann	Aldershot	,,
,, R. I. Power	Ballincollig	Madras.
,, C. A. Lane, M.B.	Straits Settlmts.	Ceylon.
,, F. J. W. Stoney	Kinsale	Madras.
,, T. H. Corkery	Kilworth	Waterford.
,, J. J. O'Donnell, M.D.	Dover	Bengal.
,, R. W. Wright	Egypt	,,
,, R. J. D. Hall	Lydd	Dover.
,, E. S. Marder	Egypt	Portsmouth.
,, T. du B. Whaite, M.B.	—	Bengal.
,, H. T. Knaggs, M.B.	Bombay	Chatham.
,, R. H. Penton, D.S.O.	Punjab	Egyptn. Army.
,, W. S. Dowman	Bengal	C. of G. Hope.
Captain W. J. Trotter	C. of Gd. Hope	Bengal.
,, J. Minniece, M.D.	Egyptian Army	Punjab.
,, E. G. Browne	Cork	,,
,, E. C. Freeman	Gosport	Bermuda.
,, R. J. Copeland, M.B.	Dover	Woolwich.
,, H. S. Peeke	Portsmouth	Canada.
,, L. Way	Woolwich	London.
,, H. D. Mason	Colchester	Norwich.
,, W. E. Hardy	Woking	C. of G. Hope.
,, J. E. Brogden	Egypt	Bombay.
,, G. W. Tait, M.B.	Woolwich	West Africa.
,, N. Faichnie, M.B.	West Africa	Dover.
,, F. W. Begbie	Bengal	Netley.
,, E. M. Morphew	,,	Cork.
Lieutenant J. McD. McCarthy	Egypt	Bengal.
,, J. Poe, M.B.	,,	Curragh.
,, P. H. Collingwood	,,	Bombay.
,, C. J. O'Gorman	Dublin	C. of G. Hope.
,, G. S. Nickerson, M.B.	Colchester	Egyptn. Army.
,, S. O. Hall	,,	Bombay.
,, J. S. Gallie	Edinburgh	Fort George.
,, F. J. C. Heffernan	Dublin	Athlone.
,, A. E. Thorp	Chester	Liverpool.
Quartermaster G. L. Allen	Netley	Dublin.

THE MEDICAL SERVICE OF THE RUSSIAN ARMY.

THE REGIMENTAL SYSTEM.

THE active army of Russia contains a total of field troops amounting to 28,742 officers and 1,266,701 non-commissioned officers and men. These figures do not include "field reserve troops," "fortress troops," "depôt" or "local" troops, or "Imperial militia." If included, they would bring the grand total up to 64,392 officers and 3,310,203 non-commissioned officers and men. In peace there is no medical corps in the Russian army existing as a unit by itself. Each combatant unit has a small medical *personnel* belonging to it: the medical establishment for a regiment of infantry of four battalions, for example, being 1 senior and 4 junior surgeons, 1 senior and 12 junior dressers, 1 apothecary dresser, 14 dresser pupils, 1 hospital sergeant, and 3 hospital orderlies, all non-combatants. Each unit has its own hospital, that of an infantry regiment numbering 16 beds. In addition there are in certain of the larger garrisons hospitals for more severe cases, with beds for 150 to 800 men, and to these a medical *personnel* varying from 4 to 18 medical officers, with the necessary subordinates, is attached. From the above, as cadres, are formed all the medical units required in mobilisation, the extra medical *personnel* being taken from the reserve, and the drivers supplied from the reserve of the cavalry.

FIELD ORGANISATION.

Each unit in the field has a medical *personnel*, with requisite stores and transport. Taking an infantry regiment, as an example, the medical *personnel* is the same as in peace, except that there are 20 junior and company dressers, and no dresser pupils. The material comprises stores for a hospital of 16 beds. In addition, each dresser carries a dresser's knapsack for first aid, and 32 stretchers are provided. The medical transport consists of 4 one-horse carts for medical stores, 1 two-horse waggon with stretchers, etc., and 4 four-horse ambulance waggons. Six men per company are trained as stretcher bearers, and when so employed wear the Red Cross badge on their left arm, but otherwise take their places in the ranks. The medical arrangements in other units are of the same kind. In action the regimental medical *personnel* form advanced dressing stations for first aid to the wounded. When troops are halted a regimental hospital is organised.

Surgeons wear dark green tunics and trousers, with cuffs and collars of the same colour, with scarlet piping. The forage cap is dark green, with a dark green band and scarlet piping. Their shoulder pieces are narrower than those of combatant officers, and are lined with silver lace. The subordinate *personnel* wears the uniform of the regiment.

SANITARY DIVISIONS.

To each active or reserve infantry division in the field is attached a "sanitary division," which forms part of the divisional supply and transport column, and consists of (1) "divisional hospital," and (2) "mobile hospitals." The former corresponds to the British "bearer company," and the latter to the "field hospital." In each of the rifle brigades of the line is attached a "brigade hospital" corresponding to the "divisional hospital" of an infantry division.

DIVISIONAL HOSPITALS.

The duty of the divisional hospital in action is to form a main dressing station to search for and bring in the wounded from the field or the advanced dressing stations to it, and to co-operate with the troops in despatching the wounded to the field hospitals told off for them. The main dressing station is marked by day by two flags, one the National, the other the Red Cross, and at night by lanterns. The strength of a divisional hospital is 1 combatant officer (who commands the hospital and bearer company), 5 surgeons, 1 official, 29 non-combatant medical subordinates, a bearer company of 217 non-commissioned officers and men, and 39 transport non-commissioned officers and men—total, 285 non-commissioned officers and men, with 78 horses and 27 carriages. Each hospital is supplied with 1 special and 50 ordinary stretchers, 10 boxes each with 200 sets of bandages, 50 lanterns, and 50 bandaging knapsacks (1 of each per stretcher), 4 dressing tents, 2 operating tables, stores, food, etc. The transport vehicles consist of 8 four-horse ambulance wagons, 3 one-horse medical store carts, 15 two-horse store wagons, and 1 four-horsed store wagon for the heavy parts of tents.

Rifle Brigade Hospitals.—The duties are as described for a "divisional" hospital. The strength, 1 brigade surgeon commanding, 3 other surgeons, 1 hospital overseer commanding bearer company with 1 assistant (officials), 21 non-commissioned medical subordinates, a bearer company of 141 non-commissioned officers and men, and 32 transport non-commissioned officers and men—194 non-commissioned officers and men in all, with 56 horses and 25 carriages. Material, same as divisional. Transport vehicles consist of 8 two-horse ambulance wagons, 15 two-horse store wagons, and 2 one-horsed medical store carts.

Mobile Hospitals form the third line of medical assistance, and each affords accommodation for 10 officers and 200 men. After an action they are emptied and follow their division. The strength of each consists of 5 surgeons, 4 other officials, 107 non-commissioned officers and men (including 28 for transport), 4 sisters of mercy, 57 horses, and 25 carriages. The material: bedding an 1 hospital clothing for 10 officers and 200 men, 210 bedsteads, 105 small tables, 40 stretchers, 3 large tents for 20 men. The transport vehicles: 19 two-horse store wagons, 1 four-horse wagon for heavy parts of tents, 4 one-horse medical store carts, and 1 four-horse carriage for the sisters of mercy.

Mobile Field Hospitals.—Two are mobilised by each active infantry division in addition to the 2 mobile field hospitals included in the sanitary division of each infantry division.

Second Reserve Field Hospitals.—These are established on "lines of communications." In all 240 are maintained. They have no transport, as their *personnel* and stores are forwarded by rail, or on requisitioned carriages.

Military Sanitary Convoys and Field Dispensaries.—There are mobilised 20 military sanitary convoys. The strength of each is 1 combatant officer in command, 2 surgeons, 98 non-commissioned officers and men (including 71 for transport duty), 2 sisters of mercy, 137 horses and 36 carriages, including 27 four-horse ambulances, 1 four-horse kitchen wagon, 7 two-horse store wagons, and a one-horse medical store carts.

The Field Dispensaries supply divisional and field hospitals with all the medical and surgical stores required. Seven in all are mobilised. Each is provided with a supply equal to four months' requirements, and has a *personnel* of 3 officials and 21 non-commissioned officers and men. Transport is provided when required.

REPORT OF THE SURGEON-GENERAL OF THE UNITED STATES ARMY.

THIS report to the Secretary for War has been published, and is noticed in the American medical press. One significant fact is noted—namely, that the number of medical officers allowed to the army (192) is inadequate even in times of peace, and in consequence of this it became necessary during the last war to employ a staff of 650 "contract surgeons." These raw medical recruits were assigned responsible positions, and afterwards charged with incapacity. The prevalence of much sickness in the various camps is frankly charged to imperfect sanitation and want of experience of medical officers in charge, rather than to badly chosen sites for the camps. The demand for male nurses far exceeded the supply from the trained hospital corps. It was impossible to get suitable men from regiments, and trained assistants from outside sources were not procurable. Medical supplies were in abundance, but adequate and timely transport for them was impossible. A leading factor of diseased conditions was the reduction of the age limit for enlistment from 21 to 18 years. Camps were established in proximity to large cities, with deplorable results—namely, dissipation and drunkenness. The experience of the late war is dearly bought by sickness, suffering, and death; but striking object lessons are offered in army organisation which should be of great service in the future. The pressing need of centralised power in the consistent distribution of those responsibilities which may make the army and all its different departments a grand and perfect machine is expressed in the notices of the Surgeon-General's report to the United States War Secretary.

THE REPORT OF THE SURGEON-GENERAL UNITED STATES NAVY.

THE report of the Surgeon-General of the United States Navy has been published. The great value and efficiency of the ambulance ships have been amply demonstrated, whatever other points remain to be elucidated. Infectious disease—for example, yellow fever—was promptly met by measures for isolation, disinfection of quarters, and removal of those who were well to a place beyond danger of infection. The naval hospitals were equipped to their full capacity; plans prepared for building pavilion wards on the hospital grounds to give accommodation to any number of sick and wounded. The director of the naval laboratory was prepared to furnish medical and surgical supplies in any quantity, at any place, and immediately. The vessels likely to be engaged were supplied with a full outfit of war supplies; while medical and surgical outfits of a kind suitable for the various classes of vessels were bought, assembled and boxed ready to be supplied anywhere as soon

as called for. There was not an instance during the war of any vessel having to wait for her medical stores. In short the preparations to meet any possible contingency were distinguished by promptness and thoroughness.

VOLUNTEER MEDICAL STAFF CORPS.

PRINCESS CHRISTIAN will distribute the prizes to the London Companies, Volunteer Medical Staff Corps, on Friday, January 27th.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE following officers who have been under instruction from the staff of the School have recently passed the proficiency examination conducted by officers of the Royal Army Medical Corps at the headquarters of regimental districts, namely: Surgeon-Major C. Godson, M.D., M.R.C.P., Army Medical Reserve of Officers; Surgeon-Captain A. Abraham, 5th Volunteer Battalion Durham Light Infantry; Surgeon-Lieutenants J. W. Edwards, M.B., Tees Division Submarine Miners, Royal Engineer Volunteers; J. F. Fotheringhlim, M.D., Queen's Own Rifles of Canada; D. G. Newton, M.B., 1st Volunteer Battalion York and Lancaster Regiment; J. F. Hall, M.B., 3rd Volunteer Battalion the Queen's Royal West Surrey Regiment; J. F. McCann, M.D., M.R.C.P., 1st Middlesex (Victoria and St. George's) Rifle Volunteers; J. E. Bates, M.B., Bearer Company, Surrey Volunteer Brigade; J. Allison, M.D., 1st Volunteer Battalion Northampton Regiment; J. W. Bone M.B., 3rd Volunteer Battalion Bedfordshire Regiment; D. Monro, M.B., 1st Galloway Rifle Volunteers; W. K. Pauli, 3rd Volunteer Battalion Bedfordshire Regiment; J. Oldfield, 1st Volunteer Battalion Essex Regiment; C. Stephens, M.B., 3rd Volunteer Battalion Suffolk Regiment; J. Forsyth, M.B., 1st Essex Volunteer Artillery; W. T. Crawford, M.D., 4th Volunteer Battalion Derbyshire Regiment; P. D. Minchin, 2nd Volunteer Battalion the Queen's Royal West Surrey Regiment; J. Raywood, 5th Volunteer Battalion the South Wales Borderers; L. Demetriadi, F.R.C.S., 2nd Volunteer Battalion (the Duke of Wellington's) West Riding Regiment; J. W. Cook, M.B., 1st Volunteer Battalion the Lancashire Fusiliers; C. Bucknill, 2nd Volunteer Battalion the East Lancashire Regiment; D. Hamilton, F.R.C.S., 4th Volunteer Battalion the Manchester Regiment; E. McCarthy, 4th Volunteer Battalion the Cheshire Regiment; G. Hawkins-Ambler, F.R.C.S., 1st Lancashire Royal Engineer Volunteers; A. Renshaw, 3rd Volunteer Battalion the Cheshire Regiment; C. T. Green, 1st Volunteer Battalion the Cheshire Regiment.

PAY OF JUNIORS, R.A.M.C., IN INDIA.

MEDICUS INDICUS writes: In full confidence that the British Medical Association will see justice done, I beg to expose the following six grievances which press very hard on the juniors of the R.A.M.C. serving in India. These officers do not complain of their treatment as regards pay by the Home or Colonial Governments, but have a clear grievance against the Government of India.

1. The junior medical officer is the only officer who does not benefit by coming to India, but, on the contrary, loses money.

2. A captain R.A.M.C. under five years' service receives Rs.350, an infantry captain Rs.417 per mensem.

3. R.A.M.C. officers in India have no appointments to look forward to or work for; they have no such billets as adjutantships, station staff officers, adjutant-generalships, transport appointments, etc.

4. Medical officers are continually knocked about; one had fourteen moves in nine months; regimental officers are rarely moved.

5. There are no travelling allowances, except Rs.3 a day when travelling by rail with troops, no allowance when travelling by road or alone; this is a grave hardship. At home and in the Colonies travelling allowances are granted when moving with or without troops. Officers of the Indian Medical Service in civil employ receive Rs.5 a day when travelling round their districts. No horse allowance is given to junior medical officers in India, even if called upon to do duties which would be impossible without a horse. The Punjab Government have recently imposed sanitary duties on medical officers involving travelling twenty or thirty miles at a single inspection, without any allowance for locomotion. On manœuvres Rs.30 a month is given, but only for the period engaged on mounted duty, and no provision made either for buying or selling the horse so required; he is expected instantly to provide a horse, and as quickly get rid of him. All this on Rs.350 a month.

6. No charge pay for station hospitals, section hospitals, or section field hospitals is given to R.A.M.C. officers, but given to those of the Indian medical, and even the subordinate medical, service.

*** It cannot be questioned that the position of junior officers of the R.A.M.C. serving in India, as regards pay and allowances, is most unsatisfactory. There can be little doubt that it has greatly detracted, in the eyes of possible candidates for the service, from the otherwise good effects of granting intelligible army status and title.

We lately observed a statement in the *Scotsman* to the effect that what it chose to call a fresh "boycott" of the Royal Army Medical Corps was likely on the score of pay, and mentioned as a grievance that officers of the corps with less than five years' service receive in India 100 rupees a month less than an infantry captain. Our contemporary added that the fact that promotion in the medical service is so much quicker than in the line explained the discrepancy.

But is it thus contended that medical officers who qualify for the army at their own expense and enter five or six years older than their combatant brethren are to have pay and promotion regulated by pure length of service on a regimental scale? That would surely be inequitable. The fact is that in the matter of pay the Home and especially the Indian Government already have, and in the future will have still more, to reckon on conditions rapidly affecting the entire medical profession. The numerical increase in the medical profession is perceptibly less in recent years than it has been for a long period, and the abolition of unqualified assistants has raised the rate of salary paid to qualified assistants by fully 25 per cent. The State will soon have to recruit in a rising market. We earnestly trust the Indian Government will lose no time in considering the question of pay and allowances of medical officers.

MEDICO-LEGAL.

THE DUTIES OF A POLICE SURGEON.

THE city of Coventry having resolved to appoint a police surgeon at a salary of £50 a year, has issued a statement of his proposed duties, from which it appears that in addition to examining candidates for admission, treating the 55 members of the force in case of sickness or injury, providing all surgical instruments, drugs, etc., visiting prisoners at the police-station or persons found ill in the streets, he is to undertake to examine all males or females when called on by the police in all cases of rape or indecent assault, to examine all children committed to a reformatory or industrial school, and also, when required, any child or young person ordered by the justices to be whipped. No one can say that £50 is an excessive salary to pay for the performance of these various duties, yet it compares favourably with that given by other cities and towns—with Bath, for instance, where with 86 police the salary is £50; with Chester, where the surgeon is paid £30 for attendance on 47 police; with Exeter, where there are 52 police and salary £30; and with Oxford, 61 police, salary £30; while even lower amounts are paid in several other towns.

There are, however, two points in this list of duties which seem to us to require reconsideration. If the police surgeon is to provide all surgical instruments and things of a like description, he may be called upon to purchase trusses and elastic stockings, as well as splints etc. in case of fractures, which would put him at a disadvantage, not only as compared with metropolitan police surgeons, but even as regards Poor-law medical officers. Probably, however, this only requires to be mentioned in order to be rectified. The other point concerns the examination of males or females in cases of rape and indecent assault. It cannot be too strongly impressed upon whoever may be appointed that the police cannot authorise him to examine either males or females without their express assent to such examination, and that if he does so he does it at his own risk of an action for damages. Mr. Asquith's attention was specially directed to this matter by the Police Surgeons' Association when he was Home Secretary, and he admitted the desirability of sending instructions to all provincial police surgeons similar to those which are issued to metropolitan ones on their appointment. So far as we know, however, this has not yet been done.

"A WICKED FRAUD."

AN inquest was held at Modbury, Devon, on January 6th, by Mr. R. R. Rodd, County Coroner, as to the death of James Wood, aged 59. According to the evidence—as reported in the *Western Morning News*—the widow deposed that the deceased had been suffering from diabetes, and had been treated first by Dr. Lakeman, of Modbury, and afterwards by Dr. Fox, of the Plymouth Dispensary; subsequently, having seen an advertisement, he consulted Mr. W. H. Roberts. The following is the report of the evidence of this person:

William Henry Roberts, who described himself as a gentleman with no occupation except that of an agent from Johannesburg, and residing at 2, Barton Crescent, Mutley, said he was not a qualified practitioner, although he advertised that he would cure cancer and diabetes. Deceased came to him because he had heard of the complete manner in which he (witness) had cured a lady whom witness named of a similar disease. He saw deceased in a public-house by arrangement, but did not examine him, nor did deceased make any statement to him relative to his disease except that he was suffering from diabetes. Witness gave him powders, and told him to write and let him know his habits and mode of life. Deceased had paid him £2 10s. on account, leaving a balance of £3 2s. Witness received a communication from deceased stating he was weaker, and suggesting a further interview. The powders he gave to deceased contained merely table salt for removing constipation, from which deceased also said he suffered. Had deceased lived he would have continued treating him, the amount demanded covering the whole treatment.

In reply to a juryman witness said he did not tell deceased not to see him for two months. Deceased told him a doctor in Plymouth said the disease was incurable. Did not treat nor prescribe for deceased, but merely sold him the powders.

Dr. Thomas Lakeman, of Modbury, said up to September last he attended deceased for diabetes, and then as he could not afford to pay his terms, advised him to go to the hospital, where he would have more chance of recovery. Deceased was then able to do his work, although weak. When he saw the deceased on January 2nd he was in a state of collapse. Not knowing that Roberts was not a registered medical man he advised Mrs. Wood to wire for him, and at the same time wrote asking him if he was prepared to give a certificate, and, if not, he (witness) would have to place the matter in the hands of the police in the usual way. In his reply Roberts stated that he did not treat deceased, as he was careful not to treat any case, and he did not charge anything for an interview, but only to cover expenses he might incur. The *post-mortem* examination showed that all the vital organs were practically natural, and that deceased might, and ought to have, lived for several years longer. He attributed death to coma caused by diabetes. If the powders were simply table salt it was not injurious, and Roberts's treatment did not accelerate death. It was, however, probable that had deceased received proper medical attendance he would still be alive.

The inquest was adjourned for a few hours to permit an analysis of the powders. On its resumption Mr. Nicholas F. Lakeman, analytical chemist, said that the two packets of white powder proved to be a common table salt.

The coroner remarked that the inquiry had done good in exposing a wicked fraud practised on deceased and on the public. In view of the

suddenness of Wood's death he hoped persons requiring medical aid would consult none but qualified medical practitioners.

The jury returned a verdict of death from natural causes, and, through the coroner, expressed themselves strongly that the treatment was absolutely useless and was nothing more than a fraud, and severely censured Roberts, warning him to be cautious as to his future actions.

LUNACY CERTIFICATION.

X.—It was within our correspondent's discretion to sign or not to sign, under the circumstances described.

INTERPRETATION OF CONTRACTS NOT TO PRACTISE WITHIN AN AREA.

MEDICA sends the following case: A. and B. were in partnership in a country town X., over twenty miles from London, and a few years ago A. retired from practice and sold his share to B. A. started in practice in London, and in the course of his practice there attended an old patient of his who had a town house. The patient came to stay near X., and requested A. to continue to attend, which he did on several occasions. A. also attended another old patient of his living near X. Both patients had been attended by B. in previous illnesses. The clause in the partnership deed is as follows: "Any partner withdrawing from the business shall not at any time during his life afterwards practise as a surgeon or apothecary within a distance of 10 miles from X under a certain penalty." There is no question of enforcing the penalty, but A. and B. are both anxious to know whether A. was justified, by the terms of the deed, in attending these patients.

*** Courts of law are disposed to scrutinise very closely contracts which have the effect of debarring a man from the free exercise of his profession or trade, and as a general rule it may be said that where such contracts are unreasonable, whether as to the period of the time or the area within which a person is so debarred, such contracts will not be upheld. In the present case, however, we are advised that the contract is perfectly reasonable in both the above-mentioned respects, and that though possibly in the case of the first patient there was some justification, there was certainly none in the second.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE SANITARY INSPECTORS' ASSOCIATION.

At a recent meeting of the Sanitary Inspectors' Association Sir John Hutton gave his presidential address, in the course of which he observed that the comparatively small amount of unsound meat condemned was due to the want of opportunity of efficient inspection, and that until private slaughter-houses were abolished and a complete system of inspection and control of all meat offered for sale was brought into operation, we should not be free from a source of danger from preventable disease. Another matter referred to by Sir John Hutton was the increasing use of the public mortuaries. During the past year only 23 out of 7,428 inquests had been held in public houses. In every medico-legal case in which a *post-mortem* examination is necessary it is most important that it should be made under most favourable conditions such as can only be obtained in properly arranged mortuaries. The performance of necropsies in these cases in private houses is undesirable both from sanitary and medico-legal points of view, and it is a satisfaction to know that the general public are being gradually educated to see the benefit of the removal of the dead from their homes to the public mortuaries for this purpose.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 7,230 births and 4,174 deaths were registered during the week ending Saturday last, January 7th. The annual rate of mortality in these towns, which had increased from 16.6 to 19.1 per 1,000 in the three preceding weeks, was again 19.1 last week. The rates in the several towns ranged from 12.6 in Cardiff, 12.7 in Gateshead, 14.6 in Huddersfield, and 14.7 in Derby to 22.6 in Swansea and in Newcastle-upon-Tyne, 23.5 in Preston, 23.8 in Liverpool, and 27.7 in Halifax. In the thirty-two provincial towns the mean death-rate was 19.1 per 1,000, and corresponded with the rate recorded in London. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.6 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.6 in West Ham, 2.0 in Salford, 4.1 in Nottingham, and 5.5 in Swansea. Measles caused a death-rate of 1.0 in West Ham, in Bolton, and in Salford, 1.2 in Manchester, and 2.4 in Nottingham; and whooping-cough of 1.1 in Halifax. The mortality last week from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 96 deaths from diphtheria in the thirty-three towns included 30 in London, 11 in Swansea, 10 in Leeds, 9 in Liverpool, 6 in Sheffield, 5 in West Ham, 4 in Manchester, and 3 in Portsmouth. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns, and 1 small-pox patient was under treatment in the Metropolitan Asylum Hospitals on Saturday last, January 7th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,901 and 2,939 in the two preceding weeks, had declined again to 2,912 on Saturday last; 291 new cases were admitted during the week, against 260, 221, and 276 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, January 7th, 886 births and 651 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2 per 1,000 in each of the two preceding weeks, rose again to 21.3 last week, and was 2.1 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.3 in Paisley and 19.5 in Leith to 23.7 in Perth and 25.0 in Edinburgh. The zymotic death-rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Dundee and Aberdeen. The 283 deaths registered in Glasgow included 3 from measles, 7 from scarlet fever, 3 from diphtheria, 13 from whooping-cough, and 3 from "fever." Three fatal cases of diphtheria were recorded in Edinburgh; and 3 deaths from scarlet fever and 2 from diphtheria occurred in Dundee.

PAYMENTS FOR FRACTURES IN WORKHOUSES.

A.B.—No extra fee is payable to a medical officer of a workhouse for attendance on any case of fracture.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

A MEETING of Convocation will be held at the University Building on Monday next, January 16th, at 5 o'clock. The report of the Standing Committee will be presented and its reception moved. It has considered the present regulations respecting the examinations in the Faculty of Laws, and states that a vacancy remains in the Senate occasioned by the death of Dr. Hopkinson. Resolutions will be moved in opposition to the new Regulations for the Matriculation Examination, on the ground that they tend to discourage the study of modern languages in schools. Other resolutions will also be moved in opposition to the recent changes in the final examination for the B.A. degree, on the ground that the value of the degree has thereby been distinctly lowered. Mr. W. T. Lynn will move a resolution against the removal of the building of the University to that of any College with which the University is connected, or to any portion of the building of the Imperial Institute under the proposed conditions.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the Second Examination of the Board in the subjects indicated:

Anatomy and Physiology.—A. D. Hamilton, University College, Liverpool; H. S. Tumber and H. Gardner, Firth College, Sheffield; R. H. N. Rutherford, F. H. Rudge, and F. Parlett, University College, Bristol; W. L. E. Mathews, W. E. V. Lewis, and J. J. Bekenn, Mason University College, Birmingham; A. L. Badcock, Charing Cross Hospital; J. D. Judson, Owens College, Manchester; H. E. Barrett and H. G. S. Webb, St. Mary's Hospital; T. B. Henderson, Oxford University and St. Thomas's Hospital; W. B. Vaile, London Hospital; H. M. H. Melhuish, St. Bartholomew's Hospital; C. S. Woodward and A. K. H. Pollock, St. Bartholomew's Hospital; W. V. Wood, Cambridge University and St. Bartholomew's Hospital; L. G. Nash and A. W. Gater, Guy's Hospital; A. C. Nash, Guy's Hospital and Mr. Cooke's School of Anatomy and Physiology; E. A. Cox and J. D. Clay, King's College, London; C. E. Lakin and R. R. Lewis, Middlesex Hospital; C. Russ, H. C. Wilson, and E. E. Argles, St. Mary's Hospital; E. Prall, A. Whitehead-Smith, and B. E. Sansom, St. Thomas's Hospital; A. Beet, C. Bramhall, W. H. Gray, G. P. Mosscrop, and R. M. Dolby, London Hospital; D. Rai, Punjab University, Lahore; C. H. M. Hughes, Westminster Hospital; and F. J. Lawson, University College, London.

Physiology only.—R. McK. Skinner, of Edinburgh University and Medical School.

Thirty-one gentlemen were referred for three months in both subjects, and 1 in Anatomy only.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION, PART I.—The following candidates have passed in:

Biology.—L. Denny, Royal Free Hospital; I. Griffith, London Hospital and Cambridge; D. A. Stepney, Royal Free Hospital; M. L. Tyler, Royal Free Hospital; J. S. Ward, Sheffield.

Chemistry.—St. C. G. Ballenden, Birmingham; J. M. Gleeson, Dublin and London Hospital; W. J. H. Hepworth, Edinburgh and St. Mary's Hospital; H. M. Huggins, St. Bartholomew's Hospital; J. Jones, Manchester; F. Marriott, Edinburgh; G. B. Messenger, Liverpool.

Materia Medica and Pharmacy.—J. H. Bennett, Birmingham; R. V. Cowey, Edinburgh and St. Mary's Hospital; A. M. Davis, Birmingham; R. J. Hogan; J. Jones, Manchester; F. Marriott, Edinburgh; H. E. Weston, St. George's Hospital.

PRIMARY EXAMINATION, PART II.—The following candidates have passed in:

Anatomy.—J. C. Baggs, St. Thomas's and Westminster Hospitals; J. C. O. Bradbury, Cambridge; H. B. Connell, Birmingham; A. B. Edwards, St. Bartholomew's Hospital; A. T. Greenhill, Durham; R. J. Hanbury, St. Bartholomew's Hospital; A. E. Henton, Edinburgh and St. Mary's Hospital; W. J. H. Hepworth, Edinburgh and St. Mary's Hospital; F. P. Joscelyne, Leeds; G. J. W. Keigwin, London Hospital; N. Lipscomb, St. Bartholomew's Hospital; H. Mills, St. Bartholomew's Hospital; E. Osborne, Birmingham; J. R. Pooler, Birmingham; A. F. Reardon, St. Thomas's Hospital; H. H. Serpell, St. Bartholomew's Hospital; H. G. Sewell, London Hospital; G. E. Soltau, Royal Free Hospital; H. O. Sutcliffe, Cambridge; P. L. Vawdrey, St. Bartholomew's Hospital; J. Willett, Glasgow.

Physiology.—J. C. O. Bradbury, Cambridge; P. C. Burgess, Middlesex Hospital; H. B. Connell, Birmingham; W. H. Cotton, Dublin; W. E. Cuthbertson, Bristol and Glasgow; A. T. Greenhill, Durham; R. J. Hanbury, St. Bartholomew's Hospital; A. E. Henton, Edinburgh and St. Mary's Hospital; E. Osborne, Birmingham; J. R. Pooler, Birmingham; H. G. Sewell, London Hospital; G. E. Soltau, Royal Free Hospital; P. L. Vawdrey, St. Bartholomew's Hospital; J. Willett, Glasgow.

MEDICAL NEWS.

The ninth International Congress of Ophthalmology will be held at Utrecht from August 14th to 18th, 1899.

Departmental Bacteriological Laboratories in France.—M. Emile Dubois, a member of the French Chamber of Deputies, gave notice on December 22nd of a Bill providing for the creation in each department of France of one or more bacteriological laboratories with a view to the repression and prevention of contagious diseases, particularly tuberculosis.

The Comfort of the Soldier.—We understand that, by a recent regulation, soldiers are allowed so to arrange their mattress and bedding as to afford a comfortable seat during the day in their barrack rooms. Hitherto they were obliged to sit on the hard frame of their bedsteads, or on the still harder form. The regulation is a sensible one, and we believe is the result of a recommendation by Surgeon-General O'Dwyer, Principal Medical Officer at Aldershot.

Dental Hospital of Ireland.—At a meeting of the governors of the Dental Hospital of Ireland, held in Dublin on Monday, January 9th, it was resolved to have the association incorporated and registered, and the following gentlemen were nominated to sign the articles: James G. Pollock, J.P.; William P. Geoghegan, George Noble Count Plunkett, Sir Howard Grubb, F.R.S.; J. Talbot Power, D.L.; William C. Stubbs, Charles Edward Fitzgerald, Daniel J. Cunningham, R. Theodore Stack, Arthur W. W. Baker, Daniel Corbett, D. Corbett, jun.; R. H. Moore, G. W. Yeates, Joseph Thomson, Shenstone J. Bishop, George M. P. Murray, John G. Cronyn. Mr. Murray, one of the surgeons, mentioned that 8,000 cases had been treated during the year, and of these 3,500 had been "filling" cases.

Scottish Branch of Queen Victoria's Jubilee Institute of Nurses.—The tenth annual report has just been issued. It covers the period ending October 31st, 1898, during which the Scottish Council were directly responsible for 47 nurses and probationers. Of these 42 were undergoing training either in hospital or in district work; 17 candidates entered the training home for the required month of probation before receiving hospital training; 34 nurses who had received hospital training entered the home for six months' district training; 29 nurses had, on the completion of their training, been engaged from the home by local committees. Seven new branches had been affiliated during the year. There were now 173 Queen's nurses in Scotland, working under 94 Associations. In Edinburgh and Leith during the past year 74,381 visits had been made by the nurses. £12,193 3s. 6d. had been collected in Scotland towards the Queen's Commemoration Fund to endow the Jubilee Institute for Nurses, and this had been handed over to the Scottish Council.

MEDICAL VACANCIES.

The following vacancies are announced:—

BRIDGE OF WEIR: CONSUMPTION HOSPITALS AND ORPHAN HOMES OF SCOTLAND.—Resident Medical Officer. Applications to D. Hill Jack, 141, West George Street, Glasgow.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary by February 3rd.

DERBY: DERBYSHIRE ROYAL INFIRMARY.—Assistant House Surgeon. Salary, £40 per annum, with board, residence, and washing. Applications to the Secretary by January 18th.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, 17, Bartlett's Buildings, E.C.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Also Honorary Dental Surgeon. Applications to the Secretary by January 21st.

JAFFRAY BRANCH OF THE GENERAL HOSPITAL, Birmingham, Gravelly Hill, near Birmingham.—Resident Medical and Surgical Officer. Salary, £150 per annum, with board, residence, and washing. Applications to the House Governor, General Hospital, Birmingham, by January 28th.

MANCHESTER: HULME DISPENSARY.—House-Surgeon. Salary, £130 per annum, with apartments, attendance, coals, and gas. Applications to the Honorary Secretary, Medical Committee.

METROPOLITAN HOSPITAL, Kingsland Road.—Assistant Surgeon; must be F.R.C.S. Eng. Applications to the Secretary by January 16th.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £120 for first year, £150 afterwards. Applications to the Hon. Secretary, R. W. Sisson, 13, Grey Street, Newcastle-on-Tyne, by January 18th.

NORTHAMPTON GENERAL INFIRMARY.—Assistant House-Surgeon, unmarried, and not under 23 years of age. Salary, £100 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by January 26th.

NOTTINGHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum, rising to £120. Applications to the Secretary by January 31st.

OXFORD: RADCLIFFE INFIRMARY.—Surgeon. Applications to the Secretary by January 16th.

PLAISTOW: ST. MARY'S HOSPITAL.—Senior Resident Medical Officer. Salary, £50 per annum, with residence. Applications to the Secretary by January 16th.

SEAMEN'S HOSPITAL SOCIETY, Greenwich, S.E.—House-Physician for Dreadnought Hospital. Salary, £75 per annum, with board and residence. Surgeon for Dispensary, East India Dock Road. Salary, £63 per annum. Applications to the Secretary by January 23rd.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Ophthalmi Surgeon. Applications to the Secretary by January 28th.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Assistant House-Surgeon. Appointment for six months. Gratuity, £20. Board, lodging, and washing provided. Applications to the Secretary.

WEST DERBY UNION.—Resident Assistant Medical Officer for the Workhouse, Walton-on-the-Hill, Liverpool. Salary, £100 per annum, with first class rations, apartments, etc. Applications to the Union Clerk, Brougham Terrace, West Derby Union, Liverpool, by January 19th.

MEDICAL APPOINTMENTS.

CAMPBELL, A. G. L., appointed Medical Officer for the Eighth District of the Newmarket Union.

CAMPKIN, P. S., L.D.S.Eng., appointed Dental House-Surgeon at Guy's Hospital.

DAVIES-JONES, D., M.B., M.S.Edin., appointed Surgeon to the Lower Duffryn Colliery, Mountain Ash.

GRAY, Sarah, L.R.C.P.& S.Edin., L.F.P.S.Glasg., appointed Assistant Surgeon to the Nottingham Hospital for Women.

HODGES, J., M.R.C.S.Eng., appointed Medical Officer for the Edmonton District of the Edmonton Union, *vice* C. D. Green, M.D.Lond.

KNOX, J. E., M.B., C.M.Edin., appointed Medical Officer for the East and West Molesey Urban District, *vice* J. K. Knox, M.B., deceased.

MASON, E. N., L.D.S.Eng., appointed Dental House-Surgeon at Guy's Hospital.

PERSHOUSE, Frank, M.R.C.S., L.R.C.P., appointed Medical Officer for the Bradwell District of the Maldon Union, *vice* F. S. D. Hogg, M.R.C.S., L.R.C.P. (correction).

PLUMLEY, A. G. G., M.B.Lond., M.R.C.S., L.R.C.P., L.D.S.Eng., appointed Dental House-Surgeon at Guy's Hospital.

POCHIN, F. L., M.B.Edin., appointed Medical Officer for the Raynham District of the Walsingham Union.

RATTRAY, Alex. M., M.B., C.M.Edin., appointed Assistant Medical Officer to the City of Newcastle Asylum, Gosforth.

ROSS, J. Stuart, M.B., B.Ch.Vict., appointed House-Surgeon and Resident Obstetric Assistant Surgeon to St. Mary's Hospital, Manchester, *vice* W. K. Walls, M.B.Lond.

SMITH, A. C. F., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Northern District of the Devonport Union.

SMITH, C. C., M.B., appointed Medical Officer for the Redditch District of the Bromsgrove Union, *vice* W. Smith, M.R.C.S.Eng., deceased.

THOMSON, H. Campbell, M.D.Lond., M.R.C.P., appointed Pathologist and Curator of the Museum to the Middlesex Hospital.

WALLS, W. K., M.B.Lond., M.R.C.S., appointed Obstetric Assistant Surgeon to St. Mary's Hospital, Manchester.

DIARY FOR NEXT WEEK.

MONDAY.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. Swinford Edwards: The Methods of Examining the Rectum and Bladder (Lecture I).

TUESDAY.

Pathological Society of London, 8.30 P.M.—Mr. A. Barker: Final Sequel to a Case already reported of Removal of Cystic Disease of a Supposed Accessory Thyroid (illustrated by lantern slides). Mr. T. Carwardine: Lantern Photographs of a Case of Molluscum Fibrosum with Neuroma of the Brachial Plexus. Dr. H. P. Potter: Crushing Fracture of Cervical Spine. Dr. R. Crawford: Cystic Suprarenal Bodies. Dr. Rolleston: Cyst in Suprarenal Body. Dr. Morley Fletcher: Tuberculous Cholangitis. Mr. H. Betham Robinson: Multilocular Tumour from Inguinal Region in a Female. Mr. C. F. Beadles: Lesion of Pancreas with Fat Necrosis. Card Specimens: Mr. Carwardine, Mr. Beadles.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Sir W. Gowers: Epilepsy.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, 4 P.M.—Dr. T. D. Savill: Cases of Infantile Paralysis.

Chelsea Clinical Society, the Parish Hall, Pavilion Road, Sloane Square, 8.30 P.M.—Dr. J. H. Dauber: A Plea for Greater Attention to Asepsis in Hospital and Private Practice. Dr. C. C. Gibbes: Pathology of Mitral Stenosis. Dr. J. Blumfeld: Administration of Ether to Infants and Young Children.

WEDNESDAY.

Royal Meteorological Society, 25, Great George Street, Westminster, S.W., 7.45 P.M.—Annual General Meeting. Report of Council. Election of Officers and Council, and Address by the President.

Royal Microscopical Society, 20, Hanover Square, W., 8 P.M.—Annual Address by President.

North-West London Clinical Society, North-West London Hospital, Kentish Town Road, 8.30 P.M.—Monthly Demonstration of Clinical Cases.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. Swinford Edwards: The Methods of Examining the Rectum and Bladder (Lecture II).

THURSDAY.

Harveian Society of London, 8.30 P.M.—Annual General Meeting. Election of Officers. Presidential Address. Annual Conversazione.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstrations Senior Students.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Mr. Boyd: Demonstration of Surgical Cases.

FRIDAY.

Epidemiological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Dr. Bruce Low: Epidemic Cerebro-Spinal Meningitis.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 P.M.—Continuation of Adjourned Discussion on Selection of an Anæsthetic.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

MARRIAGE.

HASTINGS—MUNDELLA.—On January 5th, at St. Mark's, Regent's Park, N.W., by the Rev. J. Sparrow Simpson, Edwin Birchall Hastings, youngest son of the late William Hastings, of Huddersfield, and Theresa, second daughter of the late John Mundella of Nottingham.

DEATHS.

ARMSTRONG.—On the 5th inst., suddenly, at 3, Bentinck Villas, Newcastle-upon-Tyne, Mary, dearly beloved wife of Henry E. Armstrong, Medical Officer of Health.

PAXTON.—On January 3rd, 1899, at Norham-on-Tweed, Henry Kenneth Paxton, M.B. Ch.B.Edin., last surviving son of Lieut.-Colonel J. Paxton, M.D., R.A.M.C., aged 2 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F.S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Tu., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 3.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

CANTAB (Midlands) writes that a young milliner, aged 25, suffers from asthma of the bronchial type, and he desires to hear of places recommended for such cases, and of any convalescent home or institution where she could be taken. He believes a mild, moist, sheltered climate would be best.

STUDENT (Canada) asks if any of our readers would kindly give a rule for making deductions in retinoscopy when using concave mirrors of different focal lengths—say 14 cm., 25 cm., and 35 cm.; and when seated at different distances from the patient—at one metre, one-half, and one-third of a metre. In *Thorington's Retinoscopy* there is such a rule which is applicable only to plane mirrors.

HOME FOR ADULT EPILEPTIC.

B.A. M.B. (LONDON) desires to hear of a home or "colony" for epileptics into which a sturdy youth, aged 23, whose occupation is that of a cow keeper, could hope to obtain admission. He is entirely dependent on his own labour, but is distinctly not a case for the workhouse.

FEE FOR EMERGENCY ATTENDANCE.

DUBIOUS writes: I was called to see a well-to-do patient, who was being attended by another medical man living at some distance. The patient had been taken suddenly worse, and could not wait till her ordinary doctor could be obtained. Can I claim a fee, and if so, should I apply to the patient or the doctor?

*** If the usual medical attendant is a personal friend, "Dubious" should write to him, explain the facts, and then act after taking counsel together. If not a personal friend, it would be an act of courtesy on the part of our correspondent to write to the usual attendant. Then under the circumstances related he would be justified himself in applying to the patient for a fee.

TREATMENT OF CHRONIC DIARRHŒA.

W. M. asks for suggestions as to treatment for a case of a man, aged 40, who on and off for six years has had early in the morning to get out of bed to pass a loose motion preceded by a griping pain over the sigmoid colon. After each meal the same phenomenon occurs. The motions are merely loose and watery, not irritating, showing nothing special. He is temperate. There are no gastric symptoms, and nothing abnormal is disclosed by rectal or abdominal examination. Alcohol, except weak whisky and water, has been stopped. Small doses of liq. arsenicalis before meals have been tried, and at various times pil. cupri sulph. opii omni nocte, bismuth, pepsin, soda, and various bitters.

HEADACHE CAUSED BY ERYTHROL TETRANITRATE.

R.A.M.C. writes: A patient, aged 37, with high arterial tension, but without much in the way of symptoms at present, was given, at 8.30 P.M., two ½ gr. tabloids of Burroughs and Wellcome's erythrol tetranitrate. In about half an hour severe headache set in across the forehead and top of the head, with rapid throbbing action of the heart, the temporal arteries becoming visible. The headache lasted through the night, preventing sleep, and was not entirely gone for about thirty-six hours. A feeling of great *malaise* was also left. After four days the patient took one ½ gr. tabloid at bedtime. During the night he awoke with the same kind of headache as before, though less severe, and it lasted through the next day. The headache appears to be of an unusually painful character, and the patient dreads taking any more of the drug. He says he feels very ill all the next day after taking the medicine.

*** We are indebted to Professor Bradbury, of Cambridge, for the following answer to this question: "The symptoms described are undoubtedly due to the erythrol tetranitrate, but they are rarely met with in such a severe form. Slight headache is not infrequent, but violent pulsation of the temporal arteries is rare. Caffeine might relieve the headache, but there is no proof of its efficacy in this direction. As the patient mentioned seems to possess an extraordinary susceptibility to the erythrol tetranitrate, a smaller dose, say ⅛ gr., would probably produce the desired result without untoward effects; or as headache less frequently follows the administration of sodium nitrite than the organic nitrates, small doses of this (¼ to ½ gr.), frequently repeated, might be tried. Perhaps a mercurial, followed by a saline aperient, would be followed by better results than either of these vaso-dilators.

ANSWERS.

X.Y.Z.—There does not appear to be any evidence that the gentleman, whose name is given the prominence to which our correspondent refers, was in any way privy to the publication of the paragraph.

MEDICAL STUDENTS' JOURNALS.

C. S.—There are several students' journals. Guy's has the *Guy's Hospital Gazette*, and, in a lighter vein, the *Guyoscope*. The London, the Middlesex, St. George's, and St. Mary's have each a journal concerning itself with the doings in the hospital and school.

MONTHLY NURSE'S ENGAGEMENT.

A. Z.—The nurse is undoubtedly entitled to be paid for all the time during which she has stayed in the patient's house; for, though she has done nothing, she has been prevented from doing other work for herself. If it be the fact that the nurse was engaged for the middle of

November, she should be paid for the time from that date; but if so, she surely would not have made another engagement for that date, and if offered a casual one, she should have communicated with the patient.

IRISH DISPENSARY MEDICAL OFFICERS.

MEMBER B. M. ASSOC.—(1) A dispensary committee has no power to give permission to reside outside the district. Such permission would be contrary to the regulations of the Local Government Board, therefore illegal; therefore null and void. However, it is not usual for the Local Government Board to take any action in such cases unless they are brought under its notice officially, but if any person chose to complain, the medical officer would be compelled to reside in his district. The Act of last session provides that any officer who may be, through the operation of the Act, deprived of his emoluments, in whole or in part, shall be entitled to compensation, but we do not see how permission to reside outside a district being illegal could be held to be part of the emoluments as an officer of the guardians. It is therefore highly improbable that an action would lie against individual members of the Dispensary Committee who elected our correspondent, unless the permission to live outside the district were held out as an inducement in the advertisement for a medical officer. (2) "The holding of an office of profit under the Board of Guardians or the district council is not a disqualification for a seat on the county council." That is the legal opinion which has been obtained; but whether the judges would hold the same view remains to be proved.

NOTES, LETTERS, Etc.

A CORRECTION.—In the paragraph on the Bolton and District Association of Colliery Surgeons it should have been stated that the rate of payment for attendance upon accident cases is now 15s. a *case* instead of 2s. 6d. a *head* per annum as formerly.

HOSPITAL OF ST. FRANCIS.

DR. LEWIS A. R. WALLACE (Norfolk Crescent, W.) writes: My attention has been drawn to the fact that my name appears in the new *Medical Directory* among the staff of the Hospital of St. Francis. I am sorry this is so, as I resigned the post soon after my election, finding that my views were not in agreement with those of the supporters of the hospital.

PHOSPHORUS NECROSIS OF THE JAW.

OWING to an accidental delay of a proof certain slight errors have passed uncorrected in Professor Stockman's paper on this subject published in the BRITISH MEDICAL JOURNAL of January 7th: Lorimer should be Lorinser; von Bibra and Geist published a joint not a separate work, as the comma after the first name might lead the reader to think.

"VACCINATION RASH."

DR. W. G. DUNWOODY (Ely) writes: Will any of your readers inform me what is "vaccination rash"? That is the diagnosis written on a patient's card of one of the London hospitals. The patient, a boy aged 5, was vaccinated when three months old. The mother states the child has suffered at intervals with this rash ever since he was vaccinated. The lesion is undoubtedly eczema, but on my stating so, the lady produced the card above referred to, and I may mention *en passant* the treatment set forth on the card was "Ung. hydrarg. ammon. dil.," which, I think, speaks for itself.

Now, sir, one would think in these times there is enough opposition to vaccination, without our own profession lending objectors a helping hand. I ask again, What is a "vaccination rash," and what possible justification is there for—first, making such a diagnosis after an interval of four years; and, secondly, making it public property?

ERYTHROL TETRANITRATE: A CAUTION.

MR. JOHN BAIRSTOW (Joseph Turner and Co., Limited, Chemical Works, Queen's Ferry, Flintshire) writes: We notice with regret the account, in the BRITISH MEDICAL JOURNAL of January 7th, of an accident caused by erythrol tetranitrate being inadvertently thrown into a fire. In justice to ourselves you will, perhaps, allow us to explain that all samples of this drug are sent out with full instructions, printed in red ink, respecting precautions to be observed in handling it, and also full particulars as to dose. All that is required is that the particulars shall be read. The name of the drug itself clearly indicates its chemical and therefore its explosive character; but, in order that no similar mistake may occur again, we shall in future also label each sample with the word "explosive," and dosage.

THE INVENTION OF SPECTACLES.

MR ARTHUR DECK (Cambridge) writes: Upon reading your correspondence *re* invention of spectacles I should like to draw attention to a painting (Spanish school, attributed to Murillo) in the Fitzwilliam Museum, Cambridge, representing St. John the Baptist with the scribes and Pharisees, where one is represented, I presume the scribe, wearing a pair of spectacles of a very old type—namely, thick tortoiseshell frames. Of course it is a freak of the painter, who never really supposed the disciples of old to have used these aids to reading or writing.

SYPHILIS IN THE ARMY.

DR. A. G. NEWELL (Gosport) writes: I have tried the intramuscular injections in connection with soldiers, and cannot see that the method has any advantage over the other methods so far as mere treatment is concerned; but so far as the best treatment for use in the army is concerned, in the absence of a proper trial of the "inunction method," it must be given the palm. The view of one man cannot be held as conclusive evidence that that method is the best, or that another method may not prove equally satisfactory. In reply to Dr. Oppenheimer, I can only say that the cases where the nature of the primary sore is doubtful, are by no means "very rare." I have seen sores which I defy any man to have given a definite diagnosis on; and so, in such cases (and I would add in all cases with the slightest doubt) it would be scientific and wise to defer active treatment till the secondaries set in. I cannot agree with him that the Hunterian chancre is merely local, and that the virus has not gone past the nearest glands. The chancre is only the first local manifestation of a constitutional disease, and if he admits that the virus is in the lymph channel between the sore and the nearest gland, I do not see that he has any proof that it does not circulate in the blood at the same time. If his view were true, then the immediate destruction of all hard sores by cauterisation should eradicate constitutional syphilis.

GREEN STOOLS IN ENTERIC FEVER.

DR. F. W. FORBES ROSS (Gower Street, W.C.) writes: In the BRITISH MEDICAL JOURNAL of December 31st, 1898, you publish an annotation on the above (page 1947) with reference to an article by Drs. Garrod, Drysdale, and the late lamented Professor Kanthack. May I be permitted to point out that in a monograph (*Intestinal Intoxication in Infants*. London: Rebman and Co., p. 31 *et seq* on Bile) by myself, published early in 1897, after personal (chemical and bacteriological) experimentation, I arrived by identical means at an exactly identical conclusion as the above experimenters?

LETTERS, COMMUNICATIONS, ETC., have been received from:
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BOOKS, ETC., RECEIVED.

A Textbook of Physiological Chemistry. By O. Hammarsten. Authorised Translation from the Third German Edition by J. A. Mandell. Second Edition. New York: J. Wiley and Sons. London: Chapman and Hall. 1898.

Glasgow Hospital Reports. Edited by G. S. Middleton, M.A., M.D., F.F.P.S.G., and H. Rutherford, M.A., M.B., C.M., F.F.P.S.G. Vol. I. Glasgow: J. Maclehose and Sons. 1898.

Guy's Hospital Reports. Vol. 53. Edited by E. C. Perry, M.A., M.D., and W. H. A. Jacobson, M.A., M.Ch. London: J. and A. Churchill. 1898.

Bubonic Plague at Hardwar. By J. C. White, M.D., Captain I.M.S. Allahabad: "Pioneer" Press. 1898. R. I.

The Power of Nature in Disease. By J. W. Anderson, M.D. Edinburgh: W. F. Clay. 1899. 1s. 6d.

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A CLINICAL LECTURE
ON
PULMONARY ABSCESS.

Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton,

BY RICKMAN J. GODLEE, M.S., F.R.C.S.,
Surgeon to the Hospital; Surgeon to University College Hospital; and Surgeon-in-Ordinary to Her Majesty's Household.

CAUSES OF PULMONARY ABSCESS.

IT is not exactly easy to say what is meant by *abscess* of the lung. In other parts of the body we do not meet with the same difficulty. "A circumscribed collection of pus" answers well enough as a definition. It will include all possible conditions except the very chronic and very rare "lymph abscess" in which the contents are not purulent, but a clear fluid. But in the lung it may be said to be either too inclusive or not inclusive enough; it hardly includes bronchiectasis, which, from the surgical point of view, merits, at all events, discussion in this connection, and it certainly does include some tuberculous cavities which, from the medical point of view, should scarcely be included in the category.

Dr. J. Kingston Fowler, in a work I ought perhaps hardly to refer to, says that an abscess may be met in connection with:

1. Pneumonia followed by necrosis and softening of a considerable area of the consolidated lung.
2. Pulmonary tuberculosis, when a large carious area undergoes rapid disintegration.
3. Chronic non-tuberculous cavities.
4. Bronchiectasis, either with or without ulcerative changes in the bronchial walls and surrounding tissues.
5. Suppuration of a hydatid cyst.
6. Softening of a pyæmic infarction.
7. Pulmonary embolism followed by softening.
8. Perforation of the lung by a malignant growth in the œsophagus.
9. Suppuration of bronchial glands extending into the lung.
10. Empyema rupturing into the lung
11. Perforation of the lung by a mediastinal abscess.
12. Perforation by an abscess extending through the diaphragm.
13. Injuries of the lung.

DIAGNOSIS.

It is obviously not my business, even if I were able to do so, to say anything about the physical diagnosis of an abscess in the lung. Theoretically of course, if of considerable size, it should give the signs of a cavity—that is, if there be a communication with a bronchus of sufficient size to allow of the entrance and egress of air; but even this latter condition is by no means always present, and, if it be present, it is in many cases so frequently plugged with the discharge that abnormal sounds are only occasionally produced in the cavity. Sometimes no doubt it is possible to be pretty sure not only that an abscess exists, but to point with confidence to its situation. But physicians of the widest experience will tell you that more often, possibly because of its deep situation, possibly because of its small size, and possibly because of the condition I have just referred to, the localisation is a matter of absolute impossibility, and the diagnosis depends partly upon the history of the case and partly upon the character of the expectoration.

But even though the history be known and the expectoration be obviously from a cavity, it is often out of the question to say whether the cavity is in the lung or outside it. An abscess of the liver which has opened almost directly into a large bronchus, an abscess connected with caries of the spine, or a mediastinal gland, or a pyopericardium, a diaphragmatic empyema, or one between the lobes of the lung or between the lung and the pericardium, and numerous other conditions that might be named may supply all or nearly all the signs of, and be easily mistaken for, abscess of the lung. It is obvious therefore that if the surgeon be asked to interfere in a doubtful case he must keep a very open mind and go very cautiously to work. It is wise for him before he begins his investigations to consider the possibility of the matter coming from any one of the regions from which an abscess has been known to burst into the lung.

LOCALISATION OF THE ABSCESS BY EXPLORATORY PUNCTURE.

What he will be first called upon to do is to puncture the lung in order to see if he can hit the suspected abscess. The choice of an instrument for this purpose is a matter of great importance. It is not justifiable to use a simple exploring trocar, because it is not possible in any case to be sure of the presence of pleural adhesions, and, if these be not present, it is probable that, either in entering it or withdrawing it, some air will be allowed to enter the pleural cavity. This has at least three disadvantages:

1. It modifies the physical signs.
2. It allows the lung to fall away from the chest wall, and therefore renders any further immediate operation difficult and dangerous.
3. If the abscess has been reached by the cannula, and the contents be septic, the chance of infection of the pleura is very great indeed.

The hypodermic syringe is clearly a most unsatisfactory instrument for this purpose, and even the large forms of simple syringe are, in my opinion, very unsuitable; the needle is very apt to become plugged, and a negative result is therefore never conclusive.

Far the best instrument is the bottle aspirator, the puncture being made by a cannula and trocar attached to it—not by a simple pointed needle. The cannula should not be too large, and should have a second opening at the side near the point. It must not be forgotten that, in puncturing the lung, it is almost certain that the trocar will pass through vessels of considerable size, and very probable that it will perforate a bronchus either directly before or immediately after the passage through the vessel. It does not follow that this will produce hæmoptysis, but it is not at all unlikely that it may do so. Fortunately this is seldom serious from the amount of blood lost; but if the patient be very deeply anæsthetised even a small amount may put him into a condition of great peril, which is one of the reasons why, in operating on this class of cases, the chloroform (I say chloroform advisedly) should always be administered very sparingly, the other being that a fit of coughing may lead to the escape of a large amount of pus into the trachea and larynx.

VARIETIES OF EXPECTORATION.

Before proceeding to tap the chest the surgeon is not only justified in examining the expectoration, but is bound to try to form an opinion for himself as to its probable source. It may well be that he is more intimately acquainted with the varieties of pus met with in different abscesses than his medical colleague, and thus be enabled in this way to throw new light upon the case.

It may, therefore, be worth while to pause for a few moments to consider the varieties of expectoration that may be met with.

It must in the first place be observed that the material that is expelled from the mouth is never quite the same as that which leaves the cavity in which it has been formed. It always receives some addition from the air tubes and the mouth, and occasionally also from the stomach. I have, for example, had sent to me for observation the sputum from a case of a recently ruptured empyema, which consisted in large part of vomited matters, and had the characteristic smell of the contents of the stomach, though the naked eye appearance was that of pus. The amount of addition which the expectoration receives *in transitu* depends partly upon the state of the mucous membrane of the air passages, but chiefly upon the amount of effort involved in the act of coughing, and in the amount of saliva secreted by the patient. If the cough is easy and the secretion from the abscess large, the only change that is effected is that the pus is arranged into more or less distinct pellets coated with mucus, which possibly may contain bubbles of air. But if there be much difficulty in bringing it up, the greater part of that which leaves the mouth may be more or less aërated mucus or saliva. I have seen a patient with a single bronchiectatic cavity, that only held an ounce or two, expectorate a good deal more than a pint regularly every twenty-four hours. Indeed the amount of the expectoration is no guide in estimating the magnitude or smallness of the cavity.

LESS COMMON VARIETIES OF EXPECTORATION.

There are certain special forms of expectoration from cases in which the suspicion of pulmonary abscess is likely to arise that we may deal with first.

1. *Bile-stained.*—Unless the patient is jaundiced this must

necessarily come from the liver, and suggests either hepatic abscess or hydatid of the liver. It is not, in my experience, common, but I have seen it in both the conditions named. The yellow or green expectoration met with in some cases of pneumonia is hardly likely to be confused with it.

2. *Hydatid Cysts.*—Fragments of hydatid cyst mixed with the pus will explain, of course, a part of the pathology of the case, but will not necessarily help to localise the disease. It is important to remember that hydatids are often multiple, and that it does not follow that the cyst you can localise (say in the liver) is the source of the expectoration, which may be situated in the lung or elsewhere.

3. *Actinomycosis.*—The small yellow bodies met with in this disease may occur in large quantities in the expectoration, and yet escape detection simply because they are not looked for. We have accumulating evidence that the clinical and naked-eye appearance of this disease may very closely simulate not only empyema and pulmonary abscess, but pulmonary tuberculosis. I would therefore urge the minute inspection of the sputa in all doubtful cases. If once the small bodies said to look like grains of iodoform are seen, and placed under the microscope, the diagnosis is cleared up and the patient most likely saved from a useless operation.

4. *Chocolate-coloured Expectoration.*—This consists of pellets of pus more or less darkly stained with blood, and often containing a good deal of mucus either intimately mixed with the pus or in streaks. The blood is generally uniformly diffused through the pus. Sometimes, however, it is in bright red streaks, and often the individual pellets vary much in the amount of staining, some being almost free from, others consisting almost entirely of, blood. This expectoration in nine cases out of ten, in my experience, comes from the liver; but it must not be forgotten that my experience only includes cases of real or suspected pulmonary abscess. It is generally derived from a hepatic abscess, but it may come from a hydatid. It may also, however, come from the abscess of lung which so often follows hepatic abscess, and from the abscess which is caused by the breaking down of a hydatid of the lung. Presumably, therefore, it may be met with in some other condition, but I have myself only seen it in those I have referred to. Chocolate-coloured pus should be examined while warm for the amœba coli. If this be discovered, the probability of the presence of a hepatic abscess is very great.

5. *Dark brown and very offensive expectoration* which does not bear any resemblance to pus is met with in some cases of gangrene occurring in the course of acute pneumonia. I am obliged to mention it here because in such cases the surgeon may have to open the cavity, which can hardly be called an abscess, resulting from the gangrenous process.

6. *Hairs and Epidermic Fragments.*—If patients say they have expectorated hairs the story should not be received with incredulity. There are mediastinal dermoids that may rupture into the lung or pleura and cause pulmonary abscess or empyema.

7. *Expectoration from the Mouth and Nasopharynx.*—In patients with chronic inflammation of the gums a highly offensive expectoration may be produced which separates into an upper clear or bloodstained layer and an opaque white or yellow layer looking exactly like pus, but under the microscope showing only squamous epithelium. Pus may also come from the antrum or frontal sinus or from diseased or dead bone in the nose or jaws, or at the base of the skull, and if pulmonary signs be also present much confusion may result. The possibility of the presence of œsophageal pouches must not be forgotten.

8. *Other Uncommon Conditions.*—This does not exhaust the list of the peculiar materials that may be thrown up from pulmonary abscesses, but the cases are too few to require headings to themselves.

Portions of bone and other foreign bodies that have "gone the wrong way"; sequestra from ribs or vertebræ; calcareous plates from tuberculous empyemata or glands; or food which has escaped through an opening in the œsophagus, are the sort of things to which I am referring. In a case to which reference will be subsequently made, large black masses having a most offensive odour came from an apex cavity of doubtful origin. They were made up almost completely of huge apparently non-pathogenic bacteria. When it is recollected that any abscess below the diaphragm may burst through it, and subsequently open into the lung, it is obvious that many other unexpected materials (the contents of the intestine, for example), may conceivably be found in the expectorated matters. The possibility of the patient being a malingerer must also be borne in mind.

More Common Varieties of Expectoration.

We come finally to the more common products of pulmonary abscess where the essential thing is pus. The pus is arranged in more or less distinct nummular pellets which sometimes remain distinct when they are placed together in a cup, and sometimes run together. They are themselves non-aërated, but are enclosed in or mixed up with a variable amount of more or less aërated mucus and saliva. The pus varies much in colour, consistence, and smell. It is often yellow or green, occasionally almost white, and while there is sometimes no smell or only a sickly odour, it may be in the highest degree offensive.

Unfortunately sputa which would answer to this rather inclusive description may be met with in almost any form of abscess of the lung, and also—to add to the confusion—in cases in which there is a general breaking down of a portion of lung without any large resulting cavity.

But there are certain distinctions that may be drawn which will aid in the diagnosis.

A. *Separation into Layers.*—If the expectoration separates into three or two layers it suggests (but does not prove) the existence of bronchiectasis. Dr. Fowler says:

> After standing for about twenty-four hours it settles into either two or more, often three, well defined strata—an upper thin, brownish, frothy mucoid layer; a middle layer of greenish fluid, either clear or containing hanging threads; and a thick lower layer of purulent material which forms a grey opaque mass. Where only two layers are present, the upper is more or less stringy, or it may be clear, the solid matters sinking to the bottom.

B. *The Presence of Blood.*—I must again remind you that I am only speaking of pulmonary abscess, or what may be confused with it. I have already referred to the appearance of the blood in pus that comes from the liver. If there be pretty constant—or at all events frequent—streaking of the sputa with blood, the question of tubercle must be entertained. But the possibility of a new growth being at the bottom of the case must be borne in mind. In cases of bronchiectasis there are often as the disease advances occasional and severe hæmoptyses. In cases of empyema the story often is that hæmorrhage occurred once when the matter first burst into the lung, or, if the hæmoptysis was repeated, it only happened when the opening into the lung was re-established after a temporary closure. Prune-juice expectoration sometimes occurs in cases of tumour. Lastly, it must be remembered that both mediastinal abscesses and aneurysms may be confused with pulmonary abscesses, and that either of them may give rise to sudden and fatal arterial hæmorrhage from a large artery.

C. *Smell.*—It requires practice to recognise the characteristic smell of the expectoration in gangrene of the lung, bronchiectasis, etc., and I doubt if anybody ever acquires enough knowledge to make an opinion derived from the sense of smell of much value. But there are certain points worth remembering. Gangrene of the lung gives at first a very foul, earthy sort of stink, and it becomes more and more offensive as the case progresses. In bronchiectasis the expectoration is at first odourless, or at most has a faint sickly smell. The length of time that elapses before it begins to stink varies much in different cases. It then usually becomes very foul, and has a peculiar sickly character. The chocolate-coloured pus from liver abscesses, etc., seldom has more than a faint disagreeable smell. That from tuberculous cavities is as a rule still less offensive. The breaking down of a pneumonic patch of lung sometimes causes offensive expectoration, sometimes not.

D. *Microscopic examination* will, of course, not be neglected. I need not dwell upon the importance of the discovery of elastic tissue, liver cells, tubercle, and other micro-organisms or of animal or vegetable parasites.

Nature and Position of Abscess.

Now let us consider the varieties in shape and position the abscess may present, and, adopting the same course as in dealing with the last subject, let us first clear out of the way some of the more peculiar conditions.

1. *Bronchiectasis*, in whatever way it may arise, consists essentially of a dilatation of the bronchial tubes, which results in a collection of fusiform or saccular cavities of greater or less size, occupying a part or parts of the lung which are approached by one or more bronchi, and communicating by means of the parent stem with one another. If the process have gone no further this completes the description, if it be added that they are lined with mucous membrane. If, however, as sometimes happens, ulceration has occurred, lateral communications may have been formed between contiguous cavities, and the interior is no longer quite smooth but is formed by the lung tissue itself, more or less modified by inflammatory processes. It need not be said that these cavities offer a most unpromising field for surgery, because unless the part of the lung affected be very localised, it is extremely unlikely that any cavity, which by good luck, may be reached will do more than drain a fraction of the complicated system of dilated bronchi. If the finger enters one of these cavities, the sensation imparted to it is very characteristic; it is like passing it into the finger of a very smooth glove.

2. *Disintegration of a Pneumonic Lobe whether Tuberculous or Non-Tuberculous.*—Here there is probably no cavity of large size, but the whole affected portion of the lung is riddled with small cavities, quite sufficiently large, however, to give rise to suggestive physical signs and to yield characteristic expectoration. I am far from saying that these cases may not be benefited by operation, though at the time the result is apt to be disappointing. On exploration, a small but distinct quantity of pus, probably having an offensive smell, is drawn into the syringe: but, on incising the lung, the operator is disgusted to find that he has opened only a minute cavity, or perhaps more than one, and that his finger appears to pass only into unusually friable pulmonary tissue. He should not, however, despair but insert his tube, and, as the process of disintegration goes on, he will very likely be rewarded by a more copious discharge from the tube and a gradually diminishing expectoration.

3. *Pyæmic Abscesses.*—These are hardly interesting to the surgeon. They seldom attain a large size, and are almost always multiple. They affect various parts of the lung, but are commonly met with on the surface. They arise from septic emboli, and in their earliest state consist of conical patches of pulmonary apoplexy, which afterwards become surrounded by local pneumonia, and are usually indicated, on the surface of the lung, by a raised round spot covered by recent lymph. When suppuration has occurred, the centre is occupied by a small quantity of pus lying in a round smooth-walled cavity. Although surgery can seldom do anything for these, and although the prognosis, if they be present, is extremely bad, there is reason to believe that their contents may occasionally be coughed up, and that the patient may recover.

4. *Hydatids.*—A suppurating hydatid stands upon a somewhat different footing from one that has not suppurated. In the latter case there is a tense cyst impinging directly upon the normal lung tissue, and often also upon the normal pleura. In the former there is probably, but not always, a distinct ectocyst formed by the inflammatory processes that have been going on, and the contents are usually purulent, mixed with the *débris* of the mother and daughter cysts. Sometimes, however, as has been said above, there is no ectocyst, and the wall of the cavity is then formed of disintegrating pulmonary tissue. In such a case the contents are very likely chocolate-coloured pus, in which hooklets and other hydatid *débris* are to be found. It is remarkable for what a long period this sort of material may continue to be expectorated. There is in these cases not the same fear of causing "death by drowning" from the escape of the contents into the air passages that is present in dealing with a living hydatid. They are to be opened exactly in the same way as any other operable pulmonary abscess. They most frequently occur at the lower part of the right lung. The surgeon must not be surprised if he should meet with a localised collection of serum or pus in the pleura superficial to the suppurating hydatid.

5. *Actinomycosis and other fungoid diseases* will probably puzzle the operator when he first meets with a case. He will most likely have made his diagnosis of abscess apparently secure by drawing off some pus with the aspirator. On entering the lung, however, the finger will pass into a soft homogeneous mass from which very free hæmorrhage will occur, but very little pus will escape. It will very likely be necessary to plug the wound, and then an examination of the pus should clear up the difficulty. When it is remembered how often actinomycosis occurs in the liver, and how greatly this viscus enlarges both upwards and downwards in consequence, it will not surprise you to hear that more than once I have opened an actinomycotic liver, thinking it was the lung; when the abscesses were pointing or had already discharged through one of the lower intercostal spaces in the axilla.

Common Type of Pulmonary Abscess.—Turning now to the more ordinary cases of pulmonary abscess, it may be said that the cavities vary enormously in shape and size, but are perhaps more often rounded than irregular. The surrounding tissue is always more or less altered, and the lining of the cavity varies accordingly. In most cases, however, the wall is not smooth, but either presents strands passing across from side to side formed by the comparatively slowly disintegrating bronchial tubes, or small tubercles representing the truncated extremities of these when they have given way. When the process is acute, the finger passes easily into the pulmonary tissue; when it is more chronic the walls are firmer; sometimes, indeed, they are quite dense and hard.

Acute Pneumonia.—If it have passed into a state of gangrene, the part of the lung affected is widely disintegrated, and is probably at first occupied by a number of cavities containing brown stinking material. Later a distinct abscess may be formed, and sometimes this occurs without the intervention of the gangrenous process. Such abscesses are embedded in a wide area of consolidation, which makes the process of opening somewhat simple because the lung does not tend to collapse after the chest is incised. They are, of course, most frequently met with at the base of the lung but occasionally at the apex.

Gangrene.—The gangrenous cases are very unfavourable for any treatment, but sometimes the only possible chance for the patient seems to consist in making a free opening. It must be added that I have seen cases where this attempt has failed and yet the patient has recovered after weeks of agony, during which he has been a burden to himself and his friends on account of the constant expectoration of most filthy material. The localised pneumonic abscess is, on the other hand, one of the most favourable forms for surgical interference.

Chronic non-tuberculous abscesses are, however, the most favourable cases of all. They sometimes develop without any assignable cause, and may then be met with in any part the lung. More often, however, they depend upon the rupture into the lung of an abscess originating elsewhere, such as a hepatic abscess or an empyema. Hepatic abscess is frequently followed by the formation of an abscess in the base of the right lung. This is often situated in front, and may then lie behind the third, fourth, and fifth ribs and interspaces; it also not infrequently occurs posteriorly. The surrounding lung tissue suffers very little, and if you have a chance of seeing the necropsy of a patient in whom one of these abscesses has healed, you will probably doubt the history you have been supplied with. Free opening and drainage is all that these abscesses require. They often, however, take a long time to close. I have seen them continue to discharge for more than a year before finally healing. When a hepatic abscess opens into the lung it does not by any means always result in a second abscess. It may merely form a sinus through the lung, and, I need not add, those cases often recover without operation.

Tuberculous Abscesses.—This is not the place to describe the ordinary tuberculous vomica, lest we should appear to be encroaching too much on the domain of medicine; and I would only say in passing that the surgeons have for many years been engaged in devising plans for the treatment of these cavities by operation, and hint that there must be cases that could be drained with advantage; some have gone so far as to excise the apices of affected lungs, whilst the tuberculous affection is limited in extent; but to enter on this question now would lead me far beyond the limits of my subject. The tuberculous abscesses that come into my theme are those occasionally met with at the base of the lung. They are surrounded by tissue infiltrated with tubercle, and their walls

are mostly pretty firm. They require surgical treatment, and this does not present any special difficulty.

Tuberculous Disintegration.—I have already referred to the rapid disintegration of a portion of tuberculous lung, and the sort of sponge riddled with small cavities which may result.

Traumatic Abscess.—Lastly, I must refer to the subject of injuries, but will not dwell upon it. Foreign bodies in the bronchi produce either acute or chronic bronchiectasis. Perforations from without may be followed by abscess, but there is nothing very special to be said about them.

The Operation for Pulmonary Abscess.

I will conclude by giving a very brief account of the operation required for opening a pulmonary abscess, and then add a few illustrative cases.

It is supposed that the presence of pus has been ascertained. The first essential is to harden your heart against giving credence to the assertion that "adhesions must be present." No one is able to be certain about it, and it is your duty to assume that there are none. A free incision should therefore be made, free enough to enable you to remove portions 3 inches long of two, or if necessary more, ribs. The ribs should then be removed without, if it can be avoided, inflicting any injury to the pleura—and it must not be forgotten that, if the pleura be healthy, this is by no means an easy procedure, and demands care and deliberation.

The next step is to pass fully-curved needles—Hagedorn's are excellent for the purpose—to the depth of ¾ or 1 inch into the substance of the lung through the pleura. Six or eight such stitches are placed in a ring round an area sufficiently large to enable you, when you open the lung, to insert a large drainage tube; the opening should, indeed, be large enough if possible to admit the finger. When this is done, the pleura and the lung are incised with a knife, or the deeper part may be done with dressing forceps. Some surgeons recommend that this part of the process should be left for another occasion, and that the actual cautery should be used for the purpose. The latter is a troublesome process, but, if the skin be protected, no anæsthetic is required for this second operation. The charring of the tissues is very confusing, and, if the cautery be too hot, bleeding may occur, so I am not much in favour of the plan. Quincke has, however, described cases of bronchiectasis treated in this way, in which a very free incision into the lung has been made by repeating the process on several occasions, and in some of them good results seem to have followed. For my own part, however, I prefer, if the operation is put off to another day, to make the opening either with the knife or dressing or sinus forceps. If the hæmorrhage be severe the wound may be plugged. This will be sure to arrest it, and the drainage tube may be inserted the next day. I have, however, seen one case where a very large vessel was opened and the plugging had to be continued for a long time, as the withdrawal of the plug was always followed by very copious bleeding and hæmoptysis.

When the abscess is opened a large tube must be inserted well into the abscess, and must be retained in position as long as there is any considerable quantity of discharge. The tube is very apt to be expelled from an abscess in the lung, and special means such as stitches through the skin, or strapping over the deep part of the dressing, must often be resorted to for a long time.

These abscesses are so often septic that elaborate and expensive antiseptic dressings are seldom required. Boric lint or a small piece of cyanide gauze, surrounded by a mass of wood-wool, are very useful applications.

The fact of the tube being well in the cavity is often proved by the characteristic whiffing sound as the air is expelled in the act of breathing or coughing. The entry of air is sometimes so free that the patient can breathe through the opening when the mouth and nose are closed. I have under such circumstances heard a respiratory murmur in the opposite lung.

Characteristic Cases.

Pneumonia.—A. Followed by Gangrene.

Case I.—A small boy at University College Hospital, under the care of Dr. Poore, with double apex pneumonia. I exposed the apex of the left lung and opened a gangrenous cavity. He continued to expectorate brown stinking material, and *post mortem* we found a similar cavity at the right apex.

Case II.—A middle-aged man, under the care of Dr. Thin and Dr. Carson Smith, had gangrene of the right base. I punctured the lung in many places, but failed to hit the pus. He continued extremely ill for a long time, expectorating for many weeks as much as 15 ounces of most filthy stuff, but then improved, the expectoration lost its smell, and he appeared to have completely recovered. I am informed, however, that quite recently he has had one attack of hæmoptysis—about a teacupful of bright arterial blood. He appears now to be in the best of health.

B. Followed by Abscess.

Case III.—A girl of 19 years had a large abscess in the lower part of the left lung following pneumonia. It was opened in the left axilla, and she made a good recovery in nine weeks from the time of operation.[1]

I could, however, add cases where the patients did not recover, and also others in which I failed to find the cavities.

Pulmonary Tuberculosis.

Case IV.—I once operated on a small basic cavity in a tuberculous patient, a middle-aged man, under the care of Dr. Bastian.[2] He made a good recovery, but died a long time afterwards of pulmonary tuberculosis.

Case V.—A woman, aged 30, under the care of Dr. Ringer at University College Hospital, had in 1895 complained of pain in the left side for three years and had had cough for three months. She was the subject of syphilis and tuberculosis; she had a high temperature and rigors. I opened an abscess of moderate size at the left base in October, 1895. She improved greatly but left the hospital wearing the tube. If it was removed, cough and expectoration and fever returned. She came back on several occasions to have the tube replaced, and when last seen, though gradually losing ground, the most troublesome symptoms were kept in abeyance as long as the tube remained in the abscess.

Case VI.—I have under observation now a lady, aged about 35, who comes of a very tuberculous family but who herself has enjoyed good health until a few weeks ago, when a slight cough set in. While a tooth was being extracted under gas, she either inspired some blood into the trachea, or it is suggested that she had an attack of hæmoptysis. This was followed by increased cough and fever, with fœtid expectoration and signs of consolidation at the right base. An exploratory puncture drew off fœtid pus. I stitched the lung to the chest wall and incised it, entering a cavity of very small size in the consolidated lung. The patient was only slightly relieved at first, and the wound, as is usual in such cases, became very septic. Soon, however, the expectoration diminished, while the discharge from the tube increased, and now she appears to be in a fair way to recovery.

We have at present only presumptive evidence that this case is tuberculous.

Chronic Non-tuberculous Cavities.

Case VII.—A strong man, a retired prize fighter, under the care of Dr. Barlow at University College Hospital, had signs of a cavity at the right apex, and of mischief—it was thought disintegration of the lung—at the right base. He had been suddenly seized with violent pain in the right breast eighteen months before. He had gone to a Chest Hospital, and had been discharged as cured, but had had subsequent attacks of hæmoptysis, with increasing cough and expectoration. He had had no previous illness. The expectoration—muco-purulent, stained with blood, and brick-red—was so foul that he was a nuisance to the whole ward. He complained of pain at the lower part of the chest on the right side. He could not lie down, and the administration of the anæsthetic was very difficult and dangerous. I incised the apex of the right lung in April, 1898, in the second intercostal space in front, entering a small cavity containing stinking pus. I then removed a piece of the eighth rib in the posterior axillary line, and stitched the lung to the pleura. On subsequent occasions I incised the lung in this situation with Paquelin's cautery, but never found any pus there. In the meantime he gradually improved, but had considerable œdema of the legs. This, however, in time disappeared, and both incisions closed. He is now apparently well. It was thought that he most likely had some malignant disease, or possibly tubercle, but the result of the case appears to show that we were mistaken.

Case VIII.—A medical man, aged 49, from the northern provinces of India, very robust, and with no history of previous illness, developed without apparent cause a small cavity at the right apex. The expectoration was very foul, and contained black lumps, which consisted almost entirely of fœtid masses of very long, straight, motionless bacteria, said by the pathologists not to correspond to any known pathogenic type. The cough was very troublesome and the temperature high. I incised the abscess in the second intercostal space in front, and entered a tough irregular cavity. Progress was slow but continuous: the black masses gradually disappeared, the cough and discharge ceased. He put on flesh, and in the course of a few months completely recovered, and has now returned to India.

I could give many cases of pulmonary abscess following liver abscess. The following will suffice:

Case IX.—A young man now in the Brompton Hospital with a tropical abscess had all along a good deal of dulness at the right base. There was always a difficulty in getting the liver abscess to drain, and at last he began to expectorate large quantities of chocolate-coloured pus. The week before last I explored the back, and found a large abscess in the base of the right lung. The temperature at once fell, and he is now apparently recovering. He has now two sinuses, one passing into the liver and the other into the lung, the external openings being not far from one another.[3]

Case X.—A young lady returned from India with a large hepatic abscess which she was expectorating. I opened it through one of the lower intercostal spaces in the axilla, and she improved, but continued to expectorate. There remained some dulness in front, with signs of a cavity behind the third, fourth, and fifth rib cartilages. This pulmonary abscess was opened through an intercostal space, and after many months she made a complete recovery. During the later stages of this case she used to expectorate a few pellets of blood-stained pus during the night, and discharge a similar quantity through the tube during the day, but there was no expectoration by day and no discharge from the wound at night.

Bronchiectasis.

I have described so many of these cases in different publications that I will not burden you with any of them here Some have been the result of old pleurisies; some have occurred apparently spontaneously, others have followed the inspiration of foreign bodies. In one only[1] has a completely good result followed operation. Some have been allowed to close; some have worn a drainage tube permanently; in a few cases the patients have appeared to have been actually worse for the operation.

Hydatid.

CASES X and XI.—We have had several cases of suppurating hydatid in the lung at the Brompton Hospital. Two have occurred during the last year, both in young women, both in the lower part of the right lung. One was for a long time mistaken for an empyema, and in the other the diagnosis was very doubtful until some cysts were expectorated. Both healed after incision, but both have now unfortunately developed tuberculosis—a possible sequence of this disease that should be borne in mind during the treatment of the case. In the case which was supposed to be an empyema I was proceeding very cautiously, because there was such a small space over which the physical signs seemed to warrant an incision. After removing the rib I could see the unadherent lung slipping backwards and forwards beneath the healthy pleura; so I at once introduced the stitches in the usual way and found on incision of the lung the suppurating hydatid quite close to the surface.

In concluding this somewhat desultory lecture I would again refer to the well-known fact that cases of pulmonary abscess (like those of empyema) are not infrequently followed by cerebral abscess. The treatment of these abscesses has so far been very disappointing. Not that they are always difficult to open, but they are often multiple, and the other results of embolic pyæmia are not seldom present.

REFERENCES AND NOTE.

[1] *Lancet*, 1887, vol. i, p. 513. [2] *Ibid.*, 1887, vol. i, p. 512. [3] Since the lecture was delivered this patient has died of a cerebral abscess. [4] *Med.-Chir. Trans.*, 1886, vol. lxix.

ON LATERAL CURVATURE OF THE SPINE: ITS PREVENTION AND TREATMENT.

By RICHARD BARWELL, F.R.C.S.,
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I.

IN 1897 appeared in the JOURNAL two papers by me[1] on Lateral Curvature, dealing largely with a sideways divergence of the pelvis and lower limbs, which, until I mentioned the subject in 1895 in my work on scoliosis, was unsuspected, and had altogether escaped recognition. I named this condition "amesial pelvis." It is of necessity followed by lateral curvature of the spine in such wise that pelvic deviation to the right produces lumbar or total curvature to the left, and *vice versâ*. Both these forms, but more especially the latter, are very apt to develop into the double or S-curve. I would wish now to complete my survey of pelvic aberrations, because they are most important factors in the production, their correction essential to the prevention and treatment of lateral curvature. Besides amesiality there are two conditions to be noticed: namely, version and obliquity.

The former of these has hitherto escaped observation; the term is intended to designate a twist or rotation of the pelvis on a vertical axis, so that one side of the bone lies further back than the other, the defective posture being named according to that side of the pelvis which lies most backward. The direction of this backward twist is usually left, and is followed by a left convex lumbar or total curve; while when the right innominate bone is thrown back the resultant spinal curvature is right convex. Version is independent of, though frequently combined with, amesiality, but as far as the deviation is concerned in contrary sense: thus when both deviations coexist left version coincides with right amesiality, and *vice versâ*. A mere inspection of the back, while the patient stands in drill posture in front of the surgeon, hardly reveals with any certainty this deviation, especially in its slighter or incipient stages, while when merely the back and loins are uncovered—a too frequent practice—the condition is of course entirely hidden. A good photograph taken under such conditions as I described last August, as ensuring by triangulation an absolutely correct position of the camera vertically behind the patient, will always reveal the defect, because that lateral half of the pelvis which is thrown backwards presents a broad side view, while that which is projected forward only affords a narrow foreshortened image of the gluteal region. Fig. 3 was thus taken: it shows a child, aged 12, with double curvature (dorsal to right, lumbar to left), with both amesiality and version of pelvis. If, to apply this test, we measure with compasses the distances from the rima natium to the side outlines of the pelvis, we find the left one to measure $\frac{7}{16}$, the right $\frac{5}{16}$ of an inch, which, as the girl is 4 ft. 8 in. tall, implies a real divergence of two inches.

It must not however be supposed that this malposture is only present during standing; on the contrary it is also present while the patient is sitting. Indeed, the origin of version is in the large majority of, if not in all, cases, due to a faulty habit of sitting, chiefly acquired while the child is learning to write. This is at that early age a very difficult business, which in order to leave the hand free and also under complete control, requires fixity of the shoulder girdle, and this again, perfect steadiness of the spine. The muscles securing this latter condition soon tire, more especially in the dorso-lumbar region; therefore, to ease them without losing stability or changing the position of chest and shoulders, such a twist is given to the pelvis, and with it of the lower vertebræ, as shall relieve the muscles and throw the work on the ligaments. The twist, be it remarked, must be of the pelvis, for if while this were steady the spine were turned, the chest and shoulders would turn with it; their posture necessary for writing would be lost. This twist or version of the pelvis, including of course the sacrum (part of the vertebral column) is in the same direction as the subsequent or simultaneous torsion of the resultant lateral curvature, which when it has been for some time maintained becomes habitual, not merely while writing, but in all sedentary postures; subsequently also in standing. The ligaments and muscles then rapidly contracture and adapt themselves to the posture and to the curve.



Fig. 1.—Permanent Obliquity.



Fig. 2.—Habitual Obliquity.

Though a good deal of the space at my disposal has been occupied by the description of this malposture, I must, on account of its importance, recur to it; but it will be better previously to cast a glance at the whole series of pelvic deviations, for they lie at the root and origin of very many curvatures. If, therefore, they can be detected while still quite recent, a large percentage of spinal deformities may be altogether prevented. Endeavours in a later phase to straighten a

spine which has become crooked because the basis on which it stands is awry, can hardly be successful unless that fault in the base be rectified—as to shore up the top storeys of a house without attending to a defective foundation can but be a futile and disappointing experiment. In aid of this thesis I show here examples of the three pelvic deviations. They are "obliquity," of which two kinds exist, namely, permanent obliquity, produced by some cause that renders one limb shorter than the other (Fig. 1); and habitual obliquity, which is a mere position.

Should such individual stand sometimes on one some- sometimes on the other foot, no evil would result, which only occurs when one limb is used almost exclusively (Fig. 2).



Fig. 3.—Amesiality.



Fig. 4.—Version.

Pelvic amesiality is that posture described by me last year, but illustrated in this place by a different figure (Fig. 3), while the last plate (Fig. 4) is pelvic version. I would beg my readers in looking at these to consider how a spine can possibly stand straight on any one of the pelves, while they maintain one or other of the very common positions here depicted.

But I am forestalling matters. The subject just now is prevention of lateral curvature, which, of course, presupposes early recognition of pelvic defects.[3]

Permanent Obliquity (Fig. 1).—The figure is taken from a severe case; the condition, however, especially if due to mere inequality of growth, is often so slight as easily to escape notice, yet abundantly sufficient to produce curvature of the lumbar spine. The patient standing so that the light falls evenly on the figure, and so that some distance in front of him is a straight horizontal line, as, for instance, the edge of a table or a dado, the surgeon putting the index of each hand on the crests of right and left ilium, so stoops that this line corresponds with one of the fingers. If it fall also on the other, the pelvis is not oblique; but it is so if that other finger lie above or below the horizontal line. If such discrepancy be found, the length of the limbs should be measured. To do this simply with a tape measure stretched between certain points of bone frequently misleads. I would suggest, instead, the following method: let the patient lie supine on a sofa, holding one end of a piece of string on the centre of the episternal notch, while the surgeon so arranges the trunk, pelvis, and lower limbs, that the cord may fall on the xiphoid, the umbilicus, and other central points, and is brought down between the malleoli. With such arrangement there can be no possible tilting of the pelvis; and unless the two internal malleoli lie on an even plane the limbs are of unequal length. In only a few exceptionally difficult cases is it necessary to uncover the hypogastrium and upper part of the thighs.

Habitual obliquity (Fig. 2) is to be detected by somewhat assiduous watching. The surgeon may often see the position when the patient is in his room, but he has no opportunity of verifying it as a habit. By explaining the suspected position to the mother, or to one pretty constantly with the patient, such companion or attendant will act as his detective.

Amesiality (Fig. 3.)—In this place must be interpolated that last year I stated myself to be unable to account for the origin of this deviation, but since then my studies of such cases have shown me that in all or nearly all cases it originates in a faulty mode of sitting different from that which causes version. To this point I must shortly recur, but just now my subject is diagnosis. As shown last August, the camera is a diagnostic instrument of great value; but for the persons immediately surrounding the child and for the family attendant it hardly is applicable for the early detection of the defect. The patient's back must be bared to just below the level of the trochanters and the remaining garments pinned up so as to show the juxtaposed heels. She will then be placed in drill posture and the surgeon standing some five or six paces behind her holds a plumbline so that it falls over the interval between the feet. If the pelvis be amesial the rima natium will not coincide with the cord but will be to its right or left. When the patient is dressed again, or so far dressed as to eliminate any sense of shyness, a pen should be given her and she should be told to sit down and write either at a desk or flat table, whichever is her custom; the posture of pelvis is then to be studied as to whether one side of it is more prominent than the other, but more particularly whether or no she put equal weight on each side. Often it will be found that she sits entirely on one tuber ischii, the other not supporting any weight at all, the skin over it barely touching the seat. If the left be thus used amesiality in the erect posture will be found to the right and *vice versa*.

Version of the pelvis though not easily verified by looking straight at the flat of the back is not difficult of diagnosis. Let a piece of white tape be fastened with carpet pins to the floor and arrange the patient, who, however, must be nude, in drill posture, so that the heels just touch the margin of that line. The surgeon places his eye so that he looks down along the surface of the back and so that the glutei (one or both) coincide with that line; if both do so there is no version, but such defect is present if one just touch, the other project beyond the tape. But in the earliest beginning version is a fault not of standing, but of sitting; its diagnosis in the latter position is easier of detection and does not require undressing. If the patient be told to sit on an ordinary chair and in her usual position, but with the knees in contact, one may, in well marked cases, discover by palpation that one or other side of the pelvis lies in a plane behind the other. But such mode is in practice rather uncertain; one must inspect by touch, or sight the knees—if there be, let us say, left version, the knee of that side will be found quite an appreciable distance behind the right one. A flat ruler placed on each ligamentum patellæ will slope backwards on left side. The object of these somewhat minute, but let me hope not wearisome, descriptions is simply to impress on all who have to do with the rearing and education of young people the necessity of close observation of their postures, more especially during the time of study. The hours thus occupied have of late years been greatly augmented. During the same epoch the prevalence of lateral curvature has greatly increased and my desire is to enforce the lesson that the deformity is not a mysterious and inevitable fate; but in a large majority of instances a thing that can be avoided if some intelligent observation be used and proper means be taken. What those means are and their mode of application will be the subject of my next communications.

NOTES AND REFERENCE.

[1] BRITISH MEDICAL JOURNAL, 1897, vol. ii, pp. 132, 335. [2] These deviations being fully treated in my work on *Lateral Curvature* need little

more than mention in this place. [3] I again must say that not all, though a very large number of curvatures, are due to pelvic deviation: it is, therefore, those only for which prevention is here proposed.

(To be continued)

A CONTRIBUTION TO THE TREATMENT OF PUS IN THE PELVIS.*

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FOUR or five years ago, under the influence of the teaching of Lawson Tait and C. J. Cullingworth, we might have looked upon the treatment of pus in the pelvis and pelvic organs as settled for ever. The brilliant results achieved by these operators, especially by the former, are only equalled by the clear and decisive way in which they have described the cases, with their pathology and treatment. The treatment laid down by Cullingworth in his inaugural address on Pelvic Abscess delivered to the Midland Medical Society in the autumn of 1893, may be summed up as follows: For all cases of pyosalpinx, tubo-ovarian abscess, and ovarian abscess removal in its entirety of the organ containing the pus through an incision in the abdominal wall. For all cases of extra-peritoneal suppuration—that is, of pelvic cellulitis gone on to suppuration—incision and drainage through the point in the abdominal wall above Poupart's ligament where the abscess usually points. Mr. Tait in his book on abdominal surgery advocates abdominal section and drainage for cases of suppurating hæmatocele of the broad ligament, and even for cases of pus in the broad ligament.

In the Obstetrical Society's *Transactions*, 1892, vol. xxxiv, p. 254, is a most interesting paper by C. J. Cullingworth on the value of abdominal section in certain cases of pelvic peritonitis. Of 50 cases reported here in full there was suppuration in 30, chiefly tubal and tubo-ovarian; of these 30 cases 6 died, giving a mortality of 20 per cent.

In the last ten years of his work at the Women's Hospital, from 1883 to 1892 inclusive, Mr. Tait operated upon 71 cases of pyosalpinx with 11 deaths, a mortality of 15.6 per cent.

In the last ten years, 1888 to 1897 inclusive, in the Women's Hospital the appendages have been removed for pyosalpinx 105 times with a mortality of 15.2 per cent.

My own cases of pyosalpinx and tubo-ovarian abscess are 20 in number with 3 deaths, a mortality of 15 per cent.

All these figures refer to cases of pyosalpinx treated by abdominal section, and we may therefore take it that the mortality in these cases is on an average 15 per cent., or possibly, even a little higher. Up to the spring of 1897 I had operated upon 15 of these cases with 1 death, and I confess that I was quite satisfied that the method of operation as practised was the best, and should be adopted in all cases. During the summer of 1897 I was led to consider the question again. Two deaths which occurred in my practice at that time—1 at the hospital and 1 in private—impressed upon me the necessity, if possible, of some improvement in the method of treating a certain class of these cases. I say "a certain class of these cases" because I want it to be clearly understood that for the great majority of cases of pyosalpinx removal through an abdominal incision is undoubtedly the best method of treatment. I will even add that removal by this route—the treatment, in fact, first laid down by Mr. Tait—is the ideal method in every case. But if by some other method we can give the patient a greater chance of life and an equal relief from her suffering, then I maintain that it is our duty to adopt that method. This method is incision and drainage from the vagina, a method mentioned by Mr. Taylor in his recent paper to the Midland Medical Society.

Before dwelling in any detail upon the method, let me first of all say in what class of cases I should adopt it. I advise its adoption in cases of long duration in which the pyosalpinx, or an abscess communicating with it, can be felt filling up Douglas's pouch, in which the patient is exhausted both by pain and prolonged suppuration, and suffers from emaciation and night sweats. She is, in fact, in a hectic condition, and absolutely unfit to stand a prolonged abdominal section. The intensity and the amount of the pain in these cases are an indication of the extent of the peritonitis and consequent adhesions and possible localised intrapelvic suppuration. The salpingitis itself does not cause intense pain; it is the peritonitis due to extension of inflammation or even leakage through the abdominal ostium of the tube that causes pain. The peritonitis may be suppurative, but, as a rule, the pus is shut off from the general peritoneal cavity by adhesions, and forms a localised intraperitoneal abscess communicating with the pus sac formed by the tube. It is in these cases that the tube or pus sac forms very dense adhesions with neighbouring organs. Adhesions are encountered in most cases of pyosalpinx; these, as a rule, can be separated easily and safely with the fingers or mop. It is not, however, always so; in the more severe cases they can only be separated with great difficulty, and with the risk every second of tearing the bowel. In my two fatal cases of the summer of 1897 I removed from one a double pyosalpinx, from the other a large tubo-ovarian abscess; in both the adhesions to bowel were extensive and strong. I separated them as gently as I could with a mop, and, as far as I could tell, without any injury to the bowel, but both patients died of perforative peritonitis. The abscess cavities in both of them could have easily been incised from the vagina, the adhesions would not have been disturbed, the cavities would have granulated up, and I believe I should have saved them both.

I have no doubt I shall be told that it is not good or scientific surgery to leave the pus sacs behind; that it is a reversion to the old method of tapping from the vagina; that suppurating sinuses will be left after convalescence, which will discharge for an indefinite time; and that it is quite possible that all the pus sacs will not be opened. I can only say that surgery which cures with the least possible risk to life is to my mind good surgery. That it is a reversion to the old method of tapping I absolutely deny. That was and always will be a step in the dark, and can never result in good drainage, without which the pus sac will never heal up.

As regards suppurating sinuses, I can only say that I have not had any experience of them in vaginal cases. Are they unknown in the cases treated by the abdominal route? My only experience of an obstinate sinus was in a case of large double pyosalpinx rising nearly up to the umbilicus, removed through the abdomen.

With regard to the last objection—that some pus sacs may be left unopened, I will deal with it when I speak of the technique of the operation itself.

I have operated upon six cases of pyosalpinx by the vaginal route; not a large number, I grant; but the results have been so satisfactory, and the convalescence has been so easy and quick that they are quite sufficient to convince me of the advantages of this route. They are all perfectly well now, they have no abdominal scar, no necessity for wearing a belt, and run no risk of getting a ventral protrusion.

Table of Cases.

Initials.	Married or Single.	Date.	Place of Operation.	Disease.	Operation.	Result.
A. C.	S.	Nov. 29, 1894	Newhall Street	Pyosalpinx and localised pelvic abscess	Incision and drainage from vagina	R.
H. M.	M.	Jan. 6, 1897	Women's Hospital	Double pyosalpinx	Removal *per vaginam*	R.
L. G.	M.	Jan. 18, 1897	Women's Hospital	Large left pyosalpinx with myoma uteri	Vaginal hysterectomy and drainage	R.
E. C.	M.	Mar. 4, 1898	Dudley	Large left pyosalpinx	Incision and drainage *per vaginam*	R.
A. F.	M.	Mar. 20, 1898	Women's Hospital	Large left pyosalpinx	Incision and drainage *per vaginam*	R.
E. M.	M.	July 6, 1898	Moseley	Double pyosalpinx	Removal *per vaginam*	R.

In addition to these there are 4 cases of pyosalpinx treated by my colleagues by this route on record in the Women's Hospital statistics.

The first of these cases was operated upon as far back as

* Read at a meeting of the Midland Counties Branch of the British Medical Association.

November, 1894. If I had known then as much as I do now I might at a much earlier date have looked upon this method as an operation of election. In that case it was one of necessity.

It was a case of pyosalpinx of long duration. The woman was extremely emaciated and pulled down by the disease. There was a large tender swelling above and behind the uterus. This I attempted to remove by abdominal section on November 21st, 1894, but on opening the abdomen I found the whole of the pelvic inlet shut off by coils of intestine densely adherent to one another. It was absolutely impossible to separate them so I closed up the abdomen. Four days later I tapped the mass from the vagina and drew off only about 2 drachms of pus. Her condition did not improve, and I felt certain there was more pus there. Under an anæsthetic on November 29th I made an incision behind the cervix, and cutting upwards behind the uterus I opened Douglas's pouch; with my fingers I could separate to a slight extent the adhesions between the floor of Douglas's pouch and the pyosalpinx. I then cut into the pyosalpinx and about 3 ozs. of pus escaped. I enlarged the opening and packed it with gauze. This I removed in 48 hours, and employed irrigation for the next few days. The cavity soon granulated up, and her recovery was complete.

I was so firmly impressed with the idea that the tube should have been removed through the abdomen that although she was cured I looked upon the case as one in which I had failed to perform the ideal operation. It was a failure on my part not to have seen that this very treatment to which I was driven as a matter of necessity was the very method that I ought to have adopted from the beginning. I have no doubt now that when I tapped her I simply tapped a small abscess in Douglas's pouch.

What we should do instead of insufficient tapping, is to make a free opening into Douglas's pouch behind the cervix. It is very easily done with scissors curved on the flat, keeping the point of the curve towards the uterus. If the pyosalpinx is very adherent to the floor of Douglas's pouch it will be opened straightway, if not the exact relations of the parts, using if necessary gentle bimanual examination, can be made out. When the pus sac has been defined it must be incised and the pus let out. Then the opening is enlarged and the cavity explored. If in doing this bimanual examination is employed I do not think any pus sacs will be left unopened. After this iodoform gauze packing is all that is required, followed afterwards by daily irrigation and in some cases by light repacking. This is the procedure I have adopted with the happiest results. The cases are few in number, but it does not necessitate a large number of cases to convince one of the advisability of a new procedure, if it did there would never be any attempt however slight at improvement. I do not pretend for one moment that this method is original. My first case was certainly done before I knew of such a proceeding having been adopted by anyone else, but as I have said I did not learn the lesson from it that I ought to have learnt. This method has been largely practised by French and American surgeons and to some extent in this country. I believe, however, that it is not sufficiently known that patients distinctly in a bad condition to stand a prolonged abdominal section can be not only relieved but cured by an operation that takes only a few minutes, that does not involve exposure or fouling of the general peritoneal cavity and which therefore must entail less risk of peritonitis and be followed by an easier convalescence.

I repeat that I do not set this up, nor has it been set up, except by a few enthusiastic Americans, as in any way a rival to removal by abdominal section as the treatment for pyosalpinx. It is to my mind a valuable auxiliary operation; one which will, I think, enable us to save lives which otherwise would be lost. This method of treatment may be extended even further, and in 2 out of my 6 cases I have succeeded in completely removing both pus tubes by the vaginal route. In these 2 cases removal would have been effected more easily from above. They were both rather stout, they both absolutely refused to have the abdomen opened, but consented to an operation by the vagina. I expected to have some difficulty in incising and draining the pus sacs in these cases, as they were not large enough to fill up Douglas's pouch. They were, however, low down, and after opening Douglas's pouch I found I could remove them. Removal of the appendages *per vaginam* is not an easy operation in any case, and where adhesions have to be separated and a soft, friable tube and ovary pulled down into the vagina great care is required.

I am not prepared to discuss now the performance of vaginal hysterectomy as part of the operative treatment in cases of double pyosalpinx. I do not consider that we have sufficient evidence yet to show clearly whether the climacteric disturbances are greater after hysterectomy than after removal of the appendages or *vice versâ*. As long as we can cure our patients either by removal of the appendages through the abdominal incision or by vaginal incision and drainage, or even by removal *per vaginam*, then I think myself that the cases which will call for vaginal hysterectomy are very few. I grant that I have one in my few cases treated by the vaginal route.

This was a case of large left pyosalpinx *plus* an interstitial myoma of the uterus. Before I performed vaginal hysterectomy I had attempted removal of the appendages from above, but in trying to separate the bowel adherent to the top of the pyosalpinx I nearly tore it across. As there were several other adherent coils of intestine, I contented myself with suturing the tear in the bowel and closing the abdomen. Some weeks afterwards I performed vaginal hysterectomy and drained the abscess cavity of the pyosalpinx through the opening made in the removal of the uterus. She made a good recovery.

Before concluding, I wish to repeat that it is only in a limited number of cases—in those which may be considered as of the severest kind, having as a rule a long-standing history of gonorrhœa—that I advise operation by the vaginal route. I may have to alter my views again. I can imagine that we shall find some day that all cases of pyosalpinx should be treated from the vagina. I can also imagine—though I hope it will not be so—that the closed pus sacs, tubal or tubo-ovarian, may some day give rise to further trouble, and we shall wish we had removed them entirely. If so, than I shall stand convicted of making a mistake now. But if I am told that they will fill up again with pus because the sacs which were tapped years ago refilled, I shall not believe it. This laying open of the sac and drainage is a very different thing to tapping.

Because I wish for this method of treatment to be adopted for the class of case that I have mentioned, I have not lost my admiration of the work done by the men who laid down the foundations on which the treatment of pyosalpinx is built. Without their experience, their teaching, and their boldness of treatment it would never have entered into the mind of anyone to remove these pus sacs through the vagina.

ON THE VALUE OF GLOVES IN OPERATIVE WORK, WITH A NOTE ON THE CLEANSING OF THE HANDS.*

By J. LYNN THOMAS, F.R.C.S.Eng.,

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I propose in this short communication to place before the members of this Branch the impressions gained by the wearing of gloves in general operative surgery since February, 1898, and trust they will be of some interest and value.

"The use of gloves is of high antiquity," for it is recorded that Cyrus, King of the Persians, about 2,500 years ago, went without his gloves.

The end of the nineteenth century has seen the introduction of gloves into "certain kinds of manual labour" after the fashion of the ancient Greeks and Romans, but history does not relate what particular kind and form of glove were used by them.

The costumes which were worn by our forefathers to keep away the plague were not complete without the gloves, and the *fin de siècle* surgeon tries to ward off his plague—the pathogenic organism—by putting the final touch to his costume by wearing the microbeless glove.

When one of our great authorities on gloves stated that "yarn, thread, silk and cloth gloves are of comparatively little importance,"[1] he little dreamt that these despised articles of wearing apparel would so soon come to play an important part in the saving of human life.

The whole aim of the modern surgeon is to prevent his ubiquitous foe from establishing an "effective occupation" within his sphere of influence, and an old-fashioned custom

* Read at Aberdare before the South Wales and Monmouthshire Branch of the British Medical Association.

of challenging to fight has been reversed by the surgeon by his taking up the glove instead of throwing it down.

It is now a little over nine months since I took to using gloves in aseptic operations, and for this purpose I have tried gloves made of silk, taffeta, thread, and cotton, and I like best the buttonless thread gloves, because they are closely woven, fit well, stand any amount or method of sterilisation, and cost but a few pence per pair. Since August last I have also taken to wearing gloves in septic cases, and for these cases there is only one type of glove that can be of any use—namely, a non-permeable one of the rubber type. The ones I use are sold by surgical instrument makers under the name of the patent film P.M. gloves.

The subdued sense of touch caused by the wearing of gloves does not in any way interfere with the due performance of the numerous manipulations required in operating. The only fault that I have to find is with the rubber gloves, because they are liable to be torn in tying ligatures and are very expensive, costing 6s. to 9s. a pair. I do not think it necessary to have gloves made with gauntlets, because it is extremely rarely that the forearm comes even into temporary contact with a wound.

En passant I would remark that up to the present time I fail to find any reason for wearing a respirator or a sterile cap during operations; the experienced mountaineer breathes through his nose when climbing, and the surgeon should copy him when operating.

From conversations with a few of the London surgeons in June last I gathered that practically no one in the metropolis had taken kindly to gloves in operative work, and it is on that account that I venture to record my short experience.

I think the consensus of opinion is that when one is called upon to do an operation for a condition which does not in itself immediately threaten life, and which does not also show any signs of inflammation, the surgeon ought to be able almost to guarantee that union of the wound will be complete within a fortnight. I am referring of course to such cases as diagnostic incisions into the abdomen and skull, radical cures of hernia, varicocele, etc.

I wonder how many of us could state without hesitation that not even a suture abscess would appear in the skin after such operations, and when one does appear I think we ought to realise that we have not observed all the details of the ceremonial of surgical cleanliness.

Since I have taken to gloves I feel greater confidence in prophesying with regard to the healing of wounds than I did before adopting them.

Surgical operations from a glove-wearing point of view may be divided into the septic and aseptic classes. In the (1) aseptic cases one may state that gloves are worn to prevent the possible contamination of the field of operation by the hands of the operator, his assistants, and nurses; and (2) in septic cases to protect their hands from being contaminated by the field of operation.

I will not bore you with what Mikulicz, Manteuffel, McBurney, A. Wölffler, and others have written about this subject of gloves, as it properly belongs to the surgical history of the closing days of the nineteenth century.

I have used the thread gloves in such cases as the screwing of old mal-united tibiæ, nephropexy (Vulliet's), gastro-jejunostomy, gastrostomy (Hacker-Frank-Witzel's), ovariotomies, appendicectomies, radical cures of hernia, thyroidectomies, and in amputations; and the rubber gloves in such cases as psoas and perityphlitic abscesses and rectal operations, so that a variety of complex manipulations have been performed with the gloved hands, and I can say that the wearing of gloves has not in any way interfered with the due performance of the various manipulations required.

On the other hand, I find it easier to operate with the gloved hands in such cases as the radical cure of hernia and varicocele and hydrocele on account of the firmer grip the thread-gloved hand gives, and the same remark holds good with regard to the use of borers, reamers, and screwdriver in repairing mal-united or ununited fractures according to Lane's method.

I believe it is now generally granted that the chief danger of infection in aseptic operations is from the hands of the operator, his assistants, and nurses, because instruments, dressings, and other requirements can be rendered sterile with an absolute certainty before starting operating, but it is otherwise with the hands, and it is on that account that some surgeons do not touch wounds with their hands, but endeavour to perform every possible manipulation they can by means of instruments alone.

The contact-surface of hands may be clean enough at the beginning of a prolonged operation, but it seems reasonable to assume that by the time one is ready to put in a screw at the end of an operation that requires such an appliance, the contact-surface of the hands is in a very different condition, on account of the attrition, friction, and stretching of the skin caused by the coarse muscular movements performed; hence the protective influence of gloves.

The most striking result from the wearing of gloves in the aseptic cases has been the total disappearance of suture abscesses, and even of the suture blush in every case except two, and in both these cases which were operated upon on the same day septic silk from a new reel caused serious suppuration, as it was inadvertently assumed to be sterile when received from the instrument makers. Another, and by no means an unimportant, advantage of wearing gloves is that one does not carry "the smell of operations" about into drawing-rooms and dinner parties; and besides, one can let one's finger-nails grow to a respectable length.

The antiseptically sterilised fingers of some surgeons look very much like those of a washerwoman who is constantly biting her nails. Gloves prevent all the above troubles, and dry sterilised thread gloves can be put on as easily as driving gloves on dry hands, but it is otherwise with wet gloves.

The wearing of gloves in my opinion is the simple observance of the scientific ritualism of Lister's gospel of surgical cleanliness, and the prejudice with which I was once possessed against their adoption "in certain kinds of manual labour" now *non est*.

In the next place I would venture to draw your attention for a few moments to the method usually employed in the washing of hands in the majority of our large metropolitan and provincial hospitals. Briefly, the commonest method is as follows: The hot and cold water are mixed in a basin, the testing for the right heat of the water being performed by means of an unsurgically clean hand; there is a plug of a mysterious pattern in the basin to prevent the water running away, there is also an overflow outlet of a mystic significance, but, behold, there is no means by which one can sterilise the basin and plug. To be consistent with the ideal conception of surgical cleanliness such conditions ought not to exist, and I think the adoption of pedal taps, etc., is simply the substitution of an unsatisfactory and expensive mechanism which does not in any way meet the necessary conditions for rendering our hands pure and clean. It is true that Dr. Kelly, of Baltimore, has detachable basins which can be rendered sterile, but such elaborate appliances are faulty, and besides quite unnecessary, because after the first scrubbing of our hands in the water in the sterile basin, the rest of the cleansing takes place in contaminated water until the basins are again washed, sterilised, and refilled. The whole procedure is evidently not the final, but an evolutionary, step towards a simpler but higher state of cleanliness.

A few surgeons have been bold enough to take a hint from the modern barber—perhaps a lineal descendant of the barber-surgeon—and adopt an appliance which is at once simple and efficacious for the purpose of hand-washing. I refer to the shampooing tap. All you have to do is to fix the tap at a convenient height over a sink with an open outlet—which of course possesses neither a mystic plug nor a patent overflow—and turn the handle to the right place to get the requisite heat, and the ceremonial of handwashing is then performed in clean running water from beginning to end. A supply of sterile cloths or a metal key is kept in the carbolic lotion in which the nail-brush and nail-cleaner are also kept in order to turn the handle of the shampooing tap. A brisk scrubbing with alcohol, which is allowed to dry on the hands, prepares the hands sufficiently for the gloves.

I know of no disadvantage to the general adoption of gloves and shampooing taps in every large operating theatre, but in private practice one is compelled to admit that one is perforce compelled to forego the luxury of a shampooing tap in preparing for an operation; but since I have taken to carrying

three pairs of sterilised thread gloves in the tin containing the gauze mops and make my unknown assistant and nurse wear them, I feel that the risk of wound contamination is very greatly diminished because the deterrent effect of the gloved hand upon the unsurgical mind and hand is most marked and salutary, as their unfortunate owner does not feel impelled to feel the patient's pulse or open a door or window during the trying vicissitudes of any long operation in private practice.

REFERENCE.

1 *Encyclopædia Britannica*, Ninth Edition.

CASES OF GENERALISED SEPTIC INFECTION TREATED WITH ANTISTREPTOCOCCUS SERUM.

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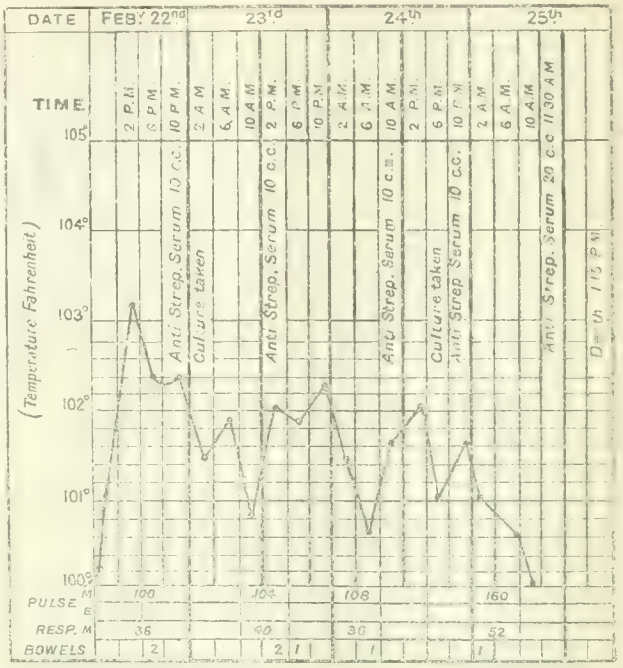
OUT of the 4 cases recorded below, 2 had a fair trial of this special treatment, the one taking 60 c.cm. in four days and the other 180 c.cm. in nine days. These 2 cases have been recorded more fully as possessing some interest apart from the special treatment they received. The 2 last cases only received each a single dose, but have been added to make the series complete.

CASE I.—J. H., aged 56, engineers' labourer, was admitted on February 22nd, 1898. He had suffered from some indisposition during the previous six weeks, which had not been sufficient to prevent his working, and eight days before admission he crushed his thumb with an iron bar. He applied friar's balsam, and subsequently had medical advice. He suffered a good deal of pain in the thumb, but it apparently healed without suppuration. On the night of the accident he had several shivering fits, and next day, about twenty-four hours after the accident, took to his bed. On the third day after the accident he complained of tender lumps in the left groin, but there was then no redness of the skin. On the following day they became more painful and swollen, and a scarlet blush was noticed over them, which spread rapidly up the left side of the trunk and towards the middle of the thigh. On the next day the redness and pain had increased and red blotches came out all over the body, but they were not tender. He was delirious on the third night and every subsequent night. He had no more shivering fits after the first night. He was admitted seven days after the accident, under Dr. A. J. Harrison (by whose kind permission I am publishing this case).

Condition on Admission.—The pulse was 100, regular, and fairly strong: the respirations 36; and the temperature 103° F. The heart and lungs were normal; the urine was normal. The wound on the thumb was quite healed. There was no wound on any other part of the body. A large number of vivid scarlet patches, of varying size and irregular in shape, were seen all over the body, particularly over the hands, arms, and legs. The patches were not raised, nor indurated, nor tender. They partially disappeared on pressure, leaving a brownish stain. Some patches surrounded small suppurating areas deep in the skin, which did not seem to be connected with hair follicles. The patches gave the patient an extraordinarily mottled appearance, contrasting as they did with a sallow skin. There was a large, painful, brawny, red area on the trunk, most intense in the left groin, and extending from thence as far as the eighth left rib, and round into the loin, and on to the buttock, and a third of the way down the thigh. The glands in the groin could not be differentiated, but red, painful lymphatic cords were running up to painful glands in the left axilla. The edge of the inflamed area was fairly defined and indurated, but not inflamed. No fluctuation was detected.

Treatment.—He was given calomel, and subsequently four hourly doses of sulphocarbolate of soda, and hot fomentations were applied to the abdomen. At 10 P.M. 10 c.cm. of antistreptococcus serum were injected under antiseptic precautions, after which the temperature fell from 102.4° to 101.4° F. A cultivation was made from the blood. On February 23rd, after a bad night, he was restless and delirious, and had slight diarrhœa. The pulse was weaker (104); the respirations 40; and the temperature 102° F. The tongue was dry, caked, and tremulous. The brawny area on the trunk had extended markedly in all directions. At 2 P.M. 10 c.cm. of serum were injected without effect on the temperature. He was ordered 8 ounces of brandy daily. On February 24th the pulse was 108, the respirations 32, and the temperature 102.4° F. The tongue was hard and caked, and the brawny area had spread to the axilla, above, and below to the knee, involving the genitals. He was ordered perchloride of iron with quinine. At 10 A.M. he was given 10 c.cm. more serum, and the same again at 8 P.M. He was ordered a pint of champagne daily. He was very delirious all night, and next day erysipelas was commencing in the cellular tissue around the left eye. It spread visibly in two hours. The patch on the trunk had extended considerably, and large areas of skin were black. Two or three large bullæ contained thin bloody fluid, and over some parts the skin had come away, leaving a wet, slippery, blood-stained surface. He answered rationally when spoken to, but passed his time in low muttering delirium. Urine and fæces were evacuated involuntarily. The heart sounds were inaudible. There was no emphysema about the infected area, nor was the odour particularly offensive. Death occurred soon after midday on February 25th.

Post-mortem Examination.—The examination was made twenty-four hours after death. The patches of erythema had disappeared, leaving brown stains, with here and there small foci of suppuration in the skin. The large area was of a deep chocolate red, with scattered bullæ and necrotic areas. An incision into this area gave exit to some thin bloody pus, not offensive, from the deeper intermuscular layers. The examination of the various organs showed no changes beyond the general appearance commonly seen after death from septic blood diseases. There was no visceral or joint abscess, and no thrombosis of veins. The old injury to the thumb had healed soundly.



Bacteriology.—On February 24th, at 8.30 P.M., cultures were taken from the blood from the finger with control from the skin from the same site. After forty-eight hours at a temperature of 98° F. the blood culture remained sterile; the control showed one colony. On February 25th, at 11.30, a culture was made from fluid blood in the bullæ. This, after twenty-four hours' inculation, showed about twenty colonies of staphylococcus pyogenes aureus, a few of staphylococcus pyogenes albus, and a fine ground work which proved to be composed of fine streptococci, individuals very small, and about five to seven in the chain. On February 25th, at 2 P.M., three-quarters of an hour after death, cultures were made from the thin pus from the abdominal wall. After twenty-four hours' incubation they showed a general thin greyish film, consisting of numbers of exceedingly minute colonies, which consisted of very minute cocci in groups of three or four, and chains of like number. Cultures taken at time of the necropsy, twenty-four hours after death, from (*a*) blood in the right auricle, (*b*) splenic substance, after twenty-fours at 98.4° F., showed (*a*) a copious grey film, consisting of exceedingly minute colonies, which proved to be minute streptococci, three individuals to a chain, and a few small staphylococci; (*b*) forty small grey colonies resembling those of streptococci in naked-eye appearance, which proved to be composed of very small cocci, chiefly in small groups, and some small short streptococci.

CASE II.—A. T., a labourer, aged 27, was admitted on July 22nd, 1898, under the care of Dr. J. Michell Clarke, by whose kind permission the case is published.

History.—He had rheumatic fever 22 years before, and had had occasionally had slight œdema of feet since. He had been a heavy drinker till quite recently. He stated that on July 13th he felt cold, and after getting into bed had a severe shivering fit. He went to work next day, but gave up in two days because of the aching of the legs, which had persisted since. He had had considerable sweating, particularly at night. The chief seats of pain were the right knee, calf, and ankle.

Physical Examination.—He was pale and anæmic. The pulse was 88, collapsing. The respiration was 40; the temperature 102.5°. The tongue had a brown fur; the lungs were normal; the heart's apex was in the fifth intercostal space, an inch and a half outside the nipple line, and the first sound not quite clear at the apex. There was a well-marked soft diastolic murmur in the aortic area, conducted down the sternum and heard at the tricuspid area. The heart dulness extended a little beyond the apex beat. There was pulsation in the vessels of the neck, and capillary pulsation was obtained. The abdominal organs were normal. On the abdomen and chest were small red-brown spots. The urine was normal.

After-History.—He was treated with digitalis and cardiac stimulants and salicylates. On July 25th he felt better, but the temperature kept up, and there was a little diarrhœa. On July 31st the pulse was 100, the temperature 104° F., and the respirations 30. He complained of pain in the calf of the left leg, but there were no signs of thrombosis. Three small purpuric hæmorrhages were seen over the left knee-joint. On August 1st the heart's action was still rapid, a soft systolic murmur was heard at the apex, and the aortic diastolic persisted. On August 3rd injections of antistreptococcus serum were commenced; two doses daily each of 10 c.cm. The spleen was tender and enlarged. On August 4th there was loss of resonance over the base of the left lung, moist *râles*, and harsh breathing. The Public Health Office reported the appearance of two colonies of cocci

on the blood culture, whilst the control cultivation from the skin remained sterile. Next day a few small papules which ran on to pustules appeared on the leg. He had a rigor at 5 P.M. (temperature 104.8° F.). The heart sounds were weaker and the murmurs the same. On August 7th hæmaturia appeared and continued on August 8th, when he was weaker. The sputum contained a large number of staphylococci, and a small group of cocci was found in the urinary sediment. Next day some livid patches appeared on the feet, and on August 10th great fulness was noticed in the splenic region without redness or fluctuation. On August 12th he was in a semi-comatose condition, and had diarrhœa and incontinence of urine and fæces. An intermuscular injection of corrosive sublimate was given. Next day he was in a typhoid condition, and on August 14th livid patches appeared over the abdomen. Right hemiplegia came on at 9 P.M., and involved the face, arm, and leg. The superficial reflexes were absent, the deep present. There was partial anæsthesia on the right side. He continued in a comatose condition, and died at 7 P.M. on August 16th.

Post-mortem Notes.—The heart was enlarged and dilated and flabby. There was a large mass of vegetations (the size of a hazel nut) on one aortic cusp. Another cusp was a little involved, but the third was healthy. There was no sign of old endocarditis. The mitral orifice was dilated, but otherwise healthy. The base of the left lung was collapsed, and the remainder of the lung was congested and collapsed along its posterior borders, but there was no pneumonia. The spleen was large, both poles being composed of huge infarcts, each measuring about 4 by 5 inches. There were several other small infarcts in the organ. The kidneys both showed several infarcts, each about the size of a hazel nut, surrounded by a very well marked zone of reaction. In the brain there was a large area, the size of a five-shilling piece, composed of breaking-down brain tissue, situated in the internal capsule, and extending into the optic thalamus and lenticular nucleus, and outwards as far as the island of Reil.

Bacteriology.—Two cultures were taken from (1) the blood from the right auricle, and (2) the splenic substance, at the necropsy both showed after twenty-four hours' incubation numerous colonies of staphylococcus pyogenes albus.

CASE III.—This was a very acute case, showing many symptoms of acute endocarditis. The patient died twenty-four hours after admission, and only eight days after the onset. Culture taken from the blood during life subsequently showed large numbers of colonies of staphylococcus pyogenes aureus, and the same coccus was isolated in pure culture from the heart's blood and spleen after death. A single dose of 20 c.cm. of serum was injected shortly after admission without altering the temperature or the course of the disease.

CASE IV.—A bargee debilitated by chronic alcoholism was admitted for a subacute wandering pneumonia with mental symptoms. Delirium set in, and the patient sank gradually. A systolic murmur developed a few days before death, and an effusion into the shoulder-joint, which turned out to be purulent, was noticed the day before death. In the face of these symptoms malignant endocarditis was diagnosed, and 20 c.cm. of anti-streptococcus serum injected, but the patient died. The necropsy verified the diagnosis, and a short streptococcus, associated with some staphylococci, was isolated from the heart's blood and spleen after death.

As will be observed, in none of the cases did the injection of serum appear to have the least effect, beneficial or otherwise, nor was the course of the disease altered or checked in any way whatsoever so far as could be observed. There seems to be some uncertainty as to what kind of case is likely to be benefited by this special treatment, and it does not seem to be generally understood whether the value of the serum holds good for cases of staphylococcus infection, or whether the treatment must be reserved for cases of pure streptococcus infection only.

It may be noted that in the first case there was a mixed infection, both varieties of coccus being present and both in a small variety, such being generally held to be more virulent than the larger or longer varieties. There is some little doubt as to whether or no there was a genuine blood infection in this case. The first blood culture was disregarded owing to the fact that the control test was contaminated with organisms. The second taken from the blood remained sterile. The culture, however, taken from the auricle after death grew abundant colonies, but whether it was that these were not sufficient in the circulating blood to ensure success, or whether it was that larger numbers gained entrance to the blood stream during the last hours of life it is impossible to say. At any rate, the inhibitory power of the serum over the organisms should have been the same whether they were in the circulating blood or in the tissues.

The second was a case of pure staphylococcus infection, as was also the third. The last-mentioned was a mixed infection like the first. It is a matter of great importance to be able to rely on the result of blood cultivation, more especially in those cases which recover or appear to be benefited by the treatment. It is obviously not of the same importance when the diagnosis is verified or otherwise by necropsy.

To ensure accuracy of result in this direction some such modification of the usual method as the following may be adopted, especially by those not conversant with the methods of bacteriology: The finger and that on either side of it should be sterilised in the usual way, as if prepared for operation, with the exception that when the pad of carbolic is removed prior to beginning the process the finger should be rinsed in boiled water to ensure asepsis rather than antisepsis. With a sharp-edged sterile surgical needle the skin over the selected site should be scraped till all the superficial layers are removed, and the whole *débris* thus obtained should be inoculated on an agar-agar tube and be labelled "control." The needle, after resterilisation, should be plunged into the finger through the area thus bared of skin, and a second tube inoculated from the blood obtained. If the latter tube grows organisms whilst the control remains sterile, it is almost conclusive evidence that the organisms came from the circulating blood and not from the skin of the finger, whence they doubtless come in a considerable number of cases in which no such precaution is taken.

My thanks are due to Dr. D. S. Davies, Medical Officer of Health of Bristol, who very kindly placed his bacteriological laboratory at my disposal.

EFFECT OF FOREIGN BODIES IN THE BRONCHI.

BY R. SEVESTRE, M.D.CANTAB.,
Leicester.

INTRODUCTION.

CASES have from time to time come under my observation in which it was known that a foreign body was or had been lodged in a bronchus. The great diversity in the clinical features of these cases led me to consult the ordinary text-books on the subject, but finding very little there I thought it would be interesting to look into the subject more closely and learn what were the effects produced when a foreign body was impacted in a bronchus.

In the first place I propose to mention briefly some general considerations of foreign bodies; then in more detail to consider the effects produced, which I have divided for purposes of description into an early and late stage, not that this is altogether satisfactory, for the one merges gradually into the other.

I do not propose to enumerate the solid substances which are recorded as having found their way into the bronchi; the list[1] is only of interest as showing how great is the variety.

The effects of a foreign body lodged in a bronchus will differ on the two sides of the chest according as the body is impacted above or below the eparterial branch of the right bronchus, and, as Poulet[2] states, more than two-thirds find their way into the right bronchus, it is a point to be borne in mind. Moreover, the effects will vary according to the extent to which the lumen of the tube is occluded, and this will depend on the shape of the body. A body, on account of its regular outline or from ulceration around it, is apt to change its location during a violent paroxysm of coughing; it may then be caught in the glottis, or if the cords be separated it may be projected into the mouth and expectorated, or it may impinge against the glottis, falling back into the same bronchus or even the one on the opposite side.

The effects may be divided into an early and late stage, the former being due to the obstruction and the irritative presence of the foreign body, the latter produced by the inflammatory changes consequent upon the prolonged irritation.

EARLY EFFECTS.

The physical signs in the earliest stage are those of obstruction to the entry of air into the lung, and will vary according to the amount present; it is important to note that with a free entry there may be no physical signs present. Such was the case with Mr. Brunel,[3] the engineer, who was amusing some children by catching a half-sovereign in his mouth, when it slipped down the air passages and lodged in the right bronchus; at an examination of the chest some days afterwards no difference was detected between the two sides.

After the complete plugging of a bronchus collapse of the lung below the obstruction very soon ensues, and is brought about by the absorption of air in the alveoli. This change takes place within a few hours, for Lichtheim[4] carried out a series of experiments on rabbits, and demonstrated that, on opening the chest walls twenty-four hours after a bronchus had been plugged with a piece of laminaria, the lung below the obstruction was collapsed. In the museum of the Royal Col-

lege of Surgeons of England are the lungs and bronchi of a child who died from the effects of a foreign body in the right bronchus; collapse of the lung below the obstruction is well shown, and there is emphysema of the unobstructed portion of the lung. Lichtheim in his experiments also found emphysema of the unobstructed portion of the lungs. I think that in cases where plugging is incomplete, but the entry of air much diminished, some collapse takes place, for the alveoli at the periphery of the lung are not likely to be affected by inspiration or expiration; the elasticity of the lung then comes into play, and the air becomes gradually absorbed. The same is seen in other morbid states.

The sudden and complete plugging of the bronchus thereby rendering a considerable area of lung tissue functionless does not, I think, necessarily bring about a fatal result immediately. In animals it certainly does not, for Lichtheim allowed days to pass after plugging a bronchus before killing the animal. That extensive collapse may of itself lead to a fatal result I think is clear, for in the case last referred to death took place twenty-four hours after the plugging of the right bronchus. These cases, in which the onset is acute, and an enormous amount of work is suddenly thrown on the heart and the remainder of the lungs, are not comparable with those cases in which disorganisation of the lung gradually takes place, for in these the circulatory and respiratory systems have time to adapt themselves to the altered conditions.

Before passing on to the consideration of the late stage, I should like to say something about tolerance. Poulet gives a few examples; two were in lunatics, the foreign bodies being discovered at the necropsies. As nothing was known about these cases, I do not think they are of much value. It seems to me to be improbable that a foreign body can stay in a bronchus without producing some changes; a few cases are reported in which a foreign body has been impacted in a bronchus for some time, but the changes produced were always considerable. In an article in the *Lancet* of last year, the authors[5] stated that they were only able to find thirty-one cases of recovery in which a foreign body had been retained in the trachea or bronchus for over one year before its removal. Furthermore, they found that the cause of death was tuberculosis in the great majority of cases that did not survive.

LATE EFFECTS.

The presence of the foreign body leads in time to inflammation of the bronchial passages with subsequent consolidation of the lung. Sometimes, but not often, the onset of these changes is sudden and takes the form of an acute lobar pneumonia.

In reading about these cases and in the specimens I have seen in several museums, I have been struck by the similarity of the morbid changes. The mucous membrane of the bronchus is ulcerated where it is in contact with the foreign body, the smaller divisions beyond are dilated, their walls are thick and filled with purulent secretion, and in places ulcerated; the lung presents various stages of consolidation, in some cases passing on to gangrene. The pleura is thickened, and the visceral and the parietal layers adherent. In the museum of the Royal College of Surgeons of England there are specimens[6] which show these conditions; one is the lung of a child who died eight weeks after inhaling a piece of nut. The right lung is adherent to the chest wall, the divisions of the bronchi are dilated and the cut section of lung shows that it is solid, but it does not present the ragged, breaking-down appearance seen in another specimen.

The condition of bronchiectasis which I believe to be a common sequela is not mentioned in many of the references I have looked up. Mr. Rickman Godlee speaks of it in his lectures[7] on the surgical treatment of pulmonary cavities, and there is an illustration in Gross[8] showing the dilated bronchial tubes. It is interesting in two ways: in the first place as regards its causation, and secondly with reference to its diagnosis.

Of the two forms of bronchiectasis, cylindrical and saccular, the former is the one usually met with in these cases; whether this condition be due to the pent-up secretion or to the increased pressure during cough acting on the bronchial walls already inflamed and softened by the secretion, is not easy to say. That the latter is an important factor in its causation is certain, for cases of chronic bronchitis and emphysema often show the bronchial tubes to be somewhat dilated; another explanation that has been offered for bronchiectasis—namely, that it is due to the contraction of the chronically inflamed lung tissue, does not, I think, hold good in these cases, for the lung in many cases shows signs of disintegration.

This condition of bronchiectasis may not be easy to diagnose. If in puncturing the chest wall a muco-purulent secretion is withdrawn, it shows that it comes from a cavity in the lung connected with the bronchial mucous membrane. After excluding tuberculous processes, I should think of a foreign body as a possible cause, particularly in children where the history is often indefinite and the presence of a foreign body may not be suspected.

The consolidation of the lung is a gradual process, and is not usually the result of an acute pneumonia which has never resolved, for acute pneumonia is not common, and the physical signs point to a more gradual onset.

In a later stage complete disorganisation of the lung is found. A case is reported[9] in which death followed thirteen weeks after the inhalation of a piece of grass. The lower third of the lung is described as a gangrenous mass, riddled with cavities, in one of which a piece of grass was found.

The changes in the pleura are clearly the result of inflammation spreading through the lung. In some cases the process is different. Round the foreign body pus forms,[10] and gradually works its way to the surface and discharges, often carrying the foreign body with it. Even after removal of the foreign body it is by no means certain that the lung will recover, for it may be too disorganised, or the damaged portion may form the starting point of tuberculous processes, the frequency of which I have already drawn attention to.

CONCLUSION.

The effects of foreign bodies in the bronchi I have divided into two stages. In the first stage the most noticeable feature is the collapse of the lung; in the second stage the inflammatory changes predominate. Of these the most important are changes in the bronchial tubes, their dilatation with walls thickened and full of secretion, the consolidation of the lung and it may be its final disintegration, and the changes in the pleura, in some cases the formation of an abscess.

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ON THE HOT-AIR BATH, WITH ILLUSTRATIVE CASES.

BY A. S. MYRTLE, M.D.EDIN.,
Harrogate.

IN my Note on the Hot-Air Bath in the Treatment of Arthritis, published in the BRITISH MEDICAL JOURNAL of December 10th, 1898, p. 1745, I promised to follow with the history of a few cases showing its value as a therapeutic agent. Between August 28th and December 31st, 1898, 680 baths have been given at our Royal Baths. I have received many letters from medical men asking me about superheated air baths. For their information I give a few general remarks on the different methods adopted till present date.

1. *The Tallerman.*—The heat is got from gas; it is a gas oven, can only be used for legs and arms, is cumbersome, and the products of combustion are distinctly felt.

2. *The Dowsing.*—The heat here is produced by electric lights similar to those used for house illumination. The light and heat from these is thrown from above on reflectors of glass and polished metal, but these cannot surround the part completely, as in

3. *The Greville.*—Here we have the sides, top, bottom, and ends supplying a steady glow all round from a very large number of small wires fixed in metal frame like the strings of a harp, and enclosed in a perforated aluminium case, which

is covered with a sheet of aluminium. This arrangement allows a slow, steady heat, which can be regulated and controlled with ease and safety; besides, Mr. Greville (31 and 32 Upper Berkeley Street, London, W.) has constructed every, variety of bath, full length as well, so that there is no part of the body which cannot be successfully treated. All his chambers are so light they can be moved about as easily as one moves a chair.

CASE I.—M., aged 67, has been afflicted with gout for over twenty years. His attacks of late have been more and more severe and prolonged, lasting for six and eight weeks, in defiance of the most heroic treatment; otherwise strong and healthy. Saw him on August 16th, 1898, unable to move; could not turn in bed; hands, wrists, elbows, feet, ankles, and knees full of acute gout. August 28th: Persuaded him to have first Greville in his bedroom. Both legs were kept in for forty-five minutes; temperature 300°; neither pulse nor body temperature were affected. 29th: Had his second bath at 8 A.M. That afternoon I found him sitting up dressed. 31st: Was able to go to Royal Baths in chair, a distance of three-quarters of a mile. Could walk with assistance, was free from pain, had good night's rest. On September 3rd he went home, and since that date has been for the most part confined to bed and his room. I mention this case to show the rapid action of the bath and great and immediate relief afforded. Had he continued under the treatment I feel assured he would have been in a very different condition from the one he is in at present.

CASE II.—F., aged 75, always enjoyed the best of health, but for many years has suffered from rheumatism in both hips and knees. Now the hips are very stiff and painful; the knees swollen, painful, and almost incapable of any motion. This condition has been gradually increasing. Has been at Buxton, Bath, Aix-les-Bains, and other spas, without benefit. Ordered sulphur water internally, and thermal sulphur baths alternate with the Greville. At the end of a fortnight was much improved. In another fortnight could rise from chair with ease, and with assistance walk a little way. Pain in hips entirely gone, but still suffers in both knees. She felt perfectly satisfied that she had received more good from Greville treatment than all she had undergone previously.

CASE III.—M., aged 73, never had gout or rheumatism, but been very seriously ill with liver attacks. For some months has suffered from pain outside of left foot, with cramp of toes. This was followed by acute pain in outer and inner side of leg below knee, the pain coming on during the night whilst in bed, preventing sleep entirely. Had been under treatment for this without the least good following. The first Greville gave relief, and each following did more and more; after six the pain was completely gone, also the pain in foot and cramps. Six weeks have passed: there is no return, and he can walk as well as any man of his age.

CASE IV.—M., aged 60, twenty years ago showed very distinct symptoms of locomotor ataxy; this increased, exhibiting all the usual signs for two years, then became stationary, and has thus remained; is very gouty, bilious, and never entirely free from eczema; can hobble for one or even two miles with two sticks. Six months before I saw him he noticed his left leg begin to swell, and gradually this increased until it was exactly twice the size of its fellow. The swelling went from the foot to the body, was uniform, not in any way discoloured or painful, did not pit on pressure, or cause any inconvenience. After he had three Greville baths slight changes began to show themselves; the limb perspired freely for the first time; he felt something give way, and after three more baths the limb was the same size as the other, and has continued the same ever since. The symptoms, I believe, arose from block of lymphatic vessels. The limb looked and felt just as in phlegmasia dolens. Three months have elapsed and the cure continues.

CASE V.—M., aged 63, of very gouty family; has been subject to attacks for twenty years at least; for last five years hands, wrists, and fingers have been gradually getting worse. Rheumatoid arthritis (?); great disfigurement, pain, and helplessness. Often cannot do a thing for himself, sign his name, or hold his paper. Has been a regular visitor to Harrogate, and always found great good from the waters and baths. This year combined these with the Greville. After the first, right wrist felt softer, and showed signs of decrease in the wrinkled skin; pain much less. After the third could move fingers and wrist; can write and hold his book. He had altogether nine baths, and when he left volunteered the statement that his hands were better than they had been for years.

CASE VI.—M., aged 70. Enjoys perfect health, but for eighteen months has suffered from severe rheumatic pain in muscles above right elbow and in the joint itself; pain extends half-way up the arm. Has been treated thoroughly for it, and gone to several spas for douches and massage. After second Greville found considerable ease, and three more completely rid him of the pain. I saw him a fortnight ago, and he still felt all right.

CASE VII.—F., aged 31, delicate looking; gout very prevalent on father and mother's side; has no complaint except pains in both hands and feet. Pain in feet so great as to be unable to walk any distance; pain in hands incapacitates her from doing anything with them. There is no swelling in either hands or feet; occasionally the latter are reddish. Has been treated for gout during the last two years, but without benefit. She was sent to me by her doctor, in order to have a course of water and sulphur baths; these she had regularly for three months without change. I then tried the Greville, and she had six, temperature going up to 320°, without the slightest relief. I heard from her six weeks after she left, and she remains in the same condition.

CASE VIII.—F., aged 37; right shoulder swollen, painful; cannot extend arm at all, or raise hand to head, any attempt at either causing great suffering. This has been going on getting worse for the last three years, shoulder-joint measuring from above underneath armpit 1 inch larger than the left, and when you move the arm in any direction the scapula moves, shoulder is fixed; had gone through the usual course of treatment, including baths, galvanism, massage. After thirteen Grevilles, beginning at 300° and going up to 375°, the swelling gone. Can stretch out arm, raise it with ease to head, place it behind her back, and write for short time comfortably. I name this case whilst still under treatment, because it was pronounced incurable before she came to me.

The following cases are reported by Dr. James Myrtle:

CASE A.—M. E., aged 48. Sciatica, affecting the left leg. Had a full course of sulphur waters and baths before the Greville bath was introduced. He then stayed, and had three of them. During the six weeks he had been here he slowly improved in his walking power, and also had distinctly less pain. His was the first case in which the Greville bath was used. He saw me after his third bath, when I said, "Well, how are you?" He stooped down without flexing his knee, pretended to loose his boot, drew himself up, and said, "I have not been able to do that for seven years." I saw him six weeks after he left the place, and he told me the improvement still continued, and that had he any return he should go to London and have a few more baths.

CASE B.—T. B., aged 46. Case of acute double sciatica. This gentleman was introduced to me by Dr. Blasson, with the object of trying the Greville bath. At the time I saw him he was quite unable to get up from his chair without great effort. When up he was unable to move without crutches. He had been in this state for nine weeks. I ordered a bath, and saw him crawling with the aid of a friend and crutches down to it. When he left the bath he walked a distance of three-quarters of a mile to his hotel without the use of crutches or stick, and was able after that first bath to discard the use of his crutches, and after three or four more walked freely and well without a stick. He had a course of twenty-one baths, and walked daily five or six miles at a stretch with comfort, all his pain in both nerves having totally disappeared.

CASE C.—W. S., aged 42, consulted me as to the advisability of taking these baths on account of locomotor ataxia of three years' standing. When I first saw him he was unable to walk 150 yards without resting and with the aid of a stick, and could not go up any steps without the assistance of a rail or stick. He suffered markedly from diplopia. I advised him to come to Harrogate and try the effect of these baths. He had a course of twenty-four at the rate of four a week, and when he left the place was able to walk four miles at a stretch, and could mount the stairs of a three-storey building in comfort. His sight, also, had greatly improved. He told me that after his first bath he was able to put his hands behind his back and dip his head in a basin of water, a thing he had not been able to do for nearly three years. The improvement in this case still continues, although two months have elapsed since he took a bath.

CASE D.—E. G., a keen sportsman, aged 66, consulted me in September about a gouty stiffness in both his hands, the wrists, and joints of the fingers. I advised him to try the effect of the Greville bath. He had a course of six, and left with perfectly free movement in all the joints previously affected. This improvement, he told me at the end of last month, is still maintained.

CASE E.—Mrs. I., aged 55, suffering from chronic rheumatism, affecting the muscles of the calves, the knee, and ankle-joints. She had a full course of the sulphur water and baths, with marked improvement so far as muscular pain went, but the joints did not answer so readily to the sulphur bath as is usual in most cases. I therefore tried her with four of the Greville baths. The swelling and stiffness decreased rapidly with each bath, and she left the place, as she said, completely cured. The extraordinary relief from pain which all my patients have expressed after the first of these baths, and that this relief is maintained during the two or three days intervening between each bath, is to my mind one of its most remarkable features.

FILARIA DEMARQUAII IN ST. LUCIA, WEST INDIES.

BY OTHO GALGEY, M.R.C.P.I.,
Colonial Assistant Surgeon.

IN the BRITISH MEDICAL JOURNAL of December 25th, 1897, Dr. Manson draws the attention of the profession to the different varieties of the filaria sanguinis hominis found in the blood of man in tropical countries, and enumerates six embryo nematode worms discovered up to date. These are filaria nocturna, filaria diurna, filaria perstans (Africa), filaria Demarquaii (St. Vincent), and two possibly new filariæ recently met with in Demerara, which he grouped together under the provisional name, filaria Ozzardi (British Guiana). These minute worms present such different characteristics under the microscope that Dr. Manson and other authorities believe them to be distinct species.

Filaria Demarquaii is described in the same article, and Dr. Manson states that he found it only on blood slides sent to him by Dr. Newsam, of St. Vincent.[1] He failed to find it in blood forwarded to him from St. Kitts and Montserrat. Dr. Daniels, in his recent article in the *Journal of Tropical Medicine*, confirms this by saying: "I have not found the filaria Demarquaii in any of the West Indians (102 cases), including 6 from St. Vincent. These statements prove that F. Demarquaii is not universally distributed throughout the West Indies, and that not very much is known respecting it; in fact, the only literature on the subject which I have been able to discover are the articles above mentioned in the BRITISH MEDICAL JOURNAL, and a short reference to it in the *Manual of Tropical Diseases*, also by Dr. Manson.

The study of filariasis is exceedingly interesting and absorbing, and, therefore, the discovery of another habitat

where one of the new varieties of bloodworm is found to be prevalent will possibly prove of some interest to those engaged in the study of the geographical distribution and pathology of these nematodes.

Filaria Demarquaii is to be found in the blood of many natives of this island. I have several beautiful specimens of the worm. It is much smaller than filaria nocturna. The body is long and slender, with a sharp tapering tail. The head is blunt and on a few specimens I have noticed a small fine filiform projection, like the sharp tongue of a serpent. The appearance of filaria Demarquaii under the microscope is exceedingly graceful and attractive, contrasting favourably with the thicker and coarser filaria nocturna, at least of the West Indian variety. The size of F. Demarquaii varies in different individuals, and sometimes even on the same slide worms of several sizes are found. All have the characteristic sharp tail, but some are exceedingly long and slender, others medium-sized, and others again very tiny, approaching in size filaria Ozzardi (British Guiana), specimens of which were kindly forwarded to me by Dr. Daniels. From the difference in bulk observed in the sharp-tailed worm (which, after all, may be merely the result of different modes of preparation) I am inclined to believe that all are filaria Demarquaii: that is to say, that the filaria Demarquaii of St. Vincent, and that discovered by me in St. Lucia, and the sharp-tailed form of filaria Ozzardi (British Guiana) are identical. This is a point of extreme importance in the study of these interesting blood worms.

Filaria nocturna and filaria diurna observe a regular periodicity, one being present in the blood during the night only, and the other being found in day blood solely. Filaria Demarquaii has hitherto been supposed to be present in the peripheral blood both day and night, and therefore has no periodicity. Some of my slides tend to disprove this, as several taken in the afternoon contain no embryo worms, whereas those procured at night from the same individual show many specimens of filaria Demarquaii. Therefore, it is legitimate to conclude, F. Demarquaii observes an uncertain or occasional periodicity.

Filaria Demarquaii has no sheath, neither has filaria Ozzardi (British Guiana). This is an additional point of resemblance between the two.

Filaria nocturna is exceedingly rare in this island, and elephantiasis very uncommon. This is another link in the chain of evidence proving the dependence of elephantiasis on the presence of filaria nocturna in a locality. I shall, however, reserve my remarks on this subject for a future occasion.

Nothing is yet known as to the pathological *rôle* played by filaria Demarquaii.

The points I wish to lay stress on at present are the prevalence of filaria Demarquaii in certain parts of St. Lucia, and the close similarity that exists between filaria Demarquaii and the sharp-tailed form of filaria Ozzardi (British Guiana); so exactly do they resemble each other in every particular that I incline to the conclusion that they are one and the same species.

NOTE.

[1] Dr. Manson has subsequently found the same, or a similar, blood worm in a native of New Guinea.

A NOTE ON DRACUNCULUS MEDINENSIS.

BY MAJOR V. HARINGTON, I.M.S.,
Ulwur, Rajputana, India.

IN, I think, 1896, I saw a very interesting note in the BRITISH MEDICAL JOURNAL relating to the metamorphosis and embryo life of the dracunculus Medinensis, but there was one point in the letter I cannot help thinking is open to such doubt as to be misleading as a statement of proved fact. This point referred to the wonderful instinct of the immature parasite, which, on being taken into the system through the alimentary canal, enabled it to find its way to the various situations in the connective tissue of the body in which it is usually found as a full-grown and mature parasite. This matter has, I know, been much discussed, and I see that the late Dr. T. S. Cobbold, in Quain's *Dictionary of Medicine*, inclined to a similar view, that is, that the parasite was introduced into the body with the drinking water. At the same time my own experience, based on the study of a large number of individual cases, leads me to differ entirely from this opinion.

Some years ago I happened to be stationed in a part of the country where guinea-worm was prevalent, and in addition to other cases I took careful notes of some 200. These notes, I regret to say, have I fear been consumed, together with other papers, by those curses of India, the white ants, so I am unable now to give exact figures. Amongst these, in about 75 to 80 per cent., the parasite was found in the lower extremity and the greater number below the knee; the other 20 to 25 per cent. were in the following order of position—the back and waist and the upper extremity, and head, neck, and groin. With the exception of a few which had penetrated into the connective tissue between the larger muscles of the calf and thigh, none of them were deep-seated; in fact, portions of the majority of them could generally be detected lying beneath the skin by the finger. The percentage of cases in the lower extremity would have been larger had it not been for a couple of bhisties (water carriers), out of one of whom I removed no fewer than seventeen guinea-worms during one period of admission into hospital, all but three of them being on the back and loins along the line of contact of his mussuck (leather water-bag). One case of guinea-worm of the scalp and neck I traced to the fact of the man fetching water for his garden from a filthy pond and carrying it in a gurrah (earthenware pot) on his head, from which some of the water splashed over on to his head and neck. The case in the groin was interesting; it occurred in a sepoy who some months previously had been with some officers out shooting. One of the birds fell into a dirty tank only used for cattle and buffaloes, and known to be full of embryo guinea-worms. He went in up to the waist, wetting his dhoti or loin cloth, which he neglected to take off and dry. The result was a guinea worm in the superficial upper part of the groin; the wet dhoti evidently retaining this parasite, and giving it the time and opportunity for making its entrance through the pores of the skin. Those persons in whom the dracunculus was found in the lower and upper extremities were chiefly villagers, who were in the habit of taking their cattle down to water to stagnant ponds, in which they waded and sometimes washed (?) The cases of the bhisties were most marked, the line of contact of the mussuck with the bare back being the chief part attacked, and the few in the legs must have been caused by the entrance of the parasite while the men were standing in the water filling their mussucks. One of the men, it was discovered, had been in the habit of getting water from a stagnant pool near for garden and cattle watering purpose, which water was not used for drinking.

Physiologically speaking, I would ask a careful consideration of the anatomical conditions of the abdominal cavity. However great the instinct of the parasite may be, the difficulties she would have to encounter in order to find her way to the lower part of the leg would, one would consider, be anatomically almost insurmountable. How would she pass the powerful barriers between the abdomen and the thigh? and again those at the knee? Further, should she elect the upper extremity, the passage upwards past the thorax would be fraught with many almost insuperable obstructions, and it would be strange indeed if some did not fail by the way; yet I have heard of no cases in which a guinea worm has elected either from choice or force of circumstances to remain and bring forth her viviparous progeny in the cavities of either the abdomen or the thorax. All cases seem to point to the connective tissue somewhere in the neighbourhood of the skin as her favourite place of abode, and comparatively few cases are recorded in which deeper structures are selected, and even then it is only in the connective tissue between muscles. The structure of the muscles is seldom affected, and when that does occur, it is usually the result of the inflammation and suppuration set up by the presence of the worm or broken portions of it.

As far as my experience goes I hold to the opinion of Dr. Carter and others that the sexual maturity of the dracunculus is attained previous to its entrance into the human body, and that the female penetrates the skin through its pores when she gets the opportunity and develops in the connective tissue beneath it, giving no sign of her presence until near the full time of her gestation. In fact I am inclined to go still

further, and to doubt whether the young dracunculus, even if taken into the alimentary canal in drinking water, does, or could, come to maturity; but I am quite open to conviction on this latter point should any reliable proof or even good circumstantial evidence be brought forward in favour of the theory.

A PRINCIPLE OF TREATMENT OF INFECTED FOLLICLES OF THE SKIN.

By ALFRED EDDOWES, M.D., M.R.C.P.,
London.

For clinical purposes we may look upon the follicles of the skin, whether occupied by hair or not, as elastic tubes guarded by funnel-shaped valves, the latter opening downwards, and being composed of inverted horny substance, such as forms the outer layer of the epidermis. It is unnecessary to consider the minute anatomy of the various layers of the epidermis in the follicles, as they are not of essential importance with regard to the action of local remedies.

The satisfactory results which have followed the application of saturated—that is, 97 per cent. solution of pure carbolic acid, especially in such follicular diseases as acne and sycosis, led me to make observations with the view of determining the exact condition of a diseased follicle which responded most favourably to the employment of this powerful antiseptic. In the case of superficial vesicles and pustules such a severe remedy was obviously unnecessary, and in deep indurated acne, as might have been expected, the treatment proved to be useless or nearly so. The best condition seemed to be one indicating existence of inflammation, namely, a slight redness and tendency to bulge or "pout" at the mouth of the follicle. If the horny layer covering the mouth of a follicle in this condition be punctured a quantity of serum or pus escapes, which is too much to be accounted for by a mere emptying of the mouth of the follicle; it must come from the deeper parts of its canal; in other words, there must have been a hydraulic distension. It is at the time of the existence of this distension that we have our opportunity, I believe, for getting antiseptic remedies into the depths of the follicle by endosmosis. The wider the distension of the follicle and the thinner the contained fluid, the better must be our chance of doing so. That phenol penetrates quickly into such a distended follicle is readily proved. Apply a little, let it rest half a minute, wipe it off and prick the vesicle, when usually a quantity of fluid will escape of the colour of milk, showing that the serum has already partially coagulated. It is when effusion has taken place rapidly into a follicle, and while a back pressure exists, that we may expect our remedies to reach, even if only in small percentage, to the depth of the follicle, if the strain have caused the hopper-shaped or funnel-shaped valve to give way, and bulge in the form of a slack vesicle at the follicle's mouth, the previously distended tube has probably collapsed at its deeper part, and we have lost our chance for the time being.

In practice, therefore, our object will be excite reaction in the follicles by ointments, liniments, plasters, or even medicated poultices, and just at the moment when the effusion is most active, to seize the opportunity to apply such remedies as carbolic acid in small quantity and with due care, to the mouths of a reasonable number of infected follicles at a time. In follicular diseases presenting special difficulties due to the manner of invasion by the parasite, of which small-spored ringworm is a good exampre, there is perhaps no greater mistake than to apply daily irritating remedies which just fall short of bringing about a cure. They excite a chronic dermatitis, which increases the amount of dead epidermis, and thereby favours the growth and spread of the parasite. There was much wisdom in the old woman's application of remedies such as poultices, to "bring disease to a head" as she expressed it.

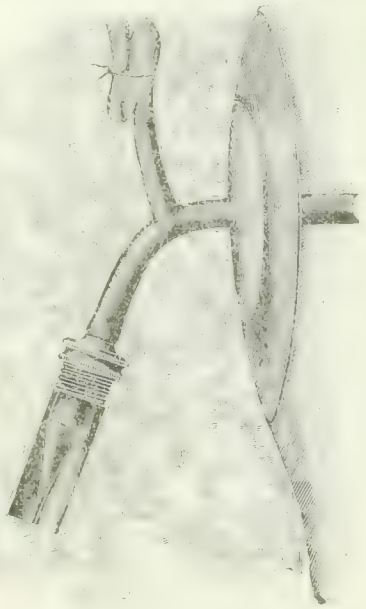
In conclusion, to make my view possibly clearer, let me compare a follicle to a tightly-corked bottle. Let us suppose that the cork is incompressible and represents the hair, and let us suppose that the neck of the bottle is composed of living tissue capable of blistering internally or throwing out effusion which will lift it from the surface of the cork; and that the sealing wax represents the inverted plug or horny layer. It is obvious that if the horny layer representing the seal can be penetrated—without being burst—by a strong parasiticide, the latter has the most favourable opportunity for diffusing itself through the serum, which is represented by the fluid between the neck of the bottle and cork. Just when Nature is sending serum and leucocytes through the floor and walls of our follicles, does it not seem reasonable that we should give our best remedies a chance of soaking through the roof?

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

VALVULAR DRAINAGE TUBES IN EMPYEMA.

WITH reference to Dr. Hutton's interesting article in the BRITISH MEDICAL JOURNAL of October 29th, 1898, on the treatment of empyema by means of a valvular drainage tube, I would wish to say that I have been using since 1895 a contrivance almost identical in principle, made for me in that year by Messrs. Arnold. Its form is shown in the accompanying figure. There is a branch which, when the tube is *in situ*,



is kept closed by a ligature. To wash the valve by a stream of hot boracic solution the branch is opened and the drainage tube is clamped between the branch and the chest. I found this necessary, as the valve tended to get fouled by dried purulent matter on its edges and was thereby rendered faulty. I used it first in March, 1895.

The case was one of acute right pleurisy, which was seen by Dr. F. Hulke, of Deal, in consultation with me several times. There was a marked tuberculous tendency in the family; and the effusion, which was excessive, and giving rise to great respiratory distress, rapidly became purulent, and, after paracentesis, very fœtid. The fœtor soon yielded to saturated solution of boric acid, with which I washed out the pleural cavity. There was a large accumulation of air in the pleura, partly due to the inefficient sealing of the flange in the first attempt, and partly to gaseous evolution from the decomposing pus. This was not driven out during expiration so happily as in Dr. Hutton's cases. In fact, I found it necessary to insert the finest needle of Dieulafoy's aspirator into the second interspace, and then pump out the air which had accumulated in the apex. This I did to the extent of six syringefuls at the time before the patient complained of a feeling of constriction of the chest. The patient made a very satisfactory recovery in every respect.

The point of greatest importance, which Dr. Hutton hardly emphasises sufficiently, is the necessity for the exclusion of air, or its removal if necessary, not only on antiseptic grounds, but on purely mechanical principles. In simple uncomplicated empyema this is the main factor in the continuance of

the inflammatory process, as the air which is sucked in through the intercostal opening during the first steps of the operation, as well as that gas which may be evolved during decomposition of the discharges, accumulates in the dome of the pleura at a level higher in all positions of the thorax—recumbent or sitting—than the opening for the tube, and is not driven out to any great extent during expiration, but compresses the lung before it. The presence of air in this position, even in small quantity, by keeping apart the inflamed surfaces, favours the continuance of the process of purulent exudation, and consequent fibrinous deposit on the lung. In such cases the three main points to be achieved are: (1) Efficient drainage; (2) exclusion of air; (3) effective preservation of negative pressure in the thorax during inspiration. All of these can be alone secured by means of a valvular drainage tube.

Ash, Dover. E. A. C. BAYLOR, M.D.Dub., B.Ch.

HYPERPYREXIA IN SUBACUTE RHEUMATIC FEVER.

ON October 3rd, 1898, at 3.30 A.M., I was sent for hurriedly to see a male patient, aged 32, who had been for sixteen days ill with subacute rheumatic fever. There was nothing remarkable about the case except that it was a third attack, and that he was very nervous as to his heart being affected, and had been very excitable in manner and speech within the previous few days.

When I saw him he was acutely maniacal, shouting, gesticulating wildly, throwing about the bedclothes, and with great difficulty kept in bed by two men. I was told that the pains in the joints had ceased in the afternoon, and sweating, before profuse, had stopped later. Thinking he was better he wanted to get up in the evening, but about 11 P.M. he became excited, gradually incoherent in talk, and about 1 A.M. delirious.

His temperature was found to be 106.4° F., the pulse 132. Immediately we began the use of cold by applying a number of towels half wrung out of cold water over the head and upper part of the spine. Soon there was a plentiful supply of ice available, and this was used to cool the water and also in pieces of waterproof to the spine and abdomen. All this time and till 6 A.M. the delirium continued, and it was extremely difficult to get the applications kept on, as he struggled wildly against the two men holding him down in bed. He fell quiet about 6 A.M. The temperature, taken half-hourly, kept rising to 107.4° F.

At 6.30 A.M. I gave him 10 gr. of antipyrin, and this dose was repeated every half-hour for nine doses.

At 6.30 A.M. his nose began to bleed copiously, and this kept on less or more till 4 A.M. next morning (that is, October 4th). When the blood clotted itself, or was made to do so by turpentine, he at once blew the clot from the nostrils because he could not breathe by the mouth.

At 8 A.M. the district nurse came and brought an icebag and some waterproof. We now got the icebag applied to his head and waterproof cloths with ice over the spine and abdomen, and kept them on till 11 A.M., when his temperature was 106.4° F. It had thus risen and fallen 1° F. during the seven and a half hours.

I left at 11 A.M. and came back at 12.15, and on taking his temperature was agreeably surprised to find it 101.4° F. It kept from 101.4° F. to 102° F. till October 10th, when it fell to normal, and convalescence thenceforward was uninterrupted.

Anstruther. ROBERT T. FERGUSON, M.D.

PERSISTENCE OF BRANCHIAL CLEFTS.

IN December, 1898, I was consulted by Miss M. C., suffering from chlorosis. In the course of examination my attention was called to two small wart-like projections, situated one on either side of the neck, and about half-an-inch in a direct line above the sterno-clavicular joints. These proved to be two small fistulæ, from which quite a quantity of mucus was secreted. I was informed that they had been present from birth, and that they always discharged in damp weather, and also when cold water was used for washing. At other times they were dry. The curious feature of the case is that the condition is eminently a family one. Four members of the family in three generations, and all females, have presented the same symptoms (all congenital), as thus:

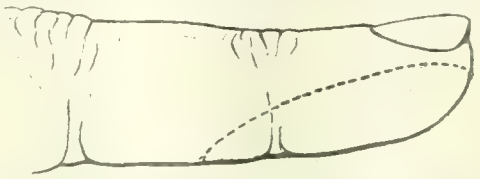
Mrs. M. P., grandmother. One fistula, right side of neck.
Miss M. C., granddaughter. Two fistulæ, as above.
Miss A. C., granddaughter. One fistula, left side of neck.
Miss F., great granddaughter. One fistula, left side of neck.

I did not probe to see whether there was an internal opening.

ALFRED ELLIS VAUGHAN, L.R.C.P.E., L.R.C.S.E., etc.
Crewe.

MINOR CONSERVATIVE SURGERY.

E. T., aged 23, came to me on the evening of October 7th, 1898, having twenty minutes previously, with a sharp clean knife, cut off the palmar surface of the middle finger of the left hand, from a point ½ inch above the last joint down to the edge of the nail on either side, as indicated by the dotted line. He picked up the piece and replaced it, binding it with a clean piece of rag. Thinking I might save the part by



means of even coaptation and warmth, I introduced two aseptic silk sutures to steady the piece, applied even pressure, and dressed the wound with iodoform and blue wool. Sensation was lost for seventeen days, and there was a good deal of ecchymosis; but as this became absorbed sensation gradually returned, and the finger in five weeks presented a nearly normal appearance, which has since become quite normal. No pus whatever formed, and no pain was felt after the first three days.

Woolacombe, North Devon. RICHARD CRESSWELL.

OPERATION FOR ELEPHANTIASIS OF THE VULVA.

DR. WILLIAM RENNER, in the BRITISH MEDICAL JOURNAL of September 4th, 1898, gives notes of a case of elephantiasis of the vulva weighing 6 lb. 10 oz. Manson (*Tropical Diseases*) states that elephantiasis of the labia or of the clitoris "may attain a great size, 8 lb. or 10 lb., or even more." I have removed—in the Civil Hospital, Bijapur—an elephantiasis of the vulva that must have weighed quite 5 lb. or 6 lb. (I unfortunately have no record of the exact weight).

Dr. Renner makes no note of how he controlled hæmorrhage during the operation. Perhaps in his case, as only one side of the vulva was affected, he found no difficulty in surrounding the base of the tumour with a rubber band. In the case I refer to, however, the whole margin of the vulva was affected, and it was found impossible to adjust any compressor or rubber band. I therefore had recourse to an expedient which I found very satisfactory, not only in controlling the hæmorrhage, but in enabling me to get closer to the pubes than if there had been a rubber band compressing the base of the tumour.

In the first place the tumour was kept elevated for some time beforehand. Then a stout rubber drainage tube was applied as tightly as possible to the base of the tumour. The first incision showed this to be quite ineffectual, the wound bleeding to an alarming extent from vessels on both the proximal and distal sides. It seemed that unless some other means of controlling the hæmorrhage could be adopted the operation would have to be abandoned. The plan adopted was as follows: The hæmorrhage from the wound was stopped by forceps and pressure; the rubber band was removed, and the isthmus of the tumour, which though wide was not thick, was sutured from side to side, each suture interlocking with the one before. The sutures were passed by means of a stout-handled needle, and the strongest silk was used. A space of about half an inch was left between them and the pubic arch. The ligatures were pulled as tight as possible so as to strangle the parts encircled by them. Then the isthmus between this row of ligatures and the pubic arch was incised bit by bit, the vessels on the proximal side being secured as I went along. The distal vessels did not bleed. The whole tumour was thus removed with very little hæmorrhage, and, finally, the vagina was sutured to the skin. The operation was performed on July 9th, 1897, and the patient was discharged soundly healed

on August 1st, 1897. It was impossible to identify the clitoris, and it was removed somewhere embedded in the tumour. The patient was nominally a coolie, really a prostitute, Hindu by caste, aged 25 years. The tumour had been in existence five years. The following advantages may be claimed for this plan of suturing the isthmus:

1. Perfect control of the hæmorrhage. The vessels on the proximal side only of the wound bleed, and never more than two or three of these need be cut at the same time.

2. As the incision is closer to the trunk than if a rubber compressor were used, there are fewer vessels to tie.

3. The tumour can be more thoroughly removed, and the edges of vagina and skin are left exactly right for suturing to one another.

Poona. J. B. SMITH, M.B., Capt. I.M.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF SEVERE HÆMORRHAGIC DIPHTHERIA, WITH MARKED MEMBRANOUS DEVELOPMENT.

(By H. BATTY SHAW, M.D., M.R.C.P., Resident Medical Officer, late Assistant to the Professor of Pathology, University College.)

A. F., a well-nourished girl, aged 9 years, was admitted on November 16th, 1897, suffering from difficult breathing and a swollen neck.

History.—Two years previous to admission she had had throat trouble, and five weeks before admission her tonsils were enlarged, and removal of them had been advised. On November 12th she complained of sore throat and was sick; towards the evening her condition was worse, and she began to feel ill. On November 14th the pain in the throat had increased, and there was some sanious discharge from the nose. The right side of the neck was swollen, and breathing became difficult and was performed through the nostrils only. On November 15th, at 9 A.M., she was seen by Dr. P. J. Edmunds. The breathing was largely nasal. On the right side of the neck was a large boggy swelling in the neighbourhood of the angle of the jaw; the mouth could be opened for only ½ inch. The right tonsil was greatly enlarged, and blocked the faucial aperture, and the mucous membrane covering it looked bright pink. No membrane could be seen anywhere; the appearance was so like that of quinsy that the mass was promptly incised, but no pus escaped. On November 16th the appearance of the mouth had entirely changed, and a sloughy-looking deposit was seen covering the roof of the mouth, and even reaching the right upper gum. The mucous membrane showed a pinkish edge running round the margin of the deposit. The patient looked very ill, and was breathing with great difficulty. She was then brought to the hospital.

Condition on Admission.—She looked extremely ill, had headache and marked recession of the chest. The boggy mass at the side of the neck obscured the outline of the jaw, and reached from the mastoid process to the neck in front; there was sanious discharge from the nose. The mouth was held open with difficulty; it was quite impossible to define the faucial aperture, even with excessive downward pressure of the tongue. The space was occupied instead by a blackish-green sloughy mass which entirely obscured the soft palate, and crept along the hard palate, though not adherent to it, as a pointed structure, looking very like the tongue of a bird as it lies on the roof of the mouth. The mass rested close upon the tongue so that neither uvula, tonsils, nor pharynx could be seen. Laryngotomy was performed, and antitoxin was administered. Recovery from the anæsthesia was slow, but satisfactory. The patient, however, died from heart failure eight or nine hours after the relief of the obstruction.

REMARKS.

I am indebted to Dr. Ringer for permission to publish the notes of the above case, and to Dr. Edmunds for the report of the case before the child came under hospital treatment. The case is interesting from the likeness it bore in the earlier stages to an ordinary severe quinsy. At the necropsy the peculiar appearance in the mouth was found to be due to the presence of a very thick diphtherial membrane, which, as mentioned above, was closely adherent to the soft palate, but merely overlay the mucous membrane of the hard palate without being attached to it, as shown in the accompanying sketch. The membrane was present also on the pharyngeal wall and on the laryngeal mucous membrane as far as the vocal cords; the trachea was quite free from it. The great feature in the *post-mortem* appearance was the remarkable thickening of the soft palate due both to œdema of the tissues and to the existence of the diphtherial membrane; its thickness was as much as two-thirds of an inch. The membrane extended over the uvula, and repeating its form gave the appearance of two uvulæ, one placed above the other (see sketch). It was impossible to define the muscular

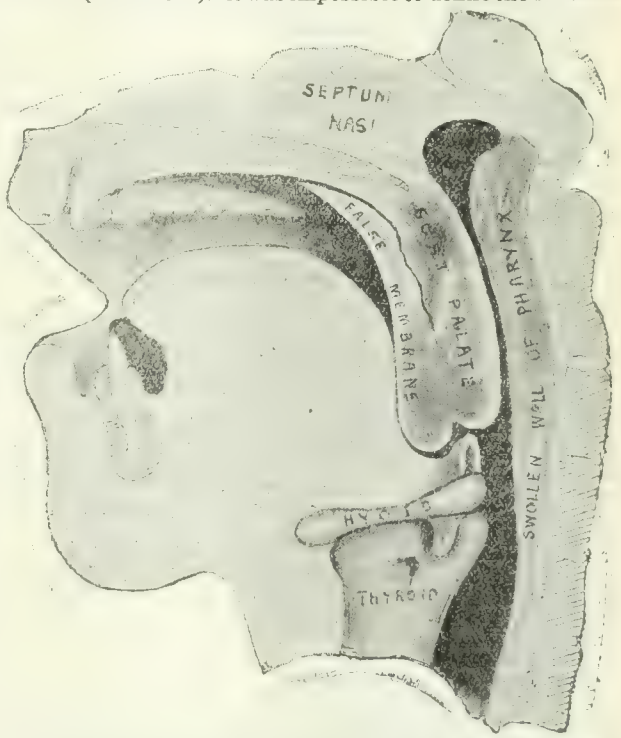


Fig. 1.—Vertical section of mouth as far as the hyoid bone showing the enormously thickened soft palate and pharyngeal wall.

structure of the soft palate macroscopically, the membrane and soft palate being quite continuous, though a line of separation could be seen in the upper part; the dark areas did not correspond to muscle substance, but to areas of extravasated blood.

The pharyngeal wall was greatly thickened in part owing to membranous deposit, in part to extravasated blood. The epiglottis and aryteno-epiglottidean folds were swollen.

During the operation there was some difficulty in separating and defining the infrahyoid muscles, as they seemed to be injected with blood. Sections were made of the muscles, and the muscle fibres were widely separated by blood, which had in places torn the muscle fibres across. Opposite the right tonsil was a large lymphatic gland, which was also stained darkly by escaped blood.

Bacteriology.—A film taken directly from the throat and stained by Gram's method showed large and small staphylococci, streptococci, and bacilli of two kinds, one short and stout and uniformly stained, the other less uniformly stained, more slender, and with the appearance of two spores, one at either end. A thirty-six hours' growth on agar stained in the same way showed almost a pure growth of bacilli, which had the arrangement so common with the Klebs-Loeffler bacillus, and they were irregularly stained and in some cases showed a

tendency to clubbing. The same tube was examined after five days' cultivation, and then a staphylococcus had overgrown the diphtheria bacillus, only a few of the latter being found, and then very degenerate in form. Complete microscopic sections were made of the soft palate and its attached membrane. Very large pockets of staphylococcic and streptococcic growth were found on the surface of the membrane, some were even found in the depths of the tissue. Large colonies of diphtheria bacilli were also found in other spots, but none were demonstrable in the deeper part of the section, nor were any found in the gland above mentioned, in the muscles which were the seat of such extensive hæmorrhage, or in the kidney.

GLASGOW ROYAL INFIRMARY.

TRAUMATIC SEPARATION OF THE COSTAL EPIPHYSES.

(By JAMES BATTERSBY, M.R.C.S.Eng., L.R.C.P.Lond., etc., Senior Demonstrator of Anatomy, St. Mungo's College, Glasgow; late House-Surgeon to the Infirmary.)

THE case, particulars of which are here related, was admitted under the care of Mr. H. E. Clark, Senior Surgeon to the Infirmary, who has kindly allowed me to report it. Its special interest lies in the fact that on *post-mortem* examination a separation of the epiphyses of the heads of four ribs was found—a form of epiphysial separation which, according to Mr. Poland in his recent work on *Traumatic Separation of Epiphyses* (page 880), has not been recorded.

On the morning of November 3rd, 1898, the patient, a lad aged 14, while at work in a coal mine in the vicinity of Glasgow, was buried under a fall of coal from the roof. On admission, three hours later, he was found to have sustained a compound fracture of the left leg, numerous bruises of the trunk and right arm and leg. His general condition was indicative of internal hæmorrhage. On further examination, a large hæmatoma was found in the right loin, extending from the lowest rib to the iliac crest; a catheter was easily passed, drawing off clear urine.

Mr. Clark saw the patient, and was of opinion that the right kidney had probably been ruptured; the patient, however, was too much collapsed to permit of any operative interference. Transfusion of saline solution was performed without any benefit, and the patient gradually sank and died seven hours after the accident.

At the *post-mortem* examination no rupture of any internal organ was found. I carefully examined the vessels entering the right kidney, and found them intact. No injury to the large abdominal vessels was discovered. A large retro-peritoneal blood extravasation, infiltrating the lumbar muscles and fasciæ, was present. A solution of continuity of the four lowest ribs of the right side was found, which at first sight looked like fracture. The closeness of the lesions to the bodies of the vertebræ suggested further investigation, when I found that the heads of these ribs had been torn off along the epiphysial line. The separated epiphyses were entirely cartilaginous, ossification not usually commencing in this situation until after puberty. One of the ribs, which I have retained, has been seen by Mr. Clark, who agrees with me regarding the separation. The right lumbar transverse processes were broken off about midway between the base and the tip.

It would seem that the hæmorrhage had proceeded from a laceration of the lumbar and ascending lumbar veins. The latter vein normally passes upwards in front of the transverse processes of the lumbar vertebræ, that is, in the line of fracture running across these transverse processes.

It is to be noted that in regard to history, symptoms, and physical signs, this case simulated one of ruptured kidney.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A discussion on The Treatment—Medical and Surgical—of Acute Inflammation of the Vermiform Appendix will take place at the meeting of the Society on Friday, February 3rd, at 8.15 P.M., in the Society's rooms at the West London Hospital, Hammersmith, W. The discussion will be opened by Dr. Seymour Taylor and Mr. McAdam Eccles, and among others the following have promised to take part: Dr. Donald Hood, Mr. C. B. Keetley, Dr. Stanley Smith, Mr. L. A. Bidwell, Dr. H. A. Caley. Any medical man is invited to attend as a visitor if not already a member of the Society.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. PAYNE, M.D., President, in the Chair.

Tuesday, January 17th, 1899.

SEQUEL TO A CASE OF PAPILLIFEROUS CARCINOMA OF THE THYROID GLAND.

MR. A. E. BARKER recounted the sequel of a case which he had already recorded in the Society's *Transactions*. The history extended over the length of eighteen years. It afforded an illustration of Virchow's dictum that the more complex a tumour was in structure the less malignant its course. The history as far as 1896 had already been recorded, and was noteworthy in the succession of recurrences which ensued in the cervical glands, these being treated by a series of operations. In January, 1897, a further recurrence took place above the manubrial notch leading to compression of the trachea. This growth, which was markedly cystic, was excised, but only partially, in consequence of its close connection with the larynx; nevertheless, the wound healed by first intention. A recurrence in the posterior triangle was subsequently removed. The patient remained well until August of 1898, when an extensive hæmatoma formed in the left side of the neck; this occasioned death from apnœa. The source of the hæmorrhage was probably some of the villi or intracystic processes left behind in the partial removal of the tumour about the larynx.

Mr. J. BERRY observed that in its duration this case was unique, though Wölffler had recorded some of a similar nature, and one or two had since then been noticed in foreign literature. The ordinary carcinoma of the thyroid ran its course in a few weeks, or within a year and a-half, although the speaker knew of a case extending to two and a-half years, and Sir Felix Semon had seen one extend to three. One difficulty attaching to operations in malignant disease of the thyroid was adhesion of the parts to the pharynx, a condition not admitting of diagnosis, and only discoverable upon operation. He inquired of Mr. Barker what the relation of the sterno-mastoid was to the tumour, as well as that of the carotid artery; if the artery be found displaced over a thyroidal enlargement the latter was probably benign in character. The absence of any affection of the recurrent laryngeal nerve was noteworthy.

Mr. S. G. SHATTOCK referred to a case of Mr. Bryant's which furnished an exception to the statements which commonly held true that the more highly differentiated a tumour the less malignant course it ran, and that the usual duration of thyroidal carcinoma lay within one year and a-half. The primary tumour was removed from the vicinity of the thyroid, to the right lobe of which it was attached, in May, 1896; recurrences had been removed on three occasions, the last in April, 1898, since when the patient has been quite free. Histologically, nevertheless, the recurrences in the glands were of the spheroidal-celled kind, without lumen or colloid. As contrasted with this, thyroidal carcinoma which presented the proper thyroidal structure and secreted colloid, might become widely disseminated and retain the same highly differentiated structure in the metastases.

Mr. BARKER, in reply, stated that the primary tumour, which eventually occupied the whole side of the neck, arose in front of the sternal origin of the sterno-mastoid muscle, which was incorporated with it, though this incorporation might have been inflammatory. The carotid artery lay directly under the growth. There was a certain degree of hoarseness and weakness of the voice, possibly due to involvement of the recurrent laryngeal nerve; that the sympathetic cord was involved appeared from the greatly increased pulse-rate.

FIBROMA MOLLUSCUM OF THE SKIN AND BRACHIAL PLEXUS.

Mr. T. CARWARDINE exhibited lantern slides of the above case, which concerned a man aged 25. The cutaneous tumours were congenital; they were, moreover, hereditary, the patient's mother and her father, as well as other members of the family, being similarly affected. Beside the large number on the skin, there was a considerable swelling above the clavicle; this was exposed by operation, when it was

found to be connected with the outer cord of the brachial plexus, from which it was enucleated.

The President had recorded a somewhat similar case, in which the axillary tumours on the nerves closely simulated enlarged lymphatic glands. Recklinghausen had held that the cutaneous tumours arose in connection with cutaneous nerves, but this was not always the case. Both nervous system and epidermal appendages were of epiblastic source, and the growth of such tumours about the nerves and about the sweat glands or hair follicles was a growth in the connective tissue of homologous structures. In his case intense neuralgia was present.

Mr. S. G. Shattock had adverted to the possibility of such tumours on the nerves arising in the end organs of the nervi nervorum, which had first been observed by Mr. Victor Horsley; this he had negatived in so far that the smallest of such tumours were devoid of the lamellar structure which was so characteristic a feature in the end organs.

Crushing Fracture of the Cervical Spine.

Dr. H. P. Potter exhibited the spine of a man, aged 82, who was struck on the occiput in the fall of a high brick wall twenty years before his death, which occurred from senile decay. After the accident he remained unconscious for two hours; fixed apparatus was adopted, and he completely recovered, though a temporary partial hemiplegia of the right side ensued. The cervical spine was markedly curved with convexity backwards, and the finger introduced into the mouth failed to reach the back of the pharynx. After death the vertebræ involved in the crush were found firmly ankylosed by bone; the vertebral canal, though unnaturally curved, was not encroached upon, and the cord was uninvolved.

Cystic Suprarenal Bodies.

Dr. R. Crawfurd showed the left adrenal of an old woman, in whom there were no symptoms arising from suprarenal disease. The organ was almost replaced by a cyst full of turbid fluid without hooklets. The cyst had arisen, by degeneration, in a solid tumour of the adrenal; the structure of the growth was that of an adenoma, which possibly itself arose in an accessory gland. Hydatid and blood cysts were known, but those of the kind shown by the author were less common.

Dr. H. D. Rolleston showed sections of a cyst the size of a cherry on the right adrenal body. The contents were tenacious. Microscopically the walls of the cyst were composed of well-formed fibrous tissue; on the inner surface of this fibrous capsule there were a few epithelial cells like those of the adrenal body. The cyst was probably due to the softening and liquefaction of an adrenal adenoma. Adrenal adenomata composed of the cells of the organ in a state of advanced fatty change and derived from the cortex were not uncommon, and these sometimes underwent softening. They were surrounded with a fibrous capsule such as was seen in the specimen in question.

Tuberculous Cholangitis.

Dr. Morley Fletcher reported the case of a child 6 years of age who died of general tuberculosis; no jaundice was present. At the necropsy the intestine was found ulcerated; the liver weighed 23 ozs. Miliary tubercles were present in the substance of the liver and beneath the capsule. Scattered, moreover, through the organ were small cavities the size of peas filled with bile-stained material. The author took the following view of the lesions: a recent infection with tubercle bacilli had occurred by way of the hepatic artery; a previous infection had arisen by way of the portal vein from the intestinal lesions, the tubercles being in the portal spaces; the tubercles in the latter situations had led to infection and perforation of the bile ducts, the perforation being followed by a wider dissemination of the infection to the other biliary passages.

Multilocular Tumour from the Inguinal Region in a Female.

Mr. H. Betham Robinson exhibited a hernial sac which he had removed in the radical cure from a woman aged 23. When the sac was emptied during life it was noticed to be unusually thick, and this was found due to the presence of many small cysts in its wall; these were filled with a brownish fluid. The author suggested a source in remains of the Wolffian body, but thought the question a very obscure one.

Card Specimens.

Mr. C. F. Beadles: (1) Carcinoma and Fibrosis of Pancreas with fat necrosis; (2) Healed Perforation of Duodenum after passage of gall stone.—Mr. T. Carwardine: (1) Rectal Papilloma spontaneously discharged; (2) Enucleated Prostatic Myoma associated with vesical calculus.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Friday, January 13th, 1899.

Clinical Evening.

Localised Myositis Ossificans following Injury.

Mr. J. Hutchinson, jun., showed a woman, aged 35, who dislocated her elbow in 1890. Six weeks later there was bony thickening in front of the elbow beneath the brachial artery, in the brachialis anticus muscle, checking flexion and limiting pronation. A skiagraph showed that the humerus was free, and that the swelling was not due to displacement of the coronoid process.

Mr. Eve showed a large irregular bony plate removed from the vastus muscle following a kick by a horse on the thigh, attended by extensive hæmatoma. A skiagraph showed osseous growth separated by an interval from the femur. On cutting down a mass of true bone, not an ossifying sarcoma, was found. He thought it was an example of ossification in fibrous tissue from organised blood clot.

Enlarged Spleen with Thrill and Bruit.

Dr. Crawfurd exhibited a man with a typical filarial history extending over fifteen years under observation for eighteen months. At times a persistent thrill could be felt round about the umbilicus, which was intensified by pressure, the maximum point being just inside the spleen border, with a continuous venous hum over the spleen extending into the epigastrium. He discussed the various possible explanations of these phenomena.

Anterior Displacement of Tuberculous Carpus.

Mr. H. J. Curtis showed a young woman with anterior displacement of the carpus consequent upon tuberculous disease dating from 1895, the radius being most affected. The result was the formation of a false joint. Skiagraphs and stereoscopic photographs of the case were shown by Mr. Mackenzie Davidson.

Pemphigus of the Mouth, Pharynx, Larynx, and Skin.

Dr. J. S. Richards showed a man, aged 62, with a bullous eruption of the mouth, pharynx, larynx, and skin. A remarkable feature was that it had originated in the larynx, and had remained limited to that region for six months before attacking the skin. It began with a "roughness" in the throat, with cough and dysphagia, and he expectorated mucus tinged with blood. The mucous membrane presented numerous red patches which readily bled on being touched. After improving, a recrudescence took place in September.

Sir Felix Semon recalled a case which he had seen many years ago which illustrated the difficulty of diagnosis in these cases when the eruption did not extend to the skin. As the patient had a specific history it was thought to be due to syphilitic disease, but antisyphilitic treatment produced no effect. The conjunctivæ then became involved, with ultimate loss of sight in both eyes.

Progressive Muscular Atrophy after Measles.

Dr. Batten showed a case of progressive atrophy of the peroneal type after measles in a boy, aged 7. Three months after recovery from measles, which was followed by bronchitis and pneumonia, his mother noticed that he dragged his left foot in walking, and a few months later the right became similarly affected. The weakness had been progressive. Six months ago he began to lose power in the hands. There was no hereditary history. There was marked wasting of the muscles of both legs below the knee. He was unable to extend or dorsiflex the foot, which tended to assume the position of equino-varus in walking; he raised the legs high

to prevent the toes dragging on the ground. The knee-jerks were present and equal. The recto-vesical functions were normal. There was marked wasting of the thenar, hypothenar, and interossei muscles. Sensation was normal; no fibrillary tremor. Electrical reactions under chloroform showed complete absence of response to faradism in all the affected muscles with diminished reaction to galvanism. Reference was made to other recorded cases of the kind in which changes had been found in the peripheral nerves and in the postero-median columns of the cord.

Dr. ORMEROD mentioned other cases of the kind occurring after measles, observing that, as the disease was a rare one, it was unlikely that the sequence was a mere coincidence.

COMPLETE HYPOSPADIAS WITH CLEFT SCROTUM.

Mr. KELLOCK showed two cases of complete hypospadias with cleft scrotum. The family consisted of seven other children, most of them males, two being daughters, all normal. The elder of the two patients was 6½ years old. The labour was attended by a midwife, who remarked that the genitals were much swollen. The patient was thought to be a girl and christened as such. Six months later, however, a testicle was noticed in the right labium. After miscarriage the mother had another child four years later, who also presented something abnormal about the genitals. This child was christened as a girl and was being brought up as such. There was a fairly well-marked penis. The under surface was marked by a groove lined by mucous membrane. The scrotum in both cases was divided. The perineum in both was well formed and strong. *Per rectum* nothing like a uterus could be detected. He remarked that the diagnosis of sex in the younger child would have been difficult had they not the older child as a guide. The pseudo-labia were evidently composed of dartos, as evidenced by its contractility to cold, etc. Both the children had perfect control over the bladder. The mother attributed the deformity to her strong desire each time she was pregnant to have a female child.

The PRESIDENT, Mr. GODLEE, Mr. ROBINSON, and Mr. MORGAN mentioned other cases of the kind, Mr. Robinson's cases being females and exhibiting marked precocity in sexual development.

PROGRESSIVE MUSCULAR ATROPHY OF UNUSUAL DISTRIBUTION.

Dr. PERKINS showed a man, aged 48, who had malaria sixteen years ago in America. Seven years ago he had a bad fall, and four years ago he noticed a sensation of coldness with alternations of heat around the loin, followed by gradually increased weakness in the legs. There was occasional incontinence of urine. No history of lead or syphilis could be ascertained. The case was unusual, in that atrophy affected the trunk muscles more than the limbs. He also showed a boy, aged 16, in whom the disease was either congenital or so early that onset was not marked. He presented general muscular atrophy. There was no change in electrical reactions; the knee-jerks were active.

SHORTENING AND EVERSION OF THE THIGH.

Mr. GODLEE, who showed these cases, said his object was not to suggest that there was not such a disease as coxa vara, but only to show that the conditions described as associated therewith might be dependent upon entirely different conditions. He confessed that he did not know what was meant by coxa vara. Case I.—Boy, aged 6; the symptoms began a few months ago; the family history was possibly suggestive of tuberculosis. There never had been any pain or trouble; but there was one inch shortening of the femur with rotation of the foot outwards. Skiagraphs showed the shortening to be in the neck of the bone. Movements at the hip were very free Case II.—Boy, aged 18, with one inch shortening and eversion, but hip almost completely ankylosed. There was a tuberculous family history. The trouble began after a blow, but there never had been any pain. Case III (not shown).—Man, aged 23; conditions as above. The skiagraph showed no mischief in the head of the bone; but the neck was almost at a right angle with the shaft. The shadow cast in the Roentgen ray by the diseased hip was not so dark as that produced by the normal hip.

Mr. RAYMOND JOHNSON objected to coxa vara being described as a disease instead of as a deformity.

SCIRRHOUS CARCINOMA OF THE PAROTID GLAND.

Mr. H. B. ROBINSON exhibited a man, aged 65, under his care at St. Thomas's Hospital. The tumour was first noticed some six months ago, but the man had not sought advice owing to the absence of pain. The tumour was in the right parotid region, and extended from the zygoma above to below the lower normal limit of the gland, pressing backwards on the external auditory meatus, and extending forwards on the masseter, as a nodular projection with a well-defined anterior margin situated in the socia parotidis. The tumour extended deeply behind the jaw, but did not interfere with the movement of the latter; there was slight bulging into the pharynx on the right side, and the growth possibly reached into the zygomatic fossa, and had involved the upper jaw, for by transillumination there was only a very faint crescent of light on the right side below the eye. The glands in the neck were extensively involved as far as the supraclavicular region. There were no secondary growths.

PSEUDO-HYPERTROPHIC PARALYSIS.

Dr. VOELCKER showed a boy, aged 5, who was at first thought to be suffering from pseudo-hypertrophic paralysis, but subsequent observation in hospital had led him to doubt the correctness of the diagnosis. When 11 months old the child had scarlet fever, and at 2 years bronchitis and convulsions. He never walked. On rising from the ground he did so in the pseudo-hypertrophic way. The only enlarged muscle was the triceps. The back was very arched, and there was a great tendency to fall backwards. The knee-jerks were present and the ankle-jerk brisk. He thought it might be a case of cerebral sclerosis.

ELEPHANTIASIS OF ONE LEG.

Sir DYCE DUCKWORTH showed a girl, aged 20, a native of Yorkshire, in whom transient attacks of swelling of the left leg, commencing three years ago, had been followed by permanent enlargement. The limb up to the groin was enlarged, hard, brawny, and cold, and did not pit on pressure. She had been under treatment for ten weeks. Massage, electricity, and a liberal dietary had effected marked improvement, but the circumference of the limb was still markedly in excess of that of the other. As to its causation she had never before been out of Yorkshire, the blood was about normal, and no filaria had ever been discovered. There was no evidence of visceral disease, and no signs of venous stasis, lymphatic involvement, or enlarged glands.

Dr. TOOGOOD mentioned two cases which he had seen, also in anæmic girls; both completely recovered under treatment by ferruginous remedies and good hygienic measures.

MULTIPLE EPITHELIOMA OF SCALP FOLLOWING UPON LUPUS ERYTHEMATOSUS.

Dr. PRINGLE showed a woman, aged 45, suffering from this condition, which first appeared in 1887. She had been under treatment since 1890. The growth over the right occipito-parietal suture had been removed by Mr. Pearce Gould, and the site afterwards treated with skin grafts. The cicatrix was now quite healthy, but the disease had lately recurred in the adjoining occipital region. Dr. Pringle mentioned that this was the second recorded case in which epithelioma had succeeded lupus erythematosus.

HARVEIAN SOCIETY OF LONDON.

ROBERT BOXALL, M.D., in the Chair.

Thursday, January 5th, 1899.

ADHESIONS AND THEIR CONSEQUENCES.

MR. HOWARD MARSH read a paper on the subsequent history of cases in which adhesions had formed in the joints, the peritoneum, the pleura, and other parts. He remarked that adhesions were identical with the new connective tissue formed to repair wounds; and were apt to result under various circumstances when the tissues were maintained in a condition of irritation. Their extent and firmness depended on the activity and duration of the inflammatory process in which the parts concerned were involved. One of the chief laws regulating the production of new tissue in the healing of wounds was that of conformity to type. In other words, new material served the purpose of, as far as possible, restoring structures to their typical or original state. To this end, in an aseptic

wound, only just as much as was required was produced. But when the tissues were maintained in a condition of inflammation new material was organised in superfluous amount, and, in such parts as the joints and the peritoneum, accumulated in the form of adhesions. Such adhesions, however, played no part in the restoration of the structures to their typical condition. On the contrary, they were abnormal; and while they remained, true or complete repair—that is, restitution to type—could not take place. Before repair could be perfect they must be got rid of, just as the superfluous callus (termed temporary) formed in the repair of a fracture was removed. Now this result was provided for. Undoubtedly adhesions, if not too extensive and firm, tended to be absorbed. This result, though often met with in the joints, was most obvious in the peritoneum. Many cases had been met with in which, after pelvic cellulitis or tuberculous peritonitis, extensive adhesions completely disappeared. A typical case was related. A middle-aged woman, after peri-uterine inflammation, suffered so much pain and flatulent distension, accompanied by attacks of constipation and vomiting, that an exploratory laparotomy was performed, when it was found that the intestinal coils were so extensively and firmly matted together that nothing could be done. The patient, however, gradually improved. Two years later laparotomy was undertaken for the removal of an ovarian cyst. It was then observed that almost every trace of adhesions had disappeared. The existence of this strong natural tendency to the absorption of adhesions—like the absorption of temporary callus—was a very important fact in respect both to prognosis and the management of clinical cases. It was, indeed, the key to the treatment of many joints whose movements were restricted by adhesions, either in their interior, or in the surrounding parts. In this connection cases must be systematically divided into three groups in the order of their severity. In the first group, where adhesions were the result of inflammation, neither severe or prolonged, such adhesions as were developed soon spontaneously disappeared, and the joint regained its free range of movement. In the second, in which inflammation had been more severe and prolonged, the adhesions were so extensive and firm that, unless surgical interference was adopted, they remained and rendered the joint permanently stiff. Here it was necessary to manipulate the joint under an anæsthetic, so that the adhesions were ruptured, and to follow this proceeding up by the use of passive movements and massage. Under this method of treatment absorption would occur. The third group included cases in which, as the result of acute inflammation extending over some weeks, the structures of the joint had been destroyed, and replaced by very extensive and firm adhesions, so that the joint was virtually converted into a scar. In such cases manipulation could do no good. The scar might of course be torn through, but the only result would be that, as soon as the scar reformed, the loss of movement would be more complete than ever. In practice, before treatment could be determined upon, it was obviously necessary to ascertain to which group the particular case in hand belonged. This could generally be done by taking into account the cause of the inflammation in which the joint had been involved, the degree and duration of the inflammatory process, and the present symptoms. In cases of traumatic inflammation not severe and not of long duration, and now unattended with heat and pain, movement would probably be restored as soon as the joint was gently exercised. In Group II the same favourable result would follow manipulation, massage, hot douching, etc. It was this group in which formerly so many oversights had occurred, and so many cases put right by the rough-and-ready wrenchings of the bonesetter. Nor were such oversights even yet entirely ancient history. In the third group, typical of which were joints which had been involved in septic inflammation following parturition, and some of the forms of gonorrhœal arthritis, the joint was a mere scar, and manipulation was perfectly useless and not a little dangerous. In the great majority of tuberculous cases, at whatever stage, manipulation was not advisable or even safe. In conclusion, the author gave a warning as to massage. In every case in which this method was ordered the surgeon should give precise directions, and closely supervise the manner in which they were carried out. He had met with not a few instances in which cases handed over for massage had, either as a mere matter of commerce, or ignorantly although quite conscientiously, been greatly over-treated, and some severely injured. In the keen competition of the present day not only had massage been sometimes carried too far, and even degraded to vile purposes, but it and other methods, good in themselves when duly supervised, had been "boomed" as matters of commerce, and worked by limited liability companies. Doubtless the public had a full right to please themselves. It was, however, necessary under the circumstances that surgeons should study cases under their care as fully as possible, and critically discriminate between various groups, and that they should take care into whose hands, whether for massage or any other form of treatment, they, as far as they were responsible, allowed their cases to pass. Many a wolf with a sheep's skin on its back was the embodiment, in the credulous eyes of the public, of an angel of light.

The CHAIRMAN remarked that the effusion of thick plastic lymph into the peritoneum, like the provisional callus around a bone, was a wise provision of Nature, which often served to shut off the general peritoneal cavity and protect it from injury. Having served its purpose, this effusion in the majority of cases becomes subsequently almost completely absorbed. The reason why in some cases, but not in all, the process of repair should, so to speak, run riot, and one or more firm bands of adhesion remain, is by no means clear.

Mr. ALBAN DORAN observed that it was not known how far the endothelium of serous and synovial membranes was destroyed by inflammation, nor how far it was capable of repair. Destruction of endothelium greatly facilitated the formation of firm adhesions. Delbert had shown in Vol. xxxv of the *Annales de Gynécologie* that rough handling and antiseptic solutions damaged or destroyed the endothelium of the peritoneum. In septic inflammation of a serous membrane the tissues which renovated the endothelium were probably destroyed. On the other hand, long-standing tuberculous peritonitis seemed far less destructive, as Mr. Marsh had noted in tuberculous disease of joints. Mr. Doran had operated frequently for tuberculous peritonitis; one patient died a few years later from phthisis, and the small intestines, which had been matted together at the operation, were found almost free after death, except in the pelvis.

Dr. HORACE MANDERS also made remarks.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

E. GWYNN, M.D., President, in the Chair.

Friday, January 13th, 1899.

THE PREVENTION OF TUBERCULOSIS.

A DISCUSSION on the prevention of tuberculosis, with special reference to its notification, was opened by Dr. NEWSHOLME, who remarked that Koch's discovery of the bacillus of tubercle had completely changed our conceptions of the pathology and etiology of this disease by showing its infective nature. This, however, did not necessarily involve its communicability from man to man, for tetanus was also infective, and dependent on a specific bacillus, but not communicable, though it was not long before the communicability of tuberculosis was proved by Cornet. Some diseases, as diphtheria and smallpox, were communicable to all persons alike; while others, among which, according to Kanthack, was tuberculosis, were so to a minority only. This, however, was but a question of degree, for there were families that seemed to enjoy an immunity to scarlet fever; and the evidence of the *post-mortem* room was that a large proportion of persons had at one time or another recovered from attacks of tuberculosis, while one-fourth of the deaths from all causes between the ages of 15 and 55 were from this disease alone. The long incubation introduced further difficulties. The most frequent vehicle of infection was undoubtedly the dried and pulverised sputa, but if the bacillus had not an extracorporeal existence they might hope to eradicate the disease by isolating the sick and improving the sanitary conditions of the dwelling. But the fact that the patient had expectorated millions of bacilli daily long before the nature of his illness was recognised had been urged against notification. To this he would reply that whatever risks had been incurred by the patient's family already, the longer the exposure was continued the greater was the probability of their becoming infected. The sapro-

phytic existence of the bacillus on wall papers and in other places was certainly possible but it was limited: and though that of the bacilli of diphtheria, enteric fever, and, as he believed, of scarlatina was far more protracted, notification had been practised in those diseases with advantage. Saprophytism would, however, explain only a minority of cases of excessive incidence on certain houses, insanitary conditions being a still more powerful factor, and inspection of infected houses would enable one to remove either cause. The predisposing causes of tuberculous infection were (1) the habitual inhalation of rebreathed air, (2) damp and want of light in the dwelling; (3) dusty occupations; and (4) intemperate habits. Sanitary authorities could remedy all but the last of these, and in this work they would be greatly assisted by notification. Staircase windows were being extensively introduced in Brighton with great advantage; but if every case of phthisis were notified, they might strip off old wall papers and disinfect and cleanse the rooms. It might be urged that house-to-house visitation would render notification superfluous; but it was impossible to inspect every house even once in a year, whereas, with notification, infected houses could be promptly visited and cleansed at shorter intervals, and damp and overcrowding remedied, even though the visits to others had to be made less often. Several local authorities had applied for powers to add tuberculosis to the list of notifiable diseases, but the Local Government Board had always refused their requests. The chief objection to notification seemed to be the fear, as expressed by Sir Richard Thorne, that it would interfere with a man's earning his livelihood, but no one need suffer, since notification was confidential, and in this case would apply rather to the house. Under the Factory Acts rare and non-communicable diseases, as lead and arsenic poisoning, were notified, but phthisis was communicable for several years, and caused 50 per cent. more deaths than all the notifiable infectious diseases together, while it was more amenable to preventive measures than most of them. In Brighton a circular was widely distributed explaining these precautions, recommending the use of damp cloths instead of sweeping, free ventilation by open windows in bedrooms, and the proper disposal of the sputa; and pointing out how the patient intensified his disease by swallowing his own expectoration, so that he was even a greater gainer than other members of his family. It was unfortunate that the Local Government Board could not apprehend degrees of notification or sanction payment for voluntary information. In other infectious diseases, neglect to notify every case might make it impossible to trace the source of an outbreak; but the case of phthisis was different, and in Brighton he had much voluntary notification, for which he was nevertheless unable to pay any fee. There should be local option in this matter, and it was a shame that the Local Government Board should hinder the intelligent action of local authorities in the promotion of the public health. In Brighton every death from any form of tuberculosis was made the subject of inquiry; over 100 houses per annum were thoroughly disinfected after deaths from phthisis, and many more after the removal of a patient to hospital, through voluntary notification, special directions being issued for the purpose. Public opinion was fast ripening in favour of the control of milk supplies, and of the provision of municipal slaughterhouses; and minor details, as multiple notification, could easily be arranged. Local authorities should demand permission to pay for voluntary or to adopt compulsory notification, and the consolidation and amendment of building regulations, the saving clauses in which frequently rendered them inoperative.

Dr. NIVEN believed that in the north public feeling had been so roused that legislation would be welcomed. Sheffield and Blackburn were pressing for notification, and much was being done by lectures, by pamphlets distributed at hospitals, by lady visitors, and instruction of dairymen and farmers; while more hospital accommodation was being provided. Yet the death-rate was rising, for these means did not reach the very poor and the "dosshouse" population; notification and the consequent cleansing of their dwellings would be the best means of educating the lower strata. Hospitals and sanatoria were too often confused, whereas their aims were wholly diverse, the former being intended for the reception of the advanced, incurable, and most infective cases, the latter for the cure of those in the early stages. Recovery, at least from one attack, was probably more frequent than death, for Dr. Harris found evidence of old lesions in 38 per cent. of *post-mortem* examinations taken indiscriminately. Many who recovered in sanatoria might have done so in comfortable homes, but too often in in-patients discharged virtually cured, the disease recrudesced in a few months after their return to their former surroundings, and the mass of phthisis was too vast for adequate treatment. Dr. Hermann Biggs's maps and his own showed clean areas alternating with blocks of infected houses, as if these infected one another. No injustice or hardship had followed voluntary notification wherever it had been tried, but there was a grave danger to the community in clothes made by phthisical tailors in confined rooms. Such cases could be discovered and remedied by notification, but the inspectors should be medical men and not the ordinary officials, and should confine themselves to giving instructions, with the consent of the medical attendant, if any.

Dr. BEZLY THORNE was in favour of voluntary notification as an educational agency, but believed that attempts at compulsion would rouse the middle classes to an opposition stronger than that presented to compulsory vaccination. The establishment of State-supported bacteriological laboratories was absolutely necessary for the diagnostic examination of sputa. He trusted that the great benefit societies and trades unions would co-operate in raising funds for the early treatment of phthisis in sanatoria, as not less than six months' residence was found necessary for a cure in the German institutions, which, as well as the State system of sick insurance, were worthy of imitation.

Dr. SYKES was doubtful of notification, which would by no means cover the whole of the phthisis in the country, especially among the very poor who, living in a state of chronic ill health, did not recognise the commencement of phthisis, and many others refused to believe that they were consumptive. The only effectual means of checking the dissemination of infection by such persons was to put down the filthy habit of expectoration by all, whether sick or healthy.

Dr. HERON did not admit the practicability of notification in the present state of public opinion, being convinced that the phthisical who were able to work perhaps for years, would be branded as dangerous. There were probably half a million such persons who, if deprived of employment thereby, would be entitled to claim support from the State. The first effect of notification would be concealment, as had been the case with leprosy in India. The education of the public by concerted action on the part of the medical profession, supported in every way by the authorities, and the instruction of the older children in schools of all grades in the nature and prevention of all infectious diseases would do far more good. Notification would certainly be resented, and be made a party cry in politics.

Mr. SHIRLEY MURPHY agreed, on the whole, with Dr. Heron that at present notification could not be enforced, and that we must rely on the education of the public and, indeed, of the medical profession. Notification would, however, enable the medical officer of health to study the distribution of phthisis, and the authority to remedy sanitary defects. But it must be voluntary. It was much to be regretted that the Local Government Board could not understand degrees and kinds of notification or sanction payments for voluntary and partial information the value of which might be great. Public laboratories, where the busy practitioner could have the sputa examined for a trifling fee were urgently called for.

Sir HUGH BEEVOR attached great importance to local sanitary conditions. In three towns, Cambridge, Dudley, and West Ham, with very different death-rates from phthisis and age incidence, he found the curves for each town identical in the two decennia, 1861-70 and 1881-90.

Drs. T. GROVES and W. A. BOND, Mr. STOTT, and others having spoken, Dr. NEWSHOLME, in replying, denied the probability of opposition to notification such as he recommended, since compulsory notification and payment for voluntary information would be dependent on the expressed wish of the large majority of the ratepayers and their representatives, local option being an essential condition of his proposal; and it was most unfortunate that the Local Government Board,

whose powers of compelling negligent authorities to do their duty he would gladly see increased, should obstruct the more intelligent in their efforts for the promotion of the public health. As to the "branding" of the patient, that had already been done by the present propaganda, and he knew of a clerk whose dismissal had been demanded by his fellows, but the guarantee of effectual precautions afforded by official action would rather tend to allay such alarm. The plea of concealment had been urged against the notification of diphtheria and other fevers; and there would be no interference with the liberty of the subject, the action of the authorities being limited to the sanitary conditions of the house, and no ethical difficulties had been felt in Brighton. But the question of correct diagnosis was important, and facilities for bacteriological examinations were already provided in Brighton and in several northern towns, in Brighton, at any rate, without charge.

BRITISH GYNÆCOLOGICAL SOCIETY.—The annual meeting of the Society was held on January 12th; the PRESIDENT (Dr. Macnaughton-Jones) in the chair. The election of officers and Council for 1899 was as follows:—*Hon. President:* R. Barnes, M.D., F.R.C.P. (London). *President:* H. Macnaughton-Jones, M.D., F.R.C.S.I. (London). *Vice-Presidents:* G. G. Bantock, M.D. (London), A. E. Cordes, M.D. (Geneva), G. Elder, M.D. (Nottingham), R. H. Hodgson, M.D. (London), F. Bowreman Jessett, F.R.C.S. (London), *J. Macpherson Lawrie, M.D. (Weymouth), J. J. Macan, M.D. (London), *R. Milne Murray, M.D. (Edinburgh), *R. D. Purefoy, M.D. (Dublin), F. F. Schacht, M.D., B.A. (London), W. Travers, M.D., F.R.C.S. (London), Professor Hector Treub, M.D. (Amsterdam). *Treasurer:* J. A. Mansell Moullin, M.D. (London). *Council:* W. Armstrong, M.R.C.S. (Buxton), *N. Whitelaw Bourns, M.D. (London), *Professor Murdoch Cameron, M.D. (Glasgow), *John Campbell, M.D., F.R.C.S. (Belfast), *G. Roe Carter, M.R.C.P.I. (London), A. Donald, M.D. (Manchester), *T. Eastes, M.D., F.R.C.S. (Folkestone), F. Edge, M.D., F.R.C.S. (Wolverhampton), C. H. Gage-Brown, M.D. (London), *H. Bellamy Gardner, M.R.C.S. (London), C. Godson, M.D. (London), H. S. Howell, M.D. (London), *J. Furneaux Jordan, F.R.C.S. (Birmingham), Skene Keith, M.B., F.R.C.S.Ed. (London), Christopher Martin, M.B., F.R.C.S. (Birmingham), *T. Morton, M.D. (London), W. H. Newnham, M.B.Cantab. (Clifton), Professor A. W. Mayo Robson, F.R.C.S. (Leeds), *C. H. F. Routh, M.D. (London), *W. Slimon, M.D. (London), E. T. Smith, L.S.A. (London), Heywood Smith, M.D. (London), R. T. Smith, M.D. (London), D. Thomson, M.D. (London). *Editors of Journal:* F. F. Schacht, M.D., B.A. (London), *Arthur E. Giles, M.D., B.Sc. (London), *J. J. Macan, M.D., M.A. (London). *Hon. Secretaries:* George E. Keith, M.B. (London), Arthur E. Giles, M.D., B.Sc. (London). (The asterisk indicates the new names proposed by the Council for the respective offices).—Dr. MACNAUGHTON-JONES delivered the presidential address, in which he said that in no field of surgery had advances been more rapid and striking than in that of gynæcology, the present system of treatment being founded upon a solid basis of well-ascertained anatomical, physiological, and pathological facts. In gynæcology, for example, it was a fact established by many thousands of experiments that removal of every form of uterine tumour could be safely conducted by hysterectomy; that, with or without the uterus, the most extensively diseased adnexa could be removed by cœliotomy; that ovarian tumours, with every conceivable complication, could be dealt with successfully by ovariotomy; that myomata of a certain kind could be most successfully ablated by the vaginal route; that certain adnexal conditions could be best dealt with in the same manner, and that conservative operations on these organs could be successfully carried out by colpotomy, anterior or posterior; that cancer of the uterus, save in very rare conditions—such as malignant disease complicated by a large myoma—was best attacked by vaginal hysterectomy; that drainage was not necessary, save under conditions which were fairly defined and settled; and that, once having decided upon drainage, the mode of carrying it into effect, whether after laparotomy or vaginal hysterectomy, had been absolutely determined and was a matter of every day routine. To exhibit specimens merely to prove any of these points was an unjustifiable expenditure of valuable time. Also, it might with truth be said, that every argument that could conceivably be advanced in regard to certain details before, during, and after operative procedures had been debated and written of to the death. There were other points, however, which were perfectly justifiable matters for discussion, such as (1) clinical facts, signs, and symptoms, leading to difficulty and errors of diagnosis; (2) unique, serious, and unexpected complications; and (3) pathological conditions which were rare, or bore upon treatment or operative procedures. In uterine fibroids and diseased adnexa there were still many debatable questions. Cases of clinical interest, unaccompanied by pathological specimens, seemed to be too rarely discussed by the Society; in the *Transactions* one sought in vain for evidence that any form of general treatment and medication was of use in resisting the inroads of pelvic disease in women. Organs that had been threatened with, or passed through, some critical and serious morbid change, but were now restored physiologically and histologically to a condition of health by treatment other than operative were worthy of mention and record in the *Transactions*. The President reviewed many other cognate subjects, including the cystoscope of Dr. Kolischer of Vienna; and, in referring to the question of abortion, suggested that a Committee of the Society, aided by medico-legal experts and an experienced medical coroner, should inquire into and report upon the whole subject. He next reviewed the work of the Society during the past year, and said that there had been advance in every direction. He described several points which had recently appeared to him noteworthy in a month's visit to the clinic of Professor Schauta in Vienna, and referred to several interesting cases lately treated by himself in his own practice. Finally, the details of Professor Schauta's operations and his brilliant results were reviewed at considerable length.—A *conversazione* followed, at which some 150 Fellows and visitors were present. Recitations were given by Mr. MEL. B. SPURR, and selections of vocal music by the Misses and Mr. ISIDOR DE SOLLA.—Some new and interesting Gynæcological Instruments were shown by the PRESIDENT, including Dr. Kolischer's operating cystoscope, Dr. Doyen's *lévier-pince* for producing hæmostasis by pressure and crushing in abdominal hysterectomy, Professor Schauta's ligature tightener, and various other gynæcological appliances.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting on January 18th, Miss COCK, M.D., President, in the chair, Miss MACDONALD, M.B., showed Sketches of Acute Dermatitis of the Hands and Feet in a patient who was taking arsenic for pernicious anæmia.—Miss STONEY, M.B., read a paper on Tuberculous Peritonitis in Children, based on notes of cases under her care in the Victoria Hospital for Children, in Hull. She pointed out the difficulties in diagnosis between this and rickets with a distended abdomen, especially in very young children, and dwelt on the importance of the following symptoms of tuberculous peritonitis: (1) Moaning: a short monotonous moaning cry occurring during expiration; (2) enlarged veins on the abdomen, pointing to some obstruction to the deep abdominal veins, such obstruction being almost invariably found to be due to tuberculous peritonitis; (3) ascites. The presence of even a small amount of fluid in the abdomen was strongly in favour of tuberculous peritonitis, as it was rare in rickets. (4) A doughy feeling of the abdomen was not pathognomonic, but taken in conjunction with other symptoms was a helpful sign.—Mrs. GARRETT ANDERSON, M.D., read a paper on the "Leicester System" of Isolating Small-pox Patients proposed as a substitute for vaccination. The Leicester system had been fairly successful at Sydney, N.S.W., at Leicester itself, and in London in 1892-3. The attempt to keep out small-pox was far more likely to be successful in a place like Sydney than at most other places, as no steamers arrived from Europe except after first calling at Adelaide and Melbourne, where if small-pox had declared itself during the voyage the fact would at once be known at Sydney, and quarantine would be imposed. Even the shorter journey from New Zealand lasted several days, and there would be a good chance of a person who had contracted small-pox before starting falling ill on board ship in time to prevent his being landed. Even at Sydney, however, those responsible for the public health wished for the assistance of a compulsory Vaccination Act, in

spite of the fact that hitherto they had succeeded in keeping small-pox from becoming epidemic. Leicester in 1892-3 suffered from an extremely mild type of the disease. In 357 cases there were only 21 deaths. There was some amount of vaccination done, and the isolation attempted was by no means complete; in 28 cases the patient were not isolated till after the seventh day of illness; 52 more were isolated on the sixth or seventh, and the quarantined people could not be induced to remain secluded, and in many cases they went about their ordinary work. It did not therefore seem that Leicester did much more in the direction of seclusion than was done everywhere in the presence of small-pox. Gloucester in 1896-7 had a very severe type of disease, and here the attempt to isolate the sick, much more to quarantine suspects, broke down completely. As many as 1,267 out of the total 1,979 were never taken away from their own homes, and the epidemic was at last stopped only by vaccination and revaccination on a very large scale. With the constant stream of traffic between London and Paris, small-pox could never be kept out of England permanently, even if it could be by great effort completely done away with for a time. Another point against the Leicester system was that individual protection could not by this method be secured by oneself. Everyone depended on his neighbours, upon cases not being missed, upon there being no errors of diagnosis, no breaking of rules; while by the method of getting protection through vaccination people could depend upon themselves, and could get protection if they took the necessary steps to that end.

Manchester Medical Society.—The annual meeting was held at Owens College on Wednesday, January 11th, Mr. G. A. Wright, the retiring President, in the chair. The Committee in their annual report stated that the Society during the past year had maintained its numbers and its activity. The roll now mustered 376. During the year 32 members had been admitted and 20 resignations had been accepted. Fifteen of the resignations were owing to removal from the district, and the remainder were on account of inability to attend the meetings. The Society had to regret the loss by death of 5 members, namely, Mr. W. B. Aitken, Mr. J. C. Clarke, Dr. Martin Heckscher, Mr. Edward Lund, and Dr. William Smith. Mr. Lund was elected a member of the Society in 1848, and had served on the committees and in various honorary offices, having been three times President of the Society. Twelve meetings in addition to the annual meeting had been held during the year, with an average attendance of 41. Two clinical meetings and two clinical demonstrations—the latter a new institution and a great success—had been held. The ordinary meetings had been held at the Society's rooms, and the clinical ones, by permission, at the Royal Eye Hospital, St. John Street. In accordance with the authority received from the Society at a special meeting held in April, 1898, the Committee had entered into negotiations with the Pathological Society and, through that Society, with the authorities of the Owens College, whereby arrangements had been made which would enable members to obtain investigations of morbid specimens connected with tuberculosis, etc. Great good was expected to result to the members from this arrangement. On the motion of Dr. Dixon Mann, seconded by Dr. Sinclair, the Committee's report, together with the library report, read by Dr. Williamson, the Treasurer's report, read by Dr. Glascott, and the Trustee's account, read by Dr. Lloyd Roberts, were adopted. —It was proposed by Dr. Prince Stallard, and seconded by Dr. Hopkinson, that the thanks of the Society should be given to the retiring officers. Special reference was made by Dr. Prince Stallard and Dr. Hopkinson and by Dr. Dixon Mann and the Chairman to the valuable service of Mr. William Coates, who was now retiring from the Secretaryship, which he had held, to the great advantage of the Society, since 1894. Mr. Coates made a suitable reply, and Dr. Milligan was afterwards thanked for editing the Society's proceedings. The following officers were elected for the coming year: *President:* Dr. Sinclair. *Vice-Presidents:* Mr. Coates, Dr. Godson, Mr. Thorburn, and Dr. Wild. *Treasurer:* Dr. Glascott. *Secretary:* Dr. Reynolds. *Committee:* Dr. A. Brown, Dr. E. V. Brown, Dr. J. G. Clegg, Dr. Donald, Dr. Goodfellow, Dr. Harris, Dr. Hopkinson, Dr. Milligan, Mr. J. E. Platt, Dr. A. T. Wilkinson, Dr. Williamson, and Mr. A. Wilson. *Library Committee:* Dr. Kelynack, Mr. Pomfret, and Mr. J. W. Smith. *Auditors:* Dr. Fenn and Dr. Lea.

West London Medico-Chirurgical Society.—At a meeting on January 6th, Dr. S. D. Clippingdale, President, in the chair, Mr. Lake read a paper on the Treatment of Laryngeal Phthisis, based on a series of 160 cases. Clinically the cases could be resolved into groups, each of which derived benefit from slight modifications of treatment. He particularly dwelt upon the advantages of intratracheal injections in cases of superficial ulceration and slight swelling, but admitted of its uselessness alone in cases of greater severity. The paper was discussed by the President, and Messrs. McAdam Eccles, James, and Atkinson.—Mr. J. R. Lunn read a paper on Two Cases of Double Optic Neuritis associated with Mastoid Disease. Case I, a boy aged 11 years, complained of giddiness and severe pain in the right ear, from which there was a little offensive discharge. He appeared to be quite deaf. Behind the right ear was a fluctuating swelling. Two days after being first seen, the patient became delirious, and then maniacal, and the swelling behind the ear became larger. Under an anæsthetic a perforation of the membrana tympani was discovered. The mastoid cells were trephined, and found to be full of offensive cheesy material. The operation was necessarily extensive, and at the end of the excavation the pulsating lateral sinus could be seen. The patient made a good recovery, and the optic neuritis soon cleared up. Case II, a girl, aged 14, had suffered from ear trouble since an attack of measles and scarlet fever at the age of 7. Behind the right ear was a fluctuating swelling, and from the meatus flowed an offensive discharge. Deafness was marked. The right membrana tympani was perforated, and both optic discs showed signs of optic neuritis. The right mastoid process was trephined, and much sclerosed bone had to be removed before the offensive cheesy matter could be reached. The patient made a good recovery, and the optic neuritis soon disappeared. The paper was discussed by the President, Mr. Lake, and Dr. Batten.—Dr. James Allan showed a specimen of Hypertrophied Prepuce. Dr. Allan also read a paper on Twelve Cases of Tracheotomy for Laryngeal Diphtheria in Young Children, with Nine Recoveries. The details of the operation were discussed, and stress was laid on those points which the author considered important. It was shown by reference to a case that tracheotomy sometimes gave the most brilliant results in apparently hopeless cases. The indications for the operation were discussed, and the dictum "when in doubt operate at once" was quoted with approval. The paper was discussed by the President, Dr. Gibbes, and Messrs. Gunn, Lloyd, Atkinson, and McAdam Eccles.

Bradford Medico-Chirurgical Society.—At a meeting on December 20th, 1898, Dr. Berry (President), in the chair, Dr. Eurich gave a demonstration of microscopic sections from a series of Ovarian Tumours. He mentioned that the malignant or non-malignant character of a tumour could not be determined until operation; also that in the same tumour there could be demonstrated a change of type from innocent to malignant; and, further, that in the ovary itself, although it might not apparently be involved in the tumour, yet malignant disease might be demonstrated microscopically.—Mr. Hall read a paper on the Operative Treatment of Breast Cancer. He contended that the bad results of operation in the past were the result of imperfect removal, and pointed out how greatly the percentage of cure had increased since the introduction of the more extensive methods of operating. The aseptic treatment of wounds rendered it possible to undertake these operations without grave risk to life. He gave a summary of the results of different surgeons from 1870 to 1898, and contrasted the 5 per cent. of cures obtained by Billroth in the earlier decade with the 50 to 60 per cent. obtained by Halsted, Watson Cheyne, and others in the last few years. Allusion was made to the researches of Heidenhain, Stiles, and others on the course of the lymphatics of the breast, and the conclusion was stated that no operation could be deemed satisfactory unless not only the breast and axillary glands were removed, but also the lymphatic channels which ran in the pectoral fascia. Halsted's operation was selected as fulfilling these requirements. A description of Halsted's

operation was then given, and diagrams shown illustrating the steps of the procedure. It was stated that very little loss of function followed the operation, and that it was generally possible, owing to the large amount of tissue removed, to cover in the wound without undue tension on the skin. Operation as a palliative measure was advocated in all cases where there was a reasonable prospect of removing the whole growth, and in which the operation would not be exceedingly dangerous to life, or have a hopeless functional result. Remarks were made by Mr. HORROCKS, Mr. ALTHORPE, the PRESIDENT, and Drs. HIME, WOOD, BELL, and ARNOLD EVANS, and Mr. HALL replied.—Dr. J. H. BELL read notes of a case in which Hæmatoporphyrin had appeared in the Urine. The case was one of a nervous affection, accompanied by insomnia, and sulphonal had been given to induce sleep. The sulphonal had been given in 10-grain doses, but the patient had continued the administration when no longer under medical advice.

MEDICO-CHIRURGICAL SOCIETY OF SHEFFIELD.—At a meeting on December 22nd, 1898, Dr. ALFRED ROBINSON (Rotherham), President, in the chair, a committee was appointed to report on the question of a local Branch of the National Association for the Prevention of Tuberculosis.—Mr. SNELL introduced a young man from whose Right Retina a piece of metal had been extracted by the electro-magnet. The fragment had been observed with the ophthalmoscope, and the result of the removal was excellent. Mr. Snell also showed a case of Hemianopsia and two cases of Symblepharon after treatment. —Mr. ARCHIBALD CUFF demonstrated Peculiarities of Gait and other Abnormalities in a rickety dwarf.—Dr. ARTHUR HALL showed cases and photographs of (1) Seborrhœic Eczema, (2) Addison's Disease, (3) Hydroa of Pregnancy.—Dr. SINCLAIR WHITE exhibited and commented on: (1) A case of Movable Hydronephrotic Kidney cured by nephropexy; (2) Gall Stones, cholecystotomy with choledochotomy; (3) Loose Cartilage removed from the Knee-joint; (4) Traumatic Aneurysm of Brachial Artery treated by the method of Antyllus: (5) Spinal Meningocele treated by excision of the sac; (6) Cancerous Uterus removed by kolpo-hysterectomy.—Mr. RUPERT WATERHOUSE showed a Brain with Cyst and recent Blood Clot. Mr. Waterhouse also related a case of Skin Rash following the administration of a simple enema.—Dr. ADAMS showed a specimen of Malignant Growth of Œsophagus, with secondary growths in the liver, and gave clinical and other particulars of the case.—Dr. BARDSWELL read a paper on Suprarenal Extract as a Local Anæsthetic. The PRESIDENT, Dr. KEELING, Dr. SINCLAIR WHITE, Dr. GODFREY CARTER, Mr. MAKEIG JONES, and Mr. SNELL made remarks.

IPSWICH CLINICAL SOCIETY.—At a meeting held on January 12th, Mr. S. O. Eades was elected President for the year, and Mr. W. W. Sinclair was re-elected Honorary Secretary.—Mr. HOSSACK showed a case in which he had Successfully Removed the Right Half of the Tongue together with the Submaxillary Gland for Epithelioma, by a modified Whitehead Operation.—Mr. BRANFORD EDWARDS showed a case of Tuberculous Disease of the Kidney. Dr. BROWN and Dr. VINCENT made remarks. —Dr. VINCENT and Mr. J. R. STADDON showed some curious Old Surgical Instruments.—Mr. C. K. MOSELEY brought up the question of the Want of Provision made in the Town for the Reception and Treatment of Cases of Diphtheria requiring Tracheotomy; and it was decided to discuss the subject at the February meeting.

SOUTH-WEST LONDON MEDICAL SOCIETY.—At a meeting on January 11th, Dr. J. J. MACWHIRTER DUNBAR, President, in the chair, Dr. J. B. BALL read a paper on Paroxysmal Sneezing and Allied Affections, based on 112 cases which had come under his care. Stress was laid on the frequency with which pathological conditions of the nose were present in all forms of paroxysmal sneezing. In his own cases some morbid condition was present in 100 out of the 112 cases, or 93 per cent. The commonest condition was some deformity of the septum. Trivial deformities were not included, but only such as obstructed respiration, or brought some part of the septum into close apposition with the turbinals. Other conditions present were hypertrophic rhinitis, mucous polypi, and adenoid growths. The best results were obtained from a thorough local treatment of such intranasal abnormalities as were present in each case. The galvanic cautery had only a limited application in those cases. The removal of mucous polypi did not cure cases unless coexisting septal deformities and hypertrophic conditions were efficiently treated. Of 31 cases which had undergone a thorough local treatment, 25 were either cured or so much relieved that the symptoms gave no further trouble. Asthmatic symptoms were not relieved to the same extent as the nasal symptoms. The internal drugs found most useful were quinine, belladonna, arsenic, and iodide of potassium. The local applications most often used were cocaine, menthol, and menthol-camphor. A discussion followed, in which the PRESIDENT, Dr. BIGGS, Mr. RYAN, Mr. T. A. J. HOWELL, Dr. DICKINSON, and Mr. DEAS took part, and a hearty vote of thanks was given to Dr. Ball.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting held on January 12th, the following list of office-bearers, members of Council, and Committees was adopted: *President:* W. Macfie Campbell. *Vice-Presidents:* R. S. Archer, H. Harvey, *A. Bernard, *T. B. Grimsdale. *Hon. Treasurer:* James Armstrong. *Hon. General Secretary:* J. M. Hunt. *Hon. Secretary to Ordinary Meetings:* W. Thelwall Thomas. *Hon. Librarian:* *W. Permewan. *Council:* F. H. Barendt, E. A. Browne, R. Caton, F. Johnston, Leslie Roberts, Arthur Wallace, *William Alexander, *R. A. Bickersteth, *T. M. Dawson, *J. C. Davey, *A. Burns Gemmel, and *J. J. O'Hagan. *Auditors:* *H. Harvey and *C. J. Macalister. *Pathological and Microscopical Committee:* J. H. Abram, F. H. Barendt, R. A. Bickersteth, R. Boyce, A. W. Campbell, F. C. Larkin, C. J. Macalister, G. P. Newbolt, F. T. Paul, and C. S. Sherrington. *Journal Committee: Hon. Sec. Ordinary Meetings, Hon. Sec. Pathological Section:* *F. T. Paul, F. H. Barendt, T. B. Grimsdale, C. G. Lee, C. J. Macalister, G. P. Newbolt, and W. Permewan. Those marked * did not hold the same office last year.

REVIEWS.

GOUT: ITS PATHOLOGY AND TREATMENT. By ARTHUR R. LUFF, M.D., B.Sc., F.R.C.P., Physician in Charge of Out-patients, and Lecturer on Forensic Medicine at St. Mary's Hospital. London: Cassell and Co. 1898. (Pp. viii, 245. 5s.)

THE value of this manual depends on two characteristics. It affords in the first place a compact but comprehensive and accurate summary of our present knowledge as to the nature of gout—is, in fact, a monograph in little of the subject. Secondly, it contains the record of the author's own laborious and instructive researches in what may be termed podagric chemistry and pathology, researches which have far more than a mere academic importance in that they form the basis of Dr. LUFF's views as to treatment.

The book consists of four parts, of which the first is in the main a reproduction of the author's Goulstonian Lectures, while the second deals with the causation of gout, its various forms, and its diagnosis and prognosis. Part III relates to Dr. Luff's investigations of certain points connected with the treatment of gout. These were undertaken with the objects of ascertaining the various conditions affecting the formation and removal of gouty deposits, the influence of alcoholic drinks on the gouty process, the solvent effect of the mineral constituents of various vegetables on gouty deposits, and the value of certain drugs in effecting the removal of such deposits. The results thus obtained are applied in Part IV to the treatment of gout and gouty conditions.

Dr. Luff accepts and confirms the view that uric acid is the *materies morbi*, and corroborates the conclusion that it is absent from healthy human blood. The details of the new method which he has devised for the estimation of uric acid in the blood are given, and it has evident advantages.

The sources of uric acid are fully discussed and the results arrived at clearly stated. The author believes that in health uric acid is formed in the epithelium of the kidney tubules by the conjugation of urea and glycocine or some similar

body. In gout there is always disease of this epithelium, at first functional and later organic, whence an accumulation of uric acid in the system follows. In other diseases associated with the production of uric acid in great excess, such as leukæmia, it is formed from white blood corpuscles, especially their nuclein; but since the kidneys are in general sound, the toxic symptoms which constitute gout do not arise.

The results of Dr. Luff's personal investigations are so numerous and far-reaching as to preclude brief summarisation. It must, however, be noted that he denies that the reaction of the blood has any appreciable influence on the deposition of sodium biurate. He finds that the alkalinity of the blood is not appreciably diminished during a gouty attack, nor has such diminished alkalinity, when produced by the addition of organic acids, any effect upon the solubility of uric acid in the blood, or upon the deposition of sodium biurate. Moreover, the solubility of deposits of sodium biurate is not increased by increased alkalinity of the blood; it is, however, markedly increased by the presence of the mineral constituents of most vegetables, and diminished by that of the mineral constituents of meat. The mineral constituents of certain vegetables delay the conversion of the soluble sodium quadriurate into the insoluble biurate. On the other hand, the administration of the ordinary alkalies, of lithium salts, of piperazine, of lysidine, and of salicylates for the purpose of removing gouty deposits appears to be useless. And a very old doctrine is flouted when Dr. Luff contends that gout is unassociated with any general acidity of the system.

The last section of the book, that on treatment, is, as it should be, the most important. The author approves of colchicum as diminishing the formation of uric acid, and confirms Sir A. Garrod's opinion as to the value of guaiacum in prophylaxis. As to diet, he avoids hard and fast rules. He elaborates the suggestion made in a paper read recently before the Royal Medical and Chirurgical Society that vegetable salts should be substituted for ordinary table salt.

The book is throughout succinctly and clearly written; its utility is enhanced by sixty original tables and an excellent index. It is a compact and trustworthy guide to the subject, and by its production Dr. Luff has shown himself a worthy successor of the great English physicians who have devoted themselves to the study of the disease.

A Manual of the Practice of Medicine. By Frederick Taylor, M.D., F.R.C.P. Fifth Edition. London: J. and A. Churchill. 1898. (Demy 8vo, pp. 1018. 16s.)

The fifth edition of this widely-known and appreciated student's book has undergone considerable change, not only in revision and in the inevitable addition of fresh diseases and morbid entities, such as glandular fever, erythromelalgia, angioneurotic œdema, and hypertrophic pulmonary osteo-arthropathy, but also as regards even the shape of the volume and the size of its print. The type is clearer—a distinct improvement, and the individual pages are larger, so that in spite of the increased matter contained in it, the volume has only 28 more pages than the last edition. The task of keeping a work on general medicine up to date, and of determining how much of what is new is sufficiently true and important to take its place in a textbook of elementary medicine is a difficult one, and requires the mature judgment and discretion that comes of years of hospital teaching and ward work. For this a better-fitted or more successful writer than Dr. Taylor would be hard to find. This work is essentially introductory, and adapted for the student at and after his entrance into medicine, and is necessarily somewhat compressed. It is sufficiently complete to carry the reader through the trials and chances of the Conjoint Examining Board for England, but for the higher university examinations its teaching should be supplemented by reading the fuller discussions of theories and disputed points contained in some of the larger textbooks and works on medicine. In saying this as to the scope of this justly successful handbook, nothing is further from the reviewer's mind than to depreciate its value. The present edition fully maintains the reputation established by its predecessors.

Grundriss der klinischen Bakteriologie: für Ärzte und Studirende. [Elements of Clinical Bacteriology for Practitioners and Students.] Von Dr. Ernst Levy und Dr. Felix Klemperer, Professor und Privatdocent an der Universität zu Strassburg. Zweite Auflage. Berlin: August Hirschwald. 1898. (Demy 8vo, pp. 458. M. 10).

Since the first edition of this work was published (in 1894) our knowledge of such conditions as immunity, the serum treatment, and the like, has been so increased or modified that the authors have been well advised in practically remodelling their work. They have been wise enough to do this without increasing the size of the volume so greatly as to render it unwieldy. Addition and revision still leave this second addition a handy volume, which may be readily referred to at the bedside or in the wardside room.

The principal additions are those dealing with bubonic plague and meat poisoning, or botulism; but besides these two new chapters very considerable additions have been made to those dealing with immunity, diphtheria, typhoid fever, and actinomycosis. The descriptions of the methods of examining soil, air, and water have also been considerably modified, whilst a list of the principal organisms found in these positions will prove of value to those who wish to carry on investigations in these matters.

The modifications made in other parts are also very numerous. For instance, there is a summary of much of Behring's and Erhlich's recent work on the production of toxins, the measurement of the strength of toxins, and the methods of testing antitoxins, based on Erhlich's recent researches as to the composition of test toxins. Anyone who wishes to follow this question out generally, and even in some detail, will, with the help of this volume, be able to do so without having to refer to the somewhat abstruse original papers. The chapter on typhoid fever is both extended and improved, and affords a fairly full synopsis of the most important points concerning this question. The same remark applies to the chapters on cholera and tetanus.

On a former occasion we spoke in terms of high commendation of this work. We have no hesitation in saying that the present edition is a considerable improvement on that which preceded it.

Medicinische Bibliothek: für praktische Ärzte. I. Die pathogenen Spaltpilze. II. Die bakteriologische Technik. Von Dr. Schürmayer, Hanover. Leipzig: G. G. Naumann. (Vol. I, crown 8vo, pp. 360. M. 5. Vol. II, crown 8vo, pp. 282. M. 4.50.)

In the first of these volumes Dr. Schürmayer gives a survey of the principal groups of the pathogenic Spaltpilze, dealing rather more fully than is usual with the physiology of these organisms. In a general chapter he considers the structure and composition of bacterial cells, and gives an account of some of the products of metabolism of these organisms. He also gives a short account of the modification of their virulence, morphology, etc., which may occur outside the body. He then goes into the question of infection, of reaction of the tissues in the presence of micro-organisms, the immunity and the immunising of animals against disease, and, finally, traces the relations of micro-organisms to specific infective fevers, and describing, somewhat briefly, the nature of toxins and antitoxins.

The special part of the work is devoted to a classification and description of the micro-organisms met with in disease, and it may be well here to give very briefly the classifications adopted. Under the heading of coccaceae he has staphylococci, streptococci, diplococci, the tetrageni and sarcinæ; his second class, which consists of the bacteriaceae, includes bacteria and bacilli; under the spirillaceae are included the vibrios, spirilla and the spirachaetes. Under the higher fungi or hyphomycetes are included a number of organisms which until recent years were scarcely understood; for instance, in this class he has Coryne bacterium (Keulen bacterium), under which heading comes the bacillus diphtheriæ. The second class (the myco-bacteria) includes the bacillus tuberculosis, the bacillus tuberculosis of birds, the bacillus lepræ, the smegma bacillus, and the syphilus bacillus; whilst under the

oospora we have actinomyces bovis. It will be evident at once that Dr. Schürmayer is in no way bound down by conventionalities. The descriptions given in this part of the work are accurate and fairly full; and although the literature quoted is principally German, it should be of considerable value for purposes of reference. The woodcuts are, as might be expected in a work of this kind, somewhat crude; but in most cases they indicate the described appearances fairly well. Some of the coloured illustrations at the end of the work are very well done, but some of them might easily be improved upon.

The second volume is exactly what it pretends to be. As in most works of this kind, we have first a description of the microscope, with a few practical hints on optics and the best methods of illumination; then comes an account of the mounting and staining apparatus required, and the apparatus and substances used in the preparation of nutrient media, of the making of plates, of mounting microscopical specimens of micro-organisms, of making the various forms of cultivation—aërobic and anaërobic, of inoculating animals, of studying the structure of micro-organisms, and of estimating some of their simpler or rather more common products. In this part of the work the author is evidently thoroughly at home, and the chapters, though short, are to the point and full of interest. Then comes the practical examination of various glands and excretions for micro-organisms. The methods of making examination of the air, water, and soil, and especially those for the separation of some of the more characteristic organisms, are given with some little fulness. In a supplement, which will be very useful to the worker, is a list of the more common apparatus and reagents required for the fitting-up of a small laboratory. The remarks which apply to the literature and illustrations of the first volume apply with equal force in this case. In spite of that, however, we can recommend these little works very heartily to the notice of those who wish to obtain in a small compass, and at a moderate price, handbooks containing descriptions of the methods of bacteriological investigation, and of some of the results that have been obtained by these methods during recent years.

DE L'EXPLORATION DES ORGANES INTERNES A L'AIDE DE LA LUMIÈRE ÉCLAIRANTE ET NON-ECLAIRANTE. ENDOSCOPIE PAR LES RAYONS DE ROENTGEN. [The Examination of the Internal Organs by Means of Light, Illuminating and Non-Illuminating. Endoscopy by Means of Roentgen Rays.] Par Dr. LÉON BOUCHACOURT, Ancien Interne des Hôpitaux de Paris. Paris: G. Steinheil. 1898. (Roy. 8vo, pp. 258. 76 figures. Fr. 8)

THIS work embraces all, or nearly all, the methods in general use where light, natural or artificial, is brought to bear upon the methods of examination of the various organs. Allusion is first made to the various uses, both in the examination and the treatment of cases, that are made of the sun's light. The bactericidal action of the sun's rays is a well-ascertained fact, and in many tropical countries use has long been made of such knowledge. In Hayti and in Mexico syphilitic rashes are exposed throughout the day to the sunlight, the course of treatment lasting generally about one month. The sun bath is also employed in Europe for the treatment of various skin eruptions.

In July, 1893, Finsen, of Copenhagen, revived an old practice in the treatment of small-pox cases. By carefully shutting off from the room in which a patient is lying all rays but the red, it was found that the eruption of small-pox was much less extensive, and the suppuration was limited. The methods of ophthalmoscopy, rhinoscopy, cystoscopy, etc., are all detailed. The urethroscope which has, in the hands of Oberländer and Wossidlo, done good work, is not referred to.

The various apparatus used in the production of *x*-rays are mentioned and illustrated somewhat copiously. The therapeutic effects of the Roentgen rays are dealt with, and reference is made to the very doubtful case, reported by Despeignes of Lyons, in which a mass of malignant disease situated in the abdomen, as large as a fœtal head, disappeared under treatment. The *x*-rays have been tried also, as a curative measure, in lupus, phthisis, elephantiasis, and excessive and misplaced growth of hair. Definite conclusions, however, are wanting.

A good description is given of the methods of skiagraphing the bones surrounding cavities; for example, the jaws, symphysis pubis, sacrum, and coccyx. The book, with trivial exceptions, is conscientiously and thoroughly written. It contains nothing new, and very little that does not find a place in the various textbooks. But it gives a succinct account of the various methods of examination by means of light, however obtained.

NOTES ON BOOKS.

The twelve plates for the diagnosis of colour blindness (*Tafeln zur Diagnose der Farbenblindheit*) with which Dr. WILIBALD A. NAGEL, of Freiburg u. Br., presents us (Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1898. 1s. 6d.) each bears a circle of large dots of some shade of purple, green, or grey. The circles and dots are all of the same size, but the colour arrangements of the dots is different on each plate. Thus, one circle is entirely made up of purple dots (of different shades), another of green, another of grey; or all three may appear in one circle, or only two. In the first test the patient is placed with his back to the light (good daylight) at a distance of 1 to 1½ metre from the tablets, and is asked to state, for each tablet in turn, whether he sees any red or reddish dots. Myopia, of any degree, should be first corrected. If the answers are correct, there is certainly neither red nor green blindness. A single fault would be suspicious. In either case the next test is carried out. The tablets are placed on a table in good daylight, and the patient stations himself in such a way that his eyes are about ¾ m. from them. He is now asked to point out those tablets on which the ring of dots is made up of one colour, and, if he chooses rightly, is asked to name the colour. Thus, for Tablet III, "purple," "red," "violet," or "lilac" may be accepted as descriptive of the colour. To make quite sure, he is shown Tablet IV (green and grey). and asked whether the dots are not of one colour; and similarly Tablet XII. Finally, he is required to point out with a pencil the green dots in Tablet IV, and the blue-green in Tablet II. If he does so correctly, without hesitation, he has good colour vision. For the person who fails to see any tablets on which the dots are of one colour, or picks out the wrong tablets, then tests with the tablets follow: also for the discrimination of red and green blindness, and violet (blue) blindness, and of colour blindness from colour weakness. All the tests are very simple, and, it would seem, easy of application. On page 12 of the accompanying text, IX is a misprint for XI. The author naively explains how with the tablets even the colour blind may examine the colour blind.

In *Some Health Aspects of Education*, Dr. PERCY LEWIS (London: Scientific Press, Limited. 1898. Crown 8vo, pp. 35. 1s.) lays down, in somewhat didactic form, the principles to be observed in a system of rational education. After some introductory remarks on nutrition of brain and body, in the course of which he recommends that "there should be a filter in every nursery, and the children should be allowed to help themselves (to water) when so inclined," he treats of the beneficial effect of judicious muscular exercise on brain condition. The characteristics of the neurotic and of the lethargic child are next pointed out, and it is shown how in each instance muscular and mental exercise should be regulated. The constitutional causes of backwardness are briefly referred to, and remedial measures suggested. The necessity of the medical inspection of schools and scholars is urged both in the interest of teachers and taught, and the question of school attendance by delicate children is judiciously discussed. This pamphlet (which seems to be founded on a popular lecture) will be read with interest by many parents who take an intelligent interest in the training of their children.

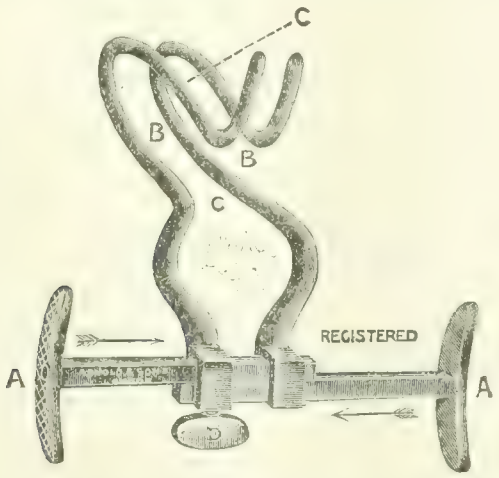
A GYNÆCOLOGICAL Society has been founded at Bucharest. Professors Romniceanu and Demosthen are the Presidents. Among the foreign members are Professors Schauta, of Vienna, W. A. Freund, of Strassburg, and von Winckel, of Munich.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

The Local Application of a Current of Hot Air.—Dr. R. Fortescue Fox (Strathpeffer Spa) writes: Among the various forms of local treatment, particularly in chronic affections of the joints, thermal applications have always taken an important place. Hot baths and douches make use of a watery vehicle, which, however, is subject to a rather low limit of temperature, say 120° F. By means of steam, a thermal application can be devised at a considerably higher degree of heat, and such contrivances have been found beneficial in softening the tissues and increasing the power of movement of stiffened joints, etc. By means of hot dry air it is possible as in the Turkish bath, to apply to the human body very much higher temperatures (and, therefore, more intense thermal stimulation), than any afforded by aqueous baths or vapours. During the last few years a closed metal cylinder, heated by a gas furnace, has been in use under the name of the "Tallerman-Sheffield Local Hot Air Bath," and several medical authorities have reported favourably on the results obtained by it in old standing cases of rheumatoid arthritis and other forms of stiff joints. It occurred to me to try the effects, not of a closed chamber, but of a current of hot air, and Mr. J. C. Stevens, of James Allen and Son, Marylebone Lane, has been good enough to construct the apparatus for me. It consists essentially of one of the powerful spirit lamps used by Messrs. Allen for their portable Turkish baths, connected with a wooden box. At one end the hot air, mixed with products of combustion, enters, and after circulating escapes by lateral flues. The upper or lower limb is introduced at the other extremity of the box and rests upon a padded support. The outflow of air is regulated by sliding valves. It is found that the arm or leg can bear with comfort a temperature of from 200° F. to 300° F. in this chamber. Free diaphoresis occurs, but the moisture is immediately carried away by the current of hot air. The skin therefore usually remains nearly dry, and becomes of a deep red colour; the temperature of the limb is raised several degrees, and that of the entire body to a small extent. Experience with this apparatus during the past year at Strathpeffer Spa has been of an encouraging character, and goes to show that thermal stimulation at high temperatures affords a valuable means of stimulating the nutrition of the parts and promoting movement.

Parallel Expanding Rectal Speculum.—Dr. James MacMunn, London, E.C., writes that after a fair trial of a speculum made



for him by Messrs. Arnold and Sons, he finds that it is simple, effective, and is self-retaining. Its open construction affords an extensive field, and allows of many manipulations; thus C C and B B are open spaces. To open the instrument grasp A and A in the hand and approximate them, or with obdurate sphincters place a thumb in C and approximate C and A. The resistence of the sphincter is thus met by the intelligent power of the hand, and not by a lever or screw. To withdraw, see that D is loose and press blades together. The instrument is shown partly open.

THE REPORT OF THE MEDICAL OFFICER OF HEALTH OF LONDON FOR 1897.

II.

VITAL STATISTICS *(continued)*.

Measles.

THE deaths from measles in the Administrative County of London during 1897 numbered 1,933, and furnished a rate of 0.43 per 1,000 per annum—a figure which does not amount to much more than half of the high rate of the preceding year, when measles became extensively epidemic. As would be expected from their relatively high birth-rates and from the large numbers of the poorer classes that are housed in them, the eastern group of districts had the highest mortality from the disease. Many interesting extracts are given from the reports of medical officers of health dealing with the prevalence of measles among school children, the benefit of school closure, and the value of notification of this complaint under the Infectious Disease (Notification) Act, 1898. Attention is drawn by more than one medical officer to the fact that although the Code of Regulations of the London School Board requires that the medical officer of health of the district shall be informed of a child's exclusion on account of symptoms of infectious disease, it is rarely that effect is given to the regulation so far as measles is concerned.

Scarlet Fever.

The death-rate from scarlet fever was 0.17 per 1,000 living, which is the lowest rate since 1891. In the distribution of the scarlet fever mortality in London the central group of districts had the highest rate during the year as a whole, and the northern the lowest—the rates for St. Marylebone and Stoke Newington being only 0.06. Testimony of infection through school attendance is collected from the reports of many medical officers of health. More especially does Dr. Harris of Islington go into this subject; he tabulates the mean prevalence of scarlet fever for each week of the period 1890-97 in three sections of the population, namely those under 3 years of age, those from 3 to 14, and those aged 15 and upwards; he then shows that whereas in the first and third section there was increase of scarlet fever in the holiday month of August, there was in the second section, which comprises children of school age, some decrease; and that whereas in September there was a slight increase of cases among children of pre-school age, and in persons of past school age a slight decrease, the number of cases in children of school age showed a most marked increase. Some interesting facts are also given with reference to the seasonal variation in the age and sex distribution and fatality of this disease.

Diphtheria.

Whereas the case-rate from diphtheria was one of the highest which has been recorded for London since the Infectious Disease (Notification) Act came into force in 1889, the death-rate (0.50) was the lowest since 1892. In default of any evidence of a natural attenuation of the virulence of the disease, such as scarlet fever presents, it is probable that the marked fall in the case-mortality has resulted from the more successful treatment of the disease, and doubtless the more general and prompt use of antitoxin is in no small measure responsible for the superior results.

In the distribution of diphtheria mortality the eastern districts of London suffered most, the western the least.

Many extracts from their reports show the metropolitan medical officers of health to be in very general agreement upon the influence which school attendance exerts upon the spread of this disease as well as that of scarlet fever and of measles. For the purpose of ascertaining whether in 1897, as in previous years, there was a decrease of diphtheria preval-

ence among children of school ages during the summer holiday, Mr. Shirley Murphy has prepared the following table:

Diphtheria—Notified Cases, 1897.

Period.	Notified Cases—Ages.			Increase or Decrease per cent.		
	0—3.	3—13.	13 and upwards.	0—3.	3—13.	13 and upwards.
Four weeks preceding weeks of holiday influence (27th to 30th)	168	707	284	—	—	—
Four weeks of holiday influence (31st to 34th) ...	153	504	250	—8.9	—28.7	—12.0
Four weeks following weeks of holiday influence (35th to 38th)	152	657	266	—0.7	+30.4	+ 6.4

From this it will be seen that the decrease in the number of cases notified during the period of holiday influence and the subsequent increase in the following period is most marked at the school age.

Whooping Cough.

The death-rate from whooping cough (0.41) was somewhat below the mean-rate for the past few years, and in this disease the mortality was highest in the central group of districts.

Enteric Fever.

Enteric fever furnished a death-rate of 0.13 and a case-rate of 0.7 per thousand living as compared with rhe corresponding rates of 0.12 and 0.7 in the preceding year. In the distribution of enteric fever mortality during the year the central group of districts, headed by the City, had the highest and the southern group the lowest death-rate.

Many extracts are given from the reports of medical officers of health which bear testimony to the part which oysters undoubtedly play in the dissemination of the disease.

Diarrhœa.

The diarrhœal death-rate (0.92) was the highest recorded for several years. From a group of disorders the incidence of which is so closely linked with the artificial or improper feeding of infants, overcrowding, and neglect, the poorer districts of London of course furnish the highest mortalities; indeed, if allowance were made for differences of age and sex distribution, the diarrhœal mortality would be found to reflect very accurately the comparative social status of the different districts. The intimate relationship between the mean temperature of the summer quarter and the amount of diarrhœal mortality in different years is indicated in a diagram.

Tuberculosis.

There were 7,645 deaths from phthisis in the administrative County of London during 1897, and these furnish a rate which slightly exceeds that of the preceding year. The central group of districts suffered most severely; the western group the least; and in the several districts the rate is seen to vary greatly—from 0.74 (Hampstead) to 3.36 (Strand).

A useful diagram shows the relationship between phthisis and overcrowding. From the data furnished by the census of 1891 it is possible to show the proportion of the population of each district occupying tenements of one, two, three, and four rooms, in which there were more than two persons to a room, and employing the term "overcrowding" to represent such conditions, and grouping the various districts in accordance with the proportion of "overcrowding" shown by the census figure of 1891, Mr. Shirley Murphy shows how the phthisis death-rate follows the order of overcrowding. Such overcrowding, it must be borne in mind, includes many associated adverse social conditions which exercise a powerful effect upon the origin and course of the disease, as well as the overcrowding *per se*. The more overcrowded groups of districts are shown to have higher death-rates at every age-period than the less overcrowded groups.

Other Diseases.

The deaths from puerperal fever, influenza, bronchitis, and pneumonia were all below the corrected average of the preceding ten years.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD (ENGLAND) FOR 1897-98.

II.

SCIENTIFIC INVESTIGATIONS.

BACILLUS ENTERITIDIS SPOROGENES.

DR. KLEIN has given a full account of the morphological and cultural characteristics of this bacillus, and includes some observations on its occurrence in milk, excrement, and sewage. This anaërobic organism, which Dr. Klein identified in 1895, has been shown to occur in the intestinal contents and fæcal discharges of patients suffering from infantile or autumnal diarrhœa, though not to be obtained from healthy people or those suffering from casual diarrhœa. Dr. Klein has been able to explain some of the cultural difficulties encountered by Dr. Andrewes. It is a flagellate, spore-bearing, liquefying, aërogenic anaërobe. The vegetating bacillus forms non-liquefying colonies, whereas the spores produce colonies that rapidly liquefy gelatine. There is also a marked interchange in gas formation and peptonising action. Milk is the best medium for cultivation, and pure cultures are obtained by taking advantage of the spore formation. The virulence either of spores or bacilli may become attenuated, but this can be restored when only partially lost. Many problems connected with this microbe still require elucidation, for example, what conditions determine spore formation, what toxins are formed, and whether a serum reaction can be obtained, but Dr. Klein has undoubtedly made a most important contribution to the subject.

THE CHEMICAL AND BACTERIOLOGICAL EXAMINATION OF SOIL.

The enumeration and identification of the micro-organisms that taken altogether form the bacteriological flora of various kinds of soil is a vast task, of which only the fringe has yet been attacked, and yet it is a highly important branch of knowledge to the hygienist. For as knowledge on the subject accumulates it may be possible to prophesy the flora of a water, provided its origin is known; and hence, if the flora should vary widely from the standard for a water derived from a particular class of soil, this in itself might be taken as evidence of contamination, and comparatively slight further investigation should then reveal whether this pollution is due to sewage or not. Dr. A. C. Houston points out that many of the bacteria found in surface soils do not commonly occur as water organisms, hence the discovery of these particular organisms would indicate a contamination with "flood water," which may be (and often has been) a real danger to the community. He finds that chemistry cannot differentiate between recent contamination with animal excretions and high organic constituents due to vegetable matter when the ordinary chemical processes are applied to soil, whereas bacteriologically more definite evidence is obtainable. He was able to detect the B. coli and B. enteritidis sporogenes in certain soils, and with greater ease and certainty in those that had been recently manured than in virgin or sandy soils. This being so, Dr. Houston believes, and in this Dr. Klein concurs, that in the B. enteritidis sporogenes we have a new test for contamination of soils, and therefore of water derived from them.

BACTERIOLOGICAL EVIDENCE OF POLLUTION OF POTABLE WATERS.

In a report on this subject, Drs. Klein and Houston emphasise the failure of chemistry to detect pollution of water with minimal quantities of sewage. Sterile distilled water was infected with sewage in varying degrees, representing dilutions of sewage ranging between 1 in 100 and 1 in 20,000. Chemically they found that the majority of these waters would have been classed as at least organically safe drinking water, but in each and all the B. coli and the B. enteritidis were detected.

THE GROWTH OF THE TYPHOID BACILLUS IN SOIL.

Dr. Sidney Martin has continued the work done by him on this subject, as to which a report was presented last year. He showed then that in organically contaminated soils, sterilised, the typhoid bacillus lived and multiplied, but that in

sterilised virgin soils it died out. These observations are verified and extended. The temperature at which the experiments were conducted appeared to exert only slight influence on the results. The labour of recovering the typhoid bacillus from soil not sterilised is very great, but Dr. Martin records a single experiment in which he succeeded in recovering the typhoid bacillus from an unsterilised soil, fifty days after its inoculation. This is undoubtedly a most valuable contribution, and should encourage Dr. Martin to continue his experiments.

MICROBES ASSOCIATED WITH SCARLATINA.

Dr. Klein makes a further report on the streptococcus, named S. scarlatinæ or conglomeratus, isolated by him from the throat and nasal discharge of patients suffering from scarlatina. It is not found in the desquamating skin, urine, or aural discharge. Dr. Klein expresses the opinion that it is the persistence of this organism in the throat of patients discharged as cured which gives rise to the "return cases." He emphasises his observation that it has the power of forming acid in milk and of clotting that medium in from one to three days. Illustrations of its growth in various media are appended.

GLYCERINATED CALF LYMPH.

Dr. F. R. Blaxall gives an account of a year's further experience in vaccinating the calf, collecting the lymph, and glycerinating it. The success of glycerinating was in nearly all cases complete within four weeks. Where cultures showed it to be non-sterile, at the end of that period the bacterium proved to be either B. subtilis or B. mesentericus vulgatus. These, however, could be excluded by scrupulous attention to the cleansing of the vaccinated area. Dr. Blaxall also found that added tubercle bacilli died out at the end of a month in the glycerinated vaccine, and were incapable of infecting the guinea-pig. Also, in his experience, at the end of nine months such glycerinated lymph was invariably successful when used on infants.

THE MICROBES ASSOCIATED WITH VARIOLA.

Dr. Klein describes additional experiments which he has made on the B. albus, a bacillus isolated by him from the scabs of human variola; cultures of this micro-organism were injected subcutaneously into calves and monkeys. In neither animal was any marked effect, either local or constitutional, produced. The monkeys died of some form of diarrhœa, but the calves recovered, and were all found at the end of four or five weeks from the termination of the experiment to be in no way protected against typical vaccinia when vaccinated with animal vaccine lymph.

INVESTIGATIONS ON MALARIA IN ITALY.

REPORT BY PROFESSOR CELLI.

(Concluded from page 96.)

PROFESSOR CELLI stated that the parasite of spring tertian is now cultivated in the body of anopheles claviger. Fermi has tested a hunded substances believed to have "culicifuge" properties, using them in the form of inunction, which is best adapted to the habits and the necessities of life in the open-air of the workers in the season and in places where malaria is rife. He has thus demonstrated that two substances at least have all the necessary qualities for this purpose, and with them he proposes to make extensive prophylactic experiments on man in the coming malarial season.

This year Celli himself has been able to make an experiment on a large scale on the prophylaxis of bovine malaria in two contiguous farms worked by Lombards. In the Cervelletta farm, where the disease was formerly very prevalent, all the cows were always kept in the stalls, to prevent them being attacked by ticks, and if any of these appeared it was quickly removed. Regular treatment with arsenic was also adopted.

In the whole of this farm, which is a very large one, not a single animal suffered from malaria, while in the contiguous farm of Roca di Leoni, where no prophylaxis was carried out, and the cows were allowed to graze in the fields, in one week all were taken ill and 54 per cent. of them died from malaria; Grassi found in one an enormous quantity of the riphocephanus, the same species of tick which in America propagates the same disease.

The financial importance of these experiments is evident. In comparatively recent times bovine malaria has killed in the Roman Campagna whole herds of milch cows, and destroyed extensive irrigation works, and large industries in cheese-making. To-day science can suggest means of avoiding these disasters and to repair them.

With regard to natural immunity, two years ago Celli and Santori found that inoculations of the serum of the blood of animals immune to every species of malaria sometimes succeeded in lengthening the period of incubation of experimental malaria.

The researches, continued throughout the past fever season, have given the following results:

1. The principles on which serum immunity and serum-therapy are founded are of no value for malarial infection. In fact, it is beyond question that the serum of the blood at the beginning of the fever contains a pyrogenic substance, and it is certain that the serum itself in the defervescence of the fever has not an immunising property either for the patient himself (active immunity) or for others (passive immunity), and on the latter it has no curative action, just as the serum of the blood of cases of spontaneous cure and of immune individuals has no immunising action. Celli and Santori are continuing the experiments to discover whether the cellular elements of the blood in the above-mentioned conditions contain some toxic principle, immunising or curative.

2. The inoculation, even frequently repeated, of the blood of bovine malaria does not protect man from malaria, as the serum of the blood of cattle cured of their malaria does not protect him.

3. Neither have experiments in regard to serum immunity with organic juices (brain, spleen, bone marrow) of cattle that live in a very healthy state in malarious regions, hitherto given results positively favourable for man.

4. The serum of the horse's blood treated for a long time with large progressive doses of quinine has proved to be inefficacious both as a preventive and a curative of malaria both in man and cattle. Immunity against the natural infection of malaria may be congenital or consecutive to long-continued disease. Congenital immunity may sometimes be maintained with a life of toil, with diminished feeding, with excessive work. Such immunity is more stable than when it is consecutive. It rarely resists experimental infection, that is, by inoculations of large doses of blood containing malarial parasites.

Dionisi has found parasites perfectly analogous to those of human malaria in some species of bats: that is, he has found a pigmented parasite similar to one of those of the spring fevers of man, and a parasite without pigment resembling that of æstivo-autumnal fevers of man. And Casagrandi, in his researches on malaria of animals of the Pontine marshes, has observed parasitic forms within the red corpuscle of a small mammal of the Campagna.

Dionisi also studied in the summer and autumn of last year how anæmia is established in the various malarial infections, what special characters it presents in the various febrile types, and what quantitative and qualitative alterations of the blood take place in nephritis from malaria and in hæmoglobinuria; while, on the other hand, Santori has prepared a map of malaria in the province of Rome, on the basis of the statistical and meteorological observations of the last decennium. All these investigations will be pubilshed *in extenso* in the *Transactions* of the Society.

Professor Celli concluded by referring to the fact that in India England has for the study of malaria placed such means at the disposal of Ross as to enable him to telegraph from Calcutta to Edinburgh a full account of his splendid researches. Germany has equipped, through the initiative of the Colonial Society, a grand scientific expedition with Koch at its head, who during the past summer visited Italy. Belgium has provided 50,000 francs for the study of malaria in the Congo. Italy, he said, where malaria keeps about 5 million acres uncultivated, and every year on an average attacks 2 millions of its most useful sons, and kills 85,000, cannot, must not, remain behind in this noble scientific competition.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 21ST, 1899.

SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

III.—THE VIEWS OF THE TEACHERS.

"*Educo, educavi*, and I ought to know something about it by this time," sing the headmasters; "*Educandum est* a little better than heretofore," sing the British parent and the Duke of Devonshire; "*Educabor, educabor*," woe is me! sing the ungrateful rising generation and Dr. Clement Dukes. In truth, the teachers have set the public a fine holiday task these holidays. It has rained headmasters most days, and poured elementary teachers and technical educators on the rest. They have all had their say or their says, and they have sometimes all talked at once, until the hearers have become a little confused. But there is one comfort; when teachers fall out, the parent may come by his own, and we can now take some stock of the subject and see where we stand.

It is evident to the meanest capacity that there are three interests involved in the matter, and that these three are by no means at one. The headmasters, who represent secondary education, were the first to make their views heard in the Headmasters' Conference at Shrewsbury before Christmas, and they have reappeared at the Guildhall this week as the Headmasters' Association. They with a few exceptions welcome the Duke's proposal to take public care of secondary education, but among the exceptions is one, Mr. Philpotts of Bedford, whose opinions are of great weight. His fear is that the schools are giving up their freedom and individual character while they have nothing to gain from the Government, and may by incompetent and unjust inspection lose a good deal. Next the headmasters emphatically assert that secondary must be kept clear of elementary education, that they must be managed by a separate department with special inspectors, and that since the two forms of teaching differ in their aims, in the things taught, and in the persons taught, no experience drawn from the one will be of use for the other. Thirdly, they strongly urge the creation of local authorities, in which they naturally wish to see themselves represented, and lastly they think that the Advisory Council, which is one of the provisions of Colonel Lockwood's Bill[1] should be a permanent body. The most important utterance was the speech of Professor Jebb, M.P., at the Goldsmiths' Hall. He sought to dispel the fear of red tape and official officiousness which had been in the mind of Mr. Philpotts. He thought that they had better not expect or urge that the local authority should form part of the Bill, but that it would more easily be created by a second; he pointed out that the separation of secondary not only from elementary but also from technical education was expressly indicated in the Duke's speech, and he adopted the opinion of the headmasters that the Advisory Council should be of a permanent character.

Meanwhile the National Union of Teachers, by the pen of their chief officers,[2] have been giving vent to feelings of a different nature. The chief part of their letter deals with technical education alone, but in the concluding paragraph they claim "that secondary and technical education must be treated as part of an organic whole; must be based upon or dovetailed in with efficient primary education, and must be managed by an authority which shall contain a fair proportion of persons whose experience in the management of public elementary schools entitles them to be heard, and enables them to give guidance in the co-ordination of one degree of education with another." This directly traverses the resolution of the headmasters quoted above. The aim is no doubt to facilitate the passage of clever boys from Board schools or national schools into grammar schools and public schools; but while we should all sympathise with the intention, it is probable that it would be equally well carried out without introducing elementary teachers into the government of secondary education with which they are not familiar.

The rest of this letter is an attack on the local bodies which are at present springing up for the organisation of technical education. They are subject to the approval of the Science and Art Department of South Kensington, and the burden of the National Union of Teachers is that the School Boards are not represented upon them. At the same time the letter makes a savage attack, which is not likely to win public sympathy, upon the Science and Art Department itself.

A counterblast is issued by the Association of Directors and Organising Secretaries for Technical and Secondary Education. This represents counties and county boroughs who have formed committees for this purpose. These committees no doubt are a fair sample of what the local authorities will be when they take bodily shape. Their members look upon the matter from the point of view of the public official, and evidently feel towards the teachers much as the governing body of some hospitals feel towards their medical staff. They think the teachers should know their place, and they have no intention of being dictated to.

This being a quarrel between two sets of public servants upon a rather special matter concerns little the cause of secondary education, in which chiefly we are interested. But it shows unmistakably that a central authority to keep the peace will be of considerable benefit. It is with secondary as apart from technical education (the two are mixed up and confused in the above quarrel, which is solely on the subject of technical education) that we are here concerned, and in the matter of the present Bill we

[1] BRITISH MEDICAL JOURNAL, January 14th, p. 100.

[2] See a letter to the *Times* of December 23rd, 1898.

shall very cordially support the views which the headmasters have put forward.

The meetings and letter above referred to have dealt with the Government control of schools, as embodied in the Duke's Bills and in that of Colonel Lockwood. Meanwhile an important series of meetings have been carried on at the College of Preceptors, to consider methods of education. With these we hope to deal in a future issue.

IMPERSONATION AND THE "MEDICAL REGISTER."

The extraordinary case of impersonation disclosed by the hearing of the case Regina *v.* Nugent alias Rowland tried at the Old Bailey last week deserves more than passing notice. That an unqualified man should have been able to get himself placed on the *Medical Register*, assuming the name, style, and titles of a medical practitioner formerly registered will come as an unpleasant surprise to members of the medical profession in this country, since it might reasonably have been supposed that precautions would be taken by the General Medical Council to prevent the possibility of such an occurrence. It came out in evidence at the police court that the Secretary of the Medical Defence Union as far back as May, 1895, became aware that a person calling himself Edward Joseph Nugent was practising medicine in Barking Road, Canning Town, E., that there was no such name upon the *Register*, and that there existed considerable doubt as to his real identity.

The Secretary accordingly wrote a warning letter to the practitioner, inviting him to make any explanation he could. At a subsequent interview "Nugent" was distinctly charged by the Secretary of the Union with being an impostor and with having assumed the name and qualifications of the real Edward Joseph Nugent, his own name being Rowland. These charges were, it is stated, indignantly denied by Rowland—as we may now call him. The explanation he gave was that, owing to his having been travelling, his name had been erased from the *Medical Register* under Section xiv of the Medical Act, 1858. A demand was also made by Rowland for the name of the informer so that he might proceed to take action for damages for libel. This request was, of course, refused, and the Secretary of the Union, being satisfied that he had to do with a case of impersonation, wrote to the General Medical Council on May 25th, 1895, suggesting that, should the Council receive an application for registration from a person calling himself Edward Joseph Nugent, the Registrar should, before effecting such registration, communicate with him, and giving reason for the request.

Unfortunately, it appears that this warning did not receive at the office of the General Medical Council the attention which it merited; and whilst the Union was collecting evidence for prosecuting Rowland under Section xl of the Medical Act, 1858, registration was effected with the Branch Council in Ireland. It would appear that no communication impressing extra care upon the Registrar of the Branch Council for Ireland in reference to this registration was sent from London, and therefore the usual course was adopted, and the name restored to the *Register*.

It appears that Rowland induced by some means—which will no doubt form the subject of inquiry—a registered practitioner to identify him as the real Edward Joseph Nugent, and to sign the formal notice of such identification, stating that the applicant was the same person, with the same qualification originally registered in 1866. Registration having thus been effected, the prosecution proposed under the Medical Act had to be dropped by the Union.

The facts disclosed in this case make it quite clear that the usual course adopted by the General Medical Council for identification of persons desirous of having their names restored to the *Register* is unsatisfactory. It is true that, by a Standing Order of the General Medical Council, no application for restoration to the *Register* shall be entertained unless it be accompanied by a certificate of identity from a clergyman, a magistrate, or a registered practitioner, or by such evidence of identity as the Council or the Executive Committee may find sufficient. The certificate of identity used is in these terms: "I hereby certify that ———— is the same person whose name formerly stood in the *Medical Register*, with the address ————;" and then follow the signature and address of the person identifying. An unscrupulous applicant would obviously have very little difficulty in stultifying this safeguard; a written certificate of identity is not worth the paper on which it is written; for if a man is sufficiently unscrupulous and audacious to desire to personate another, he is not likely to stick at forging the name of a registered practitioner to the certificate of identification. Under the existing regulations, the probability of detection would not be great. It would perhaps render the risk of forgery less if, on receipt of the application form, the Registrar were directed to communicate directly with the registered practitioner whose signature is purported to be affixed to the document of identification, and so require confirmation of such signature. But in the case of Rowland, this precaution, it would appear, would not have sufficed.

It is quite clear that at the next session of the General Medical Council steps must be taken to revise and strengthen the regulations under which names are now restored to the *Register* after having been removed under Section xiv. The profession must be saved from such scandals as have been happily brought to light in this case, for the scandal by no means ended with the condemnation of the impostor Rowland. Nugent, the real practitioner, left his diplomas in the hands and for the use of an unqualified person in consideration for the sum of 3s. 6d. a week to be paid to his wife during his absence in the Colonies. Again, the personating practitioner not only succeeded in obtaining entrance upon the *Medical Register*, but actually practised for some four years with impunity, and the long-continued watchfulness of the Medical Defence Union has only at last been successful in bringing him to trial owing to the carelessness of the personator himself. He has now been convicted on the charges of manslaughter and perjury, and has been sentenced to three years' imprisonment for each crime, the sentences to run concurrently; and it cannot be said that the punishment is severe having regard to the very grave nature of the offences. The importance of the case, however, altogether transcends the particular fate of the convict, since it discloses the way in which a rascal may slip on to the *Medical Register*

under the name of a registered medical practitioner whose name has dropped out owing to the operation of Section XIV of the Act of 1858.

THE DEPOPULATION OF FRANCE.

THE returns for 1897 just issued will afford some encouragement to those patriotic Frenchmen who have endeavoured to arouse their countrymen to the serious danger to French prosperity and influence which the decline in the birth-rate recorded for many years past is calculated to entail. The subject is one which should interest the people of this country also because there can be no doubt, as Dr. Henry May has shown, that a similar process, probably due to similar causes, is in operation here. The French returns show that in 1897 the excess of births over deaths—in round numbers 859,000 births to 731,000 deaths—was due, not to an increase of births, which were 6,000 below the number in 1896, but to a further diminution in number of deaths, which in 1896 had been 771,000.

The whole subject of the stationary, and in certain provinces the rapidly declining, numbers of the French population, has recently been discussed by M. Arsène Dumont,[1] who goes so far as to compare France to a sick branch of the tree comprising the human race, and then proceeds to discuss the nature, causes, and possible remedies of the malady. It is unnecessary to state here the elaborate statistics, showing that if the French population be separated from the foreign population living in France, there has been for several years past, an actual excess of deaths over births. The disease, it is true, is a chronic one, marked by remissions. Thus 1893 did not show so great a deficiency as the three preceding years, and in 1894 there was an excess of 45,000 births over deaths. The disease is nevertheless progressive, and it cannot be said to have been hitherto arrested. A study of the different parts of France shows that the disease tends to spread like a contagious malady, neighbouring provinces which had hitherto showed an excess of births over deaths gradually becoming implicated. This social malady, in M. Dumont's opinion, furnishes a striking proof of the fact that the nation is a living entity, and more than an aggregation of individuals. We may accept this as a figure of speech, but it is clear that in the ultimate analysis the stationary condition and tendency to decrease of the population of France are caused by the default (voluntary or otherwise) of a large proportion of the married people in France to become parents, leading to the disease which Aristotle called oliganthropy, which killed some of the great races of antiquity, and now threatens France. The result is governed in the main by the fecundity of marriages. Hence the following comparative figures are of great importance: For every 1,000 married women, the number of annual legitimate births in France is 115, as compared with 184 in Belgium and Italy, 176 in Switzerland, 186 in Norway, 190 in England and Wales, 202 in Germany, 205 in Scotland, 206 in Prussia, and 216 in Würtemburg. Taking the census returns of 1891, we find that 20 per cent. of the total families in France had more than 4 living children in each; 15 per cent. had 3 living children in each; altogether 35 per cent. of the total number of families had a sufficiency of children to prevent the population of France from becoming stationary. On the other hand, 22 per cent. of the total families had only 2 living children, and 24 per cent. had 1 living child, leaving 19 per cent. without children. Attention is drawn by M. Dumont to the fact that this smallness of families has occurred along with a far from universally diffused knowledge of the voluntary means that have been the chief cause that 46 per cent. of married couples have not more than two children or only one; and that in a large number of other instances the non-occurrence of smaller families has been due merely to the ignorance of parents of the artificial means for bringing this about. "*La bourgeoisie*" refuses the responsibility of being chargeable for more than two children; "*le peuple*" accepts it, if not willingly, still patiently. Perhaps in assigning a happy state of ignorance as a chief cause of the greater fecundity of the peasantry in France M. Dumont does not ascribe sufficient importance to the fact that a much larger proportion of the peasantry than of the middle classes in France are Roman Catholic, and the practices indicated above are strictly forbidden by the Roman Catholic Church.

Other explanations than the above have been advanced to explain the infecundity of the French population. It may be somewhat flattering to French sentiment to argue with Herbert Spencer that individual evolution is in antagonism to the procreative faculty, but we are unable to agree that there is a tittle of evidence to show that the higher intellectual attainments of the French are responsible for their relative infecundity. Nor can the painful analogy between old age in the person and in the community mislead those who study the question dispassionately. The French in Canada have a very high birth-rate, so likewise have the Italians.

Emigration from France is but slight, and the death-rate, although higher than it ought to be, does not account for the stationary population of France. It is, in fact, due to its low birth-rate; and M. Dumont, in the next place, shows that the voluntary curtailment of the family, as already indicated, is the cause of this low birth-rate. Three, and still less two, children to a family do not suffice, in view of the number of sterile marriages, to maintain the population. The evil is caused by each married couple regarding themselves as individuals, without any regard to the general good of the community. It will be seen from this view of M. Dumont's argument that he does not occupy the high platform of those who object *in toto* to artificial measures directed against conception in connection with married life. In not taking this position, he appears to us to miss an argument which would appeal to a much larger proportion of the community than any other. He is contented with pointing out that Malthus was a bad prophet; that in France it is depopulation and not over-population which is to be feared. That Malthus was unable to foresee this was due to the absence of demographical statistics, which have only come into existence since his day.

Whether selfishness will extend and become supreme at the expense of the general good, and France become in

[1] *Natalité et Démocratie*, par Arsène Dumont, Membre des Sociétés d'Anthropologie et de Statistique de Paris. Paris: Schleicher Frères, 1898, p. 232.

consequence a second or even a third-rate Power in the world, remains to be seen. The question has a wider aspect, which we can only mention in conclusion. The birth-rate in England and in other countries is declining, though not with the rapidity of its decline in France. This decline is probably due largely to the same causes as in France. The future of the world's history depends largely on the question as to which races will continue to multiply and to colonise until the limits of colonisation have been reached, when other races have, through the exercise of selfish prudence, ceased to take part in this colonisation, and upon the relative excess of births over deaths in the different European countries preceding the stage at which other nations like France may have ceased to any material extent to add to the emigrant population.

THE BRITISH MEDICAL ASSOCIATION AND THE COLONIAL OFFICE.

LAST year the Legislature of Jamaica passed a law (No. 22) "to provide for the notification of infectious diseases;" this law imposed on medical practitioners in the colony the duty of notifying cases of infectious disease under penalty of a fine of 40s., but provided no payment for the obligation thus imposed. The Jamaica Branch of the British Medical Association forwarded a communication to the Council of the parent Association on this subject, and the President of the Council immediately addressed a letter to the Secretary of State for the Colonies calling his attention to this provision of the new Jamaica law, and pointing out the injustice of imposing the duty of notifying infectious diseases on members of the medical profession without at the same time providing that remuneration should be paid for this service, though the Act contained a severe penalty against any practitioner who failed to notify it. A reply was immediately received from the Colonial Office to the effect that the Jamaica law was under consideration, and that the objections to it formulated by Dr. Saundby, as President of the Council of the British Medical Association, would receive careful attention. We are glad to be able to announce that a letter has been received from the Colonial Office, and was communicated to the Council at its meeting on January 18th, giving the result of the investigation made by the Colonial Office. Mr. Chamberlain states that the Governor of Jamaica has been instructed to introduce a law to amend Law 22 of 1898, and to provide for the payment of fees to medical practitioners for notifying infectious diseases, and to protect them from any legal consequences of such notification. The text of the amending law has not yet been received, but the prompt and decisive action taken by Mr. Chamberlain shows that he thoroughly grasps the point at issue, and is ready to take very decided steps to prevent the infliction of an injustice upon the members of the medical profession by a Colonial Legislature. The incident is a good illustration of the services which such a world-wide organisation as the British Medical Association is able to render to its members, and of the readiness of Cabinet Ministers to give attention to representations made to them on behalf of the Association. We cannot let the occasion pass without an acknowledgment of the manner in which the Colonial Secretary habitually receives representations made to him on behalf of the Association. Mr. Chamberlain's manner of replying to such representations, and still more the prompt and clear-sighted way in which he deals with them, are a refreshing contrast to the circumlocution and hesitation, which taken together seem often to amount to indifference, displayed by some other departments of the Government.

THE NEW POISON REGULATIONS.

THE action taken at the special general meeting of the Pharmaceutical Society of Great Britain last Wednesday week has been very generally misunderstood, and in some instances misrepresented by the press. It was an exercise of the power conferred upon the Society to prescribe regulations as to the keeping, dispensing, and selling of the articles which are poisons within the meaning of the Act. The regulations then adopted relate principally to the keeping of such articles in a manner calculated to prevent mistakes in dispensing medicine and in their sale. For that purpose each vessel or package containing an article of the kind referred to is to be labelled with the name of the article it contains, and also with some distinctive mark indicating that it contains poison. As a further precaution against mistaking any vessel or package containing a poison for another, each one is (1) to be kept secured in a manner different from the vessels or packages containing ordinary articles in the same warehouse, shop, or dispensary; or (2) the vessel containing a poison is to be rendered distinguishable by touch from those in which ordinary articles are kept; or (3) the vessels or packages containing poisons are to be kept in a room or cupboard set apart for dangerous articles. In the case of liniments, embrocations, and lotions containing poison, the bottles in which they are dispensed or sold are to be rendered distinguishable by touch from ordinary medicine bottles, and in addition to being labelled with the name of the contents, each bottle is to have a label giving notice that the contents are not to be taken internally. These regulations having been made by the Pharmaceutical Society, in conformity with the provisions of the Pharmacy Act, 1868, they will on receiving the consent of the Privy Council have the force of law in the same manner as the other regulations as to the sale of poisons, which are set forth in the Act. In future, it will therefore be unlawful for any person to sell, or keep open shop for retailing, dispensing, or compounding poisons unless conforming to these regulations, and any such persons failing to observe the regulations will be liably to a penalty of £5 for every offence. It is mainly in regard to this compulsory bearing of these regulations that the action now taken will be productive of practical difference in procedure. The regulations now prescribed as part of the Act were in fact drawn up by the Council of the Society soon after the passing of the Act. In 1871 they were adopted as recommendations which have since been very generally acted upon by registered chemists and druggists. At that time the proposal to make these regulations compulsory met with considerable opposition and the alternative of recommending their observance was considered by the Privy Council to be an insufficient exercise of the powers conferred upon the Pharmaceutical Society, by which the entire body of registered chemists and druggists were enabled to enjoy the privilege of autonomy in an exceptional manner. The present action of the Society may fairly be regarded as evidence of improved opinion in that respect, which is in every way satisfactory so far as the interests of the public are concerned, and to the credit of the pharmaceutical body.

SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

MR. H. W. EVE, the Dean of the College of Preceptors, in a letter which was published in the BRITISH MEDICAL JOURNAL of January 14th, p. 123, drew attention to an error in the statistics quoted in a leading article published in the preceding issue. We regret the error, which was due to the fact that the publication of the article, which was founded on the text of the Education Committee of the General Medical Council, had been delayed, and that by an oversight the error in this report pointed out by the College of Preceptors was not corrected in the article. But

though the correction is no doubt of some importance from the point of view of that College, the practical issue in which we are interested is not affected. For, if the report be read, it will be found that the recommendation that the particular examination be no longer recognised was by no means based upon the statistics, true or false, but that the supposed statistical facts called attention especially to this examination, which was then closely investigated by means of inquiries addressed to a number of headmasters, and by a scrutiny of the papers, answers and marks allotted, which were, by the courtesy of the College of Preceptors, placed at the disposal of the Committee. The result of this extended inquiry was that the Committee came to the conclusion that this (the only examination thus completely investigated) was not of a sufficiently high standard for retention; but at the same time the Committee announced their intention of recommending at no distant date the removal from the list of some other low grade examinations. The Council, thinking that in this the Committee hardly went far enough, referred back this part of the report in order that a date might be fixed for further changes in the same direction. Hence this examination would not have been retained for any length of time, and the complaint of the College of Preceptors merely applies to its having been specially singled out. The College contends that the examination is equal to some of those which are for the present retained. That is a matter of opinion, and the Committee—rightly or wrongly—thought otherwise. Mr. Eve—as perhaps we all are inclined to do when dealing with statistics—has, we are disposed to think, somewhat strained the grounds of his argument. That the gentlemen whose preliminary education was deemed insufficient form but a small percentage of the whole number of those who choose this avenue for obtaining registration does not seem to affect the question, for the Committee were not directly concerned with the educational acquirements of the average medical student, which are well known to be not entirely satisfactory, but with the attempt to discover something about the worst of them. As it is a strong measure for examiners in technical subjects to stigmatise the candidate in respect of his general education, we may take it that when they do so the deficiency is extreme, and that the cases will necessarily not be very numerous. If the Committee were in error in supposing that the particular examination of the College of Preceptors is of less stringency than the University Junior Local Examinations, that is a matter between them and the College of Preceptors, but so far as the medical profession is concerned no one can reasonably doubt that this examination has been rightly removed from the list, and that the Junior Local Examinations should follow it.

TUBERCULOSIS IN POOR-LAW INFIRMARIES.

THE statement made by the medical officer of the Lambeth Infirmary at a recent meeting of the Board of Guardians appears strongly to bear out the observations recently made in the BRITISH MEDICAL JOURNAL as to tuberculosis in the parochial infirmaries of London. We gather that during the year just closed out of a total of 760 deaths from all causes, no fewer than 129 deaths from tuberculous disease occurred in the Lambeth Infirmary, 112 of those being due to pulmonary phthisis alone. Assuming a similar death-rate from tuberculosis to be applicable to the rest of the infirmaries, it would seem that the calculation made by us is not very wide of the truth. Such a mortality, as the Chairman of the Lambeth Board remarked, seems terrible. It is, however, to be remembered that the infirmaries deal with practically little else than advanced and hopeless cases of the disease. This, however, merely accentuates what we have said as to the necessity of securing as early as may be the separation of this vast aggregation of active infection from the immediate vicinity of patients not suffering from tuberculosis. We believe that in some infirmaries the importance of this has long been recognised, more particularly with regard to children. Nothing short of the absolute segregation of the infected will now satisfy modern requirements. As we have already pointed out, the ways and means to that end present no insuperable difficulty. It is satisfactory to note, therefore, in the columns of some of our daily contemporaries, that large and influential bodies like the Lambeth and St. Saviour's Boards of Guardians are already in active movement, and purpose giving the matter the serious attention it deserves. No doubt when the importance of providing fit and proper accommodation for their tuberculous inmates is fully realised by the other Boards in the metropolis some joint action will be taken to adopt the open-air sanatorium system of treatment, which, according to present lights, appears to be the desideratum. The St. Saviour's Board has indeed taken the initiative in this respect, and we understand that at its next meeting a proposal for concerted action by all the Boards of Guardians will be brought forward. We trust to be able very shortly to chronicle some real progress towards the establishment of sanatoria for our poorest brethren.

SCARLET FEVER AND SMALL-POX.

DR. MEREDITH YOUNG, M.O.H. Crewe, in a recent report, has referred to the question of return cases of scarlet fever, and states that, notwithstanding all precautions, a few cases have arisen in connection with the borough hospital. So imbued have the Hospital Committee been with the apparent hopelessness of guaranteeing that a child shall be absolutely free from infection on discharge, that a notice is sent out by the medical superintendent in respect of each scarlet fever patient, giving a warning on the subject. The remark made by Dr. Johnson, of Stoke-on-Trent, that during 1897 he continued to transmit to the Local Government Board and to his County Council weekly returns of notified cases of disease, leads us again to express the wish that such returns were compulsory, and were published for all districts in the country, just as mortality returns are now available. Such returns as are now included in the annual volumes of the medical officers of the Local Government Board will become more and more valuable as time goes on. Dr. Hill, of Birmingham, has something to say in favour of vaccination, and points to the data of the last epidemic of small-pox in that city, when of children under 10 years of age attacked by the disease, not one of those vaccinated died, whilst 35 in each 100 of unvaccinated cases proved fatal. Of patients of all ages, less than 5 died of each 100 vaccinated, and over 31 of each unvaccinated persons. Dr. Hill looks forward with grave apprehensions to the consequences of having in our country a multitude of unprotected people to face the small-pox epidemics of the twentieth century.

A NEW CURE FOR BALDNESS.

BALDNESS, if we are to believe that revolutionary investigator, M. Sabouraud, must now be looked upon as a microbic disease, and it will probably not be long before an antitoxin is discovered warranted to prevent the depredations of that subtle thief of youth who steals from the head of man his hyacinthine locks, before he has had time to produce a compensatory growth of what Parolles calls "valour's excrement" on his face. In the meantime we may, perhaps, get a hint where to look for the specific from the heathen but ingenious "Chinee" who finds sustenance for his pigtail in *ragoûts* of rats. A Chinese gentleman, whose name we are regretfully compelled to keep secret—because we do not know it, thus sings the praise of rat flesh as a hair restorer:- "What the carrot is to a horse's coat a rat is to the human hair. Neither fact can be explained, but every

horseman knows that a regimen of carrots will make his stud as smooth and as lustrous as velvet; and the Chinese, especially women, know that rats used as food stop the falling out of hair and make the locks soft, silky, and beautiful." It is almost needless to add that he goes on to say that he has seen the treatment tried many times without a single failure. Bald people will do and suffer many things to make their estate more gracious, and they are not likely to shrink from the remedy which the Chinese ladies find so efficacious. M. Sabouraud may, perhaps, be induced to turn his attention to the subject. Is the rat liable to baldness? And if not, is its immunity natural or acquired? In either case it might be possible to obtain from it a prophylactic and curative serum, the use of which would make the eating of the rodent unnecessary. Any researches in this direction will be watched with the keenest interest by a considerable proportion of the human race. Hope springs eternal in the human breast—especially when the head above it is bald. To see a man whose hair is coming out buy an alleged infallible cure from one whose own head shows an ultra-Shakspearean bareness of surface is to witness a manifestation of faith in what theologians call the "heroic degree." We have a more plausible, if not a better, guarantee than this in the rat, which, being hairy itself, might at least conceivably be the cause of hairiness in those courageous enough to make it flesh of their flesh, either *au naturel* or in organic extract.

THE REVISION OF THE UNITED STATES *PHARMACOPŒIA.*

THE Committee of the Medical Society of the State of New York on the United States *Pharmacopœia* has issued a circular asking aid in its efforts to stimulate a greater interest in the approaching revision of that book, and formulated six propositions upon which they request comments. The following are the propositions:—1. That all drugs and preparations not now prescribed to any extent by physicians be dismissed. 2. That all chemical drugs necessary to other preparations but which are not directly prescribed be placed in a list apart from the body of the work. 3. That doses be included in the next revision. 4. That doses be placed in the index rather than in the text of the book in order to secure reference, and to avoid making them official. 5. That a section be devoted to giving reliable information concerning new remedies without in any sense making them official. 6. That an annual supplement of a few pages for the purpose of continuing similar disinterested information concerning new drugs be issued.

HÆMOGLOBINURIC FEVER IN BRITISH CENTRAL AFRICA.

THE circular (No. 2) recently issued by the Medical Department, British Central Africa, on blackwater fever contains the clinical record of a number of cases of blackwater fever, and some useful general information about that worst and perhaps least understood of African diseases. According to Dr. Cross, it would appear that, as elsewhere in Africa, the disease is relatively rare in the first year of residence; that the maximum of liability is attained about the end of the second year; that when this period is passed without an attack liability gradually diminishes; that once attacked the patient is nearly sure to have recurrences, the liability to which persists even after he has left the country; and that the natives are very rarely, if ever, affected. Dr. Cross estimates that, although very few Europeans escape ordinary malarial attacks, only about 10 per cent. of the European residents in British Central Africa get blackwater fever. He considers that the disease is more common in the high lands than in the low districts of the Protectorate; and that, although manifestly associated etiologically with malaria, it is not amenable to antimalarial treatment with quinine. Natives, he says, suffer to a limited extent from malarial fevers of a tertian type. Dr. Cross has observed instances in which the liability to blackwater fever appeared to run in families. He recognises four leading clinical types: a paroxysmal form, in which daily recurrence of hæmoglobinuria takes place; a regular form, in which the urine contains hæmoglobin persistently for several days, generally three; a typhoid type, in which typhoid symptoms set in and persist even after the urine has cleared; and a suppression form, usually terminating in coma and death on the third day. Neither Dr. Cross nor Dr. Gray—who gives in detail one very interesting case of the disease—throws any light on the nature of the parasite which, it is to be presumed, is the cause of this terrible disease; but the valuable information which they and their colleagues are collecting must pave the way for much fruitful work in this direction by the Commission now on its way to Central Africa. The treatment Dr. Gray recommends for blackwater fever is warmth, rest, and diluents; for the vomiting, small doses of ipecacuanha, arsenic, cocaine, morphine, hot water, calomel, and jalap, followed by magnesium sulphate; and, when the vomiting is controlled, pig's bile, and 10 drops of turpentine every three hours. During convalescence the patient should keep his bed for at least three weeks, and take a mixture of quinine, arsenic, and iron. Dr. Cross considers that if a man gets blackwater fever before he has been two years in the country he should be invalided home. This circular and its predecessor cannot fail to be of service to medical men new to the country, as well as to medical science. We trust they will be continued.

WEATHER CYCLES.

THE principal weather cycles now struggling for recognition, by means of which it is hoped that it may eventually become possible to forecast the weather, are two, that of eleven and that of thirty-five years. Of the latter Brückner is the exponent, and he opines that at intervals of about thirty-five years a succession of cold wet periods occur, alternating with warm and dry ones. Mr. A. B. MacDowall has published recently a chart of London weather since 1786 from the standpoint of barometric pressure. He finds that the point of lowest pressure in the whole 112 years was 1842, the highest 1891. Other years of minima were 1813 and 1876; between 1813 and 1842 were twenty-nine years; between 1842 and 1876, thirty-four years. The barometric curve at its lowest point was generally about the middle of the cold period, whilst the middle of the waves was about the middle of the warm periods. Mr. MacDowall considers that these facts may be employed for weather forecasts, and remarks that an interval of thirty-five years from the last minimum, 1876, brings us to 1911, about which time (or perhaps a little earlier) we may look for another minimum, the middle of another cold and wet period. At present we are still, apparently, in the warm and dry period that commenced about 1886, and are probably near the end of it, as a period of (say) fifteen years from 1885 brings us to the last year of this century. The end of a long time of preponderance of wet years was 1882; of the subsequent fifteen years, 1883-97, twelve have been dry and only three wet. The curve for Paris curiously lags in the three minima behind those (1813, 1842, 1876) of the London curve, by about three years at each minimum. The influence of Brückner's cycle on health is possibly considerable, since the mortality from typhus at Bâsle has been found to vary with the cycle, being worst in the dry periods; and Dr. Newsholme has lately shown that a succession of dry years in England corresponds with the period of highest mortality from epidemic diphtheria. The recent unusually mild winter temperature experienced in England, accompanied, as is usual, by a low death-rate, has so far corresponded with a mild winter in other parts of Europe. In

St. Petersburg, for example, recent winters have all been mild, but there has been no such warm winter as this for very many years. Unfortunately, that mildness has been accompanied by widespread illness. That badly-drained capital, with its cesspools and canals, which often are open sewers, apparently requires a winter of some months with plenty of frost and snow to render its atmosphere pure and the city healthy. The recent mild weather has broken up the sledge roads, brought rain, south-westerly gales, melting snow and rotten ice on canals and river, with the result that the frozen provisions which form the staple of food have been spoilt. The bad state of the country roads for transporting fresh supplies is another reason for scarcity and dearness, whilst firewood is reported to be nearly three times its ordinary price. The winters formerly experienced in the Russian capital with their continuous hard frost, varied rarely by an occasional thaw from November to March or April, were inimical to sickness amongst the population. If Brückner's cycle reigns on the Neva the "whirligig of time" may, however, be expected shortly to bring round a period of colder winters and of diminished insalubrity.

INFLUENCE OF MILK SUPPLY ON THE SPREAD OF TUBERCULOSIS.

THROUGH Professor Kanthack's untimely death the world of science has lost one of its most diligent workers. That he did not allow his fatal illness to interfere with his investigations is shown by a joint report of himself and Dr. Sladen, on some work undertaken by them upon this subject, the importance and urgency of which were recognised by Her Majesty and the late Lord Vernon, as well as several other owners of herds in this country. Taking the milk, as supplied by 16 dairies to the Colleges of Cambridge, it was centrifugalised, and an amount, proportionate to the size of the guinea-pig, inoculated into that animal. The creamy layer and deposit of each supply was injected into different guinea-pigs, and this was repeated on two successive days. In this way each supply was passed through 6 animals. At the same time, cover-glass preparations were made from the sediments, and examined microscopically. In these cocci, diplococci and tubercle bacilli were found, but only a few of each. Those animals that, after the lapse of several weeks, showed marked enlargement of the inguinal glands were killed, and the internal organs examined both macroscopically and microscopically. In all, 90 guinea-pigs were inoculated, and 23 were found to have tuberculosis, a percentage of 52.55. Of these 23, 13 had been inoculated with the creamy layer, and 10 with the sediment. Of the 16 dairies examined, the milk of 9 caused tuberculosis; in other words, the milk supply of more than half was tainted and capable of spreading tuberculosis. This is a most serious indictment, and the danger to the townspeople is probably greater than that of the undergraduates, as the former class includes hand-fed infants and young children, as well as delicate people and those suffering from acute diseases. It also demonstrates the fact that cream is just as likely to be infected as the sediment. It is worthy of note that four of the animals died within five days, and of three it is noted that there was tense swelling present. Two of these animals were injected with milk from the same dairy, and it would have been of interest to know whether the B. enteritidis sporogenes, an organism that flourishes exceedingly in milk was the cause of death. The superiority of this method of investigating milk for tuberculosis over that of simply examining the sediment with the microscope is evident, as in only three instances were tubercle bacilli found previous to the inoculation. It fails for practical purposes, as the average length of life in those animals that died of tuberculosis was nine weeks, while of those that were killed and found to be tuberculous it was thirteen weeks. It has the merit that there can be no prejudice against it upon the part of the farmers, such as undoubtedly exists against injection of tuberculin.

SEWAGE DISPOSAL AT MANCHESTER.

AFTER considerable pressure from the Mersey and Irwell Joint Committee—not to mention a daily penalty of £50 hanging over them in consequence of a summons issued at the instance of that Committee—the Manchester Corporation have at length applied to the Local Government Board for power to borrow £160,000 for the better treatment of their sewage. General Crozier and Dr. Theodore Thomson were deputed by the Board to hold an inquiry. After hearing the counsel for the Corporation (Mr. Balfour Browne) and the evidence of the promoters, the inquiry was adjourned on the second day, at the request of the latter, for three months, to allow the Corporation to complete their plans. The proposals, so far as they are submitted, are in the direction of bacterial beds for what the witnesses called the "contact system" of sewage treatment. Mr. Balfour Browne contrasted this system with that of the septic tank. The latter was, he said, unnecessary, as the sewers of the city allowed sufficient play to the anaërobic bacteria. Since September the Corporation have been carrying on experiments at Davyhulme. The tanks have latterly been turning out an effluent not beyond the limits fixed by the joint Committee. The present chemical treatment of Manchester's 23 million gallons of sewage does not come up to that standard. Dr. Percy Frankland's estimate that they will be able to treat half a million gallons an acre is probably a very sanguine one. The conversion of Manchester from the chemical to the bacteriological process is one more victory for the biologists. A curious commentary on Mr. Browne's comparison of the city sewers to a septic tank was afforded by the circumstance that on the second day of the inquiry the coroner held an inquest on the death of two workmen who were suffocated in the sewers.

DENTISTS' FEES.

A DENTIST in practice in the provinces has again put to us the question, often raised in our columns, as to whether it is proper for dentists to charge medical men, and members of their families dependent upon them, fees for services rendered in the treatment of disorders of the teeth. We have made some further inquiries as to the custom upon this point, and a dentist of large experience, whom we have consulted, states that there cannot be said to be any accepted rule with regard to fees between medical men and dentists. He adds that some leading consultants have been in the habit of freely accepting fees from dentists even when the latter have possessed full medical qualifications, whilst others with absolute firmness refuse to do so. Leaving personal friendship out of the question, the custom of waiving fees doubtless has its origin in a notion of reciprocity, and where this in any form exists the dentist doubtless does well to attend both the medical practitioner, and those for whom he would in reality be paying, without fee; but there is no obligation that he should do so, and it must be remembered that the consumption of time in dental operations is very heavy, so that to any dentist in busy practice to see one patient involves the refusal of another; hence the dentist cannot reasonably be expected to see without fee the families of medical men who are perfect strangers to him. A short time since a curious result ensued from this waiver of fees. A dentist, himself medically qualified, had been in the habit for years of attending a medical friend, and of accepting from him in return medical attendance upon himself and his family. There had been no thought of payment on either side, but both being of business habits noted in their day books all

attendances. The medical practitioner died, whereupon his executors sent in a claim for attendances, and intimated that they should enforce it by legal measures if need be. The dentist thereupon sent to them a counter-claim, which happened to amount to a good deal more, and this the executors declined to pay unless compelled. The result was that both claims were dropped; but the legal point was brought out that any medical man can claim fees from any other, and that any waiving of fees is merely a piece of good fellowship, not binding upon executors or trustees in bankruptcy. It is therefore a matter upon which each must judge for himself. A great deal of gratuitous work is done by dentists for medical men and their families, and *vice versâ*; on the other hand, there are many medical men who will not accept it without making some return, and many dentists who, whether medically qualified or not, insist upon paying fees for medical attendance for themselves or their families.

SANITATION AT ALDERSHOT.

A COURSE of lectures on sanitation will be delivered this month and next in the training school, Royal Army Medical Corps, at which quartermasters of corps in the garrison will attend. We announced some time ago that these courses had been instituted at the station. While on the subject of sanitation we regret to find that Aldershot is suffering from another outbreak of diphtheria. Both military and civilian medical officers seem to have been kept busy with cases, not only in the camp, but also in the town of Aldershot. Schools have been closed, and all precautions taken, but this outbreak seems to be specially virulent. A searching inquiry is needed to discover the origin of these recurring outbreaks. Some further provision also seems desirable for isolating families other than placing them in quarters adjacent to those occupied by other families. Surgeon-General O'Dwyer is urging the District Council to take advantage of the powers conferred on them, and at the last meeting pressed strongly the need of the medical officer of health subjecting samples of milk supplied to the camp and the town to frequent analyses. There is reason to believe that throat affections—follicular tonsillitis, quinsy, faucial and pharyngeal lesions—are by no means uncommon amongst the soldiers. Some years ago they contributed quite 14 per cent. of the sickness through the camp. The Army Medical *Report* for 1896 (the last issued) shows that diphtheria caused in the United Kingdom 244 admissions, and that "nearly three-fourths of the cases, 177 in all, occurred at Aldershot," and were "stated to be mostly of a mild type." As to the probable cause of prevalence of the disease at that station "no definite conclusion was arrived at"; but it was noted that diphtheria was prevalent also among the civil population in the neighbourhood, and "milk was suspected as being the means of propagating and distributing the disease." The *Report* for 1895 shows again that out of a total of 445 admissions for diphtheria in the United Kingdom 412 of the cases occurred at Aldershot, and the causation is again indefinitely stated.

LEPROSY IN RUSSIA.

A STATEMENT has recently appeared in many newspapers to the effect that leprosy is reported to be spreading to a marked extent in the provinces of Livonia and Courland; that the military authorities have been obliged to reject many young men found to be suffering from the disease; and that, notwithstanding the preventive measures taken, the number of lepers in Russia is at present 5,000. That such should be the case is not surprising, if the following facts are considered. At the recent Berlin Leprosy Conference, Professor O. von Petersen, delegate of the Russian Government, estimated the number of lepers in the Russian Empire at something like 3,000. The registration of lepers was commenced in April, 1895. Between May, 1895, and May, 1896, 1,299 cases were notified by medical men, but 99 of these were excluded for various reasons. The vast extent of the Empire, the scattered population, and the small number of doctors, render the work of registration a slow one. The increase in the number of known lepers can to a great extent be accounted for by improvement in diagnosis, and also by the fact that the medical men all over the country are on the look-out for cases. The disease in its early stages is sometimes difficult to diagnose with certainty, and this must especially be the case in districts remote from medical teaching centres. But as the disease progresses it is recognised and notified. Yet, after making due allowance for all this, it was admitted that leprosy was spreading. The bulk of the evidence points to the disease being communicable from man to man, but in what way is not yet clear. Now in Russia it is the peasant and poorer classes that chiefly suffer, and it is among them that favourable conditions for the spread of disease exist, such as gross ignorance, filthy habits, overcrowded dwellings, and so forth—conditions which lead in Russia, as is well known, to the great frequency of extragenital syphilis. Again, many districts are affected in various parts of the country. In some the disease was spreading, such as Livonia, Courland, the Government of St. Petersburg, the Caucasus, and the territory of the Don Cossacks. Besides these, the following areas were also affected: Esthonia, Astrakhan, Central Asia, Jakutsk, Taurida, Kharkow, and Kherson. The difficulties in the way of successfully dealing with the matter are obvious; and although much can be achieved by means of leper hospitals and colonies, it must necessarily take time to raise a semi-civilised population to the higher level of life, and overcome the passive resistance of an ignorant peasantry. But, after all, even 5,000 lepers are but a drop in the ocean of 127 millions.

MORBUS EPONYMICUS.

IN a recent number of the *Revue Médicale de la Suisse Romande*, Dr. Blanchard describes a remarkable disease which has hitherto escaped the notice of nosologists. He calls it the "*syndrôme de baptême*," but, as this may to some minds seem to smack of profanity, we venture to suggest the designation of "morbus eponymicus." The affection is defined as an irresistible impulse to discover a disease or a fragment of a disease, and forthwith to call it by the discoverer's own name. The chief etiological factor is an inordinate appetite for metals in the shape of specimens of the current coinage of the country in which the patient lives; for it may be assumed that a sufferer from Pillman's disease, for instance, would prefer to submit his sad case to that acute clinician himself rather than to anyone else. The diagnosis presents certain difficulties, for not everyone whose name happens to be used to denote a disease is suffering from morbus eponymicus. A man may stand godfather to a disease without his knowledge or even against his will; the characteristic feature of the affection is that the discoverer himself gives his name to the disease which he reveals to mankind. The following may be taken as a typical case. The illustrious Purgemoff winds up a brilliant clinical lecture with some such peroration as the following: "You see, gentlemen, how easy it is by means of this sign, to which I was the first to call attention, to distinguish between infantile broncho-pneumonia and senile gangrene. So important a sign should for convenience have a name of its own, and therefore I propose to call it....." Here the lecturer is interrupted by the acclamations of his hearers who shout in chorus "Purgemoff's sign!" The eminent professor bows his acknowledgments, and the rite is accomplished. There appears to be one case on record in which the honour was courteously but firmly refused, and here we regret to say the modest man was not a doctor. When Europe was devastated by syphilis after

the discovery of America, the scourge was called by Frenchmen the *mal de Naples*, and by Italians the "French disease." To prevent confusion, some ingenious person proposed that it should be called after Amerigo Vespucci. That virtuous explorer, however, protested vigorously, saying to those who wished thus to honour him, "If you are determined to give my name to something which I have not discovered, give it to the new world." The treatment proposed by Dr. Blanchard is a general boycott of eponymic designations.

TUBERCLE BACILLI IN BUTTER.

ALL observations up to the present time tend to show that the presence of tubercle bacilli in butter is a rare event. Rabinowitsch, whose previous work on this subject was published in the *Zeitsch. f. Hygiene*, 1897, Part I, has lately conducted some further experiments in Berlin with the object of testing previous investigations.[1] Fourteen butter manufactories were examined, and 15 experiments made. The produce of one factory was thus examined twice, and tubercle bacilli were found on both occasions in the butter. The remaining 13 showed no trace of true living tubercle bacilli, but in many instances pseudo-tuberculous bacilli were found. Inoculation experiments were made in all cases. During June and July the daily produce coming from the infected factory was examined. The result showed that 70 per cent. of the butter contained living tubercle bacilli. Professor Koch thought this result so remarkable that he requested Rabinowitsch to inspect another factory. In this second experiment no tubercle bacilli were found, but in some instances pseudo-tubercle bacilli had to be carefully differentiated from the true bacilli. Animals when injected with this pseudo-tuberculous material died of peritonitis. The "isolation" of this butter factory in Berlin, which is a source of danger to the community, is certainly a triumph for the scientific method of food examination. The question whether the pseudo-tuberculous material so often present in butter is harmful to human beings will be a matter for future investigation.

THE FLOODING OF BASEMENT ROOMS.

WE understand that owing to the recent heavy rains the flooding of basement rooms has been pretty general in the low-lying quarters of South London. Dr. Waldo, Medical Officer of Health for Southwark, has reported to the vestry that among sewage-flooded cellars visited by him lately have some in use as workrooms by bakers, cooks, printers, and others. This question of basement floodings in various parts of the metropolis (said Dr. Waldo in his report) has been for some years past under the notice of the London County Council, and in 1895 the Council resolved that the general enlargement of the main drainage system was not then necessary, but that "local flooding needed immediate attention." In 1893, in accordance with the request of the Chairman of the Main Drainage Committee of the London County Council, he furnished particulars of twenty cellars in which he had found evidence of sewage flooding. The London Building Act of 1894 provides against the occupancy in the future of dwelling houses on low-lying land. But the Act is not retrospective, and consequently the evil continues. The vestry resolved again to communicate with the London County Council, calling attention to the dangers caused by the condition of things described by their medical officer of health, and urgently requesting the Council to take immediate steps to remedy the evil.

A MILITARY DOCTOR.

LORD WOLSELEY has more than once said that medical officers are not soldiers. It may perhaps interest him to know that there is at least one doctor of medicine who is as much a soldier as himself. This is General J. Frédéric Canonge, now commanding the 15th French Army Corps at Marseilles. This gallant officer, who has just been promoted to the grade of Commander in the Legion of Honour, studied medicine in the early part of his career, and received his doctor's degree on the same day as he was promoted to the rank of lieutenant. His thesis was entitled: "Considerations sur l'Hygiène de l'Infanterie à l'Intérieur," a subject combining in itself both his special professional interests. The thesis, which was published in Paris in 1869, bore the appropriate motto: "Miles sum, militis nihil a me alienum puto." The general is said to be very proud of his medical degree, which cost him, in his own words, "so much labour and so many sacrifices to acquire."

[1] *Deut. med. Woch.*, January 5th.

THE GREEK RED CROSS SOCIETY.

THE Greek Red Cross Society, whose headquarters are at Athens, and which is under the patronage of Queen Olga, has recently published a report of its work in the Græco-Turkish war of 1897. It is there stated that the Society succoured more than 2,000 wounded and sick men during and after the war on the battlefield and in ambulances. It also afforded aid to more than 8,000 non-military patients, refugees from Phthiotis and Eubœa, and others at Lamia and elsewhere. It sent large supplies of medicines, antiseptics, surgical instruments, blankets, linen, and other things to the armies of Eastern and Western Greece and to the navy; and also supplied antiseptics and surgical instruments to the Ministry of Marine. The Society took part in the International Conference of the Red Cross Association held in Vienna.

THE BRITISH RED CROSS SOCIETY.

A REPORT has recently been issued by the Society on its operations in the Græco-Turkish war, 1897, and during the recent expedition in the Soudan. The fund collected by the *Daily Chronicle* for the Greek wounded shortly after the outbreak of the war was so considerable that the Council of the Red Cross Society decided that their immediate assistance was not needed in the shape of sending out *personnel*, especially in regard to Greece. They resolved to render assistance by money grants only for the purchase of clothing and comforts for the sick and wounded soldiers of both armies, it being the Society's established rule to aid both sides equally. On the Turkish side Sir P. Currie, Ambassador to Constantinople; Mr. Blunt, Consul-General at Salonica; and Mr. A. Vere distributed warm clothing and comforts to thousands of necessitous cases. On the Greek side Sir E. Egerton, British Minister at Athens, Lady Egerton, Mr. F. Noel, and Mr. Wickes assisted the Society. They established soup kitchens, and in other ways distributed food not only to sick and wounded soldiers, but also to a more numerous body of starving refugees, "victims of the war." Altogether an amount exceeding £5,600 was expended by the Society—£3,100 in Greece and £2,500 in Turkey. As regards the Soudan expedition, the report states that in June last the Council of the Society desired to render supplemental aid, and offered assistance to Lord Cromer and the Sirdar; but the offer was declined on the ground that very ample arrangements had been made for the sick and wounded, and that to accept the offer would involve a very heavy call upon the transport beyond that for which calculation had been made. A renewed offer made in the early part of August was accepted for work in the Nile Valley. Colonel J. S. Young was thereupon sent to Cairo, with full power to act on behalf of the Society. After conferring with the military and medical authorities it was decided to render aid in organising a service of transport of the sick and wounded by steamer on the Nile between Assouan and Cairo (thus obviating the great discomfort of a railway journey of about 600 miles). The care and treatment of the sick and wounded on board the steamer devolved on the Royal Army Medical Corps

supplemented by lady nurses provided by the Society. A most suitable steamer—the *Mayflower*, a stern-wheeler, one of the largest and swiftest boats on the Nile—was chartered and converted into a hospital ship to carry 52 patients, and on an emergency 72. The vessel was equipped with the most modern medical and surgical appliances, and a liberal supply of comforts. It was placed under the medical charge of Major Cowen, R.A.M.C., and left Cairo on September 6th for Assouan, to bring down the first convoy of sick and wounded. Besides Major Cowen and Lieutenant Ross, eight non-commissioned officers and men of the R.A.M.C., three nursing sisters of the National Aid Society, and Colonel J. S. Young were on board. The *Mayflower* reached Assouan on September 13th, and left on September 15th with six officers and forty-four men, sick and wounded from the front, reaching Cairo on September 18th. Major Cowen reported that the great feature of the ship, in his opinion, was that wounds could be kept at physiological rest not to be obtained in a railway journey, and could be dressed daily on strictly antiseptic principles. The sick and wounded officers and men were surprised and delighted at the ship and its comforts. Colonel Sloggett, R.A.M.C., shot through the chest, was amongst their number, and said he had suffered much from the jolting of the train on the way to Assouan, and contrasted it with the "absolute peace" of the ship. The *Mayflower* made a second journey, landing 47 wounded and 4 sick officers and men at Cairo on October 1st; and after a third similar voyage the last of the sick from the front were landed in Cairo on October 15th. The Society also sent £300 to Lord Kitchener for the benefit of the sick and wounded soldiers of the Egyptian army, and £200 for the purchase and despatch to Omdurman of articles needed for the proper care of the dervish wounded. The entire cost of these aids to the Soudan expedition was £2,726 5s. 10d. Colonel Young during October despatched clothing and comforts to the sick in hospital at Candia, Crete, which were highly appreciated. The report states that "These operations may be said to have established a new era for Red Cross work in connection with the British army, it being the first occasion upon which the British Red Cross Society and the Royal Army Medical Corps have worked together under one organisation, and it is very gratifying to the Council of the Society to learn that this system has been inaugurated and successfully carried through without any friction with the military or medical authorities." Letters of thanks from Lord Lansdowne, Lord Cromer, and Lieutenant-General Sir F. Grenfell are appended.

SANITARY INSPECTION OF HOUSES AND SCHOOLS.

DR. SNELL, of Coventry, makes some very pertinent remarks in his report for 1897 as to the need for systematic house-to-house visitation, and points out that the available sanitary staff is too small to render this possible. With over 12,000 houses on some forty miles of road, and all the other multitudinous aspects of an inspector's work, it is certain that one inspector and his assistant and a clerk cannot cope with the heavy demands of a place like Coventry. Dr. Vacher, of Cheshire, in his report for 1897, holds that the necessity exists for an additional inspector wherever such systematic work cannot be regularly undertaken. This is a phase of sanitary routine that has not had the attention it deserves. The duty of seeing not only that obvious nuisances are removed, but also that nuisances and dangers to health are looked for and repressed, should engage the consideration of all health bodies. Dr. Vacher would also have health officers give greater prominence to the matter of school accommodation in relation to the health of their districts. A curious commentary on this aspect of sanitary administration is afforded by the description given by the medical officer of health of the Northampton Rural District of the condition of the Harpole schools, which were closed for upwards of six months in consequence of the persistence of diphtheria. These were crowded, badly ventilated, and in other respects needed the attention of the education authorities. The reopening before this attention had been given—despite the half year's interval—was followed by recrudescence of the disease. Looking to the part that schools play in the propagation of disease, it is to be hoped that health officers will not be slow to report upon insanitary conditions in the buildings and on any circumstances that may seem likely to foster the spread of infection.

THE PROFESSORSHIP OF PATHOLOGY AT CAMBRIDGE.

THE Electors to this Chair will meet for the purpose of electing a successor to the late Professor Kanthack on February 11th. Candidates are to send their names and testimonials (if any) to the Vice-Chancellor by February 4th. Mr. Strangeways-Pigg, Demonstrator of Pathology, will supervise the classes during the present term.

LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

THE arrangements for the spring courses of lectures at the Royal College of Physicians of London are as follows: The Milroy Lectures on The Earth in Relation to the Preservation and Destruction of Contagia will be delivered by Dr. G. Vivian Poore on February 23rd, 28th, March 2nd. The Goulstonian Lectures on The Pathology of the Thyroid Gland by Dr. George R. Murray, of Newcastle, on March 7th, 9th, 14th. The Lumleian Lectures will be delivered by Dr. Samuel Gee on March 16th, 21st, 23rd. The first lecture will be on The Causes and Forms of Bronchitis; the second on The Nature of Pulmonary Emphysema; and the third on The Nature of Asthma. The lectures will be delivered at the College at 5 P.M. on the days mentioned.

JENNER INSTITUTE OF PREVENTIVE MEDICINE.

STEPS are being taken to form a reference library in connection with the Jenner Institute of Preventive Medicine, and two rooms have now been fitted up for this purpose. The Institute is desirous of obtaining as complete a collection as possible of literature bearing on the pathology of disease in man and animals, as well as upon bacteriology and preventive medicine. It is also hoped that individual workers may be disposed to send reprints of any investigations or reports bearing upon the above subjects. A good reference library dealing with these special subjects at the Institute will needless to say be of the greatest value to students and workers. The Director asks us to state that he will be pleased to receive and to acknowledge any contributions that may be sent to the Jenner Institute, Grosvenor Road, London, S.W.

THE LIVERPOOL ROYAL INFIRMARY AND THE USE OF TUBERCULIN.

THE action of H.R.H. the Prince of Wales with regard to the prevention of tuberculosis has prompted the Committee of the Liverpool Royal Infirmary to take steps to ensure that the milk consumed by the patients in the institution shall be free from germs of the disease derived from infected cows. They have made an agreement with the contractor who supplies the milk that all the cows from which it is obtained shall undergo the tuberculin test.

THE President of the Royal College of Surgeons and Lady Mac Cormac will give a *conversazione* at the College on Monday evening, February 13th.

DR. C. O. HAWTHORNE, formerly Senior Assistant to Sir William Gairdner in the University of Glasgow and Lecturer on Materia Medica and Therapeutics in Queen Margaret College, has been appointed Medical Superintendent of the Medical Graduates' College and Polyclinic, Chenies Street, W.C.

THE PREVENTION OF TUBERCULOSIS.

Letter from the Prince of Wales.

The following letter, dated January 10th, has been sent by Sir Francis Knollys on behalf of the Prince of Wales in reply to a communication from the Brixton Branch of the Social Democratic Federation:

"I am desired by the Prince of Wales to thank you for your communication and to assure you in reply that any measures calculated to diminish the terrible and preventable waste of life caused by consumption and other tuberculous diseases will always receive his warm approval and hearty support."

The Prince and Public Abattoirs.

A report has appeared in the press that at a meeting of the Committee and Council of the Smithfield Club held recently, a resolution was adopted, amid loud cheering, condemning the establishment of public abattoirs as "unnecessary and inexpedient," and that the Prince of Wales, in putting the resolution to the general meeting afterwards, said "he had no doubt the resolution would be received in the same favourable way by that general meeting." The attention of His Royal Highness having been drawn to the report, he has communicated with the editor of the municipal journal, the *Councillor and Guardian*, to the effect that he was not present at the meeting of the Council of the Smithfield Club when the resolution in question was carried, nor did he express views of any description at the general meeting when the resolution was brought forward for confirmation. As the Chairman he had necessarily to put the resolution to the meeting, but he did so without a single word of comment.

West Riding.

At a recent meeting of the West Riding Sanitary Committee Alderman Sugden submitted the Committee's report, which included an extract from the report of the County Medical Officer, Dr. Kaye. Attention was called to the crusade which has been entered upon with the object of reducing the sickness and mortality caused by tuberculosis. In the West Riding registration county in 1876 the number of deaths from phthisis was 394 per million living; in 1886, 498; and in 1896, 199. The annual death-roll from the disease in the West Riding was approximately 5 000. The position of the West Riding was less favourable than that of the country generally, but it was consoling to notice the marked difference in the figures between 1876 and 1896. It was now known that improvement had been, and could be, effected by: (1) General sanitation, especially in dwellings; (2) supervision of trade tending to the development of the disease; (3) isolation of the sick; (4) destruction of infectious matter; and (5) control of the food supply—meat and milk. The Committee recommended the delivery of three or four lectures on tuberculosis and its prevention in selected agricultural centres of the Riding. The report was received and the recommendations adopted.

Sheffield.

At a meeting of the Sheffield City Council on January 11th Alderman Franklin asked if the Health Committee had taken any steps to consider the means of isolating patients suffering from lung complaints, as, according to latest announcements, these were communicable diseases. He had ascertained that in some other towns the medical officers had drawn up series of regulations, which were printed on cards and circulated from house to house, thus bringing it home to the inhabitants that cases should be isolated. As in this city 28 per cent. of the deaths were from these diseases, he thought they ought not to be behind other cities in educating the inhabitants on the subject. Dr. Manton said Mr. Arthur Jackson drew attention to this subject some years ago. It was clearly demonstrated that practical isolation could be secured without infringing any of the rights of the inhabitants.

Glasgow.

A meeting of the Lower Ward Committee of the Lanarkshire County Council was held on January 9th at Glasgow, Mr. J. T. Costigane, Chairman, presiding. In presenting the minutes of the Lightburn Hospital Committee, the Chairman remarked that hospital work was now receiving the attention of the highest in the land. Only the other day the Prince of Wales presided at a meeting in favour of establishing sanatoria for the treatment and cure of consumption. This terrible disease was, it was said, responsible for one-seventh of the entire mortality of the country. It was admitted to be a preventable disease, and he believed the day was not far distant when Parliament would place it in the list of those contagious diseases from which county councils and municipal authorities at present had to defend the populations under their charge. The question of providing hospitals or sanatoria for the various classes of tuberculous disease might thus become a very practical one before very long. As it was at present even the infirmaries shut out the poor consumptives, who were forced to live in our midst, and thus the contagion was spread the more. If even one-half of the good which had been accomplished by hospitals in fighting fevers could be accomplished by similar treatment of consumption, the matter was certainly worthy of consideration.

Blackburn.

At the November meeting of the Blackburn and District Medical Society, at which thirty-one members were present, the following resolution was passed unanimously:

That in the opinion of this meeting phthisis should be added to the list of notifiable diseases.

The Secretary was instructed to forward the resolution to the Health Committee of the Blackburn Corporation.

Dr. James Wheatley, Honorary Secretary, Blackburn and District Medical Society, Medical Officer of Health for Blackburn, writes:

Dr. Niven, Medical Officer of Health for Manchester has for many years strongly advocated the compulsory notification of tuberculosis, but up to the present time it has not met with that acceptance, either from the medical profession or the Legislature that it undoubtedly deserves. There seems to be some danger that in the movement that is now being organised sanatoria will occupy too prominent a position. They are no doubt excellent and much needed, but their influence in preventing the spread of consumption will probably not be great. The majority of adult consumptives not only cannot afford to pay for treatment in sanatoria, but they have to continue at their work to support themselves and others. Preventive measures should aim at minimising the danger to the community of these persons whilst not in any way restricting their liberty. The public is becoming so much alive to the spread of the disease through milk, that this danger is likely to be satisfactorily dealt with in the next few years. There remains, however, the still greater danger of spread from person to person which cannot properly be grappled with except by notification. The association just formed has for one of its objects the propagation of knowledge with regard to tuberculosis. Those who have had experience of the distribution of knowledge of this kind know how difficult it is to inculcate it into the minds of those it will most benefit. If notification were adopted, the necessary information could be given direct to those most in need of it. It will be found, too, that it is not sufficient to spread knowledge, but it is necessary amongst the more ignorant classes to insist that the principles are acted upon. Of the arguments that have been used against notification, perhaps the strongest is that people have an intense dread of its becoming known that consumption is in the family. This however is founded on two false ideas with regard to the disease, its heredity and incurability, and it will die when these have been dissipated. The advantages of notification are numerous, but they are also well known. There is one however which is not so obvious, but which is, I think, quite certain to occur, and that is that it will lead to an earlier diagnosis of the disease. The importance of this is at once seen when it is remembered how many cases can be cured if taken early. The difficulty in making phthisis notifiable at present is due to the fact that it can only be done by adding it to the list of diseases mentioned in the Infectious Diseases (Notification) Act. This would give to the local authority various powers of enforcing isolation, etc., which are altogether undesirable. It seems therefore as if this matter would have to be dealt with by entirely fresh legislation. The importance of the resolution of the Blackburn Society is due to the fact that the members as general practitioners are desirous, in the interest of the public, of undertaking the duty of notification.

The Crusade and its Plan of Campaign.

In a recent number of the *Medical Chronicle*, Dr. Arthur Ransome traces in an interesting manner the events which led to the organisation of the national struggle against tuberculosis which has been undertaken under the patronage of the Prince of Wales, and with the approval and active support of the official heads of the medical profession in the three kingdoms.

The first intimation of the preventability of phthisis probably came (says Dr. Ransome from the results published by the Commission on the Sanitary State of the Army in the year 1858; results which were ably commented on by the late Dr. William Farr, and which both pointed out some of the common causes of the disease and also indicated the means of prevention by thorough drainage of the soil and free ventilation. The evidence collected by Dr. Edmund Parkes, and published in his great work on hygiene, added force to the conclusions of this Commission, and spurred on to action those who were responsible for the public health. The discoveries of Bowditch in America, and of Buchanan in England, also showed the possibility of controlling the spread of phthisis by means of subsoil drainage. The probability of infection by tuberculous products, when inhaled, was clearly shown by Villemin, Schottelius, and others; and the conditions under which such infection can take place were shadowed forth by the report of the Collective Investigation Committee, by Dr. Ransome's researches on tuberculous infective areas (Epidemiological Society), and by those of Dr. Niven, and of Dr. Flick of Philadelphia. The strongest impetus to the full recognition of the preventability of tuberculosis was, however, given by Dr. Koch's discovery of the microbic nature of the disease.

Other observations, amongst which were some conducted by Dr. Ransome along with Professors Dreschfield and Delépine (*Proceedings* of the Royal Society, vol. lvi), also indicated the virulence of tuberculous sputum, under certain conditions of soil, light, and air, and its complete disinfection by air in the presence of sunlight.

Dr. Ransome believed that Manchester was the first town in the kingdom both to suggest and partially to carry out measures for the prevention of phthisis. Seven years ago an informal meeting was held in his house of certain members of the staffs of the Manchester Royal Infirmary and of the Hospital for Consumption; Dr. Tatham, then Medical Officer of Health for Manchester, was also present. A resolution was carried that it was desirable that the houses of consumptive patients at these institutions should be periodically disinfected, and mainly owing to the courage and public spirit of Dr. Tatham, it was determined that any cases notified to him by members of these staffs, should have their houses thoroughly purified free of cost. This undertaking was carried out for some time, but was then discontinued in order that experiments as to the most efficient methods of disinfection might be made by Professor Delépine. These researches showed that the best disinfectant against the bacillus of tubercle is a 1 per cent. solution of chloride of lime. But the undertaking does not appear to have been resumed after this result was made known.

This effort was not the only one made in this direction. Papers covering the whole method of procedure were published on the subject, one by the Manchester and Salford Sanitary Association, entitled A Campaign against Phthisis, and others by Drs. Niven and Ransome before the Society of Medical Officers of Health (North-Western Branch); and it was unanimously determined by this body to carry out the views of the writers of these papers.

Shortly after this date papers were read at the International Medical Congress in London by Dr. Squire and Dr. Ransome dealing with the subject; and special stress was laid upon "the need for general sanitary measures" in order to produce "any large reduction in the mortality from tubercle." But unquestionably to Mr. Malcolm Morris belongs the honour of having stirred up the medical profession in London (by his "Tuberculosis Number" of the *Practitioner*), and, under Sir W. Broadbent's leadership, of having brought about the formation of a National League for the Prevention of Tuberculosis.

At the inaugural meeting Mr. Malcolm Morris pointed out that other nations had been before Great Britain in starting similar measures of prevention of tuberculosis, notably France, Belgium, and the United States. Quite recently, also, Norway has proposed to legislate on the subject (*Public Health*, vol. x, p. 430). In the number of the *Practitioner* already mentioned Dr. Hermann Biggs gave a full account of the means adopted in the city of New York for the prevention and restriction of pulmonary tuberculosis. The undertaking was commenced in a tentative manner as far back as the year 1893; and in 1897 legal force was given to these measures. They have already proved of great service, and would have to be carefully studied by the leaders of the movement now about to be carried out in England.

After this review of the origin of the movement Dr. Ransome proceeded to indicate the direction in which effort will have to be made in order to cope effectively with the disease.

(1) It is important to ascertain the full extent of the evil that has to be dealt with; and to this end a complete census of all persons suffering from the malady should be made.

(*a*) Notification of all classes of tuberculous disease, as complete as possible should be obtained; but, as in New York, there should be no intervention between physician and patient in any tuberculous case in which the intelligent practitioner may be trusted to give the simple instructions necessary to prevent the transmission of the disease to others. All the arrangements in New York for recording both cases and deaths, and the action taken in order to prevent infection, will probably have to be closely followed in our own campaign against the disease.

(*b*) Similar returns as to the proportion of cattle affected by tuberculous disease should be obtained. All herds of cattle will have to be thoroughly inspected and tested by tuberculin in order that we may know the exact degree of danger from this possible source of infection.

2. Measures for the prevention of infection will have to be undertaken.

(*a*) Instructions as to the best means of destroying the sputum and other discharges from tuberculous patients will have to be widely circulated.

(*b*) All the cases of tuberculosis reported to the authorities by their medical attendants as being in need of such help will have to be visited in their homes by medical inspectors detailed for the purpose. They will both give verbal directions, and will decide upon the best course to be taken in each case.

(*c*) If the case is one which, in the judgment of the inspector, requires special hospital treatment, the fact must be reported to the authority, and the patient will have to be visited, as in New York, by a special inspector, who will determine by physical and bacteriological examination the tuberculous nature of the case. He will also have to decide whether the patient is in circumstances which prevent him from receiving proper care or medical attendance, or whether he is a source of danger to others. Under such circumstances he will endeavour to have him removed to some special hospital, and will take measures to have his house properly disinfected.

(*d*) The provision of suitable hospitals will have to be another very important aim of the League. At the present time, with the exception of a few hospitals for consumption in London, and still fewer in other parts of the kingdom, the workhouse hospitals are the only refuges to which these poor patients can be sent.

(*e*) The disinfection of infected houses, whether before or after the death of the occupier, should be, as it is in Manchester, carried out at the expense of the municipality. In New York the process is called "renovation," not disinfection. Dr. Biggs remarked: "This involves the application of simple and, in tenement houses, inexpensive measures—that is, scrubbing painted woodwork and floors with hot soda solution, and repainting, repapering, or re-kalsomining the walls....." "Where the consent of the owners can be obtained (and there is now but little difficulty in this) infected bedding, clothing, carpets, etc., are removed.....to the disinfecting station, and disinfected by steam or destroyed, at the option of the owner, without expense to him."

(*f*) The danger of infection from tuberculous meat or milk must be averted by thorough supervision of all herds of cattle, by the control of the sale of tuberculous meat, by the gradual formation of herds of non-tuberculous cattle, by the stringent regulation of dairies and milkshops, and by the boiling or pasteurisation of all suspected milk.

But if the disease is to be effectually restrained much more than this, says Dr. Ransome, will have to be carried out. In addition to the other measures which have been enumerated, the National Association for the Prevention of Tuberculosis will have to promote all those measures of general sanitary reform which have already diminished the disease by nearly two-thirds in this country, and which may be expected to effect still further improvement in this direction. It is to be hoped also that they will suggest special measures for the cleansing and disinfection of all places of public assembly; for the ventilation and periodical cleansing of workshops; for the prevention of overcrowding in schools; and for their better ventilation and purification.

THE MIDWIVES BILL.

Sick and Obstetric Nurses Bill.

Dr. Alexander McCook Weir (Mortlake, S.W.) writes to to say that he considers that Dr. Watt's scheme for meeting the midwifery difficulty described in the British Medical Journal of January 14th, pp. 115 and 116, was anticipated in a Sick and Obstetric Nurses Bill which he drafted in 1897, and printed in the following year. A brief outline of the Bill was published in the Journal March 5th, 1898, p. 662. The second clause of the Bill would empower "any duly constituted local authority, such as Boards of Guardians, county, district, and parish councils, or voluntary nursing associations acting independently of, or in conjunction with, any of the aforesaid authorities, who shall have power individually and collectively to enforce the provisions of the Bill in their respective districts" to adopt it. The third clause would forbid under penalty any person in the district of the local authority which had adopted the act "to assume the title of midwife, or to practise as such, or to act as a sick or obstetric nurse for gain or otherwise, without the supervision and control of a fully qualified and registered medical practitioner."

The fourth clause would impose on any of the authorities adopting the Bill the duty of employing "a sufficient number of sick and obstetric nurses to meet the requirements of the poor and working-class population of their respective districts, and no woman already in practice as a midwife, sick or monthly nurse, shall be eligible for employment by any authority herein named unless she can produce a certificate of competence from a duly-recognised teaching authority that she is proficient in the art of sick and obstetric nursing."

Clause 5 would require an authority adopting the Act to keep a register of nurses, and to provide for their payment, either from the rates or by voluntary contributions, or by beneficiaries under the Bill, or from all three sources, and would impose upon Boards of Guardians, in default of other authority, the obligation to adopt the Act and provide the necessary funds to carry out its provisions, or to make grants in aid to voluntary nursing associations. Clause 6 would require the authority or nursing association to keep a complete list of medical men practising midwifery in the district, and "to invite them to join their associations and their executive committees." Every woman would have the right to choose her own medical man. Clause 7 would make it an offence for any woman, whether acting as sick or obstetric nurse or otherwise, to advise or prescribe or to administer a noxious drug, or to use any surgical instrument beyond those necessary to her calling as a sick or obstetric nurse, or to sign any death certificate, or certificate of stillbirth, or certificate of illness. Clause 8 would empower Boards of Guardians through their relieving officers to grant orders on their medical officers, or on any other duly qualified and registered medical man within their jurisdiction; or, in the case of great poverty, an order on both doctor and nurse, or, in cases of persons temporarily embarrassed, orders on "loan" until such time as the parties can refund the same.

An Alternative Scheme.

Dr. Thos. M. Watt (Lupus Street, S.W.) writes: I am greatly obliged to you for drawing your readers' attention to my pamphlet. One point in your notice of it seems to call for remark. You say that the earlier part, as being a criticism of the Midwives Registration Bill of 1898, is now in fact out of date. I have carefully compared the new Bill with the old, and of the dozen pages of my pamphlet devoted to the defects of the latter I find only two rendered pointless by changes in the present measure. The concessions in the new Bill are:

1. Registration is abandoned in despair, and mere enrolment on the strength of a renewable licence is accepted as the best attainable, if but a disappointing, substitute.
2. The right to be licensed as a *bonâ-fide* untrained midwife, in actual practice at the passing of the Bill, will be withheld from women of questionable character, if they cannot get upon the soft side of somebody.
3. Untrained women starting in the midwifery business after the passing of the Bill will be liable to prosecution—so that all the solemn warnings of the Midwives Bill Committee are cast to the winds and a British Parliament is to be asked to "sanction the formation of a monopoly" by "making it penal for unregistered, old-fashioned, and untrained midwives to practise," *malgré* Dr. Cullingworth as quoted here from the *Contemporary Review*.

[These alterations are all to the good; but, on the other hand, the two years' experience in practice exacted by the last Bill is no longer to be demanded of the *bonâ-fide* untrained woman in lieu of training; not even so much as a month's shall be required of any woman, who shall be sharp enough to set up in business before the Act passes, and thus to secure her "Parliamentary recognition" and licence—however scandalous her ignorance and incompetence—provided only she can be saddled with no other and additional proof of her being a person of recklessly bad character.]

The paragraphs in my essay bearing upon defects dealt with in these three amendments may now seem obsolete, but the remainder, at least, of my criticism in the first portion is as pertinent to the new Bill as to the old. I need not say, however, that it is to the constructive scheme suggested in the latter part, that I attach serious practical importance.

Perhaps you will allow me to add, in order to save disappointments, that the publishers have no copies of the pamphlet remaining in stock. Those that I hold I am sending out to electors willing to bring them to the notice of their members of Parliament, not necessarily as endorsing my views, but in the interest of free discussion. For instance, Dr. Clifford Allbutt has forwarded copies to members for Cambridge University, intimating to them that he agrees with me "in the main"—as much as I could hope, and more than I dared expect.

*** The word "fact" was a misprint for "part." The sentence as written ran "The earlier part of his pamphlet..... is, in part, now out of date."

The number of students in the University of Berlin this winter is the highest recorded since its foundation. There are 6,151 matriculated students, of whom 1,311 belong to the Medical Faculty.

THE NEW BADGE OF THE ROYAL ARMY MEDICAL CORPS.

By the courtesy of the Director-General of the Army Medical Service we are enabled to give an illustration of the new badge which, as we announced last week, the Queen has been graciously pleased to authorise the Royal Army Medical Corps to assume.



We think it will generally be admitted to be at once beautiful and appropriate. The serpent entwined about a staff has been the emblem of the art of healing from a very early period. In many of the old statues of Æsculapius, the god of Medicine was represented holding such a staff in his left hand. In the great temple of Epidaurus the statue was of gold and ivory, and the figure held a knotted stick in one hand, while a serpent was twisted about the other. The symbolism of the serpent has been explained as meaning that sick persons, in order to get well, must make unto themselves a new body, or at any rate get rid of their old skin as a snake casts its slough. But the symbol has also a meaning for the physician, the serpent being supposed to denote attention, and hence being considered suitable as a reminder to practitioners to be observant of their patients, and watchful of the varying phases of disease. In Egypt, where medicine had its origin, the serpent was sacred to Isis, the goddess of fecundity and of Nature generally; and it may therefore perhaps be taken as symbolical of the *vis medicatrix Naturæ*. As to the staff, it is interpreted as signifying that convalescents need support to prevent relapse. The knots on the stick held by Æsculapius are emblematic of the difficulties inherent in the study and practice of medicine.

The crown or wreath of laurel is the accepted symbol of victory and honour, and may therefore be taken as denoting that the physician conquers death and is entitled to honour for his prowess. Another interpretation is that the laurel has a pharmaceutical significance, which rather reminds one of the apothecary in the old comedy who was an officer in the militia, and who was congratulated on the special advantage presented by this combination of offices, as it would enable him to distil remedies from the laurels which he won in the field.

The crown in the badge of course expresses the fact that the medical staff is now a "Royal Corps." The motto strikes us as very happily chosen. For the soldier there can be no higher ideal than faithful service, and no greater reward than the recognition of his fidelity to duty. And it may be said with truth that no branch of the service has been more faithful to military and professional duty in the face of difficulties than the Royal Army Medical Corps.

BRITISH MEDICAL BENEVOLENT FUND.

The annual general meeting of the British Medical Benevolent Fund was held on January 13th, at the residence of the Treasurer, Sir W. H. Broadbent, who occupied the chair in the unavoidable absence of Sir James Paget, Bart., the President.

Dr. Samuel West, the Honorary Secretary for Finance, presented the report of the Committee and the financial statement for the past year. These showed that subscriptions amounting to £1,192 8s. 6d., and donations amounting to £492 7s. 11d. had been received and distributed in grants varying from £5 to £18, to 158 out of 184 applicants. Interest on invested capital had yielded £2,328 14s. 10d., from which annuities of £20 each had been paid to 108 recipients of the age of 60 and upwards. One new annuity had been created and 12 annuitants elected during the year.

The resignation, on account of continued ill-health, of Mr. Joseph White, the Honorary Secretary for Cases, was received with great regret, and he was unanimously elected a Vice-President. Mr. W. E. Sargant was appointed his successor.

Cordial votes of thanks were passed to all the officers of the Fund and to the Press both lay and medical. The meeting

concluded by a special vote of thanks to Sir William Broadbent, who for many years has taken, as Treasurer, a great and active interest in the affairs of the charity.

Although the above figures show an increase upon the previous year's receipts, the Grant Department is still a source of anxiety, as most deserving cases have frequently to be passed over. The income of this branch is derived entirely from annual subscriptions and donations, and the Committee earnestly appeals to the profession and others to become annual subscribers. A donation of £5 or a yearly subscription of 10s. entitles the donor to the privilege of recommending cases. The books and accounts have been as usual exhaustively audited by a chartered accountant, Mr. E. F. Voelcker, who continues to act as honorary auditor of the Fund, and who draws special attention in his report to the extremely small working expenses, which are again, as they have been now for some years, under 5 per cent. of the receipts.

THE VACCINATION ACT, 1898.

MRS. GARRETT ANDERSON ON VACCINATION.

To the *Times* of January 10th Mrs. Garrett Anderson contributed a long and excellent letter on vaccination. For medical success in newspaper correspondence on this subject more is required than mere personal knowledge of the value of vaccination and a desire to defend it against sophistical disparagement. The letter writer must take the pains to make himself or herself acquainted with many facts and figures in support of vaccination, and also with the more common misstatements and misrepresentations made by antivaccinationists. In her contribution to the *Times* Mrs. Garrett Anderson discusses various matters of interest. It is sometimes denied that small-pox, in the entire absence of vaccination, would attain to the mortality-rates which characterised it in the last century. In reply, it is pointed out that "there are fewer isolated country places now than in the eighteenth century," and that "communication has been increased a hundredfold; all children go to school; almost all workmen and clerks travel twice daily in the crowded trains or trams," and that "there are more concerts, theatres, music-halls, races, football and cricket club matches than before Jenner's time, also many more church services;" so that, when small-pox struck Gloucester two years ago, the mortality was at the rate of no less than 10,800 per 1,000,000. Concerning isolation as a substitute for vaccination, Mrs. Garrett Anderson writes:

> The popular substitute for vaccination at the moment is "isolation." No one doubts but that in a fairly-protected community isolation is an immensely valuable aid, but it assumes that the people in immediate contact with the patients when isolated are themselves protected, otherwise there would be no isolation. No one proposes that a sufferer from small-pox shall be forcibly taken from his home and put into a desert place without people to tend him, to provide him with food, and all that can in any way alleviate his misery, which, alas! is not much; and, finally, in many cases to put him into his coffin. These kind souls must either be protected or not protected. At present the sick man is guarded by a cordon of people—doctors, nurses, servants, officials—who are all protected from his contagion by having been recently revaccinated. If vaccination be given up there will be no such cordon of protected people, and, in fact there would be no justification for attempting isolation. If six or eight people are to take small-pox from each patient, there is no object in taking a small-pox case away from home. His own people may as well have it as anyone else. Experience would in time teach neighbours to give him a wide berth. There is no justice or sense in saying, "A. will not submit to being vaccinated, but B. must be vaccinated in order to tend A. when A. gets small-pox." The fair thing will be for all the A.'s to tend each other, and for the B.'s to find more agreeable work, which will not be difficult. In a thoroughly protected community where revaccination in adult life is the rule, isolation ceases to be necessary. In Germany, for instance, in the last ten years 51 cases of fatal small-pox have occurred in as many separate centres without any epidemic having started from them. All the cases have occurred in frontier towns, or they have been imported from less well vaccinated communities, but they have done no harm beyond the death of the patient, because the people around him in every case have been exactly in the position of the protected nurses in a small-pox hospital. But apart from other considerations, the plan of isolating every case of small-pox in an epidemic is bound to fail if the type of disease is severe or if circumstances lead to an early diffusion of the infection. It need not be anyone's fault that the epidemic quickly gets out of hand in such a case as the following, reported by Dr. Sidney Coupland in the eighth appendix of the Final Report, p. 14.
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> A man, probably vaccinated some years before and therefore having only a moderately severe attack, is taken ill on December 21st, is rather better on the 22nd, travels from Manchester to Glasgow (presumably in a crowded third-class carriage), feels better the next day, when the eruption began to appear, goes to the Saturday popular concert, probably to the most crowded place in the hall; he is not quite well enough to sit it out, goes home, is worse next day, and on the 26th is taken into the small-pox hospital. He had used tramcars and omnibuses freely all the time. Such a case as that might at once start an epidemic which would overpower the resources of any hospital. In an altogether unprotected community several hundred cases might have been infected from this one man. Another case of the same kind is also reported by Dr. Coupland. A factory girl, lodging with a woman who sold milk and groceries, fell ill about Christmas and was off work. She slept in a room behind the shop and she occasionally assisted in the shop. She was married on December 30th, and early in January was taken to the small-pox hospital as being still highly contagious. As the reporter says, it can never be known how much mischief was caused by the dispensation of small-pox with milk and groceries and at the wedding party.

As regards the cost of epidemics and the difficulties of hospital accommodation, Mrs. Garrett Anderson proceeds:

> The cost of dealing with epidemics or of attempting to deal with them by the method of isolation would also be enormous, in fact, prohibitive—in any but tolerably large towns. Is this cost to be imposed upon all ratepayers, vaccinated and unvaccinated, equally, or upon those only who elect to be unprotected by vaccination? Why should those who do not need such a costly organisation be expected to pay for it? The Gloucester epidemic cost a town of 40,000 inhabitants in hard cash £15,000, not counting the value of all the things burnt or destroyed or funeral expenses. It killed 434 people, and 1,545 more went through a painful illness, and had to be supported in idleness during the weeks of convalescence. The aim of the authorities was to carry out the plan of isolating every case as soon as it was recognised. The plan failed absolutely. How could it do otherwise when for six successive weeks there was an average all the time of 21 8 new cases to deal with on each day, in addition to the accumulation of old ones?
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> One result of the vigorous effort made to isolate cases at Gloucester was that the hospitals became disorganised from overcrowding, and from the staffs being entirely inadequate to the work imposed upon them. If anyone tries to realise what it means to have for six weeks on end 21.8 fresh small-pox cases to deal with each day, and to have nearly as many houses to disinfect day by day, it will be easy to understand that the system must break down. Even with smaller numbers, however, it would have failed from the determination of the people not to have their sick friends taken to the hospital, as they rightly thought, to die there. Naturally the most malignant cases were those that the authorities tried first to isolate, and as they all died the hospital plan was discredited. The truth is that treatment with a view to save life, or even to greatly diminish suffering, in a really bad case of small-pox is futile. Patients of this type are not taken to the hospital for their own benefit, but in order to minimise the diffusion of contagion in the community; and once this is understood those who care for them resist their being removed from their homes. Why should compulsory isolation be easier to enforce than compulsory vaccination?

Space prevents our quoting more, but the manner in which the letter writer has equipped herself for the task is indicated in the concluding passage, in which she says:

> Any amount of evidence is to be found in the sixteen volumes of the Commission's report and the appendices. Unhappily only some of these volumes are indexed, so the labour of using them is much increased. This serious omission should be repaired, and they should form part of every public library.

The want of an index as here mentioned is nothing short of scandalous. Much of the most important evidence in support of vaccination is thereby practically lost to the public; and, indeed, the laxity of the Government in this matter seems to us little less than an insult alike to the Royal Commissioners and to the witnesses. Surely some medical members of Parliament should be able to compel a remedy. In the meantime the Jenner Society might do worse than reproduce in pamphlet form the letter from which we have so freely quoted.

A COUNSEL OF DESPAIR.

MR. JOHN GABB M.R.C.S., J.P. (Bewdley) writes: This Act should be called "The Act to Prevent Vaccination," for such is its operative result. In my opinion, both as a medical man and a magistrate, the sooner it is repealed the better. The greatest mistake, and main cause of opposition to vaccination has been the early age at which it is required to be performed, and six months in the new Act is too young except for very strong and healthy children. There is a natural disposition in every Englishman to resist compulsion in personal matters. Vaccination was willingly accepted as a boon to be sought for before it was made compulsory, as it has been resisted by a rapidly-increasing number since it has been more rigidly enforced. If the Act were repealed, the result would be that the residuum would remain unprotected, but what matter? It would be in the power of everybody to protect himself, his children, and dependents against small-pox by voluntary vaccination. It would benefit the human race in a social evolutionary sense, by weeding out the unconformable, who, if they died of small-pox, would be counteracting, by the best means in their power, the natural effect of vaccination, which has been responsible for the great increase of population, desirable or not, in all civilised countries during the expiring century.

SCALE OF FEES.

The following notes are in continuation of those already published as to arrangements proposed or accepted:

Bolton Union.—(*a*) 1s., (*b*) 5s., (*c*) 2s. 6d. The guardians paying all postage. The arrangement to continue for fifteen months, at the end of which period to be subject to reconsideration.

Keighley Union.—(*a*) 1s., (*b*) 6s., (*c*) 2s. 6d., and mileage. Dr. Wilson to be allowed under (*b*) 10s. for vaccination at distant places specified.

Chesterfield Union.—It appears that the Chesterfield guardians at the end of last year sent an intimation to the public vaccinators that they, the guardians, decided to pay the minimum fees allowed by the Local Government Board. This, of course, was in direct conflict with the intention of the Order, which was that an agreement should be come to between the two contracting parties. Subsequently a committee was appointed by the guardians to confer with a deputation from the public vaccinators. This deputation met with the most extraordinary reception from at least one member of the guardians committee. No agreement was come to, and the matter will therefore come for decision before the Local Government Board. We forbear to characterise the conduct of the member of the Board of Guardians to whom we have referred, but we are glad to see that the *Derbyshire Times* expresses the opinion that the general body of the guardians will be heartily ashamed of the incident.

Scarborough Union.—After a prolonged discussion the following fees have been accepted (*a*) 2s. 6d., (*b*) 7s. 6d., (*c*) 5s.

Kingston-on-Thames.—A deputation of public vaccinators of the Kingston-on-Thames Union, with Dr. Owen Coleman as their spokesman, attended by appointment a special meeting of the guardians on December 20th, 1898. An offer had been made, but the medical men did not think that the payment proposed to be made under Subsection (*a*) was sufficient. This was explained at some length by Dr. Coleman, and after numerous questions had been asked and answered, and other members had spoken, the deputation withdrew. After a discussion at some length by the Board, it was announced by the Chairman that, by a large majority, all that had been asked for had been granted—namely, 2s. 6d., 7s. 6d., and 2s. 6d. under the Subsections (*a*), (*b*), and (*c*) respectively, together with an extra 1s. per case to Dr. Goodman on account of distance. The deputation, through Dr. Coleman, thanked the guardians for the courtesy with which they had been received, and for the favourable consideration given to their application.

VACCINATION OFFICERS ASSOCIATION.

At a recent meeting of the Vaccination Officers Association a general discussion took place upon the conscience clause and the extension of the age-period from three to six months. The opinion was expressed by most of the officers that these provisions would be prejudicial to securing satisfactory returns in the future. But the belief was expressed generally that as the Government were responsible for the purity of the lymph, the bringing of vaccination to the homes of the people would in time be fully appreciated as soon as the alteration was duly appreciated by the public. Some amusing stories were told concerning the "conscientious objector," one officer relating a case in his district where he had received exemption certificates for a number of children, and afterwards had received certificates of their successful vaccination, a circumstance which had led him to believe that not a few parents were suffering merely from a temporary aberration of conscience.

THE CONSCIENTIOUS OBJECTOR.

DR. WM. WOODWARD (late Public Vaccinator for upwards of 30 years to the Worcester Districts, Worcester) writes: Since the appointment of the Royal Commission, although there is at present a lull in the storm, the cost to the county from small-pox has been enormous, to say nothing of the dreadful suffering and deaths (known only to those who witness it), and now vaccination costs more than double and is rendered inefficient. No wonder, therefore, that Boards of Guardians are flatly refusing to carry out the Act.

Will our non-conscientious legislators take any steps towards remedying the error they have committed? It appears to me the least they can do, and that without a day's delay, is to pass "an Act to amend the Vaccination Acts." No doubt when the conscience clause was passed it was thought that the magistrates who had no votes to lose would act as a buffer between the members of Parliament and the antivaccinators, and nice buffers they are proving themselves. The Act reads that "they are to satisfy themselves that a man has a 'conscientious objection,'" and how are they doing it? In one instance, a long row of applicants were told to hold up their hands, and all who did so were granted certificates. Now, if the Act had been worded in such a way that certificates were to be granted to "those who had a simple objection," or "to all applicants," the magistrates would not be guilty of dereliction of duty as they now are—with a few notable exceptions, such as Mr. Corser and Mr. Mead, they are incurring an awful responsibility by this neglect of duty, and should be removed from the Bench. The Vaccination Act is now literally left to them to carry out, and although they ought not to have been put into this position, they should either do their duty or resign; or, as one medical magistrate has done, retire from the Bench when applications are made. Instead of that they often do not even charge the highest fees and make all the difficulty they can, but on the contrary, encourage the ignorant and misguided in their wicked folly.

Vaccination is now made perfect by the new Act, and instead of giving it a trial, which in time would even convince a rabid antivaccinator, it is being rendered nugatory. A day of reckoning will surely come, as unless the evil is at once remedied ages yet unborn will live to curse us when, for want of a simple precaution, there will be a return to the days of the Black Death with its fearful cordon of isolation as the only means of escape. If the plain and guilty alone suffered it would be different, but there are the comely and innocent who have to be considered, when, even if life is saved, disfigurement, blindness, deafness, and other sequelæ (very common in the worst form of small-pox, of which this generation knows nothing) render that life worse than death.

QUALIFICATIONS NECESSARY FOR PUBLIC VACCINATOR.

E. B.—A public vaccinator must be a "duly registered medical practitioner," and have similar qualifications to those necessary for a district medical officer—that is, he must be "qualified by law to practise both medicine and surgery." He must, in addition, have a special certificate from one of the recognised teachers of vaccination.

IN THE MIST.—In the case of patients who are "not at home" it would be advisable to visit again. As to skin eruptions, it is the public vaccinator's duty to postpone if the child is not in a fit state to be vaccinated, or if the environment is such that the child cannot be safely vaccinated.

IGNORAMUS asks: Is the Local Government Board likely to sanction the appointment as vaccination officer of a man who has obtained a certificate of exemption for his children under the conscience clause, and who openly avows himself as opposed to vaccination?

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on January 12th, Sir WILLIAM MAC CORMAC, Bart., K.C.V.O., President, in the chair.

Physiological Catalogue.—The Council adopted the recommendation of the Museum Committee that steps be taken for the publication, with coloured illustrations, of the first volume of the Physiological Catalogue of the Museum at an approximate cost of £108.

Members' Gown.—The further consideration of this subject was postponed *sine die*.

Medical Curriculum.—The following report by the Committee of Management was adopted:

The Committee of Management have considered the communication from the Medical School of St. Bartholomew's Hospital, taking exception to the recent alteration in the Regulations relating to the commencement of dissection after the student has received his instruction in chemistry, physics, practical chemistry, and biology, which was referred to them by the two Royal Colleges for consideration and report, together with communications to the same effect which have been received from the Deans of Charing Cross Hospital and St. Thomas's Hospital Medical Schools and have adopted the following resolution—namely:

> That after receiving the written opinion of the several medical schools, the Committee of Management recommend to the Royal Colleges that in Clause 3 on page 4 of the Regulations the words between the brackets be omitted.

The clause will then be the same as before the alteration. The Committee also recommend that Mr. Thomas Cooke's course of operative surgery be recognised for the ensuing year.

Report of the Laboratories Committee.—The following report, which concluded with a list of those working at the laboratories, was adopted:

1. *The Work on Diphtheria for the Metropolitan Asylums Board.—Preparation of Antitoxin.*—Since the 7th of October, 1,825 doses of antitoxin, each containing 2,000 units, and 3,547 doses, each containing 4,000 units, for the treatment of diphtheria in the hospitals of the Metropolitan Asylums Board, have been supplied and all the demands fully met. During this period 17,838,000 units, or 278,718 units per diem, have been supplied, as against 11,229,000 units, or 175,453 units per diem for the corresponding period of last year, an increase of 6,609,000 units, or 103,265 units per diem. Since the 24th November, 30 doses of 4,000 units each have been supplied to medical officers of health according to instructions received from the Metropolitan Asylums Board.

2. *The Grant from the Goldsmiths' Company.*—Under this grant 492 doses of antitoxin, containing 1,106,000 units, have been supplied to the general and children's hospitals in London.

3. *St. Giles, Holborn.*—The Committee have agreed to undertake the bacteriological examination of material from suspected cases of infectious disease in the St. Giles District, Holborn, for a period of six months, and if the arrangement proves satisfactory, it is proposed, at the termination of this period when the amount of work and its cost is ascertained, to enter into an agreement with the Vestry of St. Giles District for the continuance of the work.

Disciplinary.—The Disciplinary Committee recommended that the College solicitor, Mr. Wilde, be instructed to obtain the opinion of Mr. John Paget upon the clauses prepared by the General Medical Council for the amendment of the Medical Acts with the object of acquiring additional disciplinary powers. This recommendation was adopted.

Annual Meeting of Fellows and Members.—The following answer to the first resolution carried at the annual meeting of Fellows and Members was adopted.

That the Council while appreciating the congratulations of the meeting respecting their action in the matter of the Army Medical Service, would point out that they do continually give their attention to remedying those abuses connected with civil medical practice which are brought to their notice and which fall within their jurisdiction.

The following answer was given to the third resolution passed on the same occasion:

The Council would repeat that, while not prepared to express a general opinion on the questions raised by the resolution, they are willing to consider any evidence which may be submitted to them respecting the con-

duct of any Fellow or Member of the College in connection with the practices therein referred to.

Centenary at St. Petersburg.—The President reported that he had nominated Mr. Edmund Owen and Mr. F. Richardson Cross to represent the College at the celebration of the centenary of the Imperial Military Military School of Medicine at St. Petersburg.

Hunterian Oration.—The President reported that His Royal Highness the Prince of Wales had expressed his intention of attending this oration on Tuesday, February 14th and of being present at the dinner.

Midwives Bill.—A letter from the Honorary Secretary, Mr. F. R. Humphreys, was referred to a Committee.

Students' Association of Queen's College, Cork.—A letter dated December 29th, 1898, from the Honorary Secretaries of the Medical Students' Association of Queen's College, Cork, asking for the consideration of the following resolution passed at a recent meeting of the Association was referred to a Committee:

That we respectfully ask the Royal College of Surgeons, England, to recognise as an equivalent to their Second Professional Examination the Third Professional Examination of the Royal University of Ireland, so that students having passed the latter may be enabled to proceed to the Final Examination of that body.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on December 30th. There were present Dr. de Havilland Hall (in the chair), Dr. J. B. Ball, Dr. M. Greenwood, Dr. Walter Smith, Dr. Alfred S. Gubb, Dr. J. W. Hunt, Dr. W. Knowsley Sibley, and Dr. F. J. Allan.

The business of the Society during the closing months of 1898 has been remarkably good. During the winter and spring sickness claims are heavier than in the warmer weather; but thanks, perhaps, to the mildness of this season, the sickness experience of the Medical Sickness and Accident Society through the latter part of last year has been unusually light. Although the final accounts for the year 1898 will not be presented to the Committee until their next meeting, it is clear that the record of 1898 will be no exception to the rule, and that the Committee will once more be able to congratulate the members of the Society on a prosperous and expanding business.

Although the amount of sickness claims for the year 1898 will be appreciably less than that expected and provided for by the premiums, it will exceed the amount paid in any previous twelve months of the Society's working. Through the fifteen years during which the Medical Sickness and Accident Society has carried on its operations it has grown in numbers, and the average age of the members has grown also. The amount of benefit paid to its members has necessarily increased each year, but it is a gratifying proof of the soundness of the basis upon which the Society was founded that its reserves have increased in a still greater ratio. More than £20,000 has been paid away in sickness benefit, but the reserve fund of the Society now amounts to over £120,000.

Prospectuses and all particulars can be obtained from Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

THE PLAGUE.

THE SPECIAL COMMISSION.

THE sittings of the Commission at Agra have just terminated, and the following abstract of the proceedings is based on the telegrams published by the *Times*:

Mr. Hankin, Clinical Examiner and Bacteriologist for the North-West Provinces and Oudh, stated that as a rule plague was easily diagnosed by the microscope, but in many instances a few isolated bacilli were found after a careful search. Mr. Hankin said that "there was no doubt that cases of plague occurred among human beings in which no microbes were visible at the time of death." This fact was proved by the members of the German and Austrian Plague Commissions.

Colonel Thomson, Sanitary Commissioner for the North-West Provinces, said that when plague was in Bombay arrangements were made in Agra for the medical inspection of railway travellers. In consequence there was remarkable immunity from epidemic diseases generally. The first case at Hardwar, was discovered in April, 1897, and the plague ceased in June. Colonel Thomson said that the statement that the maha-mari from the hills was the same thing as plague was a pure assumption, and that Hardwar was infected from the south, and not from the north. He considered evacuation of the infected dwellings the chief measure to be adopted in the arrest of plague.

Mr. Winter, Collector of Saharanpur District, stated that in the epidemics of plague in the villages around Hardwar, the measures taken were evacuation of infected premises, segregation of the inmates, burning of houses, and the disinfection of clothing and property. These measures in the Hardwar District had been completely successful.

Captain Chaytor-White, of Mallapur Camp, Sitapur District, holds the belief that inoculation of plague by abrasions of the skin was the exception rather than the rule, and he doubted whether such abrasion was sufficient to account for the large amount (75 per cent. of the total cases) showing femoral inguinal axillary bubos. Peripheral points of inoculation were not usually to be found in such cases.

Dr. Elphick, Medical Officer on special plague duty at Hardwar, pointed out the extreme fatality of that form of the disease in which no external buboes were met with.

Colonel Crofts, Medical Officer to the Maharajah Sindhia, stated that segregation and evacuation as practised in the village of Khandraoni were eminently successful.

Colonel Adams, Medical Officer in Rajputana, holds that plague is spread by clothing, and in a less degree by rats. Detention and segregation are less objectionable to the natives than disinfection by chemicals or house visitation.

Captain Grant, of the Indian Medical Service, described his experiences whilst on duty in Sirohi. All treatment was refused by the natives, who feared poisoning. The disease was called the "rats' disease" by the natives, but during the epidemic no rats were seen. The early cases in the epidemic were all pneumonic and invariably proved fatal, but afterwards they were bubonic, and a fair number recovered.

A PLAGUE-STRICKEN CITY IN INDIA.

The Rev. Henry Haigh, in the *Methodist Recorder* for December, gives a graphic description of the city of Bangalore, in the Mysore State, as he saw it during the plague epidemic. The account reminds one of the records handed down to us of the great plague of London in the seventeenth century. Instead of the thronged bazaar and teeming streets an ominous stillness prevails. The shops are shut, the house doors are locked, the law courts and schools are empty; no vehicles are running, and the few foot passengers seen here and there but add to the desolate appearance of the city. "As we drove along we saw on house after house and on both sides of the streets a great P rudely painted, with figures inside the loop to show 16 2 98 when plague had appeared there. Close beside the P there was usually a great D, telling that the attack had been fatal. There were white-covered carts standing here and there to carry new cases to the plague camp, and low, black box-carts to convey the corpses covered to their burial." All who could leave the city had done so; and in a part of the city usually containing 80,000 to 90,000 people, not more than from 10,000 to 12,000 remained. In even this attenuated population a daily death-rate of about 120 obtained, where the normal rate is but 5 or 6.

The native plague-stricken population do all they can to elude the vigilance of the authorities. In order to escape segregation the householders in many instances refrain from reporting plague, and not infrequently bury the corpse secretly. Not only is any spare piece of ground used as a burial place, but the body is at times thrown into a well or tank, or dropped over the wall of some European "compound." During one week three plague corpses were found, badly decomposed, in reservoirs commonly resorted to for drinking purposes.

"Inoculation is doing much where the people are willing to submit to it. There is one town—Dharwar, in the Southern

Mahratta country—where there have been singular facilities for obtaining accurate statistics, and here is the record:

	Population.	Attacks.	Deaths.
Inoculated	5,963 ...	106 ...	37
Uninoculated	4,200 ...	1,057 ...	827

That is very striking and is making its impression. But vast numbers of the people are unaffected by such statistics, and regard inoculation with suspicion and dread. Stories are current among them, told with every elaboration of detail, of how men are killed off by this same inoculation. Even the example of high officials does not suffice to reassure them."

REPORTED REAPPEARANCE OF PLAGUE IN CALCUTTA.

According to a Reuter's telegram dated January 12th, "several cases of illness suspected to be plague have lately occurred here (Calcutta) sporadically, but there is no likelihood of the port being declared infected." A later telegram, dated January 14th, states that one case of suspected plague has occurred in Calcutta.

MADRAS.

"The plague returns for last week show a decline throughout the Mysore district."—Reuter, January 12th.

CHINA.

The last issue of the *Chinese Imperial Maritime Customs Medical Reports* contains an interesting account of the outbreak of bubonic plague in Macao and Lappa, two ports in the neighbourhood of Canton, in 1897, and a report on the trials of the Yersin serum in the treatment of that disease by Dr. Gomes da Silva, of Lappa. The conclusions drawn from his personal experiences of the use of the serum are briefly as follows: The patients who, on the first appearance of the symptoms, are submitted to the injections of the serum with suitable tonic treatment are readily cured. If the injections are delayed till the appearance of the buboes, there is still some hope of cure if no serious internal complications have arisen; if, however, lesions of the circulatory, respiratory, or nervous systems have developed, there is little or nothing to be hoped for from the use of the serum. Accompanying the report are several charts showing the course of the temperature and the influence of the injections on it in the various types of the disease.

LITERARY NOTES.

SURGEON-GENERAL SIR CHARLES A. GORDON, K.C.B., the author of *Recollections of Thirty-Nine Years in the Army*, has (says *Literature*) been occupied for some months past in collecting a series of notes on early sanitation in India, from the arrival of the Portuguese in 1498 down to the formation of the Royal Commission in 1859. Sir Charles Gordon has now a tolerably complete series of notes on the use of animal matters and their derivatives as therapeutic agents in England during the seventeenth century, and in China at the present time.

To the journalistic death roll for the past year must be added the *Archives de Physiologie Normale et Pathologique* and the *Journal des Connaissances Médicales*. The latter, which was edited by Professor Cornil and Dr. Galippe, had been in existence for fifty-six years.

Messrs. Kegan Paul, Trench, Trübner, and Co., Limited, announce the publication of a highly original work on psychology entitled *Truth and Error, or the Science of Intellection*, by Mr. J. W. Powell, Director of the United States Bureau of American Ethnology, and some time Director of the United States Geological Survey. In the chapters on fallacies there is a careful discussion of the theory of ghosts, especially as treated in the publications of the Society for Pyschical Research.

The *Geographical Journal* for December contains the full text of the paper on the Acclimatisation of Europeans in Tropical Lands, read by Dr. Luigi Sambon before the Royal Geographical Society last April, together with a full report of the discussion thereon, in which Dr. Patrick Manson, Sir Harry Johnston, Mr. J. A. Baines, Dr. Felkin, Mr. Alfred Sharpe, Sir John Kirk, and Mr. J. W. Wells took part. As our own report both of the paper and the discussion was necessarily condensed, we would refer readers specially interested in the important subject with which they dealt, to the full report in the *Geographical Journal*. Dr. Sambon's views have excited much attention in the United States and in India, and whether one accepts them or not, it will hardly be denied that they deserve serious consideration.

Messrs. Kegan Paul and Co. will have ready at an early date a new revised edition of Mr. E. A. Reynold-Ball's *Mediterranean Winter Resorts*. While giving so much detailed information about places of historic and artistic interest as to render the tourist who possesses it independent of guide-books, particular attention is paid to the wants of the classes of visitors for whom the book is mainly intended—namely, invalids and winter residents. The medical aspects of various winter stations are fully dealt with. Full and precise information as to steamship and railway routes is included, together with notes upon hotel accommodation, tariffs, etc.

The demon of influenza seems, if the newspaper reports are to be believed, to be at large again in New York. The American medical journals which have come to hand so far say nothing about the matter, so that we may at least cherish the hope that the reports are exaggerated. In the meantime, the republication of the following classical lines which appeared some years ago may have what, in the language of the lighter lyric stage, is called a "topical" interest:

Cæsar Ruthenus,
Grippâ perplexus,
Torquens in lecto clamat:
"Hunc miserum morbum
Totum per orbem
Spargam, qui circum me stat!"

Tumque bacillos
Valde tantillos
Ventis distribuit sic,
Ut hi ministri
Plane sinistri,
Spargerent illic et hic.

Itaque ventis,
Minime lentis,
Ex aquilone qui fiant,
Et sordidis Sclavis
(Quippe per naves,
Quæ super Atlanticum erant)

Pervenit nobis
Iste microbus
Aut virus—quodcumque sit—
Quo lugent populi
Rure, metropoli,
Et medicus dives quo fit.

An sustinebimus?
Inulti flebimus?
Nimis molestum est, heu!
Sumamus casum!
Cæsaris uasum
Tundamus ego et tu!

After a successful career of over thirty years, *Science Gossip*, the favourite journal for amateurs devoted to natural, physical, and applied science, has just entered upon independent offices at 110, Strand. The magazine is still under the editorial control of Mr. John T. Carrington, who is assisted by Miss F. Winstone. There are also several specialists as departmental editors for particular sections, as Physics, Microscopy, Astronomy, Botany, Geology, Zoology, Meteorology, etc.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary*.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting of this Branch will be held in Liverpool in February. Gentlemen wishing to read papers, show cases, or make any communication, should communicate at once with the Honorary Secretary, Dr. JAMES BARR, 72, Rodney Street, Liverpool.

BATH AND BRISTOL BRANCH.—A meeting of this Branch will be held at the Medical Library, University College, Bristol, on Wednesday, January 25th, at 7.30 P.M., L. A. Weatherly, M.D., President, in the chair. The

evening will be devoted to a discussion on the Etiology and Prevention of Tuberculosis, to be opened by D. S. Davies M.D.–J. MICHELL CLARKE Clifton), and W. M. BEAUMONT (Bath), Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting of this District will be held at the Lambeth Infirmary on Thursday, January 26th, at 4 P.M. Cases of clinical interest from the wards of the Infirmary will be shown, and demonstrated on by Dr. Quarry and Dr. Turney.—THEO. B. HYSLOP, Bethlem Royal Hospital, S.E., District Secretary.

DUBLIN BRANCH.—The annual meeting of the Dublin Branch will be held in the Royal College of Physicians, Kildare Street, on Monday, February 6th, at 5 P.M. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Mr. F. T. Heuston, F.R.C.S., President-elect, will deliver an address on The Position of Poor-law Medical Officers in Ireland. The annual dinner will take place on the same evening in the College Hall at 7.30 P.M.–JAMES CRAIG, M.D., Honorary Secretary, 35, York Street, Dublin.

BORDER COUNTIES BRANCH.—The next meeting will be held in Penrith about the end of January. Members desiring to read papers, etc., will kindly communicate as soon as possible with the Honorary Secretary, W. F. FARQUHARSON, Garlands, Carlisle.

METROPOLITAN COUNTIES BRANCH: NORTH-LONDON DISTRICT.

A MEETING was held at the North-West London Hospital on January 11th, Dr. MARTIN in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Diseases and Deformity of Spine.—Mr. J. JACKSON CLARKE read a paper on diseases and deformity of the spine, and several patients were shown to illustrate various forms of lateral curvature and tuberculous disease of the spine. A modification of Chance's splint was the apparatus most frequently used in suitable cases, and its principle and mode of application were illustrated. A number of photographs and radiographs were exhibited. Mr. Jackson Clarke dwelt on the importance of gymnastic exercises in cases of early lateral curvature and of attention to the general health, as in rickets, tubercle, etc. The paper was subsequently discussed.

Cases.—A case of Spinal Curvature in a male adult due to Osteo-arthritis, under the care of Dr. KNOWSLEY SIBLEY, was shown.—Mr. F. DURHAM showed the specimen and skiagraph of a case of Calculus of the Kidney which had been successfully operated upon. He also showed a long Splinter of Wood which had been removed from the abdominal parietes of a case under his care.

Votes of Thanks.—Votes of thanks were passed to the lecturer for his interesting paper, to the staff of the hospital for the cases and specimens shown, and to the hospital authorities for their hospitality.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE regular monthly meeting of this Branch was held in the Royal Society's Room, Sydney, on October 28th, 1898, Dr. W. CHISHOLM (President) in the chair. There were twenty-six members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The PRESIDENT announced the election of Dr. R. J. Millard, of Goulburn, as a member of the Branch.

Communications.—Dr. J. B. NASH exhibited a case of Schede's Thorax Resection. The patient was examined by the members. A discussion ensued, in which Drs. GLEDDEN, WILKINSON, HANKINS, THRING, MILLS, and SINCLAIR GILLIES took part. Dr. NASH replied.—Dr. SINCLAIR GILLIES read notes on three cases of Epidemic Cerebro-spinal Meningitis. Drs. THRING, HANKINS, and WILKINSON took part in the discussion.—Drs. FIASCHI and ISBISTER read notes of a case of Amœbic Abscess of the Liver and Lung. Drs. CHISHOLM and GOODE made remarks on the case.

A DENTAL DEFENCE COMMITTEE.—At a recent meeting of Licentiates in Dental Surgery practising in North Wales and the Border Counties, a Defence Committee was formed with the object of collecting evidence in cases of illegal practice and covering, and of instituting proceedings under the Dentists Act, 1878, or before the General Medical Council, in cases in which it may be deemed advisable. The Chairman of the Committee is Mr. Roff King, L.D.S., Shrewsbury, and the Honorary Secretary Mr. Albert Morris, L.D.S., Oswestry.

SPECIAL CORRESPONDENCE.

PARIS.

The Prevention of Infection in Laboratories.—Poisoning by Tinned Food.—Outbreak of Typhoid Fever in Barracks.—Death of Dr. Dumontpallier.

M. GRÉARD, Vice-Rector of the Paris Academy, has sent to all the deans of medical and science faculties, and to the Director of the Pharmaceutical School, a circular formulating the precautions to be observed in laboratories in order to guarantee laboratory workers and the general public from any form of contamination. Heads of laboratories are to be held responsible for accidents occurring in their laboratories. They must therefore choose their assistants with great care and keep themselves exactly informed as to the researches undertaken in their laboratories. It will be their duty to forbid dangerous experiments or researches being undertaken by any but those who are thoroughly competent. Cultures of micro-organisms are not to be allowed to leave the laboratories unless the chief knows how they are to be used and sanctions such use. Minute directions are given concerning laboratory furniture. The tables are to be of enamelled lava or of slate; the floors are to be covered with cement or bitumen. The regulations as to cleansing and disinfection are most complete, as are those concerning the clothes of the workers. All blouses worn by them are to be disinfected in the stoves before they are sent to the laundress. All pupils and workers are warned that it is dangerous to let their cigarettes lie on the tables, as they may be contaminated and germs thus brought in contact with the buccal mucous membrane. It is desirable not to smoke in laboratories. In experiments on animals in connection with dangerous infectious diseases which soon run their course, the animals inoculated are to be placed in large glass jars, not in cages, until death occurs. After the death of the animals these jars are to be immediately sterilised. The dead animals are to be cremated in a special crematory kept in working order for the purpose. Small animals must be destroyed after death by being immersed in sulphuric acid or by boiling; the dead animals are to be removed to the crematory or immersion room in closed receptacles.

News comes from Sens that five soldiers poisoned by eating tinned meat are under treatment at the hospital, and are in a serious state. Other soldiers, also poisoned by the same provisions, not so seriously ill, are being treated in the army infirmary.

A serious epidemic of typhoid fever has broken out in the Auch Barracks in the Gers Department. An inquiry has been held and it has been ascertained that the sanitary condition of the barracks is very defective. The woodwork of the sleeping rooms is a receptacle for microbes; the air is vitiated, notably by the leathern articles kept in the rooms. The direct cause of the epidemic is nevertheless attributed to the water supply. The drinking water was filtered, but the river supply is contaminated by sewage and foul streams.

The death of Dr. Dumontpallier causes general regret. The cause of death was pernicious influenza. Notwithstanding his 75 years, a few weeks ago he made a long speech at the Paris Medical Academy. For several years he was "chef de service" and clinical professor in the Paris hospitals. The author of several works, he devoted the last 20 years of his life to the study of nervous diseases.

LEEDS.

The Leeds Medical [Students' Debating Society.—Diphtheria in Leeds.—The Serum Treatment of Diphtheria.

THE members of the Leeds Medical Students' Debating Society were fortunate in inducing Dr. A. Macalister, the accomplished professor of anatomy in the University of Cambridge, to give them an address on Tuesday, January 10th. There was a large gathering of medical students and members of the teaching staff. After a few words of introduction by Dr. Jamieson, the President of the Society, Professor Macalister delivered a most interesting address on Some Limitations to Human Knowledge. After referring to the great advance in all that concerned the health and comfort of mankind during the

nineteenth century, he pointed out that present attainments were small in comparison with those which the future would bring forth. There were, however, boundaries to knowledge, owing to the limitations of conditions. Such limitations were those of time, space, and surrounding circumstances. Minutiæ were increasing from year to year, and the intellect of man was not advancing in the same proportion. Lack of material constituted another limitation, and instances of this were given from anthropology and geology. Again, there were limitations to the sensations, as in the case of sight, hearing, touch, and smell. The acquirement of knowledge was also limited by what might be called the personal equation. Personal aptitude depended on such things as sickness and health, fatigue and even the seasons of the year. The differences in this personal aptitude often led to honest misrepresentation, and there was a danger of being led away by these divergences of perception. In conclusion, Professor Macalister pointed out that in spite of the limitations to which he had alluded there was still an enormous field for effort, and that the limits were very far off. A vote of thanks, proposed by Mr. Collinson, and seconded by Mr. Ewing, was carried with enthusiasm.

The subject of diphtheria has recently attracted much attention in Leeds, as the city is only just approaching the end of the most serious epidemic of the disease which has ever visited it. In ten weeks as many as 485 were notified. Notwithstanding the larger number of cases reported during the last quarter of 1898, the mortality was only 20.2 per cent., as against 34.3, 32.5, and 31.8 per cent. of the preceding quarters. Not many years ago diphtheria was looked upon as a rare disease in Leeds. On the suggestion of Dr. Spottiswoode Cameron, medical officer of health, the Sanitary Committee unanimously voted a grant of £20 for the purpose of providing antitoxic serum for the use of patients unable to pay for it.

In view of these facts much interest was shown in the recent meeting of the Leeds and West Riding Medico-Chirurgical Society, at which the subject of the serum treatment of diphtheria was down for discussion. There was quite a record attendance, over 100 members being present. All the speakers who took part in the discussion—and they were more than a dozen in number—testified from their personal experience to the high value which they placed upon the serum treatment of diphtheria.

CORRESPONDENCE.

TEACHING OF TROPICAL DISEASES.

SIR,—I enclose a letter received by the Council of King's College from the Secretary of State for the Colonies, and I should be obliged if you would insert it in your next issue.—I am, etc.,

WALTER SMITH,
Secretary.

King's College, London, Jan. 17th.

[Copy.]

Downing Street,
Jan. 7th, 1899.

SIR,—I am directed by Mr. Secretary Chamberlain to inform you with reference to the letter from this office of December 23rd, 1898, that he has carefully considered your letters of November 22nd and December 5th, 1898, and their enclosures, and that he has come to the conclusion that, in selecting candidates for the Colonial Medical Service, preference should be given (other things being equal) to those doctors who have received such bacteriological or similar special training as King's College provides, but that when candidates have been definitely selected they should be required to attend at the School of Tropical Medicine, which is being established at the Albert Docks Branch of the Seamen's Hospital, and to go through the complete course of instruction which is now being settled by a Special Committee of experts appointed for the purpose.

2. Mr. Chamberlain considers this arrangement to be the one best suited to the requirments of the Colonial Medical Service, and he trusts that the medical authorities at King's College will co-operate as far as possible in giving effect to it.

3. Mr. Chamberlain desires me to express his thanks to you and to Professor Crookshank for the great interest which you have shown in this scheme for extending the study of tropical medicine, and also for the suggestions which you have been good enough to put forward.—I am, Sir, your obedient servant,

(Signed) H. BERTRAM COX.

The Principal, King's College.

THE PROPOSED SCHOOL FOR TROPICAL DISEASES.

SIR,—The correspondence that has lately been going on in your columns anent the proposed tropical school of medicine, touches a question which is of the deepest interest and importance to those who, like myself, are spending their life in tropical or subtropical lands. On perusing a letter on the subject, signed by a number of eminent medical men, in the *Times* of December 15th,[1] one cannot but express surprise that there are found but two names in the list that can be said to have any practical acquaintance with tropical disease, and therefore of the real needs of the question. How one of those two—Sir Joseph Fayrer—came to sign this letter on the true merits of the case, or lend his name to some of the strange suggestions in that letter, is a mystery to me. Of a very different type is the letter of my old teacher, Mr. Jonathan Hutchinson, who has approached the question in the generous and liberal spirit that characterises all his writings. And yet even he, I venture to say, has neglected the most important consideration in the whole matter—namely, what do the men for whom this provision is admittedly made (that is, qualified men either going to, or on furlough from, the tropics) want? Most assuredly we do not want clinical lectures of the "paper and scissors" type by men who have never practised in the tropics, who know less about the matter than those who have been there, and can only tell those who are going what they can read up for themselves. Neither do we want to attend classes at a "polyclinic," visiting the Seamen's Hospital from time to time, and "and thus make free use of the special opportunities which it affords," for the very simple and sufficient reason that the fullest use would not be made in this way of those opportunities. What is needed is not a general and imperfect acquaintance with the general subject of tropical disease, but a thorough clinical and pathological training in the various diseases in living men, and this can only be obtained by patient work at the bedside. A man will learn more about the symptoms and treatment of such diseases as beri-beri, acute dysentery, liver abscess, and pernicious malarial fever, by following one case out from day to day than by hearing lectures on any number of cases.

Leaving the question of Netley to be discussed by members of the Colonial Medical Service, I come to the statement that "medical men connected with missionary societies and trading corporations, along with those who in a private capacity propose to practise in the tropics, have open to them for the special study of these diseases the London and provincial Schools of Medicine where the subject is already taught." A little experience is worth a great deal of theory, and I may give mine. I was educated at the London Hospital, where, if anywhere in London, in its vast clinic a man has special opportunities of seeing nearly everything. After qualification I held for three months the post of receiving-room officer, which gives a man a unique opportunity of seeing cases, and was then house-surgeon; in addition to this, I spent three months in special hospitals in London; so that I may fairly claim that I have had good opportunities of learning what there was to be learnt.

What did I know practically when I arrived in Mid-China in 1897? I had seen one case of chyluria with filariæ, one case of bilharzia, one case of tubercular and anæsthetic leprosy, and that was all. I had never heard of beri-beri, I had never seen acute or subacute dysentery, liver abscess, psilosis, or the early stages of leprosy, and not a single case of continued malarial fever. All these things I had to learn at my patients' expense.

Now, are matters very much changed in the last ten years? I think not. As far as I know, there is no lectureship yet at the London Hospital, nor yet many others on tropical diseases—Mr. Jonathan Hutchinson to the contrary notwithstanding. I should never have gone to the expense and trouble—as I have done during my furlough—of studying at the Albert Docks Hospital, if I could have found "as good opportunities" in my Alma Mater, where I should, I know have been welcomed, or elsewhere. As to the provincial schools, of only one—Liverpool—can we say that any facilities exist for such study. As to Leeds and Bristol, I can assert that for a man to go there would be a waste of time.

Mr. Hutchinson writes: "Malarial affections will, no doubt, be well represented at the Seamen's Hospital, but it will only be in their more chronic forms." This is quite contrary to fact, as I can testify; and Mr. Hutchinson must be speaking secondhand, and not from personal experience, of the Albert

[1] Printed in the BRITISH MEDICAL JOURNAL for December 17th, 1898, p. 1840.

Dock branch. But considering how widespread malaria is, the vastness of our Colonial possessions, and the number of lives annually lost from this cause alone, it would be worth all the expense and trouble that every man going abroad should have been practically trained in the microscopic diagnosis and the intelligent treatment of malarial fever, and fully equipped, to add further to the knowledge of it.

Sir, this matter is an Imperial one, and Mr. Chamberlain deserves the hearty thanks of the great Colonial communities for taking the matter up. I trust he will succeed in his scheme; it would be a cruel thing (I use the word advisedly) to thwart it.

Whether they consider themselves aggrieved or not it will be, in my opinion, a distinct misfortune if, influenced by any sense of injustice (real or imaginary), the visiting staff of the Dreadnought Hospital decline to co-operate with their Committee in this matter, and it will be a public calamity if any such feeling is allowed to override the real need for such an institution. I feel sure that the medical profession will be true to its great ideals, and treat this question on its merits. Already many of us have to go abroad for special instruction in special branches, and it will be a national disgrace if the greatest colonising empire in the world has to send its medical men elsewhere for their tropical training.

The fact is, these diseases are as much a speciality as eye diseases, or ear diseases, or many other special departments, and the fact remains that the majority of us who want such training go, and will continue to go, where we can get what we want—practical teaching on the living subject from men who are experts in this department.—I am, etc.,

SYDNEY R. HODGE, M.R.C.S., L.R.C.P.
Senior Surgeon to the Wesleyan Mission Hospital, Hankow, China.

SANATORIA FOR CONSUMPTIVES.

SIR,—Considerable attention has been given to this subject of late, and especially since the Edinburgh meeting of the Association. The recent meeting at Marlborough House, your leading article in the BRITISH MEDICAL JOURNAL of December 24th, 1898, and Dr. Hector Mackenzie's letter in the JOURNAL of December 31st, as well as certain recent publications bearing on the Continental method of treatment of pulmonary consumption, give prominence to the same subject. It may be said at once that there is no provision in this country for the great bulk of poor consumptive patients, and the question is, How is the provision to be made? It is wholly impossible to think of the workhouse infirmary as a solution of the question, and general hospitals are already sufficiently taxed both in regard to space and funds, and the formalities and difficulties and delays attending admission to any of the "homes" so called, or to Ventnor, are well-nigh heartbreaking. Sentiment, too, plays so great a part in the question that care has to be taken not to blunder at the outset. The rooted aversion to the workhouse and its infirmary, usually under the same roof, is mentioned in Dr. Mackenzie's letter, and I can confirm this in every particular. It has been my lot for some years to recommend certain chronic and other cases to the workhouse infirmary, and without exception all demur and object outright until blank necessity compels them to go in. Only last month I suggested to the Richmond Board of Guardians—which is a very advanced and enlightened body of ladies and gentlemen—the advisability of opening a sanatorium for their poor consumptives in the county of Surrey, which is well adapted in many respects for the purpose, and I am hoping that something may come of the suggestion. A good example is required, and although it may not be in the power of Boards of Guardians to expend their funds in this direction, I believe Parliament would not be slow to confer the necessary powers.

The two recently-formed associations—namely, the National Association for the Prevention of Consumption, and the Association of Poor-law Unions—could, by united action, do much in this matter by way of establishing county associations for the collection of funds, and the building and working of sanatoria, and in approaching Parliament to sanction grants in aid either from the county funds or out of the Poor-rate, so that these institutions might be founded on a broad and secure basis, without bearing the stigma of pauperism on the one hand or of pure charity on the other. There are very few so poor whose friends could contribute nothing towards their support in a sanatorium. It is well known that there are thousands under treatment in the Metropolitan General and Special Hospitals who could well afford to pay for their maintenance there, and I am quite sure the same would apply to those seeking admission to consumptive sanatoria.

It is very easy in practice to meet the case of the out-and-out "destitute," of the very poor and of the fairly well-to-do. The great point is to make such provision that easy and prompt admission shall be secured to all classes of consumptives. In Dr. Calwell's translation of Dr. Nahm's pamphlet on *The Erection of a Consumptive Sanatorium for the People* (Mayne and Boyd, Belfast) the subject is pretty fully discussed from the international point of view, but local adaptation to meet social, climatic, and other requirements is a *sine quâ non*. At Ruppertshain the charge is from 3s. to 5s. a day, but Dr. Nahm prefers "equality for all," which is impossible in England. There are many other points in the German system quite inapplicable to this country. Dr. Nahm is of opinion that £200 per bed will suffice, inclusive of verandahs, for the building of a two-storeyed sanatorium with a basement, and air space of 1,000 cubic feet per bed. This is much below the estimate for the erection of infectious hospitals in this country, 1,200 cubic feet being the minimum up to 2,000 for fever and lying-in hospitals and for severe surgical cases (Whitelegge). Dr. Nahm thinks that the "open-window system of ventilation" will compensate for the limited air space. This is doubtful. Whatever the initial cost might be, it would be a diminishing quantity, as the influence of even one county sanatorium would act as much as a preventive, perhaps more, than as a curative institution. If each Poor-law union had a small sanatorium of, say, 50 beds, the initial cost should not exceed £12,500, which could be raised as already pointed out, and £2,600 for nursing and maintenance per annum would, I think, be a liberal allowance. Most of this would come from private benevolence, and the rest from patients' contributions and the public funds.

I think there are very few landlords who would refuse the gift of a suitable site for one or more of these institutions. There are so many suitable spots up and down the country which as arable or grass land are comparatively worthless, and we have abundant evidence of late that the rich and titled are not deaf to the cry of suffering humanity, while royalty itself has taken the field against the ubiquitous microbe.—I am, etc.,

East Sheen, Jan. 1st. ALEXANDER MCCOOK WEIR.

P.S.—Since the above was written I have learned that Boards of Guardians can contribute to the maintenance of phthisical pauper patients in homes and hospitals "approved" by the Local Government Board. This, however, means serious delay, and further powers would be necessary before prompt and effective action could be taken. Guardians can also contribute to nursing the sick poor in their own homes, but this is of little use in the case of phthisis. Some interested M.P. should put a question to Mr. Chaplin in the House in order to clear the matter up.

THE COEXISTENCE OF ZYMOTIC DISEASES.

SIR,—In the BRITISH MEDICAL JOURNAL of December 31st, 1898, a case is reported of coexistent measles and scarlet fever, and from time to time one sees similar cases also put on record.

I believe this is due to an erroneous idea, inculcated by some of the medical schools, that the presence of one member of the acute zymotic group is a fairly sure prophylactic against the simultaneous occurrence of another, and hence the impression that the occurrence of, say, measles and scarlet fever together is something unusual.

I think I may safely say that all who have practical experience in the administration of isolation hospitals would most heartily wish that this were so. Unfortunately it is far otherwise, and nothing causes more anxiety in connection with isolation hospital administration than the occurrence of outbreaks of "extraneous" zymotic disease accidentally imported.

In the course of my own comparatively short experience I have frequently seen cases of measles, scarlet fever, diphtheria, whooping-cough, varicella, typhoid, and small-pox

grafted upon one another in an almost endless variety of combinations. Nor is the combination necessarily limited to only two diseases. Apparently there is no limit, beyond that of probability, to the possible number that might coexist.

The presence of one infectious disease, so far from preventing the occurrence of a second, in some cases apparently actually predisposes to it, and in order to protect our wards from the by no means rare event of a patient, admitted with one acute zymotic, developing another[1] a few days later, we make it a rule at the hospital with which I am connected not to admit, except into isolation wards, any patient coming from a house in which any other infectious disease is known to be present, special inquiry being made to ascertain this.—I am, etc.,

C. KILLICK MILLARD, M.D., D.Sc.,
Medical Superintendent, City Hospital, Birmingham.

January 11th.

INSUSCEPTIBILITY TO VACCINATION.

SIR,—My experience during the period that has elapsed since the Middlesbrough small-pox epidemic as to the question raised by Dr. Shuter,[2] How far does vaccinia during pregnancy render the child insusceptible to vaccination? does not coincide with Dr. Lockie's case.[3]

CASE I.—E. M.; mother vaccinated with calf lymph during the sixth month of pregnancy, and took well. Child was vaccinated at three months, three times in four places, and on the third occasion only one small vesicle developed.

CASE II.—G. M.; mother vaccinated during the fifth month, child at three months; result similar to Case I.

CASE III.—E. W.; mother vaccinated during the seventh month, child vaccinated at two months and a-half, three times by myself, and twice by my assistant (Dr. Gillan); in each case the lymph was fresh, and the source of supply the Jenner Institute; the same lymph gave good results in all the other cases, and I may state that this is the first insusceptible form I have filled up during the ten years I have been public vaccinator for this district: hence my anxiety to have this failure verified.—I am, etc.,

GEORGE C. H. FULTON, M.B.,
Middlesbrough-on-Tees, Jan. 9th. No. 4 District Middlesbrough Union.

ON THE INCUBATORY PERIOD IN VARICELLA OR CHICKEN-POX.

SIR,—In the BRITISH MEDICAL JOURNAL of January 14th, page 81, there appears an article by Dr. William Sykes upon the incubation period of varicella, in which he states that Dr. Clement Dukes is the only English writer who gives so long an incubation period as nineteen days. May I be allowed to draw the attention of Dr. Sykes to an article in the JOURNAL of September 19th, 1896, by Dr. E. W. Goodall and myself, upon the same subject. In this article we described 19 cases divided into five series. From these cases it was deduced (1) that the incubation period was somewhat variable, (2) that it was never shorter than twelve days, and (3) that it might be as long as nineteen days, and was commonly longer than fourteen days.—I am, etc.,

Cavendish Place, W., Jan. 17th. J. W. WASHBOURN.

OBITUARY.

ARTHUR HENRY WILSON,

M.R.C.S.ENG., L.R.C.P.LOND.,
Surgeon to the Northern Hospital, Liverpool.

IT is with great regret that we have to record the death of Mr. A. H. Wilson, of Liverpool. He was the second son of Mr. C. B. Wilson, formerly of Islington Square, and now of Abercromby Square, Liverpool, and was educated at the Liverpool College. He entered the medical school of the Royal Infirmary, and was by far the most distinguished student of his year, gaining practically every prize which it was possible for him to obtain. On his becoming qualified in 1882 he was appointed House-Surgeon to Mr. E. R. Bickersteth, and afterwards House-Physician to Dr. Glynn, and in both these offices he maintained the high reputation for industry and ability which he had gained as a student. He then took a voyage to South America, and on his return to England studied for some months at University College Hospital, London.

In 1886 he commenced practice as a surgeon in Liverpool, and was appointed Assistant Surgeon to the Stanley Hospital. He threw himself into his work with energy, and on his promotion to the office of full Surgeon took a leading part in the reorganisation of the nursing and the general improvement of the hospital. There can be no doubt that the Stanley Hospital is under a great and lasting obligation to him for the share he took at that time in the work not only of the medical staff, but of the Committee, more especially as regards the share he had in promoting the training of nurses in the hospital and in organising the out patient department and the operating theatre.

In 1892 he was appointed Surgeon to the Northern Hospital, in succession to Mr. G. G. Hamilton, and had he been spared to reach the average term of professional life he would doubtless have attained to eminence as a surgeon. His early death was the less to be expected as he had always enjoyed excellent health, and his occupation and pursuits were such as gave promise of longevity. About two years ago it was accidentally discovered that he was the subject of valvular disease of the heart, and last summer it became quite evident that his health was failing. For some time the nature of his illness was obscure, but at length it was established beyond doubt that he was suffering from infective endocarditis. He was attended with unremitting care by Dr. Glynn, and by his friend and colleague, Dr. T. Bushby. The end—which had been expected for some weeks—came on Sunday, January 15th.

Mr. Wilson was a man of high character, and had he been spared he would doubtless have been one of the leaders of the profession in his native city. By his death the Northern Hospital loses a true friend and an able surgeon, who will be long regretted by many grateful patients and many friends. The members of the medical profession in Liverpool feel the deepest sympathy with his family in their bereavement.

EDMUND JOSEPH FURNER, F.R.C.S.ENG.,

Consulting Surgeon to the Sussex County Hospital, Brighton.

A NOTABLE citizen of Brighton, and one of the oldest members of the profession in England, died on January 2nd, mourned by a wide circle of friends. Edmund Joseph Furner was born at Brighton on December 13th, 1805, and had thus recently completed his 93rd year. His father was John Furner, one of a family for many years resident in Sussex. His elder brother was for a considerable time judge of the County Court of Sussex; and another brother (Robert) presented Brighton with the valuable collection of prints which bears his name. Mr. Edmund Furner received his professional education at St. George's Hospital, London; and attended lectures in Windmill Street School. He became L.S.A. in 1828, and M.R.C.S. in 1829; and then took a voyage to India as surgeon in charge of a sailing ship. On his return to England he succeeded his cousin, the late Mr. Vallance, as House-Surgeon to the Sussex County Hospital, and subsequently became Surgeon, holding the latter office for thirty-two years. He retired in 1876, when the Committee of Management passed a resolution recording their very high sense of his great surgical ability, and of his extreme and unwearied kindness to the patients under his care. His professional colleagues, too, presented him with an address which in highly eulogistic terms characterised his long services to the hospital, and deplored the loss which the institution and they themselves experienced by his retirement. He was at once appointed Consulting Surgeon, and retained the office until the day of his death; so that he was connected with the hospital in one capacity or another for nearly sixty years.

He recorded a case of Successful Ligature of both Subclavian Arteries for Axillary Aneurysm in 1863, a wonderful case in those preantiseptic days. In 1836 he also published a case of Ligature of the external Iliac Artery for Femoral Aneurysm, and a Case of Transfusion as far back as 1835. He had a large private practice, and took great interest in Freemasonry, passing in succession the various offices until he became Deputy Provincial Grand Master of Sussex. He took

[1] The diseases most likely to give trouble in this way are measles, varicella, and whooping-cough.
[2] BRITISH MEDICAL JOURNAL, December 31st, 1898.
[3] BRITISH MEDICAL JOURNAL, January 7th, 1899.

interest also in everything that concerned the welfare of Brighton and its charitable institutions. He married in 1837 Arabella, eldest daughter of Mr. John Lawrence, at one time Surgeon in the Grenadier Guards. She died in 1897. Two sons and one daughter survive. The younger son is Mr. Willoughby Furner, also a Surgeon to the Sussex County Hospital. The deceased gentleman was full of anecdote, and retained his faculties unimpaired up to the time of his last brief illness. The interment took place at the Extramural Cemetery, Brighton.

ROBERT PRINGLE, M.D.,
Brigade-Surgeon-Lieutenant-Colonel I.M.S

WE regret to announce the death of this officer, which took place at his residence, Blackheath, on January 13th. Dr. Pringle was the son of an Indian officer and was educated in Edinburgh, where he graduated in 1854. He entered the Bengal Medical Service, in which he served thirty years, until his retirement in 1884. The greater part of his Indian service was spent in civil employ in the Sanitary Department of the North West Provinces. He gained a wide experience in the various departments of public health, especially of vaccination. The knowledge he thus acquired found expression in numerous articles which he contributed to various periodical publications, among which may be mentioned, Ancient and Modern Methods of Treating Small-pox in India, Vaccination *v.* Isolation, What is Efficient Vaccination? on Enteric Fever and Bubonic Plague in India, Storage of Rain Water for Drinking, Quarantine, on Cholera, etc.

He was a man of a very active mind and held strong views on many social questions; he was an ardent advocate of temperance and took a keen interest in matters affecting the public health. He was a member of the British Medical Association, and for many years was a very regular attendant at its annual meetings.

GEORGE FREDERICK FARR, M.R.C.S., L.R.C.P.ED.

WE have to announce with much regret the death of Dr. George F. Farr, of Kennington, which took place somewhat suddenly from cerebral hæmorrhage at his residence in Twickenham on January 11th. He was born at Baldock, Herts, on March 23rd, 1832. He entered as a student of Guy's Hospital, and obtained the diploma of M.R.C.S. in 1859, and that of L.R.C.P.Ed. in 1860. Starting in practice in Union Street, Borough, he removed to West Square some time after, taking over the practice of the late Dr. Wakem. For nearly forty years he practised in the neighbourhood of Kennington. He was Surgeon to the L Division of the Metropolitan Police and Surgeon to Scotland Yard, both which appointments he held for many years. His genial manner and kindly bearing towards his patients made him a general favourite. His loss will be keenly felt by a very large circle of friends and patients. The first part of the funeral service took place at St. Philip's, Kennington, on January 16th, the interment taking place at Eltham, Kent.

JAMES ARTHUR SEWELL, M.D.EDIN., L.R.C.S.EDIN.

DR. J. A. SEWELL died on January 2nd at his residence, Beau Rivage, Mentone. He came of a family long settled in Canada. His father was a medical practitioner in Quebec, and his grandfather was Chief Justice of Lower Canada. James Arthur Sewell was born in London but partly educated in Canada, and graduated M.D. at Edinburgh in 1856, in which year also he became L.R.C.S.Edin. He entered the medical service of the Honourable East India Company in the following year, and during the Mutiny was amongst the slender garrison of white troops who held the fort at Agra until the capture of Delhi. He was present at several of the engagements which took place with the mutinous regiments around Agra. After serving eight years in India he resigned his commission and went to Canada.

About 1878 he came to London, where he was doing well in practice when his health gave way and he exhibited symptoms of phthisis. For fifteen years he struggled with fortitude against his malady, visiting the Engadine, Pau, and Mentone, and other health resorts. Dr. Sewell was of commanding stature and fine presence, skilled in his profession, and much interested in politics and literature, a brilliant conversationalist, well informed, possessing a fund of anecdote, witty and humorous. His long and trying illness was cheered by the company and care of his wife and daughter. A son also survives him.

DR. WILLIAM H. MURRAY, of Galashiels, who has just died at the comparatively early age of 45, was the son of the parish minister of Cumnock. He was educated at the University of Edinburgh, where he graduated M.B., C.M. in 1874, and M.D. in 1876. He settled in Galashiels some twenty-four years ago, and in no long time became one of the leading practitioners in the town, in the public life of which he took an active and prominent part. For about a dozen years Dr. Murray had been the leading spirit in the Galashiels Horticultural Society, of which he was Vice-President. He was a keen cultivator of vegetables, fruit, roses, and chrysanthemums, the last of which gained prizes at the Edinburgh Shows. In the Conservative Association Dr. Murray was an active worker, and at election times was one of the most active organisers and speakers in the Unionist cause. For several years Dr. Murray, along with other medical men in the town, carried on successful ambulance classes, to which he was usually chosen as lecturer. In the promotion of the Cottage Hospital and the Queen Victoria Jubilee Nurses' Institution in the town Dr. Murray also took a deep interest, being for some years a manager in the former institution. He leaves a widow and two sons and two daughters.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: STEWART F. HAMILTON, Fleet Surgeon, to the *Jupiter*, January 17th; JAMES L. SWEETNAM, Fleet-Surgeon, to the *Unicorn*, January 17th; JOHN DUDLEY, Fleet-Surgeon, to the *Vivid*, additional, for Devonport and Keyham Dockyard, January 16th; HAROLD R. OSBORNE, Staff-Surgeon, to the *Pembroke*, temporarily, January 17th: PERCY E. MAITLAND, Staff-Surgeon, to the *Raleigh*, January 17th: CHARLES STRICKLAND, Staff-Surgeon, to the *Volage*, January 17th; JAMES W. O. UNDERHILL, Staff-Surgeon, to the *Medea*, temporarily, January 17th: HAROLD HUSKINSON, M.B., Surgeon, to the *Pembroke*, additional, for disposal, January 14th.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL JOHN ANDREW WOOLFRYES, M.D., C.B., C.M.G., retired pay, late Medical Department, is appointed Honorary Physician to the Queen, *vice* Surgeon-General A. Smith, M.D., C.B., deceased, January 18th. Surgeon-General Woolfryes entered the service as Assistant-Surgeon July 13th, 1847; became Surgeon July 20th, 1855; Surgeon-Major October 7th, 1867; Deputy-Surgeon General, April 1st, 1872, and Surgeon-General June 23rd, 1890. He was granted retired pay June 14th, 1883. He served in the Ashanti war in 1873-4, part of the time as Principal Medical Officer, and was at the battles of Amoaful and Ordahsu, and at the capture of Coomassie (mentioned in despatches, promoted Deputy-Surgeon-General, medal with clasp). He was Principal Medical Officer throughout the Gaika and Galeka rebellions in 1877-8 (mentioned in despatches and C.B.) and was also Principal Medical Officer throughout the Zulu war and the operations against Sekukuni in 1879 (C.M.G. and medal with clasp).

Deputy Surgeon-General Sir ROBERT W. JACKSON, K.C.B., has been awarded a good service pension of £100 per annum. He was appointed Assistant Surgeon, May 26th, 1854; became Surgeon, August 7th, 1866; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, May 5th, 1882; and Honorary Deputy Surgeon-General on retirement, December 16th, 1882. He was with the 90th Light Infantry in the Crimea from December 5th, 1854, including the siege and fall of Sebastopol (medal with clasp, and Turkish medal). During the Indian Mutiny he had medical charge of a battalion at the relief of Lucknow by Lord Clyde, and was present at the battle of Cawnpore on December 6th, 1857, with Outram's Force at the Alumbagh, assault and capture of Lucknow; in medical charge of the Camel Corps at the assault and capture of Calpee; present at the capture of the Forts of Dehaign and Tyrhool in Oude, also during the final operations of Jugdespore (medal with three clasps). He accompanied Sir Garnet Wolseley to the Gold Coast in September, 1873, and served throughout the Ashanti war of 1873-74, including the action of Essaman, relief of Abrakrampa, battle of Amoaful, battle of Ordahsu and capture of Coomassie; and was in medical charge of the 1st Field Hospital from its formation to the end of the campaign (mentioned in despatches, C.B., medal with clasp). He also served in the operations against Sekukuni in 1879, including the storming of the stronghold (mentioned in despatches, medal); and in the Egyptian war of 1882, being present at the battle of Tel-el-Kebir (mentioned in despatches, K.C.B., medal with clasp, 3rd class of the Medjidie, and Khedive's star).

ROYAL ARMY MEDICAL CORPS.

MAJOR GEORGE W. BRAZIER-CREAGH is seconded for special extra-regimental employment, December 7th, 1898.

It has been decided that the medical officers of the Household Troops shall retain the titles they held before the issue of the Royal Warrant forming the Royal Army Medical Corps.

Lieutenant-Colonel W. J. CHARLTON, who is serving in the Punjab Command, is appointed to officiate on the administrative medical staff of the Indian army, with the temporary rank of Colonel, from December 1st, 1898.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT ARTHUR P. NUTTALL, M.D., 1st Volunteer Battalion the Lancashire Fusiliers, to be Surgeon-Captain, January 18th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL F. C. CHATTERJIE, M.B., Bengal Establishment, died at Azimghur, India, on September 11th, 1898. He joined the department, October 1st, 1877, and became Surgeon-Lieutenant-Colonel, October 1st, 1897. He was with the Burmese expedition in 1886-7, and had the Indian Frontier medal with clasp.

Captain J. G. HULBERT, M.B., Bengal Establishment, is appointed Personal Assistant to the Principal Medical Officer, Bengal Command, from November 23rd, 1898.

Surgeon-General WILLIAM PEARL, late of the Madras Establishment, died in London on January 10th, aged 66, after a very short illness. He was appointed Assistant-Surgeon, January 24th, 1855, and became Deputy Surgeon-General, August 15th, 1881. He retired from the service with the honorary rank of Surgeon-General, March 18th, 1885.

THE VOLUNTEERS.

SURGEON-LIEUTENANT H. H. GOURLEY, M.B., 4th Durham Artillery (Western Division Royal Artillery), is promoted to be Surgeon-Captain, January 18th.

Surgeon-Major A. H. ROBINSON, M.D., 2nd Middlesex Artillery, has resigned his commission, retaining his rank and uniform, January 18th.

Surgeon-Lieutenant J. D. FARQUHARSON, M.B., 1st Newcastle-on-Tyne Artillery (Western Division Royal Artillery) is promoted to be Surgeon-Captain, January 18th.

Surgeon-Lieutenant HAROLD HEBBLETHWAITE, 3rd Volunteer Battalion the Duke of Wellington's West Riding Regiment, resigns his commission, and is appointed Lieutenant, January 18th.

Mr. EDWARD JAMES DECK is appointed Surgeon-Lieutenant in the 1st Cinque Ports Rifles.

VOLUNTEER MEDICAL STAFF CORPS.

MR. JOHN A. P. LOCKETT is appointed Surgeon-Lieutenant in the Woolwich Company, January 18th.

MEDICO-LEGAL.

A CASE OF PERSONATION.

ON January 14th, at the Central Criminal Court, Edward Joseph Nugent, otherwise Julian Rowland, described as a surgeon, was indicted for, and charged on a coroner's inquisition with, the manslaughter of Jane Elizabeth Smith.

In opening the case Counsel said that what was alleged against the prisoner was that he, holding himself out as a person competent to discharge his duty as a medical man, acted in so negligent and improper a manner that he caused the death of the deceased woman. The prisoner had for some time passed under the name of Edward Joseph Nugent, and had held himself out as a duly qualified medical man, and he was practising as a medical man with the name of Nugent on his door in Barking Road, West Ham. It was alleged by the prosecution that the prisoner was a man whose real name was Rowland, and that he had taken the name of Nugent having known that there was a qualified medical man of that name who had left the country. Counsel then detailed the circumstances of the prisoner's attendance on the deceased, who, it was stated, was delivered of a perfectly healthy child without trouble of any kind. It was alleged by the prosecution that the prisoner acted so negligently immediately after the confinement that the deceased's death was caused.

Witnesses were called on the part of the prosecution.

Dr. Carey, who had been called to the patient, in cross-examination stated that he was of opinion that it was a case of spontaneous inversion of the uterus. He had seen the prisoner four times, and thought he possessed due skill.

Dr. Kennedy, who made the *post-mortem* examination, said that he was of opinion that the cause of death was hæmorrhage, following upon inversion of the uterus.

Dr. Luff said that in his opinion death was due mainly to shock, but partly to hæmorrhage, both caused by inversion of the uterus.

Counsel for the defence said he could call a number of witnesses who would say that the prisoner treated them with skill, but after a remark from the Judge that this would not help the prisoner, Counsel said that he would not call the evidence, and addressed the jury for the defence.

Mr. Justice Darling having summed up, the jury found the prisoner guilty.

The case was then adjourned until the following day, as it was thought necessary to try another indictment, which charged the prisoner with perjury.

On the following day the prisoner was indicted for committing perjury in evidence given by him at the inquest held as to the cause of death of Jane Elizabeth Smith.

Counsel for the prosecution stated that the prisoner represented himself to be a duly qualified medical man of the name of Edward Joseph Nugent.

In opening the case counsel said the prisoner had attended deceased in her confinement and had given a certificate of death, and signed it E. J. Nugent, L.R.C.S., and stating that the primary cause of death was hæmorrhage and the secondary cause exhaustion. At the inquest prisoner swore that his name was Nugent, that he was a qualified man, a Licentiate of the Royal College of Surgeons, Ireland, a Licentiate of the Royal College of Physicians, Ireland, that his name was not Rowland, and that he had no other name except his real name of Nugent. From information which had reached the coroner it was thought desirable that the prisoner should be pressed as to his identity, and his answers were of so unsatisfactory a character that the matter was fully inquired into with the result that it was ascertained that his whole description of himself was absolutely false. It was found that he was not a duly qualified medical man, that he was not a Licentiate of the Royal College of Surgeons, Ireland, or a Licentiate of the Royal College of Physicians, Ireland; it was also ascertained that his name was not Nugent, but in fact, Rowland.

Counsel for the defence submitted that the prisoner's description of himself was not material to the issue before the coroner at the inquest, but the Judge overruled the objection, thereupon the prisoner's plea of "not guilty" was withdrawn.

After evidence had been given on behalf of the prisoner and a petition in his favour which had been largely signed by the inhabitants of Barking had been produced, Mr. Justice Darling said the perjury which the prisoner had committed was of a peculiarly dangerous character. He sentenced the prisoner to 3 years' penal servitude on the charge of manslaughter and 3 years' penal servitude on the charge of perjury, the sentences to run concurrently.

WHAT IS UNQUALIFIED PRACTICE?

ON January 16th the coroner, Mr. Braxton Hicks, held an inquest on the body of Elizabeth Davis, aged 76 years, widow, lately living at Auckland Street, Lambeth, who died on January 11th. According to the evidence as reported it appeared that the deceased had a fall on New Year's Day and sustained a fractured thigh. Her daughter, Mrs. Jessie Brown, went to a dispensary in Tyre Street for Mr. Holland. She saw a young gentleman, who came and saw her mother and ordered her beef tea and brandy. Later on Mr. Holland came, and he said he thought her mother had fractured her hip and that she was to be kept quiet in bed. He came again the next day, but not again until the following Monday, when the witness had to fetch him. Mr. Holland was then the worse for drink.

Mr. George Davis, a son of the deceased, and Bertha Davis, corroborated this part of the evidence.

John Blumenthal, described as dispenser at the Medical Hall in Tyre Street, said he was the son of a medical man, but was not qualified. He happened to be passing the house in Tyre Street and seeing it was to let he decided to open it as a medical hall, entering into arrangements with Mr. Holland. Mr. Holland told witness that under no circumstances was he to attend cases. Witness had never posed as a doctor, but he had prescribed over the counter.

Evidence was also given by Mr. Neville Holland, M.R.C.S., L.S.A., who said that Mr. Blumenthal had asked him to come and endeavour to work up a practice, he acting as a dispenser. Witness said that he had paid the deceased great attention and told the daughter he feared there was a fracture of the thigh, but he was subsequently inclined to alter that opinion. He denied that he was drunk, although he stated it was possible he had had a glass or two.

Dr. George Nicol Henry, who made a *post-mortem* examination, stated that death was due to exhaustion from broncho-pneumonia accelerated by the fractured thigh. Her treatment was perfectly correct, as keeping the patient in bed was the only thing that could be done.

The jury returned a verdict of "Accidental death," and added that they considered Mr. Holland deserving of grave censure for his treatment of the deceased, and also expressed the opinion that the Medical Hall was a fraud on poor working people.

The coroner stated that he agreed with the jury, and added that Mr. Holland appeared to be helping Blumenthal to keep the so-called dispensary, and that the matter would be reported to the General Medical Council. He also added with regard to Blumenthal that it was a case for prosecution by the Society of Apothecaries.

It may be added that Mr. Holland, in reply to the coroner's remark that his name was not on the *Medical Register* in 1896, admitted that he was off the *Register* for two years, and that it was not through inadvertence.

CONVICTION OF A "HERBALIST."

AT the Central Criminal Court, George Hare, aged 69, described as a herbalist, was indicted for using a certain instrument with intent to procure miscarriage in a married woman. The prisoner carried on business as a vendor of medicines at Goldhawk Road and Cathnor Road, London. At the last-mentioned address he was visited by a young married woman, who had been induced to consult him in consequence of handbills which she had seen announcing his medicines.

She alleged that he performed an operation upon her, and that in consequence she had a miscarriage.

In defence the prisoner denied having performed any operation, but the jury found him guilty.

According to the report, Mr. Justice Darling said the prisoner no doubt had been a regular abortionist for many years. In this case it was no thanks to the prisoner that death did not result. In May, 1889, he was convicted before Mr. Justice Hawkins, and sentenced to ten years' penal servitude for a similar offence, and at that time there was an indictment charging him with the wilful murder of another woman who had died from the effects of an operation.

The prisoner was sentenced to twelve years' penal servitude.

ACTION FOR ALLEGED NEGLIGENCE.

THE case of Franks *v.* Hargreaves was an action against a medical man for alleged negligence in the treatment of the plaintiff's broken leg. The plaintiff, George John Franks, was a carpenter at Wimbledon; and Dr. Mark Kippax Hargreaves, practising at Wimbledon and London, was defendant.

According to the report of the case, it appeared that on September 11th, 1897, the plaintiff was playing football, when his leg was broken, and the defendant set the limb. The plaintiff's case was that both the tibia and the fibula had been broken, and that the defendant had only set one bone. Mr. David Findlay, who was called for the plaintiff, said he had no doubt that both bones had been broken, and the defendant ought to have discovered it. He also said that the defendant ought to have put on extension. The plaintiff said that the limb was now five-eighths of an inch shorter, and he could no longer run, but only shuffle. The defendant

said that he had examined the limb before setting, and had formed the conclusion that the tibia was broken and not the fibula. He had tried the fibula, and found it all right at the one part, and he did not test it further, as to do so might have caused a compound fracture, and that the treatment for a broken tibia was the same as when both tibia and fibula were broken. Mr. Douglas Drew, who was called for the defence, stated that the skiagraph taken recently by the Roentgen rays showed that both bones had been broken. The usual shortening in such cases was one-half to three-quarters of an inch. Extension was unnecessary, and in his opinion the proper treatment had been adopted. Other expert evidence having been given for the defence, Mr. Justice Mathew, in summing up, said that the defendant was bound to use reasonable care and skill, but a medical man was not responsible for an error of judgment. Had the plaintiff suffered more than he might expect from getting his leg broken? It was an important case for the defendant, but, if the plaintiff had a real grievance, he was entitled to a verdict. It was not desirable that if medical men were called in suddenly that they should be intimidated by the prospect of an action being brought against them. The jury found for the defendant. Judgment accordingly.

The defence was conducted by the Medical Defence Union.

AN UNQUALIFIED MEDICAL PRACTITIONER.

THE following case is reported in the *Huddersfield Daily Chronicle* of Friday, January 13th:

At the Huddersfield County Court held on January 12th, before Vincent J. Thompson, Esq., deputy judge, an action was brought by the Society of Apothecaries of London against Thomas Owen Davies, of Ingfield Terrace, Linthwaite, for having acted as a medical practitioner without being duly qualified. The defendant did not appear, and judgment was given for the Society for the full penalty of £20 and costs.

THE DUTIES OF A POLICE-SURGEON.

MR. GEORGE HARRISON (Surgeon of Police, City of Chester, and Cheshire Constabulary) writes: In the BRITISH MEDICAL JOURNAL of January 14th I notice under Medico-Legal, page 128, that you quote the police-surgeon of Chester as receiving £30 for attendance and medicine for 47 men. This is not quite accurate, as two years ago the force was increased to 50 men, and my salary raised to £45. With regard to Coventry £50 a year for 56 men would be a very fair remuneration, the only duties further than attendance on police to be attendance when sent for to prisoners in the cells. All other calls must, of course, be extra.

UNQUALIFIED ASSISTANTS AND THE GENERAL MEDICAL COUNCIL.

MEMBER OF THE ASSOCIATION asks what steps should be taken to bring before the notice of the General Medical Council the conduct of a medical man who still continues to keep an unqualified assistant.

*** The facts relating to the case must be embodied in a statutory declaration to be made by the complainant and forwarded to the General Medical Council. Legal advice should be obtained in order that the facts may be properly set out.

M.D.BRUX.

ETHICS.—We are not aware of anything to preclude the registration of the degree of M.D.Brux. obtained prior to June 25th, 1886, as an additional title, by a practitioner previously registered.

ANOTHER correspondent writes that he holds the M.D.Brux., and has never written the M.D. without indicating its source, but he suggests that a small capital on the same line should be used to indicate the university, such as M.D.B.

*** We think it would be preferable to indicate the university as before in cases where the degree is not registrable.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,580 births and 3,995 deaths were registered during the week ending Saturday last, January 14th. The annual rate of mortality in these towns, which had been 19.1 per 1,000 in each of the two preceding weeks, declined again to 18.3 last week. The rates in the several towns ranged from 11.0 in Brighton, 11.8 in Derby, 12.6 in Cardiff, and 12.9 in Leicester and in Hull to 22.4 in Manchester, 22.5 in Gateshead, 23.2 in Oldham, and 24.0 in Sunderland. In the thirty-two provincial towns the mean death-rate was 18.5 per 1,000, and exceeded by 0.5 the rate recorded in London, which was 18.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.6 in Leeds, 2.8 in Norwich, 3.0 in Nottingham, and 3.2 in Birkenhead. Measles caused a death-rate of 1.0 in Bolton, in Salford, and in Gateshead, and 1.5 in Nottingham; scarlet fever of 1.0 in Swansea; whooping-cough of 1.0 in Huddersfield and in Swansea, and 1.8 in Bristol; and "fever" of 1.3 in Bolton. The 85 deaths from diphtheria in the thirty-three towns included 34 in London, 8 in Leeds, 5 in Liverpool, 4 in West Ham, 4 in Sheffield, 3 in Portsmouth, 3 in Norwich, and 3 in Nottingham. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and only 1 small-pox patient was under treatment in the Metropolitan Asylum Hospitals on Saturday last, January 14th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,939 and 2,912 at the end of the two preceding weeks, had further declined to 2,777 on Saturday last; 220 new cases were admitted during the week, against 221, 225, and 291 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 14th, 681 births and 663 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2 and 21.3 per 1,000 in the two preceding weeks, further rose to 21.7 last week, and was 3.4 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 13.7 in Greennock and 14.9 in Paisley to 26.3 in Edinburgh and 32.1 in Perth. The zymotic death-rate in these towns averaged 2.0 per 1,000, the highest rates being recorded in Greenock and Aberdeen. The 299 deaths registered in Glasgow included 3 from measles, 5 from scarlet fever, 4 from diphtheria, and 19 from whooping-cough. Four fatal cases of scarlet fever, 2 of diphtheria, and 10 of whooping-cough were recorded in Edinburgh; 2 deaths from diphtheria occurred in Leith and 2 in Aberdeen.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1898.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE vital statistics of the thirty-three large English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending December last, 82,990 births were registered in these thirty-three towns, equal to an annual rate of 29.7 per 1,000 of their aggregate population, estimated at 11,218,378 persons in the middle of 1898. In the corresponding periods of the three preceding years the birth-rates in these towns were 29.3, 31.3, and 30.1 per 1,000 respectively. In London the birth-rate last quarter was 28.9 per 1,000, while it averaged 30.2 in the thirty-two provincial towns, among which it ranged from 21.7 in Huddersfield, 22.5 in Halifax, 22.8 in Bradford, and 24.1 in Brighton to 33.2 in Gateshead, 33.9 in Salford, 34.6 in Sheffield, 34.8 in Sunderland, and 35.2 Liverpool.

During the quarter under notice 50,601 deaths were registered in the thirty-three towns, corresponding to an annual rate of 18.1 per 1,000, against 19.4, 18.8 and 19.0 in the fourth quarters of the three preceding years. In London the rate of mortality was 17.2 per 1,000, while it averaged 18.7 in the thirty-two large provincial towns, among which it ranged from 11.9 in Croydon, 13.4 in Cardiff, 15.0 in Huddersfield, 15.1 in Derby, and 15.4 in Leicester to 20.8 in Newcastle-upon-Tyne, 21.0 in Sunderland, 22.0 in Salford, 22.3 in Manchester, and 23.1 in Liverpool. The 50,601 deaths registered in the thirty-three towns last quarter included 5,980 which were referred to the principal zymotic diseases, equal to an annual rate of 2.14 per 1,000, against 3.05, 1.74, and 2.34 in the corresponding periods of the three preceding years. In London the zymotic death-rate last quarter was equal to 1.72 per 1,000, while it averaged 2.42 in the thirty-two provincial towns, among which it ranged from 0.90 in Croydon, 1.29 in Huddersfield, 1.34 in Plymouth, 1.42 in Birkenhead, and 1.45 in Derby to 3.23 in Sunderland, 3.33 in Nottingham, 3.55 in Salford, 4.06 in Norwich, and 5.31 in Swansea. The 5,980 deaths referred to the principal zymotic diseases in the thirty-three towns during the quarter under notice included 1,850 which resulted from diarrhœa, 1,140 from diphtheria, 1,004 from "fever" (principally enteric), 947 from measles, 622 from whooping-cough, 415 from scarlet-fever, and 2 from small-pox. The 1,850 fatal cases of diarrhœa were equal to an annual rate of 0.66 per 1,000, and considerably exceeded the average. In London the diarrhœa death-rate was equal to 0.42 per 1,000, while it averaged 0.82 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Norwich, Manchester, Salford, Burnley, Hull, Sunderland, and Gateshead. The deaths referred to diphtheria, which had been 680 and 681 in the two preceding quarters, rose to 1,140 during the three months under notice, and were equal to an annual rate of 0.41 per 1,000; in London the death-rate from this disease was 0.40 per 1,000, while it averaged 0.38 in the thirty-two provincial towns, among which diphtheria was proportionally most fatal in West Ham, Portsmouth, Cardiff, Swansea, Leicester, Leeds, and Sheffield. The fatal cases of "fever" (including typhus, enteric, and simple and ill-defined forms of fever), which had been 305 and 428 in the two preceding quarters, further rose to 1,004 during the three months ending December last, and were equal to an annual rate of 0.36 per 1,000; in London the "fever" death-rate did not exceed 0.26 per 1,000, while it averaged 0.42 in the thirty-two provincial towns, among which this disease caused the highest proportional fatality in Norwich, Preston, Bolton, Salford, Sheffield, Hull, Sunderland, and Newcastle-upon-Tyne. The deaths from measles, which had declined from 2,749 to 662 in the three preceding quarters, rose again to 947 during the three months under notice, and were equal to an annual rate of 0.34 per 1,000; in London the death-rate from this disease was equal to 0.24 per 1,000, while it averaged 0.41 in the thirty-two provincial towns, among which measles was proportionally most fatal in Portsmouth, Norwich, Nottingham, Liverpool, Manchester, Salford, and Bolton. The fatal cases of whooping-cough, which had declined from 1,596 to 986 in the three preceding quarters, further fell to 622 during the three months ending December, 1898, and were equal to an annual rate of 0.22 per 1,000; in London the death-rate from whooping-cough was equal to 0.22 per 1,000, while it averaged 0.23 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Cardiff, Swansea, Bristol, Nottingham, Preston, and Halifax. The deaths referred to scarlet fever, which had declined from 599 to 312 in the four preceding quarters, rose again to 415 during the three months under notice, and were equal to an annual rate of 0.15 per 1,000; in London the scarlet fever death-rate was 0.12 per 1,000, while it averaged 0.16 in the thirty-two large provincial towns, among which this disease was proportionally most fatal in Portsmouth, Norwich, Nottingham, Liverpool, Salford, Bolton, and Sunderland. Of the 2 fatal cases of small-pox registered last quarter in the thirty-three towns, 1 was recorded in London and 1 in Liverpool.

Infant mortality in the thirty-three towns, measured by the proportion of deaths under one year of age to registered births was equal to 159 per

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Fourth Quarter of 1898.

Towns.	Estimated Population middle of 1898.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	11,218,378	82,990	50,601	29.7	18.1	2.14	5,980	2	947	415	1,140	622	1,004	1,850	159	1.2
32 Provincial Towns	6,713,612	50,558	31,237	30.2	18.7	2.42	4,055	1	682	276	629	382	708	1,377	172	1.6
London	4,504,766	32,402	19,304	28.9	17.2	1.72	1,925	1	265	139	511	240	296	473	139	0.6
West Ham	286,654	2,213	1,125	31.0	15.7	2.97	212	—	31	7	70	12	37	55	154	2.4
Croydon	124,421	787	368	25.4	11.9	0.90	28	—		3	2	4	8	11	102	—
Brighton	122,310	734	520	24.1	17.1	1.56	47	—	3	2	13	5	10	17	196	—
Portsmouth	186,618	1,272	780	27.3	16.8	2.53	119	—	39	1	34	1	22	10	134	0.9
Plymouth	99,136	683	458	27.6	18.5	1.34	33	—	13	1	2	3	2	12	163	0.7
Bristol	316,900	2,234	1,269	28.3	16.1	1.56	123	—	3	3	4	43	10	60	158	0.6
Cardiff	177,770	1,327	593	29.9	13.4	1.69	75	—	5	1	23	19	4	23	167	1.0
Swansea	102,001	712	524	28.0	20.6	5.31	135	—	13	0	83	15	8	14	192	1.7
Wolverhampton	88,051	708	447	32.3	20.4	1.87	41	—	—	3	7	3	7	22	178	1.6
Birmingham	510,343	4,161	2,450	32.7	19.3	1.63	207	—	40	6	32	21	46	80	184	2.6
Norwich	111,699	833	539	29.9	19.4	4.06	113	—	36	0	7	3	23	35	193	1.1
Leicester	208,662	1,452	799	27.0	15.4	1.93	100	—	—	12	30	5	19	37	155	1.8
Nottingham	236,137	1,615	1,064	27.4	18.1	3.33	196	—	20	17	8	23	16	50	184	0.8
Derby	104,834	742	394	28.4	15.1	1.45	38	—	1	2	3	5	12	12	151	—
Birkenhead	113,189	891	477	31.6	16.9	1.43	40	—	1	2	11	3	14	6	172	0.6
Liverpool	633,645	5,565	3,644	35.2	23.1	2.74	434	1	68	41	54	45	57	138	167	3.5
Bolton	172,495	930	507	30.5	19.5	2.84	187	—	26	8	1	1	21	30	152	0.3
Manchester	539,079	4,268	2,991	31.8	22.3	3.00	403	—	124	23	18	24	55	169	203	1.1
Salford	215,702	1,821	1,181	33.9	22.0	3.55	191	—	24	21	15	7	3	75	176	0.7
Oldham	148,288	964	659	26.1	17.8	1.51	56	—	3	0	3	9	12	22	190	0.2
Burnley	109,546	710	439	26.0	16.1	2.01	55	—	—	8	3	—	5	43	192	1.8
Blackburn	133,228	843	654	25.4	19.7	2.46	82	—	6	0	16	4	1	31	208	2.8
Preston	116,356	843	602	29.1	20.8	2.72	79	—	—	1	5	32	17	26	241	2.8
Huddersfield	102,454	555	384	21.7	15.0	1.30	33	—	1	—	2	5	1	16	169	1.6
Halifax	96,729	543	388	22.5	16.1	2.02	49	—	2	0	2	20	10	9	153	2.6
Bradford	233,737	1,331	965	22.8	16.6	1.47	85	—	5	3	4	3	3	37	169	1.5
Leeds	416,618	3,235	1,871	31.1	18.0	2.78	289	—	25	2	100	13	55	68	160	0.6
Sheffield	356,478	3,074	1,720	34.6	19.4	3.09	274	—	16	15	68	19	85	74	164	2.4
Hull	229,887	1,801	990	31.4	17.3	2.23	128	—	8	5	2	6	12	75	163	1.1
Sunderland	143,849	1,249	753	34.8	21.0	3.24	116	—	20	11	1	0	21	44	143	0.9
Gateshead	103,775	858	497	33.2	19.2	2.27	59	—	13	3	1	8	5	28	202	0.4
Newcastle-on-Tyne	223,021	1,634	1,155	29.4	20.8	2.30	128	—	20	3	7	16	12	48	178	0.6

1,000 during the three months ending December, 1898, against 178, 150, and 160 in the corresponding quarters of the three preceding years. In London the rate of infant mortality was equal to 139 per 1,000, while it averaged 172 in the thirty-two provincial towns, among which it ranged from 102 in Croydon, 134 in Portsmouth, 143 in Sunderland, and 151 in Derby and in Halifax to 193 in Norwich, 202 in Gateshead, 203 in Manchester, 208 in Blackburn, and 241 in Preston.

The causes of 606, or 1.2 per cent., of the deaths in the thirty-three towns during the three months ending December, 1898, were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0.6 per cent., while it averaged 1.6 in the thirty-two provincial towns. The causes of all the deaths during the quarter were duly certified in Croydon, in Brighton, and in Derby, and only one was uncertified in Oldham; while the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Liverpool, Blackburn, Preston, Halifax, and Sheffield.

DRESSER'S ORDER FOR MEDICAL ATTENDANCE.

C. H. H. writes that he as a district medical officer attended a midwifery case on an order issued by a dresser, the case appearing to be urgent, as he was directed to attend "at once," and that on a similar order two years back he attended the same patient, and the guardians paid the fee. They now refuse to pay for the last attendance, as they consider the order should not have been given by the dresser. Our correspondent asks whether he is likely to succeed if he sues the guardians for the fee in question.

*** As the dresser was led to regard the case as an urgent one, it appears to us that it was his duty to grant the order, and we believe that the guardians are liable for the fee claimed.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

RADCLIFFE TRAVELLING FELLOWSHIP.—An examination for a Radcliffe Travelling Fellowship will be held during Hilary Term, 1899, commencing on Tuesday, February 28th. The condition necessary for candidature will be found in the University *Calendar*. Intending candidates should send their names, addresses, and qualifications to the Radcliffe Examiners, Radcliffe Library, Museum, Oxford, on or before Tuesday, January 31st.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT a stated business meeting of the College, held on Friday, January 13th, the following candidates were admitted Members of the College: Alexander Charles O'Sullivan and George John Peacocke.

UNIVERSITY OF LONDON.

MEETING OF CONVOCATION.

A MEETING was held at the University Building on January 16th, Mr. BUSK, Chairman of Convocation, presiding.

On the motion of Mr. A. L. MORRIS, LL.B., B.A., seconded by Professor SILVANUS THOMPSON, D.Sc., the report of the Standing Committee, which referred to the regulations for the final examination for the degree of LL.B., was adopted.

Mr. R. W. HINTON, B.A., moved:

That in the opinion of this House the new regulations for the Matriculation Examination tend to discourage the study of modern languages in schools by making them entirely optional and alternative to science.

He said that sciences would gradually come to be chosen instead of languages as optional subjects, and that the whole scheme for the examination was inimical to the study of modern languages.

Mr. W. T. LYNN, B.A., seconded the proposal, and argued that French and German should be taught to schoolboys, especially the latter language, as Germans took the lead in most departments of modern science.

Dr. A. E. SANSOM said it was perhaps doubtful if there would even be a Matriculation Examination in the reformed University. It had been stated that the change to science in the new regulations originated with the medical graduates, but all medical teachers desired that their students should have general culture, which was impossible without a knowledge of language. It would be lamentable if French and German dropped out of the curriculum of a student graduating in any faculty.

The resolution was carried *nem. con.*

Mr. R. W. HINTON, B.A., next moved a resolution which, after certain modifications, stood as follows:

That the examination in General Elementary Science should be restricted to the first part of the subject, and comprised in one paper; the second part to be made optional with the other sciences, and a third language to form a separate and obligatory section taking its place.

Mr. W. T. LYNN, B.A., seconded the proposal.

Mrs. S. BRYANT, D.Sc., remarked that science teaching was very good for education in schools, but not a good subject for examination by papers.

Dr. S. P. THOMPSON stated that of more than 1,400 candidates who were in for the recent matriculation examination not 20 took German, so rapidly were these new regulations having a disastrous effect. Latin was by far the most difficult subject of the examination, but it was not the one that plucked most candidates, because it was taught for so many years before the examination, whereas many candidates studied mechanics or chemistry for six months only. The matriculation examination was originally intended solely for non-collegiate students; now it was imposed on all, collegiate and non-collegiate alike. It was a good leaving-school examination for boys or girls of 16 or 17, but for persons of 22 or 23

or more it could not be a good examination. More subjects should be voluntary, and German should be substituted for Latin.

Mr. COTTON said that it was possible to "cram" a science in a quarter the time that it took to "cram" Latin. But the whole constitution of society must be altered before a man could be considered to be educated who had not a knowledge of Latin.

Dr. HART proposed:

That the House pass to the next resolution on the paper.

This proposal was seconded and put to the meeting, but was lost by the votes of 22 against 21.

Dr. S. P. THOMPSON proposed as an amendment:

That, in place of the second clause of the original motion, the following words should be substituted: "And that one science and one language from the present optional groups be made obligatory."

The amendment was rejected by 34 to 31 votes.

Mr. G. EASTES, M.B., proposed that, as there was considerable difference of opinion on the subject-matter of the resolution, it should be referred to the Standing Committee for consideration and report.

Dr. A. E. SANSOM seconded the proposal, which was carried *nem. con.*

A resolution moved by Mr. G. ARMITAGE-SMITH, M.A., and seconded by Mrs. SOPHIA BRYANT, D.Sc., expressing dissatisfaction with the recent changes in the final examination for the degree of B.A., was referred to the Standing Committee.

As a quorum was not present, the meeting forthwith adjourned.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the Second Examination of the Board in the subjects indicated:

Anatomy and Physiology.—R. T. Edwards, University College, Liverpool: and London Hospital; A. D. Spalding and R. Burgess, London Hospital; G. W. Greene and R. H. C. O. Wisdom, Cambridge University and London Hospital; J. N. Parrott, H. E. Clarke, and G. Bettinson, St. Mary's Hospital; F. D. S. Jackson, A. W. Soper, J. F. Douse, and H. W. Brown, Guy's Hospital; H. L. Willcox, King's College, London; J. Walters, University College, Cardiff, and King's College, London; H. R. Dutton and G. P. Duprey, Middlesex Hospital; E. T. Holland, St. Thomas's Hospital; N. H. Mummery, University College, London; A. G. H. Michel, Charing Cross Hospital; S. N. Crowther, Westminster Hospital; H. Smale, J. G. French, and C. Ryley, St. Mary's Hospital; H. W. Pank and R. C. Emslie, St. Bartholomew's Hospital; A. F. Van Dyk, St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; R. J. Morris, Queen's College, Cork, and St. Bartholomew's Hospital; S. M. Banham, H. M. Prins, F. A. Edmonds, University College, London; W. H. E. Stuart, Cambridge University and St. Thomas's Hospital; A. A. F. Clarke, St. Thomas's Hospital; A. Mavrogordato, St. Thomas's Hospital and Oxford University; D. Morrow, Queen College, Belfast, and Middlesex Hospital; F. L. Henderson, Cambridge University and Middlesex Hospital; H. P. Croly and E. W. Grogono, London Hospital; M. Coplans and C. E. Gaitskill, Guy's Hospital; I. J. Roche, Charing Cross Hospital; I. McW. Bourke, St. George's Hospital.

Physiology only.—J. Sharples, Cambridge University and St. Mary's Hospital; J. Micklethwaite, Firth College, Sheffield, and Mr. Cooke's School of Anatomy and Physiology; W. R. Elliott, Cambridge University and Mr. Cooke's School of Anatomy and Physiology.

Twenty-eight gentlemen were referred back to their professional studies for three months in both subjects and 1 in Anatomy only.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

BARKER ANATOMICAL PRIZES FOR 1899.—A prize of £21 is offered for competition, and is open to any student whose name is on the anatomical class list of any school in the United Kingdom. The preparations entered must be placed in charge of the curator, from whom all particulars can be obtained, before June 1st, 1899. The prize is offered for dissections to illustrate the anatomy of the larynx. The preparation must be sent to the Curator of the Museums, Royal College of Surgeons. The dissections are to be mounted in vessels fitted with glass covers, but the covers must not be sealed down. Earthenware basins and plaster-of-paris settings are not compulsory if the specimens can be better displayed and preserved by other means. Those dissections for which prizes are awarded become the property of the College. Those competitors who enter dissections for which prizes are not awarded, but which show sufficient merit, may be refunded such amount of the cost of production as the examiners deem fit. The cost and risks of transport must be borne by the student. The College will not be responsible for any damage the preparations may sustain; but those of unsuccessful competitors residing at a distance will be carefully repacked and handed to the carriers for delivery at such address as may be specified by the student.

MEDICAL NEWS.

DR. ROBERT BARNES and Mr. Lawson Tait have been elected Honorary Presidents of the Gynæcological Congress which is to meet at Amsterdam in August.

BUCKNALL HOSPITAL FOR INFECTIOUS DISEASES.—The additions which the Hanley, Stoke, and Fenton Joint Hospital Board, Staffordshire, have made in their infectious diseases hospital at Bucknall have recently been opened. The buildings, which are of one storey, consist of several pavilions, an isolation block, an administration block, and a discharging block, all built in keeping with the requirements of the present time, and having appliances of the most modern description. The site of each building has been concreted over to ensure dryness under the floors. The accommodation provided by the addition is for 28 beds, and the total cost is approximately £7,000.

CONGRESS OF FRENCH NEUROLOGISTS.—The tenth annual Congress of French Alienists and Neurologists will be held this year at Marseilles under the presidency of Dr. Doutrebente, Medical Superintendent of the Asylum of Blois. The opening meeting will take place on April 4th. The following questions are proposed for discussion: *Mental Pathology:* Systematic Secondary Deliriums (to be introduced by Dr. Anglade, of the Brapueville Asylum). *Nervous Pathology:* Polyneuritic Psychoses (to be introduced by Dr. Dutil of Nice). *Legal Medicine:* Lunatics not recognised as such and Punished (to be introduced by Dr. Taty).

THE MEDICAL PROFESSION IN HUNGARY.—According to official statistics recently published the number of medical practitioners in Hungary has been steadily increasing during the last few years. In 1892 there were 4,047; in 1893, 4,174; in 1894, 4,280; in 1895, 4,424; in 1896, 4,657; in 1897, 4,858. As regards the proportion of practitioners to population it is largest in Buda-Pesth, where it is 23 per 10,000 inhabitants, and lowest in Hodmezovasarhely, where it is 3.2. Of the whole number of practitioners in Hungary, 2,154, or 44.3 per cent., hold public appointments. It may be added that there are in Hungary 8,580 midwives holding regular diplomas, being an increase of 391 as compared with last year. The number of hospitals and asylums is 359, being 10 more than in 1896. The number of patients in these establishments in 1897 was 189,675. The number of vaccinations performed last year was 540,037, and of revaccinations 499,255.

INEBRIETY IN BELGIUM.—M. le Jeune, a member of the Belgian Government, has introduced in the Senate his long-promised Bill for the diminution of inebriety. The principle of the measure is gradual reduction of the number of places for the sale of alcoholic liquors. Only those cabarets open on November 8th, which were licensed when the Commune allowed 1 to every 30 inhabitants, will be interfered with. The maximum number of cabarets will be 1 to 150 inhabitants in communes of under 10,000; 1 to 200 in from 10,000 to 20,000; 1 to 250 in from 20,000 to 50,000; and 1 to 300 where the population is over 50,000. By the provisions of the Bill, the cabarets in Brussels would be reduced to one-tenth of the present number—that is, to 700; and the sale of absinthe would be entirely prohibited.

ANTHRAX IN A WOOLSORTER.—At an inquest held at Denholme, before Mr. J. E. Hill, deputy coroner, on December 14th, 1898, into the cause of death of a woolsorter, some serious admissions were made. The man had been engaged in sorting Thibet and Persian wools, and died of anthrax, according to the evidence of Dr. Jackson, of Denholme, who made the *post-mortem* examination in the presence of Dr. Dobie and Dr. Nicholson Dobie, of Keighley. From other evidence given it appeared that the regulations to be observed in woolsorting houses had been neglected, both with regard to the disinfection of the bales of wool previous to the sorting, and also in the sorting itself, which should take place under a downward draught of air. The non-observance of these regulations had been due to neglect on the part of the masters or their representative the foreman. On the other hand, there appeared to have been a disinclination on the part of the woolsorters to take advantage of the precautions secured to them by law. The jury returned the following verdict: "Death was caused by anthrax, and the jury are of opinion that such anthrax has been caused by non-observance of the regulations prescribed by law for the prevention of woolsorters' disease."

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The directors of this Society held a quarterly court on January 11th, Dr. Stamford Felce, Vice-President, in the chair. One new member was elected, and the deaths of seven reported. Among the deaths the directors had to regret those of three old and valued members, namely, Sir William Jenner (Vice-President), Dr. Hare, and Dr. Munk. One application from a widow was received, and a grant at the rate of £50 per annum made. It was resolved to distribute the sum of £1,216 10s. among the 50 widows, 10 orphans, and the 6 recipients from the Copeland Fund. The expenses of the

quarter amounted to £77. A Christmas present of £551 had been given to the widows and orphans on December 18th, 1898, and a special grant of £20 had been made to a widow suffering from malignant disease.

HARVEIAN SOCIETY OF LONDON.—Balloting List for 1899.—The following is a list of names of gentlemen proposed by the Council as officers of the Society for the year 1899, and who were balloted for at the annual general meeting on January 19th :—*President:* *Henry Juler, F.R.C.S. *Vice-Presidents:* Dr. Ernest Gee, *Dr. William Gow, *Mr. Peyton Beale, *Dr. Winslow Hall. *Treasurer:* Mr. Edmund Roughton. *Honorary Secretaries:* Dr. Leonard Guthrie and *Mr. Raymond Johnson. *Council:* *Dr. Goodhart, Dr. Cock, Mr. Alban Doran, Mr. Keetley, Dr. Milsom, Dr. Nix, *Mr. Atwood Thorne, *Mr. Jackson Clarke, *Dr. H. A. Caley, *Dr. Hubert Phillips, *Dr. G. A. Sutherland, and *Mr. Sefton Sewill. An asterisk (*) is prefixed to the names of those gentlemen who did not hold the same office the preceding year.

MEDICAL VACANCIES.

The following vacancies are announced :—

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by February 4th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary by February 3rd.

FINSBURY DISPENSARY, Brewer Street, Goswell Road, E.C.—Resident Medical Officer. Salary, £120 per annum, with furnished residence, attendance, coals, and gas. Applications to the Secretary by January 26th.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon. Salary, £75 per annum, with board, residence, and laundry expenses. Applications to the Secretary by February 1st.

JAFFRAY BRANCH OF THE GENERAL HOSPITAL, Birmingham, Gravelly Hill, near Birmingham.—Resident Medical and Surgical Officer. Salary, £150 per annum, with board, residence, and washing. Applications to the House Governor, General Hospital, Birmingham, by January 28th.

KILBURN PROVIDENT MEDICAL INSTITUTE.—Vacancy on the Medical Staff. Applications to the Secretary, 7, Cavendish Road, Brondesbury, N.W., by January 28th.

LINCOLN LUNATIC HOSPITAL.—Locum Tenens for the Assistant Medical Officer for five weeks. Salary, 3 guineas a week. Applications to Dr. Russell, The Lawn, Lincoln.

LIVERPOOL DISPENSARIES.—Two Surgeons. Salary, £80 for first year, £90 per annum afterwards, with apartments, board, and attendance. Applications to the Secretary, 34, Moorfields Liverpool, by January 24th.

LIVERPOOL: TOWNSHIP OF TOXTETH PARK.—Senior Assistant Medical Officer of the Workhouse and Infirmary. Salary, £100 per annum, with board, washing, and apartments. Applications, marked "Assistant Medical Officer," to the Clerk of the Guardians, 15, High Park Street, Liverpool, by February 1st.

LONDON LOCK HOSPITAL, 91, Dean Street, Soho, W.—Anæsthetist to the Male Hospital. Applications to the Secretary, Harrow Road, W., by February 4th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Pathologist. Applications to the Secretary, 38, Barton Arcade, Manchester, by January 31st.

NORTHAMPTON GENERAL INFIRMARY.—Assistant House-Surgeon, unmarried, and not under 23 years of age. Salary, £100 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by January 26th.

NOTTINGHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum, rising to £120. Applications to the Secretary by January 31st.

PLAISTOW: ST. MARY'S CHILDREN'S HOSPITAL.—Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary by February 7th.

SEAMEN'S HOSPITAL SOCIETY, Greenwich, S.E.—House-Physician for Dreadnought Hospital. Salary, £75 per annum, with board and residence. Surgeon for Dispensary, East India Dock Road. Salary, £63 per annum. Applications to the Secretary by January 23rd.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by February 3rd.

SUNDERLAND, MONKWEARMOUTH, AND SOUTHWICK HOSPITAL.—House-Surgeon, unmarried. Salary, £43 per annum, with board, residence, and washing. Applications to the Honorary Secretary by January 30th.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon, unmarried. Salary, £90 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by January 31st.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Ophthalmic Surgeon. Applications to the Secretary by January 28th.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Second Honorary Ophthalmic Surgeon. Applications to the Honorary Secretary by January 25th.

MEDICAL APPOINTMENTS.

BENNETT, Harry C., M.B., M.R.C.S., L.R.C.P., appointed House-Physician to the Sunderland Infirmary.

BONNIN, James A., M.B., Ch.B. Adelaide, F.R.C.S.Eng., appointed House-Physician to the East London Hospital for Children, *vice* Mr. Elwin H. T. Nash, M.R.C.S., L.R.C.P.

BROWNE, James A., L.R.C.S.I., appointed Assistant Ophthalmic Surgeon to the Belfast Royal Hospital.

CHAMPION, S. Gurney, M.B., C.M., appointed Out-door Surgeon to the Leith Hospital.

CORY, C. G., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Seventh District of the Newmarket Union.

CROOKS, L. A., M.B., C.M., appointed House-Surgeon to the Leith Hospital.

DAWNAY, A. H. Payan, M.R.C.S.Eng., L.R.C.P.Lond., appointed Anæsthetist to the Royal Orthopædic Hospital.

FENWICK, Collingwood, M.R.C.S., L.R.C.P., L.S.A., appointed Surgeon to the South Metropolitan Gas Company, *vice* John Barrie, M.D.Edin., resigned.

FERGUS, J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Appleton Wiske District of the Northallerton Union.

FOULERTON, Alexander G. R., F.R.C.S.Eng., D.P.H.Camb., F.C.S., appointed Bacteriologist to the Middlesex Hospital.

GAITSKILL-CHURTON, J., M.R.C.S., L.R.C.P., appointed Junior House-Surgeon to the Stanley Hospital, Liverpool.

GOODALL, Alex., M.B., Ch.B., appointed Assistant House-Surgeon to the Leith Hospital.

GREENWOOD, Frank R., M.R.C.S.Eng., L.R.C.P.Lond., appointed Resident Surgical Officer at Birmingham and Midland Free Hospital for Sick Children.

HAMER, E. S., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Tyldesley District of the Leigh Union.

HAWTHORNE, C. O., M.B.Glasg., appointed Medical Superintendent of the Medical Graduates' College and Polyclinic, Chenies Street.

HENDERSON, R. G., M.A., M.B., Ch.B.Aberd., appointed Senior House-Surgeon to the Stanley Hospital, Liverpool, *vice* G. B. Robinson, resigned.

HIRST, W. J., M.B.Lond., appointed House-Surgeon to the Hospital and Dispensary, Newark-upon-Trent.

JAMIESON, J. Boyd, M.B., C.M., appointed House-Physician to the Leith Hospital.

JOHNSTONE, J. E. St. George, M.B., appointed Medical Officer for the Eldersfield District of the Upton-upon-Severn Union, *vice* C. St. S. R. Mason, M.D., resigned.

KIRBY, Samuel John James, M.D.Brux., L.R.C.P., L.M.Edin., M.R.C.S.Eng., and L.S.A. Lond., appointed Medical Officer of Health to the Hoxne Rural District, and Medical Officer and Public Vaccinator of the Fressingfield District of the Hoxne Union.

MOORE, F. H., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the Sibsley District of the Boston Union.

PEIRCE, James E., M.R.C.S.Eng., L.S.A., appointed Medical Officer and Public Vaccinator to the Bewley District of the King's Norton Union, *vice* W. Smith, M.R.C.S.Eng., deceased.

PERROTT, C. J., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the Oldland District of the Keynsham Union.

THOMAS, R. D., L.R.C.P., L.R.C.S., appointed Medical Officer for the Guilsfield District of the Llanfyllin Union.

YOUNG, R. A., M.D., B.Sc.Lond., M.R.C.P., appointed Medical Registrar to the Middlesex Hospital.

ERRATUM.—In the notice of the appointment of Medical Officer for the North District of the Devonport Union, Mr. A. F. C. Smith was in error stated to have been appointed, whereas Mr. Henry Gard, L.R.C.P., L.R.C.S.Edin., was appointed.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Mr. Cuthbert Wallace: Acute Suppurative Peritonitis. Mr. P. J. Freyer: Two Recent Cases of Impacted Calculus of the Ureter successfully operated upon.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Abraham: Practical Points in the Examination and Treatment of Diseases of the Skin (Lecture I).

TUESDAY.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. R. Clement Lucas: Gonococcus Joint Disease in Infants secondary to Purulent Ophthalmia, with Twenty-three Cases.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: Cases of Syphilitic Disease of the Nervous System.

WEDNESDAY.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 5 P.M.—The President (Dr. H. Radcliffe Crocker): Recurrent Scarlatiniform Desquamative Erythema. Informal Exhibition of Cases at 4.30 P.M.

Evelina Hospital, S.E., 4.30 P.M.—Mr. F. S. Eve: Clinical Demonstration on Surgical Cases from the Wards. (Post-graduate Course.)

THURSDAY.

Ophthalmological Society of the United Kingdom.—Card Specimens at 8 P.M. Papers at 8.30 P.M.—Mr. H. Grimsdale: Rapid Changes in Refraction in Connection with Diabetes. Mr. Mackenzie Davidson: On the Stereoscopic Examination of Skiagraphs of Foreign Bodies in the Eye and Orbit. Mr. C. D. Marshall: Epithelial Implantation Cysts of the Iris.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Abercrombie: Demonstration of Medical Cases.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstrations to Senior Students.

British Balneological and Climatological Society, 20, Hanover Square, W., 8.30 P.M.—Dr. H. Evelyn Crook (Margate): The Climate of Margate in Relation to Disease. Dr. Brodie Cruickshank (Nairn): Notes on Nairn—chiefly Climatic. Dr. Wm. Bain (Harrogate): The Action of Certain Mineral Waters on the Quadriurate and Biurate of Soda.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Abraham: Practical Points in the Examination and Treatment of Diseases of the Skin (Lecture II).

FRIDAY.

Clinical Society of London, 8.30 P.M.—Mr. Jonathan Hutchinson, jun.: Three Cases of Abdominal Section: (a) For Ruptured Ovarian Cyst; (b) For Perforation of the Urinary Bladder; (c) For Traumatic Intraperitoneal Hæmorrhage. Dr. Abrahams: Rheumatic Tonsillitis. Mr. Rutherford Morison (introduced by Mr. Lockwood): Patients showing Results of Stomach Surgery, with Description of the Operations Performed. Mr. W. G. Spencer: Tuberculous Cavities in the Lungs giving rise to Gaseous Metastatic Abscesses.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

FEGAN.—On January 16th, at Old Charton, Kent., the wife of R. Ardra Fegan, M.R.C.S., L.R.C.P., L.S.A., of a son.

THOMPSON.—On January 9th, at Rathlyn, Malone, Belfast, the wife of Professor W. H. Thompson, of a daughter.

MARRIAGES.

HUCKLE—FARNFIELD.—On January 12th, at St. Matthew's, Brixton, by the Rev. W. D. Springett, D.D., Vicar, A. H. Headley Huckle, L.R.C.P.Lond., M.R.C.S. and L.D.S.Eng., of 35, Wellington Square, Hastings, to Grace Shore, only daughter of the late Dr. Walter E. Farnfield, of "Fir Grove," Brixton Road.

WEBSTER—KITCHEN.—On January 14th, at St. Gabriel's Church, Willesden Green, N.W., Percy Lawrance Webster, L.R.C.P., M.R.C.S., L.D.S., youngest son of the late Richard Webster, F.R.A.S., to Phœbe, youngest daughter of James Kitchen, of Cricklewood, N.W.

DEATHS.

EVANS.—On the 8th inst., at his residence, Tanyronen, Portmadoc, Henry Evans, M.R.C.S.Eng., L.R.C.P.Edin., and L.S.A., aged 48 years.

FARR.—On January 11th, 1899, at Penrhyn Lodge, Cambridge Park, Twickenham, George Frederick Farr, M.R.C.S., L.R.C.P.Ed., of Kennington, aged 66.

HARTE.—On January 15th, at 32, Eaton Rise, Ealing, Deputy-Inspector-General Mark A. Harte, R.N., aged 59.

JONES.—On January 11th, 1899, at Bryn-y-Don, Garth, Bangor, William Francis Jones, M.R.C.S.Lond., L.R.C.P.Edin., and L.M., and L.A.H.Dublin, of Bulkeley Square, Menai Bridge, Anglesey.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, 1.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 3; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Laryng., Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electr., M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

MEMBER B.M.A. asks where he can obtain a back set or sets of examination papers for the Licence of the Royal College of Physicians, Ireland.

CASE BOOKS FOR ANÆSTHETISTS.

J. P. B. asks whether books for recording cases of anæsthesia, giving space to note name of patient, anæsthetic employed, nature of operation, time under, etc., are obtainable.

ISOLATION AFTER INFECTIOUS DISEASE.

E. G. draws our attention to an apparent ambiguity in a table in a well-known medical diary. He considers the statements as to the period of isolation required after suffering from infectious disease rather vague as to the date from which the prescribed periods of isolation should be counted. He asks for some definite statement as to "when the period of isolation should commence."

*** There can, we think, be no question that the period of isolation in any infectious case should begin with the earliest symptoms. It is therefore not unusual for those courageous people who compile tables of periods of infectivity to count such periods from the commencement of the illness. As this is not always easily ascertained, the date of the eruption is sometimes substituted. All dogmatic statements as to duration of infectivity must be accepted with a good many grains of salt. In diphtheria, for instance, it is said that the Klebs-Loeffler bacillus has been detected in the throat many weeks after the patient had apparently recovered. It is, of course, possible that the bacterium may in such circumstances be of a less virulent nature, but few medical men, knowing of its existence, would venture to declare such a patient free from infectivity, even if albuminuria and all throat symptoms had disappeared for "three weeks." Klein has found the streptococcus scarlatinæ (strept. conglomeratus, Kurth, which he regards as the efficient cause of scarlet fever) in a child with a normal-looking throat in the seventh month from the date of the attack. He has also found this streptococcus in one case in the ninth, in another the sixth, week, although in both these patients he had failed to discover it on examining the throat, in the former case a week, in the latter a fortnight earlier.[1] These patients were all, however, still inmates of an infectious hospital, and it is of course possible that the cocci in their throats may have been obtained from the air of the wards.

ANSWERS.

SCARLET FEVER has omitted to verify his communication by his name.

X. Y.—Our correspondent will, we think, obtain all the information which he requires if he will communicate with the Secretary of the Anglo-American Vienna Medical Association, 12, Landesgerichtstrasse, Vienna.

V. A. C.—It is customary in such cases to give the monthly nurse half the fee; for although she has been disappointed of her case, yet she has been free to do any other work. It seems impossible that she has lost three cases, or that she could have accepted more than one.

A. M. S.—In addition to the County Asylums there are in Sussex the Ticehurst Asylum; St. George's Retreat, Burgess Hill; Periteau House, Winchelsea; and Ashbrook Hall, Hollington. In Surrey there are Chalk Pit House, Sutton; and the Asylum, Church Street, Epsom.

A. D.—The difficulty in referring such a case to the Council lies in obtaining the name of the practitioner, as it does not appear to be given in any part of the "Medical" column in question; and neither the editor nor the proprietor of the newspaper would be likely to facilitate any inquiries made concerning such a matter.

M.—There is nothing contrary to medical etiquette in a medical man attending his own wife in her confinement, and it is often done. We believe, however, that it is wiser for a medical man not to attend any near member of his own family when other competent medical assistance is available.

XERXES.—Charles Darwin was not a member of the medical profession. He began to study for it at Edinburgh, but could not overcome his disgust at the dissecting room. Huxley was regularly educated for the profession at Charing Cross Hospital, and served for seven years as a surgeon in the Royal Navy. He had no medical degree, and strongly objected to being called "Dr." He was a Fellow of the Royal College of Surgeons by election.

L. S. D.—Oleate of mercury (10 per cent.) may be used for inunction in syphilis in quantities of from 15 to 30 drops at a time, but being only a preparation of the yellow oxide it is inferior to the "unguentum cinereum" containing metallic mercury. This consists of one part of mercury, one part of lanoline, and half a part of olive oil, by weight. Half a drachm of this should be used at first, and increased to a drachm if no symptoms of mercurialism appear.

[1] Report of Medical Officer to the Local Government Board, 1897-8 Appendix B. No. 5.

GOVERNMENT INSPECTORSHIPS.

SIMJIN.—Appointments to inspectorships under the Local Government Board are, we believe, in the gift of the President, to whom all applications should be addressed. The salary of a medical inspector is £500, with rises to £800. We do not know of any vacancies in the Board's inspectorate.

LIQUOR POTASSII PERMANGANATIS.

WE referred a communication from a correspondent with reference to an alleged similarity between the well-known Condy's fluid and solution of potassium permanganate to a pharmaceutical chemist of standing, who writes to us as follows: "Condy's fluid contains (green) manganate and (red) permanganate of alkalies and other salts, the nature of which does not appear to have been accurately determined. The liq. potass. permang. is a good imitation of the red fluid."

OBSTINATE CONSTIPATION.

IN reply to "M.D.," who asked a question in the BRITISH MEDICAL JOURNAL of December 24th, 1898, p. 1910, HOVE writes: Is the patient a smoker? If so, let him give up the habit for a month: this will probably, in his case, relieve the constipation. Let him eat sparingly of potatoes, avoid bread, and take toast. Let him drink little, at the end of meals, and never before food. Let him take a saltspoonful of potassium bicarbonate in water occasionally, and an early walk before breakfast. Horse exercise might be beneficial. Strychnine in small doses might be serviceable, and a euonymin pill occasionally, but the diet is of much importance.

W. H. H. (Clapton) writes, in answer to the same question: For flatulence, palatinoids of creosote, m j t. d. s. For constipation, an aperient pill, containing half a grain of calomel, two or three times a week, followed by aperita water in the morning. Diet should be simple but nutritious—beef steaks or chops, fresh vegetables, milk puddings, and whole meal bread. Figs, raisins, and prunes stewed together, and taken two or three times a day, will be found beneficial.

ADVERTISEMENTS IN LOCAL NEWSPAPERS.

FAIR PLAY.—Our correspondent complains of a notice in a local paper stating that a certain medical practitioner has resumed medical practice at a particular address, and asks whether the General Medical Council would consider this infamous conduct in a professional sense. Without venturing to determine what might be the judgment of the General Medical Council we would point out that a clear distinction must be drawn between a notice of the kind quoted and persistent and regular advertising in the ordinary sense. We have no doubt that the General Medical Council would take notice of such an advertisement as that to which our correspondent draws our attention if it were to be continued.

We may refer another correspondent who asks a somewhat similar question to the above answer.

TREATMENT OF CHRONIC DIARRHŒA.

DR. J. F. D'ABREU (Handsworth) writes: In answer to "W. M.," I had a similar case of chronic diarrhœa. After trying all the drugs he mentions with little benefit, I gave the following mixture: Glycerine, 5ij; bismuth. carb., grs. xx; liq. morphinæ, 3ss; sodæ bic., grs. xx; tr. card. co., 3ss.; aquam ad 3ss, to be taken half an hour before meals. The result was very gratifying, the patient being quite cured of the pain and diarrhœa.

DR. FREDERIC C. WOOD (Ripley, Derby) writes: In reply to "W. M.," the chronic diarrhœa arises from fermentation of the food, so let the diet consist of articles that do not readily undergo fermentation. Give the patient salol gr.x in powder every morning and evening for two months.

MEMBER writes: I beg to suggest an explanation of the watery overflow from the bowels—that it has become a diversion from the function of the kidneys by use and wont. It might be as well to ascertain the daily amount of urine excreted, to see if it be much below the normal, and then to correct any decrease by diuretics, to restore the natural quantity. As for the arrestment of the intestinal flow, that might be corrected by opium pills, say 1 gr., taken at night, as indicated by the terms of the report of the case.

MR. P. E. MIALL (Bradford) writes: From experience in a somewhat similar case I recommend "W. M." to try gradual reduction of the quantity of both food and drink till the point is reached at which the digestive system is equal to the work required of it. The kind of food is of less consequence. Perhaps two light meals would be enough.

A PROBLEM IN SYPHILIS.

A CORRESPONDENT sends us the following problem: A husband had syphilis fourteen years ago, and still has occasional mild symptoms. He has taken mercury and potassium iodide for the last eight years, but was not properly treated in the early stages. His wife, who appears to be healthy, is pregnant. The problem for solution is: "Will the mother and child escape the disease? and, if not, when should treatment be commenced, and in what form?" Unfortunately, our correspondent does not tell us the date of the marriage, but, presuming that the husband had reached the tertiary stage before marriage, the probability is that the wife will escape direct infection from him. As regards the child, the answer to the question is very doubtful, if the occasional symptoms in the father are really syphilitic. Moreover, we are not told whether this is a first pregnancy or not; but assuming that it is, and that the father still suffers from some form of syphilis, the chances are that the child will develop inherited syphilis. If this occurs, the best treatment is to spread about a drachm of the "unguentum cinereum," or blue ointment, on the child's flannel binder, enough mercury being absorbed in this way by the child's movements. The ointment should be washed off the next day, and re-applied every other day till all symptoms disappear. The next point to consider is whether the mother will require treatment, and whether she should suckle the child. The child should be suckled by the mother. The mother, on the other hand, according to Colles's law, acquires a considerable, although not absolute degree of immunity against syphilis derived from the child *in utero*, and is unlikely to contract the disease. Accepting this view it would follow that the mother does not need antisyphilitic treatment after the birth of her child. Another point to be considered is whether it is worth while to treat the mother during her pregnancy with the view of improving the chance of a healthy child being born. This procedure appears to be contraindicated for the following reasons: First, we are not certain that the child *in utero* is suffering from syphilis; secondly, the administration of mercury to the mother is detrimental to her health during pregnancy; thirdly, it is perhaps more likely to produce abortion than to have any beneficial effect on the child, even if syphilitic.

THE ROYAL COLLEGE OF PHYSICIANS IN IRELAND AND MEDICAL AID ASSOCIATIONS.

SURGEON.—The resolution of the Royal College of Physicians in Ireland to which our correspondent no doubt refers was that published in the BRITISH MEDICAL JOURNAL of May 2nd, 1896, page 1114, as follows: "That the Royal College of Physicians in Ireland desire to express their disapproval of their Licentiates accepting office in medical aid associations as at present conducted in England, inasmuch as the independence of the physician is destroyed by the system, and the services of the physician are used so as to produce a profit for lay persons."

BOOKS ON THE EDUCATION OF THE DEAF AND MENTALLY DEFICIENT CHILDREN.

B.P.B., INDIA.—The following works deal with the subjects to which our correspondent refers:—(A) Books relating to the education of deaf children: (1) *Education of Deaf Mutes*, vol. i, Oral System and History, vol. ii, Sign System and History, by Thomas Arnold, 27, St. Paul's Road, Northampton (by whom it is supplied); (2) *Exercises in Articulation*, by Arthur Kinsey (London: W. H. Allen and Co.); (3) *Lessons for Deaf and Dumb Children*, two parts, by W. Van Praagh (London: Kegan Paul, Trench, Trübner and Co.); (4) *Deaf-Mutism*, by J. K. L. ve, M.D., and W. H. Addison, A.C.P. (Glasgow: J. Maclehose and Sons, 1896, 9s.). (B) Books relating to the education of mentally deficient children: (1) Articles on Idiots and Imbeciles in Hack Tuke's *Dictionary of Psychological Medicine* (London: J. and A. Churchill, 1892); (2) *Mentally Deficient Children: their Treatment and Training*, by Dr. G. E. Shuttleworth (London: H. K. Lewis, 1895, 4s.); (3) *Treatment and Education of Mentally Feeble Children*, by Dr. Fletcher Beach (London: J. and A. Churchill, 1895, 1s. 6d.); (4) *The Feeble-minded Child and Adult*, Charity Organisation Series (London: Swan Sonnenschein, 1895); (5) *Mental Affections of Children*, by Dr. W. W. Ireland (London: J. and A. Churchill, 1898, 14s.); (6) Papers on Hand and Eye, 1897-98, by Dr. Shuttleworth (London: Newman and Co.).

NOTES, LETTERS, ETC.

SYPHILIS IN THE ARMY.

WE have received further letters on this subject, but on account of their length and the pressure of other matters on our space we are compelled to condense them.

Lieutenant-Colonel ALEXANDER is a strong advocate of the inunction method, which he considers superior to any other. He remarks as to universal adoption of this method in the army that there are difficulties and obstacles in the way, but, he adds, "I am strongly of opinion that a central institution in the vicinity of a thermal spring would be a national benefit." He suggests that in England a treatment similar to that of Aix-la-Chapelle could be well carried out at Bath. He has tried the injections of "oleum cinereum," but considers it inferior to inunction in eradicating the disease and detrimental in allowing the soldier to go about his duties during the course of treatment.

Lieutenant-Colonel GORMLEY (Cape Town) does not consider the aggravated forms of syphilis met with in the troops in India to be due to inefficient treatment, but rather to the deteriorated state of health induced by the climate, and more especially to the presence of malaria in the system. Some of the worst cases of syphilis he has seen occurred in men saturated with malaria, and it appeared immaterial which disease was contracted first. He considers that in malarious countries special attention should be paid to constitutional treatment, and that antisyphilitic remedies only are useless. Whenever possible the patient should be first of all removed from the malarious district. He points out that the difficulty in treatment of syphilis in the army is the length of time necessary for a cure, and the difficulty of inducing soldiers to carry on the treatment when symptoms have disappeared. He thinks the intramuscular injection method carried out once a week a good way out of this difficulty, but doubts if the method is as good as its advocates maintain. As regards syphilis complicated with malaria, he strongly advocates the establishment of sanatoria in Cape Colony, where soldiers now invalided to England would improve much quicker than they do in England.

Dr. STRETCH DOWSE agrees with the remark of Surgeon Colonel Myers in the BRITISH MEDICAL JOURNAL of December 17th, 1898, that the administration of mercury in primary syphilis is not so systematically adopted as it should be. Dr. Dowse is in favour of inunction as the best routine method of treatment, and considers it superior to either fumigation or intramuscular injection. As regards internal administration, he prefers the blue pill to the grey powder or the green iodide.

"A MEDICAL OFFICER IN BENGAL" sends us a letter, the main points of which are as follows: He believes with Surgeon-Colonel Welch that the present excessive admission-rate is due rather to conditions inseparable from a residence in India or other tropical country than to defective treatment. This is shown by the reports of the Sanitary Commissioner and the army medical Blue Books. Defects in treatment exist, but are due to the conditions of army service. These include frequent movements of the troops and medical officers, rendering systematic treatment difficult; also the interference with discipline of prolonged attendance as an out-patient. The excessive severity of the disease in India since 1878 our correspondent attributes to the short-service system which was introduced in 1870. Since that date the proportion of men under 25 years of age with five years' Indian service has steadily increased and so have the admissions for syphilis. This system means a large proportion of unmarried men in the ranks. The abolition of the Indian cantonment regulations also corresponds very closely with the increase in venereal disease. The severity of syphilis, again, is influenced by climatic conditions and by association with other diseases

—such as malaria, dysentery, enteric fever, etc. Our correspondent does not think syphilis in India in itself any worse than in Europe, and regards the aggravated form of the disease in India as a combination of syphilis, malaria, and tropical debility, often increased by exposure and fatigue. Alcoholism also has a share in rendering the disease more intractable. As regards treatment, he believes that this is essentially the same in the army, whether at home and abroad, as that employed in civil practice, apart from the conditions referred to, and that it only differs because the methods adopted in civil practice have been found on trial to be unsuited to the conditions of military service.

GOLF TOURNAMENT.

A MEDICAL golf tournament has been arranged for this year on similar lines to that of 1898. Entries, with lowest handicap and subscription 5s., should be sent not later than February 6th to the Honorary Secretary, Mr. Rolf Creasy, Windlesham, Surrey.

TOTLAND BAY.

DR. JAMES BLACK NOBLE (London, E.C.) writes: Having recently derived much benefit from a visit to Totland Bay, in the Isle of Wight, will you allow me to draw the attention of my fellow members of the British Medical Association to this place as a winter health resort? It faces south-west, and is splendidly protected from east and north-east winds. In the winter months the prevailing winds are from the west and south-west, and, coming over the Atlantic, are most exhilarating, and not cold. The country around is very beautiful.

CONSUMPTIVE PATIENTS IN CAPE COLONY.

MR. F. E. ST. LEGER (Chairman, Board of Managers, Somerset Hospital, Cape Town) writes: The attention of the Board of Managers of the Somerset Hospital has been repeatedly directed to the fact that a large number of consumptives come to this country in advanced stages of the disease, unable to work and totally unprovided with the means of subsistence.

The Board therefore feel it incumbent upon them in the interests of the patients themselves, as well as of the public at large, to draw the attention of the medical profession and others to this growing evil. From a climatic point of view this country possesses exceptional advantages which, in recent years more particularly, have received popular and increasing advocacy in the press and elsewhere. Hence it has become a favoured and much-frequented resort for consumptive patients.

But we find that from well-nigh every incoming steamer some passengers land in the colony practically in a helpless condition, with very little hope of recovery, and, what is worse, with no funds to provide for their maintenance. Hence something must be done to avert the serious consequences which must inevitably ensue from a continuance of such a state of things. Few can realise to what an extent our population is being increased by this class of immigrant, and, under the circumstances, we feel compelled to make clearly known to those at a distance the terrible fate which awaits these unfortunate persons. For, although the climate of South Africa undoubtedly has a beneficial effect on invalids who can afford to support themselves without having to work, in a part of the country suited to their state of health, those who are almost or entirely destitute, and must therefore obtain employment for which they are physically unfitted, have their sufferings materially increased through the privations to which they are subjected.

The climate is unquestionably suitable for carefully selected cases in the early stages of the disease, but it is positively criminal and inhuman to send out cases practically in the last stages without fair and reasonable hope of recovery, and thus to expose them to a cruel exile amidst strangers, culminating in their early death far from friends and home.

As an illustration of such a hopeless and helpless case the following may be cited: A lad, aged 14, who had been sent out by a philanthropic institution, was recently landed at the Cape Town Docks in the last stages of consumption with but 10s. in his pocket, and not a single friend in the country. The lad had therefore to be removed to the Somerset Hospital, where such cases are not usually admitted, and, after lingering for a few weeks, he died in that institution. In such extreme cases the hope of recovery held out to the patient is sure to be shattered.

In view of the facts we have stated, we would respectfully point out to those in authority at home, especially the medical faculty, that they incur a serious responsibility in the selection of cases to be sent out to the Cape, and would ask them to bear in mind the following principles for their guidance:

1. In order to benefit by the climate of South Africa, invalids must not be too far advanced, but should be sent out in the comparatively early stages only.

2. Such patients should be possessed of some means to enable them to place themselves under the favourable conditions essential to their recovery for at least twelve months independently of work.

3. Certain parts of the country, notably the seaports, are extremely prejudicial to phthisical patients, and it should be carefully ascertained beforehand which part is best suited to the requirements of the particular case.

4. There is no hospital or home in which consumptives can receive gratuitous treatment.

5. The European labour market throughout South Africa is overcrowded, and work is not so easily obtainable by even those in the best of health as is generally supposed.

ACADEMICAL COSTUME AND THE TITLE OF "DR."

NOTHING VENTURE, ETC., writes: I noticed a letter in the BRITISH MEDICAL JOURNAL of December 21st, 1898, headed as above the writer of which, whilst informing the profession that a Diplomate of the Royal College of Surgeons can now wear a gown, deplores the fact that a hood cannot also be worn. This concession to the Diplomates so tardily granted by the Royal College of Surgeons may be followed by another from the Royal College of Physicians, and then perhaps it may be that an M.R.C.S. and L.R.C.P. will have the right to don a hood and gown. As the writer of the letter above alluded to says something about the title "Dr.," may I suggest that if he and the thousands of other Diplomates who are groaning under this disability joined together in a petition to the Colleges there is no doubt that the heads of the Colleges would take some action. There is no excuse or reason now, as a teaching university in London is in view, that the Colleges could produce for refusing to grant a title to a medical practitioner, in other words, a degree in medicine. There is room enough in London for another university; New York has three with fewer inhabitants. In each province in Canada there is, I believe, a Royal College of Physicians and Surgeons which grants a degree as well as diplomas. Dublin and Durham Universities grant diplomas as well as degrees in medicine, and why should not the Conjoint Board do the same? Is there no halfway between the "fifteen years' standing" and "residence"? Practitioners are willing to undergo the strictest examinations and pay big fees, as may be proved by the rapidly increasing list of Brussels men.

LETTERS, COMMUNICATIONS, ETC., have been received from:
(A) Mr. R. B. Anderson, London; Army Medicus; Mr. E. F. B. Archer, Birmingham; Mr. F. Addiscott, London; Anti Humbug; Association of Registered Medical Women, Sec. of, London; A.M.R.; Anxious. (B) Mr. J. Bairstow, Queen's Ferry; Dr. A. T Brand, Driffield; Dr. J. Barr, Liverpool; Mr. C. E. Breese, Portmadoc; Dr. R. Barnes Liss; British Gynæcological Society, Sec. of, London; Dr. B. Behem-Schwarzbach, Pretoria: Bowmont; Beeston Cycle Co., Coventry; Messrs. P. Blakiston's Son and Co., Philadelphia; MM. Baillière et Fils, Paris; Mr. R. Bayeux, Paris; B. A. L.; Mr. J. B. Blackett, London; Mr. L. A. Bidwell, London; Mr. J. P. Bush, Clifton. (C) Country Member; Mr. J. Cummings, London; T. D. Cook, M.B., Torquay; E. M. Cooke, M.B., London; A. Cox, M.B., Gateshead; Mr. H. H. Cousins, Wye; Cantab.; Mr. W. I. Chadwick, Manchester. (D) Mr. A. H. P. Dawnay, London; Mr. W. Durrant, London; Mr J. F. D'Abreu, Birmingham. (E) Dr. J. C. Ewart, Edinburgh; Mr. G. Ellis, Rochdale Enquirer; J. J. Evans, M.B., Birmingham; W. Edmunds, M.B., London; W. McA. Eccles, M.B., London. (F) Dr. T. Feutem, Bakewell; Mr. W. T. Freeman, Reading Dr. A. J. Fleming, London; Mr. C. Fenwick, London; Miss M. O'B. Furner, Hove. (G) Dr. G. D. Gray, Zomba, B.C.A.; Mr. F. R. Greenwood, Birmingham; M J. G. Gordon, Sunderland; G. C. P.; Mr. J. Gay, London; Mr. H. Grant, London; J. Galletly, M.B., Bourne; Mr. F. E. Gibbens, Barking; G. M. (H) Dr. T. W. Hime, Bradford; Mr. A. M. Hawkes, Penally; Dr. W. A. Hatton, Westhoughton; Mr. W. Hay, Hull; R. G. Henderson, M.B., Liverpool; Mr. A. R. Henchley, Blagdon; Dr. A. E. H. C. Hallen, London; Mr. C. H. Hayeroft, Bow, N. Devon; Dr. D. F. Harris, St. Andrews; W. J. Horne, M.B., London; Messrs. Hughes and Jones, Birkenhead; Dr. T. B. Hyslop, London; H. S.; Mr. G. Harrison, Chester; Mr. F. Haydon, London; Mr. W. F. Haslam, Birmingham; W. J. Hirst, M.B., Newark; Mr. H. E. Haynes, Evesham. (I) Dr. A. C. Ingle, Cambridge; In the Mist. (J) J. C.; J. P. B.; J. S. C.; Mr. R. L. Jones, Bangor. (K) C. T. C. Kingdon, M.B., Melton Mowbray; Mr. A. F. Kirby, Nottingham; Mr. A. C. Kemble, Northampton. (L) Mr. M. H. Lowe, London; Liverpool Medical Institution, Secretary of, Liverpool; Dr. J. F. Le Page, Cheadle; J. F. Little, M.B., London; London Autocar Co., London. (M) Member; Dr. C. K. Millard, Birmingham; Dr. W. Milligan, Manchester; Mr. J. A. Meeke, Whitecross; Medical Officer in Bengal; Mr. J. H. Mains, Bannockburn; J. R. R. McCrindle, M.B., Middlesbrough; Dr. H. J. Macevoy, London; Dr. T. Marsden, Ilfracombe; Miss G. L. Mallet, London; Mr. W. H Martindale, London; Dr. N. Macleod, Shanghai; Mr. P. E. Miall, Bradford; Member B.M.A. (N) Dr. A. Newsholme, Brighton; Dr. A. B. Northcote, York; Mr. F. Norton, London. (O) Mr. W. B. Orme, Port Said. (P) Mr. E. V. Perry, Reepham; Mr. T. Partridge, Stroud; Dr. G. C. S. Perkins, London; Mr. A. Page, Welland, Ont.; Mr. J. E. Peirce, Redditch; Mr. J. Pollard, Wakefield. (R) Messrs. C. and H. Ratcliffe, Liverpool; R.A.M.C.; Dr. C. J. Renshaw, Ashton-on-Mersey; Dr. W. H. Rowell, Houghton-le-Spring; Mr. J. Rand, London; Dr. P. Rendall, Cheam; Mr. T. Robinson, Sunderland. (S) Mr. H. Sell, London; Dr. D. W. Samways, Mentone; Mr. S. G. Sloman, Farnham; South London; Scarlet Fever; Dr. J. E. Squire, London; Mr. N. H. E. Sukhia, Bombay; Sheffield Medico-Chirurgical Society, Sec. of, Sheffield; W. W. Sinclair, M.B., Ipswich; Simjin; Mr. A. C. F. Smith, St. Budeaux; Mr. J. L. Sardy, London; Dr. W. Smith London; Mr. G. H. Sidebotham, Shifnal. (T) Dr. A. Thomas, Paris; T. D.; Dr. F. J. Tresilian, Enfield; Dr. H. Tilley, London; Tubercle; Mr. O. R. Travers, St. Leonard's; T. F. S. (U) "Universal Provider and Shopper," Editor of, London; Mr. F. W. Underhill, Birmingham. (V) Messrs. Voight, Barton, and Co., London. (W) J. W. Watterson, M.B., Morecambe; Mr. J. A H. White, Birmingham; Dr. A. McC. Weir, East Sheen; Dr. F. Willcocks, London; Mr. F. C. Wood, Ripley; Dr. J. Wheatley, Blackburn; Mr. P. L. Webster, Margate; Dr. H. W. Webber, Plymouth; Dr. S. West, London; Dr. J. W. Washbourn, London. (Y) Dr. R. A. Young, London.

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A STUDY OF THE EPIDEMIC OF TYPHOID FEVER IN BELFAST, 1898.

BY

J. LORRAIN SMITH, M.A. M.D., Lecturer in Pathology, Queen's College, Belfast, and JOHN TENNANT, M.A., M.B., Late Demonstrator of Anatomy, Queen's College, Belfast.

THE EPIDEMIC OF 1897-98.

THE number of cases of typhoid fever in Belfast rose early in 1897 markedly above what has been regarded as the endemic average. This high rate continued until the autumn of 1898, when the outbreak became formidable, and in the end of August the Public Health Committee of the Corporation determined to have a bacteriological investigation carried out with the view of discovering the source of infection. The report was furnished to the Corporation a short time ago, and in the present paper we describe some of the observations of scientific interest which were made during the investigation.

THE WATER SUPPLY.

Various local circumstances indicated that the water supply could not be regarded as beyond suspicion. In examining the water, however, no typhoid bacilli were isolated, but a large number of varieties of the bacillus coli communis were found. The significance to be attached to the presence of this organism in drinking water is a matter which has never been definitely settled. It seemed to us that the natural way to attack the question in this case was to study the relation of these bacilli to those directly obtained from cases of typhoid fever in the epidemic. In carrying this out it became evident that it was necessary to investigate also the relation of these bacilli to the process of infection in typhoid fever.

RACES OF B. COLI.

Many of the varieties obtained from the water conformed to the ordinary intestinal type of B. coli, but from time to time races were isolated which, when tested with the serum of typhoid patients, showed by their reactions that they possessed a special relation to the typhoid disease. The presence of a serum reaction to various races of B. coli has an important bearing on the question of B. coli infection in typhoid fever, and we have confined our attention to the interpretation of observations on patients in regard to this subject.

In their morphology the races vary slightly among themselves. Differences exist as regards average length, the number and length of the flagella, rapidity of milk clotting, of indol production, and of the production of gas bubbles from sugars at room temperature. When compared with the classical type of the B. coli, they all conform in general to the accepted description of this bacillus. We have, however, compared them in some detail with a number of B. coli races which we isolated from the healthy human intestine, and find that these bacilli differ from many of the latter in that they all possess a high motility, in more rapid production of indol in peptone solution (Dunham), and of gas bubbles in gelatine shake cultures. Most of the varieties also possess more numerous and longer flagella than those commonly described in this bacillus. Gordon, however, considers this character in regard to flagella as not uncommon.[1]

In the second place, the pathogenicity of several varieties was tested, but does not call for special remark. It was observed usually after they had been cultivated for some time. One bacillus (Coli H) was tested soon after its isolation from the water. A guinea-pig of 350 grams weight was inoculated subcutaneously with 1·5 c.cm. of a twelve hours' broth culture of this bacillus. The animal died in eleven hours and a-half, and the bacillus was recovered in pure culture from its blood. Several rabbits were inoculated with small doses of three other varieties which had undergone repeated cultivation on artificial media. Local sores always formed, and some of the animals died. On the whole, we may say that these bacilli appeared to have a greater pathogenicity for small animals than is possessed by the varieties of B. coli commonly present in water.

THE SERUM REACTION.

The investigation, however, was concerned chiefly with the direct evidence of the connection of these bacilli with typhoid fever, which was obtained by observing the effect on them of the diluted serum of typhoid patients. We examined over 200 cases, and found that in a large proportion of them the serum possessed the power of clumping one or other of these bacilli. Before going into our observations in detail, we may shortly refer to the results of previous investigations on the subject.

SYMBIOSIS OF B. COLI AND B. TYPHOSUS.

A large amount of work has been done to prove that races of B. coli are modified by their occurrence along with the typhoid organism. The symbiosis apparently increases their pathogenic power. Pisenti and Bianchi-Mariotti have shown that the races of B. coli which are found in normal stools are less pathogenic than those which have been isolated from the fæces of a typhoid patient. The same feature is observed by them *in vitro*. If a culture of coli be planted in the gelatine in which a growth of typhoid has been, it increases markedly in its virulence.[2] This observation is confirmed by Sanarelli.[3] His opinion is that when the typhoid process sets up, this bacillus acquires virulence, and takes part in the disease. The work of Sanarelli is essentially experimental, and will be more fully discussed later in the paper.

A few observations have been recorded indicating a close connection between the agglutination of the typhoid bacillus and races of B. coli. Courmont, at the time when the facts of agglutination were first studied, stated that the serum of typhoid patients clumped the B. coli.[4] This result was controverted by Chantemesse and Achard. Bordet states that an "antityphoid" serum clumps B. coli.[5] Gilbert and Fournier, on the other hand, investigated the agglutination of B. coli with typhoid serum with negative results.[6] Durham, working with the serums of patients and of animals experimentally inoculated with typhoid, failed to find any effect on a number of cultures of B. coli.[7] Christophers has shown that with certain races of B. coli a reaction may be observed in the normal human serum also. We found that we had to avoid coli races of this type.

The method of testing this reaction which we employed was to leave the diluted serum in contact with a young culture of the bacillus under observation in a moist chamber, and to examine the hanging drop microscopically after a suitable interval. After a considerable number of experiments we adopted a dilution of 1 in 100, and allowed a period of two hours for the action of the serum. A 1 per cent. dilution seems to us very suitable for examining a series of cases with various cultures, with a view to determining the nature and relation of the organisms which are supposed to have had an action on the serum. The serum is still concentrated enough to bring out a clear reaction in the majority of cases, and yet not so strong as to obscure the differences in reaction which the various races and species of bacilli manifest when acted on by a given sample of serum. The method was amply controlled by repeated observations on the same serum, and in no case was there a discrepancy which could be taken as casting doubt upon it.

GROUP OF BACILLI STUDIED.

The bacilli we observed were of the following groups: (1) Typhoid, 8 races; (2) B. enteritidis (Gaertner), 3 races; (3) B. coli communis from the water which clump with the serum of typhoid patients, 6 races; (4) B. coli communis from spleens of typhoid patients. Varieties were tested as they were isolated. Owing to the difficulty of obtaining *post-mortem* examinations, only five such spleens were examined for B. coli. In one we found several races of B. coli which clumped, and we selected for constant use that which gave the clearest reactions. In another we found a race of B. coli, which reacted in only a few cases. The races of B. coli in the others did not clump. (5) B. coli communis from the normal intestine. A large number of races were isolated and tested, several of them being used constantly as controls. No reactions were obtained.

We attempted as far as possible to make observations on cases from other centres also, and we have to express our indebtedness to Dr. Darling, of Lurgan, who provided us with

samples of blood from 30 cases in his practice. We have also to thank Dr. O'Sullivan, Trinity College, Dublin, for sending us samples of blood from cases which came under his notice. These cases we have studied separately, but from the examination of them we were unable to discover any differences in the nature of the infection in these three localities.

We also made control observations on the serum of normal individuals. These observations were done at a 5 per cent. dilution of the serum, and except in two cases no reaction greater than a slight indication of agglutination occurred with any of the bacilli. One of the two exceptional cases was a boy employed in the laboratory, whose only illness had been of one day's duration, and was due to indiscretion in diet. The other was an adult who has had no illness since infancy. These two cases support the contention of Durham that a dilution of 1 in 20 is fallacious in clinical diagnosis. Both gave a very clear reaction at this dilution, but only a trace at a dilution of 1 in 100. It is important to observe that the action of these two healthy sera on the group of B. coli we were investigating was as marked as on the typhoid and Gaertner groups.

RESULTS OF SERUM TESTS.

Putting together the cases from Belfast, Lurgan, and Dublin, the following table shows the percentage in which each bacillus gave the reactions which we considered standard, namely, the clumps large, and most of the bacilli clumped. The cases numbered 168. We have not included in this table a large number of cases which were examined by other methods. The bacilli are designated by initials and numbers. H.S., B.T.A., B.W., "Gaertner" and "Hatton," were races kindly sent by Dr. Durham.

B. Typhi.

H.S.	Spleen 1.	Fh.	Mn.	B2.	D5.	B.T.A.	B.W.
24.8 %	26.4 %	30 %	37.5 %	36.6 %	39 %	50 %	52.4 %

B. Enteritidis.

Spleen 2.	Gaertner.	Hatton.
18.5 %	17.5 %	7.6 %

B. Coli Communis.

L.	H.	F.	No. 25.	C.P.	No. 7.	No. 6.
32.7 %	26.0 %	26.0 %	19.8 %	15.0 %	11.3 %	10.7 %

It will be observed that the highest percentage of reactions of any typhoid bacillus is only 52.4. The cases from which this table is compiled were all clinically diagnosed as cases of typhoid fever. A less marked agglutination than we adopted as our standard reaction is diagnostic of typhoid infection. Minor reactions were recorded, and have been analysed so far as they form control observations or contribute to the elucidation of the others.

If we sum up the results in a different way, we find that one or more of the typhoid races reacted to 73 per cent. of the cases, one or more of the Gaertner races to 25 per cent., and some of the races of B. coli to 50 per cent. There were very few cases where all the eight typhoid races gave a standard reaction, and in cases where the serum acted on races of B. coli, the degree of the reaction varied with the race, and there were always some which were unaffected. We have not been able to trace any particular association of reactions between the different races of B. coli which we investigated. There are, however, certain races amongst the seven which obtained the highest averages in the cases from each of the three centres we studied.

This table raises a number of questions, but the only one which we can discuss in this paper is whether we have to deal with a single or with a multiple infection.

In a given case it is common to find the reaction as follows:

FOURTH DAY OF DISEASE.

B. Typhi.

H.S.	Spleen 1.	Fh.	Mn.	B2.	D5.	B.T.A.	B.W.
×	—	×	×	×	\	\	×

B. Enteritidis.

Spleen 2.	Gaertner.	Hatton.
\	\	×

B. Coli Communis.

L.	H.	F.	No. 25.	C.P.	No. 7.	No. 6.
×	×	—	/+	o	\+	o

In these tables × means a standard reaction, \ a slight reaction, and / a mere trace. The symbols + and — further differentiate them.

Here we have a serum which is capable of agglutinating members of each of the three groups of bacilli. It is well known that the serum of an animal which has been infected with the typhoid bacillus exercises an agglutinating power, not only over the infecting bacillus but also over the allied species of B. enteritidis. This fact was first described by Grüber in relation to the Eberth and Gaertner bacilli. To this association in agglutination the name of "mutual reaction" has been given by Durham. Thomassen obtained the same results with these two groups of bacilli,[8] and Gilbert and Fournier observed a similar relationship between B. typhi and B. psittacosis.[9]

While recognising that this mutual relationship exists, we must also note that a serum which clumps both species of bacilli yet clumps the infecting species when it has been so highly diluted that it has only a slight, if any, effect on the allied species. From this fact is derived the principle on which depends the method of studying the reaction of bacilli to a serum at increasing stages of dilution. We applied this method of dilution in the investigation of the reaction of the B. coli, and in a few cases the bacillus which reacted at the highest dilution was one of the B. coli group. The method is, however, clearly inapplicable if the possibility of a mixed infection be granted. We were led, therefore, to take up other lines of investigation regarding the question of infection.

Certain cases were examined in which, at a dilution of 1 per cent., a standard reaction was obtained only in the members of the coli group. The following is an example:

SIXTEENTH DAY OF DISEASE.

B. Typhi.

H.S.	Spleen 1.	Mn.	B2.	B.T.A.	B.W.
o	/	/	/	\	\

B. Enteritidis.

Spleen 2.	Gaertner.	Hatton.
\	\+	o

B. Coli Communis.

L.	H.	No. 25.	C.P.	No. 7.	No. 6.
×	\+	\	××	\	\

The serum, unfortunately could not be obtained a second

time. The disease ran a typical course, resulting in death a fortnight after this examination was made. Had this serum been examined at a later date it would in all probability have given much clearer evidence of typhoid infection. In this case the reaction of the B. coli is clearly independent of that of the B. typhi.

There were also many cases in which the serum reacted to the typhoid and coli groups only. The large number of observations which have been made showing the absence of agglutination of the B. coli with typhoid serum clearly indicate that a mutual reaction does not exist, at least to the same extent as it has been shown to exist between the typhoid and Gaertner groups. When, therefore, we find that a given serum has an effect on the typhoid races, and also on the B. coli, but has no effect on the Gaertner varieties, it is more natural to regard the two reactions as independent of each other. We may refer to the following example:

SIXTH DAY OF DISEASE.

B. Typhi.

H.S.	Spleen 1.	Fh.	Mn.	B2.	D5.	B.T.A.
×+	×	×	×	×	××	×+

B. Enteritidis.

Spleen 2.	Gaertner.	Hatton.
o	o	o

B. Coli Communis.

L.	C.P.	No. 7.	No. 6.
×	×	o	o

There were, in the third place, many cases in which the reaction modified essentially as the case progressed. It has been recognised by several investigators that important information in regard to the reaction of the serum in a given case can be obtained by making successive observations during the course of the disease.[10]

A number of the cases when first examined gave a clear reaction to the B. coli group alone. We were fortunately able to obtain the serum a second time in several of these cases, and we usually found that at the later period it showed a distinct power of agglutinating the B. typhi also. The following instance is an example of this type of reaction:

TWELFTH AND FORTIETH DAYS OF DISEASE.

B. Typhi.

	H.S.	Spleen 1.	Mn.	B2.	B.T.A.	B.W.
12th day ..	/	\	..	/	.	/
40th day ..	\	\	×—	\—	×	\

B. Enteritidis.

	Spleen 2.	Gaertner.	Hatton.
12th day... ...	--	o	\
40th day...	\	\—	\

B. Coli Communis.

	L.	H.	No. 25.	C.P.	No. 7.	No. 6.
12th day ...	×+	—	—	×	\	×
40th day ...	×	×	\	×	\	×

In cases such as this it would be difficult to believe that the reactions from the first are due simply to the invasion of the typhoid bacillus. If so, it would mean that the bacilli infecting an organism may so act on it that the serum of its blood becomes possessed of the power of agglutinating bacilli of another species before it has any effect on bacilli of its own species. The more natural supposition is that the reaction of the B. coli in such cases is due to some process of infection for which it itself is responsible. We may therefore conclude on these grounds that the reaction of the B. coli indicates an independent infection by a member of this group.

COMPARATIVE STUDY OF THE GROUPS.

The problem which now awaits solution is the following: Since the serum of the patient gives indication of an independent infection, can we, by the aid of this reaction, proceed directly to the isolation or discrimination of the race or races of B. coli which are concerned in the infection?

To answer this question we must compare the three groups of bacilli whose reactions we have tabulated. Not only do the three groups differ from each other as groups, but within each group individual races of bacilli differ from one another both in their morphology and in their serum reactions. We need not discuss the slight morphological differences among the typhoid races. We may refer to a statement by Sanarelli on this subject.[11] The differences in the serum reactions are abundantly illustrated by all our cases. One race of typhoid bacilli may show a standard reaction in a given case while another is apparently unaffected. Amongst the B. enteritidis races morphological and physiological differences of a more pronounced kind are observed; while the B. coli group may be said to be specially characterised by the morphological differences which its members present.[12]

THE TYPHOID GROUP.

We may, therefore, raise the question in the first instance in regard to the typhoid group, since the various members of it resemble each other so closely. Can we, by means of the serum reactions, identify the race which produced an infection?

Early in our study of the Belfast epidemic we isolated from the spleen of a patient the race we have called in our table Spleen 1. This bacillus, it should be noted, gave a reaction in 26 per cent. of the cases, while B.T.A. and B.W. reacted in 52 per cent. and 50 per cent. of the cases respectively. Similarly the bacillus D5, isolated from a spleen sent to us by Dr. Darling, reacted only in 45 per cent. of Dr. Darling's cases, while B.W. reacted in 60 per cent. of them.

We put the question finally to the test of experiment. A rabbit was inoculated with repeated doses of the bacillus Spleen 1 until its blood gave a strong reaction. It was then found that with the serum at a dilution of 1 in 1,000, Spleen 1 gave merely a trace of reaction, while B.T.A., B.W., and B.T.H. showed a standard reaction.

These observations, which confirm those of Widal and Sicard,[13] prove that within the typhoid group it is impossible from the serum reactions to detect the infecting race of typhoid bacilli. Since each race of B. typhi possesses a certain facility in clumping, it is only when the infecting bacillus is at the same time the bacillus least resistant to agglutination that it gives the best reaction to the serum of the infected animal. The bacilli which in the table of reactions obtain the highest average did not give the most pronounced reactions in every case. Unusual reactions are difficult to explain, but may be supposed to depend upon some individual peculiarity of the patients. In making our control observations we noticed that the serum of normal individuals frequently possessed a slight power of clumping a particular race of typhoid bacilli, while other races were unaffected. The extent of the action on a given race of bacilli of the serum of a particular case depends probably on three factors: (1) The species of the bacillus, (2) its facility in clumping, and (3) the individuality of the serum. The reaction should therefore be regarded as that of a group of bacilli rather than that of a particular member of the group.

THE B. COLI GROUP.

When we pass to the study of the B. coli reactions, it is uncertain how far we can apply the principles which obtain

in the interpretation of the reactions of the typhoid group. Compared with the B. typhi group, the B. coli communis group is more variable, not only morphologically, but also in regard to its serum reactions. We may exemplify both these points by the varieties which we can discover in the same typhoid spleen. In that, for example, from which Coli 7 was isolated, there were other races, among which some were morphologically identical with it, while others differed. Many of these did not react in cases where Coli 7 reacted, and some never reacted at all. Another point in which the group showed a general similarity to the typhoid group was the fact that the same members of it obtained the highest averages of reactions in each of the three series of typhoid cases we examined. We have not in our possession as yet sufficient observations on the subject; but the conclusion suggested by the experiments already carried out is that the principles regulating the occurrence of reactions in the typhoid group are also applicable to the B. coli group.

Sanarelli has suggested autointoxication as a process which takes place in typhoid fever. The data we have at present are insufficient to lead to a conclusion on this; but, in considering the races of B. coli which react, we wish to emphasise the fact that they do not separate themselves into a morphological group distinguishable from the other members of the species. The bacillus L., which reacted most frequently, has in its cultural features very pronounced coli characters, and the six races we have selected differ only slightly from the traditional B. coli communis.

We may, speaking generally, compare the B. coli group with many other bacteria which possess pathogenic power. The pneumococcus found in inflamed lungs is only pathologically distinguished from the innocent diplococcus of the healthy mouth. A similar remark applies to the streptococcus of erysipelas. The vibrios are a notorious example of a group of microbes which are differentiated chiefly by their pathogenic characters. Should similar results be arrived at in relation to the B. coli, it would only be placed on the same footing as other bacteria if we selected from it a subgroup differentiated solely by their possession of pathogenic properties.

Summary.

We may therefore sum up the observations on the serum of patients in regard to infection as yielding the following results: (1) The occurrence of the reaction of B. coli, though subordinate to that of B. typhi, is yet independent. (2) The serum reaction is in itself probably insufficient for the discrimination of the races of B. coli communis which possess the power of invasion in typhoid fever.

Other methods of solving this question clinically and experimentally suggest themselves, and we have in progress experiments on the subject. The study, for example, of the races of coli which occur in the urine in a certain proportion of typhoid cases promises to yield important results.

Experiments on Animals.

We have carried out a certain amount of experimental work for the purpose of controlling the observations upon patients. It was necessary to ascertain whether or not the serum of an animal inoculated with the typhoid bacillus acquired the power of agglutinating the B. coli races in question. Durham has confirmed his negative clinical observations by similar results obtained with experimental sera. On the other hand, the investigations already referred to on the mutual reaction of B. typhi and B. enteritidis suggest a similar relationship between B. typhi and the B. coli under discussion. The research of Demel and Orlandi, confirmed by Sanarelli, showing that immunisation against either B. typhi or B. coli confers immunity against the other supports the same hypothesis.[14] Our observations would also point in this direction.

In examining at intervals the serum of a rabbit which was inoculated with repeated small doses of B. typhi (Spleen 1), we found that it acquired the property of agglutinating first the B. typhi, at a later stage the B. enteritidis, and still later the B. coli with which we are concerned. We concluded therefore that the typhoid bacillus has a mutual reaction, well marked with certain varieties of B. enteritidis, less distinct with other varieties, and still less with the races of B. coli. Recently Gordon, working in Klein's laboratory, has isolated a variety of B. coli which probably belongs to the group under consideration, for it was slowly clumped by the serum of a horse experimentally inoculated with the typhoid bacillus.

Rabbits were inoculated with three varieties of B. coli also—namely, L., No. 6, and No. 7. These three bacilli were found to have a moderate degree of mutual reaction with the other four races of B. coli, and somewhat less with the enteritidis and typhi races.

The observations we have just described are sufficient for testing the conclusions reached by the study of the agglutinating reactions of typhoid serum in this epidemic. The serum of the rabbit contrasts with that of the patient. The latter frequently clumps at an early stage the B. coli alone, and at a subsequent period the B. typhi also. The rabbit serum, on the other hand, at first clumps the B. typhi alone, and later the B. coli also—that is, when the agglutinating power is increased. This confirms our conclusion that in the patient's serum the B. coli reaction in many cases depends on something else than a pure typhoid infection. Those cases in which the serum shows a marked reaction to both B. typhi and B. coli and little or no reaction to B. enteritidis also differ essentially from the typhoid-infected rabbit, whose serum, when potent enough to clump the B. coli, had a still more pronounced effect on B. enteritidis.

Experimental evidence to further prove the double infection is not required in the cases where the reaction to B. coli was at first the only one, and was later accompanied by a reaction to B. typhi also.

The B. Coli in Typhoid Fever.

The question of what part in the process of typhoid fever the coli infection plays must for the present be left untouched. The solution requires more elaborate clinical and experimental investigation than we have yet been able to carry out.

As regards the time relations of the infection, we have been unable from our analysis of the cases to decide at what particular period, if any, in the history of the case the coli invasion commonly occurs. Other methods of research must, however, be applied to carry the investigation of this further.

It is unnecessary here to refer to recent researches on the pathology of typhoid fever farther than to point out that the problem raised in this investigation is one of the main problems in recent experimental work.

The typhoid bacillus differs in the degree of its pathogenicity from the microbes of many infective diseases. When inoculated directly from the human spleen into guinea-pigs, the least resistant of small mammals, it possesses little or no virulence, an enormous dose being necessary to kill the animal. This is still more true when it has been cultivated. The large amount of work that has been recorded with regard to inoculation of animals with this bacillus is summed up in the researches of Sanarelli.[15] Sanarelli notes the absence of pathogenicity in the bacillus as it is isolated from the spleen; but he finds that it acquires a high degree of virulence if it be passed through a series of animals, each inoculated from the abundant peritoneal exudate of its predecessor. In the earlier inoculations it is necessary to reinforce the bacillus, or to diminish the resistance of the animal, in order to enable the bacillus to diffuse itself. Sanarelli used for this purpose large intraperitoneal injections of the products of metabolism of other bacteria. He found the products of the B. coli most suitable, although he thinks the products of other bacteria may be equally effective. His practice was to inoculate the first of his series of guinea-pigs with 0.5 c.cm. of a broth culture of B. typhi subcutaneously, and at the same time to inject 10 c.cm. of sterilised culture of B. coli into the peritoneal cavity. The animal died usually within twenty-four hours. A culture from its peritoneum was injected into a second animal in the same way. It was found possible to diminish the dose both of bacilli and of coli products, and ultimately the bacilli became virulent enough to produce the effect without the assistance of the coli intoxication. Even at this stage the virulence is much inferior to that of many organisms, such as the pneumococcus, swine plague bacillus, etc., and the bacillus readily relapses to its original innocuous condition.

Sanarelli, in a similar series of experiments, observed the

effect upon the B. coli in the intestine of injections of the toxins of B. typhi. When the toxins were administered in repeated small doses in such a manner as to produce immunity, he found the contents of the small intestine to be sterile, the B. coli normally present there having disappeared. When an overdose of typhoid products was administered in the course of such an immunisation experiment, there occurred a coli invasion, which resulted in localised abscesses from which the bacilli could be isolated. The two results of Sanarelli's work which have a direct bearing on our observations in the recent epidemic are (1) the effect of B. coli products in increasing the virulence of this typhoid bacillus, and (2) the effect of the injection of typhoid toxins in bringing about an invasion of B. coli. Sanarelli himself thinks it probable that autointoxication with products of intestinal fermentation is a factor in the causation of typhoid fever, and this suggestion brings the theory of the disease into line with his experimental results.

Chantemesse and Widal carried out simultaneously a research on the same subject. They consider the typhoid bacillus isolated from the spleen as having slightly more virulence than was ascribed to it by Sanarelli. But they also had recourse to adjuvants to procure a really virulent bacillus. They used, among others, the products of the B. coli. The conclusion, they state without reservation, is that some factor besides the typhoid bacillus is concerned in the production of typhoid fever.[15]

CONCLUSION,

The observations on the epidemic which we have recorded in this paper afford further grounds for the application of the results of recent experimental work to the interpretation of the disease in the human subject. The attempts to reproduce in animals typhoid fever as a disease have been, on the whole, unsatisfactory, and, as we have seen, the difficulty is not a simple one. The first stage of the process must consist in obtaining bacilli of such virulence that they can invade the tissues of animals, and this difficulty has been overcome by the use of adjuvants. The further stages in the process of reproducing the disease are still unknown.

The object before us in this investigation has been to show that in patients there can be obtained from the serum indications of coli invasion during the process of typhoid fever. In other words, there is a large body of evidence to prove that Sanarelli's experimental results are directly applicable to typhoid disease in the human subject.

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ON THE VALUE OF THE TREATMENT OF DIPHTHERIA BY ANTITOXIN.

Being an Introduction to a Discussion held at the Hunterian Society.

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THE INTRODUCTION OF ANTITOXIN.

IT is now upwards of four years since Roux at the Eighth International Congress of Hygiene at Buda-Pesth read his classic paper on the treatment of diphtheria by antitoxic serum. Before that occasion there had been furnished by certain German clinical observers no mean evidence that the treatment was of value, but it was Roux's paper that suddenly and prominently brought the method before the notice not only of the profession, but also of the public throughout the world, and for most countries the introduction of the antitoxic treatment dates from the latter part of 1894.

At first, even after the publication of Roux's paper, the new remedy was looked on with much suspicion. So many specifics had from time to time been vaunted against the ravages of diphtheria, and though I will not go so far as to say that none of them were of service, yet certain it is that they never fulfilled a tithe of the promises made on their behalf; moreover, the tuberculin fiasco of 1890 was still fresh in the memory, But the previous terrible fatality of the disease, the stability of the experimental evidence upon which the new treatment was based, the openness with which the preparation of the serum was made known, and the weight attaching to the observations of one so eminent in science as Roux, compelled those who were concerned in the care of large numbers of diphtheria cases to give the method a thorough and unbiassed trial. Now, at the end of these four years, I think I can safely assert, without fear of contradiction, that all those who have employed the treatment in a sufficient number of cases have made up their minds regarding its value one way or the other, and that a large majority of these are agreed that all that was claimed for it has been fulfilled. There are a few who, even after more than a casual trial, are of the opposite way of thinking. Besides these two classes, there is another consisting of those who are, so to speak, of no way of thinking at all; they have either had few or no cases to treat, or they have not been able to procure the remedy, or they have not really troubled themselves about the question, but have preferred to go on with methods of treatment ancient but inefficient. The latter group, I fear, contains no small number of practitioners, judging by the evidence I daily encounter in the many children I see admitted to hospital in a hopeless condition who have not been afforded, while still there was time, the relief that antitoxin brings. I believe, moreover, that a study of such statistical facts as are available shows that the treatment has not been used to any marked extent outside hospitals.

EFFECT ON MORTALITY IN LONDON.

During the past three years there has been a lowering of the case mortality of diphtheria in London. The following table (Table I) shows to what extent this has occurred:

TABLE I.—*Case Mortality of Diphtheria in London.*

	1892.	1893.	1894.	1895.	1896.	1897.
Mortality per cent. of all notified cases	23.8	24.5	24.7	21.2	19.9	17.4
Mortality per cent. of notified cases admitted to Asylums Board hospitals...	24.8	27.1	25.0	18.3	17.7	14.9
Mortality per cent of notified cases not admitted	21.5	23.7	24.5	23.3	21.3	20.1
Percentage of notified cases admitted to hospitals	30.1	24.5	38.8	41.5	39.9	51.4

[The figures from which this table has been compiled are given in the annual reports of the Statistical Committee of the Metropolitan Asylums Board. They consist of the annual number of notifications, the annual number of registered deaths inside and outside the Board's hospitals, and the annual percentage of notified cases admitted to the hospitals. The actual number of notified cases admitted is not given except for the year 1897; but the number can be calculated pretty closely from the percentage. It must be understood that the table deals with cases admitted to hospitals as they are notified, and not as corrected for errors of diagnosis.]

The fatality (at its maximum 24.7 in 1894) fell to 17.4 in 1897; but it will be observed that this progressive diminution has been during the same time more marked among cases admitted to hospital than amongst those remaining outside, namely, from 25.0 to 14.9 in the one instance, and from 24.5 to 20.1 in the other. Usually the fatality of hospital-treated cases is higher than that of those not admitted to hospital. It was so for the years 1892, 1893, and 1894; in the latter year the difference was slight. But since 1894 this has not been the case. I think, therefore, it can be fairly claimed without laying undue stress upon the figures given in Table I, that some special factor has been at work to cause such marked changes, and knowing what I do of the value of the serum treatment, evidence of which I shall bring forward later, I am prepared to find this factor in antitoxin. It is impossible to say how many of the notified cases admitted to hospital have been treated with antitoxin; for the annual

reports of the Asylums Board give only the number of cases so treated amongst cases corrected for errors of diagnosis. It can only be said, as giving an indication of the extent to which the treatment has been carried out, that during November and December, 1894, a considerable number of such cases were treated; and that for 1895, 1896, and 1897 the percentage was 61.8, 66.2, and 80.2.

I think from these various figures I am justified in saying that the diminished fatality in London as a whole is due to the use of antitoxin; and, further, that the figures point to the conclusion that it is chiefly in hospitals that antitoxin is used; otherwise why has there not been an equal improvement in cases treated outside hospitals?

Daily experience in a hospital that has about 200 beds set aside for the treatment of diphtheria leads me to infer that very few cases are treated with antitoxin before admission. And this is not because the patients are sent to hospital early to get treatment. On the contrary, for the years 1894, 1895, and 1896 the percentage of diphtheria cases admitted to the Asylums Boards hospitals on or after the fourth day of illness was 59.2, 67.7, and 74.3. The difference in the fatality of cases according as they are treated in or outside hospitals would be very much more accentuated in favour of the hospitals were it not for the fact that a large proportion of the fatal cases are admitted at so late a stage of the disease as to be in a hopeless condition, and beyond the reach of any treatment whatsoever. In 1894, 1895, and 1896, 59.3, 67.6, and 74.4 per cent. respectively of the fatal cases were admitted on or after the fourth day of the illness.

All the evidence I have brought forward has been designed to show, and I think does show, that outside the hospitals, general or special, the antitoxin treatment of diphtheria is little practised. I believe that one of the objects of the discussion held here this evening is to point out the value of the treatment to such as have hitherto held aloof from it. I sincerely hope that this object may be attained; for, impressed as I am with the value of the remedy, it seems to me to be almost criminal that hundreds of children should be allowed to die every year in London for want of its timely application.

THE THERAPEUTIC VALUE OF ANTITOXIN.

I will now proceed to put before you the chief reasons which have led me to the conclusion that antitoxin is really a remedy of immense value in the treatment of diphtheria. My faith is based upon facts statistical and clinical. The former are more readily placed before an audience, the latter have a more personal appeal. Let us take the first great statistical fact—namely, the reduction in the case mortality. This has been crudely shown in Table I. But it becomes much more evident when we consider the hospital-treated cases after they have been corrected for errors of diagnosis. The case mortalities in the Asylums Board hospitals for the years 1892 to 1897 inclusive are as follows:

TABLE II.—*Case Mortality of Diphtheria Cases in the Hospitals of the Metropolitan Asylums Board.*

1892.	1893.	1894.	1895.	1896.	1897.
29.5	30.4	29.2	22.8	21.2	17.6

The reduction since 1894 is extremely marked. But it may be said that the later years of this series contained a larger proportion of adult patients, amongst whom diphtheria is less fatal than amongst children than the earlier years. While I think it could be shown that there is no weight in this objection, we will however allow it, and deal with the children under 5 years of age. For these, however, I cannot obtain the death-rates so accurately as for the whole of the cases. I give them as obtained by calculating the percentage of deaths on admissions (Table III):

TABLE III.—*Case Mortality of Diphtheria in Children under 5 Years of Age in the Metropolitan Asylums Board Hospitals.*

1892.	1893.	1894.	1895.	1896.	1897.
51.5	53.3	43.9	35.5	30.3	24.9

From Table III it appears that, beginning with 1894, there has been a marked diminution in the death rate, so that it is about half what it used to be. Included amonst these cases are all those which are fatal from other diseases combined with or following diphtheria, but in no way resulting from it. To exclude these from the foregoing figures is impossible, the necessary data being wanting. I can, however, make the correction for the cases treated at the Eastern Hospital, with the following results, for the cases not treated with antitoxin in 1894, and all cases in 1896 and 1897 (Table IV):

TABLE IV.—*Eastern Hospital. Case Mortality of Diphtheria in Children under 5, corrected for Deaths other than Diphtheria.*

1894 (Jan. 1 to Oct. 22). Cases not treated with antitoxin	180	with	83 deaths	—46.1 per cent.
1896 All cases	264	„	62	„ —23.4 „
1897 All cases	401	„	111	„ —27.6 „

(Of the 1896 cases 231 with 57 deaths, and of the 1897 cases 385 with 106 deaths were treated with antitoxin.)

To these figures, however, the following objections may be offered with more or less validity; indeed, to similar figures such objections have been offered—namely, that the age distribution of the cases may vary, even in so small a group relatively as that of the cases under 5, for amongst such children the younger the patient the higher the fatality. Or, again, a more forcible objection, that the 1896 or 1897 cases include a considerable proportion of "bacteriological" cases, cases, that is, in which the diagnosis has been made mostly on bacteriological grounds, such cases being usually of a mild character. It is not probable that either of these causes is sufficient to account for the differences observed. There is no selection of cases for admission; and with respect to the bacteriological difficulty, my experience has been that the cases which are set down as diphtheria because the characteristic bacilli have been found in the faucial lesion occur very largely among adults, certainly amongst patients over 5 years of age. Besides these objections we have further to remember that the proportion of laryngeal cases, and of cases admitted at a late stage of the disease, may have been so variable for these years as to account for part of the altered mortality-rate. In order to eliminate, as far as possible, all such errors as I have mentioned, I have decided to bring prominently before your notice a class of case amongst which they are less likely to arise, and against which, therefore, the foregoing objections cannot be urged with so much force. The class to which I refer is that of the laryngeal diphtheria cases.

STATISTICS OF LARYNGEAL DIPHTHERIA.

Now, in the first place, the laryngeal cases constitute a class concerning which there can be very little, if any, dispute on the score of diagnosis. It is exceedingly unlikely that there will be included amongst them any appreciable number of cases of laryngeal obstruction which are included solely because a bacteriological examination has revealed the presence of the characteristic organism. I take it that if a child presenting symptoms, however slight, of laryngeal obstruction is found to have exudation, however limited, upon its tonsils or soft palate, then that child is the subject of diphtheria. It is, at any rate, generally admitted that the exceptions to this rule are very unusual. Further, a laryngeal case of diphtheria is always to be looked upon with concern because of the suffering that even slight obstruction to respiration entails, and because of the frequency with which a fatal issue results. Lastly, the vast majority of the patients attacked by this form of diphtheria are children under 10 years of age, and a large proportion are under 5. Therefore, from the point of view of diagnosis, fatality, and age, the laryngeal cases constitute a class admirably suited for exhibiting the results of any particular line of treatment.

Now, what has been the fatality of laryngeal diphtheria during past years? Statistics of laryngeal cases which include the cases not tracheotomised are not so numerous as one would wish, and those giving separately the cases not operated upon are still less common. I have collected from the sources indicated in the tables which follow statistics showing the recovery-rate—first, in cases of laryngeal diphtheria, both tracheotomised and not; secondly, in such cases as have not been operated upon; and thirdly, in cases tracheotomised.

CASES NOT TREATED WITH ANTITOXIN.

TABLE V.—*Cases of Laryngeal Diphtheria, whether operated on or not.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
Sanné (Hôpital Sainte-Eugénie, 1854-75)[1]	2,809	831*	29.5
Asylums Board Hospitals, 1894[2]	466	177	38.0
	3,275	1,008	33.8

* Including 118 discharged from hospital uncured.

TABLE VI.—*Cases of Laryngeal Diphtheria not operated upon.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
Sanné (Hôpital Sainte-Eugénie, 1854-75)[1]	497	232*	46.6
Asylums Board Hospitals, 1894[2]	205	100	48.7
Henoch[3]	43	3	6.9
	745	335	44.9

* Including 28 discharged from hospital uncured.

TABLE VII.—*Cases of Laryngeal Diphtheria Tracheotomised.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
Sanné (Hôpital des Enfants Malades, 1851-75)	2,351	690*	29.3
Ditto (Hôpital Sainte-Eugénie)[4]	2,312	599†	25.4
V. Hirsch[5]	1,654	517	31.2
Antitoxin Committee of Clinical Society[6]	1,553	434	28.3
Asylums Board Hospitals (1889-93)[7]	323	104	32.1
Ditto (1894)[2]	261	77	29.5
Clubbe (Sydney Children's Hospital[9])	199	64	32.0
Guersant[10]	156	28	18.0
Eastern Hospital (1892-93)	140	30	21.4
	8,927	2,543	28.4

* Including 76 discharged from hospital uncured.
† Including 90 discharged from hospital uncured.
[No intubation cases are included in these tables.]

Of 3,275 cases of laryngeal diphtheria, whether operated upon or not, 1,008 recovered, or 33.8 per cent. Of 745 cases not operated upon, 335, or 44.9 per cent., recovered.

Only 3 of Henoch's 43 cases recovered; if this series is deducted as being exceptionally severe, the rate of recovery in this class becomes 47.2.

Of the tracheotomies a large body of statistics is forthcoming. Of 8,927 tracheotomies 2,543 recovered, or 28.4 per cent. Besides these figures we have other information concerning the results of tracheotomy in preantitoxin days. Roux, in the paper already referred to,[11] states that at the Hôpital des Enfants Malades during the four years immediately preceding the introduction of the antitoxin treatment, the recovery-rate was 27 per cent. Cadet de Gassicourt[12] says that at the Hôpital Trousseau from 1866 to 1878 the recovery was 20.8 per cent. At the same hospital, during the months May to July, 1894,[13] the recovery-rate was only 14 per cent., the cases not being treated with antitoxin. Welch,[14] who collected a large number of statistics, writes as follows: "The percentage of fatality from tracheotomy in diphtheria, given by Monti from a total of 12,376 cases up to 1887 is 73.3 per cent., that is a recovery-rate of 26.7." Henoch[15] states that of 341 tracheotomies under his care scarcely 15 per cent. recovered.

From all these figures it will be observed that, as a rule, under 30 per cent. of the cases recovered. Trousseau[16] states that of his own cases about a fourth recovered; and he thought that for hospital practice one-fifth was a large proportion to be cured. He looked for a recovery-rate of 50 per cent. in private practice. I think statistics go to show that since Trousseau's day there has been some improvement in the results in hospital practice, even before the introduction of antitoxin, due to improvements partly in surgical treatment, partly in nursing and the hygienic arrangements of hospital wards; but I very much doubt whether apart from antitoxin his hopes respecting the results in private practice have ever been realised.

It will be observed that the recovery-rate of the cases not operated upon is, as a rule, higher than that of the tracheotomies. The interpretation of this fact is probably that amongst laryngeal cases those in which the symptoms of obstruction to respiration are urgent are operated upon, and that the fatal cases in this group consist chiefly of toxic cases in which laryngeal symptoms are slight or obscured.

We will now examine the statistics of these different classes since the introduction of the antitoxin treatment. I have arranged them in tables, as with the preantitoxin cases:

CASES TREATED WITH ANTITOXIN.

TABLE VIII.—*Cases of Laryngeal Diphtheria, whether operated upon or not.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
American Pediatric Society[17]	1,704	1,344	78.8
Asylums Board Hospitals[18]	1,422	944	66.3
Belin[19], Strassburg	181	137	75.6
Roux[20]	131	65	49.6
Zuppinger,[21] Vienna	48	32	66.6
	3,486	2,522	72.3

TABLE IX.—*Cases of Laryngeal Diphtheria not operated upon.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
American Pediatric Society[17]	1,030	852	82.8
Asylums Board Hospitals[18]	742	560	75.4
Belin[19]	49	49	100.0
Roux[20]	10	10	100.0
	1,831	1,471	80.3

TABLE X.—*Cases of Laryngeal Diphtheria Tracheotomised.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
Asylums Board Hospitals[18]	680	384	56.4
American Pediatric Society[17]	668	486	72.7
Collected by Welch from 39 reports[14]	518	313	60.4
Belin[19]	132	88	66.6
Clubbe,[9] Sydney	129	80	62.0
Roux[20]	121	65	53.7
University College Hospital[22]	72	53	73.6
Cuno,[23] Frankfort	54	37	68.4
	2,374	1,506	63.4

[No intubation cases are included in these tables.]

Of 3,486 cases of laryngeal diphtheria, including both those tracheotomised and those not, 2,522 recovered, or 72.3 per cent. Of 1,831 cases of laryngeal diphtheria not tracheotomised, 1,471, or 80.3 per cent., recovered; while of 2,374 tracheotomies, 1,506, or 63.4 per cent., were cured. All these cases were treated with antitoxin. It will be observed that, as in the preantitoxin cases, the recovery-rate of the cases not operated upon is greater than that of the tracheotomies, probably for similar reasons.

CONCLUSIONS AS TO ANTITOXIN IN LARYNGEAL DIPHTHERIA.

To give a brief summary of these statistics: Whereas in the preantitoxin days of 100 tracheotomies you could not expect to save more than 29, now you can expect to save no fewer than 53; of laryngeal cases not operated upon, in those days not more than 48, now not fewer than 75; of all cases, then not more than 34, now not fewer than 49. Further, we have a good chance of saving nowadays a much larger percentage of cases than the numbers I have just given. It is quite true that in former times without the use of antitoxin some very good results were obtained in tracheotomy cases. Sanné quotes a series of 87 cases from Geneva with 38 recoveries, or 43 per cent.; and at the North Western Hospital of the Asylums Board for 1893 there were 78 cases with 34 recoveries, or 43.5 per cent. Welch quotes 47 cases reported by Sonnenberg, with a recovery-rate of 62 per cent.; Stintzing as reporting a recovery-rate of 51 per cent., and Witthauer one of 75 per cent. The number of cases, however, in these last two instances is not given in Welch's paper; and even these authors state that antitoxin produced an improvement upon their previous success. But these rates were all uncommon and do not in any way vitiate the conclusions drawn from the figures I have given.

I think I am fully justified in claiming for antitoxin the great reduction in mortality amongst cases of laryngeal diphtheria that these figures reveal. I know of no other agent that can have brought about this result; if there be such it is for the adverse critic to point it out.

TRACHEOTOMY.

The influence of the antitoxin treatment can be demonstrated by means of the laryngeal cases in other ways than by mortality statistics. It has been stated by many writers that the occasion for the operation of tracheotomy has been rendered very much less frequent; and though I believe this really to be the case it is not possible to prove it by the statistics I have produced above. It is quite possible that all the laryngeal cases admitted during a definite and sufficiently lengthy period to any given hospital might already be so far advanced as to require tracheotomy; in which case it could be said that, compared with previous years, the proportion of cases requiring operation was certainly not less and most likely more than before. This was so indeed with the cases treated in the Asylums Board hospitals in 1897. For that year the percentage of laryngeal cases requiring tracheotomy was 53.7. In 1896 the percentage was 41. In 1894 (the non-antitoxin year) it was 56. Thus though there was apparently a diminished necessity for tracheotomy in 1896, in 1897 the operation was called for to almost the same extent relatively as in 1894.

What we really require to know is the number of times in which the larynx becomes involved after the injection of antitoxin in a series of cases all of which are treated with antitoxin. The general consensus of opinion is that it is much more rare for the diphtherial inflammation to spread to the larynx in cases treated with antitoxin than it used to be, and still is, in cases not so treated. Figures illustrative of this fact were given in the reports on the antitoxin treatment drawn up by the medical superintendents of the Asylums Board hospitals. During 1894, of 3,042 consecutive cases not treated with antitoxin, 116, or 3.8 per cent., developed laryngeal symptoms after admission; in 1895 the number of similar cases was 18 in 2,965, or 0.6 per cent.; in 1896 it was 16 in 3,300, or 0.4 per cent.; 61.8 per cent. of the 1895 and 66.6 per cent. of the 1896 cases were treated with antitoxin on admission to hospital. Further evidence on this point was obtained by a study of the cases of diphtheria arising amongst the scarlet fever convalescents at the various hospitals during 1896. Of 412 cases in which there were no laryngeal symptoms present when the serum was injected, in 5 only the larynx became invaded, or 1.2 per cent.; while of 236 cases which were not treated with serum, at any rate till after the onset of croup, in 38 at least this symptom arose, or 16.6 per cent. From my own experience I can certainly confirm what these figures tell. For the past three years in the Eastern Hospital we have had almost no cases of laryngeal obstruction in which the symptoms have arisen after admission. Antitoxin is injected immediately after admission.

The recognition of this power of checking the disease is exceedingly important. If once the larynx is attacked there is always the chance of having to resort to operative measures which bring their own peculiar dangers. I believe that if only in every case of faucial diphtheria antitoxin were administered sufficiently early the number of laryngeal cases would be reduced to those in which either croup was the first sign of the disease or the larynx was the part first attacked.

EXTENSION OF MEMBRANE TO BRONCHI.

One other fact I will mention in connection with the laryngeal cases which supports the conclusion that antitoxin arrests the membranous formation. I have made an analysis of the causes of death in three series of consecutive cases. The first consists of 131 fatal cases, not treated with antitoxin in 1894; the other two, of 103 and 171 treated with antitoxin in 1896 and 1897 respectively. There are two ways in which diphtheria of the respiratory tract may prove fatal—the one by extension of the membrane to the lungs, leading to suffocation, the other by the setting up of broncho-pneumonia. Of the non-antitoxin cases, 22 died of extension of membrane along the respiratory tract and 21 of broncho-pneumonia; for the antitoxin series the numbers were 3 and 5 of extension of membrane and 4 and 9 of broncho-pneumonia. The figures are given in the following table:

TABLE XI.

In 1894 16.7 per cent. of the fatal cases, and	4.9 per cent. of the total cases died of extension of membrane to the lungs.
In 1896 2.9 per cent. of the fatal cases, and	0.4 per cent. of the total cases died of extension of membrane to the lungs.
In 1897 2.9 per cent. of the fatal cases, and	0.4 per cent. of the total cases died of extension of membrane to the lungs.
In 1894 16.0 per cent. of the fatal cases, and	4.6 per cent. of the total cases died of broncho-pneumonia.
In 1896 3.8 per cent. of the fatal cases, and	0.6 per cent. of the total cases died of broncho-pneumonia.
In 1897 5.2 per cent. of the fatal cases, and	0.8 per cent. of the total cases died of broncho-pneumonia.

Seven of the 8 antitoxin cases of 1896 and 1897 that were fatal from extension of membrane, presented symptoms of this extension before the antitoxin was given. A large proportion of the broncho-pneumonia cases were cases of laryngeal diphtheria, but not all of them.

From these figures it appears that under the antitoxin treatment there has been a considerable reduction in the number of cases fatal from the most painful modes of death in diphtheria.

VARYING RESULTS IN DIFFERENT HOSPITALS.

One word more before I pass from the laryngeal cases. Some critics, and those by no means hostile, still continue to wonder how it is that comparing one set of results with others, say, for example, the tracheotomy results at different hospitals, there is still so much difference between them. For instance, the mortality of the tracheotomy cases varied at the different hospitals of the Asylums Board in 1897 from 31 to 67 per cent., the mortality of all the cases being 40. The causes of the variation in mortality can hardly be shown in a table. It is doubtless due to the variations in the number of toxic cases attended by complications, and of patients admitted late in the disease. But this variation it should be well known was present in the preantitoxin days. At the same hospitals in 1894 the mortalities ranged from 59 to 90 per cent. And as regards hospital statistics, as long as the conditions, especially with respect to the admission of patients, continue as they are, we must still expect this variation. But the difference between the present and preantitoxin times is that whereas then the percentages of recoveries lay between 45 and 10, now they lie between 70 and 30.

(To be continued.)

AN INTERNATIONAL TEMPERANCE CONGRESS.—The International Congress for the Prevention of the Abuse of Alcoholic Drinks will hold its seventh meeting this year in Paris, April 4th to the 9th, Dr. Th. Roussel being the Honorary, and Dr. Legrain the Acting, President. Communications should be addressed to the General Secretary of the Congress, Dr. Boissier, 18, Rue de Condé, Paris (Librairie Nathan).

FOUR SERIES OF CASES OF SEWER-GAS POISONING.

By W. GIFFORD NASH, F.R.C.S.,
Bedford.

THE various diseases of a septic nature which may be produced by sewer-gas poisoning are well exemplified by four series of cases which have occurred in my practice during the last seven years.

FIRST SERIES.

In December, 1891, a lady was confined and attended by Mr. Kinsey at Bedford. The labour was quite normal, but was followed by pelvic cellulitis. When I joined Mr. Kinsey at the end of January, 1892, there was a large mass in the left iliac region of this patient. This gradually disappeared during the next two months, and the patient entirely recovered.

Between the end of January, 1892, and August of the same year, there occurred in this house the following cases:

Acute rheumatism	2 cases.
Diphtheria	1 case.
Follicular tonsillitis	2 cases.
Otitis media	2 cases.

making, with the case of pelvic cellulitis, altogether 8 cases which might have been caused by sewer gas.

The cases of rheumatism were cases of acute arthritis, that is, there was inflammation of certain joints of a nature which could not be distinguished from acute rheumatism. The case of diphtheria was a severe membranous tonsillitis, which could not clinically be distinguished from diphtheria, but, as the membrane was not examined bacteriologically, it is not certain that it was true diphtheria.

One of the ear cases was most interesting. It occurred in a boy aged 12, who had had otorrhœa for five years. After a box on the ear he suddenly developed signs of acute meningitis. The mastoid cells and antrum, the middle fossa of the skull, and the lateral sinus were explored without obtaining anything very definite of a septic nature. Double disseminated pleuro-pneumonia followed of a most serious nature. After a desperate illness of three months' duration the boy recovered. During this long illness I repeatedly asked to have the drains examined, but could not get it done. At last the drains overflowed, and it was found that the Buchan trap was full of sewage and the drain behind it completely choked. Sewage had also regurgitated into the soft water tank. The block in the drain must have existed a very long while.

SECOND SERIES.

The second series occurred in 1893, in a family who lived in a crowded and dirty cottage. Exactly opposite the house was a drain ventilator in the middle of the road. The children were constantly playing over this and sitting on the doorstep within a few feet of it. There were 5 cases of illness within four months.

CASE I occurred on May 24th, 1893. A girl of 13 developed acute lobar pneumonia. She was removed to hospital, and recovered.

CASES II and III.—On June 27th a girl aged 11 and a boy aged 3 developed severe follicular tonsillitis, from which they recovered.

CASE IV.—On July 18th a boy aged 6 developed acute nephritis. He was removed at once to the hospital, and recovered.

CASE V.—In August a baby of 7 months had a severe attack of gastro-enteritis, and recovered.

After this, acting on my advice, the family moved to another house, where, although they have retained their dirty habits, they have never had any serious illness beyond occasional attacks of diarrhœa and influenza.

I believe all these five cases had a common cause, which most probably was sewer gas from the drain ventilator.

THIRD SERIES.

The third series of cases occurred in 1898.

CASES I and II.—Two boys developed measles on March 9th. One of them, N. P., developed otitis media; the other, H. P., developed bronchitis. On March 26th, when they were nearly well, N. P., who had otorrhœa, scratched a pimple on his forehead and developed erysipelas. His temperature was 105.2° that evening. Next day it was nearly normal. The same day H. P. developed follicular tonsillitis, which lasted a week.

CASE III.—Their aunt, G. H., who was looking after them, had a cracked thumb, and on March 28th felt a pain in it. I saw her twelve hours later, and at once incised the thumb down to the bone. The incision was not felt, neither did it bleed, showing the intensity of the inflammation, which in twelve hours had destroyed the life of these soft tissues. Cellulitis spread over the front of the wrist and lymphangitis up the arm to the axilla, where the glands became enlarged and tender. Two incisions were made over the front of the wrist down to the tendons, but no pus was found. There was very high fever—104°. Eight injections of 10 c.cm. of antistreptococcus serum obtained from Mr. Bokenham were given, two on April 6th, three on April 7th, two on April 8th, and one on April 9th. After these the temperature fell for a time. Cultures from the original wound in the thumb showed streptococci and staphylococci. There was no sign of suppuration until April 13th, when an abscess was opened on the front of the wrist. On April 15th an abscess was opened over the right sacro-iliac joint and another under the right pectorals, which pointed anteriorly. On April 20th an abscess under the muscles attaching the right scapula to the spine was opened, and a small superficial abscess at the seat of one of the serum injections. On April 23rd another abscess over the wrist was opened, and lastly, on May 13th, a counter-opening was made in the right axilla to drain the subpectoral abscess. On May 16th the temperature fell to normal, and has not risen again. There were never any internal complications.

CASE IV.—On April 12th, D. P., a sister of the boys, developed acute otitis media, and on April 15th, N. H., a sister of the aunt, who had come to help with the nursing, also developed follicular tonsillitis. The deposit from her throat was examined by Dr. S. J. Ross, who cultivated both a streptococcus and staphylococcus pyogenes aureus from it. On May 14th—two days after getting wet—this patient developed acute synovitis of the left knee and swelling over the left ankle, apparently rheumatic. This quickly subsided with rest and salicylate of sodium. The drains were examined and two escapes of sewer gas found. The water-closet was foul and the house was not in a clean state owing to the presence of several dogs.

FOURTH SERIES.

This series occurred since I recorded the previous series in a paper read before the South Midland Branch of the British Medical Association at the meeting held at Wellingborough on October 6th, 1898.

CASE I.—On October 16th, 1898, I saw a maidservant with subacute arthritis of knees and ankles, which I attributed to rheumatism. A few days later she developed a sore throat.

CASE II.—On October 30th I saw a girl, aged 8, suffering from double otorrhœa and acute inflammation of the mastoid antrum. Three or four days previously she had symptoms of influenza, and to this I attributed the ear complications.

CASES III and IV.—During the following week two other children—a boy aged 7 and a girl aged 10—had sore throats, which were also put down to influenza. I did not see them.

CASE V.—On November 9th I saw a child of 18 months with a severe herpetic eruption on the chin and under the jaw. The child objected to being moved, and a small boil was found on the outer side of the left thigh. This was fomented, but a large abscess formed beneath the subcutaneous fat, and was opened on November 13th.

CASE VI.—On November 16th the mother of these children developed a membranous tonsillitis.

CASE VII.—On November 21st the trained nurse in attendance developed symptoms of influenza. She was removed from the house at once, and on November 23rd had well-marked follicular tonsillitis.

At first I attributed these cases to influenza, but when the baby developed an abscess, streptococcus poisoning from drains was suspected. The drains were examined, and as many as seven escapes were found. The baby's abscess would appear to have been caused by washing in soft water obtained from a tank into which sewer gas freely escaped. It is possible that there may have been a combination of influenza and sewer gas in this series of cases.

REMARKS.

In these four houses the following diseases were apparently caused by exposure to sewer gas:

1. Pelvic cellulitis, 1 case.
2. Diphtheria (?), 1 case, not tested bacteriologically.
3. Follicular tonsillitis, 10 cases.
4. Otitis media, 5 cases.
5. Erysipelas, 1 case.
6. Pleuro-pneumonia, 1 case.
7. Lobar pneumonia, 1 case.
8. Poisoned thumb and septicæmia, 1 case.
9. Acute arthritis—rheumatism, 4 cases.
10. Acute nephritis, 1 case.
11. Gastro-enteritis, 1 case.
12. Abscess, 1 case.

1. *Pelvic cellulitis* is well known to arise from septic infection and every obstetrician knows the danger of confinements in badly drained houses.

2, 3. *Septic throats* are the commonest of all diseases due to sewer-gas. At one time I knew a boarding-house where follicular tonsillitis was constantly occurring in one of the dormitories, and most of the boys had chronic enlargement of the tonsils. An addition of 6 feet to a ventilating pipe near the window of this dormitory has entirely got rid of the occurrence of tonsillitis in this house.

4. *Otitis media* occurs as a sequela of tonsillitis and pharyngitis caused by sewer gas.

5. *Erysipelas* can be caused by the germs which are the septic agents in sewer gas, and in the case related these no doubt gained entrance through an abraded pimple.

6. *Pleuro-pneumonia.*—The case of pleuro-pneumonia appeared to be caused by the otorrhœa becoming septic from the introduction of sewer gas. In the absence of thrombosis of the lateral sinus it was thought that probably there was septic thrombosis of the petrosal sinuses. The scattered character of the pneumonia seemed to indicate an embolic origin.

8. *Septicæmia.*—This case was caused by the introduction of streptococci and staphylococci, which were obtained apparently from the case of erysipelas. It appears that the poison which in one person produces erysipelas, in another will produce septicæmia, and in another ordinary suppuration. This patient, G. H., for several days after infection seemed quite unable to produce pus; no pus formed until after the serum injections, and when the local abscesses did occur the dangerous symptoms subsided.

9. *Acute Arthritis or Rheumatism.*—Rheumatism appears to be a disease of doubtful origin. According to Fagge, the only well-recognised cause is getting wet or exposure to wet weather. The name has been applied to the cases of acute synovitis which follow scarlet fever, and also to those caused by the presence of the gonococcus in the joints. I have often thought that many of the cases of acute arthritis which go by the name of acute rheumatism are in reality cases of septic infection. It is possible that acute rheumatism is produced by the entrance of some germ into the body, which either gains entrance into the joints and there sets up a local inflammation, or which grows elsewhere—for example, in the tonsils and pharynx, and produces a toxin which causes the joint affection. The exposure to wet and cold may be merely the determining cause, as it so often is in an attack of influenza. One cannot help being struck by the similarity of the symptoms of acute rheumatism and septicæmia. In both we may get sore throat, fever, sweating, inflammation of joints, heart, veins, lungs, and serous membranes.

Dr. Newsholme, in his Milroy Lectures at the Royal College of Physicians in 1895,[1] on the Natural History and Affinities of Rheumatic Fever, stated that "Rheumatism is a specific febrile disease caused by the introduction from without and multiplication in the system of a pathogenic micro-organism." "With regard to the nature of the infecting micro-organism the evidence at present is incomplete and unsatisfactory." He stated that according to Dr. J. K. Fowler, "sore throat preceded 80 per cent. of the cases of rheumatic fever." If the infecting organism of rheumatism gains entrance through the tonsils and pharynx, it is exactly what happens in scarlet fever, which often is complicated with rheumatic symptoms.

As regards the incubation of acute rheumatism, Dr. Newsholme could not fix a period. The case of N. H., related above, may throw some light on this. The interval between the attacks of follicular tonsillitis and synovitis was 28 days. The onset of the synovitis, however, may have been determined by getting wet. Observations on the time of occurrence of rheumatism after the throat affection in scarlet fever may throw some light on this subject.

10. *Nephritis.*—In the BRITISH MEDICAL JOURNAL for 1888 Sir G. Johnson recorded several cases of albuminuria due to sewer gas poisoning.

11. *Gastro-enteritis* is often caused by streptococci, which appear to be the active agents in sewer gas.

REFERENCE.

1 *Lancet*, vol. i, pp. 589 and 657.

ON THE ACTION OF SOME ESSENTIAL OILS AND OTHER VOLATILE SUBSTANCES ON THE GROWTH OF THE BACILLUS TUBERCULOSIS AND IN THE TREATMENT OF PHTHISIS.*

BY WILLIAM MURRELL, M.D., F.R.C.P.,
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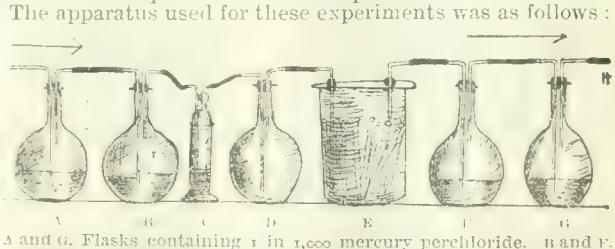
FOR some time past there has been a pretty general belief that certain essential oils when inhaled have the power of retarding the growth of the bacillus tuberculosis. The literature of the subject, although fairly copious, is inconclusive. As it seemed desirable to arrive at some definite result certain experiments were made, partly clinical and partly bacteriological. The two series were carried out simultaneously, and were spread over a period of about two years.

There are many essential oils, and two of them were selected as being typical of the group, the oil of cinnamon and the oil of peppermint.

All essential oils—from the high price they command—are liable to adulteration, but care was taken to obtain pure and reliable specimens. The services of an expert in this department were procured, and he selected two samples which he considered to be above suspicion.

The clinical observations were carried out on twenty patients suffering from phthisis, none of whom were confined to bed. Some were quite in an early stage, and some had cavities in either one or both lungs. In some cases the patients were made to inhale once or twice a day air impregnated with either oil of cinnamon or oil of peppermint, whilst in other cases the patient was given a supply of the material and instructed to inhale it almost constantly both night and day. A kind of "bib" was devised on which the oil was sprinkled, and this was worn suspended from the neck, so that the air taken into the lungs was constantly impregnated by the vapour. It would serve no useful purpose to give details of these cases, as the results were uniformly unfavourable, and after a trial extending over a period of six months the treatment had always to be abandoned in favour of some other method. The clinical results were undoubtedly a failure, and it was with some anxiety that the conclusions of the bacteriological investigations were awaited. These experiments were undertaken by Dr. Blaxall in the bacteriological laboratory of the Westminster Hospital Medical School, and the details of the method adopted will now be explained.

The apparatus used for these experiments was as follows:



A and G. Flasks containing 1 in 1,000 mercury perchloride. B and F. Flasks containing sterilised distilled water. C. Gas-washing bottle containing experimental fluid. D. Sterilised empty flask. E. Jar containing tubes inoculated with tubercle bacilli. The arrows indicate the direction of the current of air. H. Connection through wall of incubator with water pump.

*Towards the expenses of this research a grant was made by the British Medical Association on the recommendation of the Scientific Grants Committee of the Association.

A flask A, containing a 1 in 1,000 solution of perchloride of mercury, was fitted like a wash bottle—that is, with two pieces of glass tubing bent at right angles. The longer limb, the lower part of which was immersed in the fluid, communicated with the outside air. The shorter limb connected the flask with flask B, containing sterilised distilled water, fitted in the same way and connected by its shorter limb with a small gas washing bottle C, which held the fluid to be experimented with. This gas bottle again communicated with an empty sterilised glass bottle D, and this again with a large sterilised glass jar E, covered with an air-tight disc perforated with two holes, through which the ingress (opening at the bottom) and egress (opening at the top of the jar) tubes passed. One egress tube passed thence to a wash bottle containing sterilised distilled water F, similar to B, and thence to a wash bottle containing a solution of 1 in 1,000 perchloride of mercury G. The whole of this apparatus was contained in an incubator kept at 37° C. constantly. The egress tube from flask G was connected through a perforator in the incubator with a water pump. The water pump being set in motion, air would enter flask A, and be freed of its organisms in passing through the mercury solution, thence pass to flask B, where any possible splashings of the mercury solution would be taken up, and thence to the gas bottle C. Here the air would become impregnated with the volatile oil or chemical experimented with, and, passing on to the empty flask D, would leave there its superfluous moisture, and enter the jar E. The current of air would then pass through the wash bottles F and G, and thence to the water pump. The two flasks F and G were intended to act as a check to the outgoing of the volatile oil in the impregnated air, and also to prevent any return current of air from the water pump. Any leakage in the apparatus could at once be seen by the cessation of bubbling in one or more of the flasks.

The apparatus was used in this way: A dozen sterilised tubes, each of blood serum 6 per cent., glycerine agar-agar, and 6 per cent. glycerine beef broth were inoculated carefully from a recently-isolated culture on glycerine agar-agar of the B. tuberculosis. Two tubes each of these culture media thus inoculated were at once hermetically sealed with paraffin to serve as controls, and these tubes, with eight other tubes of each culture medium, were placed in the sterilised jar E. The remaining two tubes of each medium were capped with india-rubber caps and placed in a distant incubator, to serve as further controls. The aspirating apparatus was then started, the air bubbling through the liquid in the flasks and through the experimental fluid in the gas bottle D, so that through the jar E circulated a current of air permeated with the vapour of the experimental fluid. The jar E at this time contained eight tubes of each medium inoculated with a pure culture of tubercle bacillus, plugged only with their sterilised cotton-wool plugs, and two tubes of each medium similarly inoculated, but hermetically sealed with paraffin. After twenty-four hours the jar was disconnected, and under a sterilised cover the cotton-wool plugs from the eight tubes of each culture medium were expeditiously removed. The lid of the jar was then carefully resealed, the apparatus connected, and the aspiration restarted, so that now the eight tubes of each medium inoculated with tubercle bacilli were fully exposed to the influence of the experimental fluid. Forty-eight hours from this time the aspiration was stopped, the jar disconnected, and one tube of each culture medium carefully withdrawn under cover, plugged with sterilised cotton-wool, capped and placed in the distant incubator to await growth. The apparatus was then reconnected and the aspiration restarted, and after another 48 hours or 96 hours from the start, two tubes of each medium were withdrawn under the same conditions and placed in the distant incubator. The aspiration was then continued till the tenth day, when the apparatus was disconnected and all the tubes were withdrawn, plugged, and placed in the distant incubator, and with them those controls that had been hermetically sealed in the jar.

Here it may be stated that the hermetically sealed control tubes in the jar and the controls placed from the first in the distant incubator all grew well, so that no difference could be established between them either in vigour or in rapidity of growth. Hence hereafter it will be necessary only to speak of them jointly as the controls. The first experiment was made with the essential oil of cinnamon, a specimen of known and reliable quality. One ounce of this pure oil was placed in the gas bottle D, so that the current of air bubbled through it. In this experiment five of the tubes exposed to the circulating air became contaminated with moulds, and were therefore discarded. A fortnight after the date of inoculation of the tubes the growth of the organism of the different culture media was compared with that on the controls, and no retardation or want of vigour was noticed. Again at three weeks the comparison was made, and at four weeks. At this period all the tubes controls and exposed tubes showed a vigorous growth, and no differences could be established between one and another. From the fluid cultures subcultures were made, and after a month had elapsed both control tubes and the exposed tubes had given equally vigorous growths. The apparatus was then resterilised, and a fresh batch of tubes of each medium inoculated, and the experiment with the cinnamon oil repeated exactly as before.

In this second experiment only one tube became contaminated (by a mould), and the results were precisely the same as in the first experiment. The vapour of oil of cinnamon exerted no retarding or inhibitive influence on the growth of the tubercle bacillus. Here it may be stated that the whole apparatus smelt most strongly of cinnamon, and the exposed tubes were redolent of the oil for months afterwards.

The third experiment was conducted in precisely the same way except that the pure oil of peppermint was used. In this experiment only one tube became contaminated. The results were the same as in the previous experiments, all the inoculations growing well, and showing no signs of retardation or enfeeblement. Subcultures from the fluid cultures gave in every case successful results.

The fourth experiment was a repetition of this. In this case three tubes became contaminated with moulds, but in every other respect the results were the same as in the previous experiment. The essential oil of peppermint showed no deleterious influence on the growth of the tubercle bacillus. In this case also the smell of the oil was most intense, and clung to the exposed tubes for a very long period.

The essential oils having proved useless experiments were made in other directions, and after many failures formaldehyde, or formic aldehyde CH_2O, obtained by the oxidation of methyl alcohol, was adopted. A 40 per cent. aqueous solution was used, and it was found that the majority of patients could inhale a 1 in 16 spray of this solution without inconvenience. Bacteriological investigations were undertaken with a 6 per cent. solution of formaldehyde, and the results proved most satisfactory as regards its action on the bacillus tuberculosis.

A 6 per cent. solution was made up with sterilised distilled water, and an ounce of the solution placed in the gas bottle, so that the air bubbled freely through it. The experiment was conducted in precisely the same manner as the foregoing ones, with the exception that some of the tubes were inverted in the jar. The results were:

(*a*) That no contaminations occurred in any of the tubes.

(*b*) That all the controls grew well except in one agar-agar tube sealed with paraffin in the jar; in this case the plug had been forced out and loosened and no growth occurred.

(*c*) That neither the tubes kept under the influence of formaldehyde vapour for forty hours, for ninety-six hours, or for ten days showed any growth whatever.

(*d*) Subcultures were made from several tubes of the solid media and from all the tubes of fluid media; all of these failed with the exception of one glycerine beef-broth tube exposed for forty-eight hours, which, reinoculated on to blood serum, commenced after three weeks to grow feebly. This growth, however, did not progress, and subcultures made six weeks afterwards entirely failed.

After re-sterilisation of the apparatus, the next experiment was proceeded with, being a repetition of the previous one. In this instance no contaminations occurred in the tubes. An alteration was made in this experiment. Tubes were removed from the jar after two days' exposure to the formaldehised air, after four days, after six days, and after ten days. None of these tubes showed any growth up to six weeks from the date of inoculation, but after that date two tubes of 6 per cent. glycerine agar exposed for two days (or forty-eight hours)

commenced to grow; one developed a very meagre growth, the other a fairly vigorous growth, and both were subcultured with success. None of the other tubes showed any signs of development, and subcultures from them all failed with the exception of a 6 per cent. glycerine beef-broth tube, which, after exposure for forty-eight hours, was carried on successfully.

From these experiments it is seen that even a weak solution of formic aldehyde, such as 6 per cent., exerts a very marked retarding and inhibitive influence on the growth of tubercle bacilli inoculated on to favourable culture media, and that this influence prolonged over forty-eight hours entirely prevents the growth and future development of the bacilli.

In these experiments no attempt was made to estimate the amount of the volatile vapour in any given quantity of the circulating air at any given time. In the case of the formic aldehyde experiments, the irritating odour of formic aldehyde was most marked in the earlier stages of the aspiration, and diminished as the experiment neared conclusion. The possibility that the formaldehised air might condense on the under surface of the disc of the jar, and fall into the open test tubes, was obviated by inverting some of the tubes.

The clinical results of the formic-aldehyde treatment are quite in accord with the results of the bacteriological observations. A 6 per cent. solution was as a rule employed, but this was increased or decreased according to the idiosyncrasy of the patient. In most cases the drug was inhaled either once or twice a day, compressed air by a simple mechanical arrangement being made to bubble through the solution. This gave the best results. In other cases, in hospital practice especially, the "bib" method was employed.

The drug in many cases caused irritation at the back of the throat, and sometimes induced violent paroxysms of cough. Twenty cases of phthisis were treated by formic aldehyde, and in six of them the results were inconclusive, either because the patient was lost sight of or because other methods were resorted to in addition. For example, in 3 cases injections of Tuberculin R were given, and these had to be discarded. In the remaining 14 cases nothing but the formic aldehyde was administered, with the exception of an occasional pill of $\frac{1}{60}$ grain of picrotoxin to check the night-sweating. Of the 14 cases, 12 were much benefited, whilst 2 only slightly improved. Both the unsuccessful cases were men, and both presented the physical signs of cavities or of extensive breaking down on both sides. Of the 12 successful cases, all of which were much improved, 5 were men and 7 were women. Of the 5 men 3 had cavities at both apices, and the other 2 had marked signs of consolidation at the left apex. Of the 7 women 3 had breaking down of both lungs, and 4 had consolidation of one lung only. One man and one woman had, in addition to the lung symptoms, tuberculous ulceration of the larynx. Some of these patients had previously had inhalations of oil of cinnamon or oil of peppermint without benefit. It is impossible to record all these cases in detail, but a brief outline is given of a few typical instances.

CASE I.—Mr. M., aged 46, was first seen on November 25th, 1896. His family history was a bad one. He had had a cough with expectoration for some months, was rapidly losing flesh, and had profuse night sweats. His evening temperature ranged from 100.5° to 102°. At the left apex in front was bronchial breathing with abundant moist *râles*. Specimens of the expectoration were submitted to Dr. Blaxall, who reported: "Both specimens contain tubercle bacilli. The bacilli are very slender and in clumps and fairly numerous. I should consider it to be an early case rather fiercely attacked, and should imagine that the prognosis was very unfavourable." The patient was placed on the formic-aldehyde treatment and had an inhalation almost daily until the end of February. The expectoration was examined twice a week, but the bacilli, although fewer in number, were always present. The patient's condition speedily improved, the night sweating ceased; he gained in weight, and in March, 1897, was free from cough and expectoration. A corresponding improvement took place in the physical signs in the chest. He has been seen from time to time during the last eighteen months and carefully examined. The whole condition is now perfectly quiescent and he is apparently in perfect health and is able to do his work and enjoy life. He lives in England and has not found it necessary to winter abroad. The notable point about the case is that as long as there was any expectoration it contained bacilli.

CASE II.—L. B., aged 25, married, came to the hospital on January 25th, 1898. She had had a cough for six months. The expectoration was thick and yellow, and was found by Mr. W. J. Quicke to contain the bacillus of tubercle in abundance. She had had no hæmoptysis, but had been losing flesh rapidly, and weighed only 6st. 13lbs. At the left apex there was deficient movement, with well-marked dulness, bronchial breathing, and moist sounds. She was placed on general treatment, with cod-liver oil, but continued to lose flesh. On July 8th she was given a 10 per cent. solution of formic aldehyde, and told to inhale it freely from a piece of lint both night and day. On this she rapidly improved, and on August 30th the strength of the formic-aldehyde solution was doubled. During a portion of this time she was still taking the cod-liver oil. On September 13th the physical signs were dulness at the left apex, with bronchial breathing, and few moist sounds. The expectoration, which was slight, still contained bacilli, but in much smaller numbers. The patient's general condition had, however, markedly improved, and she had gained 7 lbs. in weight. On November 22nd she was seen again, and was found to have still further improved. This is a less striking case than the last, but there was no doubt that the patient derived considerable benefit from the treatment.

CASE III.—Mrs. B., aged 26, a housekeeper, was first seen on May 24th, 1898. She had had a bad cough with expectoration for six months, and had been rapidly losing flesh. For one month her voice had been very husky, and towards the end of the day she was practically inaudible. Her expectoration contained bacilli in large numbers. She had cavernous breathing at the left apex with large bubbling rhonchus, and there was also crepitation scattered all over the right back. My colleague, Mr. P. de Santi, examined her larynx, and reported that the left vocal cord was stationary, probably due to infiltration of tuberculous matter. Active treatment was not commenced at once, but on May 31st she was given a 4 per cent. solution of formic aldehyde, and told to place 5 drops on lint every four hours and inhale it. This quantity after the first week was increased, and by the use of the "bib" the treatment was kept up practically night and day. On June 21st the moist sounds at the apex had almost disappeared, and Mr. de Santi reported that the cords were less infiltrated and much more movable. Her voice and general condition had much improved, and she had gained 3 pounds in weight. The treatment was kept up steadily until September 13th, when Mr. W. J. Quicke examined her chest, and reported that there was no crepitation at the left apex, but just an occasional *râle* at the right posteriorly, "but doubtful and not with every respiration." Mr. de Santi's report on the same day was as follows: "Swelling of epiglottis, which at last examination was infiltrated and thickened, entirely gone. Cords quite free: only a slight hyperæmia before uniform redness. Swelling over arytenoids entirely disappeared. Pallor of palate much less. Phonation good." The patient had increased in weight, she looked well, and was able to do a good day's work. A week later she was seen by Dr. Lemare Bunch, the British Medical Association Research Scholar, who considered that she was a good example of a case of arrested phthisis. On November 17th she reported that she had gained another 4 pounds in weight, and was practically free from cough. She still continues well, and is able to do a full day's work.

CASE IV.—The next case is that of an English physician long resident in the south of Europe. For obvious reasons it is not desirable to disclose his identity or his exact place of abode. He came to see me first on June 27th, 1898, and gave the following history. He had resided out of England for twenty years, and had not been home for fifteen years. He had malaria in February, 1884, and had suffered from it more or less at intervals ever since. He had an attack of influenza in March, 1892, and this left a chronic cough, but there were no definite lung symptoms until November last. Since then the cough had increased in severity and had come on in paroxysms, especially on exertion such as going upstairs or walking uphill. It was attended with much mucopurulent expectoration. The other symptoms were progressive loss of flesh and profuse night sweating. There was almost complete anorexia, and the patient stated that he loathed the sight of food. When first seen he was obviously very ill; he could hardly walk; he was panting for breath, and his voice was little more than a whisper. On examining the chest it was found that there was scattered crepitation all over both lungs, heard back and front, slight but perfectly distinct. There was very little dulness, and there were no indications of a cavity. The expectoration was examined by Dr. Blaxall, who found pus cells and tubercle bacilli in abundance. Mr. de Santi examined the larynx and reported that the cords were congested, but that there was no ulceration. The epiglottis and interarytenoid space were free, and there was some swelling of the mucosa over the arytenoids. The patient was placed on daily inhalations of formaldehyde, and in three weeks had greatly improved both as regards cough and general condition. On July 25th the crepitation was less and the sputum was less viscid and contained fewer bacilli.

At the end of July he went to Cornwall, taking a supply of the formic aldehyde with him. There he made rapid progress and put on flesh. His appetite was restored and the cough ceased to trouble him at night. His dyspnœa was much less, and he was able to walk a couple of miles or more on the level without feeling tired. On September 14th he was seen again, and Mr. de Santi made the following report: "Cords almost uniformly white, otherwise no difference. Voice much stronger; can now produce his usual singing notes, except the highest range." The crepitation had now entirely disappeared. On September 23rd Dr. Blaxall found a few tubercle bacilli, less than formerly. On October 9th the patient wrote: "The chief points of improvement are (1) a gain of weight of 22 lbs. and (2) a great diminution of cough and expectoration. I can now mount stairs with comparative comfort and ease." He has since returned home and has resumed active practice.

My belief is that the best way of treating tuberculous phthisis is to obtain the bacilli from the expectoration, cultivate them, pass over them various volatile substances until one is found which will arrest their growth, and then administer it by inhalation to the patient. This by no means precludes the use of fatty foods and other substances, such as cod-liver oil.

THE SALE OF COCAINE IN THE UNITED STATES.—Ordinances have recently been made in Austin, Texas, and in New Orleans, Louisiana, prohibiting the sale or the giving of cocaine to any person, except by a duly authorised physician, or upon a physician's order; provision is also made for a fine of from 10 dols. to 100 dols. for infringement of the law in Austin, and for a similar fine or imprisonment, or both, in New Orleans.

URIC ACID AND GOUT: SOME POINTS IN THE PHYSIOLOGY OF URIC ACID.

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It has long been known that the part which uric acid plays in disease is highly important, but its exact nature still lacks definition. The relationship which it bears to the various manifestations of acute and chronic gout and other disordered states of metabolism will not be definitely known until we have a fuller knowledge of the part played by it under normal conditions, and of its seat of formation in health. A good deal has of late years been written on this subject, both by physiologists and physicians, but a marked diversity of opinion still exists regarding this fundamental point. As I have for the past year been engaged in an investigation on the seat of formation of uric acid in health, and have obtained results at variance with views lately expressed by some medical writers on this subject, I propose to give a short account of my work and the conclusions derived from it. The investigation consisted in the examination of the blood of birds and that of a snake; also the viscera of birds, snakes, and various mammals.

The main by-product of nitrogenous metabolism in man and mammals is urea, in birds and reptiles uric acid; but in the mammal a small quantity of uric acid is also excreted, the daily amount in man being half a gram. If we bear in mind that it is by no means easy to prepare urea from the blood of mammals, even although the amount of that substance excreted daily is about sixty times greater than that of uric acid, it is not surprising that great difficulty has been experienced in recognising the presence of the latter in the blood of a mammal. For a fuller investigation of the subject we must have recourse to an examination of the blood and viscera of birds and reptiles whose main nitrogenous by-product is uric acid. Here again, however, we must bear in mind that even although uric acid be present in relatively large amount in the urinary excretion, it would not be surprising if the amount present in the blood at a single examination were very small. This is in accordance with the results of previous observers.

Seat of Formation of Uric Acid.

Before passing to a description of investigations it may be advisable to give a short summary of the main views entertained regarding the seat of formation of the substance under discussion. The organs which have been so regarded are: (1) The liver; (2) the kidneys; (3) the spleen, thymus, and other nuclear-holding tissues.

Although it has been customary to speak of the mode of formation of uric acid in birds as distinct from that in mammals, it is not unlikely that there are seats of formation common to both. The largest amount of fruitful work on the subject has been done in the case of birds, owing to the fact that, as more is excreted by them, one expects also a greater formation, although this conclusion is not a necessary one.

The Liver as the Seat of Formation.—With regard to the views held in support of the theory that the liver is the principal seat of production, the work on which these views were based has been carried out mainly on birds. Meissner[1] found a larger quantity of uric acid in the liver than in any other organ, and concluded that this organ was the principal seat of its formation. Minkowski[2] corroborated this conclusion. He found on removing the liver from the circulation of geese, that amido-acids were no longer transformed into uric acid, and the nitrogen appeared in the urine mainly in the form of salts of ammonia. He considered that this splitting off of ammonia always occurred as a precursor of the formation of uric acid. Schroeder,[3] in an important series of observations, showed that in birds and snakes uric acid could be formed outside the kidney. He and other observers, notably Knierien, Cech, Salkowski, and Jaffé, showed that amido-acids, urea, and carbonate of ammonia were transformed in the fowl into uric acid. Schroeder also estimated the amount of the acid present in the different organs, and, finding that the liver contained the largest amount, agreed with Meissner that it is the organ mainly concerned in its formation. Scherer, Cloetta, Grübler, and v. Gorup also recognised its presence in the liver and other organs. The methods employed in their researches were, however, not free from fallacy.

The Kidney as the Possible Seat of Formation.—Zalesky, in 1866, performed certain experiments on hens, geese, and serpents. He first tried the ureters of hens and geese, and found that uric acid was deposited in the tissues. He then removed the kidneys from serpents, and, finding that no uric acid was deposited, concluded that the kidney was the seat of formation. This view, however, was soon contradicted by, among others, Meissner and Chrzonszczewsky. Kolisch,[4] among the more recent workers, also regards the kidneys as the most important of the uric acid-forming organs. He considers that nuclein bases are there transformed into uric acid. No evidence of any weight has been brought forward in support of this view, and his statement that in cases of parenchymatous nephritis the nuclein bases are increased whilst the uric acid is diminished has been shown by numerous observers to be erroneous. Abeles[6] was unable to obtain any production of uric acid by an artificial circulation of its probable precursors through the kidneys. Sir A. Garrod[7] supports the view that uric acid is mainly produced in the kidney because he failed to find uric acid in the blood of birds. Dr. Luff[8] also expresses the opinion that the kidney is the sole seat of formation of uric acid in health. His opinion, like that of Garrod, is based mainly on the assumption that uric acid is normally absent from the blood of birds and mammals.

The Spleen and other Tissues as Probable Seats of Formation.—Numerous observers—notably Scherer, Cloetta, Messner, Grübler, and v. Gorup—have shown that uric acid is present in the lungs, brain, pancreas, blood, and various pathological fluids. In all these cases the identity of the substance was established by its precipitation out of hydrochloric acid solution and the application of the murexide test to the deposit. It was not, however, until Horbaczewski[9] showed that the acid could be formed from nuclein-holding tissues, that great attention was directed to other parts as the probable seat of its formation. He showed that uric acid could be formed by allowing blood to digest with splenic tissue under conditions admitting of free oxidation. Similar results were obtained by digesting nuclein and nucleic acid under the same conditions. The work which led up to Horbaczewski's experiments was that of Kossel and his pupils, who showed the intimate connection between the nucleins and those bases that possess the same alloxan nucleus as uric acid—namely, the alloxur or nuclein bases. In view of Horbaczewski's experiments, it is very surprising that Stadthagen[10] failed to find uric acid either in the normal or leucocythæmic spleen: although in both cases, but especially in the latter, a very large amount of alloxur bases were present. Bockendahl and Landwehr corroborated Stadthagen's statement as to the absence of uric acid from the spleen in leucocythæmia. Scherer[11] is in fact the only investigator who has obtained it from this organ in that disease. I may here add, although I shall refer to it in a later paper, that I also have found uric acid in the leucocythæmic spleen, and that in appreciable quantity.

From the foregoing it is evident that our knowledge of the true seat of formation of uric acid is as yet very uncertain. There is still a marked difference of opinion on such a fundamental point as the existence of uric acid even in the blood of birds and reptiles, while of course still greater doubt exists as to its presence in mammalian blood and tissues. That being so, it seemed advisable to repeat some of the observations previously made, using the more modern methods of examination. I have accordingly examined the blood of birds, a snake, and mammals, and thereafter the viscera of these animals in the manner described.

Examination of the Blood.

The defibrinated blood was obtained fresh and examined as follows: The albumen was first removed by diluting the blood with seven to eight times its volume of water, heating to boiling point, acidifying with a few drops of acetic acid, filtering, and finally extracting the coagulum with boiling water. A clear filtrate was obtained and evaporated to dryness, at first on the open flame, and then on the water bath. The residue was then extracted with a large quantity of boiling water and filtered. The phosphates in the solution

were precipitated by ammonia and magnesia mixture, and removed by filtration. Silver nitrate solution (30 grams to a litre) was then added until no more precipitate appeared, care being taken that the mixture was strongly ammoniacal. This was then set aside in a dark place for an hour or more, and thereafter filtered by means of a suction pump, the precipitate being washed free from chlorine by the use of weak ammoniacal solution. The magnesium silver urate was then decomposed by passing through it a stream of H_2S in acid solution. The fluid was now brought to boiling point and filtered. The clear filtrate thus obtained was evaporated down to about 5 c.cm., at first on the open flame and finally on the water bath. A few drops of hydrochloric acid were then added, and the fluid set aside for twenty-four hours to allow the uric acid to crystallise out. The following tests were then applied for the determination, qualitatively and quantitatively, of the acid.

1. The deposit was submitted to microscopic examination.
2. The murexide test was applied, after purification.
3. The sediment, when weighable, was collected on a filter paper previously dried and weighed, and the total weight ascertained.
4. The nitrogen in the deposit was estimated by Kjehldahl's method and expressed in terms of uric acid. This served as a valuable check on the weight previously recorded, and indicated whether the substance in question was practically pure uric acid or not.

A point of importance has to be noted in the above application of the murexide test. If the sediment has not previously been washed chlorine free this test is fallacious, as it is so easily confused with Weidel's xanthin reaction. In every case, therefore, the deposit was washed chlorine free and the amount of wash water measured, 10 c.cm. being estimated as equivalent to 0.5 mg. uric acid.

I here tabulate the results obtained from the examination of the blood of birds and other animals.

Birds.

			Total Uric Acid.	Percentage.
Obs. 1	Duck	1,750 c.cm.	0.0352 gram.	or 0.0020 gram.
,, 2	Goose	1,650 ,,	0.0428 ,,	or 0.0225 ,,
,, 3	Turkey	1,500 ,,	0.0328 ,,	or 0.0021 ,,

Note.—50 c.cm. of duck's blood were also examined and gave a positive result as regards the presence of uric acid. The sediment obtained was exceedingly scanty, but showed microscopically a few lozenge-shaped and rhombic crystals, which gave a distinct murexide reaction. No further examination was available.

Snake.

4. Blood and Heart.—On account of the very small quantity of blood present in the snake, it was considered advisable to remove the heart and large vessels with the contained blood and examine as a whole. A very fine deposit was obtained, which gave a distinct murexide reaction. The amount, calculated from the nitrogen obtained was 0.0031 gram, including 0.6 mg. from the wash water used.

Mammals.

5.	Lamb	1,100 c.cm.	A distinct though delicate murexide reaction was obtained.
6.	Dog	500 ,,	No trace of uric acid was obtained from this examination.

EXAMINATION OF THE ORGANS OF BIRDS AND MAMMALS.

The liver, kidney, and spleen of various birds and other animals were then examined. The details of the method of examination are as follows: Each organ was finely minced and weighed, and a small quantity taken for the estimation of the water percentage. The uric acid was extracted by the addition of a large quantity of boiling water, the whole being brought to boiling point and a few drops of acetic acid added to ensure complete coagulation of the albumen. The contents were filtered, the filtrate being then evaporated down almost to dryness, at first on the open flame, and later on the water bath. The residue was extracted with a large quantity of boiling water and filtered. Thereafter the procedure was as already described for the examination of the blood. The following is a note of the observations made, the weights recorded representing the amount present in the organs, water free.

Birds.

				Total H_2U.	Percentage.
			Grams.	Gram.	Gram.
Obs. 1	Turkey	Liver	34.0	0.0230	or 0.0676
		Kidney	6.7	0.0122	
		Spleen	0.6	None	
,, 2	Turkey	Liver	43.0[1]	0.0702	or 0.1628
		Kidney	3.5	0.0026	
		Spleen	0.6	None	
,, 3	Duck	Liver	28.0	0.0180	0.0642
		Kidney	2.5	0.0025	—
,, 4	Hen	Liver	16.5	0.0101	0.0612
,, 5	Hen	Liver	12.8	0.0196	—
		Spleen	1.1	None	—

[1] The 43 grams above stated include 9 grams of hen's liver received along with the turkey's viscera.

Snake.

				Total H_2U.	Percentage.
			Grams.	Gram.	Gram.
Obs. 6	Snake	Liver	8.5	0.0066	—
		Kidney	2.8	0.0031	—
		Spleen	—	None	—
		Lung	—	,,	—
		Intestine with its contents	—	0.0375	—

Note.—At one stage of the examination of the intestine rather more than half the total fluid was inadvertently lost. The large quantity of uric acid present in the remainder was striking.

Mammals.

				Total H_2U.	Percentage.
			Grams.	Gram.	Gram.
Obs. 7	Sheep	Liver	173.0	0.0227	or 0.0131
		Kidneys	23.0	None	—
		Spleen	14.0	Mere traces	—
,, 8	Sheep	Liver	206.0	0.0209	or 0.0101
		Kidneys	12.0	None	—
,, 9	Calf	Liver	656.0	0.0467	0.0071
		Kidneys	65.0	None	—
		Spleen	51.0	0.0110	0.0215
,, 10	Calf	Kidneys	78.0	0.0045	0.0057
		Spleen	72.0	0.0115	0.0159
,, 11[1]	Dog	—	—	—	—
,, 12	Rabbit	Kidneys	3.7	None	—

[1] The liver, kidneys, spleen were examined, and revealed no trace of uric acid.

The results of these investigations may now be summarised:

BIRDS.—Uric acid was found in the blood, liver, and kidneys. The absolute amount was greater in the liver than in the kidney.

SNAKE.—Uric acid was found in the heart which contained a relatively large amount of blood, liver, kidneys, and intestinal contents, the absolute amount being greater in the liver than in the kidney. A relatively large amount was found in the intestinal contents.

MAMMALS.—A. *Dog and Rabbit.*—In the dog the blood, liver, kidneys, and spleen contained no uric acid. A similar result was found with the kidneys of a rabbit.

B. *Sheep and Calf.*—Mere traces of uric acid were found in the blood of a lamb.

With regard to the viscera of these animals three points have to be noted:

1. The absolute amount in the liver was greater than that in the other organs.
2. The kidneys contained less than the spleen, both as regards absolute amount and percentage.
3. The spleen seemed to contain a higher percentage than the other two organs.

CONCLUSIONS.

It is not my intention to draw from these results any conclusions as to the seat of formation of uric acid. I propose to continue the investigation, and meanwhile avoid making any

theoretical deductions from the results already obtained. I have satisfied myself, however, as to the following two points:

1. That uric acid is present in the blood of birds.

2. That as far as my observations go, there is no evidence in support of the view advanced by Garrod and Luff that the kidney is the main seat of formation of uric acid.

In conclusion I must in the first place express my indebtedness to Professor Rutherford for allowing the research to be carried out in his laboratory, and for valuable suggestions in connection with it. I have further to express my special indebtedness to his assistant, Dr. T. H. Milroy, for much valuable assistance throughout the whole investigation. I am also indebted to Dr. Selby, Wigtonshire, for the large quantities of blood examined, and to Professor Mettam, Veterinary College, for kindly giving me the viscera of the snake. The expenses incurred in the investigation were covered by a grant received from the Moray Research Fund of this University.

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ON BELLADONNA IN THE TREATMENT OF BRONCHO-PNEUMONIA IN CHILDREN.*

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I WILL preface what I have to say by stating that I hold to the prevalent belief that there is an essential difference between croupous pneumonia and broncho-pneumonia in children. Cases, it is true, are not uncommon in which, judging from the physical signs alone, there may be extreme difficulty at the outset in determining to which class, croupous or catarrhal, they rightly belong. This difficulty doubtless arises from the fact that a well-defined patch of croupous pneumonia in young children is apt to be accompanied by small patches of collapse, and subsequent consolidation, in the immediately surrounding pulmonary tissues. Here the signs of broncho-pneumonia may complicate, or follow upon, those belonging to a case essentially of the croupous form at the outset of the illness. The course or termination of the attack, in the vast majority of instances, generally helps to clear up any hesitation in deciding as to the variety to which they mainly belong. Apart from such doubtful, or rather mixed, cases, however, in which there may be temporary room for doubt in classification, there is a vast majority of typical cases in each section, in which the initial symptoms, the course of the complaint, the parts of the lungs affected, the physical signs, the termination, and sequelæ are sufficiently distinct to differentiate sharply between them.

For these reasons I am not inclined to agree with some views recently put forward as to the identity of the two complaints in children. These views, too, are mainly founded on bacteriological grounds, and, in my opinion, the bacteriology of either form is not as yet sufficiently established to upset the prevalent belief in the distinctive character of the two complaints. As furnishing one criterion between them, I might appeal to the totally differing mortalities in the two forms of the complaint. At the Shadwell Children's Hospital, even with weakly East End children, a mortality of 10 per cent. would be above the mark in cases diagnosed as croupous pneumonia. In contrast with this, in cases diagnosed as broncho-pneumonia the mortality has generally, in children under the age of 2 years at least, ranged from 60 to 80 per cent. This increased mortality, if it establishes nothing else, sufficiently demonstrates the greater gravity of cases diagnosed by several observers as broncho-pneumonia over those diagnosed by the same set of observers as belonging to the croupous form.

There is a wide difference, too, in the treatment of the two complaints. In the majority of cases of croupous pneumonia all that is needed is careful nursing and feeding, any active interference on the part of the physician being seldom called for. On the other hand, in the majority of cases of catarrhal pneumonia every remedy that experience or ingenuity could suggest has been invoked. Foremost among these have been such measures as steam tents, inhalations of oxygen heated over steam coils or given cold, injections of strychnine, alcohol in large doses and other drug stimulants, dry cupping, leeching, and emetics. With such active treatment, doubtless many a life has been saved. But in spite of all these, coupled with the most devoted attention of the nursing and resident medical staffs, our mortality in broncho-pneumonia remained appallingly high. Any remedy that would serve to diminish this mortality deserves consideration. Such a remedy we think at present we have found at Shadwell, in somewhat large doses of belladonna.

It is known, although I believe not as widely or generally as its importance deserves, that cases of that very fatal sequela of diphtheria—paralysis of the diaphragm—can often be cured by pushing belladonna or atropine to their full physiological limits. Since using belladonna or atropine in full doses a large proportion of such cases have recovered. For the knowledge of this property of belladonna I am indebted to several members of the staff of the Great Ormond Street Hospital. From no one, however, could I gain any satisfactory explanation as to how the drug acted. The only one afforded me was that belladonna in some way stimulated the respiratory centre, and so the effect of the diaphragmatic palsy was counteracted by over-exertion on the part of the other respiratory muscles.

To me, I confess, such an explanation was far from a convincing one. I could not conceive any drug acting continuously as a stimulant on the respiratory centre for the three or four days during which the greater stress of the palsy lasts, without there being corresponding times when this hyper-stimulation would be replaced by depression and its attendant evils. Whilst, then, accepting the fact of the beneficial action of belladonna in palsy of the diaphragm, I was compelled to leave any explanation of its mode of action to the unsatisfactory region of the empirical.

About a year ago, however, renewed attention was called, I think by Dr. Ringer, to the marked effect atropine had in limiting or diminishing secretion into the bronchial tubes and pulmonary tissues. It was pointed out that numerous patients recovered from the immediate effects of an operation, merely to die in three or four days choked by the undue effusion into the bronchial tubes, induced by the action of the ether or other anæsthetic used at the time of operation. For the prevention of this water-logging of the lungs from the anæsthetic it was proposed that patients for several days after operation should be treated with atropine or belladonna. Such a practice is, I believe, carried out in a routine manner in at least one large London hospital.

This view of the action of belladonna seemed to me to furnish the explanation wanted of its beneficial action in diphtherial paralysis of the diaphragm. Belladonna, I would suggest, has no direct influence on the course of such paralysis, it merely prevents or diminishes the secondary pulmonary effects consequent on it, and so staves off an impending asphyxia. In this view of its action, too, the routine treatment of diphtherial paralysis with belladonna, practised by some eminent specialists, and doubtless founded on experience gained from cases of paralysis of the diaphragm, to my mind is illogical and likely to be futile, unless the last named grave complication is present or threatening.

For reasons based on the above conclusions I determined to give belladonna a trial in the treatment of broncho-pneumonia in children. If the drug possessed the powers ascribed to it, then it seemed to me that in broncho-pneumonia, with its free secretion into the bronchial tubes and pulmonary tissues, just such conditions obtained as the drug would control and counteract. So far it has more than answered all that I could have hoped for. With it as the sole drug administered there has been in my cases no need for steam tents, oxygen inhala-

* Read before the West Kent Branch of the British Medical Association, at Gravesend.

tions, unlimited stimulations, dry cupping, and all the rest of the former varied and trying treatment.

Out of several dozen cases treated with belladonna Dr. Shardlow, our resident medical officer, tells me he can only recollect a couple of deaths. Case after case of the complaint in young infants, in the majority of whom with the former treatment one would have anticipated a fatal termination, has, seemingly owing to belladonna, made a rapid and complete recovery. Sisters in the wards, with a vivid recollection of former methods and their discouraging results, entertain no doubt of the superiority of the later treatment. My colleague, Dr. Eustace Smith, too, is convinced on the same point, and is much struck with the rapidity with which all the symptoms clear up when belladonna is pushed. The same opinion is held by all the resident medical staff as well, and they have, I believe, now come to regard the drug as almost a specific in the complaint. In two cases in private practice lately, when I was called in, the doctors in attendance had already given a practically hopeless prognosis. Both were cases of severe broncho-pneumonia following measles, a complication admittedly grave. In the light of my early experience of such cases I would have inclined to agree with the prognosis already given in each of these cases. More recent experience, however, with belladonna enabled me to modify the prognosis, and both infants did me credit by making a rapid and thorough recovery under that drug.

So far, then, as regards mortality, my experience with the drug is everything that is favourable. I only wish that I could look with any certainty to future experience confirming these happy impressions in so grave a malady as broncho-pneumonia in children. But in the remarkably small death-rate in my cases at present, I cannot but feel I have been largely favoured by chance. If it were possible wholly to eradicate the complaint by any method of treatment, yet the state of depression remaining after so severe a malady as broncho-pneumonia must result in the deaths of many children. Still, if the death-rate were many times greater with the belladonna treatment than it has proved up to the present in my experience, even then I would claim a distinct advantage for it over any other treatment that I am acquainted with. Dr. Shardlow and Mr. Elwin Nash, our present house-physician, propose publishing a joint paper, giving details and statistics of cases treated with and without belladonna at the end of the present year. Such a paper should prove of value and interest, whether it confirm or refute my present impressions.

It is not only with regard to the mortality, moreover, that my experience with belladonna in broncho-pneumonia is such a favourable one. A very few doses in most cases have relieved the dyspnœa. In a large number, perhaps the majority, the temperature has fallen to normal very soon after the commencement of the treatment. Cases, too, that with former methods might have been expected to run a course of several weeks' duration have, with belladonna treatment, lasted only a corresponding number of days. Other advantages seemingly gained might perhaps be enumerated, but I think sufficient have been adduced in justification of the trial of the drug.

There is of course nothing novel in the treatment. Doubtless many, if not most, of us have used belladonna in various chest complaints in infants and young children. To what then, you may ask, do I attribute my more favourable results over those of others who may have formerly used the drug for the same complaint? The answer perhaps lies in the fact that I have used the drug in larger quantities than usually prescribed, and also, perhaps, a more reliable preparation. The tincture of the late *Pharmacopœia*, the preparation usually prescribed, is now admittedly a most unreliable one. That of the new *Pharmacopœia*, made from a standardised liquid extract, will doubtless prove all that is desirable, but I have as yet never tried it. The preparation I have used is the extract of the late *Pharmacopœia*. This, I am told, is far from being above suspicion as regards certainty of composition, but in this respect far more trustworthy than its corresponding tincture. This extract I have given in doses of $\frac{1}{4}$ gr. every three or four hours. I have made no distinction, too, in the dose as regards the age of the patient, and have given the same dose to an infant a few weeks old as to a child of 6 or 7 years.

The disadvantages attaching to these somewhat large doses have been singularly slight and unimportant. Out of perhaps 50 or 60 cases in two there has been slight delirium, which was easily cured by lessening the dose. In a large majority, however, there has been some flushing of the skin, and in some a definite scarlet rash. This flushing, somewhat to my surprise, has been more frequent than noticeable dilatation of the pupils. The sisters in the wards, too, tell me that they have noticed that children under the influence of the drug are unduly irritable and restless. Some of this last may, however, be ascribable to the condition left on recovery from acute disease. But were the disadvantages infinitely greater than those described, I still think they might fairly be neglected in comparison with the advantages seemingly gained from the use of the drug.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE CONTROL OF HÆMORRHAGE IN OPERATIONS FOR THE REMOVAL OF LABIAL ELEPHANTIASIS.

CAPTAIN J. B. SMITH, M.B., of the Indian Medical Service, has recorded in the BRITISH MEDICAL JOURNAL of January 21st, p. 148, a case of removal of elephantiasis of the vulva weighing 5 or 6 lbs., in which, after making an incision which bled alarmingly, he resorted to the expedient of passing ligatures through the neck of the tumour, which secured it in sections; these were divided successively, and the vessels of each section were tied before the next was cut through. In this manner the removal of the mass was accomplished without much loss of blood. I have on several occasions adopted this expedient with satisfactory results. In the *Indian Medical Gazette* (vol. xvi for 1881, p. 154) I published a case of labial elephantiasis in which "bleeding was prevented by preliminary ligature of the pedicle with whipcord." The tumour weighed 7 lb. 10 oz., and the patient made a good recovery. In another case (vol. xviii for 1883, p. 151) the base of the tumour, weighing 3 lb. 4 oz., was "tightly ligatured with whipcord passed through it by means of a hernia needle," result recovery. Two other successful cases, in which the tumours weighed 6 lb. 4 oz. and 3 lb. 4½ oz. are recorded in the same journal (vol. xviii, *loc. cit.*, and vol. xix for 1884, p. 105). These cases are quoted in a work on *Operative Surgery in the Calcutta Medical College*, which I published in 1885 (J. and A. Churchill). I found the method effective enough but it took some time to pass, and tie the ligatures and the removal of the tumour had to be done somewhat awkwardly, tediously, and roughly. A much more satisfactory and efficient method of controlling hæmorrhage in these cases is the use of the elastic cord as for removal of scrotal elephantiasis as originally described by me in the *Indian Medical Gazette*, vol. xvii for 1882, p. 284, and subsequently detailed in Heath's *Dictionary of Surgery* (article—Scrotal Elephantiasis) and in the work above referred to (p. 136). The application of this plan to labial operations was suggested to me by my colleague, Colonel D. O'C. Raye, M.D., then Professor of Anatomy in Calcutta Medical College. The success of the expedient is well illustrated by the following case quoted from the *Indian Medical Gazette* (vol. xxv for 1890, p. 169):

"Hindu female, aged 26. Large pendulous tumour of left labium reaching to the knee, ulcerated at fundus. The elastic cord was applied as in scrotal tumours and the mass removed; edges of wound stitched together after the vessels had been tied. Tumour weighed 14 lbs. Recovery in twenty days."

The advantages of this method of controlling hæmorrhage in operations on the male and female genitals, and it is applicable to all operations, are:

1. The facility and speed of application.
2. The absolute prevention of bleeding.
3. The absence of displacement or distortion of parts, and great freedom of working.
4. The gradual relaxation of pressure.
5. The possibility of accurate and deliberate dissection, and

ease of identifying and saving such organs as the penis, testes, and clitoris.

Netley. K. MACLEOD, M.D., LL.D., Colonel I.M.S., retired.

A CASE OF ACUTE SULPHONAL POISONING.

SULPHONAL is not quite such a perfectly harmless remedy as the profession and public seem to think. Since the annual meeting in Edinburgh many cases of toxic symptoms, some of which proved fatal, have been recorded, chiefly from asylums and cases in which the drug had been administered frequently or continuously for weeks or months. Instances of toxic effects from comparatively small doses are much less frequent, Murrell gives two instances of death from 30 and 40 gr. respectively. The following case speaks for itself.

Mrs. X., aged 28, had for some days been excited and hysterical from domestic quarrels, and had been taking potassium bromide with no effect. She came to me on December 15th, 1898, praying for something to give her a night's rest. I gave her 20 grains of sulphonal, to be taken at night in hot spirit and water. This gave her a good night's rest, but she still felt irritable and excitable on the following day, and at night she could not sleep, so a lady in the house gave her 15 gr. more of sulphonal that night. She again slept well, but the next morning she was ataxic and reeled about, and had headache and tinnitus aurium. At 2 P.M. she suddenly said she felt she was dying, and became cyanosed. I saw her at 2.30 P.M. She was then livid, the face most so, but also the body generally. She could not speak; she had fainted, and had vomited two or three times. There was no dyspnœa; the respirations were extremely slow and shallow, the thoracic walls scarcely moving in respiration. Now and then she gave a slight sigh. The heart's action was feeble, and occasionally intermittent. The pupils were dilated, and acted very feebly to light. She said she felt she was dying, and she looked like it. She complained of dreadful headache and noise in her head. I gave her stimulants, and had hot bottles packed around her. I gave her two hypodermic injections of strychnine, $\frac{1}{25}$ gr. and $\frac{1}{30}$ gr., within a few hours of each other, and a mixture of ether, ammonia, and strophanthus. In the evening she was no better. As there was retention of urine, I drew it off with a catheter; it was somewhat dark coloured, but not Burgundy red. She continued heavy and drowsy.

The next day she was better; had vomited once; there was diarrhœa. The cyanosis was somewhat less. She complained of a feeling of "pins and needles" in her legs. The plantar reflex was feeble, but the knee-jerks were normal. Headache was still very bad, but the noise in her ears was better. After this she improved. The diarrhœa ceased, respiration was normal, and the cyanosis disappeared. The heart was, however, intermittent for a few days.

Such a serious condition after 35 gr. of sulphonal, given in divided doses of 20 and 15 gr. at an interval of twenty-four hours, shows decided idiosyncrasy towards its action. It also shows that this is not a safe drug for people to keep in their houses and dose themselves with, and it also makes one feel that in this, as in most synthetic remedies, idiosyncrasy is to be remembered, and comparatively small and safe doses given at first.

Enfield, N. FRED. TRESILIAN, M.D., M.R.C.P.Edin.

TOXIC EFFECTS OF BORACIC ACID.

THE increasing use of boracic acid for medicinal and preservative purposes is sufficient reason for a further record of some untoward effects which have been produced by the drug when given internally. About five years ago I had occasion to treat a case of cystitis with boracic acid in increasing doses of gr.x to gr.xx three times a day. When it had been given for about three weeks an erythematous rash spread over the man's neck, face, and head. This was followed by some subcutaneous œdema and a fine scaly dermatitis. His salivary glands became enlarged, and eventually the hair on the face and head fell out, so that in about a fortnight he was perfectly bald. The drug was discontinued, but it took about six weeks before there was any reappearance of hair on the face and head. I am thankful to say he eventually made a complete recovery.

I have since administered boracic acid in many cases of cystitis and urethritis, and when it has been given for some time and in the above doses I have observed similar effects—that is, an erythema followed by a fine scaly exfoliation. Immediate discontinuance of the drug has prevented the development of the more severe symptoms. In one case, however, in which it was inadvertently continued the hair fell out to a slight extent, and there was marked exfoliation of the skin, especially on the hands, with onychia and splitting of the nails. As syphilitic infection could be excluded with some certainty, and as the symptoms disappeared when the drug was stopped, I can only conclude that this was entirely due to the action of boracic acid on the skin and appendages.

Birmingham. J. JAMESON EVANS, M.B., M.R.C.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WEST SUSSEX COUNTY ASYLUM, CHICHESTER.

AORTIC ANEURYSM: RUPTURE INTO ŒSOPHAGUS.

(By J. C. MCCONAGHEY, M.B., Ch.B.Edin., Assistant Medical Officer to the Asylum.

THE following case is of interest. W. T., a coachman, aged 44, married, was admitted into this institution on September 30th, 1897, suffering from chronic mania. He was very restless, but quiet and inoffensive, and had no marked delusions. On examining the chest a rather harsh systolic murmur could be made out at and slightly below the pulmonary area. The pulses were synchronous and equal in volume, the pupils dilated but equal; the tendon reflexes were very sluggish.

After admission he had one or two syncopal attacks, but had never complained of any pain.

On December 5th, 1898, he suddenly collapsed while in the ward, but rallied after some difficulty. Later in the day a discharge of blood from the bowel took place, and in the evening blood was brought up from the stomach mixed with partly digested food. On the four subsequent days he had attacks of hæmatemesis and melæna. He died on December 10th, at 12.50 A.M.

The necropsy revealed a small saccular aneurysm about the size of a pippin situated on the descending part of the thoracic aorta, and adherent to the œsophagus. On opening up the gullet a perforation into it could be made out at the junction of the upper and middle third, through which a fair-sized blood clot was protruding. The opening was nearly the size of a shilling. The wall of the sac was formed of a thin layer of the aortic wall and laminated blood clot. Small atheromatous patches could be made out along the ascending and transverse portions of the arch of the aorta. On opening up the stomach a very large clot of blood was discovered, which had formed a complete cast of the viscus; the walls of the organ were quite healthy. The intestines were filled with half-digested blood. None of the vertebræ were eroded.

THE OLDEST DOCTOR IN FRANCE.—According to the *Chronique Médicale*, the oldest medical practitioner in France is now (since the death of the centenarian, Dr. Boissy of Havre) probably Dr. Morère of Palaiseau. The son of Dr. Morère of the same place, who gave his name to a species of strawberry of great local reputation, Dr. Morère the younger was born on September 12th, 1808, and took his degree in 1834. For the last sixty-four years he has practised at Palaiseau and its neighbourhood. At the time of the Franco-German war of 1870 he was Mayor of his Commune, and narrowly escaped being shot in consequence of his resolute opposition to the excessive requisitions of the invaders. Though now well on in his 91st year, Dr. Morère still practises his profession, and is to be met with going his rounds in all weathers. He is famous for his diagnostic skill, and not less so for his charity and his devotion to his patients. It is pleasant to learn that on January 1st the old doctor was promoted to be an officer in the Legion of Honour, of which he had been a knight for more than thirty years.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 24th, 1899.

Thomas Bryant, M.Ch., F.R.C.S., President, in the Chair.

Gonococcus Joint Disease in Infants, secondary to Purulent Ophthalmia, with Twenty-three Cases.

Mr. R. Clement Lucas, who read this paper, first drew attention to this disease affecting the joints of infants suffering from purulent ophthalmia in the British Medical Journal of February 28th, 1885, more fully on July 11th, and again, with the addition of a third case, on October 10th, 1885, in the same Journal. Mr. R. G. Fendick published a case in support of the truth of the observation on October 31st, 1885; but from that time no case appeared to have been published in this country, and the authors of textbooks were for the most part silent upon the subject. Abroad, however, this hitherto unrecognised joint affection of infants attracted more attention, and Debierre in France, Zatvornitski in Russia, and Widmark in Germany, each published a case before the end of the year 1885, in support of the author's contention that the joint inflammation was secondary to, and dependent upon, the ophthalmia. Mr. Clement Lucas had now collected twenty-three cases, upon which he founded his present communication. The joint disease presented itself in two forms: (1) as a very acute arthritis accompanied with much swelling, tenderness, and redness, strongly suggesting a tendency to suppuration, and (2) as a subacute synovitis, giving rise to a good deal of effusion and pain on movement, but to little or no surface redness. Of the 23 cases collected, 18 were cases of ophthalmia neonatorum inoculated during labour, and 5 were cases of secondary inoculation in older children, the eldest being 7 years of age. The ophthalmia generally appeared on the third day after birth. The joint disease showed itself more commonly towards the end of the second or during the third week of the ophthalmia. The knees were the joints most frequently affected, especially the left; any joints might be attacked, but the left wrist seemed more liable than the right; and the author offered an explanation of certain joints being specially selected. Complete resolution might be anticipated, and the inflammation usually ran a course of from three to five weeks. Bacteriological examination had shown that the gonococcus of Neisser was the cause of the ophthalmia and of the joint disease. Where suppuration took place the author asked whether further investigation might not show a double infection. In two cases this happened, streptococcus being present in one, and staphylococcus in another associated with gonococcus. The author made some remarks on diagnosis and treatment, and appended an abstract and table of the 23 cases.

The President complimented the reader of the paper, and said that though he had no notes he had seen such cases. Possibly, as the cases came under the notice of the ophthalmic department, general surgeons did not often see these joint affections.

Mr. Macnamara thought the author of the paper had proved his contention. He regarded the arthritic affection as more probably due to the products of inflammation elsewhere than to micro-organisms. In past years he had aspirated the joints in gonorrhœal rheumatism, and failed to find gonococci. The joint changes occurred in persons specially susceptible to the poison in question. He expressed his belief that chronic osteo-arthritis in old people was often secondary to suppuration around the roots of decayed teeth. Years ago the late Dr. Todd taught that osteo-arthritis was often secondary to vaginal discharges. Some similar explanation might account for acute rheumatism, the poison being manufactured in the alimentary canal or elsewhere. Further investigation into the chemical nature of these poisons was very desirable.

Mr. Higgins, in twenty-five years' out-patient ophthalmic practice, had only seen one of these cases, that one being mentioned in the paper; he therefore regarded them as very rare. An interesting point arising out of the paper was how could ordinary purulent ophthalmia be distinguished from the gonorrhœal form? Of course the presence or absence of the gonococcus might be taken as a criterion, but he quoted instances in which this did not correspond with what he regarded as the distinguishing feature—namely, the greater severity of the gonococcal form.

Mr. Barwell was much interested in the subject, as he had been the first surgeon to point out that so-called gonorrhœal rheumatism was a form of chronic synovitis; this appeared in his book on *Diseases of Joints*, published in 1861. In like manner the rheumatism occurring after scarlet fever was the result of a morbid poison. The reason why joint affections were rarer in gonorrhœal ophthalmia than in ordinary gonorrhœa was that the discharge of pus was much freer from the eye than from the male urethra. Similarly gonorrhœal rheumatism was rarer in women than in men, because the discharge from the vagina was freer than from the male urethra. Synovitis might be secondary to suppuration in other parts of the body. Thus, two years ago he saw a case of suppuration about the external auditory meatus of such severity that there was some fear lest deafness might result. This was followed, nine days later, by synovitis of one knee; after the cure of the primary lesion the knee began to improve.

Dr. P. H. Pye-Smith said that these cases had an important bearing on the question, formerly much debated, as to the nature of gonorrhœal synovitis. It had been thought to be neurotic, and also by others to be pyæmic; it certainly was not pyæmic in the proper use of the term, inasmuch as suppuration did not occur. It was also interesting to compare these cases with ordinary gonorrhœal synovitis in adults and to note the influence of age; in these young infants the course was rapid and acute; while in adult and still more in advanced years, the morbid changes were prolonged and chronic. The same thing could be observed in tuberculosis, morbus cordis, and other diseases. Sclerotic inflammation was a characteristic feature of gonorrhœal synovitis; it would be an additional link if it was found in the author's cases, though the presence of ophthalmia would render the observation difficult. He did not think much was gained by comparing osteo-arthritis and acute rheumatism with this affection.

Mr. A. Pearce Gould thought it undesirable to say that the absorption of morbid products gave rise to joint affections in the light of the fact that the gonococcus had often been proved to be present in the joints affected with gonorrhœal rheumatism. One reason to account for the comparative rarity of the affection in infants was probably that their joints were not exposed to the same strain as in adults. The author stated that the joint affection ran a parallel course to the original conjunctival disease; this was not borne out by all the cases collected in the paper, and certainly did not agree with what was often seen in secondary inflammation elsewhere in the body. The author further went on to say that cure of the primary disease cured the joint affection, and yet, in one of the cases referred to, the arthritic manifestation began after the conjunctival lesion was cured. The prognosis was said to be very favourable, and yet in one out of the twenty-three cases there was permanent ankylosis.

Mr. Barker considered that while the dependence of the joint affection on the eye lesions had been proved, it was going too far to claim that all the arthritic affections were gonorrhœal. He gathered from an examination of the literature that in gonorrhœal synovitis the infection was generally of a mixed character, and not solely due to the gonococcus; it would therefore be interesting to know in how many of the 23 cases the presence of gonococci in the joints was absolutely established. He was inclined to use the term "pyæmic" for cases of this class. Could any distinction be drawn between the cases of mixed infection and those due solely to gonococci?

Mr. J. Hutchinson said that while syphilitic joint disease in infants was generally due to periostitis and not primarily to synovitis, there was an interesting form of synovitis which occurred in association with, though after, interstitial keratitis in older children; the knees were especially apt to be affected and become much swollen. Here it was not a question of an infection passing from the eyes to the joints, but it was rather, he would suggest, that certain tissues of the body were peculiarly susceptible to the influence of metabolic poisons produced by similar structures. He therefore inquired in what proportion of the author's cases the gonococci were

proved to be present in the joints. He was inclined to think that gonorrhœal rheumatism was commoner in men because the original inflammation involved the fibrous tissues of the penis, and that for this reason the fibrous tissues of the joints were likely to be affected. In gonorrhœal rheumatism a history of gout was generally present, and was most marked in the worst cases; it would therefore be interesting to know whether heredity played any part in the author's cases. Gonorrhœal rheumatism and pyæmia were very different.

Mr. CLEMENT LUCAS said that the presence of gonococci in the affected joints was strong presumptive evidence that the inflammation was thus caused. Many cases of gonorrhœal synovitis in women were overlooked, and the disease was less rare than was often thought. He emphasised the importance of adequately treating the eye affection, and laid stress on the part played in the arthritic affection by mixed microbic infections.

MEDICAL SOCIETY OF LONDON.

J. MORGAN, F.R.C.S., President, in the Chair.

Monday, January 23rd, 1899.

APPENDICITIS WITH DIFFUSE PERITONITIS.

MR. CUTHBERT WALLACE read notes of three cases of appendicitis with diffuse peritonitis. Each had commenced with a local abscess that had spread and infected the peritoneal cavity. In two instances the peritonitis was general, and in the third it was limited to the structures behind the great omentum, reaching no higher than the transverse mesocolon. In all three the appendix was removed, and the intestines were turned out on the surface of the abdomen and cleaned with sterile water, while the belly cavity was flushed out with the same fluid. He believed that this was the most rapid and effectual method of dealing with such cases. It was next to impossible to clean the peritoneum while the intestines were *in situ*, because the stream did not flow out in a sufficiently even manner, but simply washed infective material from one part of the abdomen to another. The incision through the right rectus seemed to be the best, as it could be used to remove the appendix and to clean out the peritoneum. All three cases recovered without a bad symptom.

Mr. CLUTTON congratulated the author on a success which probably few surgeons could rival. He recalled that exventration had been tried and abandoned on account of its unfavourable results, and they had then tried the dry method without much success. He thought, however, that exventration might with advantage again be tried under the altered surgical circumstances. He asked how the author had managed exventration without a large incision. He approved of the use of warm sterilised water in preference to antiseptic solutions, which he thought were often productive of great harm. Alluding to the difficulty often experienced in these cases in getting the bowels to act after operation, he said that it had been suggested to inject a solution of sulphate of magnesia into the bowel high up by means of a hypodermic needle.

Mr. STANLEY BOYD mentioned that cases reported as diffuse peritonitis were often not such, but this remark did not apply to the author's cases. He himself had been deterred from turning out the intestines in diffuse peritonitis by the bad results he had read of and seen. It had occurred to him to inject hypodermically a drug to get the bowels to act, but there did not seem to be such a drug. He had been struck by the quasi-impossibility of effectually cleaning out the abdomen, even on to the *post-mortem* table; and he suggested that the result must depend in a great measure upon the patient's powers of resistance.

Mr. BRUCE CLARKE, alluding to the difficulty of evacuating the contents of the intestines, said he used to open the intestine, sometimes leaving the opening stitched to the abdominal wall for a time. He thought exventration was on the whole a good thing, but it was obviously impossible to render an abscess cavity quite aseptic. He himself always cut down through the rectus, this incision leaving less scar and less tendency to hernia. He asked the exact length of the author's incision. He agreed that very few of the cases reported as diffuse acute peritonitis were really such.

Mr. BATTLE discussed the view held by many that it was useless to operate in cases of diffuse peritonitis, and instanced the case of a patient of his who was admitted two days ago for intestinal obstruction. He was not thought to be very ill, but in view of the fact that there was dulness in the right flank, and that respiration was entirely thoracic, he opened the abdomen and let out much stinking pus. He was unable to do more on account of the patient's critical condition. He observed that these cases could not be treated on any one plan.

The PRESIDENT said that he always made use of the inguinal incision, but agreed that the author's plan presented certain advantages. He agreed that all septic matter could not possibly be got away. He thought that hardness of the abdomen and thoracic breathing were more important prognostic signs that the facies and pulse.

Mr. WALLACE, in reply, said he made a 6-to-8-inch incision, but in one case he had to make another incision further out to reach the upper surface of the liver, which was thickly coated with lymph. The bowels in his cases had not given him any trouble, which was of course a fortunate circumstance. His plan in exventration was to draw the intestines first to one side and then to the other, cleansing alternately each side of the abdominal cavity. He remarked that when recovery was going to take place the improvement was generally early and rapid.

OPERATION FOR IMPACTED STONE IN THE URETER.

Mr. P. J. FREYER read notes of two recent cases of successful operation for impacted stone in the ureter. (1) An officer, aged 23, had been suffering for nineteen months from renal colic and hæmaturia, ultimately diagnosed to be due to stone in the kidney. There was a slightly-movable tumour in the region of the right kidney, as large as two fists, with tenderness on palpation. He exposed the kidney through an oblique lumbar incision 4½ inches long, and opened the fatty capsule. No stone could be felt, so he opened the kidney through the convex border, passing his finger through into the pelvis, when a rush of urine took place. Still no stone could be felt, but on passing a catheter down the ureter an obstruction was found 4 inches from the pelvis. He enlarged the incision 4 or 5 inches till he could grasp the stone, which, as it could not be moved, he took away through an incision into the ureter. He did not suture the wound in the ureter, but contented himself with placing a large drainage tube down to the opening along the back of the kidney. He partially closed the wound of the kidney by two stitches. Bloody urine was passed freely in the evening, and by both loin and urethra for several days. The patient completely recovered, and left the home five weeks after the operation. He had since operated on this patient's mother, successfully removing several oxalate stones from the pelvis and calyces. (2) A man, aged 52, had been a patient at St. Peter's Hospital for some thirteen years suffering from multiple stricture of the urethra and symptoms of kidney stone. Exploration of the left kidney in 1895 gave only temporary relief. When he saw the patient in 1897, he was very ill with severe pain in left loin and hæmaturia. The urine was thick and offensive, and deposited about half pus. On September 1st, 1897, he again explored the left kidney through an oblique lumbar incision but could find no kidney. No relief followed, so he performed internal urethrotomy on November 18th, but though the operation afforded a free flow for the urine, it did not much diminish his other symptoms; indeed the pain in the right loin increased. He continued to suffer very severely, and on November 9th he cystoscoped him under an anæsthetic and detected a long, narrow, rough, pencil-shaped stone projecting into the bladder from the right ureter; and this after a little trouble he removed with the lithotrite, since which the patient had continued to improve in health. He briefly alluded to five other instances of stone impacted or encysted in the ureter on which he had operated. In three the stone was impacted at the ureteral orifice projecting into the bladder and felt by the sound (one female and two males).

Mr. BRUCE CLARKE related the case of a woman with right kidney symptoms of two years' standing. He operated through the usual lumbar incision, cutting into the kidney at the junction of the pelvis with the kidney substance, but could find no stone. On exploring the ureter, however, he came upon a stone 5 inches down. He extended the incision, incised the ureter, and removed the stone. He did

not suture the ureter, but left in a drainage tube, and the patient made an excellent recovery. He observed that a stone which had got fixed just outside the bladder might ulcerate through, and so they might get a pouch in the bladder containing a stone in communication with the ureter. If they could detect and remove the stone before this stage was reached, it would be the better for their patients.

The PRESIDENT asked the author whether he had any views as to the exact spot at which a stone might be arrested in the course of the ureter other than at the commencement or end.

Mr. FREYER, in reply, did not think there was any particular spot. The fact that stones were described as arrested most frequently at the beginning or end of the ureter was because it was only in these positions that it was possible to find them without an elaborate dissection. He pointed out that in most of these cases the operation was undertaken to remove a stone supposed to be in the pelvis of the kidney.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

P. A. YOUNG, M.D., F.R.C.P.E., Vice-President, in the Chair.

Wednesday, January 18th, 1899.

CASES.

MR. GREIG (Dundee) showed a case of Symmetrical Perforation of large size of both Parietal Bones, which had given rise to no inconvenience, and had not prevented hard service on the Indian frontier in the Chitral campaign, and which later had not been incompatible with the somewhat severe life of a driver in the Royal Artillery.—Mr. F. M. CAIRD and Mr. GUY showed a case of Syphilitic Destruction of the Nose and Palate in a young man. In this case syphilitic destruction had overtaken the soft parts of the nose, upper lip, cheeks, and palate, while the vomer, inferior turbinated bones, nasal bones, and nasal processes of the maxilla were completely destroyed. Extensive destruction of the palatal and alveolar processes of the maxilla had also taken place, and all the upper teeth were lost, the lower lip and teeth projecting far beyond the remains of the upper lip. The patient presented a horrifying appearance, and, after due consideration, the idea of attempting any plastic operation was abandoned, as the improvement could be only a very slight one. The case was consequently thought suitable for prosthesis by the dental surgeon. A nose with cheeks and upper lip were fitted and retained in place by the usual device of a spectacle frame. The apparatus was made of white vulcanite, was painted in oils, had a moustache attached—the patient having been a soldier—and the bridge of the spectacles was vulcanised in. An artificial palate into the middle line of which a strip of springy gold was vulcanised was now made; the gold strip was bent in such a way that its extremity, sliding in a gold box or catch at the back of the upper lip part of the nosepiece, retained the palate in place. The improvement in the patient's appearance was marvellous. At a distance of a yard or two one failed to detect the artificial nature of his facial condition.

SPECIMENS.

Dr. HARVEY LITTLEJOHN showed (1) two specimens of Hypertrophy of the Heart from Cases of Sudden Death; in one case the heart weighed 28 ozs., and in the other 48 ozs.; (2) A specimen of Effusion of Blood upon the Surface of the Brain; and (3) Rupture of the Inner Part of the Wall of the Left Ventricle.

APHASIA FOLLOWING ABSCESS OF TEMPORO-SPHENOIDAL LOBE.

Dr. SHENNAN and Mr. MILES read a paper on a case of aphasia following abscess in the temporo-sphenoidal lobe, which did not involve the auditory (word-hearing) centre. The abscess was secondary to middle-ear suppuration, and for a time ran the usual clinical course of such cases. It was evacuated, and the patient's urgent symptoms disappeared. On the following day, however, it was observed that he showed symptoms of paraphasia and word-intoxication. He was unable to name objects at sight. This amnesia verbalis continued throughout, and there was practically no word-deafness. When this was present, as occasionally happened, it was relieved at once by drainage being improved, and pressure on the auditory centre being thus relieved. He was able after a time to play a game of dominoes, and to read the newspapers with understanding. Later the case became worse, and he died with symptoms of general compression. At the *post-mortem* examination an old abscess, with inspissated contents was found occupying practically the whole of the temporo-sphenoidal lobe, with the exception of the posterior part of the superior convolution. A recent abscess was found in the position of the external capsule, and from this a series of recent abscesses extended backwards as far as the level of the angular gyrus, which were accountable for the later symptoms. This case supported the theory advanced by Dr. William Elder, that there exists a special area in which the memory of nouns and names is stored in close proximity to the auditory centre but not identical with it. He places it below that centre in the posterior parts of the second and third temporo-sphenoidal convolutions. The primary abscess in the temporo-sphenoidal lobe would interrupt fibres passing from such an area to Broca's convolution.

DISEASES OF THE CEREBELLUM.

Dr. ALEXANDER BRUCE read a paper on the Localisation and Symptoms of Disease of the Cerebellum considered in relation to its Anatomical Connections.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Thursday, January 12th, 1899.

VINCENT JACKSON, F.R.C.S.Edin., President, in the Chair.

INFANTILE UTERUS.

MR. LAWSON TAIT showed the preparation from a lady, aged 35, upon whom he had operated the day before. The case was one of marked want of development of the uterus (infantile uterus), and she had suffered all her menstrual life. Eighteen months ago the canal was divided, and a stem pessary inserted. For four or five months her sufferings had been materially relieved, but since then they had recurred with increasing intensity, so that for nine or ten months her menstrual week had been one continuous agony, accompanied by constant sickness and even delirium, whilst during the other three weeks of the cycle she was in constant and severe pain. As a last resort, Mr. Tait removed the uterus and appendages by the vaginal route, as he had done in such cases for some four or five years.

DOUBLE PYOSALPINX.

Mr. LAWSON TAIT also showed the preparation from a case of double pyosalpinx and suppurating ovaries from a virgin, aged 37, operated upon ten days ago, whose early history was primarily that of the first case, one of infantile uterus. An operation was performed by the vaginal route eighteen months ago, but what was done was not known. It was recognised by her doctor that a tumour was steadily presenting itself above the brim of the pelvis, and this Mr. Tait recognised as cystic, probably a pyosalpinx. One tube was distended with over a pint of stinking pus, and the other was occupied by about half as much decomposing blood and pus. The ovaries were about as large as oranges before they were removed, the whole mass densely adherent over its area. The patient had made an excellent recovery. The lesson of the two cases was that it would have been better for the second patient to have had her uterus and appendages removed some five or six years ago.

NEPHRECTOMY FOR MALIGNANT KIDNEY.

Mr. JORDAN LLOYD showed a specimen of malignant disease of the kidney, removed from a man aged 54, whose condition was serious from excessive hæmaturia. The patient had fallen down two years before, injuring himself below the left costal margin, but no kidney lesion was suspected at the time. Some six months later he began to suffer from paroxysmal pain deep in the left abdomen. About four months since came the first attack of hæmaturia, which lasted a few days and disappeared, to return and disappear on two occasions subsequently. The urine contained blood clots, and was of a deep red-brown colour; the left kidney could be felt enlarged. Lumbar nephrectomy was performed nearly two weeks since. The pedicle was temporarily clamped with

Doyen's forceps; the ureter, renal arteries, and veins were tied singly with fine silk ligatures, the clamps being then removed; no blood was lost from the kidney vessels at all. There was entire absence of shock and after-pain; this Mr. Lloyd attributed in great measure to the absence of an encircling ligature about a pedicle containing sensitive and sympathetic nerve structures. The patient had made an easy recovery.

TUBAL PREGNANCY.

Mr. SMALLWOOD SAVAGE showed a specimen of hæmatosalpinx resulting from tubal pregnancy removed eight days ago from a woman, aged 29. She had had three children, the last one four years ago; she had miscarried four months ago, having gone five months, before which she had been quite regular. In October, 1898, she was regular, and seven weeks ago she went four days over her time, since when she had been losing on and off. Her present illness began seven weeks ago, when she was suddenly taken with acute pain of a paroxysmal character in the right lower abdomen, together with vomiting, diarrhœa, increased temperature and pulse rate. On examination no physical signs were present except marked rigidity of the abdomen. Two days afterwards an irregular menstruation began, which lasted seven weeks, but no decidual membrane was passed. The patient's condition remained much the same until four and a-half weeks later, when by the vagina the uterus was found to be enlarged and the left tube was felt to form a lump in its mesometrium, and not until a week later did the pain appear on the same side as the diseased tube. Laparotomy was performed on January 4th, when an unruptured sacculated hæmatosalpinx was removed after ligature with a silk knot. The fimbriæ were less prominent than normal and in process of inversion. Microscopically chorionic villi were found in the contents of the tube. The patient up to the present time was progressing satisfactorily.

RADIOGRAPH OF PELVIS SHOWING POSITION OF HAIR-PIN IN VAGINA.

Mr. J. HALL-EDWARDS showed this radiograph. E. H., aged 7, was admitted into the General Hospital on November 4th, 1898, complaining of pain in the pelvis on sitting down. There was an obscure history of a foreign body having been placed in the bladder, vagina, or rectum. The child was radiographed through the pelvis, the resulting picture showing the presence of a large hair-pin, over 3 inches in length. This was extracted from the vagina on the following day by Mr. W. F. Haslam.

MYELOID SARCOMA OF FIBULA.

Mr. HASLAM showed a specimen which he had removed from a girl aged 8. The swelling had been coming for six months, and there was no pain or interference with the function of the limb. The upper third of the bone was expanded, and was found to contain a large quantity of blood and a comparatively small amount of new growth. The upper two-thirds of the fibula were removed, after the external popliteal nerve and its terminal branches had been dissected off the expanded portion.

PAPERS.

Dr. J. W. RUSSELL read a paper on The Movements of Chorea.—Dr. WALTER JORDAN read a paper on Cough as a Symptom of Disease in Childhood.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

EDWIN LEE, M.R.C.S., President, in the Chair.

Friday, January 13th, 1899.

THE SERUM TREATMENT OF DIPHTHERIA.

A DISCUSSION on this subject was introduced by Drs. CHURTON, BARRS, and TREVELYAN.

Dr. CHURTON said that, as it was not always possible to obtain immediate bacteriological evidence as to a doubtful case, it was necessary clearly to define the clinical evidence which gave the greatest measure of probability that in any given case the specific bacilli were present. He discussed a characteristic case in a boy aged 8. On the second day of the disease 1,000 units of Parke Davis's serum was injected, and precipitated sulphur was applied to the throat by insufflation. The boy made a good recovery from the diphtheria. It had been shown by Dr. C. E. Bousfield that in many cases suspected of diphtheria during a recent epidemic the specific bacilli were not present. But as the serum appeared to be now almost invariably harmless, even when diphtheria poisons were not present to neutralise it, there could be no doubt upon which side we should desire to err. It had been asserted that the only conclusive evidence that an exudation was diphtherial was its inoculability, but in this country that was quite impracticable, and, indeed, for medical purposes, useless.

Dr. BARRS said that his experience had led him to adopt the antitoxic serum treatment in all cases clinically recognised as diphtheria. He had seen nothing but good results from its use. The serum should be used in all cases and in efficient doses, without waiting for bacteriological diagnosis. The difficulties in making a clinical diagnosis of diphtheria were not so great as had been stated. For practical purposes he held most strongly that all membranous inflammations of the throat should be regarded as diphtheria, and promptly treated by the injection of antitoxic serum. He did not think that the serum treatment had made all local treatment unnecessary. Tracheotomy, for instance, ought to be done at once when there was any risk of death from mechanical obstruction of the air passages; for though the diphtherial membrane rapidly disappeared under the serum treatment, it would not be safe to rely solely upon that effect in threatening asphyxia. The combined use of serum and tracheotomy in laryngeal cases had given most excellent results. He also urged the necessity for prolonged rest in bed so long as there were the smallest manifestations of paralysis, and suggested that no patient should be allowed to sit up until the knee-jerk had returned, though this might mean confinement to bed for many weeks. He had seen three cases of fatal respiratory palsy occurring as late as six weeks after the disappearance of the acute manifestations, and from twenty-one to fourteen days after the patient had been allowed to get up.

Dr. TREVELYAN, after referring to the subject of artificial immunity and its relation to the serum treatment, discussed the question of the strength of the curative serum and the method of expressing it in immunity units. The longer the interval between the time of the infection and the injection of the serum, the greater the difficulty of cure and the larger the number of units required. The causes of failure of the serum treatment lay in (1) its too late administration, (2) insufficient dosage, including inefficiency of the serum, and (3) the presence of a mixed infection. In speaking of the severe accidents which had very rarely attended the serum treatment, Dr. Trevelyan did not think that every case should be forthwith injected, but if the general symptoms were obvious or the local lesion severe or extending, no time should be lost. The proofs of the value of the serum treatment were furnished by (1) statistics and (2) the obviously favourable action upon the symptoms. The numbers which had been treated were sufficiently numerous to warrant the conclusion that the treatment was efficient. The disappearance of symptoms of even considerable laryngeal obstruction under the treatment was illustrated from a recent case. On the other hand, it must not lead to an undue postponement of tracheotomy or intubation. Except in so-called septic diphtheria, Dr. Trevelyan did not think local treatment was desirable, as the disadvantages attending anything like a thorough local treatment altogether outweighed the advantages to be obtained from it in the presence of an efficient general treatment.

After a few remarks from the PRESIDENT, Dr. SPOTTISWOODE CAMERON gave the statistics of the epidemic of diphtheria in Leeds, and illustrated them by by lantern slides.

Dr. MOUILLOT (Harrogate) doubted if the mortality of diphtheria was as great as generally supposed. He referred to a paper of his in the *Transactions* of the Royal Academy of Medicine in Ireland, 1887, which contained an account of 18 cases observed at the same time in a dormitory of a girls' school. Of these some were so mild that the diagnosis of diphtheria would not have been thought of had they occurred apart from the epidemic. Before bacteriological investigations were made, severe cases were diagnosed as diphtheria, and the mild ones were not recognised as mitigated examples of that disease; hence an exaggerated mortality.

Dr. EXLEY had treated during 1898, 47 cases of diphtheria with 16 deaths (37.04 per cent.). The cases under ordinary treatment were 32, with 15 deaths (46.8 per cent.), and the cases under "antitoxin" treatment, 15, with only 1 death (6.6 per cent.); 2 adults were treated and both recovered; 5 cases over 10 years all recovered. The death under the antitoxin treatment was interesting from the fact that it was the first time Dr. Exley had used it, and the administration was delayed until the fifth day; 1,500 units were then given, and 1,500 units twenty-four hours later as the case was severe (nasal). The child rapidly improved, and on the fourteenth day sat up in bed for a little time; it seemed faint, and gradually got worse, and died on the sixteenth day of the disease. No ill effects were noted from the use of serum. The only thing complained of by the patient was slight abdominal pain and tenderness, passing off in about twenty-four hours. The serum used was from the Jenner Institute. Dr. Exley recommended early and free use of antitoxin, and prolonged rest in bed to obviate the risks of cardiac failure. Albuminuria was not by any means common in these cases, and in some of the worst it was absent through the whole course of the disease.

Dr. ROBINSON (Low Moor) referred to a severe case in which the symptoms of laryngeal obstruction passed away under the serum treatment. The child, aged 9 years, was injected with 3,000 units within eighteen hours, and made a rapid recovery. A short delay before proceeding to tracheotomy was thus justifiable in such cases.

Mr. A. E. PEARSON, of the Leeds City Infectious Hospitals, dwelt upon the importance of a bacteriological examination being made of suspected cases before admission. Several cases sent in were found to have only a staphylococcus growth in the throat. Mr. Pearson further suggested a preliminary small injection of antitoxin in all suspected cases at the same time, as the material was sent to the bacteriologist for examination. The treatment should, of course, be continued if an affirmative reply were received. He thought that the erythemata and joint pains after the antitoxin treatment were probably due to slight septic infection from the syringe used. These syringes should be very carefully sterilised.

Dr. MANTLE (Halifax) reminded the meeting of the communication he made to the Society in May, 1895, when he brought forward three successful cases published in the *Lancet*. He was then a believer in the antitoxin treatment, and after a more extended experience he was a greater advocate of its being adopted in all cases. He was convinced, however, that it was wrong to discard local treatment, inasmuch as the serum was not germicidal, but was merely antagonistic to the poisons manufactured by the bacilli in the throat. He had remarked in his paper, and now wished to emphasise it, that the bacilli did not enter the tissues, but were found chiefly near the surface of the exuded lymph. Therefore, in the majority of cases, if seen early, they could be reached, and possibly destroyed, by the application of perchloride of mercury combined with glycerine (1 in 100) which he recommended to be used. The antitoxin treatment was undoubtedly speculative, the speculation being based upon the amount of antitoxin the patient naturally possessed; but, inasmuch as it was not harmful of itself it was safe to use in all cases, for it was impossible to determine whether the patient had sufficient or was minus the amount of antidote necessary to neutralise the toxins so rapidly absorbed by the tissues.

Dr. BAMPTON (Ilkley) said that clinically all membranous sore throats must be treated as diphtheria, but that all diphtherial sore throats were not membranous. In epidemic sore throat pseudo-diphtheria by a rapid process of evolution and development might be cultivated into the graver variety. Antitoxin acted like a charm if given early, and did not cause sequelæ. If given late, when toxins preponderated, larger doses were necessary to neutralise, and save life, but toxins would already have damaged nerve cells and sequelæ follow.

After some remarks from Dr. EDDISON, chiefly on the question of local treatment,

Dr. EDWIN ROBERTS said he had treated 22 cases of diphtheria during the recent epidemic, and 21 of these were injected. The 1 in which the serum treatment was not employed was moribund when first seen, and died in a few hours. Of the remaining 21, 2 died. The first of these was injected on the fourth day. He was doing well when a fatal abdominal complication supervened. In the second case, seen on the fifth day, the child was almost pulseless, and died the same night in spite of the serum treatment. In those cases injected early and sufficiently the good results were so regularly and constantly observed that one was fully persuaded that the antitoxin treatment was absolutely specific. No other treatment, local or otherwise, was adopted in these cases beyond forced feeding and stimulants.

After some remarks from Dr. HELLIER,

Dr. CHADWICK said the present success of tracheotomy for "croup" in young children was quite astonishing as compared with former times, the only difference being the simultaneous use of antitoxin. Had the improvement in the death-rate during the past quarter anything to do with the closing of schools?

Mr. LITTLEWOOD said that before the days of the serum treatment he had performed tracheotomy for diphtheria on 12 occasions. Of these, only 2 recovered, and 1 died subsequently of cardiac paralysis. Since that time he had operated on three most severe cases, all of which recovered under the combined treatment of the antitoxin and tracheotomy.

Drs. CHURTON, BARRS, and TREVELYAN replied.

Dr. TREVELYAN showed a series of cultivations and microscopical preparations, together with lantern slides and diagrams, of the diphtheria bacillus, and Mr. A. E. PEARSON some microscopic specimens from cases in the City Fever Hospitals.

EDINBURGH OBSTETRICAL SOCIETY.

J. HALLIDAY CROOM, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, January 11th, 1899.

SPECIMENS.

THE PRESIDENT showed: (1) A huge Dermoid Ovarian Tumour weighing 6½ st., that is, 91 lbs; (2) Ovarian Tumour which gave rise to special symptoms; (3) Uterus and Annexa, where the two Ovaries and the Fundus Uteri were sarcomatous, as is usual in such cases, the woman looked well and younger than she was; (4) a Suppurating Dermoid.—Professor A. R. SIMPSON showed: (1) Fœtal Bones from a case of extrauterine gestation; (2) Abortion from a case of pneumonia; (3) Specimen from a case of Salpingo-ovaritis.—Dr. MILNE MURRAY showed: (1) an improved Bolt of Axis-traction Forceps; (2) Fœtus and Placenta showing remarkable twisting of the cord close to the umbilicus, which had occurred after the death of the fœtus.—Dr. J. W. BALLANTYNE showed: (1) A Cervical Fibroid removed for serious metrorrhagia; (2) Photographs of Siamese Child with congenital facial tumour; (3) a Blood Mole; (4) "Secundines" from a case of central placenta prævia; (5) Uterine Contents from a case of missed abortion; (6) Photograph of Congenital Hypertrophy of the Hands (Macrodactyly); (7) a copy of Boaistuau's *Histoires Prodigieuses*, a very rare sixteenth century book on monstrosities.

INSTRUMENTAL ASSISTANCE IN PARTURITION.

Dr. PONDER read a paper on this subject, and exhibited a new instrument. The principal point in all labours, he insisted, was to terminate them early, in the interests of the mother, the child, and accoucheur. Primiparous labours should not be delayed much longer than multiparous ones. The intention of Nature was that assistance should be given in human parturition, and that this was increasingly so as civilisation advanced. He indicated Nature's mode of effecting delivery by dilating the parturient passage, and straightening chiefly in a backward direction. The uterine expulsive force was ordinarily sufficient to expel the child if the canal were opened up, and therefore our wisdom was to copy Nature. He recounted the points in the midwifery forceps, and explained that they were beneficial when used in the low operation early, and placed in relation to the child's head. Their action, he maintained, was then just the opposite of what was usually taught. He referred to the forceps of Sir James Y. Simpson, and to that of his successor, Professor A. R. Simpson. In the low operation the action of the forceps was that of a lever of the first class. Its true action fell under two heads: (1) Beneficial in dilating and increasing the wedge action of the head; and (2) harmful in compressing

and exerting traction. In the high operation the action was that of a lever of the first class, and the chief effect was to increase the biparietal diameter of the head. The midwifery forceps, he held, was not a forceps at all: its action was understood by regarding the blades as of two parts: (1) posterior end, which performed the beneficial actions; and (2) anterior end, which performed the hurtful actions. His instrument introduced a third blade. In shape and structure it was essentially two ovals, with the third or posterior blade higher or longer. On the outer surface of these three blades were ridges which acted as wedge-like dilators. The whole action of his suggested new instrument was that of a dilator. The three blades fitted into one another by pin-like locks, and all three were knit together into one homogeneous mass by a screw. He had not yet had an opportunity of trying his instrument in actual practice. He had only lately arrived from Kalimpong, and had just got his instrument constructed by Mr. Young, the surgical instrument maker of that city. It exerted no pressure and no traction on the head; it was a pure dilator of the maternal passages.

The paper was discussed, for the most part adversely, by Drs. MILNE MURRAY, KEPPIE PATERSON, J. W. BALLANTYNE, F. HAULTAIN, LAMOND LACKIE, HAIG FERGUSON, W. TAYLOR, J. EASON, LUCAS, and W. FORDYCE; and Dr. PONDER replied.

CLINICAL SOCIETY OF MANCHESTER.

A. HILL GRIFFITH, M.D., President, in the Chair.

Tuesday, January 17th, 1899.

FRACTURE OF SHAFT OF ULNA ASSOCIATED WITH DISLOCATION OF HEAD OF RADIUS.

MR. J. E. PLATT drew attention to the frequency with which these injuries were associated, and stated that the true nature of the accident was very likely to be overlooked. He showed, by permission of Mr. Thomas Jones, a patient who had had almost complete ankylosis of the elbow-joint as a result of non-reduction of the displacement of the bones, and who had been greatly improved by subsequent excision of the radial head. Mr. Platt had met with six or seven examples of this injury: in all cases it appeared to have been due to direct violence; in all save one the ulna had been broken near the junction of the upper and middle thirds of the shaft. The radius had been dislocated outwards in one case, backwards in one, and forwards in the remaining cases. When seen soon after the occurrence of the accident, reduction of the deformity had been easily effected by traction upon the forearm with pressure upon the head of the radius. In old-standing cases, excision of the radial head had given excellent results. The advisability of examining for dislocation of the radius in all cases of fracture of the shaft of the ulna without fracture of the radius was insisted upon.

OPERATION FOR UTERINE FIBROIDS.

Mr. E. STANMORE BISHOP drew attention to the present position of the operation for the removal of uterine fibroids. The reasons which had induced medical men in the past, and which still induced many to advise the patients against active interference, had lost much of their weight since the modern operations had been introduced and the mortality had so markedly decreased, whilst the reasons for operation, and especially for early operation, had gained in force and urgency. Mr. Bishop gave a brief history of the development of this operation, showing that it had followed almost precisely the same steps in evolution as the precedent operation of ovariotomy, and with much the same result. The earlier operations were necessarily performed upon extremely bad cases and under the worst conditions. The greatly lowered mortality now would tend to induce patients to submit to removal whilst still the tumour was comparatively small and free from adhesions to intestine, etc., and thus even the present mortality would be still further lowered. Reference was made to Tait's operation for removal of appendages, with a mortality of 1.53 per cent., but it was pointed out that in the most troublesome cases (those of fibro-cystic disease) this operation was useless. Johnson estimated failures at 10 per cent. The difficulty always of removing both appendages was noted. The retention of the ovaries, for physiological reasons, led to hysterectomy with extraperitoneal treatment of the stump, Hegar's operation, to Alexander's and Engström's methods, and later to Schroeder's operation, tha of hysterectomy with intraperitoneal disposal of the stump. Their advantages and drawbacks were noted. Lastly, the newer operations of Péan, Landau, Doyen, Martin, Zweifel, Baer, Sänger, Le Bec, and Christopher Martin, were mentioned. The advantages of complete removal insisted upon and the mortality given, the danger of pregnancy in fibroid cases was explained, and Bowreman Jessett's figures of mortality were quoted. Since the mortality was so small, and likely still further to decrease, the miseries attendant upon fibroid disease began to attract more attention, and to obtain truer recognition. It was shown that these miseries were by no means insignificant. The conclusion was drawn that fibroids presenting no symptoms of pressure or hæmorrhage might be ignored, but that the onset of definite symptoms should determine the practitioner to advise operation.

RELIEF OF SUFFERING IN OBSTETRIC PRACTICE.

Dr. FOTHERGILL made a communication on this subject. As labour was a natural and healthy process, but one attended by much discomfort, he held that the first duty of the obstetrician was to relieve suffering. The comfort of the parturient woman should be secured, first, by careful attention to a number of details; and, secondly, by the use of chloroform during the second stage of labour. The minor methods of relieving suffering were illustrated by reference to the great utility of the hot bath, and it was stated that the bath room was the most comfortable place in which to pass a considerable portion of the first stage. The use of De Ribes's bag or of manual dilatation was advocated for shortening the suffering of dry labour; while a short administration of chloroform was recommended in colicky uterine action and in spasmodic rigidity of the cervix. Cocaine and quinine were also mentioned as useful adjuvants in the first stage. When dilatation was complete, and the second stage was fairly begun, a whiff of chloroform might be given with every pain until the end of labour, when for a few minutes deeper anæsthesia should be produced. Bleeding was not increased, and the child was not injured by this use of chloroform, and, if unduly prolonged, labour could always be ended by the judicious use of the forceps. In cases where operative interference was necessary chloroform should always be used. It was a matter for deep regret that in that district forceps extraction, turning, craniotomy, and removal of adherent placenta were frequently done without the aid of any anæsthetic. In repairing perineal tears some suffering could be spared by omitting to suture the skin and vaginal mucosa, uniting merely the torn muscle and connective tissue. The use of hypnotism in obstetric practice was also referred to, and the interesting results of experiments by an American observer were described. In 35 cases out of 46 suffering was greatly relieved.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

JAMES LIMONT, M.B., M.R.C.P., President, in the Chair.

Thursday, January 12th, 1899.

TAR ACNE.

DR. LIMONT showed a man who had developed tar acne as the result of having a tar lotion applied to his skin, which was affected with seborrhœic dermatitis.

MALIGNANT PUSTULE.

Mr. H. B. ANGUS brought forward a man from whom he had removed, by free incision, a malignant pustule situated below the left ear. This patient probably became infected while unloading foreign hides. The period of incubation was about four days. Recovery was uneventful, a simple healthy granulating ulcer now being present.

Dr. HARDCASTLE showed the specimen removed, also microscopic slides of the bacilli and spores taken from fluid in vesicles.

Mr. MORISON related a case which had been under his care three months previously. This patient became infected as the result of dressing the carcass of an animal which had died of anthrax. The pustule developed on the dorsum of the hand between the thumb and the first finger. Treatment consisted in free excision of the pustule. Three or four hours

afterwards, during the absence of the nurse, the man tried to get out of bed and was found dead on her return. Mr. Morison thought that syncope was a common method of death in these cases.

Dr. JAMES DRUMMOND related a case which had come under his observation a year ago. A stableman, who did not know how he got the infection, but suggested foreign grain, developed a pustule on the dorsum of the hand the size of a split walnut. He was seen four days after the onset. The fluid in the vesicles contained bacilli. Treatment consisted in injecting carbolic acid all round the pustule. The whole mass sloughed away, leaving a healthy surface, which healed in three months.

Dr. BEATTIE said that the period of incubation in Mr. Morison's case was four days, and a striking peculiarity was that bacilli were found in the blood during life. If the knife were used in the treatment of these cases, the resulting wound might be readily inoculated. He would suggest the actual cautery.

Mr. WILLIAMSON related the history of a man who developed two pustules on upper eyelid. The fluid in the vesicles was examined for bacilli, but none were found. The man died.

Dr. FIELDEN had come across three cases in his practice, all in butchers. These were all treated by the external application of strong liquor ferri perchloridi and the internal administration of 30 minims of the same preparation. All recovered.

GASTROENTEROSTOMY.

Mr. RUTHERFORD MORISON brought forward a patient who had noticed a mass in the abdomen for three years. Operation (gastroenterostomy) had been performed six weeks previously, with great benefit to the patient. Mr. Morison's method of operating consisted in severing the gut below the duodeno-jejunal flexure, attaching the distal part to the anterior surface of the stomach, and the proximal part to the gut below the anastomosis. In this way there was less liability for bile and pancreatic juice to regurgitate.

Dr. CLAY discussed the diagnosis of the case.

Mr. A. E. MORISON said that he had done gastroenterostomy in 5 cases. In 2 of these death had occurred as a result of regurgitation of intestinal contents.

Mr. MARTIN also made some remarks.

BONE TRANSPLANTATION.

Mr. RUTHERFORD MORISON exhibited a boy who had had the diaphysis of his right tibia removed for infective osteomyelitis. The bone was not reproduced. He therefore removed the fibula from a recently amputated leg, drilled holes into it, and placed it bodily in the position of the absent tibia. It had become vascularised completely, with the exception of a small piece at the lower end, over which the skin had sloughed.

OPERATION FOR PERFORATED GASTRIC ULCER.

Mr. A. M. MARTIN brought forward a girl, a domestic servant, who had experienced gastric pain for some two years back. Seven hours and a half previous to admission into the Newcastle Infirmary she was seized with severe abdominal pain and collapse. She was seen by Dr. Pratt three hours later, who advised instant removal to hospital. On admission she was in great pain; the abdomen was somewhat distended and tender all over. On percussion dulness was elicited in both flanks, changing with position. At the operation the perforation was found in the posterior wall of the stomach near the cardiac end; the peritoneum contained a quantity of fluid with fragments of undigested food. The perforation was closed with a double row of silk sutures. The peritoneal cavity was washed out with sterilised normal saline solution, and a drainage tube placed in Douglas's pouch. She made an uneventful recovery.

THORACIC ANEURYSM.

Dr. OLIVER exhibited two cases: (1) A man, who had been an in-patient three years ago for aneurysm of the ascending portion of the arch of the aorta. The aneurysm had therefore been in existence three years. Signs of effusion had been present, which on introduction of a needle was found to be purulent. There was now no evidence of pus. (2) A man with aneurysm springing from the descending aorta, and pointing backwards to the left of the spine. This case had been treated by galvano-puncture, with some diminution of size and pulsation.

FUNCTIONAL OPISTHOTONOS.

Dr. BEATTIE brought forward a German with marked analgesia. On becoming excited his back became markedly arched, so that he rested on his occiput and heels. While before the meeting this patient had a typical attack.

Dr. OLIVER alluded to the much greater frequency of these cases in foreigners than in Englishmen, and mentioned a precisely similar case which had been under his care some ten years previously.

SPHYGMOMETER AND NEW FORM OF SPHYGMOGRAPH.

Dr. R. A. BOLAM demonstrated the construction and uses of these instruments.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting on January 11th, Dr. RONBURGH in the chair, Dr. C. E. S. FLEMMING showed a microscopic section of Angeiosarcoma. Mr. WILLIAMS commented on the pathology of the subject.—Dr. WALDO read a paper on the Treatment of Hæmorrhoids. Mr. MUNRO SMITH, Dr. AUST LAWRENCE, Mr. C. E. S. FLEMMING, Mr. EWENS, Dr. A. J. HARRISON, Dr. P. W. WILLIAMS, Mr. CARWARDINE, and Dr. ELLIOTT spoke.—Dr. AUST LAWRENCE read a paper on the Immediate Repair of the Perineum when Lacerated in Labour. Mr. L. FIRTH, Dr. NEWNHAM, and Dr. W. C. SWAYNE discussed the paper.—Mr. J. L. FIRTH read a paper on a case of Primary Sarcoma of the Thyroid treated by Thyroidectomy. Mr. HARSANT, Mr. R. WILLIAMS, Dr. STACK, Dr. WALDO, Mr. MORTON, and Mr. PAUL BUSH commented on the paper.—Dr. W. H. NEWNHAM read a paper on a successful case of Intraperitoneal Hysterectomy. Dr. AUST LAWRENCE, Mr. WILLIAMS, Mr. MORTON, Dr. W. C. SWAYNE, and Mr. CARWARDINE discussed the subject.

BRADFORD AND DISTRICT MEDICO-ETHICAL SOCIETY.—The annual general meeting of this Society was held on January 18th at Bradford. There was a large attendance. The usual business of the Society was transacted, and the officers were elected for the ensuing year as follows:—*President:* P. E. Miall. *Vice-President:* Dr. T. Curtis Denby. *Treasurer:* Dr. F. K. March. *Secretaries:* W. Horrocks, Ar. Manknell. *Committee:* Drs. C. F. M. Althorp, D. Goyder, J. H. Bell, J. Mossop, A. Rabagliati, H. J. Butler. *Auditors:* Dr. W. J. Parkinson, Dr. E. G. Peck.

REVIEWS.

THE PRINCIPLES AND PRACTICE OF MEDICINE. Designed for the use of Practitioners and Students. By WILLIAM OSLER, M.D., LL.D.Edin., F.R.S., F.R.C.P., Professor of Medicine Johns Hopkins University, Baltimore. Third Edition. Edinburgh and London: Young J. Pentland. 1898.

THE third edition of Dr. OSLER'S admirable textbook is assured of a warm welcome. The first edition appeared six, and the second three, years ago. This new edition has undergone thorough revision. Many articles have been rewritten, among others several of those on disorders of the liver and of the bile channels. In this connection Dr. Osler expresses his obligation to Dr. William Hunter's articles in Allbutt's *System*.

The article on vaccination has also been rewritten, and we notice with pleasure that Dr. Osler refers to the Jenner Centenary Number of the BRITISH MEDICAL JOURNAL as "particularly valuable." He also mentions with approval the Facts about Small-pox and Vaccination which were printed in the JOURNAL last year, and have since been issued as leaflets. He expresses the opinion that they will be of the greatest value to public health officials who wish to distribute in a handy shape a statement of the true facts of the matter. Dr. Osler recommends that calf lymph should invariably be used, and from his own experience is able to give an account of the epidemic in Lower Canada in 1870-71, and the great

outbreak in Montreal in 1875. He reminds us that "a great deal of feeling had been aroused among the French Canadians by the occurrence of several serious cases of ulceration, possibly of syphilitic disease, following vaccination: and several agitators, among them a French physician of some standing, aroused a popular and widespread prejudice against the practice. There were indeed vaccination riots. The introduction of animal lymph was distinctly beneficial in extending the practice among the lower classes, but compulsory vaccination could not be carried out. Between the years 1876 and 1884 a considerable unprotected population grew up and the materials were ripe for an extensive epidemic. The soil had been prepared with the greatest care, and it only needed the introduction of the seed, which in due time came.....with the Pullman-car conductor from Chicago, on the 28th of February, 1885. Within the next ten months thousands of persons were stricken with the disease, and 3,164 died."

We shall not attempt to give a list of the articles which have been rewritten or very greatly revised. It will suffice to say that the new edition will confirm and consolidate the high position which the book gained on its first appearance. We know of no work which would be more useful either to the painstaking student or to the practitioner who, having been some time in practice, desires to have a compact work to refer to which he may be sure will reflect the most recent advances both in pathology and in treatment.

DISEASES OF WOMEN. A Treatise on the Principles and Practice of Gynecology for Students and Practitioners. By E. C. DUDLEY, C.M., M.D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's Hospital, Chicago. London: Henry Kimpton. 1898. (Roy. 8vo, pp. 636, 422 illustrations. 21s.)

IN his preface the author explains the method of arrangement he has adopted in dealing with his subject. His aim has been to "preserve the autonomy of each pathological process as it affects the different pelvic organs." The book is accordingly divided into five parts, as follows: I. General Principles; II. Inflammations; III. Tumours, Malformations, and Tubal Pregnancy; IV. Traumatisms; V. Displacements and Pelvic Massage. The practical advantage he believes to be that "the student will have a much more rational and comprehensive view of metritis by closely associating it with vulvovaginitis and salpingitis than by regarding it as a distinct and independent lesion." While this may be true as regards the inflammatory conditions, it hardly justifies the association of tumours and tubal pregnancy—conditions which from a pathological standpoint have no affinities whatever.

The antiseptic technique advocated by the author is elaborate and remarkable. In performing cœliotomy, he urges that the operator, assistants, and nurses should all remove their ordinary garments and put on special clothing before entering the theatre. A gauze turban should be worn by the operator, to prevent particles falling from his hair upon the field of operation, while a special assistant should be told off to wipe perspiration from his brow with a sterilised towel. In preparing the patient the intestinal contents should be disinfected by the administration of salol or salicylate of bismuth, after a course of purging. And in infective cases it is a "wise precaution" to curette the endometrium before opening the pelvic cavity.

In the chapters on inflammatory conditions, recent bacteriological researches receive adequate recognition, and throughout the latest developments of operative procedures are fully described.

The chapters on Perineorrhaphy are admirable; the author has been unusually successful in overcoming the difficulties attending the verbal exposition of operations, and the subject is very fully illustrated by 29 original drawings.

On the whole the text is clearly written, but at times the author's English fails him, as on p. 18, where Mr. Bland Sutton is stated to have made a "series of observations on the Fallopian tubes of women removed during menstruation." The illustrations are all remarkably good, and reflect great credit on the publishers.

ATLAS DER HAUT-KRANKHEITEN. [Atlas of Skin Diseases.] Von Dr. F. MRACEK. Lehmann's Hand Atlas Series. Munich: J. F. Lehmann. 1899. (Cr. 8vo, pp. 173; 65 coloured plates. M.14.)

THIS work fully sustains the high standard of the series to which it belongs. It is in the case of cutaneous diseases that illustrations acquire, perhaps, the highest importance; and one cannot study those presented without being struck by their truthfulness and realistic character. Although almost all are of reduced size the amount of detail shown is astonishing: and, with few exceptions, they leave absolutely nothing to be desired, whether for accuracy or artistic effect.

The few half-tone plates are unsatisfactory; for, with the bare exception of indicating the distribution of cutaneous lesions, such figures are as valueless as plaster casts. The group of syphilides is omitted, since these are dealt with in an atlas especially devoted to the subject of venereal disease. Four plates are allotted to carcinoma. These are, perhaps, amongst the less satisfactory, and might have been well omitted for certain others which are conspicuous by their absence. Carcinomata of the penis and vulva, etc., are, in fact, such strictly surgical affections that they are out of place in works devoted to cutaneous diseases.

Amongst obvious omissions might be mentioned as some: Molluscum contagiosium, cheloid, lymphangeiectodes, and the class of medicinal eruptions the only illustration of which is hyperchromatosis, due to the administration of Fowler's solution. The work, however, is not an atlas only, the plates of which are accompanied with descriptions and histories, but each disease is briefly described in the text, and under each are given the therapeutical indications, with numerous formulæ both for internal and external remedies.

The whole of the text occupies only 173 pages, and the nomenclature adopted is one easily followed and generally recognisable.

CHIRURGIE DE L'UTÉRUS. [Surgery of the Uterus.] Par HENRI DELAGÉNIÈRE, Membre Correspondant de la Société de Chirurgie de Paris. Paris: Institut de Bibliographie Scientifique. 1898. (Roy. 8vo, pp. 460; 378 illustrations. Fr. 10.)

THIS work is not a short epitome of uterine surgery, nor is it encyclopædic, but something between the two extremes—a synopsis after the type of Greig Smith's *Abdominal Surgery*. M. DELAGÉNIÈRE'S own methods, as practised in Le Mans, are succinctly described, whilst precisely similar sketches of operations practised by others are added. The author supplies his readers with an abundance of rough but clear and instructive drawings, showing the different steps of these surgical procedures. In respect to these illustrations we must say that even more of this class might have been afforded us, instead of the unnecessary woodcuts of Zwanck's and Hodge's pessaries and Sims's curette. On the other hand, every house-surgeon will feel that the author was right in figuring—in a row—the instruments needed for certain rather new operations where his own experience has proved that they are the best tools for the purpose.

We will not criticise the individual operations, first, because so many are recapitulated that our space would not allow it; secondly, because all are known already and have been specially described by the author and the authorities whom he quotes; and lastly, for a reason more important to the reviewer, namely, M. Delagénière's declaration in the preface that he reports the proceedings of others without allowing himself to stray for a moment into the domain of criticism. He desires, he wishes us to know, to be scientifically impartial. For this reason the author brings down criticism upon himself. Certain proceedings, if not to be condemned, should be passed over unnoticed. Few British gynæcologists can approve of the Belgian practice of performing retroperitoneal abdominal hysterectomy for prolapse of the uterus. The operation is described clearly, as is the case throughout the volume, and there is no criticism at the end of the description. This is consistent with the preface. But we find a paragraph on "Indications" which implies at least partial approval.

All the descriptions of abdominal, vaginal, and comb la-

hysterectomy are first rate for teaching purposes, and of the greatest value to the specialist who is convinced that a new method of operating foreign to his personal experience deserves adoption, yet is unable to see the method carried out by others. To meet this want is the chief responsibility of an authority who undertakes to teach the qualified. M. Delagénière knows this duty well: he is aware that in what is often termed post-graduate instruction the student requires simplicity and lucidity just as much as though he were an unqualified "first-year's man" learning his bones. In short, few manuals deserve better the verdict "most instructive," nor is the reader confused by references, statistical tables, or histories of the introduction of new operations. The book proves, if proof were needed, that we are as yet far from perfection in uterine surgery. M. Delagénière is on the right path, as he teaches those who think of practising on new lines to know first what they are about; and hysterectomy, in which he is deeply experienced, includes uncertain elements. One man's practice is never perfect, so that the author is right in relating that of others. He seems to err, as we have said, not in omission, but in quite the opposite direction.

NOTES ON BOOKS.

IT is a sign of the increased interest taken in physical education that two handbooks on the subject should have issued from the Scottish press within a few months of each other. Mr. H. RIPPON SEYMOUR, Gymnastic and Fencing Master, George Watson's College, Edinburgh, states that his *Physical Training: its Theory and Practice* (Edinburgh: E. and S. Livingstone. Crown 8vo, pp. 132. 2s. 6d.) is a handbook for....."young or old, the parent or the child," etc.; but we venture to doubt whether the chapters on "simple anatomy," "the muscular system," and "the nervous system," bristling as they do with technical terms, will be found attractive reading by children, or even youths, of either sex. These chapters have evidently been written with great care, but whether the author's claim to have been "the first to attempt to connect the theoretical and practical sides of training in one book" be valid we cannot decide in the absence of dates of publication. Two excellent plates of the muscular system (from original drawings by Mr. Dandie) form a frontispiece, and there are numerous illustrations of positions at drill. The author is a disciple of Sandow in his insistence on the principle of *festina lente* in gymnastic exercise, and quotes his maxim that "strength comes gradually, and to some very slowly." The physiology of training is fully discussed, and the good effects of grape sugar as a muscle food pointed out. Going "stale" (from overtraining) is described as "autopoisoning." The book closes with chapters on Elementary Hygiene and Hints to Teachers, and there are several useful tables in an appendix. Dr. William Taylor has written an introduction commending the purpose of the book.

Another edition of Professor ESMARCH's well-known lectures on *First Aid to the Injured* having appeared, H.R.H. Princess Christian has again given us a translation of them, and we notice that this, the sixth English edition (London: Smith, Elder and Co. 1898. Fcap. 8vo, pp. 117, 24 illustrations. 2s.) has a few additions, chiefly in the lecture on nursing. The utility of the book for the purpose for which it is intended is evidenced by the fact that it has been translated into no fewer than seventeen languages. The descriptions and directions given are plain, and are calculated, as Princess Christian remarks in the preface, to supplement ambulance lectures, and to interest more women, and we may add men too, in learning how to render first aid to their suffering fellow creatures.

THE INTERNATIONAL MEDICAL CONGRESS.—A provisional Committee for the German Empire in connection with the forthcoming meeting of the Thirteenth International Medical Congress which is to be held in Paris in 1900, has just been formed. The President is Professor Rudolph Virchow, the Secretaries Professors Posner and Eulenburg, and the Treasurer Dr. H. Bartels.

REPORTS AND ANALYSES

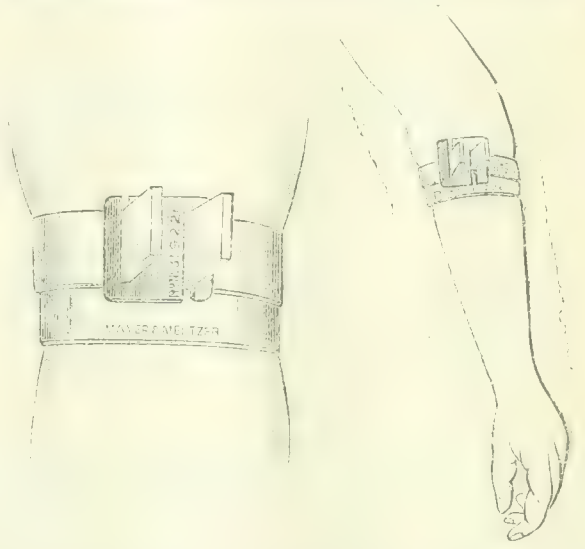
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

The University Tourniquet.—This appliance, supplied by Messrs. Mayer and Meltzer, is a decided improvement on previous forms of the elastic tourniquet, and seems well adapted to meet the difficulties so often experienced in applying equable and extended pressure without undue constriction, and in maintaining, without the risk of a slip, the required



degree of compression. This tourniquet consists of a flat rubber band, such as was introduced by Mr. Pollard some years ago, and has been found superior to the round cord, from the facts that it causes less constriction of the deep tissues of the limb to which it is applied, and is much less likely to produce abrasion of the skin. The novel feature in the appliance is the fastener, which, being very simple, can be readily used, and is not liable to fail or to get out of order. This fastener consists of a metal plate with two slots, which hold the rubber band firmly at any part. The appliance, which can be rendered surgically safe by immersion in an antiseptic solution, may be applied directly to the skin, and in its use there is no necessity for the intermediate application of lint or a bandage.

An Apparatus for Applying Constant Heat.—An appliance supplied by the "Perfect" Automatic Hot Appliances Company, Dashwood House, New Broad Street, E.C., consists of ingeniously arranged metal cylinders, in which water is heated by an automatically regulated safety alcohol lamp, the water being forced out through a rubber coil and brought back without evaporation to be reheated, thus maintaining a continuous heat of any desired temperature, either constant or gradually increasing, for as long a time as needed and requiring very little attention during many hours. This is intended to be used in place of a hot water bottle or poultice, and for any purpose where heat, either moist or dry, is desired. Its chief advantages claimed are that heat can thus be readily applied to almost every part of the body, and that an even degree of temperature can be maintained for many hours without disturbance of the patient. This method of applying heat seems capable of being developed with great benefit to those suffering from different forms of chronic rheumatism, and will be found useful in that much diminished class of cases in which poulticing or fomentation may be indicated.

THE WATER ENTERPRISE OF SOME OF OUR LARGE TOWNS.

V.—GLASGOW.

Early Supplies from Local Wells.

At the close of last century Glasgow derived its water supply from some thirty pumps in various public places and a few other wells on private property. So long ago as 1780 Henry Bell, by whose ingenuity afterwards a steamship first ran in British waters, suggested, it is said, the bringing of water to Glasgow from the Clyde above the Falls, but the suggestion though afterwards repeated more than once was never carried into effect. In 1799, indeed, the Town Council were so sensible of the urgent needs of the city that they appointed a committee of their number to consider or frame schemes for supplying the town with water. This committee next year consulted Mr. Bryce McQuiston, who recommended the establishment of five steam pumping stations to raise river water for the use of the inhabitants. This plan however met with no very enthusiastic reception, but the fact of its having been reported upon and considered shows that at the close of the last century the corporate authorities of Glasgow were not unprepared to recognise the principle of collectivism as applied to water enterprise.

The Formation of the Glasgow Water Company.

In 1805 the "magistrates and council" subscribed £1,000 for twenty £50 shares in a company formed to provide Glasgow with water, and in the following year they petitioned Parliament in favour of the scheme. They appointed a committee to examine the Bill that was to go before Parliament, with instructions to watch the interests of the community. This company, having obtained the necessary powers, established their works at Dalmarnock, on the banks of the Clyde, about three miles above Glasgow Bridge. As steam pumping formed an important feature in the scheme, it is interesting to know that James Watt was amongst the engineers consulted. He assisted in drawing out plans and establishing the works. These at first consisted chiefly of ponds and filtering beds on the north side of the river, and two, for that time, large engines by Bolton and Watt. There were also reservoirs at a higher level to which these engines pumped the water from Dalmarnock. The filters were probably less efficient than the steam engines, for soon others were necessary. Amongst these latter the somewhat primitive contrivance was resorted to of a brick tunnel below the level of the stream in the alluvium on the south side of the river. This culvert was somewhat on the principle of a land drain. It was laid in the sand close to the stream, and had open joints to allow the subsoil water to enter freely. The water thus tapped was estimated to average some 3 million gallons a day. The quantity, and still more important the quality, varied with the state of the river. When the latter was low the quality left much to be desired.

The Cranston Hill Water Company.

In 1808 a rival company, unsupported by the Corporation, established itself under Parliamentary powers at the western end of the town, drawing water also from the Clyde, but below instead of above the bridge. These Cranston Hill Waterworks were afterwards supplemented by the construction of another pumping station a short distance below the original works of the older company. These two companies for many years competed with one another, and at length combined. Their first attempt at amalgamation in 1834 was, however, vigorously and successfully opposed by the Corporation, who exacted as the price of withdrawing their opposition to a later Bill some years afterwards certain conditions favourable to the town. Neither company paid any dividend at first. The Cranston Hill Company at no time paid more than 1 per cent., but the other and older company after its eighth year paid a fair dividend, and its shares at one time appreciated considerably. The amalgamation took place in 1838.

Other Water Schemes Early in the Present Century.

Meantime other schemes had been under consideration. In or about 1834 Messrs. Grainger and Miller, of Edinburgh, commissioned by the City Council to look for other supplies, recommended the Earn Water, a tributary of the White Cart, which itself joins the Clyde a little below Renfrew. The junction of the Earn Water and the White Cart takes place about seven miles south of Glasgow, at an altitude about 300 feet above the Broomilaw, an elevation sufficient to allow the promoters to supply the city by gravitation. Three reservoirs to store the water above the junction, and a compensation reservoir in the White Cart below, were suggested. A drainage area of 5,371 acres would, these engineers considered, yield the town 10 millions of gallons a day.

In 1836 a company was suggested, and a Bill lodged, to bring water from the North Calder, near Airdrie. The Avon below Stonehouse was also suggested, but there were objections to both plans.

Many other schemes were framed all with points in their favour, and nearly all yielding a safer water than that supplied by the company. The Clyde above the Falls, the sources of the Kelvin, then a somewhat purer stream than the dark brook flowing past the present university buildings, the Endrick and Blane were all suggested, and at length the company in self-defence actually promoted, and carried in 1846, a Bill for bringing water to Glasgow from Loch Lubnaig in Perthshire.

The Gorbals Supply.

In 1845 the barony of Gorbals, later an integral part of Glasgow, established a company of its own, and this company obtained powers to bring water to Gorbals from the Brockburn, a tributary of the White Cart. This burn rises from lakes in the basaltic formation to the south-west of the city. The catchment of the original 1845 scheme, was about 2,560 acres, and a storage was provided of over 1,000 million gallons. Under powers conferred in 1846, the lower reservoirs were erected during the years 1847 and 1848, while the uppermost and largest was built in 1853-54 under powers conferred in 1850. The company also supplied Renfrew and Rutherglen. These works have actually yielded the estimated 4 million gallons a day, equal to 194 days' supply for the district served, with its then population. The water is pure. It has only 1½ gr. of organic matter, and 3½ gr. of mineral matter to the gallon, and a hardness of 3°. It is very similar to but a little softer than the Earn water already mentioned. The supply is still in use, further reservoirs and filtering beds having been added.

The First Suggestion of Loch Katrine.

Such, then, was the state of matters and such the supply of water to Glasgow by private enterprise some half century ago. The barony of Gorbals, it will be seen, was fairly well off, the city itself but indifferently so. In opposing the union of the companies the Town Council not only pleaded against monopoly, but alleged that promises to keep the mains full at night as a precaution against fire had not been carried out, and, as was said, they extracted favourable conditions as the price of their somewhat reluctant consent. In 1852 the promoters of another, and an important, enterprise memorialised the Corporation to relieve them, and municipalise the water supply in the following manner:

Dr. Rankine and Mr. Thomson had prepared for this company a scheme for bringing a supply from Loch Katrine. As there was difficulty in floating the company these two enterprising engineers, who had carefully surveyed the whole ground, laid their views before the "magistrates and council." In their memorial they pointed out that the existing Clyde supply was derived from a river which contained "the drainage of a great extent of moss, of a still greater extent of cultivated land, of mines of coal and ironstone, and of many towns, villages, and manufactories," that the water therefore held "in solution and diffusion impurities of a disgusting and unwholesome nature, which are not removed by filtration;" that the sources of such impurities must be expected to increase; and that "to facilitate the pumping of this supply from the Clyde, a weir is maintained, which injures the navigation by interrupting the tidal flow and intercepting the current of fresh water." These gentlemen then alluded to the advantage of a gravitation scheme from an economic, and

[1] *History of the Water Supply to Glasgow.* By John Burnet, Secretary to the Glasgow Corporation Waterworks Commissioners. 1569. Glasgow: Bell and Bain.

of a pure mountain supply from a health, standpoint. These had been in a way admitted by the water company themselves six years earlier when they obtained powers, which, however, they never used, to bring water from Loch Lubnaig. These engineers showed that the company's scheme just mentioned was ill-conceived and impracticable as proposed, and they insisted upon the advantages of the source they had selected, for the following amongst other reasons. The elevation of Loch Katrine was greater than that of Loch Lubnaig, and as its distance was about the same, a greater head of water was available. The greater elevation gave greater facilities for constructing conduits, as these could be kept along the hills. The valleys of the Forth and Teith did not need to be crossed by the Trossachs scheme. The natural outlet of Loch Katrine lent itself favourably to a simple and inexpensive method of increasing its storage capacity.

THE COUNCIL ATTRACTED BY THE SCHEME.

A Committee again sat on the whole question, which was, as it were, focussed by the desire of the water company to obtain renewed and altered powers for their Loch Lubnaig scheme. The Council, on the advice of this Committee, unanimously declared by resolution that it was now desirable that the water supply of the city should be in the hands of the "magistrates and Council" as a separate trust for the benefit of the inhabitants. The resolution was followed by action. The Council at once set about the selection of an independent engineer to guide them, and chose Mr. I. La Trobe Bateman, of Manchester and London. On the advice of Mr. Bateman, they opposed the new Bill of the company. The next step was to authorise their engineer to complete his survey. As early as August 15th, 1853, the latter presented his second report.

TWENTY MILLION GALLONS WANTED AT ONCE.

In this he stated that, in addition to the supply by the Gorbals Company, the then needs of Glasgow necessitated the provision of at least 20 million gallons daily, and that even this additional quantity would, if the population continued to increase at its old rate, be insufficient ten years later. Any new source of supply, therefore, should provide not less than these 20 millions for immediate purposes, and be capable of extension from time to time to a much larger amount. The Endrick water was capable of giving 17 millions, and the conduits could be arranged so as to be extended to Loch Katrine, from which a further supply up to 40 million gallons could be obtained. The Endrick water would, however, on account of its mossy character, require very careful and somewhat expensive filtering. Other waters proposed had the same fault, and he therefore counselled going to Loch Katrine at once, where even heavy autumn rains had very little effect on the purity and colourlessness of the supply.

THE SCHEME BEFORE PARLIAMENT.

Little difficulty was experienced with the Glasgow Water Company. They agreed to sell at a price to be settled by arbitration. An important question, however, arose in the House of Commons, when Dr. Penny, of the Andersonian College, pointed out to the Select Committee that the Loch Katrine water, excellent and pure as it was, seemed to him to dissolve lead very freely. In his able and cautious evidence, he pleaded rather for extended inquiry than that his results should be regarded as final. As the promoters seemed to have entirely overlooked this serious question, a long adjournment was agreed to, and a galaxy of chemical talent selected to help the Corporation to a decision in this important matter. Another opposition, prompted, it was thought, by the Forth Navigation Commissioners, was that of the Admiralty, who feared that the depletion of the Forth and Teith by the daily abstraction of 40 to 50 million gallons might endanger the usefulness of the upper portion of the Firth of Forth, between Queensferry and Stirling, as a safe harbour for war ships. The Committee accordingly found the preamble not proved.

The little bill of the Glasgow Corporation for their defeated attempt in 1854 to secure the pure water of Loch Katrine for the town came to upwards of £11,000, making, with the cost of opposing the water company the previous year, an expenditure of £17,000, and the work apparently no further advanced. The Admiralty objection seems to us nowadays to be somewhat absurd, for mountain streams, it is well known, dammed up by storage reservoirs, and supplied with the usual amount of compensation water, have, during the dry season, an actually larger flow than is the case where such torrents run an uninterrupted course to the sea. The lead question was, however, from a sanitary point of view, more important, and, in the light of later knowledge, one hardly to be disposed of by a few laboratory experiments completed in a few months at one season only of the year, and a postponement which gave time for a more extended inquiry on this point is perhaps not altogether to be regretted. During the intervening year the Corporation consulted Messrs. Stephenson and Brunel on the whole scheme, and most of the former opponents having had their eyesight somewhat improved by the judicious exhibition of golden ointment, and the Admiralty not pressing their report, the Committees in both Houses being satisfied on that score by the engineering experts, the Bill passed triumphantly into law in 1855.

THE POWERS GRANTED.

The Act of 1855 enabled the Council to buy out the Gorbals as well as the Glasgow Company on terms agreed upon. The magistrates and Council of Glasgow and their successors in office were appointed Commissioners, and the Act enabled them to act by a committee of their number. The Commissioners, while authorised to make and maintain certain works, take lands, use streams, etc., were prevented from raising the water in Loch Katrine to a greater height than 4 feet above the summer level without the consent of the proprietors, or, on the other hand, from drawing off water more than 3 feet below that level. In Loch Venacher, which is used solely for compensation purposes, they were in the same way restricted to 5 feet 8 inches above, and 6 feet below, the ordinary summer watermark. They were allowed to raise Loch Drunkie 25 feet. They were restrained from taking more than 50 million gallons of water from Loch Katrine in any one day, and were required to discharge into the Teith, from Loch Venacher 40½ million gallons daily, with certain definite conditions as to hours of discharge. Needless to say, the salmon fishery was considered in the construction of artificial outlets.

The works were commenced on May 20th, 1856, the initial blast being fired by a tap of the hammer by Mr. Stewart, who had been Lord Provost, and a most active promoter, when the scheme was initiated. On October 14th, 1859, the Queen turned on the water to Glasgow.

THE CHIEF FEATURES OF THE SCHEME IN 1859.

Loch Katrine is 360 feet above ordnance datum and 34 miles distant from Glasgow. The water flows from the lake into a tunnel 8 feet in diameter, 2,325 yards long, and 600 feet below the summit of the hill it pierces. There were at the time of the opening 69 other distinct tunnels of the same diameter, measuring together 11½ miles, the longest being 2,650 yards. The area of the three lakes laid under contribution for supply and compensation was 4,000 acres, and the available capacity within the limits already mentioned 10,000 million gallons. The catchment area was nearly 49,000 acres and the storage capable of supplying the inhabitants of Glasgow with 50 millions of gallons a day for 120 rainless days. The cost of the works, including the purchase of the rights of the two companies bought out, came to a million and a half, and the estimated population of the area to be supplied was at the time of the opening about half a million souls.

FURTHER EXTENSIONS.

The capital account in 1898 is upwards of 3½ million and the population of the area of supply 932,000. Last year the daily supply from Loch Katrine averaged more than 46½ million gallons, and from the Gorbals works close upon 5 millions more, an increase of 1½ million in the amount supplied in the previous year.

Already the limits of the supply contemplated in 1855 are within sight. The Corporation, however, have now power to raise the level of the loch 5 feet more, increasing the storage capacity by nearly 4,226 million gallons, and the available daily supply from 50 to 65 million gallons. An additional 10 millions can be obtained by raising the level of Loch Arklet 25 feet. This lake drains into the Leven and the Firth

of Clyde. Its upper end will be connected to Loch Katrine by a tunnel 700 yards long. Allowing for the compensation, the storage of 2,059 million gallons to be provided in this loch will enable the city to draw its 10 millions for 175½ rainless days. The Corporation have the powers for this work and have purchased the owners' rights. Naturally the structural alterations will be delayed as long as possible. The conduit to Loch Katrine has been duplicated in its entire length. The new aqueduct has a shorter course than the original one, Mr. J. M. Gale preferring to tunnel rather than bridge or siphon, on engineering grounds, the principal of which is the greater difficulty in keeping an exposed channel upon arches watertight.[2] The connections between the two conduits are already serviceable when repairs have to be executed. Where several lines of pipes are to be put down over the same section of the aqueduct, naturally only those needed immediately are yet laid, but the tunnels are, of course, made the full size. The level of the loch has yet to be raised. In a couple of years all the works—except the unneeded pipes—are expected to be complete.[3]

Though Glasgow has not, like Birmingham, Liverpool, and Manchester, bought up the catchment area, the feuing rights have, however, been secured, so that pollution of the sources can be prevented. If some of the towns named have gone to greater distances for their supply, it must be remembered that in large water schemes Glasgow has been very much of a pioneer. She, indeed, long ago set the example of gigantic municipal enterprise in the direction of water supply.

THE REPORT OF THE MEDICAL OFFICER OF HEALTH OF LONDON FOR 1897.

III.

ADMINISTRATION.

DAIRIES, COWSHEDS, AND MILKSHOPS.

DURING 1897 the County Council's inspectors made 21,284 inspections of dairies and milkshops. In 230 instances cases of infectious disease occurred at registered milkshop premises, 123 being of scarlet fever, 82 of diphtheria, 15 of enteric fever, 3 of erysipelas, 1 of puerperal fever, and 6 of measles. In every case the Council's inspectors visited the premises with a view to aid the local sanitary authority in ensuring the adoption of measures to prevent contamination of the milk.

SLAUGHTER-HOUSES.

There has been a progressive decline in the number of applications for the licence of slaughter-houses granted in each of the last seven years, and the number now licensed amounts to only 456, or about 200 fewer than in 1891. This large reduction is no doubt due to the making of the new by-laws, with which the licensees were either unable or unwilling to comply. It may be said that the remaining public slaughter-houses in London for the most part comply to a fair standard of sanitation; but so long as animals continue to be killed in numerous private slaughter-houses, there cannot be sufficient inspection at the time of slaughter—the only time when inspection can be effectual; nor, indeed, can London claim special facilities for the inspection of that dead meat coming into London from other parts of the country which is not taken in the first instance to the markets of the City Corporation. It is certainly a reproach to the sanitary administration of London that no system exists to prevent unwholesome and dangerous meat finding its way to the premises of those who trade in it. All will agree with Mr. Shirley Murphy that there is an urgent necessity for the institution of an administrative system of meat inspection which shall serve to protect the poor, who, being the purchasers of cheap meat, must be the chief sufferers.

SMOKE NUISANCES.

There are few more important branches of sanitary work performed in London than that which aims at reducing the pollution of the atmosphere by unnecessary smoke, and it is satisfactory to note that each year sees the different sanitary authorities more active and alert to this end. The number of smoke consumers on the market increases year by year, but few appear to be satisfactory; one or two, however, generally effect their object, and as intelligent and careful firing and the use of proper fuel generally in themselves suffice to abate the nuisance caused by black smoke, there is no sufficient excuse for the offence, and magistrates generally appear to show undue leniency towards offenders.

NUISANCE FROM STABLE MANURE.

The increased use of peat-moss litter for horses has given rise to much complaint, and many metropolitan medical officers of health draw attention to it in their reports. This material is used from motives of economy; being of a highly absorbent nature it becomes quickly charged with urine, and since the horsekeeper generally only rakes away the soiled portions, the material is so saturated with excreta that when it is temporarily stored and then carried through the streets it gives rise to an intolerable nuisance. The remedies generally recommended, and in some cases adopted, are in the direction of a more liberal use of the litter and more prompt removal from the stable. To promote the latter object several medical officers of health recommend that the refuse should be placed at once, on removal from the stable, into the vehicle in which it is to be taken away from the premises.

REMOVAL OF HOUSE REFUSE.

During the year the Public Health Department continued its investigations into the manner in which the authorities were effecting the removal of house refuse, so as to comply with the Council's by-law that this refuse should be removed not less frequently than once in each week; and inquiries by the Council's inspector at Holborn, Marylebone, St. Luke, and Hackney, showed that although he found many accumulations of two or more weeks in each of these parishes, some progress is being made in London in connection with the more frequent removal of house refuse. A weekly call of the dust collector at each house is being more generally made, and, by degrees, the London householder is falling into line with this requirement, and is giving facilities for the removal of his domestic refuse.

NUISANCES FROM SEWERS.

The subject of nuisance from sewer ventilators and of the flooding of basements with sewage is discussed in the report, and extracts are given from the reports of metropolitan medical officers of health, showing that both subjects have demanded considerable attention, more especially in some districts.

HOUSING OF THE WORKING CLASSES, ETC.

During 1897 several schemes were either undertaken or contributed to by the Council under Part I of the Housing of the Working Classes Act. Though by-laws or regulations dealing with houses let in lodgings have been made in every London district, it appears that only in a limited number of districts is any considerable effort made to enforce them; and there seems to be some lukewarmness on the part of metropolitan medical officers of health as to their value. The number of common lodging-houses on the register at the end of the year was 581, providing accommodation for 28,718 persons; and Mr. Shirley Murphy testifies to a marked improvement in their condition.

FACTORIES AND WORKSHOPS.

Ample evidence is given in the report that improvements are being effected in numerous workshops in the metropolis, more especially in those districts where inspectors have been appointed entirely for this work.

UNSOUND FOOD.

A large amount of food, usually consisting of fish, fruit, vegetables, eggs, and poultry, were condemned as unfit for human consumption in a number of districts. The largest amount of meat condemned in any district was in the City, where 918 tons in all were seized.

DISINFECTION, ETC.

Although sulphur dioxide is generally used for room disinfection in London, the work of disinfection appears to give general satisfaction. The medical officer of health of Pad-

[2] Paper read by Mr. Gale before the Institute of Engineers and Shipbuilders in Scotland, March, 1895. Reprinted by Wm. Asher, Glasgow, 1895.

[3] Report by the Water Committee to the Corporation, 1898, furnished to us with much other valuable information by Mr. Bowers, the Deputy Town Clerk, and to whom we wish gratefully to express our indebtedness.

dington gives the result of a careful inquiry concerning the appearance of secondary cases in invaded houses, and he comes to the conclusion that in about 3 per cent. only was there reason to think that some failure in the disinfection had taken place.

The action taken by sanitary authorities under the Cleansing of Persons Act is shown in several of the reports of the medical officers of health. This Act, in its relation to London, empowers every sanitary authority, "when in their discretion they see fit, to permit any person who shall apply to the said authority, on the ground that he is infested with vermin, to have the use, free of charge, of the apparatus which the authority possess for cleansing the person and his clothing from vermin."

The results of the examination—chemical and bacteriological—of the water supply of London, and some proceedings of the Council in matters affecting water supply, etc., close the report, to which is appended five special reports which have already been referred to in the columns of the BRITISH MEDICAL JOURNAL.

THE PREVENTION OF TUBERCULOSIS.

BOURNEMOUTH.

AT a meeting of the Bournemouth Medical Society on January 18th, the President introduced a debate on the subject, Should the Bournemouth Medical Society take any active part in the campaign again tuberculosis, and, if so, in what way will it be best to move in the matter? He said he thought the local medical society should take an active interest in the matter, and co-operate with the National Association for the Prevention of Consumption. He did not think the matter should be left solely to private enterprise to establish sanatoria for the so-called open-air treatment of tuberculosis.

The President and Dr. Arthur Ransome having given some particulars of the National Association, it was unanimously resolved:

That the Bournemouth Medical Society approve the necessity of forming a local branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis, and that seven members be appointed to act with an equal number of the Town Council, thus forming a Provisional Committee to further consider the matter.

The following members were proposed on behalf of the Medical Society, namely: Drs. J. Roberts Thomson, Arthur Ransome, F. Winson Ramsay, D. M. Ross, W. Vicary Snow, T. Fred. Gardner, and H. G. Lys.

At a meeting of the Town Council, held on January 19th, the Council appointed the following seven members, namely, the Mayor, Aldermen Hirons and Hosker, Councillors Roker, Jolliffe, Mate, and Kinsey-Morgan, to serve on the Provisional Committee, proposed by the Medical Society to consider the desirability of forming a local branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis.

CAMBRIDGE.

At a meeting of the Cambridge Town Council on January 20th the Sanitary Committee reported that the Medical Officer of Health had presented a report on the subject of tuberculosis, wherein he suggested: first, that the public should be informed of the ways in which tuberculous disease may be disseminated, and the measures to be taken for its prevention; secondly, that sanitary authorities should be given power to take such steps with regard to phthisis as they are now empowered to take in cases of non-notifiable infectious diseases; and, thirdly, that the cows of the various districts should be tested for tuberculosis free of charge. A leaflet had been drawn up by the Chairman, in conjunction with the Medical Officer of Health, for giving information to the public under the first head, and a memorial to the Local Government Board had also been prepared by the Town Clerk and the Medical Officer of Health asking the Board to consider the desirability of introducing a Bill in the next session of Parliament giving to sanitary authorities the powers mentioned in the second suggestion. The Committee recommended the Council:

(1) To concur in the distribution of the leaflet above referred to.

(2) To authorise the Town Clerk to affix the corporate seal to a memorial to the Local Government Board to the effect above stated.

(3) To offer to test for tuberculosis the cows of the various dairies supplying milk in the borough, with veterinary assistance and free of charge.

Mr. Alderman HYDE HILLS (M.R.C.S., L.R.C.P.), in moving the adoption of the report, said it was their duty as a sanitary authority to do all they could to stop the spread of the disease. Certain steps they proposed to take would help considerably in that direction. The first thing they had done was to issue a leaflet of warning and instruction to be distributed to every householder. The second proposal was that the Town Council should petition the Government to make an alteration in the law so as to include tuberculosis in the second rank of infectious diseases. Such an alteration would clear away nearly all their difficulties in dealing with the subject; and, therefore, he would urge most strongly that the Town Council should allow its seal and its authority to be affixed to the petition. They had, of course, certain powers under the Dairy, Cowsheds, and Milkshops Order, and under their by-laws, but those powers were very limiting in dealing with the subject. In the Order it was unlawful to sell milk that was exposed to contamination by persons suffering from a dangerous infectious disease, but in the present state of the law that definition did not include phthisis. The third proposal was one which involved a little further explanation. The chief causes of infection were: (1) Through tuberculous meat; (2) from tuberculous milk; (3) from the direct infection of one person to another in various ways. With the third they had nothing to do that day, excepting what he had already said about the leaflet. With the first the sanitary authority would, as he had already stated, take such steps as were possible to prevent tuberculosed meat being exposed for sale. The second cause, however—that from milk—required the help of the Council. In May of last year the late Professor Kanthack and Dr. Sladen commenced a careful examination of the milk of the dairies supplying the colleges. He had the result of that examination. There were sixteen dairies and in 9 of them tubercle was found in the milk, that was to say, in rather more than 50 per cent. Dr. Kanthack and Dr. Sladen made experiments by inoculation of guinea-pigs with the milk. Six specimens of milk from each dairy were taken. Each specimen was examined in the ordinary way for tubercle, and also injected into a guinea-pig. Ninety guinea-pigs were inoculated in all, with the astonishing result that 23 died of tuberculosis, giving a percentage of 25.55. The ordinary bacteriological analysis accurately corresponded with the results obtained by inoculation. The representatives of the colleges were so struck by these results that they had already taken steps to have the cows of the dairies supplying them examined periodically by the tuberculin test, so as to eliminate as far as possible the chances of tuberculous milk being supplied. In that, he understood, they had been met by the proprietors of the dairies, and the probability was that the cost would not be very great, but would be shared between the sellers and the buyers. If that had occurred under their noses surely it was time they took some action, considering that their milk supply came from practically the same sources; and they asked for power to take the same action as the college authorities had done. After referring to what he had done in the direction indicated in Denmark, Germany, and America, Mr. Hyde Hills spoke of sanatoria. He said that sanatoria were excellent means of treating the disease when contracted, but they might perhaps hope that by preventive measures they could eradicate it altogether in much the same way as it was hoped to eradicate hydrophobia. It was not a final report of the Committee. Those were imperative points, and the least they could do for the present.

Mr. Alderman REDFERN seconded, and suggested that Dr. Annington's report should be circulated at the discretion of the Committee.

Councillor Dr. PORTER proposed that every Corporation in the United Kingdom should be invited to join in a similar memorial.

Councillor Dr. DALTON seconded.

The report was adopted, Mr. Alderman Redfern's suggestion was accepted, and Dr. Porter's proposal was referred to the Committee.

CORK.

On January 17th, Dr. R. B. TRAVERS delivered a lecture before the members of the Cork Young Men's Society, entitled Consumption and the New Crusade. Dr. Travers said that he stood before them that night as an advocate of a movement

recently inaugurated by the medical profession. It was not only a national movement, but one that concerned them all (widespread), and he hoped that all the countries of Europe would awaken to its importance, and as their individual and collective co-operation was absolutely essential to the success of the movement, he hoped before he closed his lecture to enlist all present as volunteers under the standard. If this movement was earnestly taken up by the Legislature, the medical profession, and the people, it would be attended with the happiest results, and would end in the total extinction of the disease. If the people awakened to the importance of this movement victory was within their grasp. This was an Imperial work that should be met by the Legislature, and sanatoria should be established throughout the country. The only institution of this kind to be found in Great Britain was the one established in Edinburgh, which had already done excellent work. Under favourable circumstances the treatment might be carried on at the patient's home. A consumptive patient was not to be looked upon as a leper. He confidently appealed to his audience, and said that the members of that Society could take up no grander work than forming themselves into a nucleus of a branch of the National Association for the Prevention of Tuberculosis, recently started by men of light and leading in the medical world.

The CHAIRMAN (Rev. T. J. Magner) conveyed the cordial thanks of the meeting to Dr. Travers for his able lecture.

DUNDEE.

The question of the prevention of consumption and other forms of tuberculosis was considered at a meeting of the Forfarshire Medical Association held in University College, Dundee, on January 20th. Dr. Paton (Carnoustie) the President, occupied the chair, and there was a large attendance.

Dr. TEMPLEMAN (Dundee) introduced the subject, and said that of late years it had been gradually borne in upon the minds of the medical profession that some active measures should be taken for dealing with tuberculous disease. The recognition of the fact that consumption was an infectious disease, and therefore to a greater or less extent preventable, had culminated into the formation of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. That meeting had been held for the purpose of considering whether the Association was to adhere to that Society. The methods of the Society were educational, not compulsory, by getting the people to understand that consumption was not an incurable disease. He moved a resolution expressing approval of the national movement for disseminating a knowledge of the true nature of tuberculosis and the best means for its prevention.

Dr. J. W. MILLER (Dundee) seconded. He said if the public authorities realised the danger they ran from the supply of tuberculous milk they would be able to induce dairymen to see that their dairies were kept in the best hygienic condition, and that their cows were free from tuberculous disease as shown by the tuberculin test. The public had this matter largely in their own hands. Dr. Miller then referred to a visit he paid to Dr. Philip's Hospital for Consumption in Edinburgh, and said they might look forward to having a similar institution in Dundee on a self-supporting basis in the near future.

Dr. URQUHART (Murray's Asylum, Perth), in supporting the resolution, said that the butchers in Perth had already formulated a plan of self-insurance, and by paying 2s. 6d. per animal they would be insured against loss if the animal were condemned. He also said in Perth they were taking steps to institute one or two cottage hospitals in suitable places for the open-air treatment of consumption. He deprecated appealing to the public for large sanatoria till the success of the smaller ones showed they were justified in doing so.

Dr. SINCLAIR (Dundee) agreed with Dr. Urquhart regarding the establishment of sanatoria. He moved that a deputation be appointed to wait on the Lord Provost, and request him to convene a public meeting on the subject.

Dr. MACKIE WHYTE seconded the resolution, and it was supported by Dr. DICKSON (Carnoustie).

Both resolutions were carried, and the following Committee was appointed to wait on the Lord Provost: The President, Drs. J. W. Miller, Sinclair, Templeman, and Halley.

BELGIUM.

An Association, entitled the Œuvre de la Tuberculose, has just been formed in Brussels under the presidency of Dr. Moeller, with the object of furthering the establishment of sanatoria for poor persons suffering from tuberculosis. The Association consists of a General Committee in Brussels, the Secretary of which is Dr. G. Derscheid, 10, Avenue des Arts; and local committees in all the chief towns of Belgium. The local committees, which are absolutely autonomous, will undertake the direction of the sanatoria established in their district. The Association is composed of patron members who subscribe 100 francs (£4) a year, and adherent members who will subscribe 10 francs a year. The new Association is altogether distinct from the Ligue contre la Tuberculose, of which an account was given in the BRITISH MEDICAL JOURNAL of April 9th, 1898. The latter body concerns itself more particularly with the scientific side of the struggle against tuberculosis.

CANADA.

The *Canadian Practitioner and Review* for January, after referring to the progress of the "crusade against tuberculosis in England," goes on to speak of what is being done in Canada as follows:

"We are making some progress in the right direction in Canada, but our municipal bodies are moving somewhat slowly. We have our excellent sanatorium at Gravenhurst, which has been a boon for a limited class of consumptives, but has not thus far been available for those unfortunate victims of tuberculosis who are unable to pay for treatment. The Council of Toronto has been urged by the profession of the city to take certain steps towards the establishment of a sanatorium for our sick poor consumptives, but is slow in responding in a satisfactory manner.

NORTH AMERICA.

The following resolutions respecting tuberculosis were adopted by the thirteenth annual meeting of the Conference of State and Provincial Boards of Health of North America, held at Detroit, 1898:

Whereas it is the unanimous voice of the Conference of State and Provincial Boards of Health for North America that, since tuberculosis, which causes on this continent more deaths than all other contagious diseases together is now recognised by all scientific and medical authorities as both curable and preventable: and

Whereas, since the onset of the disease depends especially upon hereditary weakness and on malnutrition induced by overcrowding, bad ventilation, and over-pressure in schools, social and commercial life; and

Whereas, since the presence in the home of the poor of so many cases of this chronic disease means about certain death to the patient, and probably infection of other members of the family: be it therefore

Resolved: That this Conference does publish and instruct the Secretary to forward copies of these resolutions to the Legislatures, Departments of Education, and municipal authorities of the several States and Provinces represented in the Conference, urging upon them the imperative need of:

First: Having all schools and colleges placed under medical supervision with regard to ventilation, over-crowding, and over-pressure in studies.

Secondly: Having all hotels, boarding houses, and workshops where consumptives may be employed placed under municipal supervision and inspection.

Thirdly: Urging all State Legislatures to devote public funds, and encouraging private philanthropy in the establishment of homes or sanatoria in one or more counties or districts of the several States and Provinces to which patients may be sent early, either at their own or municipal expense, and under proper regulations be encouraged to remain therein until recovery shall have taken place, while at the same time they shall have prevented the continuance of centres of infection in their homes.

PENNSYLVANIA.

From the report of the Pennsylvania Society for the Prevention of Tuberculosis for the year ending April 13th, 1898, it appears that the death-rate from phthisis has in the last fifteen years fallen in Philadelphia from about 14 per cent. of all deaths to 10 per cent. The Society, which was organised on April 10th, 1892, and incorporated in 1895, has worked with but one end in view—namely, the education of the community in a knowledge of the true nature of consumption and of the means now considered necessary to control or conquer the disease.

The means by which this end is sought to be obtained are: (1) by the

publication and distribution of pamphlets: (2) by constant efforts to induce those in influential positions to use their earnest efforts to prevent the spread of the disease; and (3) by striving to obtain the requisite conditions whereby those early afflicted may be restored to usefulness, or for those far advanced the safeguarding that will prevent the communication of infection to others.

During the past year one new pamphlet has been published (Tract No. 4), How Storekeepers and Manufacturers can Help to Prevent the Spread of Tuberculosis. Five thousand copies of this have been issued, and 20,000 copies of earlier tracts have been reprinted and extensively circulated and copied. The chief effort of the managers, however, has been directed towards the establishment of the greatly-needed municipal hospital for tuberculous patients, and also for a sanatorium in the high regions of the State.

A most desirable location in Luzerne county has been offered the Society for the site of a sanatorium, and strong efforts are being made to obtain State aid to erect the building. The tract consists of several hundred acres, and it has been offered free of expense and encumbrance to the Society, on the simple condition that they shall raise the funds for building and equipping the institution. The matter having been brought to the notice of the Board of State Charities, from the fact that it is intended to make this more especially a refuge for the consumptive poor of our large cities, that body recommended an appropriation of 2,000,000 dollars, provided a like amount could be raised by private subscriptions. The Committee on Appropriations of the Legislature, however, reported the Bill negatively. The movement having once been inaugurated, will certainly not be suffered to drop.

The Society has made a strong effort to limit the evil of expectoration in public places. The Board of Health was requested by this Society to consider the advisability of issuing circulars or public notices, to be properly distributed, warning against the uncleanly, unnecessary, unhealthful, and reprehensible practice of spitting, especially by consumptives, in public places, thoroughfares, and conveyances. The Board of Health published *The Spitting Habit*, and thousands of copies were widely distributed; now every street car in Philadelphia is provided with a sign authorised by the Board of Health forbidding the practice of spitting on the floor.

The State Live Stock Sanitary Board of Pennsylvania has been in operation for about two and a-half years, and much of its work has been in connection with the suppression of tuberculosis of cattle. Since its establishment it has caused the condemnation and destruction of over 3,500 tuberculous cattle. Inspections of tuberculous herds have been made by the State Veterinarian in all parts of Pennsylvania under the supervision of the State Live Stock Sanitary Board. Herds have been found in which the percentage of tuberculosis has been extremely high. In one herd of 56 cattle recently examined, 53 were afflicted with tuberculosis and killed. The average percentage, however, is steadily falling, and while the proportion of infected cattle in infected herds was as high as 30 per cent. in the beginning of the work, it has been reduced to about 10 per cent., showing that the herds in which infection is most extensive are being discovered and disposed of.

Great attention is being paid to sanitary conditions of stables, and farmers are now enabled to purchase cattle that are proved free from tuberculosis by application of tuberculin test as a result of the enforcement of the new law requiring inspection of all dairy cows and cattle for breeding purposes coming into Pennsylvania from other States.

The State Live Stock Sanitary Board is now engaged in some research work carried on for the purpose of discovering more as to the exact manner in which tuberculosis is transmitted from animal to animal, the infectiousness of the breath, saliva, and secretions of tuberculous animals, the infectiousness of the milk at different stages of disease, and the discovery of practical methods for the prevention of the spread of tuberculosis in infected herds.

In the beginning of this work there was some opposition to it by farmers on the ground that it is not necessary, and would cause them financial loss. That they now appreciate its importance and benefits is shown by the fact that the State Veterinarian receives fully three times as many voluntary applications for examinations of herds as can be made with the funds at the disposal of the State Live Stock Sanitary Board.

LITERARY NOTES.

THE *Cambridge Review* of January 19th contains a very appreciative memoir of the late Professor Kanthack by Dr. W. H. Gaskell, who concludes as follows:

> Not since Balfour died has Cambridge science suffered the loss of a professor so young and full of promise; the sense of calamity and personal sorrow for Kanthack's death recalls vividly the earlier loss I so well remember. Like Balfour, he would, if he had lived, have founded a great school; like Balfour he leaves a void in the University it will be hard to fill, and among his friends a feeling of personal loss which will remain as long as life lasts.

Professor Max Verworn's great work, *General Physiology*—an outline of the science of life—has been translated into English by Dr. Frederic S. Lee, Professor of Physiology in Columbia University. Messrs. Macmillan are the publishers. The work has gone through two editions in German, and has been translated into Italian and Russian.

In M. Paul Meurice's drama entitled *Struensee*, now being played at the Comédie Française, the hero is the famous physician who in the last century rose to be the first Minister of Denmark. Johann Friedrich Struensee was the son of a Protestant clergyman of Saxony. He studied medicine, and graduated at Halle in 1756, but had a soul above commonplace practice, and longed for an ampler ether for his genius. He was recommended to Christian the Seventh, King of Denmark, who was suffering from premature decrepitude of mind and body. Struensee won favour in the eyes of the King, and still more in those of the Queen, with whom he openly carried on an intrigue. Struensee became all-powerful in the State, and attempted to reform the constitution and social condition of Denmark according to the light of philosophy as revealed to Voltaire and the Encyclopædists. Being a young man in a hurry, he not unnaturally came to grief. The people rose in wrath against the foreign upstart who sought to reform them against their will. He was arrested and put to death in 1772. Struensee was a not altogether edifying example of the medical politician, but many of his projects of reform seem to have been sound, had he only had the tact and patience required to get them adopted by those or whose benefit they were intended.

In Major Arthur Griffiths's new book, *Mysteries of Police and Crime*, reference is made to the identity of "Jack the Ripper," who was a name of fear in Whitechapel some ten years ago. Major Griffiths, who is in a position to know the facts, says that the police after the last murder had brought their investigations to a point of strongly suspecting several persons all of them known to be homicidal lunatics. As regards three of these, the suspicion was particularly strong. One was a Polish Jew who was afterwards confined in an asylum. The second possible criminal was a Russian doctor, also insane, who had been a convict both in England and Siberia. This man was in the habit of carrying about surgical knives and instruments in his pockets. His antecedents were of the very worst, and at the time of the Whitechapel murders he was in hiding, or, at least, his whereabouts were never exactly known. The third person was of the same type, but the suspicion in his case was stronger, and there was every reason to believe that his own friends entertained grave hopes about him. He also was a doctor in the prime of life, was believed to be insane, or on the borderland of insanity, and he disappeared immediately after the last murder, that in Miller's Court on November 9th, 1888. On the last day of that year, seven weeks later, his body was found floating in the Thames, and was said to have been in the water a month. The theory in this case was that after his last exploit, which was the most fiendish of all, his brain entirely gave way, and he became furiously insane and committed suicide. It is, says Major Griffiths, at least a strong presumption that "Jack the Ripper" died, or was put under restraint after the Miller's Court affair, which ended this series of crimes.

Dr. Reginald Farrar (Stamford, Lincs) has sent us the following "protest against that odious word 'reliable,' which is creeping into journalistic literature":

> I quite admit—my worthy friend—the English language pliable.
> A very useful tendency, the fact is undeniable;
> But no convenience can excuse that odious word "reliable."
> I fear the foul abortion shows signs of being viable.
> Yet, ere we grant the creature life let's think to what we're liable.
> A thrilling "shilling shocker" will be advertised as "cry-able,"
> And a gentle maiden's sorrows be versified as "sighable,"
> If we weakly grant admittance to that hybrid word "reliable,"
> A monster whose existence is quite unjustifiable.
> A purchasable picture will be catalogued as "buyable."
> The marriage-knot be registered a ligature "untiable."
> A legitimate experiment be spoken of as "triable";
> Historians will praise immortal glory as "undieable."
> And the poultry-monger's pigeons be ticketed as "pieable."
> An oath at which we say "Oh, fie!" be called henceforth "Oh-fiable;"
> E'en now the Cockney terms a trip to 'Ampstead 'Eath "enjyable."
> Now let us all with one consent consign it to the Diable!
> And when we mean "trustworthy" let us never say "reliable."

We have no love for the word which Dr. Farrar anathematises so vigorously: it is superfluous, it is of doubtful legitimacy, and, what we suspect makes it particularly offensive to the ears of grammatically orthodox Britishers, it is of American manufacture. Dr. Farrar, however, in some of his instances, seems to us to have missed the real objection to the word from a puristical point of view: the fact that "rely" cannot stand alone without the preposition "on," which is needed to complete the sense. But against all the objections which philological orthodoxy can bring against "reliable," must be placed the solid fact that it is sanctioned by common use, and, as Horace says, it is

> *usus*
> Quem penes arbitrium est et jus et norma loquendi.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 28TH, 1899.

THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

THE appeal to the Court of Queen's Bench in the Hunter case was decided on January 24th by a Divisional Court consisting of Mr. Justice Lawrance and Mr. Justice Channell. The case is of interest from at least two points of view. In one of these aspects the case is perfectly clear: in the other it is involved in a fog of uncertainty which we may hope will eventually be cleared away. The aspect of the case which is perfectly clear is the question which the Divisional Court was asked to decide. The aspect which is not clear is how it came about that the General Medical Council instituted a prosecution against a registered medical practitioner in the first instance, and how it subsequently came to prosecute the appeal with the great vigour which was displayed by the counsel who represented it in Court.

With regard to the nature of the proceedings taken in the matter of the late Mr. Hunter, we gather from the exhibits attached to the case stated by the magistrates for the consideration of the Divisional Court,[1] and from the Minutes of the General Medical Council—the latter, it may be said, exceedingly scanty on this head—that what happened is as follows: In September, 1897, a letter was, by direction of the President of the General Medical Council, addressed to Mr. Hunter by the solicitor, stating that it had been reported to the Council that he, being on the *Medical Register* as Lic. Soc. Apoth., London, assumed at times and used the letters "M.D." after his name, thus suggesting that he had a registrable qualification which he did not in reality possess. The solicitor added that to assume a registrable qualification to which the individual was not entitled was an offence under Section XL of the Medical Act, 1858, and concluded by expressing a hope that Mr. Hunter would for the future abstain from the practice of using letters implying a registrable qualification which he did not possess. After some correspondence, it would appear that Mr. Hunter undertook to refrain from the use of the letters "M.D." He addressed a letter to the office of the General Medical Council inquiring whether he could style himself "Physician and Surgeon," but was informed, in reply, on the authority of the President, that it did not come within the Council's statutory powers to advise him. All this happened, apparently, in September, 1897. On November 25th, 1897, according to its Minutes, "The Council received *in camerâ* a recommendation from the Penal Committee." From a letter by Mr. George Brown dated May 16th, 1898, and published in the BRITISH MEDICAL JOURNAL on May 21st, 1898, it appears that the recommendation from the Penal Cases Committee referred to in this Minute was that certain persons, amongst whom was Mr. H. K. Hunter, should be prosecuted under Section XL of the Medical Act of 1858. It would appear further from Mr. Brown's letter that the Council were not informed that one of the persons whose name appeared on the list of persons to be prosecuted was a registered medical practitioner; and, lastly, that most of the other members of the Council were likewise in ignorance of this. Mr. Horsley, in his fifth report to the registered practitioners of England and Wales, published in the BRITISH MEDICAL JOURNAL of December 10th, 1898, stated that the Penal Cases Committee, in reporting the case to the Council, described it as an instance of an unregistered person practising under an American M.D. degree, and that, in ordering a summons to be issued, the Council believed that the object was to restrain an unregistered person from practising under cover of an American degree.

What actually happened, however, was that at the petty sessions at Caxton, in Cambridgeshire, on April 6th, 1898, Mr. Hunter was prosecuted, at the instance of the General Medical Council, on two summonses, one for calling himself Physician and another for calling himself Surgeon, contrary to the provisions of Section XL of the Medical Act of 1858. It was argued on behalf of the defendant that since the diploma of the Society of Apothecaries, granted since the Medical Act of 1886 came into force, entitled him to practise medicine, surgery, and midwifery, he had the right to use the style of Physician and Surgeon so long as he did not assume the titles conferred by any other licensing body or university. The magistrates convicted the defendant on the summons for using the title of Physician, and imposed a fine of £5 and costs. Mr. Muir Mackenzie, who appeared for the General Medical Council before the magistrates, said that he did not wish to proceed with the second summons—namely, as to the use of the title of Surgeon. The Society of Apothecaries immediately resolved to appeal. It was this appeal which was heard last Tuesday.

The general contention put forward by Mr. Haldane, Q.C., M.P., who appeared for the Society of Apothecaries, was that the Act of 1858 had gone far to remove the diversity of qualification which had previously existed by establishing a common register, by defining what should admit to it, and by placing the various examinations under the inspection and control of the General Medical Council, but that the Act of 1886 had gone much further by enacting that all examinations conferring registrable qualifications should embrace the three subjects of medicine, surgery, and midwifery. Moreover that the Acts distinctly laid down that a person who had obtained registration was by law entitled to practise all three. He therefore urged that any decisions or expressions of opinion by judges which related to diplomas granted prior to 1886 were no longer fully rele-

[1] The "case" is printed in full in our report of the proceedings before the Divisional Court on p. 233.

vant, and that a person recognised by law as qualified to practise medicine and surgery might with propriety style himself Physician, meaning thereby and implying thereby nothing more than that he was qualified to practise physic. This view was strengthened by the citation of various dictionary definitions, which were supplied at the suggestion of one of the judges.

The point that at an early period in the history of medical legislation there had been strongly-marked distinctions between physicians and surgeons, and at a slightly later period, when the apothecary (the precursor of the general practitioner) had come into being, between physicians, surgeons, and apothecaries, was urged by Mr. Muir Mackenzie, who appeared for the General Medical Council; but this was hardly in dispute, as Mr. Haldane had already fully admitted it. Mr. Muir Mackenzie urged further that prior to 1886 the Licentiates of the Society of Apothecaries certainly could not properly assume the title of Physician; and that the Act of that year, although it prescribed that they should be examined in medicine, midwifery, and surgery, did not enlarge their privileges in this respect. He contended on this ground that judicial utterances upon this point were still relevant, although they might have reference to licences granted before that date. He laid much stress upon the case of Regina *v.* Baker, and on others which tended generally in the direction of declaring that a medical man, though fully qualified, must not make use of titles which, by implication, pointed to the possession of other qualifications than those which he possessed.

In fact, two questions were put to the Divisional Court for decision, and these were very clearly stated by Mr. Justice Channell in his lucidly expressed judgment. The first question was: "Whether or not the appellant holding the title of Licentiate of the Society of Apothecaries, and being registered as such, was authorised to take and use the name and title of Physician?" The second question was: "Whether on the facts the magistrates were right in finding that the appellant so described himself wilfully and falsely?" The Divisional Court decided in answer to the first question that a Licentiate of the Society of Apothecaries has not the right to make use of the title Physician, and that on this point, therefore, the decision of the magistrates was correct. But on the second point the Court held that Mr. Hunter had not wilfully and falsely made use of the title of Physician, but had supposed himself to be justified in so doing; the magistrates were therefore wrong upon this point, and the Court quashed the conviction, but since the appellant had not succeeded upon the real point which came for decision, the conviction was quashed without costs.

This decision appears to us, as it will, we believe, appear to the vast majority of our readers, to be unfortunate from many points of view. In the first place, as will be seen from the case stated by the magistrates, they based their decision entirely upon the decision in Regina *v.* Baker, whereas Mr. Justice Channell distinctly held that this decision was not binding, and that, in fact, there was no authority binding upon the Divisional Court. In giving judgment, the Judges directed their attention principally to the question what was the meaning of the word "physician." If it meant that the person using it was a person entitled to practise physic, then its use was proper and allowable; but if it meant that he was associated with one or other of those medical bodies which are styled Colleges of Physicians, then its use was improper. They inclined to the view that it had a special and not a general application when used by a medical man, especially as in the enumeration in the Medical Acts of the titles protected it appeared to them to have some relation to the qualifying bodies conferring diplomas. Hence they agreed that a Licentiate of the Society of Apothecaries could not rightly assume the title of Physician (that of Surgeon was not before them in this case) because it implied more than that a man was in the popular acceptance of the term a "doctor."

It must have been apparent both from the wording of Mr. Justice Channell's judgment and from his general attitude and manner during the arguments that he himself arrived at the decision which he finally gave with very considerable hesitation. He indeed concurred in the view that the appellant had "falsely" described himself as a physician, but at the beginning of his judgment he said that he thought that it was a matter of some doubt whether this were so or not.

We are informed that the Society of Apothecaries is advised that there is no appeal from the decision in this particular case; but we understand that the Society will seek some other means of testing the right of its Licentiates to describe themselves both as Physicians and Surgeons. The exact proceedings which it will be necessary to take must be a matter for consideration, so that it may be some time before we are able to announce the course which will be adopted. It is pointed out that it seems to be almost essential that this should be done, as otherwise the logical consequence of the position into which the General Medical Council has drifted would be that it would be under an obligation to prosecute every Licentiate of the Society of Apothecaries who called himself Physician and Surgeon—a result too absurd to contemplate as possible for a moment.

The relations of the General Medical Council to this case are not wholly elucidated by any published documents. Discussion was shelved at the last two sessions of that body upon the ground that the case was still *sub judice*, and that it would therefore be improper to discuss it; but this difficulty is now removed, and we think that it is due to the profession, whom the General Medical Council as a body represent, that it should be made clear.

The question arises, and requires an answer, Who authorised the original proceedings before the magistrate against Mr. Hunter, after he had abandoned the use of the title "M.D.," and who authorised the appearance of the General Medical Council as parties to the appeal? It may be argued that after the magistrates had convicted, it became desirable that the moot question should be settled by the authoritative dictum of a superior court, and there would be some force in this contention. On the other hand, the decision whether these actions should be entered upon was a wide and important matter of general policy, and as such should surely have been submitted to the whole body of the Council, and their opinion taken upon it, before

so serious a step. So far as we are able to discover, this was never done.

We cannot think that the success of the original action and the partial success, in so far as the declaration of the impropriety of the use of the term "Physician" goes, justifies this departure from a usual and obvious course of procedure, for it can hardly be doubted that it would have been better for the profession at large had none of these proceedings been taken, for reasons which we have already partly indicated.

It may further be pointed out that this decision brings forward into the utmost prominence the words "wilfully and falsely." It was upon them that the magistrates' conviction was quashed, notwithstanding that the Judges held that there was no right to use the style complained of. Now, it is a fact familiar to everyone who has been concerned in questions of medical defence that these words were a very unfortunate addition to the Act, affording a loophole for escape to very real offenders. It might have been urged, before this appeal was heard, that it was difficult to conceive that a man could take titles, to which he had no right, otherwise than wilfully and falsely, and that the onus of proof that he had not done so practically lay with him. But so long as this decision stands we are likely to hear more than ever of this line of defence, and it will probably become the practice of those who defend accused persons to quote this decision as laying down that it is easy for a person to do so. Hence we regard the whole proceedings, from first to last, as most unfortunate, and we think that the General Medical Council, in the measure of success which it has gained in a question which had much better never have been raised, has acquired a position more calculated to lead to future embarrassment than to benefit the medical profession.

In these days, when our efforts should be directed to the difficult task of the suppression of real quackery, it seems very undesirable to engage in litigation with a practitioner who is unquestionably legally fully qualified, because he uses a style, such as the words "Physician and Surgeon," at least as much capable of being interpreted in a popular and general sense as in any special sense.

When the minds of all medical reformers have long been made up as to the desirability of securing something like uniformity of qualification, even though they may not all go the whole length of advocating a one-portal system, it surely savours of retrogression for the General Medical Council to revive those distinctions which marked the intercollegiate jealousies of former days.

THE IRISH DISPENSARY DOCTOR.

WE publish in another column a report on the grievances of the Irish dispensary doctors, which has been drawn up by a Committee of the Irish Medical Association. It deals with the wrongs which have long been familiar to the profession and the public, and it supports the powerful case which it makes by extracts from the evidence which was published in the BRITISH MEDICAL JOURNAL some years ago. We congratulate the Committee upon the comprehensiveness of its report, and the vigour with which it claims some amelioration of a state of things which is a scandal in a civilised country. The occasion of publishing this document is that the affairs of Ireland have passed, or are about to pass, into the hands of county and district councils under the new Local Government Act. It is an appeal to the humanity and justice of the men who in the future will have the management of affairs. In this sense nothing could be better timed; but we greatly fear that the appeal will fall upon deaf ears. The guardians of the poor and the dispensary committeemen will be the county and district councillors. There will be a change of name but not of sentiment or of action. The same men will refuse pensions to doctors who are physically unable to work, and who cannot give up the few pounds a-year that put a happy barrier between them and a pauper's bed in a workhouse. The same men will give visiting tickets to well-to-do people with a good balance at the bankers, and compel the dispensary doctor to attend them gratuitously. In a word, we fear that the familiar jobbery will be perpetuated, and that the indifference to ordinary fair play will be as general as it is now.

It is impossible, we say, to put much faith in the county or district councils in this matter. What men have done as guardians they will do again when they become councillors. They have learnt by a long experience of the Local Government Board in Ireland that they may do much as they like. Fifty years of protest, appeal, argument, and evidence have failed to stir that body into a true sense of what its position and powers demand of it. It has sat with folded hands, and adopted the policy of letting things slide. Quite lately the new Board has been constituted. There are men upon it who are vigorous enough to act if they have the inclination. The power is in their hands. The Committee properly points out that this body has the control of salaries or remuneration. It not only "sanctions," but it can "direct." We may fairly ask the new Irish Local Government Board if, having read this new "case," it can silently acquiesce in the state of things that at present exists. Does it think that it is for the safety of the poor that a medical officer should have no recognised holiday? that he should do public work at his own expense in relation to conveyance? that it is a prudent thing to allow a man of 80 to carry on the duties of medical officer in an Irish dispensary district? There can be only one answer to these questions. The present Board, we admit, has to overcome the mischief which has followed its red-tape predecessors, most of whom were content to play the part of well-paid officials, without troubling themselves to suggest anything, or to try to remove any wrong. We hope for better things from the new members, and we commend to their very serious attention the whole of this great question, which in many of its aspects is a disgrace to the country and to the authority which is supposed to exercise control.

INELIGIBILITY OF POOR-LAW MEDICAL OFFICERS IN IRELAND TO SERVE AS COUNTY COUNCILLORS.

AN order issued by the Local Government Board for Ireland, published in the *Dublin Gazette* for Friday, January 20th, declares that no paid officer engaged in the administration of the Poor Relief (Ireland) Acts shall

be eligible to serve as a county councillor under the Local Government (Ireland) Act. We have not seen the Order, but we presume its prohibition refers to district councils as well as to county councils, seeing that Section XXX of the Act transfers to the "guardians" (that is, the district councillors) the business of the Dispensary Committee. So far as the medical profession is concerned, the Order applies to workhouse medical officers and to dispensary medical officers. These are "paid officers engaged in the administration of the Poor Relief (Ireland) Acts." To two other classes of medical officers the Order does not apply, namely, medical officers of the county infirmaries and medical superintendents of district lunatic asylums. Over these officers the Local Government Board has no jurisdiction. As both these classes of medical officers are brought by the Act under the direct control of the county councils, it is thought to be undesirable that they should be eligible to sit as county councillors. Subsection X of Section LXXXIII of the Act enacts that "a paid officer in the permanent employment of a county council, who is required to devote his whole time to such employment, shall not be eligible to sit in Parliament." It is argued, therefore, that such an officer cannot sit on the county council which appoints him or on any other county council. By Subsection VIII of Section XV every officer of a county infirmary may be appointed and removed by the committee of the county council appointed under this same section. Similarly, by Subsection I of Section LXXX the county council, acting through their committee—appointed under Section IX of the Act—are to appoint for each lunatic asylum a resident medical superintendent and at least one assistant medical officer. It will thus be seen that these officers are under the direct control of the county councils. In any case, to sit on a county council is considered to be incompatible with the due discharge of the duties of either a medical officer of a county infirmary or a resident medical superintendent of a lunatic asylum.

ANTIVACCINATION AND PROVIDENT SOCIETIES.

WE are not at all surprised to see that at least one provident medical club has already taken action to protect itself from the consequences which might ensue to it if any large proportion of its members were to refuse for themselves and their children the protection against small-pox which vaccination alone can afford. At the annual meeting of the Cirencester Medical Club two new rules were adopted: one to the effect that members who were unvaccinated would not be allowed to renew as members beyond March 31st, 1899; the other requiring that any person applying to become a member after that date would be required to satisfy the local secretary that he or she had been vaccinated. In the case of babies the rule requires that the parents shall satisfy the local secretary that the child will be vaccinated in due course, as and when the medical officer may think fit. We are informed that this club contains about 2,000 members—men, women, and children—residing in the town of Cirencester, or within a radius of some ten or twelve miles. We understand further that the meeting at which these rules were adopted, being held at an inconvenient hour to them, was not attended by the medical men connected with the club, and that the new rules were adopted by the lay members of the Committee on their own initiative, and without any persuasion from their medical officers. The whole question of the increased risk to provident clubs and insurance societies which will be brought about by refusal of policy holders to be vaccinated is one which will call for investigation in the near future. It is clear that in the case of local provident clubs in particular an epidemic of small-pox might suddenly impose most serious and indeed crushing calls upon the financial provision made both for sickness allowances and for death payments.

"EXTRA" FEES TO POOR-LAW MEDICAL OFFICERS.

THE boundaries of the city of Bristol were extended for municipal purposes in the year 1897, but for Poor-law purposes the new arrangement did not come into operation till the year 1898. The change has led to some fresh medical appointments, and fresh contracts have been entered into with some of the former medical officers. These changes have given the guardians an opportunity to raise a question in reference to the fees which they will in future pay for midwifery, and the majority of the Board now appear determined, if possible, to evade the requirements of the Consolidated Order of the Local Government Board of July 24th, 1847, and to contract with their medical officers for lower fees for midwifery than are clearly defined in that order. By this Consolidated Order, which was, of course, in full operation when all the members of the Bristol Board accepted office as guardians, all Poor-law district medical officers are to be paid £2 for every special case of midwifery, and not less than 10s. for every ordinary case. These fees, which we believe have hitherto been paid at Bristol, the guardians now look upon as excessive, and on this point they appear determined, if possible, to set the standing regulations of the Local Government Board at defiance. This matter has now been under consideration for some time, and at a recent meeting of the guardians a letter was read from the Local Government Board declining to sanction the fresh terms proposed by the guardians, and insisting on the fees as hitherto paid being again arranged for. This we gather to be the final decision of the higher Board, and as their regulations on this matter have the force of law, we apprehend that any further opposition on the part of the guardians will be useless. It is difficult to understand on what grounds any Board of Guardians can object to pay for midwifery at the authorised rate, as it must be evident that any lower fees would be out of proportion to the services rendered and the responsibility involved. This scale of fees for midwifery, moreover, has now been in general operation in England for pauper cases for over fifty years, and we cannot regard it as being in any way creditable to the city of Bristol that the guardians of its poor should be so anxious to pay at a lower rate for medical attendance than that which is general throughout England and Wales. We are glad to see that the Local Government Board has taken a strong line in this matter, and hope that it will see that justice is done to district medical officers.

LIGATURE OF INTERNAL ILIAC FOR ANEURYSM OF UTERINE ARTERY.

ACCORDING to Ashhurst the internal iliac artery has been ligatured 27 times, with but 8 recoveries. Paul Mundé reports a successful case. The patient was 32, and had not been pregnant for eight years. Two years before operation an abscess developed on the left fornix after operation for lacerated cervix. It was opened, and severe venous hæmorrhage followed; this was stopped by plugging. For over eighteen months all went well, then the patient felt discomfort in the left iliac fossa. Mundé detected in the left fornix a softly, elastic, strongly-pulsating tumour, of about the size of a hen's egg. There was distinct thrill. The patient was placed with the pelvis elevated, and the abdomen opened through a 4-inch incision in the left semilunar line. After some difficulty in isolating the internal iliac artery, especially from the ureter, the operator passed a Deschamps's pedicle needle under the vessel, which was tied with chromicised catgut. When the ligature was tightened pulsation ceased entirely in the aneurysm. The wound in the peritoneal covering of the aneurysm was closed by fine continuous catgut suture and the abdominal incision by buried catgut and deep silkworm-gut sutures. Recovery was speedy. Immediately after the operation there was a faint, apparently transmitted, pulsation in the

aneurysm, which, at the end of a week, increased somewhat, but the purr and thrill never returned, and the under portion of the aneurysmal swelling became hard and solid. In order to ensure complete cure, Mundé tried galvanopuncture twice at intervals of three days for half-an-hour at a sitting. An insulated platinum wire was thrust deeply into the centre of the aneurysm and connected with the positive pole, the negative pole being a large wet sponge under the left buttock. The aneurysm became much more hardened and shrunken, but Mundé, who published the case in the *New York Medical Record*, feels confident that the galvanism would have proved utterly inadequate and probably dangerous through the detachment of particles from the thrombus and distant embolism, if the chief arterial supply had not been previously cut off by ligation. Six weeks after the operation the aneurysm had shrunk to one-half its original size: it was hard and painless, and pulsated no more than the normal uterine artery.

THE MEDICAL PROFESSION IN ITALY.

IN an article on the Intellectual Proletariat of Italy, published in a recent number of the *Revue des Revues*, Signor Paulucci di Calboli gives a melancholy account of the medical profession in Italy. As everywhere else, men are swarming into the profession, which is overcrowded out of all proportion to the opportunities of earning a respectable livelihood afforded by the country in which their lot is cast. The number of medical practitioners—which in 1892 was 19,000—has now grown to 22,000. They are very irregularly distributed about the country: there is a deficiency in the rural districts, and an enormous oversupply in the large towns. In Milan, for instance, there were last year some 750 medical men; Turin is probably not far behind; while in Rome they number 1,000, and in Naples 1,200. The proportion of doctors to population is 1 in 1,400 for the whole of Italy, while in certain large cities it is 1 in 530! As to the prospects of these practitioners, the daily crust—in a painfully literal sense—is assured to some 9,000 of them by the *condotta* or fixed salary which they receive from municipalities, or by the moneys paid them by the Congregations of Charity and the other "Opere Pie." The life of a *medico condotto*, who is in some respects the analogue of our own Poor-law medical officer, is described by Fusinato as follows:

> Arte piu misera, vita piu rotta,
> Non c'e del medico che va in condotta.

(There is no business more wretched, no life more broken than that of a *medico condotto*)—and those who know say the poet does not exaggerate. According to an estimate made by Professor Luigi Casati, of the municipal doctors two-thirds are obliged to attend all the inhabitants of a commune, whilst the remaining third have only the poor to look after. In the latter case the salary averages £40 to £80 a year, whilst in the former it reaches a relatively magnificent scale, ranging from £80 or £120 to £140 or £160. Signor Paulucci di Calboli, however, regards these figures as optimistic. He quotes an advertisement of the Mayor of Montaldo-Roero, a small commune of 1,500 inhabitants in the district of Alga in Piedmont, to the following effect: "In consequence of the resignation of the former incumbent the *condotto medica* is vacant from January 1st, 1898. Salary as doctor of the poor and officer of health, 750 lire (£30), with suitable lodging." Another modern instance which he cites is that of Colle di Val d'Elsa, in the province of Siena, an important town of Tuscany, where by the new regulations of the Civil Hospital, drawn up by the municipality, the physician, who is director-general of the establishment, receives a salary of £44, with deduction for taxes. In consideration of this splendid salary he has to do all the medical, administrative, financial, and clerical work of the hospital. As regards the 13,000 practitioners not holding municipal appointments, the following figures are given. Excepting a few celebrities and university professors, the majority earn from £80 to £120 in their first years, reaching after a time an average income of £120 to £240, whilst a minority are passing rich on £240 to £480. These figures, which have been furnished to Signor Paulucci di Calboli by several practitioners, are, in his opinion, too favourable. According to official statistics to which he refers, the average income of medical practitioners in Venice is scarcely 1,638 lire (about £65), in Milan, 2,767 (about £140), in Rome, 1,813 (a little less than £75), in Naples, 1,707 (about £70), and in Palermo, 1,297 lire (about £50) a year. Even these scanty earnings tend day by day to diminish, owing to increase of competition, and also owing to the ruin of the classes which give most employment to medical practitioners. When times are bad, illness is a luxury in which only well-to-do people can indulge. The result of the severe struggle for existence among the doctors is, as might be expected, a lowering of the standard of professional dignity and degradation of character. Professor Casati describes the state of things as "a moral and civil disaster which overwhelms the majority of Italian doctors." Hence the frequency of insanity among members of the profession, and their deplorable prominence in the list of suicides. Hence, too, their increasing emigration, which is a new feature in the medical life of Italy, and a symptom which may perhaps be considered favourable as tending to relieve the plethora that is the chief cause of the evils described.

CORONERS AND MEDICAL WITNESSES.

OUR attention has been called to a report of an inquest which was published in the *Bradford Observer* a short time ago. The case was one of poisoning by misadventure, the deceased having drunk from a bottle some potassium chromate in mistake for beer. The coroner found fault with the medical man because when called to attend the deceased and finding he was suffering from poison he did not send at once for the police, and the coroner further upbraided the doctor for suggesting at first that the bottle containing the poison should be thrown away, and afterwards for taking charge of it. If the coroner wishes to explain the law to any witness, medical or otherwise, there is a way of doing it courteously, without causing offence or annoyance to the innocent offender. In the present case the coroner appears to have assumed that the medical man was guilty of sins of omission and commission, and, if the newspaper reports are correct, spoke in anything but complimentary terms of his action. We cannot agree with the coroner in his assumption that it is the duty of a medical attendant called in to see a patient suffering from poisoning immediately to summon a police officer or present a report of the case at the nearest police station. In such matters great care and caution have to be exercised by the medical adviser. His first duty will be to his patient with a view to his recovery; at the same time he will take note of all the surroundings, and acquaint himself with the facts of the case as far as they can be ascertained, so that in case of death he may be prepared to give evidence at the coroner's or other courts as circumstances may determine. In all cases where death has occurred from injury or violence the law requires an inquest to be held, and in such cases it is advisable for the medical attendant to withhold the usual certificate of the cause of death until the coroner has been communicated with, though there is nothing illegal in giving one at any time, as long as all the causes and facts are recorded, so that the registration may not be affected, and a burial order given without the sanction of the coroner or an inquest held. It is well that no delay should take place after a death in letting the coroner or his officer or a constable know of the fact, so that the necessary arrangements may be made if an inquest takes

place, and a *post-mortem* examination carried out before decomposition is far advanced. But beyond the duty at common law which devolves upon all to make known to the authorities such occurrences, we do not know of any special legal obligation which on the omission of the doctor to do should render him liable to censure or reproach. As a matter of fact, the medical attendant is frequently the informant, as he acts for the friends, who at such times are very often so perturbed that they sometimes fail to carry out a duty which devolves upon them perhaps more than on anybody else. We know of no one who can better be depended on or who is more competent to take charge of any bottle or vessel containing poison which may have caused illness or death than the medical attendant, pending the interference of the police or any other legal authority.

THE LONDON WATER SUPPLY.

The Royal Commission on the London Water Supply, appointed in May, 1897, have issued a first report. It deals mainly with the question of the necessity for effecting intercommunication between the supplies of various companies. The wider questions as to the future of the London water supply are not dealt with except incidentally. We hope to give a fuller account of the report in an early issue. At a meeting of the Sanitary Institute to be held on Wednesday, February 8th, at 8 P.M., Mr. R. E. Middleton, M.Inst.C.E., will read a paper on the supply of water to London by the Welsh scheme. The chair will be taken by Sir Douglas Dalton, at 8 P.M. Tickets for the admission of visitors can be had on application to the Secretary of the Institute, Margaret Street, W.

THE OPHTHALMIAL JOINT DISEASE OF INFANTS.

At the meeting of the Royal Medical and Chirurgical Society on January 24th, Mr. R. Clement Lucas again drew attention to a form of joint disease in infants which he originally described in the columns of the British Medical Journal in 1885. During that year Mr. Lucas published in these pages three cases of ophthalmia neonatorum complicated with joint inflammation, which in some instances was of a most acute kind, and his contention was that the joint inflammation was secondary to, and dependent upon, the purulent ophthalmia, from which the infants were suffering. He argued that just as gonorrhœa in adults is capable of producing sometimes an intense arthritis, and at others a subacute synovitis, so the same virus inoculated during parturition on the conjunctivæ of infants may be productive of analogous joint affections a few weeks after birth. The observation seems to have attracted little attention in this country, where only one additional case appears to have been described, but abroad it was at once recognised as a hitherto undescribed disease of infancy, and Mr. Lucas was able to give references to twenty-three cases, chiefly from foreign sources. The joint complication is undoubtedly a rare one, but were it better recognised as consequent on the ophthalmia many more cases would probably be published. The direct sequence of one on the other has moreover been subjected to bacteriological proof, for the gonococcus of Neisser has been shown to exist both in the secretion of the conjunctiva and in the fluid aspirated from the inflamed joints. The tendency of the disease is towards resolution and complete recovery if the infecting source be actively treated, but occasionally, as with gonorrhœal rheumatism of adults, suppuration takes place, and in one case at least the arthritis began after cure of the ophthalmia. Mr. Lucas raised the question whether, when suppuration occurs, we may not be dealing with the added effects of a second pyogenic microbe, for in two of the published cases in which suppuration took place the gonococcus was found associated in the one with streptococcus and in the other with staphylococcus. Mr. Barker pointed out that it seemed to be the rule that in gonorrhœal synovitis there was a mixed infection. These observations open up a very interesting field for bacteriological inquiry.

ILLEGAL PRACTICE OF MEDICINE BY AN M.D.

In this country we have lately seen a legally-qualified medical practitioner prosecuted by the General Medical Council for calling himself a physician. But we are still behind France, where they manage these, as other, things much better. There only the other day at Dieppe the edifying spectacle was presented of a Doctor of Medicine being fined for practising his profession illegally, forasmuch as he had, owing to circumstances which were admitted to be in no way discreditable to him, neglected to get the formal sanction of the local prefect as required by the law of 1892. The medical syndicate of Rouen have brought the matter to the notice of the medical members of the Senate and the Chamber of Deputies, urging them to insist on an amendment of the law which would make such proceedings impossible. It is, to say the least, an anomaly that a law which was intended to protect medical men against the dishonest competition of quacks can be used to punish legally qualified practitioners for a technical offence as if they had been guilty of illegal practice. The anomaly is all the more striking since the authorities (in France, it will of course be understood) are as a rule by no means so ready to use their powers against bonesetters and still more mischievous charlatans.

CHRISTIAN SCIENCE AND THE LAW IN AMERICA.

Not long ago we referred to a case in which an adept of the Christian Science school who had ministered, after the manner of the sect, to a patient suffering from typhoid fever which proved fatal, was convicted of practising medicine without a licence, and to another in which a similar decision by a judge had been appealed against, the Supreme Court of the State (Rhode Island) having the knotty problem propounded to it whether Christian Science is a method of medical practice or a system of religion. The Court has not yet, as far as we are aware, delivered judgment. In the meantime the Court of Common Pleas in Ohio has decided in another case that the rites which the Christian Science healer performed "were religious and not medical, and therefore not within the State medical law, under which she was prosecuted." As an illustration of the "religious" rites practised by these deluded people and their results, the following story told by Dr. Frank S. Billings in a recent issue of the *New York Times* may be cited. We give it in his own words:

> Mrs. —— was the pretty young wife of a clerk. Her mother was a maniacal Christian Scientist. When it came time for Mrs. —— to be confined, the husband was told he might go to business, and the mother (mother-in-law) took the case in hand aided by a Christian Scientist healer. The poor girl began to suffer, and the fool women put a Bible on her abdomen and told her that her pains were all imagination, that the Lord never gave people pain, and so on, *ad nauseam*. The agonies of that poor child must have been terrific, for neighbours heard her screaming and begging for a physician, but these Christian fiends never let up. Finally the pain stopped; no further screaming was heard. The reason was that the child had ruptured the womb and was in the abdominal cavity of the mother. Then there was rushing in mad haste. The husband was sent for, the physician was sent for, but too late; the woman died of hæmorrhage and the child choked to death. Two murders! But were those women prosecuted? Not a bit of it. Public sentiment was entirely on their side, and no official dared to issue a warrant. "It was God's will to take his dear ones that way," said the minister (not a Christian Scientist) at the funeral.

We need not comment on the tragedy here narrated. We may, however, call attention to the fact that the patient begged for a physician. As one was not immediately sent for, this might have been thought sufficient to bring the foolish matrons in attendance within the grasp of the law, on the ground of wilful neglect. Tender as the law is in

this country in its treatment of quacks, it appears to be still more tender in America. In view of the case which has been referred to it may be interesting to quote the method of conducting childbirth according to the principles of Christian Science as laid down by Mrs. Eddy in *Science and Health* (page 459): "Teacher and student should also be familiar with the obstetrics taught by this Science. To attend properly the birth of the new child, or the divine idea, you should so detach mortal thought from its material conceptions that the birth will be natural and safe. Though gathering new energies, an idea should injure none of its useful surroundings in the travail of spiritual birth. It should not have within it a single element of error, and should remove properly whatever is offensive. Then would the new idea, conceived and born of Truth and Love, be clad in white garments. Its beginning will be meek, its growth sturdy, and its maturity undecaying. When this new birth takes place, the Christian Science infant is born of the Spirit and can cause the mother no more suffering. Thus it will always be when truth is allowed to fulfil her perfect work." If detaching mortal thought from material conceptions be the secret of safe and natural midwifery, the poor girl to whom allusion has been made should not have died, for the women about her had evidently detached their thoughts from anything so material as a suffering sister and her child. Perhaps, however, Mrs. Eddy would say their treatment was meddlesome, as no mention is made by her of the application of a Bible to the abdomen.

THE TWO JENNERS.

THE London correspondent of the New York *Medical News*, in speaking of the late Sir William Jenner, says: "He was very proud of his descent from the same family as the great discoverer of vaccination." Sir William Jenner had many things to be proud of, but the relationship here attributed to him is, we believe, absolutely mythical. It was natural that the identity of name and profession should lead people to assume that the two Jenners were related to each other, and the statement has sometimes been made on public platforms in debates on vaccination by imperfectly informed champions of the right side. The matter has, of course, nothing to do with vaccination, but the assertion rashly made and decisively confuted has been made the occasion of unpleasant remarks on the accuracy of the advocates of vaccination. Sir William Jenner himself never claimed kindred with his immortal namesake; indeed, he appears to have spent a considerable part of his early life in denying any such relationship. A story is told of his meeting the late Dr. Seaton, whose name is so intimately associated with vaccination, in an omnibus—it was long before the beginning of his Court career. The two physicians did not know each other very well at the time, and conversation was somewhat difficult. After an awkward silence, Seaton seeing, as he fancied, a good opening, said, "Are you — —?" When Jenner, anticipating the inevitable question, broke in with a vehement, "No! not the slightest!"

THE INTERNATIONAL ARCHIVES OF LEPROSY.

WE think it well to call attention to the new International Journal or *Archives of Leprosy*, which has been projected by Professor Neisser, of Breslau, in response to suggestions made during the late International Congress of Leprosy in Berlin, and which will be produced with the collaboration of Drs. Besnier of Paris, Dehio of Japan, Armauer Hansen of Bergen, and Jonathan Hutchinson of London. As Professor Neisser observes: "Leprosy occupies a very special position among the maladies affecting the human race, yet its study for many reasons is peculiarly difficult. Communications dealing with the disease have hitherto appeared in very various and frequently very inaccessible quarters. Experience of recent years, and the numerous discussions of the subject have shown clearly that the pathology, histology, symptomatology, diagnosis, and therapeutics, as well as the statistics and geographical distribution of leprosy, still require exhaustive study. It can only be by careful and extended consideration that it will be possible to establish the principles which must guide us in contending against the disease, and on which must be based the regulations for its prevention. It is unnecessary to point out how much this task may be lightened by the production of an international journal, in some central place, dealing with this subject. Such an organ must of necessity include not only scientific contributions, but also those dealing with the legislative and administrative aspects of the subject. In addition to original communications, reference to all matters having any bearing on the subjects will be made." It is desired to secure assurances of support and collaboration from all interested in the subject throughout the world. Those who will assist in the work and will become subscribers, are requested to send their names to "Professor Neisser, Breslau (Museumstrasse 11), Germany." Communications will be published in English, French, or German, and summaries appended in one or other of the remaining languages.

THE CHINESE LADIES' FEET.

A CORRESPONDENT has sent us an extract from a letter received from his brother, a medical missionary in Sechuan, one of the inland provinces of China. The writer first states that since he commenced to treat cases he has had a continual increase, so that on the day he wrote he had seen some fifteen people for various ailments, and expected on the morrow, being market day, to see double as many. "I had," he continues, "a very distinguished patient this afternoon; this is the second time she has come, and we open the large middle doors for her as she rides in in her chair. She is the wife of the Sao-tai of Tien-tsin in Chih-li Province, a man who governs an area probably equal to half-a-dozen English counties. She has necrosis of the first phalanx of the hallux, with a sinus. She has, of course, bound feet, not more than 3 inches long, and her bones are small almost in proportion. Necrosis, ulcer, etc., from this terrible custom are continually coming before me; in fact, another of my patients at the present time is suffering from abscess over the heel, primarily due to the same cause. Under cocaine I extracted two or three fragments of necrosed bone, and hope it may go on improving at the rate it has since I last saw it, for the old lady has gone the round of the best 'surgeons' of this city, whose 'plasters' and 'potions' have not been successful. She brought her fee with her: a fowl, a duck, sixty eggs, two pounds of cakes, and a leg of mutton! Last time she came she brought not quite so much, but since then she has sent over eight stocks of beautiful chrysanthemums. Matters," he adds, "are a little quieter in this province than they were a week or two ago; the rebellion seems to have aborted, and our mission premises are not destroyed yet, and we are not yet driven out." It appears, however, that the writer had been very roughly handled by the mob on the way from Lintoo.

THE CHELSEA PHYSIC GARDEN.

THE Chelsea Physic Garden, consisting of 3½ acres of ground lying at the end of Queen's Road where it opens on to the Embankment, was founded by Sir Hans Sloane in 1722. The Charity Commissioners by a new scheme, to which allusion was made in the BRITISH MEDICAL JOURNAL (vol. ii, 1898, p. 1833), have endowed it with a yearly sum not exceeding £800 payable out of the income of the City Parochial Foundation, a yearly sum of not less than £150 out of moneys voted by Parliament, and the subsidiary gifts of John Meeres (1726) and Mrs. Ann Rand (1757). A recent issue of the *Gardener's Chronicle* points out that the

new scheme provides for instruction and research in systematic botany, so that it is possible that the anatomical side of the science will no longer be overshadowed by vegetable physiology, at any rate so far as these Gardens are concerned. The old traditions of the Gardens will be maintained if it be found possible once more to provide adequate instruction in systematic and morphological botany in their relation to economic uses. Professor Lindley's lectures are still remembered with gratitude by those who had the pleasure of hearing him. They were delivered in the Physic Garden at 8.30 A.M., and were analogous to the "clinical" lectures to which the students were accustomed to listen in the wards of their hospitals. Just as the physician took for the subject of his comments and explanations any cases that might be under observation at the time, so Dr. Lindley availed himself of any plant of interest that might be in bloom in the garden. With the aid of the blackboard, he explained the structure of the plant, showed wherein it differed from its neighbours, pointed out its relationships near and remote, and indicated its use for medical or other purposes. It may be imagined how fresh and interesting these lectures were in contrast to the stereotyped courses given in college lecture rooms, which were for the most part a mere hash-up of the information given in the textbooks. The Gardens were for a long time under the curatorship of the late Mr. Thomas Moore, and of late years set courses of lectures were delivered in them by Mr. J. G. Baker.

THE LONDON MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

WE are informed that the number of annual subscribers to the Medical Graduates' College and Polyclinic (22, Chenies Street, Gower Street, London, W.C.) is now 320, and that applications for enrolment have been coming in rapidly. The list of life governors, donors, and guarantors is long, and, owing to their generosity, the College starts with every prospect of financial success. Some unavoidable delay has occurred in organising the work, but no pains are being spared to make the arrangements as perfect as possible. To meet the needs of practitioners the teaching will be thoroughly practical, and, to suit the convenience of all, will be continuous throughout the year, so that at any season medical men visiting London will be able by attendance at the College to increase their technical skill and enlarge their professional knowledge. The College can be visited daily, and the Medical Superintendent will afford all information.

ACUTE YELLOW ATROPHY OF THE LIVER.

FOUR years ago Drs. McPhedran and Macallum of Toronto[1] published in the BRITISH MEDICAL JOURNAL a paper on Acute Yellow Atrophy of the Liver, in which while admitting that the disease might be due to micro-organisms, they pointed out that the theory remained unproved. They inclined to the view that the poisonous element is of the nature of a chemical compound, probably an abnormal albumen, resulting from deranged and putrefactive processes in the intestine, absorbed by capillary radicles of the portal vein, and carried to the liver, where it first meets the hepatic cells at the periphery of the lobules, bringing about their destruction. Thomson of Odessa,[2] adds to medical literature another case of acute yellow atrophy in a patient aged 35, and over six months advanced in her seventh pregnancy. For about a week she felt sick, then jaundice set in. After a day of restlessness, with much complaint of pain, the usual hebetude was observed, and a macerated fœtus nearly a foot long was delivered spontaneously with but little hæmorrhage. Next day the patient became absolutely comatose and died. The liver was of about half the normal size and very thin; in other respects it exhibited the characteristic features of acute yellow atrophy. Thomson remarks that this case disproves Demelin's theory that the emptying of the uterus is a means of cure, since spontaneous delivery occurred in the above case, yet was followed by speedy death. It must be remembered, however, that when the fœtus was expelled the comatose stage had already begun, the patient being in fact moribund. Thomson concludes that McPhedran and Macallum are correct in their theory. He carefully searched for micro-organisms both in the liver and in the uterus, which most probably lets in the poison in cases like his own, but none could be found. There was no evidence of peritonitis, and phosphorus poisoning was out of the question. But Thomson inclines to the belief that the liver was poisoned by a chemical compound, though its nature remains unknown.

[1] Acute Yellow Atrophy of the Liver, BRITISH MEDICAL JOURNAL, vol i. 1894, p. 203.

[2] *Centralbl. f. Gynäk.*, No. 45, 1898, p. 1229.

INOCULATION AGAINST ENTERIC FEVER IN INDIA.

WHILE Professor A. E. Wright, of the Army Medical School, Netley, one of the members of the Plague Commission, was at Bangalore in the middle of December, the West Riding Regiment was paraded in the barrack square, Brigadier-General Curteis and Colonel Belfield, commanding the regiment, being present. The former announced to the men that Professor Wright during his visit to the country was availing himself of the opportunity of inoculating the British troops against enteric fever, the dread enemy of the soldier. Dr. Wright explained the benefits of his inoculation, and called for those who were willing to undergo the operation, with the result that some 250 of the soldiers came forward.

PROFESSOR WILLIAM OSLER, F.R.S., of the Johns Hopkins University, Baltimore, has accepted an invitation to deliver the Cavendish lecture for 1899, before the West London Medico-Chirurgical Society.

THE annual general meeting of the Neurological Society of London will be held at the rooms of the Medical Society, Chandos Street, on Thursday, February 2nd, at 8.30 P.M., when the President-elect, Dr. W. H. Gaskell, F.R.S., will deliver his inaugural address on The Meaning of the Cranial Nerves.

THE lectures and demonstrations at the Hospital for Consumption and Diseases of the Chest, Brompton, will be resumed on Wednesday, February 1st, when Sir R. Douglas Powell, Bart., will give a lecture on Mitral Stenosis at 4 P.M. Subsequent lectures will be given on succeeding Wednesdays during February and March at the same hour. The lectures are free to all qualified medical practitioners and to students attending the practice of the hospital.

WE have to record with sincere regret, which will be fully shared by all who had the privilege of knowing him, the death of Dr. Joseph Coats, Professor of Pathology in the University of Glasgow, which occurred at the age of 53 on January 24th. Professor Coats had been for some years in delicate health, but it was hoped that two long holidays had so far restored him that he would be able to resume and continue the duties of the new chair of which he was the first occupant.

SIR WILLIAM MACGREGOR, the newly-appointed Governor of Lagos, is an M.D. of the University of Aberdeen, where he graduated as M.B. in 1872. He was appointed Chief Medical Officer of Fiji in 1875. In 1888 he was appointed the first Administrator of British New Guinea, and in 1895 Lieutenant-Governor of the colony. He has received the honorary degrees of LL.D. from Aberdeen and of D.Sc. from Cambridge, as well as the Albert medal of the Royal Humane Society, and the Clarke Gold Medal of the Royal Humane Society of Australasia for saving life at sea.

THE RIGHT OF LICENTIATES OF THE SOCIETY OF APOTHECARIES TO DESCRIBE THEMSELVES AS PHYSICIANS.

THE APPEAL IN THE HUNTER CASE.

THE case Hunter *v.* Clare was heard and decided on January 24th in the Queen's Bench Division, before a Divisional Court, consisting of Mr. Justice Lawrance and Mr. Justice Channell.

The real point which the Court was asked to decide in this case was whether a Licentiate of the Apothecaries' Society of London could properly be convicted under Section XL of the Medical Act, 1858, for styling himself "physician." The ostensible appellant was Mr. H. K. Hunter, who had been so convicted on April 6th, 1898, at the instance of the General Medical Council, by the magistrates at the Caxton Petty Sessions, in the County of Cambridge, and the ostensible respondent was one of these magistrates, but, as was stated to the Divisional Court, the real appellants were the Society of Apothecaries of London, and the real respondents the General Medical Council.

Mr. Hunter was registered in the *Medical Register* on November 24th, 1893, as "Lic. Soc. Apoth. Lond., 1893." The following is the text of the case stated by the magistrates upon which the Divisional Court was asked to give its opinion:

CASE STATED BY THE MAGISTRATES, CAXTON PETTY SESSIONS.

This is a Case stated by us the undersigned Three of Her Majesty's Justices of the Peace for the County of Cambridge under the Statute 20 and 21 Vict., Cap. 43, on the application in writing of the Appellant, who was dissatisfied with our determination upon the questionsof law which arose before us as hereinafter stated on the 6th day of April, 1898, at Caxton in the said County, the Appellant having duly entered into a Recognisance to prosecute the Appeal.

(1) Upon the hearing of a certain Information and Complaint preferred by the Respondent against the Appellant under Section XL of 21 and 22 Vict., Cap. 90, and Acts amending the same.

"For that he the said Herbert Kingsley Hunter, of Montague House, Gamlingay, in the county of Cambridge, on the 28th day of December, 1897, and on each of the succeeding days up to and including the 23rd day of March, 1898, at Montague House aforesaid and elsewhere in the said county, did and continued wilfully and falsely to pretend to be and take and use the name and title of Physician contrary to the Act 21 and 22 Vict., C. 90, Sec 40, and Acts amending the same."

We convicted the Appellant of the said offence, and adjudged him to pay a penalty or fine of £5 and £3 3s. for costs. The following facts were proved before us (and admitted by both parties).

(2) That the Appellant is a duly registered medical practitioner, being registered as a L.S.A. under the Medical Act. 1886.

(3) That the Appellant did, in the month of December, 1897, attend one William Hawkins, and that on December 28th, 1897, and on March 23rd, 1898, make use of the name and title of Physician by causing to be printed and delivered to the said William Hawkins and to one Elizabeth Shattom, certain billheads bearing the following words:

"To H. Kingsley Hunter, Physician and Surgeon,
for professional attendance, etc."

(4) On the part of the Appellant it was contended:

That being in possession of a Diploma granted by the Society of Apothecaries of London, dated October 10th, 1893, in pursuance of which he was admitted a Licentiate of that Society and registered as such, and which Diploma states that he, the Appellant, possessed the knowledge and skill requisite for the efficient practice of Medicine, Surgery, and Midwifery, and that being so registered, and by virtue of S. 6 of the Medical Act, 1886, he, the Appellant, was—

(*a*) Entitled to take and use the titles of "Physician" and "Surgeon" if he thought fit to do so.

(*b*) That notwithstanding the use of the name or Title of Physician there was nothing to show that the Appellant willfully and falsely used the same, on the contrary that he did so in good faith: further that he was authorised and justified in so doing in consequence of the Note which was produced and admitted as purporting to be issued by the Society of Apothecaries of London as follows:

"Society of Apothecaries of London.
"Blackfriars, London, E.C.

"The L.S.A. (1886) can call himself by any title or titles which he prefers adopt denoting his right to practise Medicine, Surgery, and Midwifery, provided that he does not directly or indirectly assume a title conferred by another Licensing Body or University."

In support of the foregoing contentions the case of Ellis *v.* Kelly, 30 *L. J.* 35 was quoted.

(5) On the part of the Respondent it was contended:

That the case was in all respects similar to that of Reg. *v.* Baker (December 3rd, 1891) 8 *Times Law Reports*, 123, 56 J. P. 407 in that case, "S., a licensed and registered Apothecary used on his door after his name, the letters 'M.D.' also the words 'Physician and Surgeon,' though he was not registered as a physician or surgeon under the Medical Act, held he was rightly convicted under 21 and 22 Vic., C. 90, S. 40, of falsely pretending to be a Physician, Surgeon, and Doctor respectively."

(The foregoing quotation is from *The Justice of the Peace*, June 25th, 1892.)

And in the present case it was argued that the Appellant had no right whatever under his diploma to take and use any other or additional name or title than that of "L.S.A.," and that whenever he did so, and persisted in doing so, he was guilty of the offence charged.

(6) We, however, being of opinion that the present case was similar in all respects to that of Reg. *v.* Baker (already quoted), and that the Appellants had committed an offence under Section XL of 21 and 22 Vic., C. 90, gave our determination against the Appellant in the manner before stated.

(7) The questions of law upon which this case is stated for the opinion of the Court therefore are (*a*) whether or not the Appellant holding the title of "L.S.A." and being registered as such is authorised to take and use the name and title of Physician in the manner the Appellant so used it; (*b*) Whether on the facts herein stated we were right in finding that the Appellant so described himself wilfully and falsely within the meaning of 21 and 22 Vic. C. 90.

The Exhibits marked A, B, C, D, E, F, G, and H are hereunto annexed.

The Exhibits consisted of the correspondence which passed between Mr. Hunter and the Solicitor to the General Medical Council and the Registrar of the General Medical Council.

THE HEARING BEFORE THE DIVISIONAL COURT.

Mr. Haldane, Q.C., M.P., and Mr. Condy appeared for the Society of Apothecaries, and Mr. Muir Mackenzie for the General Medical Council.

The following is an outline of the arguments employed by counsel, but owing to the fact that the arguments lasted for three hours and involved quotations from numerous cases and reports not easily accessible the full transcript is not at present available.

Mr. HALDANE commenced by some historical references to the Society of Apothecaries, mentioning their original charter granted by James I, and noticing the fact that by an unrepealed law medical men could not practise without the permission of the Bishop of the Diocese. Passing to the Act which in the year 1815 recognised the right of the apothecaries to prescribe, Mr. Haldane said that the druggist compounded according to the prescription and sold drugs, while the apothecary prescribed and dispensed his own prescription. By the Act of 1886 a Licentiate of the Society of Apothecaries being entitled to practise medicine, surgery, and midwifery had a right to call himself a physician, and the meaning of that word "physician" was that the man represented that he was legally qualified to practise physic, that is, medicine, surgery, and midwifery.

Replying to Mr. Justice Channell, Mr. HALDANE said that a man might have been prosecuted before the Act of 1886 for calling himself a surgeon if he was only qualified as a physician, upon which Mr. Justice CHANNELL remarked that before that time the titles were distinguishable and distinct.

Mr. HALDANE explained that what he suggested was, that these titles were not now distinct as particular properties of particular licensing bodies, and that the Act was not intended to give any licensing body the monopoly of the word physician.

Mr. Justice CHANNELL pointed out that the question was whether the word "physician" was used in a technical sense implying qualification as a member of a particular body.

Mr. HALDANE, continuing, quoted decisions where persons wrongfully holding themselves out as physicians and surgeons were held to be infringing the Apothecaries' Act, thereby implying recognition of the Society's rights in the employment of the word "physician." He contended that no body or society could rob the Queen's language of the word "physician."

Mr. MUIR MACKENZIE prefaced his remarks by saying that he proposed to give assistance to the Court on certain points, and mainly as to the question whether a Licentiate of the Society of Apothecaries was justified in calling himself a "physician." He referred to the time when the apothecaries were a subordinate body to the physicians; he quoted Acts of Henry VIII in regard to the College of Physicians, and drew attention to the fact that in the last century persons practising as physicians without the licence of the College of Physicians were prosecuted. He drew a fine distinction between the practice of physic and the practice of medicine, and contended that the former embraced the practice of surgery. Mr. Mackenzie contended further that a person possessed of the licence of the Society of Apothecaries had the right to practise medicine, surgery, and midwifery, but was not entitled to call himself a physician. He quoted the case of Regina *v.* Baker to show that after the Act of 1858 a practitioner registered as a Licentiate of the Society of Apothecaries was convicted for calling himself a physician and sur-

geon, but admitted that he had become a licentiate before the Act of 1886 was passed. That being so, Mr. Mackenzie proceeded to further argue that the Act of 1886 contained nothing which conferred the right on a Licentiate of the Society of Apothecaries to style himself a physician, without stating however who had the right to the term physician.

The following is a verbatim report of the judgments delivered by Mr. Justice Lawrance and Mr. Justice Channell.

Mr. Justice Lawrance: The question that we are called upon to decide in this case seems to me to be this: Whether a person who has a certificate from the Society of Apothecaries (by which certificate I understand at the present time he is entitled to practise both medicine and surgery as well as to act as an apothecary) is entitled to describe himself as a physician. That seems to me to be the whole question which we are called upon to decide—namely, whether in describing himself as a physician he was contravening Section xl of the Act of 1858. In my judgment, if the person was doing that falsely and wilfully the justices would be quite right in convicting him. That is the short answer to the question. I need not go through all the cases to which our attention has been called, or the statutes. As far as I understand the matter, up to 1858, or rather later, up to the year 1886, which I think was the other statute, the only certificate granted by the Society of Apothecaries was a certificate to practise as an apothecary, and after that the three bodies into which the medical profession was divided, namely, physicians, surgeons, and apothecaries, seem to have come to the conclusion, for obvious reasons—I should think for the public good that nobody could have any certificate from any one of them who had not passed in surgery and medicine, and such an examination, if there is a separate examination, which may be required by the Society of Apothecaries.

Those were the matters in which the then defendant, the appellant in this case, had passed, and he then continued to describe himself first, I see, as "M.D." I have read the correspondence, which I suppose is part of the case, though it is not referred to, and I thought it well to refer to it for another reason that I will mention directly, and what I gather from the correspondence is there was something of this kind took place: that he had a diploma from Philadelphia or somewhere, and he first started by describing himself as "M.D." That was pointed out to him by some authority—I need not refer to it at greater length—as being wrong. Then he modified that until he came at last to call himself a physician. The question is, In what way was the word "physician" used? Was it a mere general expression signifying the man was a medical man, a doctor, or was there a more definite meaning to be attached to it, namely, that he was a physician, which would import to most people that he was a Doctor of Medicine and held a diploma entitling him to practise as such? That I think was the real meaning of the word "physician" as used by him, and I have no doubt whatever that would be the meaning conveyed to the mind of anybody who saw on a brass plate: "So-and-So, Physician." It would to my mind, at all events, and I should think it would to the ordinary mind, import that he was a doctor of medicine and a physician—something which he really was not. Therefore I think he was contravening Section xl of the statute of 1858, and that his conviction was right upon that point.

Now, when we come to the other point (whether it was taken below or not I do not know, but I suppose it was taken, though it was not argued)—upon that part of the case, whether he was doing it wilfully and falsely, I come to a conclusion after looking at the case of Ellis *v.* Kelly, in which Baron Bramwell gave judgment, and held he was not acting falsely and wilfully, and the case of Andrews *v.* Styrap, in which Baron Martin says: "There was ample evidence that this appellant wilfully (for he did it on purpose) and falsely (because he pretended thereby to be on an equal footing with any regularly bred and registered physician or M.D. in England) took, assumed, and used the title of 'M.D.'" Of course that was a very much stronger case than this, because there was a man there pretending to be a Doctor of Medicine in England, whereas I think in fact he held some foreign diploma of America which gave him no such power to describe himself as an M.D. in England. In this case, and that is the reason I read the correspondence, I think the fair result of that correspondence is that the appellant determined to try the right, as it were. That is the position in which he put himself, "You have convinced me I cannot call myself 'M.D.'" I do not mean to say he says that, but I am giving now the fair result of the correspondence. "I modify that; but having a certificate entitling me to practise both medicine and surgery, as well as whatever the certificate of the Apothecaries' Society may go to"—that I do not know at the present moment—"I have a right to say I am a doctor in the ordinary sense of the word—that is to say, I am a physician, and I can practise medicine." I have already given my reasons for thinking he was wrong in that; but I think he was not doing it wilfully and falsely, but doing it in the assertion of a right for which I think there was no legal ratification at all events.

I apprehend the object of those who have started these proceedings will be met by the judgment given upon the other part of the case. I think he was wrong there, and I think the conviction ought to be quashed upon that ground. I think the magistrates were right in their law with regard to the first part of the case, but I think there was no evidence, which there must be before the conviction could be affirmed, that he was doing what he did wilfully and falsely. The result is that the conviction is quashed, and the appellant not having succeeded upon the real point which came here for decision, the fair and proper thing to do would be that the conviction should be quashed without costs.

Mr. Justice Channell: I am, on the whole, of the same opinion. To begin with, I think, although I think it is matter of some doubt, that this appellant falsely described himself as a physician. Now that is the point upon which our decision is mainly asked in this case, as I understand. It has been stated by counsel on both sides, although they appear on the one hand for the appellant and on the other hand for the respondent, that they really are instructed on behalf of two societies, and that they desire to have the opinion of the Court as to whether it is a true description now for a Licentiate of the Society of Apothecaries to describe himself as a physician. It seems to me that depends entirely upon what is the sense in which the word "physician" is used in Section xl of the Act of 1858. If "physician" there means simply a person who is duly qualified in law to practise in physic, then it seems to me that this gentleman is a physician within that meaning of the word, because although it was not so at one time, he is now, by being a Licentiate of the Society of Apothecaries, entitled to practise medicine and surgery, and if the word "physician" in Section xl which I have referred to is used in a popular sense, I think one would be bound to say that he is entitled to practise in physic in a popular sense, at any rate; but even if there is any other sense—I am not quite sure I fully followed Mr. Muir Mackenzie's argument upon that—but even if there is in any sense a distinction between "physic" and "medicine," I do not think there is any such distinction in the popular sense; consequently, if "a physician" in Section xl meant merely a general word describing—I do not know exactly how to express it, because if I say a "medical practitioner" I am not quite sure that will do because that again has a sort of technical sense, but if it means simply a person who is legally entitled to act as doctor using the word "doctor" again in the popular sense and not in the technical sense of doctor of medicine—if it means this, I think the gentleman by the qualification he has got would be entitled to call himself a physician. Having regard to the fact that prior to the passing of this Act "physician" was commonly used at any rate in the sense of applying to what was, I may call it without disrespect to the others, the highest grade of medical practitioners, I think it was so used in this Act; and I think if you look through the Act generally you will find confirmation of that. There is some confirmation of it in the fact that these words "physician, doctor, licentiate in medicine," and so on, most of them have application to the specific bodies that are entitled to give qualifications. It seems to me that "physician" here had got somewhat of a technical sense, and that it, in point of fact, was a word used as importing a particular grade of medical practitioner. In that special sense I do not think it is correct to say that the licentiate of the Society of Apothecaries is in fact a physician. He certainly was not before the Act of 1886, or rather before the

licence of 1886, because "physician" in that sense, as Mr. Muir Mackenzie has shown, included practice not only in medicine but in surgery, and before 1886 the licentiateship of the Society of Apothecaries did not give that. Consequently, before 1886, it would not be a correct expression, and as that is the case I think we have got no binding authority upon us here upon this question. In the case of Regina *v.* Baker I was at one time inclined to think when we were told that there were three summonses there, and one was for calling himself a physician, that that was an authority binding upon us to decide this point in the way we are doing, but I do not think so now for two reasons. The reasons are, first of all, that was a motion for a *certiorari*, and any jurisdiction to consider the matter at all on the part of the magistrates would have prevented the *certiorari* being granted: and, secondly, because that gentleman's qualification being before 1886 did not authorise him to practise in surgery, and therefore it did not authorise him to be a physician in the sense in which Mr. Muir Mackenzie has pointed out, namely, that it included practice in surgery. The result is we have got no authority binding upon us upon this point, and, having considered it, on the whole I came to the conclusion, though not altogether without doubt, that "physician" in Section XL is used in a technical sense, in which technical sense it was not true this gentleman was a physician.

The next question is, Although he falsely described himself so, did he wilfully and falsely describe himself so? Now, on this point, as I read it, the case of Ellis *v.* Kelly seems to be a distinct authority. We have the case quoted to us, and it is said that Baron Bramwell afterwards recanted to a certain extent what he had said in that case of Ellis *v.* Kelly. It does not quite appear how much of his opinion in Ellis *v.* Kelly he thought was wrong, and, whatever he thought was wrong, there remains the decision; and, so far as I understand the decision, it was this: that in that case the man was not really an M.D. in the sense in which the Court understood Section XL to mean, but that he had reasonable grounds for thinking that he was, and, having reasonable grounds for thinking that he was, the Court said he cannot be said to have wilfully and falsely described himself as such. If that is the meaning of that case, it governs the present one. The difference between Ellis *v.* Kelly and Andrews *v.* Styrap appears to be this: that in Ellis *v.* Kelly the qualification that the gentleman had was a foreign qualification; but it was, as I may say, a genuine one, a real qualification. I suppose he had been examined and had a real foreign qualification. Whereas in Andrews *v.* Styrap it was what one might call a bogus qualification—that is to say, he had not been examined in any way, but had written out and got that qualification by correspondence merely for the purpose of representing himself here as an M.D. That is what Baron Martin meant when he said "he did it on purpose." He got a qualification on purpose. There being that difference between the two cases, I do not think Ellis *v.* Kelly is overruled, and it is a binding decision, and goes to the effect of saying, as we do say in this case: Although we think this gentleman incorrectly described himself as a physician, yet he did not wilfully and falsely describe himself as a physician by reason of the interpretation of the words in Ellis *v.* Kelly.

On those grounds I agree the conviction ought to be quashed, but that the decision upon the point mainly argued and upon the point which we are requested specially to give our opinion upon, ought to be for the respondent and not for the appellant. That being so it seems to me to be a case in which it is right—it is not very commonly right in my opinion—to quash the conviction, but to quash it without costs.

In fact I see there are two questions put to us—A. and B.—in the case. The first question (A.) is "Whether or not the appellant holding a title of Licentiate of the Society of Apothecaries, and being registered as such, is authorised to take and use the name and title of physician?" As to that we say that he was not, but as to the next question (B.), "Whether on the facts herein stated we" (the magistrates) "were right in finding that the appellant so described himself wilfully and falsely?" on that point we say they were wrong, and we quash the conviction on the ground that he had here some colour or title to use the description which he did use, especially having regard to the directions issued by the Society of Apothecaries—that he had such a reason to think he might so describe himself that we cannot say he did it wilfully or falsely.

We are informed that the Society of Apothecaries are advised that there is no appeal from the decision in this case, but that it is the intention of the Society to further raise the question of the right of its Licentiates to use the style of "physician and surgeon" in another proceeding.

THE GRIEVANCES OF THE IRISH POOR-LAW MEDICAL SERVICE.

THE Irish Medical Association has issued a report bearing this title setting out the nature of the grievances under which medical officers of the Irish Poor-law Service now labour, and showing that these grievances affect not merely the doctors, but closely concern the care of the sick poor, and are therefore of supreme importance to the Irish people.

The report, which is dated January 20th, from the Royal College of Surgeons in Ireland deals with the subject under the following heads:

THE ABUSE OF TICKETS.

Tickets are issued generally without inquiry, often without necessity, and always without responsibility. Practically they are given to every applicant. Poor-law guardians and other members of Dispensary Committees have issued tickets for attendance on their own families. Thriving shopkeepers, farmers of a hundred acres of land, persons with many hundreds of pounds on deposit in bank, earners of income up to £3 a week, well-to-do pensioners, and such-like people get visiting tickets without question and present them without shame.

[The report then quotes a series of instances of abuse authenticated and published in our columns by Sir William Thomson some years ago.]

Among the recipients of dispensary relief, the report continues, there is a large class able to pay moderate fees in proportion to their means, who are not only permitted, but are even encouraged, to pauperise themselves in the matter of medical attendance. They may be counted probably by the hundred thousand. This, surely, is a scandal of national importance. Judge Kane during the past year has denounced it from the bench, and condemned the practice of the Irish dispensary system as a great agent in the demoralisation of the people. While demoralising the people it does a double wrong to the doctor, by adding to the heavy burden of his duty and taking from the slender sources of his income.

The Local Government Board should be able to provide a remedy that would prevent this imposture, and at the same time protect the rights of the sick poor.

Again, tickets are sometimes obtained for purposes outside the scope of the Medical Charities Act. Mothers frequently thus relieve themselves of the duty of bringing their children for inspection after vaccination. Tickets are issued to obtain School Board or other certificates. Agents for small insurances cause them to be used for the protection of their companies. An illustration may be given of a doctor being disturbed on a Sunday night by an Urgent Ticket. The child was dead before the ticket was sent for. It had been insured, and it was thought the money would be obtained easier by a medical certificate.

Further, visiting tickets are issued without necessity at irregular and unreasonable hours. Very often the medical officer is brought back in the evening over a journey of perhaps many miles which he had travelled during the day, not because of the requirements of the patient but because of the neglect or selfishness of his friends. By issuing the tickets only at timely hours—except in case of necessity—the sick would be attended more promptly and satisfactorily and the doctor would be relieved of much useless and avoidable drudgery. Proper regulations, of course, are necessary, but regulations alone will fail, as they have failed in the past. For instance, the following has been a regulation of the Local Government Board for more than twenty years:

3. Persons empowered to issue tickets for medical relief under the Medical Charities Act cannot delegate that power to others.

This regulation has been practically ignored. How much it has failed is shown by an example of its actual working in a dispensary district, taken without selection of time or place: During the twelve months ending December 31st, 1898, the number of tickets registered was 1,434: the number of tickets found on examination to have been issued by the members of the Committee themselves was 58.

The Local Government Act, in abolishing Dispensary Committees, transfers "to the guardians the business of every Committee of Management." If the word "business" include the individual right to issue tickets at present conferred by statute on each member of the Dispensary Committee, then each guardian in future will have the right to issue visiting tickets, not only to any person in any part of his own district, but to any person in any part of any dispensary district within the whole union, "at his own discretion."

For many years the medical officers have complained bitterly of the gross abuses caused not only by giving the power of issuing tickets to an unusually large number of persons who are practically without responsibility, but also by the issuing of tickets to applicants who did not reside in the issuer's electoral division. The opportunities for abuses in both these ways will be enormously increased if it be held that through some oversight each guardian is now authorised to issue visiting tickets in every dispensary district of the union. This new danger of abuse would be so serious an injustice that the Association would feel obliged to appeal to the Government to procure its removal. Pending such correction by the Legislature, Boards of Guardians could voluntarily select a few of their members for the exercise of this important power in each dispensary district.

Wardens, it is hoped, will now be abolished. They were never necessary.

The appointment of proper persons for the issuing of tickets is the first and most essential step towards reform. Past experience has produced in the service an intense and unanimous feeling against selecting those who are dependent on public favour for their means of living. The issuers of tickets should be required to realise their responsibilities, and the privilege conferred should be withdrawn wherever it is abused.

Recommendations.

(*a*) Tickets should be issued chiefly by the relieving officer, supplemented for emergency by one or two guardians specially authorised. Where the relieving officer is not available, the guardians should appoint a small number of their body for that purpose under sanction of the Local Government Board, who should determine how many each district required. Visiting tickets should not be issued after certain hours without necessity. The person who has power to issue a ticket should have power to cancel it on cause shown.

(*b*) It should be indicated on the ticket and intimated by circular to Boards of Guardians that the person so appointed will be resonsible not to issue a ticket to anyone able to pay for medical attendance.

(*c*) In the case of persons of small means, who are not entitled to relief under the Medical Charities Act, the medical officer may accept fees proportionate to the circumstances of the patient.

TRAVELLING EXPENSES.

The salary paid to a dispensary doctor in Ireland for the treatment of the sick poor averages £108 a year. There are, it is true, some small extras for registration, vaccination, and sanitation. The duties of registration are both uncongenial and ill paid. The fees for vaccination are small at best, and are dearly earned. An instance is given where the vaccination fees are actually consumed in car hire. The dispensary doctor has himself to pay the travelling expenses which he must necessarily incur in discharging his public duty. This anomaly is the more grievous and unjust because these expenses, which ought to be a public charge, are paid for out of a salary that does not afford even the necessaries of life. That in fixing the salaries of dispensary doctors provision has not been made for the cost of travelling may be shown in three ways:

First, the salary itself is manifestly insufficient payment for duties which are so laborious and responsible.

Secondly, Poor-law medical officers who have no outlay for travelling receive larger salaries than those who have heavy outlay, though the duties may not be more but are often much less.

Thirdly, dispensary doctors are often paid no more in districts of enormous area than in districts of small area, even in the same union.

Nominally, the dispensary doctor is paid the wages of an artisan, but in reality he barely receives the wages of a labourer. He is the only public officer who must himself pay the travelling expenses he has to incur in the discharge of his public duty. The civil servant, when his duties require it, is paid travelling allowance. The inspectors under Government are paid their mileage in addition to their salary. The District Inspector of Police receives £95 a year for a horse—a sum equal to the year's salary of the dispensary doctor. But in none of these cases are the public interests so seriously involved as in the treatment of the poor. Here the question concerns very closely the sufferings and lives of human beings. No doubt it means hardship and injustice to the doctor, but to the poor it may mean injustice and cruelty still more grievous. It exposes patients who live at a distance from the doctor's residence to the serious danger of being visited too seldom. After the first time the frequency of attendance is largely in the doctor's discretion. The physical labour of a weary drive, and the time it occupies, are temptations enough to try the truest, but when besides these, the doctor has to pay a pecuniary penalty for each journey, which very often he is ill able to afford, the temptation he is called on to resist is too great for human nature to be asked to bear.

A premium is put on shirking duty, and the conscientious officer is penalised for his zeal.

Recommendation.

It should be strongly urged on the Local Government Board that the want of allowance for the cost of travelling on dispensary duty in rural districts is a grievous injustice to the sick poor as well as to the doctor.

That the Local Government Board has ample power for this purpose is shown by the following extracts:

14 and 15 Vict., Cap. £8. Extract Sec. 8.—"The Committee of Management shall appoint one or more medical officers, with such salaries as the guardians, subject to the approval of the said Commissioners, shall determine; and the said Commissioners may, and they are hereby empowered when they may see occasion from time to time, to regulate the amount of salaries or allowances payable to such officers respectively."

Sec. 12.—"The said Commissioners shall and may, and they are hereby directed, to frame the general rules and regulations for the guidance and control of the guardians and the several officers, and shall be empowered to alter or revoke such rules and regulations, and make new rules and regulations from time to time as they may think fit."

Article 35 of General Regulations of Local Government Board: Extract.—"The Board of Guardians shall pay to the several officers such salaries or remuneration as the Local Government Board may from time to time direct or approve."

ANNUAL VACATION.

The dispensary doctor must be prepared for official duty every hour of the day and of the night, on Sundays as on week days, on holidays as on other days, all the year round. There is no parallel for such a constant strain of continuous duty. The army medical officer has two months' leave of absence in the year. So, too, have the district inspector of police and the stipendiary magistrate.

The Civil servant, whose work is mostly clerical, and is done in the shelter and comfort of his office, gets six weeks' holiday in the year, and the public and Bank Holidays as well. He gets every Sunday. His duty is confined to seven hours in the day and a short day on Saturdays. His nights are secure. These are enjoyments denied to the dispensary doctor.

Even the common labourer has the Sunday's rest, the evenings after his work, and though he "sweat all the day in the sun, he may sleep all night in elysium."

When the doctor is wearied, as he must be, in mind and body, his work is either ill done or not done. The public interests seriously suffer, and he himself becomes an easier victim to disease. A month's change would be only the equivalent of alternate Sundays, would not be more rest than Nature needs, and but a fraction of that which all men else by right enjoy

Recommendation.

The Local Government Board should exercise their power under Sections VIII and XII of 14 and 15 Vict. cap. 68, to secure for all Poor-law medical officers a fixed annual holiday, with paid substitute, as an absolute necessity for the efficient performance of their duty.

SUPERANNUATION.

Officials in the public service are obliged to retire from active duty at the age of 65 years.

The State has provided medical attendance for the poor because the poor are not able to provide it for themselves. The highest obligations of humanity, not to speak of Christianity, and the lowest motives of self-interest, alike compel this policy. But its beneficence is not realised if its efficiency be not secured. Men worn out by work and overtaken by age or infirmity are not fit for duties that are so exacting and exhausting as those of an Irish dispensary district. The public require protection against the injury and danger of such a scandal, and compulsory retirement of Poor-law medical officers at a proper age should be provided for by legislation without delay.

Pensions, it is true, are sometimes granted, but very often they are refused where they are most required, or else they are delayed till death is at the doctor's door. The cases published by Sir William Thomson are pitiful and painful to read. They tell of men 70 or 80, or even 90 years of age, staggering under the weight of years and struggling with a duty far beyond their powers. They could not resign, for to some it would mean the poorhouse as a refuge, with the prospect of dying on a pauper's bed and being buried in a pauper's grave; to others it would mean the pinch of poverty; to the rest a more or less serious reduction of their means of maintenance; to all a denial of what had been hardly earned and was therefore justly due.

So much for the cruelty to the doctors. The cruelty to the poor is multiplied by their number a thousand times. It may never be known what sufferings have been unrelieved or what lives have been sacrificed by compelling or permitting doctors to work beyond their time. Now and again something may transpire to shock the public conscience, like the inquest in a midland county on a poor girl who was poisoned by laudanum through the defective sight of an aged doctor, who pleaded that for years he had desired to resign.

When a medical officer who has passed the proper age for retirement is permitted to remain in charge of a dispensary district, he may perform the duty when the work is light and the weather fair, but he will be likely to fail when his services are most required. Disabled by rheumatism or some of the physical failings which age develops, he cannot go out into the darkness and storm of a winter's night, over many miles of nearly impassable road, to attend some poor patient, it may be a woman in labour and in danger, urgently wanting relief.

Recommendation.

When through infirmity or age the doctor is no longer equal to the efficient performance of his duty he should be enabled to retire, so that the sick poor should not be deprived of efficient medical attendance. A short Bill, therefore, should be prepared for the coming session, entitling him "when he resigns, or ceases to hold office, for some cause other than misconduct, to receive a superannuation allowance on the scale and according to the Acts and rules relating to Her Majesty's Civil Service."

MODE OF APPOINTMENT AND WANT OF PROMOTION.

The system of appointing medical officers in the Poor-law Service is very bad and urgently needs reform. It fails to secure for the sick poor the services of the best candidates and prevents promotion of deserving officers. At present the dispensary doctor has but little prospect of advancement. As a rule he remains in the first district he enters. Every year increases his difficulty of leaving it. He has no stimulus to official energy. His material interests lie largely outside his official duty. It makes little difference to his prospects whether the medical inspection of his district or the reports and records of his official work are creditable or not. Meritorious service is not stimulated or rewarded. There is no progression in his salary and little chance of preferment from his district.

The new Boards of Guardians can easily remove these defects, and make the public their debtors if they provide a proper means of classifying candidates according to professional worth and meritorious service, and if they be guided by this in making their appointments.

THE REMEDY.

The times seems ripe for the remedy. Public opinion favours it and the press of all parties advocate it. A new page is about to be opened in the history of Irish Poor-law administration. New Boards of Guardians are about to be elected on the broad franchise of the people. The central authority has just been renewed and reinforced. New duties must soon be prescribed for the new Boards, and new rules be issued. The old order must change and give place to the new. The change will make for efficiency, and will work with true economy if the order be based on justice and be tempered by humanity.

THE LIVERPOOL SCHOOL FOR THE STUDY OF TROPICAL DISEASES.

FINANCIAL ARRANGEMENTS.

FOLLOWING close upon Mr. Chamberlain's letter last November, pointing out the necessity of providing facilities for the study of tropical diseases, an influential and representative Committee was formed in Liverpool, under the chairmanship of Mr. A. L. Jones, senior partner in the firm of Elder, Dempster, and Co., which carries on the bulk of the African shipping business. Mr. Jones, as was announced in our Liverpool correspondence of December 3rd, has undertaken to provide an annual grant of £350 towards the maintenance of a school of tropical medicine, and his example has been followed by many other leading representatives of the commerce of the port, with the result that promises of support to the extent of £900 a year have already been obtained.

THE ARRANGEMENTS AT THE SOUTHERN HOSPITAL.

The school, for which preparations are now being rapidly pushed forward, will be in connection with the Royal Southern Hospital and University College. The Royal Southern Hospital, owing to its proximity to the Docks, receives annually large numbers of patients suffering from malaria and other tropical affections. Not long ago the Government subsidised a number of beds in the hospital for the use of soldiers invalided home from the Ashanti war. Pending the erection of the new block, which will be commenced as soon as possible, a large well-ventilated and well-lighted ward has been set apart exclusively for the reception of patients who are the subjects of tropical diseases. Adjoining the ward there is a capacious ward laboratory, which it is proposed to fit up for the immediate examination of blood, and of the urine, fæces, and other excreta; and to furnish with all the appliances adapted for scientific clinical research. There are also a small isolation ward, a ward kitchen, and a sisters' room in close proximity.

THE ARRANGEMENTS AT THE THOMPSON-YATES LABORATORIES.

The Thompson-Yates Laboratories of Pathology and Physiology, opened by Lord Lister last October, are among the most capacious and best equipped of existing laboratories, and are within easy reach of the hospital. The pathological department contains a large practical class room, capable of accommodating 60 workers. In this room each student has ample bench and locker accommodation, and his own separate electric light, gas, and water supply. The room is fitted with two powerful electric lantern and microscope projection lamps, and there is a collection of lantern slides illustrating tropical diseases, in great part presented by Dr. Patrick Manson. Opening out of this room is the Museum of Pathology, containing some 3,000 specimens, including numerous examples of tropical diseases such as bilharzia and malaria. It is in contemplation to enlarge the museum in order to have a special department in it for specimens of this kind.

There is a large separate bacteriological laboratory fitted with every suitable appliance, an incubator room, a centrifuge and bacterial mill room, a refrigerator room, a laboratory for chemical pathology and photographic rooms. There are thus

already at hand ample facilities for the class and research work which are requisite at the present day.

Staff of the School.

There will be a special Lectureship on Tropical Diseases, and it is hoped that the services of a physician who has gained a mature experience in the treatment of tropical diseases will be secured for this office. His lectures will be illustrated by lantern slides and diagrams and by references to the cases in the special hospital ward.

There will be a Demonstrator of Tropical Pathology, whose time will be wholly devoted to tropical pathology, and who will teach both in the Thompson-Yates Laboratory and in the ward laboratory. The staff of the school will comprise also the Professor of Pathology in University College and the Physicians and Surgeons of the Southern Hospital.

Provision for Students.

Not only will research be conducted in the ward and in the laboratories, but it is proposed to grant students facilities for studying tropical diseases in their native haunts by organising expeditions to the tropics. Many former Liverpool students are now working in Africa and other tropical countries. Dr. Christophers, late assistant in the pathological laboratory, has been appointed recently by the Royal Commission to undertake the study of malaria in Africa; Dr. Chalmers is in charge of the Government Hospital at Accra, and Dr. Bentley holds a similar position in Southern India. It will materially help these and other gentlemen in their work to have a centre in Liverpool with which they can readily communicate. As many of those who will join the school will probably come from a distance, accommodation will be provided in residential chambers within easy reach of the college and hospital.

The Scope of the School.

The formation of schools, both in Liverpool and in London, devoted to the study of tropical diseases, cannot fail to give a fresh impetus to the investigation of this important department of medicine. Medical men who are about to proceed to tropical colonies and dependencies, or to take charge of ships, will be able in future to go through a complete course of instruction in the diagnosis and treatment of these disorders. In the wards they will make themselves acquainted with their clinical features and the methods of treatment; in the laboratories they will learn to carry out on the spot the investigations which must be made if light is to be thrown on the causes and mode of prevention of those diseases which form a barrier to the advance of the white man and limit the progress of civilisation in many regions of the globe.

The city of Liverpool offers many advantages for the study of diseases arising in the tropics. Some of the largest steamship lines in the world have their headquarters in this port, and there is constant communication between it and various tropical countries, the intercourse with the West Coast of Africa being exceptionally great.

The Committee and medical staff of the Royal Southern Hospital have taken up this scheme with enthusiasm. There can be no doubt that in so doing they are conferring an immense benefit both on the people of Liverpool and on the country at large.

THE PLAGUE.

The Special Commission.

The Plague Commission has held sittings during the past week at Lahore and Karachi, and from Indo-European telegrams to the *Times*, dated January 19th, 20th, and 23rd, we extract the following:

Captain James, Deputy Sanitary Commissioner in the Punjab during the epidemic, reported upon his experiences in Jullundur and Hoshiarpur during the epidemic of plague. Captain James stated that evacuation of premises, properly carried out, was the most satisfactory measure for dealing with plague. In no single village did it fail; were a village disinfected sporadic cases might occur, but there was no tendency to a general recrudescence when the population returned. Were disinfection neglected, however, plague reappeared, even after an interval of thirty-four days, when an evacuated house was re-occupied. Captain James mentioned that towards the end of an epidemic mild cases of "pestis ambulans" occurred, chiefly amongst boys.

Captain Wilkinson, Deputy Sanitary Commissioner in the Punjab, described the outbreak in 23 villages. Plague, according to Captain Wilkinson is conveyed by human agency; there is no proof that it is carried by rats or clothing. The pneumonic variety of plague he had not seen in the Punjab. The measures adopted in the villages were segregation, evacuation, disinfection with phenyl of holes and roofs, and whitewashing. The floor of houses was, for disinfecting purposes, removed to a depth of four inches and burnt.

Major Ross gave his experience of plague duty in Poona. The disease he considered was transmitted by human beings clothes, and rags. Not more than 30 per cent. of the plague cases were reported, even although paid informers were employed. Major Ross suggested the free poisoning of rats to prevent the spread of the disease.

Captain Clark, Civil Surgeon at Umbala, stated that in the Hoshiarpur District 1,407 inoculations against plague were performed. None of the inoculated took plague. Captain Clark advocated the use of disinfectants, and suggested that portable steam disinfectors should be provided.

Major Skinner disagreed with Dr. Cobb's and Dr. Simpson's diagnosis of cases of fever with buboes occurring in soldiers of the Shropshire Regiment as plague. Major Skinner had seen similar cases at Barrackpur, the Punjab, and Calcutta in 1894, before the arrival of the Shropshire Regiment from Hong Kong. Major Skinner holds that the cases he saw were cases of acute intermittent or remittent fever, which developed buboes while under treatment. All the specimens of blood in which Drs. Cobb and Simpson had found plague bacilli had been examined by him, and in none had he found the bacillus.

Mr. Giles, Acting Commissioner of Sindh, said that the first case occurred on December 10th, 1896, in his district, and that the initial epidemic ceased in July, 1897. It was only, however, during the second outbreak that segregation and hospital treatment were carried out. Evacuation was the most effective measure. Two months' evacuation, with the admission of sun and air, rendered houses safe to be reoccupied. Universal segregation Mr. Giles regarded as dangerous and unnecessary.

Colonel McCloghry, Civil Surgeon, said that the civil surgeons treated cases of plague wherever and whenever they were called upon to do so, that they did not conceal cases, nor did they report the causes of death incorrectly. He considered that during the second outbreak in Karachi the examination of the houses caused the rats to scatter and so spread the disease. Practically the whole town of Karachi was evacuated, and the result was eminently satisfactory. Hot weather had no effect in reducing the virulence of a plague epidemic, and he stated that in Sukkur, with the temperature at 115° in the shade, plague was rife.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

Perthshire Branch.—A clinical meeting will be held in the Royal Infirmary, Perth, on Friday, February 3rd, at 3.45 P.M. Business: 1, Read Minutes; 2, Election of Member, Dr. Taylor; 3, Clinical Cases; 4, Prevention of Tuberculosis; 5, any other business.—A. R. Urquhart, James Murray's Royal Asylum, Perth, Honorary Secretary.

Lancashire and Cheshire Branch.—An intermediate meeting of this Branch will be held in Liverpool in February. Gentlemen wishing to read papers, show cases, or make any communication, should communicate at once with the Honorary Secretary, Dr. James Barr, 72, Rodney Street, Liverpool.

Dublin Branch.—The annual meeting of the Dublin Branch will be held in the Royal College of Physicians, Kildare Street, on Monday, February 6th, at 5 P.M. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Mr. F. T. Heuston, F.R.C.S., President-elect, will deliver an address on The Position of Poor-law Medical Officers in Ireland. The annual dinner will take place on the same evening in the College Hall at 7.30 P.M.—James Craig, M.D., Honorary Secretary, 35, York Street, Dublin.

Border Counties Branch.—The next meeting will be held in Penrith about the end of January. Members desiring to read papers, etc., will kindly communicate as soon as possible with the Honorary Secretary, W. F. Farquharson, Garlands, Carlisle.

PROCEEDINGS OF THE COUNCIL.

AT a meeting of the Council held in the Council Room of the Association, 429, Strand, London, W.C., on Wednesday, January 18th, 1899,

Present:

Dr. ROBERT SAUNDBY, LL.D., President of Council, in the chair.

Dr. CHARLES PARSONS, Treasurer.

Dr. JAMES BARR, Liverpool.
Dr. RAYNER W. BATTEN, Gloucester.
Dr. MICHAEL BEVERLEY, Norwich.
Dr. JAMES BRASSEY BRIERLEY, Old Trafford.
Mr. LANGLEY BROWNE, West Bromwich.
Mr. HENRY T. BUTLIN, London.
Mr. JAMES CANTLIE, London.
Dr. ALFRED H. CARTER, Birmingham.
Mr. ANDREW CLARK, London.
Dr. H. RADCLIFFE CROCKER, London.
Dr. GEORGE W. CROWE, Worcester.
Dr. MAURY DEAS, Exeter.
Dr. E. H. DICKINSON, Liverpool.
Dr. T. M. DOLAN, Halifax.
Brig.-Surg.-Lieut.-Col. E. F. DRAKE-BROCKMAN, London.
Dr. W. DYSON, Sheffield.
Mr. GEORGE EASTES, M.B., London.
Dr. W. A. ELLISTON, Ipswich.
Dr. FREELAND FERGUS, Glasgow.
Professor DAVID W. FINLAY, Aberdeen.
Dr. JOHN H. GALTON, Upper Norwood.
Dr. ALFRED GODSON, Cheadle.
Dr. BRUCE GOFF, Bothwell.
Dr. C. G. GOODING, London.
Dr. OGILVIE GRANT, Inverness.
Dr. J. GROVES, Carisbrooke, Isle of Wight.
Dr. HENRY HANDFORD, Nottingham.
Mr. JOHN D. HARRIES, Shrewsbury.
Mr. J. HUGHES HEMMING, Kimbolton.
Dr. HOLMAN, London.
Mr. T. VINCENT JACKSON, Wolverhampton.
Mr. T. R. JESSOP, Leeds.
Mr. EVAN JONES, Aberdare.
Dr. P. SYDNEY JONES, London.
Mr. N. C. MACNAMARA, London.
Dr. J. C. McVAIL, Glasgow.
Mr. H. J. MANNING, Salisbury.
Dr. J. W. MILLER, Dundee.
Dr. JOHN WILLIAM MOORE, Dublin.
Dr. C. G. DRUMMOND MORIER, Glasgow.
Mr. R. H. B. NICHOLSON, Hull.
Surg.-Gen. T. F. O'DWYER, Aldershot.
Dr. ISAMBARD OWEN, London.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. R. W. PHILIP, Edinburgh.
Dr. H. H. PHILLIPS-CONN, Reading.
Dr. EDWIN RAYNER, Stockport.
Dr. H. B. ROBINSON, London.
Dr. JOHN ROLSTON, Stoke, Devonport.
Dr. WILLIAM RUSSELL, Edinburgh.
Dr. L. W. SEDGWICK, London.
Dr. ALFRED SHEEN, Cardiff.
Dr. G. E. SHUTTLEWORTH, Richmond.
Dr. E. MARKHAM SKERRITT, Clifton.
Dr. R. SOMERVILLE, Galashiels.
Mr. HENRY STEAR, Saffron Walden.
Dr. J. ROBERTS THOMSON, Bournemouth.
Dr. W. J. TYSON, Folkestone.
Mr. T. JENNER VERRALL, Brighton.
Mr. G. E. WILLIAMSON, Newcastle.
Dr. W. L. WINTERBOTHAM, Bridgwater.
Dr. S. WOODCOCK, Old Trafford.

The minutes of the last meeting having been printed and circulated were taken as read and signed as correct.

Read letters of apology for non-attendance from the President, the President-Elect, Sir Wm. T. Gairdner, Dr. Philipson, Dr. Henry Barnes, Mr. R. S. Fowler, Mr. Jordan Lloyd, Dr. Roderick Maclaren, Mr. Jones Morris, Dr. Rennie, and Dr. Urquhart.

The President of Council introduced Dr. C. G. Morier, the new representative of the Adelaide and South Australian Branch, who attended the Council for the first time.

Resolved: That the Council desires to express its sorrow at the unexpected and sudden death of Dr. W. F. Cleveland, and to express sympathy with the family in their bereavement. His very many excellent qualities evinced during his long connection with the Association, the valuable assistance he was able to render from time to time as President of the Metropolitan Counties Branch, and latterly as one of the representatives of that Branch in the Council of the Association, had gained for him the grateful esteem and respect of his colleagues, and will cause him to be long remembered among them.

Resolved: That the Council record its sense of the loss sustained by the death of Dr. I'Anson, of Whitehaven, and express its sympathy with Mrs. I'Anson and her family.

The following replies to the inquiries which the General Secretary had been directed to make relative to the registration of qualified medical practitioners in India and the Colonies were reported:

General Medical Council Office.
299, Oxford Street, London, W.,
November 11th, 1898.

DEAR SIR,—Referring to your letter of 9th inst., I beg to state that this Council has no official information respecting the modes or conditions of registration of qualified medical practitioners in India and the Colonies, but by the Medical Act (1886) it is provided that registered medical practitioners shall, save as in the Act mentioned, be entitled to practise medicine, surgery, and midwifery in the United Kingdom and, subject to any local law, in any other part of Her Majesty's dominions.

Regarding the registration of persons holding Colonial qualifications in the Colonial List in the *Medical Register* I presume you do not seek information.

Yours faithfully,
H. E. ALLEN, Registrar.

The General Secretary, British Medical Association.

India Office, Whitehall, London, S.W.,
November 18th, 1898.

SIR,—In reply to your letter of the 9th instant, I am directed by Lord George Hamilton to inform you that there is no system of registration of medical practitioners in India, and that any person with or without a diploma is at liberty to practise medicine in that country.

I am, Sir, your obedient servant,
HORACE WALPOLE.

The General Secretary, British Medical Association.

Colonial Office, Downing Street,
January 12th, 1899.

Sir,—I am directed by Mr. Secretary Chamberlain to acknowledge the receipt of your letter of November 18th, asking for information respecting medical practitioners in the Colonies, and the laws of registration and qualification.

In reply, I am to state that this department does not appear to possess complete and reliable information on the subject made up in a convenient shape to the latest date; but if the Medical Association will specify more precisely the particular information they desire, in addition to the laws affecting registration and qualification, Mr. Chamberlain will be prepared to address a circular despatch to the Governors of all Colonies requesting them to supply such information.

I am, Sir, your obedient servant,
FRED. GRAHAM.

The General Secretary, British Medical Association.

Resolved: That the matter be left in the hands of the President of Council and Dr. Groves.

Read reply from Colonial Office in reference to minute of Council 4340, respecting the Notification of Infectious Diseases Act, 1898. The Local Legislature passed a law which compelled medical practitioners to notify infectious diseases under a penalty of 40s. fine, but provided no pay for the duty thus imposed.

Colonial Office, Downing Street,
January 13th, 1899.

SIR,—In reply to your letter of the 9th inst., I am directed by Mr. Secretary Chamberlain to inform you that the Governor of Jamaica has been instructed to introduce a law to amend Law No. 22 of 1898, and to provide for the payment of fees to medical practitioners for notifying infectious diseases, and to protect them from any legal consequences of such notification, but that the amending law has not yet been received.

Mr. Chamberlain regrets that by an oversight you were not informed to this effect at an earlier date.

I am, Sir, your obedient servant,
C. P. LUCAS.

Robert Saundby, Esq., M.D., LL.D., F.R.C.P.,
President of the Council of the British Medical Association.

Resolved: That no medical practitioner resident in India or the Colonies shall be elected an unattached member of the British Medical Association until his or her name has been submitted to the Branch Secretary for report.

The President of Council reported that, in accordance with the resolution of the last meeting, the remaking of the Seal of the Association had been completed.

The President of Council reported that he had received a letter from Mr. Martin Woodward respecting the Pershore Board of Guardians, to the effect that he was much obliged for what had been done. He did not fear, at present, any fresh attack upon his position, but he would report if anything further occurred.

Read letter from Sir Willoughby Wade respecting his appointment by the Council as a delegate to the annual meeting of the Italian Medical Society:

Villa Monforte-Maiano, Florence,
December 25th, 1898.

DEAR DR. SAUNDBY,—I should be much obliged if you would convey to the Council my thanks for the honour they conferred upon me by appointing me their delegate to the annual meeting of the Italian Medical Society. Some time before the meeting I wrote in Italian to the General Secretary, I.M.S., to inform him of the fact, stating the approximate number of members of the B.M.A. I said also that I should like to have an opportunity of conveying to the President and the Society the good wishes of the President of the British Medical Association and your own (on behalf of our members).

I also spoke to him on arrival in the same sense. He said no doubt some day would be fixed. But no day or meeting ever was, so that I had no opportunity of carrying out your wishes and those of the Council, which I much regret. Time did not permit me to report before the last meeting of the Council,

Yours very truly,
W. F. WADE.

Resolved: That Dr. Bridgwater's resignation as Chairman of the Medical Charities Committee be accepted with great regret.

Resolved: That the name of Dr. Isambard Owen be added to the Medical Charities Committee.

Read letter from the New Zealand Branch, with proposed alterations to their By-laws.

Resolved: That the alterations to the By-laws of the New Zealand Branch be approved and entered on the minutes.

Read letter and By-laws asking for the recognition of a new Branch of the British Medical Association for Western Australia.

Resolved: That the Council have great pleasure in recognising the West Australian Branch of the British Medical Association, but the by-laws as drafted be referred back to them with a request that they bring them more in accordance with the by-laws of the other Branches and those of the Association.

The following communication from the Worcestershire and Herefordshire Branch was reported:

November 23rd, 1898.

DEAR SIR,—I have been directed by my Branch to send you the accompanying copies of resolutions passed on the 17th instant, and to request that you will bring them before the Council at its next meeting.

I am, dear Sir, yours faithfully,
GEO. W. CROWE, Hon. Sec.

Proposed by Dr. H. E. Dixey, seconded by Mr. Fosbroke:

That this meeting of members of the Worcestershire and Herefordshire Branch of the British Medical Association expresses its entire disapproval of the Vaccination Act of the present year, believing it must eventuate in a great relaxation of vaccination in the country, and in a few years lead to a large increase in small-pox.

The Branch would at the same time wish to dissociate itself from the opinion of those medical men who as members of Parliament supported the measure, and regret that a more vigorous and determined opposition was not given to the Bill by the Association and journals which presumably represent the views of the medical profession.

Proposed by Dr. H. E. Dixey, seconded by Mr. Fosbroke:

That the Branch is further of opinion that not only is compulsory primary vaccination necessary, but that revaccination between the ages of 14 to 16 should also be made compulsory; that more stringent measures should be taken to enforce efficient primary vaccination, and that with this view no certificate of primary vaccination should be allowed to be given which does not comply with the requirements of the Local Government Board.

Proposed by Dr. H. E. Dixey, seconded by Mr. Fosbroke:

That copies of these resolutions be sent to the several medical journals and to all Branches of the Association in order that concerted action may be taken by the medical profession to lay their views before the Government, and endeavour to induce them to pass an amending Act next session embodying these suggestions.

The minutes of the Parliamentary Bills Committee were then considered.

The President of Council undertook that when the Report of the Special Meeting of the Parliamentary Bills Committee upon the Midwives Bill was ready the Council should, if necessary, be called up to London to discuss the Report.

Resolved: That the Report of the Parliamentary Bills Committee upon the question of the Midwives Bill be printed and circulated.

Resolved: That the minutes of the Parliamentary Bills Committee of October 12th, 1898, and the 17th instant be received and approved, and the recommendations contained therein carried into effect (see page 241).

Resolved: That the report of the Subcommittee of the Parliamentary Bills Committee on Tuberculosis be received and adopted, that the report be printed in the BRITISH MEDICAL JOURNAL (see page 242), and circulated among members of Parliament, county councils, urban and rural sanitary authorities, medical officers of health, and to the Local Government Board for each division of the United Kingdom.

Resolved: That this Council do petition the Board of Agriculture either to extend the definition of diseases in the Diseases of Animals Act, 1894, so that it may comprise tubercle of the udder in milch cows, or to take such other action in regard to diseases of the udder in milch cows as will give effect to the recommendations on this subject contained in the Report of the Royal Commission of 1896 appointed to inquire into the administrative procedures for controlling danger to man through the use as food of the meat and milk of tuberculous animals.

Resolved: That the 166 candidates whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

The minutes of the Committee appointed to draw up regulations for Research Scholars were then considered:

1. That the Scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

2. That each scholar shall be appointed by the Council upon the recommendation of the Scientific Grants Committee.

3. That the appointment shall be for one year only, but that each scholar shall be eligible for re-election on the recommendation of the Scientific Grants Committee, provided that his whole term of office shall not in any case exceed three years.

4. That the holder of the "Ernest Hart Memorial Scholarship" shall devote himself to the study of some subject in the Department of State Medicine, and that the holders of the other Scholarships shall study some subject in one of the other Departments enumerated in the first of these regulations.

5. That each applicant for a Research Scholarship shall sign a form stating his willingness to conform to these regulations, a copy of which shall be supplied to him. (See Appendix).

6. That each Scholarship year shall be deemed to commence upon July 1st, and terminate upon June 30th next following.

7. That each Association Research Scholar shall, towards the termination of his year of office, present a statement of the work he has done, which statement shall be posted so as to reach the General Secretary's hands not later than June 15th preceding the termination of his year of office.

APPENDIX.

BRITISH MEDICAL ASSOCIATION RESEARCH SCHOLARSHIPS.

I, *A. B.*, desire to apply for the Research Scholarship (*the Ernest Hart Memorial Scholarship) now vacant. I intend to devote myself to research in , and I agree, if elected, to conform to the rules laid down in the Regulations of Council, a copy of which has been handed to me. Signed *A. B.*

Date

(*These words should be struck out when an ordinary scholarship is being applied for.)

January 17th, 1899. ROBERT SAUNDBY, Chairman.

Resolved: That the minutes of the Committee for the Consideration of the Association Research Scholarships of January 17th be received and approved, and the recommendations contained therein carried into effect.

Resolved: That the minutes of the Inebriates Legislation Committee of November 21st, 1898, be received and approved, and the recommendations contained therein carried into effect.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain an opinion by counsel respecting the question of the interpretation of the Medical Acts; the accounts for the quarter amounting to £9,215 4s. 11d., and the report of auditors.

Resolved: That the minutes of the Premises and Library Committee of January 17th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain an acknowledgment from the bankers of the Association as to the certificates for the redemption of the land tax; the Librarian's report, and the accounts for the quarter.

Resolved: That the minutes of the Committee on Fees to Poor-law Medical Officers of January 17th be received and approved, and the recommendations contained therein carried into effect.

Resolved: That a Committee be appointed to consider the desirability, and, if thought desirable, to draw up and forward to the Government, on behalf of the British Medical Association, a memorial urging the appointment of a Commission to inquire into the subject of venereal disease in this country, with a view to check its spread, and to protect the public from its effects, and that the Committee be empowered to take such other steps as may seem to them desirable to forward this object.

Resolved: That the Committee consist of the President of Council, the Treasurer, Mr. Macnamara, Dr. Groves, Dr. Barr, and Mr. Parkinson.

Read letter and resolution from Dr. Cureton, of the Shropshire and Mid-Wales Branch respecting accommodation for medical witnesses in courts of law.

College Hill Court, Shrewsbury,
November 27th, 1898.

DEAR DR. SAUNDBY,—May I ask you to use all your great influence as President of our Council to help on the subject contained in my resolution (which I regret has been so long in appearing) in the JOURNAL of November 26th, 1898. I have promises of support from Sir Henry Littlejohn and the Secretaries of the Police Surgeons' Association. Having been police-surgeon here for nearly twenty years, I can speak as to the absence of any provision being made for medical witnesses. Will you please help us?—Yours faithfully,

ED. CURETON.

Medical Witnesses.—That in the opinion of this meeting some special accommodation should be provided for medical witnesses in waiting before the grand jury and in courts of assize and quarter session upon the production by them of their subpœnas or other evidence of identity to those in authority; and that copies of this resolution be sent to the Chairman of Quarter Sessions, Chairman of the Grand Joint Committee of the County Councils and Clerks of the Peace and Chief Constables in the area of the Branch.

PARLIAMENTARY BILLS COMMITTEE.

A MEETING of the Parliamentary Bills Committee was held at the office of the Association, 429, Strand, W.C., on January 17th, 1899.

Present:

Dr. R. FARQUHARSON, M.P., Chairman, in the Chair.
Dr. R. SAUNDBY, President of Council.
Dr. C. PARSONS, Treasurer.

Dr. D. B. BALDING (Royston)
Dr. T. R. BRADSHAW (Liverpool)
Mr. GEO. BROWN (London)
Mr. J. CANTLIE (London)
Dr. W. A. CARLINE (Lincoln)
Dr. P. MAURY DEAS (Exeter)
Dr. T. M. DOLAN (Halifax)
Dr. W. DOUGLAS (London)
Mr. GEORGE EASTES (London)
Dr. R. ESLER (London)
Dr. A. GODSON (Cheadle)
Dr. BRUCE GOFF (Bothwell)
Dr. M. GREENWOOD (London)
Dr. J. GROVES (Carisbrooke)
Dr. A. J. HARRISON (Clifton)
Mr. J. H. HEMMING (Kimbolton)
Dr. HOLMAN (London)
Mr. VICTOR HORSLEY (London)
Mr. EVAN JONES (Aberdare)
Dr. J. C. MCVAIL (Glasgow)
Dr. W. J. MICKLE (London)
Dr. C. H. MILBURN (Hull)
Dr. J. W. MILLER (Dundee)
Dr. J. W. MOORE (Dublin)
Surg.-Gen. T. F. O'DWYER (Aldershot)
Mr. C. H. W. PARKINSON (Wimborne Minster)
Mr. A. BROWN RITCHIE (Hulme)
Dr. J. ROLSTON (Stoke, Devonport)
Dr. R. SOMERVILLE (Galashiels)
Mr. C. R. STRATON (Wilton)
Dr. J. C. THRESH (Chelmsford)
Insp.-Gen. A. TURNBULL, Emsworth
Dr. MARTINDALE WARD (Twickenham)
Dr. DAWSON WILLIAMS (London)
Dr. W. L. WINTERBOTHAM (Bridgwater)
Dr. S. WOODCOCK (Old Trafford).

The minutes of the last meeting having been printed and circulated were taken as read and signed as correct.

Letters of apology for non-attendance were read from the President, Dr. Ward Cousins, Mr. Jones Morris, Dr. Murphy, Dr. G. E. Shuttleworth, and Dr. Urquhart.

THE CASE OF DOCKRELL *v.* DOUGALL.

The CHAIRMAN called upon Mr. Horsley to present the report of the subcommittee on this matter.

Mr. HORSLEY said the matter was an important one, as Mr. Justice Ridley had expressed the opinion that anybody might take the name of a medical practitioner and use it in public for his own purpose, however distasteful that purpose might be. The Subcommittee recommended that the appeal which had already been lodged against Mr. Justice Ridley's decision should be prosecuted by the Association. After a good deal of discussion, the following resolution was proposed by Mr. HORSLEY and seconded by Dr. DOUGLAS:

That the report of the Subcommittee on the case of Dockrell *v.* Dougall be received and referred to the Council for decision as to further action being taken in the matter.

On the motion being put from the Chair, it was declared to be lost, 10 voting for, and 21 against it.

THE PREVENTION OF TUBERCULOSIS.

Dr. J. WILLIAM MOORE presented on behalf of the Subcommittee on Tuberculosis the report which had been prepared. He mentioned the chief recommendations contained in the report, and after discussion it was proposed by Dr. MOORE, seconded by Dr. SAUNDBY, and resolved:

That the report be received and sent on to the Council.

On the proposition of Dr. SAUNDBY, seconded by Dr. BRADSHAW, the name of Dr. NATHAN RAW, of Liverpool, was added to the subcommittee.

THE MIDWIVES BILL.

Dr. WOODCOCK said that the Subcommittee on the Medical Acts Amendment Bill and Midwifery Nurses Bill had, as a matter of urgency, been asked to take up the consideration of the new Midwives Bill, prepared by the body called the Midwives Bill Committee, which had been published in the BRITISH MEDICAL JOURNAL. In the new Bill certain of the suggestions which had been made by the General Medical Council had been embodied. It was, to say the least, a great improvement on anything hitherto produced by the Committee in question. He held that the most statesmanlike course for the Parliamentary Bills Committee to follow was to try to improve the Bill as far as possible without seriously interfering with the principles now embodied in it. Dr. Woodcock then enumerated the alterations in and additions to the Bill which the Subcommittee proposed.

After some discussion it was moved by Dr. WOODCOCK, seconded by Dr. SAUNDBY, and resolved:

That the report of the Subcommittee be printed and circulated, and submitted at a special meeting of this Committee to be held at an early date.

VACCINATION.

Dr. J. C. MCVAIL presented a report from the Subcommittee on Vaccination, and explained the suggestions contained therein. Among them were recommendations as to the conscience clause and revaccination.

It was proposed by Dr. MCVAIL, seconded by Dr. GROVES, and resolved:

That the report of the Vaccination Subcommittee be adopted.

ADULTERATION OF FOODS AND DRUGS.

Mr. GEORGE BROWN moved the following resolution, of which he had given notice at the last meeting:

That a Subcommittee, consisting of Dr. Cameron, Dr. Groves, Dr. Major Greenwood, and Mr. George Brown, be appointed to watch any legislation with regard to the adulteration of food and drugs.

The resolution was seconded by Mr. GEORGE EASTES, and carried.

SUPERANNUATION AND TENURE OF OFFICE OF MEDICAL OFFICERS OF HEALTH.

The resolution passed by a representative meeting of medical officers of health, held at Birmingham, as to the question of superannuation of medical officers of health, which had been postponed from the previous meeting of the Committee, was considered, and it was resolved:

That a Subcommittee, consisting of Dr. J. S. Cameron, Dr. Ogilvie Grant, Dr. J. Groves, Dr. McVail, Mr. Parkinson, and Dr. Thresh, be appointed to consider the question of the superannuation of medical officers of health, to watch any legislation on the subject, and the Council be requested to take any steps possible for the promotion of this object.

Subsequently the following resolution proposed by Dr. GROVES, seconded by Dr. DOUGLAS, was carried:

That in the interest of the public health and of justice it is essential that medical officers of health should be appointed during good behaviour, and should be permitted to provide themselves with pensions as are Poor-law medical officers, and that the Council be requested to invite the President of the Local Government Board to receive a deputation on the subject.

SCOTTISH POOR-LAW MEDICAL OFFICERS.

A communication and two draft Bills submitted by the Scottish Poor-law Medical Officers Association, in accordance with a resolution at the last meeting of the Committee, were considered.

Dr. BRUCE GOFF said that all that was desired by the Scottish Poor-law Medical Officers' Association was that the Scottish Poor-law medical officers should be placed in the same position as those in England. If a medical officer

appealed to the Local Government Board for Scotland, and if the Board said that the parish council had no right whatever to enforce certain things, such as reducing his salary or imposing extra duties, the parish council said if they had not the right to do that, they had the right to dismiss him, and gave the medical officer three months' notice.

Dr. MILLER said he could endorse all Dr. Goff's remarks.

The CHAIRMAN said it would not be a bad thing to defer the ultimate consideration to the Special Committee to be called at an early date. In the meantime he would see Lord Balfour of Burleigh on the subject, and report to the next meeting.

The suggestion of the Chairman was adopted.

MILITARY TITLES OF RETIRED MEDICAL OFFICERS.

A memorandum on this matter was considered. The CHAIRMAN said he was in favour of retired medical officers who were eligible for employment being allowed to use the new military titles introduced in the Royal Army Medical Corps. On the reassembling of Parliament he would ask the Under-Secretary of State for War whether the War Office was prepared to grant the point. Then, if the answer was not satisfactory, the Committee could take further action.

It was proposed by Dr. MILBURN, seconded by Mr. VICTOR HORSLEY, and resolved:

That the matter be left in the hands of the Chairman.

CORONERS AND MAGISTRATES.

Mr. HORSLEY, after some explanation, proposed the following resolution, which was seconded by Dr. WOODCOCK, and adopted:

That the Parliamentary Bills Committee requests the Council to consider the recent condemnation passed upon Mr. Braxton Hicks (Her Majesty's coroner) by Mr. Plowden, a magistrate for a London district, and to convey the sympathy of the Association with Mr. Hicks for his efforts to secure the proper performance of necropsies for the purposes of coroners' inquests.

REGISTRATION OF PLUMBERS.

On the motion of Dr. DOUGLAS, seconded by Dr. WOODCOCK, it was resolved:

That the Chairman be authorised to sign, on behalf of the Committee, the memorial of the Plumbers' Company to the President of the Local Government Board, asking him to introduce legislation for the compulsory registration of plumbers.

CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

The discussion of the proposal of a central fund for the superannuation of Poor-law medical officers was adjourned to the next meeting.

REPORT OF THE SUBCOMMITTEE ON TUBERCULOSIS.

THE Subcommittee was appointed on October 12th, 1898, to consider "what steps should be taken to prevent the spread of tuberculosis in animals and man, and to report to the Parliamentary Bills Committee at its next meeting." The Subcommittee was appointed in consequence of a resolution passed in the Section of Medicine of the annual meeting in Carlisle in 1896. This resolution directed special attention to the two following points:

1. That provision should be made at the public expense for bacteriological laboratories by all sanitary authorities where the sputum of patients suspected to be suffering from tuberculosis disease may be examined and reported upon; and
2. That on the discovery of pulmonary phthisis in any individual of the poorer classes, public provision should be made for the treatment of such case in a public institution provided for the purpose at the public expense or by voluntary contributions.

I.—GENERAL SANITATION.

It is imperative that all sanitary authorities should put in force the manifold powers which they now possess for improving the public health, and especially in the direction of providing better ventilation and access of light in all dwellings and workshops and in all places of public assembly. The clearance of crowded sites and the reconstruction of insanitary house property under powers already possessed by local authorities is a matter of great importance in connection with the prevention of the spread of tuberculosis. It is also the duty of local sanitary authorities, through their medical officers of health, to assist in educating public opinion by the diffusion of leaflets and notices, pointing out the best means for limiting the spread of tuberculosis. This has been done in many instances.

II.—MORTALITY FROM TUBERCULOSIS IN CHILDHOOD.

The following statement shows for each of the three portions of the United Kingdom, and for the whole area, the annual mortality from tuberculosis and from acute specific diseases per million living at all ages, and in each of the first three quinquennial periods of life, during the decennium 1881-90:

		Ages.			
		0–5	5–10	10–15	All Ages.
(*a*) Acute Specific Diseases	England and Wales ...	9,130	1,839	541	1,667
	Ireland	5,595	1,444	588	1,131
	Scotland	9,764	1,858	591	1,774
	United Kingdom ...	8,795	1,788	552	1,606
(*b*) Tuberculosis	England and Wales ...	4,499	844	827	2,420
	Ireland	3,330	1,184	1,491	2,665
	Scotland	4,368	1,520	1,506	2,743
	United Kingdom ...	4,351	962	995	2,488

Experience has further shown that infants and children dying of respiratory and wasting diseases are in a large proportion affected by tuberculosis, although the patients have not presented obvious symptoms of the disease during life.

The mortality from tuberculosis in early childhood is not decreasing as it is at other ages in the United Kingdom, and the opinion that this great prevalence of the disease in infancy and childhood is due to infection through the alimentary canal by milk from tuberculous cows appears to be well founded. The following table, showing the mean death rates from *tabes mesenterica* in England and Wales among infants under 1 year of age per million living is given by Sir Richard Thorne in his second Harben Lecture:

1851-60	...	3,160	1881-85	...	4,356
1861-70	...	3,800	1886-90	...	4,462
1871-80	...	4,467	1891-95	...	4,046

III.—CONTROL OF THE MILK SUPPLY.

Sanitary authorities should possess adequate means for the systematic pathological examination of the milk supplied by retail or by contract in the district, whether it be produced within or without the district.

Urban authorities ought to have power to examine, or cause to be examined, cows, the milk of which is sold within their boundaries, wherever those cows may be, and should have the right to prohibit the sale of milk from any cow which is suffering from tuberculosis, or any disease which may render the use of such milk dangerous or injurious to health. The air space allowed in cowsheds should be fixed by order under the Contagious Diseases (Animals) Act, regard being had to difference of locality (for example between city and country), climate, breed of cattle, ventilation, heating, etc. The Committee suggest that 800 cubic feet per cow should be accepted as a standard requirement. The powers of local authorities for the systematic inspection of dairies and cowsheds should be extended so as to permit the examination of all cowsheds and dairies from which milk is sent into their districts, whether such dairies and cowsheds are situated within or without their district.

Powers of inspection are possessed by Glasgow under a local Act. The Glasgow clauses are given in Appendix I. Manchester, Salford, and Leeds propose to insert clauses giving similar powers in local Bills, and the Committee strongly recommend that similar facilities should be given to other authorities to obtain similar powers, in view of the very high mortality from tuberculosis in childhood. Otherwise Sections LX and LXI of the Public Health (Scotland) Act, 1897, should be made applicable to the rest of the United Kingdom.

IV. TUBERCLE-FREE MILK AND MEAT.

The infection of tuberculosis in milk can be destroyed by boiling or sterilisation, but since milk can be obtained free

from tuberculous infection, if the cows which yield it are ascertained to be free from tuberculosis by the tuberculin test, it appears to be undesirable to relieve wholesale and retail vendors of their responsibility in this regard by recommending the boiling of milk as the only necessary safeguard. This precaution would not obviate the risk of infection of and from other cows nor from tuberculous material scattered about the byres by the cattle therein enclosed, and no one can make sure that the precaution is adequately carried out.

The Committee are further of opinion that the addition of preservatives such as boric acid, formalin, etc., to milk by the vendors, whether wholesale or retail, should be entirely prohibited. Such substances are apt to be used to cover fraud; for example, the admixture with fresh milk of stale or separated milk. They do not render the milk sterile, and their habitual consumption is not in itself free from injurious effects on the individual.

The danger of the dissemination of tuberculosis by the use of meat from infected animals is much less than in the case of milk; but it undoubtedly exists, and can be effectually obviated only by inspection of the carcasses of all animals slaughtered for use as food. This can be most efficiently carried out in public slaughterhouses, and in the conclusions to this report certain recommendations are made on this head (3. A). The inspection of meat should include the compulsory examination of all imported meat.

Experience shows that milk from non-tuberculous cows can be supplied commercially to the public, and contracts have recently been let by institutions at ordinary prices with clauses making this provision. The Committee therefore recommends that all institutions receiving children, and also all hospitals, asylums, workhouses, etc., should insert clauses in their milk contracts, and also special clauses in meat contracts to prevent the supply of tuberculous meat. Forms of contract accepted for the supply of milk and meat to the Infectious Hospital of the Borough of Crewe were published by the Medical Officer of Health, Dr. Meredith Young, in the BRITISH MEDICAL JOURNAL of December 17th. (These are reproduced in Appendix II.)

V.—Bacteriological Diagnosis.

The *first* paragraph of the resolution adopted at Carlisle deals with providing of means at the public expense for the pathological proof of the presence of the disease following a diagnosis founded on clinical methods.

The provision of such facilities must be a necessary part of any complete system of dealing with tuberculosis, and the provision made by the sanitary authority should be available for the assistance of Poor-law medical officers.

It may here be explained that the provision of "bacteriological laboratories" at the "public expense" by "all" sanitary authorities does not necessarily mean that each and every sanitary authority should provide a separate laboratory. These establishments might be provided jointly, or established institutions might be utilised for the purpose, the expense in each case being defrayed by the sanitary authority for whom the investigation is carried out. Many institutions of the character referred to are in existence, and appear to be most suitable to the work indicated.

VI.—Treatment of Tuberculosis.

With regard to the public provision for the treatment of cases of pulmonary phthisis among the poorer classes, it is necessary to distinguish between patients under the Poor Law and those who, though not under the Poor Law, belong either to the artisan and labouring classes and do not become chargeable to the Poor-law authorities except in the event of prolonged sickness, or those who are possessed of very limited means only. Further, in all classes a distinction must be drawn between early and advanced cases.

1. In early cases recovery may take place if the patient can be placed under favourable conditions.
2. In advanced cases, if the patient reside till death in a cottage or tenement, he is a source of danger to others, since it is almost impossible to insure effectual disinfection of sputa under such conditions of life.

Poor-law Cases.—The majority of cases admitted to workhouse infirmaries are severe and acute, or in an advanced stage. They are admitted into ordinary wards, which often also contain children. Such cases should be treated in wards reserved and specially adapted for consumptive patients, as a protection to other patients and in order that they may thus be submitted to a special *régime*, including the thorough ventilation of the wards by keeping windows open night and day, etc. With regard to early cases, it would appear to be within the power of Boards of Guardians and of sanitary authorities to provide special sanatoria on selected sites where the open-air treatment and suitable dieting, which has been found to give good results, could be applied.

Patients of Limited Means.—To meet the case of patients of the artisan and labouring class, and others of limited means, it will be necessary to establish by voluntary means institutions in suitable localities, where patients could reside for long periods. The Subcommittee learns that under the auspices of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, such a sanatorium is about to be established on a self-supporting basis, the necessary capital being provided by a limited company formed *ad hoc* on the basis of paying to the shareholders a maximum rate of interest of 3 per cent., any additional profit to be funded with the view of eventually building additional sanatoria. The Subcommittee regards the establishment of such sanatoria as very desirable, in the interests both of the patients themselves and of the members of their families.

The provision by guardians or sanitary authorities might be made independently, by co-operation of districts, or by way of contributions to existing sanatoria for the artisan and labouring classes and others of limited means, established by private enterprise, benevolent or commercial.

VII.—Notification and Disinfection.

With regard to compulsory notification of phthisis and other tuberculous diseases, the proposal would probably go further than either public or professional opinion would approve. At the same time, the sanitary authority should be in a position to learn of the existence of at least all proved cases of pulmonary phthisis, and in all instances in which patients suffering from tuberculosis have been removed to hospital, or in which death has occurred, and in all other cases which may come to their knowledge, the local authorities should take measures for the prevention of contagion and for the cleansing and disinfection of premises where the patients have resided.

It seems probable that the provision of facilities for the examination of sputum free of cost would tend to supply such information to sanitary authorities, while at the same time facilitating the work of medical practice, especially among the poorer classes. The sanitary authority might then issue papers giving directions for the disinfection of sputa, might provide suitable means of disinfection, and if an adequate amount of accommodation in sanatoria can be provided (either by the guardians, by the sanitary authority, or by benevolent or business enterprise), might bring pressure to bear on the sufferers to enter such institutions.

Conclusions.

In conclusion the Subcommittee recommends as follows:

1. *Dwellings.*—Every house newly erected should be on a dry site and dry foundation (natural or artificial), and have sufficient space around it to allow of free access of air and sunlight. These conditions should be enforced by regulations of a national and not of a local (by-laws) character.
2. *Meat.*—Properly qualified men should be appointed as meat inspectors:
   - (*a*) By every county borough and borough.
   - (*b*) By all urban district councils.
   - (*c*) By county councils for rural districts and by arrangement for small urban districts.
3. Powers should be obtained from Parliament as follows:

   A. *Slaughterhouses:*

   (1) To afford facilities for providing public slaughterhouses.

   (2) To prohibit slaughter for gain except in a public slaughterhouse after provision of such public slaughterhouse.

   (Recommendations (1) and (2) to apply to all boroughs and county boroughs and large urban districts.)

(3) Elsewhere all licences to be renewable annually and revocable easily.
(4) Compulsory examination of every cargo of imported meat. The charge to be borne by importer.

B. *Milk:*
(1) Minimum air space in cowsheds to be fixed as specified in paragraph III of this report.
(2) Power to local authorities to inspect systematically, or cause to be inspected, all dairies and cowsheds from which milk is sent in to their districts, and to exclude the milk if the application of the tuberculin test to any cow suspected of being tuberculous be refused; such inspection to be carried out by the medical officer of health with the assistance of a veterinary officer.
(3) Power to take samples of milk from any particular cow or cows.
(4) Power to prohibit the entrance of milk into any district if there are reasonable grounds for suspecting it to be tuberculous.
(5) All tumours (or affections) of the udders to be notifiable. If any cow is ordered to be slaughtered, there should be power to pay compensation if the cow proves not to be tuberculous.
(6) Imported milk (and dairy products) to be examined at the port of entry, the expense to be borne by the importer. If the milk is found to be tuberculous, advertisement to that effect, with particulars of source, etc., to be made in the *Gazette*.

4. *Pathological Diagnosis and Disinfection.*—
(1) All local authorities should make arrangements for the bacterial diagnosis of tuberculosis at the expense of such authorities.
(2) Local authority should undertake, free of charge, the disinfection of houses in which a tuberculous patient has resided, together with the bedding, clothing, and other articles capable of retaining the infection.

5. *Treatment.*—
Poor-law guardians and local sanitary authorities should be encouraged to provide suitable accommodation for the treatment of consumptive patients.

6. *General Measures.*—
Medical officers of health are advised to draw up leaflets for distribution, describing the precautions to be taken to prevent tuberculosis, and also precautions to be taken with patients to prevent the spread of infection, etc. A circular stating the best method of selecting, collecting, and preserving sputum and other excretions for bacteriological examination should be issued to medical practitioners in the district.
Local sanitary authorities should also take steps to diminish overcrowding in tenement houses and cottages. The minimum cubic space at present allowed under by-laws of sanitary authorities is quite inconsistent with healthy conditions of life.
Local organisations for supplying sterilised milk in sterilised feeding bottles should be encouraged.

7. The carrying out of the measures recommended should be generally under the direction of medical officers of health. For the effective application of means for the prevention of tuberculosis, especially those connected with the control of the milk supply, it is desirable that they should be supervised by the county medical officers. This affords an additional reason for the appointment of medical officers to all counties, and the Subcommittee regrets to observe that under the Local Government (Ireland) Act, 1898, no provision exists for enabling the county councils to appoint county medical officers of health.

APPENDIX I.

EXTRACT FROM THE GLASGOW POLICE (AMENDMENT) ACT, 1890, 53 AND 54 VICT., CH. CCXXI.

24. *Power to Enter Byres.*—The medical officer or sanitary inspector, or any person acting under their orders, provided with, and, if required, exhibiting the authority in writing of such medical officer or sanitary inspector may from time to time, within reasonable hours, enter any byre or cowshed within the city, or wherever situated, if the milk produced therein is being sent for sale within the city, and may inspect and examine any cow kept therein for the supply of milk, in order to determine whether such cow suffers from any disease which might render the use of the said milk dangerous or injurious to health.

25. *Owners of Cows to Assist the Medical Officer.*—Every owner of any cow kept within the city for the supply of milk, or wherever kept if the milk is being sent for sale within the city, and every person in charge of the same shall render such reasonable assistance to the medical officer, sanitary inspector, or other person provided with, and, if required, exhibiting the authority in writing of such medical officer or sanitary inspector for the purpose of inspection and examination as may be required by them, and any person refusing such assistance or obstructing the inspection shall be liable in a penalty not exceeding five pounds, and such penalty may be sued for and recovered before the sheriff of the county in which such person is domiciled.

26. *Intimation to be given of Diseased Cows.*—Every dairyman or keeper of a byre or cowshed whose milk is sold within the city, who, after intimation has been made to him by the Police Commissioners that any cow in his possession kept for the supply of milk for human consumption suffers from tuberculosis or any disease which might render the use of such milk for human consumption dangerous or injurious to health, shall retain such cow in his possession shall, unless the contrary be proved, be presumed to have sold the milk produced by such cow for human consumption, and shall be liable in a penalty not exceeding £5, and such penalty may be sued for and recovered before the sheriff of the county in which such person is domiciled at the instance of the procurator fiscal.

27. *Penalty for Selling Milk of Diseased Cows.*—Every person who knowingly sells or suffers to be sold or used for human consumption within the city the milk of any cow which is suffering from tuberculosis, or any disease which might render the use of such milk dangerous or injurious to health, shall be liable to a penalty not exceeding £10 for each offence: and in any case where the person liable to a penalty under this section is not resident within the city, such penalty may be sued for and recovered before the sheriff at the instance of the procurator fiscal.

APPENDIX II.

MILK AND MEAT CONTRACTS.

Dr. Meredith Young, Medical Officer of Health, Crewe, has stated that the following contracts have recently been accepted by tradesmen undertaking to supply the isolation hospital of the borough. Dr. Young adds that the persons who have accepted those conditions were also able to quote the lowest price for all the articles named.

"MILK AND BUTTER CONTRACT.

"(*a*) The contractor agrees to supply the milk from his own cows, kept and fed on his own farm, and if at any time he shall temporarily supply milk from cows other than his own, he shall, if so required by the medical officer of health, furnish him with the name and address of any person from whom such supply is obtained.

"(*b*) The contractor shall at all reasonable times allow the medical officer of health, or veterinary surgeon of the Corporation, with or without assistants, to inspect his cows, cowsheds, dairy, milk shop, milk store, and all receptacles which are used for the production, storage, or distribution of milk, and shall, whether resident within or without the borough, carry out the provisions of the dairies, cowsheds, and milk shops regulations in force for the time being in the borough of Crewe.

"(*c*) The contractor shall, at any reasonable time, allow the veterinary surgeon for the borough of Crewe, in company with the medical officer of health, and with or without assistants, to apply the tuberculin test to any or all of the milch cows on his premises, and in the event of the tuberculin test above named giving any reaction (thus demonstrating the presence of tuberculosis), he shall, if this be necessary in the opinion of the medical officer of health or veterinary surgeon, immediately cease to supply the milk of such cow or cows for the purpose of carrying out the contract. If the contractor shall continue to keep any cow after the presence of tuberculosis in it shall have been demonstrated by the tuberculin test to the satisfaction of the veterinary surgeon of the borough of Crewe, or the medical officer of health, this shall be held to be *primâ facie* evidence that the milk from such cow is used for the purpose of supplying milk under this contract.

"(*d*) The contractor agrees and guarantees that the milk supplied under this contract shall in all cases contain not less than 3.2 per cent. of fat, as ascertained by analysis.

"(*e*) The contractor agrees and guarantees that no preservative of any kind whatever shall be added to the milk or butter supplied under this contract.

"MEAT CONTRACT.

"(*a*) The contract will be accepted subject to the contractor guaranteeing and agreeing that the whole of the meat supplied under the contract shall be English produce of the best quality, and from animals free from any trace of tuberculosis or any other disease.

"(*b*) The contractor, whether resident within or without the borough, agrees to carry out the by-laws relating to slaughterhouses in force in the borough of Crewe, and shall at all reasonable times allow the slaughterhouses used by him, and any premises used for the storage or sale of beef, and all furniture, receptacles, etc., used in connection therewith, to be inspected by the medical officer of health, the inspector of nuisances, or any other authorised official of the Corporation.

"(*c*) The contractor agrees not to supply any meat which has been blown or inflated.

"(*d*) The contractor agrees, if required by the medical officer of health, to furnish him with the name and address of any person who has been engaged in the keeping, slaughter, dressing, or preparation of the animal's carcass, or meat for sale, or of the person from whom any animal, carcass, or meat was purchased or obtained."

January 18th, 1899.

SOUTH-WESTERN BRANCH.

AN intermediate meeting was held at Plymouth on January 14th. The President, Dr. HUGH MONTGOMERIE (Penzance) occupied the chair, and forty members were present.

Luncheon.—Before the meeting luncheon was served at Risdon's Restaurant.

Confirmation of Minutes.—The minutes of the last intermediate meeting at Exeter on October 21st, 1898, were read and confirmed.

New Members.—The election of the following by the Branch Council, which had met at 2 P.M., was reported: (1) Members of the Association to the Branch: C. J. Vlieland, M.D., Exeter; F. E. Cave, L.R.C.P., M.R.C.S., Torquay: W. A. Winwood Smith, L.R.C.P., M.R.C.S., Torquay; R. Wheatley, M.R.C.S., L.D.S., Torquay; G. Parkinson, M.R.C.S., L.S.A., Exmouth; G. C. Jackson, M.B., B.C., Plymouth; C. D. Lindsey, M.B., Plymouth; W. H. Boger, M.R.C.S., Fowey; D. M. Barry, L.F.P.S.G., Grampound; H. W. Armit, M.R.C.S., St. Austell, E. A. Shaw, M.B., Surgeon R.N.; J. Gardiner, B.A., M.R.C.S., Plymouth; A. Turner, M.D., Plumpton. (2) To the membership of both Association and Branch: Clarence Beesley, L.R.C.P., D.P.H., Exmouth; W. H. Steele, M.B., C.M., Torquay.

Case.—Mr. WOOLLCOMBE showed a case of Inoperable Cancer of the Breast, treated by oöphorectomy and thyroid extract. The result up to date was very satisfactory.—The PRESIDENT, and Drs. GORDON and ALDRIDGE, joined in the discussion.

Papers.—Dr. GORDON read a paper on Albuminuric Retinitis, dealing with the subject mainly from the point of prognosis. The PRESIDENT and Drs. E. L. FOX and NORWAY took part in the discussion.—The PRESIDENT read notes of a case of Dysentery acquired in the tropics, in which the salicylate of bismuth proved very successful. Dr. VINTER spoke on the subject.—Dr. E. L. Fox described a simple method of applying the treatment of Joint Affections by Superheated Air, and gave a demonstration of his apparatus.

The Prevention of Tuberculosis.—Dr. BUSHNELL opened a discussion on the aims and objects of the National Association for the Prevention of Consumption and other forms of Tuberculous Disease. Mr. PAUL SWAIN proposed, and Dr. N. E. NORWAY seconded, the following resolution, which was carried unanimously:

That this meeting of the South-Western Branch of the British Medical Association is in accord with the aims and objects of the National Association for the Prevention of Consumption and other forms of Tuberculous Disease; and that a provisional Committee be formed to establish a local Branch for the counties of Devon and Cornwall.

The President, the Hon. Secretary, Dr. Pollard, Dr. Bushnell, Dr. Norway, and Mr. Paul Swain were appointed a provisional Committee.—Dr. E. L. FOX proposed, and Dr. BUSHNELL seconded:

That the above Committee be asked to act in conjunction with the Committee already appointed by the Plymouth Medical Society.

This was carried.

Specimens.—Mr. LUCY showed a large Myomatous Uterus removed by abdominal panhysterectomy after Doyen's method.

Tea.—After the meeting Mr. Paul Swain kindly entertained the members to tea at his residence, 17, The Crescent, Plymouth.

SPECIAL CORRESPONDENCE.

THE RIVIERA.

The Weather Good and Bad.—The Riviera for the Aged.—Defective Provision for Open-Air Treatment of Phthisis.—The Recent Outbreak of Typhoid Fever at Nice.

THE weather on the Riviera during the past autumn has been singularly fine; heavy rains during October and early November have laid the dust and refreshed the parched olive groves; while, with the exception of one gale of unusual severity which washed away part of the port at Genoa, and did considerable damage all along the coast, there has been decidedly less wind than usual this year. The typical fine Riviera day at this season opens with a still, sunny morning; by 10 A.M. the temperature has risen sufficiently to enable one to sit out of doors without wraps, by midday a sea breeze usually springs up, which follows the sun round until about 4 P.M., when it begins to drop. At this hour the temperature falls rapidly, and a very definite feeling of chilliness is experienced. By 6 P.M. the temperature has again risen slightly, and the atmosphere is generally perfectly still; indeed, this is the time selected by the native population for taking a walk. This chill at sunset has been credited with many noxious influences, and has come to be regarded with somewhat unreasonable dread. Still, the fact is that the change of temperature is more rapid than is experienced at home, and unless guarded against is very apt to produce a chill. It is wiser for the invalid to be in the house at this time, though there is nothing to prevent his going out in the night air when the sunset chill has passed. The robust visitor, by carrying a great coat or wrap, will generally go unscathed. There is, of course, a reverse to this picture: days with grey skies and cold boisterous winds, or an occasional day of semi-tropical rain. But the sun is never hidden for long, and there is never any fog.

From a medical point of view, the advantage of a sojourn on the Riviera is the opportunity it affords of being in the open air. The elderly man who at home perhaps gets an attack of bronchitis in the autumn and is confined to the house in the spring, can on the Riviera spend a fair part of his day in the sunshine. Leading such a life, his general health will be improved and probably his life prolonged. The old and spent get more certain benefit from wintering on the Riviera than any other class of patient.

Using the term "open air" in its modern sense as applied to the treatment of phthisis, the conditions on the Riviera call for improvement. The climatic conditions alone permit of a large degree of open-air life without artificial aids such as shelters. On the other hand, it must be admitted that a great deal more open-air treatment could be carried out than is the case. Though as a rule the hours of daylight are fairly well utilised, yet the invalid spends many bad days indoors simply from the absence of suitable shelters in which he could sit out in any weather. This defect is still further felt with regard to the evening hours. Although the phthisical patients ought not to be subjected to the chill of the sunset hour, there is nothing to prevent them sitting out from, say, 6 P.M. to bedtime. With shelters properly lighted so as to enable the patients to read, several hours of fresh air would be gained almost daily. Of late years a great and salutary change has come over the attitude of patients with regard to submitting to discipline as to their manner of life. Anywhere outside a sanatorium discipline is a difficult matter, but once it has been fully recognised, as regards phthisis at all events, that the pursuit of pleasure and that of health are incompatible at one and the same time, the difficulties decrease. The presence side by side of a pleasure-seeking and an invalid class present some difficulties, but with increasing knowledge on the part of the patients themselves these can be minimised.

Many conflicting statements as to the presence of typhoid fever at Nice have appeared both in the English and French papers. The actual facts of the case are briefly these. In October typhoid fever occurred in the poorer quarters of the town; the cases were most numerous during the last fortnight in October, and since then has gradually declined. With regard to its incidence on the Anglo-American visitors at Nice it should be noted that no case has occurred in any hotel or pension in Nice. Amongst the Anglo-American resident colony two cases only occurred; in both instances the patients were servants. One of these succumbed. Since the middle of October no fresh case has occurred amongst the Anglo-American colony. The epidemic has therefore been practically confined to the poorer quarters of the town, and this fact has an important bearing on its probable mode of origin. In spite of a pure and abundant water supply the native population often persists in taking its water from old wells which still exist in the native quarters of the town, and which are as often as not in close juxtaposition with leaky cesspools. The early autumnal rains probably washed the cesspool contents into the wells, thus causing an outbreak. It is probable that the source of infection is removed by the later heavy rains washing away the polluted subsoil water. From these facts it is fairly obvious that visitors were never at any time in any great risk of infection. The two cases mentioned above occurred in private residences. Visitors taking apartments can secure themselves from any danger of infection by insisting upon using the regular water supply and having their drains thoroughly overhauled. Nice has suffered severely from the scare which this epidemic has produced, but it is unfortunately the fact that few towns of like size pass through an autumn without a certain number

of cases of typhoid occurring. Still it is only natural that with so many winter stations to choose from the travelling public should avoid a place where typhoid is known to exist. Now that the epidemic is over and its distribution and cause has been made public, it is hoped that the tide of visitors will once more set in the direction of Nice. The authorities at Nice have faced the matter resolutely, and have taken steps to avoid a recurrence of the outbreak.

PARIS.

Professor Proust on Sanatoria for Tuberculous Patients.—New Gynæcological Wards at the Broca Hospital.

PROFESSOR PROUST in a recent lecture at the Paris Medical Faculty on sanatoria made some statements which are especially interesting at the present time. It was observed some time ago that the bacillus of tuberculosis is less abundant and perhaps less virulent in proportion to the altitude attained. Dr. Spengler, of Davos, noted that there were no cases of tuberculosis where he practised. This fact was made known and cases were sent to this locality, and were cured. The great advantage of altitude was said by M. Proust to be the asepticity of the air: At a height of 1,000 metres hardly any germs are found; at 1,500 metres the air is absolutely pure and is comparable to laboratory sterilised air; thus, secondary infection is avoided. The following sanitary conditions are required: The district chosen must be absolutely healthy; good drinking water is indispensable. Medical men should be in constant attendance, as accidents such as hæmoptysis may happen at any moment and require immediate treatment. Cows should be kept; the quality of the milk can thus be supervised. It is desirable to be within reach of a centre where provisions are easily obtained, but sanatoria should not be too near a thickly populated place. A mountainous district ensures a pure water supply. Notwithstanding the advantages resulting from a site on a height, this is not indispensable. Sanatoria are well placed on the sea coast, or at a height of only some hundred metres, or in a wide open valley protected by mountains against the north wind. The soil should be permeable, so that drainage may be easy. Proximity to pine forests is desirable. One hundred patients should be the maximum number in a sanatorium. The model sanatorium for rich patients is the one at Hohenhonnef. At present in France there are the Ormesson and Villiers Hospitals for tuberculous children. They contain 350 beds. The Villepinte Hospital, in the Seine and Oise department, is intended for tuberculous women, and can receive 270 patients. At Hyères there is a small hospital, with 18 beds, for patients who are threatened with tuberculosis. The Assistance Publique is building at Angicourt, in the Oise department, a sanatorium for poor tuberculous patients; it is situated at a height of 95 metres above the the town of Liancourt, which is two miles and a half from the sanatorium. Lyons will soon have a sanatorium for its tuberculous poor. The Hauteville sanatorium, as it will be called, is situated at a height of 900 metres in a mountainous district in the Ain department; it is protected against the north winds, and is surrounded by a pine forest.

The President of the Republic a few days ago opened the new gynæcological wards of the Broca Hospital. The walls of the wards are covered with frescoes by celebrated artists—Dubufe, Bellery, Desfontaines, and others. There is a long glass gallery covered with frescoes by Clairin. The operating theatre is said to be the best of the kind; it is so constructed that it can be flushed by water. There is a special operating room used for performing laparotomy; this also can be thoroughly washed out; it communicates with the sterilising room, which is splendidly fitted up with sterilising apparatus. The ventilation is effected by means of air from without warmed by a special apparatus; after passing through the wards it is then carried off by exhaust tubes.

BERLIN.

Proposed Health Legislation.—Medical Examinations.

IN the speech from the Throne at the opening of this year's session of the Prussian Diet, the German Emperor announced that new legislation was being prepared on matters connected with public hygiene; that the powers of the Prussian Aerztekammern (representative bodies of medical men) were to be extended, and medical courts of honour shortly to be established.

Medical experts from the different German States met last week in the "Reichsamt des Inneren" for the purpose of discussing some desirable alterations and reforms in the medical examinations, and some proposed changes in the German *Pharmacopœia*, and also to ventilate some of the chief medical questions of the day, such as the admission of women to the medical courses, the lung-sanatoria question, etc. As regards the medical examination, the meeting concluded to recommend that it should in future embrace examination in: (1) Pathological anatomy and general pathology, (2) pharmacology, (3) medicine, (4) surgery, (5) obstetrics and gynæcology, (6) ophthalmology, (7) pædiatrics, (8) psychiatries, (9) hygiene. The ophthalmological examination to be conducted by an examiner in the eye department of an important hospital, or in a university clinic or policlinic, and is to last two days. The rhinological and laryngological examinations may form part of the surgical examination; the otological, dermatological and syphilogical examinations part of the examination in general medicine. The pædiatric examination is to be conducted either in the children's department of an important hospital or in a university clinic or policlinic, and is to last one day. In presence of the examiner the candidate is to examine a sick child, to establish the history, diagnosis, and prognosis of the case, as well as the plan of treatment; to write a report and submit it to the examiner for signature; and finally to pass an oral examination on children's diseases. The psychiatric examination is to be conducted in an exactly similar manner in the mental disease department of an important hospital or in a university clinic. As regards the hygienic examination, the candidate must prove that he has the necessary knowledge in public hygiene, that he is conversant with the chief hygienic methods of examination, and especially with bacteriological methods, and that he is at home in the principles as well as the technique of vaccination. The question as to the condition under which foreigners should be admitted to the medical examinations, met with the unanimous answer that they must submit to exactly the same examinations as German subjects. The admission of women to medical university courses and medical examinations was negatived, the question being pronounced not yet ripe for decision, the majority of German universities being against it.

BRISTOL.

The Salary of the Medical Officer of Health.—A Sanatorium for Consumptives.

THE adverse vote of the Council on the question of the proposed increase to the salary of the medical officer of health in consequence of the new duties imposed on him has led to a deadlock, and some means had to be found to remedy the unsatisfactory state of affairs. The position at present is that Dr. Davies has been appointed Medical Superintendent of the fever hospitals, but the Council refused to grant any salary. The fault appears to have arisen from the manner in which the salary was asked, and from a want of knowledge of the regulations of the Local Government Board on the point. Since the vote an expression of opinion by Sir Richard Thorne on several points has been received. It is to the effect that it is no part of the duty of the medical officer of health to administer such a hospital, and though in some cases it has been found advisable to appoint him, the salary for performing such duties must be distinct from that paid him as medical officer of health, and will not be taken into account by the Local Government Board in those cases where the Board certify the repayment by the county. This opinion, which the Council are bound to follow, places the matter on an entirely different footing, and provided Dr. Davies accepts the appointment—and we have every reason to believe that he will—he must have a salary distinct from that paid him as medical officer of health, and this salary will have to come wholly out of the rates, not being half paid—as his salary as medical officer of health is—by the country. The Chairman of the Health Committee said that the proper course to be adopted was to report to the Council again giving

more definite information on the matter, and he therefore proposed that a report be drafted recommending that Dr. Davies be appointed medical superintendent at a salary of £50 for the first year and £100 afterwards. This was carried with practically no opposition. It is not anticipated that when the opinion given by Sir Richard Thorne is made known to the members of the Town Council any difficulty in granting the salary proposed will arise.

An article in one of the local daily papers announces that a sanatorium for consumptives has been opened in Somersetshire, where patients will be treated on the lines laid down by Dr. Walther at Nordrach. The house which is situated on the Mendips, nearly 900 feet above sea level, and faces south and south-east, was formerly used as a private asylum, and has about 65 acres of grounds attached. The proprietors, who are medical men, and living examples of the efficacy of the Nordrach treatment, have certainly chosen a spot where they cannot be annoyed by the frequent visits of relatives or friends of patients, as the house is eighteen miles from Bristol and eight from Wells or Cheddar. As a matter of fact visitors are not allowed. That the proprietors call this house "Nordrach in Mendip" shows a want of originality which is regrettable; for much as the association of such a name as Nordrach may help them, we have not called Bath "Nauheim in Somerset," though that form of treatment is carried out there, we believe, as thoroughly and scientifically as by the Brothers Schott.

CORRESPONDENCE.

THE CASE OF REGINA *V.* REICHARDT: AN APPEAL.

SIR,—The case of Regina *v.* Reichardt being now closed, may I write to second the appeal made by Dr. Savage in the BRITISH MEDICAL JOURNAL of July 25th, 1898, page 274, for funds to meet the very heavy expenses that have been incurred by Dr. Reichardt in his defence?

I need hardly say that the case is one of the greatest importance, both to the medical profession and the public at large. The Commissioners in Lunacy sought to convict Dr. Reichardt of the misdemeanour of taking a lunatic into his house without certificates, notwithstanding their knowledge of the fact that Dr. Kingsford, Dr. Savage, and I had each of us expressed the opinion that the patient was not one who ought to be certified.

The action of the Commissioners is, therefore, virtually an attempt to compel medical men to treat all cases of unsoundness of mind by Act of Parliament by placing them under certificates. If the prosecution had been successful in this and in a prior case, no one would have been any longer able to take any case of temporary unsoundness of mind into his house except as a certified lunatic. A more cruel, radically unsound, or preposterous doctrine it is impossible to conceive.

With the temporarily deranged recovered of their madness, and prosecuting their medical advisers because of their certification on the one hand, and the Commissioners prosecuting us on the other hand because of the absence of certificates, God help the unsound of mind who will yet be needing treatment.

Fortunately for those who become temporarily deranged, and for those who take them into their houses to treat them—for most of these cases cannot well be treated at home—the prosecution has failed; but the defendant is saddled with expenses amounting to £700 because he did his duty and the best for the patient.

I venture to hope that we shall all see that in defending himself Dr. Reichart was defending the right of every one of us to do the best that can be done for every individual patient according to his needs, even though Acts of Parliament, when administered by the letter rather than by the spirit, may seem to indicate otherwise.

Contributions may be sent to Dr. George Savage, 3, Henrietta Street, Cavendish Square, W., or to myself.—I am, etc.,

25, Portland Place, W., Jan. 24th. JAMES F. GOODHART.

PUBLIC VACCINATORS AND THEIR FEES.

SIR,—When the minimum fees were first prescribed by the Local Government Board I, as a public vaccinator in an *urban* district, considered that they were fairly liberal. Experience in the carrying out of the orders of the Board has, however, altered my opinion. When the multifarious duties of public vaccinators under the new Act are considered it will be found, I venture to assert that the minimum fees are really quite inadequate. As experience is the best test, I may say that out of a list of thirteen children furnished me by the vaccination officer I succeeded after visitation in vaccinating one child; the remaining twelve were either dead, or ill, or had left their given addresses. Although I am willing to admit that the regulation respecting insanitary dwellings is a wise one, yet I cannot help feeling that public vaccinators should be entitled to a fee for inspecting and reporting such dwellings to the medical officer of health. Again, the time that is necessarily taken up in inspecting delicate children is not inconsiderable, and should be considered when the fees are finally fixed. From my short experience I have found that parents are fully aware that they can call on the public vaccinator to treat their children after vaccination for ailments which they (the parents) think are caused by the operation.

Before I conclude I should like to bear witness to the efficacy of the glycerinated calf lymph sent out by the Local Government Board. I must acknowledge that better results have been obtained by using that lymph than I had previously obtained from using lymph from private sources.

I have mentioned these facts because I feel that the Local Government Board should favourably consider those cases where the guardians and public vaccinators have failed to agree about terms.—I am, etc.,

January 25th. A PUBLIC VACCINATOR.

INSUSCEPTIBILITY TO VACCINATION.

SIR,—The annual report (1896 97) of the Medical Officer of the Local Government Board contains the statement that, under a system of calf-to-arm vaccination, 101,487 consecutive primary vaccinations performed by the Board's own vaccinators have failed to yield one case of "insusceptibility;" but in a total of 629,158 primary vaccinations in England and Wales of children born in 1894, no fewer than 3,032 cases of "insusceptibility" are recorded. At this rate the Board's vaccinators should have had to chronicle some 460 such instances. Comment seems needless; the inference is apparent.

Now this appears to me to be a little unjust. I have been doing this operation for a quarter of a century, never failing in arm-to-arm vaccinations; but I have, a good deal oftener than I like, had to sign certificates of insusceptibility when vaccinating from calf lymph supplied in tubes. In some cases I have repeated the operation five times with every possible care and then failed.

General practitioners have not the same opportunities as Local Government Board officials in doing calf-to-arm vaccinations, and I think those officials should be careful not to draw "inferences" or make comments that are not just.—I am, etc.,

January 23rd. GENERAL PRACTITIONER.

THE PROPOSED SCHOOL FOR TROPICAL DISEASES.

SIR,—There has appeared in your valuable columns during the past few weeks correspondence relating to the proposed School of Tropical Medicine about to be founded at the Branch Hospital of the Seamen's Hospital Society. May I, as one practically interested in the question, be allowed to add a few words upon the subject under discussion?

It it has been alleged in your columns by some our leading teachers of medicine in London, first:

> That the diseases of hot climates are included in the lectures on the practice of medicine given at every medical college and school in the kingdom.

A statement like the above is utterly misleading to the general public. At my own school (St. Bartholomew's Hospital), where I have had the privilege of spending the greater part of the last seven years, the teaching on the diseases of hot climates is most superficial. I do not blame the school for this. The clinical material available is almost *nil*, and the subject cannot, in all fairness, be considered to be adequately treated in a few lectures thrown into a course on general medicine.

In the second place it is stated:

> For clinical work the material afforded by the Dreadnought and branch is available for those residing in London.

After I had finished my ordinary course, I, as one intending to work abroad, naturally looked round for some instruction in tropical diseases, with the result that the only place I could find was the Branch Hospital. As to the Dreadnought, never during my course did I hear, nor at the present time am I aware, that there is a systematic course of instruction by those having a practical knowledge of the diseases of hot climates at that institution.

For myself, all the knowledge I possess has been obtained at the Branch Hospital, and very grateful am I to the officials there for the teaching thus obtained; for I now go abroad with the feeling that I am not starting as an utter novice on a wide and difficult subject. For this cause I welcome the founding of the new school, and intend to do all in my power to promote its interests.—I am, etc.,

J. PRESTON MAXWELL, M.B., B.S.Lond., F.R.C.S.

London, N., Jan. 20th.

THE PREVENTION OF TUBERCULOSIS.

SIR,—Dr. Ransome, in his sketch of the progress in the direction of the prevention of tuberculosis in the BRITISH MEDICAL JOURNAL of January 21st, does me the honour to mention my paper on this subject at the International Congress of Hygiene in 1891.

The—perhaps pardonable—pride which I feel in being one of the pioneers in this direction, prompts me to refer to an earlier paper of mine on the Prevention of Consumption, which is, I believe, one of the first—perhaps absolutely the first—in this country under this title since the discovery of the bacillus tuberculosis. It was read before the Epidemiological Society ten years ago, and is published in the *Transactions* (N.S., vol. viii). Since that time much advance has been made in details, and fuller proof is now available of the truth of the propositions then advanced; but the principles advocated in that paper are the same as those which are now receiving general acceptance.—I am, etc.,

Harley Street, W., Jan. 24th. J. EDWARD SQUIRE.

A CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

SIR,—An instance lately occurred in a parish within the four-mile radius from Charing Cross which well illustrates the necessity of a central fund for the superannuation of Poor-law officers. A vacancy had arisen for an outdoor district medical officer, and foremost among the selected candidates was a candidate living in the adjoining parish. Everything pointed to this man getting the vacancy, when at the Board meeting a guardian suddenly asked how many years this gentleman had been a Poor-law officer, and on his replying "Fourteen years," the guardian said "Then I shall oppose your appointment, as if you break down next week our parish will have to superannuate you." Needless to say, length of service and experience in the duties availed nothing, and a young man with a very small Poor-law record obtained the vacant post.

The older officials who have got fairly good appointments need not trouble, but surely those who will one day seek promotion from other Boards ought to help to place all on an equality.—I am, etc.,

January 23rd. POOR-LAW MEMBER.

THE COEXISTENCE OF ZYMOTIC DISEASES.

SIR,—Those engaged even to a limited extent in the treatment of zymotic diseases have reason to be thankful to Dr. Killick Millard for his emphatic pronouncement as to the comparative frequency of their coexistence. I have myself seen within the past fortnight an undoubted instance of the coincidence of scarlatina and measles in the same patient. I was, however, under the impression that this was a condition of extreme rarity; but, upon looking up the matter, I found that it is by no means so uncommon. Osler, in his *Principles and Practice of Medicine*, 3rd edition, 1898, page 83, quoting F. F. Caiger, says: "Of 48,366 cases of scarlet fever in the Metropolitan Asylums Board hospitals which were complicated by some other disease, in 1,094 cases the secondary infection was diphtheria, in 899 cases chicken-pox, in 703 measles, in 404 whooping-cough, in 55 erysipelas, in 11 enteric fever, and in 1 typhus fever."

In my case the initial ailment was undoubtedly measles; the patient slept with his brother, who was suffering from uncomplicated measles. I saw him for four days before the appearance of the rash, when he presented every symptom of a child "sickening with the measles." His brother was at this time covered with a characteristic measles rash. When the eruption came out—which it did primarily on the face—it was at first sight distinctly "measly," but as it developed it became less typical. The catarrhal symptoms which one generally associates with measles were present to quite the usual extent; but besides there were a distinctly scarlatinal throat and tongue, with great delirium and intense prostration. The child desquamated very freely, and during desquamation the urine contained a considerable quantity of albumen, a few tube casts, but no blood.—I am, etc.,

MAURICE MCELLIGOTT, D.P.H., L.R.C.P. and S.I.

Belper, Jan. 22nd.

OBITUARY.

HENRY ALLEYNE NICHOLSON, M.D., F.R.S.,

Professor of Natural History, Aberdeen University.

IT is with the deepest regret that we announce the death of Professor Nicholson, of Aberdeen, which occurred on January 19th. Professor Nicholson's reputation among the leading palæontologists has for long been a most brilliant one. The *Manual of Palæontology*, by Nicholson and Lydekker, which reached its third edition in 1890, and was then so rewritten and enlarged as to be virtually a new book, is, perhaps, the published work by which he is best known. But with this we have the many editions of his *Manual and Text-book of Zoology*, besides nearly two hundred other original publications to bear witness to his untiring and important literary labour.

His early career as a student in the Medical School of Edinburgh and in the University of Göttingen had been exceptionally brilliant, and, with previous experience as a lecturer in the Natural History chairs at the Universities of Toronto, Durham, and St. Andrews, and for three sessions at Edinburgh as Sir Wyville Thomson's substitute, he came to Aberdeen in 1882 at the age of 38.

It is difficult to overvalue the effect he produced on students of medicine who of necessity, in the very earliest part of their course, came under his influence. Very few lecturers have had Nicholson's power of instilling interest in their subjects. Each lecture left an indelibly clear series of impressions on his hearers' minds; and they were not hearers only, for by his swift strokes his audience saw grow before them in the most charming lines the representation of his word pictures. "Nicholson's lecture hours pass too quickly," the students said.

He came as a Lecturer on Zoology: there was no obligation on him to lecture on geology, but as from 1892 that subject might be taken in the course for degrees in arts and in science, Nicholson, starting with small numbers, in a few years worked up the class to one of the largest in the University.

His aim was always to give his students a practical, living view of his subjects. Avoiding from the first the adoption of an exclusive "type system" of teaching, a fact which, a few years ago, implied no slight courage on the part of a lecturer on zoology, he trained his students in such a way that whatever line of special research in natural history they might choose to pursue, they should have a sound basis to start from, both in theoretical and practical methods of work. It was for this reason that by his own work and by that of assistants trained by him, he developed his practical classes in zoology and geology, both elementary and advanced, to the very highest standard of excellence, and by his own personal labour and generosity got together and classified materials which form perhaps the most useful working geological collection for students in the kingdom. For the same purpose he organised excursions to districts of scientific interest, so that those who wished to obtain knowledge of the methods of field work should have the benefit of his personal training.

But his influence in the University is only partially accounted for by his qualities as a teacher. He was the friend of every student, and every student felt it. The gulf between them and the professor, often so fixed, was never apparent in his classes. His geniality and his delightful sense of humour

produced a feeling almost of intimacy between each student and himself, and yet never was teacher more respected, or, we believe, more beloved.

Of the grief his death causes among his colleagues and his friends we will not speak, and the loss which the University suffers cannot yet be realised; but for himself—he died in harness a week after completing a series of lectures—and all through his life, his work was a keen enjoyment and always the very best.

SIR ALFRED ROBERTS, M.R.C.S.

WE regret to record the death of Sir Alfred Roberts, M.R.C.S.Eng., of Sydney, New South Wales. Some years ago he fractured his femur when alighting from a tramcar. Since then he has gradually failed in health, and died on December 19th, 1898, at his country residence at Wentworth Falls.

Alfred Roberts was born in London in 1823. He was the son of Mr. John Roberts of Finsbury Circus. He was educated at St. Paul's School, and was afterwards a student at Guy's Hospital. He obtained the diplomas of M.R.C.S. and L.S.A. in 1844, and after practising in Sussex for some years he went to Sydney in 1854. Very soon he was appointed Surgeon to the Sydney Infirmary—now the Sydney Hospital—and retained this appointment for eighteen years. It was during his tenure of this office that his attention was directed to the inefficiency of the nursing department, and on his advice Miss Nightingale was asked to select five nurses from her Home to proceed to Sydney to take up work in the Infirmary. He assisted in the establishment of the Hospital for Sick Children, and was one of its first surgeons.

His chief work was in connection with the Prince Alfred Hospital, which was founded as a public token of gratitude for the recovery of H.R.H. the Duke of Edinburgh, who had been the victim of an attempted assassination during his visit to Sydney. Sir Alfred Roberts visited England and the Continent of Europe to gather information on the designing and equipment of hospitals, and on his return to Sydney generously devoted a very large amount of time and thought to the building and equipment of this hospital, and continued to take the deepest interest in all that concerned the welfare of the institution up till last year, when failing health compelled him to retire from the honorary secretaryship, a post he had filled so well ever since the hospital was established. It was for his services in this connection that Her Majesty conferred upon him the honour of Knight Bachelor in 1883.

He was a member of the Board of Health, and Medical Adviser to the Government for some years, and Examiner in Surgery in the University of Sydney. His energies were also devoted to the welfare of other hospitals, and for several years he was Honorary Secretary to the Carrington Convalescent Hospital at Camden. One of the last, but not least important, of the services he rendered to Prince Alfred Hospital was the renovation of the operating theatre. To this, as to everything to which he put his hand, he devoted his whole energy, and his scrupulous attention to every detail resulted in the equipment of an operating theatre second to none in the Southern Hemisphere. Those who knew him best always recognised in him a courteous refined English gentleman, and the medical profession and the general public are the poorer for the loss of such an indefatigable worker in the cause of humanity.

JAMES CAPPIE, M.D.,

Edinburgh.

WE regret to announce the death of Dr. Cappie, who at the time of his decease was one of the oldest and most respected members of the profession in Edinburgh. The sad event was somewhat unexpected, for he was seeing patients until within two days of his death. For a few weeks past he had been feeling indisposed, but death came suddenly during sleep from heart failure.

Dr. Cappie was born at Kirkfield Bank, near Lanark, in 1829. He was a member of a large family, only three of whom lived to grow up, and he survived them all. His early education was received at Lanark Grammar School. He then proceeded to Edinburgh University, where he graduated in 1850. For a time he was an assistant at Minto House Medical School, and then started on his own account, and soon attained a large practice, which he retained until his death.

In the department of Midwifery he was specially skilful, and his forceps with bayonet joint is well known in the profession. During a visitation of cholera he distinguished himself greatly by his intrepidity no less than by his success in treatment of many cases. For a time he held a parochial appointment, and was also visiting officer at the Poorhouse, but the calls of a large family practice led him to give up those appointments many years ago.

In every way Dr. Cappie was a model family doctor. He spared no pains to master his cases thoroughly, and his whole devotion was to his patients' interest.

In the literature of the profession he holds an honourable place. Among his works were: *On the Immediate Cause of Sleep*, 1854; *Essays on Medical Science*, 1859; *The Causation of Sleep*, 1872; *The Relation of the Cranial Contents to the Pressure of the Atmosphere*, 1874; *On the Balance of Pressure within the Skull*, 1879; *Some Points in the Physiology of Attention, Belief, and Will*, 1886; *Intracranial Circulation and its relations to the Physiology of the Brain*, 1890; *The Cerebral Capillary Circulation*, 1898. He also contributed to *Brain*, the *Monist*, and other periodicals. In all these writings he showed much thought and ingenious speculation on very recondite subjects. We understand that at the time of his death he was busy preparing another work on the same lines of thought. His views were not generally accepted by physiologists of the present day, but he was always able to take his own part and break a lance in defence of what he believed to be the truth.

At one time he gave some attention to chess, and was President of the Philosophical Institution Chess Club in 1876-1877. So skilful did he become in the game that he was one of the players selected to encounter the champion of that day—Mr. Blackburne—in a tournament. He got into a very strong position, and had a good chance of winning, but an unfortunate slip cost him the game.

Dr. Cappie was twice married, and is survived by a widow, two sons, and six daughters. His funeral, which was to the Grange Cemetery, was attended by a large concourse of sorrowing patients and friends.

THOMAS COLE, M.D., F.R.C.P.,

Late Physician, Royal United Hospital, Bath.

WE regret to record the death of Dr. Thomas Cole, which occurred at his residence, 18, The Circus, Bath, on January 15th. Dr. Cole began his medical education at St. Bartholomew's Hospital, where he carried off the senior scholarship and was double Wix and Bentley prizeman. In 1866 he passed the Final M.B. Examination at the University of London with first class honours, proceeding to the M.D. in 1868. He joined his uncle, Mr. Skeate, at Bath, and very quickly acquired an extensive and lucrative practice, his opinion being frequently sought in the counties of Somersetshire, Wiltshire, and Gloucestershire. In 1871 he was elected Physician to the Royal United Hospital, a position which he held for twenty-seven years, only resigning it when the condition of his health made it necessary in 1898. The year after his appointment to the hospital he became a Member of the Royal College of Physicians, and in 1888 he was elected a Fellow.

Dr. Cole was essentially a busy man, and when not engaged in professional work spent much time in superintending the education of his two sons and daughter. And he was well repaid: both boys did well at Bath College, and then the elder gained a scholarship at Christ Church, Oxford, and is now following in his father's footsteps at St. Bartholomew's Hospital; whilst the younger proceeded to Balliol College, gaining the Ireland and two other University scholarships.

As a hospital physician Dr. Cole was seen to great advantage. He seemed intuitively to make a quick, but accurate, diagnosis, which further investigation generally confirmed in every particular. His knowledge of drugs was extensive, and he was a firm believer in their efficacy. There was always a strong bond of attachment with his patients, whether hospital or private, and he was a great favourite with children. His gentle nature and sympathetic voice were no mere mannerisms, but proceeded from a heart that genuinely felt for others' woes. That such a man was beloved in the family circle it is needless to say, and, though now he is lost to the home, his memory will ever be cherished by those he has left behind.

About two years ago his health began to fail, and he became a frequent sufferer from gout and asthma; nevertheless, he

continued to practise until a week or two before his death. On Sunday, January 15th, intestinal hæmorrhage came on at 2 P.M., and he was unconscious till 6 P.M., when he died, at the comparatively early age of 53.

JOHN MEABURN BRIGHT, M.D., M.R.C.S., L.S.A.

By the death of Dr. Bright, of Forest Hill, on January 11th, the profession has lost a general practitioner of the best type, and a man of singular devotion to duty and integrity of character. Suddenly snatched away at the age of 65, in the midst of active work, he has left among his patients and colleagues a memory that will long be cherished as that of a most useful life and a strong and attractive personality.

The son of Dr. Richard Bright, of South Audley Street, Mayfair, and afterwards of Hobart Town, Tasmania, and the grandson of the Rev. John Bright, of Skeffington Hall, Leicester, Prebendary of Salisbury, Dr. Bright was born in 1833. Educated at Rossall with a view to his entering the Church; he changed his mind, and began the study of medicine at Queen's College, Birmingham, where he took many prizes. He afterwards studied at Guy's Hospital, where he had a distinguished career, and attracted the attention and gained the friendship of Dr. Addison. He became Licentiate of the Society of Apothecaries in 1857, and a Member of the Royal College of Surgeons of England in 1859, and in 1862 he obtained the M.D. degree at St. Andrews with honours. He was assistant to the late Dr. Ray, of Dulwich, for a time, and afterwards House-Surgeon to the Surrey County Hospital at Guildford. In 1863 he settled in practice at Forest Hill, where he speedily established a wide reputation. Of untiring energy and devoted to his profession, Dr. Bright was one of the founders of the Sydenham District Medical Society, of which he was recently President. To him was also due the foundation of the Provident Dispensary at Forest Hill. He was a Vice-President of the British Medical Benevolent Fund after serving for several years on its Committee. With active interests alike in politics, in literature, and in the drama, he held the strongest religious convictions, and devoted much of his leisure to the study of theology, the fruits of which were given to the world in several anonymous volumes of commentary on the Scriptures. To medical literature he contributed a "Report to the Medical Officer of the Privy Council on the Sanitary Condition of Forest Hill, 1864-70;" a paper (in conjunction with Dr. J. Harley) on Some Cases of Deranged Innervation consequent on Diphtheria published in *Virchow's Archiv*, 1862, etc. He was the Editor of the "Report on Midwifery and Diseases of Women and Children" in the *Yearbook of the New Sydenham Society*, 1863-4.

Dr. Bright was twice married. He died suddenly of cardiac syncope. He had seen patients in the morning, and passed away in the afternoon.

One who knew him well writes: Every Guy's man knew Bright of Forest Hill, and his distinguishing features were his downright integrity and his scorn for all that was not strictly straightforward. He was warmhearted to a degree, and had a heart open as the day to melting charity. If to live a laborious and most useful life and to die suddenly in the midst of the active work of the happiest period of a long life be accounted happiness, he was certainly happy and also *felix opportunitate mortis*.

SURGEON-GENERAL JAMES MACBETH, a veteran officer of the Army Medical Service, died recently in Rome, aged 82. He studied in Edinburgh, and took the diploma of Licentiate of the Royal College of Surgeons in 1840. He entered the army in 1841 as Assistant Surgeon, 10th Foot, with which regiment he served in the Sutlej campaign of 1845-6, and at the great battle of Sobraon (medal and clasp); he served further in the Punjab campaign of 1848-9, including the siege of Mooltan, and various other operations (medal and clasp). He subsequently became Surgeon of the 74th Highlanders, the 10th Hussars and 16th Lancers; was promoted Deputy-Surgeon-General in 1870, and retired with the rank of Surgeon-General in 1877. Surgeon-General Macbeth was a good type of the old regimental surgeon, an order now rapidly passing away.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Konstantinos Boussakis, Professor of Physiology in the University of Athens; Dr. Larrieu, Surgeon to the French Hospital, Constantinople; and Dr. R. F. Klaus, Professor of Zoology in the University of Vienna, aged 63.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 8s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A FIELD OFFICER, who has done half tour in Malta, wishes to exchange home for full tour. Apply Asthma, care of Holt and Co., 3, Whitehall Place, London, S.W.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: DANIEL J. P. MCNABB, Staff-Surgeon, to the *Northampton*, January 13th: JOHN A. KEOGH, B.A., M.B., Surgeon, to the *Calliope*, January 13th; ERIC D. MACNAMARA, B.A., Surgeon, to the *Jupiter*, January 13th; ARTHUR A. J. MCNABB, M.B., Surgeon, to the *Sans Pareil*, January 27th; NORMAN L. RICHARDS, Surgeon, to the *Northampton*, additional, for the *Curaçoa*, January 27th; SAMUEL H. FACEY, Surgeon, to the *Diadem*, January 27th; REGINALD WATERFIELD, Surgeon, to the *Diadem*, January 24th.

Staff-Surgeon JOHN B. B. TRIGGS, M.B., has been promoted to be Fleet-Surgeon, January 10th. He was appointed Surgeon, September 29th, 1877, and Staff-Surgeon twelve years thereafter. He had medical charge of the *Active* during the Zulu war in 1879, and has the South Africa medal.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL W. S. M. PRICE has been selected for the post of Principal Medical Officer in Egypt to succeed Surgeon-General H. S. Muir, who is to be appointed Deputy Director-General, Army Medical Service, *vice* Surgeon-General W. Taylor, who becomes Principal Medical Officer in India.

Colonel J. FRASER, M.D., has been appointed Principal Medical Officer, North-Western District, at Chester.

Lieutenant A. C. LUPTON has been selected for appointment to the Coldstream Guards as an attached Medical Officer.

Captains G. S. MCLOUGHLIN and J. D. FERGUSON have been made Companions of the Distinguished Service Order in recognition of their services during the recent operations in Uganda.

Lieutenant GEORGE S. NICKERSON, M.B., is seconded for service with the Egyptian army, December 29th, 1898.

INDIAN MEDICAL SERVICE.

IT has been officially notified in India that Surgeon-General R. HARVEY, C.B., D.S.O., M.B., Bengal Establishment, has been confirmed in his appointment as Director-General of the Indian Medical Service, from October 25th, 1898.

The officers of the Indian Medical Service who may in future be placed in charge of the Imperial Service Troops proceeding on service are to receive extra remuneration from Rs. 85 a month downwards. These orders are to have retrospective effect, so as to cover any cases which may have occurred in the frontier operations of 1897-98.

Brigade-Surgeon-Lieutenant-Colonel HUGH JOHNSTONE, late Indian Medical Service, died at 4, Lennox Mansions, Southsea, on December 11th, 1898. He was until his retirement Senior Civil Surgeon of Rangoon, Medical Officer for the State Railway of Burmah, Port Health Officer at Rangoon, etc. He retired last year after fifty years' eventful service in India and Burmah, but chiefly in the latter. Colonel Johnstone took a high position in the examination for the Indian Medical Service. He was first appointed to the Bengal Presidency, but in May, 1863, he proceeded to Bombay, where he was House-Surgeon and Physician to the Medical College Hospital. He was then transferred to the interior of Burmah.

THE VOLUNTEERS.

SURGEON-LIEUTENANTS E. J. G. BERKLEY, 4th Battalion the Queen's (Royal West Surrey Regiment), and J. S. Y. ROGERS, M.B., 1st (City of Dundee) Volunteer Battalion the Black Watch (Royal Highlanders), are promoted to be Surgeon-Captains, January 25th.

MR. CHARLES J. MARTIN, M.B., is appointed Surgeon-Lieutenant in the 4th Volunteer Battalion the East Surrey Regiment, January 25th.

Surgeon-Captain A. J. McD. BENTLEY, M.D., 13th Middlesex (Queen's Westminster) Rifles, has resigned his commission, January 25th.

THE BRITISH TROOPS IN CANDIA.

A DESPATCH is published in the *London Gazette* from Major-General Chermside, commanding the British troops in Candia, reporting the services of the officers and others present at the attack on the British troops in September, 1898. "The infantry (says the despatch) called on to defend themselves, with the assistance of other detachments, against this sudden, general, and treacherous attack, all belonged to the 1st Battalion Highland Light Infantry, and behaved in a manner worthy of the traditions of this distinguished corps." Among those singled out for special mention are the following members of the Royal Army Medical Corps: Lieutenants L. Addams-Williams and T. H. M. Clarke (wounded), and Privates D. Philemon, G. H. Lowden, G. Leggatt, and G. Biddiscombe wounded).

MEDICO-LEGAL.

A "CRIMSON CROSS DISPENSARY" AND ITS REMEDIES.

An inquest was held at the Guildhall, Derby, on January 2nd, on the body of John Henry Booth, aged 3 years. According to the report in the *Derby Daily Telegraph*, it appeared from the evidence of the mother that the deceased had frequently complained of headache, and on the Thursday preceding the death he said it ached very much, and she gave him some castor oil. On Friday she rubbed his head with some ointment that Captain Fielden gave her. She did not know who Captain Fielden was, but he came round sometimes to look at children. She went to his place in Otter Street on the Friday, and he called at her house in the evening. When she called at the office she was told it was closed, but the young lady there asked for her name and address. She did not tell her the child was ill, or ask that Captain Fielden might come. He, however, called at the house on Friday night, and looked at the child, put his hand on its head, and said she might rub it with a little ointment which he brought with him. He called the following day to see the child, but it was dead. He appeared surprised, and inquired if she had sent for a doctor. She informed him that she had sent for Dr. Spettigue, but he said the child died from convulsions. She did not ask Captain Fielden for a certificate. When he came on the Saturday morning he gave her some medicine for another child older than the deceased; this medicine he had with him. She did not know whether Captain Fielden was a qualified doctor, but she knew he had been to see other children in the neighbourhood, and prescribed and gave medicine to children of various people. At the house in Otter Street the word "Dispensary" was on his window.

Captain Fielden, in his evidence, stated that he was a retired captain of the Scots Fusiliers, having retired about 1874. In reply to the Coroner, witness said he amused himself by doctoring anyone, examining and prescribing for children and adults in the ordinary way. He made no charge either for visits or remedies. The physic was made up at the dispensary in Otter Street, which belonged to Miss Walmsley. There was no poison in the medicine, though there was a little in the ointment. He would give certificates for death or burial if the coroner would permit him, but prior to this one there had not been any deaths in the cases he had attended. He admitted having looked at the child's head, passed his hand over it, and gave the mother some ointment to rub on, and told her to send to the dispensary for some medicine the next day. No one having come the next day he went round and left some medicine for the elder child that was sickening for typhoid fever. He did not report cases of infectious disease. Qualified men, he added, were not allowed to use good remedies like he did; it would be against medical etiquette. He felt himself competent to attend these cases. He cured 98 per cent. of his small-pox cases at Gloucester, when the doctors were losing 55 per cent. of theirs. He had cured a great many cases which had been discharged from hospitals and infirmaries as incurable.

Dr. Spettigue gave evidence that the cause of death was primarily water on the brain, and secondly convulsions.

The Coroner in summing up said it was quite clear from Captain Fielden's own evidence that however dangerous cases might be he attended people, examined them, and prescribed for them, and actually kept a dispensary in Otter Street and he claimed that he was fully qualified to diagnose cases. Personally he, the Coroner, had yet to learn that any person not a duly qualified medical practitioner had a right to take upon himself such a serious responsibility as Captain Fielden had, or that the law gave him power to undertake the treatment of cases which required the greatest medical skill. Under the circumstances he thought it was the duty of the proper authorities to take some notice of this case and particularly the evidence of Captain Fielden himself, because he could not conceive a more dangerous practice than that of an unqualified person attempting to attend adults and children suffering from very severe diseases, including typhoid fever. He felt it his duty to send a copy of the depositions to the proper authorities before whom he should place all the facts and if they felt it desirable for the protection of the public they would no doubt take the necessary steps.

In reply to the foreman of the jury, Captain Fielden said he considered Miss Walmsley was quite qualified to make up their medicines. She was a specialist, though the only experience she had had was that because of an affliction—a diseased hip—she had attended various hospitals. Miss Walmsley was in the habit of attending patients out of town, and received them at the dispensary.

In answer to the Coroner, witness stated that there was a Miss Edge also at the dispensary. The dispensary was kept up through the remedies being sold to chemists and by subscription. A charge was made on lady patients on Wednesdays. Witness said he simply went there to attend his other patients, as a doctor would go to the infirmary. Miss Walmsley was one of the cured patients.

Replying to the jury, the "Crimson Cross" remedies were proprietary medicines. Paying days were on Wednesdays. Witness did not know of his own personal knowledge, but he was told so by Miss Walmsley, who had a banking account.

The Coroner: Do you directly or indirectly receive any money from this dispensary, which is called the Temperance Dispensary, the Crimson Cross Dispensary, and Mr. Fielden's Dispensary?

Witness: No, none whatever. I do not get any money from either.

The jury returned a verdict in accordance with the medical testimony, leaving any further action in the hands of the Coroner. The jury added that it was a matter of great importance to the public, and it was necessary that an exhaustive inquiry should have been made.

CORONER AND MEDICAL WITNESS.

MEMBER (Bristol) complains that, without *post-mortem* examination, and not having seen the deceased for months, and not since death, he is called upon to give evidence as to the cause of death, and that when the question of a special visit to examine such body externally after death is raised, the coroner observes that the fee of one guinea paid for giving evidence includes visiting and examining the body. Has the coroner, he asks, power to allow a special fee for so doing?

*** The only fees to medical witnesses the coroner can pay are those prescribed by the Coroners Act, 1887, which provides one guinea for a *post-mortem* examination, if ordered by the coroner, and one guinea for giving evidence. There is no fee allowable for external inspection of the body after death, and when such cases occur as described by our correspondent, all the evidence he can give is concerning his previous knowledge of the deceased, and an account of any ailments for which he may have attended him recently or on the last occasion. The deceased man in the present instance was about 80 years of age, and in the absence of any evidence to the contrary, the jury would probably be satisfied with the general evidence and the previous history given by the medical man, and come to the conclusion that the deceased died from natural causes, though if a *post-mortem* examination had been ordered a more correct and satisfactory verdict would have been arrived at. As regards the fee of one guinea for giving evidence, that does not include any other service rendered by the medical witness except that mentioned in the Act.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

BENEFACTIONS.—The Vice-Chancellor publishes a list of donations to the Benefaction Fund received during the past six months. They amount to £2,530, and include about £400 specially assigned to the rebuilding of the medical school. Lord Iveagh contributes £1,000 to the general fund.

DEGREES.—At the Congregation on January 19th, Mr. E. A. R. Newman, B.A., of Caius, was admitted to the M.D. degree; Mr. C. R. Reissmann, B.A., of St. John's, to the M.B. and B.C. degrees; and Mr. E. C. Taylor, B.A., of St. John's, to the B.C. degree.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen passed the Preliminary Science Examination in Chemistry, Physics, and Practical Chemistry: S. Clifford, Birkbeck Institute, and R. W. Craig, Wyggeston School, Leicester. Two gentlemen were referred back to their professional studies for three months.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, January, 1899.—The following candidates passed in:

Surgery.—F. M. Aldred, Liverpool; R. L. Argles, St. Mary's Hospital; H. H. Cotman (Section II), Aberdeen and London Hospital; K. Grube, Bonn; R. R. Mowll (Section I), King's College Hospital; A. Robinson, Leeds; S. Southam, Westminster Hospital; L. K. Tickner, Durham; H. Whittaker, Cambridge; C. H. Williams, St. Bartholomew's Hospital.

Medicine.—R. R. P. S. Bowker, Middlesex Hospital; A. E. Freer, Edinburgh and St. Mary's Hospital; S. H. Longhurst, Guy's Hospital; D. V. Lowndes (Section II), Westminster Hospital; G. S. Moore, London Hospital; R. R. Mowll (Section I), King's College Hospital.

Forensic Medicine.—R. R. P. S. Bowker, Middlesex Hospital; R. R. Mowll, King's College Hospital; L. Liebster, Vienna and London Hospital.

Midwifery.—H. C. Cooper, St. George's Hospital; H. R. Cross, Leeds; H. Fawcett, Cambridge and London Hospital; E. J. Gruchy, London Hospital; W. M. McLoughlin, University College Hospital; C. G. Meade, St. Bartholomew's Hospital; C. H. St. M. W. Toke, St. George's Hospital; H. E. Weston, St. George's Hospital.

The diploma of the Society was granted to Messrs. F. M. Aldred, R. L. Argles, H. H. Cotman, E. J. Gruchy, and A. Robinson.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,875 births and 3,979 deaths were registered during the week ending Saturday last, January 21st. The annual rate of mortality in these towns, which had been 19.1 and 18.3 per 1,000 in the two preceding weeks, further declined to 18.2 last week. The rates in the several towns ranged from 13.7 in Derby, 13.8 in Burnley, 14.4 in Leicester, and 15.1 in Croydon to 22.4 in Halifax, 22.6 in Preston, 23.0 in Gateshead, and 26.6 in Swansea. In the thirty-two provincial towns the mean death-rate was 18.8 per 1,000, and exceeded by 1.6 the rate recorded in London, which was 17.2 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.9 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.0 in West Ham, in Portsmouth, in Swansea, and in Manchester, 3.1 in Preston, 3.5 in Huddersfield, and 5.0 in Nottingham. Measles caused a death-rate of 1.6 in Manchester, 2.0 in Huddersfield, 2.2 in Nottingham, and 2.4 in Gateshead; whooping-cough of 1.3 in Bristol, 1.5 in Swansea and in Huddersfield, 1.7 in Nottingham, and 1.8 in Birkenhead; and "fever" of 1.3 in Bolton and in Preston, and 1.8 in Burnley. The mortality last week from scarlet fever showed no marked excess in any of the large towns. The 68 deaths from diphtheria in the thirty-three towns included 30 in London, 5 in Liverpool, 4 each in West Ham, Portsmouth, Leicester, and Sheffield, and 3 each in Birmingham and Leeds. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and only one small-pox patient was under treatment in the Metropolitan Asylums Hospitals on Saturday last, January 21st. The

number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,777 at the end of the three preceding weeks, had further fallen to 2,749 on Saturday last; 249 new cases were admitted during the week, against 225, 291, and 220 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 21st, 954 births and 649 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 18.2 to 21.7 per 1,000 in the three preceding weeks, declined to 21.3 last week, but was 3.1 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 15.5 in Leith and 17.5 in Greenock to 22.4 in Glasgow and 23.5 in Dundee. The zymotic death-rate in these towns averaged 3.1 per 1,000, the highest rates being recorded in Greenock and Aberdeen. The 316 deaths registered in Glasgow included 2 from measles, 4 from scarlet fever, 2 from diphtheria, 15 from whooping-cough, and 4 from "fever." Six fatal cases of measles and 12 of whooping-cough were recorded in Edinburgh; 2 deaths were referred to diphtheria in Dundee, 2 in Paisley, and 2 in Greenock; and 6 deaths from measles occurred in Aberdeen.

SCIENTIFIC PREVENTION OF YELLOW FEVER.

IN a paper in a recent issue of the *North American Review*, Dr. A. H. Doty, Health Officer of the Port of New York, states that quarantine, without a wholesale remedy of local sanitary defects and deficiencies, cannot be alone depended on to prevent the introduction or extension of yellow fever, for, after it is removed, the locality is just as susceptible to the disease as ever. He lays stress on the fact that no other place in the world offers such a menace to the public health of America as the Cuban seaports—notably Havana, where may be seen what he terms "the degradation of sanitary science." Dr. Doty finally alludes to the need of a National Health Bureau or Department, which shall not only have general supervision over quarantine matters, but shall also have jurisdiction over sanitary matters in the interior, which is even more important. This feeling has found expression in a Bill introduced in the United States Senate last winter by the Hon. John C. Spooner. It is the intent of this Bill to establish a department which shall be sufficiently broad in its scope to have general supervision over health matters throughout the United States, both at the coast and in the interior. It has no aim to obstruct or interfere with local health officers in the proper performance of their duties, but to assist and co-operate with them, and to harmonise their action, and to instruct and thus gain public confidence. The value of such a department is self-evident, and it is stated that "there is reason to believe that during next session of Congress the Bill referred to will again receive serious and proper consideration." Let us hope it will soon become law.

ST. GEORGE, SOUTHWARK.

THERE has just been issued the annual report of the Vestry of St. George-the-Martyr, Southwark, for the financial year ended on March 25th last, and included in the volume is the report of Dr. Waldo, M.O.H., for the calendar year 1897. The former report bears date, July, 1898, whilst that of Dr. Waldo is dated February, 1897 (presumably 1898 is intended). It is a pity the publication of the report of the medical officer should be delayed for more than twelve months after the close of the year. The birth-rate, 35.0 per 1,000 persons living, in 1897 considerably exceeded that of London, and was 4.4 above that of the 33 great towns. The death-rate of 23.2 per 1,000 living was exceeded by only four London sanitary districts. It was 28.6 in the Borough Road subdistrict of St. George, though even that was below the average of the preceding six years. The zymotic death-rate of 4.3 per 1,000, which vied with Limehouse in heading the list of London districts, was opposed to 2.6 in the metropolis as a whole, and 2.9 in the 33 great towns. The infantile mortality was 189 per 1,000 registered births, as against 159 in London. It was 203 in the Kent Road division. Diarrhœa accounted for 1,482 deaths. The conditions which favour this disease in St. George are polluted soil and air, crowding in houses and on area, filth nuisances, and uncontrolled dairies. The mortality from measles, diphtheria, and of children generally have exercised Dr. Waldo, but we feel that we are dealing with ancient history in his comments on these and other matters. His general and special reports are of interest and importance, especially those having concern with insanitary areas and house property, and on the whole give evidence of a large amount of good work in progress.

THE VITAL STATISTICS OF KENSINGTON IN 1898.

THE statement which Dr. Orme Dudfield issues in the opening days of each year as to the vital statistics of the parish of Kensington during the preceding twelve months is a procedure which is deserving of praise in its highest form—imitation. The detailed annual reports of metropolitan health officers are often so long delayed as to make an early presentation of data more than usually valuable. Dr. Dudfield puts forward his figures in a shape which renders it possible for the vestry to make use of them at once. Especially is this the case at Kensington, because monthly reports are issued, each covering the whole range of current sanitary administration. The data for the parish, which has a population of 172,000, show a birth-rate of 29.4 per 1,000 persons, considerably below that of London as a whole, and ranging in the various divisions of the parish from 10.7 to 38.7 per 1,000 living. The death-rate, 16.9 per 1,000, was 2.3 below that of London generally, and ranged from 8.6 to 31.0 per 1,000 in the six sanitary districts of the parish. The rate of infantile mortality showed a rise over recent years, being 180 per 1,000 registered births, as against 167 in the metropolis. It ranged in Kensington sanitary divisions between 101 and 253 per 1,000 births. The zymotic death-rate of 2.0 per 1,000, as opposed to 2.34 in the metropolis, showed equally great divergence in the different populous divisions of the parish, namely, 0.7, 0.8, 1.5, 1.0, 3.9, and 4.9 respectively. Scarlet fever showed decrease as regards both cases and deaths, and diphtheria showed even more marked decline as regards amount and fatality, both as to death-rate and case mortality, the latter being about the lowest on record, namely, 11.7 per cent. Typhoid fever cases were fewer than in 1897, whilst the deaths from that disease were fewer than in any year since 1887. Generally speaking, the health data of Kensington are marred by two districts in its constituent divisions, namely, the North, with a population of 33,350, and the North-West with its estimated 16,850 persons.

PLYMOUTH WORKHOUSE INFIRMARY.

MORE than four years ago our Special Commissioner recommended the building of a new infirmary, and remarked: "These buildings were erected at a time when the needs of the sick were not so well understood, and they cannot be adapted without an unnecessary expenditure of service and labour, which makes the working extravagant" (BRITISH MEDICAL JOURNAL, September 8th, 1894). On January 17th, according to the *Western Morning News*, the same question was under the discussion of the Board. An inelastic building is the problem; it met the needs of the population in the last century, but it has been over and over again found wanting at the present date. The guardians were well advised by Mr. Preston Thomas, the inspector, to face the situation and build a new infirmary. From the reports which were laid before the Board, the overcrowding is now positively dangerous. The medical officer has insisted over and over again in his reports on the need of a suitable infirmary for the sick, the public press has been urging the same, and now the hapless and helpless poor crowded in beds on the floor, or in at least one instance placed two in a bed in a wretched room never intended for a ward, cry with a voice which cannot be hushed. Mr. Thomas says, "Public opinion would not tolerate the sort of overcrowding and inadequate accommodation for the sick poor that they now had," and we trust that the ratepayers of Plymouth will bestir themselves to wipe away this reproach from their beautiful town.

INCREASE OF SALARY OF MEDICAL OFFICER OF HEALTH.

WE are glad to notice that at a recent meeting of the Sheffield City Council it was resolved to increase the salary of Dr. Robertson, medical officer of health, from £500 to £600.

PROPOSED CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

AT a meeting of the Council of the Poor-law Medical Officers' Association the subject of a central fund for the payment of superannuation expenses came under discussion. It was unanimously resolved:

That the present system of making each union responsible for its own, and other, superannuation expenses was likely to lead to serious grievances; that it would inevitably result in preventing increase of Poor-law officers' salaries under any ordinary circumstances, and altogether hinder the appointment to a Poor-law office of any man of advanced years, however competent, and would be fatal to the chance of a Poor-law officer once losing his office again obtaining an appointment.

That this would be avoided by the formation of a central or common fund out of the contributions deducted under the present Act from the salaries of Poor-law officers.

LUNACY LAWS.

DR COOK (Torquay) writes to call attention to the fact that magistrates often refuse to sign an order for admission to an asylum where a medical certificate of lunacy has been given.

*** This is an example of the defective condition of the lunacy laws, which gave the magistrates this power of deciding the question of lunacy. Homicidal acts have in several instances resulted from this provision, and all such recurrences should be reported. The only action that the medical officer can take is to fulfil the duty entailed on him (by Section XIV), and give notice to the relieving officer again and again. Both relieving officer and magistrates are bound to comply with such a notice, and to inquire again and again into the case.

MEDICAL NEWS.

MR. A. T. MACCONKEY, B.A., M.B., B.C.Cantab., D.P.H. Camb., has been appointed Assistant to the Bacteriologist of the Royal Commission on Sewage Disposal.

THE Duchess of Albany opened on January 20th the new Nurses' Home of the Chelsea Hospital for Women, and subsequently paid a visit to the hospital.

AT the meeting of the Board of Delegates of the Hospital Saturday Fund held on January 21st it was resolved that the sum of £17,930 16s. 5d. should be distributed among the 173 participating institutions.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The annual dinner of this Society will be held on Wednesday, February 8th, at the Trocadero Restaurant, Piccadilly, W., at 7.30 P.M. The President, Dr. S. D. Clippingdale, will preside.

AT the examinations held this month by the Institute of Chemistry 11 candidates passed the final examination for the Associateship in various branches, 9 passed the intermediate examination, and 3 the practical examination for the Associateship, under the old regulations.

AMONGST the latest contributions to the Prince of Wales's Hospital Fund for London are the following: The Fishmongers' Company, £1,000; Lord Grimthorpe, £100.

THE fifth course of public lectures, to be given under the auspices of the Childhood Society, will be delivered on January 31st, February 21st, and March 28th, at the Sanitary Institute, Margaret Street, W., at 8 P.M. on each day. The first lecture will be delivered by Dr. Francis Warner, who has chosen for his subject Mental Abilities and Disabilities of Children.

THE will of Dr. William Munk, the late Harveian Librarian of the Royal College of Physicians, who died on December 20th, 1898, aged 82, has been proved, the personal estate being valued at £9,369 16s. 1d. He bequeaths to Cardinal Vaughan a bust of Cardinal Wiseman, in the hope that it may be regarded as corporate property of the Archdiocese.

MEDICAL EXAMINATION OF TEACHERS IN NEW YORK.—The New York Board of Education has appointed for the whole city of New York 19 physicians (among whom is one woman), whose duties will be to examine teachers, who are now required to produce certificates of sound health before they are allowed to teach. Heretofore the teachers had to pay the physician's fee for examination; hereafter, however, the applicant may consult any one of the appointed physicians free of charge, and the Board of Education will pay three dollars for each examination.

APPOINTMENTS UNDER THE WORKMEN'S COMPENSATION ACT.—The following gentlemen have been appointed by the Home Secretary to act as medical referees under the Workmen's Compensation Act. *England:* Dr. Thomas W. Thursfield (Leamington) for County Court Circuit No. 22; Mr. Alfred Owen Davies (Machynlleth) and Mr. Horace Allan Debenham (Presteign) for County Court Circuit No. 28; Dr. H. Muir Evans (Lowestoft), for County Court Circuit No. 33, in lieu of Dr. C. H. Graham, resigned; Mr. Robert Bruce (Milford-on-Sea) for County Court Circuit No. 55. *Ireland:* Dr. Thomas Joseph Moore (Ardee) for County Louth; Dr. Benjamin Lane (Limavady) for Londonderry, in lieu of Dr. D. J. Browne, resigned.

PRESENTATION TO MR. ALFRED COOPER.—The retirement of Mr. Alfred Cooper from the staff of St. Mark's Hospital, with which he has been connected for thirty-four years, was not permitted to take place without some recognition on the part of his many friends belonging to the institution. Accordingly on January 25th, he was presented at the house of Mr. Swinford Edwards with a Chippendale clock and a silver cigarette box, subscribed for by some members of the Committee of the hospital, his colleagues, and old house-surgeons. Upon the clock was a suitable inscription in commemoration of the occasion. Mr. Edwards, in making the presentation, alluded to the immense amount of human suffering which Mr. Cooper must have relieved during his long term of office, and pointed out how much of the financial prosperity of the hospital had been due to Mr. Cooper's influence. He further stated that Mr. Cooper's success and popularity were well known, the latter being largely due to his natural unselfishness, geniality, and sincere love for his fellow men.

VISITING MEDICAL OFFICERS OF WORKHOUSES.—Some time ago it was announced that the Bradford Board of Guardians intended to appoint two consulting physicians as visiting medical officers to the workhouse infirmary. We are informed that great exception was taken to this on behalf of the profession generally in Bradford, on the ground, as we understand, that the class of cases to be treated were such as usually come under the care rather of the general practitioner or surgeon than of physicians. The infirmary contains a lying-in department and a lock ward, and a large number of the cases are ulcers of the leg, hæmorrhoids, bladder disorders, and cases requiring minor operations. In consequence of the strong expression of feeling by a large proportion of medical practitioners in Bradford and the neighbourhood, the two physicians, Dr. Crowley and Dr. Campbell, physicians to the Bradford Infirmary, who had, we are informed, been understood to be willing to accept the appointment at the workhouse, have declined, and the guardians have decided not to proceed further in the matter. The salary intended to be attached to the appointments was, it is stated, £100 a year.

MEDICAL VACANCIES.

The following vacancies are announced:—

BELFAST DISTRICT ASYLUM.—Assistant Medical Officer, unmarried, and not to exceed 32 years of age. Salary, £100 per annum, and £50 in lieu of rations with furnished apartments, fuel, light, washing, and attendance. Applications to the Medical Superintendent by February 11th.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by February 4th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Pathologist. Applications to the Secretary by February 6th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary by February 3rd.

EDINBURGH ROYAL ASYLUM.—Fourth Assistant Physician; also Resident Clinical Clerk. Applications to Dr. Clouston, Physician-Superintendent.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon. Salary, £75 per annum, with board, residence, and laundry expenses. Applications to the Secretary by February 1st.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by February 9th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium of £42 a year, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by February 13th.

LIVERPOOL: TOWNSHIP OF TOXTETH PARK.—Senior Assistant Medical Officer of the Workhouse and Infirmary. Salary, £100 per annum, with board, washing, and apartments. Applications, marked "Assistant Medical Officer," to the Clerk of the Guardians, 15, High Park Street, Liverpool, by February 1st.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £250 a year and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

LONDON LOCK HOSPITAL, 91, Dean Street, Soho, W.—Anæsthetist to the Male Hospital. Applications to the Secretary, Harrow Road, W., by February 4th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Pathologist. Applications to the Secretary, 38, Barton Arcade, Manchester, by January 31st.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland Street, W.—Surgeon's Registrar. Applications to the Secretary by February 11th.

NOTTINGHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum, rising to £120. Applications to the Secretary by January 31st.

MORPETH DISPENSARY.—House-Surgeon. Salary, £150 per annum, with furnished rooms, coal, and gas. Applications to Mr. N. T. Wright, Honorary Secretary, Beechfield, Morpeth, Northumberland, by February 16th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead.—Resident Medical Officer. Appointment for one year. Applications to the Secretary at the Offices, 41, Fitzroy Square, W., by February 4th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant to House-Surgeon. Appointment for six months. Honorarium, £20, with board, lodging, and washing. Applications to the Secretary by February 7th.

PLAISTOW: ST. MARY'S CHILDREN'S HOSPITAL.—Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary by February 7th.

ROYAL EYE HOSPITAL AND ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, Southwark, S.E.—House-Surgeon. Remuneration, £50 per annum, with full board and residence. Applications to the Secretary by February 2nd.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Physician. Must be F.R.C.P.Lond. Applications to the Secretary by February 14th.

SHEFFIELD UNION INFIRMARY.—Resident Assistant Medical Officer for the Workhouse, Fir Vale, Pitsmoor. Not under 26 years of age. Salary, £100 per annum, with apartments, rations, and usual allowances. Also Junior Assistant Medical Officer. Appointment for six months. Honorarium, £12, with furnished apartments, board, and washing. Applications to the Clerk to the Guardians, Union Offices, Sheffield, by February 8th.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by February 3rd.

SUNDERLAND, MONKWEARMOUTH, AND SOUTHWICK HOSPITAL.—House-Surgeon, unmarried. Salary, £80 per annum, with board, residence, and washing. Applications to the Honorary Secretary by January 30th.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon, unmarried. Salary, £90 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by January 31st.

MEDICAL APPOINTMENTS.

ANDERSON, A. J., M.B., C.M.Edin., appointed Medical Officer to the Workhouse of the Staines Union, *vice* A. Curtis, M.R.C.S.Eng., resigned.

BACK, Alfred, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Acle District of the Blofield Union, *vice* Frank Cufaude, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

BAIRD, G. Henderson, M.D.Brux., L.S.A., appointed Medical Officer to the Cable Department and Postal District, Charlton, also to H.M.S. "Monarch."

BLAGG, A. F., M.D., L.R.C.P., appointed Physician to the Orthopædic Hospital, Bristol.

BOOTH, P. L., M.R.C.S., appointed Honorary Surgeon to North Lonsdale Hospital, Barrow-in-Furness.

BREWIS, N. T., M.B., F.R.C.P.Edin., appointed Gynæcologist to Leith Hospital.

BRYSON, Leonard H., M.B., C.M., M.R.C.S., L.R.C.P., appointed Medical Officer to the Derby School Board.

BUTLER, James, M.B.Glasg., appointed Junior Assistant Medical Officer to the Govan District Asylum, Hawkhead, Paisley, *vice* Campbell Highet, M.B.Glasg., resigned.

CARWARDINE, T., M.S.Lond., F.R.C.S., appointed Surgeon to the Orthopædic Hospital, Bristol.

COLEMAN, Ernest, M.B., B.S.Lond., appointed Assistant Medical Officer of the County Asylum, Rainhill, near Liverpool.

DIBBS, W. S., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Farnham Royal District of the Eton Union.

EMANUEL, J. G., M.B., B.S., B.Sc.Lond., M.R.C.S.Eng., L.R.C.P.Lond., appointed Resident Medical Officer to the City of London Hospital for Diseases of the Chest, Victoria Park.

EYRES, H. M., M.B., C.M.Edin., appointed Medical Officer for the Scorton and Catterick Districts of the Richmond (Yorks) Union.

FARMER, Gabriel William Stahel, M.A., M.B., M.Ch.Oxon., F.R.C.S., appointed Honorary Surgeon to the Radcliffe Infirmary, Oxford, *vice* W. L. Morgan, M.A.Oxon., M.R.C.S., resigned.

FERGUSON, James Haig, M.D., F.R.C.P.E., appointed ordinary Physician for Diseases of Women and Gynæcological Surgeon to Leith Hospital.

GAMAN, F. R. S., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the First District and Workhouse of the Caistor Union.

HART, David Berry, M.D., F.R.C.P.E., appointed Consulting Physician for Diseases of Women and Consulting Gynæcologist to the Leith Hospital.

KENDRICK, G., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Bilston No. 5 District of the Wolverhampton Union.

KILLICK, C. R., M.B.Lond., appointed Medical Officer of the Workhouse and the Willilton District of the Williton Union.

MACGIBBON, J., jun., M.B., Ch.B., L.R.C.P.E., L.R.C.S.E., appointed House-Surgeon to the Edinburgh Maternity and Simpson Memorial Hospital.

MESSENGER, T., L.R.C.P., L.R.C.S.Edin., F.P.S.Glasg., appointed Medical Officer for the Bowness District of the Wigton Union.

NIX, R. E., M.B., B.C.Camb., appointed Medical Officer for the Third District of the Thingoe Union.

PAGE, G. Shepley, L.R.C.P., L.R.C.S.Edin., appointed Public Vaccinator for the Bristol District by the Guardians of the City and County of Bristol.

PRATT, Reginald, M.D.Lond., appointed Honorary Physician to the Leicester Infirmary, *vice* Charles W. Cooper, M.B.Camb., resigned.

PROCTER, J. A., L.S.A., appointed Medical Officer for the Lydd District of the Romney Marsh Union.

ROSE, L., M.B., appointed Medical Officer for the Second District of the Newport, Salop, Union.

RUTHERFORD, Alexander, M.B., appointed Honorary Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

SEVESTRE, Robert, M.D.Camb., appointed Assistant Honorary Physician to the Leicester Infirmary.

SHEPPARD, E. J., L.R.C.P., L.R.C.S.Edin., appointed Public Vaccinator for the Clifton District by the Guardians of the City and County of Bristol.

STANWELL, St. John, M.B.Edin., C.M., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Surgeon to the Stamford, Rutland, and General Infirmary.

STAPLE, J. D., M.R.C.S.Eng., L.S.A.Lond., appointed Public Vaccinator for the Ashley Registration District by the Guardians of the City and County of Bristol.

STONE, F. W. S., L.R.C.P., L.R.C.S., appointed Medical Officer for the Bitton District of the Warmley Union.

STRUTHERS, J. W., M.B., Ch.B., appointed House-Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

SUTCLIFF, E. H., M.B.Durh., M.R.C.S., appointed Medical Officer for the Great Torrington District of the Torrington Union.

TOTHILL, F. C., M.B., C.M.Edin., appointed Medical Officer for the Staines and Laleham District of the Staines Union.

WEEKES, C. P., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Boscombe Hospital, Bournemouth.

WILLIAMSON, Oliver K., M.B., appointed Second House-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park.

WILSON, J. F., M.D., appointed Honorary Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

DIARY FOR NEXT WEEK.

MONDAY.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. C. B. Keetley: The Surgical Uses of Plaster-of-Paris and of Poroplasty.

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: Cases of Acroparæsthesia and other Angio-Neuroses.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Ormerod: Ataxy.

WEDNESDAY.

Obstetrical Society of London, 8 P.M.—Specimens will be shown by Drs. John Phillips, Cullingworth, Des Vœux, and others. Annual Meeting: The President (Dr. Cullingworth) will deliver the Annual Address.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M. Sir R. Douglas Powell, Bart.: On Mitral Stenosis.

THURSDAY.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

Harveian Society of London, 8.30 P.M.—Clinical Evening.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. C. B. Keetley: Injuries and Deformities of the Hip and Knee.

Neurological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Annual General Meeting of the Society. Dr. W. H. Gaskell, F.R.S.: Presidential Address on The Meaning of the Cranial Nerves.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Eden: Gynæcological Demonstration.

FRIDAY.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, S.E., 8.15 P.M.—Dr. Dunnas Grant: On Cases of Chronic Suppuration of the Frontal Sinus and Antrum of Highmore treated exclusively through the Nose, with Good Result.

Laryngological Society of London, 20, Hanover Square, 5 P.M.—Cases and Specimens will be shown by the President, Dr. de Havilland Hall, Mr. Rowlby, Mr. Robinson, Dr. Potter, Sir Felix Semon, Dr. Hill, and others.

West London Medico-Chirurgical Society, West London Hospital, W., 8.15 P.M.—Discussion on the Treatment—Medical and Surgical—of Acute Inflammation of the Vermiform Appendix, to be opened by Dr. Seymour Taylor and Mr. Meadam Eccles, and carried on, among others, by Dr. Donald Hood, Mr. C. B. Keetley, Dr. Stanley Smith, Mr. L. A. Bidwell, Dr. H. A. Caley.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

ELLIOTT.—On the 21st inst., at Cranford, St. Annes-on-the-Sea, the wife of A. Campbell Elliott, of a daughter.

ORCHARD.—On January 17th, at 88, Market Street, Ashby-de-la-Zouch, the wife of Alfred Orchard, M.R.C.S. and L.R.C.P., of a daughter.

MARRIAGE.

BRAINE-HARTNELL—BARKER.—January 17th, at Havering, Essex, by the Rev. Prebendary Durand-Churchward, R.D., Vicar of Northam, Devon, uncle of the bride-groom, and the Rev. Canon Hudson, R.D., Rector of Gilling, York, Christopher Braine-Hartnell, M.R.C.S., L.R.C.P., of Cheltenham, son of the late Rev. G. T. Braine-Hartnell, M.A., to Constance Lilian, daughter of the Rev. J. C. Barker, M.A., Vicar of the parish.

DEATHS.

BOWES.—On the 16th inst., suddenly, at Aymmel, Aldington, Kent, William Bowes, M.R.C.S., L.S.A., eldest son of the late William Bowes, Elham, Kent, aged 59 years.

COATS.—At 8, University Gardens, Glasgow, on the 24th inst., Joseph Coats, M.D., Professor of Pathology, Glasgow University.

EVANS.—On the 8th inst., at his residence, Tanyronen, Portmadoc, Henry Evans, M.R.C.S.Eng., L.R.C.P.Edin., and L.S.A., aged 48 years.

FORSYTH.—On January 8th, 1899, at Tansfield House, Castletown, Thurso, William Forsyth, M.B., C.M., son of the late William Forsyth, 130, Gilmore Place, Edinburgh, in his 31st year.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F.S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 1.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F., 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F., 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu., F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

COUNTRY MEMBER would be glad to know the simplest and least expensive apparatus to administer oxygen in cases of pneumonia, etc.

H. desires to hear of a home or hospital where for a moderate weekly payment a gentleman with left-sided paralysis can be admitted?

ACETYLENE desires to learn the names and addresses of any firms which import Swiss or other foreign calcic carbide.

LYON writes: Could any of your readers tell me what is the composition of "Thé Chambard"? It is a mixture of leaves of aperient plants, it is well known at Lyons. It is used freely as an aperient, but pregnant women are forbidden to take it.

M.D. wishes to know: (1) The best method for disinfecting a room occupied by a patient in advanced phthisis; (2) also the best method of disinfecting handkerchiefs, sheets, etc., on which the sputa of this patient fall.

M.D. asks: Can anyone recommend a comfortable home or lodging where a patient (a woman about 30) can be kept and treated for not more than £40 to £50 per annum? She is in an early stage of phthisis. The above sum must include medical charges as well, as her people cannot afford to pay more.

F.C. asks if there is any institution in London where the dipsomaniac wife of a working man, earning 30s. a week, with three children to support, can be sent. She has never appeared in the police-court, and apparently cannot be dealt with under the new Act.

LIEUTENANT W. H. COX, I.M.S. (Chaman, Beloochistan, India) writes: I should feel obliged if I could be informed in the BRITISH MEDICAL JOURNAL as to what is the largest amount of fluid aspirated out of the abdomen. I aspirated a man's abdomen the other day for ascites due to liver disease, and drew off on the single occasion the large amount of 480 ounces of fluid. Has this been exceeded?

HOME FOR EPILEPTIC BOY.

CANTAB., who states that he is informed that the Epileptic Colony at Chalfont is full, and that no vacancy is likely to occur for some considerable time, asks where a boy of 12 suffering from epilepsy, but improving, could be received.

*** A Home for Epileptics has recently been opened by the Christian Union for Social Work at Lingfield, of which particulars may be obtained from the Director, Rev. J. L. Brooke, The Homestead, Lingfield.

SPECTACLES FOR CHILDREN.

DR. D. LOVE, M.B. (Dumbartonshire, N.B.) writes: In the BRITISH MEDICAL JOURNAL of January 14th, there is an article from Dr. Menzies on the eyesight of the children attending the Rochdale Parish Church School. He states that only 44 per cent. of the children were found to have normal eyesight, and that the parents of those whose eyesight was defective were advised to have suitable spectacles applied. Believing as I do, as a general practitioner, that the wearing of glasses by children whose eyes are growing and developing along with the rest of their bodies is physiologically wrong, and likely to increase the evils intended to be remedied, I would suggest that Dr. Menzies should supplement his article by stating exactly what percentage of the children he considered to require glasses.

IDIOSYNCRASY TO MILK.

SOMERSET MEMBER asks for information as to the nature of the following case: I have lately been attending a fishmonger suffering from subacute rheumatism. The patient has been unable to take milk for the following reason: When a boy (10 to 15) he was much in the country districts of Kent and Surrey, and during those years had facilities for obtaining milk. Whenever he "had a good swig," whether it were warm from the cow or not, the symptoms as below manifested themselves. On Saturday last, for the first time for years—he is now 23—he drank a good draught of milk. About fifteen minutes after drinking the lips, cheeks, and lower eyelids began to swell, until the whole face became enormous; this swelling was accompanied by some pain and intense itching. Abatement commenced about two hours after the onset of symptoms, and in about six hours no further sign of swelling was to be noticed. There are no other symptoms of any kind either during or after the attack.

ANSWERS.

CANDIDATE.—The examination papers set for the Intermediate M.B. Lond. are published in the *Calendar* of the University.

R. C. B.—Particulars as to appointments in the Prison Medical Service were published in the Educational Number of the BRITISH MEDICAL JOURNAL, August 27th, 1898.

PERPLEXED LOCUM.—The writer should use the ordinary precautions to prevent himself from carrying about the infection of scarlet fever germs, and use antiseptics in attendance on his labour cases. If the latter cases then get any illness from him, it will be scarlet fever and nothing more.

T. D., who desires to obtain lantern slides of physiological subjects (such as the eye, ear, nervous system, etc.), suitable for illustrating lectures, might communicate with Mr. Newton, Optician, 3 Fleet Street, E.C.; Mr. Charles Baker, 244, High Holborn; or Messrs. Watson, 313, High Holborn, W.C.

DR. G. A. LEON (Sidmouth) writes: In answer to the query by "Cantab." in the JOURNAL of the 14th inst. I can recommend the climate here for cases of bronchial asthma. Several people have come here to reside permanently because they have found relief from their distressing complaint in the mild, somewhat moist climate. Amongst them was the wife of my predecessor in practice, who, after living here for eight years, seems to have lost her liability to the attacks, as they have not since returned in London.

GOLD CURE.

R. E. H., AND HEALING.—As we have already stated, we have no knowledge of the composition of the injection, but various medical practitioners, who claim to have had personal experience with other "gold cures," have in American medical journals stated that apomorphine was the drug employed.

X RAY OUTFIT.

ANXIOUS.—The apparatus which would be required would be as follows: (1) A 10-inch spark coil (preferably by Apps); (2) a 6-cell lithanode accumulator; (3) a tube holder, which can be obtained from Messrs. Muirhead and Co., Westminster; (4) a changing box for taking stereoscopic skiagraphs; (5) Crookes's tubes (Cossar is a good maker); (6) a fluorescent screen. The best photographic plates for the purpose are probably Edwards's "Cathodal" and "Lumières," but there are many other good plates to be had. The names of certain manufacturers are mentioned for our correspondent's convenience as they have been tested, but other makers could probably supply what is wanted.

MEDICAL ETIQUETTE.

B.—We gather that the question to which an answer is desired is, Under what circumstances can a second medical man visit and attend to a patient already in the charge of another medical man, without some correspondence or prearranged consultation? The answer is "Never; unless in some case of pressing and urgent necessity." Medical men are sometimes tempted by over-zealous friends to visit and interfere with another medical man's patient: this not infrequently happens in poorer practices; especially, too, with Poor-law patients. The proper course is to decline, or propose a consultation.

MILK STERILISERS.

DR. INGLE; G. M.—There does not appear to be any real objection to the use of a tin vessel for the sterilising of milk, if such vessel be kept thoroughly cleaned with cold water, and is always scalded before it is used. This, of course, must be done with all the apparatus in use at present. Tin pans with porcelain inner pans—called milk boiling pans—are now made and may be obtained of almost any size. They are very useful for the sterilising of milk for a household, and are easily kept clean. Another method of sterilising to be recommended is that in which the milk is put into bottles with spring or wire clasped stoppers. These are heated in a "steamer," and closed at once. It must, however, be remembered that the greatest care is also necessary in the washing out these bottles. They should be allowed to soak in cold water until all the milk is removed, and then kept for half an hour in water boiling over a brisk fire. "G. M." might consult an article on Aymard's Milk Steriliser in the BRITISH MEDICAL JOURNAL of October 10th, 1896, p. 1041.

"MILLERAINED" CLOTH.

SUBSEQUENT to the appearance in the JOURNAL of November 19th, 1898, of a paragraph on the process of milleraining and its advantages, inquiries were received as to the person to whom application should be made for this cloth. We are informed that Major A. J. C. Wrench (23rd Royal Welsh Fusiliers) is the owner of millerained patents in India, Burmah, and Ceylon. A letter addressed to him at Lucknow, Oude, India, would no doubt lead to information being sent as to agencies at home or abroad for the sale of millerained drill, khaki (dust-coloured), or white.

RETINOSCOPY.

DR. A. S. PERCIVAL (Newcastle-on-Tyne) writes in answer to "Student" (Canada): If the distance of the light from the concave mirror be such that a real inverted image of it is formed in front of the patient's eye, the focal length of the mirror is immaterial. If the patient be 1 metre from the observer, he will require — 1 D added to the correcting glass which "neutralised" the shadow; if ½ metre from the observer, he will require — 3 D in addition. I shall be pleased to write a fuller account to "Student" if the above is not sufficient, provided he sends me his name and address.

OBSTINATE CONSTIPATION.

DR. THOMAS DUTTON (Holland Park Avenue, W.), in reply to "M.D.'s" query in the BRITISH MEDICAL JOURNAL of December 24th, 1898, p. 1919, writes: I have come to the conclusion that cases of obstinate constipation can only be cured by proper dieting; but it is impossible to give a diet card, as every case must be treated on its merits. Generally speaking, all starchy foods should be avoided. I have found eating two *steamed* apples at bed time very useful, also a mixture of stewed figs and prunes. All drugs, except cascara and strychnine, should be certainly avoided, unless it is absolutely necessary to produce a motion. Many women suffer from constipation through not drinking sufficient fluid; then a pint of boiling water sipped at intervals must be prescribed.

TREATMENT OF CHRONIC DIARRHŒA.

CAPTAIN P. W. O'GORMAN, I.M.S., writes: "W. M.'s" case is serious, needing prompt and thorough treatment. It is evidently what is known as "tropical diarrhœa," or sprue, and requires strict dieting on milk alone, of which, beginning with 3 pints, 5 pints may eventually be taken daily, sipped out of a wineglass in small quantities every hour. The patient must be confined to bed. The plain milk is to be continued for six weeks from the time the stools become solid. Examine the mouth and tongue for lesions, and note improvement as indicative of condition of bowels. Diet to be very gradually altered by addition of egg flip, raw meat juice, bread, arrowroot, etc., any relapse being an indication of immediate reversion to milk alone. Internal medication is of little avail, and interferes with digestion and assimilation. He might try cautiously Schacht's liq. bismuthi, or mist. pepsinæ co. c. bismutho (Hewlett's). Empirically, santonine in small doses has proved efficacious. The milk employed must be pure, and preferably boiled or sterilised unless guaranteed, or "humanised" milk may be tried, or peptonised

if necessary; Benger's food is a good addition later on. Refer to works on tropical medicine.

EXAMINATION FOR M.R.C.P. LOND.

P.—A candidate for the M.R.C.P. is required to show a good general acquaintance with medicine—theoretical and practical. The following books may be read or consulted, but there are others which would serve the purpose equally well: Fagge's *Principles and Practice of Medicine*, edited by Dr. Pye-Smith (London: J. and A. Churchill; 40s.); or Osler's *Principles and Practice of Medicine* (London: Young J. Pentland; 24s.); Green's *Pathology*, edited by Montague Murray (London: H. Renshaw, 1895; 7s.); Sims Woodhead's *Practical Pathology* (London: Young J. Pentland; 25s.); Gowers's *Manual of Diseases of the Nervous System* (London: J. and A. Churchill, 1895; 35s.); Whitelegge's *Hygiene and Public Health* (London: Cassell and Co.; 7s. 6d.) Reference should also be made to articles in Clifford Allbutt's *System of Medicine* (London: Macmillan and Co.) We cannot recommend any book on medical anatomy, but should advise "P." to read parts of Quain's *Superficial Anatomy*, 10th edition, 1896 London: Longmans, Green and Co.; 6s. 6d.), and to supplement this with reference to any standard book on anatomy.

NOTES, LETTERS, Etc.

IN an answer to a correspondent, and also in the heading on page 187, in the JOURNAL of January 21st, the word "overseer," appears, owing to a printer's error, as "dresser."

THE number of deaths mentioned in line 6 of the paragraph on Tuberculosis in Poor-law Infirmaries published on p. 167, should have been 670, and not 760 as printed.

INFLUENCE OF MILK SUPPLY IN THE SPREAD OF TUBERCULOSIS.

UNDER this heading, in the JOURNAL of January 21st, p. 169, line 24 from the beginning of the article, the percentage should be 25.55 instead of 52.55 as printed.

NOTIFICATION OF TUBERCULOSIS: A CORRECTION.

IN the report of the last meeting of the Society of Medical Officers of Health, some remarks on the notification of tuberculosis were inadvertently ascribed to Mr. Shirley Murphy, which were made by a gentleman who followed him. This was due to an error in transcription by the reporter.

A MONEY LENDER'S CIRCULAR.

A CORRESPONDENT, a young man holding a somewhat responsible position, sends us the following circular, the body of which is apparently printed in imitation of typewriting:

DEAR SIR,—Should you at this or any future time desire any cash accommodation, I shall be very pleased to let you have any amount you may require at a very low rate of interest. You can rely that you will be dealt with in a straightforward manner, my object being to invest same with a few reliable medical gentlemen, in any sum from fifty to one thousand pounds, and you can rely that your business will be kept absolutely secret, whether we come to terms or not, also that any transaction will be carried out in a perfectly straightforward manner. Thanking you in anticipation for an offer of business, I am, yours faithfully, ———.

Our readers—and especially our younger readers—will do well to bear in mind the danger that lurks under such offers, and should not be induced to place themselves in the powers of money lenders. The practices to which some, at least, of the fraternity resort have often been exposed of late in the law courts. As our correspondent observes, it is probable that the letter which would be written to a victim who had been led into an "absolutely secret" transaction, and had failed to meet any instalment, would not be couched in terms so polite and benevolent as that above quoted.

ORGANOTHERAPY IN DIABETES.

DR. THOMAS NISBET WRIGHT (Stroud, N.S. Wales) writes that, after reading an article in the BRITISH MEDICAL JOURNAL in 1892 or 1893 on Pancreatic Diabetes, it occurred to him that if pancreatin were coated with a substance indissoluble in the stomach but soluble in the intestine the difficulty would be solved. He wrote to Messrs. Burroughs, Wellcome and Co., who made a tabloid on this principle coated with keratin. Since pancreatin is a digestive ferment, he thinks it is obvious that hypodermic treatment would not be on the same plane with the thyroid treatment hypodermically, thyroid gland having probably some metabolic effect on the blood only.

ERYTHROL NITRATE.

MR. WILLIAM HARRISON MARTINDALE, Ph.D. Marburg (New Cavendish Street, W.), writes: Regarding the several recent mentions of erythrol nitrate in the BRITISH MEDICAL JOURNAL (1899, vol. i, pp. 57, 131, 132), I should be glad if you will allow me to say a word in justification, both from (1) a chemical (explosive) and (2) physiological point of view.

1) My father made investigations on the explosive powers of erythrol nitrate last year (JOURNAL 1898, vol. i, p. 116), and on those of nitroglycerine more than twenty years ago, before the production of nitroglycerine tablets. Erythrol nitrate, mannitol nitrate, and nitroglycerine tablets of cocoa butter and chocolate are perfectly safe, and indeed the first named, even when struck with a hammer (JOURNAL, 1898, vol. i., p. 116), or when thrown into an open fire, will not explode.

(2) Although "the feeling of great *malaise*" (JOURNAL, 1899, vol. i p. 131) was produced from half a grain in the case of one patient, another case should also be borne in mind—namely, that reported by Dr. E. Garraway (JOURNAL, 1898, vol. i, pp. 18, 127), from which I quote: "To avert the paroxysms it became necessary to administer the remedy (erythrol nitrate) in steadily increasing doses. The patient takes now half a drachm a day."

LETTERS, COMMUNICATIONS, Etc., have been received from:

(A) Mr. C. E. Ady, London; A. W. Aldridge, M.B., Birmingham; A. R. H.; Acetylene.

(B) Mr. G. Boggan, Seaham Harbour Mr. J. A. Browne, Belfast Dr. R. C. Brown, New Brighton; Messrs. Burgoyne, Burbridges, and Co., London: Mr. C. Braine-Hartnell, Cheltenham; Mr. C. G. Burton, London; Dr. G. H. Baird, New Charlton, Mr. W. M. Beaumont, Bath; L. H. Bryson, M.B., Derby; N. T. Brewis, M.B., Edinburgh; Mr. C. H. Bidwell, Bloemfontein; Bournemouth Medical Society, Secretary of, Bournemouth Mr. E. J. Beards, Wolverhampton; G. E. Barron, M.B., Ascot; Mr. L. A. Bidwell, London; Mr. A. Bright, London; Miss J. Bullen, London. (C) Mr. H. H. Cousins, Wye; Mr. R. Creasy, Windlesham; Mr. H. N. Custance, London; E. Coleman, M.B., Caterham Valley; Mr. W. J. Chadwick, Manchester; Dr. F. Collie, London; R. P. Crosbie, M.B., Cork; Mr. A. Clarke, London; Mr. T. A. Clinch, Sedgefield, Mr. F. W. Collingwood, London; Dr. E. A. Cooper, London; Dr. A. Cluckie, Stranraer; Mr. W. J. Cant, Lincoln; Candidate: Mr. E. C. Cripps, Cirencester; T. Carwardine, M.B., Clifton Mr. S. Cowell, London; Dr. T. S. Clouston, Edinburgh. (D) Dr. L. G. Davies, Cardiff; Dr. L. G. Dillon, Seaham Harbour; Miss L. M. Damon, Cambridge; Dr. A. M. Daldy, Kingston-on-Thames; Dr. T. Dutton, London; W. Devereux, M.B., Tewkesbury; Dr. S. Davies, Plumstead; Dr. A. Duke, Cheltenham; Mr. G. Dalton, London; Mr. E. Davies, Fochriw. (E) Mr. G. Ellis, Rochdale; Mr. B. Eckstein, Buda-Pesth; Mr. A. Eddowes, Loughborough; W. McA. Eccles, M.B., London, Inquirer. (F) Dr. W. F. Farquharson, Carlisle; J. E. A. Ferguson, M.B., Suddie; Dr. R. F. Fox, London; Mr. D. P. Ffrench, Ballygar; G. W. S. Farmer, M.B., Oxford; Mr. J. W. Fordham, London. (G) Professor G. Grocco, Florence Mr. H. Grant, London; G. M.; C. G. Gooding, M.B., London; Mr. J. Gay, London, General Practitioner; Dr. L. G. Guthrie, London Mr. W. S. Glyn-Jones, Aveley. (H) Mr. T. Hayes, London; Mr. D. T. Hughes, Corwen; Dr. V. Harley, London; Dr. J. P. Henry, London; Dr. A. Haig, London; Mr. W. J. H. Haslett, Sunbury-on-Thames; Dr. J. Highet, Workington. (I) Inca. (J) Mr. H. H. Jennings, London; Dr. J. Johnston, Bradford; Dr. J. A. Jackson, Hexham. (K) J. E. Knox, M.B., East Molesey! Mr. C. Keys, West Bromwich; Dr. W. G. Kemp, London; Mr. H. Keble, Margate; Mr. C. W. Kronne, London; Mr. J. H. Keppel-Compton, Southampton. (L) Mr. J. W. Leech, Newcastle-on-Tyne; Dr. C. L. Leonard, Philadelphia; D. Love, M.B., Cumbernauld; Dr. G. A. Leon, Sidmouth, Lambda; Lyon; J. F. Little, M.B., London. (M) Member B.M.A.; Mr. W. Marriott, London; A. Manknell, M.B., Bradford; Mr. J. P. Maxwell, London; Motor; Medicus; M.R.C.S.E.; Mr. M. G. McElligott, Belper; W. Mitchell, M.B., Bradford; Member X-Ray Society; Mr. P. Morris, Old Colwyn; M.D.; M.O.H. 3 Years; A. M. Martin, M.B., Newcastle-on-Tyne; Dr. E. Morton, Wolverhampton; Dr. K. C. Mackenzie, Caerphilly; Mr. E. Merck, London. (N) Mr. J. B. Noble, London. (O) Mr. W. B. Orme, Port Said; Mr. A. Orchard, Ashby-de-la-Zouch; Old Practitioner. (P) E. Phillips, M.B., Coventry; Dr. F. L. Phillips, Birmingham; Pons Belli; P.; Dr. E. P. Philpotts, Bournemouth, A. S. Percival, M.B., Newcastle-on-Tyne; Mr. R. B. Pilcher, London; Dr. J. E. Platt, Manchester; Perplexed Locum: Poor-Law Member; Mr. F. J. Pearson, Barrow-in-Furness: Dr. J. Pringle, Manchester. (R) Dr. J. Reeves, Eganville, Ont; H. A. Robertson, M.B., Glasgow; Mr. B. A. Rose, London; Mr. H. D. Ryson, London: Dr. J. S. R. Russell, London; Mr. A. M. Roberts, Little Hadham; Dr. P. Rendall, Cheam; Dr. L. N. Robinson, Paris; Mr. J. D. Rhodes, Plumstead. (S) Messrs. Street Bros., London; Mr. F. St. Leger, Cape Town; Dr. A. Shaw, St. Austell; Dr. J. L. Smith, Belfast; Dr. T. F. Southam, Southport; Mr. R. B. P. Squibbs, Nottingham; Dr. T. D. Savill, London: St. J. Stanwell, M.B., Stamford: Spes, Mr. A. H. Smee, Carshalton; Dr. J. Smyth, Naas; Mr. F. C. Simpson, Great Berkhamsted; Somerset Member M.B.A., Surgicus; Salutaris Water Co., London; Dr. J. E. Squire, London; Mr. F. Smith, London. (T) Dr. J. C. Thresh, Chelmsford. (V) Mr. C. H. S. Vinter, Blackpool. (W) Dr. J. A. H. White, Birmingham; Mr. C. P. Weekes, Bournemouth; Mr. W. R. Watson, Paisley; Dr. Helen Wilson, Sheffield; Mr. N. J. Wright, Morpeth; Dr. F. Willcocks, London; J. R. Watt, M.B., Ayr; Dr. A. O. Ward, London. (X) X. Y. Z.

BOOKS, Etc., RECEIVED.

The Anatomy of Labour as Studied in Frozen Sections, and its Bearing on Clinical Work. By A. H. F. Barbour, M.A., B.Sc., M.D., F.R.C.P.E., F.R.S.E. Second Edition. Edinburgh: W. and A. K. Johnston. 1899.

Albuminuria and Bright's Disease. By Nestor Tirard, M.D., F.R.C.S. London: Smith, Elder, and Co. 1899. 12s. 6d.

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REMARKS
ON OÖPHORECTOMY IN THE TREATMENT OF CANCER OF THE BREAST.

By STANLEY BOYD, M.B., F.R.C.S.,
Surgeon to Charing Cross Hospital.

In a paper published in the British Medical Journal of October 2nd, 1897, I gave notes of 5 cases of cancer of the breast in which I had performed the operation of double oöphorectomy. The notes were brought down to August, 1897, so I am now able to add the results of more than a year's further observation.

In 2 (Nos. 3 and 4) of the 5 cases the ovaries were removed after the menopause; no obvious effect was produced upon the cancer, and one of these patients (No. 3) was dead before my paper was written. The other (No. 4, Fig. 1) had derived no

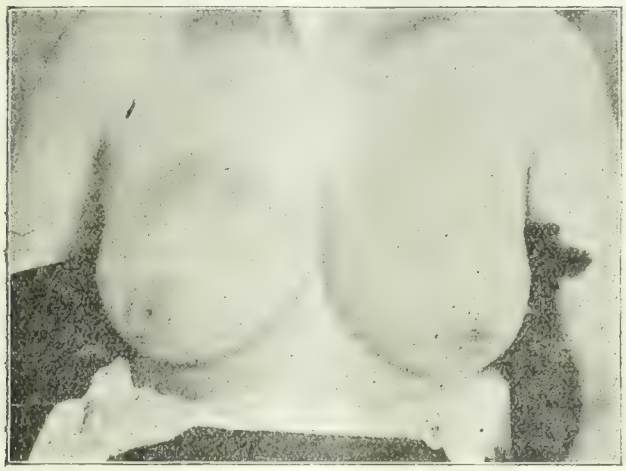


Fig. 1.—To show that the growth was not of "atrophic" type.

benefit in eight weeks. About August 20th, 1898 (seventeen months after the oöphorectomy), I saw this patient. She looked well, and was strong, and able to do all the work a woman of 66 could be expected to do. She had just returned from a seaside holiday, and felt very well. She believed that the "lump" on her chest was getting very slowly smaller, and I think it was smaller than a year ago. I could find no other recurrences, superficial or visceral. On December 1st, 1898, she wrote: "I am keeping as well as usual." In Nos. 1 and 2 I claimed that marked improvement had resulted from the operation. In No. 5 the oöphorectomy had been done quite recently. I propose to trace the further history of these cases, and to add two others.

Case I.—Oöphorectomy was performed on December 22nd, 1896, and my last note on August 16th, 1897, chronicled unexpected improvement, apparently connected with a sojourn at Shipley, near Bradford, a place which former experience had shown to "agree with" the patient better than any other place she had visited. After this visit she was in excellent health; the nodule in the pectoralis major had shrunk to about the size of a filbert in its shell, and all other cancer masses (with the possible exception of one subcutaneous nodule) seemed to have disappeared. Naturally, I recommended this lady to return to Shipley, and to stay there, but she did not do so.

After-History during 1897.—On October 22nd, 1897, her health remained excellent. The pectoral nodule was about the same, but the doubtful trace of the subcutaneous nodule (4 in the diagrams), which I thought I could feel in August, had gone. I again urged that she should have another change from her home in Rochester; and on October 25th she went to Hastings, and began taking two tabloids a day of thyroid extract, soon rising to three, which caused palpitation and shortness of breath. They were not long continued, and had no appreciable effect upon the cancer. On December 8th, 1897, she came up from Hastings. Her general condition left nothing to be desired. I thought the pectoral nodule somewhat larger, and there was slight fulness above the left clavicle with some difference to touch, but no definite gland.

History during 1898.—She went to Shipley for two months soon after this, but no beneficial action on the cancer resulted. On March 4th, 1898, she was in excellent health, and had put on flesh (she was always well covered). The pectoral nodule had not diminished. I thought there was some infraclavicular fulness; supraclavicular fulness was more distinct, and a small gland could now be felt. On October 11th, 1898, this patient called. She had been at the seaside a good deal since I last saw her, and had been very well. Her weight had been steady for some time at 12 st. 3 lbs. She had more colour in her face than I had ever seen before, and, indeed, looked "the picture of health." She had written me in July that "the lump" (in pectoral) had "gone down very much," so that sometimes she could "scarcely feel it at all." I could find no nodule in the pectoral, but the muscle did not feel quite normal about its former site, and the deep parts were not quite so plainly felt through it on the left as on the right. I think there is slight fulness of the left pectoral region, but am not certain. The supraclavicular fulness is about the same as in March. The depression over the heart seems to be quite free from growth, and no subcutaneous or other secondary nodules can be found.

I do not think that all sign of cancer has yet disappeared in this case. I believe that the early continuous disappearance of cancer following upon the oöphorectomy was due to the removal of the ovaries, but I feel that there is room for doubt as to the cause of the late variations of the pectoral nodule.

Case II.—In this case (Fig. 2) the most rapid and satisfactory disappearance of cancer nodules and infiltrations occurred during the first six months.

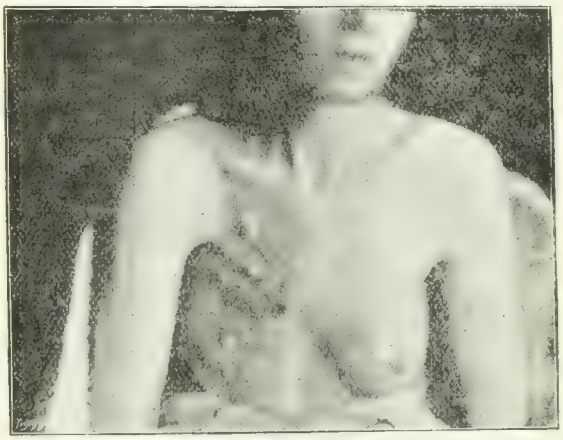


Fig. 2.—From a photograph by Dr. Horace Sanders, taken just before the oöphorectomy. These are the chief points shown: Thinness of patient; prominent gland above right clavicle; triradiate scar on right chest, with large nodule at meeting point of branches; a bridle-like prominence running from this up to clavicle with a nodule at its centre; general infiltration of the skin and subcutaneous tissue along and behind the lower limit of the scar, often closely adherent to the chest wall; a lower group of three nodules, of which the posterior is the larger: a nodule in the upper and outer part of left breast. There was a good deal besides which a photograph could not show.

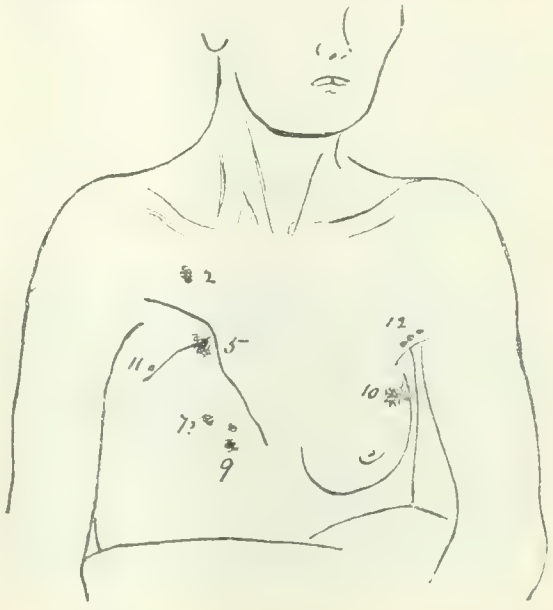


Fig 3.—August 6th, 1897. At first sight the scar and chest wall look absolutely normal; then faint red spots were noticed at (2), (5), (7 ?), and (9), increased by handling; skin here very slightly thickened. (11) A new skin nodule as large as a pea. (10) Perhaps thrice as large, dimpling skin. (12) Two or three axillary glands enlarged.

My last note (August 6th, 1897) stated that the operation scar and the surrounding chest wall looked practically normal. The patient had put on 11 lbs., and had gained colour, so that, though still thin, there was nothing unhealthy in her appearance. She was free from pain, had gained strength markedly, took a good walk daily, and seemed to have recovered her natural cheerfulness. But even at that date careful examination showed five spots (Fig. 2), at which slight redness and infiltration of skin remained; upon the right chest a small new skin-nodule had appeared; the growth in the left breast had trebled its size, involved the skin, and infected two or three glands in the axilla (Fig. 3).

After-History in 1897.—Nevertheless, the downward course as regards general strength did not begin at once. On October 8th I saw this patient after a fortnight at Southend. She had gained another 1 lb. (12 lbs. in all since the operation); her strength remained the same as in August, or had perhaps increased, as she was now doing light household duties which naturally fell to her share. A chart of the chest showed marked increase of growth (Fig. 4).

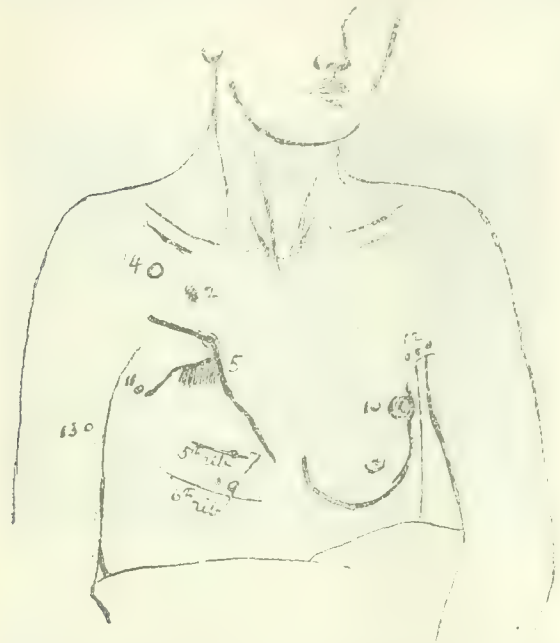


Fig. 4.—October 8th, 1897. 2 and 5 redder and thicker; 5 adherent again; 7 and 9 about same; 10, and 11, rather larger; 12, same; 4, again a distinct nodule in pectoral; 13, fresh nodule over latissimus.

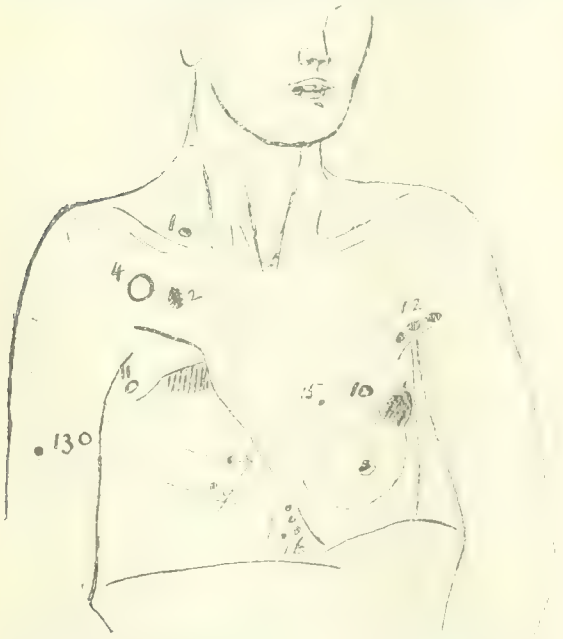


Fig. 5.—December 10th, 1897. Gland above clavicle again felt, 1; 2 is plainer; 4, size of ½d.; several new skin nodules, 15, 16, and one over right scapular angle; 10 larger, square inch of skin involved; several other nodules in breast—mastitis (?); 12, size of haricots.

The effect of the oöphorectomy having been exhausted, it seemed to me that thyroid might fairly be tried. On November 22nd her medical attendant, Dr. Sanders, reported that she had been taking 20 grains a day for a month, that she was fairly well, but had lost 5 lbs. This could not be regarded as an improvement, and the thyroid was stopped.

On December 10th, 1897, I saw this patient for the last time. She was paler and markedly thinner; still fairly strong; viscera and bones apparently normal. Fig. 5 shows the superficial extension of the disease.

After-History in 1898: Death.—Death occurred on July 14th, 1898. The patient was confined to the house from the beginning of May, and to bed for about a month before death. She became greatly emaciated, but did not suffer much. Dr. Sanders, who took great interest in the case throughout, wrote me that nodules became so numerous over the front and back of the chest and over the front of the abdomen (some in the oöphorectomy scar), that it was impossible to chart them. The mass in the left breast reached the size of a tangerine orange and ulcerated slightly; as also did a nodule in the right mid-axilla. Secondary growths were detected in the liver and in the sternal end of the left clavicle.

The total known duration of this case was two and a-half years; but evidently the growth had existed a considerable time before it was recognised. The patient was very feeble and suffering much pain when the oöphorectomy was done. Improvement was immediate, both local and general. She continued gaining flesh and strength for eight months, though local increase of disease had begun at six months. It seems probable that her condition in February, 1898, was about the same as it was in February, 1897, the date of the oöphorectomy; in other words, about a year of life, much of which was worth living, had been gained for her.

CASE V.—This case merits fuller statement than it received in my former paper.

History.—The patient was a rather stout, healthy-looking woman of 46, menstruating regularly, married, twelve children, no previous breast trouble, family history excellent. In December, 1895 (fifteen months before admission, she accidentally noticed a pea-like lump below and outside left nipple; it grew steadily and painlessly.

Condition when first seen.—In May, 1897, it was as large as a small orange; skin over it thinned, reddened, and centrally ulcerated; the nipple markedly retracted; pectoral fascia slightly involved. Axilla full and firm, and at least one enlarged gland could be felt. There was distinct fulness both above and below the clavicle, but no gland was felt. One or two glands were palpable in either posterior triangle. The edge of the liver could just be felt.

Oöphorectomy, May 1897.—In this case I felt that in spite of the widest operation I could perform, speedy recurrence was only too likely. It seemed to me, therefore, that the influence of oöphorectomy should be at once invoked in aid of a radical operation. Accordingly, with the patient's consent, on May 10th, 1897, I removed two rather small ovaries, and went on immediately to a wide removal of breast, skin, pectoral fascia, and superficial fibres of the muscle and axillary contents. No nodules were seen or felt in the great pectoral. One or two small but very hard glands were found just below the clavicle. The wound was closed by widely undermining the flaps and using button sutures. The combined operation occupied 1¼ hour, and some pallor was evident at the end; but this was from rather free bleeding from the breast. Healing by first intention of both wounds took place.

Condition in May, 1898.—I examined this patient on May 14th, 1898—a year after the operation. She was rather stouter than at time of operation. She looked the picture of health, and was obviously full of energy. There was no sign of superficial recurrence, nor could I find evidence of mischief internally.

No conclusion as to the value of oöphorectomy can be drawn from this case. I can only repeat that I thought that the prognosis after my usual operation alone would be bad, and I should say that the state of matters found at the operation justified my fears. I asked this patient when I last saw her—that is, when she had had a year's experience of the general effects of the oöphorectomy—whether, supposing she had again to decide, she would submit to the operation. Her reply was: "Most certainly." I heard as lately as November 26th that this patient was perfectly well and strong.

I will now give details of two other cases in which I have operated, but of which I have as yet published no account.

CASE VI. *History.*—A married woman, aged 31, was admitted in March, 1896. Her father died of cancer of the tongue. She had two children, the youngest being 8 months old. Six months ago, when nursing this child, she accidentally noticed a hard lump in her right breast, from which milk soon disappeared, while the left is still full, the child having only just been weaned from it. At the same time she noticed lumps in the right axilla, which, she said, had remained stationary while the mass in the breast had grown steadily. She had lost a good deal of flesh and strength; but, though thin, she had a good colour and was fairly strong.

Condition on Admission.—The right breast and nipple (not retracted) were a good deal *smaller* than the left. (Fig. 6.) A stony mass, 1½ inch by 1¼ inch, lay in the upper and outer quadrant, thinning, but scarcely adhering to, the skin, probably adherent to the pectoral fascia. Large glands could be seen in the axilla. Viscera and bones seemed unaffected.

Excision of Breast.—On March 21st, 1896, the breast was removed, with a

large piece of skin over the tumour, the pectoral fascia, the whole thickness of the great pectoral, deep to the mass, and the contents of the axilla from the subclavius down. The highest gland recognised was small but hard. The wound was closed with tension, but healed by first intention.



Fig. 6.—Right breast cancerous and *smaller* than left, which was full of milk, while the right held none.

After-History.—On September 11th, 1896, she was admitted for lymphangitis of right upper limb; no recurrence; supraclavicular glands could not be felt. On November 16th, 1897, the patient had noticed enlargement of the supraclavicular glands for three months, and came complaining of weakness and shortness of breath (probably due to early pregnancy—see later) and pain shooting into the right occipital region. She looked well, had a round flattened mass, 1 inch by 1½ inch, above the right clavicle, probably adherent to the scalenus anticus; all else seemed normal. Menstruation had been irregular lately, thrice during the last six weeks, but less in quantity than usual.

Oöphorectomy.—On November 20th, 1897, double oöphorectomy was done. The uterus I noted was rather large, and the left tube was full of blood. I also removed the glandular mass above the clavicle more or less completely from the scalenus anticus, the brachial plexus, and the subclavian vein, to which structures it adhered. Immediate healing occurred.

Pregnancy and Delivery.—On February 9th, 1898, she appeared with an abdominal tumour which proved to be a 5 months pregnancy, and in June a normal labour followed, the child being small but healthy, and liquor amnii very scanty. Five weeks after this event (on July 13th) she looked very well and had certainly put on some flesh. She was kept in hospital for a week because on her arrival she became acutely ill, and developed erysipelas of the right arm and shoulder, starting apparently in connection with a small subcuticular suppuration on the thumb. This was the second inflammation of her arm since the axilla was cleared out.

Sequel.—On July 21st, 1898, I noted that the breast scar and axilla were normal. The right hand and forearm were a little swollen, deep furrows being left. Beneath the supraclavicular scar lay two small nodules, one freely movable, one slightly attached to the deep parts: these (scalenus anticus ?) felt indurated, but not enlarged or misshapen. Viscera and bones were apparently normal. The uterus was small, anteverted, freely movable; the vaginal cervix had almost disappeared (hyper-involution). December 22nd, 1898, Four days after leaving hospital in July, the patient had another severe attack of erysipelas (?) of the arm, and within a month she had two more. Her thumb-nail was the seat of some suppuration for five weeks after her discharge. These attacks pulled her down greatly. In October she went to the country and returned much better. On November 10th another (the sixth) inflammation of the arm began, with a good deal of pain in the neck; no fresh focus of absorption had appeared, which has continued off and on since. Her weight had fallen from 7 st. 3 lbs. in July to 6 st. 12½ lbs., but she did not look ill, and strength seemed good. The scar, chest wall, and axilla were sound. Above the clavicle there was no swelling, but induration had, I think, increased outwards from the scaleni; the gland-like nodules had not changed. The forearm was œdematous along its ulnar border. I found no evidence of growths in viscera or bones.

Clearly, there is no "cure" here; but it seems likely—when we consider the youth of the patient, the acuteness of the onset, its connection with pregnancy and lactation, and the occurrence of a pregnancy which went to term after the removal of the breast—that the oöphorectomy has done something towards holding the disease in check during the thirteen months since its performance. The loss of weight may, indeed, be largely due to the repeated attacks of inflammation of the arm.

Case vii. *History.*—A married woman, aged 46, sent to me by Mr. H. H. Phillips, of Penge, in November, 1897. She gave no family history of tumour. She had had no breast trouble with any of her six children. Three years ago she noticed a mass in her left breast, which increased slowly at first, but rapidly with much pain during the last year. Under poulticing it fungated two months ago. Swelling and pain in the axilla had existed two months. This patient had been confined to bed for some time previous to admission.

Condition on Admission.—She was extremely anæmic, and looked much worn with suffering, thin, but not emaciated (Fig. 7). Her left breast was



Fig. 7.—From a photograph by Mr. Phillips shortly before operation.

of large size, and seemed to be entirely involved by a new growth; nipple fully retracted; above it were two large fungating masses and two or three deep holes discharging pus and sloughs; below the nipple the skin was thick and leathery. The breast adhered to the pectoral fascia. The left axilla was blocked with a hard, lobulated mass, just movable on the chest wall. The supraclavicular region, viscera, and bones seemed normal. Had I not hoped for help from oöphorectomy—for the patient was still menstruating (every three weeks of late, as if the menopause were at hand)—I certainly should not have touched this case.

Oöphorectomy.—On November 6th, 1897, I performed a double oöphorectomy, and at the same time removed the breast with most of the skin over it, the pectoral fascia, and the sterno-costal portion of the great pectoral. The contents of the axilla were dissected and torn from the side of the thorax, latissimus, and great vessels, the latter being cleaned to the clavicle, below which small affected glands were found. The wound was very large, but was closed excepting a small central gap. I had taken unusual precautions against soiling the wound; but suppuration of moderate severity occurred, with consequent gaping and slow healing. In spite of this her condition was noted as improved in all respects on the 10th, and the improvement continued. On the seventy-fourth day she went to our convalescent home at Limpsfield much improved in health, strength, and appearance.

After-History.—On February 9th, 1898 (three weeks later), she returned in much better general condition. The wound had healed, but two ulcerated recurrences were sprouting through the scar, one adherent to the third cartilage, the other to the lower end of the gladiolus. Hard movable nodules could be felt as high as could be reached in the axilla, and there were several enlarged hard glands in the left posterior triangle. There was no pain or sign of visceral involvement. From this date onwards Mr. Phillips kept careful notes, from which I extract the following:

Soon after returning from Limpsfield she went to friends at Dover; general improvement continued, so that she could stay out a couple of hours at a time, and walk four miles or more. After she returned home strength began to fail, and the local condition became steadily worse. In June she could not walk out, but went out in a bath chair up to July 4th Soon after she became bedridden; but in August she was neither so weak nor so thin as in November, 1897, and her pulse was a good deal stronger, although a serious bleeding from the fungus had occurred. Death took place on September 17th.

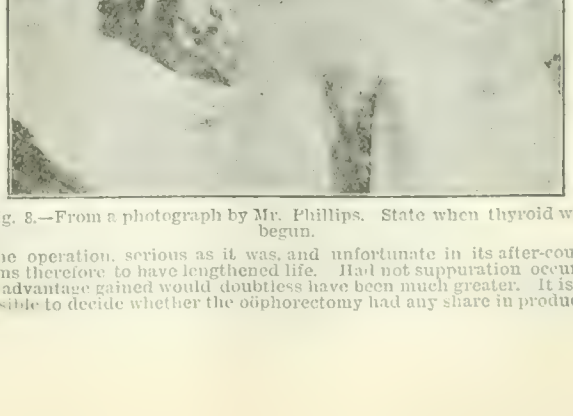


Fig. 8.—From a photograph by Mr. Phillips. State when thyroid was begun.

The operation, serious as it was, and unfortunate in its after-course, seems therefore to have lengthened life. Had not suppuration occurred the advantage gained would doubtless have been much greater. It is impossible to decide whether the oöphorectomy had any share in producing

No.	M. or S., Ch.	Menses.	Age at Oöphorectomy.	Operations and Dates of.	Total Known Duration: Type of Disease.	Amount of Superficial Disease.	Viscera and Bones.	General Condition.	Results of Oöphorectomy.	Latest Note.
1	M., ch.	Regular	44	Tumour removed Sept., 1892; amputation of breast, June, 1893; recurrences removed, June, 1896; oöphorectomy, Dec., 1896	6 to 7 years, C	Considerable	*Nil*	Good	Steady disappearance of much growth from skin, fat, glands, and muscle for 5 months: then intermittent improvement	Oct., 1898 (20 months after oöphorectomy). Health excellent; slight remains of local disease.
2	S.	Regular	37	Free removal of breast, etc., March, 1896; oöphorectomy, Feb., 1897	2½ to 3 years, A	Moderate	*Nil*	Feeble	Rapid disappearance of almost all skin, fat and gland growths; flesh and strength gained markedly	Died July, 1898 (17 months after oöphorectomy). Gain of life probably 1 year.
3	M.	Ceased 6 months	49	Removal of breast, etc., Aug., 1891; oöphorectomy, March, 1897	At least 6 years, C	*Nil*	Widely affected	Very feeble	Some relief of pain; ulcer over sternum tended to heal	Died 14 weeks after oöphorectomy. Visceral and osseous growths not affected.
4	W., ch.	Ceased many years	64	Removal of breast, etc., April, 1896; oöphorectomy, March, 1897	More than 3 years, A at onset	Small	*Nil*	Good	?. Ovaries excessively atrophied	Aug., 1898 (17 months after oöphorectomy). Health good; cancer nodule rather smaller.
5	M., ch.	Regular	46	Removal of breast, etc., and oöphorectomy, May, 1897	About 3 years, A	Large, but removed	*Nil*	Good	?. I think helpful	May, 1898 (1 year after operation). Health good; no recurrence.
6	M., ch.	Menses thrice in 6 weeks; pregnant	32	Removal of breast, etc., March, 1896; oöphorectomy and removal of supraclavicular glands, Nov., 1897	3 to 3½ years, A	Small	*Nil*	Good	?. Disease seems held in check	Nov., 1898. Health fair; slight loss of flesh; no secondary growths.
7	M., ch.	Regular	46	Removal of breast and much local disease and oöphorectomy, Nov., 1897	4 years, A	A good deal left	*Nil*	Very feeble	?. All improvement possibly due to removal of cancer, to feeding, etc.	Died September, 1898 (14 months after operation); a year of life probably gained.
				Collected Cases.						
*1	M., ch.	Regular	33	Removal of breast, etc., 1895; oöphorectomy, June, 1895	More than 5 years, A	Considerable	*Nil*	Fair	Complete disappearance of all recurrent growths in 8 months	Recurrence beginning early in 1898 (nearly 3 years after oöphorectomy).
*2	M., no ch.	Every 3 weeks	30	Breast inoperable; oöphorectomy, Oct., 1895	About 6 years, C	Large	*Nil* (see last column)	Fair, alcoholic	Marked relief of pain; slight disappearance of cancer	Died of secondary growths in liver.
*3	W., ch.	Regular	34	Amputation, date (?); oöphorectomy, Oct., 1896	About 4½ years, A	Considerable	*Nil*	Fair	Marked improvement for 6 to 7 months in skin—infiltration and glandular growths	Living in March, 1898; extensive glandular recurrence; much pain.
*4	?	Regular	32	Breast inoperable; oöphorectomy, May, 1897	14 months, very A	Large	*Nil* (see last column)	Very feeble	Very slight effect	Died in 5 months; growths in lungs and liver.
*5	M., ch.	Irregular for 3 years	47	Breast removed, Oct., 1890; attempt to remove glands, Dec., 1896; oöphorectomy, March, 1897	At least 8 years C	Considerable	*Nil*	Good	Steady disappearance of all growth	May, 1898 (14 months after oöphorectomy) said to be free from obvious cancer

A = acute. C = chronic. An attempt is made roughly to indicate rate of growth up to oöphorectomy.

* Cases 1 and 2 were under the care of Dr. Beatson, who had three other cases which showed only slight improvement, and of which no details are given (*Trans. Med. Chir. Soc. Edin.*, 1895-96, N. S., xv, 153-179). Cases 3 and 4 belong to Mr. Watson Cheyne (BRITISH MEDICAL JOURNAL, 1898, i, 1194); and Case 5 to Dr. Herman (*Lancet*, 1898, i, 1612).

such improvement as did result. It is certain that its influence must have been slight and of short duration.

Thyroid Treatment.—On June 11th, 1898, the state of matters being that shown in Fig 8, from a photograph by Mr. Phillips, this patient was put upon thyroid 3 gr. per diem. She was then in bed almost all day, suffered a good deal of pain, vomited occasionally, and had a pulse of 120. In the first month the dose of thyroid was raised from 3 to 24 gr. per diem. Pain in the breast region had disappeared, but was severe in upper arm. At first vomiting was no more than usual, but with the larger doses it became frequent, and the tabloids were often returned. With short intermissions, however, she took 3 or 4 gr. thrice daily. Mr. Phillips wrote on August 11th, 1898 (after two months of treatment) that the fungating growths had not increased since the thyroid was begun. He fancied there had been a little spread of infiltration down the thoracic wall of the axilla. Œdema of the arm varied greatly from week to week. A lump the size of half a hen's egg in the right axilla, and a smaller mass, not typically scirrhous, in the margin of the right breast, had just appeared. These new growths, and another which appeared very rapidly on the left side, gained ground, while the patient wasted steadily and the pulse failed. She persisted with the thyroid; vomiting became less troublesome during the last four or five weeks of her life.

The trial of thyroid here was as thorough and as persistent as it possibly could be; it is doubtful whether any benefit resulted. The patient was very far gone when the remedy was begun.

I give above in tabular form abstracts of my own cases and of such cases published by others as I have been able to find. I have been unable to discover any American, French, or German cases.

THE VALUE OF OÖPHORECTOMY.

The first point to which I would draw attention is that in the above cases no thyroid was given until it seemed clear that the effect (if any) of the oöphorectomy was exhausted. We are thus able to judge of the effect of removal of the ovaries upon mammary cancer and its metastases. I think it is hardly possible to doubt that in some cases the removal of the ovaries does induce the disappearance of cancer tissue.

But from the practical point of view is oöphorectomy a justifiable mode of treatment? This question can be answered only when we have a sufficient number of cases to be able to determine in how many per cent. oöphorectomy acts beneficially, and the duration of the relief it may afford. If, further, we can learn to distinguish the cases in which it does good from those in which it fails to act, a great step will have been gained. We have no such statistics to guide us. I can find mention of only 15 cases, including my own 7, and in many of these scanty or no details are given. I would urge that full notes of all should be published.

In considering whether oöphorectomy is justifiable we must remember that under ordinary conditions it is one of the simplest operations in surgery; that under such conditions the mortality must be extremely small; that the value of ovaries, or any other organ not essential to life, to a woman

with cancer, is greatly reduced; and that the effects, injurious or other, upon the mind and body of removal of both ovaries do not seem to be well ascertained. In many cases, at all events, no undesirable results ensue; this has been so in all my patients.

Perhaps I may sum up my seven cases thus: In my opinion the beneficial effect of the oöphorectomy was indubitable in two (Nos. 1 and 2); probable in two (Nos. 5 and 6); absent or very doubtful in three (Nos. 3, 4, and 7).

If we take the group of failures first, we note at once that it contains the only two instances (3 and 4) in which oöphorectomy after the climacteric was performed. In No. 3 menstruation had ceased only six months, but the disease though fairly chronic (6-7 years) was very advanced and widespread in viscera and bones. In No. 4 the menopause had occurred many years earlier; the primary tumour in the breast reached a large size in six months, and the recurrence for which I did the oöphorectomy seemed to be growing fast, but there was no evidence of generalisation. I looked upon the disease as pursuing an acute course, and when I wrote my first paper I thought that the oöphorectomy had done nothing to postpone the death, which I anticipated for her within a short time. It seems that I was wrong in my forecast; owing to unknown influences the rate of progress of the disease has diminished. I may have been mistaken also in thinking that the atrophied ovaries in this case must have been functionless, and that their removal could therefore have had no effect upon the disease. I know of no other case in which oöphorectomy for cancer has been done after the menopause; but although there is little encouragement to be got out of these 2 cases, they do not prove the uselessness of oöphorectomy after the climacteric. The third failure (No. 7) differs from those just mentioned in that she was menstruating regularly. Locally things were about as bad as they could be; the patient was bedridden; she was saturated with cancer and septic products, and her pulse was so weak that there was doubt as to whether she would bear conveyance from Streatham to Charing Cross. There was no evidence of secondary growths. Complete removal of the local trouble was impossible; the question was whether, if an incomplete local operation were done, the removal of functionating ovaries would enable her tissues to deal with the amount of cancer left behind. The answer was in the negative; unfortunately, the tissues were further depressed by prolonged suppuration, but I cannot think that this made the difference between "kill and cure." Dr. Beatson's first and most successful case, and Herman's equally successful case, in neither of which was the large local recurrence diminished by operation, seem to show that the failure of oöphorectomy in No. 7 was not due only to the mass of growth present. The extreme debility of No. 7 may have had its influence.

As to Group II there is not much to be said; a hostile critic might fairly take the view that oöphorectomy did nothing for these patients. In No. 5 I had a bad case to deal with; I therefore performed oöphorectomy in addition to a radical local operation. There has been no recurrence in over a year, but there would be no difficulty in quoting similar cases in which such a result followed from a local operation only. In No. 6 the disease is not advancing as might be expected from the previous history; I am inclined to attribute this to the oöphorectomy; but a similar change in rate of growth may occur without oöphorectomy. Perhaps No. 3 is an example of this, the oöphorectomy in her having been really without effect.

Group I contains what I regard as distinct successes. No. 1 was a case naturally inclined to run a somewhat slow course. Now, two years after the oöphorectomy, she is almost free from discoverable cancer, and her general health is excellent. She herself has no doubt as to whether it was worth while having the oöphorectomy done. No. 2 is dead; the cancer nodules had scarcely disappeared before they began to reappear, and fresh ones to form. She was 37. Her disease was of fairly rapid type. I think that about a year was added to her life, and it seems to me that many would gladly purchase a year of life at the cost of an oöphorectomy. Some primary and many secondary operations have not benefited patients to this extent. I do not know whether my account of these cases is convincing, but no one who watched them could doubt the influence of the oöphorectomy in inducing the disappearance of the cancer tissue.

With these cases may be placed (*a*) Dr. Beatson's first case, in which a woman of 33, with bad recurrence on the chest wall of cancer of fairly rapid type, was completely freed of discoverable cancer in the space of eight months after an oöphorectomy, and remained so until nearly three years from the operation had elapsed; then the disease reappeared. (*b*) Dr. Herman's case, aged 47, of chronic type (over seven years' duration), in which inoperable recurrence in the axilla is said to have disappeared, the patient being apparently free from cancer fourteen months after the oöphorectomy. For three years this patient had menstruated irregularly, as if the menopause was at hand.

Examination of such facts as I know concerning these cases does not enable me to draw a clear line between them and others which benefited little or not at all. Yet there are obvious differences between the groups. Among the successful cases, menstruation had ceased in none, though Herman's case and my No. 3 tend to bridge over this gap. The general condition was good in all except No. 2, the least successful. In none was the total amount of cancer very large, and in none were visceral or osseous growths detected. The type of disease—that most important point—varied, being chronic in my No. 1 and Herman's case, fairly acute in Beatson's case, whilst in my No. 2 the disease, kept under by amputation of the breast, and later by an oöphorectomy, ran its course in two and a-half years. Although the most acute case was the least successful, the one next to it, in point of acuteness, was the most successful yet recorded. It is noteworthy also that Beatson's case was exceptionally young (33), and that the primary growth had passed through two lactations.

In face of these 4 cases out of the 15 I have collected, in which, as I think, relief worth obtaining was afforded by oöphorectomy; and feeling that in all probability benefit has been conferred upon the 2 cases in my second group, I have not yet come to regard the operation as useless, or nearly so, in the treatment of mammary cancer. I cannot dispute Mr. Cheyne's statement that in all cases its effect is only transitory (if "transitory"=lasting three years), and that in many none is produced. I have reason to share his disappointment with the treatment; but I nevertheless think that he is a little hard in his judgment, which is based chiefly upon two cases in young women. No doubt, as he says, one would expect the effect of oöphorectomy to be most marked when the ovaries are in full vigour. But things are not always as we should expect. It early became apparent not only that all cases were not equally affected by oöphorectomy, but that all secondary growths in the same case, and even in the same tissue, were not equally influenced. To explain the failure to act in some cases, I hazarded the suggestion in my first paper that the internal secretion of the ovaries may vary, and that only when it has varied in some unknown way does it favour the growth of cancer. If there be anything in this theory it is conceivable that this variation in the secretion may occur more commonly after than before 40. Next, such evidence as we have tends to show that in the etiology of cancer the ovary is not an exciting cause, but only a predisposing influence of greater or less strength in different cases. Now, speaking generally, the younger the patient the more severe is cancer likely to be; resistance to cancer seems to increase with age. To decide that oöphorectomy is useless unless it can control cancer under the most difficult conditions might lead to our casting aside a remedy of some value. Mr. Cheyne's first case reads very like Dr. Beatson's first, yet the improvement following oöphorectomy in the former lasted only six or seven months. What was the reason of the difference? In his second case Mr. Cheyne seems to feel that he asked too much of the remedy. The patient was 32, and so predisposed to cancer that the total known duration of the disease was only fourteen months. She was extremely weak on admission nine months after the discovery of the primary growth, which was inoperable. There was a large amount of primary and secondary growth present. Only slight improvement followed the oöphorectomy.

I think that in some cases oöphorectomy is of value as a palliative operation. A great deal more work, and perhaps very difficult work, will be necessary to determine its powers, and its mode and range of action.

THYROID TREATMENT.

In Beatson's, Cheyne's, and Herman's cases thyroid extract was given while the effects of the oöphorectomy were being observed. Regarding it as a powerful "lymphatic stimulant," Beatson put his cases on thyroid for a month or so and seemed to obtain no result. He then tried oöphorectomy *plus* thyroid and obtained more or less result, which, I should say, oöphorectomy alone will explain. In short, I thought that Beatson's cases went to show that thyroid was of no use in scirrhus of the breast. It is, however, right to say that Dr. Beatson came to an opposite conclusion. The remarkable case of Recurrent Carcinoma of the Breast entirely disappearing under Thyroid Extract continued for Eighteen Months, published by Page and Bishop, made me feel that perhaps thyroid acted very slowly, and that its effects could not be seen during a month's exhibition. It may be so; but careful reading of the case does not support this view strongly. The patient was aged 61. After thyroid had been administered some time, the nodules ceased to grow and seemed softer; but later a fresh one appeared and grew, and none seem to have disappeared during fourteen or fifteen months. Then the patient disappeared, but continued taking the drug. At the end of eighteen months she turned up again, all the nodules having gone in the interval—I should imagine very much to the astonishment of both doctor and patient, who must have been quite unprepared for such a development. The result does not read like that of the steadily-continued or increasing action of a drug.

The following are the results of treatment with thyroid in my cases:

In Case II, when nodules began to reappear after the oöphorectomy, the patient having gained flesh up to the commencement of the thyroid treatment, the drug was given for about a month, a dose of gr.xx per diem being reached. The patient lost 5 lbs.

In Case VII the administration of thyroid was begun in June, and was continued with great pertinacity almost to death in September. Full details are given in the case. Perhaps some relief of pain and some inhibition of growth of the fungating masses were results of the treatment.

Mrs. K., 50, had a rather large and quick-growing cancer, infiltrating breast and involving skin diffusely; freely removed in November, 1897. In June, 1898, she returned with several nodules in skin and fat in and around scar and a diffuse redness, with slight infiltration spreading far towards axilla; general condition still good. She was given thyroid gr. x to gr. xv a day. No improvement was noted, but slow increase went on. In September she developed pleurisy and died quickly. There was no *post-mortem* examination.

Mrs. B., 52, whose mother died of cancer of breast, had a large quickly-growing cancer of breast, involving skin, freely removed in November, 1897. In May, 1898, she had recurrence in middle of scar and extending far out into axilla. I put her on 7½ gr. of thyroid a day, and after a fortnight increased it to 15 gr.; but after eight or ten days she became so depressed that she had to give up for a week; then she started 10 gr. a day, and after three weeks of this—that is, seven weeks from beginning of treatment—she and her nurse agreed that the disease had not increased lately, and the patient maintained that the mass was softer. At a later period, after a three weeks' interval, both the patient and her medical attendant, Dr. Victor Sapp, were convinced that the re-exhibition of thyroid produced softening of the cancerous infiltration about the scar. With this exception no effect of the thyroid on the growth was noted. From 10 to 15 gr. of the drug were taken daily with few intervals; it seemed to cause great depression and vomiting, but these may have been due to the disease. The patient is now (December 29th, 1898) bedridden, with a good deal of local disease ulcerating centrally; a huge liver, with jaundice and ascites, and a large mass in right iliac fossa.

Mrs. N., 63, very stout, had a large tumour of breast, with a deepish ulcer, discharging freely, running into it; many nodules in skin over breast, one large and almost bursting; enlarged axillary glands. She took 3 to 6 gr. of thyroid daily irregularly; after two months the ulcer completely healed, and now, after four months, there has been little or no local increase. The large nodule remains *in statu quo*. There is reason to fear that she has growths in the liver.

These are all the cases of cancer in which I have tried thyroid. They afford little evidence that it has any action upon the disease.

ON FIBROMYOMATA OF THE VAGINA.

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HAVING met with two cases of this rare and somewhat important condition, I have reported them in full; and having searched the literature on the subject, have been able to add 27 additional cases published since 1882, when Kleinwächter wrote his standard dissertation, Die bindegewebigen und myomatösen Neubildungen der Vagina.[1]

CASE I (No. XXVIII in Bibliography).—Mrs. B., aged 36, with no children, was first seen in 1890 for pain during coition and reflex mammary and gastric irritation. On vaginal examination a small tumour was felt in the left and anterior fornix and just below the level of the os uteri externum. The pelvic condition was otherwise normal. The swelling was sessile, smooth, painless, and covered by healthy mucous membrane, which could be freely moved over its surface. In size the tumour appeared to be that of a shelled walnut. A diagnosis of vaginal cyst was given, and under an anæsthetic an incision was made, and the nature of the swelling discovered; it was easily enucleated, and the cavity closed by deep and superficial sutures, and the vagina stuffed with gauze. Recovery was easy and rapid. On microscopical examination, the growth was found to be partly myomatous and partly fibrous, the latter predominating. For some reason, all the local and reflex symptoms above mentioned disappeared, and have not recurred.

CASE II (No. XXIX in Bibliography).—Miss A., aged 49, had been a martyr to neuralgia and rheumatism all her sexual life, and had been more or less continuously under medical care. Three years before I first saw her (February 5th, 1898) she complained to Dr. Ferris, her medical attendant,



Fig. 1.—Case II; A, uterus (retroverted); B, tumour; C, bladder; D, retropubic fat; E, symphysis pubis; F, urethra; G, discoloured portion of tumour; H, vagina; I, perineum; J, rectum; K, sacrum.

of something pressing upon her bladder. An examination showed a small, apparently fluctuating, swelling in the anterior and lower vaginal wall. This growth had slowly but continuously increased in size from that time. Up to three or four years ago her catamenia were regular and normal, but since then she has been very irregular, long periods of amenorrhœa alternating with a few days loss. A few weeks (three or four) ago she noticed an extremely offensive discharge coming from the vagina, and it was only after much vaginal douching that the smell was overcome; this has reappeared from time to time. It was thought that perhaps the growth had ruptured and some of its contents found exit *per vaginam*. The patient had steadily declined operative treatment. She complains at present of the constant desire to micturate and the offensive discharge. She has made flesh, and has nothing generally wrong except her extreme neurosis. Examination by hypogastrium revealed nothing beyond the sensation of a swelling in the median line rising just above the brim of the pelvis.

Per Vaginam.—The anterior half of the pelvis was occupied by an elastic, almost fluctuating, smooth growth extending from just above the internal urethral orifice to high up towards the pelvic brim; it was beneath the mucous membrane of the anterior vaginal wall. It encroached upon the vaginal canal so much, that it was only after much patience and difficulty that the index finger could be pushed up sufficiently high to reach the cervix uteri. With the sound in the bladder and finger in the vagina the growth could be limited to the pelvis and the anterior vaginal wall. The mucous membrane covering it was movable over the tumour. Apparently no connection existed with the uterus. The tissues covering the lower portion of the swelling were purple in colour. No opening could be detected in the walls of the capsule. An anæsthetic was given and the above-mentioned physical signs corroborated. The uterus, of normal size, was found lying just beneath the sacral promontory slightly retroverted and impacted. The tumour gave to the touch the sensation of a tense cyst containing fluid from which a small amount had been withdrawn, leaving the walls slightly flaccid. The offensive discharge was apparently due to menstrual fluid retained in the vagina above the tumour and not to escape of cyst contents, as was at first thought possible.

Diagnosis was extremely difficult, and appeared to rest between an impacted pedunculated fibroid (subserous), a rare form of anterior perimetritis, a vaginal cyst, a dermoid ovarian cyst, or, lastly, a vaginal fibromyoma. It was decided to attempt removal by the vaginal route.

Operation.—After antiseptic douching and the usual preparation, the patient was placed in the exaggerated lithotomy position and the vaginal mucous membrane over the lower portion of the growth incised longitudinally. No fluid escaped, and the tumour was obviously solid and encapsuled. It was shelled out with much difficulty and free bleeding. A sound passed 6 inches into the cavity in an upward direction after its removal, the blunt end being easily felt *per hypogastrium*. Several forceps

were left attached to the bleeding points, the cavity was swabbed out with iodine liniment and then stuffed with gauze. Recurrent hæmorrhage occurred before the patient recovered consciousness, necessitating application of more forceps. She made an easy and afebrile recovery, but her neurotic symptoms have remained unaltered.

Pathological Report (by Mr. G. Lenthal Cheatle).—A tough, encapsuled, and lobulated tumour, weighing 14½ oz., 5 inches in length and 2½ inches in breadth in its upper portion; its surface smooth, its shape triangular, the outline somewhat resembling a map of Great Britain. In two or three localities one marginal lobe was folded back upon the surface of the growth, and there had become attached by loose and delicate connective tissue, suggesting that possibly at the time of its removal the neoplasm was developing in a confined space. The tumour gives an indistinct sense of fluctuation to the touch.

Microscopical Examination shows that the cells in shape and arrangement very closely resemble those observed in uterine fibroids—a mixture of fibrous and muscular elements.

As the result of a very thorough search through the literature of the subject Kleinwächter collected 53 cases; he includes, quotes, and criticises in his list Neugebauer's 35 collected cases[2] and Briesky's 37 cases[3]; hence with the 29 cases of which I have collected details, there are 81 which may be fairly considered. The first recorded instance of this condition appears to have been in 1773 (Jakob Denys), and some of Kleinwächter's cases must be looked upon with suspicion even after his very thorough scrutiny; his paper so thoroughly exhausts the matter at his disposal up to 1882, that I propose only here to critically examine the 29 cases I have been able to collect.

The view held by Kiwisch[4] that most of the vaginal fibromyomata originally arise from the uterus, and subsequently lose their connection with that organ, is denied by Kleinwächter, and in none of my cases has there been any apparent connection. In one only (Hastenpflug, Case XIX) was there a uterine fibroid also present. These tumours seem to occur as fibromata, myomata, or a mixture of the two. The most common certainly appear to be fibromyomata (19 cases).

Age.—This is mentioned 24 times, the youngest patient being 29, the eldest 52, 2 being above 50, 8 above 45, and 6 above 40. These figures support Kleinwächter's opinion that fibromyomata of the vagina are met with chiefly in the later sexual period and at the menopause. At the same time 3 fairly authenticated cases by Traetzl,[5] Wilson,[6] and Martin[7] occurred in infants aged respectively 1¼ and 2½ years, and in a newly born girl.

Size varies very much; the largest is mentioned by Gremler,[8] which weighed 10 lbs. 2½ ozs., the tumour hanging like a large flask from the vagina by a pedicle two fingers thick. In two instances the tumour was of the size of a child's head (Cases XII and XV), and every size from a large apple to a lentil has been noticed, the most common being that of a shelled walnut.

Seat.—These growths are always single, and may be pediculated or sessile; in all probability they are invariably the latter during the earlier part of their life-history. The anterior vaginal wall is most commonly affected, and in any part from the urethral orifice to the fornix. Out of 39 of Kleinwächter's cases in which the seat is mentioned, it was 25 times on the anterior wall; and of my 29 cases, 23 times, and either to the right or to the left of the median line.

Degenerations.—Gangrene of the vaginal mucous membrane covering the tumour occurred in five instances (I, XII, XVIII, XXVI, XXIX), and two interesting changes in the tumour itself have been recorded, namely, calcification and formation of hæmatoma, in the substance of the growth. In the former (Strassmann's case, XIII) the patient had a year and a-half before swallowed a pin, and for some months had had stabbing pain between the vagina and anus, which she attributed to the point of the pin. On examination, immediately beneath the mucous membrane of the vagina a lobulated hard body, the size of a lentil, was felt; on enucleating it, it was found to be a fibroid undergoing calcification and in no way connected with the pin. In Hofmokl's case (XV) the tumour was aspirated, and pure blood withdrawn, and on removal of the tumour there was found a roundish cavity with rough walls of fibromyomatous tissue; he considered this an instance of a true hæmatoma.

Symptoms must necessarily depend upon the size, situation, and rapidity of growth of the tumour; any pathological changes, such as calcification and sloughing, must also be borne in mind. The rate of growth is variable—as a rule very slow. In Case III it occupied 10 years in attaining to the size of a hen's egg, while in Case XXV it had grown very slowly for 4 years, then suddenly increased in 6 months to twice its size. In the second of my cases the tumour had been known to exist for at least 3 years. In 5 cases the tumour gave rise to no symptoms whatever, and in 2 others the patient applied for relief because she felt a "lump." Other symptoms noted were difficulty in micturition (5 times), dyspareunia (4 times), rectal obstruction (3 times), backache, dragging pain, difficulty of locomotion and reflex disturbances are also mentioned. The effect on menstruation is slight. In those cases in which metrorrhagia was complained of it might well have been due to irregular bleedings from the ulcerated tumour surface. In the 29 cases this effect was recorded 24 times, and in only 5 was there menorrhagia. Kleinwächter is inclined to the opinion that there is a tendency to amenorrhœa in these cases. The liability to conception appears to be unaltered, and pregnancy has no apparent effect on the growth of these tumours similar to that observed in uterine fibromyomata. During labour the growth may obstruct labour and the puerperium may be complicated by sloughing of the tumour itself or of the vaginal wall, producing a vesico-vaginal fistula (Case I).

Differential diagnosis must be made from vaginal cyst, pedunculated subserous uterine fibroid, primary malignant disease. The first of these is frequently a source of error, tapping being productive of a negative result. In my second case (XXIX) fluctuation certainly appeared to be present, and after removal the tumour gave a peculiar sensation as of fluid in a cavity with lax walls.

Treatment.—Should the growth be small and observation show it to be quiescent, no operative interference is necessary. When, however, steady increase in size, or pediculation, or sloughing is noted, surgical treatment is absolutely necessary. Many methods have been resorted to, among them torsion of the tumour, ligature of its pedicle, galvano-cautery, enucleation and suture, and the *écraseur*. An ideal treatment seems to be incision and enucleation with deep and superficial suturing in sessile growths, and ligature of the pedicle in portions, and removal in polypoid cases. Strict asepsis is obviously necessary. Of the 29 cases mentioned in 21 incision, enucleation, and gauze packing was resorted to with the best results. In a polypoid tumour weighing 1½ lb., and entirely filling the vagina, Storer (Case XXIII), after attempting to cut through the pedicle with a wire *écraseur*, succeeded with a chain, and found that all attempts to remove the free growth from the vagina were ineffectual: he therefore "passed the forearm into the rectum after forcibly dilating the sphincter, and by downward pressure from above delivered the tumour." In Case XVIII the tumour was delivered by the obstetric forceps, and by the finger in the rectum; the pedicle was then ligatured in pieces, and the tumour removed; it was in a state of sphacelus, and was 16½ cm. in length. I have not met with any case in which abdominal section was found to be necessary. Torsion is dangerous, as it is quite easy in tumours situated in the anterior wall to draw the bladder into the pedicle, and so produce a vesico-vaginal fistula. A word of warning should be given when the tumour is enucleated: the parts are very vascular, and often recurrent hæmorrhage takes place, as in my second case.

Conclusions.—Vaginal fibromyomata are invariably single and usually slow growing; their situation is most frequently upon the anterior vaginal wall, and they may be sessile or pedunculated. They have practically no effect upon menstruation, conception, or the course of pregnancy, but may lead to serious dystocia. Symptoms depend upon size and situation, and are usually due to direct pressure exerted on neighbouring viscera. Sloughing is the most common change in the tumour during the life-history. Removal is best carried out by enucleation and suture, or stuffing the sac with gauze.

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AFTER-EFFECTS OF ABDOMINAL SECTION.

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AT the meeting of the Obstetrical Society held in October, 1897, Dr. Herbert Spencer pointed out that intestinal obstruction from the adhesion of the intestine to the stump after ovariotomy was by no means rare, and a month later at the Harveian Society Mr. Doran drew attention to the fact that hernia of the abdominal cicatrix frequently followed laparotomies.

These two important statements are of such interest to all practitioners that it has been my endeavour to gather together as accurately as possible statistics of these complications in women patients from the records of general hospitals throughout the country. Thanks to the great courtesy of members of the staff and of the surgical registrars of 49 hospitals, the following information has been obtained. Several country hospitals were invited to send statistics, as it seemed probable that cases of acute intestinal obstruction would be treated in them, even though the primary operation had been done in a hospital in some large centre, as London, Edinburgh, or Dublin.

During the last four years 39 cases of ventral hernia and 12 cases of acute intestinal obstruction have been traced.

The cases of ventral hernia do not include any that may have been seen in the out-patient departments, but only those that came into the wards for treatment. The date of the occurrence of a ventral hernia or of acute intestinal obstruction after the original operation is of interest as showing approximately the length of time that the giving way of scar tissue or the formation of fibrous bands may take. It has not been possible to get all the data, but in 26 out of the 39 cases of ventral hernia they are as follows:

2	cases occurred	14	years	after the original laparotomy
1	,,	10	,,	,,
1	,,	9	,,	,,
1	,,	8	,,	,,
1	,,	7	,,	,,
2	,,	5	,,	,,
3	,,	4	,,	,,
3	,,	3	,,	,,
1	,,	2½	,,	,,
2	,,	2	,,	,,
2	,,	1½	,,	,,
3	,,	1	,,	,,
1	,,	5	,,	,,
1	,,	4	,,	,,
2	,,	a few months		,,[1]

It would be interesting to learn in what manner the abdominal wound had been closed in these cases, whether in one or more layers, the number of cases in which a drainage tube was used, the length of rest in bed, and the use of an abdominal belt for months or years following the operation. Eighteen of the cases occurred, it will be noted, under five years, and seven in one year or under.

The dates of the cases of intestinal obstruction were as follows:

1	case occurred	14	years	after the original laparotomy
1	,,	5	,,	,,
3	,,	4	,,	,,
1	,,	1	,,	,,
1	,,	6 months	,,	,,
2	,,	2	,,	,,
1	,,	15 days	,,	,,
1	,,	11	,,	,,
1	,,	10	,,	,,

The two cases which occurred two months after abdominal section were (*a*) a case of perforated ulcer of the intestine, and (*b*) a case of sarcoma of the ovary. In neither case, therefore, was the peritoneal cavity in as sound a state as is found in the majority of cases of abdominal section, and one cannot but question whether sepsis was not responsible for the cases occurring within fifteen days of the operation.

Dr. John Phillips gives an account of 3 cases of acute intestinal obstruction after abdominal section, the obstruction occurring one, four, and seven years after the original operation.[2]

I am greatly indebted to Mrs. Scharlieb, M.D., M.S., and to Mrs. Stanley Boyd, M.D., for permission to look through the casebooks at the New Hospital for Women, in order that I might trace the after-histories of patients who had had abdominal section performed there.

Information has been received of 88 patients, and, amongst these, 3 have returned for further treatment—1 for acute intestinal obstruction and 2 for ventral hernia.

The history of these 3 cases is as follows:

Mrs. T., aged 22, was operated upon in 1892, when a mass was removed which consisted of the right ovary, considerably enlarged, and containing several abscess cavities and an irregularly distended long sac, which appeared to be the Fallopian tube. The patient was very ill, with high irregular temperature for some time, but eventually she completely recovered, and left the hospital on the fifty-fifth day after the operation. From that time to January, 1897, her health was good. On January 12th, 1897, she complained of pain in the abdomen; on the 15th she took to her bed at home, when sickness began and was frequent. No motion or flatus passed after the 18th. Her medical man advised her going into a hospital, and on January 21st she was brought to the New Hospital for Women with all the symptoms of acute intestinal obstruction. She was almost moribund on admission, and died two hours later, no operation being performed. At the *post-mortem* examination the intestines were found much distended and reddened, there were recent adhesions between the parietal and visceral layers of peritoneum, and also between the coils of large and small intestine. A firm white band attached the centre of the transverse colon to the back of the anterior abdominal wall, causing a bend and slight constriction in the colon. A loop of small intestine about 13 feet from the duodenum hung down into the pelvis, and was constricted by a narrow white fibrous band. The band passed round the loop of intestine, and was continuous at one end with the mesentery, and at the other with the peritoneal coat of intestine just beyond the part involved by the loop. The end of the ileum was found adherent to the abdominal wall in the neighbourhood of the iliac fossa and the stump of the right broad ligament was fixed at the same spot. The cæcum was bound down by dense pale adhesions. There were adhesions between the uterus and bladder. The left ovary and tube were fixed by adhesions to the pelvic wall in the neighbourhood of the iliac vessels.

The adhesions in this case were dense and numerous. The question arises as to what adhesions were formed before the operation in 1892 was undertaken. The tumour removed contained abscess cavities, and one might reasonably suppose that inflammatory conditions were present in the neighbourhood of the right ovary, which was removed. The patient's convalescence was long, and gave rise to much anxiety, and possibly it may have been during this time that adhesions were formed, which subsequently became dense and fibrous.

The two cases of ventral hernia are as follows:

Mrs. L., laundress, aged 45, very stout, was operated on for double ovariotomy in 1888; she made a good recovery, and kept in excellent health, and did her work till 1894, when she first noticed a swelling in the middle of the scar about the size of a walnut. This increased in size, and she suffered from griping pain till she returned to the hospital in 1895, when she was readmitted. At the operation it was found that the omentum was extensively adherent to the parietal peritoneum under the scar. The patient made an excellent recovery.

A. D., a dwarf with contracted pelvis, aged 30, had Cæsarean section performed at full term in 1895. She recovered well. She was readmitted in 1896, suffering from profuse losses, when an abdominal hysterectomy was performed. In 1897 she returned with a ventral hernia in the middle of the scar, which she was anxious should be dealt with. At the operation several coils of intestine were found adherent to the parietal peritoneum and to one another. She made a third good recovery, and is now in excellent health, earning her own living.

The following tables give the after-history of the patients who have been traced:

REFERENCES.
[1] *Lancet*, November 27th, 1897. [2] *Lancet*, 1892.

Single Ovariotomies.

No.	Date.	Immediate Result.	Ultimate Result.
1	1888	Excellent	Health very good.
2	1888	,,	Returned with ventral hernia in 1895.
3	1893	,,	"I have not had good health: never free from pain, especially in the lower part of my back."
4	1894	,,	"I have had very good health since my operation."
5	1894	,,	Very good health: earns her living by mangling.
6	1894	,,	"I have no pain, but much general weakness, which makes one think of all kinds of imaginary diseases."
7	1894	,,	"Since my operation I have had very good health."
8	1894	,,	Much better since operation.
9	1894	,,	"My health has been fairly good."
10	1895	,,	"I have enjoyed the best of health since my operation."
11	1895	,,	Has had excellent health since operation.
12	1895	Thrombosis of veins of left leg	"I am fairly well in health, but my leg still troubles me very much."
13	1895	Excellent	"I have had excellent health since the operation."
14	1895	,,	Health excellent.
15	1895	,,	A second tumour has formed.
16	1896	Thrombosis of veins of leg	Health excellent.
17	1896	Excellent	"My health has been quite good since the operation."
18	1896	,,	Good health since the operation; birth of healthy child 9 months ago.
19	1896	,,	Health before operation poor; now health excellent: 7 months pregnant.

Double Ovariotomies.

20	1892	Excellent	Excellent health since 1893.
21	1893	,,	"I have had great relief since the operation, but I am not very strong."
22	1893	,,	Died of cancer of the uterus in April, 1894.
23	1894	,,	Has occasional numbness down the left side.
24	1895	,,	"My health has been fairly good, and I continue to get stronger. I still have hot flushes rather frequently."
25	1895	,,	Health excellent.
26	1896	,,	Suffers from constipation, asthma, and occasional flushings.

Salpingitis and Ovaritis.

27	1893	Excellent	"I have had years of life and freedom from pain from the agony I endured."
28	1893	,,	"Owing to the splendid operation I have been quite cured."
29	1894	,,	General health fair.
30	1894	,,	"Before operation never free from pain; now no pain."
31	1894	Prolonged convalescence.	"I still suffer very considerably from weakness in the abdomen."
32	1894	Excellent	Very good health now.
33	1894	,,	Excellent health.
34	1895	,,	Continued pain. Second operation, when left ovary was found bound down by adhesions; this was resected. The pain continued, and as further operation was not advised, patient went to another hospital, where she was operated upon and died a few days later.
35	1895	,,	"I now enjoy very good health."
36	1895	,,	"Since the operation my health has much improved."
37	1895	,,	In excellent health.
38	1895	,,	"Since my operation I have enjoyed very good health."
39	1895	,,	Health good but pains in head.
40	1895	,,	Excellent health.
41	1895	,,	General health fair.
42	1895	,,	"My health is much better. I am growing quite stout.
43	1895	,,	Has attacks of sickness, with headache and feet swell.
44	1896	,,	General health fair.
45	1896	,,	General health excellent.
46	1896	,,	"I am better than formerly."
47	1896	,,	General health good.

Abdominal Hysterectomy.

48	1893	Excellent	"My health was weak for two years, but now I am in good health, and am manageress in a busy hotel."
49	1893	,,	General health fair.
50	1894	,,	"I have better health now than I had for six years before the operation."
51	1894	,,	Never feels well; worries about nothing.
52	1894	,,	"My general health is fairly good."
53	1894	,,	"Since the operation I have been perfectly well."
54	1895	,,	"The operation was most satisfactory in every way. My health has been quite good since."
55	1895	,,	General health good.
56	1896	,,	"I feel very well indeed."
57	1896	,,	Health good. Works hard in the Salvation Army.
58	1896	,,	Health excellent.
59	1896	,,	General health good. Returned with ventral hernia in 1897.
60	1896	,,	General health poor. Much pain in back.

No.	Date.	Immediate Result.	Ultimate Result.
			Fibro-cyst of Uterus.
61	1894	Excellent	"I think my operation has been fairly successful, though I am not very strong."
			Exploratory Operations.
[illegible]	1894	Excellent	Excellent.
[illegible]	1894	,,	Has been in very good health since the operation.
[illegible]	1895	,,	Died in 1897. Cause unknown.
[illegible]	1895	Not relieved	Died of bronchitis a year later.
66	1896	Excellent	General health good.
			Hysteropexy.
67	1895	Excellent	"Since my operation my general health has been good."
68	1895	,,	Excellent health. Birth of boy 3 months ago, excellent recovery.
69	1896	,,	"I have not had so much pain, but I have not felt so strong."
70	1896	,,	"My general health has much improved."
			Cæsarean Section.
71	1895	Excellent	"I feel as well now as ever I did in my life."
72	1895	,,	Readmitted in 1896 for abdominal hysterectomy.
			Cyst of Corpus Luteum.
73	1894	Excellent	Health excellent.
			Umbilical Hernia.
74	1894	Excellent	"Excellent till the last four or five months, when I have had some abdominal pain."
75	1895	,,	"The operation was quite successful."
			Various Causes.
76	1892	Protracted convalescence	Readmitted in 1897 with acute intestinal obstruction; died soon after admission.
77	1892	Excellent	Health better than for six months prior to operation, but cannot say it is good.
78	1894	,,	Health good.
79	1894	,,	Had a second operation at another hospital a year later.
80	1894	,,	Health excellent.
81	1894	,,	Excellent health.
82	1894	,,	"My health is very good."
83	1895	,,	"My health has been quite as good since the operation."
84	1896	,,	Excellent.
85	1896	Malignant of peritoneum	Died 3 months later.
86	1896	Excellent	General health very good.
87	1896	,,	Excellent for one year, then contracted gonnorrhœa, and developed double pyosalpinx. Operated on at Charing Cross Hospital, 1898.
88	1897	,,	Health excellent.

ON LATERAL CURVATURE OF THE SPINE: ITS PREVENTION AND TREATMENT.

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II.

In a previous communication on this subject[1] I defined four forms of pelvic deviations, pointed out their diagnosis, and ended with a strong recommendation—almost had I written exhortation—to watch lest the youth of either sex adopt one or other of these malpostures. On these same lines I must go a little further. The spine has for its basis the pelvis; every movement of which, even though momentary, is accompanied by a compensating change in position of vertebræ; were this not so we could neither walk, run, ride, or take any sort of active exercise, because without that adaptability of the spine, the body's centre of gravity could not be shifted from side to side, backward, or forward, so as to lie over the constantly changing point of support on the floor or saddle. That is to say, when in any of these exercises the pelvis assumes for a time an oblique, a sideways, or twisted position, the spine must during that time so curve or rotate as to adapt itself to the temporary posture of its base. If, however, such posture be not merely a momentary but a permanent condition, then that curve or rotation of the spine will be equally persistent. Therefore, if a child or adoles-

cent acquire a habit of standing or sitting with the pelvis awry, as in the illustrations to my last paper, the corresponding curve or twist of the spine, intended only as a temporary and alternating attitude, becomes a constant or almost constant position, followed later by the muscular and ligamentous changes, already more than once alluded to, which fix and render so recalcitrant the later stages of scoliosis.

This is the genesis of by far the larger number of lateral curvatures; the exceptions will be mentioned in the sequel. What, however, I now desire strongly to accentuate is, that given such intelligent care as shall detect the various pelvic deviations in their early commencement, spinal curvature can be prevented; in more technical surgical language there is a prophylaxis of scoliosis, one that with a little assiduity and a sufficient comprehension of the malpostures to be combated succeeds within a reasonably short time. I propose now to examine these different measures as applicable to the four modes of pelvic deviation.

Permanent Pelvic Obliquity (see Fig. 1 in my previous paper) is, in the absence of joint disease, a passing attack of infantile paralysis, or some form of talipes, the result of defective growth at one of the epiphysal junctions generally of the lower, femoral one. The deficiency or sluggishness of increase may originate from a blow or fall so slight as to be overlooked or forgotten yet sufficiently severe to derange the nutrition of the proliferating cartilage.* More frequently the irregularity is due to an unexplained idiosynerasy of growth analogous to that which in some persons causes the nose to sit sideways on the face; in such cases it nearly always happens that the limb which grew quickest ceases to grow first, and thus at the period when the epiphyses join the length of limbs becomes even. While the defect lasts, however, its influence on the spine must be obviated by adding one, sometimes two, thicknesses of leather to the heel of one boot, right or left, according to which limb is the shorter; also by the use of the sloping seat for two or three periods of about twenty minutes daily. A permanently oblique pelvis connotes a different angle between the transverse axis of the pelvis and the two thighs, that on the longer side being the more acute. A slight inequality in these angles is not productive of evil; but when the difference of length of limb is pretty strongly marked, the above described angle, therefore, much diminished the adductors of the thigh are very apt to become shortened, a condition likely to interfere with subsequent rectification. This complication may be thus prevented. Let the patient stand in drill posture, but with the arms akimbo, then with knee straight and with toe pointed directly forward, thus avoiding outward rotation of the thigh, the shorter limb must be thrown straight outward as high as can be managed.

Habitual pelvic obliquity (see Fig 2 in previous paper) is a trick which those continually with the child can, when the defect has been pointed out, correct; a task which the surgeon must in the nature of things delegate to them. It only requires watchfulness and strict, perhaps even stern, injunction. Should the droop of one side of the pelvis be strongly marked and constant, the patient should be made to reverse it; that is, if he be in the habit of using continually for ordinary station the right limb, he should be made to stand for a certain time on the left one, letting the right instead of the left side of the pelvis droop. The place of the unemployed right foot on the floor is important if only the remedial pelvic obliquity is contrary to the habitual one; for this same object the sloping seat may also be used. The number of times per day, and the length of each period, must depend on the degree of usual pelvic droop, the bodily strength, and general conditions of health. We must not overlook the fact that the position with the one knee in front and slightly crossing the other may be assumed by an adolescent girl to ease pain due to ovaralgia or congestion with dysmenorrhœa or amenorrhœa; such posture therefore should suggest questions to her mother. Girls with or without these troubles often, though by no means invariably, stand with the unemployed knee in front of and somewhat crossing the other. No girl with that form of obliquity, whether habitual or permanent, which consists in a droop of the left side of the pelvis, should be permitted to ride on horseback in the usual position; namely, with the right knee in the pommels. If the obliquity be strongly marked, she must ride on the other side of the horse, the left knee in the pommels. In less marked cases, or when the above method has had sufficient effect on pelvic malposture, she may alternate, using one day a right-handed and the next a left-handed saddle. Indeed, if a girl be growing rapidly, and be at the same time somewhat anæmic, it is wise even if she have no pelvic deviation to let her thus ride alternately on right and left side of the horse.

Amesiality of the pelvis (see Fig. 3 in previous paper) is more difficult of correction, for so perverted does the patient's neuro-muscular sense, after a little persistence in this attitude become that to her the one-sidedness appears straight, while if the surgeon with his hands arrange the figure into a straight position she feels excessively crooked. The most important point in the correction of this aberration is a change of the patient's neuro-muscular sense of balance. I effect this in the following manner: a mirror is so placed in front of the patient that she sees her reflection from the neck down to below the umbilicus. In dealing with children the whole figure should be stripped, but in the case of adult girls there is no need for complete nudity; the device can be demonstrated simply on the upper part of the figure. Arranged thus, I place a plumb line at the centre of the episternal notch, cause her to hold it there with a finger tip, and show her how, in consequence of pelvic amesiality, the cord falls to one side of the xiphoid cartilage and of the umbilicus; with children, also, of the pubes and knees. I then with manual pressure on the prominent side of the pelvis and on the side of the chest, just below the axilla straighten the figure; show her then how the cord falls over these median landmarks, and beg her to study well her sensations and thoroughly to embue her



Fig. 5.—Wall exercise for right pelvic amesiality.

mind with the sensation of rectitude. I then ask her to procure a plummet, with about 4 feet of cord, to go through the exercise in front of a sufficiently large mirror every morning before putting on her clothes; to observe that the cord lies centrally on all parts of the body, from the top of the sternum to below the knees, and to acquire a mental and bodily habit of the straight position. A valuable aid is the lateral sling; the patient with amesiality to the right—the most common of this malposture—lies with the right hip in the webbing loop, the thighs should be somewhat, but not irksomely, ex-

tended, the head, but not the shoulders, supported by a pillow. Recumbency in the sling may take place on a rather firm sofa, or, failing that, upon a rug on the floor. In this position the patient can read or learn by rote. A more efficacious remedy, to which I must hereafter again allude, is what, for want of a better name, I have termed the "wall exercise" (see Fig. 5). The patient stands with the right side to and the shoulders at a right angle with the wall (still taking right amesiality as the type), places that foot (heel and toe) against it; then, to get the arm out of the way, she puts her hand near the coracoid of the opposite side. Her mother, or other helpmeet, now takes a block of wood, or a book about 2 inches thick and 5 long, and, according to the stature of the patient, from $2\frac{1}{2}$ to 4 inches broad. One of the long sides should be rounded. She places this block with the rounded side midway between the great trochanter and the crest of the ilium, then, placing her hand on the patient's side, about where the cross is drawn in the diagram, she upholds the figure while the girl places her left foot (heel and toe) against the right one. The exercise is not to be done nude, but before the stays or much clothing is put on in the morning; it may be repeated in the evening, and, if the stays be slight without bones or steels, also in the middle of the day. The position cannot be maintained more than three minutes at first—after a little practice, for five.

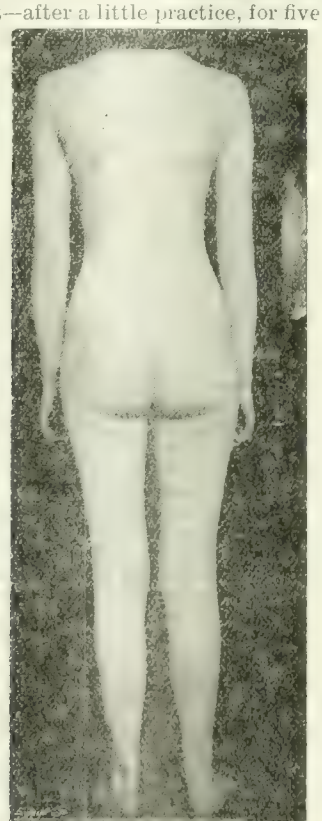


Fig. 6.—Left version of pelvis.

Version of Pelvis.—This hitherto unsuspected position is very much more common than when I first noticed it I could have imagined, and permission must be granted me to break away for a few minutes from the subject of treatment in order to complete the short description given (Fig 4, British Medical Journal, January 21st, p. 138) in my former paper. The illustration showed a strong example of the twist, but the condition was combined with amesiality and an advanced curvature. That particular figure being chosen in order to show how the spinal condition follows on and is caused by the pelvic aberration. Yet in order the better to demonstrate that latter defect it seems well to show it while as yet it is an isolated or almost isolated fault, Fig. 6 is thus chosen. The girl though developed is not yet 14 years old; for some five months her parents have suspected that something was wrong with her figure, but she was only brought to me a week or two ago. The pelvic version was at once evident, and is well seen in the annexed photograph. The arrangements for securing a correct rectangular position of camera to patient were given in a previous communication.[3] Succinctly recapitulated, they are these: By means of tapes and cords an accurate isosceles triangle is mapped out on the floor; the patient stands on the base line with its middle point between the heels; at the centre of the lens is the apex. The image must be made to fall on the middle of the ground glass. Thus the line of sight from the lens to the patient's heels must be accurately at a right angle to what should be the transverse plane of the patient's body, if—and this is the vital point—that body be not twisted. The photograph of a straight figure does not show one side more than of the other of pelvis, loin, or back, that is to say, there is an equal breadth of the body to right and left of the middle line.

But if this illustration be examined and the distance between the rima natium and the side outlines right and left of the pelvis be measured with compasses, the breadth on the left side will be found to be very much greater (three-sixteenths of an inch) than that of the right. This is not due to any deformity of the pelvis itself, but simply to the fact that the patient so twists that part of her body that the left side is slewed backwards and presents to the eye or to the camera lens a considerable part of its side surface, while the right, situate too far forwards, shows only a foreshortened view of that aspect. To go further, if now a chair be placed immediately behind the patient and she be told to sit down without looking round or moving her feet, one may see that in sitting the left is behind the right side of the pelvis. This is most plainly demonstrated, not by looking at the back, but by placing the edge of a flat ruler on the patellar ligaments and observing if it lie obliquely.

The effect on the spine of this infelicitous posture of the pelvis is easily understood, if only it be remembered that twist in the same direction of the lumbar spine must accompany pelvic version, and that torsion of vertebræ to the left is part and parcel of left lumbar curvature, such torsion preceding in front of causation if not in time deviation to one or the other side. There are, however, certain other points to be noted, for examination of large numbers of these patients shows that in many of them the upper part of the chest and the shoulder girdle follow the direction of the pelvic version—the left side lying behind the right—while in others these upper parts of the trunk remain straight to the feet, and on what may be called the plane of station indicated in the illustration by the tape-line—that is to say, the upper part of the spine is twisted on the lower to such a degree as to counteract for the dorsal region the torsion that has taken place in the lumbar portion. In my next paper I must revert to and show the effect of these two postures, but at present must return to my more immediate subject—the pelvis—and show how version may be corrected and its ill-effects obviated.

Mention need now only be made of four exercises I am in the habit of using, it being of course understood that in all but really severe cases one or two are only necessary. The most important one is carried out in the sitting posture, in which as already described the deviation begins and may be most readily detected. The correction consists in making the child sit evenly at lessons, especially while writing, when the posture should frequently be tested as also at other times. Likewise it is well even to reverse it, that is, taking her deviation to be the usual left version, with the left knee behind the other she is to sit for fifteen or twenty minutes a certain number of times in the day with the left knee well in front of the right, taking care that the chest be not also twisted. In a standing position my method is this: the patient stands with her back to the wall, heels against it, as also trunk; if her attendant pass her hands behind the body she will find in left version, that the right gluteal region does not touch, or only very lightly touches, the wall, the left being in firm contact. A small but rather hard cushion is now placed behind the left ilium and contact of the right side, insured by manual pressure on the iliac spine, in some cases also on the shoulder. After a few times the patient, if amen-

able and trustworthy, can dispense with this aid and pressure, but at first it is necessary. The thickness of the cushion must correspond to the severity of the deviation. Another exercise which may be described here, though I also use it as a remedial measure when spinal curvature has already appeared, may take two different forms. For left version (1) the patient lies on her left side, the thighs flexed at a right angle to the pelvis, she then rolls the upper part of the body over to the right so that while the pelvis is still quite on the side, the shoulders, chest, and as much of the loin as possible lie almost on the back. (2) The patient lies with thighs similarly bent on her right side and rolls the upper body-segment, so that this portion reposes on the front, not merely on the chest but also as much of the abdomen as she can manage. This is less comfortable than No. 1, but more potent, and its power may be increased temporarily if an assistant press gently with the hand the left lumbar region down towards the floor.

These various measures if taken alone must be considered only as prophylactic of curvature; they can, however, be also used for incipient curves.

NOTE AND REFERENCES.

[1] BRITISH MEDICAL JOURNAL, January 21st, p. 137. [2] Occasionally such an injury resulting in increased vascularity and more rapid growth has a like effect as regards uneven length of limbs, although due to excess instead of to deficiency. [3] BRITISH MEDICAL JOURNAL, 1897, vol. ii. p. 335.

ON THE VALUE OF THE TREATMENT OF DIPHTHERIA BY ANTITOXIN.

BY E. W. GOODALL, M.D.LOND.,
Medical Superintendent of the Eastern Fever Hospital of the Metropolitan Asylums Board.

(*Concluded from p. 200.*)

II.—DIPHTHERIAL PARALYSIS.

I NOW pass on to the consideration of the effects of the antitoxin treatment as it is shown by the behaviour of the cases of paralysis. This is an aspect of the question that has up to the present time been scarcely dealt with by those who have written on serum-therapeutics. But inasmuch as more than one important lesson is to be derived from a study of the facts, I bring them before you to-night.

It is well known that an attack of diphtheria is apt to be followed by a characteristic form of palsy. I say followed because this palsy is more a sequel than a complication of the disease. It does not often show itself before the end of a fortnight from the onset of the local affection of the mucous membrane. It has been shown that this palsy is the expression of structural changes in certain nerve tissues, chiefly nerve endings; and that these changes are brought about by the action of toxins produced by the diphtheria bacilli at the affected mucous surface, and absorbed therefrom into the system generally. If this be true then one would expect that the larger the quantity of toxin absorbed the more likely would paralysis be to follow. Now, from clinical evidence alone I have long believed this to be true. The cases of diphtheria which are severe are those in which the paralytic sequelæ supervene. By a severe case I mean one in which there is extensive and persistent exudation, accompanied usually by certain other symptoms indicative of toxic poisoning, one of the most important of which, from a prognostic point of view, is marked and persistent albuminuria.

For clinical evidence of this I must refer those interested to a paper published in *Brain* for 1895, based on a study of the cases of paralysis occurring at the Eastern Hospital during 1892 and 1893.

Paralysis therefore follows the severe cases, and the severe cases such as I have described them are those in which the toxins are absorbed in large quantities for a considerable time. Experimental evidence points the same way. Escherich, Loeffler, Ehrlich, and Woodhead[24] all concur in stating that the larger the dose of toxin injected into an animal the greater the liability to paralysis. The latter states: "This paralysis occurs more frequently in animals used for testing the strength of antitoxin serum, the greater the multiple of lethal units used in the test dose—that is, there are more cases of paralysis when a theoretically ten-times lethal dose is used than when one is used, and still more when the test dose is again multiplied by ten—that is, when it equals 100."

The incidence of paralysis varies considerably in different series of cases. This is well shown by the following table:

TABLE XII.—*Percentage Incidence of Paralysis in the Hospitals of the Metropolitan Asylums Board.*

	1893. (Non-antitoxin).	1894. (Non-antitoxin).	1895. (Antitoxin).	1896. (Antitoxin).	1897. (Antitoxin).
Eastern	12.1	10.8	16.0	21.4	15.1
North-Western	14.0	11.1	18.9	14.1	12.8
Western	18.1	8.2	17.7	21.5	11.0
South-Western	14.3	18.3	22.0	20.6	20.5
South-Eastern	16.2	20.2	34.7	42.3	45.9
All the hospitals ...	14.3	13.2	20.7	21.3	20.3

The average incidence in non-antitoxin cases is about 14 per cent. It is quite clear from this table that in the Asylums Board hospitals this percentage has on the whole increased since the introduction of the serum treatment. But this has not been a universal experience, as indeed Table XII shows. Professor Baginsky[25] of Berlin, for example, stated in a discussion on diphtheria paralysis at the Edinburgh meeting of the British Medical Association that his own observations had led him to believe that the reverse was the case. I should like to point out that the incidence of paralysis will vary in different hospitals with the average duration of the patients' stay in hospital. In some of the Continental hospitals it is usual for the patient to be sent home very soon after the local exudation has cleared up, hence, doubtless, a low paralysis-rate. With patients kept in hospital five weeks or longer, experience shows that since the introduction of antitoxin the paralysis-rate has gone up. The reason usually given, a very probable one, is that more severe cases survive the early and fatal stages of the disease, and either recover or live sufficiently long to become paralysed. But while it appears from the above facts that under the prevailing conditions we have lost ground in our endeavours to prevent this serious sequel of diphtheria, I wish to bring especially before your notice some other facts which show that if the cases be looked at from another point of view, far from having lost ground, we have made considerable advance. For the following figures I am indebted to my colleague, Dr. Woollacott, who has been at great pains to extract them from the hospital records. They form part of a valuable paper written by him, at present unpublished, which I have had the opportunity of reading. Dr. Woollacott has abstracted the notes of 1,510 cases of diphtheria treated with antitoxin, and uncomplicated by the concurrence of any such disease as measles or scarlet fever. These cases were consecutive cases admitted during 1895, 1896, and 1897.

TABLE XIII.—*Showing Incidence of Paralysis in 1,580 Cases of Diphtheria Treated with Antitoxin at the Eastern Hospital during 1895, 1896, and 1897.*

Day of Disease upon which Antitoxin was first Injected.	Total Number of Cases.	Total Number of Cases of Paralysis.	Percentage Incidence of Paralysis.	Number of Severe Cases of Paralysis not Fatal.	Number of Fatal Cases of Paralysis.
1st	69	4	5.7	0	0
2nd	277	28	10.1	1	0
3rd	340	53	15.5	5	3
4th	323	61	18.8	8	7
5th and later ...	571	147	25.7	28	8
Total	1,580	293	18.5	42	18

It will be noted that of these cases 293 developed paralysis, an incidence of 18.3 per cent. But contrast the incidence of paralysis in the cases treated early with that in those brought

under treatment late. When the serum was employed on the first day of the disease only 5.7 of the cases became paralysed; of those when it was used on the second day, 10.1 per cent.; and, further than this, the important fact is brought out that only one case of severe paralysis occurred amongst cases treated on the first two days with no deaths (from paralysis), and only 9 such cases with 3 deaths amongst cases treated on the first three days. Whereas, on the other hand, 51 severe cases with 15 deaths arose amongst those which were not brought under treatment until the fourth day or later. These figures clearly indicate what was hinted at by the figures given concerning the post-scarlatinal diphtheria cases occurring in the Asylums Board hospitals in 1896. Of 483 such cases treated with antitoxin, 34, or 7.0 per cent., became paralysed, a low incidence compared with that amongst the cases admitted directly from outside—namely, 21.3. But 413, or 85.5 per cent., of the cases were treated on the first two days of illness. Only 1 of the 34 cases of paralysis proved fatal.

The only figures I have which show the incidence of paralysis according to the day of admission in non-antitoxin cases are the following, which refer to cases occurring at the Eastern Hospital for the year 1894, immediately before the introduction of the serum treatment.

Table XIV.—*Eastern Hospital: Non-antitoxin Cases, 1894: showing Incidence of Paralysis according to Day of Disease on which Patient was Admitted.*

Day of Disease on which Patient was Admitted.	Total Number of Cases.	Number of Cases of Paralysis.	Percentage Incidence of Paralysis.	Number of Severe Paralysis Cases not Fatal.	Number of Fatal Paralysis Cases.
1st	29	3	10.3	0	0
2nd	100	12	12.0	1	0
3rd	106	10	9.4	1	1
4th	73	4	5.4	0	0
5th and later ...	144	20	13.8	3	3
Total	452	49	10.8	5	4

Compared with Table XIII the above figures show that the date on which the patient is admitted to hospital has no influence on the occurrence of paralysis. But as far as these cases go they may all be treated as early cases; unless one supposes that the patients, before admission to hospital, received no treatment at all. I append, however, a table showing the paralysis cases only, arranged according to the day of disease when the patient was admitted. Only those cases are included in which the duration of the illness was obtained.

Table XV.

	Non-Antitoxin Cases (1892-93-94).				Antitoxin Cases (1895-96-97).			
Day of Disease when Admitted.	Number of Cases of Paralysis.	Percentage on Paralysis Cases.	Number of Cases of Generalised Palsy (not fatal).	Number of Fatal Cases.	Number of Cases of Paralysis.	Percentage on Paralysis Cases.	Number of Cases of Generalised Palsy (not fatal).	Number of Fatal Cases.
1st	12	7.7	1	1	4	1.3	0	0
2nd	44	28.3	3	5	28	9.5	1	0
3rd	31	20.0	2	4	53	18.0	5	3
4th	21	13.5	1	2	61	20.8	8	7
5th	47	30.3	6	7	147	50.1	28	8
	155	99.8	13	19	293	99.7	42	18

The 155 non-antitoxin cases, with 19 others in which the duration of the disease was not stated, occurred among 1,523 cases of diphtheria admitted to the Eastern Hospital during 1892-1894.

The figures in these tables show that the cases treated early with antitoxin are less likely to develop paralysis than those treated early without antitoxin; and also that early treatment in non-antitoxin cases does not influence the character of the paralytic attack. From the two preceding tables it also appears that though paralysis occurs more frequently with the antitoxin treatment, yet the proportion of fatal cases has not altered. Of every 100 cases of diphtheria not treated with antitoxin 1.2 died of paralysis, while of every 100 treated with antitoxin 1.1 died.

The Importance of Early Treatment.

The consideration of the paralysis cases alone shows the importance of beginning the serum treatment early, but the necessity for this is also exemplified by a study of the mortality according to the day of disease upon which the treatment was commenced. This time influence is well illustrated in the Asylums Board Reports. In 1894 (non-antitoxin cases), of 133 patients admitted to hospital on the first day of illness, 30 died, or 22.5 per cent.; and of 539 admitted on the second day of illness, 146 died, or 27.0 per cent.; while for the cases treated with antitoxin in 1895 and 1896, of 143 treated on the first day of their illness, 7 died, a mortality of 4.8 per cent., and of 809 treated on the second day, 121, or 14.9 per cent., died. For 1897, the figures of all the hospitals have not been published, but I have those for the Brook[26] and Eastern Hospitals, which combined are as follows: 66 cases treated on first day with 1 death, or 1.5 per cent.; 317 treated on the second day with 16 deaths, or 5.0 per cent.

In the annual reports of the Asylums Board are contained another series of figures which to my mind show conclusively the value of the antitoxin treatment and the necessity of its early application. For some years past cases of diphtheria have occurred annually in every hospital of the Board amongst the patients convalescent from scarlet fever. This post-scarlatinal diphtheria, as it has been termed, has been the source of much anxiety to the Committees of Management and Medical Superintendents of the different hospitals. The chief reason for this anxiety was the terrible fatality of the disease. It was rarely below 50 per cent. at the different institutions. Of 482 cases collected by Hume[27] from the reports of the various hospitals for the five years preceding 1895, the mortality was slightly over 50 per cent. At the Eastern Hospital for the years 1891-94 it was 61.2, 52.9, 60.0, and 42.8. Well, in 1895 the antitoxin treatment was used in these cases. What has been the result? For that year I am unable to give the results for all the hospitals, the figures not having been published; but at the Eastern Hospital it was 25.0 per cent, at the Northern 5 per cent., at the Western 8 per cent., at the South-Western 14 per cent., and at the Fountain 6 per cent. Not all the cases during 1895 were treated with antitoxin, but even then the reduction in the fatality was sufficiently noticeable. This reduction was continued during the years 1896 and 1897, when the fatality for all these cases in the Board's hospitals was 5.0 and 4.1 per cent. respectively, the majority of the cases during these years being treated with antitoxin.[28]

I am aware that it will be objected that a large number of these were cases in which the diagnosis of diphtheria was made merely on bacteriological grounds, and that such cases were of a very mild character. But I am fully prepared to concede a large number of them: I will let you strike out three-quarters of those which recovered, and retain all the fatal cases, even though some of them were not treated with antitoxin.

This is by no means an unfair concession, for it reduces the incidence of diphtheria on the completed scarlet fever cases for the years 1896 and 1897 to 1.1 and 1.3 per cent. respectively, a lower percentage for any year since 1888 with the exception of 1893.[29]

What, then, is the fatality of the remaining quarter of the cases? For 1896 it is 20.1 and for 1897 15.0 per cent., and that against a previous fatality of 50 per cent. I have no hesitation in saying that the chief reason for this marvellous reduction is the fact that most of these cases were treated early, on the first or second day. The patients were inmates of hospitals and under the strict observation of medical men and nurses at the time they were taken ill with diphtheria, so that the treatment was undertaken early; and I would like to add

that whatever doubts there may be concerning the statements made about the duration of illness of patients admitted with diphtheria from outside the hospitals, for the reason I have just mentioned there can be no doubt on that score with respect to these cases of post-scarlatinal diphtheria.

EFFECTS OBSERVED CLINICALLY.

So far I have dealt almost entirely with the statistical proofs of the value of antitoxin, though the clinical fact of its action in arresting the local affection has also been demonstrated. I must very briefly state the effects of antitoxin as exhibited in individual cases. A much larger experience has confirmed the opinions expressed in a paper read by Dr. Washbourn, Mr. Card, and myself before the Clinical Society in December, 1894,[30] when we recorded the results of the treatment in the first series of cases treated in this country. Not only is the extension of existing and the formation of fresh exudation stopped, but also that which is present clears off more rapidly than in cases where no antitoxin is used. When the nasal passages are affected, the foul discharge from the anterior nares that nearly always exists very quickly ceases, greatly to the comfort of the patient and those in attendance upon him. In many of the fatal cases the fauces and nose are absolutely clean before the termination of the case. The lessening of the faucial inflammation enables the patient to breathe and take nourishment without discomfort. The enlargement of the cervical glands disappears and the inflammation of the cellular tissue of the neck subsides. The visible improvement in the general condition of the patient reflects the changes that have taken place in the local lesions. Pulse-rate and temperature fall, appetite returns, and the patient is soon convalescent. Even in cases which end fatally, when antitoxin has been given at too late a period to save life, the patient's last moment's are made easeful, and the death-bed is robbed of all the loathsomeness we were accustomed to associate with fatal diphtheria.

The list of drugs in our *Pharmacopœia* is long. For all it is claimed that they are of value in the treatment of one and the other of the ills to which our flesh is heir. Yet I do not think I exaggerate when I say that few of even the most useful have been subjected to the same fierce criticism as has the antitoxin of diphtheria, and still fewer have borne the ordeal as triumphantly.

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INDIAN EXCHANGE COMPENSATION.—It has been ruled that medical officers appointed by the Secretary of State for plague duty are not entitled to draw exchange compensation allowance.

DR. N. H. CHORSEY, medical officer in charge of the Arthur Road Hospital, Bombay, has by the order of King Humbert been invested with the Order of the Crown of Italy in recognition of services rendered to Italian *savants* during the prevalence of plague in 1897.

PERIPHERAL NEURITIS FOLLOWING THE SOFT SORE (? SYPHILIS).

BY C. B. MAITLAND, M.R.C.P.E., ETC.,
Major, Indian Medical Service, Poona.

I HAVE lately read in the BRITISH MEDICAL JOURNAL a statement to the effect that syphilis can give rise to the so-called tertiary symptoms years after the initial sore, without there having been any intermediate symptoms whatever. More recently I read in the JOURNAL a question by Dr. Buzzard in speech at the Annual Meeting, asking whether it is right to assert that the bacterium of the soft sore can have no part in producing fine changes in sensory neurons, and whether such effect must be due to syphilis. The idea embodied in Dr. Buzzard's question struck me first in 1888, when, during a campaign, I attended a young English officer for a phagedænic venereal sore on the penis. There was no history of previous syphilis, and the sore recovered under local treatment only, but in three months he was a helpless cripple from multiple peripheral neuritis. I have a vivid recollection of how the poor fellow had to be lifted on to his orderly's back, and how his feet flapped helplessly about with the swing of the man's walk. No symptoms of syphilis ever appeared, and in time he recovered completely without treatment. When I say completely, I mean sufficiently to be still in the army. Whether his strength is exactly as it was before, or his knee-jerks returned, I am unable to say.

In 1895 I admitted eight young native cavalrymen into hospital for what was then called "ulcer of the penis." Whether these sores were due to one woman I cannot say, but they all were followed by "rheumatic" pains and weakness of limbs, especially of legs, that kept the patients in hospital many weeks after the sores were healed. None of these men showed any signs whatever of syphilis, or had any specific history. Four were treated with full doses of mercury and potassium iodide without any apparent benefit. They all recovered in course of time.

On December 16th, 1896, a native cavalryman had connection, and came to me on March 25th, 1897, with a large collar sore on the inside of the prepuce, painful and slightly phagedænic. There was no history of syphilis, so the only mercury he took was a 5-gr. blue pill daily for thirteen days. The sore healed on April 25th. By May 11th multiple peripheral neuritis was well marked. Mercury and iodide were then pushed, but seemed to do no good. Strychnine pleased both the patient and myself most.

On August 11th, 1897, he was able to be sent on sick leave, and returned on December 8th, as he said, quite well: but the right hand, which had all along been more affected than the left, was still a little weak, and the knee-jerks were absent. He did duty till June, 1898, when he was admitted with a large venereal sore and suppurating bubo. These soon healed, but he has remained in hospital with what I can only call general paresis, the sole symptoms being increasing weakness of the limbs without loss of size or, as far as I can judge with the machine at my disposal, of electrical excitability of muscles, and some pain in joints of limbs. His grasp is like that of a small child, and his legs are just strong enough to let him creep along with the help of a stick. There are no sensory troubles except the pain mentioned. The man is not shamming, as he only wants a year to complete his pension service. No treatment has done any good.

Another native cavalryman acquired a venereal sore about the middle of January, 1897, and came for treatment on March 30th, 1897, with the whole foreskin in a phimotic and ulcerating condition. This was removed and a sore found on the glans. Amongst other treatment he had a 5-grain blue pill daily for twenty-eight days. There were no symptoms of syphilis. By May he was a good example of a severe case of multiple peripheral neuritis. He was treated chiefly with strychnine, and on September 26th was able to go on sick leave. He returned to duty on March 25th, 1898; the knee-jerks were still absent, and slight weakness of the right leg remained. This latter symptom has by now quite gone.

Of these eleven cases I saw nine from the first appearance of the sores and two after the sores had been in existence three months. None of the men had any previous history of

syphilis, and none have shown any of the usual symptoms since. Of course the two last cases may possibly have had eruptions, etc., during the three months, but knowing the ways of the native soldier as thoroughly as I do, it seems to me very improbable. But even if these two cases are syphilitic there are the other nine cases to be accounted for, and the curious paretic condition of the man admitted for sore and bubo last June, in which the brain or nerves above the trophic centres are implicated—a marked contrast to the condition of the nerves following his first sore. If this man was now to be treated by any medical man who was not acquainted with all the details of his case the diagnosis would be easy—he had a venereal sore, cannot remember any skin or throat affections, etc., but took mercury; what can be plainer? I have read many descriptions of cases so diagnosed, and they have always reminded me of the method of a celebrated London physician I clerked for when he came across old soldiers in the hospital wards: "Gentlemen, this patient has been a soldier, therefore he has had syphilis; he has been in India, therefore he has had ague."

It is noteworthy that the nerve symptoms in all my cases appeared within a few months of the appearance of the sores, none later than five months.

I write this in the hope that others will record any experiences they have on the subject.

THE TREATMENT OF DYSENTERY: OBSERVATIONS OF SIXTY CASES.

By J. J. DAY, M.R.C.S., L.R.C.P.Lond.,
District Medical Officer, Benin City, Niger Coast Protectorate.

During the six months May to November, 1898, I have had under my care 60 cases of dysentery. Owing to circumstances 25 of these cases had to be treated with ipecacuanha, while the remaining 35 were treated with magnesium sulphate. I used Burroughs and Wellcome's gr.v tabloids of ipecacuanha *sine* emetin, giving two tabloids every two hours, with opium gr.j twice daily. The results of the two treatments were markedly contrasted.

Of 15 cases treated in May by ipecacuanha and opium 6 died. Four of the first 8 cases died, and I then supplemented my treatment by a mixture containing liquor hydrarg. perchlor. mxv every four hours. The next 7 cases resulted in 2 deaths. In June I had 13 cases, the first 10 of which I treated as above, and 2 deaths resulted. Of the remaining 3 cases, the first for three days was treated as above, and showed no signs of improvement. I then changed the treatment, and administered drachm doses of magnesium sulphate every hour. On the morning of the fourth day the character of the stools had much improved. In the evening the patient had a relapse, which I found to be due to his having eaten a quantity of unripe pawpaw. He sank steadily, and died forty-eight hours later. The remaining two cases made a complete and rapid recovery.

In July there were 12 cases, all treated with magnesium sulphate, and all made rapid recoveries; in August 12 cases and 1 death, the patient suddenly collapsing; in September 7 cases and no deaths; in October 1 case and no death.

In no case were there any hepatic symptoms. Under the ipecacuanha and opium treatment the death-rate was 32 per cent. Under the magnesium sulphate treatment (disregarding the pawpaw case) the death-rate was 2·9 per cent.

The recoveries under the ipecacuanha and opium treatment were slow, and frequent relapses occurred. Under magnesium sulphate the recoveries were complete and rapid, but I found it advisable to continue giving magnesium sulphate ʒj thrice a day for a couple of days after the stools had ceased to be dysenteric.

The patients were all natives. All the deaths occurred among the prisoners, the majority of whom were Benis. The remainder of the cases were native employés and native troops.

It is difficult to persuade a native that death is not the inevitable result of a serious illness, and when he makes up his mind to die he usually does so despite all care and attention. This may account for the high mortality in these cases.

Month.	Number of Cases.	Treatment.	Result. Recovered.	Result. Died.	Average Duration of Attack.
May	15	8 ipecac. and opium	4	4	14 days.
		7 ipecac., opium and liq. hydrarg. perchlor.	5	2	,,
June	13	10 ipecac., opium and liq. hydrarg. perchlor.	8	2	,,
		1 ipecac., opium and liq. hydrarg. perchlor., and later, magnes. sulph.	—	1	7 days.
		2 magnes. sulph.	2	—	8 days.
July	12	12 ,, ,,	12	—	,,
August	12	12 ,, ,,	11	1	,,
Sept.	7	7 ,, ,,	7	—	,,
Oct.	1	1 ,, ,,	1	—	,,

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

COCAINE IN PLACENTA PRÆVIA.

E. H., aged 27, a multipara, summoned me on December 22nd, 1898, at 11.50 A.M., to see her, as she was "flooding." She was seven months pregnant with her second child.

On vaginal examination the edge of the placenta could be reached through the os (the latter about the size of half a crown); the head could be felt above. The membranes were intact. The labour pains were very feeble owing to the severity of the hæmorrhage. I decided to empty the uterus without delay. I painted the os with a 10 per cent. solution of hydrochlorate of cocaine, and plugged the cervix. The plugging, however, being ineffectual, digital compression was tried on as much of the bleeding area as the finger could reach. In forty minutes Champetier de Ribes's bag could be introduced and inflated, and regular traction made upon it. From the time of its introduction until the delivery of the placenta not half an ounce of blood escaped. Ten grains of sulphate of quinine in hot tea assisted the strength of the pains, which were very feeble, and on the expulsion of the bag to draw down the advancing head after rupturing the membranes was a simple, rapid, and easy termination of the case. The placenta was expelled at the same time as the child—a boy, at present alive.

In 1893, when Resident Assistant Medical Officer at Fulham Workhouse, I used suppositories of cocaine upon upwards of 300 pregnant women admitted to the lying-in wards of that institution, and I was much struck with its action, but have never seen greater benefit accrue from its use than in the present case.

Collingwood Fenwick, M.R.C.S., L.R.C.P., L.S.A.
Clapham, S.W.

COBRA BITE: RECOVERY WITHOUT AMPUTATION.

On October 21st, 1898, a Bhistu, aged 27, who carries on a trade in snake charming, was bitten by a cobra in a field at 6 P.M. He immediately incised the bitten finger and applied some native medicine to it. He did not intend to go to hospital. At 6.30, however, he was brought to see me by a crowd. The snake he held in the bitten hand. When told to come and have his hand seen to he, refusing to kill the snake, put it on the ground in the middle of the assembled crowd. The beast at once sat up and began striking all round, and some delay followed in killing it.

When at length the snake was killed, at 6.45 P.M., the man was found to have two deep punctured wounds on his right index finger; a small scratch led away from each hole. In the pulp of finger the self-inflicted wound was to be seen. Amputation at such a late period being hopeless, bandages were tightly applied above the wrist and elbow-joints. Deep incisions were made over the site of the bite, and the whole hand dipped in hot potassium permanganate solution to promote bleeding. The wound was then forcibly sucked for

some minutes; 10 minims of strong solution of potassium permanganate, hastily made up, were injected subcutaneously into the right shoulder, while liq. strychninæ hydrochlor. miij was injected into the left shoulder.

At 8.45 P.M. ptosis made its appearance, and his speech was indistinct and nasal from paralysis of the soft palate, something like the speech of a sufferer from cleft palate. The tongue was protruded slightly to the left. The movements of the facial muscles also were weak; general weakness came on, and he complained of acute pain in the hand. Liq. strych. hyd. miij was again injected, and potassium permanganate injected as before, and aromatic spirits of ammonia administered.

At 9.45 P.M. all symptoms were aggravated, and there was drowsiness and weakness amounting to paresis of the upper and lower limbs. Breathing was unimpaired. The pulse was weak (82). The strychnine and aromatic spirits of ammonia were repeated.

The patient's condition remained unaltered till midnight, when improvement began. The bandages were removed. The arm was immensely swollen and œdematous. He did not sleep at all. Aromatic spirits of ammonia was given. At 7 A.M. next day, October 22nd, he was considerably better. The ptosis had lessened, and speech was more articulate. He slept a little during the morning; the temperature was 103.8°; but at 7 P.M. had fallen to 101.8°. The paralytic symptoms had all passed away, but the arm was much swollen and exceedingly painful. The hand and arm were bathed in warm carbolic lotion 1-40, and painted with belladonna and glycerine. The wound was dressed antiseptically, and the arm surrounded with cotton wool to restore circulation. On October 23rd the temperature in the morning was 101°, in the evening 102.8°; the arm less swollen, but he had pain in hand and arm. On October 24th the temperature was 100° in the morning, and 100.8° in the evening; the pain in the hand was severe, but the part was less swollen.

On October 25th and 26th the temperature reached 100° in the evening, but normal in the morning. On October 27th an abscess was opened on the back of the hand, and a large quantity of pus escaped. On November 28th the arm and hand were normal; the phalanges of the fingers had necrosed, and the fingers were amputated. A few days later he was discharged.

I secured the skin of the snake, and have shown it to many who have identified it as that of a cobra.

The only explanation of this case is that the snake had spent its poison previous to biting the man, and that part of the dose was removed from the wound when treated.

DE VERE CONDON, B.A., M.B., I.M.S.,
Agency Surgeon to Harabti and Tonk Political Agency.
Deoli, Rajputana, India.

A MENSTRUATING MAN: A CURIOUS FORM OF HERMAPHRODITISM.

A. B., aged 24, kept company with a young woman for twelve months, during which time he offered to kiss her once, and on no other occasion showed any sexual feeling whatever. Just a week after marrying her, and again two months subsequently, he made very feeble attempts at copulation, having apparently neither sexual instinct nor power of erection; neither penetration nor emission occurred. He was then away from home for four months, and on his return he made no offer of sexual intercourse during the few days he remained at home before going away again for two months. On the first night after returning this second time his wife did her best to stimulate him, but it was quite hopeless, as he could effect nothing. As they had both noticed that he had periodical red monthly discharges, usually lasting about three days, and staining his shirts and sheets, they began to note the dates on which this began, and ticked off the following days: April 24th, May 22nd, June 19th, July 21st, August 14th, September 10th, October 9th, November 1st. Having got so far, they thought it time to consult me as to whether he was a man, or a woman, or both, or neither.

I found nothing unusual in his general appearance, except a shy, cowed look; the penis, urinary meatus, and scrotum seemed normal, but the testes felt decidedly small and soft; he stated that he had never either abused himself or had any sexual feeling whatever. Being satisfied that he was at least not a complete man, and doubtless cowed by his wife's dissatisfaction, he readily consented to a separation and allowed her half his income.

It seems likely that this case differs from Ströbe's case of hermaphroditism—fully described in the EPITOME of the BRITISH MEDICAL JOURNAL of November 12th, 1898, page 79—merely in the fact that the rudimentary testes had descended into the scrotum, the man probably having a uterus and Fallopian tubes.

Kendal. WM. RUSHTON PARKER, M.A., M.D.Cantab.

BREAST EXCISION IN A PATIENT ALMOST PULSELESS.

IN October, 1898, Dr. S. Wreford, of Clapham, requested me to see with him Mrs. A., aged 61, a healthy-looking woman, with good facial colour, fairly active, and younger in appearance than her years. She was stated to be liable to asthma, and had occasionally fainted. There was no other ailment, and nothing peculiar in the history. A scirrhous growth of two months' duration, and "walnut" size, occupied the centre of the left mamma. No enlargement of glands could be felt.

We could detect no pulsation on either side in the carotid, radial, ulnar, or brachial. A very small vessel could be found on careful search, beating on the dorsal aspect of the right thumb, near its base. There was also a faint pulse in the right subclavian. The cardiac sounds were weak, but otherwise normal. The lungs were healthy, and the urine devoid of albumen.

An operation was advised, but was approached with anxiety, every possible precaution being taken by Dr. Whitelaw Bourns, who administered A.C.E. The foot of the table was kept well elevated. A wide dissection of the whole breast tissue was effected as rapidly as possible. It was considered prudent not to touch the axilla, which otherwise would have been evacuated. Only a few drops of blood oozed from the extensive wound, a circumstance not tending to inspire confidence. All, however, went perfectly well, and the patient has since made a good recovery. The remarkable condition here apparent seems to me of some medico-legal, as well as clinical, interest.

Gloucester Place, W. HERBERT SNOW.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MERCER'S HOSPITAL, DUBLIN.

ABDOMINAL ANEURYSM IN A YOUNG WOMAN.*

(By CHARLES B. MAUNSELL, M.B., etc., Surgeon to the Hospital.)

M. G., aged 37 years, married, was admitted on September 22nd, 1898. She complains of wasting, pain in epigastrium, dorso-lumbar region, and around left side. The pain is constant, and sometimes very severe, and is increased by food. She states that she vomits if she attempts to take anything except a little hot rum. She never noticed blood in the vomited matter. For some months she has noticed a lump, which she says "rises and jumps in the pit of her stomach." About a year ago she weighed over 9 st. She has been married 19 years, had a healthy child one year after marriage, then a miscarriage some years after, and then two stillborn children, the last two years ago. She was then treated at the Coombe Hospital for displacement of the uterus. For the last year she has not menstruated, and during this time she had several attacks of bleeding from the rectum, the last about three months ago, when she says she lost a large amount of blood. The pain in the epigastrium commenced six months ago, increased three months ago, and has been constant for the last three weeks. She has had attacks of vomiting for two months.

Present Condition.—Temperature and pulse normal; urine

* Read before the Pathological Section of the Royal Academy of Medicine in Ireland, December 2nd, 1898.

specific gravity 1023, acid, no albumen or sugar; weight, 6 st. 13 lbs.

Inspection.—She is anæmic, chest and apex beat normal, abdomen lax and hollow except to the left of epigastric region, where an indistinct fulness and pulsation can be seen.

Palpation.—Chest, etc., normal, tenderness, over-fulness, and to the left over stomach. On light palpation a rounded tumour about the size of a goose egg is felt, commencing at the left of the middle line, and passing under the left costal margin at the level of the eighth cartilage, it pulsates, and gas can be felt gurgling through it at intervals during manipulation. On deeper pressure, a firm, round lump about the size of a small hen's egg can be felt distinctly to the left of the middle line as if it lay in the centre of the larger and softer tumour. It is very tender, and pulsates with a strong distensile pulsation laterally, but cannot be well defined vertically as the recti become tense, it appears to be very fixed. The aorta can be easily palpated as a firm pulsating tube, smaller and more to the left than normal. The pulse in the iliacs and femorals seems normal. The pelvis and rectum are normal except for fixed retroverted uterus and very slight hæmorrhoids.

Percussion.—Stomach tympany extends higher than normal in left axillary line, dulness over area of larger tumour.

Auscultation.—Slight hæmic *bruit* over pulmonary area, slight accentuation of aortic second sound. A systolic *bruit*, rather rough in character, can be heard without pressure over the tumour in abdomen; a softer *bruit* can be heard over aorta and iliacs.

Special Examination.—Corrigan's flags show pulsation to be distensile laterally, but very doubtful vertically. Pulsation can be felt the same, no matter what position the patient is placed in. There is no *bruit* over spine. On auscultating along spine whilst the patient sips water, it can be heard passing readily along the œsophagus into the stomach; and on placing the stethoscope over the tumour, in about 30 seconds, the fluid is heard bubbling through on its way from the stomach to the intestines.

I ordered the patient to lie perfectly quiet, gave bismuth and morphine for the vomiting and pain, and fluid diet.

In two days the pain was almost gone; she had only vomited once (nothing peculiar in vomit); says she feels well, pulsation, etc., as before. I ordered iodide of potassium, gr. 15, three times a day in milk, rest as before, but increased the diet to eggs and fish in moderation. By the end of a week she felt so well that nothing would keep her from jumping up in bed and sometimes out of it, although she was warned that sudden death might supervene.

October 12th (three weeks from admission). Pulsation very indistinct, tumour small and much less distinct, *bruit* over tumour and aorta very much alike, weight 7st. 8 lbs. Patient insists on going home, she lives within 20 yards of the hospital, and says she will stay in bed and take her medicine. I discharged her on October 13th. On the evening of the fourth day after her discharge she was brought in again to hospital at 5 P.M., and had evidently been dead about half an hour.

Her husband stated that she felt so well in the morning that she got up and scrubbed the floor, then vomited, became weak, and died towards evening, without assistance being sought. I was unable to attend hospital for some days, so my colleague, Dr. Lumsden, very kindly obtained a hasty *post-mortem* examination, and secured the specimen for me. He has given me the following notes of what he found at the *post-mortem* examination:

On opening the abdomen the intestines seem normal, stomach somewhat dilated, and on pushing up the pyloric end the tumour is found lying behind and below it; it is evidently an aneurysm of the cœliac axis. No signs of rupture, no increased anastomotic circulation above or below the tumour, vena cava not pressed on. He then opened the thorax and took out the heart, aorta, and common iliacs *en masse*, together with the eleventh and twelfth dorsal and first lumbar vertebræ. All the other organs, including the brain, seemed normal. As soon as I returned to hospital I examined the parts removed, and found as follows:

Heart.—On surface of right ventricle is a rectangular "white spot" 4 cm. long and 1 cm. broad; amount of fat on surface normal. Wall of left ventricle slightly hypertrophied; in right auricle and ventricle are large tough clots.

Aorta.—Valves normal; sinuses of Valsalva pouched and atheromatous; posterior one shows opening of coronary artery surrounded by atheroma. In its whole length the aorta shows more or less atheroma. From its commencement up to and including the origin of the left subclavian the aorta is dilated into a fusiform aneurysm nearly double the calibre of the aorta. Immediately after giving off the left subclavian it is somewhat constricted and then dilated into a smaller fusiform aneurysm 4 cm. long. The cœliac axis is enlarged into a sacculated aneurysm about the size of a small hen egg. This aneurysm seems to spring from the cœliac axis, and involves the left side of the aorta down to the origin of the superior mesenteric artery, which seems to spring from the lower and anterior part of the aneurysm. The left renal artery arises 1 cm. below and the right 2 cm. below. The branches of the cœliac axis arise from the inferior part of the apex of the aneurysm to the left side. Below the aneurysm the aorta is only half the calibre of that above. The aorta above the aneurysm is firmly adherent to the eleventh dorsal vertebra, and has to be torn to remove it. The portion of aorta involved in the aneurysm is firmly adherent to the lower part of eleventh and upper part of twelfth dorsal vertebræ, and on separating it it is found to be deficient behind, and the bodies of the vertebræ are eroded to a depth of 5 mm., the intervertebral disc being intact.

Aneurysm.—On incision the walls are found very fibrous, and vary in thickness from 3 mm. at the base to 7 mm. at the apex. The aneurysm is practically completely filled by firm laminated clot adherent firmly above and to the right, but easily separated towards the left. The orifices of the branches of cœliac axis seem occluded, but there is a tunnel through the clot which would allow blood into the superior mesenteric.

The case was most interesting, and it was practically impossible to give a definite diagnosis. The diagnosis to my mind lay between (1) malignant tumour of pylorus or upper intestine; (2) gumma; (3) aneurysm of splenic artery or cœliac axis. In favour of malignancy were age, sex, wasting, pain, vomiting, hæmorrhage, dilated stomach, gurgling felt and heard over tumour. In favour of gumma were history of deadborn children and rapid improvement on iodide of potassium. In favour of aneurysm were probability of syphilis, pain, fixed pulsating tumour, *bruit*, the great variability of symptoms from day to day. Against this were sex, bleeding, wasting, vomiting, etc., and rapid improvement.

I considered that it was probably an aneurysm, and did not think it advisable to make certain by passing bougies, distending stomach with gas, or putting the patient under an anæsthetic. I should wish to suggest an explanation for some of the symptoms:

(1) Bleeding from the rectum, unless due to piles, may have been due to venous stasis of intestines, owing to obstruction of mesenteric artery. (2) Vomiting most likely was due to rum and pressure on the stomach combined. (3) Gurgling felt and heard was evidently due to pressure of the tumour pushing up the pyloric end of stomach. (4) Death I consider was due to syncope, for, although clots were found in the right heart, yet the history of lying moribund for some time before death would account for them, without supposing them to be emboli from the vena cava.

In conclusion, I must thank my colleague, Dr. Lumsden, for the great help he gave me in examining the case, and also our house-surgeon, Dr. Wentworth Taylor, for the trouble he took with regard to *post-mortem* and other notes.

BEDFORD GENERAL INFIRMARY.

THE OPHTHALMIC JOINT DISEASE OF CHILDREN.

(By S. J. Ross, M.B., Ch.B.Vict., House-Surgeon,)

An infant aged 5 days was brought to the infirmary for treatment on account of "double ophthalmia." Both conjunctivæ were injected, chemosis was marked, and there was profuse discharge of pus. The pus was examined, and found to contain gonococci, while under treatment effusion took place first into the right knee-joint and subsequently into the left. Local treatment was adopted, and the synovitis gradually disappeared, clearing up entirely three weeks after the ophthalmia had disappeared.

I have no doubt that the synovitis was analogous to that which sometimes follows or is concomitant with a urethritis of gonorrhœal origin.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., President, in the Chair.

Friday, January 27th, 1899.

ABDOMINAL SECTION.

MR. J. HUTCHINSON, jun., read notes of 3 cases in which he performed abdominal section. In none of them was there any external wound. Case I, a man, aged 32, was run over and subsequently became collapsed. He had slight abdominal distension and much tenderness with dulness beyond the left linea semilunaris which shifted on change of position. On the following day the temperature had risen to 102° and the abdominal distension had increased. On opening the abdomen it was full of blood, but in spite of careful search Mr. Hutchinson could find no vessel requiring ligature. Great relief followed the removal of the blood, but some oozing occurred subsequently, as evidenced by dulness in the flanks and the escape of blood into the dressings. The patient left the hospital a month later. The author raised the question whether the presence of effused blood within the peritoneal cavity was likely to prove injurious, and he thought it was. Case II, a single woman was brought to the hospital with symptoms pointing to intestinal obstruction. On opening the abdomen over two pints of clear, pale, yellow odourless fluid escaped. The intestines were slightly congested, the stomach dilated, the uterus enlarged as at the third month of pregnancy. He was at a loss to discover the nature of the fluid and closed the wound. In spite of a passing improvement the patient aborted on the following day and died soon after. *Post mortem* the abdomen again contained a large quantity of the same serous fluid, and the intestines showed signs of commencing peritonitis. Exactly in the middle of the posterior surface of the bladder, 1 inch above the peritoneal reflexion, and therefore hidden from view, was a small round perforation one-seventh of an inch in diameter, through which urine could readily be expressed. The bladder and urethra were otherwise normal. If the nature of the fluid had even been suspected he thought it might have been possible to discover and repair the perforation. He surmised, under the circumstances, that the wound was caused by an unskilful attempt to procure abortion. From the history, it seemed likely that the urine had been leaking into the peritoneum for at least four days. He discussed the effects of effused urine in the peritoneal cavity, and recalled that experiments on animals had shown that healthy urine might be injected into the abdomen without giving rise to much local reaction; that in moderate quantities it might be absorbed and the animal recover. Case III, a woman, aged 47, was admitted with the history that, previously in perfect health, while lifting a basket on the preceding day she had been seized with pain in the left side of the abdomen, followed by vomiting and some collapse. A smooth movable tumour could be made out to the left of the middle line, about the size of a fœtal head. This was dull on percussion, but there was no dulness in the flanks. Nothing of interest was made out by vaginal examination. He diagnosed ovarian cyst, the seat of a twist or rupture. On opening the abdomen a quantity of characteristic glairy fluid escaped, and it was seen that the largest cyst of a multilocular ovarian tumour had ruptured. The fluid was sponged away, but the cavity was not irrigated. Recovery followed. Admitting that the thin serous fluid of an ordinary ovarian cyst might, if effused in the peritoneal cavity, undergo absorption without giving rise to much trouble, he asked whether this thick glairy fluid would prove equally innocuous.

THE PRESIDENT, discussing the first case, said that although extravasated blood did not necessarily produce septic peritonitis, yet it was best to remove it if possible. He related the case of a man who had a wound by a bullet which had traversed the lung, the left lobe of the liver, and left kidney, and settled in the erector spinæ muscle. The hæmorrhage from the liver continuing, he (the speaker) opened the abdomen, and plugged the liver wound with iodoform gauze, which remained in position for two days, and thus arrested the bleeding. The patient recovered.

MR. L. A. DUNN said that the hæmorrhage (in Mr. Hutchinson's case) which occurred after the operation, although it was considerable, seemed to have done no harm. The President's case was hardly parallel, as the wound was or might have become septic.

MR. HUTCHINSON, in reply, admitted that the blood was extravasated after the operation. He had left one part of the wound without a drainage tube, and but slightly sewn up, so that any blood effused might come away. The most striking result of the operation was the relief of the patient's pain and the fall of temperature. The amount of blood lost was unusually great, probably several veins were lacerated.

DR. BATTY SHAW, referring to the author's third case, cited the case of a woman sent to hospital on the third day after parturition, and who died upon admission. It was considered that she had ruptured an ovarian cyst, and she was admitted that an operation might be performed. At the necropsy several pints of glairy fluid were found in the abdomen and a collapsed ovarian cyst; but there was no sign of peritonitis. There had been no notable increase in the amount of urine passed after the accident.

MR. CHARTERS SYMONDS described two cases. The first was that of a child, aged 14, who had an obvious ovarian cyst, but when upon the operating table no tumour was visible. He, however, opened the abdomen and found the pelvis filled with serous fluid, upon which the intestines floated in the abdominal cavity. He found a ruptured ovarian cyst and removed it, and the patient recovered. The second case was a woman, aged 35, whom he found very ill, probably with rupture of an ovarian cyst. The operation was performed, and she died of shock. Though there was much fluid in the abdomen, there was no sign of inflammation. He thought it possible that if he had not operated the patient might have recovered.

THE PRESIDENT thought the extravasation of a thick viscid fluid might probably cause peritonitis. He narrated the case of a lady with ovarian cyst which burst four different times in the course of about four years, sometimes with much accompanying collapse. At length, after the fourth rupture, he opened the abdomen, and the cyst, which was unilocular and quite empty, was removed. There were no signs of peritonitis or of any adhesions.

MR. HUTCHINSON, in reply, said that in his case the cyst was multilocular, and the largest cyst had burst. He asked why the patient whose case was narrated by Dr. Shaw had died, if there was no peritonitis. He mentioned the case of a lady with an ovarian cyst, who whilst riding in a hansom cab was suddenly thrown forward against the top of the door in front, and thereby ruptured the cyst.

RHEUMATIC TONSILLITIS.

DR. BERTRAM ABRAHAMS read a paper based mainly upon cases observed by himself during the last three years. A large number of cases of chorea, rheumatism, and cardiac disease, both in adults and children, had been investigated and tabulated, and the resulting statistics compared with those of previous observers, in order to ascertain as accurately as possible the relation of the throat affection to the rheumatism. The bacteriology of many of the cases had also been studied with a view to obtaining some light upon the etiology of the disease itself. Details were given of a number of cases illustrating (1) the occurrence of endocarditis after non-scarlatinal tonsillitis without the intervention of arthritis or chorea; (2) tonsillitis immediately followed by a first attack of chorea: (3) repeated attacks of chorea, each preceded by tonsillitis; (4) the occurrence of sore throats at various points in the rheumatic series. Clinically, five varieties of rheumatic throat affection might be distinguished: (1) Faucial erythema, the pharyngeal inflammation described by Trousseau as ushering in an attack of acute rheumatism; (2) follicular tonsillitis; (3) quinsy. Between these latter no pathological distinction could at present be drawn, though it was notable that when a patient had repeated attacks, they were almost always solely of one kind or the other, an alternation being rarely observed. As was also the case with non-rheumatic forms, the follicular variety was commoner in children, the quinsy in adults; (4) the abortive form described by Singer

(*angine rhumatismale* of French authors), in which the joint and muscle pains were vague, was not so frequent as he had stated. No case should be included under this head in which there was not adequate personal or family history of rheumatism. After making this observation a considerable number of instances remained, the most noteworthy point about which was their liability to die suddenly from cardiac failure; (5) chronic rheumatic tonsillitis was described by Dr. Max Thorner; this affection was more probably gouty in nature. A statistical inquiry was made into consecutive cases of three distinct affections, namely, 248 of chorea, 48 of acquired heart disease in children unassociated with chorea, and 66 of rheumatic fever in adults. Of the choreas in which a reliable history was obtainable, 53.4 per cent. had a family or personal one of sore throat. This history was not associated with any marked predisposition to either arthritis or heart disease. Of the cardiac cases, 66.7 per cent. gave a history of throat affections. Among the adults, 45.5 per cent. had a definite throat history, 21.2 per cent. had suffered from ulcerated throats within three weeks of the attack of acute rheumatism, and 47.2 per cent. showed faucial erythema within two days from its onset. In children, where the commencement was insidious, faucial erythema was extremely rare; but a large proportion of them had follicular tonsillitis when first seen, and either revealed cardiac disease when examined or developed chorea while under observation. In many of these cases the tonsils might have been the channel of infection; but sore throat was often a late term in the rheumatic series. Bacteriological examination in a large number of cases revealed the constant presence of streptococci and staphylococci, the former more frequently, but the latter oftener in pure culture. Similar organisms were found in the urine drawn from the bladder with all antiseptic precautions. Taking these results together with the discovery of the same microbes in the blood and affected joints in acute rheumatism by Sahli and others, the probability of the occurrence of infection through the tonsil became very strong. It was believed by many that the rheumatic patient was poisoned by the attenuated virus of a germ which when fully active led to pyæmia. The following conclusions were put forward: 1. The more common varieties of rheumatic sore throat fall into two main categories, faucial erythema and tonsillitis proper. 2. Faucial erythema is most common in adults, rheumatic tonsillitis in children, in whom it usually assumes the follicular type, quinsy being more frequent in older subjects. 3. Faucial erythema is an initial manifestation of acute rheumatism, tonsillitis may be the actual primary lesion. 4. Many cases are now definitely on record in which endocarditis has followed a non-scarlatinal tonsillitis unaccompanied by joint pains. In numerous other instances the tonsillitis has immediately preceded an attack of arthritis or of chorea. 5. The presence of the same micro-organisms in the tonsils, joints, blood, and urine is evidence in favour of the participation of pyogenic cocci in the etiology of rheumatism.

Dr. Kingston Fowler said his own observations, now confirmed by the author, were first published in 1880. Tonsillitis might be followed by rheumatism, chorea, or endocarditis. What was meant by the term "ulcerated sore throat" in these affections? In ordinary quinsy rupture of the follicles left their ragged edges exposed, but this was not real ulceration. Some years ago a man with tonsillitis, treated with chlorate of potash and iron, was doing fairly well when on the eighth day, being still in bed, he developed acute rheumatism. If these tonsillar cases were treated with anti-arthritic remedies a bad rheumatic attack would frequently be warded off. Again, a gentleman had a tonsillitis, and immediately afterwards went to Switzerland, where he developed in the high Alps a severe rheumatic fever. He objected to the use of the term "growing pains;" they were very frequently symptoms of rheumatism.

Dr. Walter Carr asked how these supposed rheumatic cases were to be diagnosed? From inspection, or from a mere history, or subsequent occurrence of rheumatism? Dr. Abrahams had relied on the history; but in one case there was an interval of a year and in another an interval of seventeen years between the sore throat and the rheumatic attack. Tonsillitis might surely attack rheumatic people as well as others without being a manifestation of that rheumatism. If tonsillitis were treated with salicylate, he doubted whether the course of the inflammation was thereby changed. When young he had had "growing pains," but he did not know that he had ever had rheumatism.

Dr. L. Benham believed that any kind of sore throat might be followed by rheumatism, but that the sequence came in only a few cases. He believed, also, there was a simple ulceration of the tonsils, the result of a slough and œdema. He had known a child have tonsillitis, and when recovering have a rise of temperature and develop a mitral murmur.

Dr. Sutherland thought it difficult to prove that the rheumatic poison entered by the tonsils. Were the tonsils, too, the only part of the alimentary canal affected by the rheumatic poison? He considered that the rheumatic poison affected the whole of the lymphoid tissue of the abdominal canal, especially of the appendix vermiformis.

Dr. Toogood said that in his experience cases of follicular tonsillitis were of bacterial origin. They were also very infectious. The microbes he had most frequently met with were streptococci, staphylococci, and the short diphtheria bacillus. It was sometimes difficult to say where follicular tonsillitis ended and diphtheria began.

Dr. Abrahams, in reply, explained that "growing pains" and "ulcerated sore throat" were merely colloquial expressions which one had to make use of in questioning patients. He was not satisfied that the antirheumatic treatment of these throats had any beneficial effect, and he mentioned a case to show that the administration of the salicylates could not be relied upon to avert the subsequent occurrence of an attack of rheumatism. The non-success of antirheumatic treatment he thought was in favour of a bacterial origin. He concurred in Dr. Sutherland's remarks as to the gastro-intestinal disturbance in some of these cases. He pointed out that the germs referred to by Dr. Toogood were not invariably present, and possibly the attenuated micrococcus was the true cause of rheumatism.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

H. R. Swanzy, F.R.C.S.I., President, in the Chair.

Thursday, January 26th, 1899.

Rapid Changes in Refraction in Connection with Diabetes.

Mr. H. Grimsdale read this paper. A female aged about 45 was first seen on October 7th, 1897. She had been always thin and delicate, and had been losing flesh. She had been wearing for near vision R. sph. + 1 D. cyl. + 0.75 D.; L. sph. + 1.75 D. She had suddenly noticed a change in the power of her sight a few days before her visit; distant objects became dim and near objects became clearer. When seen V. was

$$R.\ \frac{6}{60} - 2\,\text{sph.}\ \frac{6}{-}\ ;\ L.\ \frac{6}{60} - 2\,\text{sph.}\ \frac{6}{-}$$

Result confirmed by shadow test. In the R. lens there were several opacities near the centre; the L. lens was clear, but the nucleus in each was marked. No other defect in eyes found. The condition was regarded as early sclerosis of the lens, and glasses for distance were ordered. Dr. Stokes had shortly before discovered a large amount of sugar in her urine (26 gr. to the ounce). The urine had been frequently examined in previous years, and had contained no sugar. After ten days the vision had returned to its former condition, R. $\frac{6}{9}$ − 0.5 $\frac{6}{6}$; L. $\frac{6}{6}$. The R. lens showed irregular astigmatism, but the opacities were unaltered. About three weeks later the patient died with diabetic coma. The interest of the case lay in the development of myopia and its rapid disappearance. A similar case was reported by Risley,[1] in which disappearance of sugar in diabetes was accompanied by development of hyperopia, followed by a return to normal when the sugar reappeared. The cause was probably a lenticular one; it was impossible to assume an alteration in position of the retina; it was not likely to be due to spasm of ciliary muscle, as this would have involved a permanent spasm in Risley's case, suddenly giving way and then reappearing.

Mr. Doyne quoted the case of a diabetic man aged 43 whose V. and refraction were H. 3 D. $\frac{6}{9}$. After a voyage V. was

[1] *Trans. Amer. Ophth. Soc.*, 1897.

$\frac{5}{8}$ + 2 D. §. The sugar then disappeared under treatment, and V. was emmetropic or H. 0.5.

ON THE STEREOSCOPIC EXAMINATION OF SKIAGRAPHS OF FOREIGN BODIES IN THE EYE AND ORBIT.

Mr. MACKENZIE DAVIDSON gave a demonstration of the most recent changes and developments he had made in his method of investigating the presence and position of foreign bodies in the orbit and eyeball. Two negatives were taken, the light being changed in position about 6 cm., the interocular distance. If these were examined side by side against a window, with a little practice in converging the eyes, a miniature stereoscopic picture started into vivid relief, and a fairly accurate estimate could be made of the situation of the foreign body in relation to a known point, such as a piece of lead wire attached to the lower eyelid. The best instrument for seeing stereoscopic skiagraphs was Wheatstone's reflecting stereoscope. If the stereographs were reversed the object still stood out in perfect relief, but it appeared to be in the other eye; this would not give rise to any confusion, as it would always be known in which eye the foreign body was lying. Mr. Mackenzie Davidson had applied his method of localising foreign bodies in the eye in 70 cases, and he claimed for it an indispensable position in ophthalmic practice.

Mr. SILCOCK spoke of a case in which a foreign body had passed through the cornea and lens, and was located by Mr. Mackenzie Davidson about 6 mm. from the O.D. Under an anæsthetic an incision was made through the sclerotic and the magnet introduced close to the foreign body, which was withdrawn.

Messrs. ADAMS FROST, JOHNSON, TAYLOR, and CARGILL spoke of cases under their care.

CARD SPECIMENS.

Mr. J. HERN: Obstinate Conjunctivitis.—Mr. D. C. LLOYD OWEN: The Cartella Eye Shield.—Mr. W. H. JESSOP: Skiagraph of Foreign Body in Eye.—Mr. JOHN GRIFFITH: Microscopical Specimen of Primary Sarcoma of the Cornea.—Major M. T. YARR, R.A.M.C.: Patch of Central Choroido-retinitis simulating in appearance the Optic Disc.—Mr. C. HIGGENS: Case of Removal of Lens for High Myopia.—Mr. E. C. FISCHER: Associated Movement of Lid and Jaw.—Mr. A. BRONNER: (1) Congenital Tumour of Cornea; degenerated nævoid growth?; (2) Tuberculous Tumour of Iris.

HARVEIAN SOCIETY OF LONDON.

ANNUAL MEETING.

J. F. GOODHART, M.D., in the Chair.

Thursday, January 19th, 1899.

PRESIDENT'S ADDRESS.

THE PRESIDENT delivered an address entitled Opinion the Salt of Fact. He dwelt on the value of opinion in things medical as well as of verified fact. He held that the promise of success satisfied the human mind as finished success could never do. Hence the fascination which treatment based on theory always exercised. Such treatment might fail from various causes, but it did not follow that the theory was altogether wrong. He alluded to the recently-advocated methods of treating cancer—by electrical currents of high tension, by the use of toxins, and by oöphorectomy. Such methods had all failed, but who could say that the ideas on which they were based might not be "stepping stones to higher things"? On the other hand, the theory on which treatment was based might be utterly wrong and yet the treatment might be successful. For instance, dilatation of the heart and stomach had been regarded as due to inability of the organs to drive their contents through obstruction ahead. But he believed that dilatation was a primary passive process, and that hypertrophy was the attempt to remedy this condition. Yet this view did not interfere with the success of treatment based on an opposite assumption. The President then referred to the statement recently made by Dr. Sidney Phillips that disease had changed in type. He fully concurred in this view, and illustrated the changes not only in the case of enteric fever but in other diseases, such as diphtheria, pneumonia, and appendicitis. He compared the accounts of influenza by Huxham in 1733, and of morbilli by Sydenham (1670) with the phenomena of those diseases in their present type. The change of type was apparent not only in disease but in man, and thought, and even in the expression of thought. This was exemplified in the case of painters, novelists, and other writers. Man and his view of his environment were in a contant condition of change. One had only to look at the pictures of Rembrandt and other old masters, or read the novels of Burney, Thackeray, and Dickens, to see how widely their outlook on Nature differed from that of present-day artists and writers. He had entitled his address "Opinion the Salt of Fact." In the study of disease, he believed there was a legitimate sphere for the nebulous phase of thought, although the fruit of speculation might often seem unripe.

ELECTION OF OFFICERS.

At the close of the presidential address, the scrutineers of the ballot declared that the officers recommended by the Council had been elected. Votes of thanks were proposed and carried to the retiring officers.

CONVERSAZIONE.

The meeting then resolved itself into a *conversazione*. Instrumental and vocal music was provided by the string band of the Royal Horse Guards Blue, and by the Crichton Glee Singers, under the direction of Mr. Mervyn Dene.

A collection of sporting guns past and present was exhibited by Dr. F. W. COCK; and Messrs. COXETER gave a demonstration of the use of *x* rays.

EPIDEMIOLOGICAL SOCIETY.

H. FRANKLIN PARSONS, M.D., President, in the Chair.

Friday, January 20th, 1899.

EPIDEMIC CEREBROSPINAL MENINGITIS.

DR. BRUCE LOW read a paper on epidemic cerebrospinal meningitis, a disease in which, from its supposed infrequency in this country, little interest had been taken; and, excepting the paper by Dr. B. Corney on an outbreak in Fiji ten years ago, it had been ignored by the Society since 1865-7, when Professors Hirsch of Berlin and Mapother of Dublin brought it before their notice. Four forms were generally recognised—the typical, the purpurous, the fulminant, and the abortive or chronic; the diagnosis of the last two was by no means easy. The definitions given in books applied to the first only, and many cases were mistaken for tuberculosis, typhoid, tetanus, influenza, sunstroke, and other diseases. Though its specific character was not recognised until the beginning of the present century, he believed that it was not new to this country, and that it had been the cause of much of the mortality previously ascribed to gaol fever and "malignant fever with purples." Few diseases, indeed, had been so variously designated, but at present the name of "cerebrospinal fever" was the most approved, though the American and German vernaculars of "stiff-neck fever" and "*Genickstarre*" were very expressive. Cerebrospinal meningitis, however, was a not infrequent complication of many febrile diseases, and of those of the cranial bones and middle ear; these forms were etiologically wholly different, and never epidemic or communicable, or attended by purpura or herpetic symptoms characteristic of cerebrospinal fever, which was also marked by the absence of the associated diseases. The epidemic fever had appeared from time to time in France, Switzerland, and America during the first half of this century, spreading later to Denmark, Italy, where in 1894 it caused 2,000 deaths in a population of 30 millions, and since 1860 to Germany, and the east and south-east of Europe. In 1865 there was a severe epidemic in Polish Prussia, 1,900 persons being attacked, and 1,000 dying in the province of Dantzic alone. In the United States of America it was even more prevalent, especially in New York and other great cities, where in 1881 the deaths were equal to 0.34 per 1,000 of the population. Having followed his history of the chief epidemics in Europe and America by a more detailed account of the various outbreaks in the British Islands down to the past year, he said that many deaths ascribed to influenza and other causes were probably due to this disease, and the occasional alleged instances of recovery from tuberculous meningitis as well as the similarity in the curves of the yearly mortality from the several

diseases in question were suggestive of such confusion of diagnosis. Overcrowding, to which might be referred its greater incidence in barracks, asylums, etc., and cold and wet, whether directly or as leading to neglect of ventilation, seemed to be predisposing causes, but its infectivity was now generally admitted. Gaucher, Ughetti, Marchiafava, Celli, and Leichtenstern had between 1881 and 1886 observed micrococci in the cerebrospinal fluid of epidemic and other forms of meningitis, but they were all supposed to be identical with the pneumococcus of Fraenkel. Though Weichselbaum had in 1887 described a peculiar form of micrococcus to which he gave the name of diplococcus intracellularis in six cases of epidemic disease, it was not until 1895 that Jaeger of Stuttgart proved that this, which he called tetracoccus, was itself characteristic and causative of the epidemic cerebrospinal fever, distinguishing it from the other forms of meningitis. His conclusions had since been fully confirmed by numerous observers in Germany, Austria, and America, and by Dr. Still in this country, who had by its means identified the so-called "infantile paralysis" with the disease under consideration: the tetracoccus was so constantly present in the nasal mucus of persons suffering from cerebrospinal fever that Jaeger, Heubner, and others believed that the infection was always communicated through the nasal discharges, the profuseness of which in some epidemics, as that in Styria in 1898, had led to its being taken for influenza. Animals, too, were susceptible to cerebrospinal fever, the epidemics of "influenza" among horses being doubtless outbreaks of this disease, as that in New York, when 1,412 died in the six weeks ending December 2nd, 1872, many of them, as reported at the time, with meningitis and purpura, which were looked on as complications, though 782 persons had died during the same autumn from cerebrospinal fever. During the Irish epidemics of 1846 and of 1866-67 many pigs died of "the purples." Uspenski, in 1896, reported a case in a dog, and suggested that it was one of the diseases vulgarly comprised under the designation of "distemper." How far the disease might be spread by the intervention of domestic animals, and how long or under what conditions the tetracoccus could maintain an extracorporeal existence were problems that, with our recently-acquired knowledge of the specific microbe distinguishing it from non-specific or pneumococcal meningitis, we should ere long be in a position to decide.

Professor Notter said that the cases he had seen in India were exclusively among the men in crowded barracks, the officers, non-coms., and married men having been exempt.

Dr. Stott stated that in America the herpetic eruption was looked on as diagnostic of the specific disease.

Dr. Washbourn disapproved of the term "epidemic," since the specific disease was frequently sporadic, especially among children. Influenza rendered the individual specially susceptible to pneumococcal infection which might set up a meningitis, but the nature of each case could be easily determined by the examination of the fluid obtained by aspiration in the lumbar region, which would show tetracocci or pneumococci.

Dr. Still had found the tetracoccus in all the cases he had examined of the post-basic meningitis of infants, which he believed to be identical with sporadic specific cerebrospinal meningitis. In these the retraction of the head was very constant, optic neuritis rare, but amaurosis frequent, but he had seen the eruption in two occasions only; the duration of this form was also longer, though the seasonal incidence was the same, namely, in autumn and spring.

Dr. Low, in reply, to a question, said that lumbar puncture, if performed below the end of the cord, was devoid of danger, easy and almost painless, and in our present state of knowledge really indispensable to the correct diagnosis of all but typical cases. The cases associated with rheumatism, joint affections, parotitis, otitis, etc., were pneumococcal.

SOCIETY OF ANÆSTHETISTS.

Dudley Buxton, M.D., M.R.C.P., President, in the Chair.

Friday, January 20th, 1899.

Resumed Discussion on the Choice of an Anæsthetic.

Mr. Henry Davis thought the safety of the patient must be the first consideration. He commenced the administration with gas and ether; thus the patient was steadied and stimulated, and so better able to withstand the shock of the operation. Subsequently if necessary he changed the anæsthetic. For operations upon the upper air passages he employed gas and ether, but in prolonged operation he used chloroform in the later stages, even though the patient was sitting up. The position of the head was important, and he mentioned the posture which he preferred for various operations. Gas and ether usually sufficed in abdominal sections, but chloroform was sometimes required to produce the necessary muscular relaxation. Alcoholics took gas and ether well, but in some cases full anæsthesia could only be produced by chloroform. Ether was contraindicated when there was heart disease with effusions into the serous cavities, although a small amount at the commencement of the operation might safely be given. The same applied to renal conditions.

Mr. Warrington Haward disagreed with many of Mr. Owen's remarks. Personally he believed that when properly given, ether was as valuable for children as for adults. Statistics showed that it was the safer anæsthetic. It had been said that the anæsthetic might be regarded from two points of view—that of the anæsthetist and that of the surgeon; but he considered that the most important point of view was that of the patient, and this, he believed, was "safety" above everything. No adequate proof had been advanced to show that ether was not in every sense the safer anæsthetic. The fact of its being less agreeable, which he doubted, was really trivial. In abdominal surgery ether had always fulfilled his requirements, due muscular relaxation being obtained. In operations on the throat the use of ether did not, he contended, increase hæmorrhage. Chloroform was probably more convenient in operations on the larynx and upper air passages, and in staphyllorrhaphy, although he had given ether successfully for that operation. Cocaine was most dangerous for children. Possibly, in cases of abdominal distension and intestinal obstruction with vomiting, local anæsthesia by cocaine might be useful.

Sir Felix Semon contended that in chronic stenosis of the upper air passages chloroform was the best anæsthetic, as ether increased the dyspnœa and the liability to subsequent pulmonary complications. He narrated a case of laryngectomy. The patient was anæsthetised by ether through the rectum, and died within twenty-four hours, mainly, he thought, from the severe complications set up by the ether. Operations for the removal of adenoid growths required chloroform, and, if skilfully given, it was the best anæsthetic, since it allowed the careful and thorough performance of the operation. It was to be regretted that many persons at the present time undertook such cases without sufficient experience or skill. This accounted for, he thought, many of the fatalities which had occurred during this operation. In every fatal case either the operator or the anæsthetist had been devoid of special skill.

Dr. G. H. Savage had found that lunatics took anæsthetics well; bad after-effects, that was, those affecting the nervous system, had in his experience followed chloroform. That anæsthetic, he thought, was the best for prolonged narcosis obtained to relieve maniacal delirium.

Dr. Macnaughton-Jones regarded ether as the safest anæsthetic; it was also the most rapid one in its action. Chloroform was unfortunately used by many who were too inexperienced in its use to ensure safety. Collapse was often the result of the operation and not of the anæsthetic. He contended that the experienced anæsthetist saw coming dangers and prevented them, and this made him deprecate the relegation of the anæsthetic to the inexperienced. For gynæcological operations he found the use of gas and ether was quite satisfactory, also in ophthalmic operations except in cases of glaucoma. He advocated the plan of leaving the choice of the anæsthetic to the expert anæsthetist.

Mr. Stanley Boyd agreed with what Mr. Haward had said about ether. His experience at children's hospitals had taught him that chloroform was not a safe anæsthetic for children. He thought that much of its danger arose from the want of experience of the house-surgeon or irresponsible person who too often gave it. He had recently used with success morphine before the general anæsthetic. The posture of the patient in operations upon the mouth and nasopharynx

was, he thought, a very important point affecting the choice of the anæsthetic. The awkward movements during abdominal operations were often due to undue haste in the production of the anæsthesia, and were therefore preventable.

Mr. G. EASTES preferred ether. In cases of degeneration of the heart in low blood tension and in the sitting posture he thought chloroform should not be used. For adenoid cases he used ether but not gas, as he thought it caused congestion. The A.C.E. mixture was, he held, one which had been too severely criticised; it was, he felt, the best for those who possessed no special skill. Cocaine he regarded as a very dangerous drug, especially in the case of children.

Mr. C. C. BRAINE used the A.C.E. mixture for young children; he also used it in cases of abdominal distension. In these cases he advocated lavage. In thyroidectomy he used morphine and then chloroform.

After some remarks from Mr. H. LOW, Mrs. DICKINSON BERRY, Mr. TYRRELL, and the PRESIDENT; Mr. WHITE replied.

GLASGOW SOUTHERN MEDICAL SOCIETY.

R. H. PARRY, L.R.C.S., in the Chair.

Thursday, January 19th, 1899.

PNEUMONIA AND BRONCHITIS.

DR. J. LINDSAY STEVEN introduced a conversation on the meaning of the terms broncho-pneumonia, catarrhal pneumonia, lobular pneumonia, capillary bronchitis, lobar pneumonia. The pathology of broncho-pneumonia was not at all difficult; clinically there might be many difficulties. Broncho-pneumonia, lobular pneumonia, and capillary bronchitis were practically different names for the same condition. He, however, would restrict the use of the term "catarrhal pneumonia" to the similar condition found in the early stages of phthisis. In all pneumonias catarrh was involved. Lobar pneumonia was of clear and precise significance to the pathologist and the clinician; it was a specific disease—practically a specific fever. Broncho-pneumonia anatomically presented no difficulty—an inflammatory lesion, involving the lobular bronchioles and lobular parenchyma, alveolar and interstitial, there might be difficulty etiologically and bacteriologically. Primarily, the lesion was bronchial and not arterial, as in cases of blood poisoning or erysipelas; the pulmonary condition in such cases was produced by emboli. In broncho-pneumonia the infection came through the bronchial tubes, although the germ present might be identical in each. In broncho-pneumonia there was congestion of the bronchial tubes, consolidations which affected neighbouring alveoli by extension, thickening of the bronchiole wall, with filling up of the spaces between. With these conditions areas of collapse or areas of emphysema might alternate. In tuberculous affections the anatomical conditions might be identical, and Weigert had pointed out that in children there might be a chronic miliary tuberculosis. Dr. Steven illustrated his remarks on the pathology of these conditions with water-colour drawings. Clinically, the ordinary broncho-pneumonia was usually a secondary disease, and was preceded by measles, scarlet fever, or diphtheria, perhaps some little time before, but not due to the specific micro-organism of any of these diseases. There was no specific germ of broncho-pneumonia; the usual germ present was the staphylococcus pyogenes or other pus-producing germ. In lobar pneumonia the germ was Fraenkel's pneumococcus. Many cases of broncho-pneumonia ended in tubercle. In broncho-pneumonia the disease had no set term; the course of the temperature was not constant, and was remitting. The physical signs might be only those of a general bronchitis; careful auscultation showed patches of fine crepitus; the patch persisted and went on to dulness.

Dr. ALEX. MILLER met with the disease as a primary affection following catarrh as the result of an ordinary chill; for the first forty-eight hours there was a rise of temperature, then localised crepitation was found. Expectorant and diaphoretic treatment should be employed, the following being given: Liq. ammon. acet., spt. etheris, nit., and perhaps tr. aconiti in $\mathfrak{m}\frac{1}{2}$ doses, carefully watching its effect. Poulticing in the early stages relieved the bronchioles, and should be followed by stimulating expectorants.

Dr. STEVENS, in reply, said the catarrhal pneumonia of phthisis was neither lobar or lobular; it respected no boundaries, and commonly broke down. There was no technical term to express the pulmonary condition in septicæmia. He did poultice in broncho-pneumonia, but he never put a fly blister on a child. In lobar pneumonia he used poultice only for the relief of pain.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, January 26th, 1899.

R. S. ARCHER, M.D., Vice-President, in the Chair.

SARCOMA OF LEG.

MR. ANDREW STEWART showed as a card specimen the left leg of a boy, aged 17 years, who had shown no symptoms until six weeks previously, when pain and swelling behind the knee caused him to seek medical advice. The patient was admitted into the Birkenhead Borough Hospital on January 23rd. Amputation through the middle third of the thigh was performed on January 24th; the patient died from exhaustion on January 26th. The growth was examined by Dr. Warrington, and his report stated that it was a spindle- and round-celled sarcoma.

THE VACCINATION ACT, 1898.

Dr. PERMEWAN moved:

That the members of the Liverpool Medical Institution are of opinion that the Vaccination Act, 1898, was enacted in direct opposition to the findings of the Royal Commission; that the operation of the Act will be prejudicial to the public safety; and that its amendment is urgently required.

In introducing the resolution, Dr. Permewan said that he thought it the duty of every association of medical men to express themselves unmistakably on the pernicious character of this Act. The principle of contracting out ought not to be applied to sanitary legislation; either vaccination should be absolutely voluntary or compulsion should be complete and efficient. It was most illogical to prosecute and convict of manslaughter parents who omitted to provide medical attendance for their children during illness because they conscientiously believed such attendance to be useless, and at the same time allow them, on what were called conscientious grounds, to neglect to provide for their children what the Royal Commission had found to be a protection against a specific loathsome disease. The results of the Act had been most lamentable. A public vaccinator of a large district had told him that now not one in five children were being vaccinated in his district where formerly nearly all had been vaccinated.

Dr. HOPE considered that the terms of the resolution were in no sense too strong, and quoted extracts from the report of the Royal Commission showing that the Act was in direct opposition to the views which the Commission expressed. He also alluded to the mischief already resulting from the closing of the vaccination stations, which he considered most unfortunate and ill-judged. He seconded the resolution with the hope that it would be unanimously adopted.

This was put to the meeting and carried *nem. con.*

RADIOGRAPHS OF CHEST.

Mr. C. THURSTAN HOLLAND showed radiographs of the normal chest of a boy, and also of the chest of a boy in whom the left apex was in a state of tuberculous consolidation. The difference was most marked, as also was the difference between the two sides in the affected child; this difference could also be plainly seen with the fluorescent screen. The exposure with a 10" coil was 60 seconds. The boy was $6\frac{1}{2}$ years of age.

FAUCIAL TUMOURS.

Mr. BANKS described three cases of removal of tumours lying external to and behind the tonsil, with lantern slide illustrations. The first case was that of a young man in whom the tumour had been growing for many years, and had attained such a size as to cause a marked projection behind the vertical ramus of the jaw. It was removed by the mouth, a vertical incision being made over it; it easily shelled out without hæmorrhage, and was found to be an adenofibroma, as had been diagnosed. The second was a precisely similar case in a woman, aged 40, with a history of two years' growth of the tumour. As she was very stout and full-blooded, a preliminary laryngotomy was done, and the pharynx packed with

sponge, but the bleeding was only trifling, and the tumour was easily shelled out with the finger. The third case was different, the patient being a small, thin, pale woman, about 20 years of age. A swelling had appeared behind the right tonsil about eight or ten weeks before admission, and had been steadily and rather rapidly increasing. There was a great deal of pain in it, and the swallowing was seriously interfered with. The swelling was very elastic and ill-defined, insomuch that there was a question as to whether it might not be inflammatory, having as a focus some small, very deep-seated collection of pus. Under chloroform an exploratory incision was made; through the thinned and flattened-out tonsil the finger came upon a distinct tumour, which felt as if it could be shelled out. In about a fortnight the patient's sufferings became extreme, and she was in danger of choking. A preliminary laryngotomy was done, and the pharynx plugged; then a free incision was made over the tumour, and enucleation effected. The tumour was found to be so adherent to bone at its furthest-off point that the cheek was slit up and the lower jaw rapidly divided. This gave a good view of the deep parts, and when the growth was finally torn away it was found to be adherent to the side of the body of the third cervical vertebræ and to the base of the skull. Owing to very little use of cutting instruments the bleeding was slight. The jaw was drilled and wired, and the cheek and jaw soon united, but there was undoubted evidence that the tumour was beginning to grow from its deeper parts. Naked-eye inspection and the microscope showed it to be sarcomatous.

Mr. Paul referred to 6 cases of œdematous tumour which he had met with in the palate and fauces, 3 ulcerating and 3 encapsuled. The latter were perfectly innocent, but the former class sometimes showed a malignant tendency.

Tumours of Œsophagus.

Dr. Permewan described two cases of tumours of the œsophagus which he had removed by subhyoid pharyngotomy. The first case, in which the growth was benign, died from the immediate effects of the operation; the second recovered. Dr. Permewan stated that the conclusions he had arrived at with regard to this operation were (1) that subhyoid pharyngotomy was justifiable in spite of the large percentage of cases in which death occurred after this operation; (2) that it was admirably adapted for the removal of growths from the lower pharynx, upper part of the œsophagus, and also from the upper aperture of the larynx. As a preliminary to resection of the larynx it was valuable, giving a more complete view than that obtained by thyrotomy; (3) that to ensure a safe operation a preliminary tracheotomy was necessary; (4) that no attempt should be made to close the wound after operation, but that it should be plugged with gauze and allowed to heal by granulation; (5) that feeding should be by the œsophageal tube exclusively.

Messrs. Newbolt, Banks, and Larkin spoke.

Some Points in the Surgery of the Paralyses of Children.

Mr. Robert Jones, in a paper on this subject, deplored the lack of interest displayed by the profession in the treatment of these affections. This was due to the pessimism derived from the pathology. It was essential there should be surgical supervision almost from the onset, as without mechanical and operative help the physician was powerless. The pathology required working up and further experiments made. These should consist of inoculations at an early stage, and of a search for the microbe. In view of recent experiments of his own, of outbreaks of an epidemic character at Stockholm, in America, and in Australia, there was strong evidence of the influence of infection. With care, most of the deformities of poliomyelitis might be avoided, more especially those due to contractures, and by mechanism, so applied as to equalise groups of antagonistic muscles, apparently very old paralyses could be remedied. A diagnosis, often difficult, should be made between a paralysed group of muscles and a group merely rendered useless by the uncontrolled action of opponents. Mr. Jones discussed the question of tendon grafting, and the conditions suitable to it. He thought the operation likely to prove very valuable in a number of cases. He had operated upon seven cases. In two he had inserted the sartorius into the tendon of the paralysed quadriceps. In two cases he had inserted the peronei into the paralysed tendo Achillis for talipes calcaneus. In one case he reinforced the tibialis anticus by means of the peroneus longus. In a case of talipes equino-valgus the peroneus longus might be inserted into the tibialis posticus, or instead of the peroneus longus a strip of the tendo Achillis. Mr. Jones had operated upon over 60 cases of flail joints in accordance with the rules he laid down in 1894. Suppuration only occurred in one case. No matter what the trophic changes, healing seemed to occur without hindrance. He often ankylosed both knee and ankle at the same operation. In talipes calcaneus a good view of the joint might be got from behind, the cartilage freshened, and the tendo Achillis could be at the same time shortened. This operation he substituted for Willett's. After obtaining short fibrous or bony ankylosis in knee and ankle, the psoas and iliacus muscle moved the limb in one piece, and so expensive and troublesome appliances could be dispensed with. In dealing with spastic paraplegia, Mr. Jones combated the dicta of neurologists in regard to tenotomies. He divided the tendo Achillis and any other tendons which were tense, and in obstinate cases exsected portions of the adductors. Both limbs were then kept in extreme adduction for several weeks. Very fair walking results were obtained. In very spasmodic cases he strongly urged arthrodesis. Mr. Paul quoted in support of tendon grafting the result obtained in a case in which the distal end of the tendon of the long flexor of the thumb was grafted on to that of the index finger. The boy ultimately became a fair pianist, and could flex either digit independently, presumably by automatic action of opposing muscles.

Messrs. Murray, Warrington, and Barr took part in the discussion of the paper.

Laryngological Society of London.—At the annual general meeting, held on January 6th, Mr. H. T. Butlin (President) in the chair, the following were elected officers for the ensuing year:—*President:* F. de Havilland Hall, M.D. *Vice-Presidents:* A. Bronner, M.D., and W. H. Stewart, F.R.C.S.Edin. *Treasurer:* Clifford Beale, M.D. *Librarian:* J. Dundas Grant, M.D. *Secretaries:* William Hill, M.D., and Lambert Lack, M.D. *Council:* Edward Law, M.D., Walter Spencer, M.S., F. W. Milligan, M.D., A. Bowlby, F.R.C.S., and Herbert Tilley, F.R.C.S.—The forty-sixth ordinary meeting of the Society was subsequently held, the President being in the chair.—Dr. StClair Thomson showed: (1) a boy, aged 15, suffering from Chronic Nodular Laryngitis; (2) two Cases of Chronic Laryngitis, entirely limited to the Right Vocal Cord, and probably Tuberculous in Character.—Dr. Scanes Spicer showed: (1) a Case of Cure of Chronic Empyema of Maxillary Antrum by Radical Operation; (2) a specimen of Dead Bone, Polypi, and *Débris* removed from a case of Chronic Empyema of Antrum cured by Radical Operation in eight weeks.—Dr. Barclay Baron (Bristol) reported that he had sent a piece of growth removed from his case of Sarcoma of the Nose shown at the November meeting to the Morbid Growths Committee. They reported it to be an alveolar sarcoma, and showed sections of it at the December meeting. The growth rapidly increased both within the nose and externally, displacing the eye outwards. At Dr. Baron's request, Mr. Charters Symonds kindly undertook its removal, full view of the growth being obtained by enlarging the opening in the superior maxilla made by the disease. The dura mater was found to be exposed in one place, the bone covering it having been destroyed, and it would, therefore, have been a dangerous procedure to attempt to curette the interior of the nose without seeing what was being done. The patient made a quick recovery, and there was very little disfigurement.—Dr. Watson Williams showed a specimen of Peg removed from Maxillary Antrum through the Ostium Maxillare.—Mr. Wyatt Wingrave showed a woman, aged 30, with Lupus of Nose.—Dr. Herbert Tilley showed a female dwarf, aged 45, suffering from Tuberculous Laryngitis.—Sir Felix Semon showed two cases of Epithelioma and one of Sarcoma of the Larynx treated by Thyrotomy, and keeping well 2⅔ years, 1½ year, and 6 months respectively after operation.—Dr. Milligan showed the following specimens: (1) Lymphangioma of Vocal Cord; (2) Laryngeal Papilloma; (3) Naso-pharyngeal Fibro-sarcoma; (4) Large Exostosis removed from Maxillary Antrum.—Dr. Jobson Horne showed a case of Multiple Papillomata occurring in the Larynx of a woman,

aged 22.—Dr. BRONNER (Bradford) showed a microscopic specimen of a Tubular Epithelioma of the Nose.—Mr. R. LAKE showed a case of Right Recurrent Paralysis with Paresis of Trapezium, Sterno-mastoid, and Palate, with Slight Ptosis and Facial Paralysis, all on the same side.—Mr. C. A. PARKER showed a case of Growth of Left Vocal Cord in a man, aged 32.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—At a meeting on January 25th, Dr. H. RADCLIFFE CROCKER, President, who was in the chair, read a paper on Recurrent Desquamative Scarlatiniform Erythema.—The following cases were shown by the PRESIDENT: (1) Male patient with Lichen Planus; (2) male patient with patch on anterior surface of wrist of Tinea Circinata, Fungus and Mycelium from case shown under microscope, and also a drawing of it exhibited. The President also exhibited other interesting drawings.—Dr. STOWERS: An infant with Lichen Planus, and a patch of Lichen Verrucosus on right index finger.—Dr. P. S. ABRAHAM: (1) Male, aged 50, Dermatitis Herpetiformis; (2) female, age about 30, with Dermatitis Herpetiformis; (3) Atrophodermia Guttata in a female about 30.—Dr. RUSSELL RYAN: A case of Lichen Planus.—Dr. T. D. SAVILL: Two children, aged 10 and 6 years, Psoriasis Guttata (?), Lichen Scrofulosorum; (3) a Symmetrical Maculated Purpuric Rash in a girl of 19 on thighs, legs, and arms.—The PRESIDENT, Dr. ABRAHAM, Dr. A. EDDOWES, Dr. STOWERS, Dr. SAVILL, Mr. PERNET, and others took part in the discussions.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this Society, on January 18th, Dr. CATTLE, Vice-President, in the chair, Dr. MICHIE read a paper on Suppuration in the Neighbourhood of the Pregnant Uterus, and gave details of seven cases that had come under his own notice. These cases fell into three groups: (1) The first was a case of peri-typhlitic abscess, due to perforation of the appendix vermiformis by a concretion in the fifth month of pregnancy. Dr. Michie performed an operation for the removal of the appendix and drainage of the abscess cavity, which extended into Douglas's pouch, where the concretion was also found—the patient making a good recovery and going on to term. (2) This group consisted of 4 cases of pyosalpinx, in each of which the appendages were removed—in one during the fifth month of gestation, the patient afterwards going on to term, delivery and convalescence being in every way normal. In another case the appendages were removed during the fourth month. This patient was, however, suffering from severe septic poisoning, due to a large quantity of putrid pus in the peritoneal cavity, and extensive peritonitis. Miscarriage took place twenty-four hours after the operation, and she died on the fourth day. In two others, where there was also a large quantity of sero-purulent fluid in the abdomen, the operation was performed almost immediately after delivery, at the fourth month, and at term respectively; in both instances recovery took place. (3) The third group consisted of 2 cases of suppurating ovarian cysts, complicating pregnancy, which Dr. Michie had met with. In one ovariotomy was performed during the process of labour at the sixth month. Delivery was completed four hours after the operation, and though the patient's condition was extremely critical for some days, she ultimately made a complete recovery. In the last case a suppurating cyst was removed during the fifth month, the patient making an easy recovery, and being delivered of a healthy child at term. In the light of these cases, Dr. Michie drew attention to the necessity of inquiring into the previous history of patients suffering from "puerperal fever," as they showed that not in every instance, at least, was that disease due to infection conveyed from without at the time of or shortly after delivery, but that occasionally septic mischief might be in existence some time before labour took place, and be greatly aggravated and become extremely serious by the mechanical effects of that process. The paper was discussed by Dr. CATTLE, Mr. CHICKEN, Mr. HOGARTH, and Dr. WOOD.—Notes on a case of Pseudo-hypertrophic Muscular Paralysis were read by Dr. LANDER, a complete history of the patient being given from birth to death, which occurred at 16½ years. Photographs were shown illustrating various stages of the disease. The latest photographs were especially interesting, as they showed marked hypertrophy of the temporal muscles.—Mr. E. C. KINGDON showed a patient who had a small Congenital Tumour visible beneath the conjunctiva of the lower and outer part of the orbit, and projecting prominently when the lower lid was everted. Mr. Kingdon considered it was a dermoid. Mr. LAWS suggested that it was a fatty tumour.—Mr. R. C. CHICKEN showed the following specimens: (1) Fibroid Tumour of the Uterus, for which abdominal hysterectomy had been performed; (2) Tubal Abortion; (3) Large Hydrosalpinx.—Dr. MICHIE showed a specimen of Carcinoma of the Large Bowel, for which he had done enterectomy four days previously. The growth was an ordinary columnar carcinoma. Union was effected by suturing only. The result up to the time of the meeting had been perfect, all vomiting having ceased, and the condition having much improved.

KIDDERMINSTER MEDICAL SOCIETY.—At a meeting on January 27th, Mr. E. H. ADDENBROOKE, President, in the chair, Mr. T. LIONEL STRETTON showed: (1) A girl, aged 20, upon whom he had performed Excision of the Elbow-joint three years previously. She was now able to perform the duties of domestic servant; (2) a Cystic Tumour weighing 3 lb. 12 oz., removed from the scalp of a man aged 69. Four years previously a large sebaceous tumour was removed from the same situation; (3) a man, aged 63, upon whom he had operated for Recurrent Epithelioma of the Lip.—Mr. W. HODGSON MOORE showed a Melanotic Sarcoma removed from the cheek of a woman aged 69. The growth supervened on a mole.—Mr. OLIPHANT showed: (1) The Brain of a Woman, aged 50. There was a spindle-celled sarcoma about the size of a turkey's egg growing from the meninges over the fissure of Sylvius on the left side and compressing the frontal and temporal lobes. There was a very indefinite history and the symptoms materially improved under iodide of potassium. (2) Skiagraph of a Fracture of the Right Tibia in a young man, aged 21. He slipped at football, and when admitted to the hospital there was so much swelling that an accurate diagnosis could not be made. The skiagraph showed a transverse fracture through the thickest part of the lower end of the tibia and a second through the internal malleolus, which was displaced downwards to an extreme degree.—Mr. B. ADDENBROOKE showed specimens of Tubercle Bacilli in milk.—Mr. J. LIONEL STRETTON read a paper on the Treatment of Tuberculous Disease.—After discussion the following resolution was adopted:

That the attention of the local authorities be drawn to the importance of safeguarding the public from the spread of tuberculous disease.

NORTH OF ENGLAND GYNÆCOLOGICAL SOCIETY.—At a meeting held at Manchester on January 20th, Dr. DONALD, President, in the chair, Dr. BRIGGS (Liverpool) showed a Soft Fibroid Tumour removed from the uterus by enucleation through the abdomen.—Dr. NATHAN RAW showed a Ruptured Uterus with an ovarian cyst, removed by abdominal section after delivery of a child at term. The patient, a multipara, had been in labour for three days; she was then seized with sudden pain in the abdomen, and hæmorrhage with great collapse. On admission to the hospital she was pulseless, and four pints of saline fluid were transfused into the median basilic vein with very beneficial results. On examination the vaginal vault was pushed down by a large, firm swelling above suggesting an ovarian tumour. The os was high up under the pubes. The umbilical cord was prolapsed and the placenta lay in the lower uterine segment. This was rapidly detached and a foot brought down. A coil of bowel was then discovered in the uterus, showing that rupture had occurred. The child was quickly extracted, and a large tear in the posterior wall discovered. Saline fluid was again transfused and abdominal section at once performed. The peritoneal cavity contained a large quantity of blood clot, and the contents of the ovarian cyst which had undergone torsion and ruptured. The uterus was rapidly amputated and removed, together with the cyst. The patient rallied well, but gradually sank from exhaustion, dying on the third day. The PRESIDENT made remarks.—Dr. T. ARTHUR HELME read the notes of a case of Degenerative Fibroid Tumour removed together with the Uterus and Ovaries by Abdominal Section. The patient, aged 29, made a rapid and uneventful recovery. Remarks were made by Drs. DAVIES, WALTER, LLOYD, ROBERTS, and BRIGGS.—Dr. W. E. FOTHERGILL read a paper, entitled, some Autointoxications of Preg-

nancy and the Puerperium. The presence of albumen in the urine of eclamptic women and the occurrence of various lesions in the kidneys had led to the view that eclampsia was of renal origin. There was, however, a large amount of evidence in favour of the conclusion that it was rather the result of a general intoxication or poisoning. The urine, though scanty, was low in toxicity, whilst the blood serum was two or three times more poisonous than the serum of health. Necrotic and hæmorrhagic lesions were constantly found in the liver in these cases, and it was probable that this was the organ chiefly at fault. Jaundice was often associated with eclampsia and in acute yellow atrophy, often arising during gestation; the liver changes were an exaggerated form of hepatic lesions found in eclampsia. The various disorders of the nervous system—such as peripheral neuritis, myelitis, etc.—which occurred in pregnancy were clearly toxic in origin, and it was probable that mania and melancholia were also intoxications. It was probable that the extra strain thrown upon the various organs of excretion during pregnancy might lead to a loss of equilibrium between the poison production and poison excretion of the body, and this had been confirmed by numerous investigations on the relative toxicity of the blood serum and urine during gestation and in health. Although the subject was not yet fully worked out, the autointoxication theory formed a good working hypothesis, and might afford a new system of classification of the various troubles of pregnancy. A large number of these might in the future be classified under the term "hepatic toxæmia," as suggested recently by Pinard. Remarks were made by Dr. Wright and Dr. Gemmell.—The following were elected office bearers for the year 1899:—*President*: Dr. Donald. *Vice-Presidents:* Drs. J. Benson, J. Braithwaite, J. N. Cregeen, W. E. Fothergill, J. E. Gemmell, C. Richardson, W. J. Sinclair, G. E. Thorpe. *Honorary Treasurer:* Dr. Richard Favell. *Honorary General Secretary:* Dr. Arnold W. W. Lea. *Council:* Drs. R. A. Brannigan, E. Buxton, C. N. Gwynne, T. Arthur Helme, D. L. Hamilton, J. B. Hellier, T. D. Leigh, J. Matthews, E. H. Monks, S. Nesfield, W. Smith, D. Lloyd Roberts, P. E. Scowcroft, J. P. Stallard, John D. Martin, D. Smart, C. Vereker, A. E. Wear, W. Walter, R. E. Williamson. *Honorary Local Secretaries:* Drs. John Scott (Manchester), W. Fingland (Liverpool), E. O. Croft (Leeds), H. Rhodes (Sheffield).

Glasgow Obstetrical and Gynæcological Society.—At a meeting on January 25th, Dr. A. Miller (President) in the chair, Dr. John Edgar showed two Ovarian Dermoids removed from a patient by abdominal section.—Dr. John Lindsay read a paper on a case of Defective Development of the Limbs. Several drawings of the muscles and bones of the limbs were shown.—Dr. Robert Jardine read a paper on Intracellular Saline Injections in cases of Hæmorrhage and Eclampsia. The instrument used was simply a trocar and cannula attached by a piece of tubing to a glass filter. The solution contained a teaspoonful of common salt, and in the cases of eclampsia the same quantity of bicarbonate of potash, to a pint of boiled water, and was injected into the loose cellular tissue beneath the breasts. Of the 5 cases of hæmorrhage described, 2 were examples of accidental, and 3 of *post-partum* hæmorrhage. In one the hæmorrhage was very profuse and the shock extreme. All recovered. Dealing with transfusion in cases of eclampsia, 5 cases were described: Case I was moribund when first seen and died, although the saline solution seemed to improve the pulse. Cases II and III were very severe examples of the disease. They both recovered. The saline injections had a most marked effect in increasing the quantity of urine excreted. Cases IV and V were milder cases. Dr. Jardine said the saline injection should be used only in conjunction with some drug to control the fits, such as chloroform, chloral and bromide, morphine, veratrum viride. Morphine in large doses he was inclined to think the best.

Chelsea Clinical Society.—At a meeting on January 17th, Mr. J. Foster Palmer, President, in the chair, Dr. C. C. Gibbes read a paper on the Pathology of Mitral Stenosis, bringing forward a new theory, that the so-called presystolic *bruit* was composed of three parts, namely, an auricular systolic *bruit*, right ventricular muscle vibration, and a slapping first sound; the muscle vibration being the cause of the peculiar and intimate relation between the *bruit* and that sound, and also prevented that lack of continuity between the two murmurs being heard in double mitral disease, which were audible in double aortic. Dr. Blacker had examined a case of mitral stenosis sent him by Dr. Gibbes by means of the *x* rays, and found the pleximetric percussion area as drawn by Dr. Gibbes coincided with the shadow thrown on the screen. He also retained the impression that the contraction wave started from the region of the right ventricle. The President, Dr. Ewart, and Dr. Penny also spoke, and Dr. Gibbes replied.—Dr. Blumfeld read a paper on the Administration of Ether to Infants and Young Children. He maintained that ether was a good anæsthetic for infants and children, and attended with far less risk than chloroform. He fully admitted the use of chloroform in the hands of those constantly engaged in anæsthetics. It was his own practice to precede the ether by nitrous oxide gas, and this method was very satisfactory even in the case of young infants. If cases were properly selected and sufficient air admitted during administration, lung trouble did not follow; nor had he ever seen serious after-sickness. With infants so little ether and so simple an apparatus sufficed, that arguments for chloroform, based on its convenience, fell to the ground. A discussion took place, in which Dr. Gibbes, Dr. C. J. Harrison, Dr. Ewart, Mr. Morris, Mr. Penny, and Dr. Barry Blacker took part. Dr. Blumfeld replied.

REVIEWS.

Twentieth Century Practice of Modern Medical Science. Edited by T. L. Stedman, M.D. Vol. XIV. London: Sampson Low, Marston, and Co. 1898. (Roy. 8vo, pp. 602. 30s).

This volume is devoted to a systematic consideration of the infectious diseases, among which, in addition to the exanthemata, we find cholera, whooping-cough, and beri-beri. There are thirteen articles and eleven contributors, of whom the great majority are from the American Continent.

The first disease described is scarlet fever, and has received full justice at the hands of Dr. Forchheimer. Although the style is somewhat cumbrous, the author's experience and knowledge of the subject render this a standard and valuable source of reference. The same writer gives an interesting account of German measles, and prefaces his article by an historical note, in which he fully discusses the specific and independent nature of the disease.

Dr. Dawson Williams has contributed two articles: on measles, and on the recently-recognised glandular fever. The former contains some charts and illustrations of isolation boxes in use in Paris for patients with measles. The valuable handbill for the prevention of measles issued to parents and others in Glasgow by Dr. J. B. Russell has been reprinted here, and it is to be hoped that its appearance will lead to its being widely copied. In glandular fever the infective agent probably gains an entrance through the alimentary canal; in this way it resembles the form of pestis minor associated with intestinal disturbance, described by medical officers in the service as "non-venereal bubo."

Dr. Dillon Brown's account of chicken-pox is at once concise and complete, and contains some interesting cases of varicella gangrenosa. The article on whooping-cough is conjointly contributed by the late Dr. J. O'Dwyer and Dr. Norton, of New York. After a careful review of the bacteriology the authors conclude that the weight of the evidence at present available is in favour of Koplik's bacillus being the specific micro-organism. Dr. O'Dwyer, having had whooping-cough when over 40 years of age and complete spasm of the glottis from other causes many times, could write graphically and with authority of the suffering induced by glottis spasm.

Professor A. Jacobi gives a very complete account of cholera infantum, and provides some valuable remarks on the normal feeding of infants under the heading of prophylaxis. Cholera nostras and Asiatic cholera have been exhaustively treated by Dr. Theodore Rumpf, director of the new general hospital at Hamburg. The article on Asiatic cholera occupies more than 150 pages, and is a storehouse of information and of practical observation which will serve as a valuable source of reference

for many years. Sir Joseph Fayrer contributes an interesting description of the epidemiology and symptoms of dengue.

The essay on beri-beri is written by Dr. A. A. de Azevedo Sodré, of Rio de Janeiro, who was a member of a Commission appointed in 1893 to investigate the cause of the persistence of beri-beri in the Asylum for the Blind at Rio. This article is critical and exhaustive.

Professor Netter, of Paris, writes on miliary fever, and gives much attention to the sweating sickness, of which there were five epidemics between 1485 and 1551 in England. All these epidemics began in Great Britain, and, with the exception of one, remained limited to it.

Dr. David Bruce, the discoverer of the micro-organism of Malta fever, has very appropriately been selected to describe that disease, and has performed his task in a masterly fashion. He regards it as more probable that the infection is propagated through water or food than that it is taken in by the respiratory organs.

With this article the present volume ends, and, in conclusion, it may be said that the editor is to be congratulated on the discrimination with which he has selected his contributors, and that their work is worthy of their high reputation.

A SYSTEM OF PRACTICAL MEDICINE. By American Authors. Edited by ALFRED LEE LOOMIS, M.D., LL.D., and WILLIAM GILMAN THOMPSON, M.D. Vol. IV. London: Henry Kimpton. 1898. (Roy. 8vo, pp. 1120. 8 Plates, 95 Figures. 25s.)

THE fourth and concluding volume of this work contains the diseases of the nervous system, mental disorders, and articles on a number of important conditions, rickets, rheumatism, gout, obesity, scurvy, and Addison's disease, grouped together under the heading of "Miscellaneous Subjects." It would perhaps have been better if Addison's disease had been included in a former volume with diseases of other so-called ductless glands such as myxœdema.

The volume opens with an account of neuritis, neuromata, and the affections of the cranial and some other nerves by Dr. F. C. Finley. Dr. Allen Starr, who is well known as an able neurologist, has contributed two authoritative and well-illustrated articles on the diagnosis and localisation of spinal cord disease and on anterior poliomyelitis. Landry's paralysis is briefly described by Dr. Fisher, who places it directly after his account of myelitis, and thus somewhat arbitrarily separates it from neuritis. He regards it as a disease differing in every respect from any other form of paralysis, as, indeed, an entity. Locomotor ataxia is admirably dealt with by Dr. D. D. Stewart, who also describes lateral sclerosis and ataxic paraplegia. The other diseases of the spinal cord have been wisely entrusted to Dr. C. A. Herter, who provides reliable accounts of tumour, syringomyelia, syphilitic affections, progressive muscular atrophy, and the diseases of the pons and medulla.

The section on brain disease is introduced by an essay on cerebral localisation by Dr. Eskridge, who is also responsible for the accounts of encephalitis, abscess, and cerebral tumour. The important article on diseases of the cerebral blood vessels, by Dr. F. X. Dercum, contains a number of useful diagrams, and is well up to date. The editor, Dr. GILMAN THOMPSON, places sea sickness amongst the functional nervous disorders, and, after discussing the various theories already put forward to explain it, suggests that in the majority of the cases the liver is the cause of the symptoms; for being at once heavier and less firmly fixed than the other viscera, it moves excessively, and thus drags on the solar and splanchnic plexuses. Chorea and tetany are described by Dr. C. L. Dana. Dr. Peterson, who writes on epilepsy and paralysis agitans, would prefer to describe the latter disease as "rigor tremens," since the muscular weakness is more apparent than real. Neurasthenia is authoritatively dealt with by Dr. J. J. Putnam, while the peculiarities of traumatic neurasthenia are considered in Dr. Morton Prince's account of the traumatic neuroses. In his systematic description of the occupation neuroses, Dr. C. K. Mills gives an account of a fatigue neurosis of the ocular muscles in an actor who, after contorting his face and eyes for some time, began to suffer from diplopia.

Under the heading of vasomotor and trophic diseases, Dr. James Stewart, of Montreal, gives well-illustrated descriptions of acromegaly, Raynaud's disease, angioneurotic œdema, facial hemiatrophy, scleroderma, and vertigo.

Dr. Finley's account of the diseases of muscles does not include any mention of idiopathic myopathies, a somewhat striking omission. Among the important diseases included under the heading Miscellaneous Subjects, Dr. Gilman Thompson's articles on the various rheumatic and allied states are well illustrated, and show evidence of practical experience and literary research. Dr. Colman illustrates his account of Addison's disease with a coloured plate, showing white areas of atrophy, an unusual complication of bronzing of the skin. This article is fully up to date, and shows that the writer is thoroughly familiar with the literature of the subject.

Though the articles are not uniform in their quality, this work may be safely recommended to the practitioner as one useful for reference.

DIE LEHRE VON DER PELLAGRA, ÄTIOLOGISCHE, KLINISCHE U. PROPHYLAKTISCHE UNTERSUCHUNGEN. [Pellagra, Etiological, Clinical, and Prophylactic Researches.] Von CESARE LOMBROSO. Edited in German by HANS KURELLA. Berlin: O. Coblentz. 1898. (Demy 8vo, pp. 246; 5 plates. M.7.)

THE author in his preface deals with the difficulties experienced by him during his researches in connection with pellagra, which even among his colleagues gave rise to opposition, partly due to inborn conservative ideas, but more to the importance of the economical questions raised when attacking one of the oldest and most popular articles of food in use by the lower classes in the agricultural districts. His investigations occupied a period of 27 years, and the first part of the book is devoted to etiology and the result of experimental researches on animals fed with preparations of diseased maize.

The author, in view of his collected statistics, confidently attributes the disease to the extensive use of damaged and insufficiently cooked maize in the shape of polenta and maize bread. This is most apparent in the poorer country districts, and the connection between maize and pellagra was very obvious in 1879, when, owing to a deficient harvest at home, large quantities of the grain were imported under unsatisfactory conditions as to storage. Maize when mildewed or otherwise diseased is often consumed by poor cultivators owing to its unsaleableness, and purchased by others owing to its low price. The author was able to cultivate numerous micro-organisms both from the corn and the ground meal respectively. In the northern districts of Italy, where maize is used more largely than wheat, 5 per cent. of village populations have been known to be pellagrous.

As regards the symptoms they vary according to districts, and show the disease to be essentially constitutional, affecting more or less intensely all the organs of the body, and producing more especially nervous symptoms, motor, sensory, and psychic. Among the latter are many severe instances of melancholia leading to crime and a tendency to suicide, drowning being the death most frequently chosen. In addition to erythema, pigmentations have been observed, their degree bearing no relationship to the intensity of the disease. Brown atrophy of the heart and similar degenerations in the renal, hepatic, and cerebro-spinal cells are often found *post mortem*.

Other morbid conditions observed by the author were exudations and atrophy which was most frequently noticeable in the heart, lungs, kidneys, spleen, and intestine, though in certain cases the individuals were well nourished, and in two cases even muscular. Fatty degenerations of muscular tissue were rare, and when present affected groups of muscles only. Therapeutic and prophylactic measures are dealt with in the last portion of the work, and it appears that the administration of chloride of sodium, both internally and externally, and arsenic met with success.

PRESENTATION.—Mr. W. W. Fairfield, on resigning the post of Resident Medical Officer to St. Mary's Hospital for Children, Plaistow, which he had held for two years, was presented with a case of instruments by the staff of the institution as a mark of their respect and esteem.

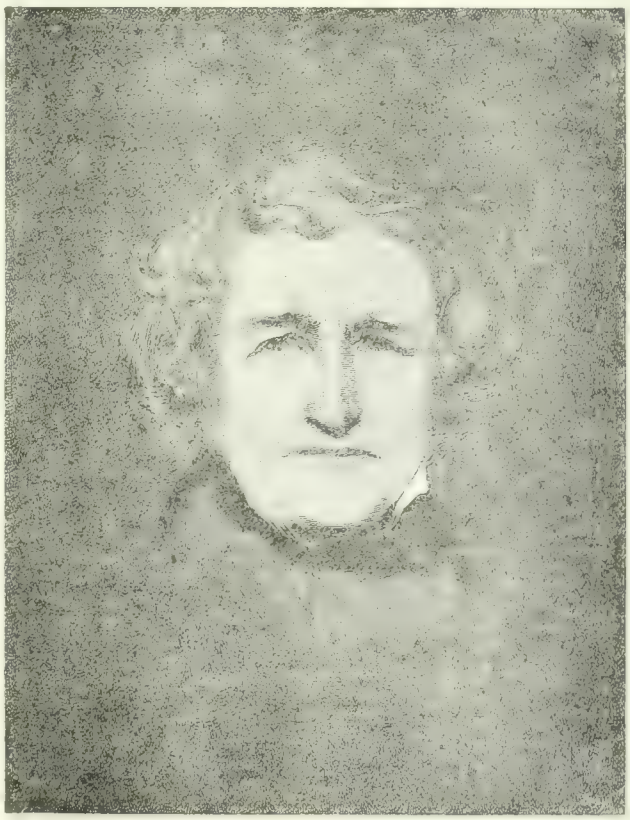
NOVA ET VETERA.

A GREAT MEDICAL REFORMER.

The reissue of Dr. Squire Sprigge's *Life and Times of Thomas Wakley* (Longmans and Co., 1899, price 6s.) in a cheaper form affords us the opportunity of presenting our readers with an extended notice of this important work, such as, for reasons which it is now needless to explain, it did not receive in this Journal on its first appearance. We welcome the reissue on this account, and also because the work is one which should be read by every member of the medical profession in these kingdoms. If the medical millennium has not yet come, we are at any rate a great deal better off in every way than our professional forbears in the early years of the century. For this we have largely to thank Thomas Wakley, who was undoubtedly the first to show, in regard to medical affairs, that the pen of the journalist is an effective weapon against the giants of arbitrary authority and injustice.

The book, which is now published at a third of the original price, is, except in binding, identical with the first issue. Wakley's life is recorded in a clear and orderly narrative; the man is depicted as he lived and moved, and fought and conquered; his many battles—professional, journalistic, and political—are told in interesting detail; and although of course the figure of the hero is drawn full length, there is no lack of perspective in the picture, in which the medical history of the first half of the century is skilfully grouped around the man who was in the political sense one of the chief makers of that history.

Dr. Sprigge's task was far from an easy one in itself, and his official relation with the Wakley family made it peculiarly delicate. He is to be congratulated upon the skill with which he has steered between the Scylla of indiscriminating panegyric and the Charybdis of ruthless frankness, of which Mr. Froude set a bad example. He has produced a biography worthy of the remarkable personality who forms its subject. If the figure of the man is somewhat overshadowed by his work, that is because Wakley's life was almost wholly in his work. But Dr. Sprigge's lively style and feeling for effect have enabled him to clothe with literary flesh the dry bones of old parochial quarrels and forgotten professional squabbles. His book—although like most works of the kind it would have been better had it been shorter—has the saving virtue that it can be read, even by an "irresponsible indolent reviewer," not as a duty, but as a pleasure. Greater praise than this cannot be given to a book which, like Dr. Sprigge's, is a solid contribution to the historical literature of our time.



Thomas Wakley, from an unpublished portrait.

Wakley came of that sturdy yeoman stock which has for centuries been the backbone of our English race. He was born on his father's property in the parish of Membury in Devonshire on July 11th, 1795. He was the youngest of eight sons, all of whom took an active part in the work of the paternal farm; they were famous through the country side for their skill with the gun and their knowledge of horseflesh. He got such education as was then to be had at local grammar schools. He learnt what he was set to learn, but he was no bookworm, and grew up a fine specimen of a country-bred lad, strong, active, and fond of sports and athletic exercises.

At the age of 15 he was apprenticed to an apothecary of Taunton, and after a time he became the pupil of a relative who was in practice at Beaminster. After a term of service with another practitioner as assistant, he entered as a student of the united schools of St. Thomas's and Guy's in 1815. These were the days of privilege, monopoly, and vested interests in the metropolitan hospitals. The College of Physicians admitted none to its Fellowship but graduates of Oxford or Cambridge and members of the Church of England. Hospital appointments were treated as family livings, and were bestowed either by nepotism or by purchase disguised as apprenticeship. Did not Sir Astley Cooper once disclaim any intention of hurting the feelings of the surgeons to the Borough hospitals by the charmingly candid plea that one was his apprentice, another his godson, a third his nephew, a fourth his nephew, and a fifth his apprentice? Wakley, who was not a member of the privileged classes, felt bitterly the injustice which condemned men without money or influence to exclusion from the higher ranks of the profession.

Wakley worked hard as a student, which is in itself a testimony to his strength of character as at that time the London medical student was mostly of the Bob Sawyer type. In 1817 he became a Member of the College of Surgeons, and returned to his native place with the intention of practising there. Finding no opening, however, he returned to London in 1818, and after practising for a time in the City, he moved westwards to Argyll Street, then a fashionable part of London. Early in 1820 he married Miss Goodchild, the daughter of a wealthy lead merchant. His prospects when he brought his bride home were excellent, but not many months afterwards he was the victim of a mysterious outrage which completely changed the course of his career. On the evening of August 26th, 1820, his house was burnt down and a murderous assault was made upon him. The cause of the outrage was never clearly ascertained, but there is some reason to suspect that it was connected with the execution of the ringleaders of the Cato Street conspiracy, who had been hanged, drawn, and quartered some months before. The mutilation was carried out by a man in a mask, and an unfounded rumour somehow got about that Wakley had been the operator.

These events, with other troubles resulting from them, brought Wakley's career as a general practitioner to an end. He had suffered much anxiety and was almost ruined; he was therefore naturally inclined to believe that the world was

out of joint. Just at that time he made the acquaintance of William Cobbett, whose virulent pen was directed against wrongs and abuses of all kinds. It is probable that from his association with Cobbett, Wakley conceived the idea of devoting himself to the reform of his profession. He determined to play the part of Joshua to the medical Jericho, shaking down the strongholds of nepotism and vested interests by journalistic trumpet blast. The undertaking was a bold one, for it was nothing less than a declaration of war by a young and unknown man against the powers and principalities of his own profession.

The first number of the *Lancet* was issued on October 5th, 1823. It was soon recognised by the inhabitants of the medical Olympus as a dangerous enemy. The editor was denounced as a literary pirate because he published reports of the lectures of some hospital surgeons and physicians which these gentlemen, with an eye to their class fees, were anxious to preserve for the exclusive benefit of their pupils. Nor did they stop at denunciations. During the first ten years of the existence of the *Lancet* the editor had on his hands no fewer than ten actions at law brought by eight different persons. Six of these were actions for libel. The aggregate sum claimed for damages was £8,000, and the aggregate sum awarded was £155 os. 0½d., while the editor's costs were largely defrayed by public subscriptions.

The first action was brought by John Abernethy, who, on December 10th, 1824, applied to the Court of Chancery for an injunction to restrain the publishers and printers of the *Lancet* from issuing his lectures. Some lectures of Sir Astley Cooper had already been published in that journal, a proceeding which Sir Astley Cooper appears to have regarded with curiously mixed feelings, if we may judge from the following remarks on the subject which he made to his class:

> When I found, week after week, that my lectures were published, and that consequently I was daily paragraphed in the newspaper, I called upon the editor of the *Lancet*, and told him that I was about to move for an injunction. He replied, "That will not be of any use." Well, gentlemen, in the end I told him that if he omitted my name I should take no further steps in the matter. He promised to do so, and as far as I have seen he has fulfilled his promise; and, of course, I have fulfilled mine. Indeed, lawyers' instructions to counsel have been this very day destroyed.
>
> Now, gentlemen, though I did not regard the publication of my lectures, I felt myself disgraced and degraded by my name for ever appearing in the diurnal press. Not a paper could I see but my name flourished in it in some form or other. This looked so much like quackery, so much like puffing, that I am unable to describe to you how much it annoyed me.
>
> Although the publication of my lectures exposes me to the critical ordeal of my professional brethren, yet I fear it not; I care not who may be made acquainted with the doctrines I advance, the instructions I give, the principles I inculcate while in this theatre. Therefore I am perfectly indifferent as to who publishes them, and equally indifferent as to who may be made acquainted with them.

Clearly Sir Astley, while anxious to put himself right with the profession by purging himself of any supposed complicity with the audacious journalist who stole his thunder for the benefit of mankind, was not altogether displeased that it should resound in a larger sphere than his lecture room. Abernethy, however, objected in good earnest to the greatness of publicity thrust upon him by the *Lancet*, and his objection was probably intensified by the remorseless accuracy with which his words were reported. The following extracts from a discourse on irritative inflammation, erysipelas, and furunculus which appeared on the very day after his application for an injunction, sufficiently explain the great surgeon's dislike of being presented to the public in the *déshabillé* of his lecture room:

> If I am wrong I shall be very happy to have my errors pointed out and corrected. I'll be hanged if erysipelas is not always a result of a disordered state of the digestive organs..... Egad, it is a travelling disease, and, as I say, the parts are disposed to swell..... If it is seated in an unimportant part, in the name of G—— let it go on there..... "O," said the dresser, "it is a case of erysipelas, and he only came in last week." "Good G——!" said I. "Is it possible?..... Ho! he had his jawing tacks on board, as a sailor would say."

Wakley was ultimately victorious. Physicians and surgeons began to realise that the publication of their lectures, so far from doing them harm, brought them fame and fees. In this way Elliotson's practice went up in one year from a few hundred pounds to as many thousands.

It was a part of Wakley's plan of campaign to make the fierce light of the press beat about the thrones of the hospital autocrats. He published reports of cases, criticising the conduct of the surgeons in charge of them with unsparing freedom. One case which made a great sensation at the time was that of an operation for stone in which the surgeon (Bransby Cooper) was said to have bungled badly, with the result that the patient was put to much needless suffering, and died in consequence of the unskilful treatment which he had received. The operator brought an action for libel, asking for £2,000 damages. He was awarded £100, and Wakley's costs were paid by public subscription. Thus the battle ended in a Pyrrhic victory for the surgeon and a real triumph for the journalist.

Wakley was equally outspoken in his denunciation of the abuses of the College of Surgeons, which he called a "constitutionally rotten concern," and to his strenuous efforts the considerable reforms which were made in that institution at a later period were largely due.

As Wakley felt his strength increase he longed for a larger sphere of action. His thoughts naturally turned towards Parliament, and after two unsuccessful contests he was returned for Finsbury in 1835. Of his political career only a word or two can be said here. He was a Radical and a Reformer, "insisting largely on the rights of the people and especially anxious that the people should have, as far as possible, equal chances with the governing classes of getting wholesome food, healthy houses, and adequate education." But while doing his duty to his constituents, he never forgot that he was, in a special sense, the "Member for Medicine." He was the moving power in the appointment of the Parliamentary Committee of Inquiry into the State of the Medical Profession which led to the reform of the Corporations and to the removal of other abuses. He was the author of a measure providing for the payment to medical witnesses at coroners' inquests of one guinea for their evidence and one guinea for *post-mortem* examinations. His chief parliamentary work, however, was the introduction (in 1846) of a Bill for the Registration of Qualified Medical Practitioners, and for amending the law relating to the Practice of Medicine in Great Britain and Ireland, which did not become law, but which was the embryo of the Medical Act of 1858. Wakley's parliamentary career came to an end in 1852. As a speaker he attempted no flights of eloquence, but uttered what was in him in simple words and in a plain style none the less telling because it was absolutely unaffected. It was obvious to his hearers that he was a man who spoke when he had something to say, and who thought more of the matter than of the manner of his speech. Hence he had great weight with the House, where he was respected by men of all parties.

Perhaps it is as Coroner for Middlesex that Wakley is now best remembered. Almost from the beginning of his career as a journalist he had insisted that the office of coroner should be held by a medical man. He lost no opportunity of holding up to the public scorn the foolish verdicts given by juries directed by attorneys incapable of forming a judgment as to causes of death. His persistent agitation was successful, and in 1839 he himself became Coroner of West Middlesex. He at once set about reforming the whole procedure of the "crowner's quest." "Every death the reason of which was not apparent upon the face of its circumstances was made the subject of an inquiry; and in every inquiry where the facts demanded medical elucidation, or where the Court required medical advice, a qualified practitioner was summoned, and if necessary a *post-mortem* examination was made..... He insisted upon a sober jury as well as a respectable one and he was no less determined to have orderly proceedings. Counsel, solicitors and witnesses—ordinary and expert, medical and lay—were made to understand that contempt of court was as serious a crime before a coroner as before a judge or even a Chancellor."

It is needless to say his reforms were not acceptable to all; they brought him into conflict with magistrates and other authorities; but here, also, the resolute earnestness and sterling honesty of the man brought him victoriously out of all his difficulties.

Meanwhile the *Lancet* was growing in influence. In it Wakley steadily championed the cause of the medical profession and of the people, exposing quacks and adulterators, the defects of the Poor-law administration, and denouncing the ill-treatment of the sick poor in workhouses.

His power of work was extraordinary. Of his labours when he was at once Member of Parliament, Coroner, and Editor, an idea may be obtained from Dr. Sprigge's account of a typical day at this period:

> The following is a programme of the day's work during these twelve years. It does not describe the routine of an extraordinary day, but of

every day throughout the period. At 8 in the morning Wakley would arrive at the *Lancet* office, breakfast, and go through his letters. Soon after the parish clerks and coroners' officers would arrive, and the list of inquests for the day would be made out. Then the editorial work for the day was arranged, concerning which Wakley was most precise in his directions, allotting it with every precaution to secure the most useful material and the most trustworthy results for his readers. By 9 his carriage, with fast trotters always especially selected for their severe work, would come to the door, and he would start on his round of inquests. He rarely returned before 6, and usually took his luncheon in his carriage, where he had elaborate arrangements both for feeding and writing, recesses containing the necessaries for a picnic, and a flap writing table, that could be let down from the front of the brougham over his knees. On completing his round he would, if necessary, attend any Committee of the House to which he belonged, arriving back at the office by six o'clock. He would then sleep for an hour or so. On waking he would put in order what he had written while driving from one court to another, would look through the "copy" which had been sent in by the staff during the day, and finally interview his printer. Then he would go to the Reform Club or to Bedford Square for dinner, and thence to the House of Commons. On returning from the House, possibly at a late hour, he would finish dealing with the voluminous correspondence of the day, answering such communications as must necessarily be replied to under his own hand, regardless of the flight of time, and making notes concerning their answers to be dictated in the morning. And so to bed, having during his fifteen or sixteen hours driven sixty or seventy miles, held a dozen inquiries, under all sorts of uncomfortable and depressing surroundings, into the causes of various terrible tragedies, having had but one comfortable meal, having sat on, perhaps, more than one Parliamentary Committee, and having certainly voted and probably spoken upon all measures where he considered his speech or his vote due to his constituents, or to the causes whose advocacy he had espoused. And this routine of physical work, enough in itself to ensure breakdown if persisted in, Wakley conducted with an enthusiasm that reduplicated the necessary wear and tear. All his overwork must be done with zeal and enthusiasm as though he were determined to wear out his heart and nerves as much as his muscles. And this continued for twelve years.

Wakley was a man of robust physique, but the sword wore out the scabbard, and he died of chronic phthisis on May 11th, 1862.

To Wakley, Napoleon, had he known him, might have said what he said to Goethe: "*Vous êtes un homme!*" He was a typical John Bull; strong, and exulting in his strength: a fierce fighter, but a lover of fair play. If he was often rough and even coarse, and used the bludgeon rather than the rapier, it must be remembered that he had work to do which could hardly have been done by gentler means. Revolutions are not made by the sprinkling of rosewater, and your reforming lion would be ineffective if he roared you an 'twere any nightingale.

What he did for the profession cannot be summed up better than in the words of Sir John Erichsen: "The present generation know little of him, and are for the most part ignorant how much they owe to him for exposing and fearlessly attacking the manifold abuses that existed in every department of the profession, in the colleges, hospitals, and medical schools in the first third of this century. Corruption, jobbery, nepotism, promotion by purchase were rife in the colleges and hospitals, and medical education was at a low ebb when Wakley entered on his career as a journalist. By his outspoken and fearless denunciation of these abuses, he brought about their reform, and so cleared the road to fame and fortune for those members of the profession who had to rely solely on their own ability and power of work. It was, in fact, Mr. Wakley who made a William Jenner or an Andrew Clark possible."

We are indebted to the present Editors of the *Lancet*, Mr. Thomas H. Wakley, F.R.C.S., and Mr. Thomas Wakley, jun., L.R.C.P., for permission to reproduce the accompanying portrait of the founder of the *Lancet*. It is from an oil painting which came recently into the possession of Mr. Thomas H. Wakley. The painting has never been completed, but the face is finished, and is declared to be an excellent likeness. It has not been reproduced before.

THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, LONDON.

The first general meeting of the Governors of the Medical Graduates' College and Polyclinic was held at the College, 22, Chenies Street, Gower Street, on January 26th. The chair was taken by Sir William Broadbent, Bart., and the meeting was very numerously attended.

The Chairman said that all present were familiar with the objects of the Medical Graduates' College and Polyclinic. Medical men were to the last day of their lives learners. Most of them after graduating, after their several appointments in hospitals and elsewhere, and after entering upon practice, were anxious to supplement the knowledge which they obtained as students, and to carry further their efficiency as medical men. This had been shown by the number who had attended the post-graduate courses that had been held up to the present, but these courses were not adequately organised, there was no system, there was much inconvenience in going from hospital to hospital, and the object of the Medical Graduates' College and Polyclinic was to organise post-graduate work. What had been done up to the present had been to purchase the commodious premises, which was due to the enterprise of Mr. Hutchinson. At a previous meeting a provisional committee for organising purposes was appointed, and they had endeavoured to systematise the objects of the Association, to decide what its mode of operation should be, and they were there mainly to constitute the Society and set it going. The work of the Society would be of two kinds—there would be clinical demonstrations by surgeons and physicians on obscure and interesting cases brought for the purpose. Besides that there would be classes for technical instruction, practically of every kind, such as the use of the ophthalmoscope and laryngoscope. They had to congratulate themselves that they had found for their work such a man as Dr. Hawthorne as Medical Director at the moderate remuneration they could afford at present.

The meeting then proceeded to the election of the following officers:—*President:* Sir Wm. H. Broadbent, Bart. *Vice-Presidents:* Professor Clifford Allbutt, Mr. Thomas Bryant, Professor Burdon Sanderson, Mr. Jonathan Hutchinson, Dr. Hughlings Jackson, and Surgeon-Colonel Kenneth MacLeod. *Treasurer:* Dr. William Miller Ord. *Honorary Secretary:* Dr. Fletcher Little.

Mr. Bidwell, seconded by Dr. Snape, suggested that the West London Hospital should be represented on the Council; and Dr. Joll, seconded by Dr. Swaby Smith, put forward the claims of the general practitioner for seats at the Council. The matter was settled by the unanimous election of the Council of sixteen as suggested by the organising Committee, with power to elect four more members in obedience to the suggestions made. The following is a list of the Council: Mr. J. Berry, Dr. Leamon Bowles, Mr. J. Cantlie, Professor Crookshank, Dr. Galabin, Dr. Goodhart, Dr. Hillier, Dr. Holman, Dr. Stephen Mackenzie, Mr. Malcolm Morris, Dr. Oliver, Mr. Herbert Page, Dr. Guthrie Rankin, Dr. J. Taylor, Dr. StClair Thomson, and Dr. C. T. Williams.

On the suggestion of Mr. Noble Smith, the future manner of election of the Council was modified, in so far that two of the vacancies to the Council were to be filled up by the members of the Society independent of any nomination by the Council.

Dr. Solomon Smith moved that any notice for a general meeting called by twenty governors should specify the object of that meeting, and this was accepted.

Replying to inquiries as to who had the right to send patients to the Polyclinic, Dr. Little, the Honorary Secretary, said that any medical man could send patients, but that no patient would be admitted unaccompanied by the certificate of a medical man.

Mr. Noble Smith, upon this, remarked that there did not seem safeguards enough against possible abuse by fairly well-to-do people contriving to secure a cheap opinion through pleading poverty that was not extreme.

Dr. Burleigh Robinson detailed the plan followed at Mr. Hutchinson's clinic.

Dr. Little explained that a patient would be simply seen, examined, and demonstrated, but the diagnosis and scheme of treatment would be supplied only to the medical man.

The point was raised by one of the governors as to whether the emphasis laid upon "medical man" indicated exclusion of medical women, and it was explained to the meeting that, because of the objection that the very humblest of working men had to being stripped before mixed classes of men and women, it was decided to avoid such a contingency.

Dr. Little expressed his individual opinion that there should be special classes for ladies.

After the transaction of formal business, the meeting ended with a vote of thanks to the Chairman.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE ordinary quarterly Comitia was held on Thursday, January 26th, Sir SAMUEL WILKS, Bart., M.D., F.R.S., President, in the chair.

The Membership of the College was granted to Henry John Davis, M.A., M.B.Camb., L.R.C.P.; Francis Edward Freemantle, M.A., M.B.Oxon., L.R.C.P.; Thomas Jeeves Horder, M.B., B.Sc.Lond., L.R.C.P.; Laurence Christopher Panting, B.A. M.B.Oxon.; Sidney Herbert Perry, M.B.Lond., L.R.C.P.; Reginald Pratt, M.D.Lond.; George Edward Rennie, B.A.Syd., M.D.Lond.

The PRESIDENT, in sympathetic terms, referred to the death of Dr. Munk, the historian of the College, and for forty years its librarian. Dr. CHEADLE (the senior Censor) proposed, and Dr. W. M. ORD seconded, a vote of condolence to the family of the late Dr. Munk. This was carried.

The PRESIDENT announced that the Swiney Prize in Jurisprudence had been awarded to Dr. J. Dixon Mann, Professor of Forensic Medicine and Toxicology, Owens College, Manchester, a Fellow of the College, for his book on *Forensic Medicine and Toxicology*.

The PRESIDENT drew attention to a photograph of Dr. John Chambre, the first of the six physicians mentioned in the letters patent of Henry VIII, for the foundation of the Royal College of Physicians of London. This photograph was from a portrait by Holbein, now in a picture gallery in Vienna, and had been obtained through the kind offices of Mr. Dodson of the British Museum, to whom the thanks of the College were awarded.

The PRESIDENT also presented for inspection of the Fellows the medal for the Bisset-Hawkins Memorial. This medal will be awarded triennially for work done in advancing sanitary science; the first award will be made in July, 1899.

The licence of the College was granted to 122 gentlemen.

A letter was read from Sir Herman Weber, M.D., commemorating by a gift of £100 to the College the renewal of his diploma after fifty years by the University of Bonn. A hearty vote of thanks to the donor was recorded.

Letters were read from two Members resigning their Membership.

A communication was received from the President of the General Medical Council with reference to two clauses which the Council proposed should be added to the Medical Act. The first clause was to the effect that the name of any practitioner could be removed from the *Register* for any crime, felony, or infamous professional conduct for a term of years, and not as heretofore for an indefinite period; the second clause would enact that during this period he should be deemed to be deprived of his degrees or diplomas, and that if he assumed them he should be subject to the penalty provided by Clause 40 of the Medical Act, 1858. It was decided that the College would not oppose the first clause; but having taken counsel's opinion to the effect that the second clause would infringe its rights, it would feel obliged to oppose this clause, unless it was limited to those bodies which had not the power of withdrawing their diplomas.

A communication from the Chairman of the Educational Committee of the General Medical Council with reference to the desirability of raising the standard of the preliminary education of medical students, was referred to the Committee of Management.

Drs. Thorowgood, Bradbury, Sir John Williams, and Dr. S. Mackenzie were elected Councillors. Dr. Norman Moore was elected a member of the Library Committee. Professor T. Clifford Allbutt, was elected an Examiner in Medicine. Dr. J. F. Payne was elected Librarian.

A report of the Committee of Management of the Conjoint Examining Board was received, recommending that the alteration recently made in the regulations relating to the commencement of dissection after the student had received his instruction in Chemistry, Physics, Practical Chemistry, and Biology should be annulled, and that the clause should remain the same as it was before the alteration.

Dr. J. W. WASHBOURN moved that this report should be referred back to the Committee of Management. This was seconded by Dr. STARLING, and supported by Drs. L. E. SHAW and H. J. CAMPBELL. Drs. NORMAN MOORE, ISAMBARD OWEN, and CALVERT spoke in favour of the adoption of the report. The report was adopted after a division.

The revised report of the Leprosy Committee was adopted as follows:

Your Committee beg leave to report as follows:

That the communicability of leprosy, by direct or indirect means, from lepers to the healthy must now be accepted as an established fact, the evidence in support of this belief being conclusive, and that there is no evidence of the disease arising or spreading in any other way.

Your Committee are therefore of opinion that the conclusions stated in a resolution unanimously adopted by the International Conference on Leprosy held at Berlin in October, 1897, and set forth at page 194 of the Official Report of the Conference, ought to be accepted in their entirety, and acted upon where leprosy is endemic, or occurs under the conditions indicated in the first paragraph of the resolution, which is as follows:

"[*Translation.*]

"1. In all countries in which leprosy occurs in foci, or is widely distributed, isolation is the best means of preventing the spread of the disease.

"2. The system of compulsory notification, supervision, and isolation, as carried out in Norway, should be recommended to all nations possessing local self-government and an adequate number of physicians.

"3. It must be left to the legally-constituted authorities, after consultation with the sanitary authorities, to determine the special regulations, which must be adapted to the special social conditions of each country."

But your Committee would dwell with especial emphasis upon the last paragraph of that resolution, recommending careful consideration of the social and political conditions of each particular country.

The report of the representative of the College on the General Medical Council; the annual financial statement of the Conjoint Finance Committee for 1898; the quarterly report of the Finance Committee; the report of the Laboratories Committee; and the annual return by the examiners of the results of the examinations for 1898 were severally received and adopted. Votes of thanks were awarded to the donors of books and others publications to the library during the past quarter.

THE PREVENTION OF TUBERCULOSIS.

THE GOVERNMENT AND THE STOCKKEEPERS.

MR. WALTER LONG, M.P., President of the Board of Agriculture, speaking on agricultural legislation at a dinner of the Newcastle Farmers' Club on January 28th, said he had been asked to deal with the difficult subject of tuberculosis, but he would ask everybody who was interested in the solution of this question, which applied not only to the health of animals but also to the health of human beings, to consider whether the Government was not right in believing the data were still too indefinite and wanting in preciseness to justify them in asking Parliament for great votes of public money, or to impose upon stockkeepers compulsory measures entailing great loss. They were not yet sure that these measures would be effectual. They wanted to know more than they knew at the present time. It had already been discovered that the tuberculin test might be so administered as to render it incapable of reaction on a second application; and that, therefore, it might be productive of fraud. Besides the people who had studied the question most closely were not agreed as to the conditions under which the test should be applied. The disease was difficult of detection unless they could rely on some such discovery as the tuberculin test. At present too little was known and too much was doubted for Parliament to be justified in imposing upon the country heavy expenditure or wholesale restriction which would be strongly resisted in many quarters, and which might not do anything effectual for the extinction of disease. It was for these reasons that he was not at present prepared to make proposals on the subject to the country or to Parliament.

TUBERCULOSIS IN CATTLE.

At the Society of Arts a paper was read by Mr. W. Hunting on January 25th. Mr. R. Brudenell Carter occupied the chair. Mr. Hunting pointed out that the annual loss of life from tuberculosis alone was 70,000 persons and 40,000 cattle; and that, while during the last half century there had been a great reduction in the death-rate from many forms of tuberculosis in man, the mortality of children under 1 year old from abdominal tuberculosis had increased—the increase going hand in hand with the increased consumption of cow's milk. There was reason to believe that at least 20 per cent. of the cattle over 2 years old were more or less affected, and that at the present time an enormous stream of infectious milk was pouring into our cities.

Purely voluntary action was insufficient to cope with the danger, and legislation was necessary. The recommendations of the Royal Commission and of the departmental and other committees which had considered this question showed the lines on which effective regulations could be drawn. The important points were: Tuberculosis to be scheduled in the Animals Diseases Act; compulsory notification of udder disease to be enforced; inspection of meat, milk, and cowsheds; regulation of the movement of diseased animals; slaughter of visibly diseased animals, with compensation to the owner; seizure of diseased animals in markets or during transit; power to the authorities to use the tuberculin test in doubtful cases; and offer of the test gratuitously to all stockowners. What would be the cost of such a scheme? Assuming the number of dangerously affected cattle to be 40,000, and that compensation at the rate of £2 per head were paid for all cattle of a value of £8 and less compulsorily slaughtered, and at the rate of one-fourth the market value of all others seized (no animal being valued at over £24), the total cost in the first year would be about £100,000, and would afterwards be a constantly decreasing sum until the disease disappeared. This was less than was now paid every year for the attempts to stamp out swine fever. The protection of human life would be most effectively undertaken by measures which applied to all animals, and not only to those which were in the hands of butchers and cowkeepers.

The Chairman said mere figures were apt to slide off the mind, but a simple supposition would bring home the startling fact that there were 70,000 preventable deaths in this country every year. There were many flourishing market towns in England with a population ranging from 6,000 to 10,000 each; and the mortality from tuberculosis produced as great a loss as if the entire population of some nine or ten of these towns was wiped out each year. Our rulers would do nothing until they were prodded into action by public opinion; and the sooner such a public opinion was formed on the best data the better it would be for the efforts to cope with this evil. The question of compensation was one which the nation would have to face, though it was possible to maintain more than one view with regard to it. He had heard of a district in India where a premium was offered for every poisonous snake brought in, with the result that one man had made a handsome income by establishing a snake farm and breeding snakes for himself. There was some fear that, under a liberal system of compensation, persons might find it worth while to buy up tuberculous cattle.

A discussion followed, and, in replying to the various points raised, Mr. Hunting said that there would be no danger of compensation leading to the abuse suggested by the Chairman. The person who speculated in tuberculous cattle would be more likely to incur prosecution than to make a profit.

EDINBURGH: REPORT BY SIR HENRY LITTLEJOHN.

In connection with the duties of the City Corporation towards the question of the prevention of consumption, and in particular with reference to the proposed inclusion of consumption as a disease to be notified, Professor Sir Henry Littlejohn was asked to prepare a report on the subject, and that he has now issued to the members of the Public Health Subcommittee.

In Edinburgh the mortality from pulmonary consumption has been decreasing, because of the great clearances that have been effected in the older parts of the city during the last thirty years, the improved drainage, the better feeding of the working and poorer classes, the efforts of the Corporation to provide outdoor recreation for the working classes, the public baths and washhouses. During the decade from 1878 to 1887 the total deaths were 44,616, and of these 4,968 were due to phthisis, and 5,027 to zymotic diseases. In other words, in a death-rate of 19 per 1,000, 2.1 were due to phthisis. During the decade from 1888 to 1897 the total deaths were 48,274, and of these 4,956 were due to phthisis, and 4,792 to zymotic diseases. In other words, in a death-rate of 18 per 1,000, 1.8 were due to phthisis.

Further, to lessen the ravages of this great scourge in Edinburgh, Sir Henry suggests:

1. The continued improvement of all insanitary areas.
2. The common stairs, the avenues of fresh air into the subdivided dwellings of our tenements, should be more regularly cleansed.
3. Owing to the scarcity of water, the dust in our closes and streets is not sufficiently dealt with. Twice a day the closes should be flushed, and the streets should be more frequently watered. The very poorest class has not had its wants attended to.
4. Handbills should be distributed calling attention to the risk of allowing the expectoration of patients to fall on the floor, or on any surface where it dries and passes into the air in the form of fine dust. A form of handbill such as the following might be used:

PULMONARY CONSUMPTION.

The Health Committee of the Town Council beg to impress on citizens the importance of never allowing expectoration to fall on the floor of any part of the house. This is specially to be guarded against in the case of pulmonary consumption, which is now regarded by the medical profession as highly infectious when the expectoration of the patient is allowed to dry on any surface, and to be carried in the form of dust into the air. By breathing this air the disease is readily communicated.

It is also known that light and fresh air tend to destroy this infective material. Hence the importance of attending to what is in every person's power, namely, securing, as far as possible, the entrance of light and fresh air into the apartment of the sick.

Domestic cleanliness is of prime importance, and patients should be provided with spittoons containing some disinfectant such as a solution of crude carbolic acid. These should be cleansed from time to time, and where pieces of rag or paper are used these should at once be destroyed by burning.

The Health Committee have given instructions that citizens, on applying at the Health Office, should have the bedding, etc., used by consumptive patients disinfected free of charge, and in the event of removal or death that the room should also be disinfected.

In families with young children it is recommended that, wherever practicable, the milk should be boiled over-night.

5. It was possible to eradicate tuberculosis from cowhouses and herds at an enormous expense for compensation by killing every animal which shows the slightest signs of the disease.

Taking the deaths as a whole, the mortality per 1,000 of the population under 15 years of age is 0.54; from 15 to 25 it is 1.63; from 25 to 45 it reaches the maximum of 2.74; and after 45 it is 2.52. The mortality per 1,000 of the whole population is 1.75—a figure low and favourable in comparison with the corresponding death-rate of other large towns in the country. As to sex, the disease causes a larger mortality among males than females, probably due to a greater incidence of the disease among the former, and in other conditions than the house surroundings and dwellings.

RENTAL.

Deaths from phthisis occurring in the period from January 1st to September 30th, 1898, shown according to rentals:

Under £5	24
£5 and under £10	125
£10 and under £15	97
£15 and under £20	70
£20 and under £30	39
£30 and under £40	7
£40 and under £50	7
£50 and upwards	11
	380

NOTE.—Seventeen deaths of persons who died in public institutions or common lodging houses are not included in the above.

In the above table we are enabled to obtain a proximate idea of the social status of those who have succumbed to the disease, and to some extent also of the sanitary surroundings of the affected households. While it may not be wise to draw a rigid conclusion that lower rental necessarily means defective sanitary surroundings and more unhealthy conditions of life than in higher rented property, yet a consideration of the above table irresistibly suggests the proposition; and we know that the classes who inhabit the lowest rented property in a city live, for the most part, under conditions of poverty, deficient nourishment, intemperance, and neglect of cleanliness, which, in addition to the sanitary state of their houses and surroundings, must exercise great influence upon their ability to withstand disease.

OCCUPATIONS.

The following occupations stand out prominently:

Masons	20 deaths.
Clerks	15 deaths.
Printers	14 deaths.
Brewers' labourers	7 deaths.
General labourers	7 deaths.

Among the dependents, which include wives and children, no class has a higher number of deaths than the general labourer, 22.

This disparity can only be accounted for by the open-air life of the head of the family, while from his careless habits and uncertain wages the children are too apt to suffer from scarcity of food and deficient house accommodation.

THE POSSIBILITY OF MUNICIPAL ACTS.

Sir Henry Littlejohn points out that if a young man become affected, the symptoms at first are often undecided, and after attendance as an

out-patient at the infirmary or dispensaries, he finds that his strength is so impaired that he can no longer work at his trade. Meanwhile, his pecuniary resources have been dried up, and if he has a wife and family to support, the depression of mind thus caused tends to aggravate the disease. If friends assist him, he remains a confirmed invalid in his house, and spreads the infection on all sides. To propose to such a one removal to the parochial hospital is generally indignantly rejected; and no wonder, when we remember that he must leave his wife and children, who, if they do not accompany him to the poorhouse, have to undergo the pinch of poverty, and, exposed as they have been to the direct infection of consumption, are very liable to suffer from the disease. If, on the other hand, the family should follow the father to the poorhouse, it must be remembered the wife and children are at once separated from each other, and the very thought of this acts injuriously on the patient. The only resource for such a patient is to take advantage of the many charities in the city.

NOTIFICATION.

While (he proceeds) I have shown the various agencies that may be put in operation by the Corporation to meet the present demand on the part of the community and the medical profession to lessen the risks of phthisis in our midst, I have hesitated to insist on notification. The only advantage that might be claimed in its favour—were it adopted, say, for a limited period—is that it would give the Corporation more exact information as to the extent of the scourge and the actual number who are affected. The tabular results of such an inquiry would also enable the Corporation to carry out those precautionary measures more thoroughly which have already been alluded to. I cannot however conceal the fact that, should notification be determined upon, it will prove to be expensive, for not only will the medical profession have to be paid for intimation, but, as there must be some guarantee as to the nature of the cases, each notification must be accompanied by a certificate that the case has shown the presence of the bacillus of consumption. To enable the medical profession to furnish such evidence the Corporation will require to subsidise the bacteriological laboratory of the Royal College of Physicians, so that every medical practitioner in the city may, free of cost, obtain such a bacteriological certificate as will justify the Corporation in granting the usual fee of 2s. 6d.

The number of phthisical patients in Edinburgh cannot be estimated at fewer than 5,000, and this entails an expense for notification of nearly £700, and, with a subsidy of £200 to the College of Physicians, together with contingencies, the total sum will amount to £1,000.

This question of notification is one for the Health Committee, in the first instance, to decide, or whether the Corporation should go on as they have been doing, improving the sanitary condition of the city, paying greater attention to cleansing—especially in the poorer districts—doing their best to put down the inordinate habit of expectoration, and lastly, by means of leaflets giving such information to the citizens as should educate them in the hygienic treatment of this disease.

In conclusion, I need hardly remind the Corporation of the importance attaching, so far as consumption is concerned, to the regulation of our slaughterhouses, and to the inspection of our dairies and milk supply. Edinburgh, with regard to these important points, has always stood in the van of great communities, and I trust that nothing will be done to impair in any way the stringency of the measures adopted by the Corporation in all these departments. There can be little doubt that in a few years science will provide infallible tests whereby tuberculosis will be at once detected. Meanwhile, until Government provides (1) tuberculin or other test of standard purity and in sufficient quantity, (2) extends its compulsory use over the whole kingdom, and (3) introduces and passes a Bill providing for satisfactory compensation, I cannot advise the general use of this means of diagnosis in our city byres.

EDINBURGH: PROPOSED CONFERENCE.

On January 27th a Subcommittee of the Public Health Committee of the Edinburgh Town Council on the Treatment of Consumption agreed to confer with the Councils of the Royal College of Physicians, and the Royal College of Surgeons on the subject of precautionary measures to be taken in regard to consumption. It was decided also to ask the principals of the veterinary colleges to be present. The Committee further resolved that there should be public notification of phthisis in the city, and the recommendation was made that a circular should be issued containing suggestions and indicating precautions in cases of phthisis. This circular is intended to be issued to the ratepayers to explain that consumption is a preventable disease, and can be cured at certain stages.

SOUTH LONDON.

At an adjourned meeting of the St. Saviour's Board of Guardians held on January 26th, Mr. Redman moved:

That, having regard to the large number of cases of tuberculous disease which find their way into establishments under the care of the Poor-law guardians, and the danger of infection incurred by non-tuberculous patients, it is desirable that some centrally-managed institution should be established to which all cases of tuberculous disease should be removed.

He mentioned that out of the 777 patients in the St. Saviour's Union Infirmary, no fewer than 131 were suffering from this disease. Mr. Rackham seconded the motion, which was carried *nem. con.*

Mr. Redman then moved:

That, with the object of eliciting the views of the various Boards of Guardians upon the subject and of providing for concerted action, a conference be convened by the St. Saviour's Board of Guardians, to which each metropolitan Board be invited to send delegates.

This motion was also agreed to, and the Board adjourned.

NOTTINGHAM.

At a meeting on January 4th, Mr. T. Davies Pryce (President) in the chair, a discussion on the treatment of phthisis curative and preventive was opened by Dr. Lowe (Lincoln), Dr. W. B. Ransom, and Dr. P. Boobbyer, and was continued at an adjourned meeting on January 25th.

Dr. Lowe thought that medical treatment must be both prophylactic and general. The apparently spontaneous arrest of tuberculosis in some instances had led to much empirical treatment. At different times transfusion of blood, cod-liver oil, and more recently antiseptic inhalations (of which he considered oil of cinnamon the best) had been favoured. Strychnine had proved the most useful drug for general treatment.

Dr. W. B. Ransom dwelt upon the relation of phthisis to air, showing by examples that the disease had no connection with climate, or with heat or cold, but that it was rare where the population was scanty, and where the conditions of life were pure and healthy. Phthisis was in man an essentially curable disease, but the healing powers of Nature must be relied upon, rather than the efficacy of drugs. He quoted the letters of Boddington in the *Lancet*, 1840, as to the value of fresh air. The disadvantages of sending patients for sea voyages, to the Riviera, or high altitudes were described, the only beneficial conditions common to them all being pure air and outdoor life.

Dr. Boobbyer discussed the responsibilities of local authorities in relation to tuberculosis. He thus summarised their functions: To discover if there were any local conditions likely to foster the spread of tubercle, to improve the dwellings of the poor, and of workshops not under the supervision of the central government, to give some instruction to people respecting the conditions known to favour the spread of this, as of all other infectious diseases, to disinfect houses and goods which had been exposed to the infection of tubercle, to prevent the use as human food of the milk and flesh of tuberculous animals.

Dr. Handford remarked that in the execution of preventive measures we were in the hands of the public, but the chief hope lay in their education as to the nature and causes of phthisis. He emphasised the extreme infectiousness of tuberculous milk, the risk from using tuberculous cream and raw meat juice.

The President said the best method of giving effect to our knowledge was by the enlightenment of the public through the diffusion of information in regard to the disease rather than by legislative interference.

Dr. C. Bell Taylor quoted the opinions of physicians of the past century as to the contagion of phthisis, and recited instances of the fluctuating character of mere medical opinion so that no safe legislation could be founded upon it. He thought it would be a difficult matter to persuade insurance companies that heredity played no part in the production of the disease, and condemned anything approaching compulsory notification.

After some observations from Dr. Watson, Dr. Mackenzie, Miss Gray, Dr. Cattle, Dr. Blurton, and Mr. Kingdon, Dr. Lowe replied on the whole discussion, and remarked that no one had referred to the rabbit as a possible source of infection, though tubercle was prevalent to a marked degree in rabbit warrens.

Dr. Giddings moved the following resolution:

That in the opinion of this meeting it is advisable that the Mayor of this city should take immediate action to endeavour to create a local branch of the National Association for the Prevention of Consumption.

After some discussion, the motion was unanimously negatived as being inadvisable.

CONGRESS OF POLISH SCIENTISTS AND MEDICAL PRACTITIONERS.—The Congress of Polish Scientists and Medical Practitioners, the intended meeting of which at Posen last year was forbidden for political reasons by the Prussian Government, is to be held at Cracow in 1900, at the same time as the celebration of the five hundredth anniversary of the University of that city.

MR. BALFOUR'S IRISH UNIVERSITY SCHEME.

The scheme embodied in Mr. Arthur Balfour's letter to one of his constituents, which was published in the newspapers on January 26th, is naturally attracting a great deal of attention in Ireland. Put shortly, it is a proposal to establish two new universities in Ireland—a Northern University and a Southern University. Neither would be denominational; but Mr. Balfour anticipates that the Northern University would be dominated by the Protestants, and the Southern University by the Roman Catholics.

A Dublin Correspondent writes: One point is omitted in Mr. Balfour's letter, and that is the fate of the Royal University of Ireland. We suppose that the new universities will be erected on its ruins, just as it in 1880 rose out of the ruins of the Queen's University. Certain it is that the most ardent advocate of extension of university education in Ireland could not make a case for the maintenance of the Royal University if its functions as an examining Board and a degree-giving corporation are to be discharged by a new teaching university in Dublin, and a new teaching university in Belfast.

What chiefly concerns the medical profession in Mr. Balfour's scheme is its probable effect upon medical teaching, education, and examination in Ireland.

In the first place, one more licensing body will be added to the long list of privileged universities in the United Kingdom. I say "privileged" advisedly, because the Medical Act of 1886 left to each university the right to registration in medicine, surgery, and midwifery, while it deprived the Royal Colleges of that right, save on the condition that they formed a Conjoint Examining Board.

It is to be supposed that the establishment of a university in Belfast would check the exodus of north of Ireland medical students to Edinburgh for the Scottish "triple qualification." The equipment of a magnificent medical school in connection with the new university in Queen's College, Belfast, and the facilities for obtaining degrees in that city, would outweigh the attractions of Edinburgh. Similarly, but to a less extent, the new university in Dublin might keep Irish medical students at home, particularly such of them as were Roman Catholics.

All this would be advantageous from an Irish point of view: but the advantage would be counterbalanced by the probably disastrous effect the university scheme would have on the Royal Colleges of Physicians and Surgeons, Ireland. These bodies at present play an important part in medical education and examination. The educational position of the Royal College of Physicians would no doubt remain practically unaltered, seeing that it consists in electing four King's Professors on the foundation of Sir Patrick Dun. These Professors teach in the School of Physic in Ireland, which is the medical school of the University of Dublin.

But the Schools of Surgery of the Royal College of Surgeons in Ireland would run a risk of annihilation under Mr. Balfour's scheme. At present those schools and the Cecilia Street School of Medicine (which is the school of the Catholic University) may be regarded as extramural schools. Practically all the students attending the Schools of Surgery go for the licences of the Royal Colleges of Physicians and Surgeons. The students of the Cecilia Street School qualify in part at the Royal University, in part at the Royal Colleges.

If a Roman Catholic University is established in Dublin, the Cecilia Street School will be merged in, or will develop into, its medical school, and all the students will, as a matter of course, take degrees at the University.

The Schools of Surgery of the Royal College of Surgeons will then be terribly handicapped, for its Roman Catholic pupils will be almost certain to desert to the new University. In this way the candidates seeking the licences of the Royal Colleges will be much reduced in number—finally, perhaps, to a vanishing point.

Our Belfast Correspondent writes: The opponents of the proposal to found a new university for Roman Catholics may be grouped under three heads:

First, the Orange and ultra-Protestant party, who are by history and sentiment uncompromisingly hostile to all concessions to Roman Catholicism. This party has its interests centred chiefly in Trinity College, Dublin, and the only argument likely to weaken their hostility is the consideration that unless some concession is made to Roman Catholics at the present juncture, the safety of Trinity College will be hereafter endangered. It will be noted as significant, from this point of view, that both the members for Trinity College—Mr. Lecky and Mr. Carson—are understood to favour the proposed new Catholic University. The ultra-Protestant party take their stand on the broad issue that all tests have been abolished in Trinity College, and that all its honours and emoluments are open to Protestant and Catholic alike, that no tests have ever existed in the Queen's Colleges, whose advantages are open to everyone without regard to sect, and that if the Irish Catholics decline to embrace existing opportunities for higher education, the fault lies in their own prejudices, and they must take the consequences. This argument has the disadvantage of ignoring the very essence of the Catholic case. The Catholics complain that Trinity College is by tradition, spirit, and management essentially a Protestant institution, whatever it may appear to be on paper; and that the Queen's Colleges are purely secular institutions, and as such repugnant to a Catholic, who regards the association of religion and higher education as indispensable.

Secondly, there is a considerable party in the North of Ireland whose watchword is, "United secular: separate religious instruction." This party holds, like many of the English Nonconformists, that the State should provide secular and technical education, but should ignore all sectarian questions, leaving the churches to provide religious instruction for their adherents. The question for this party to ponder is whether it is always the part of wisdom to insist upon the application under all circumstances of what seems a righteous principle, and whether, all things considered, Irish university education does not call for exceptional treatment. According to the Bishop of Limerick, only about 100 Irish Catholic youths are at present receiving university education in Ireland. Seeing that the Irish Catholics number from 3 to 4 millions, this figure is truly deplorable and highly discreditable to the existing arrangements for higher education in the country.

Thirdly, there is a party whose sympathies are entirely political. This party says: "The Unionist Government is overwhelmingly strong at present. Why should it meddle with a thorny and difficult question like Irish university education? It has overthrown other Governments and may destroy them. They should let it alone." If there were no higher motive in public life than political expediency this argument would possess much weight.

On the other hand, there is a considerable and distinctly growing body of opinion in the North of Ireland in favour of the view that some radical change in Irish university education is absolutely inevitable, and that some concession must be made to Roman Catholic feeling on the subject. The Royal University is exceedingly unpopular in Ulster, for the simple reason that it is worked in the interests of Dublin and that its examinations do not command the confidence either of teachers or students. This is felt especially on the medical side. Belfast sends forward about one-half of the candidates for the M.B. examination, but the Belfast Medical School at present possesses only two representatives upon the Examining Board of twelve members. Appointments in the Royal University are hardly even nominally made on grounds of merit. Sectarian considerations, or the conflicting interests of the various medical schools, are allowed to exercise a predominating influence. These facts, which will not be disputed by anyone really conversant with the circumstances of the case, have led many persons in the north of Ireland to the conclusion that the best solution of existing difficulties would be the acceptance of Mr. Balfour's proposals for a new Catholic University in Dublin, and a new Northern University with its seat in Belfast.

INDIAN AND COLONIAL STUDENTS IN EDINBURGH.

An important and influential meeting was held in Edinburgh on Friday, January 27th, under the presidency of Principal Sir William Muir, to discuss the question of providing a residence or residences for the use of members of the very large body of students attending the University from the

Colonies and India. The desirability of some such provision has been pointed out alike in the interest of the students themselves, of the University, and of the educational aspects of Imperial federation.

Sir WILLIAM MUIR moved, and Professor PROTHERO seconded the first resolution, which was as follows:

That this meeting cordially approves and warmly supports the suggestion of providing a residence or residences for the use of members of the very large body of students attending the University from the Colonies and India; also that this meeting expresses its sympathy with the work already done by the London Committee, and pledges itself to support their efforts.

Professor CRUM BROWN moved:

That a Committee be appointed to forward the matter in conjunction with the London Committee, and to arrange for a joint meeting to be held in Edinburgh at a subsequent date.

This was seconded by Sheriff ÆNEAS MACKAY, and supported by Bailie POLLARD, who suggested the countenance and sympathy of the City Corporation.

CONTRACT MEDICAL PRACTICE.

COUNTY OF DURHAM MEDICAL UNION.

THE general medical practitioners resident in the county of Durham have decided to form an association for the purpose of considering all medico-ethical questions affecting the profession in the county, and also raising the contract price of 6d. per fortnight, which is the present usual contract rate between workmen and doctors in the county, to a minimum charge of 9d. per fortnight. Dr. E. Jepson of Durham has been elected President, Dr. J. F. Armstrong of South Shields a Vice-President; a Council of 12 members has been constituted, and Messrs. Graham and Shepherd, Solicitors, Sunderland, have been appointed Secretaries and Solicitors and Treasurers *pro tem.* The subscription is 10s. 6d. per year per member.

The protection of members from unfair competition and from attempts that may be made to induce or compel medical practitioners to accept insufficient remuneration for professional services, and the establishment and maintenance of minimum rates of payment for medical contract work in relation to miners and all classes of workmen, members of friendly societies, clubs, lodges, insurance and other companies and societies, are the chief objects of the Union. The reasons adduced in favour of change were as follows:

1. The expenses of practice—for example, drugs, surgical instruments, dressings, etc., are higher than formerly.
2. Qualified assistants, as required by the new Medical Act, must be paid higher salaries than assistants were paid formerly.
3. The cost of medical education is higher now.
4. Patients get better value for their money now than formerly.
5. There is additional strain and exactions upon the medical man now, and additional responsibility under new Acts of Parliament.
6. The wages of workmen are much higher now than when the 6d. per fortnight subscription was first fixed.
7. In many districts in the county the workmen have recognised that 6d. per fortnight is inadequate, and willingly pay 9d. to their medical man.

This resolution was thoroughly discussed, and eventually unanimously carried amid applause.

It was resolved unanimously:

That notice of the increased rate of payment should be given by the secretaries as early as possible to the managers of all works and trade societies affected thereby, and to the secretaries of the miners' unions at Durham and Newcastle, and as to the latter, requesting them to inform the secretaries of the various miners' lodges thereof, and in the event of their refusal to do so, similar notices to be sent to each colliery affected.

It was decided that the change should take place in the first pay in the month of February, 1899.

LITERARY NOTES.

UNDER the title of *Bailey's Index to the "Times,"* there will be issued in the present year, month by month, a complete index to the contents of the *Times* newspaper. All the references will be so arranged that under a special heading, such as Medicine, for instance, will be found a complete list of all the information relating to this subject which has been given in the *Times* during the current month. The *Index* will be the work of Miss Nancy Bailey, who for seven years has compiled the Index to the Parliamentary Debates, besides having done the same for the Government in regard to the most important Royal Commissions. The publishers, Messrs. Eyre and Spottiswoode (East Harding Street, London, E.C.) will bring out at the end of each year the twelve monthly parts rearranged, brought into alphabetical order, and bound together in one volume. The subscription to the Monthly Index alone will be 30s. per annum; subscribers of 42s. per annum will receive post free each Monthly Index and the Annual Index.

Mr. B. Stephen Foster, Barrister-at-Law, of the Inner Temple and Midland Circuit, is the author of a *Guide to the Law of Licensing so far as it Affects the Sale by Retail of Intoxicating Liquors in England and Wales*, which is published by Messrs. Waterlow and Sons, and may be purchased by whoever wishes to be enlightened on the important subject with which it deals, for what Mr. Montague Tigg would have called the "ridiculously small sum" of half a sovereign. A captious person might perhaps ask, What have medical men to do with the "law of licensing?" To which it may be replied that, however little they may "at first thinking," as Swift says, imagine themselves to be interested in that particular legislative achievement, it really concerns them a good deal. Let us consider the matter by logical analysis: *Primo*, all doctors are interested in the sale of intoxicating liquors, because they derive a considerable proportion of their revenue from that form of commercial enterprise; *secundo*, a good many are themselves "moderate drinkers," and are therefore, whether as *bonâ fide* travellers or stay-at-home consumers, more or less directly interested in the matter; *tertio*, some are teetotallers, and as such necessarily interested in the greater or lesser facilities which the law offers their weaker brethren for procuring the "poison;" *quarto et præcipue*, not a few doctors are magistrates, and therefore are expected to know something of a law the administration of which forms an important part of their duties. Fifthly and lastly, Mr. Stephen Foster's book has an interest for medical men, inasmuch as he is the son of Sir Walter Foster, M.P. Of the book itself we can only say that, although to the non-legal mind it has a formidable appearance, bristling with Acts of Parliament, Statutes, Forms, and similar technical matters, it will be found a helpful and trustworthy guide to the law of licensing in all its bearings. The arrangement is original and tends to clearness, and the work may be recommended to medical magistrates and to all who have anything to do with the administration of the law relative to the sale of intoxicating liquors.

The February *Blackwood* is a double number in honour of its being the thousandth issue of that lively periodical. To us the most interesting item in the varied and attractive bill of fare provided is "The Looker-on's" commentary on Mr. Lecky's remarks on Mr. Gladstone's eye, which has given such offence to the admirers of that remarkable man. Mr. Lecky says he was told by Boehm, the sculptor, that he had seen a Scotch professor paralysed or fascinated by the glance of the "Grand Old Man," whose eye on the occasion was observed by Boehm to be "visibly dilating, and the eyelid round the whole circle of the eye drawing back, as may be seen in a bird of prey." The "Looker-on" confirms this on the authority of Boehm himself, who told him how "the outer lids of (Mr. Gladstone's) eyes widened in the fulness of their steady glare." Then, as the Scotch professor showed fight, "the *inner* lids were opened," whereupon the professor was so cowed that he could not speak. From which it would appear that we are asked to believe that Nature, which was so bountiful to Mr. Gladstone in other respects had also supplied him with a *membrana nictitans!* Truly one hardly knows whether Mr. Gladstone was more to be pitied for the admiration or for the hatred which he excited. The brain of this foolish-compounded clay, man, never invented anything more foolish than the stuff that is uttered about him by perfervid friends and simple-witted foes.

Professor Arthur Thomson of Oxford will contribute to *Knowledge* a series of papers dealing with the treatment and uses of anthropological data. The first is to appear in the February number of our contemporary.

THE ASCENT OF THE NURSE.—It is announced that in the coming summer a congress of male and female private nurses is to be held at Weimar.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 4TH, 1899.

ANOTHER BILL TO AMEND THE MEDICAL ACTS.

The General Medical Council has drafted for the consideration of the Privy Council, a very short Bill, consisting, in fact, of but two clauses. This Bill has been submitted by the General Medical Council to the governing bodies of the various licensing authorities for their observations. Under the first clause the Council would be empowered to erase the name of a practitioner from the *Register* for a limited period, instead of as at present for an indefinite period. Under the second clause, the practitioner whose name was erased, whether permanently or temporarily, would be deemed deprived of any diploma or degree entitling him to practise, and would render himself liable to prosecution under the provisions of the Medical Act, 1858, if during the period of erasure he used any title of which he was by this section deemed to be deprived.

The text of the clauses is, we are informed, as follows:

1. Where a registered medical practitioner has been convicted in England or Ireland of any felony, misdemeanour, or in Scotland of any crime or offence, or has after due inquiry been judged by the General Medical Council to have been guilty of infamous conduct in a professional respect, the General Medical Council may if they see fit by order to be made either at the inquiry or at any subsequent time direct that the name of such medical practitioner shall be and remain erased from the *Medical Register* for a limited period to be specified in the order, and may from time to time by subsequent order or orders vary such period, and at the expiration of the period specified in any such order or subsequent order the Registrar shall, unless otherwise ordered by the General Medical Council, restore the name of the practitioner to the *Medical Register*.
2. Where the name of a registered medical practitioner has been erased from the *Medical Register* by order of the General Medical Council for any of the causes specified in Section XXIX of the Medical Act, 1858, such practitioner shall, for as long as his name remains erased from the *Medical Register*, be deemed to be deprived of every diploma or degree conferring a qualification to practise medicine, surgery, or midwifery possessed by him. Any practitioner who in contravention of this section shall use the name, title, or description of any diploma or degree of which he is by this section deemed to be deprived, shall be guilty of an offence under Section XL of the Medical Acts, 1858, and all provisions of the said Act in relation to offences under the said section shall apply accordingly.

We understand that, subject to the approval of the various medical authorities, this Bill will receive the support of the Government, and it therefore becomes incumbent upon those who have the interests of the medical profession at heart to scrutinise its provisions very closely.

The first question which anyone conversant with the Medical Acts and the procedures of the General Medical Council will natural ask is, What is the practical benefit of these clauses? Has not the Council already the power to erase names from the *Register* temporarily?

In answer to this question it must be said that there has always been considerable doubt in legal minds (1) as to the power of the Council to restore names which have been erased; (2) as to its power to do so without re-examination; and it is probably with the object of allaying these doubts that the clause in question has been drafted. The object of Clause 2 is to make Section XL of the Medical Act, 1858, a reality as regards practitioners whose names have been erased, and this aim, we think, ought most certainly to commend itself to the public not less than to members of the medical profession. As the law is at present commonly interpreted, so long as a man is able to retain his diploma, Section XL of the Medical Act, 1858, has little or no terrors for an offending practitioner whose name has been erased from the *Register*. He is unable, it is true, to recover his charges for attendance in any court of law, he is debarred from holding various positions, and certificates given by him are not valid; but apart from this it is probable that a medical man with a large private ready-money practice who is struck off the *Register* suffers little or nothing, and can successfully meet the charge of wilfully and falsely assuming a title. In fact, it may be said that in a certain sense he may even consider himself to be a gainer, as he escapes the supervision of the General Medical Council and is no longer subject to its jurisdiction. It is obvious that an amendment of the Medical Acts in this respect is of urgent necessity, and that in cases of erasure the offender should be prohibited from holding himself out as a qualified practitioner. The public does not consult the *Register*, and many do not even know of the existence of a *Register*.

As has been already stated, the Government before bringing in the Bill has required that the sanction of the medical authorities should be previously obtained, or at least that some assurance should be given that they would offer no opposition, and it is here that considerable difficulty threatens to arise. Reference to the report of a meeting of the Royal College of Physicians of London, which appears elsewhere, shows that the College is advised that the second of the proposed clauses will infringe its rights and that it will feel bound to oppose this clause unless it is limited to those bodies who have not the power of withdrawing their diplomas.

This amendment of the College, if insisted on, will practically kill the clause, since it is hardly probable that any of the licensing bodies will consent to such a reservation in favour of the Royal College of Physicians of London, and even if they did this section as amended would have the anomalous effect of affecting the diplomates of some licensing bodies while leaving those of others untouched.

An objection of a somewhat similar nature will probably

be raised to the first clause also by those licensing bodies who have at present no power of temporary erasure of names from their list of licentiates, as is the case with the Society of Apothecaries under its Amendment Act of 1874. Should this clause become law as it stands these bodies will, apparently, either have to ignore an erasure of one of their licentiates from the *Medical Register*, which would be most disastrous, or if they erase a name from their list of licentiates will have to insist on re-examination before restoration. In this connection it may be observed that the ambiguity of the language employed in Clause 2 leaves it open to doubt whether deprivation of qualification would not in all cases involve the necessity of re-examination before a name could be restored to the *Register*.

It is to be feared that objections such as these, which undoubtedly are of a weighty character, will go far to endanger the likelihood of this Bill passing into law. Surely, however, it would be possible to recast and amplify the Bill, which at present suffers from undue compression, and to devise some efficient means by which offending practitioners may be effectually punished, not by depriving them even temporarily, of titles or diplomas, which necessarily involves questions of jurisdiction, but by suspending them from practice and the public use of their titles during such a period as may be determined by the General Medical Council. Mere erasure from the *Register*, as we have pointed out, may have no practical effect upon an offending practitioner so far as the public is concerned, but suspension from practice with consequent penalties would afford a more drastic remedy. In conclusion, while we find ourselves heartily in accord with the intentions of the General Medical Council in thus seeking to add to its disciplinary powers, we very much doubt whether the present Bill will easily escape the criticism of the licensing bodies whose support is, as above stated, essential to success.

TEACHER AND TAUGHT.

One of the most remarkable and most hopeful signs in the educational movement is the enthusiastic spirit widespread among teachers. The Winter Conference lately held was full of it; and no one can talk to or watch the work of schoolmasters without recognising that in the last thirty years a change has come over the profession, and that its relation to its pupils has altered. Masters are friends nowadays as well as teachers: and there is between the boy and the "don" a confidence and a freedom which are of the best effect upon the former, and perhaps not without importance to the latter. In England, Arnold of Rugby was the great reformer: but Pestalozzi the Swiss of a hundred years ago is the patron saint of the movement. There is more intelligence also on the part of the public than there used to be. Every serious child nowadays realises the education of his parents as a sacred task, and the most flippant parent is forced during the holidays to take upon himself the burden, which he usually delegates to another, of dragging up his son. The last month of trial has no doubt refined and chastened both parties, and has fitted us to consider what the special professors of education have to say about it.

The common practice of education has lagged till lately far behind the ideals which have been formed of it. The wide and sane views to which Milton and John Locke gave utterance in the seventeenth century might be still held up, for they have been only partially realised. But of late years the ideals of the few have become those of the many, and both in the study of individual character and in the width of influences which are pressed into the service of teaching we have made great steps to their attainment. Locke hated schools and drudgery. He was the great apostle of home education and of the useful, which he wished taught by easy methods. Milton, on the other hand, was, as we might expect, an advocate of school and discipline, of Latin and Greek, Chaldee and Syriac, and of training by severe application. The dispute is not ended yet, but the schools have adopted to a great degree the humaner tone and the moral training which both these great men agreed in urging. The rest is really a matter of investment. Everyone must take to useful learning some time or other, and how much time he spends upon previous mental gymnastics, the value of which is yearly more recognised, depends upon his pocket. The weight of authority is certainly in favour of the grammatical way of learning languages, whether the object be mental discipline or utility, and the dead languages and mathematics form now, as then, the staple of school teaching. The addition of science which has lately taken place in most schools will gradually supply the previously defective training in observation and inference.

The technical defects of the teacher have also been recognised of late, and much is being done in remedy. In Germany the art of teaching has long been taught in the universities, and is a subject with special professors of its own. Edinburgh and St. Andrews have formed similar chairs, and of late Oxford and Cambridge have been taking useful steps in training teachers.

It is interesting to remember that bodily training has held a prominent place in most of the ideal systems of education. We need not go to the Greeks and Romans for authority. Locke and Milton both emphasised its importance, and urged that dancing, fencing, riding, and wrestling should form part of a boy's regular training. Rousseau, who is the great apostle of the modern movement, went further still. Emile, his ideal scholar, was hardly able to read at 12 years old, but excelled in running, jumping, and all bodily accomplishments. Games are by no means a craze of recent years, but are, as Canon Lyttelton truly said, rather in a state of revival after two centuries of neglect. A university authority the other day lamented the decay of learning, and ascribed it to "those infernal games." But learning was never very widespread, and there are probably as many scholars now as usual, while there is no doubt that an open-air life and bodily exercise are great preservers of health and pleasure. The preservation of the capacity for pleasure is one of the best signs of mental vigour.

Dr. Clement Dukes, when he said that boys did not have enough sleep at school, raised an important subject. We agree with him. In casting up the profits of age, it is no slight matter that we shall never again in this world get up to morning school. How the Wykehamist blessed the junior in chambers who "sported a thoke." No one but a Wykehamist will construe that sentence, though in him

a chord of rapture will be set vibrating by the words; but in truth lying in bed, which in middle life sinks into the ruck of mere pleasures, is to the schoolboy a foretaste of Paradise. He is no true boy who would not sooner miss his breakfast than get up. One of the few remaining uses for a father, now that most boys have their own steam cheque writer, is that about 8 A.M. he appears at the bedside of his offspring as a spongifer, and the sponge is wet.

The ventilation of schoolrooms and the shapes of school furniture, which were discussed by Dr. Newsholme, are equally important, and should the Duke of Devonshire carry out his intentions, there is no doubt that he will attend to them.

THE WORKING OF THE NEW VACCINATION ACT.

The relations between the public vaccinator and the private practitioner created by the new Vaccination Act call for the exercise of the greatest tact and forbearance if there is not to be misunderstanding and jealousy. This is especially true during the first month or two of its operation, and particularly in regard to the question of the visiting by the public vaccinator of children born before the passing of the Act.

The Act says, "If any child is not vaccinated within four months after its birth, the public vaccinator of the district, after at least twenty-four hours' notice to the parent, shall visit the home of the child, and shall offer to vaccinate." This is quite open to the interpretation that a public vaccinator has a distinct duty in regard to every unvaccinated child of over 4 months in his district, and the question arises as to whether a prosecution could be sustained if the public vaccinator had not thus visited and offered to vaccinate.

The Vaccination Order, however, limits the meaning of this clause by requiring the public vaccinator to visit and offer to vaccinate all cases in the vaccination officers' lists. These must contain no children more than 4 months and 3 weeks old, and from them are excluded the names of all children in whose respect valid certificates of one kind or another are in the possession of the vaccination officer. The Order, therefore, makes no provision for the public vaccinator to visit and offer to vaccinate children born before the passing of the Act, but apparently contemplates their direct treatment as defaulters as soon as the age of 6 months is attained. The vaccination officer is bound by his instructions to "see that all children entered on the birth lists of his district are either duly vaccinated, or are otherwise properly accounted for in accordance with the law relating to vaccination." As it is unwise to call in the aid of the law unless absolutely necessary, many vaccination officers are giving the public vaccinators unofficial lists of children born before the passing of the Act who are not yet accounted for, and asking them to visit and offer to vaccinate, so that in court the magistrates may be convinced that everything possible has been done to meet the wishes of the parents and to comply with the spirit of the law as well as the letter of the Act. In such cases the wording of the Act intimates that at least twenty-four hours' notice should be given.

In some cases the public vaccinator has sent a circular letter to the medical practitioners in his district, giving a short summary of the changes effected by the new Act and Order, and pointing out the advisability of his fellow practitioners getting the children of their own patients accounted for either by vaccination or postponement before they reach the age of 4 months. This appears to be the most practical way of meeting the difficulty. In any case, we repeat, much tact must be exercised, and every effort should be made to avoid misunderstandings; in the course of another month things will be likely to settle down into something like order, and the occasions of friction be consequently reduced.

A correspondent has asked us an old question under new circumstances. He wishes to know whether a medical man, who is not a public vaccinator, ought to make only a small number of insertions of lymph, while the public vaccinator of the district, to fulfil the requirements of the Local Government Board, is obliged to make four insertions. Questions like this were frequently asked before the Vaccination Act of 1898 came into force, and, even under the conditions then existing, only one reply was possible. Downward competition in a matter so vitally related to the public welfare as is efficient vaccination can never be looked on as anything else than derogatory to the medical profession. Limitation of the number and area of the vaccine vesicles below the standard which experience has shown to be desirable, and which has been adopted by the Local Government Board, is a thing which was always to be deprecated. Yet, under the law as it existed up to the end of 1898, the best intentioned and most honourable medical man occasionally felt himself, in presence of parental solicitations to make only one or two marks, in a somewhat difficult position.

Whatever mischief the absurdly-framed conscience clause of last year has already done or may still do, it is surely right that the profession should take advantage of such incidental benefit as it is capable of yielding. There is no doubt that, with regard to this question of inefficient vaccination, the conscience clause does offer a remedy, and we shall be gravely at fault if we refuse to accept the offer. Every parent who presents a child for private vaccination should now be told that there can be no middle course between thorough vaccination and no vaccination. If the parent objects to the proper complement of marks—if he or she desires to add the child to the long list of those who are only half protected, and who go to swell the small-pox attacks among the vaccinated which figure in the records of every epidemic—the reply of the private practitioner should be a definite refusal. The parent would then have the choice either of having the child properly vaccinated, or of going to a Court of Petty Sessions and making declaration of conscientious disbelief in vaccination.

The British Medical Association did its best to induce Parliament to give, by the recent Act, the same financial recognition to the vaccination work of the private practitioner as to the work of the public vaccinator, the same standard of efficiency being required for both in order to obtain such recognition. Refusal to adopt this advice was one of the various blunders which the Government made in its Act of last year. Governmental blundering, however,

affords no excuse to the medical profession for neglecting its primary duty of protecting the public health, even of protecting the health of the child against the folly of the parent; and on this question of thorough vaccination there should be no compromise. We trust that in the future we shall not hear any more of this paltering in a double sense, of these one-mark and two-mark vaccinations "that keep the word of promise to our ear, and break it to our hope," but that public vaccinators will have no reason to complain of downward competition on the part of their brethren in private practice.

CENSURE ON A MIDWIFE.

AN inquest was held at Lincoln on January 27th by Mr. A. Trotter, the city coroner, on the body of an infant 20 days old, one of twins said to have been prematurely born, and weak from birth. The mother was attended by a midwife, and the child suffered for a week from convulsions, but no medical man was called in. The midwife told the parents that the child was sickly and would not live, and that it was not necessary to have a medical man. The midwife herself certified the death to the registrar, who reported the matter to the coroner. The father deposed that if it had not been for the midwife's statement he would have called in a doctor. The midwife stated that she knew from the first there was no chance of the child living. The Coroner asked her: Do you think it is your duty to pronounce once for all that a case is hopeless without having your opinion backed up by a medical man? Witness: I have done it in other cases repeatedly, and I have always been given to understand that I am quite at liberty to do so. When I was training I did the same thing, and I have always understood that I was at liberty to do it. The Coroner: Don't you think it is wrong for an unqualified person to take such a vast responsibility? Witness: I cannot say I do; because if this responsibility is so great, why has it been permitted so long? I have been in Lincoln six years, and I have done the same thing repeatedly. The Coroner: I have known people do very wrong things repeatedly; and I think it is very wrong indeed, and it is high time such a practice was stopped. Witness: Can you tell me what I ought to do? When we send for a medical man to an immature child he refuses to come to it. The Coroner: The worse you see a child, the greater your duty is to have the best medical opinion upon it that the parents can afford and Lincoln provide. Dr. MacFarland said there was nothing suspicious about the case; general wasting was the cause of death. If a medical man had been called in, and the child kept warm and given proper nourishment, it might have lived. It was a small child, but he did not think it was immature. The Coroner said the midwife had the reputation of being an experienced and able woman, and had the impression that she was as good as any doctor. But she had made mistakes over and over again. She had done a great wrong in arrogating to herself functions which were not hers. Midwives must not go beyond their duty, or they would get into serious trouble. The verdict was "Death from natural causes," the jury adding a rider that the midwife had exceeded her duty and ought to be censured. The Coroner thereupon informed her that she would get into very serious trouble if she took upon herself to diagnose what were hopeless cases, and prevent the parents fulfilling the duty imposed upon them by Act of Parliament. The case illustrates a good many interesting questions, but we shall content ourselves with pointing to one—that it affords striking evidence that any Midwives Act ought to contain a clause distinctly forbidding a midwife, under penalty, to give a certificate as to the death of any infant, or of stillbirth.

THE CLIMATE OF BRITISH HEALTH RESORTS.

AT the annual meeting of the Royal Meteorological Society, Dr. Groves, of Carisbrooke, Isle of Wight, drew attention to the importance of absolute accuracy in meteorological records, and said that only those observations made scientifically, and under authority, should be recognised. He thought that amateurism in meteorological matters could scarcely secure confidence, especially when it was associated with vested interests, and that, therefore, all records of persons commercially interested in a locality should be viewed with caution, if not with suspicion. Such records would include those made for and published by town councils and governing bodies of health resorts, and by people of whatever class, whose personal interests were very closely identified with the prosperity of such places. While avoiding any charge of intentional dishonesty, Dr. Groves expressed the opinion that there must be a bias, probably unconscious, in favour of a place with which the observer was intimately connected. For instance, if fractions were invariably given in favour of a health resort, this would in time produce an effect on the averages which would vitiate the returns. He even asserted that in the past instances had occurred in which, during a period of low temperature, or absence of sunshine, or excessive rainfall, no returns had been made, but the period had been credited with the average of many years. Dr. Groves further expressed the opinion that while seaside places on the southern and western coasts of Britain were enormously benefited in winter by the heat brought by the Atlantic at each flood of the tide, there could be no great difference in meteorological features between one of these places and another, except in the instance of limited areas entirely surrounded by the sea, and in those in which highlands caused condensation of the moisture of the atmosphere and consequent increased rainfall and diminution of sunshine. The real point of difference, he held, between health resorts in these districts in winter turned upon the amount of shelter from the wind. The object of invalids, and particularly those suffering from tuberculosis, who visited the British southern health resorts in winter, was that they might be able to spend as many hours as possible out of the twenty-four in the open air, and have their windows open all night. In order to do this they must be sheltered from the wind, and even though the temperature were a few degrees higher in an exposed locality it would not be suitable to such patients in winter. We are inclined to agree with Dr. Groves that there is some absurdity in the practice of rival health resorts, situated at no very great distance from each other, and subject to the same meteorological conditions, publishing meteorological returns against each other. There can be no doubt that the record of meteorological conditions ought to be kept with scientific precision, and that in calculating averages a year during which the observations have been for any reason incomplete ought to be excluded. If the Royal Meteorological Society would undertake the supervision of the local records, which should be made by competent and impartial persons, and would publish at intervals an impartial statement, such reports would be of great value both to the medical profession and to patients.

THE DEATH-RATE OF MEASLES.

DR. THOMSON, the Medical Inspector of the Local Government Board, the author of the well-known report on Measles in England and Wales, has recently presented a report on Measles at Burton-on-Trent, a borough of some 50,000 inhabitants, mostly of the working class, and largely dependent on the employment afforded by the famous breweries of the town. In 1896 measles was fatal to the extent of 1.7 per 1,000 of the population, and the prevalence continued into the following year, when 274 known

cases occurred, and 7 deaths. In 1898 there were from January 2nd to August 13th, a period of thirty-two weeks, as many as 2,015 notified attacks, of which 29, or 14 per 1,000, proved fatal. The attack rate of 39 per 1,000 at all ages was 103, 152, 157, 228, and 218 respectively in the first 5 years of life. The death-rate was 0.56 per 1,000 at all ages, and 4.2, 7.7, 6.0, 0.7, and 0.7 in the several years of the first quinquenniad of life. The fatality rate per 1,000 attacked was 50 at 1 to 2 years, and 40 and 38 respectively in the preceding and following years of life. Although the Notification Act in Burton-on-Trent includes measles, few cases were reported by householders; still, few cases are thought to have gone unattended medically. So far as was possible with a restricted sanitary staff, each invaded house was visited and revisited; but in the midst of the epidemic, the staff, consisting as it did of the local health officer, a nuisance inspector, his assistant, and a clerk, proved to be unequal to the task. Moreover, systematic information of a helpful sort from school authorities was lacking, and the Town Council failed to give such information to schools in all cases as would have been useful in tending to check spread of the disease. Closure of schools, too, would seem to have been delayed too long, though the evidence tends to show that the conditions of school life fostered the disease, and led not only to its extension among scholars, but also to its being carried to non-school-going children. And this, too, despite the fact that the physical properties of Burton are such that the disease did not get immediate hold of the town, as is so often the case with measles. Again, the hospital was not made use of in the initial stages of the epidemic, when isolation of cases not otherwise easy of isolation might, with other needed measures of precaution, have arrested the spread of the malady. Understaffing, however, seems to have been one of the greatest misfortunes of Burton, and will serve as a useful object lesson to other towns also. Dr. Thomson demonstrates that the sanitary officials worked heroically in the face of tremendous odds.

SURGEON WILLIAM J. MAILLARD, M.D., V.C.

The medical officers of the Mediterranean Fleet entertained Surgeon Maillard to dinner at the Malta Union Club on Friday, January 13th, in honour of his being awarded the Victoria Cross for his brave actions in the recent disturbance at Crete. Commander Vaughan Lewes, D.S.O., and the officers of H.M.S. *Hazard*, to which Surgeon Maillard belongs, were invited to meet him. About thirty sat down to dinner under the presidency of Deputy-Inspector-General Martin, and the proceedings were enlivened by the band of H.M.S. *Revenge*, kindly lent by Rear-Admiral Sir Gerard Noel, K.C.M.G. After the Queen's health had been drunk, the President, in a most eulogistic speech, proposed the health of the "Guest of the Evening," and congratulated him on receiving from Her Majesty the most coveted of honours—the Victoria Cross. Surgeon Maillard, in response, thanked his brother officers for the honour they had done him, and said that he was more than pleased to have done something for the honour of the medical branch of the Navy, and felt very keenly their sympathy and appreciation.

THE ARTIFICIAL PURIFICATION OF AIR.

A somewhat mysterious communication was made last week to the Académie de Médecine. It was to the effect that M. Jaubert, who is a chemist formerly attached to the École Polytechnique, had succeeded in finding a substance which, when used in proper proportion, was capable of moving from the air of a closed chamber the carbonic acid, watery vapour, and other irrespirable products produced by a living animal enclosed in the chamber, while at the same time giving out "automatically in exchange the mathematically exact quantity of ooxygen required." Two experiments were made by Dr. Laborde, the one on a guinea-pig under a bell jar, the other on M. Jaubert's brother, who wore a tightly-fitting respiratory mask. The nature of the substance is not mentioned, the only indication being that it is the lightest "reservoir" of oxygen in existence. The note is published only to obtain priority for the discoverer, but we are told that the research has been in progress since May last, with the approval and assistance of the French Ministry of the Marine, which was interested in M. Jaubert's scheme because it promised to be useful in submarine boats and in diving-bells. It is stated that 3 or 4 kilograms of this substance is enough to keep a healthy adult alive for twenty-four hours in a space hermetically closed. M. Laborde thinks that the substance will be of use also in medicine, since a few grams—an amount which can be easily carried in a waistcoat pocket—would at once yield several decalitres of very pure oxygen gas. As the inhalation of oxygen gas, which in conditions of imminent asphyxia—produced, for instance, by pneumonia or sudden failure of the heart—is generally called for under circumstances in which any delay seriously decreases the chances of recovery, there can be no doubt that M. Laborde's forecast will be fulfilled, if the mysterious substance proves, on independent investigation, to possess the properties attributed to it.

SUBTYLL AND CRAFTY DEVICES.

The recent convictions at Southport for fortune-telling by palmistry under Section IV of the Vagrancy Act, 1824, will serve to remind us "that every person pretending or professing to tell fortunes, or using any subtle craft, means, or device by palmistry or otherwise to deceive and impose on any of Her Majesty's subjects," can be convicted as a rogue and vagabond, and sentenced to a term of imprisonment not exceeding six months, subject to an appeal to quarter sessions. That palmistry or "palmestry" was known in the sixteenth century appears from the statute 22 Hen. VIII., c. 10. By that Act it was recited that "afore this time dyverse and many outlandysshe People, callynge themselfes Egyptians, usyng no crafte nor faick of marchandyse, have comen into this realm and gone from shire to shire and place to place in greate company, and used greate subtyll and crafty meanes to deceyve the people, beryng (*sic*) them in hande that they by palmestry could tell menne and women's fortunes, and so many tymes, by crafte and subtyltie have deceived the people of theyr money." Palmistry was not made an offence by this statute, but all persons practising it were compelled to depart the realm. This severe penalty was virtually abolished by the Vagrant Act of 1743, under the provisions of which all persons "pretending to be gypsies..... or pretending to have skill in physiognomy, palmistry, or like crafty device or pretending to tell fortunes," were punishable as rogues and vagabonds. This Act was in its turn superseded by that of 1824. From the case of Penny *v.* Hanson (18 Q.B.D. 478) we learn that "to cast nativities, give yearly advice, and answer astrological questions" is an offence within the meaning of the Act. In Monck *v.* Hilton (46 *L. J.*, M.C. 163) an interpretation was put upon the words "palmistry or otherwise." Baron Cleasby distinguished cases of palmistry from those in which use is made of great skill of manipulation and sleight of hand, where persons are found confident enough to back their eyesight against the skill and dexterity of the performer. It had been contended in that case that it was a necessary ingredient in the description of a "rogue and vagabond" that he should lead a wandering and vagabond life; but his lordship said, "Whatever an offender's position may be under other Acts of Parliament not relating to rogues and vagabonds, if he comes within the enumeration in Section IV, he is properly punished as a rogue and vagabond."

It is a remarkable fact that there is nothing in the section about practising palmistry for reward. The full offence appears to be committed by practising, etc., with intent to deceive or impose upon Her Majesty's subjects. It is probable, however, that practising with intent to deceive implies the idea that the person is doing so for the sake of gain, and the fact that there are no reported cases of practising without a view to gain is a negative argument in support of this contention. Owing to the paucity of cases upon the construction of this section, it is difficult to ascertain how far the Court would venture to extend the meaning of the words "by palmistry or otherwise." There are dicta of certain judges which support the view that something more than palmistry and occult arts *ejusdem generis* were contemplated by the Legislature at the passing of the Act. It might be argued that a Christian Scientist uses "greate, subtyll, and crafty meanes to deceyve the people," or, to use the language of the modern statute, deceives and imposes on some of Her Majesty's subjects. A prosecution conducted upon these lines might be an interesting experiment, if it were only to see how the magistrates would deal with it, but the well-known rule which prevents the extension of a criminal enactment by construction might prove a formidable obstacle in the way of its successful issue.

THE TEACHING OF VACCINATION TO STUDENTS.

MR. E. CLIMSON GREENWOOD has been appointed teacher of vaccination to the medical school of St. George's Hospital. Under the provisions of the Vaccination Act the teaching of vaccination at vaccination stations necessarily comes to an end. Under the arrangement now made at the St. George's School the teacher of vaccination will give a short course of lectures in the school, and will make arrangements for the students attending the lectures to accompany him during domiciliary visits. One advantage may be expected from the new conditions—namely, that the student will be able to watch the progress of the vaccine vesicle to a later stage than was the case under the old system.

THE *ARCHIVES OF NEUROLOGY AND PSYCHO-PATHOLOGY.*

THE *Archives of Neurology and Psycho-Pathology* is a new periodical which is published under the auspices of the New York State Hospitals and the Pathological Institute, by permission of the State Commission in Lunacy. Nos. 1 and 2 of vol. i, now before us, give promise of a most valuable addition to neurological literature. The first paper is an attempt to display in a tabular form the changes in nerve cells which correspond with changes of physical or psychic activity. Such an attempt is successful in proportion as the two parallels can be kept apart and described each in the terms which properly belong to it. But in this subject this can only be done by a continual assumption of knowledge we do not possess. It is supposed that the neuron may be affected in three ways, or, since these may pass one into the other, in three stages or degrees. In the first, there is retraction of the dendrites, causing dissociation; in the second, there is parenchymatous disintegration of the cyto-lymph alone; in the third, degeneration of the cyto-reticulum. These correspond, the first two to what we may roughly call the slighter and the severer forms of functional disease; the third to organic disease, such as tabes dorsalis and general paralysis. But it is mere guesswork, and, though imagination is an important quality in scientific work, it is still more important that we clearly recognise what is imagination alone, and what is imagination corroborated by observation. There is as yet no observation which supports the supposed correspondence between the states of the neuron and the symptoms with which we are familiar in functional diseases. The remainder of the volume—238 pages—is taken up by a paper on the Correlation of Sciences in the Investigation of Nervous and Mental Diseases; it is a report from the director of the Pathological Institute of the New York State Hospitals to the State Commission in Lunacy for transmission to the Legislature, and is a justification of the various departments under his control, such as that of experimental psychology, and an insistance upon their importance. It is of course obvious that experimental psychology, whether of the normal or the diseased mind, is a valuable branch of investigation, and so are comparative anatomy, morbid anatomy, and other fields of labour, departments for which exists in the Institute. A paper urging this view in 238 rather close pages is extremely well suited to the Legislature, but will probably be less interesting to medical men.

THE IRISH DISPENSARY DOCTOR.

THE guardians of Baltinglass Union have taken exception to the statement that visiting tickets have been issued to guardians and other undeserving committees; and they have passed the following resolution: "That the charges hurled broadcast and anonymously by the Irish Medical Association against the guardians of the poor and members of dispensary committees are of so grave a nature that we call on the Local Government Board to hold a full and sworn inquiry into them before taking action on the report, and that a copy of this resolution be sent to all other unions in Ireland." That is just what is wanted. We have been asking for an investigation for years. But it must not be held by the Local Government Board or its officers. We want a full inquiry into the whole system and its abuses and shortcomings, but it must be by an entirely independent Commission.

THE TIMOTHY GRASS BACILLUS.

ANY facts connected with the life-history of Koch's tubercle bacillus, or any of the allied forms belonging to the tuberculous group, are of special interest at the present time, when such strenuous efforts are being made to minimise their power. Recently our knowledge concerning the micro-organism resembling tubercle bacilli has been increased. Now, Dr. Moëller[1] has successfully isolated the Timothy grass bacillus which inhabits the slopes of Görbersdorf, and appears to resemble Koch's bacillus more closely than any of its predecessors. This discovery may open up new paths for future inquiry. The vegetable world has not yet been suspected of harbouring organisms belonging to the tuberculous family. Moëller began by examining the Timothy grass surrounding the sanatorium on which the cows (supplying milk to the institution) are fed. A blade of grass was placed in a test tube filled with sterilised water, the open end being covered with an india rubber cap. The test tube was placed in an incubator for fourteen days at a temperature of 37°. Microscopical preparations stained with Ziehl-Neelsen showed bacilli resembling Koch's bacillus in taking the red stain and not the blue. The formation of rodlets and thread-like ramifications, clear oval spaces, and often bulbous extremities, were the points of resemblances with Koch's bacillus. The Timothy grass bacillus was isolated and grown on various media, the potato and glycerine agar culture was almost identical with a growth of Koch's bacillus. The pathological lesions found after injection experiments on guinea-pigs were practically identical with those seen in the case of Koch's bacillus. The animals died with lesions resembling those of miliary tuberculosis, the lungs, liver, and omentum were chiefly affected. Moëller usually took the specimens for future experiments from the cavities in the lung tissue. The usual giant-celled infiltration is seen in animals dying from injections of the Timothy grass bacillus; the semilunar-shaped cell, however, so characteristic in lesions produced by Koch's

[1] *Therap. Monat.*, November, 1898.

bacillus, has never been observed in the former case. The Timothy grass bacillus has been found by another observer in Würzburg. Moëller has also found it to be present on a species of grass known as the meadow foxtail, and the bromus erectus. The most convincing proof of the close relationship between the Timothy grass and Koch bacillus is the fact that they both take the chamois colouring matter. This characteristic is not shared by the other micro-organisms belonging to the tuberculous group. Raleinowitsch, who has examined the Timothy grass bacillus, admits that the butter bacillus shows a very different growth on the nutrient media. We know that under certain conditions the biological characteristics of the tubercle bacillus undergo a change; this being so, the question naturally arises whether under a different environment the Timothy grass bacillus may not more nearly resemble Koch's, or, in fact, be identical with it. The Pasteur Institute and the Gesundheits-Amt in Berlin are at present engaged in examining the life-history of this new bacillus, and we may hope before long to have more light thrown on this interesting problem. Moëller also succeeded in isolating what he calls the "dung bacillus," which is found in the fresh fæces of cows. The animals from whom he obtained the bacillus had previously been declared to be non-tuberculous, having successfully recovered from tuberculin injections. This micro-organism also belongs to the tuberculous group, and is chiefly distinguished from Koch's bacillus by its rapidity of growth. In the near future the examination and disinfection of grass may form part of the *régime* of our sanatoria.

CONSTANT WARMTH TREATMENT FOR CANCEROUS ULCERS.

The treatment of phagedenic sores by constant immersion is well known. In 1893 Welander reported excellent results from the application of constant warmth from small hot-water pipes in cases of soft chancre. He further found that his method proved useful in ulcers involving bone, in psoriasis, and in favus. Berlien, his pupil, devised a hydrothermostat and the instrument has been largely employed. Welander has always maintained that his method would soon be employed beyond venereal wards. Professor Westermark of Stockholm, seeing its beneficial effects, made use of the apparatus in a case of cancer of the cervix uteri. He had curetted and cauterised the part with a view to perform hysterectomy, but the patient was exhausted, so that no further steps could be taken in the direction of an operation on that occasion. The cavity in the cervix was packed with xeroform gauze, but fœtid discharge began to come away two days later. Constant warmth at 106° F. was applied to the ulcer for forty-eight hours. All fœtor disappeared and three days later total extirpation of the uterus was performed with complete success. As Berlien's apparatus is ponderous and costly, Westermark has contrived a small cistern capable of holding two or three gallons of water and warmed by a Bunsen burner. It is fitted with the usual valve to prevent overflow, also with a regulator for the heat; and rubber tubes can be fitted to the inlet, outlet, and waste pipes. The contrivance for local application is a small silver tube, specially curved three or four turns. A little absorbent wool is wrapped round it before introduction. Three different sizes are kept for use. One end of the silver tube is fitted to the rubber tube connected with the outlet pipe of the cistern. From the other end a similar rubber tube passes into a receptacle under the patient's bed. Lead is an unsatisfactory metal for the spiral tube, as its weight may set up pressure necrosis. The water in the spiral tube will be of a little lower temperature than that in the cistern when the heat is kept up. About 107° to 112° F. in the tube is sufficient to act on the sore, and yet to cause no pain, but some patients can bear over 135° F. The adjusting of the spiral tube to the cavity of the sore after the latter has been scraped and touched with the thermo-cautery seems easy. The warmth should be kept up for about forty-eight hours, but the time must be longer in cases where the patient cannot bear a warmth of over 104° or 105° F., and shorter when 120° or 130° F. can be tolerated. In seven cases Westermark has had uniformly good results. The patient who bore a heat of 135.5° F. seems to have done the best. The ulcer had destroyed the greater part of the cervix and infected the parametrium; the uterus was fixed so that hysterectomy was out of the question. The vast chasm was curetted and cauterised, then the spiral tube applied. In the course of a week free discharge followed, and the ulcer granulated well. A month later it had healed entirely, but there was some infiltration in the parametrium. Westermark's innovation certainly claims the attention of the profession.

"SKIAGRAPHY," "RADIOGRAPHY," OR "AKTINOGRAPHY?"

The coining of words on a Græco-Latin basis for scientific purposes is an absolute necessity now that works on science are written in several different languages. Their use is not a sign of pedantry; on the contrary, the affectation of "Anglo-Saxon" terms such as "voice-box" (which is not Anglo-Saxon) for "larynx" is essentially pedantic, and increases difficulties which it professes to obviate. Still, it is clear that a scientific term should be made thoroughly international. This is not always the case, as the words "potassium" and "kalium" testify. Our contemporary, the *Chronique Médicale*, justly complains that Roentgen's new photography and photographs are termed "skiagraphy" and "skiagram" in English, "radiographie" and "radiogramme" in French, and "aktinographie" and "aktinogram" in German. Further regret is expressed that Professor Roentgen himself did not supply precise and definite terms, which would undoubtedly have been adopted in all languages.

THE HISTOLOGY AND BACTERIOLOGY OF THE OYSTER.

The paper by Professors Herdman and Boyce, read at a recent meeting of the Royal Society, contains facts which tend to show that, once removed from the sea, oysters are readily infected, and that with organisms of known pathogenicity. The primary object of the investigation was to study the oyster under unhealthy conditions in order to elucidate its alleged connection with infective disease, but they found it necessary to include in the research much work on its normal histology. Attacking the problem of "greening" of oysters, they showed that this phenomenon can be classed under two heads, one normal and healthy as in the cases of the green Marennes variety, and those of some rivers on the Essex coast, and the other pathological and dependent upon contained copper, as in the case of some Falmouth oysters, or, as in some American species rebedded on our coast, on a pale green leucocytosis. The normal greenness of the Marennes oyster depends upon the presence of a special pigment "marennin." The authors believe that there is no connection between the green colour of the "huîtres de Marennes" and the iron they contain, which in no case did they find in excess of the normal. In the Falmouth oysters much of the copper is mechanically attached to the surface of the body in an insoluble condition, probably as a basic carbonate. They find that an aqueous solution of pure hæmatoxylin is an extremely delicate test for copper. They did not find the B. typhosus in any oysters from the sea or markets, but recovered it up to the tenth day from those inoculated. It never multiplied in the body or tissues, and died out in the intestine. Sea water hindered its growth. Infected oysters washed in a stream of fresh sea water were gradually freed of bacilli. Organisms belonging to the coli

group, though not found in oysters obtained from pure sea water, were readily demonstrated in shellfish as sold in towns. Again, the B. enteriditis sporogenes of Klein was frequently isolated from molluscs obtained from shops. In consequence of this, the authors have drawn up a set of recommendations with regard to the sanitary regulation and registration of oyster beds, and as to quarantine for oysters imported from abroad.

THE NEW ANTHRAX ORDER.

THE Board of Agriculture, exercising powers conferred upon it under the Diseases of Animals Acts, 1894 and 1896, has issued an Order called the Anthrax Order, 1899, which deals with and arranges for the disposal of animals suffering and dying from splenic fever. Formerly farmers believed that anthrax was due to feeding cattle upon too highly nutritious or artificial foods, and that death was the result of apoplexy. It has now been known for a good many years that this theory is quite erroneous, and it would be well if farmers and the public generally took the proper view of the illness—namely, that it is microbic, for it is only people who have an intelligent opinion as to its causation who can cope successfully with the malady. The Order insists upon early notification of the disease to the local authority, and for reasonable facilities to be given for examination of affected animals and premises. It makes it an offence for any person to remove the milk of a diseased cow, and requires that no animal shall be removed until authority is given by an inspector. The Order provides for the burning of all the litter and offal of diseased animals, and requires in the case of death from anthrax that the carcass shall be buried six feet below the surface of the earth, with a layer of lime one foot in thickness above and below it. In view of the fact that it is the spores of anthrax that are endowed with longevity lasting for months, it is a moot point whether it would not be better to erect a simple crematorium over or near the place where the animal died, and burn the carcass. Fire is an absolute purifier. Many outbreaks of splenic fever must have been caused by the spilling of blood rich in spores from an affected animal or the dropping of secretions from the nostrils of a dead beast. It is therefore ordered that the skin of an infected animal must not be cut, and that in the event of removing a carcass the nostrils must be stopped with tow soaked in a strong solution of carbolic acid.

TRACHOMA AND EPIDEMIC EYE AFFECTIONS.

PROFESSOR SCHMIDT-RIMPLER, in a recent article in the *Deutsche medicinische Wochenschrift*, observes that formerly follicular conjunctivitis and trachoma (granular lids) were thought to be different stages of one and the same disease. It is now known that enlarged follicles are to be found in the palpebral conjunctiva without any subjective symptoms and without signs of conjunctivitis. In an examination of 1,662 school children in 1885, Schmidt-Rimpler found enlarged follicles in 27 per cent. Again, in February, 1898, amongst 299 students at the Göttingen Gymnasium, he found, in the absence of any epidemic, 43 with follicular formations (26.4 per cent.) Stephenson's observations confirm this; in fact, he holds that the so-called follicular granulation is present in some degree in almost all persons under 20 years of age, and that it is the expression of the "adenoid activity" of young subjects, being strictly comparable with the follicular affection of the pharynx. To simple folliculosis a conjunctival catarrh may be added, the condition being then spoken of as follicular catarrh. Epidemic eye affections comprise catarrhal (muco-purulent) ophthalmia, of which follicular catarrh is a variety; purulent (gonorrhœal) ophthalmia; acute trachoma, practically only met with in parochial schools; and diphtherial ophthalmia, of which no epidemics have been recorded in this country. In the better class schools epidemic ophthalmia is nearly always of the catarrhal type, and infection occurs perhaps through the air as well as by contagion. Trachoma is spread simply by contagion, direct or indirect. Catarrhal conjunctivitis has been proved to be due to bacteria, more particularly Weeks's bacillus and the pneumococcus; but the specific nature of trachoma is not yet proved, though diplococci have been found in the discharge. It is well known that trachoma is very prevalent in the eastern parts of Germany, and Schmidt-Rimpler urges that it is the business of the State to combat it, as it is a source of national weakness by the amount of blindness and incapacity which it occasions. In this country less than 0.75 per cent. of those attending eye hospitals suffer from trachoma. In the East the proportion is much higher. Of 4,000 Egyptians van Millingen found 80 per cent. trachomatous; Trantas of Constantinople estimates trachoma as 15 to 18 per cent. of his cases; in Smyrna it is more prevalent than in Constantinople. Schmidt-Rimpler when on a recent visit to these regions was much struck by the fact that nearly all the patients coming for treatment were already in the cicatricial stages, "sago grains" being conspicuously absent. He comments favourably on Kenneth Scott's method of treating pannus by slitting up the vessels running on the cornea, but prefers to cut them across at the periphery of the cornea (partial peritomy); vision is often thereby much improved. While trachoma is best prevented by securing good hygienic conditions of life, existing cases should be isolated and subjected to skilled treatment and supervision. Timely expression of the granules with suitable forceps followed up by the repeated application of strong solutions of perchloride of mercury (1 to 4 per cent.) gives perhaps the best results and lessens the risk of disastrous sequelæ.

CONTINUOUS INTRAVENOUS INJECTIONS.

IT is generally recognised that during the collapse stage, which is the most fatal period in cholera, the function of absorption by the alimentary tract is almost completely in abeyance, so that treatment by the mouth and rectum is almost impossible; but after intravenous injection of saline solution all the symptoms of the algid stage, with few exceptions, rapidly vanish in the course of a few minutes, and a patient has been several times rescued from a moribund condition and brought to one of comfort. But the improvement is only temporary, and but few patients have hitherto been rescued from death by this means. Mr. R. H. Cox, F.R.C.S., of Shanghai,[1] has devised a method of continuous intravenous injection. The patient is placed on his back in bed. A prominent vein is looked for, at the bend of the elbow for choice, where either the median cephalic or median basalic may be selected. The long saphenous just above the inner malleolus is also a suitable site. The part is then washed, and a bandage applied round the limb above, as in the operation for venesection, tight enough to impede the venous but not the arterial current. If the pulse is not altogether gone at the wrist this will make the vein more prominent. With the scalpel an incision half an inch long is made through the skin, over and in the course of the vein. A little dissection is now necessary to clean the vein and permit of the probe being passed beneath. When this is accomplished, the injection apparatus being ready, the anterior wall of the exposed vein is opened by puncturing it with the sharp pointed scalpel (or better, a Syme's abscess knife) and cutting to the extent of about two lines. The ligature is then removed from the arm, and, as the dark blood flows the tapering nozzle of the injection apparatus, with the solution running, is inserted into the opening till it completely fills it. If the fluid is flowing, as shown by a fall in the reservoir, a padded splint is applied to the back of the arm and fastened above and below with two strips of rubber

[1] *Chinese Imperial Maritime Customs: Medical Reports*, II, Special Series, No. 2, 55th issue

adhesive plaster, while a third strip is brought from the middle of the splint round the arm and glass nozzle, so as to fix the latter. Mr. Cox says that this is best done by dividing up the free end of the plaster into three strips and then bringing one under and two over the nozzle. When the nozzle is securely placed, and the injection satisfactorily flowing, the probe may be gently removed. The nozzle should be held perpendicularly to the surface of the part in passing its tip into the vein, to avoid the possibility of passing it into the sheath or between the coats of the vein, and then directed upward along the course of the vessel. After removal of the tube the wound is dusted with iodoform and a pad and figure-of-8 bandage applied. Mr. Cox finds that the apparatus thus arranged can be used for hours with very little discomfort to the patient. In one case in which he employed this method the injection was continued for four hours—and its employment should be continued as long as the flow lasts, or till it is believed all danger from collapse is passed. Should the injection not have been continued long enough, as shown by a return of pulse failure and other collapse symptoms, the operation should be repeated in a new place. By this means a warm saline solution is injected at the rate of one ounce a minute under a pressure of 2½ feet of water column. Mr. Cox believes that by its use, in the early stages, the mortality may be reduced from 50 to 15 per cent.

KISSING THE BOOK.

We have frequently had to call attention to the difficulty which has been encountered in inducing magistrates and even judges of the high courts in this country to carry out the provisions of the Oaths Act by directing the oath to be administered in the Scottish fashion without questioning the witness as to his reasons for preferring that method—reasons obvious enough to any person who has given attention to the matter. A telegram from Washington, published in the *Daily Chronicle*, states that American magistrates appear to be more enlightened than some of our own. It is stated that one of the magistrates of New York City recently announced that he would not permit witnesses in any case to kiss the Bible when they took the oath in his court, giving as his reason the fact that he was satisfied that a young girl recently contracted a loathsome disease in his court in that way. It is added that other magistrates in the United States have forbidden the kissing of the book for the same reason.

CREMATION IN JAPAN.

According to a writer in the *Sei-I-Kwai Medical Journal* the cremation of dead bodies was introduced into Japan in the reign of the Emperor Jito. Little is known as to the methods practised before the middle of the present century. From 1860 to 1868 there was no special place for the purpose. A small hole was dug in a field, and stones were placed at each end, on which the coffin was placed. The fuel was placed under and all over the coffin, and set on fire. At midnight the stones supporting the coffin were taken away, and the body was allowed to drop into the hole, where it was covered with wet straw mats and more fuel and further burnt, till nothing remained but white bones. This method is said to be still in use at the present day in certain country districts in cases of death from infectious diseases. About 1871 special cottages were erected for the purpose of cremation. They were made of earth heaped up in a mound, with a hole at the top for the escape of the smoke. Inside the cottage were several holes in which bodies were burnt. The burners were of a very low class, and not only stripped the corpses handed over to them of their clothing, but extorted "tips" from the mourners. They also claimed as their perquisite the ashes, which they sold for use as medicines. At the present day cremation is year by year coming more and more into use, but is still not nearly so common a way of disposing of the dead as earth burial. For instance, of 34,000 persons who died at Tokyo in 1897, 15,000 were cremated and 19,000 buried, giving a percentage of 40 per cent. The corresponding percentage in 1890 was 41; in 1891, 36; in 1892, 41; in 1893, 36; in 1894, 37; in 1895, 39; and in 1896, 38. In 1898 it is estimated that it was 42 or 43. At Tokyo there are seven crematoria, all much alike in construction. The Nippori crematory, which may be taken as a type of the others, is situated near the Tabata Railway Station, about half a mile distant eastward. On the right side within the gate there stands the "Saishidō" (or mortuary chapel), with a statue of Buddha in a corner. On the lintel of the gateway leading to the cremation place proper the company has hung a frame, with a notice intimating the readiness of the company to meet the wishes of their customers at reasonable figures. Within the crematory are thirty-two furnaces in two buildings divided into different classes—namely, first, second, and third. They are all built of brick, with a double iron door in front; inside each an iron frame is spread, on which the coffin stands; and underneath it at the bottom there is a place for fuel. There is a small hole at the back, through which the fire is kindled, and a pipe on the upper part of the furnaces for the escape of the smoke. Although there is a difference of price in the three classes, the mode of burning is exactly the same in all. The first and second classes differ from the third only in the fact that blue curtains are hung in the front during the process, and they are watched the whole night by the keepers, two for each first-class cremation, and one for the second class; while for the third class one man has charge of many furnaces at the same time. The nearest relative of the deceased—father or brother—having paid the required charges, burns incense at the "Saishidō" or sanctuary. The coffin is then put into a furnace, and is sealed by the nearest relative, who on receiving the key goes home, and returns again the next morning to collect the bones. The attendants pour in kerosene oil upon the fuel through a small hole in the back, and set it on fire as soon as the night comes. The process takes from three to five hours.

THE PROPOSED INDIAN AND COLONIAL *ADDENDUM* TO THE *BRITISH PHARMACOPŒIA*.

The Pharmacopœia Committee of the General Medical Council has prepared and presented to the Council a carefully-drawn up report on the proposed official *Addendum* to the recently-issued *Pharmacopœia*, dealing with drugs which are specially suited for use in certain of our colonies and dependencies, the reason for their inclusion being that they are local, and therefore cheaper products, suitable as substitutes for certain official remedies, or that they are specially adapted for the treatment of certain local diseases. The question as to such additions was first brought forward as long ago as 1886, and after some negotiations a communication from the Secretary of State for India was formally considered by the Council in 1892. In this it was shown that certain of the drugs described in the *British Pharmacopœia* could, in relation to the Indian Empire, be usefully substituted by drugs indigenous to India, and that certain medicinal compounds employed there could advantageously be prepared by altering and amending the formulæ. Through the medium of the Colonial Office, various medical and pharmaceutical authorities in the Colonies were invited to send in suggestions of the same kind. In all, twenty-eight replies were received; eleven of the authorities stated that they had no suggestions to offer, as the climatic and other conditions of Great Britain and Ireland so nearly resembled their own that the *British Pharmacopœia* was in every way quite suitable and convenient for their requirements. The remainder have made various suggestions as regards additions, substitutes, and alterations of formulæ. These were found very valuable in preparing the *Pharmacopœia* of 1898, and many of

the suggestions were incorporated in the text. In addition it was found possible to include a very small number of alternative substances in an appendix. It was thought, however, that the most convenient plan would be to prepare a special *Addendum* dealing with these remedies and preparations in a satisfactory and exhaustive manner. As a first step towards the realisation of this design the present preliminary report has been prepared by Dr. Attfield. It has not been thought desirable to recognise the drugs suggested as mere substitutes for drugs entering into preparations now official, save in the case of a very few substances. The drugs mentioned in the report, and now suggested for official adoption, have as far as possible been recognised for their own merits, and have been described in accordance with the plan hitherto adopted in the *British Pharmacopœia*, but in a few cases it has not as yet been found possible to obtain satisfactory specimens for description. The present report is to a large extent tentative and has been circulated to all the bodies and authorities interested with the object of obtaining criticisms, additions, and amendments. It is requested that all suggestions and criticisms should be sent in as soon as possible to Dr. Attfield, addressed to the office of the General Medical Council, 299, Oxford Street, London. The aim of the General Medical Council is to produce, sooner or later, a *Pharmacopœia* which shall be equally useful in every part of the British Empire, but the Council desires to recognise special articles for special Colonies or dependencies in such a manner as to avoid undesirable substitution of one drug for another in other parts of the empire. In general arrangement, type, etc., the pages of the *Addendum* will resemble those of the current *Pharmacopœia*' and it is to be understood that any suggestions will have the fullest and best consideration of the General Medical Council. The preface to the *Pharmacopœia of 1898* includes a direct invitation from the General Medical Council to all medical and pharmaceutical authorities in Her Majesty's dominions to aid in the realisation of this imperial project; and the General Medical Council now extends this direct invitation to all collective authorities and to individuals who do not communicate with the Council through Government departments.

THE UNIVERSITIES OF FRANCE.

THE newly constituted universities of France have now been in existence for more than a year, and the *Semaine Médicale*, in a recent number, reviews their present condition and attempts to forecast their future development. The old universities, which were swept away at the Revolution, were the homes of religious, political, and scientific intolerance, and were ill adapted for more progressive times. The Faculties which took their place were mere special schools, and the predominance of Paris overshadowed the provincial schools, and tended to produce atrophy in them, in regard both to their teaching equipment and to the number of students. With the object of infusing new life into these provincial Faculties they were transformed into universities. It was intended to widen the scope of the work of the Faculties, and to make them centres of the broadest culture instead of mere professional schools. The German and particularly the Prussian universities, were taken as the models of the new institutions, as they had already been in the case of similar establishments in Switzerland, Belgium, Holland, Austria, Italy, Russia, and Japan. What was aimed at was to imitate the German universities without slavishly copying them. With this object local centres were created where the different Faculties might be in closer relationship than they had been in the past. It was a movement of decentralisation, the old University of France created in the First Empire being disintegrated into a number of autonomous universities each with a local habitation, in which it was hoped that an independent life would develop, and a name around which local and personal traditions would form. These universities were given the power of conferring degrees, but these degrees are simply university diplomas—that is to say, honorary titles, the State still reserving to itself the sole right of granting degrees which give the right to practise medicine, law, or other professions. Hence the degrees are practically worthless for foreigners, whom it was one of the professed objects of the creation of universities to attract to French schools. It would appear, moreover, that the universities are still virtually mere Faculties, the students entering a particular Faculty and belonging to it and not to the university at large. Again, the new system imposes some extra expense on the student who has to pay fees to the university as such besides those which he pays to the faculty, without receiving any corresponding advantages. Thus he has to pay a matriculation fee every year, he has to pay a library fee, and other university dues. The *Semaine Médicale* points out that the French universities will have an effective existence and will constitute a real progress in higher teaching only if the various Faculties composing them form an organic federation in which the student may find larger conditions of instruction and work than he did in the old Faculties.

THE EXCRETION OF ACETONE.

SOME interesting experiments have lately been undertaken by Müller (*Archiv. f. exper. Pathol. u. Pharmakol.*, vol. xl, pp. 5 and 6) with regard to the quantitative estimation of acetone in expired air. The presence of acetone in the breath of patients suffering from diabetes mellitus has been observed by many, but the amount given off in the expired air has not previously been estimated. Before commencing his experiments Müller was careful to exclude those cases in which a trace of an iodoform constituent is to be detected in the breath of healthy individuals, especially of those who are in the habit of taking alcohol. In the cases selected alcohol was withheld for twenty-four hours before the experiments began. The result of the experiments showed that acetone was excreted in the breath of diabetics who had been deprived of carbohydrate food at the rate of 20 mg. per hour. The excretion was much greater when a healthy person had taken acetone by the mouth; the whole buccal cavity had, of course, been carefully cleansed before the experiment began. In diabetics the largest amount of acetone is excreted in the urine, whereas in healthy individuals with a proteid and fat diet the greater amount is found in the breath. Another series of experiments was undertaken to ascertain whether acetone was excreted by the skin. The amount was found to be so small that it can practically be excluded in conducting a quantitative analysis. It will be interesting to see whether further experiments will confirm Müller's researches.

DR. F. J. WALDO, Medical Officer of Health to St. George the Martyr, Southwark, and to the Inner and Middle Temple, has been appointed Milroy Lecturer by the Royal College of Physicians, London, for 1900. The subject of the lectures will be Summer Diarrhœa, with Special Relation to Causation and Prevention.

THE first of the course of Lettsomian Lectures on Some Clinical Aspects of Granular Kidney by Dr. Samuel West will be given on Monday next. It will deal especially with the early diagnosis of the disease and the physical signs by which it may be recognised in its earliest stage.

THE annual general meeting of the Hunterian Society will be held at the London Institution, Finsbury Circus, on Wednesday, February 8th, at 8 P.M. Sir Hugh Beevor, Bart., M.D., will deliver the annual oration on The Declension of Phthisis, at 8.30 P.M. Members of the medical profession are invited to attend. The annual dinner of the Society will be held at the Cafe Monico on Friday, February 10th, at 7 P.M.

THE RIGHT OF LICENTIATES OF THE SOCIETY OF APOTHECARIES TO DESCRIBE THEMSELVES AS PHYSICIANS.

We published last week a brief outline of the arguments of counsel in the Hunter Appeal case, but as the points raised, and especially the historical aspects of the matter upon which Mr. Muir Mackenzie, who appeared for the General Medical Council, more particularly dwelt, are of considerable interest and not easily available, we think it well to publish the following full report of the arguments on both sides.

Mr. Haldane: The question which arises for your lordships' decision is whether a gentleman who was a Licentiate of the Society of Apothecaries was entitled to describe himself as a physician. It is a question whether he was rightly convicted. There was a summons which came before the magistrates of Cambridgeshire on which they stated a case under Section XL of the Medical Act of 1858. Your lordships will find when I call your attention to the Acts, that no person can now be registered as entitled to practise medicine in any shape or form without being qualified in medicine, surgery, and midwifery, that is so under the legislation which was passed in 1886, but before that it was otherwise. I should tell your lordships that what this gentleman did was to describe himself on his plate and in his accounts as: "So-and-So, physician and surgeon."

Mr. Justice Channell: Will you tell us what it was he considered himself entitled to be called—surgeon?

Mr. Haldane: I was going to call your lordships' attention to the Act more fully, but I will tell you at the moment he was a Licentiate of the Society of Apothecaries, and as such he had passed an examination and was qualified in surgery, medicine, and midwifery; he had to be that under the statute of 1886. Your lordship knows there is now a *Medical Register*.

Mr. Justice Channell: Yes; but I had an idea a man had to have a separate qualification for medicine and surgery.

Mr. Haldane: No, it used to be so. That was so before 1886; but now the Legislature has said—I suppose thinking you cannot distinguish the boundaries of these provinces of the science of medicine—that you must be qualified in all those three things. The "L.S.A."—that is, Licentiate of the Society of Apothecaries, 1886; and your lordships appreciate why that is put in, as it would not apply to anybody who was Licentiate under the earlier law—"can call himself by any title which he prefers to adopt denoting his right to practise medicine, surgery, and midwifery, provided that he does not directly or indirectly assume a title conferred by another licensing body or university." Now, my lord, I adopt that as my contention. That is the point which I am going to argue before your lordships; and, if I am right upon it, I think your lordships will find the conviction must be quashed. The real substantial point which we have come here to argue is whether the Society of Apothecaries are right in the instruction which they have given to their Licentiates, and which I have read from that document, that they are entitled to call themselves by any description they like entitling them to practise in surgery, medicine, and midwifery, provided they do not hold themselves out as possessing one of the particular qualifications mentioned in the Medical Act which they do not possess, that is to say, the degree or diploma of some body other than the Society of Apothecaries. Mr. Haldane then proceeded to call attention to the Medical Acts of 1858 and 1886. Before the above-mentioned Acts were passed there were a number of bodies which had had more or less monopolies of the right to practise their own department of the science of medicine, and they were protected by various charters and by various statutes, some of which are unrepealed, and which leave the law if one came to examine it scientifically, in a somewhat obscure position. There is an old statute, for example, which says nobody is to practise physic under a very substantial penalty unless he has been approved by the Bishop of the Diocese before doing so. That Act is nominally unrepealed still. The original charter of the Society of Apothecaries was, I think, 13 James I., and it gave the Society what was in substance apparently a monopoly of the right to compound and dispense drugs, the art and mystery of drugs, and it enumerated a number of drugs which at that time were regarded as of great importance, but which probably your lordship would think, if I read their names, sounded strange and savoured more of the art of the alchemist than of the modern druggist. Whether that was so or not, by a later Act passed in 1815 the position of the apothecaries became clearly defined. They still had the right to dispense drugs; but that statute recognised them as what they really are, namely, a body the members of which prescribe and dispense their own prescriptions. No doubt originally the apothecary made his money by selling the drugs; he was called in and prescribed, and he sold his drugs; but now the apothecary corresponds more nearly to the general practitioner, who your lordship is aware, is in many cases his own dispenser, where he makes up his own prescriptions and charges for them, and perhaps the best definition of an apothecary is a person of medical skill who is called in and prescribes and afterwards makes up and dispenses, or has a right to make up and dispense the drugs which he has prescribed. The Act of 1858 for the first time sought to bring the various bodies which wanted diplomas and qualifications to practise the various branches of medicine into some common co-ordination. That Act established a Council called the General Medical Council, and the first part of the Act relates to the people who are to become members of that Council, and who are to have the control which the statute gave over the general medical profession. The purpose, as your lordships presently will find, was to produce some uniformity in the standard of qualification. Then your lordships will see, following Section XXI, a number of bodies who are recognised in Schedule A, and if you look to the table of those bodies you will find that the Licentiates of the Society of Apothecaries are recognised under the Medical Act, and that the Society of Apothecaries has representatives upon that Council under that Act.

Mr. Haldane then referred to various sections under the Act of 1858 and continued: Now, my lords, I come to Section XXXI, which is the first of the sections on which this case turns. "Every person registered under this Act shall be entitled, according to his qualification or qualifications, to practise medicine or surgery, or medicine and surgery, as the case may be, in any part of Her Majesty's dominions and to demand and recover in any court of law, with full costs of suit, reasonable charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients. Provided always that it shall be lawful for any College of Physicians to pass a by-law to the effect that no one of their Fellows or Members shall be entitled to sue in manner aforesaid in any court of law." Then Section XXXII: "No person shall be entitled to recover any charge in any court of law for any medical or surgical advice, attendance, or for the performance of any operation, or for any medicine which he shall have both prescribed and supplied." Your lordships will notice those words distinguish the case of any apothecary from a mere druggist. The druggist, your lordships follow, compounds according to a prescription which is given by somebody else, and sells the drugs. An apothecary, it is true, compounds and dispenses, but he compounds and dispenses in accordance with his own prescription. It says no such person—it is carefully worded not to cover the case of the druggist—shall be able to recover unless he prove at the time that he is registered under the Act. When you come to Section XL you will see what protection is given to various bodies and to the public by imposing a penalty, not on the general practice of medicine—you may do that although you are not registered—but on holding yourself out as a legally-qualified or registered practitioner. Section XL is the section under which the magistrates proceeded. The learned counsel then proceeded to read the section. The Act of 1886 made a very substantial change. Whereas under the Act which I have read the various qualifying bodies were only compelled to make returns as to their course of studies and allow their examinations to be open to a certain amount of inspection, the Act of 1886 was very much more rigorous. It abolished practically the power of the various bodies to say what should be the standards of qualification; and it enacted in the second section: "On and after the appointed day a person shall not be registered under the Medical Acts in respect of any qualification referred to in any of those Acts unless he has passed such qualifying examination in medicine, surgery, and midwifery as is in this Act mentioned." Under the old law a man might be a physician so far as the Charter of the College of Physicians went without knowing surgery and midwifery. He has now to be qualified in those. So with an apothecary and so with a Doctor of Medicine of a University, he would have to show he had passed a proper qualifying examination in all those things. Section VI is the only section in this Act with which I have to trouble your lordships: "On and after the appointed day a registered medical practitioner shall, save as in this Act mentioned, be entitled to practise medicine, surgery, and midwifery in the United Kingdom, and (subject to local law) in any other part of Her Majesty's dominions, and to recover in due course of law in respect of such practice any expenses, charges in respect of medicaments or other appliances, or any fees to which he may be entitled, unless he is a Fellow of a College of Physicians"—the College of Physicians having a special by-law.

Mr. Justice Channell: The substance of that is that it alters the words in Section XXXI of the former Act, which said that a person registered under this Act shall be entitled, according to his qualification or qualifications, to practise medicine, surgery, or medicine and surgery, as the case may be. The medicine or surgery is practically taken out.

Mr. Haldane: That is exactly it.

Mr. Justice Channell: And a man now gets a qualification to practise both, and can only have a qualification to practise both.

Mr. Haldane: That is quite so.

Mr. Justice Channell: That is what I did not know. I was familiar with the form of law, but I did not know that before.

Mr. Haldane: Now there is a statutory qualification required in all those three things, and when a man has got it he is entitled to practise in those three subjects instead of being in such a position that he might have said, "I am entitled to practise midwifery alone or medicine alone or surgery alone," as was the case under the old law. Obviously what the Legislature thought was that you cannot distinguish the limits of surgery and medicine. The surgeon is constantly called in to deal with cases which trench within the domain of medicine, and the physician is constantly called in to treat matters which are perhaps appropriate to the surgeon. Now we come back to Section XL, and the words of that section. In this case my client has his qualification as an apothecary. It is a certificate of the Apothecaries' Society in this form: "Know all men by these presents that the Society of Apothecaries of London, after deliberate and careful examination, have found"—Mr. Hunter in this case—"to possess the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery, and he is hereby admitted a Licentiate accordingly." Now, my lords, that being the position of this gentleman, was he entitled to describe himself as "physician and surgeon," which is what he did, or to use the title "physician," which is the part of his name in respect of which the summons was taken out against him? I will read Section XL once again: ..... That is to say a man might tell the public "I am a qualified physician," and he would be entitled to see patients, but he is not entitled to say "I am a physician" if he is not qualified, because the law takes that as meaning that he is representing to the public that he is legally qualified to practise physic. I suggest to your lordships that the meaning of the word "physician" is a person qualified to practise physic, and if you take the title of physician it means that you are representing that you are legally qualified to practise physic, just as if you take the title surgeon you are representing you are legally entitled to practise surgery. What I suggest to your lordships is that the meaning of the section was not to allocate different titles to different bodies, but it was to say you are not to describe yourself by anything which might suggest you are registered under this Act.

Mr. Justice Channell: At the time the Act was passed it must have meant something different, because at that time medicine and surgery were distinct, and a man might have a qualification for one and not the other. Surely he might have been prosecuted, might not he?

Mr. Haldane: If he represented himself as a physician being only quali-

fied to practise surgery, or as a surgeon being only qualified to practise physic he might have been prosecuted.

Mr. Justice Channell: Quite so. Therefore it does not follow that those words physician, doctor of medicine, licentiate of medicine, and so on, were in fact distinguishable and distinguished at that time.

Mr. Haldane: I do not suggest that this is not so, but I do suggest they are not distinguished as the exclusive property of particular licensing bodies. What I do suggest as the probable and proper construction of this Act is that it is not intended to give any monopoly to these bodies of any of these words.

Mr. Justice Channell: Could this gentleman have called himself a Doctor of Medicine?

Mr. Haldane: No, my lord, because "Doctor of Medicine" would at once suggest a title; at least, I think that would be the case.

Mr. Justice Channell: I think so also if that is on the same footing as the other descriptions in this Section: Physician, Doctor of Medicine, Licentiate in Medicine, and so on.

Mr. Haldane: Yes, but "Practitioner in Medicine," that is a title which you see has nothing corresponding to it.

Mr. Justice Channell: This gentleman is a Licentiate in Medicine and Surgery?

Mr. Haldane: He is.

Mr. Justice Channell: That is one of the special things which is put in here that a man was to possess.

Mr. Haldane: He has got a licence to practise medicine and surgery, but a Licentiate in Medicine and Surgery I suggest means Licentiate as distinguished from Fellowship. Several of these bodies have two titles. There was the higher title "Fellow" and the lower title of "Licentiate." You will notice there is no reference to the Bodies there. It seems to be intended to protect the public against anybody representing himself as having a higher qualification to practise than he actually possessed.

Mr. Justice Channell: The question seems to me whether the word "physician" is used in the Section as being something that I may call a practitioner of physic or something of that sort, whether it is used in that sense or whether it is used in the technical sense of a member or licentiate of some particular body.

Mr. Haldane: That, I think, is the point. I should venture to suggest to your lordship that the real meaning is a person legally qualified to practise physic.

Mr. Justice Channell: You say this gentleman was a physician in the ordinary popular and usual sense of the term of the English language, and that it must be taken to mean that in this Section and not taken to mean a special qualification of being connected with either the College of Physicians of England or of Ireland. There is one in Ireland if I recollect aright. That it does not mean connected with either of those Societies of Physicians, but it means simply that he is a physician in the popular sense.

Mr. Haldane: The whole of that 40th Section indeed is intended to protect the public from people holding themselves out as possessing qualifications which they do not possess.

Mr. Justice Lawrance: That is to say a man without any qualification at all.

Mr. Haldane: Yes, a man without any qualification at all might practise, but he cannot hold himself out or pretend to be any of those things.

Mr. Justice Lawrance: This section would clearly apply to that.

Mr. Haldane: Yes. Now what offence has this gentleman committed? He is legally qualified to practise medicine and midwifery. He has put himself on his plate (as it will be within your lordship's own general knowledge that nearly all the general practitioners in the country do) as "So-and-so, Physician and Surgeon." One sees it on nearly every plate in every village one goes through.

Mr. Justice Channell: They naturally would after the instructions from this Society—or a large number of them would.

Mr. Haldane: Yes, that is his instruction; and my contention is that that instruction puts the right construction upon the section. The contention of my learned friend, as I understand it, is this: that unless you are a Fellow or Licentiate of some College of Physicians—it does not mean only London; and I take it my learned friend's contention is this: that you break the provisions of the law if you call yourself "physician," because that means pretending that you are a Licentiate of one of these Colleges.

Mr. Justice Channell: The sole and entire question is what is the meaning of the word "physician" in this section?

Mr. Haldane: That is so, my lord.

Mr. Justice Channell: It begins with saying you shall not take or use certain specific titles which follow—seven specific things. You are not to take those specific titles. Then you are not to take any name implying registration under the Act, or any name implying a recognition by law of certain things. Then in the first part, is what he is charged with here—taking one of those specific titles, and the whole question is, what does it mean?

Mr. Haldane: Yes, what does "physician" mean?

Mr. Justice Channell: Does "physician" mean a legally qualified practitioner in physic, or a member of one of the societies giving the title of physician?

Mr. Haldane: Yes, that is what it is. There is one thing to which nothing corresponds in the schedule "general practitioner." There is no body which licenses general practitioners.

Mr. Justice Lawrance: "General practitioner," I think, applies to any particular registration. I think you must read those words in the middle of the section as applying—you are not "to use the name or title of a physician, Doctor of Medicine, Licentiate in Medicine," and so on, "or any name, title, addition, or description implying that he is registered." I think that applies to the whole of them. You divide it into three parts. You cut it off at the "or," after the word "apothecary."

Mr. Haldane: It may be that is the right construction.

Mr. Justice Lawrance: That is the ægis. You must not pretend to be registered as one thing if you are another.

Mr. Haldane: Yes, and the only thing is it comes back, as Mr. Justice Channell says, to the meaning of that word.

Mr. Justice Lawrance: Yes, whether a man in describing himself as a physician implies he is registered as a physician in the ordinary sense of the word—a Doctor of Medicine.

Mr. Haldane: I am pointing out the introduction of the words "general practitioner" there points to holding yourself out something in respect of which no licensing body gives a specific qualification.

Mr. Justice Lawrance: Quite so.

Mr. Justice Channell: It looks as if they were going, not exactly in order of merit—perhaps one ought not to say that—but beginning with more or less the highest things and getting down to general practitioners.

Mr. Haldane: They are trying to cover every name, according to my argument, by which a man might mislead the public.

Mr. Justice Channell: Yes.

Mr. Haldane: I quite agree if a man said "I am a Doctor of Medicine" when he is not, that would lead the public to think he had got the degree of Doctor of Medicine, but when you come to a man calling himself, say, a surgeon—that surely means a person who is qualified to practise surgery by some one body or another.

Mr. Justice Channell: Or a dozen.

Mr. Haldane: There are a score of bodies who may do it.

Mr. Justice Channell: That does not mean in connection with the College of Surgeons, at any rate since the Act of 1886.

Mr. Haldane: No, not since 1886.

Mr. Justice Channell: Since 1886 at any rate it cannot mean in connection with the College of Surgeons.

Mr. Haldane: No; for instance, the College of Physicians grants its licentiateships in surgery as well as medicine; it must do so.

Mr. Justice Channell: I suppose it must.

Mr. Haldane: It must: it is bound to do so; it also has the right to do so.

Mr. Justice Channell: Yes?

Mr. Muir Mackenzie: It always had the right.

Mr. Haldane: Therefore I think it would be very hard to run in a surgeon who was a member of the College of Physicians at the instance of the College of Surgeons, merely because he has described himself as a surgeon.

Mr. Muir Mackenzie: That would be impossible, because there has been judicial construction placed upon the old Acts constituting the Royal College of Physicians, and it was held that they had power to grant a licence in surgery independently of the Act of 1886.

Mr. Justice Channell: Do you mean that they granted specific licences in surgery to specific individuals, but membership did not necessarily involve such licence?

Mr. Muir Mackenzie: They had power, so it was held in an action tried before Lord Justice Smith, from the Acts of Henry VIII., to grant a licence in surgery as well as medicine.

Mr Justice Channell: It would not follow from that that every member of that body had such a licence.

Mr. Justice Lawrance: Was that an action to recover fees? I thought it might be.

Mr. Muir Mackenzie: No, it was an action to declare the right of the College of Physicians.

Mr. Haldane: That only shows the term "surgeon" must have meant at that time a person qualified by a proper body to practise surgery.

Mr. Justice Channell: That seems to bring us round to the question of what has been said about what is the meaning of this section.

Mr. Haldane then referred to the case of the Queen *v.* Baker and argued that it was distinguishable from the present case.

[The facts of this case will be found to be fully dealt with in the arguments which follow Mr. Muir Mackenzie.]

The case of Davies *v.* Makuna, 29th Chancery Division, page 596, was then referred to.

Mr. Haldane continued his argument, reading the case, and saying: The important portion of it is, in the judgment of Lord Justice Cotton, on page 606. The question is whether attending patients and giving certificates of death was conducting the business of an apothecary without being qualified by the Apothecaries Company, or some other Society which had a power to grant a qualification to do it, and was contrary to the requirements of the Apothecaries Act. Lord Justice Cotton says: "The Act does not define the nature of an apothecary's employment, but dispensing, mixing medicine, giving medical advice, and attending the sick as medical adviser, must be considered acting as an apothecary." Therefore to hold yourself out as a physician and surgeon has been decided to be an infringement of the Apothecaries' Act from that point of view by the Court of Appeal. It is decided that the nature of the apothecary's business is a business in the nature of a physician, in common parlance acting as a physician and attending the sick and so on.

Mr. Justice Channell: There the man had got no qualification.

Mr. Haldane: He had no qualification.

Mr. Justice Channell: The whole difficulty here is whether "physician" means connected with one of these societies or whether it means legally authorised to practise in physic.

Mr. Haldane: Yes; I suggest, my lord, it is used for the same purpose and in the same sort of way as the expression "general practitioner" occurring later in the section.

Mr. Justice Channell: Some of these things—doctor of medicine, for instance—are admitted to be specific titles.

Mr. Haldane: Yes.

Mr. Justice Lawrance: I cannot see how a man calling himself a general practitioner can violate the Act.

Mr. Haldane: If he says he is a general practitioner.

Mr. Justice Lawrance: Everybody, as I understand you now, is entitled to practise in medicine, surgery, and midwifery.

Mr. Haldane: He may practise as much as he pleases, subject to certain disabilities, so long as he does not do anything which represents or implies he is qualified by law to do it.

Mr. Justice Lawrance: I know, but there is no such title as a general practitioner.

Mr. Haldane: Well, my lord, I suppose it was thought that is a sufficiently well-known description; one often hears it.

Mr. Justice Channell: You often hear a witness say so if he is asked hi

qualification, but it would not commend itself very specially to patients if you put it on a card.

Mr. Justice Lawrance: It means if he had no qualification at all.

Mr. Justice Channell: Yes.

Mr. Haldane: It would mean this—that if a M.D., we will say of Cambridge, were to come into the witness box and say, "I am a physician," he is committing an offence under the Act. "Physician" surely must mean a person qualified to practise medicine. After all, there is no right, even on the part of these learned societies to rob the Queen's English of certain phrases and appropriate them.

Mr. Justice Lawrance: It is the College of Physicians which grants the title M.D.

Mr. Haldane: They cannot grant the title of M.D.

Mr. Justice Lawrance: They do, do not they?

Mr. Haldane: No, they grant several things—Fellow of the College of Physicians, Member of the College of Physicians, and Licentiate of the College of Physicians.

Mr. Justice Channell: Is there any institution besides the universities which grants the specific title of Doctor of Medicine?

Mr. Haldane: I think not, my lord.

Mr. Justice Channell: I thought not.

Mr. Haldane: Where is there a word in the section to say a person calling himself a physician is to be taken as arrogating to himself something which belongs exclusively to half-a-dozen societies?

Mr. Justice Channell: That is the whole point. What sense is the word "physician" used in this Section XL?

Mr. Haldane: If your lordships decide that it is so, you would have to say the same of surgeons, that anybody calling himself a surgeon would be proceeded against at the instance of the General Medical Council or the College of Surgeons for falsely pretending to be a Member of the College of Surgeons. I venture to submit that the word is not used as a *vox signata*, and that it cannot be the property of any particular legal body, but is used in the ordinary current and dictionary acceptation of the term as a person entitled to practise physic. Physician means a person who is entitled to, and does, practise physic, and I submit that is the sense in which the term should be used here.

Mr. Justice Channell: Then you take the point as to the word "wilfully."

Mr. Haldane: Yes.

Mr. Justice Channell: Ellis *v.* Kelly seems to be a distinct authority, according to the headnote in your favour about that.

Mr. Haldane: Yes, I think it is; I should have mentioned that case. But I have said less about that.

Mr. Justice Channell: We understand why.

Mr. Haldane: Yes, but I take it, my lord, it is in my favour.

Mr. Muir Mackenzie: The one point on which I propose to give your lordships such assistance as I can is upon the point whether the licence of the Society of Apothecaries granted to a practitioner since the commencement of the Act of 1886 justifies the practitioner in styling himself "physician." That is the only point upon which I propose to give your lordships such assistance as I can.

Mr. Justice Channell: That is to say, you direct your attention to the "falsely" and not to the "wilfully."

Mr. Muir Mackenzie: Yes. I call your lordships' attention to what the state of the law in regard to the medical profession was before the Apothecaries Act of 1815, and of course before the Act of 1858. I think your lordships will see clearly that the distinction was perfectly marked between a physician as being a person whose right to practise physic, which was a term of art defined in the Act of Parliament, was a person entitled to practise physic by the licence of the Royal College of Physicians, whereas the apothecaries were at that time a subordinate body who were subordinate to the physicians.

Mr. Mackenzie then recited the Act of Henry VIII to show that the privileges of the Universities of Oxford and Cambridge in respect to granting medical qualifications had always been preserved. Then by 32 Henry VIII, Chapter 40, which is an Act in existence, it is provided as to the constitution of the Royal College of Physicians for their power to grant licences, and it also gives them power "to enter into the house or houses of all and every apothecary, now or at any time hereafter, using the mystery or craft of the apothecary within the said city only, to search, view, and see such apothecary wares, drugs, and stuffs as the said apothecaries, or any of them, have, or at any time hereafter shall have in their house or houses," and examine them, so that your lordships have, stopping there, the order of physicians and the order of apothecaries completely distinct. Then there was this section, "And forasmuch as the science of physic doth comprehend, include, and contain the knowledge of surgery as a special member and part of the same, therefore be it enacted that any of the same company or fellowship of physicians, being able, chosen, and admitted by the said president and fellowship of physicians, may from time to time, as well within the City of London as elsewhere within this realm, practise and exercise the said science of physic in all and every his members and parts, any Act, statute, or provision made to the contrary notwithstanding."

The charter of 15th Charles II of the Royal College of Physicians was then referred to as showing that the power granted in the charter of Henry VIII was confirmed by the first-mentioned charter.

Mr. Muir Mackenzie then said: In a case, which I only know a report of in Willcock's *Laws of the Medical Profession*, page 128, the case of the College of Physicians *v.* Harrison, which was an action in regard to a person practising as a physician, there is a passage in the judgment of Lord Tenterden which emphasises the distinction which then existed between physicians and apothecaries: "The single question now for consideration is, whether it has been made out that Dr. Harrison did exercise the faculty of physic during the period mentioned in the declaration. It appears that Dr. Harrison was in the habit of attending Miss A., and writing prescriptions, which were sent to some other person to make up; and Mr. Pickthorne, who is a surgeon and apothecary, tells you that he now attends Miss A., and he formerly made up prescriptions for her during the time that Dr. Harrison attended her; and he says that he made them up for internal remedies, and not external applications." Then, my lords, it goes on: "It is said in behalf of the defendant, that this does not prove the practising as a physician, but practising as a surgeon; and that a man may lawfully practise as a surgeon without incurring the penalty of this statute. That the statute is directed against those who exercise the faculty of physic and not against those who exercise the profession of surgery only, but if a man exercises both, then he is within the statute." That shows that clearly in Lord Tenterden's time there was a clear distinction between the three—the person who had the right to practise, and therefore was entitled to call himself a physician, the person who had a right to do as a surgeon under the charter and rules of the Royal College of Surgeons, and the person who had the right to do so under the powers conferred on the Society of Apothecaries.

Mr. Mackenzie then proceeded to trace the statutory growth of the Society of Apothecaries, showing that it began with their charter of the 13th of James I, which was confirmed by the Act of 55th of George III, c. 194, which Act was somewhat varied by a later statute of the 6th of George IV.

Now, my lords, in that position were matters when the Act of 1858, the Medical Act, was passed. The only section that I wish to call your lordships' attention specially to is Section XXXI, for which was afterwards substituted Section VI of the Act of 1886.

The learned counsel then proceeded to read Section XXXI of the Act of 1858, and continuing said: That I apprehend to confer upon a member of the Society of Apothecaries who was duly registered under the Act, and of course had obtained a certificate of the Society of Apothecaries, and had fulfilled the condition of registration and had been registered: it conferred upon him the right to practise according to his qualification as a Licentiate of Medicine or Surgery. Whether it conferred upon him the power to practise medicine and surgery is more obscure, but at any rate the Legislature conferred upon him the right certainly to practise either medicine or surgery; and if it conferred upon him the right to practise medicine and surgery, it conferred the right upon him to practice physic, because under the Act of Henry VIII the term "physic" includes medicine and surgery.

Mr. Justice Channell: Physic includes medicine and surgery?

Mr. Muir Mackenzie: Physic includes medicine and surgery. That being the legislation, come the three cases of Ellis *v.* Kelly, the Queen *v.* Baker, and Davies *v.* Makuna ..... What Baron Bramwell said in Ellis *v.* Kelly, according to the report in the *Law Journal*, was: "The question depends on the construction of Section XL, which is intended to protect the public from being imposed upon by persons untruly representing themselves as legally qualified medical men, and it appears to me that, on the true construction of that section, if any person wilfully and falsely calls himself M.D. he will be liable to the penalty, though he may be a Member of the College of Surgeons or a Licentiate of the Apothecaries Society and registered as such.

Mr. Justice Channell: That must have been so at that time, must not it?

Mr. Muir Mackenzie: Yes.

Mr. Justice Channell: Because a person was not qualified to practise medicine and surgery. He was only qualified in medicine or surgery, or *vice versâ*. That is embodied in the Act in one.

Mr. Muir Mackenzie: Your lordship sees, taking the cases in chronological order, in Davies *v.* Makuna the distinction is between physician and surgeon.

Mr. Justice Channell: Before you pass from Ellis *v.* Kelly, does not it involve this also, that although there is that statement of Baron Bramwell yet the decision of the Court involved that a Doctor of Medicine was not confined to a Doctor of Medicine of one of various bodies mentioned in the schedule as being the qualifying authorities under that Act?

Mr. Muir Mackenzie: I think if your lordship takes that view of Ellis *v.* Kelly, I ought to call your lordship's attention to the latter case of Andrews *v.* Styrap.

Mr Justice Channell: But that is so in Ellis *v.* Kelly.

Mr. Muir Mackenzie: Yes, I think so.

Mr. Justice Channell: Because the Heidelberg degree of Doctor of Medicine prevented the man being convicted of falsely describing himself as a Doctor of Medicine.

Mr. Muir Mackenzie: Yes. Then I think your lordship should read that decision subject to the qualification in the later case of Andrews *v.* Styrap.

Mr. Justice Channell: Yes.

Mr. Muir Mackenzie: That is reported in *26 Law Times*, new series, p. 704. There Andrews, the appellant, the person convicted, described himself in his billheads as M.D.; and it appeared he had obtained by payment of a sum of money a diploma of Doctor of Medicine from the University of Philadelphia in the United States, but that he had never been in America, or studied or passed for such degree, and he was not registered under the Medical Act. Then, my lords, he was prosecuted under Section XL, and he was fined. He appealed, and he put in as his evidence a diploma granted by the University of Philadelphia, but the conviction was confirmed. Mr. Mackenzie then quoted the case of Davies *v.* Makuna, which has been referred to above, saying: The upshot of that decision is that a person who has the qualification of the Society of Apothecaries and the certificate prescribed by the Act of 1815 has the privileges and monopoly given by that Act; and, my lords, that the business of an apothecary, though it may include some of the business of a physician and surgeon now, still is perfectly distinct. The practitioner who is registered as a Licentiate of the Society of Apothecaries is an apothecary who has a right to practise medicine, surgery, and midwifery. He is not a physician; and it may be that a physician who has his title from the Royal College of Physicians might not do everything that the apothecary can do, because here what the judges went upon was, they said, if there had not been the Apothecaries Act, and if you had had to rely for your legality upon the Medical Act alone, that would not have been sufficient to show that his agreement relating to the practise of medicine and surgery was sufficient to make it illegal, but it was clearly illegal, because it was an infringement of the Apothecaries Act, and he was infringing the privileges given to the persons who have the qualifications conferred by that Act. Therefore, my lords, that case shows that the distinction between the three orders has been kept alive.

Mr. Justice Channell: Why do you say, it shows that it has been kept alive? It shows that that Act has been kept alive, and it shows that

although a person who is not registered under the Medical Act is by that Medical Act only disqualified from recovering his fees, yet that there may be and are other Acts, in some cases at any rate, which will prevent his practising. That is what it shows.

Mr. Muir Mackenzie: Yes, but it shows that what that Act prevents is, it prevents him from practising as an apothecary. The Act of 1815 does not prevent him practising as a surgeon.

Mr. Justice Channell: No, but it may be—I do not say it is so or not. The statute of Henry VIII or the subsequent ones may be in force, and do it, but this Medical Act as to registration is only for the purpose of recovering fees.

Mr. Muir Mackenzie: The legislation, if your lordship will take it from me, is, as regards surgeons, that there is no Act which prohibits a person practising as a surgeon.

Mr. Justice Channell: No.

Mr. Muir Mackenzie: In the case of the Queen *v.* Baker, 56 *Justice of the Peace*, there your lordship will see there are three summonses and three convictions. There is a summons for falsely using the title of doctor of medicine, and physician, and surgeon. He was convicted on all three, and fined, I think, £10 for the M.D., 40s. or 20s. (I forget which) for the physician, and 20s. for the surgeon. All three convictions were sought to be reviewed in the High Court. So that when my learned friend, Mr. Haldane, treats the observations of the Judges with respect to the title of physician and surgeon as *obiter*, it is not quite so, because the appeal was equally against the conviction for using the title of physician and the title of surgeon ..... That decision was after the Act of 1858, which provided that the Licentiate of the Society of Apothecaries who was duly qualified might practise medicine or surgery or medicine and surgery according to his qualification. So here was a Licentiate of the Society of Apothecaries with the Society's licence, registered as a medical practitioner in respect of that licence in the *Medical Register*, and he had the privileges conferred by Section XXXI; but it was held—and distinctly held—he had not a right to call himself a physician or surgeon.

Mr. Justice Channell: All three convictions were upheld.

Mr. Muir Mackenzie: All three convictions were upheld. In relation to that there is one other fact in the case to make Lord Coleridge's judgment clear, and that is this: Mr. Smith, besides putting "M.D." put "L.R.G.P." with a smudge over the thick part of the tail of the "G.," and it looked exactly like "L.R.C.P.," and he said he meant "Legally Registered General Practitioner."

Mr. Justice Channell: That may have been the ground upon which the conviction for calling himself a physician proceeded.

Mr. Muir Mackenzie: That explains the words of Lord Coleridge with reference to the words "general practitioner," but he was not prosecuted for that. Lord Coleridge says: "The convictions were made against a gentleman named Smith, whom in a great many instances had signed documents with his own proper name, and also put up his name on his house and surgery, placing after it letters 'M.D.,' and sometimes the words "physician and surgeon," and surgeon in some cases with the further addition of 'legally registered practitioner.'" That addition your lordships may take it from me, as I was in the case, was "L.R.G.P." Lord Coleridge goes on to say, "That is what he did." I only ask your lordship to bear in mind that, in deciding this case, Lord Coleridge had before him the three convictions, but there was no summons against him for being a general practitioner, because if that was true he was a legally registered general practitioner undoubtedly.

"Now the argument of Mr. Harris, driven to its conclusion, resulted in this: that a man registered under the Act as having one qualification may claim any other qualification mentioned in Section XL without incurring the penalty. Now, I must say myself I think that a perfectly monstrous contention. I think it is obvious that there are different qualifications and examinations for the different heads of medical practice, and that those to which a doctor or medicine must be subject, and upon which he must enter, are quite different from those required for an apothecary, and that calling yourself a physician because you are an apothecary is a fraud upon the public, and the very thing that this Act of Parliament was intended to prevent."

I think that your lordships would hold that that case is an authority for this: that the licence of the Society of Apothecaries before 1886 conferred the right to be registered, and that the Licentiate of the Society of Apothecaries, when registered, had the right to practise medicine or surgery or medicine and surgery, according to the qualification conferred by that licence, but that he had not the right to style himself in practice physician or surgeon. Whether that decision is right or wrong, that is what is held. Now, my lords, that being so, supposing for a moment that one is treating that decision as having been given in 1885, you come to the fact of the Act of 1886.

Mr. Justice Channell: It was after the Act of 1886?

Mr. Muir Mackenzie: The decision was; but the gentleman had been licensed in 1885, so of course he had not passed the examination.

Mr. Justice Channell: I follow; that is, a licence as an apothecary only?

Mr. Muir Mackenzie: As an apothecary only.

Mr. Justice Channell: But he had no surgical qualification at all?

Mr. Muir Mackenzie: No, except so far as the licence of the Apothecaries' Society went.

Mr. Justice Channell: The old licence.

Mr. Muir Mackenzie: Yes.

Mr. Justice Channell: Then the result seems to be this, that the conviction, so far as the summons for calling himself M.D. was concerned, was clearly right, and is distinctly affirmed by the Court, but the summons for calling himself a surgeon was also clearly right. Then there was the one for calling himself a physician, and as to that the Court upheld the decision of the magistrates; but I apprehend without having their attention called specifically to what our attention has been called to in this case, namely, that there may be a difference between those three summonses.

Mr. Muir Mackenzie: Surely not, my lord, between the physician and surgeon. What was decided was that the Licentiate of the Society of Apothecaries does have the right to practise medicine or surgery or medicine and surgery according to his qualifications. That is distinct under Section XXXI, but nevertheless he is not entitled to call himself physician or surgeon. That is the broad effect of it.

Mr. Justice Channell: The particular man in that case had no qualification in surgery at all.

Mr. Muir Mackenzie: He had as much a qualification in surgery as he had in medicine.

Mr. Justice Channell: If you distinguish medicine from the qualification of an apothecary, yes.

Mr. Muir Mackenzie: Yes, because under the Act of Henry VIII the right to practise medicine and surgery under the compound title of physic was conferred upon the Licentiates of the Royal College of Physicians.

Mr. Haldane: If he had the licence of the Bishop of the Diocese.

Mr. Justice Channell: Never mind about the Bishop.

Mr. Justice Lawrance: What was the form of the certificate under the Act of 1858?

Mr. Muir Mackenzie: That I do not know.

Mr. Justice Channell: What distinction do you suggest between the way in which an apothecary is entitled to practise medicine and the way in which a physician is entitled to practise medicine? They each of them may prescribe for their patients.

Mr. Muir Mackenzie: Yes.

Mr. Justice Channell: I mean in the way of drugs. I am not speaking of performing surgical operations, but something that one calls medicine—what is the distinction between those two?

Mr. Muir Mackenzie: Does your lordship mean what was the distinction before the Act of 1858?

Mr. Justice Channell: That is what you are relying on.

Mr. Muir Mackenzie: Yes, of course, my lord, I think the distinction between the two classes was very marked under the older legislation because the physicians as I pointed out to your lordship, had a sort of superintendence over the apothecaries. I might give your lordship the definition of the three classes that is given in the old work of *Willcock's Laws of the Medical Profession* at page 30. "The first class of legal practitioners in rank and legal pre-eminence is that of the physicians. They are by Statute 32 Henry VIII allowed to practise physic in all its branches, among which surgery is enumerated. The law, therefore, permits them both to prescribe and compound their medicines, and as well to perform as to superintend operations in surgery. These privileges are also reserved to them by the statutes and charters relating to the surgeons and the apothecaries." "Yet custom has more decidedly distinguished the classes of the profession, and assigned to each its peculiar avocations. The practice of the physician is universally understood as well by their College as by the public to be properly confined to the prescribing of medicine to be compounded by the apothecaries, and in so far superintending the proceedings of the surgeon as to aid his operations by prescribing what is necessary to the general health of the patient, and for the purpose of counteracting any internal disease. English physicians are of two classes: Physician of the College of London and graduates of Oxford and Cambridge." "The second class of medical practitioners is that of the surgeons. Their peculiar practice consists in the use of surgical instruments in all cases and in the cure of all outward diseases, whether by external application or by internal medicines. Several diseases which may sometimes be regarded as internal complaints have also been recognised by the Legislature by ancient usage, and by the charters granted to this body as within the scope of their practice." "The third class of medical practitioners is that of the apothecaries. Their proper practice consists in preparing with exactness, and dispensing, such medicines as may be directed for the sick by any physician lawfully licensed to practise physic by the President and commonalty of the faculty of physic in London, or by either of the two Universities of Oxford or Cambridge, and in applying or administering the same. They are also at liberty to administer medicine of their own authority, and without the advice of a physician. It is not usual, however, for them to prescribe medicine to be prepared and supplied by others, but though this is understood to be the peculiar privilege of the physicians, it might be very difficult to make out a case of violating the Statute of 14th Henry VIII. against an apothecary, by merely proving that he had written a prescription and received such fee as is usually paid to a physician, provided that it did not purport to be the prescription of a physician, and though no person is bound to prepare the medicine prescribed, I am not aware of any penalty incurred by compounding it."

Mr. Justice Channell: Does not that seem to say a physician is only higher in character because he will do both? That is what, putting the whole three together, it seems to me.

Mr. Muir Mackenzie: Except that I think your lordship will be satisfied they were distinct up to the time of the Act of 1858.

Mr. Justice Channell: Yes.

Mr. Muir Mackenzie: I will be able to give your lordships, before the case is over, the definition of Lord Holt of what a physician was.

Mr. Haldane: It is no use quoting anything earlier than the Act of 55 George III, because that altered the status of the apothecaries and defined the knowledge they have to possess.

Mr. Muir Mackenzie: There is just one other old case showing how the distinction between the three orders were emphasised of the Act of 1815, that is, the case of Blogg *v.* Pinkers, *Ry and Moody*, p. 125. It was an action on a promissory note payable to the plaintiff or order in consideration of the care and medical attendance of the maker. Chief Justice Best there says: "I will leave it to the jury to say whether the services for which this note was given were those of an apothecary. If the plaintiff was not a physician or surgeon, but acted in the character of an apothecary, he cannot recover upon this note without bringing himself within the provisions of the statute (that is, 55 George III, c. 194)." Mr. Muir Mackenzie then submitted that although the Act of 1815 undoubtedly enlarged the powers of the Apothecaries Society, yet it did not extend to the right of putting members of that Society on a complete level with that of physicians. He then called attention to the Apothecaries Amendment Act of 1874 which provided for the extension of the examining powers of the Apothecaries Society, pointing out that the Apothecaries Society were given power to combine with any more of the Colleges and bodies mentioned in the schedule of the Medical Act of 1858 for the purpose of holding examinations to confer

their licence to practise. He then proceeded to deal with the Act of 1886, concluding this part of his arguments by saying that the Society of Apothecaries cannot confer their licence to practise now unless their candidate has passed a combined qualifying examination referred to in the Act.

Mr. Muir Mackenzie: In this case the Society of Apothecaries have instructed apparently (according to the evidence which is put in) their Licentiates that a licence of the Society gives them not only the right to call themselves a Licentiate of the Society of Apothecaries, but gives them the right to call themselves physician or surgeon.

Mr. Justice Channell: Well, that is a little ambiguous the instructions as set out in the case, is not it? I was going to ask you whether you quarrelled with that or only with the interpretation that this gentleman has put upon it? You will see that what it says is: he may call himself by any title or titles which he prefers to adopt denoting his right to practise medicine surgery and midwifery, provided that he does not directly or indirectly assume a title conferred by another licensing body or university. Is that incorrect? According to you, when he assumes the title of physician he does at least indirectly assume a title conferred by another licensing body.

Mr. Muir Mackenzie: Yes, my lord, that is to say the earlier part of the instruction says: "Can call himself by any title or titles which he prefers to adopt denoting his right to practise medicine, surgery, and midwifery."

Mr. Justice Channell: Yes, now why is not that right?

Mr. Muir Mackenzie: That, my lord, stopping there, would include the word "physician," because medicine and surgery is comprehended in the term "physician."

Mr. Justice Channell: Yes, it might; but then they protect themselves in the last words. It really is only begging the question. The whole question is, Does "physician" in this Act import connection with those societies or not? If it does not import connection with those societies, then this conviction is wrong and the direction of the Apothecaries' Society is right, is not it? On the other hand if it does import connection with one of those societies, and therefore this conviction is right, nevertheless these directions of the Apothecaries' Society may be all right, because their last clause may protect them.

Mr. Muir Mackenzie: Dealing with the first clause, I would suggest to your lordship that the true construction is that in the wide words "any title or titles which he prefers to adopt denoting his right to practise medicine, surgery, and midwifery," physician or surgeon would necessarily be included. The equation is physician, medicine, surgery, and midwifery: medicine and physician is the equation, and physician includes medicine and surgery.

Mr. Justice Channell: It is not raised as I understand on this particular summons before us; but do you contend that this particular gentleman was not justified in calling himself a surgeon, although he had a specific qualification in surgery?

Mr. Muir Mackenzie: I think, my lord, the view that I am arguing would extend to "surgeon" just the same as to "physician."

Mr. Justice Channell: If it would it is much more difficult to establish.

Mr. Muir Mackenzie: The question that I submit comes before your lordships is really in the present state of the authorities, whether your lordships can hold this case to be different from the case of the Queen *v.* Baker by reason of the fact that the Act of 1886 prescribed the qualifying examination.

Mr. Justice Channell: There is another difference between this case and the Queen *v.* Baker. The Queen *v.* Baker was not a case stated by the justices, but was a rule to bring up the convictions on *certiorari*, on the ground that the justices had no jurisdiction; and that explains some of the things that counsel there argued. It looked rather a curious argument in the first instance, but probably he was obliged to argue it in that way to support no jurisdiction of the magistrate.

Mr. Muir Mackenzie: I think your lordships will see that the argument broadly was that, being on the *Register*, the practitioner might call himself what he pleased.

Mr. Justice Channell: Yes; and he had to say that in order to show no jurisdiction. What Lord Coleridge says is that it is quite clear in his judgment that the justices had jurisdiction; and it really was quite clear.

Mr. Muir Mackenzie: Yes, my lord. I will just call your lordship's attention to the case of The Royal College of Physicians *v.* The General Medical Council, 62 *Law Journal*, Queen's Bench Division, p. 329. The head note is this: "The Royal College of Physicians of London is, and was at the passing of the Medical Act, 1886, a medical corporation qualified to grant independent diplomas in physic, including therein the practise of medicine, surgery, and midwifery. Section III of 32 Henry VIII, Chapter 40, contains a direct recognition that in 1540 the science of physic included the knowledge of surgery, and embraced the general art of healing, whether by drugs or surgery." Now, my lords, to conclude. What I suggest to your lordships is the difficulty which your lordships have to solve is that it was held under the state of things which existed under the Act of 1858, where the Licentiate of the Society of Apothecaries had the right conferred upon him to practise in any part of Her Majesty's dominions medicine or surgery, and medicine and surgery, that that did not give him the right to call himself by the title which was peculiar to the title of another body, and the question is whether the fact that the Licentiate of the Society of Apothecaries now has to pass that qualifying examination, and that the Legislature has re-enacted in somewhat different words his right to practise medicine, surgery, and midwifery enlarges the right to call himself by a title which he could not properly have called himself by before the Act of 1886. Is there anything in the Act of 1886 which signifies an intention to enlarge it? It must be taken, I suppose, that the Legislature knew the interpretation of the law which would be put upon it.

Mr. Justice Channell: But how does it do that? I do not understand how it alters it. The point is whether physician in the Act of 1858 meant practitioner in medicine or something of that sort, some general term of that sort, or whether it meant a person connected with one of the various Societies of Physicians or Colleges of Physicians which are mentioned in this Act as being entitled to give qualifications; that is the point we have to get at.

Mr. Muir Mackenzie: That is the point.

Mr. Justice Channell: At one time that may have been necessarily untrue of a man who was simply a licentiate of the Society of Apothecaries. It would necessarily be untrue in any sense of it between 1858 and 1886. Now he has got a further qualification to practise by reason of his having got that licence. The question is whether it is now untrue; that is how it stands. It does not guide you as to which of the meanings of "physician" is the true meaning of the Act of 1858.

Mr. Muir Mackenzie: As to the decision in Queen *v.* Baker it is for your lordships to say whether this is the true effect of that decision, but apparently the effect of that decision is that the Licentiate of the Society of Apothecaries had not the right to call himself "physician," that is to say, the fact that he had the licence of the Apothecaries Society.

Mr. Justice Channell: That licence did not then make his description of himself as a physician necessarily true.

Mr. Muir Mackenzie: No.

Mr. Justice Channell: Because they held that the magistrates had jurisdiction to entertain the question whether it was true or untrue, and that they could not set aside their conviction or bring it up on *certiorari* for no jurisdiction.

Mr. Muir Mackenzie: That was the licence which gave him the right to practise medicine and surgery.

Mr. Justice Channell: No, not until later, because he was licensed under the Act of 1858.

Mr Muir Mackenzie: He was licensed to practise medicine or surgery or medicine and surgery as the case may be. He had the right to practise. The words are rather peculiar: "Every person registered under this Act shall be entitled to call himself—"

Mr Justice Channell: But what was his qualification in fact?

Mr. Muir Mackenzie: Licentiate of the Society of Apothecaries. Now, my lord, read that in.

Mr. Justice Channell: But that did not authorise surgery at that time, did it? I thought that was the very point of the thing. They did not at that time examine in surgery, or authorise him to practise surgery.

Mr. Muir Mackenzie: That I do not know.

Mr. Justice Channell: I thought that was the very difference between what was done there—the very point. These directions from the President of the Society of Apothecaries at present begin "The L.S.A., 1886," meaning, I think, anybody who has got that licence in or since 1886.

Mr. Muir Mackenzie: Yes.

Mr. Justice Channell: And the ones in 1885 were less general.

Mr. Muir Mackenzie: Yes. Then, my lord, the question is whether the effect of the Queen *v.* Baker, assuming it to be as your lordship puts it, was to say every person registered under this Act, that is to say, a Licentiate of the Society of Apothecaries registered under this Act, "shall be entitled, according to the licence of the Society of Apothecaries, to practise medicine in any part of Her Majesty's dominions, and to demand and recover." Pausing there, that was held in the case of the Queen *v.* Baker not to entitle the licentiate to call himself a physician. Now the Act of 1886 says that the licentiate of the Society of Apothecaries (reading the words in the same way), "on and after the appointed day, a registered Licentiate of the Society of Apothecaries shall be entitled to practise medicine, surgery, and midwifery in the United Kingdom, and to recover in due course of law." That is the problem your lordships have to solve, namely, does that entitle him to call himself a physician and make a distinction from the case of the Queen *v.* Baker.

Mr. Haldane, in replying, was distinguishing the case from the Queen *v.* Baker, when

Mr. Justice Lawrance interposed with the remark: The only licence that he, the appellant, had got was practically one of the Apothecaries' Society, I suppose?

Mr. Haldane: Yes.

Mr. Justice Lawrance: I do not know whether the form of licence was changed.

Mr. Haldane: It was after the Act of 1886.

Mr. Justice Channell: It is said in the case (Queen *v.* Baker) that he was licensed before 1885, and we were told that—

Mr. Muir Mackenzie: The licence was granted in 1885.

Mr. Justice Channell: Therefore it was the old licence and not the new.

Mr. Haldane: It was the old licence. If your lordships will look at Subsection 2 of Section III, it says: "The standard of proficiency required from candidates at the said qualifying examinations shall be such as sufficiently to guarantee the possession of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery."

Mr. Justice Lawrance: That, I understand, is the form of the three orders—physicians, surgeons, apothecaries.

Mr. Haldane: All exactly the same.

Mr. Justice Lawrance: It is clear what the objects were. It was done in order that persons might have general knowledge and act as general practitioners.

Mr. Haldane: That was not true, then, and it may not have been true even of medicine at the time from anything that appears on the documents. I do not say it was not.

Mr. Justice Lawrance: I do not know what the rights of an apothecary were. We need not inquire now.

Mr Haldane: Now we have it what he is qualified to do, and the statute says he may practise according to his qualifications. It is quite clear what the point before Lord Coleridge was so far as to give a decision.

Mr. Justice Lawrance: As far as that part of the case goes it clear the question now resolves itself into this, as it has been put several times by my brother Channell—namely, whether a person who has a certificate from the Society of Apothecaries may describe himself as a surgeon or physician, or whether he comes under Section XL by doing so—whether he directly or indirectly assumes a title conferred by another licensing body.

Mr. Haldane: Yes. Now, my learned friend's argument goes to this: that all these titles—physician and surgeon and so on—in Section XL are appropriated by the Legislature to be the special property of one or other of the qualifying bodies.

Mr. Justice Channell: They are used in this section as denoting licences.

Mr. Haldane: That is my friend's argument. What is the position of the wretched apothecary who wishes to practise, as he is entitled to do, as a surgeon? He cannot call himself a surgeon, because, according to my learned friend, that means he is a Member of the Royal College of Surgeons.

Mr. Justice Channell: I think he can call himself surgeon specially licensed to practise surgery.

Mr. Haldane: What else can he do?

Mr. Justice Channell: He may use the actual words here, "Licentiate in Medicine and Surgery."

Mr. Justice Lawrance: Of course if a man wanted to do what is right, it is perfectly clear what he ought to do.

Mr. Justice Channell: What is that?

Mr. Justice Lawrance: Call himself Licentiate of the Society of Apothecaries. That would thoroughly describe him. I am not putting that as against you. I say if you want to know what he may call himself, that is what he ought to call himself.

Mr. Haldane: It cannot be meant to make a present of the Queen's English, to make a present of words which are unique (for I know no word equivalent to surgeon), to the College of Surgeons or some other body who may henceforth say, "This is our trade name; let no one come and infringe it."

Mr. Justice Channell: "Surgeon" may be a general word, and "Physician" may be a specific word.

Mr. Haldane: It might be, but my learned friend's argument puts them in the same category.

Mr. Justice Channell: Have you got any dictionary meanings of that word "physician?"

The following definitions were then given by Mr. Haldane: *Webster's Dictionary*—"Physic," "the art of healing diseases, the theory or practice of medicine;" "Physician," "a person skilled in physic or the art of healing, one whose profession is to prescribe remedies for diseases." *Century Dictionary*—"Physician," "a natural philosopher." This is also the meaning of the French word "*physicien*," from which the English word "physician" is derived. "Specifically a person licensed by some competent authority, such as a medical college, to treat diseases."

Mr. Muir Mackenzie, at the end of Mr. Haldane's reply, referred the Court to the case of the College of Physicians against Rose in 3rd Salkeld, page 17, and 1st Maughan, page 44, in which case the Court said it was "unanimously agreed that practising of physic within this statute"—that is Henry VIII—"consists (1) in judging of the disease and its nature from the constitution of the patient and many other circumstances; (2) in judging of the fittest and properest remedy for the disease; (3) in directing or ordering the application of the remedy to the disease, and that the proper business of an apothecary is to make and compound or prepare the prescriptions of the doctor, pursuant to his directions. And it was agreed that the defendant taking upon himself to send physic to a patient as proper for his distemper without taking aught for his pains is plainly a taking upon himself to judge of the disease and fitness of remedy, as also the executive or directing part."

The judgments delivered by Mr. Justice Lawrance and Mr. Justice Channell, and the case stated by the magistrates, will be found fully reported in the BRITISH MEDICAL JOURNAL of January 28th, p. 233.

THE LONDON WATER SUPPLY.

THE Royal Commission appointed in May, 1897, to inquire into the water supply within the limits of the metropolitan water companies, has presented the first instalment of its report. The original reference was under three heads: First, they were instructed to inquire whether, on financial grounds or those of better supply, it was to the interests of the consumers that the several undertakings of the companies should be acquired by one or by several authorities, and to what extent severance of works, sources of supply, etc., are practicable and desirable. Secondly, they were to report (if the present companies were to continue) what control should be exercised over them by local or other authorities. Thirdly, they were to find out whether it was practicable to connect any two or more of the various systems of supply, by whom such cost of connection should be borne, and what legal powers might be required for the purpose.

The last of these three references, involving a matter patently proved last year to be one of urgency, the Commissioners have, at the request of the President of the Local Government Board, dealt with in their present "First Report."

It is well known that the East London Water Company ran short last autumn. This company derives nearly a third of its supply from the Lee below the intake of the New River Company, or from wells in the Lee Valley, and about two-thirds from the Thames at Sunbury or springs in the gravel beds near by. Their storage reservoirs at Walthamstow, which hold 1,200 million gallons, were full on June 20th. On August 22nd they contained only 308 million, and the directors of the company "restricted the daily supply, which had previously been constant, to two periods of three hours each. The supply was continued in this manner until September 3rd, when a further restriction was enforced by which the daily supply was limited to two periods of two hours each." This state of things continued till November 23rd, and from that time the periods of supply were gradually extended till a constant supply was re-established on December 11th. Even this meagre supply during the dry months was only maintained by borrowing from other companies, during the four months of July, August, September, and October, just short of 792 million gallons, or about one-sixth of the sparing allowance granted to the East End consumer. The New River Company was the chief stay of the company, and contributed during September and October upwards of 6 million gallons a day. This they did chiefly by refraining from drawing from the Lee, and allowing water to which they were entitled to flow past their intake and into that of the East London Company. Their own supply they kept up by extra pumping from their wells in the chalk. The Southwark and Vauxhall Company and the Kent Company helped during the two months named with rather over $3\frac{1}{2}$ millions a day. The East End water famine, therefore, sufficiently demonstrated the desirability of connections between the supplies of the eight companies, and the Commissioners had before them three schemes for effecting this purpose, and recommend generally that power to effect connections should be obtained by the companies; that the actual intercommunications to be made be not definitively fixed by the Legislature, but that the powers be granted generally, subject to the approval of a public department, such as the Local Government Board. They suggest that the cost be defrayed by issue of debenture bonds, interest on which should be paid when the communications are not in use in proportion to revenue, and when in use by the parties profiting by the convenience; an arbitrator being agreed upon by the companies, or, if necessary, appointed by Government. They recommend, also, that the Bill embodying the necessary powers should enable the several companies to sell to one another when necessity arises, and that the restriction of a maximum beyond which no water is to be drawn from the Thames in any one day by a given company should be modified, so as, while retaining the average, say, for six months, to allow a larger quantity to be withdrawn, to fill a storage reservoir for instance, in time of flood water.

Some of the most important questions, however, so far as the future of the London water supply is concerned, are entirely passed over, or only casually alluded to, in this first portion of the Commissioners' report. The very small margins between the maximum amount certain companies have a right to draw, and the actual maximums distributed to their customers last year is made mention of. The Grand Junction Company for instance, has a statutory right to abstract $24\frac{1}{2}$ million gallons daily from the Thames. The daily amount taken averaged over 21 millions from June to October, 1898, and rose as high as $23\frac{1}{2}$ millions. It is evident, therefore, this company has little to spare for a friend in distress. The Kent Company, deriving its water from wells in the chalk, is limited by its present plant to some 25 million gallons daily; its maximum last year was about 21 million, and usually it could spare a couple of millions. Having little or no storage, a breakdown of a pumping station or two may, however, at any time make it a borrower rather than a lender, a position it came very near to occupying last year. The Lambeth Company could at present spare nothing; its statutory limit of abstraction is $24\frac{1}{2}$ million gallons; its average daily supply in 1897 was more than $23\frac{1}{2}$ and the daily rate of supply in September, 1898, a little short of 32 millions. The West Middlesex Company, with the same statutory limit, could at present spare $1\frac{1}{2}$ million gallons, but demands upon its resources are increasing. The Chelsea Company does not use all its powers. It has at present rights to 22 million gallons daily, but only plant to pump and filter 17. From this it might have spared, perhaps, 2 to 3 million gallons, but to do more would have had to increase its filters, pumps, and water mains. In recommending the alteration of the maximum from a daily maximum to an average, the Commissioners say nothing about the risks attending the taking of flood waters from a river like the Thames, nor do they make any estimate of how far the present maximums might be safely exceeded in times of drought. In fact the report, though interesting from the valuable facts referred to in it, amounts on the whole to very little more than a finding, by the distinguished and accomplished and "dearly be-

loved" Commissioners some nineteen months after their appointment, that it would be a very good thing if, in the meantime, the eight London companies, who all but monopolise the supplying of water within the metropolis, might be allowed to help one another in times of difficulty, whether due to the breakdown of filters or of pumps, or in the still more serious conditions of a dry season, such as the autumn of 1898. The larger question of where the increasing millions of London are to look for water in the future has yet to be considered, and the important matter of the control of the water supply by the sanitary authorities of London is left untouched.

THE NEW VACCINATION ACT IN OPERATION.

The Troubles of a Public Vaccinator.

A Public Vaccinator for the Last 29 Years writes: I have to-day inspected my first case of primary vaccination under the amended regulations. On January 19th I drove 4 miles by high road, and 1 mile over by-road and meadow, to a cottage in the middle of a large wood. I found a kettle on the fire, and a basin and clean towel were supplied. Having started a spirit lamp with a small saucepan, both of which I took with me, I proceeded to wash my hands with carbolic soap, and water from the kettle. By this time the water in my saucepan was boiling, and having sterilised my lancet with it, I washed the child's arm and dried it with carbolised wool. I then scarified the arm in four places, and having wiped off the blood with carbolised wool, I blew, with a patent blower, the contents of a tube of glycerinated calf lymph supplied by the Local Government Board, on to the four places, and worked it well in with the point of a lancet. After waiting about 10 or 15 minutes the lymph was sufficiently dry to be covered with a layer of sterilised lint, which I fastened on with a strip of Leslie's plaster. Over this I placed a pad of carbolised wool enclosed in carbolised gauze, and fastened this also with three strips of plaster, and I warned the mother that the pad should not be removed until I called again. I carefully timed the operation, which took up just 35 minutes.

To-day the frost rendered the ruts on the by-road unsafe for driving, so I had to ride on horseback. I found that all four places had taken well, and had probably matured on the previous day, as the areolæ were becoming dusky, but the arm was bare. The mother said she had taken off the pad because when the vesicles began to develop it irritated the child. I did not see how I could efficiently cover the arm again in its inflamed condition, and I knew that any covering would be taken off as soon as I was out of sight, so I simply left some carbolised wool, with directions that small portions should be placed on the vesicles when they began to discharge. Meanwhile, my horse was protesting against the cold by doing her best to pull down the fence to which I had fastened her.

I have just received a list of 9 cases which I have to attend to within fourteen days. The nearest is a mile and a-half from my house and across three fields, and four others are more than six miles away in different directions.

I have come to the conclusion that I am quite unable to comply with several of the amended regulations, and that a guinea for each case would not properly remunerate me for the work I have to undertake.

The Lymph of the National Vaccine Establishment.

P. V. writes: During the last fortnight I vaccinated 10 cases (primary) with the vaccine sent me from the National Vaccine Establishment. I scarified with lancet, and rubbed lymph well into the four places, with the following results:

In 2 cases there was (on the ninth day) no effect.
In 4 cases only 1 fair-sized vesicle.
In 3 cases only 2 fair-sized vesicles.
In 1 case only 3 fair-sized vesicles.

This result is highly unsatisfactory; it entails on me much increased labour and loss of valuable time, for which I shall not be remunerated. It makes vaccination unpopular, for the parents object strongly to their children undergoing a second vaccination.

I have been a public vaccinator for upwards of twenty years, and have received the grant five or six times. Failure or partial failure has been of the very rarest occurrence, except when I have used lymph sent me from the National Vaccine Establishment. This fact proves that the failures cannot be attributable to my want of care or skill. Now that vaccination has to be performed at the homes of the children (in many cases several miles being travelled), it will be rather hard upon the public vaccinators if the vaccine supplied by Government cannot be relied upon to act efficiently.

Some year or two back I wrote to the Secretary of the National Vaccine Establishment to complain of my want of success with lymph supplied, and the answer I got was to the effect "that the Government guaranteed the purity of the lymph sent out, but it could not guarantee it to be effective." Does the purification of the vaccine lymph destroy its efficiency? I never recollect a failure in arm-to-arm vaccination.

Public Vaccinator's Deputy.

Human Lymph asks the following questions: (1) Can a deputy medical officer legally do the work (that is, vaccinate and attend paupers) if the appointed medical officer by the guardians is at home and not on the sick list?

(2) Can general practitioners (not public vaccinators) vaccinate with human or calf lymph any of their patients' children if they so desire?

(1) A deputy medical officer is only supposed to act for his principal during his absence from home or when incapacitated from any unavoidable cause. No one can properly act as deputy for a public vaccinator unless he has been authorised to do so by proper endorsement on the public vaccinator's written or printed contract, and this sanctioned by the Local Government Board.

(2) A private practitioner can vaccinate with any lymph he thinks proper to use on his own responsibility.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

Meetings of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Lancashire and Cheshire Branch.—An intermediate meeting of this Branch will be held in Liverpool on Tuesday, February 28th. Gentlemen wishing to read papers, show cases, or make any communication, should communicate at once with the Honorary Secretary, Dr. James Barr, 72, Rodney Street, Liverpool.

Dublin Branch.—The annual meeting of the Dublin Branch will be held in the Royal College of Physicians, Kildare Street, on Monday, February 6th, at 5 P.M. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Mr. F. T. Heuston, F.R.C.S., President-elect, will deliver an address on The Position of Poor-law Medical Officers in Ireland. Dr. Grimshaw, C.B., will make a statement on the Excessive Prevalence of Tuberculosis in the United Kingdom, and especially in Ireland, and a resolution will be moved thereon. The annual dinner will take place on the same evening in the College Hall at 7.30 P.M.—James Craig, M.D., Honorary Secretary, 35, York Street, Dublin.

YORKSHIRE BRANCH.

A MEETING of this Branch was held at York on January 25th, Dr. DOLAN, President, in the chair. Thirty-two members were present.

New Members.—The following gentlemen were unanimously elected members of the Association and Branch: Drs. and Messrs. E. Jenkins, J. Shaw, R. Gordon, J. Furniss, J. Powell; and of the Branch: F. Beatham and R. Crowley.

Communications.—Dr. HIND (Harrogate) read a paper on the Use of Cocaine in Modern Surgery, and recorded numerous cases in his own experience.—Mr. JALLAND (York) read notes on a case of Injury to the Brain, in which local meningitis had followed a severe blow on the head. The specimen, a most interesting one, was shown. Mr. Jalland also exhibited a Skiagraph of an Excision of the Knee, which very clearly showed all details of the operation, and also the screws which had been inserted for fixation.—Dr. CAMPBELL (Bradford) spoke on the Use of Antipyrin, Antifebrin, and Phenacetin in the Treatment of Medical Cases. He drew attention to the great danger of the indiscriminate use of these drugs, which should only be employed in carefully selected cases. Their chief use, apart from anodynes, was in some cases of rheumatic fever.

Exhibit.—After the meeting Dr. ANDERSON showed some most interesting lantern slides of Volcanoes.

Dinner.—Seventeen members dined at the Station Hotel after the meeting.

Vote of Thanks.—A vote of thanks was passed to Dr. Turner, the Local Secretary, for the trouble he had taken in organising the meeting and arranging the dinner.

METROPOLITAN COUNTIES BRANCH: SOUTH-EASTERN DISTRICT.

A MEETING of this District was held on January 26th at the Lambeth Infirmary; Dr. R. PERCY SMITH, Vice-President of the District, in the Chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Demonstration of Cases.—Dr. TURNEY gave a demonstration on the following cases in the wards of the Infirmary: 1. A Man, aged 27, suffering with Spastic Paraplegia. He dates his illness from an accident in 1896. He fell on his back from a van, but though laid up for a time he rapidly recovered, and for three months after the accident was able to do his work. He then, while carrying a heavy weight, lost power in his legs almost suddenly. The paralysis, however, was not complete, and he was able to walk, though with difficulty, until the commencement of this year. He was now almost completely paralysed as to his legs, and there was also some weakness of his left arm. The legs were in the ordinary spastic condition, and the sphincters were affected. There was no ascertainable loss of sensation. In the lower dorsal region there was a marked angular curvature of spine, and also some lateral displacement of the twelfth dorsal vertebra. There was neither pain nor tenderness. The temperature had been raised ever since the patient came under observation, rising to about 103°, and falling to somewhere about normal during some part of every twenty-four hours. There were no physical signs in the chest, and no indications of the presence of pus in either abdomen or back. As regards the condition of the back, the diagnosis seemed to lie between tuberculous caries and a simple rarefactive osteitis set up by the accident two and a-half years ago, the former alternative being the more probable. This theory would account for the condition of the legs, but not, of course, for the paresis of the arm, which was left unexplained. To account for the fever, psoas abscess or miliary tubercle might be suggested, but there were no definite indications of either. (2) A man aged 34, whose illness began in 1892 with pains in the head and loss of control over the movements of the legs. There was no history of fits, and speech was not affected. Nothing more could be ascertained about the history. His condition was one of extreme mental apathy, but not unconsciousness. All the muscles of the body were wasted, including those of the face; in the muscles of the legs no contraction could be obtained with the faradic current. The reflexes, superficial and deep, were present, and in fact increased. The tongue could be protruded beyond the teeth, and until the past few days there had been no difficulty in swallowing. There were no muscular tremors. The diagnosis was very doubtful. Dementia paralytica could be excluded in consequence of the absence of mental symptoms until the last stage of the disease. Amyotrophic lateral sclerosis was a possibility, but on the whole the probabilities seemed to be in favour of a slow-growing cerebral tumour. (3) A case of general paralysis of the tabetic type, the knee-jerks being absent and ataxia a marked symptom. The presence of Baginsky's toe phenomenon proved the implication of the pyramidal tract in addition to that of the posterior columns, and quite apart from other symptoms, showed the case to be more than simple tabes.

Votes of Thanks.—Votes of thanks were passed to Dr. Turney for his interesting demonstration, and to Dr. Quarry, the Medical Superintendent, for having provided the cases and afforded facilities for the meeting.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE 70th quarterly meeting of the Isle of Wight District was held on January 20th, 1899, at Sandown, Dr. GROVES, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The Diagnosis of Typhoid Fever.—Dr. BRERETON then continued his remarks, postponed from last meeting, on the Diagnosis of Typhoid, dwelling more particularly on the question as to what period of time could elapse from the commencement of the illness, when it could be said that it had not been typhoid. This led to a very lengthy discussion, and in the result, the following resolution was adopted, *nem. con.*:

That it is not possible to say with certainty, after the lapse of three to four weeks from the appearance of pathognomonic symptoms, that a patient has not had typhoid.

Operation for Bronchocele.—Mr. A. BANKS related the case of a lady's maid, aged 40, who had suffered from bilateral bronchocele for twenty-five years. The tumour on the right side extended from within an inch of the angle of the jaw above and overlapped the upper end of the sternum below for an inch and a-half. The swelling on the left side was somewhat smaller. On February 12th, 1896, she had an alarming attack of suffocating dyspnœa with tracheal stridor whilst stooping over a bath. Two days later he removed the right lobe with the isthmus. The operation lasted an hour, and no difficulty of any importance was met with. The patient made an uneventful recovery, and the left lobe rapidly diminished in size, till at the end of twelve months the natural outline of the neck was restored.

Cases.—Mr. BANKS showed: (1) A Phosphatic Calculus weighing 2½ ounces successfully removed by lateral lithotomy from a patient aged 78. The patient had a tight stricture, and five years previously a uric acid calculus was removed by suprapubic lithotomy. (2) An Ovary, the seat of a chronic abscess, successfully removed by abdominal section from a patient, aged 33, who had for many years suffered from chronic menorrhagia and pelvic pain.

Annual Meeting.—The next (annual) meeting will be held at Ventnor on the third Friday in April, 1899.

Dinner.—After the meeting the President, and others, dined together.

BORDER COUNTIES BRANCH.

A MEETING of the Border Counties Branch was held at Penrith on January 27th. The President (Dr. MURIEL, Whitehaven) occupied the chair, and sixteen members and two visitors were present.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

New Members.—Dr. D. C. Edington, Penrith, already a member of the Association, was elected a member of the Border Counties Branch. The following gentlemen were elected members of the British Medical Association and of the Border Counties Branch: Dr. Robert Gibson, Carlisle; Dr. J. W. Leitch, Carlisle, and Dr. James Smith, Whitehaven.

Coroners' Inquiries and Medical Evidence.—Dr. THOMSON (Penrith) read a letter from Dr. Biden referring to two recent cases in Penrith in which coroners' inquests had been held and verdicts returned without hearing any medical evidence. A discussion followed, in which various members stated that

their experience with regard to inquests had been similar to that of Dr. Biden. Ultimately it was agreed to allow the matter to drop in the meantime.

Communications.—Dr. Thomson showed a case in which twelve months ago right hemiplegia had followed an injury over the right temple; he trephined over the middle meningeal artery in the left side. The man made an excellent recovery.—Dr. Thomson read notes on two cases of Hyperemesis Gravidarum. In the first case the vomiting was persistent and excessive and lasted till the eighth month, though he prescribed nearly all the drugs in the *Pharmacopœia*. One day the patient suddenly asked for a chop, which was given, and after that the pregnancy progressed normally. In the second case the vomiting was so severe and continuous that artificial labour had to be induced. He performed rapid dilatation, cleared out the uterus, and swabbed its interior with pure carbolic acid. A discussion followed, in which the President and Drs. Edington, Altham, Graham, Hamilton, Ogilvy-Ramsay, Maclaren, and Crerar took part. Dr. Thomson replied.—Dr. Crerar (Maryport) read notes on a case of Abscess of the Lung. The patient was a boy who was seen a month after an attack of pneumonia. He was then extremely emaciated. Dr. Crerar first made exploratory punctures and drew off some pus. He then excised portions of several ribs, passed a needle into the lung in several directions till he struck a collection of pus, which he then incised. The boy made an excellent recovery. The President and Drs. Maclaren, Thomson, and Ogilvy-Ramsay spoke, and Dr. Crerar replied.—Dr. Graham (Carlisle) read a paper on the Tolerance of Creosote in Phthisis Pulmonalis. He gave an account of two cases of complete recovery from phthisis pulmonalis, where, in addition to the general principles of treatment, 245 and 265 drops respectively of creosote were given each day without toxic symptoms, and these doses were tolerated for months. He mentioned a third case of acute phthisis now under treatment, in which the dose was now nearly 200 drops, and was being rapidly increased with vast improvement. He was of opinion that creosote exhibited in very large doses in subjects able to tolerate it appeared to inhibit the action of tubercle bacilli. A discussion followed, in which the President and Drs. T. M. Wilson, Maclaren, Lockie, Altham, Knight, and Edington took part. Dr. Graham replied.—Dr. Altham (Penrith) read a paper on Pregnancy complicated by Parovarian Cyst, with successful consecutive Treatment. In this case, owing to the difficulty in determining the period of utero-gestation and arriving at a diagnosis of the complication, labour was artificially induced, and the patient delivered of a child apparently at about the eighth month. In spite of this the patient was not much relieved, and the cyst was aspirated, when 8½ gallons of fluid were removed. The cyst rapidly refilled, and was removed seven weeks later; the ovary, which was enlarged and cystic, was also taken away. The operation was prolonged owing to numerous adhesions, but the patient made a good recovery, is now in robust health, and has been so for the last two years. The President and Drs. Thomson, Crerar, and Edington spoke, and Dr. Altham replied.

Dinner.—After the meeting the members dined together in the George Hotel, Penrith.

EAST YORK AND NORTH LINCOLN BRANCH.

The first winter meeting of this Branch was held on Friday, October 21st, 1898. The chair was taken by Dr. Harrison (President), and thirty-one members were present.

New Member.—Mr. J. Nelson (Hull) was elected a member.

Cases.—The following were shown: Dr. Daly: Case of Thoracic Tumour.—Dr. Elliott: Case of Ruptured Semilunar Valve (?).

Specimens.—The following were exhibited: Mr. Palmer: (1) Fusiform Aneurysms of Ascending and Descending Aorta; (2) Sacculated Aneurysm of Ascending Aorta; (3) Fusiform Aneurysm of Ascending Aorta.—Dr. Hainworth: (1) Epithelioma of Hand; (2) Fibromyoma of Uterus.—Dr. Lowson: (1) Dermoid Cysts of both Ovaries; (2) Gall stones removed by cholecystotomy.—Dr. Waters: (1) Fibromyomata of Uterus; (2) Dermoid Cyst of Ovary; (3) Dermoid Cyst from over mastoid process; (4) Fatty Tumour from Larynx.

Paper.—Dr. Lowson read a paper on Puerperal Fever.

The second winter meeting was held on Friday, November 18th, 1898. The President (Dr. Harrison) occupied the chair, and twenty-six members were present.

New Members.—Surgeon-General R. Grieve, C.M.G., M.D. Glasg. (Elloughton), J. Divine, M.B., C.M.Glasg. (Hull), Miss M. N. Sharman, M.B.Lond. (Hull), were elected members.

Cases.—The following were shown: Dr. Harrison: (1) Congenital Enlargement of Legs; (2) Intrauterine Amputation of Fingers.—Mr. Francis: Sclerodermia (band and patch type), limited to left side.—Dr. Lowson: Case of Removal of Half the Thyroid Gland.—Mr. Palmer: Cases of Congenital Absence of Terminal Phalanges of Hand in father and daughter.

Specimens.—The following were exhibited:—Dr. Lowson: (1) Uterine Myoma, removed by Hysterectomy; (2) Multiple Fibromyomata of Uterus, removed by Hysterectomy; (3) Cyst of Thyroid, removed by excision of one half of Thyroid; (4) Angeio-fibroma of Forearm (Microscopical Section).—Dr. Cameron: Ovarian Cyst, with Varicocele of Broad Ligament.—Mr. R. H. B. Nicholson: Prostatic Calculi, removed by Suprapubic Cystotomy.—Mr. H. Thompson: Dermoid Cyst of Ovary.—Mr. Howlett: Polypus of Cervix Uteri.—Dr. Hainworth: (1) Hydrosalpinx with Ovarian Cyst; (2) Ovarian Cyst.—Dr. Frank Nicholson: Tumour of Right Temporo-sphenoidal Lobe.—Miss Sharman: Internal Hernia.—Mr. Palmer: Pyonephrosis, with Calculus in Ureter.

Instruments.—Dr. Harrison showed: (1) A New Pattern of Vaginal Speculum; (2) Demonstrated a New Suture.

Papers.—The following papers were read:—Dr. Harrison: Case of Appendicitis, with Unusual Sequelæ.—Dr. Daly: Observations on Conditions of the Heart and Urine, where a grave prognosis is sometimes erroneously given.—Dr. Frank Nicholson: Case of Acute Dermatitis, caused by handling the Rhus Toxicodendron.

The third winter meeting of this Branch was held on Friday, January 20th, 1899. The chair was occupied by the President, Dr. Harrison, and twenty-nine members were present.

Cases.—The following were shown—Dr. Lowson: Case of Abscess of Temporo-Sphenoidal Lobe, from Chronic Otitis Media; Operation. Dr. Harrison: Case of Right Spasmodic Torticollis.—Mr. R. H. B. Nicholson: Case on which his Paper (*infra*) was based.

Specimens.—The following were exhibited—Mr. H. Thompson: Salivary Calculus.—Dr. Waters: (1) Specimen from a Case of Diabetic Coma, after operation; (2) Exostosis of Tibia.—Dr. Lowson: (1) Tumour of back of Arm, affecting Skin and Triceps (tuberculous); (2) Abscess of Kidney.—Miss Sharman: Perforated Tuberculous Ulcers of Intestine.—Mr. Johnston: Cystic Disease of Kidneys.—Dr. Parkin: (1) Calcareous Nodules from the Lung; (2) Large Comedo.—Mr. Howlett: Fibrous Tumour from Globus Major.—Dr. Cameron: Cyst of Labium Majus. Dr. Parkin exhibited a new Uterine Irrigator.—Mr. Howlett exhibited a Portable Lithotomy Crutch.

Papers.—The following papers were read—Mr. R. H. B. Nicholson: Case of Strangulated Hernia, with Gangrene of Intestine; Closure of Artificial Anus with Dupuytren's Enterotome.—Mr. Howlett: Aseptic Surgery.

BATH AND BRISTOL BRANCH.

The third meeting of the session was held at Bristol on January 25th, Dr. Lionel A. Weatherly (President) in the the chair, when 69 members and 1 visitor were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—Mr. Wilson Eager (Northwoods), Dr. T. Curtis Leman (Chipping Sodbury).

The Etiology and Prevention of Tuberculosis.—A discussion on this subject was opened by Dr. S. Davies, Medical Officer of Health, Bristol, in a paper which will be published. Dr. Davies, in conclusion, asked the meeting to affirm the following resolutions:

1. That this Branch of the British Medical Association expresses its sympathy and accord with the objects of the National Association for the Prevention of Consumption.

2. That it is desirable that a local brach of the National Association for the Prevention of Consumption be formed, and that a Committee of this Branch of the British Medical Association be elected to consider the pre-

liminary arrangements for the formation of a lay and medical branch o the National Association.

3. That this Branch affirms the desirability of "registration" or modified "notification" of phthisis, so framed as to secure the aid of the public authority in bacteriological examination, in the spread of preventive knowledge, and in disinfection; but without the inclusion of compulsory powers as to removal, or of any powers of interference with occupation.

4. That pending legislation to this end the members of this Branch are in favour of a voluntary system of notification.

5. That this Branch trusts the Legislature will shortly deal with the recognised danger of the spread of tuberculosis by means of food, especially milk, and will give public authorities more efficient control in these matters, more especially as to the establishment and compulsory use of public slaughterhouses, and the elimination of tuberculous animals from dairy farms.

—Dr. E. LONG FOX said that during the time he had been engaged in practice he remembered many so-called cures for phthisis which had since more or less fallen into oblivion. The possibility of cure was much greater in adopting Nature's own means of over-feeding, freedom from care and anxiety, and open air. Treatment by the above means in sanatoria would not, however, cure all cases, as some articles that have appeared in the lay journals might lead one to suppose. It behoved us to be enthusiastic in carrying out treatment, but not too sanguine in our prognostications of the result. There lay upon medical men the duty of impressing upon the public that the poor should, by the establishment of cheap sanatoria, have the chance of benefiting from the new methods of treatment. The best way of combating phthisis was to keep the patients under conditions in which they could assimilate a superabundance of nutriment.—Dr. SHINGLETON SMITH remarked that this universal scourge was one which affected all races, all countries, all climates, and that the nomadic tribes such as the Bedouins of the Red Sea and the Arabs of Algeria, although naturally immune, easily contracted the disease when they gave up their nomadic life and lived in more or less close captivity. The tendency of modern ideas is to favour a return of the invalid from a life of civilisation to something resembling that of the desert, and to encourage this kind of life at home rather than to go abroad to find it. The dangers inherent in the dwelling were to be remedied by abolishing the dwelling as much as possible, and if the house could not be burnt, it must be at times thoroughly purified.—Dr. SYMONS (M.O.H Bath) had collected particulars concerning 3,500 deaths from tuberculous disease, and had been able to refer all but 108 of these to the house in which the death took place; he found that the houses in which two deaths from phthisis had occurred during the past thirty-two years were about three times as numerous as they would have been according to mere chance. Houses with three deaths were nine times as numerous, etc., but he did not think that house infection was at all the principal source of infection, so many persons were immune and sunlight and fresh air such good disinfectors. Locality was undoubtedly an important factor, and damp sites should be avoided. He did not think they had much to complain of in this part of England as regards the food supply, but without the tuberculin test we were in the dark; still, we knew there was ample pasture ground, the cows were not stall fed, and fresh air for the cows is the best safeguard against tuberculosis. Dr. Symons considered overcrowding the principal predisposing cause to phthisis, and in order to give children a fair chance of getting fresh air he advocated systematic examination of the throats of all children with the view of removing adenoids or other obstructions in the air passages.—Mr. BRAINE-HARTNELL (Cheltenham) drew attention to the prevalence of tuberculosis amongst the dairy stock. It was Professor Delépine's opinion that under present conditions one half of the cattle after the age of three years were destined to become tuberculous. There was a much greater prevalence of the disease amongst the cows than the bulls and oxen, and calves were very rarely tuberculous at birth; when born with signs of the disease the uterus of the mother was probably tuberculous. Out of 610,000 calves examined abroad (*post mortem*) only 12 were affected. The regulations regarding meat inspection were very lax: all meat inspectors should be duly qualified veterinary surgeons. As regards the milk it was most important to have it all boiled. At Fécamp, in Normandy, the infant mortality had been reduced 50 per cent. owing to the use of sterilised milk, and the deaths from enteritis reduced from 30 per cent. to 16 per cent. At Grenoble the mortality from diarrhœa during the months of July, August, and September was on an average, when fed upon non-sterilised milk, 69 per cent., but when fed upon sterilised milk 27 per cent. It had been calculated that at least 30,000 infant lives would be saved in France annually if only sterilised milk were used. Reference was then made to the great reduction in the mortality from tuberculosis that had taken place in the last 50 years, and there was every prospect that the next few years would see a still greater diminution.—Dr. MARKHAM SKERRITT said that from the clinical point of view tuberculosis differed from the other diseases, which were now notifiable in two important respects: its slight infectivity and its chronicity. Whereas in the case of the acute specific diseases—and notably in that of small-pox in the absence of vaccination—all that was needed for infection was the contact of the poison with the healthy organism, in tuberculosis the attack of the bacillus was resisted by the majority of those in whom a special soil did not exist. As regarded infection through the alimentary canal, this difference was well brought out by a comparison of tuberculosis with typhoid fever. The BRITISH MEDICAL JOURNAL of January 21st (p. 169) contained a reference to the results obtained by Kanthack and Sladen from an examination of the milk supplied to the colleges of Cambridge. Out of the sixteen dairies, the milk from nine caused tuberculosis in guinea-pigs. Had there been a similar infection of the supply with the virus of typhoid fever, the result would have been a formidable outbreak of the latter disease. There was no reason to believe that the milk in question was exceptionally contaminated: and yet similar widespread outbreaks of tuberculosis were not met with. In its other feature—its chronicity—tuberculosis resembled syphilis and leprosy. Leprosy was the only disease of similarly protracted course in which isolation was adopted; and it was possible because of the comparative rarity of this disease. But for the isolation of tuberculosis a vast special provision would be needed as compared with the acute infectious diseases, on account of the chronicity of tuberculosis and the comparative rarity of complete recovery. For these and other reasons, it was unlikely that the risk of infection from tuberculous patients would ever be generally met by their isolation; and the precautions now adopted in individual cases would probably be a sufficient safeguard. The risk of infection from the lower animals—practically through meat and especially milk—was to be met by proper measures of inspection. Already milk and butter contracts had been made subject to the use of the tuberculin test in the farms from which the supplies were drawn; and there was no reason why institutions such as schools and hospitals should not at once make the adoption of this test a condition of their contracts.—Dr. WATSON WILLIAMS considered that the question of a modified form of notification, or registration of cases of tuberculosis, was a matter of very great importance. It was difficult to understand how it would ever be possible effectually to check the spread of the disease without some such measure, when one called to mind the elaborate series of experiments on the infectivity of dust in the rooms of consumptives by Delépine, Ransome, and others. The meeting had been reminded that no nation or tribe, and no place had been found where tuberculosis did not exist. He had himself during a visit to one of the most popular of recently-developed health resorts for the phthisical—Egypt—been struck by the large percentage of mortality from tuberculosis amongst the natives, and the Soudanese coming to Lower Egypt seemed particularly susceptible. He thought that good results would be accomplished if the medical profession followed the scheme of the National Association for engaging the co-operation of the general public in coping with the disease.—Dr. THEODORE FISHER thought the communication of tuberculosis through milk in human infants was not perfectly established. Dr. Carr, Dr. Comby, and others had shown that even in cases of tuberculous infants under 1 year, the intestinal glands were far less often affected than the bronchial and mediastinal glands, whereas, if infection took place through milk, the contrary would be the case. He alluded to the mode of invasion of the lungs in children as taking place

through the bronchial glands, and showed two specimens illustrating this point. Without wishing to weaken Dr. Davies's position, he at the same time thought that in efforts for the prevention of tuberculosis, attention should rather be given to the sanitary condition of dwellings than to the milk supply.—Dr. Wallace (Weston-super-Mare) pointed out though statistics varied, all evidence pointed to great prevalence of tuberculosis amongst cattle. More ought to be done to prevent its spread amongst cattle, and the crux of the matter lay in the question of compensation to the owners of diseased animals. Without compensation he believed the disease could not be checked in cattle.—Dr. Rogers said that he did not believe in the hereditary transmission of tuberculosis. He thought food as the source of infection was in England comparatively unimportant as compared with the expectoration. The statistics as regards "consumption of the bowels" were fallacious, as many deaths certified as due to this cause were to be attributed to other causes.—Dr. Harrison remarked that in his experience, extending over a long period of years, in connection with the Clifton Zoological Gardens, he had known many cases of tuberculosis amongst the birds and animals, especially canaries, various small birds, parrots, cockatoos, and monkeys, and these were often household pets, and therefore these might be sources of infection.

The resolutions proposed by Dr. Davies were passed unanimously.

SPECIAL CORRESPONDENCE.

PARIS.

The Assistance Publique and the Maternity Hospitals.—General News.

Professor Pierre Budin, in a recent lecture at the Maternity Hospital, stated that in 1877 and 1878 the Assistance Publique supplied medical attendance and care in childbirth to 19,600 women. In 1896 the statistics were 31,987, which shows a rapid increase of births. These in a very large proportion take place in the maternity wards of hospitals. In Paris there are about 50,000 births a year. In three-fifths of these the expenses of medical attendance fall on the Assistance Publique. This increased charge on the Assistance Publique is the result of many causes. In the hospitals there are many more beds for women in childbirth. Patients do not fear the hospitals as they did formerly. Antisepsis and sanitation have made them attractive. The facility of removing patients increases demands for admission to the hospitals not only from the Parisian population but also from that of the Seine Department. The quick communication by telephone, with the admirable municipal and urban ambulance organisations, enables women actually in labour to be removed to hospitals in cases of special difficulty. Not only the number of normal deliveries, but also obstetrical operations increase at the hospitals. M. Variot declares that it cannot be admitted that three-fifths of the Parisian births should take place at the expense of the Assistance Publique. This view is supported by many who declare that there is an abuse of the maternity wards by people able to pay. Some pay four or five francs a day. This sum does not cover the expenses incurred. M. Derouin, General Secretary of the Assistance Publique, has lately declared that it is excessively difficult to recover the sums due from paying patients. Inquiries have to be made with great discretion and delicacy, incurring more expense than these fees cover.

The International Hospital, in the Rue de la Santé, founded by Péan, will henceforth be called l'Hôpital Péan. Dr. Delaunay, formerly M. Péan's *chef de clinique*, has since the death of that eminent surgeon replaced him. He will continue to direct the surgical wards. Under the new organisation there will be medical wards for general and special illnesses. The patients will be treated by *chefs*, formerly "*internes des hôpitaux*."

A certain number of members of the Chamber of Deputies, MM. Astier, Charles Bos, Barthou, Chautemps, Mézières, Poincaré, and Pourteyron, have proposed an amendment in the Budget, providing for a Chair of Clinical Gynæcology to be created at the Paris Medical Faculty. This proposition has been adjourned for consideration at the next Budget.

MM. Emile Dubois, Bompaid and Milleraude intend to ask the Chamber of Deputies to establish a sanatorium for tuberculous soldiers or those threatened with the disease.

CORRESPONDENCE.

THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

Sir,—It is to be feared that the ball set rolling by the unfortunate prosecution of the late Mr. Hunter will gain fresh impetus from the recent decision of the Divisional Court in Hunter *v.* Clare. That prosecution was as ill-conceived as its latest development is disastrous to the profession. What is of importance to us is that unregistered practitioners should be prevented from carrying on their noxious trade to our loss, and to the great danger of the public, and nobody takes any interest in such silly questions as whether or not men legally qualified to act as physicians and surgeons should be allowed to style themselves such.

Two of Her Majesty's judges have decided they are not so entitled, and by that decision considerable inconvenience and uneasiness is likely to be caused to a large number of respectable practitioners throughout the country; so that the General Medical Council has now succeeded in doing as much mischief to one portion of its constituency by its ill-judged zeal as it had previously done to the whole profession by its masterly inactivity in checking illicit medical practice.

Such litigation as this serves no useful purpose, and tends to disgust the public with the grievances of the profession. If our chief authority can find nothing better to do than to take action in cases of this kind, it is not an unreasonable conclusion to draw that our other grievances are not of much importance; and so it happens that it is only with the greatest difficulty the House of Commons can be got to consider medical Bills.

Whatever difficulty there was before with regard to medical titles, the latest judicial decision has made the matter ten times worse. How will it be possible for the public to swallow such a dictum as that a physician at the present time does not mean one who practises medicine, but a licentiate of a College of Physicians? Similarly, it must be inferred that a surgeon can only be a licentiate of a College of Surgeons.

It may be noticed that the judicial mind is not altogether consistent, for Mr. Justice Lawrance lays down by implication that a doctor of medicine is a physician. As the latter can only claim this title because he practises medicine—for he is in no sense *quâ* M.D. a licentiate of a College of Physicians—it requires some mental ingenuity to understand why the L.S.A. for the same reason might not also be regarded as a physician, seeing that his legal right to practise medicine is precisely the same as that of the M.D.

The Apothecaries' Society cannot appeal against this decision; perhaps it might be the better policy to leave it severely alone. It will be interesting to note who will be the next to institute proceedings against the numerous L.S.A.s in the United Kingdom who are bold enough to call themselves physicians and surgeons because they practise medicine and surgery.—I am, etc.,

Major Greenwood, M.D.Brux., LL.B.Lond.
Barrister-at-Law.

Hackney Road, N.E., Jan. 30th.

Sir,—I am very pleased with your leading article on the General Medical Council and the Society of Apothecaries, and I quite agree in thinking that the Council would be far better employed in devising means for effectually checking unlicensed practice than in persecuting the legally qualified.

Of course, if it can be proved that a licentiate of the Society of Apothecaries is not qualified to practise in all points as a physician and surgeon, it is clear that he has no legal right to designate himself by those titles. That is the crucial

point. It will therefore be interesting to learn what particular lines of practice the *bonâ-fide* physician and surgeon is legally permitted to take up, which the mere L.S.A. can only attempt at his peril. If the actual knowledge and skill of the one be equal to that of the other, and both are legally qualified to practise in all departments of their profession, it is worse than splitting of hairs to quarrel over names. So far as my experience goes, the curriculum of all registered practitioners is pretty much the same, their opportunities of acquiring knowledge pretty nearly equal. Decorative titles, as distinct from those which are requisite for entry in the *Register*, do not always mean that the practitioner holding them was more successful as a student. Moreover, the public eye would be widely opened if it knew how some of them have been obtained. The best test of a man's ability is his success in the actual treatment of disease. Yet those decorative titles stand a man in good stead initially, being the only means of advertisement allowed in the medical profession.—I am, etc.,

January 28th. M.R.C.S.ENG., L.S.A.

SIR,—I write to call attention to the further consequences of the decision in the case of the late Mr. Hunter, or Dr. Hunter—for do we speak of the late Mr. Charcot because he did not possess a British M.D.? This decision not only affects the right of an L.S.A. to call himself a physician, but also that of an L.R.C.P.; for Mr. Justice Lawrance said that he was not a physician because he was not a doctor of medicine—evidently confining the title to a consultant. This line of reasoning would prevent a general practitioner M.R.C.S. from calling himself a surgeon. Now a man may be a doctor of medicine without being a physician at all, that title belonging to Fellows, Members, or Licentiates of a College of Physicians. It seems to me that an M.D. is a doctor; a Fellow, Member, or Licentiate of a College of Physicians, a physician; a Fellow, Member, or Licentiate of a College of Surgeons a Surgeon; and a licentiate of a Society of Apothecaries an apothecary.—I am, etc.,

January 29th. L.R.C.P.LOND.

SIR,—Two points in the judgment of the Divisional Court in Hunter *v.* Clare seem of practical importance to the profession. The first half of both judges' ruling was devoted to an attempt to define the meaning of the word "physician," but the line of thought of the two judges does not seem to me quite to coincide. Mr. Justice Lawrance seems to lay stress on the meaning of the word as conveyed to the ordinary citizen, and his remarks are just:

> The question is, In what way was the word "physician" used? Was it a mere general expression signifying the man was a medical man, a doctor, or was there a more definite meaning to be attached to it—namely, that he was a physician, which would import to most people that he was a Doctor of Medicine, and held a diploma entitling him to practise as such? That, I think, was the real meaning of the word "physician" as used by him; and I have no doubt whatever that would be the meaning conveyed to the mind of anyone who saw on a brass plate, "So-and-so, Physician." It would to my mind at all events, and I should think it would to the ordinary mind, import that he was a Doctor of Medicine and a Physician—something which he really was not.

Mr. Justice Channell, on the other hand, devotes this part of his ruling to an attempt to define the word as used in Section XL of the Act of 1858. He says:

> Having regard to the fact that prior to the passing of this Act "physician" was commonly used, at any rate in the sense of applying to what was—I may call it without disrespect to the others—the highest grade of medical practitioners, I think it was so used in this Act; and I think if you look through the Act generally you will find confirmation of that. There is some confirmation of it in the fact that these words—"physician, doctor, licentiate in medicine," and so on—most of them have application to the specific bodies that are entitled to give qualifications. It seems to me that "physician" here had got somewhat of a technical sense, and that it, in point of fact, was a word used as importing a particular grade of medical practitioner.

There is no ambiguity here in the mind of either judge; both understand the word "physician" to indicate to the public mind, and to be intended in the Act of 1858 to indicate, a particular or higher grade of practitioner of medicine than the ordinary general practitioner. Unfortunately there is no attempt to define the word more closely, no attempt to define it as one who does not practise surgery, or who is a Fellow of one of the Colleges of Physicians. But even without such further definition, it is obvious that this ruling must apply to Licentiates of the Colleges of Physicians as well as to those of the Society of Apothecaries. It having become a growing custom for the Licentiates of other Colleges to style themselves on their plates "Physician and Surgeon," it will be interesting to see whether the General Medical Council will force this ruling of the Court upon these gentlemen, and make them withdraw the title "Physician" from their doors, as "wilfully false descriptions."

The other point is presented in the parenthesis of Mr. Justice Lawrance:

> By which certificate I understand at the present time he is entitled to practise both medicine and surgery, as well as to act as an apothecary.

By implication it appears that the judge does not consider that any person not holding a certificate from some qualifying body is entitled so to practise. As this point was not at issue in this case, too much stress cannot be laid on the opinion implied in this sentence, but it affords a slight confirmation of the view held by Mr. Horsley of the powers conferred on registered practitioners by the Medical Acts, a view which I regret I am myself unable to share.—I am, etc.,

Westerham, January 30th. ARTHUR MAUDE.

SIR,—As a doctor of medicine without a diploma from a College of Physicians, I have always held I should be in error to term myself a "physician," and in the witness box have denied, when asked or it has been suggested, that I am one. I should like to learn whether that attitude is correct and if I should permit myself, as now, to be called a Consulting Physician (what other designation would do?) to an institution. It seems to me the only persons who can properly term themselves "physicians" are those who possess a College of Physicians, diploma, and that anyone else using that title is deceiving the public and could be proceeded against for illegal assumption of a diploma. I may be wrong and am open to conviction, and wish to know whether a doctor of medicine only is legally a Physician.—I am, etc.,

January 31st. S. H.

"A CONTRIBUTION TO THE TREATMENT OF PUS IN THE PELVIS."

SIR,—The paper on this subject by Mr. J. Furneaux Jordan in the BRITISH MEDICAL JOURNAL of January 21st contains so striking an example of the misuse of figures—it were gross flattery to call them statistics—that exception must be taken to it. He wishes us to accept the view that the death-rate of operations for "pyosalpinx" is 15 per cent. Mr. Furneaux Jordan has been my pupil, and it is therefore not unnatural that I should complain of his ignorance of my teaching. Either he ought not to refer to my writings at all—certainly he ought not to indulge in the flattering phrases he uses towards me, for under the circumstances they are merely jocular—or he ought to be familiar with my views and controvert them if he can. On the whole, I prefer to be left entirely alone rather than be misrepresented.

It may comfort Mr. Jordan to pick out a series of cases from my publications, and having made out a mortality of 15 per cent. for me and others, rest satisfied that we are, or at least have been, as bad as he is. But in the first place it is not true, and in the second the fact would be of no value if it were established. As far as argument for any purpose whatever Mr. Jordan might just as well pick out 100 cases of death in my practice and say that my mortality was 100 per cent.

In a volume published in 1889 I engage in a laboured argument to show that cases of inflammatory disease of the uterine appendages for which operations have to be performed are of such kinds—mixed and varied—that it is quite impossible to divide them into classes on any accurate system, or with any advantage to our art. At page 409 *et seq.*, I therefore publish a list of all the operations performed by me on such cases from January 3rd, 1880, up to May 6th, 1889. They number in all 474, with a total mortality of 2.5 per cent. The number is large enough for me to be able to say that the probability is that this represents not only my own mortality but the mortality of the operations in question, as they were the best results obtained up to that time, and I have yet to learn that they have been excelled. Mr. Jordan takes a different period, and I have not taken the trouble to go to the books and correct his figures, for his principles of selection are evidently peculiar, and they are not explained. But if I follow him in his own mistake I can pick out of my list 182

cases of pyosalpinx with 5 deaths; it gives a death-rate of 3.2 per cent. This must be very near the mortality of such cases, but even allowing for possible error—and it has been found difficult to print even the Bible without mistakes, and wholly impossible to reconcile its figures—and doubling the mortality, it is a long way from the figures as twisted by Mr. Jordan.

But what rubbish the whole thing is will be seen by the slightest consideration of the variations in the cases, given even briefly as they are in the proper column. These cases cannot be taken out in this way with any fairness, for I have seen a huge double pyosalpinx lying like a double parovarian disease, quite loose in the abdomen, and having no more risk to encounter in its removal than the parovarian tumours. On the other hand, I have recorded many cases which I enter as "chronic ovaritis," with adhesions so dense as to tax not only my utmost skill and determination to finish the operation, but my physical strength to overcome them. What nonsense it is to attempt to classify cases from a condition in itself of no importance, and very often not capable of determination until the operation is over.

I hope no one will follow Mr. Jordan's attempts at the use of figures until at least they have read what I have said in my book against it. Nor do I wish beginners to attempt to follow him in the "new method" of the vaginal route; and when they are no longer beginners they will not trouble about it, for the abdominal road will help them in all that should be done unless it is deemed advisable to remove the uterus as well, and then they will generally require to use both roads, finding it always safest to begin above, for then they will learn much that cannot be learned from below until it is too late.—I am, etc.,

Birmingham, Jan. 26th. LAWSON TAIT.

THE LONDON SCHOOL OF TROPICAL MEDICINE.

SIR,—I wish to add my testimony to the value of the opportunities afforded by the Albert Docks Hospital for the study of diseases peculiar to the tropics. Through the courtesy of Dr. Manson I have paid several visits to the wards and clinical laboratory of this institution, and have been shown not only cases of the tropical eye lesions, in which I am specially interested, but also various forms of malarial fever, cases of beri-beri, hepatic abscess, dysentery, and guinea worm. The conversion of this hospital into a teaching institution will, I am convinced, supply a long-felt want by equipping civil medical practitioners proceeding to our colonies and dependencies with the same armamentarium of practical knowledge so long furnished to army medical officers at Netley.

I believe a great school of tropical medicine—second only to the splendid army school at Netley, of which we are all so justly proud—is in process of formation at the Albert Docks, and feel sure none will congratulate the members of the Colonial Medical Service more heartily on the fact than their *confrères* of the Royal Army Medical Corps.

I trust that the last has been heard of the opposition of the medical staff of the Seamen's Hospital, Greenwich, to the scheme, and I for one have not abandoned the hope that Dr. John Anderson's unfailing tact, wide experience of tropical disease, and known capacity for communicating his knowledge to others, may yet be devoted to the organisation and development of the new school.—I am, etc.,

M. T. YARR,
Major, R.A.M.C.

Marlborough Mansions, S.W., Jan. 28th.

THE COUNCIL OF THE ASSOCIATION AND THE MIDWIVES BILL.

SIR,—The incomplete report of the proceedings in Council with regard to this Bill is so misleading that I must request you to allow me to state that I made a vigorous protest against the Association dealing in any way with the Bill drafted by the Midwives' Institute, and that I further asked if the Parliamentary Bills Committee had abandoned their own Midwifery Nurses Bill. I wish my disapproval to be made known in order that the Lancashire and Cheshire Branch which I have the honour to represent on the Council, may know that I have not failed to advocate what I know to be their views on this important question.

There is not a handful of men in this district who would agree with the remarks which fell from Dr. Woodcock in the Parliamentary Bills Committee, and which you published. He proposes "to improve (?) the Bill without seriously interfering with the principles now embodied in it." Such a suggestion can only be born of ignorance of the history of the several Bills advanced by these agitators, all and each providing registration without control!

The profession has never lent its sanction to any legislation other than that which secured complete medical control over the work of midwives, and this for the very substantial reason that they believe that the parturient poor of this country should be able to command the highest skill the profession can afford.

There is but one plan, and that is that every woman should be visited by a duly-qualified medical practitioner within twenty-four hours of her delivery. This would at once ensure the detection of any malpractice and secure the necessary treatment of those frequent accidents attendant upon childbirth being at once carried out, the neglect of which has such dire results.

It is true one or two of the suggestions of the General Medical Council have been adopted by the Midwives Registration Association, but we have no guarantee that even these will be adopted ultimately. For myself I certainly feel somewhat amused at the childlike trustfulness in the promoters of this Bill expressed by Dr. Glover in his letter to the *Lancet* of this week. And that I am justified in my suspicion I quote the expressions of one of the lady supporters of this movement—Mrs. Jacob Bright—who said, "the Bill is so full of restrictions and penalties that we could not possibly accept it."

A word as to the omissions from the Bill of the more important suggestions of the General Medical Council. The definition indicates that a midwife undertakes to attend cases of labour (all), presumably, therefore, she may send any handy woman to do the work she has undertaken, and there is no restriction as to whether her deputy shall be licensed or not.

From time to time the Council of this Association has sought an interview with the President of the Council in order to bring before the Government the suggestions of the profession, but His Grace has always declined to receive them, and at the time the last request was made, the Duke of Devonshire had actually the Bill of the Midwives Institute before him, received it, and forwarded it to the General Medical Council for criticism.

In view of such a pronounced snub, it seems to me the most dignified course for the profession to adopt is to wipe its hands entirely of this mischievous Bill. Dr. Woodcock's assertion that to try and amend these dangerous proposals is "the most statesmanlike course to adopt," will not be endorsed by any of your readers, I imagine.—I am, etc.,

Old Trafford, Jan. 28th. JAMES BRASSEY BRIERLEY.

THE CASE OF REGINA v. REICHARDT.

SIR,—The prosecution of Dr. Reichardt, to which Dr. Goodhart drew attention in the BRITISH MEDICAL JOURNAL of January 28th, is, as he describes, an excellent illustration of the need that exists for an amendment of the lunacy law.

Dr. Goodhart does not seem to be aware that efforts have been made during the last two or three years by the British Medical and Medico-Psychological Associations to obtain the introduction of a clause legalising the treatment in private homes of cases of incipient and unconfirmed mental disorder for a period of six months without certification. Such a clause already exists in the Scotch lunacy law, and has worked for many years in a perfectly satisfactory manner.

I will not trouble you with a repetition of the facts which I stated at the Carlisle meeting of the Association, and which led to the passing of a resolution by the Psychological Section pressing on the Council the necessity of such a reform.

The result of the Reichardt case shows that as the law stands a medical man may be put to great expense, even where he has taken the utmost care to avoid breaking the law.

The Treasury no doubt undertakes these prosecutions under a strict sense of duty, but without great care they may have the appearance of being used vindictively as a means of preventing all treatment of mental trouble except under certificates.

The evil of compelling early certification has been recently illustrated in a case in which a professional man, certificated for a brief mental illness, lost a valuable partnership, and was thus practically ruined. The early treatment clause would have saved him from this calamity.

I sympathise with Dr. Reichardt in his heavy loss, and I hope that the profession will demonstrate its feeling by mitigating this, and will show its sense of the injustice by a strong appeal to Parliament, not only to amend the law, but to demand that all expenses and losses entailed by unsuccessful prosecutions should in future be paid by the Treasury. —I am, etc.,

Harley Street, W., Jan. 29th. H. RAYNER.

LUNACY LAW AND BORDERLAND CASES.

SIR,—In a leading article under the above heading, published in the BRITISH MEDICAL JOURNAL of January 14th, you make use of the recent trial of the Queen v. Reichardt for the purpose of criticising the utility and advantages of certification as provided for by the Lunacy Act of 1890. Your article conveys by implication what Mr. Carson the counsel for the defence, expressed so forcibly to the jury, namely, that certification means incarceration in an asylum, and you lose sight of the case for the prosecution, which was—not that the unfortunate lady resided with Dr. Reichardt, but that she was not officially made known to the Commissioners in Lunacy in accordance with the provisions of the Lunacy Act.

I desire to make no comment upon the case, because it appears that Dr. Reichardt took every means to discover if his patient was certifiable, and subsequently treated her with care and skill, but with the deductions which you draw I must beg to disagree in the most emphatic manner,

In the first place, a patient who is suffering from severe depression with strong suicidal impulse cannot be classed as "borderland," and must not be grouped with "girls who have ephemeral attacks of hysterical depression or excitement."

Again, I can understand the JOURNAL encouraging the friends of a patient or her doctor in doing all that they can to have her properly treated and cured outside an asylum, for the day has not yet arrived—although it is not far distant—when mental diseases and asylums will be considered in the same light as physical illness and hospitals, and when people will cease to look askance at those who have seen the inside of an institution for the insane. In the present state of public feeling every allowance is to be made for the friends who seek to adopt this course; but that you should gravely countenance the treatment of these cases uncertified in any doctor's house is throwing the practice of lunacy open to very serious abuse.

I cannot agree that certification has any of the disadvantages you mention—namely, that the doctor charges double fees, that the patient is doomed to lead a single and isolated life afterwards, and that a ban is cast upon the sisters and brothers. Surely if a depressed girl is placed in the house of a doctor, the fact of two medical certificates and a reception order having been first obtained (in no wise a public proceeding) cannot attach a stigma of reproach to the patient and her friends for the rest of their days. The suggestion is absurd.

Certification *per se* does not bring all these ills in its wake, whatever residence in an asylum may do. Certification means and means only official cognisance of the patient's existence, and carries with it supervision by competent authorities who visit the patient and ascertain that he or she is not improperly detained, that the best environment and treatment have been adopted, and that everything is being done which will conduce to the patient's recovery and comfort. Surely these are inestimable benefits to receive in compensation for the fancied drawbacks of certification.

I believe that the great amelioration in the condition of the insane which has taken place in this country during recent years is in large measure due to more strict supervision and watchfulness by a central Government department; and if any doctor is to be allowed to undertake the treatment of insane or so-called "borderland" cases for his own profit, and without the knowledge of the Commissioners in Lunacy, there will be a recrudescence of those scandals which in the earlier part of the century brought discredit on those concerned in the treatment of insanity.

Let me not be misunderstood. I am no advocate for hurrying people off to asylums when they become temporarily deranged, but I maintain that in private care, almost more than in institutions strict supervision, by competent and independent authority is most necessary; and I should have expected the BRITISH MEDICAL JOURNAL to have been the last to make light of this public safeguard.—I am, etc.,

Sunbury-on-Thames, Jan. 23rd. W. J. HANDFIELD HASLETT.

*** In the above letter there are several misunderstandings. The mere certification of the patient would have made no difference to her treatment, and the suicide would have occurred just the same; therefore, the only alternative, according to the prosecution, must have been seclusion in an asylum. It is, surely, generally recognised that impulsive outbreaks, suicidal or otherwise, may occur in hysterical conditions. That double fees are charged and that there is a social ban connected with being certified are facts which we are surprised to find disputed.

A DEGREE FOR DOUBLY-QUALIFIED MEN.

SIR,—For years the practitioners who happen to have incurred the misfortune of being born south of the Tweed have suffered from a disparity as compared with their *confrères* who have had the good luck to be born north of Tweed or west of the Irish Sea. The disparity is this, that four-fifths of Scotch and Irish-born or educated medical men hold a university degree, while four-fifths of English-born and educated medical men do not. In Scotland and Ireland the great medical educating and qualifying corporations are the universities, whilst in England the Colleges hold that position. The number of degrees granted by English universities is only a small proportion of the total number of medical qualifications. Of course the number of university graduates in England does not represent the number of Englishmen who have obtained degrees, as a large number of Scotch and Irish graduates are to be found in all parts of England.

Rightly or wrongly—certainly wrongly—the general public regard the ordinary university graduate as a superior person to the ordinary diplomate; and thus these strangers who settle amongst us, and compete hotly with us, start life with a distinct and unfair advantage over the ordinary doubly qualified man. I say that the advantage is an unfair one because the curriculum and examinations for the double qualification are quite equal to the examinations of some universities, and the curriculum and examinations being equal, an equal value in the form of degree ought to be forthcoming, and it is an injustice that it should not be so and a monstrous fact that the inequality should not have been attempted to be removed by our colleges years ago.

Years ago the Scotch and Irish universities granted only a medical degree, the M.B. and M.D., but certain Government regulations requiring that candidates must have a distinct qualification in surgery, the Scotch and Irish universities simply "watered the capital" of degrees, and forthwith invented the M.C., which anyone could acquire for an additional £5 without any extra expenditure of brain force in the way of examination.

The least the two great London colleges can do is to apply for powers to grant to, and confer upon, all their double diplomates the degree of M.D. with gown and hood galore. They must move with the times, and take a leaf from the book of the canny Scotch and cute Hibernians, and do justice, very tardy, to their diplomates.—I am, etc.,

A UNIVERSITY GRADUATE.

BELLADONNA IN BRONCHO-PNEUMONIA.

SIR,—In reference to Dr. Coutts's most instructive paper on above, I should like to say that I entirely agree as to the essential difference between croupous and catarrhal pneumonia in children. Indeed, from what Dr. Coutts tells us, it would seem that catarrhal pneumonia holds an intermediate position between lobar pneumonia on the one hand and spasmodic asthma on the other. The great value of belladonna in asthma and whooping-cough are well recognised, and when we come to consider the main actions of this drug upon the nervous and vascular systems, we find there are many reasons why belladonna should prove of value in broncho-pneumonia. As an antispasmodic; as a stimulant to the cardiac muscle; as a stimulant to the vasomotor and respiratory centres; and

lastly, as diminishing secretion, it must tend to relax the tubes, to obviate the stasis in the vessels around the bronchi, and facilitate the breathing.

I have been accustomed to employ iron in these cases with great benefit, having regard to the fact that this remedy increases the number of blood corpuscles and the oxygen-carrying power of the same.

I have but briefly touched upon this most important subject, but I look forward to the promised paper of Drs. Shardlow and Edwin Nash with great interest, and it would, I think, be most instructive if, during their observations, notice could be taken of the effect of belladonna upon the pulse-respiration ratio.—I am, etc.,

Stradbroke, Jan. 29th. A. Hanbury Freke, M.B., C.M.

THE PREVENTION OF TUBERCULOSIS.

Sir,—My attention has just been called to a paper on the Prevention of Consumption, read by Dr. Ransom at the Congress of the Sanitary Institute at Bolton in 1887. This paper, which I regret I had not previously seen, is of earlier date than my paper on the same subject before the Epidemiological Society to which I referred in my letter in the British Medical Journal of January 28th, and in fairness to Dr. Ransom I ask you to insert this correction.—I am, etc.,

Harley Street, W., Jan. 31st. J. Edward Squire.

THE SLEEPING SICKNESS.

Sir,—Dr. Patrick Manson's clinical lecture on The Sleeping Sickness, published in the issue of the British Medical Journal, dated December 3rd, 1898, must have been read with much interest by many other medical men in the tropics besides myself. Dr. Manson cannot be praised too highly for the lucid manner in which he described the results of his observations on this interesting subject. It will not, however, have escaped some of the readers of his lecture that in important respects these results are disappointing.

In regard to its pathology, Dr. Manson admits that the condition remains a puzzle; its etiology is equally obscure; and it is not to be wondered at that this "sleeping sickness, so far, has proved incurable." Some suggestions on these points, which may be useful to your readers, will serve as my excuse for asking you to publish this letter.

But first I must comment on Dr. Manson's statement, made under the sub-head "Racial Proclivity," that "the negroes of the States, of the West Indies, and of Brazil ..... never, so far as we know, nowadays get the disease." I am in a position to assure Dr. Manson that "sleeping sickness" is not unknown in British Guiana, if absent from the countries he names. I have myself had under treatment well-marked cases of the disease, and not in negroes alone. One of these cases corresponded in every respect with Case II, Tenda Mkaloo, recorded in Dr. Manson's lecture, and I would add, for the encouragement of Tenda Mkaloo, made a complete recovery.

The disease is also sometimes found in the aboriginal Indians of this colony. It seems strange that Dr. Manson should have ascertained the presence of "large numbers" and "myriads" of ova of the ankylostoma duodenale in the fæces of the two cases he describes, and yet failed to see the causal connection between these parasites and the disease. Even after dosing Case II, Tenda Mkaloo, with thymol, and seeing the great improvement that immediately followed, Dr. Manson was disposed to doubt the accuracy of the diagnosis rather than suspect the truth; namely, that "sleeping sickness" is nothing else but ankylostomiasis. Such is the conclusion I have arrived at from observations made in this colony.

I shall not prolong this letter unduly by attempting to explain how ankylostomiasis produces in certain races and individuals the symptoms that characterise sleeping sickness. It will occur to most pathologists that this admits of a more lucid explanation than will probably be found by seeking the origin of the disease in the obscurities of the pituitary body.

If my opinion is correct, that sleeping sickness is ankylostomiasis with symptoms modified by individual and racial peculiarities, then sleeping sickness will cease to be considered incurable. Except such cases as have arrived at a stage hopelessly beyond the curative power of thymol, etc., no case of sleeping sickness need die. Dr. Manson has in his two clinical cases the opportunity of putting this opinion to the test; and no one is better qualified for the purpose.

If the line of treatment here suggested is followed out, Eli Mboko and Tenda Mkaloo are in good hands, and we may hope to hear of their complete recovery in due time.—I am, etc.,

J. E. A. Ferguson, M.B., C.M.,
Resident Surgeon, Public Hospital, Suddie, British Guiana.
January 3rd.

IS PLUMSTEAD UNHEALTHY?

Sir,—In your first notice of Mr. Shirley Murphy's annual report for 1897, you gave prominence to the low death-rate of Lewisham, Hampstead, and Plumstead, but you state that this is "mainly due to the enormous differences in the social status and age and sex distribution of the different sanitary areas comprised within the county." Plumstead, however, cannot be classed with Lewisham and Hampstead in its social conditions; for, as Mr. Murphy's report shows, its age and sex distribution approximates to that of England and Wales, so that no correction is required for its death-rate. As regards absence of poverty, too, it comes far below Lewisham and Hampstead.

The credit for Plumstead's low death-rate, then, must be largely given to the Vestry's able sanitary administration and its salubrious climate. It is only fair that the latter point should be insisted on, for the dread of Plumstead marshes still survives, and gives the locality a bad name, in spite of the fact that there have been no marshes and no ague for thirty years. Only a few weeks ago a physician of well-deserved fame expressed to me a doubt whether Plumstead was a suitable place for the open-air treatment of phthisis, and Plumstead practitioners hesitate to send their patients to a consulting physician, lest they should be advised to go and live in a more healthy place. If, sir, these physicians would study Mr. Murphy's reports, and the health tables and abstracts in your own columns, they would probably recommend patients from other parts of London to migrate to Plumstead.—I am, etc.,

Sidney Davies,
January 23rd. M.O.H., Plumstead.

CLINICAL INSTRUCTION IN MIDWIFERY AND GYNÆCOLOGY.

Sir,—I was delighted to find Professor Edgar's letter in the British Medical Journal of January 7th, as the subject on which he writes is one which has impressed me more and more since leaving hospital for general practice. I went through the ordinary student's course at one of the large London hospitals, where I afterwards held the post of Obstetric House-Physician, since which time I have been an assistant, and am now in general practice on my own account, so that I can regard the question of the adequacy of the present methods of clinical teaching of midwifery and gynæcology from these different points of view.

1. *As a Student.*—According to present regulations no examining or licensing body requires the student to attend more than twenty confinements. Now even when the student conscientiously does all his twenty cases, a large number of these—probably eighteen—are practically normal, possibly six or eight are "born before arrival;" and in the case of the careless student much fewer actual attendances are performed. When cases are in small proportion to students the latter go in couples to the same case, and if one be slack and the other keen, the slack gentleman leaves his colleague to do the weary waiting, etc., and often only sees perhaps ten cases right through. The most important point of all is that there is no clinical instruction in midwifery enforced by the licensing bodies or provided by the majority of the teaching bodies. A man who is supposed to have attended a course of lectures on midwifery is sent into the slums to attend twenty confinements, and if he gets into difficulties he sends for the midwifery assistant, who generally is a recently qualified student who has had similar experience himself.

2. *As Obstetric House-Physician.*—It is in obstetric and gynæcological wards that the result of this kind of teaching or no teaching is seen. Professor Edgar remarks on the large proportion of septic cases of all sorts that are sent in after confinements. I will only refer to two further points under this

heading. The first is that of ruptured perineums. While I was house-physician these old cases of ruptured perineums formed nearly half of all the operations performed in the department, and a great many more who did not submit to operation were seen in the out-patient department. Why is it that these cases are not treated at once by suture to heal by primary union? The answer, I think, is that the practitioner has never seen a ruptured perineum sewn up, and is afraid to touch it. What would be thought of a doctor who, in the case of a cut right through the lip or cheek, left the case to granulate, and then sent it to hospital for a plastic operation? Yet a similar practice is so common in midwifery as to pass almost without remark. The second point is that of malignant disease. Every week women attend the hospital, or are sent there by their doctor, suffering from malignant disease of the cervix or vagina, which is much too advanced for operation. The majority of these have had medical attendance, and say they have been treated for "a cold in their inside" or for "the change of life"; and yet most cases of malignant disease of the cervix and vagina are very easy of recognition. The fact is that a great number of licensed and registered medical men have never seen a case of malignant disease of the uterus. This subject is one of immense importance, because the general practitioner is almost invariably consulted by the patient under the impression that she is suffering from a disorder of menstruation; and if he does not undeceive her, she continues under his care, and does not see a specialist until too late.

3. *As a general practitioner* Professor Edgar says of the student that "almost all his future work will be divided between medicine and obstetrics." There never was a truer word, and yet why is it that we are left until we become practitioners to find this out? And especially seeing that midwifery allows of no delay and often of no consultation. A doctor is often required to perform an operation requiring considerable skill and involving serious risk to two lives at a moment's notice, and yet in a great number of cases he has never seen the operation performed. For example, the application of forceps or version or the insertion of a de Ribes's bag for placenta prævia. Of course if a student is keen and farsighted he will get instruction in these things, but there is no regulation by which he must do so. Many men go into practice fully qualified to do a radical cure for hernia or to trephine the skull, but never having seen forceps put on. Imagine a medical man undertaking a practice which consisted largely of ophthalmic work who had only seen twenty eye cases, and these mostly requiring no active treatment, and in the conduct of which he had had no clinical instruction!

A student is taught chemistry, physics, biology, anatomy, and physiology, and spends two years in clinical work, which are largely taken up in watching specialists do radical cures of hernia or diagnose and discuss cardiac murmurs; he then undergoes tutorial classes for his final colleges, and, if successful, get his licence—which some have called a licence to kill.

There can be no doubt that if the new Midwives Bill is passed, the midwives as a class will have had far more thorough clinical instruction in midwifery than the medical men under whose authority they will be placed.—I am, etc.,

Bristol, Jan. 9th. ERNEST W. H. GROVES, M.B., B.Sc.Lond., M.R.C.S., L.R.C.P.

THE USE OF THE NAILBRUSH IN SURGICAL ASEPSIS.

SIR,—The paper by Mr. Lynn Thomas, in the BRITISH MEDICAL JOURNAL of January 21st, on the subject of the Use of Gloves in Operative Surgery, bears on that detail of surgical asepsis that is of prime importance, namely, the disinfection of the skin, not only of the patient, but also of the hands of the surgeon and his assistants. To ensure this, all are agreed that the mechanical removal of dirt and micro-organisms is one of the most important preliminary steps, but there is not complete unanimity as to the details of this procedure. Besides washing the skin in the ordinary way, many advocate a prolonged scrubbing with stiff nailbrushes for a period of not less than ten minutes by the clock. There might be circumstances calling for such a lengthy effort to remove the epidermal cells, but I sometimes ask myself whether it is not carrying the mechanical removal of septic matters too far, and whether harm may not sometimes be done both to the patient, the surgeon, and his assistants by this interference with that protection against infection which the normal and intact skin affords. Machnoff's experiments bear on this point. He rubbed agar-agar cultures of anthrax bacilli into the shorn skin of rabbits, and in every case the animal died. An examination of the skin showed no microscopical lesions, but anthrax bacilli were present in the hair follicles. In another set of animals portions of the same cultures were simply spread over the shorn skin and no infection followed, showing that the act of rubbing had forced the bacilli into the hair follicles. From these latter they entered the tissues and then the circulation, setting up a general infection. I am of opinion that many of the troublesome suppurations of the fingers that happen to surgeons, students, and nurses are due to scrubbing the hands with nailbrushes after exposure to pyogenic organisms, thereby forcing these latter into the tissues. And this can be done even with aseptic nailbrushes. On two occasions where I opened acute lactating mammary abscesses and used my fingers in breaking down the loculi they contained, I contracted small abscesses on the fingers, the pus from which gave the same culture as the pus from the breasts. I feel satisfied that these abscesses were caused by the subsequent scrubbing I gave my hands with an aseptic nailbrush, the effect of which was to drive some of the pyogenic organisms into the hair follicles of my skin. The lesson I have learnt from this experience is that after exposure to infection from pus I simply wash my hands thoroughly with pumice-stone soap and carbo-sapol solution, using, if possible, running water. While, therefore, fully impressed with the necessity in surgical work for mechanical cleansing of a part, I would utter a word of caution as to whether it may not, under certain circumstances, such as those I have mentioned above, be judiciously modified. In the same way I am inclined to think that the violent measures taken by many for the purification of the patient's skin may be the exciting cause of the often inexplicable "stitch abscesses" that from time to time arise. Possibly there may be applicable here the old motto, "*In medio tutissimus ibis.*"—I am, etc.,

Glasgow, Jan. 24th. GEORGE THOMAS BEATSON.

GLOVES IN OPERATIVE WORK.

SIR,—In the BRITISH MEDICAL JOURNAL of January 21st, page 140, there is a communication by Mr. J. Lynn Thomas on the use of gloves in general operative surgery. I should be glad, with your permission, fully to endorse his opinion of the advantages of using them. For more than three years I have worn them for all major operations. They save time, as no other preparation of the hands, other than simple washing, is required, wounds heal practically always by first intention, and the hands of the operator are not injured or disfigured by the use of strong antiseptics. It is probable and desirable that, as they become more generally used, improvements will be made in the gloves themselves. It seems to me that rubber gloves are more effectually protective than any others. Their drawbacks are that after a time they tend to become sticky after tying ligatures that have been kept in oil, and occasionally when operating on a fat patient one is not always able to get so firm a grip of the forceps. It needs but a very short time to become accustomed to their use, and they are a great convenience.—I am, etc.,

W. J. CANT, M.R.C.S.,
Consulting Surgeon Lincoln General Dispensary,
Lincoln, Jan. 21st. Honorary Surgeon Lincoln County Hospital.

FOREIGN MEDICAL STUDENTS IN FRANCE.—Of 4,495 students registered in the Medical Faculty of Paris in the current academic year, 351 are foreigners. Of these, 15 are Germans, 15 Greeks, 16 Swiss, 60 Roumanians, 67 Turks, and 149 Russians. Of these last, 83 are women. The proportion of foreign students is, therefore, 8 per cent. In the University of Lille, of 465 students registered, 16 are foreigners. Of these, 5 are Bulgarians, 2 Portuguese, 1 Russian, 2 Armenians, 1 Belgian, 2 Turks, 1 Persian, 1 Swede, while 1 is from Alsace-Lorraine. The proportion of foreigners is, therefore, 3.5 per cent.

OBITUARY.

JOSEPH COATS, M.D.,

Professor of Pathology, University of Glasgow.

The too early death of Professor Joseph Coats removes from the University of Glasgow one who, being in the best sense of the words one of her most faithful sons and disciples, had come to be in later years one of the most distinguished of her professors, and an influence for good, both intellectual and moral, among her students second to none. Yet it was only in 1893 that Dr. Coats was admitted to the professoriate, and although for many a year before that he had performed, with general acceptance, almost all the duties assigned to a professor of pathology, it is sad indeed to think that a life so unswervingly devoted to great ends and noble ambitions should have been cut short just when the full enjoyment of the status, as well as the duties, had opened the way for further developments of his admirable and carefully-studied methods and hard-won experience.



Almost thirty years ago it could plainly be perceived, and was actually known to the few who were then in intimate relations with Dr. Coats, that the decided bent of his mind was towards scientific pathology, and that to become a teacher of that subject was the dream of his life. The circumstances under which this purpose was formed could hardly be said to be favourable, except to one whose youthful enthusiasm, and freedom from self-seeking in any unworthy sense, led him to prefer the hard and thorny path to the easy and apparently more profitable one of general practice. At that time the Glasgow Royal Infirmary employed indeed a pathologist for the performance of the very numerous necropsies, and the position was held by a medico-legal expert busily engaged in family practice, an able man undoubtedly, but one from whom anything like organisd teaching of pathology could not possibly be looked for. On the other hand the University, as regards the professoriate, was organised entirely on the old basis common at one time to all the universities of Scotland, in which the professors of the institutes of medicine (now of physiology) was supposed to be commissioned to deal with the whole theory of medicine, including physiology, pathology, and a certain amount of the generalities also of therapeutics and hygiene.

But in 1870 Glasgow was still without a professor, even of "general" pathology, and the professor of the institutes of medicine was a very worthy and venerable old gentleman, who most tenaciously held that pathology was a part of his commission, but who was no more competent to teach it according to modern methods, than to teach astronomy or geology. The last Universities' Commission at that date had attempted a compromise, so far as Glasgow was concerned, between the "general" teaching of pathology current in Edinburgh and the only true and fruitful methods, by instructing that candidates for graduation must either have attended a six months' course of "general" pathology or a three months' course of pathological anatomy together with a second course of practice of medicine. Unfortunately, no arrangements of any kind were made, or could be made, for pathological anatomy to be taught at all under the superintendence of the University, as long as the Royal Infirmary pathologistship remained on the footing above referred to. It was, therefore, under these discouraging conditions an act of high and heroic daring for Dr. Coats, immediately after his graduation, to go to Würzburg and Leipzig, in order to become thoroughly equipped under von Recklinghausen and Ludwig as a teacher of a non-existent department (in Glasgow) of the medical art. This, however, Dr. Coats did, and approved himself as so capable, that for a few years, even before the University was transplanted from the High Street to Gilmore Hill, he was placed in a position to be able to initiate a new style of teaching in the old Royal Infirmary. When the Western Infirmary was opened in 1874, Dr. Coats was at once elected pathologist, and an arrangement was entered into by which, though by no means an ideal one, the stubbornness of the old professor of the institutes gave way, and the new pathologist was permitted to rank, academically, as his assistant. And thus, although not in fact a professor, Dr. Coats obtained a monopoly of teaching in his department which really belonged to no professor. So long as he held the pathologistship he was in possession of the materials, and no rival could possibly intervene. On the other hand, his teaching was adopted by the University, under the ordinances of the time, as fully as if he had held a professorship.

It took a strong man to do all this, and it is much to Dr. Coats's credit that he did it without a whisper of dissent from anyone on the ground of inefficiency, or even want of attention to the minutest details of the work. Even the most necessary outfit of a class of pathology of the kind now adverted to is, as every expert knows, both a troublesome and an expensive business. But Dr. Coats's perseverance never flagged. He was determined from the first that pathology should be taught on the best modern lines, and somehow or other the necessary means and apparatus sprang up, as under the wand of a magician. It was all done by what must be called a truly noble spirit of self-abnegation. The income from the class was considerable in the end, but it was freely spent in bringing things more and more towards perfection. Though he had no special gift or grace of eloquence, and was even almost too reticent in general society to be what is called popular, he secured from the first the confidence of the student body, who have generally a pretty clear and correct diagnosis of "the right man in the right place" so far as they are concerned. No one of them ever had the slightest misgiving about Coats. In a perfectly simple and unadorned way he made them to see, and feel, and handle instrumentally and otherwise everything with which his department was concerned; and they had faith in him accordingly as their teacher in a measure given to few, even among teachers of

the highest class. It was all so plain and simple to appearance that an outsider might have suspected some peculiar magnetism or trick of the *doctrinaire*: but there was no trick in it at all except that Coats knew his work thoroughly, and his pupils knew that he knew it and could make them know it too.

It became abundantly clear to everyone concerned that so soon as a professorship could be instituted, Dr. Coats, and he alone, was the man to occupy it. But the institution of a Chair was a very difficult, and indeed a most cumbrous, business, which occupied the minds of the University managers for years before it could be brought to a successful issue. The University has been blamed for this, but unjustly, as the present writer thinks, having been pretty well cognisant of all the facts. Even the great social influence and the legal tact and acumen of the late Mr. A. B. Macgrigor, when Dean of Faculties, and all along a most generous friend alike of the University and of the Western Infirmary, was baffled for years in the effort to devise a working arrangement whereby the Professor of Pathology could be secured in anything like the position as regards materials for teaching the subject, occupied by Dr. Coats from sheer force of character and efficiency without the status of professor. Moreover, the endowment of a new full professorship is necessarily an expensive business; and the money required was not forthcoming till comparatively recently.

At length, in 1893, all these difficulties were overcome; and there was not a moment's doubt or hesitation, either in the Court or the Senate of the University as to Dr. Coats becoming the new professor. His relations both with the University authorities and with those of the Western Infirmary had been amicable and mutually self-respecting throughout; and with the whole body of students he was so much a favourite as to have been elected from the first, and continued from year to year, Vice-President of the Students' Representative Council, a body constituted by ordinance under the last Universities Commission, and of which the Vice-President, but not the President, may be drawn from among the past students of the University.

It is somewhat alarming to think now what might have happened, and how much the cause of pathological science in the University might have been hindered, had the first occupant of the Chair of Pathology been a man of a less conciliatory disposition. As it was, Dr. Coats was no sooner firm in his seat than he commenced negotiations for carrying out, by the joint action of the University and the Western Infirmary managers, the splendid Pathological Institute which was formally opened on October 14th, 1896. The proceedings on this occasion were a most pleasing and instructive object lesson as to to the entire cordiality and mutual support of the two governing bodies under the system of (necessarily) "dual control," and from this time onwards the extent and the quality of his resources as Professor of Pathology may be said to have been fully developed, and as well assured as any material arrangements can make them.

It was necessary to make these remarks from the somewhat historic point of view, so that the really immense services of Dr. Coats to his Alma Mater might appear as clearly to outsiders as they are known to the older members of the University of Glasgow. As a teacher of medical science, not Cullen in Edinburgh and Glasgow, nor any of his successors, was more of a creator, in reference to the departments with which they have been associated, than Joseph Coats. And this great position he owed to the simplicity of his aims, the quiet force of his character, the thorough mastery of his subject in detail, and the confidence which everyone reposed in a man who, living ever with a view to great ambitions, never allowed them to be spoiled or soiled by mean and petty personal considerations. It is sad to think that the effect of this great lesson in righteousness, and in the persevering endeavour for a long series of years to perform difficult and complex academic duties newly discovered, should be cut short just as it appeared to have reached its highest point and a promise of years of even more abundant fruition. But the object of these lines is to make sure, as far as may be in the circumstances, that the moral of so admirable an example shall be fully displayed, alike to teachers and to students, and to the medical profession at large.

Dr. Coats was a frequent and a fruitful contributor to the literature of his subject, and almost all his contributions were based upon personal research. In his *Manual of Pathology*, published for the first time in 1883, and now proceeding to a fourth edition under the care of his chief assistant, Dr. Lewis R. Sutherland, there is a careful and reasoned view of the whole subject, as illustrated by the most modern research in a large and philosophic spirit, while at the same time details are everywhere presented in the light, as far as possible, of personal observation. This *Manual* will give the key to his work, and to much other work, in many different directions, and it has already taken its place as a treatise of abiding value, both for students and practitioners. In his *Lectures to Practitioners*, 1888, one particular department of pathology—phthisis pulmonalis—is more exhaustively dealt with; and in every direction it will usually be found that some clear dry light of sound thinking and accurate research is thrown into some dark corner or another, even when it cannot be affirmed that any great original discovery is manifestly set forth. Moreover, Dr. Coats is not only a luminous, but a most readable and interesting expositor of his subject. The even and well-balanced nature, which availed him so much in all his personal relations, is carried into scientific researches, with the result that the reader feels confident of his guide, is led to see the matter all round, and is in no danger of being misled by an *ignis fatuus* of brilliant philosophical or imaginative fireworks. The writer of this notice has had occasion to refer very closely to one of the latest of his contributions on diseases of the arterial system, in the *Journal of Pathology* for 1897 (vol. iv); and he has found it everywhere most informing, and pervaded by the qualities of research above referred to.

For a few years Dr. Coats attempted to combine pathological duties with a specialism in practice; and being a proficient in laryngoscopy almost from its earliest period, he had a not inconsiderable success in what is now a much more largely developed field of lucrative practice. But his object never was money-making chiefly, or indeed at all more than was necessary, and in the end pathology claimed his quite undivided allegiance. As a man, however, of wide sympathies both in religion and politics he was not averse from extraprofessional discussions, though rarely obtrusive and never combative or noisy. He was a Broad Churchman among the Baptists, and often maintained to the writer that in that comparatively small sect there was more religious breadth (or the opportunity for it) than in most of the greater communions whether in England or in Scotland. In the core of him he was an intensely religious man, and his political sympathies were with the Liberal Unionists. His family life was altogether admirable. He is survived by a widow and two girls about 14 and 16 years of age.

Dr. Coats was the son of Mr. William Coats, of Paisley, a somewhat distant relative, we believe, of the two large families of that name who have so largely conduced to the prosperity of that borough by their world-wide reputation as thread manufacturers. Joseph Coats was born in 1846, and had therefore only attained his 52nd year at the time of his death. He was educated at the excellent grammar school in his native town, and afterwards passed through the classes in arts and medicine in Glasgow University, graduating as M.B. in 1867 with first-class honours. Thereafter he went, as above stated, to Germany, and in Ludwig's laboratory did some original research in relation to the heart, which was published in German in 1869. At a considerably later period he went over to Paris to look carefully into Pasteur's work, and, from his close association with Lord Lister during the period of pupilage when Lister was Professor in Glasgow and was working out the principles and details of antiseptic surgery, Coats may be said to have been at the very inception of that great philosophical impulse to the art of healing. He took his higher degree of M.D. in 1870, and almost immediately thereafter began the work of his life, as it has been above narrated in brief summary. He became Pathologist to the Royal, and afterwards to the Western Infirmary, and to the Sick Children's Hospital, and latterly was employed also in medico-legal business. He was a member of most of the medical societies related to his subject in Glasgow and in London, and was one of the initiators of the Glasgow Pathological and Clinical Society. In 1888 when the British Medical Association met in Glasgow he was Vice-President, and in the following year President of the Section of Pathology. Indeed, in every kind of medical in-

stitution with which he was connected—academic, social, or professional—his influence was always felt, and always to the advantage of medical fellowship and good fellowship. He was the founder of the University Club in Glasgow, and it gave a most pathetic close to his good work done in this world when, on the day before his death, at a house dinner of compliment and congratulation to Principal Story, a message was received from Professor Coats, as the Honorary Chairman of the club, to the effect that although somewhat better, he could not possibly be present at the dinner, but that as he had come to understand clearly that the new Principal "means business," he wished him all success and congratulations accordingly. The very next forenoon poor Joseph Coats breathed his last, on Tuesday, January 24th, 1899. He was buried in the Glasgow Necropolis on the succeeding Friday, amid a great concourse of friends, including the Senate of the University and members of the University Court, extra-academical colleagues, teachers, and students. The Very Rev. Principal spoke a few well-ordered words at the funeral service which faithfully reflected the feelings of all present. "None could know him without feeling that he was one whose heart was clean, whose ways were gentle, whose affections were tender, whose aims were high. The counsels of God are to us often strange—even mysterious. The poet's lament is ever and again verified; 'The good die first, and they whose hearts are dry as summer's dust, burn to the socket.' It is God's will, and God is great. There is One who has said, 'What I do thou knowest not now, but thou shalt know hereafter.' It will be hard to supply the place that he leaves empty among us. He has left a lofty example and a worthy name, of which his University is proud, a memory which we shall always cherish with affectionate regret, work achieved that will long bear wholesome fruit, though he himself has not lived to see it gathered."

The disease which proved fatal to Professor Coats was a malignant tumour in the immediate neighbourhood of the descending colon. He had also had from infancy, an intermittent, and often apparently insignificant, discharge from one ear, the result of some early destructive process in the middle ear. Otherwise his constitution was generally sound, and his frame lithe and vigorous. About three years ago he began to suffer from insidious and wholly unforeseen attacks of febricula, and something more, occurring at irregular intervals, with slight irregularities of the bowels, which drew attention even at that time to the colon, but without any definite diagnosis. In the summer of 1897 he resided for a time in Guernsey, under the supervision medically of his old friend Dr. John Aikman; and in the autumn of the same year he undertook, with his wife, a voyage round the world, which he enjoyed not a little, and from which he appeared on his return to have derived some considerable benefit. He resumed his work, but had to break it off again, and for the last two months before his death was mostly confined to bed. A dangerous-looking attack of obstruction of the bowels occurred about two months before his death, which made it necessary to consider the expediency of an operation, although the more immediate relief was spontaneously obtained, and the critical condition did not recur. By his own desire, therefore, the first step in colotomy was performed, notwithstanding his everyday-growing feebleness, and the separation of the adhesions around the tumour appeared to have afforded a certain amount of relief. The second stage of the operation was about to have been performed, when the somewhat sudden collapse above referred to occurred, and the patient passed quietly away without any more suffering. His fortitude and even-mindedness were shown forth not less in this last illness than in his previous career. His memory will long remain in Glasgow, without alloy of bitterness of any kind, for he was a man as gentle as he was righteous.

W. T. G.

Sir JOHN NUGENT, M.D.,

Late Inspector of Lunatic Asylums, Ireland.

We have to announce the death of Sir John Nugent, who has just passed away in London, at the great age of 94. Until a few years ago he was a prominent figure in Ireland, where he filled for a long period the office of an Inspector of Lunatic Asylums. His retirement took place about seven years ago, and it is a proof of his extraordinary vitality that he was able to discharge the duties of his office until that time. Only a short time since he was in Dublin, where his many friends were amazed to see him moving about with all the vigour and alertness which belong to fewer years.

Sir John Nugent was in early days apprenticed to a general practitioner in Dublin, and he was fond of recounting the story of the famous duel between Hayes and Brich, at which he was present. He was quite young, and he was invited to accompany his master to the field. The meeting took place in a field outside Dublin, and Brich fell at the first fire and died immediately.

John Nugent grew up in the exciting times of O'Connell and the political movement which he led. He became closely associated with O'Connell, whom to the end he always spoke of reverently as "Mr. O'Connell," and he was acquainted with all the leading spirits of that turbulent time. For the greater part of his life, however, he was an official, and he hardly came into touch with his brethren in the profession except socially. He was a great *raconteur*, and when he was in the mood he could make the past—even as far back as Waterloo—vivid with pictures of the events he had seen and the people he had met. He is very sincerely regretted.

UNIVERSITIES AND COLLEGES.

UNIVERSISY OF CAMBRIDGE.

Assistant to the Downing Professor.—Mr. J. L. Tuckett, M.A., Fellow of Trinity College, has been appointed Assistant to Professor Bradbury, in succession to Professor C. R. Marshall, now of St. Andrews.

John Lucas Walker Studentships.—At a meeting of the trustees of the John Lucas Walker Studentship in Pathology, held on January 27th, 1899, W. Myers, M.A., M.B., B.C Cantab., B.Sc.Lond., was elected Senior Student, and E. Sydney St. B. Sladen, M.A., M.D.Cantab., was elected Junior Student. Dr. Myers is working under Professor Ziegler at Freiburg; Dr. Sladen is working at the Cambridge Laboratory.

A University Association.—At a meeting held at Devonshire House on January 31st, under the presidency of the Chancellor, the Duke of Devonshire, it was resolved to establish a Cambridge University Association for the purpose of raising half a million sterling to meet the needs of the University in buildings and endowments. Contributions of £10,000 each were announced from the Chancellor and from Lord Rothschild's firm. The Drapers' Company intimated their intention of contributing £800 a year for ten years in support of a professorship of agriculture.

UNIVERSITY OF EDINBURGH.

The Cameron Prize.—The Senatus Academicus, on the recommendation of the Medical Faculty, has awarded the Cameron Prize to Dr. Monckton Copeman, of the Local Government Board, London, in recognition of his researches on the employment of glycerine for destroying pathogenic organisms in vaccine lymph. The Cameron Prize may be given annually "to the practitioner or member of the medical profession who shall be judged to have made the most valuable addition to practical therapeutics in the course of the five years immediately preceding, and in determining such question the word therapeutics shall be taken in its widest sense as including every agent or agency capable of influencing the human body in the maintenance or improvement of health, avoidance or cure of diseases, or the alleviation of suffering." The prize is of the value of about £80, and the Prizeman is required to deliver a lecture or course of lectures on the addition to practical therapeutics so made by him, or to publish an account of such addition in such manner as the Senatus Academicus may prescribe. The award in 1897 was to Professor T. R. Fraser, F.R.S., in recognition of his investigations in connection with strophanthus. In 1896 the award was to Professor Macewen, of Glasgow; in 1895 to Professor Behring, in 1893 to Mr. Victor Horsley, F.R.S.; in 1891 to Dr. David Ferrier, F.R.S. In 1892 and 1894 no award was made, presumably because, in the opinion of the Senatus, no addition to practical therapeutics had been made within the period of five years of sufficient importance and value to justify the awarding of the prize.

CONJOINT BOARD IN SCOTLAND.

The Quarterly Examinations of the above Board were held in Edinburgh in January, with the following results:

First Examination: Four Years' Course.—J. L. Niven, R. Shenton, T. Lynas, R. Elliott, S. Robinson.

One gentleman passed in the division of Elementary Anatomy and 1 in Chemistry. There were 17 candidates.

First Examination: Five Years' Course.—T. J. McKaigney, J. H. Sutherland, M. V. Shanahan, J. H. O'Sullivan, R. Lewis, W. S. R. Dick, J. W. Cross (with distinction), R. L. Williams, J. A. Whitla, H. McMaster, H. Doig (with distinction), P. Watt.

Six gentlemen passed in the division of Physics. There were 20 candidates.

Second Examination: Four Years' Course.—J. W. Dickson, A. J. W. Noble, R. Paterson, J. E. Boon, W. D. Dickson, B. B. Head, K. R. D. Shaw, E. R. Thomas, W. Boyd, H. J. Clague.

One gentleman passed in the division of Anatomy and 1 in Materia Medica. There were 24 candidates.

Second Examination: Five Years' Course.—P. Carroll, W. B. Heagerty, E. Hearn, A. McInnes, H. W. Young, F. A. Georgeson, F. C. Willmott, J. M. Morton (with distinction), J. S. Colquhoun, W. C. M. Burnside, D. McIntyre, J. P. Cameron, K. P. Chatterjee, W. J. Healy (with distinction), A. H. Corley, J. Kean.

One gentleman passed in the division of Anatomy. There were 40 candidates.

Third Examination: Five Years' Course.—J. B. Swinden, H. F. Stillwell, J. T. K. Thomson, F. W. K. Fough, A. E. Ward, W. A. Ogilvy, P. H. Parsons, W. Donovan, W. A. Benson, Edith Anna Wynne-Edwards, C. R. Sutherland, W. J. Morgan, Mary Birrell Davies, W. A. Dawson, G. Evans.

One gentleman passed in the division of Anatomy. There were 25 candidates.

Final Examination.—J. P. Woodhouse, A. C. Turner, F. C. Gould, J. K. Howlett, J. V. Watson, J. Ross, T. L. Wyndham, W. Lloyd, T. A. Chalmers, E. O. Jones, F. Rowland, W. C. E. O'Donoghue, C. Abbott, J. H. Fleming, J. F. Dwyer, J. M. Wood, E. A. Campbell, H. M. Cockcroft, G. Yeoman, J. H. Gibbs, C. F. Graves, E. L. N. Hopkins, A. M. Staunton, Mary Ariel Stewart, J. C. Danaher, M. Halpenny, H. J. Beven, H. Fowler, W. Roper, W. M. Cass, S. Rees, Elsie Rosa Cresswell Taylor, F. M. Black, T. R. W. Atkins, J. E. Kerr, F. P. Walsh, P. J. Van-Coller, K. Datta, G. Parnell, F. P. Lander, J. Barkley, F. E. Dowling, D. F. Schokman, R. C. M. Hoare, C. W. Iliffe, A. F. C. Gilmour, E. Walsh, J. T. Buckley, C. H. Bürger, Lydia Prio Datt, T. J. O'Donovan, J. P. Corcoran, J. G. B. Gowlland.

One gentleman passed in the division of Medicine and Therapeutics. There were 101 candidates.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

MAJOR, R.A.M. Corps, with one year to complete tour in a Colony, desires an exchange with officer recently home. Address "Zingiber," care of Messrs. Holt and Co., 3, Whitehall Place, S.W.

ROYAL NAVY MEDICAL SERVICE.

FLEET-SURGEON MICHAEL J. MCCARTHY, M.D., has been placed on the retired list, at his own request, January 23rd. He was appointed Surgeon, March 31st, 1877; Staff-Surgeon, March 31st, 1889; and Fleet-Surgeon, May 14th, 1898. As Surgeon of the *Carysfort* he served with the Royal Marine Battalion during the operations in the Eastern Soudan in 1884; received the Egyptian medal and Khedive's bronze star.

Fleet-Surgeon GODFREY GOODMAN, R.N. (retired), whose death is announced as having occurred on January 20th, at his residence, Coombe House, Weaver Collompton, Devon, entered the Royal Navy as Surgeon in September, 1859; became Staff-Surgeon in January, 1869; and Fleet-Surgeon in October, 1879, and retired in February, 1890. He was specially promoted for his valuable services during outbreaks of yellow fever in the West Indies. During the Egyptian war, 1882, he served as Fleet-Surgeon on board the *Euphrates* (Egyptian medal, Khedive's bronze star).

The following appointments have been made at the Admiralty: CHARLES J. E. COCK, Surgeon, to the *Revenge*, January 31st; WILLIAM J. CODRINGTON, M.B., Surgeon, to the *Raleigh*, January 31st.

Staff-Surgeon SAMUEL KEAYS, R.N., has been promoted to Fleet-Surgeon in Her Majesty's Fleet, with seniority of January 3rd, 1899.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANTS S. L. CUMMINS, M.B., and H. G. F. STALLARD, are seconded for service with the Egyptian army, January 7th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL G. F. NICHOLSON, M.D., Bengal Establishment, has retired from the service, from February 23rd. He was appointed Surgeon, March 30th, 1878, and became Surgeon-Lieutenant-Colonel, March 30th, 1898.

MEDICO-LEGAL.

A CURIOUS CASE.

AT the County Court, Longford, last week, Dr. Kenny, Medical Officer of Granard Workhouse, sued Dr. Wilson of Edgeworthstown for £2 2s.—a consultation fee. It appeared that Dr. Wilson was called to see a man who had received a fracture of the skull, and who was taken to the police barrack. He telegraphed to Dr. Kenny to come and see the patient in consultation, and the plaintiff did so. The case was not sent for trial by the magistrates, and Dr. Wilson only was examined before them. He was paid, but, as the case did not go further, and Dr. Kenny was not examined, he got no fee from the authorities. He then brought his claim against Dr. Wilson. The judge dismissed the case on the merits.

DISPENSARY DOCTOR'S ACTION FOR LIBEL.

AN application was made the other day to the Irish Court of Queen's Bench to send a case of libel to the Donegal Assizes for trial, and this was done. The plaintiff is Dr. Kelly, and the defendants William Colhoun, John Molloy, and Patrick McLoone. The first-named is a newspaper proprietor; the other two are members of the Glenties Dispensary Committee. An inquiry had been held into charges made against Dr. Kelly, and when the result was communicated to the Committee a resolution was passed expressing dissatisfaction with the result, and asking the Local Government Board to consider the "succession of cases of deaths of newly-born infants and their mothers in Dr. Kelly's district" with a view to reviewing their recent decision. The plaintiff claims damages for the innuendoes that he had been guilty of an indictable offence.

SUCCESSFUL ACTION FOR LIBEL.

IN the case of Vallance *v.* Terrett, heard on January 30th, in the Queen's Bench Division, before the Lord Chief Justice and a special jury, Dr. T. J. Vallance, who for more than thirty years held the appointment of medical officer to West Ham Union Workhouse and Schools, sued Mr. J. J. Terrett, a meat salesman, residing at Forest Gate for damages for libel. It appeared that at or about the end of March last the defendant issued a large poster in which he characterised certain notes written by Dr. Vallance with regard to children in the workhouse schools as "brutal replies." The poster added that "the Board has asked this monster to resign, but we know on good authority an attempt is to be made to reinstate him at the next meeting." The poster further asked persons to vote for two candidates, whose names were mentioned, "and prevent the reappointment of this brute." The facts as to the notes were, according to the opening statement of counsel on behalf of the plaintiff, that the Visiting Committee to the Workhouse Schools desired the Superintendent to make inquiries of Dr. Vallance with regard to certain children. The Superintendent jotted down the names and details of the inquiries, and left the list on the surgery table. Dr. Vallance wrote on the margin brief answers and comments. This paper, which was not intended to be a formal report, but merely for the information of the Superintendent, was, however, by him brought before the committee of the guardians, and by it before the Board of Guardians. After a debate, which was described as fierce, the Board, without asking the plaintiff for an explanation, called upon him for his resignation. The debate was reported in the papers, and an election of guardians was then pending. It was at or about this time that the defendant, who was said to be a Councillor for West Ham, published the placard which was the subject of the action. The plaintiff was subsequently reinstated in his position by the Board, and continued to discharge the duties of his office for some time. He ultimately resigned upon a pension. The defendant admitted publication, that the words were defamatory, that there was no ground for the accusation, expressed regret for publishing the libel, and brought into Court £20, which he considered was sufficient to satisfy the plaintiff's claim. The evidence of the plaintiff and of another witness having been heard, the counsel for the defendant, who called no witnesses, addressed the jury in mitigation of damages. The jury returned a verdict for the plaintiff for £150, and the Lord Chief Justice gave judgment for this sum, less the £20 paid into Court. Messrs. Hempson, solicitors to the Medical Defence Union, acted for the plaintiff.

A VACCINATION CASE.

THE QUEEN *v.* WEBB AND ANOTHER: EX PARTE HAWKER.

THIS law case is of considerable interest and importance. Of late years one of the methods of antivaccination propagandism has been to take advantage of the prosecution of defaulters as an opportunity for haranguing benches of magistrates, and through them the public, on the subject of antivaccination in general. Two justices of the Tewkesbury Division of the County of Gloucester, Colonel Webb and Mr. V. W. Yorke, seem to have been so seriously victimised in this fashion that at length, like the proverbial worm, they turned, and determined to listen to no more general oratory. The circumstances as reported were briefly as follow. A retired Baptist minister, the Rev. Arthur Graham, appeared before the two justices in January, 1898, on behalf of various parents who had neglected to procure the vaccination of their children. On his application the summonses were adjourned for about two months on the ground that there was an epidemic of scarlet fever in the neighbourhood. On March 24th he again presented himself, and, upon the hearing of a summons against one of the other defendants, he, as stated on affidavit by the justices, addressed them at great length on the subject of vaccination. After hearing him for some time, he was requested to adduce facts or arguments bearing on the particular case, and to show reasonable ground why the order for vaccination should not be obeyed. This he declined to do, telling the justices that they were bound to sit and listen to anything which he might choose to say or read, and he proceeded accordingly. Ultimately they informed him that they could listen no longer to general statements, and that unless he had some reasonable explanation for disobeying the order, he must sit down. Mr. Graham, however, persisted in introducing totally irrelevant matter, and used disrespectful and abusive language towards the justices, who, after repeated warnings, asked him to leave the court, which he did on being approached by a police officer. At this time, however, the case of Hawker and other defendants had not been heard, and the justices adjourned the relative summonses for fourteen days, and caused the persons interested to be informed of the adjournment and stating that the summons would be finally heard in any event. On April 7th, when the summonses came on again, the Rev. Arthur Graham again appeared for the defendants, and, in defending one case, followed the same course as before. After submitting for some time the justices closed the case and fined the defendant 5s. and costs. Mr. Graham, as the justices reported, strongly objected, continued to use abusive and disrespectful language, and persistently interrupted the solicitor while he was examining the vaccination officer in the next case. Finally they directed the reverend advocate to be removed from the court, and he then left and did not return. All this time Hawker's case had not been heard, and when called he did not appear. Evidence having been read, he was convicted and fined 5s., with 9s. costs.

The question before the Queen's Bench Division was whether this conviction should be quashed, and the decision is noteworthy. Mr. Justice Lawrance said that, in his opinion, the justices were perfectly right, and that he failed to see what other course they could have adopted. They had grown tired of hearing Mr. Graham air his views on vaccination at large, and had civilly asked him to apply his principles to the particular case. Persisting in his own course and becoming abusive, he was told that he would not be heard, and upon the approach of a police-constable

he left the court. The argument on the other side was that it was not enough for an advocate to misbehave in one case, but that he must have an opportunity of misbehaving himself in each case. This argument Mr. Justice Lawrance said was its own refutation. The cases having been adjourned in order that the defendants might have an opportunity of appearing by some advocate not quite so reverend and not quite so abusive, at the adjourned hearing the same advocate appeared and the same farce was gone through. The local justices considered, as any Court would do, that the defenders had no reason for their disobedience, since they had put forward an advocate who would give no reason.

Mr. Justice Channell said he entirely agreed in what Mr. Justice Lawrance had said. He desired, however, to add that the applicant or his advisers had purposely concealed from the Court, when the rule *nisi* was moved, what the real point was; and, in his opinion, that in itself afforded ample ground for discharging the rule.

Mr. Schultess Young, who appeared on behalf of Hawker, is a well-known antivaccinationist, and is frequently engaged in defending cases before the law courts. The decision given by the Queen's Bench Division is most valuable and most wholesome, and is worth bearing in mind by benches of justices throughout the country, wherever similar antivaccination tactics are adopted.

ACTION AGAINST A MEDICAL MAN: VERDICT FOR THE DEFENDANT.

At the Wolverhampton County Court, before his Honour Judge Young, William Pike, a stable boy, claimed £25 damages from Mr. W. J. Bebb, L.R.C.P. & S.Ed., Wolverhampton, who, as it was alleged, whilst employed to extract a decayed tooth on November 9th, 1898, carelessly extracted another and perfectly sound tooth, and caused plaintiff a severe illness. Mr. Bebb, after evidence had been given in support of the plaintiff's case, said the second tooth was drawn because it was adherent to the first one. He visited the plaintiff the same night and plugged the socket of the extracted tooth with cotton-wool soaked with tincture of iron. Mr. Cotterill, assistant house-surgeon at the hospital, stated that when the plaintiff came to the hospital he found a cavity at the back of the left lower jaw and the remnants of some cotton-wool plugging. He could not detect that defendant had been guilty of any neglect. Mr. Vincent Jackson stated that in his opinion there was no evidence of negligence on defendant's part. The judge gave a verdict for the defendant.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,762 births and 3,716 deaths were registered during the week ending Saturday last, January 28th. The annual rate of mortality in these towns, which had declined from 19.1 to 18.2 per 1,000 in the three preceding weeks, further fell to 17.0 last week. The rates in the several towns ranged from 12.0 in West Ham, 12.9 in Cardiff, 13.5 in Croydon, and 14.4 in Halifax to 22.2 in Sunderland, 22.6 in Preston, 23.3 in Liverpool, and 23.8 in Plymouth. In the thirty-two provincial towns the mean death-rate was 17.7 per 1,000, and exceeded by 2.0 the rate recorded in London, which was only 15.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.4 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.4 in Salford and in Gateshead, 2.7 in Halifax, 2.8 in Nottingham, and 2.9 in Sunderland. Measles caused a death-rate of 1.1 in Nottingham, 1.2 in Manchester, and 1.3 in Bolton; scarlet fever of 1.5 in Gateshead; whooping-cough of 1.1 in Bristol and in Halifax, 1.2 in Croydon, and 1.4 in Birkenhead and in Sunderland; and "fever" of 1.1 in Halifax. The 71 deaths from diphtheria in the thirty-three towns included 31 in London, 8 in Leeds, 6 in Sheffield, 4 in Liverpool, 4 in Hull, 3 in West Ham, 3 in Swansea, and 3 in Leicester. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,749 at the end of the four preceding weeks, had further fallen to 2,679 on Saturday last, January 28th; 220 new cases were admitted during the week, against 291, 220, and 249 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, January 28th, 880 births and 676 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.7 and 21.3 per 1,000 in the two preceding weeks, rose again to 22.1 last week, and was as much as 5.1 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.3 in Paisley and 20.2 in Edinburgh to 23.9 in Greenock and 24.9 in Leith. The zymotic death-rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Aberdeen and Leith. The 330 deaths registered in Glasgow included 7 from measles, 7 from scarlet fever, 4 from diphtheria, and 12 from whooping-cough. Four fatal cases of measles, 3 of scarlet fever, and 9 of whooping-cough were recorded in Edinburgh; and 2 deaths from diphtheria and 2 from "fever" occurred in Leith.

It is announced that the Russian Government contemplates sending an expedition to Samarkand and Merv to investigate and report upon the recent outbreaks of malarial fever which have greatly alarmed the inhabitants of those districts.

MEDICAL NEWS.

Mr. J. Mackenzie Davidson has been appointed Medical Officer in Charge of the Roentgen Ray Department at the Royal Ophthalmic Hospital, Moorfields, E.C.

At the meeting of the Zoological Society of London for scientific business on Tuesday, February 7th, Mr. F. E. Beddard, F.R.S., will read a paper on the Cerebral Convolutions of the Gorilla.

The Vienna Medical Club has voted the sum of three hundred gold crowns for the foundation of a prize in memory of Dr. Hermann Franz Müller, who died of plague not long ago.

We are asked to state that a club, to be called the Irish Club, is about to be opened in premises taken at the Cockburn Hotel, 13, Henrietta Street, Strand, W.C. The club is to be absolutely non-political and non-sectarian, and is designed to afford an opportunity of friendly intercourse between Irishmen, not only resident in London but visiting the metropolis. Further particulars can be obtained from the Honorary Secretaries at the address mentioned.

Lectures on Teratology and Antenatal Pathology.—On the recommendation of the Medical Faculty and Senatus Academicus of the University of Edinburgh and with the permission of the University Court, Dr. J. W. Ballantyne, Lecturer on Midwifery and Gynæcology in the Medical College for Women, Minto House School, will deliver a series of six lectures on Teratology and Antenatal Pathology in the new medical buildings of the University. The lectures, which are free to the members of the medical profession and senior students, will be given in the Medical Jurisprudence Classroom at 5 P.M. on Fridays, beginning on February 3rd.

Luton Bute Hospital.—From the annual report of the Committee of Management it appears that during 1898 203 patients—109 male and 94 female—were admitted to the hospital, 10 being children under 13 years of age; that of the 203 cases 172 were discharged as cured or relieved, whilst 13 died. There were 53 accident cases—a record number. The expenditure during the year was £911 1s. 5d., whilst the income was £1,040 0s. 8d. The funded property of the hospital has of late been steadily growing. The work required of the matron and nurses during the past year has been very great, and suggestions for increasing the nursing staff were made at the recent annual meeting.

The German Congress of Internal Medicine.—The seventeenth Congress of Internal Medicine will be held at Carlsbad from April 11th to 14th under the presidency of Professor Quincke of Kiel. The following are among the subjects proposed for discussion: Insufficiency of the Heart Muscle, to be introduced by Professors L. von Schrötter of Vienna and Martius of Rostock; Leukæmia and Leucocytosis, to be introduced by Professor Löwit of Innsbruck and Minkowski of Strassburg. Communications are also promised by Dr. Theodor Schott of Nauheim, von Noorden of Frankfort, Nothnagel of Vienna, Escherich of Graz, von Jacksch of Prague, Stokvis of Amsterdam, and many others. In connection with the Congress there will be an exhibition of apparatus, preparations, etc.

Presentation to Dr. Coupland.—A number of Dr. Sidney Coupland's friends, including most of his late colleagues and pupils, and not a few ladies, assembled in the large lecture theatre of the Middlesex Hospital Medical School on January 28th to present to him a testimonial in the shape of a handsome set of silver plate. The occasion was his retirement from the Middlesex Hospital and Medical School, on his appointment to be a Commissioner in Lunacy. At the same time a diamond and sapphire pendant was given to Mrs. Coupland. The presentation was made by Dr. Cayley in a few well-chosen words; and, in replying, Dr. Coupland expressed his great gratification at this mark of esteem, and said that, though no longer a member of the staff, he would always feel affection and gratitude for the institution in which he had so long worked. After the ceremony, the new school buildings, which are nearly completed, were lit up for the first time, and the visitors had an opportunity of inspecting them.

MEDICAL VACANCIES.

The following vacancies are announced :—

BELFAST DISTRICT ASYLUM.—Assistant Medical Officer, unmarried, and not to exceed 32 years of age. Salary, £100 per annum, and £50 in lieu of rations, with furnished apartments, fuel, light, washing, and attendance. Applications to the Medical Superintendent by February 11th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Pathologist. Applications to the Secretary by February 6th.

COVENTRY: COVENTRY AND WARWICK HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum, with rooms, board, washing, and attendance. Applications to the Secretary by February 15th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications to the Secretary by February 13th.

GOLD COAST.—Medical Officers for the West African Frontier Force for Temporary Service. Salary at the rate of £350 a year. Appointment for one year, at the end of which time he will, if he has given satisfaction, receive a gratuity of £100, or may be placed on the regular establishment. Unmarried, between 25 and 35 years of age. Personal applications to the Assistant Private Secretary at the Colonial Office.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £80 per annum, with board, residence, and laundry. Also Assistant House-Surgeon. Salary, £30 per annum, with board, residence, and laundry. Applications to the Honorary Secretary by February 24th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon to Out-patient Department. Appointment for six months, but eligible for re-election. Salary, 25 guineas. Applications, on forms provided, to the Secretary by February 21st.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by February 9th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 a year, with furnished quarters, attendance, coal, gas, garden produce, and washing. Appointment for two years. Applications to the Superintendent by February 16th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium of £42 a year, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by February 13th.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £250 a year and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

MORPETH DISPENSARY.—House-Surgeon. Salary, £120 per annum, with furnished rooms, coal, and gas. Must be prepared to take office March 16th. Applications to N. I. Wright, Honorary Secretary, Beechfield, Morpeth, Northumberland, by February 16th.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland Street, W.—Surgical Registrar. Applications to the Secretary by February 18th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant to House-Surgeon. Appointment for six months. Honorarium, £20, with board, lodging, and washing. Applications to the Secretary by February 7th.

PARISH OF LAMBETH.—District Medical Officers for No. 6 and No. 8 Districts. Salaries £90 and £80 respectively, with extra fees. Applications, endorsed "Appointment of Medical Officer," to the Clerk by February 11th.

PLAISTOW: ST. MARY'S CHILDREN'S HOSPITAL.—Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary by February 7th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Appointment for four months. Salary at the rate of £50 per annum, with board, residence, and washing. Applications to the Secretary by February 13th.

READING: ROYAL BERKS HOSPITAL.—Assistant Medical Officer. Board, lodging, and washing provided. An honorarium of 10 guineas. Appointment for six months. Applications to the Secretary.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Physician. Must be F.R.C.P.Lond. Applications to the Secretary by February 14th.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City Road, E.C.—House-Surgeon. Salary, £50 per annum, with board and lodging. Applications to the Secretary by February 18th.

ST. MARY'S HOSPITAL, PADDINGTON, W.—Casualty Physician. Salary, £75, must be M.R.C.P.Lond. Applications to the Secretary by February 6th.

SHEFFIELD UNION INFIRMARY.—Resident Assistant Medical Officer for the Workhouse, Fir Vale, Pitsmoor. Not under 26 years of age. Salary, £100 per annum, with apartments, rations, and usual allowances. Also Junior Assistant Medical Officer. Appointment for six months. Honorarium, £12, with furnished apartments, board, and washing. Applications to the Clerk to the Guardians, Union Offices, Sheffield, by February 8th.

WEST BROMWICH DISTRICT.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Gratuity, £20. Applications to the Secretary.

MEDICAL APPOINTMENTS.

ABLETT, Ed., M.D., appointed Honorary Consulting Surgeon to the Whitehaven and West Cumberland Infirmary.

ALLPORT, W., M.B., B.S.Lond., M.R.C.S.Eng., appointed Junior House-Surgeon to the Birmingham and Midland Eye Hospital.

BAILEY, John George, M.B., C.M.Edin., appointed Senior House-Surgeon to the Bury Hospital.

BARNARD, Harold L., M.S.Lond., F.R.C.S.Eng., appointed Assistant-Surgeon to the Metropolitan Hospital, Kingsland Road; and also as Surgical Tutor to the London Hospital.

BATE, George Paddock, M.D., appointed Consulting Physician to Queen Adelaide Dispensary, *vice* Dr. W. Munk, deceased.

BATTEN, Fredk. E., M.A., M.D.Cantab., M.R.C.P.Lond., appointed Pathologist to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* Dr. Risien Russell, appointed Assistant-Physician.

BRAMWELL, Edwin, M.B., C.M., appointed Junior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* J. S. Collier, promoted to the Senior Post.

BURROW, V., M.B., B.S.Durh., appointed Medical Officer for the Second District of the Aylesbury Union, *vice* H. P. Gilbert, L.R.C.P.Edin., M.R.C.S., resigned.

CLEMENTS, S. D., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Farnley District of the Bramley Union, *vice* G. M. Sharpe, L.F.P.S.Glas., resigned.

COATES, R., M.R.C.S.Eng., L.R.C.P., appointed Medical Officer for the Barford District of the Bedford Union, *vice* C. Spragge, M.D., resigned.

CRAWFORD, J. J., M.B., B.Ch.Univ.Dub., appointed Resident Medical Officer to the Victoria Hospital, Burnley.

DAVIDSON, James Mackenzie, M.B., C.M., appointed Honorary Medical Officer in charge of the X Ray Department, Royal London Ophthalmic Hospital, Moorfields.

DENT, E. A., M.B., appointed Medical Officer for the Third District of the Cheltenham Union.

DINGWALL, A., M.B., appointed Medical Officer for the Kinsham District of the Kingston Union.

GENT, William Conway, L.R.C.P., L.R.C.S.Edin., appointed Public Vaccinator for the Knowle Registration District by the Guardians of the City and County of Bristol.

HARRIES-JONES, E., M.B., C.M.Edin., appointed Senior House-Surgeon to the Birmingham and Midland Eye Hospital.

HOPKINS, H. Culliford, M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer for the No. 2 District of the Bath Union, *vice* Caleb Barrett, F.R.C.S.Eng., resigned.

INGRAM, A., M.B., appointed Assistant Resident Medical Officer to the Birkenhead Union Workhouse, *vice* Mr. T. Gibson, resigned.

LAPTHORN, C. A., F.R.C.S., appointed Medical Officer and Public Vaccinator for the Littlehampton District of the East Preston Union.

MORGAN, Naunton, M.R.C.S., L.R.C.P., appointed Medical Officer and Public Vaccinator for the Tonyrefail and Gilfach Goch District of the Pontypridd Union.

MURIEL, G. J., M.R.C.S.Eng., appointed Honorary Consulting Surgeon to the Whitehaven and West Cumberland Infirmary.

NEVILL, W. N., B.A., Ch.B.Dub., appointed Public Vaccinator for the Bedminster Registration District by the Guardians of the City and County of Bristol.

O'DOWD, J. A., M.R.C.S., L.R.C.P.Lond., appointed Assistant Medical Officer to the Parish of Birmingham Workhouse.

PROUDFOOT, Frank G., M.A.St.And., M.B.&C.M.Edin., Oxford, appointed Examiner in Materia Medica for the Degrees of M.B., B.Ch., at the University of St. Andrews.

RAPER, M. H., M.D.Lond., appointed Medical Officer for the Wakering District of the Rochford Union.

THOMPSON, Henry E., M.B.Lond., M.R.C.S.Eng., appointed Resident Surgical Officer to the Birmingham and Midland Eye Hospital.

WALTER, E. W., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the South Shoebury District of the Rochford Union.

WOAKES, Claud, M.R.C.S., L.R.C.P., appointed Surgeon to the London Throat Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons, 5 P.M.—Professor L. E. Hill: On Researches on the Influence of Gravity on the Circulation. (Lecture I.)

Odontological Society of Great Britain, 40, Leicester Square, W.C., 8 P.M.—Dr. William Hunter: On the Relation of Dental Diseases to General Diseases; and casual Communications by Messrs. Leonard Matheson, W. Rushton, and Theodore Harris.

Medical society of London, 8.30 P.M.—Dr. Samuel West: Some of the Clinical Aspects of Granular Kidney.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Seymour Taylor: The Examination of the Thoracic Viscera.

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Fletcher Beach: Cases of General Paralysis of the Insane and Allied Disorders.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Beevor: On the Actions of Muscles.

Roentgen Society, 11, Chandos Street, Cavendish Square, W., 8 P.M.—Mr. Wilson Noble: On a Modified Form of Poepler Mercury Pump. The President (Dr. C. W. Mansell Moullin) will open a discussion on the Roentgen Ray Photography of Soft Tissues.

Pathological Society of London, 8.30 P.M.—Dr. G. F. Still: Congenital Hypertrophy of Pylorus. Mr. S. G. Shattock: Dilatation of Œsophagus. Dr. W. S. Lazarus-Barlow: Dilatation of Œsophagus. Mr. Stanley Boyd: Alveolar Sarcoma of Rectum. Dr. Rolleston: Carcinoma of Cardiac Orifice of Stomach. Dr. H. Morley Fletcher: Adenoma of Brunner's Glands. Dr. C. D. Green: Umbilical Polypus. Dr. P. Weber: Diffuse Syphilitic Change in the Liver. Card Specimens will be shown by Drs. E. Cautley, Morley Fletcher, Rolleston, Lazarus-Barlow, Weber, and Mr. H. B. Hickman.

WEDNESDAY.

Royal College of Surgeons, 5 P.M.—Professor L. E. Hill: On Researches on the Influence of Gravity on the Circulation. (Lecture II.)

South-West London Medical Society, Stanley's, 235, Lavender Hill, Clapham Junction, 8 P.M.—Dr. Charles J. Arkle: Some Points in the Treatment of Tuberculosis.

The Sanitary Institute, 8 P.M.—Discussion on the Supply of Water to London by the Welsh Scheme, to be opened by Mr. R. E. Middleton.

Evelina Hospital, S.E., 4.30 P.M.—Dr. W. Soltau Fenwick: Clinical Lecture on Vomiting in Infancy and Childhood. (Post-graduate Course.)

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M.—Dr. Fowler: On the Influence of other Diseases upon Pulmonary Tuberculosis.

THURSDAY.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Mr. Waterhouse: Demonstration of Surgical Cases.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

British Gynæcological Society, 8.30 P.M.—Specimens will be shown by Dr. Bantock, Dr. H. Jellett, Dr. Snow, and Mr. J. F. Jordan. Papers—Professor Mayo Robson: Complete Removal of the Sac in a case of Extrauterine Gestation. Dr. Macpherson Lawrie: Notes on a case of Extrauterine Pregnancy.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Seymour Taylor: The Examination of the Thoracic Viscera. (Lecture II.)

FRIDAY.

Royal College of Surgeons, 5 P.M.—Professor L. E. Hill: On Researches on the Influence of Gravity on the Circulation. (Lecture III.)

Clinical Society of London, 8.30 P.M.—Mr. W. G. Spencer: Tuberculous Cavities in the Lungs giving rise to Gaseous Metastatic Abscesses. Dr. Barlow and Dr. F. E. Batten: A case of Myopathy, with Necropsy, in a boy of 5; illustrated by Microscopical Specimens and Lantern Slides. Mr. J. K. Lunn: Some Results of Operation for Enlarged Prostate. Mr. H. Betham Robinson: Hydatid Cysts of the Upper Lobe of the Right Lung and Liver successfully Removed.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

FARQUHAR.—On January 30th last, at Burbage, Marlborough, the wife of James Farquhar, M.D., of a daughter.

GRIFFITH.—On January 27th, at 43, Park Square, Leeds, the wife of T. Wardrop Griffith, M.D., of a son.

MARRIAGES.

CLARKE—GEE.—On January 19th, at St. John the Baptist's, Leicester, Astley Vavasour Clarke, M.D.Cantab., of Leicester, to Ethel Mary, eldest daughter of H. Simpson Gee, J.P., of Knighton Frith, Leicester.

DE LESSERT—ROBBERDS.—At St. Mary's, Arbroath, on January 25th, by the Rev. J. M. Danson, D.D., Rector of St. Andrew's, Aberdeen, Alfred Alexander De Lessert, L.D.S., 220, Union Street, Aberdeen, to Amy Caroline, only daughter of the late Rev. Frederick Robberds, of Salford, Somerset.

DEATHS.

DAVY.—On January 21st, at Morrab Villa, Penzance, Humphry Davy, M.D., aged 60.

LUNDIE.—At the Willows, Relugas Road, Edinburgh, on January 28th, William Tasker Lundie, M.A., B.Sc., M.D., of 3, Glengyle Terrace. All friends will please accept this intimation.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

MESMER would be glad to know the name of a good modern work on pellagra. What is wanted is an up-to-date description of the symptomatology and pathology of the disease.

DR. J. H. KEPPEL-COMPTON (Southampton) would be glad to hear where he could buy a modern reprint or engraving of Jenner, the discoverer of vaccination.

AN OLD MEMBER asks for advice in the treatment of a patient, about 70 years of age, who suffers from gouty heart and is able to take very little exercise. Whenever he sits down, even after a fair night's rest, he falls asleep and remains in a profound torpor for some time, and then wakes up startled and bewildered and terribly distressed and depressed.

E. M. H. asks whether there is any hospital or institute in London where he could receive instruction in Roentgen ray photography.

*** We understand that a class is about to be established at Charing Cross Hospital Medical School, Chandos Street, and our correspondent might communicate with Mr. Mackenzie Davidson, the medical officer in charge.

RELIEF OF LIGHTNING PAINS.

J. C. J. will be grateful for suggestions for the relief of "lightning pains" occurring in an elderly patient without a history of syphilis. Antipyrin, citrate of caffeine, and similar remedies have been employed without much benefit.

RIGA'S DISEASE.

DR. J. W. PLAXTON (Lunatic Asylum, Kingston, Jamaica) asks to be referred to an account of Riga's disease:

*** The following entry appears in the Table of Eponymic Diseases in Dr. G. M. Gould's *Dictionary of Medicine, Biology, and Allied Sciences*:—*Part Affected:* Mouth. *Symptoms:* Aphthous eruption beneath the tongue; painless; grave constitutional symptoms; emaciation; exhaustion; earthy pigmentation of skin; death. *Pathology:* Ulcer, gray in colour, with irregular and poorly-defined borders; enlargement and fatty degeneration of liver and spleen. *Etiology:* Heredity; characteristic bacilli. *Synonyms:* Cachetic aphthæ.

PRIVATE PRACTITIONER'S ATTENDANCE ON PAUPER PATIENTS.

A. B., a private practitioner, writes, saying that the district medical officer of the parish in which he (A. B.) resides lives five miles off, and that he, being on the spot, is frequently summoned to urgent cases which occur amongst the paupers, for attendance on whom, as he says, the district medical officer is paid. "A. B." wishes to know whether he can get paid by the guardians for the work he describes, and asks whether we advise him to attend such urgent cases in the future if applied to do so.

*** As "A. B." holds no Poor-law appointment, it is no part of his duty to attend any pauper patient, and even if he does so he is not likely to receive any remuneration from the guardians. He must, however, judge for himself as to whether it is advisable for him to decline attendance on any urgent case (pauper or not). We think this very questionable.

ANSWERS.

W.M.—It is generally supposed that most preparations of the kind mentioned contain from 6 to 10 per cent. of alcohol, but we are not in a position to say positively that such is the case.

PRACTICAL would find some hints in *Respiratory Exercises in the Treatment of Disease*, by Dr. Harry Campbell (London: Baillière, Tindall, and Cox. 1898. 7s. 6d.), or in *The Elements of Physical Education*, by David Lennox, M.D., and A. Sturrock (Edinburgh and London: Blackwood and Sons. 1898. 4s).

LAMBDA.—Appointments under the Poor Law, etc., are not transferable as a matter of course; the purchaser of a practice may fairly gauge the chances. The whole income stated in a purchase is more or less dependent on the purchaser for its realisation, and he must value the amount from his own judgment.

G.E.B.—The request is unusual, and it appears to be at least doubtful whether it is made with official authority. Under these circumstances we should recommend our correspondent not to comply with the request without further information as to the purpose for which the information is required, and by whose authority the request is made.

MEMBER X., J. M.—Our correspondents no doubt received the notice as to the employment of unqualified persons as assistants or otherwise, issued by the General Medical Council in accordance with its resolution adopted on November 24th, 1897. If they will refer to the report published in the BRITISH MEDICAL JOURNAL of December 10th, 1898, page 1756, of the meeting of the General Medical Council on December 1st, they will see that a report on the employment of unqualified assistants was presented by a committee and adopted by the Council. The Council then declined to go further in formulating definitions.

THE COLONIAL MEDICAL SERVICE.

R. A.—Particulars as to the mode of appointment to the Colonial Medical Service were given in the Educational Number of the BRITISH MEDICAL JOURNAL of August 27th, 1898, p. 568. A memorandum giving particulars can be obtained on application to the Colonial Office, Downing Street, S.W. The chief drawback to the Colonial Medical Service appears to be the uncertainty of promotion. We may refer our correspondent to the reports of a meeting held at the Imperial Institute—published in the JOURNAL of February 26th, 1898, p. 580, and March 5th, 1898, p. 655—to advocate the formation of a Colonial Medical Service for the Crown Colonies.

HOME FOR EPILEPTIC BOY.

J.H.—Pending the opening of a boy's home at the Epileptic Colony at Chalfont, application might be made to the General Director of the Training Colony, Lingfield, Surrey, for information as to terms of admission to the Home for Epileptic Children there

MEDICAL GOLF TOURNAMENTS.

WITH reference to the announcement made in the BRITISH MEDICAL JOURNAL of January 21st, page 192, we are asked to state that the links chosen for any match must be within fifteen miles of London if one competitor so wishes; entries to be posted not later than Monday, February 6th, to the Honorary Secretary, Windlesham, Surrey.

HOME FOR DIPSOMANIAC.

DR. FREDK. A. FIELD (Lordship Lane, S.E.), Honorary Medical Officer to Ellison Lodge, writes: In answer to the query by "F. C." in the BRITISH MEDICAL JOURNAL of January 28th, respecting accommodation for the dipsomaniac wife of a working man, I recommend him to apply to Ellison Lodge, the Church of England Temperance Society's Inebriate Home for Women, Halfmoon Lane, Dulwich. There is at present one vacancy at the cheapest rate—that is, 7s. 6d. per week. I shall be pleased to give "F. C." any further particulars.

NOTES, LETTERS, Etc.

MESSRS. BURROUGHS, WELLCOME, AND CO., of Snow Hill Buildings, London, E.C., ask us to state that they have received by the *Thermopylæ* a parcel of herbs without any covering letter. They will be glad if the sender will communicate with them.

A DISCLAIMER.

DR. W. S. HEDLEY (Mansfield Street, W.) writes: My attention has been called to an article in the *Daily Mail* in which my name is mentioned. I can only say that this has been done absolutely without my knowledge or sanction, either direct or indirect.

TOTLAND BAY.

WITH regard to a short note from a correspondent which was published in the BRITISH MEDICAL JOURNAL of January 21st, 1899, another correspondent writes to point out that it is incorrect to state that Totland Bay faces south-west. According to the map, it appears to face about north-west.

ST. JOHN AMBULANCE ASSOCIATION.

WE have received from the Honorary Secretaries of the Stockport and District Medical Society a communication with regard to certain resolutions adopted at a special meeting of this Society to discuss the position of the local centre of the St. John Ambulance Association. We think it would be premature to publish these resolutions before the reply of Lord Egerton of Tatton, the President of the local centre, has been received.

HOSPITAL OF ST. FRANCIS.

WE have received from Dr. W. Murray Leslie, Mr. E. Harding Freeland, and Mr. H. J. Paterson the following letter with a request for publication:

"[COPY.]

"Hospital of St. Francis, 145, New Kent Road, S.E.,

"January 10th, 1899.

"To the Hon. Sec. of the Committee of the Hospital of

"St. Francis.

"DEAR SIR,—We, the undersigned, beg to tender to your Committee our resignations as members of the honorary staff of your hospital. We have come to this conclusion after very careful consideration, and our decision is mainly based on the fact that, intentionally or otherwise, we were allowed at the time of our election to remain ignorant that your institution was conducted on vegetarian and allied principles. We now desire to state emphatically, as we should have done at the time of our appointment had an opportunity been given us, that we are distinctly opposed to such principles both in theory and practice. Furthermore, the method on which the hospital is worked does not in any way commend itself to us. Consequently, we are unable honourably to remain any longer associated with your institution.

"We remain, yours faithfully,

"(Signed)

"W. MURRAY LESLIE, M.D., C.M., F.R.C.S.E.,

"E. HARDING FREELAND, F.R.C.S.,

"HERBERT J. PATERSON, M.B., B.C., F.R.C.S.

"Philip Tovey, Esq."

INSUSCEPTIBILITY TO VACCINATION.

WE have received a letter on this subject from Dr. Chaumier, Director of the Vaccine Institute at Tours. As it is too long to insert in full, we give a brief abstract. A relative insusceptibility is sometimes observed in calves inoculated with the same vaccine, some developing more pustules than others. In children Dr. Chaumier has observed partial, but never complete, insusceptibility. Inoculated with a feeble vaccine, only highly susceptible children will develop vesicles. However, if a virulent vaccine lymph is used, vesicles are produced in the most refractory cases, and children already inoculated without success on previous occasions can be successfully inoculated with this preparation. Absolute insusceptibility is never found even in the case of a child born of a mother recently vaccinated, or affected with small-pox. The immunity conferred by vaccination lasts only three or four years, after which time a virulent lymph will often give results. According to Dr. Chaumier, therefore, the results depend on the strength of the vaccine, and he is of opinion that when the percentage of successful vaccina-

tion falls below 70 or 80 the lymph is defective, and the use of a stronger lymph will produce success in the case of some of the previous failures.

A CORRECTION.

DRS. ROWLAND THURNAM and NEVILLE GWYNN (Nordrach-upon-Mendip, Blagdon R.S.O., Somerset) write: A paragraph on page 247 of the BRITISH MEDICAL JOURNAL of January 28th shows a want of accuracy which is also regrettable.

We have not named our sanatorium "Nordrach-in-Mendip," but Nordrach-upon-Mendip, following the custom of the countryside in naming places here—that is, "Charterhouse-upon-Mendip," "Leigh-upon-Mendip," etc. We have, furthermore, named our sanatorium after the one where we were both cured, since, with so many so-called open-air cures and pseudo-sanatoria springing up at the present time, we desire definitely to associate ourselves with the methods and aims of Nordrach-Colonie, which are at once so well known and so successful.

HEADACHE CAUSED BY ERYTHROL TETRANITRATE.

J. S. C. writes: I see in the BRITISH MEDICAL JOURNAL of January 14th a note by "R.A.M.C." on this subject. I have prescribed it in two cases of women suffering from high arterial tension during the menopause, in both of which it gave rise to severe headache; both patients characterised it as the worst headache they had ever experienced, and one of the ladies has suffered from migraine all her life. Mentioning this to a medical neighbour not long since, he told me of a case he had prescribed it in for angina, in which it had the same effect. On the other hand my father, who has taken half a grain daily for over a year for anginal attack with great benefit, has never had the least symptom of headache. I may add that in both my cases nitro-glycerine is taken without any unpleasant symptoms except the usual fulness and throbbing in the head.

INTRACEREBRAL INJECTION OF ANTITOXIN.

DR. JAMES WATSON (Nottingham) writes: Dr. Semple's paper in the BRITISH MEDICAL JOURNAL of January 7th is very interesting, and I write only to suggest a simplification of the operation for intracranial injection. For the past thirty or forty years in certain districts it has been common for sheep farmers and shepherds to empty and remove cœnurus cysts from the brains of their sheep. They use an apparatus consisting essentially of a simple trocar-like drill (having a pyramidal point and a collar to prevent too deep penetration) and a trocar and cannula. They push the drill through the skin, etc., down to the bone, and with a few turns of the wrist put it through the bone till stopped by the collar. They then insert the trocar and cannula, which is very slightly smaller than the drill. I need not complete the description of this operation, but would suggest that Dr. Semple will find a simple method like this quite sufficient. The risk of sepsis will certainly not be increased, and it will save (*a*) the incision, (*b*) the stitches, and (*c*) the scar.

EXEMPTIONS FROM VACCINATION.

MAGNA EST VERITAS writes: If, as I take it, the protective value of vaccination remains unassailed by the worst that a Royal Commission could do, the only possible argument against compulsion is the one that the risk to the individual was of a kind sufficient to outweigh the safety conferred on the community, or that this safety could be as efficiently, or almost as efficiently, secured by isolation, notification, and general sanitation. In contrasting the value of vaccination with these substitutes for it—even if much more perfect than they yet are, or soon likely to be—we need only consider what it would mean to us if in our crusade against tuberculosis or our fight with malaria we had a weapon like vaccination. What would that not mean in lives, and money, and sense of security at home and in our Colonies! The argument, then, against this slight "operation" reduces itself to an assertion that it is on all fours with other surgical operations which, though to save life, may not be done without consent, or that its riskiness forbids its compulsion. The former of these may be ignored, since it takes no account of the risk to the community. With the latter, as already indicated, we can now deal, but it must be remembered that until lately there has been much in it, in fact more than our opponents or we ourselves were aware of. Every practitioner must admit that from time to time septic inoculation or infection has accompanied or followed vaccination. The fact that by research we can now with glycerine, etc., separate the essential from the non-essential organisms does not do away with the fact that hitherto children have been compulsorily inoculated with we know not what. This, perhaps, ought to make us patient, and even "suffer fools gladly," until we are sure of our methods and remedy, and be prepared, meanwhile, for emergencies.

ERYTHEMATOUS RASH PRODUCED BY SMALL DOSES OF QUININE.

DR. A. ST LAWRENCE-BURKE (District Medical Officer Wolverhampton) writes: The following remarkable susceptibility to the influence of quinine may prove interesting: On December 26th, 1898, at 9.30 P.M., I was called to see a woman, aged 31, whom I had attended at her confinement the day previous. I found her suffering from a severe rigor. I felt alarmed, especially as everything was right when I saw her the same morning, and her temperature quite normal. I found the temperature had gone up to 107°; the tongue was very dry, and every symptom of fever present. The patient remarked that she had a similar "shiver" some two years before, when she was last confined. I gave directions what was to be done, and made up a mixture of quinin. sulph. gr. 40, acid sulphurici dil. ʒjss, aqua ʒviij. Two tablespoonfuls every third hour.

Next morning, December 27th, I was suprised to find my patient completely covered with an erythematous rash very like scarlatina; all the other feverish symptoms had disappeared, and she seemed comparatively easy. Knowing that quinine in large quantities produced a rash similar to scarlatina sometimes, though I presume the occurrence is very rare, I thought I should stop the mixture, and, as only half had been taken, watch the result. On the following morning, December 28th, everything had disappeared, and the woman made an uninterrupted recovery. In this case I am inclined to think that the rash was produced by the quinine, and as there was buzzing in the ears also it seems as if the patient was very susceptible to the drug.

LETTERS, COMMUNICATIONS, ETC., have been received from:
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A CLINICAL LECTURE
ON THE
RHINOPLASTIC OPERATION.

Delivered in the Meath Hospital and Co. Dublin Infirmary,

By Sir WILLIAM STOKES, F.R.C.S.I., Ch.M.,
Surgeon in Ordinary to Her Majesty the Queen in Ireland;
Professor of Surgery, Royal College of Surgeons, etc.

Of the plastic operations in surgery, those designed for the restoration of a nose partially or completely lost are probably the least popular with operating surgeons. This doubtless is due to the fact that satisfactory results are so seldom found possible of attainment, even by surgeons of some experience and reputed dexterity. When, however, the cases selected are suitable, and the necessary ingenuity in design and skill in execution on the part of the operator are available, then such procedures are to be commended and should be adopted.

The conditions indicating the particular form of rhinoplastic operation to perform are so various that it is hard, indeed impossible, to indicate in any comprehensive or exhaustive way the rules that should guide us in carrying out the measure. Among these, however, the following may be suggested. No operation of the kind should be undertaken so long as there is evidence of the disease producing the deformity being in a condition of any activity, however slight; the raw surfaces for the reception of the flap from the forehead, or from whatever situation it be taken, should be as narrow as possible; and when the frontal flap is selected, the pyriform design of Dieffenbach should be adopted. A period of three weeks should elapse before division of the pedicle, and when the skin covering the collapsed tissues is healthy it should not be completely removed, but utilised to give greater support and elevation to the new nose. This should be done either by the methods recommended by Thiersch, Keegan, Treves, and Woods. In the latter methods the flap, triangular in shape, with its apex above and base below, should be left attached below and reversed, so that the skin surface should line the roof of the anterior portion of the nasal fossa. In Thiersch's method two longitudinal skin flaps are taken from each side of the edge of the gap to be closed. These flaps are then turned inwards, and united in the mesial line. The integumentary surfaces of these flaps then line the roof of the nasal fossa, and on the raw surfaces, turned outwards, the frontal flap is laid. The additional thickness of the soft tissues obtained by the apposition of the frontal and nasal flaps largely diminishes the chances of subsequent flattening or falling in of the new nose. The nasal processes of the superior maxilla, provided they are healthy, may be utilised by v. Langenbeck's method, and thus give additional support to the nose, and in cases where the ossa nasi are healthy, and the columella remains free from disease, the procedure described in the second case, which I shall detail later on, is indicated.

Some surgeons, among others, I believe the late Professor Volkmann, have expressed themselves opposed to efforts being made to form a columella. In this view I cannot concur, as the formation of one taken from the frontal flap or from the upper lip, not only is an improvement æsthetically, but also must to a great extent counteract the tendency to falling in or flattening of the new organ.

In some cases the employment of temporary supports for maintaining the elevation of the new nose, and which may be made of ivory, silver, or glass can be employed with advantage, and fine carefully sterilised silk is the most appropriate material to employ for the sutures.

In connection with the rhinoplastic operation no one has done better work of late years than the late Mr. John Hamilton of Dublin. In his memoir on the subject will be found not only a long and valuable series of cases successfully operated on by him, but also many interesting historical details connected with the procedure. We learn, for example, that a Sicilian surgeon named Brancas in 1442, and in Italy a Calabrian surgeon named Vincent Vianneus, performed rhinoplastic operations, adopting the method which was subsequently known as the Taliacotian operation. These procedures are mentioned in the works of Vesalius and Ambroise Paré. The latter illustrious surgeon, in his great work on surgery gives in quaint and picturesque language the particulars of a case under his observation that was operated on by a "surgeon of Italie," whose name, oddly enough, is suppressed by the author. He observes, "A younger brother of the familie of St. Thoan being weary of a silver nose, which, being artificially made, he had worn in the place of his nose that was cut off, went to this Chirurgian into Italie, and by the means of the fore-named practice he recovered a nose of flesh againe to the great admiration of all those that knew him before. This thing truly is possible to be done but it is verie difficult both to the patient suffering and to the Chirurgian working. For that the flesh that is taken out of the arme is not of the like temperature as the flesh of the nose is, also the holes of the restored nose cannot bee made as the were before."[1]

The reason for Taliacotius's name being associated with this operation, of which, as has been pointed out, he was not the originator, is doubtless owing, as stated by Mr. Hamilton, to the publication in Venice in 1597 of his treatise *De curtorum Chirurgia sive de aurium et narium defectu per insitionem arte hactenus ignotâ sarciendo.* This publication took place forty years after his death. Although a case is recorded by Hildanus in which the operation was successfully performed by a surgeon named Griffonius, we may say that with the death of Taliacotius the operation was for a long time practically abandoned. Still cases occasionally occur in which the operation should be performed in preference to the Indian rhinoplastic or any of its modifications. Such cases as, for example, the one operated on and published by the President of the College of Surgeons, Sir William MacCormac,[2] and a case I operated on some years ago in the Richmond Hospital, and published,[3] in both of which the results were not only encouraging but eminently satisfactory. It must be admitted, however, that the cases in which this operation is indicated are very rare.

It is with the so-called Indian rhinoplastic operation, introduced into England by Carpue in 1803, who published a work on the subject in 1816, that operating surgeons are chiefly interested, and it is to this operation, or a modification of it, that I wish more particularly to draw your attention to day. Since the publication of Carpue's monograph, however, a good many modifications and improvements have been suggested and practised; for example, the Langenbeck-Ollier methods, in which, by periosteal transplantation, efforts are made to obtain firm support of the flap by osteogenesis. Also Langenbeck's osteo-periosteal method of partial detachment of the nasal processes of the superior maxilla, the displacement of these forwards so as to form osseous buttresses for the support of the frontal flap, to the lower portion of which the periosteal covering was carefully retained, in the hope that a re-formation of bone in the situation of the destroyed nasal bones might take place. Other methods, such as Professor Syme's, should also be mentioned, which in certain cases are more likely to be attended with satisfactory results than the Indian rhinoplastic method or any of its modifications. These cases are, however, exceptional, and, in truth, mainly applicable to those in which the normal osseous supports have not been wholly obliterated.

The first case I should wish to bring under your notice is that of J. M., aged 27, who was recently in the Meath Hospital under my care, on account of the sad deformity of her face, of which a fair estimate can be formed from the accompanying illustrations from photographs of the patient before and after the operation made by Mr. Prescott, late Clinical Clerk in the Meath Hospital. In all other respects the patient appeared healthy and strong and there was no evidence from family history or otherwise of there being any tuberculous element in the case. I regarded it as having a specific origin. There was no active disease progressing and the soft structures over the perfectly flattened nose were apparently healthy. Owing to the exceptionally frightful deformity present in this case the condition of the patient was in truth a sad one. She felt compelled to wear under a thick veil a black silk mask, being not unnaturally sensitive about her deformity being seen, and under these circumstances was unable to obtain employment and earn a livelihood. The patient was accordingly admitted

into hospital with the object of getting a plastic operation performed. The procedure adopted was in most respects similar to one described and illustrated in Mr. Treves's *Operative*



J. M. Before operation.

Surgery, and which has been strongly advocated by Mr. R. Woods, who has published an excellent account of the method and who, at my request, kindly inspected the case and made some ingenious suggestions as to the *modus operandi*. The main feature of this procedure is the preservation and reversion of the flap of skin occupying or covering the situation of the destroyed nasal bones. The skin flap, triangular in shape, with its apex above and base below, was turned downwards so that the integumentary surface formed the roof of the anterior portion of the nasal fossa and the raw surface looked forwards. A pyriform-shaped flap similar to that designed



J. M. After operation.

and recommended by Dieffenbach was then dissected from the forehead, care being taken not to involve the deeper structures covering the frontal bone, a precaution which I believe accounts for the unusually small amount of cicatricial deformity which resulted from the operation. The frontal flap, taken somewhat on the left side of the mesial line, was then brought down and inverted by gentle torsion of its pedicle. The two raw surfaces of the triangular nasal flap and the frontal one were then brought into contact, and the edges at each side united by horsehair sutures. The outer portions of the lower part of the pyriform-shaped flap at each side of the columella were then turned back and secured by sutures, and the square-shaped portions between them designed for the columella was doubled on itself, bringing its raw surface into contact. These were then secured by sutures and pushed back, and the raw surfaces of its edges below brought into contact with the upper edge of the lip, which had been vivified for its reception. These edges were then sutured by fine silk. In order to assist in preventing flattening of the new nose, I placed two small leaden plates, kindly furnished to me by Mr. Woods, one on each side of the nose, and approximated them by passing silk sutures horizontally through the tissues of the nose and fastening them to the plates. This manœuvre forced the intervening tissues forwards and gave elevation to the new nose. These plates and sutures were left undisturbed for three days and then removed. The advantages of utilising a double flap appear to be twofold. First, there is less risk of contraction from the inner surface of the new nose being lined by skin; and, secondly, the chances of collapse and flattening of the tissues are diminished, owing to the additional thickness of the tissues obtained by the double flap.

Had the nasal maxillary processes been available I should have made the attempt, suggested by v. Langenbeck, to form an osseous bridge on which the new flap might rest and be supported. But unfortunately on one side the process was completely destroyed by disease and on the other it was much hypertrophied. It was not possible, therefore, to make an attempt to carry out this ingenious idea, one which I do not think has as yet received the attention of operating surgeons which it merits.

The illustration, taken from a photograph eight months after the operation, or series of operations, I performed in this case, indicates a result which may be considered satisfactory. Since the patient left the hospital she was for a considerable time employed as a servant in the Meath Hospital Convalescent Home at Bray, co. Wicklow.

In the next case a very different and, I am inclined to think, a novel method of operating was adopted, and with a result as favourable as in the preceding case.

J. B., aged 19, was admitted into the Meath Hospital on June 19th, 1894. He had suffered from his childhood from recurring attacks of lupoid ulceration affecting chiefly the anterior portion of the septum and extremity of the nose. He had been treated in various hospitals with the not unsatisfactory results of checking the progress of the disease, and bringing it to a quiescent condition. In consequence of the partial



J. B. Before operation.

loss of the nose, however, the disfigurement was one which gave the patient much distress, and accordingly he came to hospital for the purpose of obtaining a restoration of portion of the organ which had been destroyed. All activity in the disease having subsided, and the deformity being so much

localised, I felt that neither the Indian rhinoplastic or any of its modifications were indicated. Still less was the Taliacotian method.

The following procedure I adopted: The columella having happily remained unaffected, I was saved the trouble of making one. I commenced by making an incision a little to the inside of the right ala, and carried it across the extremity of the nose to a corresponding point on the left side. The incision extended as high up as the point corresponding to the lower margins of the nasal bones. This incision was passed through all the tissues into the anterior nares. We



J. B. Before operation

had thus a bridge of tissue attached at each side, and with the columella separated from the vomer and nasal bones. This bridge was then drawn downwards and kept in that position by a small ivory buttress, which separated it from the tissues of the upper part of the nose. The gap thus formed was somewhat lozenge-shaped, and to fill up this I dissected two triangular-shaped flaps, one from each side of



J. B. After operation.

the cheeks, with the bases above and the apices below, and these flaps were then turned downwards and inwards and their bases brought together in the middle line and carefully united by two or three points of suture of fine, carefully-aseptic ised silk. The upper margins of the transplanted flaps were also carefully sutured to the tissues above and the lower margins to the bridge. The ivory buttress was left in for three days, until the edges of the flaps had become firmly united to the tissues above and below. The vitality of the triangular transplanted flaps was throughout satisfactory. In order to obliterate the defects caused by the detachment and transplantation of the flaps I performed a sliding plastic operation, which had the desired effect, and little or no cicatricial deformity on either cheek remained.

The cases applicable for such a procedure as that just described are, of course, exceptional: but in such a one it has, I think, great advantages over any of those ordinarily performed. The Indian rhinoplastic and its modifications are long and tedious in their performance and uncertain in their results; and the same may be said of the Taliacotian operation. These objections do not apply to the method described in the above case, which was done in a comparatively short space of time, was unattended with hæmorrhage of any moment, or the subsequent development of a disfiguring cicatrix.

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THE LETTSOMIAN LECTURES

ON

SOME CLINICAL ASPECTS OF GRANULAR KIDNEY.

Delivered before the Medical Society of London.

By SAMUEL WEST, M.D., F.R.C.P.,

Assistant Physician, St. Bartholomew's Hospital; Senior Physician, Royal Free Hospital, etc.

Lecture I.

The invitation to deliver the Lettsomian Lectures before this ancient Society is a compliment which no one, and least of all myself, can fail to appreciate. It is one which has been accepted in times past with full appreciation of the honour by many of the most distinguished members of the profession. The great names upon that list have aroused in me the natural fear that my ability may prove unequal to the task, yet I trust that with their example and your indulgence I may succeed in making the present Lectures not unworthy altogether of a place in the series.

In choosing granular kidney, I was guided by the wish to select a subject which should be of practical importance, and therefore of general interest, and at the same time one upon which I could speak from personal experience.

Granular kidney is a disease of great importance on account of its frequency, a frequency which is by no means adequately recognised. *Post mortem* it is often discovered when not suspected. It is often in itself the cause of death, even of sudden death, and it often explains why death has happened in other diseases which otherwise might not have proved fatal. *During life* it is often discovered unexpectedly if looked for; it is often overlooked if not suspected, and it often explains a case which has been a puzzle until granular kidney gave the key.

The general *post-mortem* frequency of granular kidney ranges from 11.8 to 18 per cent., so that it is a very common condition.

Thus the *post-mortem* records at St. Bartholomew's Hospital for a period of five years gives 13.2 per cent. (219 cases of granular kidney in 1,662 necropsies, children being excluded from the calculation).[1] Of these, 132 were in males and 84 in females, showing the frequency in males to be one third greater than that in females. Goodhart's statistics at Guy's yield 15 per cent.; Saundby's, at the Birmingham General Hospital, 18 per cent.

Mahomed's Table showing Relative Frequency of Granular Kidneys to Healthy Kidneys at different Age-Periods based on 336 Cases, of which 57 were above 50.

Ages.	Granular Kidney found in
10-20	2.3 per cent
30	3.0 ,,
40	12.0 ,,
50	38.5 ,,
60	43.0 ,,
Above 60	50.0 ,,

Nothing will better prove the importance of granular kidney than the following statistics obtained for me by Dr. Horderas,[2] the result of an investigation made into the cause of death in persons brought into St. Bartholomew's Hospital dead or dying. The total number of such cases (excluding children under 5) was 79, in all of which a *post-mortem* examination was made. Of these, 64 were dead on reaching the hospital, and 15 died in the surgery.

Table showing the Frequency with which Chronic Interstitial Nephritis was found in the Bodies of Persons brought in Dead or Dying into St. Bartholomew's Hospital during the Period of Five Years (1894-8 inclusive), Children under 5 excluded.

Chronic Interstitial Nephritis found to be:	64 Cases brought in Dead.	15 Cases Dying in Surgery.	79 Cases together.
1. The actual cause of death in	13 cases=20.3%	2 cases=13.3%	1 ...
2. A concomitant cause of death in	19 cases=30%	2 cases=13.3%	21.6%
3. An accessory but doubtful cause of death in ...	6 cases=6.25%	2 cases=13.3%	9.77%
Totals	38 cases=56.25%	6 cases=40%	48.17%

Thus in 48 per cent. of these cases chronic interstitial nephritis was present. In 16.8 per cent. it was the only cause of death, and in 21.6 per cent. more it played its part either in producing death or in causing the lesion which led to death—that is, together in 38.4 per cent.

Nothing more is necessary to prove the importance and frequency of the disease.

Of the 21 cases in which granular kidney was the concomitant cause of death, in 10 death was due to hæmorrhage to which the interstitial nephritis may have directly or indirectly led. In 4 cases aneurysm of the aorta was present and its rupture was the cause of death. Of the others, in 1 there was hæmorrhage into the pons Varolii, in 1 pachymeningitis hæmorrhagica, and in the remaining 3, a ruptured aneurysm of the anterior communicating artery in 1 instance and of the Sylvian artery in 2, and the remaining case was one of hæmoptysis.

The association of interstitial nephritis and aneurysm both of the aorta and of other arteries is remarkable, and so far as I know has not been previously so clearly shown.

In 7 cases the cause of death was cardiac.

Acute endocarditis was found in	1 case.
,, ,, with pericarditis in	1 ,,
Aortic incompetence in	1 ,,
Aneurysm of the heart in	1 ,,
Heart associated with atheroma of the coronary artery in	1 ,,
	7 cases.

Of the remaining cases 3 had phthisis and 1 pneumonia.

The influence of granular kidney upon the prognosis of other diseases is well illustrated by acute pneumonia.

The association of pneumonia with any pre-existing disease greatly increases its gravity, even, according to Huss, to the extent of making it four times as fatal as in uncomplicated cases. In 100 fatal cases which I investigated 23 showed some pre-existent chronic disease of the lungs or pleura, 8 of the heart, and 10 of the kidneys.

Sturges' percentage was somewhat higher, namely, 15 per cent.

For all the reasons given granular kidney is not only one of the most interesting of diseases, but also one of the most important.

The lesions, physical signs and symptoms of granular kidney all alike fall into two groups, the cardiovascular and renal. The physical signs are early, the symptoms late. When symptoms arise the disease has already existed for some time and the lesions are far advanced. For the diagnosis of the disease in its early stages we must look to the physical signs and not to the symptoms.

Granular kidney is a bilateral and to a great extent symmetrical affection, that is to say, both kidneys are similarly affected, though not necessarily to the same extent. The difference between them however, if there be any, is slight and rarely exceeds an ounce.

The kidneys may be much contracted and greatly reduced in size, so that they may not weigh more than 1½ or 2 ounces each. Extreme contraction such as this is really rare. The kidneys are, it is true, usually reduced in size and weight, but by no means to the extent that seems generally believed; while in some instances, so far from being smaller than normal, they may be much above the average size and weight. In other words, there are large as well as small granular kidneys, just as there are large and small cirrhotic livers.

I have taken the weights given in the St. Bartholomew's Hospital statistics of 140 cases, and put them in a diagrammatic form, in which the weights are indicated by the vertical height and the number of cases by the divisions on the base line.

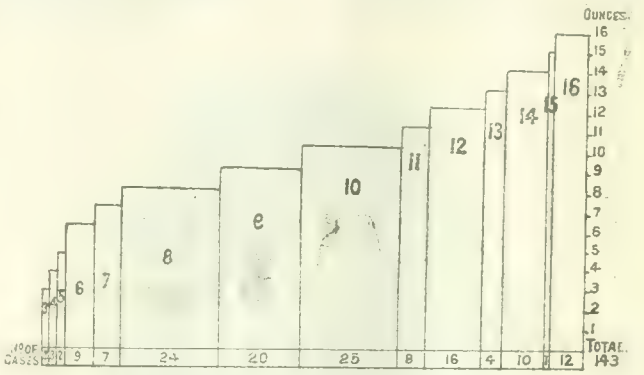


Diagram in which the weights in ounces of the two kidneys together are shown by the height of the vertical line, while the number of cases in which the kidneys were of the given weight is shown by the length of the base line.

Taking 11 ounces as the mean weight of the two kidneys together in the two sexes, or even including the cases in which the weights reached 12 ounces, it will be seen that in the great majority of cases the kidneys ranged between 8 and 10 ounces, and that in only 5 per cent. was the combined weight less than 6 ounces. On the other hand, in no fewer than 20 per cent. the combined weight was above the normal average, and in twelve cases reached as much as 16 ounces. In a few of these, no doubt, some allowance ought to be made for the fat deposited round the pelvis of the kidney, and in some others the weight was partly to be explained by the number and size of the cysts present. But in the majority neither cysts nor fat took any material part in the increase of weight, and in two instances in which the kidneys weighed 16 and 12 ounces respectively they were described in the *post-mortem* report as "large granular kidneys."

The kidneys, moreover, are not always granular on the surface, though microscopically the interstitial change may be marked enough.

It is also stated that the kidneys may be small and granular in appearance, and yet on section show no interstitial change. Such cases have been mentioned to me, but I cannot say that I have ever met with them myself.

As granular kidneys are not always granular, it might be thought some more accurate term could be found for its description, such as cirrhosis of the kidneys; but "granular kidney" is a term so well known and so generally accepted that it would be difficult to substitute for it any other which, though more accurate, would be likely to be adopted.

The typical granular kidney is small, contracted, hard, with a granular surface and often numerous cysts. On section the whole kidney is found to be cirrhotic and wasted, but the wasting affects chiefly the cortical region.

The changes consist in fibroid induration and cellular degeneration.

Though often described as chronic interstitial nephritis, it is an open question how far these changes are in reality of inflammatory origin. Certainly in most cases we have no more evidence of inflammatory processes in the cirrhotic kidney than we have in the cirrhotic liver.

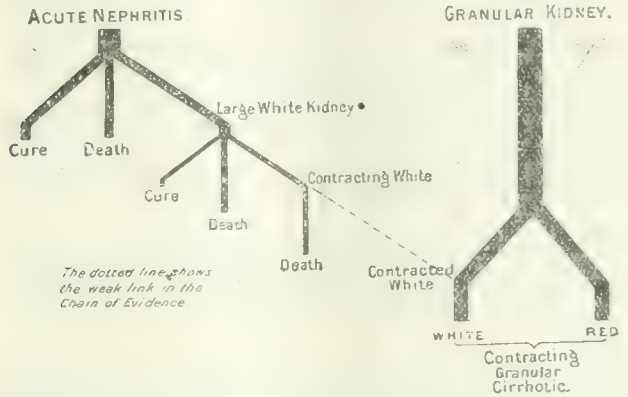
Granular kidneys are sometimes described as of two kinds, the WHITE and the RED, and the difference in colour is held by many to denote difference in origin, and they are accordingly called the *contracted white* and the *contracted red*. The small white is generally stated to be somewhat larger than the red, to be less granular on the surface, and to have more cells left, these cells being in a condition of fatty change, to which the colour is referred.

None of these statements are, in my experience, quite correct; for small white kidneys are often as small and as granular on the surface as the small red, and may have

quite as few or even fewer cells left, and these cells are often not fatty. The two forms certainly exist.

The term "contracted white" introduces confusion, and seems to assume what ought to be proved—namely, the different origin of the two forms. It suggests that the small white is but the later stage of the large white kidney. It assumes that every stage can be demonstrated between the large white kidney of chronic parenchymatous nephritis, through the contracting white to the contracted white.

If this was the usual sequence of events, it ought to be capable of easy clinical proof. Pathologically it is easy to show that chronic parenchymatous or the large white kidney presents interstitial changes of a contracting kind, but the weak link in the chain is between the so-called contracting form and the contracted form.



If the distinction between the two forms is to be made, it would be very much better to speak of them as small white and small red or as white cirrhotic and red cirrhotic rather than white and red contracted kidneys. For myself, I consider the difference is really one of colour chiefly. Microscopically I do not see that any clear distinction can be drawn. The colour does not depend entirely upon the condition of the cells as is usually stated, for the fatty change to which the white colour is referred is not constant, and such kidneys may be markedly white or pale, in which microscopical examination shows a remarkable absence of cells, while the cells that remain are not so much fatty as granular. If pathologically the distinction between the two forms is open to question, clinically, so far as I can see, no distinction at all can be drawn between them; that is to say, with exactly the same clinical symptoms we may find the kidneys in the one case white and in the other case red.

Granular kidney is often described as chronic interstitial nephritis, but all forms of chronic interstitial nephritis are not necessarily granular kidney.

First of all must be cut out of the category of granular kidney all those cases in which the lesion is unilateral, for example that which results from obstruction to the ureters.

Again, all cases of patchy fibrosis—for example, the results of infarcts or gummata—even if both kidneys are involved, must be excluded, for they do not produce the clinical symptoms of granular kidney.

Even when the lesions are bilateral, and both kidneys are affected, I should still exclude from the category of granular kidney certain forms of chronic interstitial nephritis, which are often included pathologically, though clinically they are distinct. I refer to the degenerate kidneys met with in connection with advanced atheromatous disease, or with the chronic gout of elderly persons; in fact, the kidneys which used to be commonly called senile or gouty. These kidneys are often markedly interstitial, and there is a good deal of fatty and cellular degeneration, giving the surface a mottled appearance, but they need not necessarily be granular, and are usually large. Moreover, the case need not run the clinical course of granular kidney.

Eliminating these various forms we are left with a pathological group of cases of interstitial nephritis of definite character, which we commonly recognise by the term "granular" or "cirrhotic" kidneys.

In most recent writings granular kidney is divided into two forms, the arterio-sclerotic and the renal. These are often dealt with in different places, the one form under diseases of the vessels, the other under diseases of the kidney, so that in order to gain a complete view of granular kidney as a disease it has to be read in different chapters. This is very inconvenient and confusing, and suggests a marked difference between the two forms which, clinically, does not exist. It has, however, one advantage in that it fixes attention upon the question which is still at issue—namely, whether it is in the vessels or in the kidney itself that the primary causes of the disease are to be sought.

I shall now consider as briefly as possible the relation in which granular kidney appears to stand, on the one hand to inflammatory affections of the kidney, and on the other to the degenerative disease of the vessels.

The Relation of Granular Kidney to Acute Nephritis.

Acute nephritis attacks the cells primarily and chiefly, but the interstitial tissues are always involved to some extent, and the more so the longer the disease has existed. It is by the lymphatics that the products of inflammation, to a great extent, are removed, and in passing they appear to set up some irritation, so that in course of time a small-celled infiltration is found, in parts at any rate, following the lymphatics and surrounding the blood vessels. This small-celled infiltration may in time end in the production of connective tissue at first in parts only, in other cases more widely distributed, and there will be the more of it the longer the disease has lasted.

The large red kidney of acute nephritis passes as the disease lasts gradually into the large white. In the large white kidney some interstitial change is often found, sometimes local, at other times more diffuse; and admitting that pathological connective tissue contracts in the kidney as elsewhere, we should expect the large white kidney in time to become smaller, to undergo a certain degree of contraction in parts, if not as a whole, and of this we have frequent pathological proof. The kidney is then described as contracting white.

It is even conceivable theoretically that the contraction might go much further, so that in time we might have the large white kidney passing into what may be described as a small white kidney, or even possibly ending in a small red kidney.

Now, admitting the pathological possibility that acute parenchymatous nephritis might end in a granular kidney, if this actually occurred frequently it ought to be capable of easy clinical proof, for the symptoms of acute nephritis are not such as are likely to be often overlooked, by the patient or by the friends. Such cases are recorded, but they are certainly rare, and many of them prove on careful critical investigation not to be so conclusive as they at first sight appear. I have been on the watch for them for years, and although I have seen many in which the lesion has gone so far as to produce a somewhat diminished white kidney, the majority of such kidneys are still much above normal size. I have never traced a single case beyond this—that is, as far as a small white kidney. I do not say that it does not occur. On the contrary, I believe it may. I merely say that so far I have failed to observe it. On this point the late Professor Kanthack told me that his experience was the same, and that pathologically he had not been able to satisfy himself that an acute parenchymatous nephritis did actually pass beyond the contracting white stage.

I have recently had two cases in which the disease was traced from the commencement of acute nephritis to death after some months in each case, and in which microscopical examination revealed extensive fibrosis in the kidneys, though they were in neither case granular.

The first case, that of a woman, aged 29, appeared to be one of ordinary chronic parenchymatous nephritis, and so the kidneys appeared *post mortem*. I had the kidneys carefully examined because shortly before death (which occurred after about nine months illness), albuminuric retinitis had been found. The ordinary lesions of chronic parenchymatous nephritis were found, but with them also scattered patches of cortical fibrosis.

The second case, that of a girl of 14 is a more remarkable one, for on the child's death after about twelve months' illness, the kidneys, though of large size and not granular, and presenting the appearance of large white kidney, showed the most remarkable fibrosis, which did not involve the cortex alone, but the medulla too, and every part of the kidney uniformly. In this case also albuminuric retinitis was discovered about four months before death.

It might be urged that marked contraction in granular kidney would be more frequent if the patients lived long enough, but that they die too soon, perhaps after but a few months' illness and before the interstitial changes have had time fully to develop. This is but to acknowledge that they do not necessarily or often occur.

But it does not necessarily follow even when the symptoms of chronic parenchymatous nephritis have lasted for many years that a contracted kidney will result.

I know of a woman who has had several attacks of parenchymatous nephritis in the course of thirteen years, and who has never at any time lost the albumen from the urine; yet now, at the end of thirteen years, her arteries are thin and her heart not hypertrophied; she appears in fair health, and her retinæ are normal; there are, in fact, in spite of the long duration of the case, no clinical signs whatever which would justify the diagnosis of granular kidney.

I know also of another case in a man who, twenty-five years ago, had parenchymatous nephritis of great severity, and who has continued to pass albumen in large amounts (one-third to one-half) ever since, and yet no signs of contracted kidney have so far shown themselves. Cases of shorter duration than these, too, are not uncommon.

Nor can any closer relation be proved by the clinical history to exist between granular kidney and antecedent acute nephritis. It is quite unusual in cases of granular kidney to obtain any history of symptoms which would in any way justify the diagnosis of acute nephritis. This fact has been always insisted on as long as granular kidney has been recognised as a disease, and is generally accepted.

Even when the history of antecedent acute nephritis is obtained, it does not necessarily follow that the granular kidney has been the result of it. The occurrence of acute nephritis is no proof in itself that prior to the acute nephritis the kidney was sound; or, in other words, that if after an attack of acute nephritis the kidneys are found granular, they became granular as the result of the acute attack. For, on the one hand, it is not uncommon, in the course of a case already recognised as one of granular kidney, to observe acute parenchymatous nephritis develop; and, on the other, to see a patient hitherto believed to be healthy with the symptoms of acute parenchymatous nephritis, and yet for that patient to present thickened arteries and even eye changes, which show that the disease really dated long before the commencement of the so-called acute attack—in other words, that the patient has got acute nephritis in both cases alike because the kidneys were already diseased. Indeed, I think we may almost go so far as to say that as in children acute parenchymatous nephritis raises a strong presumption in favour of a recent attack of scarlet fever, so in the adult it ought to suggest the suspicion that the kidneys were previously unsound—in other words, granular. Of this I am quite sure: that if, in cases of acute nephritis in the adult, the signs of granular kidney be looked for, they will very frequently be found.

In cases of granular kidney, therefore, the history may be misleading, for an acute nephritis, if there be the history of an attack, may be the consequence of a pre-existent granular kidney quite as likely as the cause of it. If, then—in spite of the fact that in the majority of cases of granular kidney the history and symptoms of nephritis are lacking—granular kidney is still to be referred to some antecedent nephritis, it follows that the initial attack must either have been slight, and therefore overlooked, or else that it was of some peculiar and specially latent kind.

It is evident from what has been said that it is only in a very small number of cases that a history of antecedent acute nephritis can be obtained; that in still fewer instances can a case be traced from an acute initial acute nephritis to granular kidney.

It follows, therefore, that most cases of granular kidney must be referred to some other origin.

The increased tendency to refer granular kidney to acute nephritis which is obvious in many writers of the present time is due to a great extent to regarding the matter too much from an anatomical, that is, pathological, instead of clinical point of view. Pathologically, of course, such sequence of changes is quite possible, but the theories of pathology must be checked and corrected by the facts of clinical observation. The theory is one which ought to be capable of easy clinical proof, but the clinical proof, as far as I can judge, is lacking.

I do not know that I should have spent so much time in discussing the want of relation between granular kidney and acute nephritis had it not been for the frequent assumption of this connection at the present time by the distinction made between the two forms of granular kidney, the white and the red.

I now turn to the arteries. The changes in the arteries with granular kidney are general, widespread, in fact universal, throughout the whole body. They are found in all parts alike—in the kidney, for instance, as well as in the brain, eye, spinal cord, or even skin. Now, there are only two forms of general arterial change recognised in pathology, namely, atheroma and that connected with granular kidney.

It is unfortunate that in many of the investigations as to the frequency of hypertrophy of the heart in renal diseases more accurate note has not been taken of the general condition of the vessels for the purposes of excluding atheroma, for this omission deprives the results of much of their value.

As to the nature of the vascular lesions in granular kidney dispute has long raged, the one side maintaining that it was of the nature of hypertrophy, the other of a degeneration. The facts are that both changes are found, the hypertrophic changes in the earlier stages and the degenerative in the later.

So far as the hypertrophy of the arteries is concerned, it is probably, like that of the heart, secondary; for we cannot suppose that there is any antagonism between the heart and the arteries, though this was once assumed to be the case—the heart hypertrophying, it was then supposed, in order to overcome the obstruction offered by the hypertrophy of the vessels.

It certainly seems more probable that both the heart and the vessels hypertrophy together for the purpose of assisting the circulation to overcome some obstruction. If this be so, the obstruction must be peripherally seated, and must be sought therefore in the small peripheral arteries or capillaries.

If the changes in the vessels be primary then we ought to have evidence of vascular disease before we get evidence of kidney disease, and there ought to be cases in which, at the time of death, the kidneys are found not in a condition of granular change.

Cases of this kind are described, but they are very rare.

From whatever point of view, then, we regard granular kidney, whether pathological or clinical, we come to the same conclusion—namely, that, whether primarily arterial or primarily renal, granular kidney is a disease *sui generis*, and ought on that account to be treated in writing on the subject under a separate heading, and not split up, as it generally is, between diseases of the arteries on the one hand, and diseases of the kidneys on the other.

THE SYMPTOMS OF GRANULAR KIDNEY.

Granular kidney is a very insidious disease. For a long time it presents no symptoms at all, and can be recognised, then, by physical signs alone.

The only definite symptom perhaps in the early stage, and even this is not constant, is an increased frequency of micturition, especially at night; but as this has been of such gradual onset that the patient has become quite accustomed to it and does not regard it as peculiar, no complaint is made of it unless it be extreme, and the history of it is often only to be elicited on pointed questioning.

When symptoms arise the disease is already far advanced; in other words, the symptoms do not occur until late in the disease. The symptoms fall, like the lesions, into two groups, namely, cardiovascular and renal. Speaking generally, the cardiovascular are earlier than the renal. The cardiac symptoms are those of heart failure, more or less pronounced. The vascular symptoms are the more or less mechanical effects of the vascular lesion, and consist chiefly of hæmor-

rhage and its results. The renal symptoms are the latest to develop, and fall into two groups according as they are of gradual development or sudden onset, and they are frequently described as chronic and acute uræmia respectively. I should prefer to call them acute and chronic renal toxæmia. Both alike are to be connected with the wasting in the kidney and its consequent defective action.

The gradual and progressive wasting of the kidney is attended with the gradual and progressive development of the chronic forms of uræmia. Renal cachexia is the name that I should prefer to give to chronic uræmia. It strongly resembles, both in character and course, the cachexia that is seen in a variety of other diseases, for example, in Addison's disease, in the later stages of cirrhosis hepatis, in diabetes, and malignant disease. It consisted in a gradually increasing anæmia and asthenia, associated with various miscellaneous symptoms.

The symptoms are similar in kind, and differ from them only in the rate of development, to those that are seen after complete obstruction of the ureters or removal of the kidneys, and have been experimentally produced in animals, or observed in man as the result of pathological causes or surgical operation.

The symptoms in all these cases are similar, but differ from those which are usually described as acute uræmia, and the difference is probably not one of degree only but of kind, so that I think they ought to be distinguished by different names; for the first I should reserve the term renal cachexia, for the second I should use that term which is generally accepted, namely, uræmia, and both alike, both the cachexia and the uræmia may be of slow or sudden development.

Granular kidney is often said to be a disease of middle life, and this is true in the sense that the symptoms are usually evident then, that is, the disease is far advanced, and death may be near. The disease, however, must have commenced long before, perhaps years, so that even in these cases in middle life the onset of the disease is to be traced back, it may be, to quite early life.

Not only is the disease in many cases to be referred to early life, but it may be advanced and fatal even in quite early years. That granular kidney may occur in the young, even in children, is now generally recognised, but though rare it is still regarded as a much greater rarity than it really is. I have recorded an extreme instance fatal at the age of 18.

Guthrie has recorded several instances in small children. The following figures give the general age-distribution above 20 years.

Table of Age at Death.

Age.	Dickinson.	Fagge.	Bartels.*	Galabin.	St. Bartholomew's Hospital†	Total.
About 20	1	—	4	2	3	10
20–30	17	—	4	6	15	42
30–40	38	18	9	12	25	102
40–50	73	30	4	19	59	180
50–60	55	30	7	21	56	175
60–70	43	24	5	16	36	124
Above 70	15	4	—	3	12	34

* One death at 18, one at 19.
† One death at 19, one at 20.

Table showing Age Distribution at the time of Death of 203 Cases at St. Bartholomew's Hospital.

	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
20														
20–														
30–														
40–														
50–														
60–														
70–														
	3	—	15	5	11	11	33	26	42	14	17	9	2	5
	3		15		22		59		56		26		7	

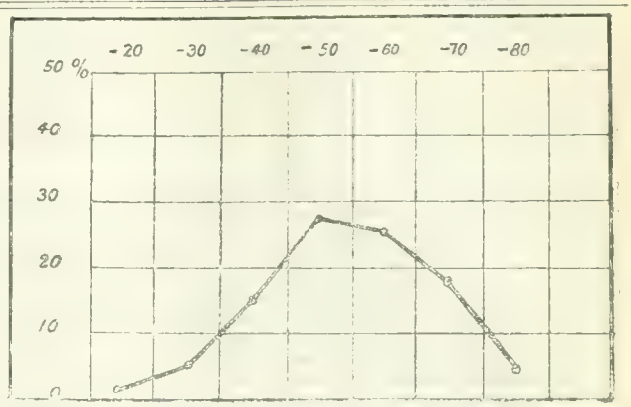


Diagram constructed from the combined statistics given, showing the percentage age-distribution at time of death.

I propose to deal with the signs and symptoms of the disease in this order:

1. The physical signs.
2. The cardio-vascular symptoms.
3. The renal symptoms.

The Early Stages: the Physical Signs.

It is the early signs of the disease rather than the late symptoms that are of importance. What is required is an early diagnosis before the disease is far advanced, and this is essential if light is to be thrown upon the causes and course of the disease, or if influence is to be successfully exerted upon it by treatment.

In the early stage the diagnosis is to be made by physical signs and not by symptoms. The physical signs are high tension and thickened arteries, hypertrophy of the heart, and albuminuria. Where these are all present together the diagnosis is easy, even in the young, and the diagnosis thus made during life is verified *post mortem*. But if one or other of these physical signs is absent, the question arises, Of what significance are those which remain? For instance, if albuminuria be absent, what do high tension and thickened arteries mean? Or, if the arteries are not thick nor the tension high but albumen be present, what is the significance of this albuminuria? Each of these questions is of great clinical importance and difficulty.

We know that the vascular changes, namely, thickened arteries and high pulse tension, develop so early in the course of granular kidney that they seem to be—I do not say they are, but they almost seem to be—rather coincident, or as some maintain even antecedent, phenomena than effects consequent upon and produced by the kidney lesion. If this were so, vascular changes might be found without the kidney lesion, and such cases are described. I have seen what I believe to have been one case of this kind, but as the kidney has been lost, and I have not had an opportunity of re-examining it, I do not like to lay much stress upon it. The late Professor Kanthack, in discussing this subject with me shortly before his illness, told me he had a case of this kind in his collection, and would lend it to me for exhibition to-day, but this failing me, I have no fresh facts of my own to bring forward.

Hypertrophy of the Heart.

Post-mortem evidence would point to hypertrophy of the heart as a most important sign of granular kidney, and so it is in the later stages, where the cardiac enlargement is such as to be easily made out. The heart may reach an enormous size. I show a case from the St. Bartholomew's Hospital Museum, in which the heart weighed 28 ounces.

In the early stages it is of very little assistance, because of the difficulty in diagnosing it then, especially if in slight degree only.

The frequency with which hypertrophy of the heart is found associated with granular kidney *post mortem* is great, but at the same time it should be noted that it is not constant.

Goodhart gives 89.6 per cent., Ewald 84 per cent., Galabin 80 per cent., Kanthack and Holmes 90 per cent.

The value of these results is unfortunately depreciated by

the almost constant omission of any reference to atheroma in the vessels, for atheroma will equally lead to hypertrophy of the heart. If atheromatous degeneration in the vessels ought to be distinguished, as I maintain, from the changes met with in granular kidney, hypertrophy of the heart ceases to be so important and conclusive a diagnostic sign as it has often been regarded.

The only signs upon which reliance can be placed for the diagnosis of hypertrophy of the heart during life are the increased area of cardiac dulness and displacement of the apex beat downwards and outwards; but in the early stages—that is, with hypertrophy of slight degree—these signs are not marked: and even in the late stages, when the hypertrophy is considerable, they are easily masked by the condition of the lungs. Considerable hypertrophy of the heart may be present and yet be incapable of demonstration by physical signs if, as often happens in granular kidney, it is associated with pulmonary emphysema.

The accentuation of the aortic second sound, which is sometimes described as if pathognomonic, is really valueless, for it will occur wherever the tension is raised from any cause whatever, and will be absent even in granular kidney when the tension falls. The same is true of the prolonged first sound, though not quite to the same extent. The hypertrophy of the heart is probably secondary to the vascular changes and the result of them, and therefore not of the same prime importance as they are or so likely to be met with early.

THICKENED ARTERIES.

Thickening of the arteries is one of the cardinal signs of the disease, and is never absent in advanced cases. Thickening of the arteries is by no means uncommon in young people, and the question as to what its significance is becomes important in relation to the early stages of granular kidney. As the thickening of the artery must be estimated by the finger it is necessary to have some sort of guide as to what may be considered real thickening of the artery.

Of course the arteries grow thicker as age advances, as the result of atheromatous changes, and in elderly persons due allowance must be made for this. In a young person the healthy artery cannot be distinctly felt with the finger, and when pressed upon it flattens out like a piece of tape and can be hardly felt; but if the artery be thick it can be rolled from side to side, and it feels then like a piece of straw or rush, or even, when much thickened, like a pipe stem.

This is not simply the result of increased tension, for the artery may be obliterated by one finger, and still felt by the other as thick as before, and even when the tension is low, as it may be in the later stages, the thickening of course does not disappear.

There are, no doubt, physiological differences in the thickness of natural arteries, but making allowance for this possibility, it is not uncommon to find the arteries so much thickened in young people as to be of necessity pathological, and it is thickening such as this that I say is by no means uncommon. Now at this age the thickening cannot often be of an atheromatous nature, for although atheroma does occur in early life, it is very much rarer than is the thickening I am now speaking of. The change is no doubt muscular in great part, as it is in granular kidney, and the effect of nitrate of amyl upon it is the same.

We are thus driven to this conclusion, that if it is not an early indication of granular kidney, then there must be some other form of arterial disease which we do not at present recognise. Arterial thickening in young people always rouses my suspicion, and leads me to look carefully for other evidence of granular kidney. Sometimes nothing more is found, and its significance continues doubtful, but that the change is pathological there can be no question. Still, the frequency with which in these cases the signs of granular kidney are either discovered on more careful investigation, or found to develop subsequently, leads me to the conclusion that the probabilities are in favour of this being really the early stage of granular kidney.

I have no actual figures to give in proof of its frequency, but the 8 per cent. which Mahomed gives as the frequency with which the high-tension pulse occurs would represent to my mind at least the frequency of thickened arteries, and it may be that we are both dealing with the same thing, for he describes the high-tension artery as rolling under the finger, but attributes this to high tension only. Really it is due to arterial thickening and high tension.

On this point some observations of Holst are interesting, in which he showed in 14 out of 15 cases of granular kidney the vessels of the skin were thickened, though not atheromatous. Brailey's microscopical, as do Gunn's ophthalmoscopic, observations on the retinal arteries show the same thing.

HIGH TENSION.

In well-marked (that is, advanced) granular kidney the high-tension pulse as well as the thickened arteries are well recognised. The sphygmographic tracing is characteristic; it has a round or square top to the wave, after which the line falls gradually; these peculiarities can be better felt with the finger—the slow prolonged wave which the pulse makes under the finger is quite as evident as the fulness of the artery between the beats.

The contraction of the heart, which with healthy arteries causes a sudden rise, that is to say, produces a wave with a sharp and somewhat short crest, in granular kidney owing to the resistance which is offered to the circulation, instead of distending the artery greatly for a short time, spends itself in dilating the artery less for a longer time; thus the long wave with its square or roundish top is produced. The tension is measured between the pulse waves; the arteries therefore feel abnormally full as well as abnormally tense between the beats.

When the heart begins to fail the diminished force does not necessarily alter the character of the wave; the artery may be less distended, and therefore the wave not so high, but its rounded top will still persist. It may also, by diminishing the amount of blood driven into the arteries at each beat, reduce somewhat the tension, but in spite of that the pulse long retains its peculiar character.

When the tension falls the fall is due to a failure of the artery, and not necessarily of the heart at all, though both may fail together. The low tension then observed is a neuro-paralytic phenomenon and a bad sign; it occurs only in the later stages of the disease, but may then continue for some time. Though the tension may be low the thickening of the arteries can still be easily made out, and is as characteristic as ever.

A persistently high tension, under ordinary conditions is of itself mischievous, but not so with granular kidney, paradoxical as this may seem. The patient is best without granular kidneys, but if the kidneys be granular it is better that the tension should be high rather than low; in other words, the patient is worse with a low tension. This explains the use of digitalis in such cases, which does so much good by raising the arterial tension.

Low arterial tension, or rather the fall in tension, in the later stages of granular kidney is of great clinical importance, the value of which Sir William Broadbent has lately emphasised.

One other phenomenon I may refer to, which, though implied by what has just been said, is not generally recognised, although easy to be observed if looked for. I refer to irregular fluctuations in tension which take place in the later stages of the disease before the tension becomes persistently low. The tension may be felt to vary considerably even in very short spaces of time; for instance, even while the finger is placed upon the pulse. These fluctuations are analogous to the flushings, the irregular respirations, and other symptoms of irregular vasomotor action which arise under similar conditions. They are very interesting and may give the earliest indications of the neuro-paralytic failure which is approaching.

In the early stages of granular kidney, go back as far as we may, as soon as the disease is diagnosible the pulse tension is high and the artery thickened. The question then arises, what is the value of a high-pulse tension in a person in whom there is not yet other evidence enough to diagnose granular kidney by?

The clinical importance of high tension has been insisted on in valuable papers written by Sir William Broadbent[3] and Dr. Goodhart[4]; and if we go back fifteen years, we come to a series of papers written on this subject by the late Dr. Mahomed.[5] All alike directed attention to the clinical importance of the fact, though they do not altogether agree in their theories or conclusions. Temporary or transient increase of tension may occur in a variety of affections, but it is not to

these that I refer; I am dealing with those cases in which the tension is persistently raised. Now, Mahomed's view was that these were the early initial stages of granular kidney, and this I take to be also Goodhart's view.

I do not think Mahomed's work has been estimated at its true value. The term he introduced may have had something to do with this, for the expression, the pre-albuminuric stage, of which he considered high tension to be the chief indication, seemed to assume entirely what he had to prove. His work was based on careful clinical observation, and I believe that he was in the main correct, though possibly he attributed too much to high tension and too little to the thickening of the arteries to which I have referred. Even his own descriptions show that high tension was not the only factor in the pulse, but that the arteries were also thickened.

Sir William Broadbent, differing as he does from Mahomed in theory, yet attaches quite as great significance to the increase of pulse tension. He describes as the ultimate results of this increased tension a variety of symptoms—for example, cardiac failure, general disturbance of health, a sort of cachexia, and even hæmorrhage, which, as he stated, could be truly predicted long before it occurred.

These are the same symptoms as those produced by advanced granular kidney. If the kidneys are not granular in these cases—and of this no proof is given—the arteries must become diseased if hæmorrhage is to occur, for it can hardly be maintained that mere increase of tension can lead to the rupture of healthy vessels. If the vascular change is not atheromatous, nor associated with granular kidney, what is it?

So far as the results to which high tension leads, there is general agreement, but opinions differ as to whether these results are to be referred to granular kidney or not. These differences in theory would remain a matter of opinion still, if there were not some fresh facts by which to elucidate them. These have been obtained by the more exact and careful study of the early eye changes met with in granular kidney.

As I shall show shortly, our knowledge of the early stages of albuminuric retinitis has been greatly extended of recent years. If in many of these doubtful cases of high pulse-tension and thickened artery albuminuric retinitis or the early changes which lead to it are found, and that even in cases in which albumen may not be present in the urine the diagnosis of granular kidney will be surely justified. Considering that albuminuric retinitis is not invariably found even in advanced granular kidney, the fact that it can be discovered in these cases of doubtful nature is a significant fact which throws a light upon many of those other cases in which for the present the doubt must still remain more or less unsolved.

None of the writers mentioned lay any stress upon eye changes in their papers—at any rate, not as a means of diagnosis; but the importance of these early retinal changes was not then so fully recognised as now. Some, at any rate, of these doubtful cases must be referred to the group of granular kidney, and the probability that a much larger number of them may be fairly so referred is so far increased.

It appears to me, therefore, that there is presumptive evidence in favour of regarding these cases of high pulse-tension, as well as those of thickened arteries in the young, as the initial stages of granular kidney which we are in search of.

I do not wish to go beyond my facts or to speak dogmatically upon points which may still be open to question, but this appears to me the conclusion to which the facts point. At any rate, a larger number of these cases can now be proved to be granular kidney than has been hitherto supposed.

References.

[1] For these figures I am indebted to Mr. Woodbridge. They will be published *in extenso* in the *St. Barth. Hosp. Reports*. [2] This paper will be published *in extenso*. The short abstract now given of it is of the nature of a preliminary report only. [3] British Medical Journal, August, 1883. [4] Bradshaw Lecture, 1885, British Medical Journal, ii, 327. [5] *Lancet*, January 11th, 1879, etc.

Professor von Esmarch has resigned the Chair of Surgery in the University of Kiel, in which he has been succeeded by Professor Helferich, late of Greifswald.

The late Sir William Gray, shipbuilder, has left the sum of £2,000 to the West Hartlepool Hospital.

SOME UNCERTAINTIES IN THE DIAGNOSIS OF CEREBRAL TUMOUR.

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In looking over the records of brain surgery one is struck by the very large proportion of cases in which no tumour was found at the operation. Thus in Starr's[1] list of 162 cases no tumour was found in 48; in Knapp's[2] list of 405 cases none in 92, and Bergmann[3] only found a growth in 1 case out of 6. Besides these there are many isolated cases of the same kind scattered through literature. It seems therefore to be important and interesting to inquire into the causes of these deficiencies.

Uncertainties in the diagnosis of brain tumour may be grouped into two large classes. (A.) When no tumour exists, but other diseases are mistaken for it. (B.) When a tumour is present, but (*a*) the symptoms are ascribed to some other disease; (*b*) there is a mistake in localisation; (*c*) there is uncertainty in the nature of the tumour.

A. Diseases which may simulate Brain Tumour.

1. *Chlorosis.*—Very rarely optic neuritis, generally of rapid onset, is present in this disease; and if it is associated with intense headache and perhaps with hysterical motor or sensory symptoms, a mistake in diagnosis may easily occur.

2. *Uræmia* with intense headache, optic neuritis, convulsions, and coma may simulate brain tumour, especially if the convulsions are unilateral in character. The unilateral form of uræmic convulsion, without cerebral hæmorrhage, is spoken of by Sir William Broadbent in his book on the pulse, and I remember seeing a case of the kind at the Manchester Royal Infirmary (under the care of Dr. Graham Steele) some years ago. The character of the optic neuritis, together with the history and symptoms of Bright's disease, should of course make the diagnosis clear.

3. *Chronic lead poisoning*, if associated with lead encephalopathy, with convulsions, delirium, sometimes acute mania, and coma with optic neuritis and severe headache, may suggest the presence of brain tumour. This idea may be strengthened if hemianæsthesia is present, and particularly if there is any paralysis of the cranial nerves. Buzzard (quoted by Gowers) has described paralysis of the third cranial nerve in lead poisoning; and I have at present under my care a man suffering from chronic plumbism with gout and paralysis of both sixth cranial nerves; a few weeks ago the right nerve was totally paralysed, the left slightly so; this has now almost recovered, so that he has no apparent strabismus, but there is double vision when strain is put on to either of the external recti.

4. *Hysteria* may of course simulate brain tumour, particularly when there is headache, vomiting, convergent strabismus, and various motor and sensory disturbances.

5. So-called *reflex epilepsy*, in which the convulsions are unilateral, is sometimes difficult to distinguish from symptoms due to coarse irritation of the cortex of the opposite side. These convulsions may be caused by irritation of the dura mater due to old injury, by subdural hæmatoma, or by irritation (in dogs) of the inner surface of the exposed dura mater (Franck quoted by Mills[4]). In many of these cases the convulsions are on the same side of the body as the irritation, and are considered to be due not to irritation of the cortex but to irritation of the fifth cranial nerve supplying the dura mater, and especially distributed to its inner surface. Similarly reflex epilepsy, unilateral in character, may be set up by pressure on old scars in the region of the fifth cranial nerve, or by any peripheral irritation of the fifth nerve as from lesions of the ear, eye, nose, teeth, face, or scalp. Injuries of nerves or an isolated fibroma on a nerve in other parts of the body have been known to set up these unilateral reflex epilepsies.

6. Many *anomalous cases* have been reported from time to time in which there were symptoms apparently due to coarse irritation of the brain cortex, but in which the patients have either recovered without operation or after an operation in which nothing was found. Thus Pearce Gould[5] reported a

case in which there was headache, aphasia, twitchings, facial palsy, and paralysis of the right side of the tongue with slow pulse. A tumour was supposed to be present in the frontal lobe and the skull was trephined; nothing was found; the patient gradually improved, and, with the exception of an occasional epileptic fit, the symptoms all disappeared. Phillips[6] mentions a case of old injury to the head with severe headache, vomiting, slow pulse, and a tender spot on the head, and slight local twitchings just before the operation. Nothing was found on trephining, but the patient recovered perfectly.

I had the following curious case under my care at the Manchester Workhouse Infirmary:

The patient was a girl, aged 17 years. Her mother stated that the patient had a fit when she was 2 years old, and again when she was 6 years old. After this the fits occurred every year until she was 15; each attack consisted of a series of fits, which lasted about a fortnight. After the last attack she was paralysed on the left side for about three months, gradually recovering. About November 18th, 1897, the fits commenced by twitching of the muscles of the left eye, probably the orbicularis, while the patient was at her work making cigars. She went home and the spasms then spread over the whole of the left side, and she was apparently unconscious until she was brought to the hospital.

On admission, she was suffering from well-marked attacks of left-sided Jacksonian epilepsy, always commencing in the face; the spasms rapidly passed to the left hand and arm. In a day or two the spasms also affected the left leg; each attack consisted of tonic then clonic spasm, followed by transitory paralysis. After recovery the patient told me she could not remember the attacks coming on nor what happened in the interval between the attacks. During the intervals, however, she was apparently conscious and answered questions. The number of fits a day increased rapidly, until the maximum of 275 on December 10th was reached.

The case exactly simulated one of cortical tumour, but as the physical condition of the patient remained good, and as the mother constantly asserted from former experience that the attacks would cease in a fortnight, the question of operation was postponed. On December 11th the number of fits was 125, and the next day she was apparently well, and after a few days she was discharged recovered. In spite of the extraordinary number of the attacks, which were always limited to the left side, the temperature was never raised. She was fed either by the mouth or rectum; she was incontinent as regards both urine and fæces throughout the attack. The optic discs were normal, and there was no sign of paralysis of the left side when the fits had entirely ceased, but the left knee-jerk was increased, and there was marked left ankle clonus. During the attacks 30 gr. of chloral, with 45 gr. of potassium bromide were given every four hours, but without the slightest effect. There seemed to my mind no doubt that the attacks were genuine, and not in any way hysterical; there was no sign of hereditary or acquired syphilis. There was a large scar on the head with absence of the hair, but this dated from a ringworm contracted when the girl was 3 years old, and evidently was the remains of tænia kerion.

Another somewhat similar case was that of a lady, aged 60, whom I saw in consultation with Dr. John Scott, of Manchester, on January 25th, 1898.

The patient was said to have had rheumatism some years earlier, with secondary heart disease, but there was no evidence of heart mischief when I examined her. She had had an attack of "fainting" about three years before, and these attacks had recurred from time to time since; in some of these attacks she had been unconscious for about half a minute, and had fallen; in others she had momentarily lost power in the left hand and dropped anything she was holding in it.

About January 10th, 1898, she had severe pain on the top of the head, and this continued more or less day and night, partially preventing sleep until January 22nd. On this day she was feeling well, and was playing cards in the evening. About 1 A.M. on January 23rd she apparently had an attack of general convulsions in bed, "lasting about twenty minutes." Her husband was awakened by the bed shaking. She was then quiet for about an hour, when she had an attack of "spasms" on the left side of the face only. These attacks, which consisted of tonic and clonic spasms, and subsequent transitory paralysis, came on every five or ten minutes day and night, and affected principally the lower facial fibres, and never spread to any other part of the body, and though of course accompanied by loss of power to speak, were not accompanied by any unconsciousness. They were still occurring when I saw her on January 26th. The tongue was covered by a thick plastered coat such as one so often sees in cases of cerebral tumour; there was no optic neuritis, no vomiting, and no tenderness of the skull. As the patient seemed to be getting rapidly exhausted, and as the symptoms so strongly pointed to a gross irritating cortical lesion, an operation was strongly recommended, but the friends would not allow it. Large doses of chloral and bromide were prescribed together with stimulants and careful feeding.

The fits continued with unabated frequency on January 27th and 28th, but began to abate on the evening of the latter day, and she slept well that night, although several fits occurred which did not awaken her. On January 29th she had four attacks, on January 30th two attacks, and then complete recovery set in.

She remained well until the beginning of October, when she had a "fainting" attack in the street and fell unconscious, and the tongue was bitten. A few days afterwards she had a single attack of spasm without unconsciousness on the left side of the face, and a similar attack occurred the next day, and occasionally, she says, she has slight attacks of dizziness.

I saw the patient on November 10th, and she then appeared perfectly well in all respects.

What the exact diagnosis is in these two remarkable cases I am at a loss to say. The second case suffers probably from occasional attacks of genuine epilepsy, both *grand mal* and *petit mal*, but the facial convulsions without loss of consciousness are a puzzle to me. Undoubtedly, both cases from the persistent localised epileptiform seizures suggested some gross cortical irritation very strongly, but the nature of this irritation seems a mystery.

7. *Syphilis* of the cranial nerves with severe headache, but with no signs of cortical irritation, may simulate the early signs of a brain tumour, and the diagnosis may only be cleared up by time and antisyphilitic remedies. If a syphilitic meningitis with local convulsions and optic neuritis be present, then it may be even more difficult to exclude the possibility of tumour.

8. *Meningitis* or brain *abscess* may be mistaken for tumour, especially if slight optic neuritis is present, if the symptoms have had a slow onset, and if there is no apparent cause for the meningitis or abscess.

9. *Polioencephalitis* may give rise to symptoms which simulate those of pontine tumour.

B. Symptoms due to Brain Tumour mistaken for other Diseases.

1. *Hysteria* is not infrequently assigned as a cause of the symptoms of tumour, especially when the latter occurs in young girls, and there is no optic neuritis or paralysis of cranial nerves. It should be remembered that in neurotic subjects true hysterical symptoms may be present with or precede symptoms of organic disease such as tumour or disseminated sclerosis, and so give rise to error.

2. *Reflex epilepsy* may be assigned as the cause of the unilateral convulsions of brain tumour, especially if there is an injury or tumour on a nerve. I saw a case of this kind some years ago in the Manchester Royal Infirmary, where a patient with an old injury to and a scar over the left ulnar nerve suffered from left-sided unilateral epilepsy commencing in the left arm; there were no other symptoms for some time, and the case was diagnosed as reflex epilepsy. Some time after the patient died, and a gumma in the right motor cortex was found.

3. *Hydrophobia* has been diagnosed in cases in which there was a history of a comparatively recent dog bite, but in which the symptoms were really due to brain tumour. This occurred in a case related to me by Dr. Bevan Lewis (who made a *post-mortem* examination) in which a small parasitic cyst was found in the neighbourhood of the medulla.

4. Cases of *senile dementia* are frequently admitted into workhouse hospitals. They take no notice of their surroundings, have to be fed, are incontinent, will not answer questions, have no friends to give a history of their illness, and lie curled up in bed. In two such cases, presenting no other symptoms, which occurred at the Manchester Workhouse Infirmary, brain tumours in the frontal lobes were found at the *post-mortem* examination, and had been quite unsuspected during life.

5. *Circulatory changes*, if the symptoms of brain tumour come on suddenly, especially in old persons, may be assigned as the cause of the symptoms. In a case sent to me by Dr. Eatough, of Mossley, near Manchester, a man, aged 56, but looking older, and with no previous symptoms, suddenly became unconscious while sitting in his chair. This condition lasted for about 15 minutes, and his left side, especially the arm, was found to have lost power. This gradually increased. A few days afterwards he had an attack of "trembling" in the left arm and leg, without loss of consciousness, and there was some loss of sensation in the same limbs: the optic discs were normal, and there was no headache or vomiting. Subsequently, however, other attacks of left-sided convulsions with loss of consciousness occurred; there was rapid loss of power on the left side, with optic neuritis, and there was no longer any doubt that a tumour at or near the right motor cortex was present. Death ensued within three months after the commencement of the illness. No *post-mortem* examination could be obtained.

6. If *ear disease* be present, or there is a history of injury, the symptoms of tumour may be ascribed to abscess, especially if there is no optic neuritis; similarly, meningitis may be given as the cause of the symptoms of tumour, particularly if these develop rapidly.

C. Uncertainties in the Diagnosis of Position of Cerebral Tumour.

Mistakes in localisation not infrequently occur, and in this connection may be mentioned those in which no tumour was found at the operation, but after death the tumour was found at the point of operation, sometimes even in the resulting hernia cerebri. This failure may have been due to want of deep exploration of the cerebral substance, but in other cases punctures and incisions were made into the brain but without disclosing the tumour which was present at the spot. Such cases are reported by Dinkler,[7] Köster,[8] and Schultze.[9] The reasons for this failure should be given by the surgeon. I can only suggest that at present few individual operators are so sufficiently familiar with the aspect and feel of the healthy brain substance as to be always able to differentiate it for tumour growth, especially if this is a soft diffuse glioma. Sometimes a tumour is present on the side expected but not at the spot diagnosed. In the case of a woman at the Manchester Workhouse Infirmary, there were marked and recurring right-sided epileptiform seizures spreading over the face, arm, and leg, together with other symptoms pointing to tumour of the facial area of the left motor cortex. I referred the case to my surgical colleague, Mr. Joseph Collier, for operation, and he agreed that it was a suitable case, at any rate, for exploratory trephining. Before arrangements could be made, however, the patient had several more fits in rapid succession and died. *Post mortem* a tumour was found in the left second temporo-sphenoidal convolution involving the grey and white matter; the motor cortex appeared normal.

In a case recorded by Schiller,[10] the tumour was supposed to be in the left arm centre. It was not found at the operation, but at the *post-mortem* examination one small tumour was found at the posterior part of the left posterior parietal lobule, and a larger wedge-shaped tumour on the median aspect of the left hemisphere in the quadrate lobe, and a cyst in the left corona radiata.

In one of Hitzig's[11] cases, where trephining over the left motor centre was unsuccessful, a tumour was found *post mortem* on the median surface of the left hemisphere, the oldest part being in the centrum ovale, and had invaded the gyrus fornicatus and the corpus callosum, and pressed on, but not invaded, the central convolutions.

Difficulties often arise in distinguishing between tumours of the cerebellum and those of the frontal lobe, as illustrated by a case of Hitzig's,[12] in which a diagnosis of tumour in the right cerebellar hemisphere was made, but *post mortem* a large cystic glioma of the frontal lobe, flattening the second, third, fifth, and sixth nerves, and the right half of the pons was found. As Bruns[13] and others have pointed out, ataxia and disturbances of equilibrium are found both in frontal and cerebellar tumours, and a distinction is only possible if symptoms due to pressure on neighbouring structures are present.

In other cases tumours in the internal parts of the brain are mistaken for those near the cortex. Thus Bury,[14] in a case where the symptoms were giddiness, left-sided paralysis, headache, nausea, blindness, and nystagmus diagnosed a tumour to be subcortical near the motor area, and an unsuccessful operation was performed. The patient died two months afterwards, and a tuberculous tumour of the optic thalamus was found. In Gibson's[15] case, in which during life there were unilateral spasms and contractions, an operation revealed no tumour, but this was found *post mortem* in the caudate nucleus and anterior part of the internal capsule. Zeller's[16] case complained of pain over the left parietal bone, double vision, loss of memory, double choked disc, difficulty in walking, and spasms of the right arm. A tumour of the anterior lower part of the motor region was diagnosed, but no tumour was found at the operation. After a slight improvement the patient became worse and died, and *post mortem* the tumour was found in the left caudate nucleus, and it sent a process laterally and obliquely upwards into the white matter, but the cortex was not involved.

As I have already mentioned, irritation of the dura mater may cause convulsions on the same side of the body and lead to errors of localisation. In a woman at the Manchester Workhouse Infirmary, suffering from primary carcinoma of the gall bladder with numerous secondary growths, unilateral convulsions on the right side set in, but at the *post-mortem* examination the only cerebral growth was one limited to the dura mater of the right side.

D. Uncertainty in the Nature of the Tumour.

Intracranial aneurysm may be diagnosed as a tumour or *vice versâ*, and a distinction is often impossible. Apart from an accurate diagnosis of a tuberculous or syphilitic growth, a distinction between the other forms of primary cerebral tumour is often impossible during life. As Gowers says, the diagnosis of the exact nature of the tumour is generally "hardly more than a guess," and "a guess that is almost as likely to be wrong as right." Yet it would be of great benefit if one could distinguish between the diffuse gliomata which are hardly suitable for operation, and the sarcomata which generally have a well-marked limit, whether they spring from bone or membranes, or are within the brain substance, and which can be thus more or less easily "shelled out" at an operation.

Conclusion.

It will be seen from the above sketch of a very large subject how difficult it may be for a neurologist to give an accurate opinion on the precise locality and nature of a brain tumour when required to do so by a surgeon before he undertakes an operation; and it can be understood that the difficulties and uncertainties of brain surgery are not so much those of surgical technique or of untoward after-affects, but occur at the outset and with our present knowledge may be well-nigh insurmountable.

References.

[1] Starr, *Med. Rec.*, February 1st, 1896. [2] Knapp, Epitome, British Medical Journal, July 16th, 1898. [3] Bergmann, *Neurol. Centralbl.*, 1897, p. 920. [4] Mills, *Transact. Congress Americ. Phys. and Surg.*, 1888. [5] Pearce Gould, British Medical Journal, January 22nd, 1898. [6] Phillips, British Medical Journal, January 22nd, 1898. [7] Dinkle, *Neurol. Centralbl.*, 1897, p. 611. [8] Köster, *Neurol. Centralbl.*, 1897, p. 1057. [9] Schultz, *Deut. Zeits. f. Nervenheilk.*, 1896. [10] Schiller, *Neurol. Centralbl.*, 1897, p. 1056. [11] Hitzig, *Therap. Wochens.*, 1896, Nos. 19, 20. [12] *Ibid.* [13] Bruns, *Neurol. Centralbl.*, 1897, p. 922. [14] Bury, British Medical Journal, November 28th, 1896. [15] Gibson, *Edin. Med. Journ.*, February 7th, 1896. [16] Zeller, *Neurol. Centralbl.*, 1896, p. 288.

ON THE REMOVAL OF A FRAGMENT OF STEEL FROM THE RETINA WITH THE ELECTRO-MAGNET,

With Notes of Two Cases.

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Since the year 1882,[1] when I described the electro-magnet devised by me for the extraction of splinters of steel or iron from the interior of the eye,[2] many instances have been recorded by me[3] and others illustrating the use of the electro-magnet in ophthalmic surgery. Its value, and the class of instances in which it is of service, have become generally recognised. The record of isolated cases is hardly, therefore, of interest or value unless there are some special features pertaining to any particular instance. That there are, such, however, in the case related here will at once be recognised. To remove a foreign body from the background of the eye with the retention of perfect sight (§) is a satisfactory event in ophthalmic surgery.

Case I. *Removal of Fragment of Steel from the Retina: Result, Vision §.*

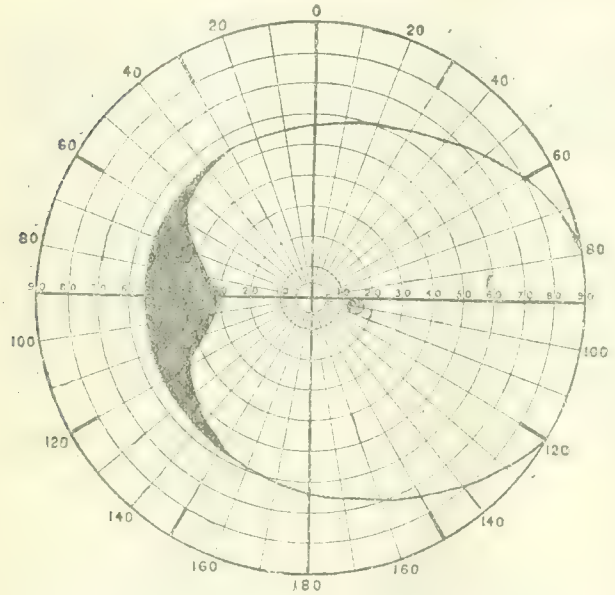
History.—On November 5th, 1898, Mr. H. B. M., aged 22, consulted me on account of an injury to his right eye. On October 24th he was driving a wedge with a hammer, and a splinter flew off and struck the right eye. He cannot say whether the fragment was from the wedge or from the hammer. He felt a slight shock to the eye at the time and sought medical aid, and later he was referred to me.

Nature of Injury.—Examination at this visit to me on November 5th disclosed a small linear wound at the periphery of the cornea, at its outer edge, corresponding to about the centre of the palpebral opening. Beneath this corneal scar was a small opening in the iris at the periphery, which at once suggested the probability of the foreign body having penetrated and being located in the globe. Vision = §. The media were clear, but in the fundus towards the periphery on the outer side, just above the median line, a mass of whitish effusion was noticed, in size equal to about 2 diameters of the optic disc. There was only at one point anything resembling the glistening noticeable when a metallic body is embedded in the retina, and this was very trifling. The situation of the effusion corresponded exactly to the line a foreign body passing along the track indicated by the corneal scar and the wound in the iris would take, and no doubt was left in my mind that the fragment of steel was actually embedded in the retina and coated over with this whitish effusion.

Operation.—The gravity of the case was pointed out to the patient and to his parents. Consent was obtained to an attempt to remove the foreign body with the electro-magnet, and the operation was performed on November 9th. The site selected for incising the sclerotic and introducing the electro-magnet was between the external and inferior recti; indeed, a little external to the latter appeared the best situation from which to at once advance the point of the electro-magnet to the location of the foreign body. Cocaine was therefore instilled, and the conjunctiva separated from a point in front of the intended puncture back towards the equator. After bleeding was stopped the sclerotic was incised, and the point of the electro-magnet was introduced and advanced to the situation of the foreign body. A second introduction was necessary, and then the piece of steel was extracted; it weighed 0.16 gr. One surface was coated white, and this demonstrated, if further testimony were necessary, the fact that it had been situated as diagnosed, one surface lying in the retina and the other coated over with effusion. The conjunctiva was united by sutures.

After-History.—The recovery was uninterrupted. It is noted on December 16th that there is still a whitish mark where the foreign body was situated, and pigment is becoming deposited in the neighbourhood. Vision=$\frac{6}{6}$, and the slight alteration in the field of vision, as shown by the accompanying perimeter chart, illustrates how complete has been the restoration of vision.

Right Eye.



This was the second instance during the year 1898 in which a splinter of steel, diagnosed as being embedded in the retina by the ophthalmoscope, has been successfully removed by me with the electro-magnet. The previous case is recorded in vol. xviii (1898) of the *Transactions* of the Ophthalmological Society, and reference is also there made to an earlier case of removal of a piece of metal from the retina by me, and to instances recorded by others. The other instance under my care last year very closely resembles that related in the present article.

CASE II. *Removal of Fragment of Steel from Retina: Lenticular Opacity: Vision* $\frac{6}{9}$.

History of Injury.—The right eye was injured; the splinter of steel had entered at the sclero-corneal junction at the inner side (not outer), and there was a hole in the iris through which it had passed, and the track the foreign body had taken was made out by the opacity it had caused at the periphery of the lens. Examination with the ophthalmoscope disclosed the fragment of metal fixed in the retina in the lower and outer quadrant. The glistening of the steel was distinct, but it was surrounded and partially covered by whitish exudation. The vitreous otherwise was but little disturbed, and vision equalled about fingers.

Operation and Result.—The sclerotic was incised between the internal and inferior recti, and the electro-magnet was advanced to the situation of the foreign body. On withdrawing it the foreign body was not attached. Again the electro-magnet was passed into the eye and a click was immediately heard, but with a like result. A careful search was made round the wound to ascertain if the splinter had been peeled off when the electro-magnet had been withdrawn, but it could not be found. A third time the electro-magnet was advanced to the situation of the foreign body; a click was again heard, and this time on withdrawing the instrument the piece of metal was found adhering to it. The exact situation of the fragment in the retina had been ascertained, but the splinter was clearly too firmly fixed, either in the retina or glued by adhesions of lymph, to be detached at the two first occasions it was brought into contact with the electro-magnet. The opacity in lens remained unaltered and vision=$\frac{6}{9}$.

It has for some years been recognised that foreign bodies may be tolerated for lengthened periods in the fundus oculi with retention of vision. I recorded such an instance in 1878 in the Royal London Ophthalmic Hospital *Reports*,[4] and have reported several instances since,[5] and others, including Knapp, have done the same. Such a case as I have recorded in this paper, together with the other similar instance I have mentioned, very properly raises the question whether foreign bodies so situated should be left alone or surgical interference adopted. My feeling with such evidence before me is naturally more in favour of interference than it was formerly. But it must be recognised that the fixation or embedding of a foreign body is always a hindrance to its removal by the electro-magnet. In each instance the possibility of success must be carefully weighed, and it is important that the situation of the fragment be exactly located, so that the point of the electro-magnet be advanced immediately to it, and thus the prospects of its successful removal be materially increased.

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A CASE OF PROFUSE SPONTANEOUS HÆMORRHAGE INTO THE URINARY BLADDER.

BY W. McADAM ECCLES, M.S.LOND., F.R.C.S.ENG.,
Assistant Surgeon to the West London Hospital and the City of London Truss Society, and Demonstrator of Operative Surgery at St. Bartholomew's Hospital, etc.

VESICAL bleeding may arise from a variety of causes, and blood may reach the bladder from the surrounding structures, but in the majority of instances the amount that is found at any one time in the cavity of the viscus is but slight. Profuse hæmorrhage, leading to a collection of blood so as to distend the bladder, is not a very frequent occurrence, and when it does take place is not altogether simple in its treatment. Such loss of blood into the organ is usually the result of the presence of a papilloma of the vesical wall, but the bleeding may be the outcome of operative interference, or it may be spontaneous.

Malignant disease sometimes causes much hæmorrhage, so likewise a congested prostate. Operations, such as lithotrity and suprapubic cystotomy, are occasionally followed by considerable bleeding. Possibly also hæmophilia must be included as a cause, but it is not usual to get great loss of blood in cases of rupture of the viscus.

The record of the instance of profuse spontaneous hæmorrhage into the bladder which is here given is chiefly of interest from the point of view of treatment.

History.—A man, aged 45, was admitted to the West London Hospital on August 20th, 1898, and gave the history of his condition briefly thus: He was a ship-yard painter and had been engaged in painting in a confined place for twelve hours nearly continuously. At the expiration of this time he found that he was unable to pass his urine, although up to this period he had never experienced any difficulty whatever in micturition, and there had not been, as far as he knew, anything abnormal with his water, he being especially confident that he had never passed any blood with it.

Soon after the inability to relieve his bladder came on he began to have a severe pain in the hypogastric region. He returned home, and still being in distress he was seen by his medical man, who passed a catheter with ease, but failed to draw off more than a few drops of blood. The patient was therefore at once sent into the hospital.

Condition on Admission.—When seen there he was evidently in great agony, somewhat collapsed, and distinctly anæmic. On examining the abdomen I found an oval swelling reaching upwards to the level of the umbilicus. This was easily palpated and could be even seen, the patient being of spare habit. The tumour was dull to percussion, but had a rather more firm feel than is usual with a bladder distended with urine. No fluctuation was obtained. The pulse was weak and rapid. A full-sized catheter was passed without difficulty, being introduced its whole length, but only evacuating a small quantity of blood. The finger inserted into the rectum did not reveal that the instrument had transgressed the urethral canal, and there was no evidence of free fluid in the peritoneal cavity. It was concluded that the case was one of profuse hæmorrhage into the bladder, and I therefore decided to explore the interior of the viscus from the perineum.

First Operation.—Accordingly, a medium perineal section was made and a catheter introduced through this opening into the bladder. This, when it had passed for nearly its full length, drew off about a pint of highly blood-stained urine, and at the same time the hypogastric swelling considerably diminished, but did not entirely disappear. The blood clot which was in the bladder was as far as possible removed by irrigation, yet it was clear that all had not been evacuated. The introduction of hot water checked the hæmorrhage almost completely, and a catheter

having been tied in the patient was sent back to bed. About four hours later it was found by the house-surgeon that bleeding had recommenced and that the hypogastric swelling was already again in evidence.

Second Operation.—I was sent for, and on arrival an hour later determined that the right line of treatment would be to open the bladder in the suprapubic region. This revealed a mass of blood clot within the viscus, which was speedily scooped out with the aid of a spoon. Search was then made for a bleeding area, but as the blood welled up from the position of the trigone, and rendered a clear view impossible, pressure was exerted on the abdominal aorta which effectually controlled the loss. Even then no place from which blood had actually flowed could be seen. No papilloma, or remnants of one, nor any other growth could be discovered, though it is possible that in the manipulations employed in the removal of the blood clot some villous mass may have been dragged off. Removal of the fingers from the aorta immediately caused a renewal of the hæmorrhage, the blood, as has been said, welling up from about the internal meatus. Water at a temperature of 120° F. was then run through the bladder, and was successful in bringing about a cessation of the bleeding. A glass tube was inserted through the suprapubic wound into the bladder, and the patient returned to the ward.

After-History.—During the ensuing night he had much pain, and the urine that drained from the pubic opening was at times very considerably blood-stained. Hæmorrhage occurred at intervals for three days, after which it entirely ceased. The suprapubic tube was removed on the fourth day and the catheter on the seventh day. There was rapid healing of both the wounds, and the patient left the hospital but little the worse for his severe hæmorrhage on September 7th, eighteen days after admission.

This case is a good example of spontaneous and profuse bleeding within the cavity of the urinary bladder. Most probably this was the result of some laceration of a papillomatous growth, which was not discovered at the time of the suprapubic opening, but which may have been successfully, though unintentionally, removed at that time.

I have to thank my late house-surgeon, Mr. W. T. Rowe, for the excellent notes that he took of the case.

FORMALIN IN THE TREATMENT AND REMOVAL OF INOPERABLE MALIGNANT GROWTHS.

By WILLIAM MITCHELL, M.B., C.M.Edin.,
Bradford.

The treatment of malignant growths, which either on account of anatomical peculiarities or of the constitutional state of the patient, or on account of the refusal of the latter to submit to the knife, cannot be treated by ordinary operative methods, must at times be a source of trouble and perplexity to almost every surgeon; and any method which will enable us to deal with such cases in a simple and reasonably satisfactory manner will be welcome to most.

The method adopted in the following case might, I venture to hope, prove a useful addition to methods already in use. The patient had a sarcoma of the cheek (second recurrence) which two experienced surgeons refused to remove by operation. When she came to me the tumour was 4 inches in diameter, and fully as large as a man's fist. At one place a mass of sarcomatous tissue had forced its way through the integument, and was giving rise to constant and rather severe hæmorrhage. It was this latter symptom I was now called upon to treat.

I tried all the usual styptic methods, but with none of them succeeded in stopping the hæmorrhage for more than a few hours, so that 2 or 3 ounces of blood were being lost daily, and it seemed as if nothing short of tying the external or common carotid could arrest the bleeding.

Remembering, however, the great power of penetration and coagulation possessed by formalin, and the rapidity of its action in this respect on dead tissues, I determined to try its effect on the living. After applying a solution of caoutchouc to protect the surrounding skin, I soaked a small pad of absorbent cotton wool with a solution of formalin containing 20 per cent. of formic aldehyde, and applied this to the raw surface, then covered it with guttapercha tissue, and held it in place with a bandage.

My expectations were more than realised; for not only was the hæmorrhage entirely stopped, but in 24 hours there was produced a hardening and necrosis of the tissues, extending nearly a quarter of an inch from the surface.

This made me think that it might be possible to remove the whole growth by first coagulating the tissues with formalin and then cutting away some of the necrosed part daily, always however leaving sufficient of the latter to prevent a recurrence of hæmorrhage. I therefore scooped out with a scalpel and sharp spoon as much of the necrosed part as I dared, and then filled up the cavity with cotton wool saturated with the formalin solution as before. Daily repeating this I was able in a very short time to tunnel right into the centre of the tumour, and eventually to remove it completely, notwithstanding that it was highly vascular, and during the process there has not practically been one drop of blood lost.

The formalin seems to exert its influence equally in all directions, and to be capable of penetrating to almost any depth if constantly applied. I have cut out a solid piece an inch in thickness at one time, although I have usually contented myself with less. On one occasion I cautiously tried injecting some of the solution into the tumour with a hypodermic syringe, but gave it up as I was afraid of producing embolism, and it gave no better result. The pain has occasionally been pretty severe, but has been held in check by small doses of nepenthe.

There has occasionally been considerable œdema of the lower eyelids and lips, and on one occasion of the cellular tissues of the neck. This caused me to suspend treatment for a few days, lest it should cause œdema glottidis. There has, however, never been any sign of such a condition. When the application of formalin is suspended for a few days, a line of demarcation forms with exactly the appearances seen in dry senile gangrene of the extremities.

To sum up, I consider the points in favour of this method are as follows:

1. It is simple in the extreme, requiring no special apparatus, and can be applied without an anæsthetic.
2. It produces no shock.
3. It does not, like electrolysis, set up a diffuse suppurative process, being not only aseptic, but powerfully antiseptic.
4. It is bloodless, and can be applied to very vascular growths, as this case shows.
5. It has very much greater penetrating power, and hence effects a more rapid removal than the usual escharotics, and its application does not like those give rise to a disintegrative or caustic process, with the resulting discharge, but is what I might term a necropoietic process, and with no discharge whatever.
6. As there is no discharge scarcely any dressing material is required, and an economy is thus effected.
7. During the paring away of the necrosed parts the macroscopic limits of such a tumour can be easily seen on the dry clean-cut surfaces, and an indication is thus given as to the direction in which it is necessary to proceed further. The pieces removed can be subjected to microscopic examination for the same purpose.
8. Above all the process appears to be efficient and safe if care is taken.

The drawbacks are: (1) The pain, which is at times pretty severe, but can of course be relieved by an anodyne; and (2) the œdema, which is always annoying, and might if extending to the glottis be fatal.

The systemic absorption of the formalin is apt to, and in this case did, produce an annoying general urticaria, thus showing its relationship to formic acid. There was at the same time a slight rise of temperature. The urticarial irritation was easily subdued by carbolic acid lotion.

THE TREATMENT OF TRAUMATIC TETANUS WITH ANTITOXINS.

By STANLEY COPLEY, M.R.C.S., L.R.C.P.,
Camberwell, S.E.

During the past two years I have had the opportunity of observing and treating 4 cases of traumatic tetanus. In all of them the symptoms were well marked, the spasms severe, and in all 4 there was a definite wound in a septic condition. Also in each case there was the probability of infection from soil or horse dung. In 2 the incubation period was ten days, in 1 six days, and in the other indefinite, since the infection probably took place through a chronic ulcer which the man had allowed to become foul.

The first case I saw was interesting for this reason, that the patient, a lad of 16, came under my care for his injury on the day of his accident He had a badly-lacerated wound of his thumb, with fracture of the metacarpal bone, caused by a gun accident. It was extremely dirty-looking

from powder chiefly, and many shot were extracted. Doubting at the time my power to render such a wound aseptic by ordinary methods, I packed it with sulphur for the first twenty-four hours. The slough separated as usual, and I thought a healthy granulating surface remained. However, on the tenth day trismus and a stiff neck developed, and he had a sharp attack of tetanus. When the thumb was amputated after the development of the tetanus, a shot was found on the deep surface of the fractured metacarpal.

Distribution of Spasm.—The symptoms varied somewhat in the four cases. In "R.C.," in whom the point of inoculation was in the right thumb, the parts affected were, in order, the neck, the jaw, the abdomen, the right arm, the left arm, the back, and not the lower extremities at all. In "G.K.," in whom the lesion was in the right leg, the order of invasion was the jaw, back, abdomen, and face all about the same time; the legs, and later the arms, to a slight extent only. In "T.T.," in whom the lesion was on the back of his left hand, stiffness in the neck appeared first, then difficulty in swallowing, some stiffness of the jaw, slight opisthotonos, and hardening of abdominal wall. In twenty-four hours all these parts became much more affected, swallowing impossible, and he died cyanosed from spasm of the diaphragm. The limbs were not affected at all. In "A.F.," aged 14, the lesion was in the right ring finger; the arms, back, and abdomen were the first parts affected, the legs next, and the jaw not until the third day of the disease, and then only slightly. To sum up: Hardening of the abdomen and opisthotonos were present in all within the first twenty-four hours. The trismus was present early in three cases, but very late in the fourth. There was a tendency for the severity of the disease to fall upon the upper half of the body and upper limbs when the lesion was in the upper extremity, and upon the lower half when in the lower extremities. Moreover, in the case of "G.K.," he was positive that the severe spasms always started from his wounded leg. This tendency for the symptoms to extend transversely in preference to longitudinally suggests that the poison diffuses itself in the spinal cord, and that in it the ferment-like bodies are stored which set free the tetanus toxins. To carry the idea further. Is it possible that, as in hydrophobia, the primary poison tracks along the nerves to the central nervous system?

Effect of Antitoxin.—The treatment adopted in three of the cases was subcutaneous injections of tetanus antitoxins, combined in two with occasional draughts of chloral and bromides. These three cases recovered. In the fourth case, admittedly the most severe, I was unfortunately unable to procure the antitoxins in time. He died within twenty-four hours of my first seeing him. In my first case ("R.C.") I used Tizzoni's antitoxins. In the second I began with Tizzoni's, and completed the case with the British Institute of Preventive Medicine antitoxin, which has the convenience of being fluid. In the third case the British Institute of Preventive Medicine antitoxins were used throughout.

Dosage of Antitoxin.—This is a most important point. Large doses, 30 c.cm. at once, and repeated at least every six hours till some improvement is seen even in a case which promises to be mild, is the only fair way of testing the antitoxins. I began in my first and second cases very cautiously, as the remedy was new to me, but in my second case I observed no improvement until I had injected 50 c.cm. within eight hours, that was 30 c.cm. at 10 A.M. and another 20 c.cm. at 6 P.M. This man nearly died from the severity of the spasms, and I feel sure that if I had begun larger doses earlier he would not have reached such a dangerous condition. In any case which, from the shortness of the incubation period, the large surface infected, and, I believe, the number of the nerves involved, threatened to be a severe one, I should not hesitate, while the patient was under an anæsthetic, to inject 50 c.cm. at once, and repeat the dose in four hours' time. I think tetanus differs from diphtheria in this—while in diphtheria a second dose is frequently not needed, it seems that in tetanus repetition of at least twelve-hourly intervals is advisable. One of my cases needed 10 grams of Tizzoni's antitoxin to complete the cure spread over seven days, and another 13½ grams of Tizzoni's and 180 c.cm. of the B.I.P.M. extending over ten days. The only disagreeable symptom I could ascribe to the antitoxins was an irritable rash, either urticarial or erythematous. Cases of traumatic tetanus treated with antitoxins are frequently reported, in which 10 c.cm. is the dose administered at first, and one constantly reads that the antitoxins did no good. Surely this is hardly a fair test. It would seem rational that the surgeon, instead of abandoning the treatment when 10 c.cm. did not succeed, should proceed quickly to increase the dose until some effect was produced. I do not myself believe that any harmful effect would follow 100 c.cm. injected at one dose distributed over five injections.

In two of my cases which recovered, the infected part was amputated; in the third, the ulcer was scraped and cauterised with fuming nitric acid; in the fatal one, the edges of the wound were excised, together with a metacarpal bone, and the wound cleansed with formalin solution (1 in 80).

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A CASE SHOWING THE VALUE OF LATE INJECTIONS OF DIPHTHERIA ANTITOXIN.

I WAS called to see a baby aged 7 months on December 27th, 1898, in order that I might treat it for croup. It was a healthy breast-fed girl and its mother and grandmother gave independently a history of its having had "croup" for the past seven days; they were quite sure that the child had had the difficulty of breathing continuously during that time; but as the difficulty lasted for so long and became decidedly more marked on this the eighth day they sent for a doctor.

When I saw it the case was exactly one of those which when brought into a London hospital is trachectomised as promptly as possible. The respirations were 36, the pulse 154, and the temperature 99.2°. Croupy cough, great sucking in of ribs and triangles of neck, etc.; no cyanosis of lips. The fauces were normal, except for slight congestion of the ridges of tonsils. I was by no means sure that the case was diphtheria, though subsequently plenty of Klebs-Loeffler bacilli were found in some tracheal mucus sent to the Jenner Institute. I waited a short time to try the effect of ipecacuanha and hot applications, but as the dyspnœa increased I advised tracheotomy, not to save life, but to render the mode of death less distressing to the parents and the patient. In pre-serum days diphtherial croup in a child of 7 months was practically always fatal. I thought that the injection of antitoxin on the eighth day of the illness would have little or no beneficial effect. However, having laid these considerations before the parents I performed tracheotomy and injected 1,500 units of antitoxin (Jenner Institute). The usual relief to the dyspnœa followed, and next morning I injected another 1,500 units. The respirations were then 42, pulse 156, and temperature 99.4°. Of course the urgent dyspnœa and then the operation necessitated sudden and complete weaning.

The case improved uninterruptedly; there was no pneumonia and not much bronchitis. The temperature never rose above 99.4°, the pulse above 156, and the respirations above 42. The tube could not be removed till the seventh day after tracheotomy. The convalescence was commonplace and the child is now perfectly well. It is possible that the croup during the first few days was merely catarrhal and that the child was infected with diphtheria only two or three days before I saw it. The great probability is that the case was diphtheria from the beginning. In the past three months there had been two cases of diphtheria in adjacent houses.

I publish the case as one illustrating in a very striking manner the value of diphtheria antitoxin injected even so late as the eighth day of the illness.

Kingston-on-Thames. A. M. DALDY, M.D., F.R.C.S.

A SORE DIAGNOSED AS CANCER OF THE LIP IN EARLY LIFE: RECOVERY WITHOUT OPERATION.

PERMIT me to communicate a recent case of so-called early cancer parallel to those cases quoted by Mr. Roger Williams where clinical and pathological diagnosis seem at variance.

I had this case under observation already for some months when the interesting discussion on the point appeared in the BRITISH MEDICAL JOURNAL. The patient, J. N., between 17 and 18 years of age, consulted me in May, 1898. A diagnosis of cancer of the lip had then been made. He had a diffuse eczematous affection on the lower lip, with a patch of ulcera-

tion about the size of a sixpenny piece towards the right side. This ulcerated surface rested on a raised base presenting numerous warty nodules. He stated that the sore had existed for six months, and that he did not smoke. There was no gland infiltration. The eczematous dermatitis was probably due to the irritating discharge from the ulcer or from saliva, bubbles of which always appeared drying at angles of mouth.

I consulted several of my colleagues, who recommended that the case be kept under observation. For some months I treated him with antiparasitic ointments with success, but on one occasion, he having run out of ointment, his lip got worse than ever. I then took him into hospital, and a careful examination of the growth was made by the pathologist, Dr. Moore, who pronounced it malignant. Operation was advised, but I only snipped off a prominent part of ulcer with scissors, purposely leaving most of the growth in the belief that it would heal. My expectations have been justified, as on January 12th the eczema has been cured, the infiltration disappeared, and all that remains of the growth is a fibrous nodule which I consider cicatricial.

I would ask, with Mr. Williams, Are these cases to be considered cancerous?

R. P. Crosbie, M.A., M.B.,
Extern Surgeon, South Infirmary, Cork.

TREATMENT OF HÆMOPHILIA.

A family of "bleeders" has been under my care and observation for fifteen years. The father, two sons, and two daughters are affected, the others (one daughter and two sons) are not. The father has periodical attacks of hæmorrhage from the bowels and lungs. He is treated in the following way: He is ordered to bed at once, to keep perfectly quiet and still, not even to talk more than is necessary. No food of any kind to be given for two days; sips of iced or cold water to be taken occasionally. I give no medicine whatever, except a little coloured water to please them. In my experience drugs so prescribed for hæmorrhage have little or no effect upon these particular cases, as I find bleeding must take place to a certain degree in order to relieve the quantity of blood and to lessen cardiac force. Further, if the patient strictly adheres to a plain, non-stimulating diet he will go for years without having an attack of hæmorrhage.

Owing to the subsequent bleeding, tooth extraction in this family was always looked upon as a deadly operation. They gave me their previous experience with other medical men before I came here, and the same occurred to me for a short time. But, fortunately for them, an idea of mine of freezing the cavity from which the tooth was taken with chlorethyl freezing mixture contained in bulbs with beaks bent at any angle to suit the mouth, proved quite a success, and stopped the bleeding. I have since drawn several teeth from the same family without any trouble or fear to the patient or myself. Immediately the tooth is extracted I apply the jet of freezing mixture to the cavity for three minutes. A certain amount of blood that will ooze into the cavity will be frozen into a hard mass, which fits the cavity tightly and uniformly, and which acts as the best and most reliable compress. In my hands it has never failed. I have never heard or read of this treatment being adopted by others; and it is through the express wishes of some of my medical friends, who considered my experience in the treatment of hæmorrhage worth recording, that I write this.

R. T. E. Davies, L.R.C.P., M.R.C.S., L.S.A.
New Tredegar.

Exophthalmic Goître in the Russian Army.—The frequency with which exophthalmic goître occurs in the Russian army has been the subject of many elaborate reports and discussions. J. S. Koljag (*Vratch*, December 26th, 1898) attributes the disease to the constant pressure upon the thyroid gland produced by a too tight collar, which the Russian soldier wears. In support of his view he refers to the fact that the prevalence of exophthalmic goître has greatly increased in the Russian army since the introduction of a uniform provided with a very tight collar, and that the disease is more frequently met with among soldiers who have already served for a certain length of time than among those who have only recently entered the army.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CHILDREN'S HOSPITAL, NOTTINGHAM.

CASE OF DERMOID CYST OF BROAD LIGAMENT IN A GIRL AGED 11 YEARS.

(Under the care of Lewis Marshall, M.D.)

[Reported by W. McKay, M.B., House-Surgeon.]

History.—A. C., aged 11 years, was admitted on October 29th, 1898, owing to the presence of a swelling of the abdomen. During the month of July she had been troubled with cramp-like pains in the abdomen, which occurred at intervals and soon passed away. When not suffering from these pains she was able to run about in apparently good health. Three weeks before admission she had dribbling of urine during the day, and at this time her mother first observed that the abdomen was enlarged.

Condition on Admission.—The child was quite healthy in general appearance, and well nourished, being rather a big girl for her age. Prior to examination of the abdomen, the bladder was emptied by catheter, and 2 ounces of urine withdrawn. A distinct swelling was seen to occupy the lower part of the abdomen, reaching to a couple of fingers' breadth above the umbilicus (which remained natural in appearance), and extending into the lumbar regions. On palpating it was found to be a tumour with well-defined, rounded borders, easily movable, and not affected by the movements of the diaphragm; the fingers could be dipped between it and the pubic symphysis. The swelling was more prominent on the left side, where it was felt to be of the hardness of bone or cartilage, and very close to the abdominal wall. The upper and right side was elastic and fluctuating, while over the whole swelling there was dulness on percussion. The flanks yielded a resonant note. The ovarian corona was well marked. On examination under an anæsthetic the above facts were made out with clearness, and in addition there could be felt a band extending from the tumour down into the left side of the pelvis. This band became tense when the tumour was pushed up towards the epigastrium. On examining by the rectum, the swelling could be felt high up on the left side, and it could readily be moved away from the examining finger by the hand on the abdomen. There was no albumen in the urine; no mammary development and no physical signs of disease elsewhere. The diagnosis of dermoid cyst in the left broad ligament was made.

Operation.—On November 13th chloroform was given, and an incision about 4½ inches long made just to the left of the middle line through the rectus muscle. After cutting through the peritoneum, a vascular mass was encountered, which proved to be the pedicle of the tumour, the latter having apparently became doubled down behind it. This was moved aside, and, as fluid could be palpated in the upper part of the tumour, the trocar was introduced, and about 15 ounces of clear fluid withdrawn. The rest of the cyst was then easily turned out of the abdomen. Fortunately no adhesions were present. The pedicle, which was about 3 inches broad and very vascular, was tied by a series of three ligatures, and the cyst cut away. As there had been no escape of fluid into the abdominal cavity, and very little bleeding, the peritoneum was easily cleaned, and then stitched up by interrupted silk sutures, the remander of the parietes being united by another set of silkworm-gut sutures.

Description of Cyst.—When removed the cyst was found to have thin walls, and to be composed of two parts. One portion of it had been filled with fluid, while the remainder of the contents, consisting of bone, cartilage, sebaceous material, and some hair, was firmly fixed in the bottom of the cyst. The weight without the fluid was 13 ounces.

Result.—During the first twelve hours after the operation the patient's pulse was strong and regular. The thirst, which was intense, was relieved by water enemata, and nutrient suppositories were given every four hours. Next morning the pulse was small and weak, and the child evidently not so

well. A nutrient enema containing brandy was given in place of the suppository. This quickly improved her condition. No catheterisation was required after the operation. Feeding by the mouth was commenced twenty-four hours after operation. After this nothing noteworthy occurred. The first dressing was done on the seventh day, when the wound was virtually healed, and the second dressing on the fourteenth day, when the stitches were removed. On December 11th the patient was out of bed, and is now (December 12th) in excellent health.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

H. RADCLIFFE CROCKER, M.D., Vice-President, in the Chair.

Tuesday, February 7th, 1899.

CONGENITAL HYPERTROPHY OF THE PYLORUS.

DR. G. F. STILL exhibited three examples of this condition. They resembled the many others now recorded in most of their aspects. The first concerned a boy, aged 12½ weeks, in whom vomiting was noticed at the fifth week; the pylorus could be felt as a tumour through the abdominal wall. After death, pyloric hypertrophy was found; the œsophagus was normal. In the second case vomiting was observed at the sixth week, and death took place at the fifteenth. The third infant showed no symptoms until the third week; the pylorus was palpable, and, as in the other cases, there was visible peristalsis of the stomach. Histologically, all three were alike: there was an overgrowth of the circular muscle bundles of the pylorus, without abnormal increase of the fibrous tissue and any inflammatory infiltration. It was important to remember that the pylorus of infants normally presented considerable differences in regard to the thickness of the circular muscular layer, and this, quite apart from states of contraction. One theory held was that the contraction was spasmodic, and arose after birth, and was similar to that arising in the adult as a result of irritants; the chief objection to this view was that the degree attained by the hypertrophy was too great to be accounted for in so short a time as sometimes obtained. A second theory held it to be a primary congenital stenosis; as a matter of fact, measurements showed that the actual orifice was not diminished. A third hypothesis regarded it as a developmental hyperplasia of the pyloric muscle. This was negatived by the fact that the swelling was palpable only some weeks after birth, and by the recovery that ensued in a few such cases. The fourth theory, with which the speaker was in accord, viewed the hypertrophy as due to spasm arising from disturbances in the nervous co-ordination.

Other specimens of the same condition were shown by Dr. CAUTLEY, Dr. MORLEY FLETCHER, and Dr. H. D. ROLLESTON.

Dr. BATTEN referred to a case in which feeding by means of a nasal tube effected much improvement; but the diagnosis in this instance awaited verification.

THE BUFFY COAT.

Mr. S. G. SHATTOCK submitted a new interpretation of this well-known phenomenon, which he illustrated by microscopic and other preparations. The rouleaux formation as a factor in the production of the buffy coat had come to be largely ignored, the formation of such a coat being commonly ascribed only to retardation in coagulation. The author regarded the formation of rouleaux in normal blood as indicative of the presence of an agglutinating substance, which varied in amount in different animals. An equal dilution of human blood with normal saline solution (as studied in hanging drops) almost completely prevented rouleaux formation—hypothetically by diluting the agglutinating substance. If cat's blood was received into an equal bulk of salt solution, and placed in ice, although clotting might be deferred for over two hours, no well-formed buffy coat resulted; the subsidence was imperfect because the rouleaux were. If, on the contrary, cat's blood was received into an equal bulk of normal horse serum, subsidence of the corpuscles quickly commenced, and a well-formed buffy coat resulted if coagulation was delayed in ice. The action of normal horse serum upon normal human blood (hanging drop) led to a highly-increased rouleaux formation with the production of a widely-meshed picture, and was markedly different from what followed a similar dilution of normal human blood with normal human serum. Upon recent typhoid broth cultures, also, the author had found the clumping action of normal horse serum (in equal bulk) to be highly pronounced; a corresponding mixture with normal human serum led to nothing so marked, and often to no result whatever. Passing from these considerations, he stated the view that the production of the buffy coat in such a disease as pneumonia was chiefly due to an exaggerated rouleaux formation, which was followed by a more rapid subsidence, and clearing of the upper part of the fluid. It had been demonstrated long ago by Wharton Jones that in the blood of acute rheumatism and inflammatory conditions rouleaux formation was more rapid, and the resulting mesh more open than in the normal. But what the author laid stress upon was that by testing the action of pneumonic serum upon normal blood, he had found that a highly remarkable rouleaux formation and clumping resulted, unlike anything elsewise producible. Dr. Washbourn and Dr. Eyre had failed to obtain clumping of the diplococcus pneumoniæ by means of the serum of animals experimentally immunised. The author, however, had obtained the reaction by adding pneumonic blood serum (from the living human subject) in equal bulk to a suspension of the pneumococcus in distilled water, whilst clumping was quite absent in the hanging drop made from the same suspension without the addition of the serum. With an active typhoid culture the pneumonic serum produced no clumping. The author regarded the agglutination of red discs in pneumonia as due to the same "agglutinin" which clumped the diplococci. The buffy coat was in a certain sense a form of Durham's, or, more correctly, of Widal's reaction, since it was obtainable during the stage of infection. These results raised obscure questions as to how the specific action of serums was to be explained, and the speaker thought that they indicated an interaction on the part of the bacilli and the blood—that was, that the bacilli did not behave passively under the action of an increased amount of agglutinin, but that some other as yet imperfectly-known factor underlay the phenomenon. If the mere increase of an agglutinating substance was all there would be no specificity. Such an increase, however, acting upon indifferent or purely passive bodies like the red discs might lead to this increased rouleaux formation and clumping, and it was thus that he viewed the production of the buffy coat in bacterial diseases. Although typhoid serum added to normal human blood—equal bulk, hanging drop—increased rouleaux formation, the result had nothing of the striking character that arose in the case of the blood serum from a pneumonic patient.

Mr. D'ARCY POWER remarked that if this view were correct it justified to a certain extent the practice of the older physicians in bleeding so long as a buffy coat appeared.

DILATATION OF THE ŒSOPHAGUS.

Dr. W. S. LAZARUS-BARLOW recounted this case, which presented dysphagia and vomiting of so obscure origin that laparotomy was performed, but without leading to further result. After death the greatest diameter was 3½ inches—not very great in comparison with other cases recorded. There was hypertrophy of the muscular coat, indicating obstruction at the cardia. Langley had shown that dilatation of the œsophagus was effected by contraction of the longitudinal fibres through the influence of the vagi; hence the speaker had examined the vagus microscopically by Marchi's method, but without result. The circular fasciculi were hypertrophied, not the longitudinal.

Dr. H. D. ROLLESTON exhibited (for Dr. WARDROP GRIFFITH) a more marked example of the same condition. Dr. Griffith's view was that in consequence of some irritation of the stomach an atony ensued, and that the œsophagus became unable to overcome the negative pressure of the thorax: this was followed by hypertrophy. The speaker himself did not think that cardiospasm played a part in such cases, but that they arose from an atony of the longitudinal fibres of the œsophagus: this led to difficulty in the opening of the cardiac orifice, and hence to hypertrophy of the transverse fibres.

Dr. STCLAIR THOMSON adverted to a case under his observation which he was about to bring before Clinical Society where this dilatation was probably present.

In answer to Dr. StClair Thomson and Dr. Parkes Weber, Dr. Lazarus-Barlow stated that the brain was not examined.

Alveolar Sarcoma of the Rectum.

Mr. Stanley Boyd recorded this case, which was that of a woman 35 years of age, who presented an annular tumour of the rectum with abdominal distension arising from obstruction. Lumbar colotomy was performed. On the third day afterwards the abdomen became greatly distended, and on being tapped gas with a fæcal odour was evacuated; this was repeated on several occasions. After death a large cavity lined with lymph and full of gas was found in front of the viscera, its source being a perforation of the cæcum. This growth the author viewed as an alveolar sarcoma.

Carcinoma of Stomach.

Dr. R. Hebb showed this specimen, from a man aged 36, the subject of constant vomiting; there was absence of free hydrochloric acid. After death the œsophagus was found dilated and hypertrophied. The stomach was the seat of typical colloid carcinoma.

Dr. H. D. Rolleston exhibited a firm growth surrounding the cardiac orifice of the stomach and narrowing the opening. The œsophagus was somewhat dilated. Microscopically it was a spheroidal-celled carcinoma. There was no reason to think it had started on the termination of the œsophagus, and subsequently spread to the stomach. It was removed from a man aged 62 years, who had had symptoms of vomiting, flatulence, and increasing weakness for only three months. The growth had been rapid, and no metastases were found.

Umbilical Polypus.

Dr. C. D. Green had removed the umbilicus from which the growth had arisen; the abdominal wall on the posterior aspect was normal. The growth had a papillary surface, invested with squamous-celled epithelium, whilst internally it presented fibrous tissue, with spaces lined with columnar epithelium. The author regarded it as arising in a residue of Meckel's diverticulum. In infants such glandular polypi were very well known, but their occurrence in the adult was exceptional.

Card Specimens.

Dr. Guthrie: Meckel's Diverticulum, on which the posterior wall of the ileum became intussuscepted, forming an umbilical tumour.—Dr. Lazarus-Barlow: Gastric Carcinoma spreading up the œsophagus.—Mr. R. B. Hickman: Carcinoma supervening on gastric ulcer.—Dr. F. Voelcker: Carcinoma of the Cardiac Orifice of the Stomach.—Dr. Parkes Weber: Cirrhosis, with Acute Degeneration of the Hepatic Cells.

OBSTETRICAL SOCIETY OF LONDON.

Annual Meeting.

C. J. Cullingworth, M.D., President, in the Chair.

Wednesday, February 1st, 1899.

President's Address.

The reports of the Treasurer, Hon. Librarian, and Chairman of the Board for the Examination of Midwives having been read, received, and adopted, the retiring President, Dr. Cullingworth, delivered his annual address. He said that although the work of the Secretaries of that Society was heavier and more exacting than anyone not intimately acquainted with the official nature of the Society would suppose, there was one duty from which they were exonerated—namely, the preparation of an annual report. It had always been usual in that Society for the President, at the close of each of his years of office, to give an account of the condition of the Society and of the work done during the year. Following this long-established custom, he had to begin by deploring a further slight falling off in the number of Fellows. The total number of Fellows on the roll on January 1st, 1898, was 711, comprising 11 honorary and corresponding Fellows and 700 ordinary Fellows. During the year the Society had lost twelve Fellows by death (including a death that occurred in 1897 and had been accidentally overlooked) and thirty by resignation. Twenty-two new Fellows had been elected. Hence the number on the roll had been reduced by nineteen. The present total (January 1st, 1899) was 692, of which number 10 were honorary and corresponding Fellows and 682 ordinary Fellows. This diminution in numbers ought not to be, and would not be if only each one would bestir himself in the way of beating up recruits. During the past year the Council, acting in conjunction with the Board for the Examination of Midwives, had drawn up a code of rules and regulations to be observed by midwives holding the Society's certificate. These rules had now been printed and circulated, and a copy would be supplied to every Fellow of the Society in the form of an appendix to the forthcoming volume of *Transactions*. He (the President) regarded the preparation and issue of these long-wanted rules as quite the most important event that had happened in the Society during his term of office. In the matter of its examination for midwives the Society continued to suffer from a certain amount of professional opprobrium, which, though entirely undeserved, was probably in some degree responsible for the decrease in their numbers. He wished once more to remind their professional brethren that the Society undertook the work from a sense of public duty, and merely as a temporary expedient after having tried in vain to induce the Government to move in the matter; he assured them that it would be only too glad to relinquish it whenever the State could be prevailed upon to take upon itself functions that properly belonged to it, and that it alone could adequately fulfil. Reviewing the scientific work of the Society during the past year, the President gave a brief abstract of each of the papers read, 15 in number (10 obstetrical and 5 gynæcological), and classified the specimens shown in groups according to the particular subject it was the intention of the exhibitor to illustrate. The names of the deceased Fellows were then announced, each announcement being followed by an obituary notice. The first and longest notice had reference to the late Dr. Charles West, an honorary Fellow and past President of the Society; and the other names mentioned included those of Dr. Karl Liebman, of Trieste; Dr. Leonard Remfry, Brigade-Surgeon Joseph Johnston, Mr. E. Arnold Praeger, of California; Deputy Surgeon-General John R. Miller Lewis, M.D.; Dr. George Roper, Dr. John Wallace, of Liverpool; Dr. W. F. Cleveland, Dr. C. E. Fitzgerald, of Folkestone; Mr. Alfred Kebbell, of Flexton, York; and Professor A. A. Kanthack, of Cambridge. The address concluded with a word of farewell and of thanks to the Fellows, and especially to the President's colleagues in office for the help and support uniformly accorded to him in the conduct of the Society's business, both in the general meetings and in the Council room. "In resigning this chair," said Dr. Cullingworth, "it is a satisfaction to me to know that its next occupant is to be one of whose contributions to scientific gynæcology all British gynæcologists are justly proud, and whose irrepressible but never unkindly humour may be relied upon to relieve the dulness of even your very driest debates. I congratulate you and I congratulate him. The best I can wish him is that his tenure of this high office may be as pleasant and peaceful as mine has been."

Election of Officers.

The following officers and members of Council were appointed for the year 1899:—*President:* Alban Doran, F.R.C.S. *Vice-Presidents:* John W. Byers, M.A., M.D. (Belfast); William Radford Dakin, M.D.; William Duncan, M.D.; Jamieson Boyd Hurry, M.A., M.D. (Reading). *Treasurer:* James Watt Black, M.D. *Chairman of the Board for the Examination of Midwives:* Percy Boulton, M.D. *Honorary Secretaries:* John Phillips, M.A., M.D.; Herbert R. Spencer, M.D. *Honorary Librarian:* Amand Routh, M.D. *Other Members of Council:* Augustus W. Addinsell, M.B., C.M.; John Ford Anderson, M.D.; A. H. Freeland Barbour, M.D. (Edinburgh); George Francis Blacker, M.D.; Robert Boxall, M.D.; Thomas Watts Eden, M.D.; Angus Fraser, M.D.; Arthur Edward Giles, M.D.; Thomas Crawford Hayes, M.D.; George Ernest Herman, M.B.; John Dysart McCaw, M.D.; Arthur Nicholson, M.B. (Brighton); Richard Pinhorn (Dover); William Loudon Reid, M.D. (Glasgow); Charles Hubert Roberts, M.D.; George H. Drummond Robinson, M.D.; William Japp Sinclair, M.D. (Manchester); Arthur Francis Stabb, M.B., B.C.

Election of Honorary Fellows.

On the nomination of the Council, the following dis-

tinguished persons were unanimously elected to the Honorary Fellowship of the Society, namely, Professor Olshausen (Berlin), Drs. Budin and Pinard (Paris), Dr. A. E. Martin (Berlin), Dr. H. Oldham (Bournemouth), an original Fellow and past President of the Society, and Mr. Jonathan Hutchinson (London).

VOTES OF THANKS.

Certain proposed alterations in the laws were then confirmed, and the meeting concluded with votes of thanks to the retiring President, Vice-Presidents, and members of Council.

SPECIMEN.

A specimen of Tubo-ovarian Abscess was shown by Dr. Cullingworth at the commencement of the meeting.

HARVEIAN SOCIETY OF LONDON.

CLINICAL EVENING.

HENRY JULER, F.R.C.S., President, in the Chair.

Thursday, February 2nd, 1899.

CYSTIC HYGROMA OF NECK.

MR. RAYMOND JOHNSON showed a girl, aged 8 years, who was the subject of a large congenital cystic hygroma of the neck. She had been under observation since the age of 16 months, and the tumour had progressively but slowly diminished in size. On three occasions the tumour had been the seat of acute inflammation, during which the swelling became enormously increased in size and there was rather severe constitutional disturbance. On each occasion the inflammation had subsided spontaneously, and was followed by a more rapid shrinking of the tumour. One of the largest cysts had been treated by drainage; but, in view of the very marked tendency of the tumour to shrink and its extent and diffuse character, it was not proposed to make any attempt to remove it by operation.

Mr. D'ARCY POWER said the swelling showed signs of shrinkage in more than one direction. Such growths, when they occurred in the neck, seemed always to involve the lobule of the ear, as the early photographs showed had been the case in this child. At the present time, however, the lobule of the ear was separated from the growth by a considerable distance. Mr. Power alluded to 4 other cases of a similar kind in the same situation upon which he had lately operated. He had been able to remove the bulk of the growth in 3 of the cases, but in the fourth it was so extensive and involved such important structures that much had to be left behind. Yet in this case the remainder of the growth absolutely vanished in the course of a few months, and after attacks of lymphangitis like those described by Mr. Johnson. It was remarkable, however, that although the child had been subject to similar attacks of lymphangitis all his life, the tumour had not decreased in size, and it was only after the incomplete operation that a fresh attack was associated with its absolute disappearance. Mr. Power stated, in reply to a question by Dr. JOLL, that these tumours were known to the older pathologists as hygromata or barren cysts; hygroma, from the Greek, ὑγρός, because they were supple and barren, because, having only an endothelial lining, they did not proliferate.

In reply to Mr. E. L. HUNT, Mr. JOHNSON said that the tumour in his case could be distinguished from a deeply seated dermoid chiefly by its diffuse character and the fact that it was multilocular.

CONGENITAL DEFORMITIES.

Mr. JACKSON CLARKE showed a girl aged 3 years who had several congenital deformities. When he first saw the patient at the age of 6 months the thumbs were firmly adducted into the palms, and the forearms were abnormally curved with a forward concavity. There was also marked double equinovarus. About the middle of the forearms and legs there were depressed scar-like marks, one over the middle of each of the bones. In the legs a small nodule of bone could be felt beneath each of these marks. The mother said that the birth was "very dry," and Mr. Clarke thought that the abnormalities were explained by a deficiency of liquor amnii allowing of abnormal intrauterine pressure upon the fœtus. The deformities of the hands and feet had been completely cured by gradual methods. Mr. Clarke wished to express his preference for such methods over procedures such as Phelps's operation, which in his opinion was undesirable as applied to clubfoot in children.

Mr. CLARKE, in reply to Mr. D'ARCY POWER, said he had not been able to obtain any evidence of syphilis in his case; and in answer to a question by Mr. JOHNSON stated that the feet had been treated with the splint which he usually employed in such cases—a strip of tinned iron applied to the outer side of the leg and foot, and gradually bent so as to overcome the deformity.

A CASE OF MUMPS WITH MARKED ENLARGEMENT OF THE SPLEEN.

Dr. EWART exhibited a healthy boy, aged 13, who was admitted into hospital on the third day of the attack, with the characteristic swelling of the left parotid. The affection remained limited to the left side, and ran a mild course without pyrexia. The only complication was an enlargement of the spleen, which persisted for several days, and gradually subsided as the parotid gland returned to its normal size. Tracings of the splenic dulness taken during the period of enlargement and after recovery were shown. Dr. Ewart had not found in textbooks any reference to this complication, which might perhaps sometimes occur unnoticed. In this case it gave rise to no symptoms. The dulness measured 6½ inches in the horizontal and 5 inches in the vertical direction. The enlargement took place upwards, the spleen projecting half an inch only below the costal arch. The spleen when percussed at the meeting was of normal size, and yielded the "boxy" percussion note which, as recently pointed out, sometimes replaces the splenic dulness. A specimen of the blood had been stained for micro-organisms by Mr. Hunt, with negative results.

Dr. C. O. FOWLER remarked upon the frequency with which the poison of mumps affected distant parts of the body.

Dr. MAGUIRE remarked that this was a case in which his method of palpation was particularly valuable for defining the outline of the spleen, and avoided the errors which surrounded the employment of percussion in such cases. At the invitation of the President Dr. Maguire gave a demonstration on the patient of the application of his method to the definition of the heart, liver, spleen, and kidneys, and explained that it depended solely on the estimation of the sense of resistance. The power to do this could be increased by practice, but was possessed by everyone.

Dr. EWART replied.

FACIAL AND PALATAL PARALYSIS.

Dr. WILLIAM HILL showed a young woman who had been the subject of chronic suppuration in the middle ear, and who for two years had suffered from facial paralysis associated with paralysis of the corresponding half of the soft palate. No evidence of diphtheria was obtainable. The interest of the case consisted chiefly in its bearing upon the question as to whether or not the muscles of the palate received any part of their nervous supply from the facial.

Dr. HERBERT TILLEY said that if the case was a genuine one (of which some present seemed doubtful) of combined facial and unilateral palatal paralysis it would seem to point to the fact that the palate might have a double nerve supply, the facial through the Vidian and the spinal accessory by the pharyngeal branches of the vagus. That the latter innervation was the most constant (and probably the sole one) had been experimentally proved beyond any doubt by Horsley and Beevor in monkeys, whilst clinical evidence was almost altogether in favour of this view. He referred to 3 cases of the kind which had recently come under his notice.

Dr. GUTHRIE would not have felt quite convinced as to the presence of paralysis of the palate unless, as Dr. Hill stated, the reaction of degeneration were present.

Dr. HILL replied.

DIPHTHERIAL MEMBRANOUS TRACHEITIS WITH TEMPORARY OBSTRUCTION OF THE RIGHT BRONCHUS IN THE ADULT.

Dr. EWART and Mr. E. L. HUNT exhibited a series of tubular casts of the trachea, expectorated on the third, fourth, and fifth day of the attack, by a maidservant, aged 32, who was now recovering, after a pyrexial period of nineteen days, from a severe pulmonary catarrh due, as shown by repeated cultivation, to diphtheria. She had been injected on the third and

on the fifth day with 4,000 units of antitoxin. On the third day the laryngoscope had shown the presence of membrane immediately above the glottis, but the vocal cords were free. There was considerable dyspnœa on exertion, but no apparent distress of breathing in recumbency, though the rate of pulse and respiration remained rapid with some cyanosis of the face and lips throughout the attack. For several days there was loss of respiratory sounds and great diminution of respiratory movement over the right side of the chest, which were attributed to impaction of membrane in the right bronchus, as there was no evidence of any inhalation of food having occurred. With the return of the respiratory function abundant *râles* gradually developed. The patient was completely aphonic for fifteen days, but in contrast with the familiar symptoms of membranous croup in children the cough was not "croupy" and there was no stridor or spasm of the glottis. An alarming attack of heart failure had occurred on the tenth day, but neither albuminuria nor paralytic symptoms of any kind had hitherto made their appearance.

In answer to a question by the President, Mr. E. L. Hunt remarked that the antitoxin with which the patient was injected was obtained from the Laboratory of the Royal Colleges. Two injections were given of 4,000 units each into the subcutaneous tissue of the abdomen. The injections were given on the third and fifth days of the disease, and were followed by rashes, erythematous and transient, on the arms and legs on the eleventh and fourteenth days of the disease, and at about the same time the patient suffered from swelling and redness of the hands and pain on movement in the wrist and finger joints; there were also pain and tenderness in the muscles of the legs and thighs.

After remarks by Dr. William Hill, Dr. Ewart replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Sir John Batty Tuke, M.D., F.R.S., President, in the Chair.

Wednesday, February 1st, 1899.

Cases.

Dr. Robert Fleming showed a mother and four children apparently suffering from Addison's Disease.—Dr. W. Russell and Mr. J. Cotterill showed a case after Operation for Mastoid Abscess and Empyema.

Specimens.

Dr. Shennan showed: (1) Organism in Cancrum Oris; (2) Vessels from a case of Tuberculous Meningitis; (3) Early Tubercle of the Urethra; (4) Organism of Diphtheria (long form); (5) An Organism in Diffuse Spreading Gangrene resembling that of Diphtheria.—Dr. R. Fleming showed: (1) Two Mammillated Stomachs; (2) Heart showing Aneurysm of one of the Sinuses of Valsalva.—Dr. W. Stewart and Dr. John Thomson showed Congenital Malformation of the Œsophagus.—Mr. Cotterill showed a Large Intestine showing Line of Suture after Enterectomy done 11 years ago.

The Treatment of Ozæna.

Dr. McBride read a paper on the treatment of ozæna, with special reference to cupric electrolysis. A brief reference was made to recent views as to the pathology of ozæna. The various methods of treatment which had been proposed in addition to syringing and spraying with antiseptics, etc., were briefly discussed under the following headings: (1) Destruction of secreting area by scraping instruments, an old method adversely criticised by Voltolini in 1888; (2) the application of stimulants and irritants—tampons, spirits of mustard, nitrate of silver, electric cautery, vibratory massage, painting with Mandl's solution; (3) obturators; (4) other remedies—for example, glycerine, ichthyol. The two most modern suggestions were discussed—namely (1) diphtheria antitoxin, (2) cupric electrolysis, the former briefly, the second more in detail. After referring to the history and literature bearing on cupric electrolysis, the results in eight not specially selected cases were given. All were typical, and the results obtained were as follows: (1) Male, aged 26, five sittings, beginning in October, 1897; examined December 13th, 1898. Result: Had required no syringing since treatment; no fœtor. (2) Female, aged 17. Seen in 1897. Four sittings in eighteen months. Never syringed since treatment began. Examined December 13th, 1898; no fœtor. (3) Female, aged 20. In November, 1897, and twice afterwards, electrolysis employed; crusts continued to form in the naso-pharynx, but fœtor seemed to have disappeared in January, 1899, when patient was prevented syringing between 24th and 31st, on which date she was last examined. (4) Female, aged 24. Cupric electrolysis thrice in the summer of 1897; temporary improvement; relapse after a few weeks; when examined December 12th, 1898, much as before treatment. (5) Female, aged 30. Cupric electrolysis twice in summer of 1897; last seen December 10th, 1898; had only required syringing once in last four months. (6) Female, aged 22. Cupric electrolysis six times from June, 1897. Writing on December 14th, 1898, stated that all odour had disappeared, and that she never required to syringe. (7) Male, aged 19. Electrolysis in May, 1898; two sittings; relapse in September. Examined in December: no improvement. (8) Female, aged 20. Electrolysis in October, 1898. Examined in January, 1899; no odour, but slight crusting. The method of employing cupric electrolysis was then briefly explained, and the general conclusion arrived at was that this treatment was probably the most successful yet suggested for ozæna. Two cases were also shown.

The paper was discussed by Dr. Logan Turner, Dr. Hunter, Mr. Cotterill, and others; and Dr. McBride replied.

Movable Kidney.

Mr. Wallace read a paper on this subject. After shortly reviewing the history of the subject, he said that in regard to the etiology, the explanations given seemed both inadequate and erroneous, and took exception to the view that it occurred with much greater frequency in the multiparæ of the poorer classes. His experience coincided with that of Greig Smith that a considerable proportion occurred in the upper class, and that most of those patients who came under the observation of the surgeon were to be found in this class. Of 14 cases under his own treatment, 13 were females, and of these 7 were unmarried and only 1 of the others had borne several children. In regard to emaciation, he believed it was as a rule a result, not a cause, of mobility. After alluding in detail to recent anatomical investigations bearing on the condition, more particularly those of Drs. Cunningham and Kendal Franks, he said that they still left it unexplained (1) why women suffered more frequently than men; and (2) why the right kidney was more frequently affected than the left. He did not believe the liver had much to do with this latter point: probably variation in anatomical relationship and fixation would eventually be found to play an important part in initiating the condition. A point indicative of this was the fact that movable kidney was now known to be more frequently present in children than had been hitherto supposed. Detection of the condition was as a rule easy, but the degree of mobility was not always proportionate to the symptoms. Its recognition was generally easy from the shape of the swelling, the direction and character of the movement. From the clinical standpoint the symptoms could be grouped under four heads: (*a*) Simple mobility, which gave rise to no symptoms; (*b*) Pain, which was in no way characteristic of a renal affection; (*c*) Renal pain distinctive of renal conditions; (*d*) Gastro-intestinal symptoms which might be accompanied by or end in neurasthenia. As a rule the kidney was quite healthy. Thus in those excised and which had been reported by Newman 17 were healthy. Intermittent hydronephrosis might be caused by movable kidney, and most probably the valvular condition sometimes found in the ureter or pelvis of kidney, was a result of this, not a cause, the initial cause of the hydronephrosis being a kink upon the ureter. This aspect of the subject had been recently referred to by Mr. Henry Morris in his *Progress of Renal Surgery*, and was of much importance, as ureterotomy could be performed and the operation of nephrectomy obviated. After a reference to Mr. Morris's cases of nephropexy, Mr. Wallace said that in regard to treatment three classes of cases had to be considered: (1) Those in which the condition was discovered by accident, caused no symptoms, required no treatment, and in which the patient should not be informed that movable kidney existed. (2) Where palliative measures succeeded. (3) Those in which nephropexy was necessitated. This aspect of movable kidney he exemplified from those cases which had been under his own observation, and gave examples in which pa-

tients with pain, not renal in type, and others with "gastric crises," had been so benefited by the use of a pad that from a condition of misery and chronic invalidism they became strong and well. He advised the use of an air pad stitched to the corset, and applied when the kidney was in position. He believed this latter point was often neglected, and accounted for want of success in some cases. He had operated upon 8 cases by nephropexy, and had invariably used the method of suture through the kidney substance, and fixation to the posterior wall of abdomen. He did not strip the capsule, but carefully separated the perirenal fat, removing it in part and drawing it well up to the wound. He found this method quite satisfactory, and was able to corroborate the view that the fixation was permanent, and almost invariably gave complete relief to symptoms. The malposition of the kidney caused no discomfort, a result which from the analogy of congenitally misplaced but fixed kidneys was to be expected.

The paper was discussed by Drs. R. A. LUNDIE, CHURCH, W. RUSSELL, and by Messrs. CATHCART, COTTERILL, and STILES; and Mr. WALLACE replied.

GLASGOW SOUTHERN MEDICAL SOCIETY.

R. H. PARRY, L.R.C.S.Edin., President, in the Chair.

Thursday, February 2nd, 1899.

THE PREVENTION OF TUBERCULOSIS.

MR. TROTTER, M.R.C.V.S., in discussing this question, said the part played by heredity was infinitesimal in regard to tuberculosis, the disease was practically absent in young calves (0.06 per cent.) as compared with adult cattle (7.6 per cent.). Congenital tuberculosis was very uncommon, but certain peculiarities might be transmitted. In Leipzig, of 267 cows affected with tuberculosis, in 152, or 57.9 per cent., the uterus was affected. This condition was easily detected by microscopical examination of the discharge, and by a consideration of the clinical history. Abortion was the rule, and the animals born were not viable. Fifty per cent. of the cattle in North Russia were affected with the disease; in South Russia it was rarely met with. In Denmark it was very common, and imported cattle suffered more than natives, but natives became very susceptible if brought into contact with infection. In North Russia and Denmark the cattle were housed, in South Russia they were much more in the open air. The mammary gland was affected in 2 per cent. of cows, and this was rarely a primary affection. Sixteen per cent. of all cases of mastitis were of a tuberculous nature. Every diseased udder should be removed from the dairy, but even that was not enough. The dairy regulations in force in this country were a delusion and a snare; in many districts there were no regulations. Bovine tuberculosis might be cured in the early stages by good hygiene. Domestic animals should be well cared for and properly housed. The disease was present in over-built areas in large towns, old houses tended to spread it. Disinfection was always difficult. Even carefully carried out by experts it was usually an absolute failure. How much more dangerous was it in this country, where it was systematically neglected. Cleanliness was most important.

DR. EBENEZER DUNCAN said 720 millions of tuberculous bacilli were sent into circulation by a single tuberculous individual daily, in an advanced stage of the disease, by his sputum. The dairies should be compelled to "pasteurise" milk by a proper method; the taste of the milk was not impaired. Every day in all parts of the city millions of bacilli were disseminated. The bacillus was of slow growth, and required time to establish itself; but when, as in the stonemason, the mucous membrane was denuded, it got a footing despite his being always in the open air. Infected houses should be notified, every case occurring in a public institution, every case of death should be reported. The sanitary authorities had at present no power to enforce thorough disinfection. This power should be obtained. Bacteriological institutes should be established by corporations where sputa would be examined free; this would lead to a form of notification. Where a case was in a very bad or hopeless state in an insanitary dwelling, it should be removed into a hospital erected by the sanitary authorities. With perfect hygiene phthisis like typhus fever, might disappear.

The discussion was adjourned.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

J. M. PURSER, M.D., President, in the Chair.

Friday, January 13th, 1899.

SPECIMENS.

DR. KNOTT exhibited a series of 19 Femora presenting various anatomical, anthropological, and pathological peculiarities of interest, and another series of 19 Tibiæ.—Mr. H. CROLY showed: (1) Tumour of the Left Ovary; (2) Specific Fungus of the Testis; (3) Carious Os Calcis; (4) Scirrhus of Breast of eighteen years' standing.—Dr. COLEMAN showed: (1) Glioma of Cerebral Hemisphere; (2) Tuberculous Tumour of Cerebellum; (3) Abscess of Cerebellum.

AGGLUTINABILITY OF DIFFERENT RACES OF THE TYPHOID BACILLUS.

Dr. MCWEENEY described how he had been obliged to suspend temporarily the serum-diagnostic work at the Mater Hospital, owing to peculiar behaviour of a strain of typhoid bacilli, called, for brevity's sake, T. A., which he had isolated by the usual methods from the bile of a fatal case of typhoid. Death had occurred in this case from cardiac failure nine days after defervescence, and at the necropsy the ulcers in the small intestine were healed, but there were many open follicular ulcers in the colon. The bacillus T. A. was present in the bile in great numbers and pure culture. It presented the cultural characters of genuine Eberth's bacillus. Distinctive peculiarities were the extreme slowness of its growth on gelatine plates, the fewness, delicacy, and shortness of the flagella, and the fact that although the mobility was extremely active during the first twelve hours of culture, it had died down by the end of twenty-four hours to a waggling movement hardly distinguishable from that of B. coli. Tested against the serum of several typical cases of typhoid side by side with a typical race obtained from Professor Lorrain Smith, of Belfast, it proved markedly resistant against agglutinating influences. The dilutions generally practised were 10 per cent., 1 per cent., 0.2 per cent., and 0.1 per cent. Serums of cases in the third week, which clumped the Belfast bacillus ("L. S.") instantaneously in 10 per cent. dilution, and left the field quite clear of isolated organisms, took an appreciable time to clump T. A., and after the lapse of half an hour the field was not quite free from scattered bacilli. In the 1 in 100 dilution, where L. S. was well clumped at the end of the observation period (two to five hours), T. A. was so imperfectly agglutinated that diagnostic inferences could not be drawn: in fact, with the higher dilutions, these two races of undoubted typhoid bacilli gave directly opposite serum-diagnostic results. The speaker went on to discuss the significance of the expression "agglutinable" in the light of the recent work published by Kraus and Nicolle, proving that the phenomenon was the result of the interaction of two substances, one contained in the serum, the other in (and subsequently outside of) the bacterial bodies, which played a purely passive *rôle*: that the serum need not necessarily be immune, nor was the phenomenon essentially specific; and finally, the interesting work of Bordet was described as showing how, quite apart from bacterial action, the serum of the rabbit agglutinated guinea-pig's serum containing red corpuscles, causing these latter to form clumps; and how, if the serum of the guinea-pig, which exercised but a slight agglutinative action on the corpuscles in rabbit serum, were taken from a guinea-pig which had previously had rabbit's blood injected a few times, the agglutinative action of the guinea-pig serum was greatly increased. The bearing of these researches on serum-diagnostic work was pointed out. The paper was illustrated with slides showing the relative size, length, and number of the flagella of T. A. and L. S.

Mr. O'SULLIVAN said that in a case of Dr. Finny's, in Dun's Hospital, of typhoid fever, accompanied by effusion into the knee-joint, he had isolated bacilli from the effusion which gave the culture reactions, as then practised, of typhoid bacilli, and showed stronger agglutination with the serum of typhoid patients than the stock bacilli which he had at the time. He thought then that this might be due to the fact that the bacilli were more virulent, but it appeared that virulence and the faculty of being agglutinated had no relation to one another.

Dr. E. J. McWeeney, replying, said the phenomenon which occurred was one of agglutination and not precipitation. The matter stood exactly thus: one had a limpid fluid consisting of a sort of extract of an old virulent cultivation of, say, typhoid bacillus. Suppose this divided into two parts. To both of these parts was added some talc, and on stirring it up a turbid mixture was produced full of the minute particles of talc. If then to one of these tubes a drop of highly immune serum were added, and to the other a drop of non-immune serum, or of serum immunised against some other bacillus, there would be the following differences in appearances:—In that to which the homologous serum had been added there was not merely a precipitation of the talc, but an absolute agglutination of it; the minute particles would run together, forming masses of considerable size, which sank to the bottom. On the other hand, no change whatever occurred in the other tube. It was difficult to account for this upon any purely physical hypothesis as apart from a sort of chemico-vital action of the same general nature as coagulation by ferments.

Peritoneal Tumour.

Dr. Conolly Norman described and exhibited a case of peritoneal tumour. The growth occurred about the junction of the jejunum and ileum, and appeared to spring from the peritoneum covering the anterior wall of the intestine; it was of oval shape, about the size of a goose's egg, and in colour and consistence, both externally and on section, strongly resembling a uterine fibroid. The growth had penetrated the intestine; an irregular ulcerated surface, not fungating, and about the size of a sixpence, showing in the gut. The patient died from repeated hæmorrhages from this point. No other new growths were discovered, and the uterus and ovaries appeared perfectly normal. The tumour was described as consisting of an aggregation of ovoid and spindle-shaped cells, the former having large granular bluntly ovate nuclei, the latter passing into fibrous tissue in parts. The vessels were very numerous, so that here and there the structure resembled that of an angioma. The tumour could not be made out to be continuous with muscular wall of the intestine, which it seemed to have destroyed by mere pressure, and, in the opinion of the exhibitor, was to be regarded as a sarcoma, arising probably from the peritoneal blood vessels.

Dr. McWeeney asked Dr. Norman if he had considered the possibility of the tumour being myomatous, and that the long spindle cells might really be of the nature of unstriped muscular fibre. Such tumours occurred in connection with the peritoneum, and in this case it occurred in connection with external coats of the bowel. The naked-eye characters appeared to point to a benign rather than a malignant tumour.

After remarks by Drs. R. Travers Smith, A. R. Parsons, and the President,

Dr. Conolly Norman, in reply to the President, said that the tumour was not adherent to the muscular coat of the intestine. In the central portion of the tumour there was a large number of bluntly-pointed ovoid cells, such as one sees in an ordinary quick-growing sarcoma. This was not shown in the sections under the microscope, but he had other sections which showed it.

PATHOLOGICAL SOCIETY OF MANCHESTER.

R. B. Wild, M.D., President, in the Chair.

Wednesday, January 18th, 1899.

Pathology of Cubitus Varus following Fracture of the Lower End of the Humerus.

Mr. J. E. Platt discussed the pathology of cubitus varus, illustrating his remarks by a number of skiagraphs. After briefly referring to the various kinds of fracture which might occur in the lower end of the humerus, he said that cubitus varus had been met with as a result of the following injuries: (1) Oblique fracture of the external condyle extending into the elbow-joint, with permanent displacement downwards of the loose piece of bone; (2) oblique fracture of the internal condyle, with displacement upwards of the loose fragment; (3) transverse supracondylar fracture, with tilting of the fragment so that the trochlea lay at a higher level than the capitellum; (4) separation of the epiphysis. It was stated that when cubitus varus followed separation of the epiphysis its pathology was more complicated, and that the deformity might be produced in at least three different ways: (*a*) From the line of fracture in these cases being usually partly epiphysial and partly diaphysial, with frequently some inward displacement of the fragment. Imperfect reduction under such circumstances would be very liable to lead to cubitus varus. (*b*) From rotation of the epiphysis around the convex end of the diaphysis. (*c*) From irregular growth at the epiphysial line after the union of the fracture. It had been found as a result of the examination of a number of cases of epiphysial separation some years after the injury, that in two patients cubitus varus had gradually supervened, although the fracture had united without deformity in the first instance. This was attributed to the epiphysial cartilage having been permanently damaged by the accident.

Charcot's Joint Disease.

Mr. Southam showed two specimens of Charcot's disease of the ankle-joint, removed by amputation below the knee from male patients, aged respectively 44 and 49 years, the subjects of locomotor ataxy. In both cases extensive erosion of the articular surfaces had taken place, in consequence of which the foot had become dislocated upwards and outwards, and in one instance the internal malleolus had projected through the skin.

Tuberculosis of Liver.

Dr. F. C. Moore described the morbid features of two uncommon forms of hepatic tuberculosis, and exhibited the specimens. The first, an example of the so-called "large solitary tubercle," was found in a male, aged 43, in association with a similar lesion in the spleen, tuberculosis of the aortic lymph glands, and a typical carcinomatous stenosis of the pylorus; other organs healthy. The second, an example of tuberculous hepatitis, was met with in a rabbit which had been inoculated twelve months previously with a few highly virulent tubercle bacilli. The interstitial changes consisted in an increased formation of fibro-cellular tissue, monolobular in distribution, and which showed no tendency to tubercle formation. Psorosperms were conspicuously absent. The lungs were the seat of extensive tuberculosis.

Ulceration of the Cæcum.

Dr. Marsden showed a preparation from a case of ulceration of the cæcum.

Card Specimens.

Dr. Arthur Helme: Gynæcological Specimens.—Mr. Hitchon: Chronic Gastric Ulcer.—Dr. Lea: Series of Uteri removed by Vaginal Extirpation.—Dr. Moore: Psammoma.—Mr. Southam: Tuberculous Mesenteric Gland sloughing into intestine.—Dr. Walls: Fœtus Papyraceus.

MANCHESTER MEDICAL SOCIETY.

Wednesday, February 1st, 1899.

Professor J. W. Sinclair, M.D., President, in the Chair.

President's Address.

At the request of the Committee, the President delivered an inaugural address entitled, "The Last Resort in Puerperal Fever."

The Operative Treatment of Typhoid Perforation of the Intestine.

Mr. J. E. Platt presented a communication upon this subject and described three cases in which he had operated. 1. Male, aged 37, perforation at end of second week of a mild attack of typhoid fever, operation after 22 hours, perforation sutured, irrigation of peritoneal cavity, drainage. The patient subsequently had a relapse of the fever, which lasted three weeks, but eventually he made a good recovery. He was shown at the meeting. 2. Male, aged 17, perforation in fourth week of a severe attack, suture 18 hours later, death after 83 hours. 3. Male, aged 22, perforation in third week of a severe attack, suture after 19 hours, death at end of second day. Reference was made to the characters of the peritonitis which followed perforation, and to the objections which had been raised to operative interference. In performing the operation it was recommended that the incision be made on the right side, that the perforation be closed by Lembert sutures without paring of its edges, that the abdomen be irrigated with saline solution, and that drainage be provided. The

results of the operation were considered, and it was shown that the recovery-rate in recorded cases had been about 20 per cent. The best results had been obtained when the operation had been performed from 12 to 24 hours after the onset of perforation. After the lapse of 24 hours the chances of success were very small indeed. When perforation occurred during a mild attack of fever, or when it came on at a late stage of the disease, there was more hope of a successful issue.

HUNTERIAN SOCIETY.—At a meeting on January 25th, Dr. COTMAN (the President) in the chair, Dr. KELSON read a paper on Diseases of the Nose in Relation to General Diseases. The author, after reference to recent work by MacDonald, StClair Thomson, and Hewlett, on the physiology and bacteriology of the nose, discussed nasal diphtheria and fibrinous rhinitis, specially reviewing the records of Lambert Lack and Hunt, and pointing out the indefinite state of our knowledge of this subject at present. Scarlatinal rhinitis was shown to be an exceedingly fruitful source of contagion long after recovery in other respects. Tuberculous disease and syphilis were described from a nasal aspect, and the obstructive disease of the nose, with some investigations of the author's as to the frequency of asthma in those suffering from nasal polypi, with the results of treatment. Neuroses of the nose were spoken of, and illustrative cases described, and the work of Hack, Woakes, and others discussed. The paper concluded with a statement as to the alleged connection between nasal and sexual functions and diseases, and mention of the so-called "genital area" in the nose. Dr. SHADWELL alluded to some cases of fibrinous rhinitis, and gave clinical details. He also related a case of asthma cured by removal of a nasal polypus. The PRESIDENT mentioned a case of severe neuralgia following the removal of nasal polypi; the patient had never been troubled with neuralgia before. Dr. THORPE referred to gout as a cause of nasal catarrh in elderly subjects. Dr. KELSON replied.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—At a meeting on January 26th, Dr. FORTESCUE FOX, President, in the chair, Dr. EVELYN CROOK read a paper on The Climate of Margate in relation to Disease. After briefly touching on the geographical and geological aspect of Margate, pointing out how well the subsoil was adapted for natural drainage, the author showed how, as a natural sequence, the atmosphere of Margate was at all times free from raw, penetrating land fogs so prevalent in many places. The various diseases for which a residence at Margate was particularly suitable were considered, stress being laid on the great benefit derived by patients suffering from tuberculous disease and phthisis in its early stages from a residence at Margate.—Dr. BRODIE CRUICKSHANK read Notes on Nairn, chiefly Climatic. Nairn, he said, was suitable for phthisical and tuberculous patients, and had a great claim for consideration as a winter resort as well as a summer resort. Very little snow fell, and mist and fog were almost unknown. The special baths were beneficial for chronic gout and rheumatic affections. After remarks by Dr. SOLLY (Harrogate), Dr. BEZLY THORNE, and Dr. LEON (Sidmouth), the PRESIDENT said that what had been advanced on behalf of Margate applied also to Nairn. Allowing for the difference of latitude, there was in fact a remarkable similarity between these two important marine stations in geographical position and aspect, in lowness of rainfall (both claimed to be the driest spots in the United Kingdom) in the remarkable purity of the air, and in dryness of subsoil. Dr. SEPTIMUS SUNDERLAND had found, in common with many medical friends, that the cases of enlarged cervical glands which were sent to Margate for the special benefit of the climate, and with the hope of avoiding operation, nearly always fell into the hands of the Margate operating surgeons, who immediately removed the glands. He therefore concluded it was better to advise that most of such cases should undergo operation at their own homes, and then be sent to Margate for convalescence and for the restorative and invigorating effect of the climate which might prevent a recurrence of the trouble. After remarks from Professor MACHARDY (London), Dr. EVELYN CROOK, in reply, said he believed that enlarged lymphatic glands were less liable to suppurate at Margate than in inland localities. Cases of anæmia rapidly recovered with simple iron and anticonstipating treatment if sent out of doors as much as possible. He advised patients of a gouty tendency to boil the Margate water, by which process the hardness was reduced from 22 degrees to about 6 degrees. He had not injected guaiacol hypodermically, but would take an early opportunity of doing so.—Dr. WILLIAM BAIN (Harrogate) read a paper on the Action of Certain Mineral Waters on the Biurate of Soda. Dr. A. P. LUFF said that the experiments conducted by Dr. Bain were interesting, but that it was difficult to draw any practical conclusions from them. In his opinion it would have been better to have treated the solubility of sodium biurate in blood serum or artificial blood serum, mixed with such proportions of the constituents of the waters as might reasonably be expected to be introduced into the circulation when the waters were taken.

NEUROLOGICAL SOCIETY OF LONDON.—The annual meeting of this Society was held on February 2nd, when the newly-elected President, Dr. W. H. GASKELL, F.R.S., delivered an address on The Meaning of the Cranial Nerves, in which he gave an account of his researches into the morphology of the cranial nerves, especially in the scorpions and the ammonocoetes. There was a very large attendance of members, and at the close a very hearty vote of thanks to Dr. Gaskell was proposed by Professor SCHÄFER, seconded by Dr. FERRIER, and carried by acclamation. The address will appear in a future number of *Brain*. During the evening the ballot for the officers for 1899 was taken, and the following were elected: *President:* W. H. Gaskell, M.D., F.R.S. *Vice-Presidents:* Julius Dreschfeld, M.D., F.R.C.P.; Augustus Waller, M.D., F.R.S. *Council:* C. A. Ballance, M.S., F.R.C.S.; R. Marcus Gunn, M.B., F.R.C.S.; Victor Horsley, M.B., F.R.C.S., F.R.S.; J. N. Langley, Sc.D., F.R.S.; C. Mercier, M.B., M.R.C.P.; F. W. Mott, M.D., F.R.C.P., F.R.S.; G. Vivian Poore, M.D., F.R.C.P.; Sir Felix Semon, M.D., F.R.C.P.; H. H. Tooth, M.D., F.R.C.P.; W. Hale White, M.D., F.R.C.P. *Treasurer:* Charles E. Beevor, M.D., F.R.C.P. *Editor (ex officio):* A. De Watteville, M.A., M.D., B.Sc. *Secretaries:* J. S. Risien Russell, M.D., F.R.C.P.; W. S. Colman, M.D., F.R.C.P. Sir Samuel Wilks, who was an original member of the Society, and was its second President, was unanimously elected as honorary member. The next meeting of the Society will be a clinical one, and members intending to show cases are requested to communicate with one of the honorary secretaries as soon as possible.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 3rd, Dr. T. D. CLIPPINGDALE, President, in the chair, a discussion on the Treatment of Appendicitis was introduced by Dr. SEYMOUR TAYLOR and Mr. MCADAM ECCLES. Dr. Seymour Taylor considered that the physician's advice was of great weight in two periods of the disease, (1) the preventive period, when by so ordering the patient's diet and mode of life an attack of appendicitis might be postponed or even prevented; (2) when a local tumour having formed, the progress of the disease might be arrested at a point short of the formation of pus. Suppuration having occurred, treatment must be entirely at the hands of the surgeon. In the first stage diet should be largely liquid, with vegetables and some beef extract. Milk should be rigidly excluded, as it tended to constipation, with bulky or scybalous stools. In the second stage his experience was strongly in favour of treatment by perfect rest, small doses of opium frequently repeated, and the administration of copious enemata of soap-water and olive oil. Mr. MCADAM ECCLES said that he considered that surgical interference was called for in all cases where there was suppuration, whether local or remote, in instances where there was general septic peritonitis, and in many cases between attacks, so that the offending organ might be removed. When an abscess in the right iliac fossa had to be dealt with, two points needed emphasis: one that a very free exit for the pus should be secured, and the other that nothing more than free drainage, as a rule, should be attempted. His belief was that most cases thus treated did well, and had but little tendency to be again troubled with the appendix. He laid stress upon the fact that he thought that it was not advisable to explore the area of suppuration until time had elapsed, so that peritoneal adhesions, shutting off the general cavity of the peritoneum, might have

formed. The pus did not tend usually to pass into the serous cavity, and therefore too early operation was a mistake. The discussion was continued by Dr. Donald Hood, Mr. Keetley, Mr. Bidwell, Dr. Caley, Mr. E. T. A. Boyton, Dr. George Eccles, Mr. Lunn, and Dr. Dobson.

Folkestone Medical Society.—At a clinical meeting on February 1st, Dr. Tyson (President), who was in the chair, showed: (1) A case of Myeloid Sarcoma of the Superior Maxilla removed six months ago with no recurrence; (2) Carcinoma of Breast operated on, and subsequent Atrophy of Enlarged Thyroid; (3) Tabes Mesenterica, with Pyloric Obstruction by Glands; (4) Encysted Hydrocele of Cord; (5) Tuberculous Tarsus; and (6) a case of Ranula.—Dr. Lewis showed: (1) A girl, aged 16, from whom he had removed the Left Breast for Hypertrophy; (2) Photographs of an Apparatus designed to educate patients to Breathe through the Nose, after operation for adenoids; (3) Photograph of Graves's Disease with Unilateral Exophthalmos, no thyroid enlargement, but tachycardia and Graefe's sign present; Photographs of Myxœdema before and after treatment; (4) Specimen of Calcified Fibroid; (5) Samples of Sterilised Milk; (6) a new form of Aspirating Syringe; and (7) Skiagraphs.—Dr. Cecil Latter showed: (1) A case of Congenital Heart Disease; (2) Specimens from Carcinoma of Stomach.—Mr. Barrett showed: (1) A patient with Advanced Epithelioma of the Lip; (2) a Photograph of another similar case.—Dr. Eastes, Mr. Linington, and Dr. Larking showed Microscopical Specimens.

Newport Medical Society.—At a meeting on January 4th, the President in the chair, Dr. T. Morrell Thomas showed a case of Enlarged Thyroid, and read notes of the same.—Dr. R. J. Paton read a paper on Hernia, with special reference to the operation for strangulated hernia and description of the various operations for the radical cure of the same. A discussion followed.—It having been proposed to form a lending library, the purchase of books was authorised.

Bradford Medico-Chirurgical Society.—At a meeting on January 17th, Mr. Horrocks (Vice-President) in the chair, Dr. Eurich gave a Microscopical Demonstration.—Dr. Rabagliati showed a Fibro-myxoma of the Uterus, weighing 11½ lbs., which had been successfully removed.—Dr. Kerr read notes on two cases of Lateral Sinus Pyæmia: (1) A boy of 15 years who had suffered from ear discharge for several years. On admission there was paresis of the right side of the face and loss of taste on the right side of the tongue. The right mastoid was opened, and a cavity filled with stinking cholesteatomatous material was emptied; two days later a superficial abscess formed over the temporal bone, and was opened. The temperature, however, still rose to 104° in the evening, and fell to normal in the morning. The sigmoid sinus was then explored, and thick green pus found about it; this was cleared away and packed with gauze, and the jugular vein ligatured. No improvement occurred; facial paralysis was now marked. A week after admission pneumonic symptoms began, together with constant diarrhœa, and the child died a fortnight after admission. Antistreptococcus serum was administered, but produced no good effect. At the necropsy there was found extension of the thrombus back in the lateral sinus and up the petrosal sinuses. There was discoloration of the bone and erosion and pus about the jugular foramen. Several perforations of the walls of the jugular vein were found, and the infection appeared to have reached the sinuses by extension from the floor of the middle ear through the vault of the jugular dome. (2) A boy, aged 5 years, who had suffered from ear discharge for a considerable time. Shortly before admission an abscess had been opened behind the ear. When seen on November 12th, 1898, the temperature was 97.2°, pulse 104. Next morning the pulse was 140, and the temperature was 103.6°. He was mentally clear; no headache or pain; the tongue was dry and furred, and discharge was free. There was no thickening about the jugular vein, and no rigors or retraction of neck. At the operation, November 13th, 1898, an incision was made over the left mastoid bone, and a considerable area of bone was found to be bare. Pus was found deep in the mastoid on chiselling, but no discharging track was noticed. The lateral sinus was then exposed freely backwards, and seen to be greenish-blue in colour, and thrombosed. The jugular vein was ligatured in two places and divided, and the septic clot scraped away. There was free bleeding, which was controlled by plugging. The whole wound was rubbed thoroughly with iodoform and boracic acid. The patient was collapsed, as the operation had lasted 100 minutes. The after-progress of the case was at first unsatisfactory, and injections of antistreptococcus serum were given, but the fever still continued, and there was pain in the chest. A week after the previous operation, the wound was reopened and the sinus traced back till healthy vessel was reached, it was thoroughly scraped out and plugged with gauze. The middle ear was curetted, and, together with the mastoid antrum, made aseptic as far as possible. Serum injections were given again at intervals of thirty hours. The cough continued for a few days, but apart from this the case progressed satisfactorily, and the boy was able to return home on December 20th, 1898. Dr. Kerr remarked that recovery in these cases was unusual after chest symptoms had appeared. He said the serum appeared to have produced no beneficial effect. He advocated early operation in cases of otitis media where there was a fluctuating temperature. Drs. Horrocks, Mitchell, Bell, Farrow, and Bronner commented on the cases; and Dr. Kerr replied.—Mr. Althorp read notes on a case of Lymphosarcoma involving the Stomach, Colon, and Rectum in an unmarried woman, aged 29. The first symptoms of illness were in June, 1898, and consisted of diarrhœa and vomiting, with fever. The fever persisted but the other symptoms subsided with rest in bed. On September 10th, 1898, she was admitted to hospital with symptoms of chronic intestinal obstruction, and on examination a growth of the rectum was found. Left inguinal colotomy was performed on September 21st; the fingers introduced into the abdominal cavity felt the pelvic contents matted together. The patient progressed satisfactorily, and the bowel was opened on the fifth day. For about six weeks she did well, and was able to be up and about the ward, but at the end of that time began to complain of abdominal pain until her death on November 16th. There had been free discharge of fæces all this time. A fortnight before death a swelling was noticed in the position of the transverse colon, and during the last week of life she vomited freely. At the necropsy there was found a growth involving (1) the stomach in its pyloric half, the small curvature, and spreading up to the œsophagus; (2) the cæcum ascending and transverse colon; (3) the rectum, matting together the pelvic contents. There was only one secondary growth, which was in the bronchial glands. Mr. Althorp discussed the treatment of rectal growths. Dr. Eurich gave a description of the microscopic appearances of the growth, pronouncing it to be a lymphosarcoma. He discussed the nature of lymphosarcomata, and suggested a parasitic origin in the case under consideration, although there was no direct evidence in the shape of organisms. Drs. Horrocks, Goyder, Hall, and Metcalfe discussed the case.—Cases were shown by Dr. A. Bronner, Kerr, and Althorp.

REVIEWS.

Manual of Ophthalmic Medicine and Surgery. By Walter H. H. Jessop, M.A., M.B.Cantab., F.R.C.S. London; J. and A. Churchill. 1898. (Crown 8vo, pp. 484. 9s. 6d.)

Yet another textbook has been added to the already formidable number dealing with ophthalmic surgery. The book includes a description of the systematic examination of the eye by all the various methods in common use. The diseases of the eye, eyelids, and orbit, the muscular affections, refraction, and accommodation are described, while the last chapter is devoted to eye symptoms and affections in general diseases. There is a very useful appendix, containing formulæ, general directions for operating, and for the application of lenses, spectacles, etc., and also the very important rules relating to vision testing for the Government services, without which no book on ophthalmology is complete.

The first three chapters are devoted to the subject of the examination of the eye, and the various methods are illus-

trated by woodcuts some of which might be improved upon; there are other coloured plates representing normal and diseased fundi which are excellent, and which give a very good idea of the conditions they are intended to show. The pathology of various eye diseases is brought fairly well up to date, but, probably owing to the size of the book, it was not possible for the author to go very fully into detail. On reading some of the remarks concerning known pathological processes, one is rather struck by such statements as that "the hypopyon accompanying an ulcer is produced by micro-organisms conveyed by the corneal lymphatics to the iris and ciliary body which sets up inflammation of these structures with exudation of lymph cells." The abundant observations which have been made by Leber and by a very large number of other writers on this subject have been sufficient to convince most ophthalmologists that the so-called hypopyon accompanying ulcers is absolutely sterile, and that the interior of the eye is free from organisms of any sort so long as the ulcer has not perforated. Indeed, the clinical evidence of the aseptic nature of this condition is strong. What, for instance, is more common than to see a hypopyon completely disappear with the arrest of the corneal ulceration, and leave in favourable cases no visible trace behind it? But when once an eye is infected with septic organisms, panophthalmitis is as a rule the inevitable consequence. Although few will doubt the efficacy of counter irritation in photophobia, yet the wisdom of applying "setons behind the ear" may be doubted, for the risk of inducing general septic infection is far from fanciful under such conditions.

In the treatment of panophthalmitis Mr. JESSOP states that "incisions may be made through the cornea" or "the contents of the eyeball (may be) cleared," but in his opinion, excision should never be performed, as fatal meningitis has been known to ensue. Pseudoglioma is described either as a purulent choroiditis or as suppuration in the vitreous. It must surely be rare to see an eye in either of these conditions which could be mistaken for glioma, and it seems a pity to use the term for any other condition than one in which there is great difficulty in determining whether a glioma is present or not, as may happen in cases of detachment of the retina following a slow inflammatory process without symptoms.

On turning to the chapter on Refraction we find the condition fully described, and the student will get a very good idea of the subject from perusing it. The author's views on the treatment of myopia, are somewhat different from those generally held. We are told that children myopic to the extent of 1.0 D should wear spectacles of − 0.75 D in reading if there be a tendency on the part of the patient to hold the book too near. In myopia up to 5.0 D spectacles correcting about two-thirds of the error should be ordered for reading only, as besides being detrimental to the child's appearance, the constant use of glasses causes the distant vision to become sensibly reduced without any increase in the myopia.

The book will rank with other textbooks on ophthalmology of similar size as a convenient work for general use.

DISEASES OF THE SKIN: AN OUTLINE OF THE PRINCIPLES AND PRACTICE OF DERMATOLOGY. By MALCOLM MORRIS. With 10 coloured plates and 26 engravings. New and revised edition. London: Cassell and Company. 1898. (Cr. 8vo, pp. 606, 10 coloured plates, 26 engravings. 10s. 6d.)

THE first edition of this work was fully noticed in our columns, and the opinion we expressed as to its general usefulness has been borne out by the fact that it has been out of print for more than a year. In this new edition the general features of the book have not been essentially changed, although some redistribution of matter has been made, the treatment of diseases of the skin due to disorder of the nervous system being in this edition given with the description of the several diseases. The book has been carefully edited and brought up to date, and this has been managed without an excessive addition to its size, an increase of thirty-three pages sufficing for the introduction of such new matter as the author considers necessary.

The first edition contained eight coloured plates; in this new edition two additional coloured plates are given. One of these shows very clearly the size and relative appearances of the various vegetable fungi of the skin, the small and large-spored ringworm, the fungus of favus, tinea imbricata, microsporon furfur, and the microsporon minutissimum. The other new plate illustrates actinomycosis, the fungus of madura foot, tubercle bacilli, leprosy bacilli, and other micro-organisms. The execution of these two plates is commendable.

Amongst the new illustrations there is one of dermatitis herpetiformis, showing the appearances of this remarkable disease as well as can be done without colour. There is also an excellent illustration of tinea imbricata, a fair one of elephantiasis, one of the microscopic appearances of a section through lupus skin which comes out very indifferently, a representation of fibroma, an excellent illustration of the microscopic appearances in molluscum contagiosum, and drawings of the microscopic appearances in epithelioma and rodent ulcer which do not come up to the average.

Mr. Morris's book gives within a relatively small compass an account of diseases of the skin sufficient for the needs of all but specialists; to the latter, also, it may be commended for the accuracy and conciseness with which all that is essential in the subject is summarised.

In the revision of the work the author acknowledges valuable assistance given by Dr. Galloway and Dr. Whitfield.

HEALTH IN THE NURSERY. By HENRY ASHBY, M.D., F.R.C.P. Physician to the Manchester Children's Hospital, and Lecturer on Diseases of Children at the Owens College. London: Longmans, Green and Co. 1898. (Cr. 8vo, pp. 240, 15 illustrations. 3s. 6d.)

THIS is an excellent book for mothers and nurses. It has the merit of discursive simplicity, which is certain to make it interesting to those for whom it is intended, while it does not take them out of their depth by figures, tables, or a nomenclature beyond their ken. The author's aim—"to set forth the conditions conducive to healthy childhood"—is kept well in view throughout the book, and there is a refreshing paucity of advice concerning the application of the remedies commonly called "domestic." The chapter on the feeding of infants is one of the best we have come across.

One of Dr. ASHBY's objects being to combat the sins of negligence and ignorance, which those in charge of infants inherit from generation to generation, we could have wished for a less calmly judicious tone, and for more emphasis on sundry points—for instance, on the use (or rather misuse) of the disgusting and irrational "comforter," and on the right and wrong application of the napkin. On the latter point nothing is said regarding the custom of trussing the unfortunate infant so that the only tolerable position is one with the knees flexed upon the abdomen, extension of the legs being an impossibility.

The chapters on the mental development of the child are very good and full, and form a new and welcome departure from the ordinary treatise on health from which both the readers and children under their care should benefit.

FRENCH ANATOMICAL ASSOCIATION.—The first meeting of the Association des Anatomistes, which is intended to form the nucleus of a "Latin Anatomical Association," was held recently in Paris, under the presidency of the distinguished embryologist, Professor Balbiani, of the Collège de France. The Vice-Presidents were Professors Mathias Duval, of Paris; Renaut, of Lyons; and Romiti, of Pisa. Professor Nicolas, of Nancy, was appointed Secretary. Professor Ranvier, of Paris, and Professor Van Bambeke, of Ghent, were elected Honorary Presidents, in addition to a considerable number of French teachers and investigators. Several foreign anatomists were present, including Professors Van der Stricht, of Ghent; Van Gehuchten, of Louvain; and Mitrophanoff, of Warsaw. The next meeting of the new Association will be held in connection with that of the Anatomical Section of the International Medical Congress to be held in Paris in 1900.

PARLIAMENTARY BILLS COMMITTEE.

A special meeting of the Parliamentary Bills Committee was held at the office of the Association, 429, Strand, W.C., on February 3rd, 1899.

Present:

Dr. R. Farquharson, M.P., Chairman, in the Chair.

Mr. D. B. Balding, Royston.
Dr. R. W. Batten, Gloucester.
Dr. T. Bridgwater, Harrow-on-the-Hill.
Mr. Geo. Brown, London.
Dr. W. A. Carline, Lincoln.
Mr. Geo. Eastes, London.
Dr. A. Gordon, Cheadle.
Dr. Major Greenwood, London.
Dr. J. Groves, Carisbrooke.
Mr. J. H. Hemming, Kimbolton.
Dr. Holman, London.
Mr. Victor Horsley, F.R.S., London.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. F. M. Pope, Leicester.
Dr. A. Brown Ritchie, Hulme.
Dr. J. Rolston, Devonport.
Dr. G. E. Shuttleworth, Richmond.
Mr. W. D. Spanton, Hanley.
Mr. C. R. Straton, Wilton.
Dr. Dawson Williams, London.
Dr. S. Woodcock, Old Trafford.

Letters of apology for non-attendance were read from:

The President of Council, the Treasurer, Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, Dr. Bruce Goff, Dr. C. E. Gooding, Dr. A. J. Harrison, Mr. Evan Jones, Dr. A. R. Manby, Dr. J. W. Miller, Mr. Jones Morris, Dr. James Ritchie, Inspector-General Turnbull.

The Chairman reported that the special meeting had been summoned chiefly to consider the Midwives Bill.

The Midwives Bill.

Dr. Woodcock brought up the report on the Midwives Bill made by the Medical Acts Amendment Subcommittee. The report took the form of an amended Bill, which, with certain additional amendments adopted by the Parliamentary Bills Committee, is printed below.

Dr. Woodcock said that it would be in the memory of those who had taken any interest in this subject that the Midwives' Institute had been very persistent in attempting to effect some sort of legislation. The representatives of the Midwives' Institute had interviewed the Lord President of the Council, who made certain suggestions which seemed to indicate that if they could bring their proposals into line with the suggestions of the General Medical Council, it was not unlikely that the Government would support legislation. In view of the fact that after that intimation from the Lord President of Council the Midwives' Institute made some attempt to adopt the suggestions of the General Medical Council, it appeared not unlikely that a Bill promoted by them might be successful, because it was not at all beyond the bounds of possibility that the Government would support legislation which embodied the principles laid down by the General Medical Council. When the new Bill of the Midwives' Institute was submitted as a matter of urgency to the Subcommittee of the Parliamentary Bills Committee some important omissions were found, for the Midwives' Institute had not complied with all the recommendations of the General Medical Council. In the first place the Subcommittee found that the definition of midwife was not satisfactory. The definition of the Bill promoted by the Midwives' Institute was that the term "midwife" meant a woman who undertook for gain to attend women in childbirth. Now, there had always been a strong opinion that the definition should be more definite, and that if these women were licensed or recognised by law there should be some limitation to their practice. The Subcommittee therefore proposed, in the first place, that the definition should be expanded to:

A "midwife" means a woman who undertakes for gain to attend cases of natural labour, and during the lying-in period, under the rules, regulations, and medical control or supervision set forth in this Act.

Some medical control was, of course, absolutely necessary, and a later clause in the Bill proposed recognised this. But the Subcommittee thought it a matter of importance that the definition should be enlarged. With regard to the term "licensing," to which he found objection in some quarters was taken, it might be stated that great objection was expressed to the term "registration," because there was a *Medical Register*, and the term might lead to confusion. It was therefore thought better on the whole to use the word "licence." With regard to Clause 3, Subclause 2, they found there was a serious defect. This subclause as it stood in the Midwives' Institute Bill was as follows:

Any woman who, after the first day of January, one thousand nine hundred, not being licensed under the Act, shall take or use the name of midwife or any such name, title, addition, or description as aforesaid, or shall habitually or for gain attend women in childbirth, shall be liable on summary conviction to a fine not exceeding five pounds.

The Subcommittee considered that that left it open for the women to employ any number of unlicensed assistants. It was well known that in large towns where midwives had large practices, they accepted engagements to more cases than they could personally attend. He (Dr. Woodcock) knew of many cases in which women regarded themselves as assistants of Mrs. So-and-so, midwife. The Subcommittee had therefore added the following words after the word "childbirth."

or shall employ as a substitute at any childbirth for which she had been engaged any person not licensed under this Act.

With regard to the "privileges of licensing," the Subcommittee had made very considerable additions, and they hoped that they had sufficiently safeguarded the interests of the poor and of the profession. With reference to Clause 4, Subclause 2, that might appear by some to be unnecessary, but there had occurred within the last ten days at Lincoln a case the main facts of which were stated in the British Medical Journal, February 4th, p. 294. In this case a woman practising as a midwife had frankly said to the coroner that she was perfectly justified in giving a medical opinion, and was so convinced that the condition of the child, which she said was born prematurely, was hopeless, that she considered there was no need to call in medical aid, and that she herself was competent to give the necessary certificate. The Subcommittee thought that the repetition of such occurrences must be prevented, and for that reason considered that it should be distinctly laid down in the Bill that midwives should not give certificates. With regard to the provision for existing midwives in the Bill promoted by the Midwives' Institute the Subcommittee did not approve of the recognition of the certificate of the Obstetrical Society of London. They considered that it would be better that this matter should be left to the Central Midwives Board, and that this Board should be the judge as to the sufficiency of the evidence produced by the woman seeking a licence as to the training she had received. These views were embodied in Clause 5 of the Committee's amended Bill. With regard to the next clause, which dealt with the constitution and duties of the Central Midwives Board, the Subcommittee were of opinion that certain alterations were essential. It should be made clear that the President had not the right to deal with the matter without consulting the General Medical Council itself, and it was therefore proposed that the duty of appointing the Board should be imposed on the General Medical Council as a whole. The Subcommittee further considered that the constitution of the Central Midwives Board proposed in the Midwives' Institute Bill was not sufficiently representative. The proposal was that, of the six representatives, four should be registered medical practitioners—one to be elected by the Royal College of Physicians of London, one by the Royal College of Surgeons of England, one by the Society of Apothecaries, and one by the Incorporated Midwives' Institute. While it was possible that the last-named body knew more about midwifery than the others, still it was felt to be a departure from ordinary procedure that the Midwives' Institute should set itself up to be a recognised body holding a position entitling it to send a representative to the Board which should control the conditions under which this new class of people should be licensed. The Subcommittee suggested that the Board should consist of seven registered medical practitioners appointed as follows: Six to be selected by the General Medical Council to represent the following districts as defined by the Registrar-General; London and South Eastern 2; South Western, West Midland and Welsh, 1; Eastern, North Midland, and South Midland, 1; York and Northern, 2; with 1 registered practitioner appointed by the Lord President of the Privy Council. In this way the Board would be representative, not only of the medical interests involved, but also of the various localities. By giving this representative character to the Board the local investigation of charges of misconduct or malpraxis against a midwife would be facilitated. The Subcommittee proposed to introduce a new subclause (Clause 6, Subclause 4) providing that no member of the Midwives Board should act as teacher or examiner of midwives, and that no member of the Board should take any part in any inquiry as to the conduct of a midwife to whom he had acted as teacher. This was con-

sidered to be essential in order to prevent any suspicion of collusion or the exercise of undue influence. In the Bill of the Midwives' Institute there was no provision to the effect that the Midwives Board could lay down rules, subject to the approval of the General Medical Council, for the education and training of midwives. The Subcommittee therefore recommended a subclause to this effect, and also a subclause directing the Board to frame regulations, subject to the approval of the General Medical Council, for the proper conduct and inspection of any premises in which a midwife might receive a pregnant or lying-in woman. Some women who practised as midwives in large towns were in the habit of receiving into their private houses women who were expecting their confinement under circumstances not quite creditable to them; the Subcommittee therefore considered that control of the nature indicated was required. Those who had had much to do with the ordinary midwife knew how frequently the delay which occurred in sending for medical aid rendered it almost impossible to render effectual aid to mother and child. The Subcommittee therefore suggested that misconduct on the part of any midwife should include omission to send for a registered medical practitioner where the case was not one of natural labour (Clause 6, Subclause 5 *g*). The Subcommittee also proposed that the Board should have power to delegate the duty of inquiring into cases of misconduct to committees of their number, such Committee to have power to suspend the licence of any nurse pending inquiry by the Board. In this way the duty of making inquiries might be delegated to local representatives, thus ensuring greater efficiency as well as economy. The statement as to the duties of the secretary in the Midwives' Institute Bill was very bald, and the Subcommittee had therefore expanded this in the manner shown in Clause 9. With reference to the local supervision of midwives, the Subcommittee felt that it would be impossible for the medical officer of health, say of a large county borough, to undertake the duty of supervising all the midwives in his area, while in smaller districts the medical officer did not always occupy a position of sufficient independence: the Subcommittee therefore proposed that there should be three medical practitioners in each district who should be charged with the duty of exercising the supervision over midwives in their respective localities. The Subcommittee had also introduced a provision directing the local registrar of deaths to transmit at once to the supervising authority a notice of the death of any midwife in his district. This would prevent the possibility of a woman assuming the name and continuing the practice of a midwife who had died. With regard to the prosecution of offences, the Subcommittee, having in view the fact that a person or institution might incur considerable expense in obtaining the conviction of a person under the Medical Acts, and yet not receive the amount of the penalty if the conviction occurred in London, since all such penalties were paid through the Metropolitan police, had introduced a clause (15) directing any fine to be paid to the Central Midwives Board. In this way the authority burdened with the responsibility of supervision would not be deprived of fines inflicted for contravention of the law. Dr. Woodcock then drew attention to Clauses 17 and 18 of the amended Bill of the Subcommittee. Dr. Woodcock concluded by saying that the Subcommittee had studied the Bill very carefully, and that they felt anxious that the question should be settled, and that in this settlement the interests of the women of the poorer classes who now employed, and who would continue to employ, midwives, should be safeguarded. If midwives were to continue to exist, and he took it that they would continue to exist, the Subcommittee considered that it was better that they should be licensed and brought under the control of some authority than that they should be, as at present, subject to no control. While the Subcommittee were opposed to creating an inferior class of medical practitioners they felt that it was necessary in the interests of the public welfare that these women should be brought under regulations which should not infringe upon the rights and privileges of the medical profession.

Dr. Brown Ritchie gave the results of an analysis of the changes which had been made in the various Bills of the Midwives' Institute at various dates, indicating in some instances the reasons for such changes. He then said that the Subcommittee desired to make a series of drafting amendments which would be moved as the Committee dealt with the Bill.

The Committee then, on the proposition of Mr. George Eastes, considered the Bill clause by clause, when certain emendations were approved. The Bill in its amended form stood as follows:

MIDWIVES BILL.

(Prepared by the Medical Acts Amendment Subcommittee of the Parliamentary Bills Committee) as adopted by the Committee and referred to the Council.

ARRANGEMENT OF CLAUSES.

Clause.
1. Short title.
2. Definitions.
3. Licensing.
4. Privileges of licensed persons.
5. Provision for existing midwives.
6. Constitution and duties of the Central Midwives Board.
7. Fees and expenses.
8. Midwives roll.
9. Appointment and duties of Secretary.
10. Local supervision of midwives.
11. Notice of death of any midwife.
12. Midwife's certificate.
13. Penalty for obtaining a licence by false representation, or acting without a certificate.
14. Penalty for wilful falsification of roll.
15. Prosecution of offences.
16. Appeal.
17. Civil and legal liabilities of midwives.
18. Control of lying-in homes.
19. Act not to apply to medical practitioners.
20. Extent of Act.

A BILL TO PROMOTE THE BETTER TRAINING OF MIDWIVES AND TO REGULATE THEIR PRACTICE.

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. Short Title.—This Act may for all purposes be cited as the Midwives Act, 1899.

2. Definitions.—In this Act the term "midwife" means a woman who undertakes for gain to attend cases of women during natural labour and the lying-in period under the rules, regulations, and medical control or supervision set forth in this Act.

"Midwives Roll" means a roll of midwives kept in pursuance of this Act.

"Central Midwives Board" means the Board constituted under this Act for the purpose of carrying out the provisions of this Act.

3. Licensing.—(1) From and after the first day of January, one thousand nine hundred, no woman shall be entitled to take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition, or description implying that she is licensed under this Act, or is qualified to act as a midwife unless she be licensed under this Act.

(2) Any woman who, after the first day of January, one thousand nine hundred, not being licensed under this Act, shall take or use the name of midwife or any other such name, title, addition, or description as aforesaid: or shall habitually and for gain attend women in childbirth, or any woman who being licensed under this Act shall employ as a substitute at any childbirth any person not licensed under this Act, shall be liable on summary conviction to a fine not exceeding five pounds, provided always that nothing in this Act shall apply to any person or persons attending a woman during labour in a case of emergency, until the services of a person licensed under this Act, or of a registered medical practitioner, are available.

(3) No woman shall be licensed under this Act until she has produced evidence of having been instructed by a registered medical practitioner, and has complied with the rules and regulations to be laid down in pursuance of the terms of this Act.

4. Privileges of Licensed Persons.—(1) A woman licensed under this Act shall be entitled to act as a midwife in England and Wales. From and after the first day of January, one thousand nine hundred and —— no woman shall be entitled to re-

cover any fee or charge in any court for attendance or service rendered as a midwife unless such woman be licensed under this Act, and the licence under this Act shall entitle a woman to act as a midwife in cases of natural labour only in accordance with the terms of this Act, and under the rules, regulations, and medical control or supervision set forth in this Act, and any amendments of, or additions to, such regulations which may be laid down by the Board in pursuance of the terms of this Act.

(2) A licence under this Act shall not confer upon any woman any right or title to be registered under the Medical Act, 1858, or the Acts amending the same in respect of such licence, or to assume any name, title, or designation implying that she is by law recognised as qualified to practise medicine or surgery or midwifery, or to act otherwise than as a midwife as aforesaid, or that she is qualified to grant a certificate of death or of stillbirth or any medical certificate. Any woman contravening this section shall, upon summary conviction, pay a sum not exceeding five pounds.

(3) Provided always, that no midwife shall be entitled to recover any fee or charge for attendance as such, unless she has either personally or by a substitute (who must be a person licensed under this Act) performed the duties specified by the Board.

5. Provision for Existing Midwives.—Any woman who at the passing of this Act has been in *bonâ fide* practice as a midwife, of which fact the Board shall be the sole and final judge, or has obtained such licence in midwifery as may be approved by the Board, and claims to be licensed before the expiration of one year from the passing of this Act, and produces to the satisfaction of the Board both evidence of her title to be so registered and evidence of good character, shall be entered on the Midwives Roll and licensed to practise under this Act at such fee as the Board shall prescribe.

6. Constitution and Duties of the Central Midwives Board.—(1) Within six months after the passing of this Act the General Medical Council shall appoint a Board consisting of seven registered medical practitioners as members of, and to constitute, a Board, which shall meet on an appointed day to draft rules, arrange meetings, appoint a chairman, registrar, and other officials, and an executive and other committees. The members of the Board shall be elected for a period of three years, and on the death, resignation, or withdrawal of a member, the General Medical Council shall elect a successor from the district vacated.

(2) Six members of the Board shall be selected as follows, by the General Medical Council, from registered medical practitioners resident in or practising in the following districts as defined by the Registrar-General:

London and South-Eastern ...	2 Representatives.
South-Western, West Midland, and Welsh	1 Representative.
Eastern, North Midland, and South Midland	1 Representative.
York and Northern	2 Representatives.

(3) One registered practitioner shall be appointed a member of the Board for a term of three years by the Lord President of the Privy Council.

(4) After two years from the passing of this Act one half of the six members of the Board selected by the General Medical Council shall retire, but shall be eligible for re-election, and thereafter one-half of such members of the Board shall retire annually in such manner that each of such members shall serve a term of two years before retiring, and members so retiring shall be eligible for re-election.

(5) In the event of the death or resignation of a member of the Board the successor elected or appointed shall hold office for the remaining period for which the deceased or resigned member was elected, and must be qualified equally with such deceased or resigned member to hold office as a member of the Board, and shall, on retiring, be eligible for re-election.

(6) No member of the Board shall act as teacher, instructor, or examiner of midwives, and no member of the Board shall take any part in any inquiry respecting the conduct of any midwife to whom he or she has acted as teacher or instructor.

*(7) The Board shall:

(*a*) Lay down rules subject to the approval of the General Medical Council for education and training of midwives.

(*b*) Make rules subject to the approval of the General Medical Council for conducting and superintending the examinations for qualification of midwives.

(*c*) Frame regulations, subject to the approval of the General Medical Council, for the proper conduct and inspection of any premises a midwife may reside in or rent or be tenant of, and wherein she receives for midwifery care and attendance a pregnant or lying-in woman.

(*d*) Frame, and if necessary from time to time alter, subject to the approval of the General Medical Council, rules and regulations governing the practice of midwives.

(*e*) Conduct the examinations and appoint the examiners.

(*f*) Decide upon the places where and the times when examination shall be held.

(*g*) If any midwife shall be convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or shall, after due inquiry, be judged by the Board to have been guilty of misconduct as a midwife, the Board may, if they see fit, direct the Secretary to erase the name of such midwife from the Roll or suspend her licence for a definite period. For the purposes of this Bill misconduct as a midwife shall include any omission to send for a registered medical practitioner where the case is not one of natural labour. The Board may, after due inquiry, restore to the Roll the name of any person removed therefrom.

(*h*) Have power to delegate the duty of inquiry into cases of misconduct to Committees of their number, and such Committees shall have power to suspend the licence of any nurse pending inquiry by the Board.

(*i*) Issue licences and generally, by Committee or otherwise, do any such duty as may be necessary for the due and proper carrying out of the provisions of this Act.

7. Fees and Expenses.—There shall be payable by every woman presenting herself for examination or licence such fees as the Central Midwives Board may, with the approval of the General Medical Council, from time to time determine. All fees paid by existing midwives and by candidates for examination shall be paid to the Central Midwives Board. The said Board shall devote such fees to the payment of expenses connected with the examination and licence, the local supervision of midwives, and to the general expenses of the Board. There shall be paid to the members of the Central Midwives Board such fees and reasonable travelling expenses as shall be authorised and allowed by Her Majesty's Treasury.

8. Midwives Roll.—There shall be a Midwives Roll containing:

(1) The names of those midwives practising at the date of the pasing of the Act who have been licensed to practise under the Act:

(2) The names of those not already in practice as midwives at the passing of the Act, but who have been licensed to practise under the Act. A copy of the Midwives Roll for the time being shall be in evidence in all Courts, that the women therein specified are licensed according to the provisions of this Act; and the absence of the name of any from such copy shall be evidence, until the contrary be made to appear, that such woman is not licensed according to the provisions of this Act. Provided always, that in the case of any woman whose name does not appear in such copy, a certificate under the hand of the Secretary of the entry of the name of such woman on the Roll shall be evidence that such woman is licensed under the provisions of this Act.

9. Appointment and Duties of Secretary.—The Central Midwives Board shall appoint a Secretary who shall be charged with the custody of the Roll, and who shall fulfil such duties as may be from time to time appointed by the Board.

10. Local Supervision of Midwives.—Every administrative County Council throughout England and Wales shall, on the passing of this Act, appoint a Committee of not less than three registered medical practitioners not teachers nor examiners of midwives as the local supervising authority over midwives within the area of the said county.

* The duties of the Board as here stated are those detailed in the Association's original Bill[6] but are similar to those of the Midwives Committee's Bill[4]

It shall be the duty of the local supervising authority:

(1) To issue midwives' certificates and to exercise general supervision over all midwives practising within the prescribed area, in accordance with the rules to be laid down under the provisions of this Act.

(2) To investigate charges of malpractice, negligence, or misconduct on the part of any midwife practising within his district, and, if the Committee considers that a *primâ facie* case is established, to report the same to the Central Midwives Board, and if they think fit to suspend the midwife's certificate pending inquiry by the Board.

(3) To suspend the midwife's certificate of any woman in accordance with the rules to be laid down by the Central Midwives Board, or if the Committee considers such suspension necessary to prevent the spread of infection.

(4) To report at once to the said Board the name of any midwife practising in the district convicted of a misdemeanour or felony.

(5) During the month of January of each year to supply the Secretary of the Central Midwives Board with the names and addresses of all midwives practising in the district, and to keep a current copy of the Midwives Roll, accessible at all reasonable times for public inspection.

11. Notice of Death of any Midwife.—The local Registrar of local deaths shall at once transmit the notice of death of any midwife in his district to the supervising authority, with particulars of time and place of death, and may charge the cost of such certificate and transmission as an expense of his office, and on receipt of such certificate the Secretary shall erase the name of such deceased midwife from the Roll.

12. Midwife's Certificate.—A woman who holds herself out as a practising midwife in any administrative county shall obtain from the local supervising authority a certificate enabling her to practise therein, which certificate shall be granted on proof by the woman that her name is on the Midwives Roll. The certificate shall remain in force till the thirty-first day of December following, and shall be revocable at any time by the local supervising authority in case the holder be proved, to the satisfaction of the Central Midwives Board, to have infringed any of the regulations framed under this Act. The certificate shall be renewed annually in the month of January. It shall be issued on payment of a fee to be determined by the Central Board, and shall only be available in the district for which it is issued.

13. Penalty for obtaining a License by False Representation, or Acting without a Certificate—

(*a*) Any woman who procures, or attempts to procure, a licence by making or producing, or causing to be made or produced, any false or fraudulent declaration, certificate, or representation, either in writing or otherwise, and any person assisting her therein, shall be deemed guilty of a misdemeanour, and shall on conviction thereof be liable to a fine not exceeding five pounds, or to be imprisoned, with or without hard labour, for any term not exceeding two months.

(*b*) Any woman who, after the first day of January, one thousand nine hundred, shall hold herself out as a midwife or shall practise in any administrative county without having previously obtained from the local supervising authority a certificate enabling her to practise therein shall be deemed guilty of a misdemeanour, and shall, on conviction thereof, be liable to a fine not exceeding two pounds, or to be imprisoned, with or without hard labour, for any term not exceeding one month.

(*c*) But a midwife shall not be guilty of a misdemeanour under this section by attending, on an emergency, a woman in childbirth in a district other than that for which she holds a certificate, provided she has within a reasonable time given notice of having so acted to the local supervising authority of that district.

14. Penalty for Wilful Falsification of the Roll.—Any person who wilfully makes, or causes to be made, any falsification in any matter relating to the Roll of Midwives shall be deemed guilty of a misdemeanour and shall be liable to a fine not exceeding ten pounds, or to be imprisoned, with or without hard labour, for any term not exceeding three months.

15. Prosecution of Offences.—Any offence under this Act punishable on summary conviction may be prosecuted, and any fine under this Act recoverable on summary conviction may be recovered in manner provided by the Summary Jurisdiction Acts; and all penalties shall be paid to the Treasurer of the Central Midwives Board, anything contained to the contrary in the Metropolitan Police Acts or any local Act passed before the passing of these Acts notwithstanding.

16.—Appeal.—(1) An appeal shall be allowed to the Privy Council should any disagreement arise between the General Medical Council and the Midwives Board respecting the carrying out of the provisions of the Act, or of any of them.

(2) Where any woman deems herself aggrieved by any order, conviction, judgment, or determination of or by any matter or thing done under this Act by any Court of Summary Jurisdiction, such woman may appeal therefrom to the Court of Quarter Sessions.

17. Civil and Legal Liabilities of Midwives.—In any civil or criminal proceedings against any person licensed under this Act such person shall be liable for any conduct or practice which shall fail to show a reasonable amount of skill or knowledge in the delivery of or subsequent attendance on a lying-in woman.

18. Control of Lying-in Homes.—Every licensed midwife who shall receive in her premises, or such premises as she may reside in, rent, or be tenant of, for the purpose of attendance during confinement, any pregnant or lying-in woman, shall keep such special record of such cases as may be laid down by the Central Midwives Board from time to time, and the Board shall have power to visit and inspect such houses, and may require registration of such premises and a fee for such inspection and report.

19. Exemption for Registered Medical Practitioners.—Nothing in this Act contained shall prejudice persons registered under the Medical Acts.

20. Extent of Act.—This Act shall not extend to Scotland or Ireland.

February 3rd, 1899.

It was proposed by Dr. Woodcock, seconded by Mr. Victor Horsley:

That the Bill thus amended be adopted and referred to the Council for adoption, as that form of legislation on this subject which alone includes adequate safeguards both for the public health and for the interests of the medical profession.

Mr. George Brown proposed:

That inasmuch as the great majority of general practitioners have repeatedly objected to the registration of midwives, this Committee recommend the Council to oppose the Bill.

He must, he said, admit that what the Subcommittee had done and what had been done by the Parliamentary Bills Committee, if the safeguards proposed were effectively carried out, would mitigate the evils which might be expected to arise from the Bill. He was not satisfied that the Bill in its present form would not be very injurious to the medical profession, and especially to the general practitioner. He thought it his duty to enter a protest against the Bill being adopted by the Council. He admitted that if legislation was going to take place, it ought to be made as strong as possible. He was, however, of opinion that they would be better without an Act at all, but that the Medical Acts should be enforced more stringently to prevent unqualified practice. He thought that the best plan the Committee could have adopted would have been for them to wait for the introduction of the Bill of the Midwives' Institute in the House of Commons, and then to go to the Lord President of the Council with the Committee's objections to the Bill, and then if possible endeavour to get the amendments adopted by the Midwives' Institute.

Mr. Parkinson said he wished to second Mr. Brown's amendment. Although he was opposed to a Midwives Bill altogether, yet he admitted that the Bill they had been going through had been modified in the best way possible. He came from an agricultural district where the members of the medical profession were the professional rivals of the midwives, and if midwives were going to be started all over the country districts the country practitioner would be able to struggle on no longer.

Dr. Groves said that while the profession in the country districts would be glad to have the services of a woman

trained to act as a midwifery nurse, they did not want to see an inferior order of practitioners called into existence who would, he feared, set up in practice for themselves in country districts and compete with medical practitioners. While it was recognised that the Subcommittee had done excellent work, it was a question whether they were sufficiently acquainted with the conditions in rural districts.

Mr. Horsley said that he was not unacquainted with the conditions of practice in rural districts, as he had spent six months with a practitioner in such a district.

Dr. Holman said that during forty years' experience of country practice, during nine of which he was in charge of 5,000 paupers, he had found it very necessary to have women to give their services to the parturient poor; to these women he himself taught the elements of obstetrics. Later in his experience he had not found that the younger practitioners objected to the services of such women, but, on the contrary, that they sought them out and even desired to have a trained midwife in the district. Such a woman did not interfere with the work which the younger men were doing.

Dr. Major Greenwood said that if he was certain that the Government were going to introduce or push on a Midwives Bill he would feel more ready to approve the course which the Subcommmittee recommended; but he was not confident that this was the case, and he believed that a large majority of medical practitioners were opposed to any Bill at all.

Dr. Woodcock observed that from his experience of the feeling of the members of Parliament gained during the many years over which the controversy had now extended, he felt absolutely clear that it was necessary for the profession to have an alternative to the legislation which was being promoted by persons of great social position and influence. A great impression had been produced upon the leaders of both parties in the House of Commons, and he was confident that something would have to be done. If the profession did not maintain a reasonable attitude and show a reasonable spirit, their objection would not have weight with Parliament. The profession must make it plain that it was prepared to assist and not merely to thwart Parliament. If there was to be legislation, he was very anxious that the interests of the medical profession should be safeguarded, and the only way to accomplish this object was to be prepared to indicate to the Legislature the nature of the safeguards which were necessary.

The Chairman said that the issue before the meeting was whether the Bill, which had been revised with so much care by the Subcommittee, should now be sent by the Parliamentary Bills Committee to the Council. He must take a direct vote on that.

The motion having been put from the chair was declared to be carried as follows:

That the Bill thus amended be adopted and referred to the Council for adoption, as that form of legislation on this subject which alone includes adequate safeguards both for the public health and for the interests of the medical profession.

Tenure of Office of Scottish Poor-law Medical Officers.

The Chairman said that, in accordance with his promise given at the last meeting of the Committee, he had had an interview with Lord Balfour of Burleigh, and had asked him whether he would view with favour a Bill if brought forward by the Committee. Lord Balfour was unable to give any opinion on any Bill the exact terms of which he had not seen. He (the Chairman) thought that if Lord Balfour did not give the Bill sympathetic consideration, he would give it careful consideration. Lord Balfour was of opinion that it would be better to introduce the Bill in the House of Commons and not the House of Lords.

On the motion of Mr. George Eastes, seconded by Dr. Major Greenwood, it was resolved:

That Mr. Alexander Cross, M.P., be invited to introduce a Bill into the House of Commons on the basis of a Bill to amend the Local Government (Scotland) Act, 1894, and that the petition to Lord Balfour of Burleigh be signed by the Chairman on behalf of this Committee.

Central Fund for the Superannuation of Poor-law Medical Officers.

The question of a central fund for providing for the superannuation of Poor-law officers was discussed, and on the motion of Mr. George Eastes, seconded by Mr. George Brown, the following resolution was carried.

That a Subcommittee be appointed to consider the question of the formation of a central fund for the payment of superannuation allowances to Poor-law officers, with power to confer with the Poor-Law Officers' Association, and to report back to this Committee at its next meeting, consisting of Mr. Balding, Dr. Major Greenwood, Dr. Groves, and Mr Parkinson.

THE NEED FOR FURTHER VACCINATION LEGISLATION.

The following resolutions drawn up by the Subcommittee of the Parliamentary Bills Committee have been adopted by the Council of the British Medical Association. Copies have been sent to every member of Parliament and to the newpapers:

A Revaccination Bill: The Conscience Clause.

1. That the Council was greatly gratified by the statement regarding the introduction of a Revaccination Bill in the session of 1899 made during the debate in the House of Lords on August 4th by Lord Lister, and confirmed on behalf of the Government by Lord Harris.
2. That the need for a Revaccination Act has been distinctly increased by the proceedings which have already taken place under Section 11 of the Vaccination Act, 1898.
3. That the manner in which Section 11 of the Vaccination Act, 1898, has been administered by various benches of magistrates proves that the section does not necessarily provide any test whatever of the reality or strength of objection to vaccination.
4. That the section having been passed by Parliament with the specific purpose of yielding such a test in accordance with the recommendation of the Royal Commission, and having been drafted in so unsatisfactory a manner as to fail to provide the required test, while it has at the same time been so used as to promote the wholesale evasion of vaccination, it is in the opinion of the Council essential that if Parliament still desires to relieve strenuous and persistent opponents of vaccination from the duty of using the only known means of protecting their children against small-pox, it should devise a procedure calculated to effect this purpose without at the same time relieving persons who cannot truthfully be so described, and should embody such procedure in an amending Act in a manner so definite and detailed as to make perfectly clear and uniform the steps required to obtain such relief.
5. That the Council is of opinion that any concession made to strenuous and persistent objectors to the vaccination of their infant children should, in the first place, take the form only of a suspension of the requirement of the law until the school age, when it should become the duty of any parent still strenuously opposed to vaccination to take steps laid down by the law to obtain further relief.
6. That the Council therefore with the utmost earnestness urges the Government and Parliament to pass an Act during the ensuing session to promote the revaccination of children on reaching the age of about 12 years and the primary vaccination of unvaccinated children on reaching the school age, and to amend Section 11 of the Vaccination Act, 1898.

Donations and Bequests.—The late Mr. David Aitchison of Maidenhead Thicket, has, by his will, bequeathed £5,000 to the Edinburgh Royal Infirmary. He has also bequeathed £10,000 to the Chancellor and Council of the University of Melbourne to found scholarships for the benefit and assistance of poor talented young men during their University career and for a period not exceeding three years thereafter.

German Surgical Congress.—The twenty-eighth Congress of the German Surgical Society will be held in the Langenbeckhaus, Berlin, from April 5th to 8th under the presidency of Professor Eugen Hahn.

THE POOR-LAW MEDICAL SERVICE IN IRELAND.

At the annual meeting of the Dublin Branch of the British Medical Association held in the Royal College of Physicians, Dublin, on February 6th, 1899, Dr. Francis T. Heuston, who was elected President for the ensuing year, delivered the following address on the Present Conditions of the Poor-law Medical Service in Ireland: "In bringing before you to-day the subject of the Poor-law Medical Service I do not consider any apology is needed from me, as a service employing over 800 of our professional brethren scattered throughout this country is one of the greatest importance, not alone to the medical profession which supplies occupants for the posts, but also to the country at large, as if the service is not maintained in a proper and efficient manner much distress and suffering will result to the poor and discredit fall on our profession. It is apparent to anyone living in the remote parts of Ireland, where private practice is practically *nil* and the only chance of obtaining a doctor is the knowledge that by the help of a Poor-law appointment he will probably be able to gain sufficient to keep him from requiring the actual necessities of life, it is thus not difficult to see the calamity it would be if the Poor-law Service were to fall into such disrepute that medical men could not be induced to present themselves in sufficient numbers to fill the appointments. Heretofore the natural desire of Irishmen to remain in their own country, if able to obtain a livelihood, outweighed in their minds the advantages of going to England or the Colonies, where they were certain of being able not alone to live well, but frequently to make a fortune as a reward for their professional ability. This has been sufficient to provide a regular supply of able and efficient medical officers for even the most remote and undesirable districts, and to this fact we must attribute the want of attention on the part of the general public and the Government to the well-known grievances and crushing disabilities under which the Poor-law medical officers are known to suffer. It is very easy to understand the position taken up by the general public in this matter, and that they will take no practical interest so long as they can obtain medical men to fill the posts efficiently at as small an outlay as possible to the taxpayers; further, they will refer all responsibility to the Government, who, through the Local Government Board, are expected to be fully acquainted with the management, requirements, and working of the Poor-law Service, and are thus in a position to decide any questions which may arise in the practical carrying out of the details of the several duties. It is clear that the above position is the most natural one for the taxpayers to adopt, and that it is the duty of the Government to see that the service is maintained in a proper manner. I believe the day is not far distant when, if the authorities do not take action in this matter, there will be much difficulty in obtaining properly-qualified officers for the appointments, as the expense now incurred in obtaining medical degrees is much greater than heretofore, and the amount of private practice to be obtained in the country districts is becoming less year by year, owing not alone to the well-known fact that the farming classes have of late years availed themselves to an unwarrantable extent of the free services of the medical officers in their districts, but also that the local gentry are not now in a position to pay their medical attendants as liberally as heretofore. It appears clear to me that as the expenses of the doctors are increasing whilst their emoluments are decreasing—following the natural law of supply and demand—I am justified in coming to the conclusion that this grave view of the position has forced itself upon the general body of the medical profession. This has been fully demonstrated by the fact that the Government has for some years past been frequently approached on this subject through memorials and deputations from several of the most influential of the medical bodies in this country. They have appealed, and, I regret to say, have appealed in vain, to the powers that be for anything like consideration with a view to relief from the most pressing of the well-known and clearly detailed disabilities, but so far, I regret to state, with no practical result. It will be remembered by the members of this Branch that the last occasion on which a deputation was received at the Castle, in 1896, it was composed of representatives from this Branch of the British Medical Association, with representatives of the Irish Medical Association. Then the subject was placed very clearly and forcibly before the Chief Secretary by Sir William Thomson and other speakers. As a member of the Council of this Branch I was present, and heard the polite reply of the Chief Secretary, which conveyed to my mind that he was clearly of the opinion that the Government would make no movement at that time. When it became known that the Government intended to introduce a Local Government Bill for Ireland, the medical profession hoped that the opportunity would be taken of relieving the most pressing of the grievances, and the advent of the Bill was awaited with interest, particularly as the matter was so freely ventilated by the British Medical Association in 1891-92, when the Parliamentary Bills Committee caused a memorandum, prepared by Sir William Thomson, indicating the special abuses which existed, and setting out proposed remedies, to be circulated amongst the principal members of the House of Commons. This document was a *précis* of hundreds of answers to set questions received from dispensary officers throughout Ireland, so could not but convey the generally recognised opinion of those gentlemen. Any person reading it must be struck with the great necessity which exists for reform in many of the most vital of the regulations under which the work was carried out, and that, unless some more practical arrangement was arrived at, and definite rules were formulated, the service must deteriorate, and as a natural consequence great suffering would be entailed on the poor. The requirements so well set out in this document are now so well known, through the report recently issued by the Irish Medical Association, that it seems hardly necessary for me to do more than indicate the most important of them, namely, inadequate payment, annual holiday with payment of substitute, definition of a poor person (under the Act), the red ticket question, superannuation on adequate pension, increase of payment with length of service, or an arrangement whereby the holders of poor districts would be removed to the better districts as vacancies occurred. On perusing the new Bill to see which, if any, of those questions have been dealt with, one cannot but feel disappointed on finding that practically nothing has been done to relieve the pre-existing state of affairs, and that, as far as the Bill is concerned, the Poor-law Medical Service is left severely alone, a careful study of the Bill, showing that there is no real change, except in as far as Section cxviii gives a very small proportion of them a pension on the Civil Service scale as a matter of right. Of course it is a comparatively small number of men who will have reached 60 years and served full time at least twenty years when "the appointed day" comes, but no mention is made of the others not equally fortunate, even those who have served such time as would entitle them to a pension if they were Civil servants, but have not reached 60 years of age, and are not incapacitated from duty by permanent infirmity of mind or body, and thus are not entitled to the benefit of Section cxviii, because if they were to retire on the appointed day they would not be qualified for a superannuation allowance by the existing law. Outside this Bill the other Acts of Parliament dealing with the question of superannuation, such as the Local Officers' Superannuation (Ireland) Act, 1869; the Medical Officers' Superannuation (Ireland) Act, 1869; and the Union Officers' Superannuation (Ireland) Act, 1865, leave it optional with the Board of Guardians to give or withhold a pension. Thus it appears that, with the exception of superannuation, none of the burning grievances of Poor-law medical officers have been touched by the Bill, and this solitary exception has been dealt with in a very inefficient manner. From this it will be seen that very little indeed can be expected from this new Bill, and that appeals to either the Government or to the district or county councils can, judging from former experience, be of little avail, particularly as under this Bill the expenses of Government, as is generally conceded, will be greater than before its introduction, so every effort will be made by the district and county councils to keep down the taxation. It therefore behoves us to see in what manner we can obtain redress, it being apparent that we can neither look to the Imperial Government or to the officers of the Local Government Board, and in my opinion we must look to ourselves. The medical officers of the Poor-law

Service in Ireland must combine, and assist those who are ready and willing to give them all the help in their power, and they have two powerful organisations to further their interests in the British Medical Association (as represented by this its Dublin Branch) and the Irish Medical Association, backed as they are by the sympathy and approval of the whole medical profession in Ireland, who know so well their needs, and approve so fully of their efforts to obtain redress. It appears to me, seeing how futile all efforts made to obtain redress by approaching the governing bodies have heretofore been, and that while those bodies can advance such arguments as I have already alluded to, we can expect nothing, that the proper way to approach the question is by having the junior members of the profession and the students made fully aware of the treatment which will be meted out to them as Poor-law medical officers. It must be pointed out that the £100 or £150 a year which they obtain from such appointments will not, when the necessary expenses of working their districts are taken out of it, suffice to keep them in more than the necessities of life as single men, and will be quite insufficient to do even this when they marry; and further that as the expenses of life become greater year by year they can look to no increase in their income, and that even after a life of toil and self-abnegation for others, they will find as their powers of performing work lessen they will be cast aside without even a meagre pension to allow their declining years to be spent in that ease and comfort they have so well earned. We hear much about old-age pensions, and I would like to know what profession, or trade, or occupation deserves more from the hands of its fellow men, or whose members should have a prior claim to those of the medical profession. While it can be proved such good openings are to be found in England and elsewhere, that they can confidently count on being able to provide for themselves and their families. That this is the way to obtain redress most speedily I am assured, and would instance what has occurred in another branch of the profession; I allude to the Army Medical Service. As is well known, the authorities were approached by the leaders of the profession for years, but as there were plenty of candidates to be obtained, a deaf ear was turned to their various memorials and deputations, assisted, even as they were by the powerful aid of the British Medical Association, until the students and young medical men were informed of the disabilities under which they would have to serve, when, although the emoluments and status were much better than the Poor-law Medical Service, and a good pension was also given, the number of candidates fell off to so great an extent that the Government were forced to redress the more pressing grievances, and a good day for army medical officers would seem to be now in the near future. With this example before us, I cannot help believing that our road is very plainly indicated, particularly as the expenses incurred in entering the profession are now so much greater than formerly; there must result a difficulty in obtaining candidates to fill appointments in any inadequately paid service. That this has already commenced to be felt, I would draw attention to the fact that the pay for assistants in English practices has increased within the past three years to from 25 to 50 per cent., thus presenting a favourable opening and good remuneration for Irish students. Let it therefore be our object to obtain the widest circulation to our students and newly qualified men of information as to the openings in the profession, holding out prospects of advancement and emolument, and thus enable them to compare such prospects with what they are offered under the Poor-law Service as at present constituted. I am confident that the result of this action would be to reduce the present competition for appointments in the Poor-law Service, and by bringing the Government, county and district councils face to face with an open competition, induce, or if necessary compel, them to make their appointments more attractive, and also by pointing out lucrative positions tend to increase the number of students attending our universities and colleges, and in many instances lead our fellow countrymen to positions of the highest honour and dignity in their profession.

Medical Students in Italy.—According to official statistics lately published the total number of medical students in the Italian Universities in the academic year 1897-8 was 6,878. The number in 1893-4 was 6,521.

THE NEW CLINICAL INSTITUTE IN FLORENCE.

[From an Occasional Correspondent.]

The Opening Ceremony.—Address by Professor Grocco.—Description of the Clinical Buildings.—Their Equipment.—A Pasteur Institute.—Proposed Post-Graduate Classes.

The new buildings of the Medical Clinic in Florence, which owe their existence mainly to the exertions of Professor Pietro Grocco, Director of the Medical Clinical Department of the Royal Institution of Higher Education, were opened recently, and the ceremony was attended by the Prefect, the Syndic, and a large number of the leading residents in Florence.

Professor Grocco delivered an address, in which he said that his earnest appeal to the authorities, made just six years ago, at the time of his own appointment, had met with a favourable reception. The Boards, both of the school and of the hospital, had been ready to undertake the necessary works, and he had himself examined what had been done elsewhere—both in Italy and abroad. Now, when the work was in all essentials finished, it might with truth be said that the new Medical Clinic of Florence, in point of size and arrangement, and of equipment, was second to none in Italy, and was in line with the best abroad.

Professor Grocco then proceeded to describe the buildings, which are on two storeys, contain two principal wards and two series of smaller wards, which will permit a rational classification of patients in the interests of clinical study and of treatment. About 70 beds are allotted to the clinic, with the power of selection from among all the patients in the hospital—about 700. The principal laboratory is divided into several sections—bacteriological, chemical, microscopical. It contains also an experimental room, a dark room for photography and spectroscopy, a fine library, rooms for the managers for the storage of the more costly and delicate instruments, a large lecture theatre and smaller ones for demonstrations after the clinical visit: numerous smaller rooms will serve for electrodiagnosis and electrotherapy, for hydrotherapy, from the most minute local douche to the most complete simple or medicated vapour baths, and for electrical baths; also for pneumotherapy, for drawing, for radiography and fluoroscopy. Every section is fully furnished with all that can be required for clinical illustration from the point of view either of diagnosis or of treatment.

The Clinical Institute has with the new year begun the publication of a weekly journal. The library, which is only four years old, contains already more than 60 journals, including the British Medical Journal, and more than 1,100 volumes.

In connection with the Institute Professor Grocco has on his own personal initiative established an institution for the treatment of rabies. "I am rejoiced," Professor Grocco said, "that this building is finished, is ready so that we can at once commence the special treatment which we owe to the grand and beneficent genius of Pasteur. In truth, it was not fitting that our highly civilised and philanthropic Tuscany should be without such an important means of cure; for eleven long years it had been talked about, but not till now been realised. Confident that I should not rely in vain on public and private support, I undertook, alone, this humanitarian enterprise, and fonder of deeds than words, I devoted myself to its accomplishment. If it is true that 'Well begun is half done,' yet it must be admitted that good luck attended me. In fact, a munificent citizen, Signor Leopoldo Budini, has built and fitted the Pasteur Laboratory at his own expense. And in response to a fresh and private appeal to his generosity made by a distinguished and most excellent lady, the Senator Count Peter Bastogi sent me yesterday £200 for the service of the Pasteur Laboratory. It is but natural, gentlemen, that I should offer to these generous donors the most heartfelt thanks. In a report made in 1887 to the Provincial Sanitary Council, the late Professor Michelacci expressed the opinion that a Pasteur Institute, if erected in Florence, would cost annually about £300 or upwards. Now our calculation is that as we have the Institute in the bosom of the Medical Clinic, we can, without any deviation from the strictest scientific requirements, support it for £180 per annum.

"Six years ago, gentlemen, the Medical Clinic was reduced

to two hospital wards and to three laboratory rooms, the scientific equipment of which was of less value than £80. With the progress made in six years we may then be content. And my dream will be realised when we have a section of mechanico-therapy or medical gymnastics, which will be, I hope, in a couple of years, and when we are in a position to prepare curative serums on a large scale, and first, diphtheritic serum. In fact I am already making preparations to secure this latter object, and hope to be able to do so before this year is out.

"It will be henceforth an advantage to the clinic to have from now, not one assistant and two clerks to direct in these studies, but two assistants and sixteen clerks. The number of young doctors who seek to be inscribed on the list of voluntary clerks goes on increasing, so much so that this year I have been obliged to refuse the services of more than thirty who have come here from every part of Italy.

"It is an advantage to the clinic and a moral satisfaction to us that we now command such accommodation and such assistance that I can add to my clinical teaching the services of three gratuitous teachers. We can in consequence give our students four practical lessons a week, two in clinical chemistry, and two in clinical microscopy and bacteriology."

Professor Grocco then said that the Minister of War annually assigned to the Clinical Institute a medical captain as honorary assistant, and that the arrangements of the Institute had received the recommendation of many foreign physicians. It was the duty of the medical faculty of Florence not only to prepare students for their diplomas, but to perfect them when qualified. This double mission was indicated by its title—Institute for Higher Education; hence, what had been done for the Medical Clinic and for physiology should be done also for surgery, so that all the chairs should be equal to the responsibility of giving post-graduate courses. Professor Grocco concluded by appealing to the students, and pointing out to them that, if the responsibilities of the teacher increased in proportion to the increase in the operations of his school, so also did the obligation of the students to study more strenuously in proportion to the increased advantages placed at their disposal.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.

The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on January 27th. There were present Dr. de Havilland Hall (in the chair), Dr. J. B. Ball, Mr. J. Brindley James, Mr. F. Swinford Edwards, Dr. Walter Smith, Dr. Alfred S. Gubb, Dr. W. Knowsley Sibley, Mr. Edward Bartlett, and Dr. Francis J. Allan.

This meeting being the first of the year, the Committee, in accordance with their usual custom, examined a series of special reports on the condition of the "chronic" cases, that is, of those members who appear to be permanently incapacitated either from disease or accident. The half-pay of the Medical Sickness and Accident Society is continued without any deduction until age 65, and accordingly those members who are permanently incapacitated from their professional work are entitled to an annuity—usually of one hundred guineas a year—until they reach that age, should they live so long. It is felt that the supplying of these permanent provisions is the most important function of the business, particularly in view of the fact that in no other society can members of the medical profession obtain the same benefit; and the Committee have therefore always devoted a great deal of attention to the list of chronic illnesses. Every year as the members grow older the list lengthens, and although at the time the Medical Sickness and Accident Society was first started there were some who felt that the provision made by the rules for permanent illness might turn out to be on too liberal a scale, the large reserve fund which the Society has now accumulated is an ample guarantee that no reduction of this most important benefit need be made in the future. The list of ordinary claims showed no special features, and was lighter than at the same period of last year. A satisfactory number of new members join the Society each year, and the number of lapsed benefits is smaller than usual.

Prospectuses and all particulars can be obtained from Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

REICHARDT FUND.

Dr. G. H. Savage (3, Henrietta Street, W.) writes: Dr. Goodhart and I have to acknowledge the receipt of the following contributions on behalf of this fund. We beg to remind the very many members of the profession who are interested in the home treatment of mental disorders that very few have so far contributed in aid of this fund.

	£	s.	d.		£	s.	d.
Dr. James F. Goodhart ...	10	10	0	Dr. Andrew Ellis Wynter ...	1	1	0
Sir John Williams, Bart. ...	5	5	0	Miss A. Helen A. Boyle, M.D.	1	1	0
Henry T. Butlin, Esq. ...	5	0	0	Dr. F. M. Corner	1	1	0
Herbert H. Page, Esq. ...	3	3	0	Dr. B. H. Roots	1	1	0
Dr. Albert E. Tebb ...	2	2	0	Dr. C. H. Broadhurst ...	1	1	0
C. B. Lockwood, Esq. ...	2	2	0	W. B. J.	0	10	6

A GENERAL HOSPITAL FOR HAMPSTEAD.

A meeting was held on February 5th at the house of Mr. Wightman, with the object of erecting a hospital at Hampstead which should take the place, though not the actual site, of the present inadequate building. Sir Richard Temple, Bart., F.R.S., occupied the chair, and, having asked the Hon. Secretary to read a letter of approval from Sir Henry Burdett, called on Mr. Edmund Owen, as Consulting Surgeon to the hospital, to show why a new building was necessary.

Mr. Owen said that he greatly regretted the absence of Sir Henry Burdett, and especially so because he had been thrust forward to fill, to the best of his ability, the gap which Sir Henry's unavoidable absence had caused. He then showed how unsuitable was the site of the present building, and how inadequate it was for the reception of patients and for the housing of nurses. He wished to correct an impression which had got abroad that the Committee proposed to erect a large and expensive structure: and he gave positive assurance that the Committee, who had asked him to speak for them, intended to proceed with the utmost regard to economy. He thought it somewhat unfavourable reflection upon Hampstead that a rich and influential district of 70,000 inhabitants should be content to depend upon Paddington, St. Pancras, and Kentish Town for the chief part of its hospital accommodation.

Sir Samuel Wilks, on being called upon by the Chairman, said that he, as a Consulting Physician to the Hampstead Home Hospital, could confirm much of what Mr. Owen had said, and he urged those present to do their best to erect at the earliest possible moment a hospital in some central and appropriate part of the parish which should be equal to all demands. He was strongly in favour of each suburban district having its own hospital, and he could assure all those present that poor people had neither the ability nor the inclination to make long journeys in search of the hospital relief which they might greatly need.

Mr. Edward Bond, M.P., spoke in favour of the scheme.

Mr. Figgis said that if Hampstead was assured of the need of the hospital—and he thought that there could be no manner of doubt as to that need—its inhabitants would put their hands in their pockets and carry the scheme through with the same energy, good-will, and success which they had shown in raising the money necessary to acquire the Golder's Hill addition to their Heath.

In bringing the meeting to a close, Sir Richard Temple said that Hampstead must bestir itself in the matter, or sites which were now vacant and suitable for the new hospital might pass out of their reach for ever.

Medical Students in Switzerland.—The number of medical students in the several universities of Switzerland during the current semester is as follows: Zürich, 360 (234 male, 126 female); Geneva, 297 (196 male, 101 female); Bern, 240 (170 male, 70 female); Lausanne, 158 (111 male, 47 female) and Basel, 126 (124 male, 2 female). The total number of medical students in Switzerland is, therefore, at present 1,181, of whom 346 are women. Of this number, 614 are Swiss; of these, 25 are women. The number is 1897-98 was 1,144, of whom 307 were women.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 11TH, 1899.

THE GOVERNMENT AND REVACCINATION.

We publish this week the resolutions regarding vaccination arrived at by the Council of the Association at its recent meeting. A copy of the resolutions has been sent to every member of Parliament. They refer to two closely related questions, a Revaccination Bill and the conscience clause. In the closing debate on last year's Vaccination Bill in the House of Lords Lord Lister indicated, and on behalf of the Government Lord Harris promised, that the Government would favourably consider a Revaccination Bill for the session which has how just begun. This promise is referred to in the resolution, and it is then pointed out that as a result of the operation of the conscience clause an Act for promoting revaccination is now distinctly more necessary even than before. To all who have any faith in vaccination as a preventive of small-pox, and who have observed the proceedings which have taken place under Section 11 of the Act of last year, the increased and increasing need for systematic revaccination cannot but be obvious.

As a result of false teaching by opponents of vaccination, and of legislation which is alike slovenly and incomplete, thousands of children are being prepared for sacrifice on the altar of small-pox. The point with regard to last year's Bill on which the profession was most urgent and unanimous was that by means of legal provision for systematic revaccination the evils naturally resulting from neglect of primary vaccination should, as far as possible, be provided against; that where unvaccinated children might be fortunate enough to reach 10 to 12 years of age without suffering from small-pox, their parents should again have the duty of providing against future risk brought formally before them, and that where vaccination had been performed in infancy the need for repetition of the protective operation should similarly be pressed. These views were urged on the Government without apparent effect; but at the last moment, when the House of Lords was about to reject the conscience clause for a second time, Lord Lister and Lord Harris prevented a Ministerial defeat by throwing out promises regarding a Revaccination Bill for next session. Lord Lister spoke as follows: "Personally, I should like, if the Bill could be withdrawn this year, and brought in again next year, with this question of revaccination attended to. . . . . But I fear that is a hopeless suggestion. However, as regards revaccination, the members of the Government who have been approached on the subject have given us good reason to hope that a Bill dealing with revaccination may be brought in next session. Such a Bill would, I think, be sure to pass the House of Commons, the great majority of which, however they may differ on other questions, are at one as regards the importance of revaccination. The medical members of Parliament are certainly at one on this point. The Bill would therefore readily pass, and by introducing it the Government would do untold benefit to the community. The confident hope that the Government will see their way to take this course next session makes me the more readily acquiesce in what I confess is a tremendous experiment."[1] This "confident hope" was immediately strengthened by a speech by Lord Harris on behalf of the Government. He said "Lord Lister had referred to the fact that the Government would consider the possibility of introducing a Bill next year with the object of encouraging revaccination. If the noble lord had not indicated that fact, he had authority to state that the Government were prepared to consider during the recess whether it would not be possible to bring in such a Bill next session." The motion of Lord Ailesbury, who objected both to the conscience clause and to the omission of revaccination, was then negatived, but only by the comparatively small majority of 55 to 45.

Notwithstanding these facts, the Queen's Speech contains no single word on the subject of vaccination, either as regards the discredited conscience clause, or as regards a Revaccination Bill. It is quite true that in the course of a session Bills may be introduced and passed which have found no place in the Queen's Speech. But what excuse can there be for making no reference to a subject which was practically continued from last session? The matter will be brought before Parliament, and the statements of Ministers will be awaited by the profession with the profoundest interest. In the meantime it would be unfair to assume that no satisfactory announcement will be forthcoming, or that there will be any attempt to ride off on some verbal quibble. If the Government intend to tell us that they have carefully gone into the question, and have concluded that a Revaccination Bill is at present unnecessary or undesirable or inexpedient, then we are bound to say that we believe it to be utterly impossible for them to make out a good case for any such finding. But, as we have said, it would be unfair to assume that they intend to adopt such an attitude.

THE DAWN OF MEDICAL SCIENCE IN RUSSIA.

Russia was the last country in Europe to receive the light of medical science, and, according to German writers, it owes its scientific conversion almost entirely to Germans. This has been repeated so persistently and so positively that the Russians themselves have come to believe it. All history is, however, being rewritten in these days, and the myth of the medical evangelisation of Russia by the Germans is going the way of other myths. Mlle. Inna Cheboldaïeff, a young Russian lady, who took her doctor's degree at Paris a few months ago, has shown in her thesis that up to a comparatively recent period French influence

[1] British Medical Journal, 1898, vol. ii, p. 430.

[2] De l'Influence Française dans le Developpement de la Science Médicale en Russie. *Thèse de Paris.* 1898.

was preponderant among students of medicine in Russia. Perhaps, in recognition of the union of hearts which is supposed to bind Russia and France, the lady doth protest too much. For instance, it was neither to France nor to Germany, but to England, that Russia owed the introduction, first, of inoculation, and afterwards of vaccination; and one or two other unconsidered trifles of English manufacture, such as chloroform and antisepsis, have from time to time been imported into the dominions of the Czar.

We are more interested, however, in the glimpses which Mlle. Cheboldaïeff gives of the state of things that existed in Russia when rational medicine was not. In the fifteenth, sixteenth, and seventeenth centuries physicians were as rare in Russia as astrologers at the present day in this country. They were always foreigners, and were generally attached to the person of the Czar. If they failed to cure their redoubtable patients they were only too likely to pay the penalty with their lives. It is recorded that in 1493 one Leo, a master leech, was beheaded by order of the Czar for having unskilfully treated the heir to the Crown. Ivan the Terrible set a better example; his physicians, Bomelius, a Fleming, and James Frencham, an Englishman, sent by Queen Elizabeth at his request in 1581, stood high in his favour. The Czars Fedor, Boris, and Alexis also placed great trust in their doctors, whom they often employed on diplomatic business. But the nobles, the clergy, and the people looked upon the doctors with the darkest suspicion. If the Czar out of his tender regard for the well-being of some favoured courtier sent him his physician in illness, the *boyar* would beseech his royal master as a special grace that he might not be treated by a doctor.

A seventeenth-century historian, after praising the Czar Boris to the skies, is fain to allow that "God had given him great defects; thus his heart was soft towards physicians; he was despotic," and so on, through some minor blemishes on his character. We have the testimony of Captain Margeret, who wrote an account of a visit which he made to Russia in 1602, that the people looked upon medicines with superstitious abhorrence. Their therapeutics consisted in a generous dose of brandy, followed by a mixture of gunpowder with powdered garlic, the treatment being completed by a hot bath. Sylvester, one of the priests about Ivan the Terrible, in describing "how a Christian should treat himself in all diseases and pains," says that recovery can be brought about only by prayer, fasting, almsgiving, the avoidance of sin, and submission to the commands of his ghostly fathers. The worthy pope proceeds: "And he who without decency or order fears not God and fulfils not His will, who does not observe the traditions of His Church and country, who neglects the Church of God, the chants of the Church, the rules as to fasting, prayer, and all divine service, such a one cannot get well. Nor can he get well who eats and drinks without moderation, falling into sottishness and gluttony, without observing seasons of fasting, and the rules of married life, and who gives himself up to songs, which are the work of the Devil, to dances, games, music, the chase, horseracing—all things agreeable to Satan—and who adds thereunto all manner of sorcery, the reading of books of magic, astrology, or noxious herbs"—medicinal simples being doubtless included in the latter term.

The introduction of medicine into Russia was one of the many reforms carried out by Peter the Great. He encouraged foreign physicians to settle in Russia; he established pharmacies; he founded hospitals in which provision was made for the training of pupils. Medical degrees were conferred for the first time in Russia by the Moscow school in 1723. Peter the Great was personally greatly interested in medicine, and he even threw himself into the practice of surgery with characteristic ardour. He could bleed, draw teeth, and open abscesses, and he worked for a time regularly at practical anatomy and operative surgery. He used to carry about a small dressing case in order that he might be prepared to deal with any surgical emergency that arose. He insisted on being kept informed of all the interesting cases, operations, and necropsies in the hospitals of St. Petersburg. He sometimes operated with his own imperial hand. Thus it is on record that he operated for a diffused suppurative condition of the leg in a merchant called Thomas. On April 27th, 1723, he tapped the wife of the Dutch merchant, Borst, who was suffering from dropsy. Peter was, in fact, the first Russian who performed paracentesis.

THE INEBRIATES ACT, 1898.

Some disappointment has been felt that though the Inebriates Act of last year became law on January 1st, 1899, it cannot have any practical effect for some time yet, because the regulations must lie on the table of both Houses of Parliament for four weeks; there can be little doubt, however, that the delay will prove advantageous in the long run. The remedial provisions of the Act are a feature so novel in British jurisprudence that to a considerable extent the new departure partakes largely of the nature of an experiment, the conditions of the successful working of which must be carefully studied. So difficult has it been to ascertain the probable number of criminal inebriates likely to be committed to a reformatory, that the Home Secretary, though various prisons have been examined and reported on as more or less suitable for the purpose, has had to confess that he has not been able to obtain such a forecast of the number of convictions as would warrant him in applying to the Treasury for the establishment of a State Inebriate Reformatory. This is to be regretted, as unremitting State supervision is of value in safeguarding the liberty of the subject, and as ample funds are needed for the foundation and maintenance of a model institution. Sir Matthew Ridley, however, holds out the hope that a short experience of the working of the Act will enable such an estimate of the probable number of convictions to be formed as will justify him in an application to the Treasury for a building and grounds to be specially designed for the object in view.

This determination on the part of the Home Office practically leaves the carrying out of the Act in the hands of councils and philanthropists, who can establish and maintain certified inebriate reformatories on obtaining a certificate from the Secretary of State. In the interests of the Act and of the inebriates affected by it, we are glad to be in a position to state that the managers of several homes for inebriates have intimated their intention to apply for certification. To the friends of the habitual

drunkard, therefore, the nation will owe the consoling fact that the Act will not be a "dead letter."

In the operation of the Act a skilled and judicious medical inspector is an important desideratum, and we congratulate the Government on the excellent choice which they have made in the person of Dr. R. Welsh Braithwaite, who has had considerable experience in the treatment of inebriates, and who is familiar with the features of institution life.

As an encouragement to the managers of certified inebriate reformatories, a weekly grant of 16s. will be paid for each inmate committed under Section 1 during the period of detention, and of 10s. 6d. for each committed under Section 11 in a reformatory certified for not more than 100 inmates. There will also be a weekly grant of not more than 6d. a day, at the discretion of the Secretary of State, for inmates out on licence for a period not exceeding three months. These allowances will remain in force for three years from April 1st next. After the expiry of that term a local weekly contribution of not less than 3s. 6d. will be necessary to obtain a Treasury grant. Reasonable expenses of removal from one reformatory to another or to an auxiliary home will also be allowed, if directed by the Secretary of State.

The regulations issued by the Departmental Committee, as well as the Home Secretary's circular to judges and other judicial authorities, breathe a broad and generous spirit. One regulation stands out prominently, owing to its practical character, the regulation that all the officers must be abstainers. This recommendation was laid by the Chairman of the Inebriates Legislation Committee of the Association before the Scottish Departmental Committee on Habitual Offenders. The experience of the Dalrymple Home in England and of Ellikon in Switzerland show the great value of this provision. On no other condition can any institution for the treatment of inebriates have a reasonable chance of success. Some of the leading daily journals have lamented the presumed hardship to the officers of not being at liberty to have a glass of beer even on their holidays; but this plea cannot be allowed to override the conditions essential to a proper administration of the Act.

The regulation requiring a wall and a guarded gate to prevent the escape of inmates has been objected to—we think without reason. In most institutions for inebriates there is a certain small proportion not amenable to moral influence, and all well-conducted homes for inebriates have strict rules for the enforcement of the necessary regulation that no patient is allowed outside the grounds without leave from the superintendent. It is needful only to have such a wall or fencing as will suffice to deter patients from attempting to leave clandestinely.

It is possible that it may be found expedient to increase the rations suggested in the dietary recommended by the Committee, and in other details practical experience may probably render other alterations desirable; but this is provided for by the power of revision of the existing regulations.

Presentation.—On his leaving Grangetown, Yorks, Mr. J. St. John Murphy was entertained on January 28th at a dinner, and presented with an illuminated address and gold-mounted walking stick as a mark of the esteem and respect in which he was held.

NOTIFICATION OF LEAD POISONING.

A memorandum on the provisions of the Factory and Workshop Acts with regard to poisoning contracted in a factory or workshop has been issued by the Chief Inspector of Factories to all certifying factory surgeons, but as medical practitioners in general have certain duties under these Acts, it will be well again to point out what these are. Every medical practitioner attending on or called in to visit a patient whom he believes to be suffering from lead poisoning, phosphorus poisoning, arsenic poisoning, or anthrax, contracted in any factory or workshop, is required, under penalty, to notify the case forthwith to the Chief Inspector of Factories, unless it has already been so notified, and he is entitled to a fee of 2s. 6d. for so doing. Notification forms have been prepared for the purpose, and are supplied to practitioners on application. The notice should state clearly the name, address, and occupation of the patient; the disease; the factory or workshop at which the patient has been employed, and is believed to have contracted the disease; the name and address of the notifying practitioner, and the date of notification.

Lead is much more used in the arts than either arsenic or phosphorus, and the industrial occupations which have been observed to be connected with lead poisoning make a long list. Among the chief are, in the first place, white, red, orange, and yellow lead works, the manufacture of paints, colours, and glazes, coachmaking, litho and chromo transfer-making, dye works in which yellow chromate of lead is used, and japan and lacquer works. Then there is lead smelting and the manufacture of spelter, shot making, the manufacture of sheet lead and lead piping, and the use of lead foil in various processes, the enamelling of iron plates and letters, the tinning and enamelling of hollow metal ware and cooking utensils, electroplating, and gold and silver refining, brassfounding, typefounding, printing works, plumbing, iron and steel works, the making of files, cutlery, and tools, and electric accumulator works. Last, but not least important, the manufacture of china and earthenware, the glazing of bricks and tiles, and the making and polishing of glass should be mentioned.

Special attention is called in the memorandum to the injurious effect of chronic lead poisoning on the uterine functions; this may be evidenced by disorders of menstruation and a great tendency to miscarriage, even when obvious symptoms of lead poisoning are absent or obscure. Young persons also suffer more than adults, though it is a question whether this greater liability is not due to less careful attention to elementary precautions against lead poisoning than to any special predisposition due to age. With regard to adult males it is pointed out that anæmia, which is comparatively rare in them under ordinary circumstances, is sometimes a symptom of lead poisoning, and in a person engaged in any trade in which lead is used should arouse suspicion, and lead to careful search for other symptoms, such as colic, vertigo, or persistent headache, numbness or impairment of muscular action short of actual paralysis, pains in the joints (especially the knee, elbow, or shoulder), and the blue line on the gums, though this may be absent in persons who are careful to keep the teeth clean. It should

also be borne in mind that epileptiform convulsions may be due to lead poisoning. Such attacks, which are most often met with in young women, are rarely seen except among white lead workers, or those engaged in the most dangerous processes connected with china and earthenware. These attacks may begin very soon after the patient has begun to work in lead, and are not infrequently preceded by hysterical symptoms—a fact which should be remembered not only because it may assist in making an early diagnosis, but because it may serve to prevent serious error at a later stage.

Some of the industries which may give rise to lead poisoning, such, as for example, lead mining and some branches of painting, are not carried on in factories, and cases of lead poisoning arising in persons engaged in these occupations are not notifiable. Again, cases in which the poisoning is due to causes other than the industrial occupation of the individual, such as for instance those due to contaminated drinking water, to the use of lead or its alloys in vessels or pipes containing or carrying beer or cider, or of soda-water siphons with pewter or lead valves, or of hair dyes and cosmetics containing lead, or to the consumption of sweetmeats coloured with lead chromate are not notifiable.

In the case of white lead and orange lead works, and in works in which iron plates are enamelled the employers are required to arrange for a periodical inspection, by a duly qualified medical practitioner, of all persons employed, while in the case of manufactories of earthenware and china the certifying factory surgeon must once a month examine all women and young persons employed in certain departments of the works. In either case the medical man making the inspection may, if he sees reason to do so, warn a worker or require abstention from work for a period, the duration of which is within the discretion of the certifying surgeon, and at the same time may or may not, according to circumstances, think it proper to notify the case to the Chief Inspector of Factories.

COMPANY PRACTICE.

A Bill for the Regulation of Limited Companies figures amongst the measures which the Government, in the Speech from the Throne, signify their intention of bringing in during the ensuing session of Parliament, and, although it is by no means the first occasion upon which some such measure has been under discussion, we believe that this time there is the full intention to push it forward. Our readers will remember that allusion has from time to time been made in our columns to the manner in which a perverted ingenuity has been exercised in using the legal conditions of company incorporation in order to enable persons without registrable qualifications to evade the restrictions to which they would otherwise have been subject under the Medical and similar Acts. The introduction of a measure regulating the proceedings of companies would seem to offer a good opportunity for the insertion of a clause dealing with this abuse. The opportunity—if, indeed, it be one—has not been neglected, for we understand that the small committee appointed by the General Medical Council to endeavour to procure some amendment of the law in this direction has very recently had an interview with the Lord Chancellor. We understand that the interview was on the whole satisfactory, but nothing definite, can as yet be said as to the form which the suggested legislation is likely to take. In the interim report of the Committee, which was laid before the Council at its May session, a certain measure of reticence appropriate to an incompleted negotiation was very properly observed, although a perusal of that report tended to lead to the inference that a short special measure rather than a clause in some more comprehensive Act was at that time in contemplation. But that something will be attempted during the present session there is every reason to hope, and we shall probably have to invite those members of the Association who may be able to exercise influence upon their respective members of Parliament to do their utmost to press for its favourable consideration. It is by individual efforts and by pressure thus brought to bear upon a large number of members that Parliamentary successes are gained. A success scored on a measure of restricted application, such as this, will serve a useful purpose in paving the way to some more comprehensive step in medical reform, both by calling attention to the unsatisfactory nature of the existing state of things, and by preparing and building up public opinion in favour of its amendment.

THE FALLING AWAY OF THE CONSCIENTIOUS OBJECTOR.

It will be remembered that Oldham achieved a bad pre-eminence recently with its 27,000 conscientious objectors, to whom an antivaccination mayor gave certificates on the production of a form ready filled up which could be had for one penny. It would seem that some of these certificates of exemption must have been obtained out of pure lightness of heart, for the curious result of all this expenditure of pennies, and all this burning of the midnight oil by the mayor and his brother magistrates, has been that the number of children vaccinated in Oldham has enormously increased. The vaccination officer during January, 1899, received 200 medical certificates of successful vaccination, and 40 directing postponement for a time. In January, 1898, he received only 10 certificates, and in the whole of the year 1897 only 183. The experience of the public vaccinator has been even more curious, for he has found that a large proportion of the children he has had to vaccinate have been the offspring of "conscientious objectors" who had obtained certificates, but had omitted to send them to the vaccination officer. Not only did these parents not object to the vaccination of their infants, but they voluntarily submitted their elder children to vaccination at the same time. Burnley is another union in which the conscientious objector appeared to abound, for it was reported that 8,000 certificates had been obtained by conscientious objectors. The union embraces not only the county borough of Burnley, but also the boroughs of Colne and Nelson, together with no fewer than 24 other townships, and has altogether a population of upwards of 200,000. This shows that the proportion of conscientious objectors in the population is not so large as might have been assumed; but about one-quarter of those who actually did obtain certificates of exemption have not taken advantage of them, for we are informed that in the magistrate clerk's office there are now more than 2,000 certificates of exemption which have not been applied for. As the certificates must be handed to the vaccination officer within eight days, this batch of 2,000 is now useless. The explanation suggested for the sudden change of mind in so many conscientious objectors in Oldham is that they had taken alarm at the immense number of unvaccinated children in the union, but whether this be so or not, the facts as stated appear to show that their objection was not very deeply rooted in their consciences.

THE MEDICAL ARRANGEMENTS AT THE MANŒUVRES.

In the report on the manœuvres on Salisbury Plain (issued as a Parliamentary paper) the Field-Marshal Commanding-in-Chief says that the health of the troops was good, the

casualties from heat and fatigue were few, and sickness from other causes small. Of the Northern Army, 2.3 per cent. were transferred as sick to the base hospital, and of the Southern Army 3.21 per cent.; but in the latter case the time occupied by the "drills" is included. In the Northern Army there were 35 cases of sunstroke, and 20 of exhaustion; in the Southern Army, 41 of sunstroke and 38 of exhaustion. Owing to the absence of a large portion of the Royal Army Medical Corps in Egypt, the medical *personnel* was reduced to the lowest practicable limit (in an appendix it is given as 23 officers and 215 men Royal Army Medical Corps). Lord Wolseley considers that, had the sickness been greater, the strain upon the medical resources would have been greater than they could have borne. The medical staff of the army, his lordship says, "requires augmentation." Among the points to which the experience of the manœuvres directs attention are: (1) The organisation of the medical bases. (2) The transfer of the sick by rail from the field hospitals to the base; a special train, the Commander-in-Chief is of opinion, should be run daily, and suitable railway accommodation provided. (3) The design and provision of railway ambulance trains for home defence requires attention. Further, it is pointed out that (4) more than one medical officer is required for the efficient care of an infantry brigade, and a tent should be furnished for the inspection of the sick. (5) A special pattern of light ambulance is desirable to accompany mounted troops. The arrangement by which an infectious ambulance was kept at the Salisbury railway station ready for use anywhere in the manœuvre area was a wise precaution. Major-General Luck, commanding the cavalry division, places on record in his report that "the ambulances at present in use are unsuitable for moving injured men over rough ground." One of the men who had sustained a severe compound fracture of the leg had to be carried on a stretcher by fatigue parties to Porton, a distance of six or seven miles, because the medical officer considered that "the suffering caused by the jolting of the ambulance might have so aggravated the injury as to render amputation of the limb necessary." The grand total of the army operating at the manœuvres was 1,975 officers and 45,599 men, or, altogether, 47,574 of all ranks.

SMALL-POX IN A NEW LIGHT.

The name of M. Drumont, the editor of the *Libre Parole*, is chiefly known in this country in connection with that latest Asian mystery, the Dreyfus case. But he apparently poses as an authority on other peccant humours besides political passion and religious rancour. Not long ago he favoured the world with his views on small-pox and vaccination. He holds that Edward Jenner was one of those who have wrought most mischief to their fellow men. This of course is only what your common or platform "anti-vack" is always telling us. But M. Drumont's charge against the discoverer of vaccination is not that he introduced a new disease or a new poison, but that he robbed mankind of a most valuable remedial agent, to wit, small-pox! "Small-pox," says this new Daniel of pathology, "has never been a disease. It is an admirable effort of the organism—a spontaneous operation of Nature—which violently rejects, expels, and deposits outside the evil principles that are in the body. It is a flowering, a blowing, a sublime crisis. Consider," he adds, "the signs presented by croup, typhoid fever, pulmonary phthisis, and you will see that they are only manifestations of small-pox turned inwards." We gather further that the "caustic matter" of small-pox in its travels about the body produces here a cancer, there meningitis; it is the cause of the increase of insanity and suicide. We should have thought, in our scientific simplicity, that the mere possibility of such dire consequences from the "turning inwards" of small-pox afforded some justification for an attempt to keep it out altogether. But M. Drumont has a logic as well as a pathology of his own. He accepts modern teaching so far as to admit that there have always been bacilli; but his view is that in the good old days before Jenner small-pox played in regard to these organisms the part which Cromwell played to the Rump Parliament. Small-pox is, in fact, if we are to believe the oracle of the *Libre Parole*, the most useful scavenger of the human system; beside it, as a "blood purifier," sarsaparilla must hide its diminished head. M. Drumont will, we are sure, agree with us that if small-pox is so successful in expelling evil principles, France at the present moment would be likely to derive considerable benefit from the "sublime crisis" of a purifying epidemic. It is true he might not agree with us as to the evil principles which require to be expelled, but that is a detail.

AN APPRECIATIVE CRITICISM.

In a recent issue the *Scotsman* deals, under the heading of Science and Nature, with the Modern Doctor after a fashion which practically identifies that important individual with science, while it regards the rest of humanity as representing for by far the most part a somewhat unregenerate nature. Yet the spirit of our contemporary's lecture is not unfair, nor its statements beyond the truth, while the matter of its article is eminently to the point; and if the public at large could be persuaded to accept and to follow out its teaching, none would ultimately be more benefited and more grateful than the public itself. We should acknowledge with proud humility our indebtedness to every writer who describes in generous and honouring terms the members of a profession in regard to which the term "honourable" is applied too often as a vague and empty epithet; for it sets before us—from outside as it were, and, therefore, the more clearly—a standard which our conscience recognises, and thus helps to strengthen our own efforts to attain it. If we must venture to criticise, it would be in the direction of submitting that to insist upon externals as the apparently necessary evidence of knowledge is, unintentionally, to do injustice to those members of the profession who, despite their wisdom, yet differ little outwardly from the majority of their fellow men. It is not absolutely requisite that the wise physician, the clever surgeon, or even the high priest of hygiene himself should be "pale faced, earnest—scorning the common pleasures of existence." Best indeed for him that he scorn nothing that is not evil; and he may not honestly scorn to study that; he needs must do so in the interests of those who suffer from it. In his terse description of the contrasts which the scientific advances made during the last ninety-nine years have imposed on the medical practitioner of to-day as compared with his remoter predecessor, the writer is happy, and fair to both. His summary of the duty of the lay public in regard to medicine, and of the abuses which neglect of this duty fosters, is admirably to the point: "In this matter the public has a great responsibility laid on it which it does not always realise. It has the power at once to put down quackery by not buying the quack's drugs. No man who advertises himself or his drugs is a trustworthy man. The harm done to the weak, the credulous, and the nervous by quack medicines and the lying advertisements of their vendors is enormous." Truly nowadays it is the public which pours medicines of which they know little—save that they bear a Government stamp—into bodies of which they know often only that little which makes for danger. Still, it might be argued that, were mankind imbued with implicit faith in their doctors, such a condition of things might prove for the science of medicine as dangerous as the complete absence of an Opposition would be to a Government. A weighty truth underlay the half-ironical remarks addressed by a valued

teacher to his class: "You will find," said he, speaking to some of his recently-qualified pupils, "that your patients will fall, broadly speaking, into two great classes: there will be those who believe in you implicitly—that is not always the same thing as having confidence in you—and those who do not believe in you at all. The former are extremely pleasant folk to have to do with, but you will learn much more from the others."

THE BRITISH MEDICAL ASSOCIATION AND THE PREVENTION OF TUBERCULOSIS.

The General Secretary of the British Medical Association has received many appreciative acknowledgments of the Report on Tuberculosis recently issued by the Council. Several of the town clerks to whom it was sent give practical evidence of their sense of the value of the report by following the example of a celebrated parochial character, and "asking for more." Thus, the Town Clerk of Winsford, Cheshire, writes: "Would you mind sending me fifteen more copies, so that I can send one to each member of our Council, and to our medical officer of health?" The Town Clerk of Rhyl writes: "May I trouble you to send me half a dozen copies? if required I will pay for them. It is most excellent and useful report." The Town Clerk of Bootle writes: "The Council of this borough are promoting a Bill in the present session to obtain the clauses recommended by the report with reference to tuberculous cows and milk. Your report will therefore be of considerable service to me, and if I could obtain half a dozen copies I should be very glad to pay for the same." The Town Clerk of Wednesbury writes: "I shall be glad if you will forward me sixteen copies of the Report on Tuberculosis issued by your Council, when I will send a copy to each member of the Town Council of this borough. It is the only way of bringing the facts home to each individual member." These letters are gratifying, not only as affording proof of appreciation of the efforts made by the Council of the British Medical Association to arouse public interest in the prevention of tuberculosis, but as showing on the part of local authorities a praiseworthy desire for enlightenment as to the means of abating the scourge. The report can be procured at the offices of the British Medical Association at a nominal cost.

THE IRISH LOCAL GOVERNMENT BOARD AND DISPENSARY DISTRICTS.

Some excitement is arising in Ireland regarding the rearrangement of several dispensary districts under the new Local Government Bill, and protests are already numerous against some of the changes proposed. It is, of course, plain that where as at present some districts are portions of two adjacent counties, a change must be carried out so as to make the limiting line of a county continuous. But care must be taken that in the rearrangement too much work is not given to the medical officer, and that the convenience of the applicants for medical relief is secured. In Athlone Union the guardians do not agree with the proposals of the Local Government Board, and they have passed the following resolution:

> That considering the great work there is for a doctor at present in the town, that one doctor would not be able to discharge the duties of the proposed extended area, the guardians would suggest the constitution of Athlone West Urban into a separate dispensary district; portion of the doctor's present salary to be allocated to it. This district to be called No. 1; and Athlone West Rural to consist of Clonown, Crannagh, and Drumlosh constituted District 3, leaving the Urban District No. 2.

Upon this it is observed: "The effect of the division of the Urban Districts would be to retain the two medical officers in town, and constitute a third rural area, without incurring further expense. The adoption of the guardians' proposal is of the highest importance, and is considered by the guardians and medical men a much better arrangement than that proposed by the Local Government Board, and an arrangement to meet the case of other towns, such as Drogheda, similarly situated." In the Urlingford Union one of the rearrangements has evoked a strong protest from the inhabitants and ratepayers, and the guardians have passed a resolution in which they say, "We have on former occasions protested strongly against the reduction of our medical staff, and we protest now against the arbitrary and unconstitutional effort by the Local Government Board to override the expressed wishes of the people and their representatives, and we call upon them to refrain from making any reduction in the medical staff of the union." It is pointed out that a poor person may in this case have to travel as much as twenty miles for medical relief, and the interpretation of the Act is challenged. In many cases where as a consequence of these changes the office of medical officer appears unnecessary, the incumbent is relieved of duty, and is to be compensated in such proportion as may be agreed upon. This compulsory retirement will in some instances be a great hardship.

THE SMOKE NUISANCE IN LONDON.

The Public Control Committee of the London County Council have called attention to yet another curious anomaly brought about by the exemption of Government property from the provisions of Acts passed in the interests of the public health. The Committee are able to state that there has been a distinct diminution in the number of cases of nuisance from black smoke in the metropolis; but they point out that very serious nuisance still continues to arise from a large number of chimneys at Woolwich Arsenal. They were advised that these chimneys, being on Government property, were exempt from the operation of the Act; but they thought it anomalous that private persons should be compelled to find a remedy for a nuisance which Government departments appeared to be able to commit with impunity. That Government departments should claim a licence to do that which if done by any other public body or by private persons would be illegal has always seemed to us to be a monstrous thing, and the matter is one to which the attention of Parliament ought to be directed. It is satisfactory to find, however, that sanitary authorities in the metropolis are waking up to their duty in this respect. That these authorities have rivalled the Queen's Government in the disregard of this duty is sufficiently manifest in the fact that up to the present time the London County Council has furnished evidence to the sanitary authorities of the existence of 3,612 cases of smoke nuisance. More recently, however, the sanitary authorities have shown a greater desire to deal with this matter; and as recent cases have almost invariably resulted in the imposition of substantial penalties, there is ground to hope for a marked improvement in the future.

MULTIPLE IMAGES IN THE NORMAL EYE.

In a recent communication to the Royal Society, Mr. Shelford Bidwell gave the results of some experiments which he has been conducting on the formation of multiple images in the normal eye. It is well known that bright objects for which the eye is not accommodated often present a multiple appearance, from 6 to 15 images being perceived. These are believed to arise from the suture-like radial lines which occur on the two surfaces of the crystalline lens. From Mr. Bidwell's experiments it appears that under suitable conditions the normal eye can see hundreds of independent images of a single point, an effect which probably results from the cellular structure of the lenses and the structures associated with them. Various experiments were tried with holes and slits from which light was allowed to proceed, but by far the best results were obtained by using as the

source of light the horseshoe-shaped filament of an electric lamp, screened by a coloured glass. When such a lamp is looked at through a lens, convex or concave, of about 6 inches focal length, from a distance of a few feet the roughly oval patch of luminosity formed upon the retina appeared to be made up of a crowd of separate images of the filament. The number was few when the observer was near the lamp, and greatly increased when he retired from it or moved the lens further from the eye. The analysis was facilitated by interposing the adjustable slit of a spectroscope between the eye and the lens. An attempt was made to count the images, and for this purpose the whole of the filament was screened except a small portion of one limb, which was viewed from a distance of about 8 feet with a 5-inch convex lens. The number seen in this way varied in different observers from 20 to 30. The number also varied according as to whether the pupil was dilated or contracted, as with a small pupil two or three of the images were cut off on each side. In order to ascertain if the original images were composed of still simpler images, the attention was fixed upon one near the edge of the row, and on moving the convex lens slowly forwards in front of the slit the single image was ultimately crossed by from 15 to 20 lines, hence assuming 25 images, the total number of elements would be from 400 to 500. These latter observations seem to indicate some anatomical structure in or near the lens, and it is probably the endothelium on the anterior surface of the lens. The number of images was probably apparently increased by the effect being a composite or rather a diffferential one. There can be no doubt that the 7 or 8 images referred to in the description of the first observation were due to the sections of the lens.

"THE ARMY DOCTOR."

Such is the title of an article in *Macmillan's Magazine* for February—in style and tone not all that might be desired, and making a sort of final rumble of thunder after the big storm had passed. It has been a source of much satisfaction that, notwithstanding the bitterness of the past controversy over army medical matters, no sooner was a Royal Army Medical Corps formed and military titles therein given to medical officers, than opposition was hushed, and the change loyally accepted by the army at large—a fact inspiring present confidence and boding well for the future. It would be idle, of course, to suppose that the change passed altogether without private individual grumbling and animadversion; no reform of the kind ever did so. The author of the article, perhaps unwittingly, yet very happily, focusses the whole force of the late controversy in the following sentence: "After many years of moderately successful agitation, and a few months of an absolutely successful strike the doctor has become a real live officer." Exactly. Then it was true that he was reckoned no officer before; and, being none, it was the highly honourable desire of his opponents to keep him in that unworthy and impossible position. Could there be any better justification of the position taken up by the medical profession in the late controversy than this ingenuous admission? Captain Trevor further declares that the capitulation of the War Office has rid the doctors of "the hateful title of surgeon." Not at all—that is a civil designation which the War Office can neither confer nor take away, and is totally independent of military status. But the compound titles would probably have been still existing had not the combatant officers covered them with ridicule, and brought them into disrepute; it was not the medical but the combatant officers who killed the hybrid titles. He also harps on the old assumption that military status must and does lessen medical efficiency. There is not a ghost of proof of this. Has the Medical Service been less efficient in India and Egypt recently than formerly? Why should a man be a worse doctor because his military position is better defined? As well say that a baronetcy conferred on a Jenner or a Clark spoilt their professional skill! But the writer himself contradicts the absurd theory, for he says: "The self-devotion of the British doctor on the field of action has no parallel in the armies of France, Germany, or Russia." Lastly, he declares, with reference to the recent changes in the Medical Service, that, "fortunately, the whole history of military administrative experiments points to the return of the old order of things when matters have become sufficiently unbearable; he is a dreamer who regards the present state of affairs as anything but a phase." From which we suppose he looks forward to the time when the Royal Medical Corps with its military titles will be broken up, and the doctors posted to regiments, as surgeons and assistant surgeons, as in the olden days. "Money," he thinks will ultimately do it; for "it is not improbable the doctor of the future may refuse to accept the rank of archangel as part payment for his services." We fear the author here shows himself to be a "dreamer of dreams;" there is just about as much chance of the reactionary measures he contemplates with such satisfaction being carried out as there is of any sane statesman bringing in a measure to repeal the various Reform Bills of the last seventy years!

THE CHAIR OF PATHOLOGY AT GLASGOW.

The vacancy created by the lamented death of Professor Coats, of Glasgow, will shortly be filled up. The Board of Curators, four of whom are appointed by the Glasgow University Court, and three by the managers of the Western Infirmary, met on February 2nd, and notice has been given that applications for the office of Professor of Pathology in the University of Glasgow must be sent to Mr. Alan E. Clapperton, Secretary of the Glasgow University Court, 91 West Regent Street, Glasgow, by March 24th. The curators present were: the Principal (in the chair), Dr. Hector Cameron, Dr. McVail, Mr. J. H. Dickson, Mr. James Boyd, and Mr. William Ker. The new professor will be required to begin his duties on April 25th.

AFTER-CARE ASSOCIATION.

The annual meeting of this useful Association, which has for its object the rehabilitation into social and industrial life of poor persons discharged cured from asylums for the insane, took place on February 6th at the house of Sir Samuel Wilks, who presided. The annual report (presented by the Secretary, Mr. Thornhill Roxby) showed that 186 cases (55 of them men) had been considered by the Council as compared with 147 in 1897. Cases had been assisted by being boarded out in country cottages where considerations of health rendered change desirable, by grants of money or clothing, by occupation of a suitable character being found for those qualified for employment, and in other ways. The receipts had amounted to £652 12s. 3d. in 1898 as compared with £561 7s. 9d. in 1897. For the extension of the work of the Association additional subscriptions and donations were urgently needed. The Chairman pointed out the useful character of the work of the charity, supplementing, as it did, curative treatment in asylums by beneficial measures in many cases indispensable to confirm the recovery. All recognised the utility of convalescent hospitals for patients who had passed the acute stage of bodily illnesses; this Society, however, which was the only one in the United Kingdom to minister to the analogous but sometimes more urgent needs of those who had suffered from mental disorder, was not so well supported as it deserved to be, were its objects better understood. The Bishop of Islington moved the adoption of the report, and Dr. Blandford, in seconding, observed that even well-to-do patients recovered from an attack of insanity needed a complete change of scene before returning to the cares of business or of the family, and pointed out the still greater

necessity of a period of invigorating change for those poor people who had no comfortable homes to go to. He controverted the popular notion that "once a lunatic, always a lunatic," and cited instances of persons who had had an attack of insanity but were yet doing very useful work in the world. The Archdeacon of Essex and Dr. Savage supported the motion, which was carried *nem. con.* Subsequently the Council and officers were reappointed, on the motion of Dr. Nicolson, C.B. (Lord Chancellor's Visitor), seconded by Dr. Claye Shaw; and a vote of thanks to the Chairman—spoken to by the Rev. H. Hawkins, Dr. Rayner, and others—brought the proceedings to a close. It may be added that amongst the persons helped during the year have been some who have not actually been under treatment in asylums, but, having been mental invalids, have on recovery been assisted in obtaining situations or put in the way of suitable change when necessary. The offices of the Association are at the Church House, Dean's Yard, Westminster.

THE CLINICAL INSTITUTE OF FLORENCE.

We publish elsewhere an account of the renovated and reorganised buildings of the medical department of the Clinical Institute of Florence. It is a report and in part a translation of the address given by Professor Grocco at the inaugural ceremony, and no one could be better qualified to describe what has been done, for he has been the moving spirit throughout. The University of Florence was at one time a distinguished seat of learning; in the chances and changes of mortal life in Italy it has ceased to have a separate existence. But its dissolution left untouched certain faculties, amongst them that of medicine, which are now incorporated with the Royal Institution of Higher Education and in a way affiliated to the University of Pisa. Through great difficulties and obstacles Professor Grocco has fought his way valorously and has emerged signally triumphant. We congratulate him and his city.

A CLEAR CONFLICT OF TESTIMONY.

Mr. Costelloe is reported to have said, during the discussion at the London School Board on the sanitary or insanitary state of the Brentwood Industrial School, that "he had never seen a case in which there was a clearer conflict of testimony." This, though it savours of epigram, really expresses rather well the confusion of mind which must be produced by a perusal of reports, counter reports, replies, independent reports, and independent counter reports presented on the drainage of the buildings. Last summer an outbreak of illness occurred at the school, and the medical officer of the Board reported that the drainage system required alteration in many respects. The assistant architect for repairs, under whose supervision the drainage had been reconstructed four years earlier, made an examination, and reported that everything was in good order and that no alterations were required. The medical officer was not satisfied and called for further examination. Thereupon the Board's sanitary surveyor made an examination, and reported serious defects in the drainage. Next an independent sanitary engineer was called in and confirmed the Board's surveyor. The assistant architect for repairs made some observations on this last report, but these did not lead the independent expert to modify his opinion. The Works Committee being bound to regard the matter as serious since the illness in the school had resulted in death, found that they had lost confidence in their assistant architect for repairs, and asked him to resign. This he refused to do, and the matter was therefore reported to the Board. The Board had all the reports before it, and also the report of the medical officer and of Professor Corfield. The medical officer in his report expressed the opinion that the outbreak of illness at the school was to be ascribed to the defective drainage arrangements, aggravated by the overcrowded condition of the school, whilst the water supply was not altogether free from suspicion. He suggested that the whole system of drainage should be remodelled under proper skilled supervision, and, pending such a revision, that the boys should not be allowed to return to the school. Professor Corfield, on the other hand, expressed quite a different opinion on the drainage, which he found well planned and carried out, though susceptible of improvement in minor matters. A motion to confirm the action of the Works Committee was met by an amendment to refer the matter back to them, and at this point the discussion was adjourned. But the last report of the medical officer has opened up a much larger question. He pointed to certain ineradicable defects in the site of the school, and further recommended that a material reduction should be made in the number of boys at the school, and more efficient ventilation afforded in the dormitories. In view of all the defects, removable and irremovable, he concluded by raising the question whether it was wise to retain the building at all as an industrial school.

CHEMICAL FIRE ENGINES.

A correspondent draws our attention to a report in the *Eastern Morning News* of a meeting of the City Watch Committee at Hull, at which it was suggested that the loss of two lives at a recent fire might have been due to the use of "chemical" engines. By most of these engines carbonic acid gas is directed upon the blazing material, and this gas prevents the access of air to the fire, which cannot continue to burn for lack of oxygen. The possibility of any persons in the room being suffocated by the gas given off by the engine seems to be remote. It must be remembered that human beings can survive exposure to an atmosphere so highly charged with carbonic acid that a fire cannot burn in it. The chemical engines are chiefly of use at the beginning of a fire, when the firemen could easily rescue the inmates of a room before employing the engine. It must also be remembered that the fumes given off by burning material are, to say the least, quite as suffocating as carbonic acid, and that the combustion itself not only produces abundance of carbonic acid gas, but uses up the oxygen of the air as well. We do not remember a case of death proved to have resulted from the use of these chemical engines. No doubt if the air of a room in which people are sleeping were to become highly charged with carbonic acid the gas might have a narcotic effect so that they might be suffocated while still asleep, but it is hardly probable that the volume of gas emitted by one of the engines would be large enough to produce fatal results when mixed with the air of even a small room.

THE DISINFECTION OF DRAINS.

A debate took place at King's College, on January 27th on the Testing of House Drain and Stack Pipes: their Cleansing and Disinfection after Illness, in connection with the classes of instruction for plumbers and sanitary inspectors conducted at the College. Some 300 plumbers were present. Dr. Mansel-Howe, of Tooting, who opened the debate, showed by lantern illustrations some of the ordinary means adopted by plumbers for examining the reliability of pipes—the water test, the smoke test, and the various odour tests. He also illustrated and considered the testing of pipes by compressed air and the use of the mercury gauge, and of rarefaction of the air in conjunction with the vacuum gauge, claiming for these tests greater simplicity, efficiency, and less liability of damage to property than belonged to the water test. The cleansing of the house drain and shaft pipes was advocated as a precaution which it would be wise to adopt from time to time, independently of sickness; after any illnesses it should be insisted on by the public sanitary authorities. At the present time, when so many house drains were provided with inspection, ven-

tilating, and disconnecting chambers, it was comparatively easy thoroughly to brush out and scour this channel. In like manner the fittings and traps in association with the stack pipes were provided in all better-class plumbing work with inspection and cleaning eyes, in order that the curves and bends of the pipes in these fittings might be cleansed. Unfortunately these inspection eyes were seldom employed for cleansing purposes purely and simply, and were made use of only when some temporary stoppage or lodgment in the pipes necessitated immediate attention. When, however, the house drain and stack pipes had been treated mechanically by means of brushes, etc., it was recommended that all these pipes should be subjected to the disinfecting properties of chlorine gas for the destruction of pathogenic germs that might linger in the inaccessible parts of the pipes, and in the meshes of the hemp too frequently found in the many unions of the house drain pipe. Dr. Mansel-Howe stated he was greatly indebted to Mr. Edmund White, B.Sc., of St. Thomas's Hospital, for valuable information respecting the disinfection of the stack pipes and for the use and recommendation of chlorine gas in this particular. In the discussion which followed, the opinion was freely expressed that hemp might very readily be dispensed with in the uniting of iron drain pipes, and that when the house drain was constructed of stoneware pipes hemp should never be employed.

TUBERCULOUS PATIENTS UNDER THE POOR LAW.

The West Derby Board of Guardians of Liverpool have invited the other two large local unions—Liverpool and Toxteth Park—to a joint conference, to be held on Wednesday, February 22nd, to consider the treatment of Poor-law cases of tuberculosis, and to consider the advisability of treating the early cases in some rural locality with a view to their cure. This may be hailed as a decidedly progressive step. How to deal with cases of tuberculosis of the class referred to is one of the points connected with this important sanitary question which at present most urgently need to be dealt with.

PSEUDO-TUBERCULOSIS.

A special discussion on the subject of Pseudo-tuberculosis will be held by the Pathological Society of London on February 21st. Dr. G. Sims Woodhead will open the debate, and will be followed by Professor Sidney Martin, Professor John McFadyean, Drs. Washbourn, Pakes, and Wethered. It is hoped that any members who have anything to contribute will communicate with the Secretaries at 20, Hanover Square. The object of the debate is partly to focus the existing knowledge on the subject and partly to obtain a more definite idea as to what conditions should be included under the heading "pseudo-tuberculosis."

GUARDIANS ON MEDICAL REMUNERATION.

At a recent meeting of the Bristol guardians the subject of the appointment of medical officers to the "scattered homes" for pauper children was considered. In the first place it was proposed that an annual payment of 4s. a head should be offered as remuneration, the guardians to supply medicines. An amendment was proposed and carried that this sum should be reduced to 2s., but ultimately it was resolved that 3s. a head be paid, the medical officers to provide medicines. The chairman is reported to have remarked, "I think you will have to find a doctor to do it," and another guardian, that "they will be expected to do things for nothing next," so that it would appear that on the whole the Board have not an easy conscience about the decision. From the medical standpoint, such an appraisement of the value of professional services seems quite indefensible; and the principle that the doctor appointed should provide his own medicines is specially objectionable. It is not to be expected that children in pauper homes, scattered though they may be, will be exceptionally robust. We trust that the ridiculous rate of remuneration offered will prevent self-respecting members of our profession from offering themselves for the vacant posts, for guardians should be made to feel that medical "sweating" is as much a sin against sound social economics as is "sweating" of the labouring classes, from whom under similar circumstances we should soon hear an outcry about a "living wage."

AERATED WATERS AS FACTORS OF DISEASE.

At the instance of the Lucknow Cantonment medical authorities two aërated water factories have been closed, the water in use in the manufacture of the beverages having been pronounced unfit for use. It is to be hoped that the decision will induce the medical authorities in India to overhaul the aërated water factories under their jurisdiction at other stations, particularly at those where enteric fever is prevalent.

We regret to have to announce the sudden death of Mr. Thomas Cooke, which took place on February 8th. He was engaged in demonstrating in the dissecting room at the moment. The funeral will take place at Kensal Green Cemetery at 2 P.M. on Monday next.

At a meeting of the Scottish Liberal members on Wednesday Dr. Farquharson, as one of the senior members, was chosen to act as Chairman in succession to Sir Henry Campbell-Bannerman.

Owing to the death of Prince Albert of Saxe-Coburg and Gotha, the Queen's visit to the Isle of Wight Infirmary and County Hospital to open the Diamond Jubilee Memorial Wing has been postponed until July.

The sculptor, Herr Ernst Herter, has completed a statue of von Helmholtz, which is to be erected in the court of the University of Berlin, between the statues of the two Humboldts. The monument will be unveiled in the spring.

Professor Brouardel, whose term of office as Dean of the Faculty of Medicine of the University of Paris recently expired, has been re-elected for a further term of three years. The election is made by the professors of the Faculty and the *agrégés* in active service as public teachers. Professor Brouardel received 49 out of a total of 52 votes.

We understand that it is proposed to hold early next month a Conference to promote the formation of a Central Hospital Board for London, and that in connection with this the Charity Organisation Society has issued a circular inviting an expression of opinion on certain points. The point to which attention is particularly directed is whether the increase in the out-patient and casualty departments at general and special hospitals is acting injuriously on general practice in London.

We understand that some rearrangements in certain wards of the Hospital for Consumption, Brompton, with the view to promoting the efficiency of the treatment carried out in the hospital, are now under consideration, and that the question of the establishment of a country sanatorium is also being considered by the Medical Committee and the Committee of Management. A paragraph which has been extensively published in the press appears to give an erroneous impression of what is actually in contemplation.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

Parliament opened on Tuesday with a good muster of legislators in both Houses. The Commons House was unusually full, nearly 500 members being present; indeed, 449 voted in the first division. The difficulties of the Opposition over the question of leadership naturally invested the proceedings with more than common interest, and after the Address in reply to the Queen's Speech had been moved and seconded, the new Opposition Leader had a remarkably large and expectant audience. The speech of Sir Henry Campbell-Bannerman came as a surprise. It showed great capacity and guiding power, and, moreover, was pervaded by a racy humour which at once delighted his own followers and conciliated his opponents. It is long since the Liberal side cheered so heartily and so unanimously as during the delivery and at the conclusion of the new Leader's speech.

The Queen's Speech contained an important reference to plague in India, which is not altogether reassuring to those who can read between the lines. The spread of the malady is deplored, and although reference was made in the debate to greater co-operation on the part of the native population in the preventive measures, there can be no doubt the disease is widespread and still spreading. The legislative programme of the Government is scanty. Nearly every measure has been mentioned in previous speeches from the Throne. The catalogue for a session of Parliament which is generally considered a critical one is a list of measures rather useful than exciting. London government, a Board for primary, secondary and technical education, Private Bills procedure for Scotland, and the purchase of workmen's houses are the principal measures. In the omnibus paragraph legislation is mentioned with regard to London Water, Food Adulteration, and the Factory Acts, which may prove of interest to the profession: but there is, it is to be regretted, no reference whatever to the promised Bill for revaccination.

The Midwives Bill has hardly made as much stir this year as formerly among the large number of Bills to be introduced by private members. Still, a goodly number are balloting for a place for it, and if a high position is secured, its promoters hope to get a second reading, and then persuade the Government to take it up. Its promoters believe that the modifications made in the Bill will lessen opposition.

Of Private Members' Bills there will be a large crop. On the opening day no fewer than 292 names were on the list to ballot, and before the list closed more than 350. In some cases as many as between 30 and 40 names are down to get a high place for one Bill. In such a case the member who is lucky enough to have his name drawn first takes charge of the Bill and moves its second reading. The names for the ballot are put down on the first and second days of the session, the ballot for precedence is taken on the third day, and the Bills are announced and brought in on the fourth day. The daily papers of Saturday will therefore contain the fateful list, and of these only the first eight or ten will have any chance of passing into law. The first names drawn in the ballot are those of Mr. Robson, Mr. Reckitt, Sir B. Maple, Mr. J. F. Flannery, Mr. J. A. Pease, Mr. Pymm, Mr. H. Whiteley, Mr. Gordon, Mr. Tritton, Mr. D. McIver, Mr. Colville, Sir A. Scoble, Mr. R. J. Price, Mr. Strachey, and Mr. O'Malley. We do not recognise any well-known advocate of the Midwives Bill on this list, and unless it is taken up by one of the members named, its chances for the session are by no means promising. The subjects of old age pensions, Poor-law reform, and temperance have secured high places.

Vaccination and the Act of last session are not likely to be ignored during this session. Mr. Bartley put down on the first day no fewer than three questions on the subject, relating to the danger arising from unvaccinated children in elementary schools, and the enforcement of vaccination on entrance to the army or navy. He has also asked for a return of the number of conscientious objectors. Among the Bills introduced by private members is that of Mr. Boulnois, M.P. for Marylebone, who seeks simply to repeal Section 11 of the Act of last year. It is not unnatural that Mr. Boulnois should limit his amending Bill to the repeal of Section 11, as it is common gossip in the Lobby that the demand for calf lymph from the Local Government Board has exceeded all expectations. The quantity originally provided for has been increased by more than 50 per cent., and a proportionate increase in the staff, etc., has been sanctioned.

Amendments to the Queen's Speech were showered in on Tuesday night as soon as the motion was made for an Address in the usual form. Wednesday's paper revealed no fewer than twenty-four amendments, and others may yet be handed in. None of the two dozen have any special medical interest, with the possible exception of those which relate to Poor-law reform and old age pensions; no fewer than five deal with these questions. The rest touch on constitutional and administrative questions, like Home Rule and the reform of the House of Lords, the crisis in the Church, foreign affairs, slavery, the grievances of postal employees, and the minimum wages for labourers in the Government service, which it is suggested should be 24s. a week. All these subjects are not likely to be discussed, although the debate on the Address will probably last all next week.

The Prevention of Tuberculosis is likely to crop up in the House on many occasions on account of the general public interest lately aroused on the subject. Mr. Channing, in his speech on the address, referred in strong terms to the want of more vigorous action on the part of the Board of Agriculture, and has followed up his remarks by a question calling attention to the action local authorities are taking to prevent the sale of milk from diseased cows. He presses the Government to secure by legislation better protection from tuberculous infection through the milk supply. The Board of Agriculture has recently appointed Dr. W. J. Collins, late Chairman of the London County Council, to represent the Council on a Departmental Committee to inquire into the Diseases of Animals Act.

The Practice of Massage as at present carried on will very probably be the subject of attempted legislation this session. The British Medical Journal did great service some years back in connection with the abuse of massage houses; and a Bill has been drafted by Colonel Dalbiac to regulate and control such establishments, and to license the persons who practise massage. The Bill would throw the work and responsibility on the General Medical Council, but it is thought that it is more a matter for the Home Office, as the General Medical Council has hitherto had no concern in licensing or inspecting institutions for any kind of practice, and is not a body well adapted to undertake duties which will require constant vigilance and prompt proceedings in order to check the alleged abuses. If the Bill gets a chance of consideration by the House, these points will no doubt be kept in mind by its promoters.

CONTRACT MEDICAL PRACTICE.

CORK.

We understand that the medical officerships of several of the clubs in Cork which refused the terms of the medical profession have become vacant, and that two of these clubs have elected members of the profession in Cork under the regular rules. We think it well to call the attention of persons who may be approached with a view to accepting any of the appointments still vacant to this fact, and to point out to them that it can hardly be in their own interest to accept appointments upon terms which the medical profession in Cork are unanimous in condemning, while such action will undoubtedly be injurious to the best interests both of the medical profession and of the public.

Mr. T. Garrett Horder (Windsor Place, Cardiff) writes: Will you kindly allow me to ask your readers for copies of reports of medical aid associations?

THE PREVENTION OF TUBERCULOSIS.

Dublin.

A special meeting of the Board and medical staff of the National Hospital for Consumption for Ireland was held in Dublin on February 1st in furtherance of the objects of the National Association for the Prevention of Consumption. Mr. R. O'B. Furlong, chairman of the Board of the National Hospital for Consumption for Ireland, presided. Among those present were Dr. J. W. Moore, President of the College of Physicians; Sir Francis Cruise, D.L.; Dr. T. W. Grimshaw, C.B., Registrar-General for Ireland; Dr. J. Magee Finny, ex-President R.C.P.I.; and other prominent members of the profession.

The Chairman, in explaining the objects of the meeting, stated that the National Hospital for Consumption for Ireland had already for some years anticipated in Ireland such efforts as were now about to be made by the National Association for the Prevention of Consumption to deal with a disease which was causing so large a percentage of mortality, and he felt sure that those present would recognise that it was their duty to welcome and assist in every way possible this movement.

Dr. T. W. Grimshaw, C.B., Registrar-General for Ireland, then made a statement, in which he mentioned among other facts that the average number of deaths from tuberculosis during the five years 1892-96, were:

—	United Kingdom.	Ireland.	Dublin and District.
Phthisis	59,015	9,672	1,214
Other forms of tuberculous disease	17,366	1,882	390
Total	76,381	11,554	1,604

These figures gave the following average as to the total deaths:

United Kingdom ... 10.8 per cent. of the total deaths.
Ireland ... ... 13.9 per cent. of the total deaths.
Dublin and District ... 17.2 per cent. of the total deaths.

He called attention to the facts made public by Dr. J. W. Moore when at Carlisle two years ago that during the past twenty years or so tuberculosis had shown a steady tendency to decrease in England and Scotland, due to an increase in sanitary measures, but in Ireland the tendency to decrease was scarcely perceivable. At least 10,000 of the people of Ireland died annually from a disease which was infective, and therefore within control. He gave the fullest support to any organisation which would contend against such a calamitous disease.

Dr. J. Magee Finny moved:

That this meeting of the Governors and Medical Staff of the National Hospital for Consumption for Ireland, having regard to the fact that the extensive prevalence of tuberculosis constitutes at the present time the most fruitful source of danger to the public health, considers that the National Association for the Prevention of Consumption and other Forms of Tuberculosis is deserving of support.

Dr. O'Carroll, in seconding the resolution, was glad to state that owing to the circulation of a paper read by him on the Duties of the Community with regard to Tuberculosis, before the Sanitary Congress held in Dublin during last autumn, in which he called attention to the prevalence of consumption in cattle slaughtered in Manchester, many of which were shipped from Dublin, the sanitary authorities had now taken precautions to ensure that all cattle leaving Dublin were free from tuberculous infection.

The resolution was passed unanimously.

Mr. John Mulhall proposed:

That this meeting, believing in the system of treatment of consumption indicated in the published leaflets of the Association to be similar in principle to the fresh-air system adopted and in use at the hospital at Newcastle, as the most efficient treatment of consumption, considers it expedient that steps should be taken for the formation of one or more branches of the Association in Ireland.

The resolution, which was seconded by Dr. Alfred R. Parsons, and supported by Sir F. Cruise, was passed unanimously.

Dr. Anthony Roche gave a lecture on the prevention of tuberculosis at the North Dublin Workmen's Total Abstinence Society on February 2nd. There was a large attendance. The lecturer explained in popular language the causes of the disease and the means by which they might be avoided. The lecture, which was an excellent example of the kind of teaching needed to make the crusade against tuberculosis successful, was listened to most attentively by the audience.

Belfast.

The annual meeting of the subscribers and friends of the Forster Green Hospital for Consumption and Chest Diseases was held on January 25th.

After some introductory remarks from the Chairman, the Secretary read the annual report of the Board of Governors. On the suggestion of the medical staff it was in contemplation to provide covered verandahs and open-air shelters, where patients might benefit from the fresh-air treatment. The large conservatories and vineries were being converted into a winter garden, heated by hot-water pipes, but owing to the distance from the main building this could only be used by those strong enough to walk to the garden. The verandahs were designed so that patients might be wheeled out on couches if too weak to walk. It was also under consideration to secure a supply of sterilised milk, or to provide apparatus for sterilising on the premises. With open-air treatment and sterilised milk two of the remedies recognised as the most effectual would be available for the patients to the fullest extent possible. Treatment in the new way was likely to be more expensive, for while there would be a saving in medicines, it was probable that the patients must be supported for a longer period.

Dr. F. Howard Sinclair read the report of the medical staff, who stated that the total number of patients treated during the year was 511. Of these, 399 were new cases treated at the out-patient department, with 1,467 attendances of old patients, making a total 1,866 attendances. During the year the medical profession in this country had at last recognised what an Irish physician fifty years ago pointed out, that the most telling remedy in consumption was a properly carried out open-air treatment. The position of the hospital at Fortbreda was specially well adapted for carrying the details of the open-air cure.

The Marquis of Londonderry referred to the National Association for the Prevention of Consumption, which, as they knew, had recently been holding some very important meetings in England. It was, to his mind, specially necessary in Ireland to attempt to grapple with this disease, inasmuch as statistics showed that whereas for the fifteen years ending 1896, the ratio of deaths from pulmonary consumption to the total number from all diseases was 8.5 in England and Wales and 9.9 in Scotland; in Ireland it was 11.7. In Ireland, during the twenty-six years ending 1890, 1,200,000 deaths were registered, 200,000 of these being from consumption alone. If to these were added other forms of consumption which killed in other ways, the percentage of 11.2 would be arrived at. In view of these figures, they would readily understand the great pleasure he experienced in being present to urge the adoption of the report. He welcomed the paragraph dealing with the contemplated provision for sterilisation of milk. There could be no doubt that a close examination of cattle was most important. Some people had gone so far as to say that all cattle displaying the slightest symptom of tuberculosis ought to be slaughtered. Such a step might lead to many complications, and he did not wish to express any view concerning the matter, but as a well-wisher to his fellow-men he did trust that a very close inspection of all inspection of all cattle would be undertaken. The object of such a hospital as that in connection with which they were met was to provide for the treatment of those who were not in a position to seek either the warm sunshine of the Mediterranean or the cold healthy air of Switzerland. What should be impressed upon all interested in the question was that consumption could be stamped out if only the proper precautions were taken.

Professor Cuming, who also spoke, said it was regrettable that Great Britain, so long in the van in the matter of sani-

tary progress, should have fallen behind Germany, Switzerland, and the United States in respect to such institutions, and the efforts of the Committee to do their part in endeavouring to remedy this drawback was one which he thought most encouraging.

Rev. President Hamilton said that if the National Association had done no more than call attention to the facts that consumption was not hereditary, and not incurable, the existence of that Society would have been amply justified. It must be a matter of some pride to Belfast people now that the "open-air" treatment of consumption was recognised in the highest quarters, to know that this method of treatment was practised and preached by the late Dr. Henry MacCormac, whose stalwart form many of them yet remembered, and whose still better known son, Sir William MacCormac, had affixed his signature to the manifesto on the subject, drawn up by Sir William Broadbent.

Ipswich.

On February 3rd a meeting was held at Ipswich, the Marquis of Bristol, Lord-Lieutenant of Suffolk, in the chair, to consider the question of the prevention of tuberculosis. The meeting was largely attended, the principal speakers being Sir James Crichton Browne and Dr. G. A. Heron, who represented the National Association for the Prevention of Consumption and other Forms of Tuberculosis. After some introductory remarks from the Chairman, Sir J. Crichton Browne said that, at a meeting held at Ipswich some two months before, Dr. Elliston had with the greatest force and lucidity stated the problem, and pointed out its only possible solution. But no opportunity should be lost of insisting that the remedial measures to which recent discoveries in regard to tuberculous disease had directed the profession should be inculcated in the public mind. It was of the utmost importance that this great crusade against tuberculosis should be a thoroughly national movement. He referred to the great decline in the prevalence of consumption which had taken place during the Queen's reign, adding that if with their comparative ignorance of the nature of consumption in the past, the mortality from that disease had been reduced two-thirds in sixty years, why, with that complete knowledge of its nature which they now possessed, should it not be exterminated in the next thirty years? In Suffolk the vital significance of the movement had been early recognised, for Dr. Jeafferson, of Framlingham, had said that consumption was practically disappearing from high Suffolk, and with its comparatively dry atmosphere, abundant sunshine and freedom from smoke, Suffolk had a great advantage in starting the work. Speaking of the further measures required, Sir James said that for all those sufferers dependent on the Poor-law guardians special hospitals should be provided, isolating the patients from others, and for the middle classes special sanatoria were urgently needed. Such sanatoria and hospitals would withdraw from the general population numerous little centres of contagion, and would undoubtedly restore to health and usefulness many who but for them must die. They would afford facilities for the open-air treatment that had attained such brilliant results on the Continent, and which in East Anglia also had been most favourably reported on. Dr. Heron, speaking with a full sense of the responsibility he incurred, maintained that the present system of treatment of consumptives in the out-patient departments of the hospitals at our large cities was little less than a farce. Just now, some thousands of consumptives were attending the waiting-rooms of London hospitals. They might wait there for a long time before they could be seen, and, when they were, what happened? The consumptive saw the physician for a minute or so perhaps; the physician prescribed some drugs for his patient, then with his bottle of medicine the consumptive went back to live, perhaps to half-starve, in a slum. To call this the proper treatment of consumption was a cruel mockery. The charitable public supplied the funds which supported hospitals, and it was for them to say how much longer they would permit such a waste of money and of time on this burlesque of charity. The moral of this was that sanatoria for consumptives should be established. The disease could be prevented; it ought to be prevented; and if the people of England would help it should be prevented.

The Mayor of Ipswich moved:

That the thanks of the meeting be given to Sir James Crichton Browne and Dr. Heron for their addresses, and that we resolve to form a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis for the county of Suffolk.

The resolution, which was seconded by Sir William Bramption Gordon, K.C.M.G., was carried *nem. con.*

Dr. Crowfoot (Beccles) proposed:

That it is desirable in the opinion of this meeting to establish in the district an experimental sanatorium on a self-supporting basis.

There was only one way in which the disease could be attacked, and that was by providing a sanatorium or hospital where such cases could be treated on proper principles. Unless they did that it was folly to attempt to prevent the spread of the disease amongst the poor. He felt that there was every probability, if a sanatorium were established on the Suffolk coast, that it would receive a good deal of patronage.

Dr. Casley seconded the motion, observing that it seemed to him that a sanatorium was urgently required, and he was rather sorry the resolution did not go a little further and suggest the appointment of a committee to collect the necessary funds. There were plenty of places on the seacoast where such a sanatorium could be placed. The motion was carried *nem. con.*

The United States.

A State Sanatorium for Consumptives in New York.

According to the *New York Medical Record*, a Bill has been introduced in the New York State Legislature authorising the establishment of a sanatorium in the Adirondack forest preserve for the treatment of tuberculosis, the site to be selected by the trustees provided for in the Bill. The Bill provides that the sum of $200,000 (£40,000) be appropriated for the purpose of erecting and equipping the buildings. It is provided that within thirty days after the passage of the Act the Governor shall appoint five citizens of the State to constitute the trustees of the State hospital for consumptives, who shall be appointed for three years, who are empowered to select a site within the forest preserve wherein to construct the hospital, at a cost not to exceed $150,000 (£30,000), which shall be completed and provided with ample facilities for the accommodation of 200 patients within two years from the passage of the Act. The trustees are to receive a salary of $1,000 (£200) per year during the construction of the building, upon the completion of which their salaries are to cease. In order to supply to the public needed information concerning the disease, the State Board of Health is directed to issue a circular containing information upon the subject of tuberculosis and its prevention. The Bill provides for the appointment of examining physicians, two in number, in each of the cities of New York, Buffalo, and Syracuse, to examine patients and commit them by certificate. Patients able to pay, or having relatives able, must do so. The Committee appointed by the Senate to investigate the advisability of the measure strongly urged it, and drew up the Bill.

According to the *New York Medical Record*, an Anti-tuberculosis Bill has been introduced into the New York State Senate, providing that all cattle brought into the State shall have had a test thirty days previously at the hands of a State official, and shall be admitted only after this official has furnished a written permit to import them. All transportation companies are forbidden to carry cattle without such permit. No indemnity is to be paid for slaughter of diseased cattle brought into the State without a permit. Violation of the law imposes a fine of $25 (£5) to $250 (£50) for a first offence, and six month's to one year's imprisonment for a second offence.

Germany.

Dr. Pannwitz, General Secretary of the German Central Committee for the establishment of Sanatoria for Sufferers from Lung Disease, requests us to call attention to the fact that the Committee has arranged that a Congress for the Repression of Tuberculosis as a National Disease should be held in Berlin from May 24th to 27th. The Congress is under the protectorate of Her Majesty the German Empress, and the Imperial Chancellor, Prince Hohenlohe-Schillingfurst, is its Honorary President. The work of the Congress will be divided among five sections as follows: (1) The spread of the

disease: (2) its etiology; (3) prophylaxis and (4) treatment; and (5) sanatoria. Anyone interested in the subject which the Congress proposes to consider may become a member on payment of 20 marks (£1) to the Bureau des Organisations-Komites, Wilhelm-Platz, 2, Berlin, W. The proceedings will be in German.

The number of those who have intimated their intention of taking part in the Congress already exceeds 300. A large number of ladies, among them the Grand Duchess of Saxe-Meiningen, will attend as delegates. The Emperor and Empress are known to be deeply interested in the Congress. The President of the Reichstag has placed the large hall of the Imperial Diet at the disposal of the organising Committee for the meetings of the Congress.

According to the Berlin correspondent of the *Standard* Count Posadowsky stated in the Reichstag on January 28th that societies for the establishment of consumption hospitals are being formed throughout Germany, and that ample means have been provided for this purpose by private persons. It seems inopportune to demand anything from the empire at present, because the efforts of private enterprise would be checked thereby. The Count then gave the official statistics of the spread of tuberculosis, which he called "the great destroying angel," but they seem to prove a decrease of the illness in proportion to the improvement of the standard of life among poor people.

The Chancellor's daughter, Princess Elizabeth Hohenlohe, has received 100,000 marks for the erection of a pavilion for consumptive patients from Herr Gustav Boehm, one of the largest Berlin corn dealers, whose son, aged 24, died of consumption a few weeks ago.

The ravages of various forms of tuberculosis in Germany may be exemplified by reference to the statistics of diseases published by the Imperial Insurance Department. It appears that half of those persons registered as infirm between the ages of 20 and 30 are suffering from some form of this disease.

Italy.

To the city of Padua belongs the honour of being the first to establish a sanatorium for poor sufferers from tuberculosis in Italy. At a meeting of the Administrative Council of the Civil Hospital of that city on December 21st, 1898, a scheme drawn up by Dr. Giuseppe Pastorello was approved. From his report it appears that the annual number of deaths from pulmonary phthisis in Italy is about 40,000, while during the last three years tuberculosis has claimed more than 2,000,000 victims. Dr. Pastorello proposes that a sanatorium with 30 beds should be constructed in a suitable situation in one of the highest parts of the Euganean hills. He estimates the cost of erection at 100,000 lire (£4,000) and that of maintenance at 30,000 lire (£1,200) a year. He further suggests that a hospital for incurable cases of tuberculosis with accommodation for 100 patients should be established at the same time. By utilising existing buildings he thinks this could be done at an expense of 15,000 lire (£6,000). Dr. Pastorello hopes that the sanatorium will in course be enlarged by the erection of additional pavilions so as to provide accommodation for a much larger number of patients.

THE PLAGUE.

The Special Commission in India.

We extract from telegrams to the *Times* the following evidence given at the sittings of the Commission held in Karachi.

Mr. Kaka, municipal health officer of Karachi, stated that the first outbreak of plague occurred in December, 1896, and ended in July, 1897. In March, 1898, a recrudescence occurred, and occasionally cases occurred up to the present moment. Certain native sects were more prone to the disease than others.

Captain Jenny, port health officer of Karachi, gave an account of the examination of ships from infected ports; he declared that the attempt to deal with the disinfection of cargoes had proved unsuccessful.

Colonel Mackenzie believed that Poona was infected by passengers carried thither by the railway. The symptoms in the natives and Europeans were similar, but the latter had greater resisting power.

Dr. Rainier described the first epidemic in the Palanpur State; it began in February and ended in May, 1897. The second epidemic began in May, 1897. Of the 21,000 inhabitants 674 were attacked by plague, and of these 413 died. The town was completely evacuated.

Mr. Sladen, Acting Collector, stated that as soon as a house in Karachi was infected or dead rats were found, the owners were compelled to disinfect it within two days, otherwise it was disinfected by the authorities and the expenses charged to the owners.

Colonel McConaghy stated that he was inoculated with Haffkine's serum in Poona; the dose was 3 cubic centimetres. He had slight fever on the following day, the temperature rising to 103° F. He had no other untoward symptoms. He had never seen any dangerous symptoms resulting from inoculation.

Dr. Nazareth gave an account of the treatment of plague by Dr. Roux's serum from the Pasteur Institute, Paris. Forty-seven patients were inoculated, of whom twenty-five recovered. Three doses were given of 40 cubic centimetres each. The treatment almost invariably failed in the pneumonic form of the disease.

During sittings at Baroda and Surat, Dr. Mehta, of Baroda, gave the results of inoculations in his district. At Undera 513 persons were inoculated with Haffkine's serum, of whom three only died of plague, whereas of 437 uninoculated persons 26 died. At Kaylee of 1,159 persons inoculated nine died of plague, whilst of 2,162 uninoculated 110 died.

The evidence given at Surat showed that the plague travelled thence from Bombay; 18,000 persons in December, 1896, were suffering from plague in Surat and district. There were 2,532 admissions into hospitals and of these 1,726 died.

In Lower Daman 7,000 persons were infected in February, 1897, but the plague had disappeared in October, 1898.

Bombay.

The deaths from plague during the week ending January 27th were 538 in the city of Bombay. This mortality shows an increase of 82 over the previous week.

Madagascar.

Since plague first broke out in the island 285 cases had occurred, and of these 195 died. Five Europeans have been attacked, and of these only 1 died. The latest records show a marked decrease in the number of cases, and the outbreak is now limited to the town of Tamatave.

Mauritius.

A case of true bubonic plague has occurred at Port Louis. The victim was a labourer engaged at the dock. It is reported that other cases have been found in the town.

LITERARY NOTES.

Messrs. Methuen will shortly publish a new and cheaper edition of Sir George Robertson's fascinating *Siege of Chitral*. As most of our readers are aware, that "brave civilian," as he was called by the Duke of Cambridge, is a lieutenant-colonel in the Indian Medical Service.

The Archives Orientales de Médecine et de Chirurgie is the title of a new medical journal which has just appeared. It is intended to serve as the medical mouthpiece of Oriental countries, including Turkey, Egypt, Asia Minor, Greece, Roumania, etc., which are beginning to take part in the scientific movement. The periodical is published in Paris, and is edited by Dr. Diamant Berger with a large number of collaborators in Constantinople, Cairo, Bucharest, Odessa, Jassy, Tangiers, etc.

Every self-respecting medical school nowadays has a journal or a "gazette" of its own. Charing Cross has hitherto been almost as *distingué* among the London hospitals by the want of a journal as Lord Castlereagh was by the want of a decoration among the bestarred and beribboned diplomatists at Vienna. But it, too, has followed the fashion, and we have before us the first number of the *Charing Cross Hospital Gazette*, which is said by the Editors to be intended "to fill a gap which has long existed among the institutions of Charing Cross Hospital." Mr. Stanley Boyd contributes an interesting paper on Medical Education in Sweden; "James Truthfull" recounts an interview with Marwood, the hangman; and a promising caricaturist, hits off a well-known member of the staff in a characteristic pose. The rest of the contents relate to matters interesting to the students of the school.

The New York *Medical News* is beyond question one of the best edited medical journals in the United States, and its contents are always interesting. This makes it all the more regrettable that they are not always, at least in regard to English matters, strictly accurate. The London correspondent of the *News* has lately displayed quite a curious infelicity in his references to Jenner. We had occasion a week or two ago to correct a misstatement as to "the two Jenners," and again we find the name of Jenner proving a stumbling block to our contemporary. In the London letter published in its issue of January 28th, reference is made to the Jenner Institute, and it is stated that "the managers of the fund which had been raised to perpetuate the memory of Sir William Jenner offered to present it to the Institute if it would change its name to 'The Jenner Institute of Preventive Medicine.'" So is history written. The thing is, as Mr. Toots would say, "of no consequence." The two Jenners, in their places "where beyond these voices there is peace," are not likely to be disturbed by such mistakes as to their identity. We only

mention the matter as supplying food for reflection to ambitious young men who hope to make their names immortal by sublime discoveries.

A correspondent has kindly sent us the following extract from *Punch* of April 4th, 1863, which is interesting historically as showing how long it took the War Office to learn the lesson which resulted in the surrender of last summer:

DEARTH OF ARMY SURGEONS.

TO MEDICAL GENTS.—Wanted, a considerable number of Clever Young Snobs to compete for the Commission of Surgeon in the Army, for which there is at present an extreme Scarcity of Eligible Candidates, owing to the circumstance that men of education and ability sufficient to qualify them for the office refuse to accept it, unless upon the impossible condition of being treated as gentlemen.

All applicants must be Fellows of the Royal College of Surgeons and Doctors of Medicine who have received diplomas recognised under the Medical Registration Act.

In addition to their professional qualifications, they must possess a capability of being continually and contentedly snubbed and patiently submitting to any amount of insult. They will be required at the Mess table to occupy a position subordinate to that of every combatant officer, even the youngest Ensign, whose permission it will be necessary for them to ask for the purpose of giving the band or the attendants any kind of order. It will be necessary for them to be regardless of those petty annoyances unavoidably inflicted by junior officers on their inferiors in rank but superiors in age and attainments. No Thin-Skinned persons, endowed with any Self-Respect whatever, or animated in the least degree by the Feelings of a Gentleman, need apply. For further particulars inquiry may be made at Head Quarters.

By Order.

Horse Guards,
March 25th, 1863.

Some time ago it was mentioned in this column that Dr. H. T. Whitney, President of the Medical Missionary Association of China, was engaged in translating Gray's *Anatomy* into Chinese. We learn from the *China Medical Missionary Journal* that the original translation was made many years ago by the late Dr. Osgood, and that Dr. Whitney is revising his translation for a new edition. Since Dr. Osgood translated the book, however, "Gray" has been practically rewritten, so that Dr. Whitney's task is hardly less laborious than if there had been no previous translation to work upon.

THE NEW VACCINATION ACT IN OPERATION.

THE LYMPH OF THE NATIONAL VACCINE ESTABLISHMENT.

A. P. V. writes; I notice in the BRITISH MEDICAL JOURNAL of February 4th a complaint from a public vaccinator as to the quality of the lymph supplied by the National Vaccine Establishment. I think it only fair that other P.V.'s should record their experience. This is mine. Of 60 cases vaccinated by me since January 1st with the said lymph:

In 50 cases 4 perfect vesicles.
In 5 cases 3 perfect vesicles.
In 2 cases 2 perfect vesicles.
In 2 cases 1 perfect vesicles.
In 1 unsuccessful.

The last child I revaccinated; result, 4 perfect vesicles. I may say that it is common knowledge that some mothers in this district, as soon as the vaccinator leaves the house, remove the dressings, and two out of the four scarifications are carefully scrubbed clean. Perhaps this is the secret of P.V.'s want of success.

DR. F. H. LANE, Public Vaccinator of the Burford District of the Witney Union writes: I applied for ten tubes of lymph at the beginning of last month with which I vaccinated ten children, making the regulation number of insertions? The result was to produce forty typical vaccine vesicles on the eighth day. The source of the lymph was marked No. 47. Equally good results have been obtained with V.E. lymph, source marked No. 50.

DR. DAVID M. SERJEANT, Public Vaccinator, Camberwell District, writes that he has marvelled at the good results. His experience to January 26th was:

90 consecutive cases. 360 scarified areas. 355 vesicles of good size. No failures.

DR. EDWARD LYNES, Public Vaccinator, Coventry, writes: My experience of the new lymph supplied by the Local Government Board is much more favourable than that of your correspondent "P. V." The results of my first 100 vaccinations (all primary) are as follows:

There were no failures. In 90 cases, 4 vesicles. In 5 cases, 3 vesicles. In 5 cases, 2 vesicles.

The vesicles were, as a rule, plump, of a good size, and with very little or no areola on the eighth day. In fact, typical, compound vesicles—and more uniform in size and character than one is accustomed to get in arm-to-arm vaccination.

ANOTHER P. V. writes: I also have lost much time, and have been sorely tried in patience, by the failures of lymph obtained from the same source.

DR. J. M. FERGUSON (Burnley) writes: I have used some 40 tubes, and in only two cases have the results been such as not to comply with the requirements of the Board—namely, a vesiculated area of half an inch. One of these cases has been vaccinated again with perfectly satisfactory results, the other has been vaccinated but not yet inspected. I find, however, that sometimes the vesicles do not reach maturity till ten or eleven days after vaccination.

THE CONSCIENCE CLAUSE.

Mr. W. P. Fullagar, of West Bank, Lytham, writes to the *Standard* that at a well-attended meeting of the Lancashire Division of the National Union held in Liverpool on January 21st, the remarks of the Chairman, Sir F. S. Powell, Bart., M.P., condemning "the conscientious objector" clauses of the recent Vaccination Act, were loudly applauded, and that subsequently Mr. Fullagar carried an almost unanimous resolution urging the Government to consider the operation of the Act. He suggests that the matter should be brought before the House of Commons by means of an amendment to the Address or other such step, and that political and other organised bodies should use all possible methods of driving home upon the Government the necessity for an immediate correction of the error committed.

UNVACCINATED MARINES.

"An important order has just been issued in the Royal Marines to the effect that unvaccinated families of this corps are not to be allowed to come in contact with other marines or their families in such a way as to jeopardise their health. The order is thus worded: "Unvaccinated families are not to be allowed to live in barracks, nor are they to be conveyed to any foreign station at the public expense; nor is any unvaccinated child to be allowed to attend the divisional schools." A large extension of this order in both military and naval life is very desirable, and cannot but be attended with good results.

DUTIES OF PUBLIC VACCINATORS.

A. H. C. writes: As public vaccinator, I was ordered by the vaccination officer to attend at the home of a child at a distance of six miles for whom no exemption certificate had been obtained. The parents refused to have the child vaccinated.

Under the Act I am entitled to the fee of 1s. or its equivalent (to be fixed by the Local Government Board) for all children for whom no exemption certificates have been obtained. The parents informed me that they would get a certificate. Should they do so, will this deprive me of the fee after having made the visit? If so, it will be a monstrous injustice.

*** 1. No certificate of exemption can be obtained if the child is over 4 months old, nor will any such certificate be of any avail unless delivered to the vaccination officer within seven days of being obtained.

2. There is a minimum fee of a 1s. payable for every child whose name appears in the official list sent by the vaccination officer to the public vaccinator, and also for every child whose name is not included in such a list, but who has been vaccinated by the public vaccinator himself. In every case of successful vaccination, of course a minimum fee of 5s. is payable in addition.

H. F. L. T. W. writes: As public vaccinator I call, according to notice given, to vaccinate the third child of a family, it being over 4 months old. I ask the mother to remove the sleeve, and she replies "No. When I came to the vaccination station I had to take off the sleeve, but I shall not do so now, nor shall you. You can vaccinate my baby if you like, but I don't believe in it." Will you kindly tell me what I should do in this case, or how I can vaccinate the baby aseptically?

*** This question is important as a type of a series of questions which are arising out of the fact that the new Act and Order do not define the word "vaccinate" nor the phrase "offer to vaccinate." A public vaccinator calls and offers to vaccinate a child. The mother says, "You can vaccinate if you do it in my way." The public vaccinator says he must do it in his own way. The courts will have to decide in particular cases whether an offer to vaccinate made under such circumstances has been accepted or not. As the public vaccinator is responsible for the work he does, he should treat such a case, provided his persuasive powers fail to move the obstinate mother, as a direct refusal of official vaccination, and should enter full notes of the case in his private note-book to provide for any contingency, such as having to appear and give evidence in court. The difficulty is greater in the case where the mother says, "I am not going to have four places made; you can vaccinate if you will only make two insertions, but not unless." Any yielding to such a temptation will not only be contravening the Local Government Board Instructions to Public Vaccinators, but will plait a whip with which the poor public vaccinator will be likely to find himself unmercifully lashed in future.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

Meetings of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Lancashire and Cheshire Branch.—An intermediate meeting of this Branch will be held in Liverpool on Tuesday, February 28th. Gentlemen wishing to read papers, show cases, or make any communication, should communicate at once with the Honorary Secretary, Dr. James Barr, 72, Rodney Street, Liverpool.

Metropolitan Counties Branch: East London and South Essex District.—The next meeting of this District will be held at Hackney Town Hall, on Thursday, February 16th, at 4 P.M., Dr. Shadwell, Vice-President of the District, in the chair. Mr. Tubby will read a paper on the Preventive and Curative Treatment of Enlarged Glands in the Neck in Childhood. Visitors are invited.—C. J. Morton, Hon. Sec., 56, Orford Road, Walthamstow.

Staffordshire Branch.—The second general meeting of the session will be held at the North-Western Hotel, Stafford, on Thursday, February 23rd. The President, Dr. McAldowie, will take the chair at 4.30 P.M. There will be dinner at 6.30 for those staying.—F. Milnes Blumer, Hon. General Secretary, Stafford.

Border Counties Branch: Counties of Roxburgh, Berwick, Selkirk and Peebles District.—A meeting of this District will be held in the Douglas Hotel, Galashiels, on the afternoon of Friday, February 17th, at 3 o'clock. Members will much oblige by intimating to the Secretary their intention to be present, and the title of papers they wish to read and the nature of the cases to be shown.—W. Hall Calvert, Honorary Secretary, The Laurels, Melrose.

DUBLIN BRANCH.

The twenty-second annual meeting of the Dublin Branch was held in the College of Physicians, Dublin, on February 6th, Sir Christopher Nixon, the outgoing President, in the chair.

Report of Council.—The report stated that there were only 180 members of the Branch, so that they laboured under the disadvantage of being able to send only one representative to the General Council. The most important matter which the Council had had to deal with in the course of the year was the Local Government Bill, which passed into law during last autumn. During the Committee stages of this Bill, and, indeed, until its final passage through the House of Lords, strong efforts were made (1) to secure a clause dealing with the sanitary administration of the country; and (2) to amend the clause dealing with the Poor-law medical officers, so as to make the granting of their superannuation allowance compulsory. In regard to the sanitary provisions sought for, the Council, in conjunction with the Royal College of Physicians, the Royal College of Surgeons, the Irish Medical Association, nd the Dublin Sanitary Association, drafted a clause which was based on the same lines as the enactments in force in England and Wales as well as in Scotland. Although the Government refused to accept the clause proposed by the various bodies named, eventually those who were responsible for introducing the Bill drafted a clause which unfortunately fell so far short of what was desired that its non-acceptance was a foregone conclusion. In a like manner the Government refused to give security to the Poor-law medical officers in the matter of superannuation; but while success did not attend the efforts directed to secure these reforms, in a few matters, however, the Government were more reasonable. The interests of the county infirmaries were safeguarded, and the qualifications of superintendent medical officers of asylums were made more definite. On the motion of Dr. Cranny, seconded by Dr. Tweedy, the report was adopted.

Election of Officers.—The ballot having closed, the following officers and council were elected:—*President:* Mr. F. T. Heuston. *President-Elect:* Sir Charles Cameron, C.B. *Vice-Presidents:* H. C. Tweedy, M.D.; C. B. Ball, F.R.C.S. *Council:* E. H. Bennett, F.R.C.S.; H. T. Bewley, M.D.; J. Lentaigne, F.R.C.S.; E. J. M'Weeney, M.D.; J. W. Moore, M.D., President R.C.P.I.; Sir J. C. Nixon, M.D.; J. M. Redmond, M.D.; W. G. Smith, M.D.; W. J. Smyly, M.D.; Sir Wm. Stokes, F.R.C.S.; J. B. Story, F.R.C.S.; R. L. Swan, President R.C.S.I. *Representative on Council of Association:* J. W. Moore, M.D. *Honorary Secretary and Treasurer:* J. Craig, M.D.

Votes of Thanks to Outgoing President.—The newly-elected President having taken the chair, Sir W. Stokes moved, and Sir George Duffey seconded, a vote of thanks to the outgoing President, to which Sir Christopher Nixon responded.

President's Address.—Mr. Heuston then delivered an address, which is published at page 354.

Vote of Thanks to President.—On the motion of Sir William Thomson, seconded by Professor Bennett, a vote of thanks was accorded to the President.

Tuberculosis in Ireland.—Dr. Grimshaw read a paper on The Excessive Prevalence of Tuberculosis in the United Kingdom, especially Ireland. He said the prevention of tuberculosis had long been neglected, especially in Ireland, where the only efforts that had been made had been the establishment of the hospitals at Newcastle and Belfast for the treatment of consumption, and the provision for incurable cases of that disease. He gave a history of the movement, leading up to the formation recently of the National Society for the Prevention of Tuberculosis. After giving statistics of the ravages caused by tuberculosis, and pointing out the causes of the disease, he said the means of prevention fell under two principal heads: (1) To prevent the spread of infection among human beings; (2) To prevent the use of milk and meats containing the tuberculous bacillus. Under the first head the following preventive measures were enumerated: (*a*) General sanitary measures, such as cleanliness, the prevention of overcrowding, a plentiful supply of air and of sunlight—the two great enemies of tuberculosis; (*b*) the separation, as far as possible, of the sick from the healthy by placing the curable cases, or such of them as cannot be dealt with privately, in sanatoria, under circumstances where arrangements (especially the treatment by a plentiful supply of air and sunlight and suitable dietary) can be provided without stint, and by placing the incurable cases in suitable homes, where, while mitigating their own sufferings, they cease to be a source of danger and suffering to their families and neighbours; (*c*) destruction by disinfection of any disease germs which may have become diffused from the infected persons. Under the second head it was absolutely necessary that measures should be taken for the examination of milk and meat offered for sale, and stringent measures should be taken for the supervision of dairy cattle, dairy yards, and dairies, and for the inspection of slaughterhouses, and the arrangement of abattoirs, and their compulsory use where practicable. The tuberculin test should be employed as extensively as possible to dairy cattle, and traders in milk, who decline to submit their cows to the tuberculin test, should be placed under specially stringent restrictions. In order to carry the proposed measures of prevention into effect it was absolutely necessary that public laboratories should be provided for scientifically ascertaining that the disease exists. Again, hospital accommodation must be provided. Dr. Grim-

shaw believed it would be found that the most effectual method of providing for the sick poor afflicted by consumption would be the provision of voluntary hospitals to which the sanitary authorities would contribute as they might require to use them for the people. In conclusion, he referred to the good work that could be done by the diffusion of literature in the form of leaflets, which would give information to the public. In this way they would secure public support. Dr. J. W. MOORE, proposed:

That the members of this Branch are rejoiced to see that the prevention of tuberculosis is engaging public attention, and that well-directed efforts to secure this object are being taken by the British Medical Association and by the National Association for the Prevention of Tuberculosis. The Branch further wish to impress upon the public the risk to health which arises when the poisonous expectoration of consumptive patients is not speedily destroyed; and advise that all sanitary authorities should issue leaflets pointing out the dangers of infection, and directions for avoiding those dangers; and the Branch call upon Queen Victoria's Jubilee District Nurses to aid in distributing such leaflets. Lastly, the Branch would insist on the necessity which exists for improving and developing the hospital accommodation for the treatment of consumption.

Mr. SWAN seconded the resolution, which was supported by Sir C. CAMERON and Dr. E. J. MCWEENEY.

Dinner.—In the evening the members dined at the College of Physicians. There were present his Grace Archbishop Peacocke, Mr. Justice Ross, Sir Andrew Reed, K.C.B.; Professor Fitzgerald, F.R.S.; Sir Charles Cameron, C.B.; Sir Henry Thynne, C.B.; Professor Carroll, Sir C. J. Nixon, Count Moore, D.L.; Sir Arthur Vicars; President Royal Academy of Medicine, Dr. Bennett; Vice-President Royal College of Physicians in Ireland, Dr. W. J. Smyly; Surgeon-General Preston, Dr. W. G. Smith, Dr. Ball, Dr. W. Beatty, Mr. Samuels, Q.C.; Mr. A. L. Horner, B.L.; Mr. G. N. Jacob, Dr. Fitzgibbon, Dr. Woodhouse, Mr. J. Mulhall, Vice-President Prisons Board; Dr. Oulton, Dr. Kidd, Dr. Middleton, Major Heuston, Mr. Lentaigne, Dr. Finucane, Dr. Alex. Gordon, Dr. Purefoy, Dr. Cranny, Dr. Redmond, Dr. Usher, Mr. Maurice Brooks, D.L.; Mr. F. E. Ball, J.P.; Mr. W. F. Cotton, J.P.; Mr. R. H. Moore, Dr. G. P. Moore, Dr. Peacocke, Dr. T. E. Gordon, Mr. D'Alton, Mr. B. W. Wilson, Dr. Hadden, Dr. Travers Smith, Dr. James Craig, Honorary Secretary. The usual toasts were proposed, and the speakers were the PRESIDENT, Professor G. FITZGERALD, Sir C. NIXON, Dr. W. SMYLY, Professor BENNETT, Sir C. CAMERON, Mr. Justice ROSS, Sir ANDREW REED, K.C.B., and Dr. STEWART WOODHOUSE.

PERTHSHIRE BRANCH.

A CLINICAL meeting of this Branch was held at Perth on February 3rd, the PRESIDENT in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed.

New Member.—William A. Taylor, M.B., C.M.Edin., Perth, was elected a member of the Association and Branch.

The Prevention of Tuberculosis.—Dr. URQUHART made a statement as to the prevention of tuberculosis; and after discussion Dr. STIRLING moved, and Dr. ROBERTSON seconded:

That the question be referred to a Committee to draw up a report for submission to the Branch on an early date.

The Committee named consists of Dr. Beattie (Præses), Dr. Niven, Dr. Stirling, Dr. Robertson (Perth), and Dr. Urquhart. —This was carried unanimously.

Tuberculous Disease of Glands and Joints.—Dr. STIRLING addressed the meeting on Tuberculous Diseases of Glands and Joints, and showed cases in the wards.

NORTH OF IRELAND BRANCH.

THE winter meeting of this Branch was held in the Museum, College Square, North Belfast, on January 26th. The President (Dr. HENRY O'NEILL) occupied the chair, and forty-six members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

New Members.—Dr. Henry Norman Barnett (Thornhill, Knock, co. Down), Dr. Wilson Ranson (The Infirmary, Downpatrick), Dr. S. T. Beggs (Crumlin Road, Belfast), and Dr. Sullivan (Plumbridge, co. Tyrone) were elected members.

National Association for the Prevention of Consumption.—Dr. LINDSAY moved:

That this Branch approves of the objects of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, and commends them to the sympathy and attention of the members of the medical profession in the North of Ireland.

This was seconded by Dr. CALWELL, supported by the PRESIDENT, and passed unanimously.

Communications.—Dr. LINDSAY read notes of a case of probable Tuberculous Meningitis, which ended in recovery. Drs. MOORHEAD, CALWELL, DEMPSEY, and the PRESIDENT criticised the author's conclusions.—Dr. VESEY (Rostrevor) read a paper on Septic Infection of the Urinary Tract. Dr. MOORHEAD made some remarks on the case.—Dr. FRIER (Waringstown) read a paper on Intubation of the Larynx, with remarks on 22 cases. The PRESIDENT congratulated him on his results.—Dr. DARLING (Lurgan) made observations on two recent circumscribed epidemics of Typhoid Fever.—Dr. TENNANT contributed observations on the Bacteriology of Typhoid Fever.—These two papers were followed by a discussion, in which Drs. VESEY, AGNEW, CALWELL, and HENRY O'NEILL took part.—Dr. TATE (Downpatrick) showed a Sarcomatous Tumour, growing from the antrum, for which he had removed the upper jaw.—Mr. SINCLAIR KIRK showed a case of Excision of the Head of the Radius for Fracture, and a child on whom he had operated for Torticollis.

POST-MORTEM EXAMINATIONS FOR CORONERS.

IN accordance with resolutions adopted by the Parliamentary Bills Committee and the Council of the British Medical Association, the President of Council addressed the following letter to Mr. Braxton Hicks, Coroner for the South-Western District of London. Mr. Hicks's reply is appended.

[Copy.]

429, Strand, W.C., February 4th, 1899.

DEAR SIR,—At largely-attended meetings of the Parliamentary Bills Committee and of the Council of the British Medical Association, held in London on the 18th ultimo, the matter of the recent condemnation passed upon you as Her Majesty's Coroner by Mr. Plowden, a magistrate for a London district, was considered, and I was unanimously empowered to convey to you the sympathy of the Association for your efforts to secure the proper performance of autopsies at coroners' inquests.—I am, yours faithfully,

ROBERT SAUNDBY, M.D., LL.D., F.R.C.P.,
President of Council.

A. Braxton Hicks, Esq.,
20, Lupus Street, London, S.W.

20, Lupus Street, S.W., February 7th, 1899.

DEAR SIR,—I have to thank you for your letter of the 4th instant, and to express my great appreciation of the sympathy shown me by the Parliamentary Bills Committee and the Council of the British Medical Association, in the matter of myself and Mr. Plowden. This expression will greatly facilitate the action of myself and other coroners in carrying out our duties.—Yours faithfully,

A. BRAXTON HICKS.

Robert Saundby, Esq., M.D., LL.D., F.R.C.P.,
President of Council, British Medical Association.

SPECIAL CORRESPONDENCE.

BERLIN.

Medical Courts of Honour.—A Hygienic Institute at Posen.—The German Samaritan Society.—The Repression of Quackery.—The Vaccination Law.

THE Government Bill for the establishment of Medical Courts of Honour was read a first time in the Prussian Diet on February 4th, and, after a lively debate, was referred to a committee of fourteen members. Virchow, in a long and able speech, opposed the Bill. Medical courts of honour, he said, would at best be superfluous, as the existing organisations—the medical associations and societies and the twelve Prussian *Aerztekammern*—were sufficient to protect the prestige of the profession; he feared a political bias in these proposed new

institutions, which were to be presided over by provincial governors and were not to be exclusively composed of medical men. Cultusminister Bosse, in reply, said that the Bill had been prepared solely and entirely in the interests of the medical profession. After ample discussion, ten of the twelve Prussian *Aerztekammern* had pronounced in favour of the Bill by a large majority, while in the remaining two the vote against it had been carried by so small a majority that it might fairly be said that eleven-twelfths of the profession in Prussia desire the Bill to become law. Speeches for and against the Bill were made by other members, and a number of amendments were proposed which may possibly be taken note of in Committee.

Near the eastern frontier of the Prussian monarchy, in the town of Posen, a hygienic institute is to be erected. It will contain a hygienico-bacteriological and a pathologico-anatomical department, with the usual staff of directors and assistants. Their sphere of work is to comprise supervision and improvement of water supplies, of drainage works and the bestowal of refuse; soil and subsoil examination; hygienic supervision of works, factories, warehouses, etc.; prevention of the spread of infectious diseases; *post-mortem* examinations; courses of lectures, some popular, on subjects connected with hygiene, bacteriology, and pathological anatomy. It is hoped that the scientifically-conducted efforts of the institute will be successful in arresting epidemics such as cholera, smallpox, typhus, etc., which frequently have come into Prussia from across the Russian frontier.

President Gaebel took the chair at this year's meeting of the German Samaritan (Ambulance) Society, which was an important one, as it finally determined the Society's affiliation to the great organisation of the German Red Cross societies. The report stated that the ambulance courses had been well attended, especially the ladies' courses, and that first aid had been given in more than 1,100 cases of illness or accident during the year. Army-Surgeon de Friedheim read a paper on the care of the sick and wounded in the German army.

The Cultusminister, Dr. Bosse, has addressed a rescript on the subject of quackery to the Central Committee of the Prussian *Aerztekammern* (representative bodies of medical men). Dr. Bosse says that voices have been raised repeatedly in medical circles to demand the repeal of the general liberty to practise, and restitution of the quackery prohibition. The complaints are: (1) That the general liberty to practice places licensed practitioners on a level with quacks in the mind of the people, thus causing the profession to suffer in prestige as well as in pocket. (2) That the ignorance of quacks in detecting infectious diseases, and the opposition against approved measures of public hygiene which they are instrumental in spreading amongst the people, have the most disastrous effects. Dr. Bosse concludes by saying that before he takes any steps to alter the law on this subject, he wishes to have the opinion of the *Aerztekammern* Central Committee, whom he requests to collect and submit to him as much material as possible towards elucidation of the actual facts.

Not only the Prussian Diet, but the German Reichstag also, has been occupied with medical matters during the last week. During the debate on the budget, and on occasion of the vote for the funds to support the Imperial Board of Health, a medical Liberal member (Dr. Endemann) requested Count Posadowsky, the Minister, to be vigilant against any proposed alterations in the great principles of the German vaccination law, and above all to maintain compulsory vaccination. Statistics proved that the cases of illness following on vaccination had decreased to a truly astonishing extent, owing, no doubt, to the present improved methods. Count Posadowsky replied that the Federal Governments of Germany did not contemplate any change in the principles of the vaccination law, but only in some of the details of execution, such as the manufacture and preservation of the lymph.

ROME.

The Italian Government and Reciprocity.

It was mentioned in the British Medical Journal of January 14th (p. 119) that the Minister of the Interior of the Italian Government had lately stated in the Chamber of Deputies "that the Government would interest itself in a diplomatic way to obtain reciprocity of treatment in favour of the Italian medical men who practise their profession in other countries." The Italian Government has lost no time in fulfilling the promise made by the Minister of the Interior, as is shown by the following circular sent by the Italian Minister of Foreign Affairs to the Italian Ambassadors in foreign countries.

Article 23 of the Italian law on Public Health, while it forbids, as a general rule, the practice of medicine in the kingdom to those who are not provided with the corresponding diploma acquired on the basis of our scholastic regulations, permits, by way of exception, that foreign practitioners may exercise their profession in Italy among foreigners only.

This exception, however, adopted in favour both of the foreign doctors and of the foreign residents in Italy who may thus avail themselves of the services of the practitioners in whom they have confidence, is to the disadvantage of the native doctors through the competition thereby caused, and it is, in many cases, contrary to equity, inasmuch as the States are very few that, like Italy, accord an equal favour to foreign residents.

The Royal Government, therefore, has the intention of modifying the cited law in the sense of limiting the exception with which it deals in favour of those foreign doctors only in whose country our countrymen enjoy such special treatment.

I shall be thankful, therefore, if your Excellency will request from this Government an answer to these two questions:

1. Can Italian doctors there practise their profession among all or only among the foreign residents, without obtaining a new diploma?
2. In the negative case, would this Government be disposed to accord to them such permission if in Italy we continue to consent to the doctors of this country practising their profession within the limits above indicated?

Awaiting such answers, which I desire to be as categorical as possible, so as not to enlarge the question beyond the limits of this special case.—

I am, etc.,

For the Minister,

Malvano.

The above circular clearly shows that the Italian Government is desirous of obtaining not less than as much as it now gives, at least as far as some foreign countries are concerned.

BELFAST.

The New Royal Victoria Hospital.—Health of Belfast.—The Irish University Question and Ulster.—The Value of the Objection to a Northern University.—Proposed Affiliation with Trinity College, Dublin.

Mr. Henman, F.R.I.B.A., of Birmingham, who was commissioned some time ago to prepare the plans of the new Royal Victoria Hospital, has submitted a draft sketch, which is now under consideration by the Construction Committee. It includes some highly interesting and novel features, and, if adopted, will mark a new departure in hospital construction. Mr. Henman was selected without competition as architect of the new hospital because of the very favourable impression which the new General Hospital at Birmingham, designed by him, made upon the lay and professional members of the Executive Committee of the Royal Victoria Hospital, who visited it and various kindred institutions with the view of seeing the best recent work in this department. Mr. Henman's plans for Belfast are entirely original, and not at all upon the lines of the Birmingham Hospital. Advantage has been taken of the large and spacious site available at Belfast, a site which Mr. Henman regards as peculiarly adapted for the purpose in view. It is expected that the new hospital will be ready in about three years. A somewhat novel point has arisen in connection with the charter. As the present Royal Hospital was incorporated under charter, and as it was found necessary to make some important changes with regard to the constitution of the new hospital, a new charter was requisite. This has been secured, and has received the Queen's assent. It turns out that when the new charter is received in Belfast the old charter will be *ipso facto* annulled, and as a consequence the Royal Hospital will cease to exist, and will be replaced by the Royal Victoria Hospital, which will simply change its premises in three years' time to the new buildings in the Grosvenor Road. This state of things was not contemplated, and will cause some temporary inconvenience. The present Board of Management of the Royal Hospital will cease to exist, but the general feeling is that, if possible, they should be allowed to carry on the work of the present hospital until the new institution is ready. Possibly it will be found practicable for the new governing body to delegate its powers temporarily to the present Board of Management, so that they may be allowed to finish their work.

The epidemic of typhoid fever has entirely disappeared from Belfast, and the amount of the disease in the city at present is below the ordinary winter average. It is to be hoped that this subsidence of the epidemic will not lead to any relaxation in the much-needed work of sanitary reform.

Mr. Balfour's proposals regarding the Irish university question continue to excite the utmost interest. Dr. W. A. McKeown, who is a senator of the Royal University, and Lecturer on Ophthalmology in the Queen's College, Belfast, has been contributing a series of able letters upon the subject to the *Northern Whig*. Dr. McKeown is an uncompromising opponent of sectarian education in any form, and views the question almost wholly from this point of view. He draws attention to the very important fact, apt to be overlooked when the expressions "Catholic University" and "Presbyterian University" are used, that the medical faculty is really the predominating element in the situation. The Royal University since its foundation has conferred the degree of B.A. upon 1,571 male students, degrees in law upon 186, in engineering 221, and in medicine 1,646 students. The Queen's College, Belfast, had during the late session 398 students upon its rolls, of whom 223 were medical. It is clear, therefore, that the medical faculty outnumbers the others, and that it is fair and right that the interests of medical education should be kept steadily in view when the proposed changes are being discussed. What would be the probable effect of Mr. Balfour's proposed changes upon the Belfast Medical School? If a new university were founded in Belfast, purely Presbyterian in its spirit and *personnel*, there can be no doubt that the effect upon medical education in Ulster would be disastrous. As Dr. McKeown says with much force:

> The medical students as a rule come from a class who either know personally about universities, or obtain the knowledge. I am sure no person who knew anything of the world would allow a son, if of any ability, to take a medical degree from a university with a clerical stamp.

Many of those who favour the foundation of a Northern University in Belfast are of opinion that it should be organised upon broad academic lines, without sectarian predominance, and that it should aim not at promoting the interests of any denomination, but at the nobler ideal of developing and fostering the higher culture in Ulster. No doubt such a university would be practically a Protestant institution, but so is the present Queen's College, so that in that respect there would be no real change. It has been often said recently that the degrees of such a university would possess little practical value in the fight for existence. The reply to this confident assertion is simply that the degrees of a Northern University would possess whatever value the curriculum adopted and the thoroughness of the examinations would deserve. Belfast is a rapidly-growing city of considerably over 300,000 inhabitants. It has behind it a province with more than a million and a-half of people much disposed to embrace the advantages of university education. It possesses in the Queen's College all that is necessary as a nucleus for a university. It is particularly well provided with high schools to act as feeders for a university. To assert, in view of such facts, that a Northern University would be foredoomed to certain failure is an error. If such arguments had been held valid in the past there would never have been a Glasgow University or a Victoria University in Manchester. Those who object to a Northern University forget how grievously the Belfast Medical School feels the hardship of its present relations with the Royal University, how hostile to its independent growth and prosperity are the present conditions of university education in Ireland. It is admitted by nearly everyone that the present state of things is intolerable, and cannot be permanent. The only really practical question is whether the Royal University can be reformed so as to give its most important feeder—the Queen's College, Belfast—a reasonable share of influence and control, or whether there should be a new Northern University in Belfast, or finally whether the Belfast Queen's College should be affiliated with Trinity College, Dublin. This last solution finds favour in some quarters. It would possess certain obvious advantages, but it is very doubtful if it is really practicable, and further it would perpetuate the present subordination to Dublin of university education in Ulster—a system which is a relic of the past, and cannot by any possibility endure.

CORRESPONDENCE.

THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

SIR,—The profession is indebted to you for the outspoken article in which you have commented upon the Hunter case from its discreditable commencement to its unsatisfactory close. Many of us imagined that when the magisterial decision came under review in the High Court it would be made clear that Section XL was never intended to, and could not, apply to qualified practitioners. Unfortunately this point, the one most urgently requiring settlement, has been left open. Under the law, as laid down by the judges, the penalty imposed by that clause can be imposed for two distinct offences, only capable of being committed by two different classes of persons, under totally diverse conditions. In fact, the only question of any consequence whatever was never brought before the Court.

With your comments upon the inception of the case I heartily agree, except that you have put the matter far too mildly.

Unless the direct representatives take their courage in both hands, insist upon the right of the profession to know the whole history of this matter, and refuse to assent to its being further discussed *in camerâ*, the Council, in this as in previous matters, will be able to throw dust in our eyes once more, and to conceal the manner in which a minute fraction of that body has been able to drag its credit in the dust upon an initiative never sanctioned by the Council at all, and upon the true bearings of which that fraction mystified the whole of the rest of the Council, so as to induce it to assent to proceedings to which, had the facts been known, it would not have consented for a moment. The curious thing is that the fraction includes the representative of the Apothecaries' Society. It will be interesting to know how he will reconcile his action with the interests or wishes of his constituents.—I am, etc.,

Old Kent Road, S.E., Feb. 1st. EDWD. C. BOUSFIELD.

SIR,—The recent decision in the important case of Hunter *v.* Clare clearly proves that only doctors of medicine are legally entitled to style themselves physicians; a L.R.C.P., therefore, has no more right to that title than a L.S.A.; at the same time, it is satisfactory to know that, according to Mr. Justice Channell, we may call ourselves surgeons, and use the letters L.M.S. (Licentiate in Medicine and Surgery) either as a prefix or suffix to L.S.A.—I am, etc.,

February 4th. L.M.S., L.S.A.

THE GENERAL MEDICAL COUNCIL AND THE HUNTER CASE.

SIR,—In my last report to my constituents I did not discuss the merits—or rather the demerits—of the Hunter case. Now that the chaotic and highly discreditable proceedings in the Appeal Court are closed, I wish to draw attention to a few salient points on which misunderstandings may arise, and which must be kept clearly in view until they are discussed at the next session of the Council in May.

1. *The Primary Prosecution of Mr. Hunter.*—In all notices of the matter that have appeared in the various journals it has been stated that the General Medical Council prosecuted Mr. Hunter for calling himself a physician, he being an L.S.A. qualified under the Act of 1886. This statement, which has been repeated broadcast, is, as I showed in my report, untrue. The General Medical Council not only never ordered the prosecution of the late Mr. Hunter, or any other L.S.A., for calling himself a physician, but they never had the matter before them at any time. The real fact is that Mr. Muir Mackenzie and the Solicitor to the Council (Mr. Farrer) prosecuted Mr. Hunter on the charge mentioned, but we shall not be able to find out until the Council meets in May whether they did this on their own initiative, as would seem to be the case, or whether they were instigated thereto by some official of the Council.

2. *The Appeal Case.*—It was represented to the judges in the High Court when the appeal came on for hearing that Mr. Muir Mackenzie appeared there on behalf of the General Medical Council, as though the General Medical Council had

ordered the appeal case to be so contested. Though this statement was made in open court in Mr. Mackenzie's presence, he did not repudiate it, though it was wholly untrue, for the General Medical Council never had the matter of the appeal before them for discussion, and never gave any instructions for the law officers to act as they did act in resisting the appeal. This matter of the appeal has some further extremely unfavourable aspects. In the first place, the hearing of the original summons in the magistrate's court occurred early in April, but the legal officers never came to the Council at its next session in the following month of May to ask whether they were to resist the appeal; they undertook that without any authorisation from the Council. The second point is that, though the appeal case still remained unheard when the November session of the Council began, yet even then the lawyers made no attempt to come in a constitutional manner to the Council, and ask whether the Council wished the appeal to be resisted. The third point is that, when I made three attempts to have the matter discussed, my motion on the subject was stigmatised by one member as frivolous, and was disastrously resisted by the officers of the Council and Dr. Glover. By these manœuvres the officials of the Council and the legal advisers provisionally escaped the consequences of their unconstitutional conduct.

I must also remind the profession that at the November session in 1897 the Council were informed by the legal advisers that it would be well to prosecute a certain number of quacks, among whom one named Hunter was included, and was recommended by the lawyers for prosecution because he was practising under cover of an American M.D. degree. It was only when the trial of Mr. Hunter took place that most of the members of the Council learnt with indignation that a person who had been herded with quacks by the lawyers of the Council, and who was to be prosecuted for using an American M.D. degree, was, in fact, no quack at all, but a registered medical practitioner, and had been prosecuted by the lawyers, not for using an American M.D. degree, but for calling himself a physician—a totally different issue which had never been before the Council at all. It is plain that the officials of the Council hope to evade responsibility by raising clouds of mis-statements; but we may trust that the reiteration of the truth will prove once more that *magna est veritas et prevalebit*.

The character of the whole of this transaction finds a fitting sequel in the proceedings of the Appeal Court, as your readers will recognise at once from your verbatim report of what passed. From that report it may be seen that one judge was under the impression that the College of Physicians was a body which granted university degrees! and the other judge not only said that a physician was a person who practised surgery (!), but also that though a modern (that is, 1886) L.S.A. could not call himself "a surgeon," he *could* call himself "a surgeon specially licensed to practise surgery," and said further "surgeon may be a general word and physician may be a specific word." It must be plain to the meanest capacity that if learned judges are reduced to such quibbling as this the facts must have been misrepresented to them, and I think the misrepresentation that operated most powerfully in this Alice-through-the-looking-glass confusion of a trial was the misrepresentation to which I have already drawn attention, namely, that the appeal was being resisted by and on the authority of the General Medical Council. The judges doubtless concluded that the General Medical Council had very good reason for ordering such a prosecution, knew the law of the subject, the relative position of the qualifying bodies, and the meaning of its own Act. The judges did not know that a false statement had been made to them about the General Medical Council. How could they? and it is clear that under the mistaken idea that they were really hearing the views of the General Medical Council itself they delivered the judgment, the preposterous character of which is recognised on all sides.

Leaving now the technical question aside, I wish to draw attention to another evil to the profession, which is one of the immediate consequences of this monstrous act on the part of the law officers of the General Medical Council. This further sequela of the Hunter case consists in the addition to legal records of another confusing judgment on the words in Section XL of the Medical Act, 1858, which have already been such a fertile source of confusion, namely, the words "wilfully and falsely."

Also I cannot close this letter without drawing attention to the fact that Mr. Muir Mackenzie's argument led the Court to believe that the General Medical Council was of opinion that the term physician was a monopoly of the College of Physicians, and that nobody else, not even a graduate of a university, has a right to the title of physician.

Finally, Mr. Muir Mackenzie also in the Court conveyed the idea to the judges that the General Medical Council divide the medical profession (although every member of it is registered under the Act of 1886 in medicine, surgery, and midwifery) into physicians, surgeons, and apothecaries. Of course such a view as this is wholly the outcome of an archaïc imagination, and has no foundation whatever in anything the General Medical Council has said or done.—I am, etc.,

Cavendish Square, Feb. 7th. VICTOR HORSLEY.

THE TITLE OF PHYSICIAN.

SIR,—The case of the late Dr. (or Mr.) Hunter seems to have opened up as fruitful a field of discussion as the oft-quoted right to the title of "Dr."

That the General Medical Council have acted most unwisely in the matter of the late Mr. Hunter most members of the profession will agree; but out of that unfortunate case has arisen the question as to who is a physician and who is not.

"L.R.C.P.Lond."[1] seems to me to have hit the nail on the head in his letter. M.D.'s, technically, are the only "Dr.'s" in a medical sense; surely the L.R.C.P.'s Lond., Edin., or Ireland are entitled to the name "physician" equally! The Irish College of Physicians in its diploma distinctly states the holder to be "a Physician and Licentiate in Medicine"; doubtless the other colleges act similarly.

I should think that an L.S.A.Lond., or L.A.H.Dub. (with a surgical qualification) was an Apothecary *and* Licentiate in Medicine, since the Act of 1886 recognised these two Apothecaries' Societies as being able to grant a medical diploma.

It is to be hoped that the General Medical Council or other competent authority will definitely decide who are "Dr.'s," "Physicians," "Surgeons," and "Licentiates in Medicine" or "Physic."—I am, etc.,

February 6th. L.K.Q.C.P.I.

SIR,—Had I been in possession of the excellent report of the Hunter appeal case which you now give, when I wrote the letter published in the same issue of the BRITISH MEDICAL JOURNAL, I should have added a few remarks on the peculiar view which the judges seem to have taken of grades or ranks in the medical profession. Allow me, therefore, to state that real distinctions no longer depend upon the titles or qualifications obtained from the examining bodies, much less has the physician that superiority over the surgeon or apothecary which ancient history assigns to him.

In olden times the physician used to send for the surgeon or leech in order that the latter might carry out an operation determined by the former, and the apothecary was little better than the dresser and dispenser. All that is changed now. All three are educated alike, and it is the general practitioner who holds the reins. In the present day the departments of medicine and surgery are held distinct, and only the general practitioner has to any considerable extent a knowledge gained by experience of the two. It is he who now calls in the specialist—physician or surgeon as the case may be—to assist him, by giving the patient the benefit of such skill as he possesses in regard to a particular small province of medicine or surgery, to which he (as specialist) has devoted himself. There are very few "all-round" consultants in these days: and woe betide the one who takes over a case to which he has been introduced by the ordinary medical attendant!

So far from the surgeon being inferior to the physician, I think it will be generally allowed that it is in the domain of the former that the greatest triumphs have been achieved. Even the immortal Jenner, though the favourite pupil of John Hunter, was a plain "country surgeon" until the discovery of vaccination made him famous, and titles and honours came thick upon him. Sir John Simon, who as medical officer of the Privy Council delivered us from the scourge of cholera,

[1] BRITISH MEDICAL JOURNAL, p. 312, February 4th, 1899.

though F.R.C.S., seems to have had no other diploma. And one of the most scientific practitioners that I ever knew, and whose memory is cherished not only by myself, but by many holding high positions in the profession, was plain L.S.A.

There is something rather grotesque, therefore, in the language adopted from musty charters by the judges in the Hunter appeal case. But the great mass of general practitioners will, I think, agree with me that their case could scarcely have been in better hands than in those of Mr. Haldane, Q.C., M.P., whose remarks were very apposite and deserving of a better result.—I am, etc.,

February 6th. M.R.C.S.ENG., L.S.A.

SIR,—I have studied very carefully your verbatim report of the Hunter case, and have had the advantage of the counsels of a friend in the legal profession. The main point in dispute, as was so constantly brought up by Mr. Justice Channell in his wail for more light, was the meaning of the term physician. Is it meant in the particular sense of a member of one of the Royal Colleges, or must it be construed in the broad, biblical, ordinary acceptation of the word—a practitioner of physic? One would have supposed that the first thing to do was to turn to the Acts themselves, and to find out in what sense the framers of those Acts used the term. Clause XXXVI of the 1858 Act (and note that it precedes Clause XL) runs as follows:

Section xxxvi. After the First Day of[1] (January) July, One thousand eight hundred and fifty-nine, no Person shall hold any Appointment as a Physician, Surgeon, or other Medical Officer either in the Military or Naval Service, or in Emigrant or other Vessels, or in any Hospital, Infirmary, Dispensary, or Lying-in Hospital not supported wholly by voluntary Contributions, or in any Lunatic Asylum, Gaol, Penitentiary, House of Correction, House of Industry, Parochial or Union Workhouse or Poorhouse, Parish Union, or other public Establishment, Body, or Institution, or to any Friendly or other Society for affording mutual Relief in Sickness, Infirmity, or old Age, or as a Medical Officer of Health, unless he be registered under this Act; Provided always that nothing in this Act contained shall extend to repeal or alter any of the Provisions of the Passengers' Act, 1855.

Will anyone be bold enough to say that "Physician" here is limited to the sense of such holder of office being a Fellow (for it really comes to that) of one of the Royal Colleges of Physicians? If this argument be unsound, as there can surely be no doubt, we do not need to travel beyond the clauses of the 1858 Act itself to find a definition clear enough to knock the bottom out of Mr. Muir Mackenzie's whole contention.

One word more about Clause XL (and there will be much to say on this head in May) I do not believe that there was any intention on the part of the Legislature to penalise the use of any particular title as compared with another. The whole endeavour was to draw a broad distinction between the qualified and unqualified practitioner, between the registered and unregistered individual, and as far as possible every designation in ordinary use implying such qualification and registration was specifically mentioned in the clause referred to and mentioned for this purpose only.—I am, etc.,

A MEMBER OF THE GENERAL MEDICAL COUNCIL.

*** To prevent any misapprehension it seems desirable to point out that the report of the argument of counsel in the Hunter case published in the JOURNAL of February 4th though very full was not *verbatim*.

THE CHOICE OF AN ANÆSTHETIC: A DISCLAIMER.

SIR,—In endeavouring to condense the observations I made in the recent discussion on the choice of an anæsthetic at the Society of Anæsthetists, your reporter, no doubt unintentionally, has placed my views not only in a very dogmatic and aggressive, but in part in so directly distorted, a form before your readers, that I must decline all responsibility for what I am made to say in his report. I did not contend that "ether increased the dyspnœa," but stated that it acted as a violent irritant upon the respiratory mucous membranes. I did not give it as a subjective opinion that in the fatal case which I narrated in support of this statement, the patient died "mainly" from the severe complications set up by ether, but I showed, by reading *in extenso* the notes of the *post-mortem* examination, that he actually *did* die from the effects of ether, and from nothing else. I did not say that operations for the removal of adenoid growths "required" chloroform, by which dogmatic assertion I should have enrolled myself amongst those whose dogmatic statements I criticised, but I gave my reasons why I personally should continue the use of chloroform in spite of the sweeping condemnation which had recently been passed upon that anæsthetic by an American author in cases of adenoids. I did not use the aggressive expression that "in every fatal case, either the operator or the anæsthetist had been devoid of special skill," but said that, so far as I knew, with one exception which I detailed, none of these fatalities had occurred in the hands of skilful operators and professional anæsthetists.

The entire description of your reporter is, indeed, an illustration of the French proverb: "*C'est le ton qui fait la musique.*" A correct report of my statements will be given in this week's *Clinical Journal*.—I am, etc.,

Wimpole Street, Feb. 6th. FELIX SEMON.

[1] July was substituted for January by the Medical Act, 1859.

SANITATION IN ALDERSHOT.

SIR,—As your recent article on the above subject might lead to misapprehension and some drawback to the increasing prosperity of Aldershot and its vicinity, you will, perhaps, kindly permit me, as a medical man practising in the town and employed temporarily in the camp, to write a few lines on the results of the sanitary measures and precautions adopted and enforced here during the past two or three years.

As regards the year 1895—from the army medical report of which year you have received your information—I do not intend to say much except to remark that, though diphtheria was so generally prevalent in England during the year, our mortality for town and camp was only 0.18 per 1,000 from diphtheria, and that no doubt for obvious reasons many suspicious cases were properly treated as true cases of diphtheria in the absence of a confirmatory bacteriological diagnosis, not always conveniently obtainable. I shall, however, confine my remarks to the county council reports of more recent years, when more trustworthy proofs of the efficacy of the measures adopted had had time to show themselves clearly.

Taking all cases reported in the camp and town in the years 1896 and 1897 as true cases of diphtheria, it is very satisfactory to find that the number of cases had rapidly declined since 1895 to the extent of about 45 and 60 per cent. respectively of the number reported in the year 1895. This decrease was maintained in the year 1898, and further, this percentage of disease was in reality greater if allowance were made for the rapid annual increase of the population and the number of the troops at Woking and Pirbright, from which places all infectious cases amongst the troops or their families were sent to the camp isolation hospital.

The cases in the camp alone decreased about 40 per cent. in 1896, and 70 per cent. in 1897, but the most remarkable decrease was in 1898, when the decrease was more than 90 per cent. of the number reported in the year 1895.

These figures speak for themselves, and when it is realised how many children there are in the camp and town of Aldershot aggregated in schools within a certain limited area, undoubtedly a prime factor in the spread of epidemic disease[1]; again, when it is realised that Aldershot and the Camp are comparatively new places, the former containing an exceptionally high ratio (gradually diminishing) of poor to well-to-do people as compared with other towns of smaller size and population, the latter containing the largest number of troops in the United Kingdom whose families necessarily live in close quarters, mixing freely with each other, it will be readily understood how difficult it is to control the spread of an epidemic disease. It is consequently all the more praiseworthy that the camp authorities and the Aldershot Urban District Council have, by the salutary measures they have adopted and enforced, not only had the satisfaction of decreasing the number of cases of diphtheria, but have helped undoubtedly to reduce the death-rate by about 2 per 1,000 since 1895, a death-rate about 10.2 per 1,000, almost the lowest in the 39 districts included in the administrative County of Southampton, the camp alone showing of course a much lower death-rate on account of the number of people of the more vital ages.

[1] See Report to London County Council by Mr. Shirley Murphy, 1894.

I can therefore safely say that the district of Aldershot is a particularly healthy one, and now that the Aldershot Urban Council are eagerly experimenting and gradually adopting the more recent scientific methods and discoveries as regards the treatment and disposal of sewage, with the isolation hospital just completed, one may confidently expect to see the number of cases of diphtheria reduced to a minimum and the death-rate brought even lower than it is at present.—I am, etc.,

W. Moyle O'Connor, M.A., M.D., D.P.H.

Lyndhurst, Aldershot, Feb. 7th.

MANCHESTER WAREHOUSEMEN AND CLERKS' PROVIDENT ASSOCIATION.

Sir,—In the British Medical Journal of January 14th you published an admirable letter from Dr. A. W. Senior, under the heading of "Consultants for Medical Aid Associations." I know from Dr. Senior himself what I had inferred from his letter—that his criticisms were intended to be applied to the above Society; and since I sympathise with his efforts to place it on a more equitable basis with regard to the profession, I shall be glad of an opportunity for extending his remarks.

This Society was established in 1855, and is now registered under the Friendly Society Act. In all points except its relation to the medical profession it appears to be an admirable one.

All persons are "eligible to become members who are above 18 and not above 50 years of age, and who at the time of their application shall be employed, and shall have held their situations at least one month, either as traveller, buyer, salesman, warehouseman, cashier, clerk, or book-keeper, in any warehouse, bank, assurance office, solicitor's office, railway office, public institution, or engaged in any of the above occupations in any professional or retail establishment, or clerk in any establishment in Manchester and within a circuit of six miles of the Royal Exchange, and any commercial traveller who has been a householder within the same limits twelve months or upwards, and engaged on salary."

The only wage or income limit is one which is intended to prevent any person whose income is less than 20s. per week from becoming a member of the Society; and yet this is about the only person one would have thought to have had much claim upon the consideration of the profession.

Dr. Senior's remarks were chiefly directed against the fact that this Society is kept up by "advertising and canvassing," and that consultants allowed their services to be obtained by the members at reduced terms. With regard to the consultants, what is really objected to is this—not that deserving members should be able to get special advice at reduced terms, but that all members should be able to get it for nothing. Because (unless I am misinformed) it is not the patients, whether rich or poor, who pay the consultant's fees. These are paid on a "reduced" scale by a Society which has a reserve fund of £32,000; and the fact that "special" advice and consultants' "opinions" can be had for nothing is used as a powerful argument in canvassing new members, clearly to the injury of the private practitioner. But if it be improper for consultants to be connected with this Society, what is to be said of the dozens of general practitioners, many of them amongst the best known in their districts, who allow their services to be claimed by its members for 4s. per annum? According to the official syllabus, there are sixty districts within six miles of Manchester, including all the best residential areas, where "surgeons are provided" by this Society. What feeling other than contempt can a buyer or salesman on 'change, or a commercial traveller, or a bank cashier have for a professional man whose services can be commanded on such miserable terms? Clearly the proper thing to be done is to restrict the medical benefits by an income limit, and to raise the charge for medical attendance to at least 8s. per annum, which is, I am informed, the rate for attendance on the Post Office officials, in whose case also the medical benefits are limited to those whose salary is below a certain standard.—I am, etc.,

R. Hanson Wolstenholme, M.R.C.S., L.R.C.P.Edin.

Salford, Jan. 30th.

THE EARLY TREATMENT OF INCIPIENT INSANITY.

Sir,—I am glad to see this subject is being ventilated in your columns. At the annual meeting of the Association in 1896 Dr. H. Rayner opened a discussion upon the Certification of Insanity in Relation to the Medical Profession. Among other points he laid particular stress upon the legal delays, and the social and medical objections and difficulties which arose in bringing cases of early mental disorders under treatment. In the discussion which followed I advocated the promulgation of a scheme to obviate these difficulties in dealing with such cases. I mean especially those cases in which there could be no difficulty in recognising the mental disorder, but in which the difficulty of certification was a bar to bringing the patient legally under the care and control necessary for his successful treatment. The plan I ventured to suggest was that where the insanity of the patient was in doubt or undeveloped it should be made legally possible for him to be placed under care and treatment in a doctor's house or elsewhere upon the application of a relative or friend to a magistrate for a judicial order; such application to be accompanied by a written medical opinion in support of it empowering the detention of the patient for a specified time. By following this course in many instances certificates would be avoided by the recovery of the patient, and in others by the development of the disease all doubt would be cleared away, and certification when inevitable could be procured without difficulty. In this view I was very strongly supported by Dr. Yellowlees and other speakers, who referred to the fact that the very provision I advocated was already in force in Scotland, that it was of the greatest value, and that it worked without difficulty. Some such addition as this to our lunacy law would prove of inestimable value to the community and would do away with much of the so-called illegal detention complained of.—I am, etc.,

Margaret Street, W., Feb. 6th. T. Outterson Wood, M.D.

A DEGREE FOR DOUBLY QUALIFIED MEN.

Sir,—Permit me to deny emphatically that the B.Ch. of T.C.D. is a "watering of capital." It is obtainable only after an examination corresponding in stringency to that for the M.B.

On the general question I should like to say that a degree in Medicine, unless accompanied by a degree in Arts or Science, is of no more value in the eyes of thinking people than an ordinary licence.—I am, etc.,

Fitzgerald Isdell, M.A., M.D.

Shaftesbury Avenue, W.C., Feb. 3rd.

OBITUARY.

JOHN HAYBALL PAUL, M.D.St. Andrews, F.R.C.S.Eng., etc.

A notable member of the profession in South London, Dr. J. H. Paul, of Camberwell House Asylum, and The Terrace, Camberwell, died at the latter place on January 29th, aged 83. Born in the Isle of Wight, he was educated at a private school, and afterwards apprenticed to Dr. Newington in Spitalfields. He received his medical education at the Westminster and St. Bartholomew's Hospitals, and became M.R.C.S. in 1840 and L.S.A. in 1845. He obtained the degree of M.D.St. Andrews in 1854, and became F.R.C.P.Edin. in 1858, and M.R.C.P.Lond. and F.R.C.S. Eng. in 1859. He went to Camberwell House in 1846, and for upwards of half a century led a busy and useful life in that establishment. There were also several other objects in which he was keenly interested. He was one of the founders of the Medico-Psychological Association, and at the time of his death was Emeritus Treasurer of the Association. He served as Treasurer from 1864 to 1895, and on his retirement from the post was presented by the President, Dr. Nicholson, on behalf of the members, with a silver bowl and an illuminated testimonial. He was also Treasurer of the St. Andrews Graduates' Association from its formation. He was founder, with the late Dr. Hassall, of the Royal National Hospital for Consumption, Ventnor, and a member of the committee until his death. He was also a Governor of Bethlem Royal Hospital, and an old and esteemed Freemason, having held high rank in the craft. He had recently suffered for some months from renal disease, and never recovered from the death of his wife, which took place three months ago. He was universally esteemed and beloved by all with whom he came in contact.

The funeral took place at Norbiton Cemetery on February 2nd.

LUKE FISHER, M.D.St.And., M.R.C.S.Eng., L.S.A.

Dr. Fisher, who died on January 30th at his residence, Lytham, Lancashire, in his 59th year, was highly esteemed by all sections of the community in Lytham and its neighbourhood. He was born at Whittle-le-Woods, Lancashire, and was the son of the Rev. J. Fisher, who for forty-six years was Vicar of Heapey. He received his professional education at Charing Cross Hospital, and became L.S.A. in 1861, and M.R.C.S.Eng. and M.D.St. Andrews in 1862. For two years he was House-Surgeon to the Preston Dispensary, and in 1864 went to reside at Lytham, where he was at first the partner of Dr. Gradwell. He gradually acquired a very extensive practice, from which he retired only last year. He grudged no service that he could render to Lytham or its people.

In 1865 he was gazetted Assistant Surgeon to the local volunteer corps; in 1868 became Assistant Surgeon to the battalion, in 1877 Surgeon, in 1885 Honorary Surgeon-Major, and in 1889 Surgeon-Major. In 1891 he resigned his commission, and was permitted to retain his rank (Lieutenant-Colonel), and to continue to wear the uniform of the battalion on his retirement. In 1865 he was appointed Admiralty Surgeon and Agent, and held the post until his death. He was also Parochial Medical Officer and Public Vaccinator for the Lytham District from 1865 for seventeen years, when he was elected Medical Officer of Health, which post he held for seven years. Amongst other offices that he held were those of Honorary Secretary of the local Cottage Hospital, Medical Attendant to the Seaside Home for City Children and to the Home of Rest, Chairman of the Lytham Urban District Council, and Chairman of the Lytham Ratepayers' Association.

He had been ill for a few weeks, and eight days before death he had a severe paralytic seizure. For some days improvement ensued, but a second seizure was rapidly fatal. He was married in 1865 to Miss Agnes Rowlandson, daughter of the Vicar of Whittle; and this lady, with three daughters and a son, survive.

The funeral took place at the parish church, Lytham, on February 1st, and was accompanied by signs of the widespread respect entertained for the deceased.

WILLIAM TASKER LUNDIE, M.A., B.Sc., M.D.Edin.

To the regret of a wide circle of friends, a career of much promise was cut short by the death of Dr. William Tasker Lundie of Edinburgh.

Dr. Lundie was born at Auchterarder, Perthshire, in February, 1855, where his father was Master of the Sheddan Trust School. As it was intended that he should follow the teaching profession, he entered the Free Church Training College in Edinburgh in 1873, and thereafter had some experience in teaching at Larkhall Public School. Returning to Edinburgh as one of the staff of George Watson's Ladies College, he found time to attend the University Arts Course, and, subsequently, the Science Classes, graduating as M.A. in 1883 and B.Sc. in 1886. Having been strongly drawn towards the study of medicine, on closing his term of service at Watson's Ladies College, he entered with much enthusiasm on his medical studies, and graduated M.B., C.M. in 1888. He received the appointment of House Surgeon in Craiglockhart Poorhouse, and after two years' experience there, he started the practice of his profession in Edinburgh in May, 1890. Since that time, by diligence and devotion he built up a steadily-increasing practice, the claims of which proved too exacting for a physical frame by no means robust. In 1893 he took the degree of M.D., his thesis being on Neuropathic Œdema. Dr. Lundie held the post of Chloroformist to the Edinburgh Dental Hospital.

Though for the last year or so his friends were apprehensive that he was overtaxing his strength, and saw ominous signs of growing exhaustion, Dr. Lundie kept bravely to his work till prostrated by an attack of subacute rheumatism in August, 1898. On recovery, an attempt to resume his work was followed by an entire breakdown. Rigors and high temperature supervened, and signs of acute tuberculosis developed. After fifteen weeks of great weakness and prostration, borne with much patience, the end came on January 28th.

Dr. Lundie was a man of lovable and genial disposition, and of high Christian character. He was an elder in Argyle Place U. P. Church, where he was held in high esteem by pastor and fellow members. He was married in 1895. His illness and death have evoked many and widespread tokens and regret and of sympathy for his widow and children, as also for his aged parents.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Pedro Izquierdo, Professor in the Medical Faculty of the University of Madrid; Dr. August Socin, Professor of Clinical Surgery in the University of Basel, aged 62; Professor Wolffhügel, of Göttingen, the eminent hygienist; Dr. Josef Finger, Emeritus Professor of Clinical Medicine at Lemberg, aged 80; Dr. Thomas, formerly a member of the French Chamber of Deputies, and Professor in the Medical School of Rheims, aged 73; and Dr. Emil Schiff, well known as a populariser of the researches of Helmholtz and Dubois-Reymond, and for his reports of medical and scientific congresses, aged 50. Dr. Schiff was the Berlin correspondent of the *Neue Freie Presse* of Vienna.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL VICTORIA HOSPITAL, NETLEY.

The distribution of prizes to the surgeons on probation for the Royal Army Medical Corps and the Indian Medical Service by Sir Ralph H. Knox, K.C.B., Permanent Under Secretary of State for War, took place on January 31st before a large gathering of distinguished medical and other officers.

Colonel Notter read the following returns, showing that the whole of the surgeons on probation who had been studying at Netley had passed both the London and Netley examinations, and had been granted their commissions.

Royal Army Medical Corps.

	Combined Marks.		Combined Marks.
H. P. W. Harrow	5,047	W. B. Winkfield	4,147
J. E. Hodgson	4,796	T. C. Lauder	4,044
A. L. Scott	4,673	J. W. Leake	3,925
L. E. L. Parker	4,607	J. W. H. Houghton	3,828
J. G. Gill	4,541	D. E. Crume	3,805
G. W. G. Jones	4,383	H. S. Taylor	3,803
M. H. G. Fell	4,321	G. M. Goldsmith	3,632
G. H. Goddard	4,280	R. H. Lloyd	3,534

Nominated Surgeons on Probation.

	Netley Marks.		Netley Marks.
D. S. Harvey	2,619	H. D. Packer	1,993
J. M. Sloan	2,545	L. Humphrey	1,946
H. E. Haymes	2,532	R. S. Rodger	1,912
F. J. Brakenridge	2,500	W. W. Scarlett	1,788
G. C. Phipps	2,271	H. K. Palmer	1,716
N. J. C. Rutherford	2,269	A. O. B. Wroughton	1,713
G. J. A. Ormsby	2,192	F. Ashe	1,635

Indian Medical Service.

	Combined Marks.		Combined Marks.
J. C. H. Leicester	6,387	J. N. Walker	4,222
H. Innes	5,964	V. H. Roberts	4,221
W. S. Willmore	5,559	J. E. Robinson	4,186
A. E. Walter	5,104	C. H. B. Adams	4,163
C. Hudson	5,029	G. King	4,082
L. T. R. Hutchinson	5,014	T. S. Ross	4,027
C. F. Weinman	4,833	G. P. T. Groube	3,872
H. M. Cruddas	4,792	P. P. Atal	3,827
A. M. Fleming	4,368	W. McM. Pearson	3,779
E. L. Ward	4,341	D. C. Kemp	3,764

The prizes were awarded for marks gained in the special subjects taught at the Army Medical School, and the Herbert prize of £20, Martin Memorial medal, the de Chaumont prize in Hygiene, and the 2nd Montefiore prize were gained by J. C. H. Leicester; 1st Montefiore prize of 20 guineas and medal, by H. Innes; the Parkes Memorial medal, by A. L. Scott; the Maclean prize for Clinical and ward work, by L. T. R. Hutchinson; the Pathology prize, presented by Surgeon-General Hooper, C.S.I., by D. S. Harvey.

As usual, the probationers for the Indian Medical Service showed higher totals than those for the Royal Army Medical Corps in the combined marks gained at the London and Netley examinations, but the superiority in this respect was less conspicuous than in past years.

The Indian also carried off the bulk of the prizes, but the

pathology prize fell to one of the nominated candidates for the Medical Corps, a fact to which Sir Ralph Knox drew pointed attention. On this occasion there were also no rejections at Netley, but all the 50 probationers passed, which is a matter for congratulation.

Sir Ralph Knox made a very admirable and sympathetic address to the probationers. He declared he not only had great knowledge of the medical services, but had acquired in his official position a warm interest in them, although, as he said in a humorous vein, his chief function had been to see how few men could do the work of the army, and at how low a rate gentlemen could be induced to come and do that work. Sir Ralph very emphatically declared that the officers of the Royal Army Medical Corps were soldiers as well as surgeons, so that they had the twin high ideals of a medical and military life to live up to. He also asserted that in these days of long-range projectiles, all, whatever their immediate functions, who were in touch with an army in action anywhere near the front, carried their lives in their hands, almost equally with those in the fighting line. The risks, indeed, to non-combatants were becoming nearer and nearer to those of the combatants.

Sir Ralph's address was ably supported in the remarks of Surgeon-General Jameson, Director-General, Army Medical Service.

We may congratulate both the Home and Indian services on receiving the fifty promising officers who have just passed through Netley: and we trust the past session will prove the dawn of a brighter period in the medical services.

The gentlemen nominated to the Royal Army Medical Corps by the public bodies seem to have quite met the expectations placed in them.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

Major, R.A.M.C., just home on completion of foreign tour, is willing to exchange to a colony for whole or part tour. Address, giving full particulars, to Domani, care of Messrs. Holt and Co., 3, Whitehall Place.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Hugh W. Macnamara, Staff-Surgeon, to Chatham Hospital, January 31st; John L. Barrington, Staff-Surgeon, to the *Boscawen*, January 31st; Thomas E. H. Williams, Fleet-Surgeon, to the *Defiance*, February 1st; Walter G. Axford, Staff-Surgeon, to the *Pylades*, February 14th; Robert H. Mornement, Surgeon, to the *Vivid*, for disposal, February 1st; Harold Huskinson, M.B., Surgeon, to the *Boscawen*, for the *Agincourt*, February 1st; Richard F. Clark, Surgeon, to the *Niobe*, February 1st; Edward J. Biden, Staff-Surgeon, to the *Orlando*, February 16th; William M. Lory, Staff-Surgeon, to the *Aurora*, February 16th; Bassett C. E. F. Gunn, Staff-Surgeon, to the *Repulse*, February 16th; Edward C. Ward, M.D., Staff-Surgeon, to the *Penguin*, undated; Ernest S. Reid, M.B., Surgeon, to the *Orlando*, February 16th; Edward E. Power, Surgeon, to the *Aurora*, February 16th; Reginald St. G. S. Bond, M.B., Surgeon, to the *Collingwood*, February 16th; Archibald W. Campbell, M.B., Surgeon, to the *Royal Arthur*, February 1st.

ROYAL ARMY MEDICAL CORPS.

Captain Julian P. S. Hayes is promoted to be Major, January 30th. His first commission dates from January 30th, 1886.

Lieutenants Frederick S. Brereton, John C. B. Statham, Robert M. Le H. Cooper, M.B., Edwin C. Hayes, Percy J. Probyn, Anthony M. Waring, Arthur W. Hooper, William A. Ward, and Edmund G. Forrest, M.B., having completed three years' full pay service, are promoted to be Captains, January 29th.

Captain Robert Caldwell is promoted to be Major, January 31st. He was appointed Surgeon-Captain, January 31st, 1885, and served with the Soudan Frontier Field Force in 1885-86, receiving the medal and Khedive's bronze star. He has also the bronze medal of the Royal Humane Society for assisting to save a private of the Black Watch from drowning in the river Nile at Korti on October 28th, 1885.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant Alec Phillips, the Manchester Companies Volunteer Medical Staff Corps, to be Surgeon-Lieutenant, February 4th.

INDIAN MEDICAL SERVICE.

Colonel D. O'C. Raye, M.D., Bengal Establishment, retires from the service from April 2nd next. Appointed Assistant Surgeon, March 31st, 1866, he became Surgeon-Colonel, April 2nd, 1894, and was made Honorary Surgeon to the late Governor-General of India in January, 1894. He was Inspector General of Civil Hospitals in the Punjab, but has been on furlough since August 10th last.

Captain J. G. Hulbert, Bengal Establishment, has been appointed Personal Assistant to the Principal Medical Officer, Bengal Command, in succession to Captain R. H. Maddox, whose services have been transferred to the Civil Department.

THE VOLUNTEERS.

The following have resigned their commissions from February 8th: Surgeon-Lieutenant E. J. Weightman, M.B., 4th Volunteer Battalion the Cheshire Regiment; Surgeon-Captain H. Kelly, M.B., 1st Volunteer Battalion the Highland Light Infantry; Honorary Assistant-Surgeon D. Haig, 4th (Stirlingshire) Volunteer Battalion Princess Louise's Argyll and Sutherland Highlanders.

EXTRA MEDICAL CHARGES, INDIA.

The Government of India have decided that an officer of the Indian Medical Service already holding charge, shall, when placed in additional charge of Imperial service troops on field service be remunerated as follows: Rs.85 a month for the charge of a regiment of infantry or cavalry with a strength of not less than 600 and 500 respectively; Rs.65 per mensem for the charge of a wing of a regiment of infantry or cavalry of the above strength, or a whole regiment, provided the numbers actually present are not less than 300 or 250 respectively; Rs.75 per month for charge of a detachment of all arms of a strength not less than 380 men; and Rs.25 a month for the charge of a battery of artillery or a company of sappers. It has further been decided that the above ruling shall have retrospective effect, so as to cover any cases which may have occurred during the frontier operations 1897-98.

A NEW STATION HOSPITAL.

A new Station Hospital will be opened shortly in Edinburgh Castle. The *Army and Navy Gazette* very opportunely suggests that the word "military" or "army" should be substituted for "station" as a prefix to a hospital for military patients.

CONVALESCENTS IN INDIA.

The system under which it is sought to send out convalescent soldiers into small camps, or move them for change of air from one station to another is being gradually introduced in India in the Bengal Command. It promises to be very successful, and extra grants for money will probably be made to extend it.

STAFF OF THE GOVERNOR-GENERAL OF INDIA.

The following appointments have been made on the personal staff of the Governor-General of India from January 6th: To be Surgeons:—Lieutenant-Colonel E. H. Fenn, C.I.E., R.A.M.C. To be Honorary Assistant-Surgeons: Assistant-Surgeon E. MacKenzie, Bombay; Assistant-Surgeon C. A. Lafrenais, Madras. To be Honorary Surgeons: Surgeon-General R. Harvey, M.D., C.B., D.S.O., I.M.S.; Colonel D. O'C. Raye, M.D., I.M.S.; Colonel D. Sinclair, M.B., C.S.I., I.M.S.; Lieutenant-Colonel A. J. Willcocks, M.D., I.M.S.; Lieutenant-Colonel S. H. Browne, M.D., C.I.E., I.M.S.; Colonel W. P. Warburton, M.D., C.S.I., I.M.S.; Surgeon-General W. S. M. Price, A.M.S.; Lieutenant-Colonel G. D. Bourke, R.A.M.C.

VOLUNTEER MEDICAL ASSOCIATION.

The next class of instruction of the Volunteer Medical Association for the Proficiency Examination will commence in the middle of February: all information can be obtained from Surgeon-Captain Harper, 25, Rosary Gardens, South Kensington, S.W.

VOLUNTEER MEDICAL STAFF CORPS.

Surgeon-Captain F. J. L. Warwick, M.B., from the 1st Tower Hamlets Volunteer Rifle Corps, to be Surgeon-Captain in the London Companies, February 4th.

MEDICO-LEGAL.

A CONSCIENTIOUS OBJECTOR AND HIS OBJECTION.

On January 27th an application was heard in the Divisional Court (Queen's Bench Division) for a rule nisi for a mandamus to compel the stipendiary magistrate for Sheffield to hear and determine an application for exemption under the Vaccination Act, 1898. An affidavit made by the learned magistrate was read to the Court. It was there stated that exemption had been refused on the ground that there was no evidence of the existence of a conscientious belief in the mind of the applicant that the operation would be prejudicial to the child's health. There was evidence that the applicant had some objection to the operation, as it would cause the infant unnecessary pain.

Mr. Schultess Young submitted that it was no part of the magistrate's duty to make inquiries as to the reason why the parent or other person entertained a particular opinion. In this case the magistrate did not hear and determine the case as he ought to have done.

Mr. Justice Channell observed that it had to be shown that the magistrate had not heard an application. The Court had no power to grant a mandamus to a magistrate to be satisfied when in fact he was not.

Mr. Young urged that the magistrate had no right to make the remarks which he made at the hearing, and that the statement by the child's father that he objected to the operation as causing unnecessary suffering was sufficient evidence of a conscientious objection.

Mr. Justice Channell said a mere pin prick could not be said to be prejudicial to the child's health. Even assuming that all the magistrate said was nonsense, he had heard and determined the case.

Mr. Justice Lawrance thought that the magistrate should have been asked to state a case.

Mr. Young replied that the magistrate had no right to express reasons why he did not grant the certificate.

In the event the Court refused the application, both the learned Judges saying that the magistrate had only to hear and determine, and that he had done his duty in this case.

THE L.R.C.P.LOND.

"QUERY" asks whether the holder of L.R.C.P.London (1897) can hold the appointment of Poor-law medical officer under the Local Government Board in a Scotch parish, and if the above qualification is a double qualification.

*** If the holder of this qualification is on the *Register* he can hold this appointment. It would appear that the College of Physicians is enabled under its charter and statutes to grant a licence to practise both in medicine and surgery.

A QUESTION OF ETHICS.

A MEMBER B.M.A. asks whether it is "a greater sin" to report unqualified practice or leave things to take their own course.

*** We do not consider that there is any duty on a medical man to take action against unqualified practitioners. At the same time such action in well-founded cases if of undoubted benefit to the community at large.

CONTRACTS NOT TO PRACTISE WITHIN AN AREA.

SURGICUS states that he signed a bond with the following clauses—namely, not to start practice within 10 miles of a certain borough for 10 years at a penalty of £10 per month. "Surgicus" says now that several persons have asked him to start in the neighbourhood, and he wishes to know if the aforesaid bond would interfere with him under the circumstances.

*** Our correspondent does not state his case very clearly, but we consider that if he received some valuable consideration for signing the bond he could undoubtedly be restrained by injunction from practice within the limit mentioned, and would also render himself liable for damages for breach of the bond. He should, however, consult a solicitor.

A SPECIAL CASE.

"ARMY MEDICUS" asks whether he as a retired Deputy-Surgeon-General of the Indian Medical Service can practise in England and give evidence in the courts though unregistered, having entered the public service in 1854. Our correspondent also asks if the General Medical Council has ever acted on Section XLVI, of the Medical Act 1858, by which the Council is empowered to exempt army medical officers from such provisions of the Act as the Council shall think fit. Our correspondent further states that one or two unregistered practitioners have set up in his neighbourhood and wishes to know whether the Council will yield protection and enforce prosecution.

*** We observe that our correspondent writes from the Isle of Man to which place the provisions of the Medical Act 1858 do not apply. If our correspondent however wishes to practise in England we should certainly advise him to take advantage of the section he mentions. There is, we understand, no difficulty in obtaining the exemption from the Council in a proper case, though as a matter of fact very few applications have been made. We are unable to say what (if any) repressive measures can be taken against unregistered persons under the Manx laws.

CONTRACTS NOT TO PRACTISE.

ALPHA sends the following: A.B. signs an agreement that he shall not practise as a physician or a surgeon within a certain district. Does this clause debar A.B. from accepting an appointment as medical officer of health over an area in which the said district is included?

*** Courts of justice are inclined to scrutinise contracts which have the effect of debarring a man from the free exercise of his profession very closely, and to construe them strictly. If the appointment in the present case be a whole time appointment, then inasmuch as the duties of a medical officer of health do not appear to involve active practice as a physician or surgeon, A. B. might probably accept the appointment, but he should consult his solicitor.

THE TITLE OF DR.

A. J. S.—The use of the title "Dr." by Licentiates of Colleges in the way mentioned by our correspondent is, strictly speaking, improper, but we doubt whether our correspondent would be well advised in taking the step he proposes.

MEDICAL TITLES.

O. R. F.—We apprehend that our correspondent's question could only be settled by an action at law, should the point ever arise.

A.R.H.—The executors of the deceased man would probably have a good cause of action in this case, and could obtain an injunction, but proper legal advice should, of course, be obtained.

INQUIRER.—A medical man, though acting in the capacity of a *locum tenens*, is not within the provisions of the Employers Liability Act, 1881, or the Workmen's Compensation Act, 1897, under which statutes in certain cases workmen are entitled to compensation for injuries.

SHORTHAND FOR PARIS MEDICAL STUDENTS.—Under the patronage of the Association des Etudiants de Paris Dr. Laporte has started a series of courses of instruction in shorthand for students.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

BENEFACTIONS.—In addition to the two gifts of £10,000 each from the Duke of Devonshire and Messrs. Rothschild, Mr. B. L. Cohen has promised £3,000 to the Benefaction Fund, and a number of smaller sums have also been received as a result of the formation of the University Association. Sir Walter Gilbey, the Drapers' Company, the Board of Agriculture, and a number of County Councils have promised contributions amounting to over £20,000 for the establishment of a department of Agricultural Science.

PHARMACEUTICAL CHEMISTRY.—The Special Board for Medicine have revised the schedule of the examination in this subject to bring it into accord with the *British Pharmacopœia, 1898*. The new schedule is as follows: The examination will be practical, and the questions set will have reference to—1. The chemical principles involved in the preparation of the following substances: Reduced iron, mercury with chalk, lithium citrate, potassium iodide, mercurous chloride, mercuric chloride, calcium hypophosphite, arsenical (Fowler's) solution, hydrochloric solution of arsenic, sulphurated lime, iron phosphate, strong solution of ferric chloride, bismuth oxynitrate, strong solution of lead subacetate, tartarated antimony, iron and ammonium citrate, ammoniated mercury. 2. The chemical reactions characteristic of the following substances: Solution of trinitrin, amyl nitrite, chloral hydrate, iodoform, hydrocyanic acid; the alkaloids atropine, brucine, codeine, morphine, quinine, strychnine, and caffeine; phenol, beta-naphthol, salicyclic acid, salol; gallic acid, the tannins of galls and catechu; salicin; acetanilide, phenacetin, phenazone. 3. The chemical incompatibilities of drugs as illustrated by the interaction of iron salts with arsenical solutions, alkalies with mercurial preparations, acids with sulphurated lime, acids and oxidising agents with potassium iodide, and astringent solutions with alkaloids. 4. The estimation by volumetric methods of arsenic and antimony in given solutions, of chlorine in chlorinated lime, of hydrocyanic acid in cherry laurel water and other solutions, of iron in reduced iron and iron phosphate, of nitrites in solution of ethyl nitrite and spirit of nitrous ether, and of citric and tartaric acid in given solutions, standardised solutions being provided. 5. The characters of the foregoing substances, and the physical and chemical tests for them and for their usual impurities.

DEGREES.—At the Congregation on February 2nd, the following were admitted to the degrees of M.B. and B.C.:

F. H. Maturin, B.A., Caius; G. E. Harthau, B.A., Jesus; A. E. Harrisson, B.A., Magdalene; P. T. Sutcliffe, B.A., Emmanuel; H. C. Thorp, B.A., Emmanuel.

UNIVERSITY OF LONDON.

INTERMEDIATE EXAMINATION IN MEDICINE.—The following candidates have satisfied the Examiners:

Entire Examination.—First Division: A. D. Hamilton, University College, Liverpool; H. W. James, University College, Cardiff, and St. Bartholomew's Hospital; P. Savill, University College. Second Division: H. M. Brown, St. Mary's Hospital; Janet Mary Campbell, London School of Medicine for Women; C. E. C. Child, Charing Cross Hospital and Birkbeck Institute; E. M. Clarke, University College, Cardiff; Olive Claydon, London School of Medicine for Women; G. T. Collins, Guy's Hospital; L. A. E. De Zilwa, B.Sc., University College; H. B. Foster, Guy's Hospital; L. C. Johnson, University College, Liverpool, and Owens College; H. C. Keates, Guy's Hospital; C. E. Lakin, Middlesex Hospital; R. E. Lloyd, B.Sc., University College; H. Love, St. Bartholomew's Hospital; F. J. A. Mayes, University College; J. S. New, University College; J. E. Sparks, University College, Bristol; Louisa Spicer, London School of Medicine for Women; A. E. Thomas, St. Bartholomew's Hospital; V. F. Wall, St. Mary's Hospital.

Excluding Physiology.—First Division: M. A. Collins, Guy's Hospital. Second Division: A. M. Amsler, St. Bartholomew's Hospital; A. H. Bradley, Mason University College; A. H. Bygott, Queen's College, Birmingham; W. J. Davies, Guy's Hospital; H. A. Ehrlich, Guy's Hospital; D. C. Evans, University College, Cardiff; G. Evans, Guy's Hospital; E. F. Fisher, London Hospital; Bessie Marion Gilford, Royal Free Hospital and Birkbeck Institute; A. C. H. Gray, Guy's Hospital; P. G. Harvey, St. Bartholomew's Hospital; B. W. Jones, Mason University College; W. H. Jones, London Hospital; C. B. Penny, Guy's Hospital; Marie Louise Pethick, London School of Medicine and Royal Free Hospital, H. H. Raw, St. Bartholomew's Hospital; E. F. Reeve, Guy's Hospital; W. M. Robson, Guy's Hospital; Emily Gertrude Stuart, London School of Medicine and Royal Free Hospital; G. O. Taylor, London Hospital; D. H. Trail, Guy's Hospital; A. B. Waller, London Hospital; Winefred F. Wigglesworth, London School of Medicine and Royal Free Hospital; A. E. F. Wilkes, Queen's Faculty of Medicine, Birmingham.

Physiology Only.—First Division: H. F. W. Boeddicker, Mason University College; A. Caddy, St. George's Hospital; D. Ellis, London Hospital; A. H. John, St. Bartholomew's Hospital; R. A. Lloyd, St. Bartholomew's Hospital; E. C. Mackay, St. Bartholomew's Hospital; Annie Mooney, London School of Medicine for Women; S. J. Ormond, Guy's Hospital; A. Pearson, Guy's Hospital; A. C. Ransford, Guy's Hospital; A. S. Woodwark, St. Bartholomew's Hospital. Second Division: J. C. M. Bailey, St. Bartholomew's Hospital; E. W. Bain, London Hospital; H. C. Barlow, Westminster Hospital; F. J. Birks, University College, Sheffield; N. Carpmael, St. Thomas's Hospital; F. G. H. Cooke, Cooke's London School of Anatomy; D. Forsyth, Guy's Hospital; J. S. Gayner, St. Bartholomew's Hospital; S. B. Green, St. Bartholomew's Hospital; A. C. Haslam, St. Thomas's Hospital; E. T. Jenson, Guy's Hospital; O. Marriott, Guy's Hospital; T. A. Matthews, Guy's Hospital; W. P. Pauckridge, Middlesex Hospital; A. C. Parsons, St. Thomas's Hospital and King's College; M. J. Rees, Guy's Hospital; C. H. D. Robbs, St. Bartholomew's Hospital; J. J. S. Serase, St. Bartholomew's Hospital; D. W. Smith, Edinburgh University and Guy's

Hospital; J. H. Stormont, Mason University College: F. G. Thompson, St. Mary's Hospital; W. A. Trumper, St. Mary's Hospital.

PRELIMINARY SCIENTIFIC EXAMINATION.—The following candidates have satisfied the Examiners:

Entire Examination.—First Division: D. Isaacs, University Tutorial College. Second Division: R. A. Fuller, Merchant Venturers' College, Clifton Laboratory, and private study; G. F. Jones, University College and private study.

Chemistry and Experimental Physics. *W. Bain, Private study and Middlesex Hospital; W. H. Barnett, Cranleigh School and University Tutorial College; *Helen Chambers, Newnham College, Cambridge, and private study; *A. J. Edmonds, Owens College; *Olive Muriel Elgood, Birkbeck Institution; *Kate Knowles, University College, Nottingham, and University Tutorial College; *C. L. Lakin, Charing Cross Hospital; *A. R. Neligan, St. Bartholomew's Hospital and private tuition; *W. P. Walker, London Hospital; *A. D. White, St. Bartholomew's Hospital and private study.

Biology.—*H. H. Bashford, London Hospital; *Alice Marian Benham, University Tutorial College; L. C. Blackstone, University and University Tutorial Colleges; G. P. C. Claridge, St. Mary's Hospital; *W. B. Clark, King's College; *H. D. Clementi-Smith, St. Paul's School and private tuition; *Helen Mary Collen, University Tutorial College and private study; *C. Colmer, London Hospital; I. R. Cook, University Tutorial College; R. H. Cooper, Charing Cross Hospital; *A. W. D. Coventon, Trinity College, Cambridge; *D. M. Davies, University College, Aberystwith, and Charing Cross Hospital; *P. A. S. Dyson, Guy's Hospital; A. G. V. Elder, St. George's Hospital; A. G. C. Findlay, University College; *P. G. Foulkes, Middlesex Hospital and Birkbeck Institute; A. H. Gifford, King's College; *A. H. Gregson, Owens College; E. C. Hobbs, Alwyne Institute; *A. B. Howitt, Epsom College; H. V. Humphry, University College and private tuition; *Catherine Mary Ironside, University Tutorial College; *J. Jones, Owens College; *C. H. Latham, St. Thomas's Hospital and University Tutorial College; G. Laurence, University College, Liverpool; M. A. J. Lavis, Epsom and University Tutorial College, and Alwyne Institute; J. T. Lloyd, University College, Liverpool; *O. E. Lord, St. Bartholomew's Hospital; *L. P. Maitland, The Polytechnic, Regent Street; G. E. Peachell, St. Mary's Hospital; *P. A. Peall, Guy's Hospital; O. P. N. Pearn, University College, Aberystwith, and University Tutorial College; *S. H. Pitcairn, St. Thomas's Hospital and University Tutorial College; *G. Price, St. Thomas's Hospital and University Tutorial College; *G. H. Rees, Camberwell Green School and Guy's Hospital; *C. M. Roberts, St. Paul's School and St. Thomas's Hospital; H. C. Samuel, University College, Cardiff, and University Tutorial College; *H. T. Samuel, Kingsholme School, Weston-super-Mare; *F. W. W. Smith, St. Thomas's Hospital and University Tutorial College; *Annie Broomhall Thin, University Tutorial College; E. F. Travers, St. Bartholomew's Hospital; *F. H. Whitehead, St. Thomas's Hospital; *L. A. Wilson, Owens College; *E. R. Wheeler, Monkton Combe School and King's College.

N.B.—The foregoing lists, published for the convenience of candidates, are provisional only, and are not final until the reports of the Examiners shall have been confirmed by the Senate.

* These candidates have now completed the examination.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the First Examination of the Board, under the five years' regulations, in the subjects indicated:

Part I. Chemistry and Physics.—C. F. M. Abbott-Brown, King's College, London; O. M. Bartlett, St. Mary's Hospital; L. B. Bigg, St. Bartholomew's Hospital; G. Birch, London Hospital; L. T. Booth, University College, Liverpool; G. L. Buckeridge, Oxford University and Guy's Hospital; T. W. Chaff and S. E. Crawford, St. Bartholomew's Hospital; A. F. Cole and H. J. Cundell, St. Mary's Hospital; J. A. Cronkshaw, Owens College, Manchester; P. T. Drabble, Firth College, Sheffield; A. G. V. Elder, St. George's Hospital; H. L. Evans, St. Thomas's Hospital; R. M. Fickling, Birkbeck Institute; S. C. R. Flaxman, Middlesex Hospital; R. R. Garrett, St. Mary's Hospital; G. F. Hardy, Guy's Hospital; J. W. Hele, Middlesex Hospital; M. Herzheim, St. Bartholomew's Hospital; L. Hill, St. Mungo's College, Glasgow; N. W. Hill, London Hospital; L. S. Hooper, St. Thomas's Hospital; H. M. Huggins, St. Bartholomew's Hospital; S. F. Huth, St. Mary's Hospital; E. N. Jupp, Guy's Hospital; C. S. Kingston and E. Leverton-Spry, St. Bartholomew's Hospital; F. B. Lowe, Guy's Hospital; E. J. H. Luxmore, St. Mary's Hospital; E. H. McMahon, Charing Cross Hospital; P. J. Maretf, Westminster Hospital; G. B. Messenger, University College, Liverpool; H. F. F. Mortimer, Birkbeck Institute; C. W. O'Brien, St. Bartholomew's Hospital; G. O. Parsons, St. Thomas's Hospital; H. W. Perkins, Birkbeck Institute; B. Pick, St. George's Hospital; J. D. Reid, Owens College, Manchester; D. H. Richards, Guy's Hospital; T. Rose, Middlesex Hospital; E. J. H. Rudge and G. M. Sanderson, London Hospital; H. L. Shelton, Guy's Hospital; A. H. Smith, Firth College, Sheffield; R. Spears and H. D. Stewart, University College, London; J. H. K. Sykes, Yorkshire College, Leeds, and Technical College, Bradford; F. Thompson, London Hospital; E. M. Thomson, St George's Hospital; H. S. Turner, King's College, London; H. Wheelwright, St. Thomas's Hospital; G. F. Wilson, London Hospital; W. F. Wise, Middlesex Hospital.

Forty-eight gentlemen were referred for three months.

Part II. Practical Pharmacy.—C. Birch, Mason College, Birmingham; S. C. H. Bent, Guy's Hospital; H. H. Butcher, St. Bartholomew's Hospital; P. Butler, private study; W. R. Cazenove and J. T. de Coteau, Guy's Hospital; T. W. Chaff and C. Dix, St. Bartholomew's Hospital; W. Dick, University College, London; R. A. Facey, St. Mary's Hospital; H. E. Flint and H. Goodman, St. Bartholomew's Hospital; F. J. Gomez, King's College, London; P. L. Hickes, University College, Bristol and Guy's Hospital; L. Hill, St. Mungo's College, Glasgow; R. L. Jimenez, Guy's Hospital; D. J. Lewis and J. A. McComb, London Hospital; L. M. Morris, St. Bartholomew's Hospital; R. E. Mounsey, St. George's Hospital; S. Northwood, Mason College, Birmingham; C. L. C. Owen, St. Bartholomew's Hospital; H. G. Pinches, St. Thomas's Hospital; R. J. Pritchard and W. O. Roberts, Guy's Hospital; R. W. Rees, Surgeons' Hall, Edinburgh, and University College, London; E. A. Sanders, King's College, London; R. W. Stephenson, University College, Liverpool; G. Shorland and E. J. Tongue, Guy's Hospital; A. E. Whitehead, Firth College, Sheffield; H. C. Woodcock, St. Mary's Hospital.

Thirteen gentlemen were referred for three months.

Part III. Elementary Biology.—H. Balme, King's College, London; H. Bardsley, University College, Liverpool; H. S. Bennett and A. C. Birt, St. Thomas's Hospital; B. R. Bickford, Charing Cross Hospital; S. C. Bowle, Guy's Hospital; C. R. Bradley, Birkbeck Institute; F. A. Brodribb, St. Paul's School, London; H. D. Cochrane, St. Thomas's Hospital; T. R. Couldrey, St. Bartholomew's Hospital; F. W. Cresswell, St. Mary's Hospital; A. G. V. Elder, St. George's Hospital; H. S. Gettings, Mason University College, Birmingham; R. H. T. P. Harris and W. F. Higginson, St. Mary's Hospital; A. E. Hay, King's College, London; J. W. Hele, Middlesex Hospital; A. S. M. Hutchinson and A. J. H. Iles, St. Thomas's Hospital; M. Herzheim and R. M. Im Thurn, St. Bartholomew's Hospital; M. A. Johnston-Lavis, Epsom College; S. W. Jones, St. Mary's Hospital; W. A. D. King, Middlesex Hospital; C. B. Lee, Owens College, Manchester; P. J. Martin, St. Bartholomew's Hospital; F. J. Pierce, Charing Cross Hospital; E. A. Roberts, King's College, London; J. D. Reid, Owens College, Manchester; T. Rose, Middlesex Hospital; G. M. Sanderson and S. Smulian, London Hospital; I. S. Sheffield, Guy's Hospital; M. W. Shute, St. George's Hospital; G. M. A. Thomas, St. Mary's Hospital; H. S. Turner, King's College, London; J. C. F. D. Vaughan, B. J. Wakley, H. A. W. West, and J. H. M. Whitehead, St. Thomas's Hospital; A. R. Wade, St. Bartholomew's Hospital; S. J. Weinberg, Owens College, Manchester; V. N. Whitamore, Charing Cross Hospital; and E. B. C. White, of London Hospital.

Twenty-two gentlemen were referred for three months.

The following gentlemen have passed the First Examination of the Board under the four years regulations in the subjects indicated:

Part II. Materia Medica.—A. V. Benson, London Hospital; G. M. Brown, Guy's Hospital; A. C. Jenkins, London Hospital; L. C. Martin, Guy's Hospital; P. H. Scholberg, Cambridge University and St. Bartholomew's Hospital; and W. P. Taylor, Firth College, Sheffield.

One gentleman was referred for three months.

Part III. Elementary Physiology.—J. J. Anning and J. Ewing, Yorkshire College, Leeds.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT the monthly business meeting, held on Friday, February 3rd, the undermentioned was elected an Honorary Fellow of the College:

Thomas Clifford Allbutt, M.B.Univ.Cantab., 1860; M.D., 1868; F.R.C.P. Lond., 1882: F.R.S.; Regius Professor of Physic in the University of Cambridge.

The following candidates, who had been successful at the Final Professional Examination held in January, 1899, under the Conjoint Scheme with the Royal College of Surgeons in Ireland, were duly admitted to the Licences in Medicine and Midwifery of the Royal College of Physicians of Ireland:

W. Bennett, D. B. Bradlaw, Aimai Grace M. Cooper, J. Conway, B.A. Craig, R. M. Fisher, H. E. Howley, M. J. Hynes, A. W. A. Irwin, W. F. Kennedy, M. M. Maughan, J. McDonald, E. M. J. O'Farrell, C. N. O'Sullivan, B. Scribner, V. P. Tighe, C. J. Valley, R. J. White, and A. A. Woods.

It was announced to the President and Fellows that W. M. O'Connor, M.A., M.D.Univ.Dubl., had passed with honours a Special Examination for the Diploma in State Medicine, conferred conjointly with the Royal College of Surgeons in Ireland.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,717 births and 4,275 deaths were registered during the week ending Saturday last, February 4th. The annual rate of mortality in these towns, which had declined from 19.1 to 17.0 per 1,000 in the four preceding weeks, rose again to 19.5 last week. The rates in the several towns ranged from 11.0 in Croydon, 13.1 in Brighton and in Huddersfield, 14.3 in Norwich, and 14.5 in Hull, to 23.5 in Newcastle-upon-Tyne, 24.5 in Gateshead, 25.2 in Liverpool, and 27.2 in Sunderland. In the thirty-two provincial towns the mean death-rate was 19.7 per 1,000, and slightly exceeded the rate recorded in London, which was 19.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.2 in Manchester, Preston, and Leeds, 2.3 in West Ham, 2.6 in Sheffield, and 3.2 in Bolton. Measles caused a death-rate of 1.2 in Manchester, 1.4 in Oldham, and 1.9 in Bolton; and whooping-cough of 1.1 in Nottingham and in Halifax, 1.3 in Bristol, 1.5 in Swansea, and 2.2 in Preston. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 87 deaths from diphtheria in the thirty-three towns included 32 in London, 9 in Leeds, 8 in Sheffield, 6 in West Ham, 5 in Birmingham, 5 in Leicester, 5 in Liverpool, and 3 in Portsmouth. No fatal case of small-pox was registered during the week under notice either in London or in any of the thirty-two large provincial towns; and no small-pox patients were under treatment in any

of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,679 at the end of the five preceding weeks, had further fallen to 2,665 on Saturday last; February 4th; 265 new cases were admitted during the week, against 220, 249, and 220 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 4th, 924 births and 866 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.3 and 22.1 per 1,000 in the two preceding weeks, further rose to 28.4 last week, and was 8.9 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 16.9 in Perth and 19.7 in Dundee to 32.5 in Greenock and 33.2 in Glasgow. The zymotic death-rate in these towns averaged 3.1 per 1,000, the highest rates being recorded in Edinburgh and Aberdeen. The 465 deaths registered in Glasgow included 5 from scarlet fever, 3 from diphtheria, 25 from whooping-cough, and 8 from diarrhœa. Six fatal cases of measles, 2 of scarlet fever, and 11 of whooping-cough were recorded in Edinburgh; 9 deaths from measles, 2 from diphtheria, and 2 from "fever" occurred in Aberdeen.

VITAL STATISTICS OF 1898.

H. P.—The following are the rates for England and Wales, 1898:

Birth-rate	=	29.4 per 1,000 living.
Death-rate	=	17.6 ,, ,,
Zymotic-rate	=	2.22 ,, ,,
Infant mortality	=	161 per 1,000 births.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the fourth or autumn quarter of 1898, and to the marriages during the three months ending September last. The marriage-rate was equal to 16.8 per 1,000, and was 1.0 per 1,000 above the mean rate in the corresponding quarters of the ten preceding years, 1888-97.

The births registered in England and Wales during the quarter ending December last numbered 223,720, and were equal to an annual rate of 28.3 per 1,000 of the population, estimated by the Registrar-General to be nearly thirty-one and a-half millions in the middle of 1898. This rate was 1.2 per 1,000 below the mean rate in the corresponding quarters of the ten preceding years. The birth-rates in the several counties ranged from 19.1 in Rutlandshire, 21.1 in Westmorland, 21.8 in Oxfordshire, and 22.4 in Sussex to 30.7 in South Wales, 31.2 in Warwickshire, 32.5 in Monmouthshire, and 33.7 in Staffordshire and in Durham. In thirty-three of the largest English towns, including London, the birth-rate last quarter averaged 29.7 per 1,000, and exceeded by 1.4 the general English rate. In London the birth-rate was equal to 28.9 per 1,000, while it averaged 30.2 in the thirty-two provincial towns, among which it ranged from 21.7 in Huddersfield, 22.5 in Halifax, 22.8 in Bradford, and 24.1 in Brighton to 33.9 in Salford, 34.6 in Sheffield, 34.8 in Sunderland, and 35.2 in Liverpool.

The births registered in England and Wales during the three months ending December last exceeded the deaths by 91,267: this represents the natural increase of the population during that period. From returns issued by the Board of Trade, it appears that 46,635 emigrants embarked during last quarter, for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these 46,635 emigrants, 23,153 were English, 3,793 Scotch, and 5,003 Irish, while 13,786 others were of foreign nationality. Compared with the averages in the corresponding quarters of recent years, the proportion of emigrants from England showed a decline, while that from Scotland and from Ireland showed an increase.

During the fourth quarter of 1898 the deaths of 132,453 persons were registered in England and Wales, equal to an annual rate of 16.7 per 1,000 of the estimated population, which, with the exception of the fourth quarter of 1894, when the rate was 16.5 per 1,000, was lower than in the corresponding period of any year on record. The lowest county death-rates last quarter were 11.1 in Westmorland, 12.4 in Middlesex, 12.8 in Surrey, and 13.0 in Oxfordshire and in Rutlandshire; while the highest rates were 19.1 in Staffordshire, 19.2 in Lancashire, 19.4 in Durham, and 19.7 in Northumberland. In the urban population of England and Wales, estimated at nearly twenty-one and a-half millions of persons, the rate of mortality during the quarter under notice was 17.5 per 1,000; while in the remaining and chiefly rural population of nearly ten millions the rate was 15.0 per 1,000. These urban and rural rates were 1.8 and 1.3 per 1,000 below their respective averages in the corresponding quarters of the ten preceding years. Among thirty-three of the largest English towns the mean death-rate was 18.1 per 1,000, or 1.4 per 1,000 in excess of the general English death-rate during the same period. In London the rate was 17.2 per 1,000, while it averaged 18.7 in the thirty-two large provincial towns, among which the rates ranged from 11.9 in Croydon, 13.4 in Cardiff, 15.0 in Huddersfield, and 15.1 in Derby to 21.0 in Sunderland, 22.0 in Salford, 22.3 in Manchester, and 23.1 in Liverpool. In sixty-seven other large towns, with an estimated aggregate population of nearly four millions, the mean death-rate was 19.7 per 1,000, or 1.4 per 1,000 below the rate in the thirty-three great towns.

The 132,453 deaths registered in England and Wales during the three months ending December last included 5,024 which were referred to diarrhœa, 2,501 to "fever" (including typhus, enteric, and ill-defined forms of continued fever), 2,415 to diphtheria, 2,024 to measles, 1,670 to whooping-cough, 1,024 to scarlet fever, and 4 to small-pox; in all, 13,662 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.85 per 1,000, which was slightly below the average rate in the corresponding quarters of the ten preceding years. The mortality from diphtheria, "fever," and diarrhœa showed an excess, while that from each of the other principal zymotic diseases was below the average. Of the 4 deaths from small-pox registered in England and Wales during the quarter under notice, 1 occurred in London, 1 in Surrey, 1 in Lancashire, and 1 in the North Riding of Yorkshire.

The rate of infant mortality in England and Wales last quarter, or the proportion of deaths under 1 year of age to registered births, was equal to 153 per 1,000, and slightly exceeded the average rate in the corresponding period of the ten preceding years. In London the rate of infant mortality was 139 per 1,000, while it averaged 172 in the thirty-two large provincial towns, among which it ranged from 102 in Croydon, 134 in Portsmouth, 139 in London, and 143 in Sunderland, to 202 in Gateshead, 203 in Manchester, 208 in Blackburn, and 241 in Preston. The mortality in England and Wales last quarter among persons aged between 1 and 60 years was equal to an annual rate of 8.6 per 1,000 of the estimated population at this group of ages, and was 1.0 per 1,000 below the mean rate in the ten preceding fourth quarters. In the thirty-three great towns the mortality at this age-group averaged 10.1 per 1,000, and ranged from 5.6 in Croydon, 6.9 in Cardiff, and 7.6 in Brighton to 12.9 in Manchester, 13.8 in Swansea, and 13.9 in Liverpool. Among persons aged 60 years and upwards, the death-rate in England and Wales last quarter was equal to 63.6 per 1,000 of the estimated population at this age-group, against an average rate of 69.9 in the corresponding quarters of the ten preceding years. In the thirty-three great towns the rate was 69.4 per 1,000, ranging from 34.7 in Cardiff, 48.1 in Swansea, and 58.6 in Nottingham and in Derby to 86.3 in Newcastle-upon-Tyne, 87.4 in Salford, and 87.6 in Blackburn.

The mean temperature of the air at the Royal Observatory, Greenwich, was 48.5°, and was 4.8° above the average in the corresponding quarters of 127 years; it showed an excess of 4.4° in October, 3.4° in November, and 6.7° in December. The rainfall during the quarter amounted to 7.78 inches, and was 0.70 of an inch above the average.

LONDON MEAT.

WE have already referred at length on several occasions to the proposals of the Public Health Committee of the London County Council that the Council should express its readiness to carry out the recommendations of the Royal Commission on Tuberculosis as to providing public and closing private slaughterhouses. When the report came up before the Council a motion to proceed to the next business was carried by a large majority. The subject is thus shelved, and it appears that this is what was anticipated, for it was thought unlikely by those who were able to weigh the influence which the meat trade of the metropolis was able to bring to bear that expert opinion would weigh sufficiently with the Council to lead them to perform a duty to the general public in the face of a powerful trade opposition.

The Public Health Committee instructed Mr. Shirley Murphy to report on the statements of deputations who attended before the Committee last autumn, and his report is of great interest and value as showing the nature of the objections raised, and the ground on which these may be for the most part successfully refuted.

It was urged as one reason for the retention of private slaughterhouses that the amount of risk from tuberculous meat is insignificant. In reply to this it is pointed out that the danger to the consumer is substantial enough to render expedient a careful inspection of carcasses at the time of slaughter by skilled meat inspectors, since inspection of this sort cannot be made in private slaughterhouses, and that further the need for such inspection does not depend solely upon tuberculous meat, for the article may be unfit for human food and dangerous to human health from many other causes.

Another objection urged was that the abolition of private slaughterhouses would "practically destroy the purchase of the English farmers' cattle," for "the only customer, practically so far as London is concerned, is the man who has a private slaughterhouse of his own." Mr. Shirley Murphy points out, however, that the substitution of public for the 425 private slaughterhouses now existing would give opportunity to some 4,500 London butchers who have no slaughterhouses to buy and kill home-produced cattle.

It was also contended that the establishment of public slaughterhouses, requiring greater handling and carriage of recently killed meat, would "destroy the unique characteristics of home-killed meat." But the amount of handling to which the carcass is subjected in a well-ordered Continental public slaughterhouse is trifling compared with that to which it is now subjected here; the slaughtering in large, well-ventilated halls, the conveyance by well-arranged machinery into cooling rooms where the meat is allowed to set—stored, if the butcher desires it, in his own compartment, in a cold chamber, and the subsequent conveyance to his premises in specially constructed well-ventilated vans, from the roof of which the meat hangs—are conditions unknown in this country.

It was estimated by the Butchers' Trade Society that the public slaughterhouses would cost a million sterling, which, with expenses of management, would amount to £60,000 annually, assuming an inspector to be appointed at a salary of £150 a year for every ten private slaughterhouses, the total expenditure would amount to only £6,000 a year. How the estimate of one million was arrived at was not stated. It is not likely to be an under-estimate, and it is safe to assume that it includes liberal compensation to the owners of the existing slaughterhouses, and at the same time a very heavy item for the purchase of suitable sites. These sites would undoubtedly have to be of considerable dimensions in order to admit of the erection of slaughterhouses for different animals, pens and lairs for beasts, cold chamber, officer's quarters, stable, waiting room, etc., as suggested in a report presented by the Council's architect (Mr. Blashill). The provision of some compensation, moreover, seems only just, for most owners have been put to considerable expense during the past few years to bring their slaughterhouses up to modern requirements, and if the Committee's report had embodied some recommendation under this head, it certainly would have lessened the trade opposition.

Mr. Shirley Murphy urges that public slaughterhouses would serve the purpose of meat inspection stations to which meat arriving dead in London and not consigned to the City markets would be taken. Beyond these stations there would not be need of more than two or three meat inspection stations. These would be situated near principal railway stations, and would not be costly. Fees would be charged for their use, and for the inspection of meat. Members of the Royal Commission on Tuberculosis who visited Germany reported that "all the public slaughter

houses in Germany are self-supporting." The appointment of an inspector to every ten private slaughterhouses would not meet the requirements of the case. For proper inspection it is necessary to ensure that no killing shall be done without the knowledge and inspection of the officer. The proposed system of inspection of private slaughterhouses would give no guarantee of this. Different butchers would be killing at the same time, and the services of the inspector would not be available.

Mr. Shirley Murphy points out that meat killed in private slaughterhouses outside London which had not been inspected and stamped in public slaughterhouses in other parts of this country would be required to be taken to meat-inspection stations, where it would be stamped as fit or condemned as unfit for food. It is especially this meat, he adds, that needs inspection, for in the absence of any proper system of inspection, there is nothing to prevent the introduction into London of meat of dangerous quality; and there is, indeed, no doubt that London does receive such meat from other parts of England. The scheme of the Public Health Committee of the Council does not appear to have met with much favour at the hands of the metropolitan vestries, seventeen of which openly objected to it for one or more of the reasons which have already been seen. The proper inspection of the meat supply of London will, however, have to be provided for in the long run although it may be postponed for a while; and if this cannot be effected in the existing private slaughterhouses (and in the opinion of those best qualified to speak it cannot), these places, which number only some 400, and supply less than a tenth of the meat sold in London, should not be suffered to stand in the way of a much-needed reform.

PROPOSED REGISTRATION OF PLUMBERS.

A memorial, signed by sixty-four members of Parliament sitting on both sides of the House, has been presented to Her Majesty's Government, urging them to deal with the registration of plumbers in the ensuing session, in the interests of the public health. A separate memorial has been addressed to the Local Government Board, signed on behalf of the Parliamentary Bills Committee of the British Medical Association, the Manchester and Salford Sanitary Association, the Royal Institute of British Architects, the National Health Society, and the Royal Institute of Public Health. The memorial points out that it is requisite that statutory provisions should be extended to secure the adequate qualification, certification, and registration of qualified plumbers, upon the efficiency of whose work the healthiness of a house virtually depends. It is urged that plumbers should be brought under statutory regulation and control analogous to that obtaining in the case of other occupations bearing directly on the health of the public. The memorialists appeal to the Government to take the matter in hand, because the Bill is generally supported, and is popular throughout the United Kingdom, and will not evoke party opposition, Scotland and Ireland being especially keen in its favour.

THE ESTON SMALL-POX OUTBREAK.

We should have noticed earlier the report on this outbreak by the medical officer of health, G. C. H. Fulton, M.B. The outbreak was an extension of that at Middlesbrough, and, beginning on February 28th, ended in the beginning of June, 1898. It was made up of 23 cases, in a population of 11,000. Eston being well vaccinated as regards infantile vaccination, there were no cases under 5 years of age, and only 2 between 5 and 10 years. Between 15 and 20 years there were 4 cases, and over 20 years 17 cases. Of the 23 cases, none had been revaccinated, 20 had been primarily vaccinated, and 3 had never been vaccinated. Among the 20 primarily vaccinated there were 3 deaths: one of a man aged 32, vaccinated in infancy, and showing a single bad mark: another of a man of 65, vaccinated in infancy, and with two bad marks; the third of a woman aged 30, vaccinated in infancy, and with three good marks: she is noted as having been very stout, with a fatty heart, and dying from syncope. All the 3 unvaccinated patients died, their ages being 19, 26, and 34 respectively. All the cases were removed to hospital, and, as regards revaccination of the hospital staff, Dr. Fulton says: "No person who had been revaccinated contracted the disease (small-pox) in the Eston district. At the beginning of the epidemic I advised the Council that every person employed or having anything to do at the sanatorium be vaccinated, with the result that not one person inside or outside the sanatorium who had to do work for the patients or Council contracted the disease. This is the more remarkable as at a neighbouring hospital under my care the only persons, three in number, that were not revaccinated, contracted the disease, and the revaccinated servants were free from attack."

POWERS OR PRIVILEGES OF MEDICAL OFFICERS OF POOR-LAW SCHOOLS.

A Correspondent writes: In the spring of last year an outbreak of measles occurred in the ophthalmic department of a district school. Without consulting the medical officer the superintendent closed the infant school, and, in reply to a written protest from the medical officer, claimed that he (the superintendent), as representing the managers, had a right to close for epidemic disease any portion of the establishment not only without consulting the medical officer, but even in opposition to his express disapproval of such a step. The Board of Management supported the superintendent in this view. In order to have the question settled, as one of law and principle, the medical officer appealed to the Local Government Board, who, after obtaining from the managers an expression of their views, addressed a letter to the clerk (a copy also being sent to the medical officer) to the effect that the Local Government Board were of opinion that the superintendent should have consulted with the medical officer of the school before giving directions to close the establishment, and they trusted that the managers would give him directions accordingly in case of any future contingency of the same character.

NOTIFICATION FEES.

W. M. sent to a local authority last autumn an account for unpaid fees in respect of notification certificates dating back to the summer of 1896, and has just been met by a long-delayed reply that the fees cannot be paid "as they are beyond the time allowed by law for payment."

*** The reply seems to be quite beside the question. The certificates of notification constitute a legal claim for the fee due in respect of each; and W. M. will do well to press his claim, and if not satisfied to lay the matter before the Local Government Board. While medical practitioners ought, as a matter of business, to claim their fees at (say) half-yearly intervals, there would seem to be no legal need so to do, and local authorities will be indiscreet if they endanger the smooth working of the notification system by awaiting repeated applications for moneys due in place of initiating payment at once or at regular times.

FEE FOR PAUPER MIDWIFERY.

W. V. M. writes to ask whether he as a district medical officer is entitled to the usual midwifery fee for having attended (by order) a patient four days after delivery whom he finds suffering from "the effects of her recent confinement."

*** We are advised that in this case the medical officer could not claim the ordinary fee allowed for midwifery, as his attendance was not given at or immediately after the birth of the child.

MEDICAL NEWS.

A fire occurred at the Aberdeen Lunatic Asylum on February 8th, but was extinguished without loss of life.

Dr. Roux, subdirector of the Pasteur Institute, has been elected a member of the Académie des Sciences.

Two cases of typhus fever were notified in London during January, one from Camberwell on January 25th, and one from Rotherhithe on January 29th.

The Second Portuguese Congress of Medicine is to be held at Oporto in 1900. The President of the Organising Committee is Dr. Gramacho; the Secretary, Dr. Ricardo Jorge.

An International Conference in regard to the Prophylaxis of Syphilis and Venereal Diseases will be held in Brussels some time in the first half of September, 1899.

At the evening meeting of the Pharmaceutical Society of Great Britain, on Tuesday, February 14th, Professor J. Reynolds Green, Sc.D., F.R.S., will give a lecture on Adverse Conditions, and their Remedies, in the Life of Plants.

The Governors of the Radcliffe Infirmary, Oxford, have received a gift of £2,500 from Mr. T. H. Rose, of Oxford. In the letter covering the cheque, Mr. Rose expresses his deep regret that an institution doing such magnificent work should be so embarrassed financially.

Lord Mount-Stephen has sent a subscription of £1,000 to the Prince of Wales's Hospital Fund, together with a letter stating that it is his present intention to contribute the like sum annually. The Bank of England has also sent in its annual subscription of £250 to the Fund.

The Prevention of Hospital Abuse in America.—A Bill has been drawn for introduction at the General Assembly at Albany which is to make provision for a Board of Control for the supervision and regulation of dispensaries, consisting of representatives from the medical societies and from non-medical directors of dispensaries. The object is to prevent hospital and dispensary abuse.

Increase of Medical Practitioners in France.—According to statistics just published the number of medical practitioners in France in 1899 already amounts to 17,735, as against 15,984 in 1898, showing a decidedly formidable increase of 1,751. In Paris there are 62 more doctors than last year, in Lyons there are 57, and a proportionate increase is reported from several other large towns; and the cry is still they come!

The Medical Guild, Manchester.—The annual meeting of the Medical Guild was held at Manchester on January 25th, the President, Alderman Walmsley, in the chair. The annual report of the Council referred to various subjects of professional interest which had been dealt with during the year, including hospital reform, club practice, provident dispensaries, the Midwives and Vaccination Bills, and the establishment of the quarterly journal for the promotion of the objects of the Guild. Forty-six members had joined, fifteen resigned (ten owing to removal to other districts), and three died. The Treasurer's statement showed a balance in hand of over £16. The following officebearers were elected: President:—Alderman F. H.

Walmsley, J.P., M.R.C.S.; Chairman, Professor J. Dixon Mann, M.D.; Vice-Chairman, R. H. Wolstenholme, M.R.C.S.; Honorary Treasurer, C. G. L. Skinner, M.D.; Honorary Secretary, Alexander Stewart, M.D.; Auditors, J. W. Wood and J. C. Nichol, M.D.

DONATIONS AND BEQUESTS.—The late Mr. William Taylor, of Southport, has bequeathed £1,000 to the Oldham Infirmary and £500 to the St. Paul's Eye and Ear Hospital, Liverpool. Under the will of Mr. William Grey Campbell, of Edinburgh, who died in August last, the Longmore Hospital for Incurables benefits to the amount of £5,000, while the Edinburgh Royal Infirmary receives £1,000.

GUY'S HOSPITAL LONDON UNIVERSITY CLUB.—The annual general meeting and dinner of this club was held at the Café Royal on January 26th, under the chairmanship of Dr. Horrocks. For the first time since the formation of the club, the Committee had invited as guests two old Guy's men who had especially won distinction in 1898: Dr. Maillard, R.N., V.C., and Dr. Crosse, of the Royal Niger Company. The former, however, was unable to accept the invitation.

GERMAN BALNEOLOGICAL CONGRESS.—The twentieth meeting of the German Balneological Congress will be held this year in Berlin, March 3rd to 7th. Among the communications promised are the following: Diet in Health Resorts, by Drs. G. Klemperer and H. Strauss, of Berlin; The Defensive Power of the Organism against Micro-organisms, by Professor Liebreich; The Feeding of Diabetics, by Dr. Lenné, of Neuenahr; The Treatment of Sciatica, by Professor Eulenburg; and the Inunction Cure and Bath Treatment, by Dr. Schuster, of Aix-la-Chapelle.

AN ARGENTINE PHARMACOPŒIA.—The Committee to which was entrusted the task of preparing a *Codex Medicamentarius* for the Argentine Republic has finished its labours. The pharmacopœia contains 746 articles relating to chemical, botanical, and Galenical products and preparations. A special feature of the work is the fulness of the description—especially in regard to microscopic structure—which is given of the vegetable substances used for medicinal purposes.

THE INTERNATIONAL MEDICAL CONGRESS: SECTION OF MENTAL DISEASES.—The following are the questions proposed for discussion in the Section of Mental Diseases at the Thirteenth International Congress to be held in Paris, August 2nd to 9th, 1900: 1. Mental Pathology. The Psychoses of Puberty, to be opened by Professor T. Ziehen of Jena, Dr. M. Murro of Turin, and Dr. J. Voisin of Paris. 2. Pathological Anatomy. Pathological Anatomy of Idiocy, to be opened by Drs. Shuttleworth and Fletcher Beach, Dr. Mierzejewski of St. Petersburg, and Professor Bourneville of Paris. 3. Therapeutics. Rest in Bed in the treatment of acute forms of Insanity, and the modifications which it may make necessary in the organisation of establishments for the Reception of Lunatics, to be introduced by Dr. Clement Neisser, and Dr. Kovsakoff of Moscow. 4. Sexual Perversions, obsessive and impulsive, from the medico-legal point of view, to be introduced by Professor Krafft-Ebing of Vienna, Professor Morselli of Genoa, and Dr. Paul Garnier of Paris.

EAST LONDON MEDICAL PROTECTION AND MEDICO-ETHICAL SOCIETY.—According to the *East London Observer* a general meeting of the East London Medical Protection and Medico-Ethical Society was recently held at the West Ham Hospital. Dr. F. J. Smith presided, and among those present were Drs. F. Argles, A. W. Beaumont, W. A. Grogono, F. Bromley, G. C. Hamilton, J. Heffernan, Beadles, E. H. Blake, S. R. Blake, A. Cuffe, Edmund Hay, N. Jones, Preston Wallis, A. F. Tomlin, Murtaugh Houghton (hon. secretary), and J. F. Butler-Hogan (hon. treasurer). This Society has been in existence about a year. An account of its objects and constitution was given in the BRITISH MEDICAL JOURNAL of July 2nd, 1898. The report showed that nearly 100 registered medical practitioners have been elected members of the Society. Local Branches have been formed in Manor Park, Plaistow, East Ham, Canning Town, and Forest Gate. The secretaries of these Branches have been engaged in compiling black lists of bad payers. Two gross cases of unprofessional conduct have been considered, in one of which action has been taken, and the matter dealt with by the proposed practitioner's licensing body upon evidence laid before it by the Society. In spite of some opposition, the Society succeeded in obtaining adequate representation (25 per cent.) of the medical profession upon the Committee of the proposed East Ham Hospital, which is now making satisfactory progress. The chairman, in moving the adoption of the report, said they were now a legal Society, and, in his opinion, had accomplished a reasonable amount of work. In the opinion of the more active members of the Society, however, they could have been more progressive. He hoped the Society would prosper in the future, and would accomplish the objects for which it was formed. Dr. Butler-Hogan seconded the adoption of the report, which was unanimously agreed to. Votes of thanks closed the proceedings.

THE NOBEL BEQUEST.—Mr. Axel Danielson of Stockholm, in a letter addressed to the *Scientific American* in regard to the Nobel bequest, says that the case has been decided, or rather a compromise has been effected between the contesting parties. The relatives of the deceased will receive 3,800,000 Swedish crowns, a little more than £20,000, so that there still remains for the prizes the sum of 25,000,000 crowns, equivalent to £139,000. The income, computed at the rate of 3 per cent., will make the five prizes worth 150,000 crowns, or £8,300 each. It is expected that the compound interest during the time, which will necessarily be long, that will elapse before the prizes can be awarded will increase the capital so as to cover the cost of managing the funds and the work entailed in properly distributing the prizes. It will be remembered that these prizes are to be awarded annually to persons making the most important discoveries in physics, chemistry, physiology, or medicine. There is also to be a prize for the best literary contribution upon the subject of physiology or medicine, and also for any person who has achieved the most or done the best things to promote the promotion of the cause of peace throughout the world.

A NEW BACTERIOLOGICAL INSTITUTE AT LOUVAIN.—On February 2nd a new Bacteriological Institute was formally opened in the University of Louvain. The Institute is on a large scale, and the installation and equipment are in accordance with the most advanced ideas. Every facility for research is provided. The stables, kennels, and other quarters for animals are built around a vast garden, and all the arrangements show careful regard for the health and comfort of the animals. Professor Denys began his work fifteen years ago in two small rooms, which later expanded into a respectable laboratory, and now have developed into a scientific palace. Giving an account of the work that had been done, he stated that more than 80 original researches had come from it, besides 25 presented for travelling scholarships, 23 of which had gained a prize of £160. A special department in the new Institute will be devoted to the preparation of therapeutic serums of different kinds, tuberculin, etc. At the Congress on Tuberculosis held in Paris last summer Professor Denys gave an account of a new tuberculin which he had used with considerable success; he proposes to continue his work in this field, and is hopeful of success. A feature in the Institute which is likely to be particularly useful is an out-patient department for sufferers from tuberculosis and other microbic diseases who receive serum-therapeutic treatment adapted to their complaints, only substances which have been tested by experimentation on animals being used. Already numbers of patients, mostly the subjects of phthisis, are in regular attendance.

HEALTH RESORT AT KIAO-CHAU.—The *Times* correspondent states that the report on Kiao-Chau submitted to the Reichstag contains an interesting ground plan of a future town which is to spring up on Tsintau Bay, designed on the model of a Baltic watering place. According to this report Tsintau may one day serve as a resort for Europeans who lose their health in the southern Chinese ports. At present it is asserted that there are complaints as to the sanitary condition of the territory in the rainy season. There were a number of cases of dysentery and of malarial diseases which carried off four of the German garrison. There were also numerous cases of articular rheumatism. An exact survey of the territory will be completed only towards the close of the present year, but on October 10th, 1898, a final delimitation of the frontier had been effected by German and Chinese Commissioners in accordance with the treaty of March 6th.

MEDICAL VACANCIES.

The following vacancies are announced :—

BIRMINGHAM: GENERAL HOSPITAL.—House-Physician. Salary, £70 per annum. Also House-Surgeon. No salary. Residence, board, and washing provided in each case. Applications to the House Governor by February 25th.

BRISTOL ROYAL INFIRMARY.—Resident Obstetric Officer. Salary £40 per annum, with board, lodging, and washing. Applications to the Secretary by February 21st.

COVENTRY: COVENTRY AND WARWICK HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum, with rooms, board, washing, and attendance. Applications to the Secretary by February 15th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications to the Secretary by February 13th.

DEVIZES URBAN DISTRICT COUNCIL.—Medical Officer of Health; must reside within the Borough. Salary, £50 per annum. Applications, marked "Medical Officer of Health," to the Town Clerk by March 4th.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Board, lodging, and washing provided, no salary. Applications to the "Secretary of Medical Committee" by first post on February 23rd.

FARRINGDON GENERAL DISPENSARY.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Applications to the Secretary, 17, Bartlett's Buildings, Holborn Circus, E.C.

GOVERNMENT RAILWAY IN WEST AFRICA.—Assistant Medical Officer to attend on Railway Staff. Salary, £30 per month. First-class passage out and home. Applications, marked "Medical Officer," to Mr. W. Shelford, 35A, Great George Street, Westminster, S.W.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £80 per annum, with board, residence, and laundry. Also Assistant House-Surgeon. Salary, £30 per annum, with board, residence, and laundry. Applications to the Honorary Secretary by February 24th.

HEREFORD GENERAL DISPENSARY.—Assistant House-Surgeon and Dispenser. Salary, £75 per annum, with board, residence, and washing. Office tenable for two years. Applications to the Secretary, 37, Bridge Street, Hereford, by February 21st.

HEREFORDSHIRE COUNTY ASYLUM, Hill End, St. Albans.—Assistant Medical Officer. Salary, £130 per annum, increasing to £150, with furnished quarters, board, washing and attendance. Applications to the Medical Superintendent by February 24th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon to Out-patient Department. Appointment for six months, but eligible for re-election. Salary, 25 guineas. Applications, on forms provided, to the Secretary by February 21st.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 a year, with furnished quarters, attendance, coal, gas, garden produce, and washing. Appointment for two years. Applications to the Superintendent by February 16th.

LANARK (COUNTY OF).—Assistant Medical Officer of Health. Must possess Diploma in Sanitary Science. Salary commencing £130. Applications to Dr. Wilson, County Medical Officer, Hamilton, N.B.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium of £42 a year, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by February 13th.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £250 a year and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

LONDON THROAT HOSPITAL, 204, Great Portland Street, W.—Assistant Surgeon. Applications to the Medical Committee before February 20th.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £30 per annum with board, attendance, and washing. Applications to the Secretary by February 13th.

MORPETH DISPENSARY.—House-Surgeon. Salary, £120 per annum, with furnished rooms, coal, and gas. Must be prepared to take office March 16th. Applications to N. I. Wright, Honorary Secretary, Beechfield, Morpeth, Northumberland, by February 16th.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland Street, W.—Surgical Registrar. Applications to the Secretary by February 18th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Appointment for four months. Salary at the rate of £50 per annum, with board, residence, and washing. Applications to the Secretary by February 13th.

RICKMANSWORTH: DALRYMPLE HOME FOR INEBRIATES.—Resident Medical Superintendent. Salary, £200 per annum, with unfurnished house, food, coals, gas, etc. Applications to the Chairman, House Committee, by February 24th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Physician. Must be F.R.C.P. Lond. Applications to the Secretary by February 14th.

RYDE: COUNTY HOSPITAL.—House-Surgeon. Salary, £50 per annum, with board, lodging, etc. Applications to the House Surgeon by March 1st.

SALISBURY INFIRMARY.—Assistant House-Surgeon; unmarried. Board, lodging, and washing provided, and honorarium of £10 after six months' satisfactory service. Applications to the Secretary.

ST. ANDREWS UNIVERSITY.—External Examiner for Graduation in Public Health. Applications to Mr. C. S. Grace, Factor to the University Court, by February 21st.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City Road, E.C.—House-Surgeon. Salary, £50 per annum, with board and lodging. Applications to the Secretary by February 18th.

SHEFFIELD: UNIVERSITY COLLEGE.—Demonstrator in the Bacteriological Laboratory. Salary, £150 per annum. Applications to the Council of the College by February 23rd.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by February 23rd.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. No salary, but board, washing, and lodging provided. Applications, endorsed "Assistant House-Surgeon," to the Hon. Secretary, by March 3rd.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Physician. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary by February 25th.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House-Surgeon; unmarried. Salary, £60 per annum, with board, lodging, and washing. Applications to the Hon. Secretary by February 15th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Honorarium at the rate of £30 per annum, with board and lodging. Applications to the Secretary by February 21st.

MEDICAL APPOINTMENTS.

AHERNE, J. J., M.B., B.Ch., appointed Medical Officer for the Carrignavar Dispensary District, *vice* M. P. Dunlea, M.D., M.Ch.R.U.I.

BYRNE, P. Kevin, M.D., B.S., B.A.Lond., M.R.C.S., L.R.C.P., appointed Medical Officer of the Christ Church District of the Parish of St. Marylebone, *vice* Dr. Norman Kerr, resigned.

BYERS, M. A., M.D., M.A.O. (Hon. Causâ), Professor, appointed Examiner in Midwifery for the year 1899, to the Royal University of Ireland.

COLE, J. M. Coates, M.R.C.S., appointed Clinical Assistant for the Chelsea Hospital for Women.

FOWLER, G., D.P.H.Eng., appointed Resident Medical Officer to the Finsbury Dispensary *vice* J. A. O. Briggs, M.B.Lond., F.R.C.S.Eng., resigned.

KIRBY, S. J. J., M.D.Brux., L.R.C.P.Edin., M.R.C.S., appointed Medical Officer for the Fressingfield District of the Hoxne Union.

LAVER, Philip, M.R.C.S.Eng., L.R.C.P., appointed Medical Officer to the Workhouse of the Lexden and Winstree Union.

MACKENZIE, Ernest, M.D., appointed Medical Officer of the Cheadle (Staffs) Workhouse Infirmary, and Medical Officer and Public Vaccinator of the Cheadle District of the Cheadle Union, *vice* John William Harris Mackenzie, resigned.

PECK, H., M.B., C.M.Edin., reappointed Medical Officer of Health for the Chesterfield Rural District.

SHAW, J., M.D.Glasg., D.P.H., appointed Medical Officer for the Seventh District of the Aylesbury Union.

THOMSON, J. W., M.B., C.M., appointed Senior House-Surgeon to the Clayton Hospital and Wakefield General Dispensary.

THORP, Harold, M.R.C.S., L.R.C.P., appointed House-Surgeon to the Manchester Royal Infirmary.

TURNER, R. T., M.D., appointed Medical Officer for the Wybunbury District of the Nantwich Union.

WEST, Waldemar S., M.A., M.D., B.C.Cantab., appointed Surgeon to the Royal Buckinghamshire Hospital, Aylesbury.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Clinical Evening: Mr. Watson Cheyne: Two Cases of Operation for Coxa Vara. Dr. R. Maguire: (1) Case of Recovery from Operation for Cerebellar Abscess; (2) Case of Hysterical Spasm. Dr. StC. Thomson: Case of Pharyngomycosis Leptothricia in a man, aged 36. Dr. Hector Mackenzie: (1) Case of Graves's Disease in a Male; (2) Case of Large Thoracic Aneurysm. Mr. F. C. Wallis: Case of Simple Comminuted Fracture after Operation. Mr. Warren Low: Case of Dislocation of the Humerus, with Fracture of the Great Tuberosity. Dr. W. Ewart and Mr. R. Emmett: Case of Hepatic Cirrhosis with Chronic Jaundice and Splenomegaly in a Lad, the subject of Congenital Syphilis. Dr. S. West: Case of Acromegaly.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. S. Paget: Demonstration of the Methods of Examining the Ear, and of Aural Instruments (Lecture I.)

TUESDAY.

Royal College of Surgeons, 5 P.M.—Sir William Mac Cormac, Bart.: The Hunterian Oration.

Royal Medical and Chirurgical Society, 8.30 P.M.—Dr. F. W. Hewitt: On the Effects produced in the Human Subject by the Administration of Definite Mixtures of Nitrous Oxide and Air, and of Nitrous Oxide and Oxygen.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Tooth: On Cranial Nerves (Lantern Demonstration).

Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Harry Campbell: Cases of Facial Paralysis.

WEDNESDAY.

North-West London Clinical Society, North-West London Hospital, Kentish Town Road, 8.30 P.M.—Discussion on the Relation of Gout to Rheumatoid Arthritis. To be opened by Dr. William Ewart.

Royal Meteorological Society, 25, Great George Street, Westminster, S.W., 7.30 P.M.

Evelina Hospital, S.E., 4.30 P.M.—Mr. A. H. Tubby: Clinical Demonstration on Surgical Cases (Post-graduate Course.)

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M. Dr. Kidd: On Pleurisy.

Royal Microscopical Society, 20, Hanover Square, W., 8 P.M.

THURSDAY.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Green: Cases in the Wards.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Voelcker: Demonstration of Selected Cases.

Harveian Society of London, 8.30 P.M.—Dr. Arthur Whitfield: Varieties of Eczema and their Treatment.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. S. Paget: Demonstration of Methods of Examining the Ear, and of Aural Instruments (Lecture II.)

FRIDAY.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 P.M.—Papers and Communications by Dr. Flux, Mr. Bellamy Gardner, Mr. T. G. A. Burns, Mr. McCardie, Mr. Harvey Hilliard, Mr. A. Granville.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

BROOKE.—On February 3rd, at East Harbour, Turk's Islands, W. Indies, the wife of Dr. Gilbert E. Brooke, B.A.Cantab., F.R.G.S., Government Medical Officer, of a daughter.

NASH.—On February 5th, at Clavering House, Bedford, the wife of W. Gifford Nash, F.R.C.S., of a son.

MARRIAGES.

KERR—BLYTHMAN.—On January 31st, at All Saints Church, Wath-on-Dearne, by the Rev. Arthur Blythman, Rector of Shenington, Banbury (uncle of the bride), assisted by the Rev. W. J. Peacey, Vicar of Swinton, Yorks, Dr. W. S. Kerr, of Sheffield, to Edith Mary, eldest daughter of Dr. C. S. Blythman, of Swinton.

LOCKYER—COOMBS.—On February 7th, 1899, Cuthbert Lockyer, M.D., B.S.Lond., M.R.C.P.Lond., F.R.C.S.Eng., of 20, Devonshire Street, Harley Street, W., to Minnie Marie Coombs, only daughter of Robert Coombs, Esq., Cote Grange, Westbury-on-Trym, Gloucestershire, at Trinity Church, Clifton, Bristol. Reception, Imperial Hotel, Clifton.

WALKER—MOORHOUSE.—On February 2nd, at St. Mary's, Crumpsall, Manchester, by Rev. R. Catterall, Rector, assisted by Rev. T. M. Macdonald, Rector of Kersal and Prebendary of Lincoln, Edward J. Walker, B.A., M.D., Manchester, youngest son of the late Rev. John Walker, Dublin, to Emily Henrietta, second daughter of Christopher Moorhouse, Fieldhead, Crumpsall, Manchester.

WATSON—NUTT.—On February 1st, at the Parish Church, Newburn, by the Rev. G. Palmes, of Naburn Hall, James Kenneth Watson, M.D.Edin., of Byfleet, Surrey, to Emily Kate, youngest daughter of Mr. Henry Nutt, Naburn Lodge, Yorkshire.

DEATHS.

JONES.—On January 25th, at his residence, Preston Grange, Bournemouth, Thomas Jones, M.D., M.R.C.S., L.S.A., aged 60.

WALKER.—On February 1st, at Newton Heath, Manchester, Alexander Walker, M.D., aged 49 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F.S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, 1.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Laryngx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu., F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

A. P. asks to be informed where a girl, aged 13, could be admitted for treatment for lateral curvature of the spine.

H. desires to find out the various consumption hospitals in the South of England at which the Nordrach treatment is carried out with or without slight modifications.

H. T. T. would like to know the best form of electricity to apply for tinnitus associated with Menière's disease. Would the use of an ordinary Spammer's battery be contraindicated?

J. P. F. (1) desires to hear of a work suited to the wants of the general practitioner on electricity in the treatment of disease. He asks also (2) how to go about obtaining the post of doctor—for voyage out only—on board a vessel to Australia or New Zealand.

*** 1. Our correspondent should consult *Medical Electricity*, by Dr. Lewis Jones, 2nd edition (London: H. K. Lewis. 10s. 6d.), or *Medical Electricity*, by Dr. Dawson Turner, 2nd edition (London: Baillière, Tindall and Cox. 7s. 6d.).

2. Application should be made direct to the owners or general managers of the various steamship lines, the names of which may be found in the advertising columns of the daily press, and should be supported by whatever commercial or personal influence can be obtained.

RELIEF OF LIGHTNING PAINS.

DR. W. JOHNSON SMYTH (Durley Gardens, Bournemouth) will be pleased to describe to "J. C. J." a method for stretching the spinal cord, which in his hands has undoubtedly relieved the pains in cases of locomotor ataxia.

ANOTHER correspondent writes to ask for advice in the treatment of lightning pains. His patient, who is aged 40, contracted syphilis ten years ago.

THE INDIAN MEDICAL SERVICE.

OMEGA asks to be informed which are the best textbooks to read in preparation for the examination for Her Majesty's Indian Medical Service: (1) For compulsory subjects; (2) for modern languages; (3) for botany and zoology.

*** The books usually read for the Entrance Examination are—Surgery: Walsham's *Surgery*. Medicine: Taylor's *Textbook*. Anatomy Cunningham's *Practical Anatomy* and Quain's *Anatomy*, vol. ii, Part I on Osteology. Physiology: Kirkes's *Physiology*. Materia Medica: Mitchell Bruce. Chemistry: Luff's *Manual* (Cassell and Co.). French: *Hugo's French Journal*, published weekly. Physics: Balfour Stewart's *Textbook*. Geology: Geikie's *Elementary Textbook of Geology*. Physical Geography: Geikie's *Elementary Textbook of Physical Geography*. Botany and Geology: *Science Primers*, by Macmillan and Co. German: Any book does for this, as there is no grammar in this paper. Whilst there are the textbooks usually read, many others are used—for example, many men read Erichsen in surgery and Osler in medicine, Hale White in materia medica, Ellis for anatomy, etc.

THE CULTIVATION OF THE TUBERCLE BACILLUS.

G. H. asks: Is there a simple way of making tubercle bacilli cultivations in tubes? What should be the substance of the tubes, how prepared, and is one particular necessary?

*** There is really no simpler method of obtaining cultures of the tubercle bacillus from tuberculous nodules than that originally devised by Koch. After the primary cultivation it is a comparatively easy matter to grow the tubercle bacillus, which by this time has acquired a more marked saprophytic faculty on or in various media, such as glycerine agar, glycerine broth, or even potato. Serum derived from sterile blood of the sheep or calf inspissated in a sterile test tube for an hour a day for five days at a temperature of about 65° C., and then slowly solidified in an oblique position at 76° to 78° C., is practically the only medium on which tubercle bacilli can be cultivated direct from a tuberculous nodule. All other methods are attended with many difficulties. Most of the ordinary textbooks on bacteriological technique give good accounts of the method of preparation of this medium.

VILLAGE NURSES.

E. R. F. desires advice as to an equitable arrangement for a village nurse, where no medical friction can arise through lax rules. He wishes to hear of a society of doctors who have a medical association of their own, who would let him have a copy of their rules. A country district scheme would suit best.

*** The main cause of friction in most cases in which it exists is that the charitable and philanthropic people who support the nurses will requisition their services for the sick poor independent of the medical men of the district. There are several associations for supplying sick nurses for the poor which have a rule that the nurse can be requisitioned solely on the doctor's order. On the best associations the medical men of the district are *ex officio* members. The Dorset Health Association (headquarters Dorchester) is a good example of an association so constituted. We do not know of any combination of medical

men for the purpose of controlling and organising the nursing of the sick poor in the rural districts. St. Katherine's Hospital, Regent's Park, has good rules which are often copied by district nursing associations.

The Age of Leucocytes.

Dr. W. Bryce Orme (Port Said) writes: I notice in the British Medical Journal Epitome of January 7th that in an article entitled The Reaction of Syphilitic Blood to Mercury, Kuperwasser says that the blood of healthy people is modified by mercury in that the proportion of young leucocytes present is much increased, while the old are much diminished; while in the case of syphilitics the reverse is true. I should be much obliged if you could tell me, or if some one would inform me through the Journal, how one tells the age of a leucocyte.

*** The age of a leucocyte is still a matter of theory and speculation. The generally accepted view, we believe, is that the different kinds of leucocytes are of different origin, and that their appearances will vary according to their functional activity—that is, whether in a state of rest or action. Authorities seem to agree that the small leucocyte with its scanty protoplasm surrounding a large spherical nucleus is in all probability a young or immature form; further than this they do not go. So long as leucocytes are deemed of different origin, the determination of their respective ages partakes of the nature of speculation. Kuperwasser seems to have felt this difficulty, and to have taken refuge with Ouskoff (who believes in the unity of their origin). Ouskoff and Kuperwasser so far stand alone. To Kuperwasser more particularly we would refer our correspondent, as he would appear, according to the Epitome, to enumerate the distinguishing characters. We would, however, remark that the importance of Kuperwasser's contribution lies, not in his theory as to the age appearance of leucocytes, but in his statement that under certain conditions (for example, in syphilis) certain species of leucocytes prevail in the blood, and that this prevalence is characteristic.

ANSWERS.

Pons Belli.—In the circumstances described by our correspondent, we think he would be justified in not returning the newcomer's call.

Hamilton.—The address of the Medical Defence Union is 4, Trafalgar Square, London, W.C.

R. B. T.—The deaths from tuberculous diseases (including phthisis) in London were: 1895, 11,338; 1896, 10,730.

Enquirer.—No one can be placed in a retreat against his or her will. The patient must sign a consent; the lady superintendent of any retreat for females would forward the necessary forms.

E. T. D.—There does not appear to be any evidence that the practitioner whose name is mentioned in the paper was responsible for the appearance of the article in question.

R. C. P.—Dr. William Battie was President of the Royal College of Physicians of London in 1764, and died in 1776. Some particulars of his career will be found in *The Roll of the Royal College of Physicians*, vol. ii, p. 139.

A. B.—All the surgical instrument makers make artificial legs. Our correspondent might communicate with Messrs. Arnold in West Smithfield, or Maw and Co. in Aldersgate Street, or Mr. Ernst in Charlotte Street, Fitzroy Square.

C.—It is customary in cases in which the confinement occurs earlier than was expected, and when the nurse engaged cannot attend, to pay half the fee. Although the nurse is disappointed of her case, yet she is left free to take any other work that offers. In the present case, moreover, her disappointment seems partly due to her own misunderstanding.

Foreign Dentists in the United Kingdom.

In reply to a correspondent who asks a question as to the practice of dentists in this country with foreign diplomas, we may say that when the *Dentists' Register* was first formed, the conditions under which American dental qualifications could be obtained were investigated with a view to discovering whether any of them could be regarded as in general terms similar and equivalent to those granted in Great Britain.

The qualifications granted by the Universities of Harvard and of Michigan appeared from their published prospectuses to be thus roughly equivalent, and so recognition was accorded to them; but facts which came to the knowledge of the General Medical Council led to the withdrawal of that recognition a few years ago, and at the present time no American dental diplomas are recognised; but various British examining Boards accept, as fulfilling the requirements of their curriculum, attendance upon lectures and hospital practice at many schools in the United States, and they admit persons possessed of American diplomas to their examinations when they have attended in this country or elsewhere those parts of the British curricula in which the American curricula fall short of their requirements. Hence it is possible for an American graduate who desires to obtain an English diploma to come up for examination after attendance on certain courses of lectures and hospital practice, in addition to those which he has already attended; and, as the special courses of dental instruction are usually accepted as adequate, these practically consist in certain courses at a general medical school, and can be, at all events in the case of a Harvard graduate, taken out in a period of somewhat more than a year, during which a part only of the candidate's time will be occupied.

Qualifications of Public Vaccinator.

M.D.—In any new contract for public vaccination the only existing provision as to qualification is that contained in the new Vaccination Order, October 18th, 1898, Article 2, all previous Orders of Council and general and other orders in regard to vaccination having been rescinded. This Article states: "The guardians of any Poor-law union shall not enter into a contract for public vaccination with any registered medical practitioner, or approve of any such practitioner as deputy, for a public vaccinator, unless he shall produce a certificate of proficiency in vaccination, given under such conditions as we from time to time fix, by some person whom we shall have authorised to act for the purpose, and by whom he shall have been duly instructed and examined in the practice of vaccination; but it shall not be necessary to produce the certificate to the guardians, if such certificate was required as a condition of obtaining any diploma, licence, or degree which the contractor possesses." The University of Dublin does not seem ever to have required such a certificate as is contemplated by the above article. For any further information application should be made to the Secretary of the Local Government Board, Whitehall, S.W.

Medical Aid Associations.

Spes.—With regard to branch practices a registered medical practitioner may of course carry on his practice in any district which he chooses to select, but he must not place in charge of the branch practice an unqualified or unregistered person to attend or treat any patient to procure or issue any medical certificate or certificate of death, or otherwise to engage in medical practice, except under his immediate supervision. This we take it is tantamount to saying that he cannot place an unqualified assistant in charge of a branch practice. With regard to the other point raised by our correspondent, the report of the Medical Aid Committee of the General Medical Council (*Minutes*, vol. xxxiii, appendix xii) expresses the opinion that a medical practitioner is acting in a reprehensible manner if he accepts or retains employment by a medical aid association in which canvassing is used to attract members. At the meeting of the General Medical Council on May 27th, 1898, the Committee presented a second interim report in the course of which they say: "Their investigations so far confirm the conclusions of the Committee of 1893 as to the evils incident to the present system of working such institutions, which, when composed of *bonâ-fide* members of friendly societies, and managed on sound principles, are entitled to, and have always received, the friendly consideration of the medical profession."

The above also answers the question put to us by "C."

Medicus.—(1) Two of the bodies mentioned by our correspondent are frankly stated to be medical aid associations, limited. (2) A Foresters' club is of course an institution of another kind, and, as is well known, many medical men of good standing hold appointments as medical officers to such clubs. It is impossible to give a more definite answer, because in some places Foresters' clubs, we believe, contract with medical aid associations to give medical attendance to their members. (3) With regard to the National Deposit Friendly Society, there is a good deal of difference of opinion. Many practitioners who object to the unjust and injurious methods of medical aid associations are ready to support this organisation.

NOTES, LETTERS, Etc.

Messrs. Maw, Son, and Thompson write to say that they are in a position to supply millerained cloth.

At the quarterly meeting of the Cumberland County Council on February 1st, the recommendation of the Joint Lunacy Committee of the Cumberland and Westmorland County Councils that a superannuation allowance of £350 per annum should be made to Dr. Campbell, late Medical Superintendent of the Cumberland and Westmorland County Lunatic Asylum at Garlands, was adopted.

The Cartwright Prize.

The Cartwright prize of the Alumni of the College of Physicians and Surgeons (the Medical Department of the Columbia University), New York, will be awarded for an essay received not later than April 1st, 1899. The essay must embody original investigations made by the writer. The value of the prize is 500 dollars (£100), and is open to universal competition.

Syphilis in the Army.

Lieutenant-Colonel William Alexander, A.M.S., writes to say that the statement in the abstract of a letter by him published in the British Medical Journal of January 21st, p. 191, that he "is a strong advocate of the inunction method," gives an erroneous impression. He desires it to be understood that the Aix-la-Chapelle method is not merely inunction, but is associated with hot baths and the drinking of thermal waters, and that without these concomitants it would be no better than any other system of drugging. This we thought was made sufficiently plain in the abstract which was published. Our correspondent also complains that the abstract of his letter was printed in small type, whereas "the matter under consideration was brought forward in an editorial in large type," but he apparently forgets that a large number of letters criticising the opinion there expressed have since then been published in large type. There must be some finality about discussions in a periodical publication.

Erratum.—In Surgeon-Colonel Welch's letter on Syphilis in the Army in the British Medical Journal of January 14th, page 122, col. 1, line 27 from top, the deaths from syphilis in 1885 should have been given as 0.23, and not as printed.

Ascitic Fluid.

Dr. G. A. Leon (Sidmouth) writes: A question asked by Lieutenant W. H. Cox, I.M.S. in the British Medical Journal of January 28th, has determined me to send you notes of a case of hepatic hypertrophic cirrhosis under my care here. Lieutenant Cox drew off 480 ounces of fluid in one tapping, and wishes to know if that amount has ever been exceeded.

Mrs. C., aged 38, was first tapped on August 7th, 1897, the amount drawn off being 14½ pints; on September 10th 22 pints were drawn off; on October 17th, 20 pints; on November 21st, 23 pints; December 26th,

24 pints; January 27th, 1898, 21 pints; February 27th, 20 pints; March 27th, 22 pints; April 24th, 24 pints; May 15th, 18 pints; June 12th, 20 pints; July 3rd, 15 pints; July 27th, 16½ pints; August 21st, 18 pints; September 18th, 19 pints; October 16th, 16½ pints; November 13th, 17½ pints; December 11th, 15½ pints; January 8th, 1899, 16 pints; the total being 362½ pints.

Notwithstanding this enormous drain of an approximate average of ¾ of a pint a day for 18 months from the system, and in spite of the gloomy prognosis of our textbooks (*vide Fagge*, vol. ii. pp. 330 and 373) Mrs. C. is to all appearance in fair health. She is out of doors almost daily, and up and about from morning to night for three weeks out of each four. Her nitrogenous food is strictly limited to a small quantity once a day, and milk food forms the staple nourishment. All alcohol and condiments are stopped. Every day she takes at least 10 minims of liq. ferri perchlor., and frequently small doses of calomel. Up to the last two operations, the opening into the peritoneal cavity has had to be closed by a harelip pin, and evidently I did not do the early operations sufficiently often, and over-distension was the result. The only complications have been an axillary abscess, cause unknown, and a troublesome pustular dermatitis of the abdomen, buttocks, and thighs, which have yielded to treatment. The measurements are taken in an ordinary stamped pint measure, and I can guarantee that no amount is overstated. I always make a liberal deduction at the end for the measure not being quite filled up to the brim each time. I should be very glad to hear the experience of others in cases of this kind. Personally, I believe making the patient remain in bed, as is usual in cases of cirrhosis, lessens the functional activity of those cells of the liver not rendered useless by the disease, and so is bad treatment.

DR. JAMES HILL (Renfrew) writes: In reply to Lieutenant W. H. Cox, let me say I have a patient under my care who suffers from cirrhosis of the liver, from whose abdomen I have aspirated large quantities of fluid. He has been tapped altogether nine times. The following are the dates and the quantities of fluid removed on each occasion; 1898: July 30th, 320 ozs.; August 18th, 320 ozs.; August 30th, 400 ozs.; September 26th, 480 ozs.; October 11th, 320 ozs.; November 1st, 600 ozs.; November 27th, 600 ozs.; December 20th, 400 ozs. 1899: January 11th, 400 ozs. The patient is a man aged 55 years of age. His strength is still well maintained, and he is able to get up a short time every day.

THE PREVENTION OF TUBERCULOSIS.

DR. D. TOLMY MASSON (Edinburgh) writes: Will you allow me to say a word on two points in the Association's report on this subject which was published in the BRITISH MEDICAL JOURNAL, January 28th, 1899. 1. The report takes it as "well founded" that the great and still undiminished mortality from tuberculosis in early childhood is due to the use of "milk from tuberculous cows." May I ask if no account is to be taken of milk from tuberculous mothers? And would it not be well if the report issued a word of warning against this undoubted source of infection? Where that danger clearly exists, well selected cow's milk would surely be preferable to milk from the mother's breasts. 2. The report gives no place to the vitally important reservation with which Sir William Broadbent qualifies his sweeping dictum that tuberculosis "is not an inherited vice in the constitution." To this strong statement Sir William is careful to add that "some constitutions are more prone to it than others." That qualification covers a wide field of possibility. May one not argue that it covers a wide field of what has long been held and taught in our books and in our schools as undoubted and patent fact? Whether or not it is really proved that the bacillus of phthisis cannot be transmitted directly as a baneful birthgift from parent to child, as Sir William Broadbent appears very confidently to teach, there can be no doubt that the constitution inherited by the children of tuberculous parents may be so depraved or so enfeebled as necessarily to invite the ravages of this and other forms of disease. The human organism is not divinely protected from the common fate of everything that springs from what the breeder and the fancier call "bad strain," and the farmer, the florist, and the forester know as "bad seed." Here it is just the same law for the potato and the potentate. Now if it be so, and it cannot be denied that at the least there is so much in the facts of Nature, why should the report pass it over in silence? Why should not the medical profession give fair warning that the marriage of tuberculous persons is not a thing to be lightly undertaken? When this warning is given responsibility will be shifted from the medical conscience to the broad shoulders of society and to the conscience of individual men and women who, if they transgress, will then be without excuse.

BELLADONNA PLASTER.

Two recent prosecutions for the sale of belladonna plaster containing less than the standard amount of alkaloids required by the *British Pharmacopœia*, 1898, show that the old belladonna plasters of uncertain strength are still on sale. The emplastrum belladonnæ of the new *Pharmacopœia* is composed of extract of belladonna root mixed with resin plaster, and it is standardised to contain ½ per cent. of alkaloids. It is well known that belladonna root varies considerably in the amount of alkaloids present, and consequently that preparations made from it are not constant in alkaloidal strength. The belladonna plaster of the *British Pharmacopœia*, 1885, contained the alcoholic extract of the root. It was a variable preparation; very frequently it produced a great deal of irritation, due possibly to the fact that there was an excess of alkaloid in the plaster, which, becoming absorbed, produced the local therapeutic effect of the drug. In the *British Pharmacopœia*, 1867, belladonna plaster was made from the green extract. It was a mild, non-irritating application. There still appears to be a demand for the belladonna plasters of the *British Pharmacopœia*, 1885 and 1867, as shown by the fact that the prices of these are given in the price-lists of wholesale drug houses. The prosecutions for selling belladonna plaster below the standard alkaloidal value of the *British Pharmacopœia*, 1898, make it evident that all plasters now sold must be of the official strength.

HERPES ZOSTER WITH ABERRANT VESICLES.

DR. W. L. FRENCH (Barnetby, Lincoln) writes: While doing duty for a friend, I was one day consulted by a gentleman, over 60 years of age, who was suffering from a severe attack of intercostal herpes zoster affecting his left side. I prescribed for him, and arranged to see him again in the course of a few days. I, however, received a message on the next day asking me to visit him. This I did, and found my patient in bed. There was some constitutional disturbance. Temperature 100° F., furred tongue, sleeplessness, and considerable *malaise*, and besides the intercostal shingles, which were inflamed and very irritable, he had a crop scattered over various parts of his body. There were a few on his face, several on his chest, also a few on his arms and abdomen. Being in doubt as to the true nature of the case, I asked the medical officer of health for the district to see him with me. This he did the next day, and after consultation it was decided that it was varicella complicated with shingles. I have never felt satisfied with the diagnosis, and since I have read a description of the condition I have no doubt in my own mind that it was in reality a case of herpes zoster with aberrant vesicles. I draw attention to it, as I understand that very few have been recorded in this country.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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THE HUNTERIAN ORATION

ON

HUNTER AS THE FOUNDER OF SCIENTIFIC SURGERY.

Delivered at the Royal College of Surgeons of England on Tuesday, February 14th, 1899.

By Sir WILLIAM MAC CORMAC, Bart., K.C.V.O.,
President of the College; Surgeon-in-Ordinary to His Royal Highness the Prince of Wales; Consulting Surgeon and Emeritus Lecturer on Clinical Surgery, St. Thomas's Hospital.

The Life of Hunter.

Your Royal Highness, my Lords, and Gentlemen,—In accordance with the terms of a deed establishing the Hunterian Oration, we celebrate to-day John Hunter's name and fame. Born on the 14th of February in the year 1728 at Long Calderwood, a small estate his father farmed, some eight miles from Glasgow, he died on October 16th, 1793, in his 65th year, celebrated alike as a great surgeon, a profound biologist, and a man of genius.

It is fitting that this College, the heir to Hunter's great collection, should take care for his memory, and one way in which this is done, however inadequately, is by means of the Hunterian Oration, delivered in this theatre in alternate years. Here, in view of this noble presentment of Hunter by the foremost painter of his time, the orator is called upon to praise its foremost surgeon. Hunter was a bad sitter, and it was almost by an accident that Reynolds obtained the opportunity to paint this, one of his finest portraits. In the background are indicated the bones of O'Brien the giant, whom Hunter affectionately calls his "tall man," a preparation showing the vessels of the heart suggestive of his work on Aneurysm, and three volumes of his manuscript notes.

As we look at the picture, painted in 1785, when Hunter was 57 years old, we perceive him in a deep reverie, in one of those waking dreams to which he refers in his lectures. He has paused from writing in order to think out some problem, and, as he often said, it was a delight to him to think. As we dwell upon the features, we cannot doubt that a sudden inspiration has flashed upon and gradually pervaded his mind, some great scientific truth or generalisation which he has grasped and is pondering with intense satisfaction. Those eyes, full of the keenest intelligence, seem in eager quest of something far beyond the visible tokens of his work. We may imagine Hunter trying, perchance, to solve some hidden mystery of life, or seeking to pierce the veil which hides from us the great unknown beyond.

Buckle calls Hunter a genius, whose only fault was an occasional obscurity in language and in thought. In his *History of Civilisation* he writes thus:

> It sometimes seems as if Hunter's understanding were troubled by the grandeur of its own conceptions, and doubted the path it ought to take. Still his powers were so extraordinary that among the great masters of organic science he belongs to the same rank as Aristotle, Harvey, and Bichat, and is somewhat superior to Haller and Cuvier.

What, then, was the manner of man whom Buckle thus characterises? I would desire to present him to you as a yet surviving influence, to recall his very words, and to show him to you as he lived.

To appreciate, or even to fully comprehend, the labours of Hunter, one must strive to judge them from the standpoint of his time, for in this way only can we form a just conception of their splendid superiorty.

On Hunter's early life and the many moot points it involves—his preliminary education or the want of it, whether he was for a time a carpenter by trade, why he was not sent to learn the Humanities at Glasgow College like his brothers, or why in later life he spent some time at Oxford University without any apparent appreciation of the academic learning there offered to him—I do not purpose to dwell.

John Hunter was the youngest child of a family of ten, and the spoiled son of his mother. As a boy his pleasure was to ramble in the quiet woodlands, observe the ways of the living things he found there, to collect the eggs of birds, and compare them together. "I wanted to know," he tells us, "all about the clouds and the grasses, and why the leaves change colour in the autumn; I watched the ants, bees, birds, tadpoles, and caddis worms; I pestered people with questions about what nobody knew or cared anything about."

Hunter's scientific career dates from his arrival in London in 1748, where, when 20 years of age, he joined his brother William's school as an ill-educated youth, new to all the amenities of life, brusque in manner, and negligent in appearance, yet with a keen sense of physical enjoyment. As a pupil he showed a marvellous aptitude for anatomy, and soon became a successful teacher of it, but he always remained a learner in that great book of Nature which was ever open before him, and whose pages, until he died 45 years later, he never ceased to turn, interpreting aright many of its obscurest passages. From the moment he began to work his industry was never-ceasing, his patience extraordinary, and his capacity for unflagging effort so sustained that it brought him step by step to a position which has earned for him the praise and admiration of his successors.

In 1759, undermined in health by ten years of incessant toil, he contracted an attack of pneumonia, and his weakened constitution was threatened with phthisis. Recommended to take rest, he only changed one sphere of activity for another, and having obtained through his brother's influence an appointment as surgeon in the army, he sailed (1761) with Keppel for Belleisle, and afterwards accompanied the expedition into Portugal. It was then that he studied the phases of inflammation and the treatment of gunshot wounds.

When he returned to London, after peace was proclaimed (1763), with nothing but his half-pay to live upon, and nothing but his genius to trust to for advancement, Hunter's life became an extremely arduous one. He was able to do with little sleep, and from four or five in the morning until the breakfast hour he dissected, then he saw patients, visited the hospital, pursued his researches, worked at his notebooks, and pondered the bearing of his observations till midnight. He was elected a Fellow of the Royal Society when 39, a year later became surgeon to St. George's Hospital, and in 1776 was appointed surgeon-extraordinary to the King. In 1786 he was appointed Deputy Surgeon-General in the army, and three years later became Surgeon-General. He also published his work on *Venereal Diseases* in 1786, and the following year received the Copley medal from the Royal Society on account of many valuable papers. His great work on the *Blood and Inflammation*, however, still remained unfinished after thirty years of labour bestowed upon it, and was only published after his death.

At 50 years of age he had reached the zenith of his surgical career. When Pott died Hunter became the chief surgical authority in London; his opinion was highly valued in all difficult cases, and he acquired a lucrative practice. There is no doubt he was an admirable clinical teacher and a courageous operator, and although his systematic lectures on surgery were marred by a faulty delivery and occasional obscurity of style, they attracted all those who afterwards attained distinction amongst their contemporaries. We only possess an account of these lectures on the principles of surgery at second hand, but even these somewhat fragmentary records teem with observation, are full of suggestion, and enlightened by many applications of physiological knowledge. Doubtless some of the explanations are faulty and some of the deductions incorrect, but Hunter is throughout transparently anxious to discover the truth, and his search for it is as unbiased as it is keen.

Abroad, the French school, then in the highest repute, received with acclamation a translation of Hunter's works. M. Royer-Collard wrote: "It is more than a book that has appeared; it is a scientific event, a discovery almost. We may now contemplate at our leisure one of the greatest monuments which the genius of science has created in modern times; we may study and learn to know every part of this great work, almost as new for us now, after fifty years have passed, as it was on the day of its birth."

Hunter was deficient in what we are pleased to call general culture, and doubtless he suffered in consequence. He read but little, and many of his discoveries had been anticipated by others; but when this was brought to his knowledge he abandoned any claim he might have advanced. It appeared to him of small consequence by whom a discovery was made if only it proved the stepping-stone to a higher and more complete knowledge. He was no mere collector of facts in

order simply to augment their number. He thought too much attention could not be paid to facts so long as they helped to establish principles, but that too many facts crowded the memory without advantage. He was not only a constant observer, but he verified his observations, and, indeed, no amount of trouble was too great for him to take. He knew well, however, that the mere accumulation of facts is valueless until the knowledge thus acquired is co-ordinated, and in the capacity for generalisation Hunter was pre-eminent.

In 1789 he was attacked by severe illness, and until his death four years later his life proved a suffering one. Constant work and insufficient sleep doubtless shortened his days. The paroxysms of angina from which he suffered became more frequent and serious; yet nothing daunted, and although conscious his end was near at hand, he worked on until the last. His death, sudden and tragic in its circumstances, happened in St. George's Hospital whilst he was demanding from somewhat hostile colleagues what he regarded as a just concession to his pupils.

In the first instance Hunter's work was biological, his range including both the animal and vegetable kingdoms (and the mineral kingdom as well), and to illustrate his investigations he became a collector. But he was chiefly and finally a surgeon, and to the development of surgery he brought all the knowledge and all the training which he had acquired in other branches of science. It is because of this that he was able to transform surgery from a barren account of isolated cases into a calling founded on anatomical, physiological, and pathological knowledge, not of man alone, but of the entire animal world. He carries us beyond mere handicraft and detail into the region of general principles and law. The surgery of the Middle Ages was a trade; Ambroise Paré and Jean Louis Petit converted it into an art, John Hunter elevated it to the rank of a science.

Hunter's life and work inspired his successors with the spirit of observation, investigation, and experiment. We see this exemplified in his great followers, Cline, Abernethy, Astley Cooper, Travers, Green, Brodie, Lawrence, and others since their time. They have been makers of English surgery, and each in turn has contributed much to raise it to that high standard to which it has attained.

And now I may refer in detail, yet of necessity very shortly, to some small part of Hunter's work in illustration of what I have just said.

ANIMAL HEAT.

Animal heat was a subject in which Hunter was much interested. He speaks of it at length in the treatises on Inflammation and on the Animal Œconomy, and he contributed papers upon the subject to the *Philosophical Transactions*, and nowhere, probably, are his methods, and the advances he made, shown to greater advantage than in his experiments and observations on the heat-producing power of animals.

Just a century earlier, Harvey, his great predecessor, who equalled John Hunter in ability and excelled him in logical exposition, dealt with the same subject in the 71st chapter of his treatise on Development. No important advance had been made in the interval, and one may compare one essay with the other, bearing in mind that Harvey was already stricken in years when he wrote the *Calidum Innatum*, whilst Hunter was but 38 when he performed his experiments, although they were not given to the world for 20 years after. Harvey throughout his essay is trammelled by his historical knowledge. He repeatedly quotes Aristotle, and arrives at the conclusion that the heat of the blood of animals is neither fire nor derived from fire. Further than this he does not go, for to him heat is a principle inherent in the blood, and he loses himself in metaphysical speculation as to whether the blood is not the soul or even the life itself. Hunter starts in a different manner. The lapse of a hundred years had made the thermometer familiar to men of science. Black's work, published in 1757, was probably known to Hunter when he began his experiments, whilst the treatises of Priestley and Lavoisier saw the light before his essay was finally prepared for publication. Hunter had therefore a knowledge of respiration and of the function of the lungs, which was unknown to Harvey.

No fact is more interesting than the uniform bodily temperature of man. In all warm-blooded animals it varies in a quite insignificant degree. It is the same at the Equator and in the Arctic Circle, in the negro and the Esquimaux. Explanations of the manner of heat production in animals date indeed from the foundation of medicine. The ancients thought that there must be an internal furnace, Plato believed that the blood boiled in the heart, and it was not till the last century that pure speculation was replaced by experiment. Lavoisier indicated the right explanation when he regarded respiration as inducing a combustion within the tissues, and by degrees the present knowledge was evolved that heat is produced in every tissue and organ of the body, mainly by metabolism of the protoplasm. Rubner has very recently determined the exact relation of heat production to metabolism, having proved that the heat evolved by the combustion of a given quantity of food as shown by the calorimeter is precisely equivalent to the amount of heat production in an animal fed with a similar quantity of food.

Hunter's account is involved and difficult to understand. He discusses whether heat is matter or only a property of matter, and supposes heat and cold to be opposite principles; he lays down that the body can generate heat and has also a cold-producing power, and he is inclined to believe that there is a principal source of heat in the body although he does not indicate its locality. He considered animal heat must depend on some unknown force like that which maintains vitality, on a decomposition going on in the body and in pretty regular progression, though not on fermentation or friction, two of the explanations current at the time, and his opinion therefore closely approaches the present one as to the potent influence of metabolism. He pointed out the essential difference between the so-called warm-blooded and cold-blooded animals. The temperature is constant in the first, and within a wide range independent of external influences, while in the latter there is much less capacity for resistance, and the temperature varies with that of the surrounding medium.

Donders, in 1845, again called attention to these differences, and named the two groups those with a constant and those with a varying temperature, but in this he had been long anticipated by Hunter, whose observations and experiments on the heat of bees and wasps, of animals asleep and awake, and their temperature at different seasons, were endless. He ascertained that they could maintain heat while placed in a cold medium, and that they possess a cooling power in an atmosphere much higher than the standard temperature of the body, a phenomenon which he attributed in part to evaporation, but chiefly to a power inherent in the organism of destroying heat.

To discover the nature of heat production during the state of inflammation Hunter made many thermometric experiments in healthy and diseased parts in all kinds of animals, determining both surface temperatures and those of the interior of the body. He studied for years the temperature of bats and hedgehogs, both asleep and awake, starving and full of food. He noticed the capacity for resisting cold, up to freezing point at least, possessed by fishes, and the lower temperature of the addled egg under the sitting hen as compared with the living one. In his letters to his favourite pupil, Edward Jenner, he repeatedly refers to the subject. He wants to learn from him the temperature of bats and hedgehogs in summer and winter. He is especially interested in the hibernation of the hedgehog, and is constantly asking Jenner to send him supplies of the animal in order to ascertain its temperature at different seasons of the year. He also writes to him, "Have you any large trees of different kinds that you can make free with? If you have, I will put you on a set of experiments with regard to the heat of vegetables." Even in a letter to Jenner condoling with him on a disappointment in love, Hunter says, "but let her go"—he refers, I suppose, to the lady—"never mind her, I shall employ you with hedgehogs."

INJURIES OF THE HEAD.

Hunter's opinions on fracture of the skull and on trephining in injuries of the head typify the clear grasp he took of every surgical subject. They were not only far in advance of the time, but would find a very general acceptance in the present day.

Depression of the external table may exist and yet the inner not be hurt. In cases of fissure only it may admit of dispute whether we are

always to trepan. If there be no symptoms of injured brain, then it certainly will not be necessary, nor even always when attended by symptoms of injured brain, for the injury may only arise from concussion. However, as we cannot tell for certain whether the symptoms arise from concussion, compression, or extravasation of blood, it may be more advisable to trepan, as the operation can do no harm. In cases of depression of the outer table it would also be unnecessary to trepan, but it will be impossible to say certainly it is a case of this kind, for though there may be no symptoms of injured brain there may be depression of the inner table, which may do the mischief afterwards.

In young people a fracture with depression may cause no bad symptoms at the time, but as the patient grows up bad symptoms may arise. In all cases of violence attended with compression the trepan is absolutely necessary, although we cannot promise relief from the operation. When the compression is by bone, the situation known, and a proper one for trepanning, there is no difficulty; but when the compression is by blood or pus, and there are no external marks of violence, it is more puzzling. However, rather than let a person die one would trepan somewhere or other, and if this did not answer one would not stop there, for I have seen collections of matter on the opposite side to that on which the blow was inflicted.

He recognised the greatly increased risk to life when the dura mater was opened, and the greater gravity of a collection of matter or blood between the dura and the brain as compared with one between the skull and dura. "The cases all died," he says, "when the dura mater was incised. This happened to Mr. C., whose dura mater I opened on account of the state of the parts beneath; he died, and I think it probable I killed him." His practise was very adversely criticised, and considered bad. The comment his annotator makes is that "surely nothing can be worse than to anticipate symptoms of compression by resorting to the trephine." Yet we know well that an indented inner table, even although it cause no symptoms at the time of injury, may give rise, as Hunter tells us, to severe cerebral disturbance in later life, and the surgeon who would not trephine in a case of punctured fracture of the skull, even in the absence of symptoms, would, I think, be held blameworthy. I doubt if our modern surgery, despite its knowledge of cerebral localisation, can advance much further than Hunter was prepared to go.

Aneurysm.

"Aneurysm," Hunter says, "is a disease that must always kill if not attended to," and, had he done nothing else, his operation for the cure of popliteal aneurysm would have been in itself a great achievement. He performed the operation five times, and, considering the circumstances, with marked success. He urges his views modestly, and what he writes affords an insight into his character. For he tells us:

I only give my own feelings. I go no further in theory than I would perform in practice. If patients be made acquainted with the consequences of the disease, and would submit to, or rather desire, the operation, I would have it performed as I should also have it performed on myself were I in the same situation. Yet I would wish every man to judge for himself, and not attempt an operation if he is fearful.

Nothing can better illustrate Hunter's method of applying his knowledge of physiology and pathology to surgery than this staying of the amputating knife in the treatment of popliteal aneurysm. We are all familiar with his crucial experiment, yet he himself had probably no immediate thought of its application to surgery in mind as he watched the growth of the stag's antlers in Richmond Park. He tells us that in July, 1785, he had a buck thrown, and tied his carotid artery. Immediately the pulsation in the velvet ceased and the antler grew cold; but on returning a week or two later, he found warmth restored and the antler growing. The buck was now killed and sent to Leicester Square, and upon examination Hunter found the ligatured artery obliterated and the circulation carried on by other, generally small, vessels above and below the place of ligature, which had thus restored the blood current in the growing antler.

Nevertheless, he felt uncertain whether the same result would occur in man, and in December, 1785, he carefully explained the alternatives to his first patient, a coachman, who was suffering from popliteal aneurysm in St. George's Hospital. He told him of the usually fatal method of incision and evacuation of the sac, the better chance of life by amputation but with loss of limb, and, guided by his experience of the return of the circulation in the antler of the buck, he said he would try to save both his life and limb. The patient consented, and six weeks afterwards he left the hospital cured of the aneurysm, although he died fifteen months later of another malady. Thus came about a total change in the treatment of aneurysm, for, although Hunter had no opportunity of tying any artery but the femoral, he pointed out that his method was equally applicable to other vessels, a suggestion speedily realised by two of his pupils, Abernethy and Astley Cooper. Hunter was also aware that pressure upon the artery above the aneurysm might effect a cure, and he indicated the flexion method of treatment, as well as the spontaneous cure of the disease, when he says "the sac by its increase often presses on the sound part of the artery, and becomes the cause of its obliteration, as I have seen more than once."

The Hunterian operation for aneurysm was at first carried out imperfectly. A large portion of the vessel was exposed and four ligatures applied. The artery and vein were included together in the ligature on the first three occasions, without apparently ill result, and Hunter did not attach importance to taking up a nerve as well. However, in the fourth case the operation was performed much as we would do it now. The patient was a man of 37, who survived till he was 86, and on his death the limb was dissected and the specimen preserved by Mr. Wormald for the museum of this College, where it now is.

Venereal Diseases.

Upon none of his many works did Hunter bestow more care and labour than on that on *Venereal Diseases*. He was hampered by the belief that gonorrhœa and syphilis were due to the same cause, an idea based on a painful though faulty experiment upon himself. Yet the number of true facts he made out is very marvellous notwithstanding. He observed that syphilis originated in man, and was not communicable to the lower animals, and recognised the different modes of infection from venereal and non-venereal sources.

What is universally called the "Hunterian chancre" is thus described—a description which leaves little to be desired in the way of precision and accuracy:

The surface of the prepuce or the angle between the prepuce and the glans is in some cases excoriated and afterwards ulcerated. In other cases a small pimple or abscess appears on the glans, which forms an ulcer. A thickening of the part comes on which at first is very circumscribed, not diffusing itself gradually and imperceptibly into the surrounding parts, but terminating rather abruptly. Its base is hard and its edges a little prominent.

Hunter's observations in regard to gonorrhœa are clear-sighted and discriminating. He noticed that in the earlier stages of the malady the inflammation is restricted to the anterior portion of the urethra, and that epididymitis is a late symptom. He observed that in gonorrhœa the vas may become obliterated, which he says will have no bad consequences if only one testicle be affected, as the other will suffice for all purposes. He thus anticipates the observations of Gosselin and Curling on Aspermia from this cause.

Hunter describes the various forms of stricture in a graphic manner, points out that the bulbous portion of the urethra is more liable to the disorder than the whole of the urethra besides, and that he never saw a stricture in the prostatic portion of the urethra. He tells us that it happens generally, if not always, that gleet is associated with stricture, and that this symptom often leads us to a knowledge of a stricture, or at least affords a suspicion of its presence.

In regard to treatment, he considers that the cure of stricture can only be effected by local applications, and that mercury has been given erroneously and without success. A surgeon should in general first make himself acquainted with the situation of the stricture by an ordinary-sized bougie, and afterwards make use of a smaller one. Dilatation can be effected by the bougie, but it is seldom more than a temporary cure. There is always remaining the original tendency to contraction, and this recurs sooner or later. His description of the use of bougies is full of practical interest; he mentions a new form as one of the greatest improvements in surgery, and can scarcely persuade himself that in using it he is treating the same disease. He says:

When I was attending the first hospitals in this city in the year 1750, the common bougies were either a piece of lead or a small wax candle, and although the present bougie was then known, yet due preference was not given to it nor its particular merit understood. A piece of the end of the leaden bougie sometimes broke off in the bladder, and quicksilver was injected to dissolve it.

There is in the Museum a series of bougies which belonged originally to John Abernethy.[1] They are doubtless quite similar to and probably copies of those to which Hunter alludes.

His descriptions of the complications dependent on the presence of stricture are accurate and detailed. Extravasation of urine, perineal fistula, false passage, abscess in Cowper's

glands, in the prostate, and periurethral abscess are fully described and dealt with. In treating of retention of urine, which he calls "suppression," he gives an account of tapping the bladder above the pubes, through the rectum, and by way of the perineum; he details the circumstances which, in his opinion, indicate the choice of method in a manner which could scarcely be improved in the pages of a modern textbook, and in describing perineal puncture of the bladder he goes very close indeed to the modern operations suggested by Sir John Simon and Mr. Wheelhouse.

Inflammation.

Hunter dedicated his epoch-making treatise on the *Blood, Inflammation, and Gunshot Wounds*, to the King; and it is in many respects his most important work. It was planned after the reduction of Belleisle and the Peace of 1763, upon the basis of notes and observations made during his eleven years' residence in London and on his experience of the inflammation that usually attended on gunshot wounds. In it he makes a bold attempt to enunciate the laws which govern life, not only in healthy, but also in diseased, conditions. He recognises that the physiological state of the organism does not pass abruptly into that of disease, but by a gradual transition. No previous physiologist had adopted similar views, and Hunter's clear insight into the processes at work in the animal body furnished a new departure in biological science, the value of his opinions being shown by the impression they produced upon every succeeding worker in the same field.

Not only are the thoughts new, but the language in which he formulates them had in many instances to be new also, and was often, as might be expected, difficult to understand. Life he believed to exist in every part of the animal body susceptible of impressions which excite action. There is no part, he says, that does not possess more or less of this vital influence, and the impressions thence arising produce infinite variety in all natural and diseased acts. He says:

> I cannot tell how far each part might possess an equal quantity of life, but if we were to judge it by its power of action we should judge tolerably well. Disease would seem to give some intelligence with regard to this matter, but how far the resistance to disease and power of restoration depend on the power of life I cannot say. I believe it may be set down as a rule that those parts endowed with most action resist disease most strongly, and in disease restore themselves most readily to a healthy state.

This law has exceptions, yet it certainly applies in a large degree to all pathological changes. He regarded the blood as possessed of life like the more solid parts, and that it formed the bond of union between the structures divided in a wound. In what he calls "union by first intention" he recognised a process essentially different from that of inflammation. He says:

> In the adhesive inflammation the vessels, being enlarged, begin to separate from the mass (of the blood) some portion of the coagulating lymph with some serum and also red globules, throw it out on the surface and cover the sides (of the wound) with cells, which easily unite with the opposite ones with which they are in contact, forming the first progress of adhesion.

He observed the vessels passing into and ramifying in the new material, so that the vessel was plainly continued from the old into the new tissue. He adds that:

> In many bruises as well as in simple fractures, where the cavities are not exposed, the inflammation in most of these cases is capable of being resolved. In parts which have been divided and exposed the inflammation is in a great measure controlled by bringing them together; or where parts are not brought together Nature attempts to prevent inflammation by covering the wound with blood and forming an eschar. The adhesive inflammation serves as a check to the suppuration by making parts which would otherwise infallibly fall into that state previously unite in order to prevent its access.

The views and principles he thus formulated are essentially correct; they have served as a foundation for subsequent wide-reaching investigation, and form the basis of subcutaneous surgery and the treatment of wounds which, previously kept open, Hunter sought to close.

After describing what he terms "true suppuration," which he contends is the result of inflammation only, he goes on to speak of swellings without the usual symptoms of inflammation often containing collections of matter resembling suppuration. He considers these collections to be scrofulous in nature, common in young subjects, rare in the fullgrown or old. He thinks their contents are erroneously called "purulent." To this category he refers the slow swelling of joints and of lymphatic glands, the scrofulous enlargements and suppurations of the knee, the foot, and the ankle. He completely differentiates the breaking down of a tuberculous deposit from true suppuration occurring in the course of simple inflammation. He calls attention to what he terms the "curdly substance" in the fluid, distinguishing it from true pus. He tells us that these collections move easily from their original seat to some other part by slight pressure or their own weight. The migrating collection which descends from a carious vertebra to the groin he calls "an abscess in a part" in opposition to "an abscess of a part." Indeed, he gives the salient characters of these disorders with the keenest insight, and his descriptions suggest to me the masterly power of some great artist who with a few strokes of his pencil is able to indicate a powerful situation or suggest a startling action.

When we study Hunter's works we find many later views and advances foreshadowed. It is wonderful to reflect on how much he has seen and described, the correctness and depth of his observations, and his ability to utilise the experimental method. There is scarcely any branch of anatomical or physiological inquiry he did not illuminate, and few subjects in either medicine or surgery which have not benefited by his researches.

His remarks on the union of severed tendons were apparently suggested by the accidental rupture of one of his own, and prompted Delpech, many years afterwards (1816), to divide for the first time the Achilles tendon for pes equinus. This proved the foundation of orthopædic surgery developed by Stromeyer and since his time.

"Of cancer," he reminds us, "no cure has yet been found, for what I call cure is an alteration of the disposition and the effects of that disposition, and not the destruction of the cancerous parts." And to-day we can only, alas! endorse what Hunter said.

In that branch of surgery where we boast of our greatest and most recent advances, Hunter's originality is seen in the new paths of practice he indicated. He advises opening and washing out the abdomen in suppurative peritonitis, and points out how often adhesions form which prevent the otherwise fatal results of a perforated bowel. Though the establishment of ovariotomy as a successful surgical operation was postponed until the present generation, yet he wrote that

> tapping is but a palliative in ovarian dropsy. The tumour generally renders life disagreeable for a year or two, and then kills in the end. There is no reason why women should not bear spaying as well as other animals. It would be simply opening the cavity of the abdomen, which we often do without inconvenience.

Did time permit, or the occasion demand it, I might quote other examples of the wonderful foreknowledge of Hunter. From the high standpoint of his own learning he was able to grasp what was previously unknown, and to utilise his discoveries for the common good both of science and of mankind.

Gunshot Wounds.

John Hunter attached the greatest value to the experience he had gained while serving with the army. Little of real importance had been previously written on military surgery, and the practice pursued had hardly been reduced to the common rules of surgery. We know, too, from the records of the time what imperfect education and training were accepted from those seeking admission to the public service, and that it was almost unnecessary for a man to be a surgeon to practise in the army.

Hunter writes:

> A gunshot wound is often not understood at first. It may be impossible to tell what parts are implicated; a bone or large vessel may be contused or a viscus injured. A part of the intestine may have received a contusion so as to cause a slough, and on the slough becoming separated a new symptom will probably appear, for the contents of the intestines will come through the wound. But these cases will not be so dangerous as if the same loss had been produced at first, for by this time all communications will have been cut off. Nor will it be so dangerous as when a considerable blood vessel is deadened, for in this case, when the slough comes off, the blood getting a free passage into the wound, as also out of it, death will probably immediately follow. Gunshot wounds often do much mischief to vital parts, and their effect will be according to whether the soundness of the part wounded is essential either to the health of the whole body or the uses of the part wounded, as an important viscus whose function is arrested, or a large joint whose uses are impeded. Gunshot wounds often admit of being classed with small deep-seated wounds (punctured), which are always of a particular kind. Indeed, the variety of circumstances attending gunshot wounds is almost endless.

He discusses the different effects resulting from the variable velocity of the projectile, and the consequent differences in injuries of bone and of soft parts. He speaks of the straight

course and the keyhole, punched-out fracture produced in the bone by a bullet with great velocity, and the devious track it may follow when travelling slowly. The wounds made by musket-balls in the wars of his time were very different from those produced by modern rifles, whose small bullet may traverse the soft parts without doing them much damage, while it pulverises the bone. The old flint lock, propelling a large spherical bullet with a small velocity, produced large contused or lacerated wounds of soft parts and splintered the bone.

Hunter's work on *Gunshot Wounds* was a great step in the direction of their more rational treatment, and laid the foundation of modern military surgery. He writes:

It has been hitherto recommended, and universally practised by almost everyone, to enlarge the external orifice of gunshot wounds immediately on their being received, or as soon after as possible, and this without any discrimination between one gunshot wound and another.

Hunter emphatically protests against this practice, if only for the reason that few gunshot wounds are alike, and the same practice cannot apply to all. He urges:

It is contrary to the rules of surgery as founded on our knowledge of the animal œconomy to enlarge wounds simply as wounds, for no wound, however small, should be enlarged unless something necessary is to be done which cannot be executed unless the wound be enlarged. This is common surgery, and ought to be military surgery.

Here his rare intelligence ran counter to generally received opinions and to the practice strongly inculcated by his illustrious predecessors, Ambroise Paré, Richard Wiseman, and Baron Percy. But, he continued:

It would be absurd, however, for anyone to suppose that there is never occasion to dilate gunshot wounds at all, but it is certain that there are very few in which it is necessary.

He tells us how seldom a wound need be dilated on account of the bullet itself:

Balls, when obliged to be left, seldom do any harm when they are not in a vital part, and have been known to lie in the body for years, and yet the person has found no inconvenience.

There can be little doubt of the soundness of this doctrine, and it is certain that in very many instances greater injury has been inflicted in the unavailing search after the bullet, or even in its extraction, than the wound of itself could cause. Yet how persistently this superstition, I would call it, lingers in the public mind! The first anxiety of a man who is shot, soldier and civilian alike, is that the bullet, wherever lodged, should be forthwith extracted. The number and infinite variety of bullet finders and bullet extractors which have been invented show that the art of bullet hunting has flourished in spite of all that Hunter urged against it. "If the wound will admit it, the finger," he says, "is the best instrument to make exploration with," an opinion I heartily endorse, especially since the risks formerly attending its introduction may now be removed.

What would Hunter think of our improved methods of diagnosis or the discovery by the new photography of the exact position, amount of comminution, and direction of a fracture, the locality of a foreign body, and the determination of the depth and relation to the surface of a lodged bullet, so that if, for any reason, it be deemed desirable to operate, it may be cut down upon with almost as much precision as if the tissues covering it were translucent? He inquires:

What is the best practice where it is supposed the intestines may be wounded? I should suppose the very best practice is to be quiet and do nothing.

How much, therefore, he would admire an exploratory operation for the discovery of a perforated intestine, the restoration of its continuity by one of the methods employed, the aseptic rendering of the abdominal cavity, and the frequent recovery of the patient without reaction, pain, inflammation, or any sort of complication. He tells us that:

Little notice has been taken of wounds in the chest and lungs, because it was assumed nothing could be done for them..... Yet I have seen several cases of gunshot injury where the patient got well after being shot quite through the lungs.

And our recent military experience proves how right Hunter was, since many persons whose lungs have been traversed by modern projectiles not only recover, but seem scarcely to suffer inconvenience from the injury either at the time or afterwards.

Hunter differs, however, not only from those who preceded him, but from modern practice and opinion, in his advocacy of secondary in preference to primary amputation. He considers immediate amputation improper, as the surgeon cannot, under the circumstances, master the case adequately, and few amputations on the field of battle do well, "the only argument in their favour being that the wounded man is moved with greater ease without a limb than with a shattered one"; but I think it is now universally admitted that cases which demand amputation should be operated upon at the earliest period, either in the first dressing station or the field hospitals, and that a delay of 24 hours or longer very seriously increases the risks.

While, assuredly, Hunter was far in advance of his predecessors in the teaching and practice of military surgery—in some instances to such a degree that his views would hold good to-day, yet the conditions of warfare have become so changed and gunshot wounds are so different, that the surgery of the battlefield, no less than that of civil life, has been revolutionised. Hunter clearly recognised that the destructive effect of a bullet on animal tissues depends on its velocity rather than on its weight. This is the characteristic by which the modern small-bore bullet, with its cupro-nickel or steel envelope, differs so greatly from the round bullet of Hunter's day, and on which those modifications of gunshot injuries which have taken place depend. The old round bullet produced at all ranges more severe wounds of the soft parts than the modern missile does, and at short ranges probably caused as extensive a fracture of a bone, but it so rapidly lost its energy that at distances of even a hundred yards it frequently flattened out against the shaft of a long bone without causing fracture. The modern bullet produces at almost all distances unimportant wounds of muscular tissue, but it is apt to cut pieces out of the large vessels, which render any hæmostatic process ineffective, and in consequence death from primary hæmorrhage on the battlefield will be far more frequent than before. Injuries to long bones by the hard-mantled bullets produce, at ranges of over 2,000 yards, tunnelling without any great fragmentation, while, as the range decreases, the extent of the fissuring, the number of the fragments, and the distance to which the latter are driven steadily increase, until at ranges under 300 yards the extensive damage and destruction on the exit side of the limb have all the appearance of being produced by a small-arm shell or explosive bullet.

Gunshot fractures of the shaft and of the articular ends of the long bones were considered to demand immediate amputation in Hunter's day, a rule which permitted but few exceptions for military surgeons of former times. In modern surgery the rule, if any, tends the other way, and only in exceptional cases—those in which the injury is not confined to the bone and unimportant soft parts, but in which the main vessels and nerves are also implicated—are more radical procedures to be recommended. In consequence of the suppuration which formerly always occurred in these cases, the comminuted and displaced pieces of bone, acting as foreign bodies, had to be thrown off by Nature's efforts, and consolidation of a fracture was often long delayed or did not take place at all, while cases treated conservatively usually died of surgical infective diseases. In recent campaigns gunshot fractures of the long bones, even when greatly comminuted, and penetrating injuries of joints, have been treated by conservative methods with success, except in cases where the blood and nerve supplies of the limb below are cut off by laceration of the main trunks. Amputation is only resorted to when no other resource remains to the surgeon, and, occasionally perhaps, when military exigencies necessitate the immediate transference of the wounded to the base of operations, circumstances which render conservative treatment, at all events for injuries of the lower limb, either impossible, or, at least, more dangerous than operation. No doubt some small percentage of cases of gunshot injury of long bones and of large joints did formerly recover without amputation; but it has only been since Listerian methods of treatment were perfected that conservative treatment in time of war, on a large scale, and as a rule, has become possible to the military surgeon.

Hunter was the great military surgeon of his time, as may be seen both in his teaching and in his writings, and our opinion of his greatness must be enhanced when we remember the scanty means at his disposal for bringing his surgery to a successful issue.

The Hunterian Museum.

In 1700, six years after Hunter's death, Parliament purchased his collection, and subsequently handed it over in

trust to the Royal College of Surgeons for the public advantage. Further grants of money were voted to the College to erect a proper building for preserving and extending "Master" Hunter's collection, and to build a theatre for the delivery of public lectures on anatomy and surgery.

The Museum has been fitly called Hunter's chiefest monument, and is surely sufficient for the fame of any man. He worked for it constantly, sacrificed to it his other occupations, and devoted all his earnings to its development. His aim was no less than to illustrate the whole question of life both in health and in disease. Nature's handiwork in all its manifold perfections is there clearly shown forth by the never-ceasing labour of this great intellect. Any ambiguity that may sometimes mar his written words is not to be found in the careful arrangement of specimens which Hunter has displayed to us. The exposition is one almost too great for the human mind to grasp, much more for one man in any adequate sense to realise. Yet Hunter did in the main compass his splendid aspirations.

He laid all his friends under contribution. Sir Joseph Banks procured for him every strange creature he could lay hands upon, and divided with him the collection he had made during his travels round the world. Indeed for long Hunter had the refusal of every curious animal imported into the country. Smollett, a great friend of Hunter's, illustrates the public view when he writes to him, "I mean to send you my poor carcase in a box, to be placed among your rarities." Hunter's letters to his friends are full of urgent appeals to send him everything which he could utilise for his purposes. His later letters are, if possible, more importunate than the earlier ones. He expresses regret to a correspondent at the loss on the way home of two Havanah birds and a collection of insects. He much wishes for information on the natural history of the swallow, whose habits he remembered in Portugal. He wants ostrich eggs just about to hatch, and directs them to be put into proof spirit after cracking the shell.

If a foal camel was put into a tub of spirits and sent, I should be glad. Is it possible to get a young tame lion, or, indeed, any other beast or bird? If chameleons were sent, it should be in the spring. I want everything respecting the bee tribe, such as wasps with their nests, also hornets with theirs.

What a number of demands, and in one letter out of many similar ones, and what an illustration of his zeal in the acquisition of knowledge!

The Hunterian collection of comparative anatomy cannot fail to excite surprise and admiration. We find in it an attempt to unravel the mystery of life, to display the various structures by which the physiological processes in plants and animals are carried on, commencing with the lowest forms and ending with man himself. The anatomical preparations are arranged according to the subjects they are designed to illustrate, and we have, besides preparations of healthy and diseased conditions in plants, a series of skulls, skeletons of almost every known form of animal, many examples of deviations from normal types (which Hunter showed to be nothing essentially apart from natural development but aberrations due to excess or defect in the ordinary process of growth), and also a considerable number of fossils. Hunter's collection numbered nearly 14,000 specimens, with ten volumes of manuscript description and notes, beside other catalogues and numerous drawings. He dissected more than 500 different species of animals, many of them more than once, and has left records of 315 dissections. What man ever accomplished such a prodigy of work, or ever before illustrated his inquiries on so gigantic a scale? He proves that during the development of the higher organisms the parts usually undergo progressive changes from simple to more complicated structure, and that the transitional form can often be recognised as a permanent condition met with in some so-called inferior form of life. The wide-reaching effect of these principles of Hunter finds its further development in the works of Darwin and other philosophers who have followed in his footsteps but have not departed from his methods.

Since Hunter's time the number of preparations has increased to about 50,000 specimens. His threescore skulls have now grown to nearly 4,000, illustrating many difficult problems in ethnology. The pathological collection is five times as numerous, and in all the departments there has been continuous increase.

Hunter's legacy to the world of wisdom and knowledge was great, but the example furnished to us by his indomitable industry and clear recognition of the importance of an extensive knowledge of Nature in order to rightly interpret its problems, is even of greater value. The College has proved the wise custodian of this great institution, and many of its most illustrious sons have devotedly worked towards its completion and perfection. Nowhere in the world exists its like. It is one of our national glories, and it is a glory for our profession.

Conclusion.

Hunter was a profound philosopher, a great naturalist (using the term in its widest sense), a pre-eminent collector, and the foremost surgeon of his time. It was to make surgery more perfect that all his work subserved, and in it he reached the highest rank. He rendered to his art and science greater service than any man had done before him, and his claim to our admiration rests not merely on what he did, but on what he suggested might be done.

On the brass sacred to his memory in Westminster Abbey this College calls him the "founder of scientific surgery." His claim to this proud title was asserted in the first of the Hunterian Orations; it has been renewed in every successive oration where Hunter's life and labours are reviewed by the most eminent of our profession, and it has never been called in question.

One cannot but feel impressed at the multitude of the subjects which engaged Hunter's interest and attention, the greatness of his achievements, and the far-reaching influence of so many of his inquiries. His spirit survives in the energy of others who follow in his footsteps, and serves to stimulate every student of natural science. He possessed that high form of intelligence which can convert abstract scientific truth to practical uses; hence it is that, finding surgery scarcely more than a mechanical art, he transformed it into a scientific calling, based upon principles which rest on the solid foundations of biological knowledge and collateral science. His supreme endeavour was to study life in all its many-sided manifestations. This is the noblest form of study and the most inexhaustible, yet the problem of life will remain a mystery transcending the power of human investigation or human imagination.

Billroth regarded Hunter as one of the greatest men the English nation has produced, and that his work on *Inflammation and Gunshot Wounds* is the corner-stone of modern English and German surgery. "From Hunter's time to the present day," he says, "English surgery has had about it something noble, and nowhere, either in ancient or modern times, can the pattern be found of a grander scientific career."

Masters of our craft at epochs in surgical history have from time to time declared their art to be then so near perfection that further improvement was impossible. May we not, nevertheless, hope and expect that surgery will accomplish new triumphs and yet greater completeness? I am not of those who think there can be any finality in human progress; to believe so would, I consider, render life no longer worth living in its higher sense and greater aspirations. Rather let us consider ourselves as having but just crossed the threshold of the great temple of science, knowing only a small part of that which still remains to be known, and be mindful of Bacon's words:

Let no man upon a weak conceit of sobriety, or an ill-applied moderation, think or maintaine, that a man can search too farre or be too well studied in the booke of Gods word, or in the booke of Gods workes, but rather let men awake and cheerefully endeavour and pursue an endlesse progresse or proficiency in both.

Much as we have already achieved in every branch both of the science and art of our profession, more especially during the latter half of this century now drawing to a close, our past experience tends to show that in the future likewise great things shall come to pass. In our lifetime surgery has been wholly changed. The discovery of anæsthesia has lifted a weight of sorrow from the world, and, as Oliver Wendell Holmes, both poet and physician, has expressed it, "The fierce extremity of suffering has been steeped in the waters of forgetfulness, and the deepest furrow in the knotted brow of agony has been smoothed for ever."

Anæsthesia has besides rendered surgical procedures capable of a realisation which not even in dreams could we previously have supposed possible. It has permitted many new depar-

tures in surgery, made many operations feasible which had previously been condemned, and has proved a help of extreme value in the diagnosis of disease.

Furthermore, one of the scientific descendants of Hunter, deeply imbued with his spirit, transcendently patient and painstaking in detail as was his master, as minute an observer of Nature's ways, and as careful an experimenter, after much trying and much thinking, has realised, in the discovery of the methods of antiseptic surgery, a benefit to mankind which only surgeons can to the full appreciate. What was hazardous before is now rendered safe, what was accomplished with pain and suffering is now free from both. There is scarcely a limit to what might be said in praise of this great work. The name of Lister, like that of John Hunter, will stand forth in the records of scientific progress as one who has immeasurably benefited humanity, and as the author of the means whereby surgery has been mainly enabled to make that marvellous progress of which we are all so proud. This is recognised throughout the world, and were I not convinced that our science has fresh achievements in store, I should say that Lister had finally crowned the edifice whose corner-stone Hunter laid. Of all the great minds which have illuminated the scientific world and guided its destinies, John Hunter's is the one which first directed surgery into the pathways of science, and, dying, left to surgeons a future in the memory of his past. He is the one great man without whose aid it is impossible to imagine surgery all that it now is; we cannot take his influence away and yet retain all that we now possess. Our science might have spared some other workers, but it could not have become the science we know without John Hunter.

CLINICAL NOTES UPON THE RECTAL CONTOUR AND CONSISTENCE OF A THOUSAND PROSTATE GLANDS.*

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On no question in urinary surgery are opinions so apt to differ as upon the condition of any given prostate gland, as estimated by digital examination of the rectum.

Valid reasons exist which condone this variance of opinion. There are even reasons which render it unjust, I submit, to criticise too narrowly any statement which has been made by any consultant or practitioner, concerning the size, consistence, and rectal contour of any given enlarged prostate gland. I will briefly touch upon these reasons.

It is believed that the sense of touch varies most in acuteness of all the senses in different individuals. Certain it is that, unless guided by the additional sense of sight, few will agree, from touch, as to the size of any individual body. Again, digital examination of the rectum is undertaken but rarely. It irks us, it annoys the patient, and we only insist upon it when symptoms of prostatic trouble are present. Of the consistence and of the contour of the prostate in health, therefore, few of us really know anything.

But more than this, the prostate may differ most remarkably in size in the course of a few days, even a few hours. One day it may be normal, the next it may have increased to one-third again the size from subacute inflammation or congestion. The enlarged prostate differs in shape and in tenseness under the influence of ether, during sleep, after coition. Its shape changes in various positions of the body, and in different degrees of bladder distension. Moreover, like the uterus, the prostate suffers from minor degrees of prolapse—even rotation—and its tenseness is often influenced by the brace-like action of its muscular sling, the levator ani. Many other conditions mask its consistence and actual size entirely. Thus, swelling of the mucous membrane of the rectum, soft carcinoma of the post prostatic pouch, even urine in an atonic bladder will cause its boundaries to be obscured. Were I to prove these statements to you, I should weary you needlessly, and fill the entire time which I wish to devote to a consideration of those special points in the contour of the prostate which will, I trust, aid you in the diagnosis and treatment of urinary disease. "To learn," however, as has been truly said, "is not the passive of the verb to teach"; you must seize every opportunity of educating your own fingers.

* First lecture of a series upon The Value of Rectal Examination in the Diagnosis and Treatment of Surgical Urinary Disease, delivered at the London and St. Peter's Hospitals, session 1897-1898.

Method of Collecting Facts.

Twelve years ago I suddenly realised that I knew nothing about the feel of the prostate gland *per rectum*, and the literature gave me absolutely no information. I started laboriously to collect facts about its size and shape in health and disease, in the hope that I should at last be able to recognise certain fixed conditions which might prove important atoms in the molecule of urinary diagnosis. In order to educate my sense of touch and to obtain a record of my cases I started modelling my patients' prostates in clay,[1] just as, later, in order to teach my eye in electric cystoscopy I found myself forced to model in coloured wax[2] the various appearances I saw with the cystoscope.

Both were tedious, time-absorbing methods and I do not suggest that you should follow them, although they proved of great teaching value to me personally. I mention them merely to show that an earnest endeavour has been made to collect *accurate* details. Later on I had not the time or the need to model. By rough diagrams I was able to preserve a record of the conditions I wished to bear in remembrance, and it is upon these diagrams and my notes of them that my lectures are based.

At first all was chaotic; many a time I felt hopeless, for the prostates of healthy men appear to differ in contour almost as much as their noses or any other facial lineament; but gradually matters shaped themselves. Moreover, by examining year by year the same prostates, and by drawing them I have realised some of those progressive changes which disease was producing in their consistence and contour.

How to Examine a Prostate or Bladder Base.

The patient empties his bladder as far as he can, and bends over a couch or stool, so that his body forms a right angle with his legs. Always make this your routine position, and in your notes draw attention to the position by the figure ┐.

If you wish to realise the necessity for this precaution, take a patient with a soft, much enlarged prostate. Examine him in the routine position. Now make him kneel face downwards, and draw his head well towards his knees; the prostate will be found bulging towards your finger, tense, and much larger. Let him now lie upon his back, separate his legs, and again examine his prostate. It will be found higher up in the pelvis, its elasticity will be diminished, and its size decreased. Now give ether, and examine the patient again upon his back; you will be surprised to find the prostate still smaller, higher up, and less elastic. Your calculus sound, which before had probably to be greatly depressed between his legs in order to be introduced fully, now rides in easily, showing that the prostate gland has rotated back on a transverse axis. Now select a healthy young male. Your finger recognises on entering the bowel that the outlines of the two lobes of the prostate are equal, that their consistence is firmish, that their contour is a little prominent, and that they are separated by a fine groove—"the interlobar sulcus." Accustom yourself to detect that sulcus, especially the upper part; it is the most important of urinary landmarks. Now pass your finger beyond the transverse line where the prostate merges into the bladder base. The bladder muscle is now felt smooth, soft, and even. You do not often feel the vesiculæ seminales mapped out, as you are led to expect; you rarely will. If you do, there is a block at their orifices, or an inflammatory thickening, or a tuberculous deposit in their walls.

The Urinary Diseases which can be Suspected or Recognised by Rectal Examination.

I propose taking the diseases you may suspect or recognise on rectal examination of the prostate and bladder base in their order of clinical importance. I have no difficulty, or even hesitation, in selecting that which should be considered first. It is urinary tuberculosis.

No surgical disease of the urinary tract will so mislead you by its vagaries, or so baffle you in your well-meant efforts to

relieve its active phases, or so fiercely resent your instrumental interference, as urinary tuberculosis. No disease demands greater judgment in its treatment, none obtains less.

The reasons for all this obscurity rest in the insidiousness of the onset of the disease, in its marked susceptibility to septicity, and in the power which it possesses of imitating every other disease of the urinary tract. With the exception of the enlarged prostate of old age, I know of no disease of the urinary tract, from urethritis to renal carcinoma, which this arch mimic does not simulate, and that very closely. But a clue can be obtained by rectal and testicular examination in a large percentage of the cases in the very earliest onset of the symptoms. In 157 male patients with urinary tuberculosis who have been under my care, a typical deposit was found on their first[3] visit in the epididymis in 33 cases (21 per cent.); in the epididymis and prostate coincidently in 38 cases (24 per cent.); in the prostate and seminal vesicles in 5 cases (3 per cent.); in the prostate alone in 6 cases (3 per cent.); in the prostate and bladder (the latter cystoscopically) in 10 cases (6 per cent.). If we add these together, it will be seen that a deposit could be detected by the finger in 58 per cent. of the cases on their first visit.

During the course of the disease the chance of its detection by the finger is still further increased, for 80 per cent. finally present tangible evidence of tubercle in the lower genito-urinary organs, and in only very few instances does the patient pass through all the stages of the disease and die, without the epididymis or the prostate becoming affected. A careful examination of these organs is obviously therefore of the utmost importance.

WHAT ARE THE FORMS WHICH THE PROSTATE ASSUMES IN TUBERCLE?

I regret to assert that our textbooks are either indefinite or inaccurate upon this point. Some teach you to expect "shotty" prostates; that is, the feeling of small shot-like hardness over the prostatic surface. It is rare indeed to find this condition (3 per cent.), and augurs badly for the patient. Others describe massive indurations of the prostate and vesiculæ as being common. This is another infrequent stage in actual work (5 per cent.), and may be taken as indicative of septic inflammation in addition to tubercle. Others again point to the vesiculæ seminales as being most often infiltrated. This is perhaps truer, for the vesiculæ may become affected before the prostate has become implicated (14 per cent.); but it is not common in the early stages.

The cause for this variety of opinion is clear to one watching and examining the same case or cases year after year. Such a one will realise that the deposit passes through a variety of stages, as it does in other parts, and that according to the stage so is the character and contour of the deposit in the prostate, vesiculæ, and epididymis, and that the conditions just enumerated are merely stages in the life-history of the deposit. Let me illustrate. Perhaps it will enable you to follow me more closely if I sketch rapidly those changes which are noticed in the contour of the prostate during the life-history of a tuberculous deposit.

Tuberculous deposit is met with in the prostate under three clinical conditions. In young males who merely ask your opinion about the nature of a lump which they have noticed in one epididymis or the other; or in young males who consult you for the relief of symptoms similar to those produced by stone in the bladder; or in the adult male who complains of symptoms like those of stone in the kidney. Let us glance at a couple of examples.

Class 1. Tubercle appearing coincidently in the Prostate and Epididymis.—Take an uncomplicated case first. A young man, aged 17 to 20, with no history of masturbation or venereal disease, who has never been sounded for stone, or catheterised or cystoscoped. Such, clinically, is a virgin case. He presents himself with a painless, rounded, marble-sized lump in the lower end of one or other epididymis. In the corresponding lobe of the prostate you will probably find an exact counterpart of this boss, partially buried in the upper third or middle third of the lobe near the sulcus (Fig. 1). This roundish hard body is insensitive; the rectal mucous membrane covering it glides over it healthily. You need have no hesitation in diagnosing it as tubercle. Every lump in the epididymis is not necessarily tubercle; but such an isolated

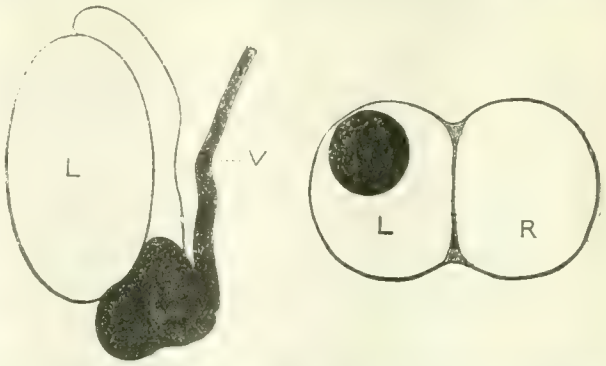


Fig. 1.—Diagram of deposit of tubercle in left epididymis and left lobe of prostate.

knot in a prostatic lobe is tubercle if it accompanies a knot in the corresponding globus minor. With these conditions you may have no symptoms; they will develop in due course, months, even years, after.

Class 2. Tubercle appearing coincidently in Prostate and Bladder.—Take another virgin case, a young man, aged 17 to 20. He comes complaining of pain at the end of his penis after urination, undue frequency of that act, and occasional attacks of hæmaturia; the urine, when bleeding is absent, being lightish and murky from pus. On examining *per rectum* you find a hard knot buried in one of the lobes of the prostate (Fig. 2). This is tubercle, and the cystoscope will

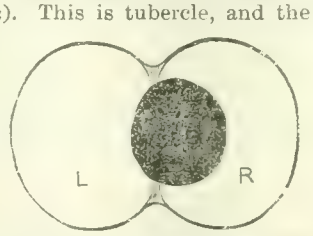


Fig. 2.—Diagram of tuberculous deposit in the right lobe of prostate.

demonstrate the bladder base to be affected as well. The corresponding epididymis will become in time the seat of a similar indolent knot. Such prostatic deposits may remain indolent, or cretify, or become absorbed.

TUBERCLE STARTING IN INFLAMED STATES.

But suppose this indolent epididymal knot becomes inflamed, or suppose it was actually started by an acute inflammation, such as that produced by gonorrhœal or traumatic epididymitis, in a man with strongly marked tuberculous

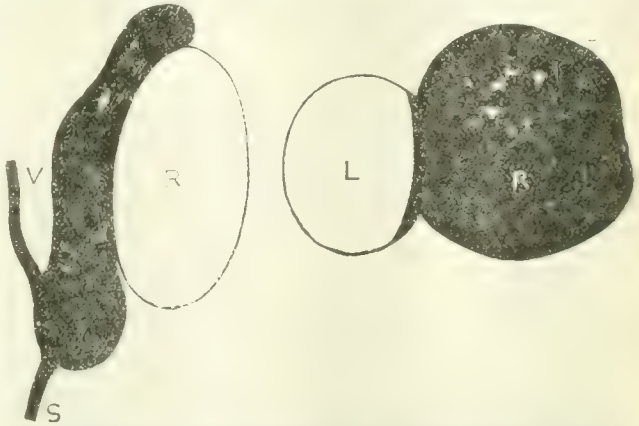


Fig. 3.—Diagram of acute tuberculous right epididymitis with massive swelling of right prostatic lobe. v vas; s sinus where abscess burst. No urinary symptoms.

tendencies. Do you find a small buried knot in the corresponding lobe of the prostate? Not often. In such a case the prostate generally assumes a condition similar to that in the epididymis; and if you examine when the inflammatory condition of the prostate is at its height, you will be surprised at the resemblance. The deposit is large, irregular, and tender. It causes the entire prostatic lobe to project sharply on the rectum, so that the finger detects it at once (Fig. 3). The mucous membrane of the rectum may become adherent to it, puckered, or even softened at one spot (Fig. 4.)

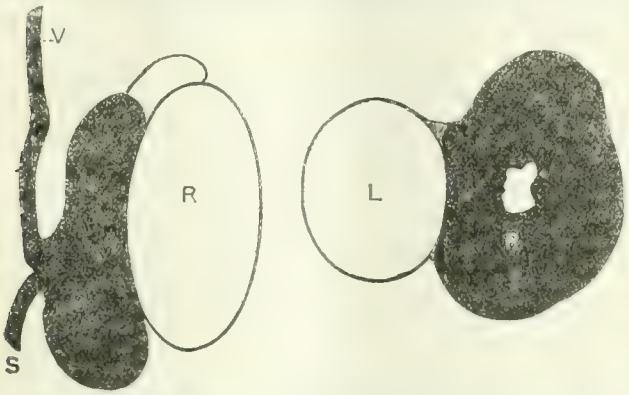


Fig. 4.—Same case a few weeks after; recession of epididymitis, but softening of prostatic deposit and perforation of rectal mucous membrane marked by unshaded centre.

The inflammatory wave may even spread on the corresponding vesicle, and the united mass of indurated exudation forms a thick projecting cake on one side of the bladder base. Remember that inflamed tuberculous deposits are always the most difficult to diagnose, and that it would be wise for you to hesitate before pronouncing such a condition as definitely tuberculous. I may here say, parenthetically, that years ago it seemed to me that these inflammatory cases would run a much more rapid course, for I argued that septicity must carry the essential elements of the disease far and wide. I now see that this view is incorrect. I am inclined to believe that the inflammatory exudation retards the progress of the disease, for it often erects a wall of dense material round the tubercle, and I submit the same effect is produced by that tough inflammatory exudation which we sometimes encounter around a tuberculous kidney.

The Absorption of Tubercle in the Prostate, Vesiculæ Seminales, and Epididymis.

I may be stating an already accepted fact when I assert that well-marked tuberculous deposits in the prostate and vesiculæ become absorbed and disappear, especially if they have been inflamed, or if the bladder has been absolutely stripped of its mucous membrane. If such a termination is acknowledged it should be more widely known and taught, for it introduces a great difficulty in diagnosis.

As an illustration I choose the following out of twenty

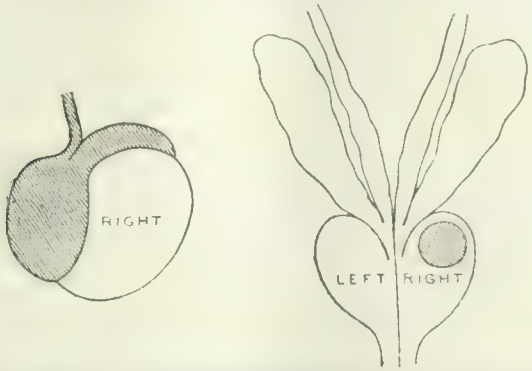


Fig. 5.—Diagrams of right epididymal and right prostatic deposits in November, 1886.

others. A young man, aged 23, a virgin case, consulted me in 1886 for tubercle of the right epididymis. There was a knot in the upper third of the right prostatic lobe (Fig. 5); no urinary symptoms. In 1889 the epididymis had changed its contour, and I found that the knot in the prostate was feelable in the lower third (Fig. 6). I have noticed that the knots apparently change position; probably the wave passes steadily through the lobe.

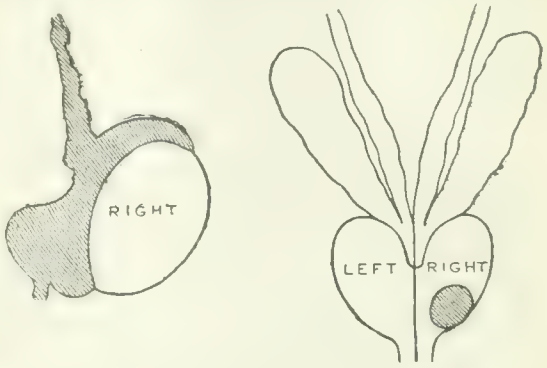


Fig. 6.—The same in November, 1889.

In March, 1890, he had right renal colic and hæmaturia when in Australia. In 1892 the prostatic deposit was minute (Fig. 7).

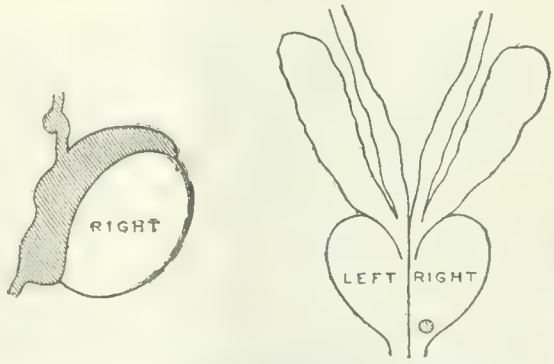


Fig. 7.—The same in 1892.

In October, 1897, the deposit in the prostate was pin-head, but the base of the left vesicle had become involved (Fig. 8).

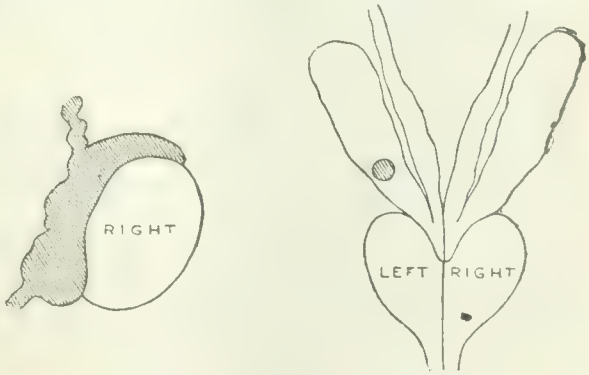


Fig. 8.—The same in October, 1897.

and now bladder symptoms have at last become apparent.

Such deposits rarely, I believe very rarely, suppurate on their own initiative; much depends on how they are treated. But here are two important points. The prostatic contour and consistence are altered greatly by the absorption of deposits; the lobes become flattened, their consistence leathery, and their outlines confused; the sulcus, moreover, often deepens into a trough. Many of them feel like a sheet of thick parch-

ment. Hence it is that we may examine a given prostate and say that there is no tuberculous deposit to be felt in it. But it may have been there, and only practice and observation will enable you to suspect that you are touching a prostate which has been severely invaded. You are often helped to an accurate conclusion by the nodule in the epididymis, which does not become absorbed like that in the prostate.

The second important point is this, and I regret to have to record it. If tubercle has once infiltrated the prostate, it is generally relentless. We may take comfort to ourselves when it has become absorbed, and we may assure our patient that he is cured; but this is not so. Clinical work teaches us that the disease has gone on to invade other areas beyond our finger's reach, spreading along definite tubercle routes, and that it will appear in due course in the bladder or kidneys. The expectation of life, however, can only be calculated after the implication of the mucous membrane.

Before indicating the highways and byways of tuberculous invasion, I must ask you to notice how my statement of the progress of a prostatic deposit explains the textbook differences in the description of its contour. Stress should be laid upon the fact that these differences merely represent stages in the progress or life-history of the deposit. But this is not of much account. What you need to know as practitioners is, What is the form most commonly met with?

The form I have most frequently encountered is that of an irregular knot of the size of a toy marble or a cherry-stone, partially buried in the substance of the lobe, and easily defined: it is dense but not stony hard. I have met with this condition in 62 per cent. of my cases.[3]

ROUTES TAKEN BY URINARY TUBERCLE.

Urinary tubercle invades the different sections of the urinary tract along certain regular highways. It commences most often in the epididymis (33 cases in 158). It is next found in the corresponding lobe of the prostate, next in the base and around the ureteral orifice of the corresponding side of the bladder; and, lastly, in the middle and lower third of the corresponding kidney near the pelvis. Thus the "rule of the road" is that a right epididymal knot leads to a right prostatic knot, to a loss of surface around the right ureteral orifice; and, finally, to a deposit in the right kidney. An epididymal knot sometimes short-circuits to the kidney of the same side along the lymphatic tract (?) of the spermatic and perirenal veins. No matter whether the deposit absorbs in one place, the wave travels persistently on to implicate another area, and it usually keeps to the side it started on. The advantage of this to the clinician and operator is great. If a patient who has no venereal history, who has never had any difficulty in micturition, and who has never had any urethral instrumentation, complains of pain in one kidney, and you find an indolent knot in the epididymis, or a buried knot in the prostatic lobe of that side, you diagnose tubercle of the kidney, and seek confirmation of this in the urine.

BY-PATHS.

In addition to the main route taken in the above case, there are, of course, two by-paths of invasion. There is one running from the right prostate to the left prostate or left vesicle, and to the left testis, and another passes up along the other ureter to the other kidney if the patient lives long enough.

Let us formulate the rule. Usually the kidney first attacked in ascending tubercle is the one on the same side as that in which the deposit first appeared in the epididymis or prostatic lobe. Supposing the tubercle first starts in the kidney, does it follow the down route on the same side? Uusually it does; for instance, right kidney, right ureteral orifice; right prostate, right testis; or the short cut, right kidney to right epididymis.

CROSS-ROUTE TUBERCLE.

But this rule of the road is too absolute. It does not, unfortunately, hold in every case. In 18 cases out of 100 the tubercle appeared to cross over, for some unexplained reason. Thus the deposit might be in the left testis and in the right kidney, or in the right testis and left prostate. Remember, then, that in a small proportion of cases (18 per cent.) tubercle crosses.

PRACTICAL COMMENTS.

Before you entertain the idea of employing an instrument of any description or of giving any sort of diagnosis in the urinary disease of an adult, you examine the testis, the prostate, and the bladder base *per rectum*. Suppose you detect a tuberculous knot in the prostate. The frequency of micturition, the penile pain at the end of the act, and the intermittent admixture of blood in the urine are all fully explained by your discovery. Control your diagnosis with a bacteriological examination for the bacillus. Lay it down as a hard-and-fast rule never to wash out the bladder under such circumstances, although the presence of pus in the urine may tempt you strongly to do so. Washing out the bladder daily with any form of sterile fluid, be it water, boric acid, or iodoform wash, will relieve in the early stages, but the patient pays dearly for his relief. You cannot fail to introduce septic matter, and the conditions for the colonisation of the microbes you introduce or awake to activity are most favourable: a congested or ulcerated mucous membrane very susceptible to invasion, a neutral or faintly acid urine, and a small amount of residual urine.[6] I say definitely, after fifteen years' study, a patient with a tuberculous bladder, who is washed out as a matter of routine, has his kidney destroyed sooner and more thoroughly than he whose bladder is left alone.[7] Again, you may be so misled by the symptoms as to believe your patient has stone. If you find a tuberculous knot in the epididymis or prostate, do not sound. I will admit that you may not harm the patient, but you will do him no good, and your procedure will cause him unnecessary and intolerable pain.[8] I have had excellent opportunities of examining patients with the electric cystoscope shortly after they have undergone the operation of sounding and of sucking with Bigelow's evacuator for suspected stone. Patches of deep red infiltration (traumatised areas) are seen over the base and sides of such bladders. Theoretically such injuries should favour the spread of tubercle.

Lastly, a certain small proportion of patients suffering from tuberculous prostates complain greatly of difficulty of urination and of narrowness of their stream of urine. This is due to prostatic swelling, but it tempts you to try the urethra for stricture. If you must pass a bougie, let me advise you to use a solid aseptic steel, No. 10 E., with all possible gentleness. My reason for this is, if you employ an elastic bougie in such a case it will probably be abruptly stopped at the opening of the membranous urethra, for the tuberculous deposit in the prostate and bladder warps the deep urethra, and it also induces a veritable spasm of the constrictor urethræ, which the point of the bougie aggravates. Such an obstruction will confirm you in your belief that the case is one of stricture; but the prostatic knot negatives this view.

A RESERVATION.

I have said that obscure renal pain is sometimes explained by finding a tuberculous knot in the prostate, and that, given such a knot in the epididymis or prostate, and a fixed pain in the kidney, or a renal colic[9] of the same side as the knot, that kidney is tuberculous, if the patient has never strained to urinate, and no instrument has traversed his urethra.

The kidney may not be tuberculous if the patient has strained repeatedly to pass urine, or has had his bladder washed out. If he has strained repeatedly to pass water, one ureter and its renal pelvis may have become slightly distended by backward pressure, and this in itself causes an aching kidney. If washed, mild ascending pyelitis or patchy nephritis of ascending microbic infection may be present without tubercle. Such septic conditions cause aching kidneys.

NOTES AND REFERENCES.

[1] Clay and Wax Modelling of the Living Prostate, BRITISH MEDICAL JOURNAL, May, 1887. [2] Electric Illumination of the Bladder and Urethra, 2nd edition, p. 85, BRITISH MEDICAL JOURNAL, January 5th, 1889. [3] There is a great diversity of opinion as to which part of the urinary tract is most often affected by tubercle first. After eliminating most sources of error in my own cases, I believe the tubercle first made its appearance in the following sites: Kidney and ureter, 25 cases=16.8 per cent.; bladder, 56 cases=35 per cent.; prostate and epididymis coincidently, 38 cases=24 per cent.; prostate, 6 cases=3 per cent.; epididymis, 33 cases =21 per cent. [4] This route, from one lobe to the base of the opposite vesicle, is not uncommon in the most protracted cases of indolent tuberculosis. [5] The other forms were: Swollen single lobes, 2 per cent.; shotty surfaced prostates, 3 per cent.; enlarged gland at upper angle of lobe, 3 per cent.; massive prostates (the blending of vesiculæ and prostate into an indurated cake), 5 per cent.; early tuberculous vesiculæ seminales, 14 per cent.; absorbed parchment-like prostates, 11 per

cent.; small half-marble deposits in one or both lobes, 62 per cent. [6] All tuberculous bladders after the first year are slightly atonied, and contain a drachm or more of irritating puriform urine. [7] I may remind the reader that there are single ulcers of a non-tuberculous character that are benefited by washing or curettage, but these are only really diagnosable by the cystoscope. Author: British Medical Journal. The Clinical Significance of the Simple Solitary Ulcer, British Medical Journal, May 6th, 1896. [8] There is no urethra so hypersensitive or so intolerant of instrumentation as the tuberculous prostatic urethra. [9] The pain is fixed in the kidney in 80 per cent. of kidneys affected, and the pain is a true renal colic in 20 per cent. of kidneys affected by tubercle. The difference depends not so much on the thickening of the ureters as on the blockage of this narrowed channel by slough or mucus or phosphatic *débris*.

ON THE ETIOLOGY OF CANCER, WITH A NOTE OF SOME EXPERIMENTS.

By GEORGE THOMAS BEATSON, B.A.Cantab., M.D.Edin.
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In May of 1896 I brought before the Medico-Chirurgical Society of Edinburgh some cases of inoperable carcinoma of the mamma, which, for reasons fully given at the time, I had treated by removal of the uterine appendages combined with the administration of thyroid extract. Those who saw the cases were satisfied that the progress of the carcinoma had been affected in a way that was contrary to the general experience of that disease. Since then the procedure I advocated has been put to the test by others, and their published cases go to confirm that the course of carcinoma in the mamma is materially affected by oöphorectomy and the administration of thyroid extract. Such a condition of matters is important from a therapeutic point of view, but it is equally clear that such cases have a special interest, as bearing on the etiology of carcinoma.

When I read my paper in May, 1896, the explanation that I ventured to put forward in reference to my cases was that in the process of development and specialisation of the ordinary cells of the body, these cells do not lose the reproductive or proliferating power which in the early days of embryonic life they undoubtedly possess, but that it is kept in check by the control of the healthy ovaries. Should this control be in any way interfered with by changes in the ovaries leading to altered secretion on their part, or possibly to the migration of ovarian cells, then any part of the body affected by the irritation of this pathological secretion or by the presence in it of a migrated ovarian cell, might resume that early reproductive power that was merely in abeyance, and thus come to display that proliferating power which is not only characteristic of germinal epithelium, but is also the distinguishing feature of carcinoma.

At first sight this might seem to be a return to the old theory of spermatic influence as explanatory of the origin of carcinoma; but it really is not so, and it is important that this should be clearly understood. The theory of spermatic influence as enunciated by the older writers assumed a conversion of the normal tissue of the part affected into tumour tissue; in other words, that there occurs what is known as metaplasia, or a transformation of the cells and intercellular substance of a tissue into cells of a different kind. This it is now generally admitted does not occur, and the only metaplasia of epithelial cells that we meet with is the occasional transformation of one form of epithelium into another, just as is seen in papilloma of the bladder, where the usual transitional epithelium of the mucous membrane is replaced by stratified columnar epithelium.

I do not think that in carcinoma we have any conversion of the cells of the part affected into cancer cells. My opinion is that the distinguishing cells of a cancer tumour are not the normal epithelial cells of the part converted into malignant ones. These latter differ so entirely from normal epithelium in their shape, size, mode of growth, and power not only of penetrating into neighbouring tissues but also of destroying them, that I cannot altogether bring myself to accept this explanation. Further, the transition stage of normal epithelial cells into cancer cells has never been clearly demonstrated. I can show sections where the cancer cells may be seen in active growth and the adjacent epithelium taking no active part in the process and even disappearing, a condition of things which would not present itself if normal epithelium became converted into cancer tissue.

This being so, what is the origin of the cancer cells? I am inclined to think that we must apply to our primary carcinoma what we see happen in the case of a secondary metastatic deposit. When this latter occurrence takes place, everyone admits that the resulting tumour is composed of cells which are the progeny of the original cells or cells which lived off from the primary growth and took up their abode elsewhere. There has been in this case no conversion of the surrounding cells into cancer cells. In the same way, I believe that primary cancer has its starting point in a special cell or cells of the part affected, and the cells that go to make up an epithelioma of the lip are not the normal epithelial cells of the part changed into malignant ones, but they are the offspring of one or more epithelial cells that have gone wrong, and have taken on the indefinite proliferating power that is the characteristic of carcinoma. That it is a cell of the part affected that begins the pathological process is rendered clear by the fact that in secondary tumours we have a repetition and imitation, often in minute detail, of the primary growth. This was very well exemplified in a case of carcinoma of the rectum that I had last year under my care. Previous to my seeing him, the lower portion of the rectum had been excised. After a time this was followed by a reappearance of the disease, and when I first saw the case there was protruding from the anal region to the extent of 2 or 3 inches a mass of what seemed merely granulation tissue. When a portion of this was examined microscopically, not only did it show cancer cells, but these were so arranged that they had taken on completely the structure of the part even to the extent of displaying the follicles of Lieberkühn in a modified form.

It may very reasonably be asked, Are there in different parts of the body and in the various organs any special cells that may be affected in the manner suggested? I am unaware that we have any positive proof of such, but Cohnheim's theory of embryonic remnants has undoubted support from the phenomena exhibited by some kinds of tumours; while Goodsir's nutritive centres with their special cells are possibly less problematical than we think. Then, if Ribbert's theory of growth liberation with its separated groups of cells, all ready to proliferate under certain conditions, be correct, we have another possible source of such cells.

Granting, however, that my surmise is a correct one, and that through any or even all of the above channels initial cells are available for the commencement of a carcinoma, what is the influence that first calls into activity the cell proliferation, so that these primary cells divide and subdivide, and eventually produce a countless host of descendants? The correct answer to this question would give the clue to the real etiology of carcinoma, and all we can do at present is to investigate every line of thought that offers a solution of the matter.

It may be that the theory of traumatic causation is the correct one, or that in the parasitic or infective theory we have the true exciting cause, but as yet certainly this has not been proved. No doubt trauma and long-continued irritation with its accompanying chronic inflammation are powerful factors, and even adjuvants, in this disease, but they do not seem to furnish the special fructifying influence that leads to the generation of true cancer cells. Working on the view that I have already enunciated in this paper, as suggested by what was seen in the behaviour of cancerous tissue under oöphorectomy, I thought it was possible we might have in the germinal epithelium of the body—that is, in the ovaries and testicles, healthy or diseased, the true exciting cause of carcinoma. Accordingly I performed some experiments in this direction, the results of which I wish briefly to record.

My first experiment consisted in placing in the subcutaneous tissue of the dorsal region of a rabbit a portion of the right testicle of the same animal. This was done on July 3rd of last year, and four months afterwards the animal was killed. Examined after death, only a faint induration could be felt at the site of the implanted tissue. The area was excised and sections cut. Microscopically it consisted mainly of fibrous tissue, cicatricial in character, with very few cell elements. At one part only there was a very limited area of small-celled infiltration, the cells being lymphoid in character. No actual remains of the implanted tissue could be found, and in other respects the animal was healthy.

The second experiment consisted in placing in the subcu-

taneous tissue of the back of a rabbit a portion of an ovary from a case of malignant disease of the uterus for which oöphorectomy had been performed. The experiment was carried out on July 12th, 1897, and on February 8th, seven months afterwards, the animal was killed, and the parts examined. There was no trace of the operation except a slight scar in the skin, which was freely movable, and no nodule could be discovered in the subcutaneous tissue. The portion of tissue inserted had entirely disappeared, and the animal was otherwise healthy.

In my third experiment a portion of a scirrhous tumour of the breast of a female patient was put into the left testicle of the rabbit on which I had done my first experiment of transplanting a portion of its right testicle into the subcutaneous tissue of its back. I was unfortunately compelled to use this rabbit, as we had had two deaths from the anæsthetic that morning and I had no other rabbit available. This second experiment was done on September 2nd, 1897. On October 5th the left testicle appeared if anything smaller than normal and of natural softness. On November 4th the rabbit was killed. Examination of the lef testicle showed it to be atrophied. Under the microscope sections of it showed a few pigmented cells, often large, with one or more small, well-marked nuclei lying between bundles of fibrous tissue outside the body of the organ. The presence of these pigmented cells was the outstanding feature in the sections, for they were foreign to the structure of the testicle, and in appearance bore some resemblance to the large cells seen in mammary cysts.

On October 8th, 1897, the experiment was tried of placing a portion of a malignant epithelioma of the cervix uteri in the left testicle of a healthy rabbit. Four months afterwards (on February 8th, 1898) the rabbit was killed and examined. The testicle was found atrophied, and no trace of any new growth could be detected macroscopically or microscopically.

The next experiment consisted in placing a piece of carcinomatous tissue from the human cervix uteri into the left ovary of a rabbit. This was done on October 8th, 1897, and four months afterwards, on February 8th, 1898, the animal was killed. No growth was detected, and the ovary seemed as if had not been interfered with in any way.

The sixth and last experiment was a combination one. A portion of the left testicle of a rabbit was inserted into the left lumbar region of the animal on November 4th, 1897, and on December 7th, 1897, a portion of a recurrent carcinoma of the breast was introduced into the right testicle of the same animal. The rabbit was killed on February 8th, 1898, two months after the last inoculation, when examination of the right testicle showed no growth present, and microscopically nothing could be seen of the cancer cells.

Taken collectively, the result of these experiments is negative, and I find in them nothing to support my view as to the presence or influence of germinal epithelium being in any way the exciting cause of carcinoma. A weak point in my experiments is the fact that the cells of human carcinoma were employed for inoculation into rabbits, which may not be a suitable nidus for them. It may be possible in future experiments to obviate this source of fallacy.

SUMMARY OF THE EXPERIMENTS.

These were six in number, were performed on rabbits, and comprised the following procedures:

1. Inoculation of healthy testicular tissue into the subcutaneous tissue.
2. Inoculation of portion of human ovary from a cancerous patient into subcutaneous tissue.
3. Inoculation of a portion of cancerous human breast into the testicle.
4. Inoculation of a bit of epithelioma from human cervix uteri into testicle.
5. Inoculation of a bit of same tumour into ovary.
6. A combination experiment, consisting of first the transplantation of a bit of testicle into subcutaneous tissue, and then the inoculation of the testicle of the same rabbit with a bit of cancerous tumour from human breast.

THE annual report of the Regents of the University of New York show that there were 3,582 students in the medical colleges of that State in 1898.

TWO CASES OF COXA VARA, SHOWING THE RESULT OF DIVISION OF THE FEMUR BELOW THE TROCHANTERS.*

BY W. WATSON CHEYNE, M.B., F.R.S.

MY object in bringing these cases here to-night is to show the results which have followed division of the femur below the trochanters and correction of the eversion of the leg. My idea in adopting this measure was to bring the foot and leg into the proper position so as to enable the patient to walk—for my first patient was unable to walk—leaving the region of the hip-joint untouched. At the time that I performed the first operation I considered the possibility of correcting the deformity by removal of a wedge from the neck of the femur; but the child was very young—only 3 years old—and the parts so small that I did not think I should be likely to get the deformity properly corrected, while at the same time it seemed almost impossible to hope to maintain the correction in such a young child.

My first case came under my care at the end of 1892, and was operated on on January 23rd, 1893. It was shown at the Clinical Society on November 24th, 1893. Unfortunately the term "coxa vara" was not introduced till 1894, and I used the term "external rotation of the legs;" hence my case has not come under notice in the history of coxa vara, although, so far as I can find, it was one of the first in which any operation of this kind was performed. Apart from the restored usefulness of the limbs, the most remarkable, and to me most unexpected, result is that, as a consequence of dividing the femur below the trochanters, the progress of the deformity in the neck of the bone has been arrested, as will be immediately pointed out.

CASE I. *Operation Six Years Ago.*—Boy now aged 9, came under my care six years and a-half ago, with a deformity clearly referable to curvature of the neck of the femur, and chiefly characterised by marked eversion of both legs, and greatly diminished inversion: in fact, the feet could hardly be brought round sufficiently to look directly forwards. The trochanters were not above Nélaton's line, the essential deformity being curvature of the necks of the femora backwards.

On January 23rd 1893, the following operation was performed on the right leg (for photographs and a description of the case, see the Clinical Society's *Transactions*, vol. xxvii, p. 297): An incision was made on the outer side of the thigh at the upper part, and the femur, having been exposed and cleared, was divided transversely across by a saw a little below the trochanters. The foot and leg were then forcibly inverted till the normal degree of complete inversion was obtained, and being held in this position while the trochanters were pushed forward, a perforated oblong aluminium plate was placed over the femur opposite the line of division, and nailed on to the two fragments by means of tin tacks which had been nickelled. The object of this was to prevent rotation of the leg outwards during the union. The limb was put up in the inverted position, and the wound healed by first intention. The leg was afterwards put in a fixed apparatus for several weeks. Previously to the operation the boy could neither stand nor walk, but when shown at the Clinical Society in November of the same year he was able to walk quite well, and the left leg, which had not been operated on, was also very useful.

On January 7th, 1896, that is, about three years after the operation, the boy was admitted to Paddington Green Children's Hospital with an abscess at the seat of the former operation. On opening this I found the plate and tacks loose, and they were therefore removed, and the wound healed without any trouble. As his present condition resembles that of the second case, I shall narrate that first.

CASE II. *Operation Two Years Ago.*—Girl, aged 3 years at the time of operation. She had been previously in Paddington Green Children's Hospital for early rickets. At the time of her admission in January, 1897, there were all the signs of coxa vara in both legs. There was marked eversion of both legs, which could not be brought to look quite forwards, diminished abduction, and lordosis; the trochanters were at the level of Nélaton's line. There was anterior curvature of the femora and flat feet, The child walked with a waddling gait, and the knees tended to cross one another.

On January 26th, 1897, more than two years ago, a similar operation to that just described in Case 1 was performed on the left side. The wound healed by first intention and the plate is still *in situ*. The right leg was not touched.

The results are the same in both cases, and are as follows:

1. The object of the operation has in both instances been completely attained; the legs are in perfect position, inversion and eversion of the feet and legs are normal, and the legs are as useful as if there had never been anything the matter with them.

2. The left leg, for which nothing has been done, in each case has improved markedly in usefulness, and the eversion has somewhat diminished, though not to any great extent. In

* Read at the Clinical Meeting of the Medical Society of London on February 13th, 1899.

them, however, the deformity has continued to progress more especially in the direction of elevation of the trochanters, which are now about half an inch above Nélaton's line, with the result that the left leg is in each case shorter than the one operated on.

3. *The Deformity on the Side Operated on has come to a Standstill in both Cases.*—This is to me quite an unexpected result. Why it should have become arrested on the side operated on while it has progressed on the other is somewhat difficult of explanation. The trochanters on the limbs operated on still remain at the level of Nélaton's line; while, as has been said, on the other side they are half an inch at least higher. Consequently, the legs operated on are longer than the others. Two suggestions appear to me possible:

1. The process of repair and consolidation of the bone around the point of fracture may have extended upwards into the neck of the bone, and led to consolidation and arrest of the softening process, which was leading to the curvature.

2. The branches of the nutrient artery to the neck of the bone were divided in the operation, and, as a result of diminished vascularity, consolidation of the neck may have been hastened.

A CASE OF A TOOTH IMPACTED IN THE LEFT BRONCHUS: GANGRENE OF THE LEFT LUNG: DEATH.

By JAMES S. WARRACK, M.A., M.D.,
Demonstrator of Physiology in the University of Aberdeen.

A woman, aged 26, was admitted to the Victoria Hospital, Burnley, on December 18th, and died on December 30th, 1897. She stated, on admission, that four days previously she was given gas for the purpose of having a tooth extracted. At the critical moment she appears to have taken a deep breath, the result being that the tooth, which must have escaped from the forceps, was inhaled into the air passages. Thereafter extreme cyanosis occurred, and she had a feeling of tightness in the throat, with dyspnœa, and a hard dry cough, aggravated by speaking or change of position. She had also a vague feeling of something being fixed inside the chest, but could not indicate the position. When I saw her she was lying on her back, with livid lips, and coughing in frequent paroxysms, but without expectoration. The coughing was much aggravated by attempts to speak, and by change of posture.

The left side of the chest scarcely moved at all on respiration. There were no breath sounds audible over the left side of the chest, with the exception of tubular breathing at the left apex, accompanied by small moist *râles*, and this was indistinct posteriorly. On the outside of the left nipple there was a small area over which a friction rub was audible. On the left side, from the level of the nipple down to an inch from the umbilicus and backwards as far as the mid-axillary line, there was a well-marked area of hyperæsthesia, which corresponded roughly to the distribution of the sixth, seventh, and eighth dorsal spinal roots. The breath sounds were harsh on the right side but otherwise normal. The pulse and respiration-rates were much quickened.

During the next few days there was little alteration in the patient's condition, but the temperature assumed the hectic type.

On December 27th, thirteen days after the accident, there were well-marked signs of gangrene of the left lung. The breath was offensive, and there was expectoration of a brown and foul-smelling sputum. The lower cervical glands on the left side were enlarged, and there was a well-marked friction rub in the left axilla. Her condition became gradually worse until death occurred on December 30th.

At the necropsy on December 31st, 1897, I explored the trachea up to the larynx, but no foreign body was found there. All over the left pleural cavity there were numerous recent adhesions, and on separating these some grumous fluid came away from the lung. The heart was flabby and rather smaller than usual, and its right side was dilated. On cutting open the left bronchus the missing tooth was found. It was very tightly wedged in the bronchus, its point being downwards and the crown upwards, so that it had apparently acted as a "ball valve." It had almost ulcerated through the left bronchus, which above the situation of the tooth was congested and full of grumous fluid. On following the left bronchus into the lung there was found an irregular passage full of a brown foul-smelling fluid. The whole of the left lung was gangrenous and crepitating, and on squeezing the lung substance there exuded a fluid of the character described. The bronchial glands were enlarged, and there was also an enlarged gland at the root of the neck on the left side. Above the impacted tooth no bronchiole was given off, so that there must have been entire obstruction. The right lung was congested and œdematous, and showed commencing consolidation at the base. There were two cavities in the left lower jaw, and into the hinder one the tooth, which was carious, fitted exactly, its direction being forwards and inwards.

This case seems to illustrate the effects of obstruction to a bronchus, as Dr. Sevestre has recently pointed out in the British Medical Journal, the early stage being collapse of the lung, and the later, inflammation, leading sometimes to the entire disorganisation and gangrene of the lung. The tooth did not appear to have been tightly wedged in at first when the patient was seen, but seemed to have become so owing to the incessant attempts to expel the foreign body, and with each attempt the conditions must have been aggravated by the suction in during inspiration. The gangrene would be excited both by the retention of secretion, and by the introduction of septic material from the tooth.

CASE OF ACUTE TETANUS SUCCESSFULLY TREATED BY ANTITETANIN.

By J. GALLETLY, M.B., C.M.,
Bourne, Lincs.

G. F., a boy, aged 8, was seen by me for the first time at 10 P.M. on September 19th, 1898. He lay on his back in bed with his lower extremities rigid and fully extended, and his head, neck, and shoulders propped up with pillows. The abdomen had a flat, board-like appearance, due to contraction of all the muscles of its anterior wall. The head was somewhat retracted; he could open his mouth widely though slowly, and protrude his tongue. He had little difficulty in swallowing liquids, and could move his arms with considerable freedom. The temperature was normal and the pulse regular, with a rate of 90 beats per minute.

On inquiry, I found that the terminal phalanx of his right middle finger had been crushed in the cogwheel of a winnowing machine on August 28th. The wound had been somewhat roughly dressed, and examination showed that it was not soundly healed, the scar looking red and irritable. From the date of the injury up to September 17th—a period of nineteen days—the boy was apparently in his usual health. On that day it was noticed that he was a little stiff and awkward in his movements. On the 18th, the stiffness became more marked, and he was kept in bed.

On the 19th I was sent for. As the bowels had not acted for three days, a 2-gr. dose of calomel was given, and 10 gr. of bromide of potassium every three hours were ordered. He had a very restless night, and on the following morning more of the muscles were affected, the risus sardonicus was well marked, and the convulsive seizures were occurring with greater frequency and increased severity. Tetanus antitoxin was telegraphed for from the British Institute of Preventive Medicine, and in the evening of the same day (the 20th), chloroform having been administered, 20 c.cm. of the antitoxin were injected under the skin of the abdomen, and the terminal phalanx of the injured finger was amputated. Just before giving the chloroform he was seized every few minutes with attacks of marked opisthotonos. At 9 A.M. on the 21st, 10 c.cm. of antitoxin were injected, and again at 9 P.M. this dose was repeated. So far there was no improvement, the attacks recurring with great severity every few minutes. The tongue was badly bitten several times. He lay with his abdomen and lower extremities wholly uncovered, as the weight of the bedclothes—even of his nightshirt—was painful, and seemed to start a seizure. The next morning the attacks were less frequent, and he had snatches of sleep. A further dose of 10 c.cm. of antitoxin was injected, and this amount

was repeated twice a day till September 25th, when, as his condition seemed stationary, it was increased to 15 c.cm. On the 26th I injected 10 c.cm. twice, and this dose was continued twice a day till the 29th, when, as the improvement was becoming unmistakable, 10 c.cm. was given only once a day till October 5th, when it was omitted. Altogether 240 c.cm. of tetanus antitoxin were injected. The boy was sufficiently recovered by October 15th to be downstairs, and when I saw him for the last time on October 31st there was no perceptible stiffness in any of his muscles.

An urticarial eruption appeared on the fourth day of the injections in the neighbourhood of the needle punctures, and spread over most of the body, disappearing about the twelfth day.

The temperature was never much above normal; the pulse was usually somewhat quick; the bowels were obstinately confined, and the fæces very offensive. He was always able to take a fair amount of milk and beef-tea from a spoon. The amputation wound healed by first intention.

Acute traumatic tetanus, of which I take the above to be an example, is so commonly followed by a fatal result that I think this case worthy of record in helping to form an opinion as to the usefulness of antitetanin; for, with the exception of a few doses of bromide of potassium and chloral hydrate during the first two days, and an occasional aperient, no drug was administered.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL. PATHOLOGICAL, Etc.

A CASE OF GANGRENE OF THE LUNG.

A short note of a case, very similar to the first of the two cases described by Dr. Byrom Bramwell in the British Medical Journal of January 14th, 1899, will be, perhaps, of some interest.

On May 22nd, 1898, I was called to see a man aged 62. He had all the signs and symptoms of peritonitis. I could discover no cause for his illness. He said the attack came on quite suddenly, and that previously he had been quite well. His bowels had been quite regular; he was not vomiting. He said that he had suffered from chronic dyspepsia for years, but at no time had he had anything acutely wrong with his stomach or bowels. In about a week's time he was quite well, and during that time he had no sickness or any other stomach symptom. I treated him with hypodermic injections of morphine and atropine, hot fomentations, milk, and soda water. During this attack his lungs were absolutely healthy.

On June 2nd he reported himself as being quite well. I examined him on this day, and could detect nothing wrong with his lungs or abdomen except that his stomach was markedly dilated.

He continued quite well until July 11th, when I was called to see him in the evening. He told me that on the morning of July 11th, when jumping on to a tramway car which was in motion he felt a sudden pain a little above the crest of the left ilium, and that immediately after this he began to cough up a large quantity of a very badly-smelling fluid. I found some coarse crepitations at the base of the left lung posteriorly and vesicular breathing, but no dulness. The temperature was 102°, and the pulse 86. He had no abdominal symptoms. He was coughing frequently, and his sputum was very copious and intensely fœtid. He said he had coughed up at least three large breakfastcupfuls of this material since the morning, and that he had no cough till after he felt sudden pain above described. During the next twenty-four hours he coughed up about twice the amount of the same kind of material. Dulness could now be made out; it extended from the base to almost the spine of the scapula. Breath sounds were now bronchial in type, and the crepitations were far more numerous at the base, and some could be detected scattered all over the dull area. The right lung was normal. In a few days the sputum diminished in quantity, and the lung began to clear up a little. Everything was going on well, when one day when turning in bed he had again a severe pain at the same spot as before. He now coughed up a great quantity of the same fœtid sputum, but this time it was tinged with blood. Crepitations were now found to be more numerous at the base than they had been before. A few days after this his motions were well mixed with blood, and about that time he passed by the bowel about an ounce of fluid which had exactly the same smell and appearance as his sputum. His sputum now rapidly diminished in quantity, and the lung cleared up. He is now (January, 1899) apparently quite well, the lung appears absolutely normal, and he has had no recurrence of the abdominal symptoms.

His sputum was examined three days after his lung symptoms began, and had the following characters:

It was a thin, greyish, purulent fluid, extremely fœtid. Microscopically it presented: (1) Pus cells mostly presenting advanced fatty degeneration; (2) epithelial cells, squamous, cylindrical, and round, in considerable numbers; (3) a large amount of fat; (4) mucous shreds and blood pigment. No definite trace of lung tissue; no tubercle bacilli. Streptococci in large numbers, also diplococci pneumoniæ. Starch corpuscles were not seen.

I think there is little doubt that the lung condition arose from something abdominal. I am inclined to think his abdominal condition and his lung condition arose from the same cause, but I am unable to say what the nature of that cause was. His stomach is markedly dilated, probably from chronic dyspepsia; but he says that he has had nothing at any time acutely wrong with his stomach or bowels. The apex beat is displaced several inches to the left. The urine was normal during his illness. I treated his lung condition by inhalations of eucalyptus oil and creosote.

Glasgow. H. Argyll Robertson, M.B., C.M.Edin.

A CASE OF INVERSION OF THE UTERUS.

Inversion of the uterus is so rare that the following case seems worth recording. Only 1 case occurred in 190,000 at the Rotunda. Denham had 1 case in 100,000; C. Braun had no case in 250,000. Crosse in 1847 noted that in 28 per cent. of recorded cases of inversion death occurred in a few hours, that in 42 per cent. death followed later, and that in 7 per cent. the accident led to a fatal result more than a year after its occurrence.

Mrs. R. W., aged 37, is a well-developed woman of average size, who has not suffered from any illness since childhood. Her menstrual history was normal. She had had two previous labours but no miscarriage. Her first labour took place six and a-half years ago, and lasted fifteen hours; a female child presented by the vertex, and was safely delivered with forceps. The second labour occurred four and a-half years ago, and occupied only about an hour, a small female child being born safely before the arrival of the medical man. The third labour began at 1 A.M. on February 21st, 1898. The membranes were ruptured immediately. At 2 A.M. the pains ceased and did not return until noon. They continued strong and regular until 4 P.M., after which they diminished in frequency and intensity.

At 6 P.M. I was sent for, and at 6.45 P.M. found the os uteri fully dilated, the presentation vertex, and the position right occipito-posterior. The pelvic outlet was fairly roomy, and the abdomen was very large. Short weak pains occurred at intervals of about fifteen minutes until 8 P.M. without causing progress. At 9.30 P.M. I returned to the patient with Dr. F. L. Mackenzie, prepared to give an anæsthetic if required, and deliver with forceps. On re-examination it was deemed advisable to apply the forceps without an anæsthetic. This was successfully done, and at 9.45 P.M. a living male child, which was very large, weighing 10 lbs. and measuring 22 inches in length, was delivered "occiput to the back."

The patient now received a draught containing 3jss of liquid extract of ergot (*B.P.*). Ten minutes later the placenta was expressed with some difficulty. The descent of the placenta was estimated by withdrawing from the vagina as much of the cord as came down easily without pulling on it. Copious bleeding followed the birth of the placenta, and the hand being applied to the abdomen, the uterus could not definitely be made out. The hæmorrhage continuing, a douche of hot water was prepared. The syringe, however, burst immediately, which was fortunate, as it led to the application of other remedies and the discovery of the true condition of things earlier than would have been the case had time been spent in giving the douche. The bleeding partially ceased, only to recommence a few minutes later. The patient had by this time lost about 5 pints of blood, and the pulse was becoming somewhat feeble, so it was decided to plug the uterus, although there were no symptoms of collapse.

On making a vaginal examination, a large quantity of clot and some fragments of membranes were removed. A soft mass was then felt by the fingers, a bag-like protuberance, round whose neck was a hard round ring. The cause of the *post-partum* hæmorrhage was now seen to be total inversion of the uterus. The diagnosis was confirmed by pressing the inverted uterus upwards and forwards, when the os uteri could be distinctly felt by the external hand through the loose abdominal wall. This portion of the uterus was pressed downwards and backwards, while counter-pressure was made upon the fundus from the vagina. After the return to the normal condition, the remaining portion of the adherent membranes was scraped away with the fingers. The patient complained of feeling faint and the pulse was very feeble, the loss of blood by this time amounting to nearly 6 pints: 3j of spirit. ammon. arom. was given, followed later by 3ss of brandy with water. Bovril, milk, and brandy were given every two hours for the next twelve hours. The patient next morning felt quite comfortable except for the soreness of the womb and abdomen. She made an uninterrupted recovery.

This patient, though she had a bad family history (phthisis), had a good personal and a good obstetric history. The causes predisposing to this inversion of the uterus must therefore be sought in connection with the labour which immediately preceded the accident. The main features of the labour were: (1) It was a dry labour, the rupture of the membranes occurring at the onset of the pains; and (2) the position was occipito-posterior. These two features, together with (3) the large size of the child, amply account for the undue prolongation of the labour, and for the exhausted, flabby condition of the uterus at its close. The immediate cause of the inversion is less easy to discover as traction on the cord was not made. The adhesion of the membranes doubtless had some share in the causation of the accident. The most remarkable feature of the case was the absence of shock and of collapse more than would necessarily attend the loss of so much blood.

Great Broughton, Cockermouth. John Penny, M.B.

THE TREATMENT OF OPHTHALMIA TARSI.

Swanzy is correct when he says that this disease is "nothing else than eczema of the lid," and so long ago as 1865 Furneaux Jordan stated the same thing. The disease has nothing whatever to do with scrofula or struma if by such terms is meant that constitutional condition in which resistance to invasion by the tubercle bacillus is reduced. I believe, however, that it is undesirable to divide the disease into blepharitis ulcerosa due to eczema pustulosum, and blepharitis squamosa due to eczema squamosum, for complex differentiation into types may obscure the conception of the pathology of the disease. My observation has convinced me that these varieties are the same disease, and are due to pus infection; indeed, pustular eczema often coexists on the beard, eyebrows, or temporal scalp. The varying conditions of blepharitis met with are due to degree or duration of the disease, and whether pustules are actually visible or not matters little for the diagnosis, for elsewhere on the skin manifestations caused by pyococci are apt to be multiform, and by no means necessarily of the typical pustular form. Hence the division into acne-like type, chronic hypertrophic blepharitis, seborrhœal type, eczematous form, and marginal congestion has, I believe, little or no pathological but only a clinical significance. The severest forms of the disease are really the sequential deformity of scarring within and without the hair follicles due to pus ravages.

With regard to treatment, the object of this note is to emphasise the value of oleate of mercury ointment. This salt appears to be more penetrating than the insoluble oxide generally used, and it certainly acts admirably. I use a 1 per cent. ointment, the diluent being paraffinum molle, and in order to secure intimate mixture the oleate and the paraffin are best melted together. The ointment may then be considered an unirritating, disinfecting, penetrating, soluble salt of mercury. Not only the margins, but the surface of the lids should be anointed, and the treatment should be persevered with at night long after apparent cure. The earliest (hyperæmic) stage of the disease, and the removal of crusts which are often hard and perforated by the lashes, call for hot boric lotion. In all chronic cases of moderate severity—indeed for all cases except the old cicatricial ones—the 1 per cent. oleate of mercury has been found in my hands a most reliable (I was going to write specific) remedy.

Leslie Phillips, M.D.,
Surgeon Birmingham Skin and Urinary Hospital.

SYMPHYSIOTOMY FOR CONTRACTED PELVIS FOLLOWED BY NEARLY NORMAL LABOUR TWO YEARS LATER.

On May 18th, 1896, at 8 A.M., I was called to see a Mohammedan woman, aged apparently between 30 and 40, in her second confinement. She said that her first confinement had taken place some years previously, when after much trouble the civil surgeon was called in and craniotomy performed.

The patient had had severe labour pains since the previous midday; the membranes had ruptured at 4 P.M., and pains had continued severe during the night, but with no effect. The os was found fully dilated, and the head presenting in the second position. The pelvis was contracted, the sacral promontory being readily within reach. The false conjugata measured barely 3¾ inches.

Chloroform having been given and the catheter passed forceps were applied, but several powerful tractions produced no effect. The forceps were therefore removed and symphysiotomy performed by the subcutaneous method. Before the knife had completely cut through the cartilage the joint gave way with a crash. Forceps were reapplied and a good-sized boy delivered. The opening in the skin was at once dressed, and a firm bandage applied to the hips.

Owing to illness I was unable to see the patient for five days, when I found a sinus freely discharging pus at the seat of entrance of the knife. Shortly after she had a slight attack of "whiteleg" on the left side, but a month after the confinement was fairly well except for neuralgic (?) pains in the right leg.

She was seen again about five months later, when she still complained of pain and slight difficulty in walking. There was considerable atrophy of the right leg. The thigh was 1½ inch less in circumference.

On July 19th, 1898, at noon, I was again called to the patient. She had been in labour since the previous evening, and the membranes had ruptured, but it was uncertain when. Pains were severe, and the os was found to be fully dilated, the head presenting in the right position, no progress having been made. After an hour forceps were applied, and the patient easily delivered of a girl. As far as could be judged, this child's head was about the same size as the previous child's at the time of birth.

The patient stated that for the last year she had been perfectly well, and had had no pain, no weakness, or difficulty in walking. The sinus was perfectly healed, and the two legs of equal size.

The case is interesting as showing a permanent improvement in the size of the pelvis after the operation of symphysiotomy. I was also struck by the ease of the operation (only a knife and a catheter were used), making it eminently suitable for small, dark, and dirty houses, where no skilled assistance can be had.

M. Ida Balfour, L.R.C.P.E.,
Medical Officer in Charge of Women's Hospital, Nahan, India.

DILATATION OF STOMACH.

I was consulted some time ago by a young man who complained of much gastric pain and uneasiness dating from an attack of influenza. He was very thin, but said it was not due to want of food, as he was eating four meals a day. He was very much distressed about himself, and blamed that for his thin condition.

I examined his abdomen, and diagnosed a dilated stomach from the fact that on palpation splashing could be elicited at any time in the twenty-four hours, except before breakfast, after the long fast from his dinner the night before. A consulting physician verified my diagnosis.

The patient refused to take much care of his diet, as he said his appetite was excessive, and strict dieting would make him more miserable than he was. I recommended him, therefore, three meals a day, with five hours' interval between them. To this he agreed, and stuck faithfully to the arrangement. He was living in the country, working in a lawyer's office, but was not hard worked.

When I saw him first he weighed 10 stone, and in two months' time he weighed nearly 12 stone, and then, although his gastric pain still troubled him, he told me life was quite a pleasure to him. He said that from the time he knew what was the matter with him, and that there was hope of his getting better, he began to put on flesh. Constipation had troubled him greatly, but after a few weeks' course of treatment for that his bowels became regular.

I taught him to use the stomach tube, and for six weeks he washed out his stomach every second night, half an hour before his last meal. He was surprised, and so was I, at the amount of food still present in the stomach so long after a meal. Gradually he checked his excessive appetite, and the last time I saw him he was down to 11 stone, and feeling and looking very well. He told me on his first visit that his digestion never had been good, but only after influenza did the discomfort become so great as to make him seek medical advice.

Probably his stomach has been dilated all his life, and certainly it has not diminished in size.

Bedford. CHAS. J. HILL AITKEN, M.B., C.M.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CUMBERLAND INFIRMARY, CARLISLE.

CASE OF COMPLETE PROLAPSUS OF UTERUS IN A GIRL 16 YEARS OF AGE: OPERATION: CŒLIO-HYSTEROPEXY: RECOVERY.

(By J. D. DUNCAN, M.B., C.M.Edin., late House-Surgeon.)

THE following case was admitted to the hospital under the care of Dr. Lediard, by whose permission it is published:

Condition on Admission.—M. E., domestic servant, aged 16 years, was admitted on September 27th, 1897, for "a bearing down of the forebody," as the patient termed it. It appeared from the history of the case that the condition had existed for ten months, and was gradually getting worse. Inability to retain her urine compelled her to give up her employment, and seek advice. She had never been pregnant. On examination there was complete prolapse of the uterus, with vesical diverticulum. This was produced when the patient assumed the erect posture, or when she subjected herself to the slightest strain. The whole uterus, body, and cervix, along with the vesical wall, projected beyond the vulvar orifice; the abdominal parietes were extremely lax. The nulliparous os was slightly eroded, and somewhat enlarged. The whole mass could be easily returned, and nothing was then seen but a relaxed outlet and a cystocele of moderate size. On returning the protuberance some urine was expressed, indicating that there was a certain amount of residual urine in the bladder diverticulum. There was no rectal diverticulum, and no rectal trouble was experienced by the patient. The posterior vaginal wall was also prolapsed.

Cause.—With regard to the origin of the trouble, the information at hand was of a negative character. She had done a considerable amount of heavy work as a general servant, but nothing out of the ordinary. There was no history of a fall or sudden strain; the condition came on gradually, and progressed slowly. There was no congenital defect in the pelvic floor or vaginal outlet.

Operation.—On October 11th, 1897, the abdomen was opened by a mesial incision, the uterus being pushed up from below by the assistant. The anterior wall of the body of the uterus was stitched to the abdominal wall by means of three fishing-gut sutures. The peritoneum was not rawed at any place. The sutures went through the whole thickness of the abdominal wall, and through the peritoneum covering the front of the uterus. The abdominal wall was closed by means of interrupted silk sutures in three layers. The vagina was packed with iodoform gauze.

Progress of Case.—The patient, although somewhat collapsed after the operation, rallied in an hour or so. In the evening the temperature rose to 100·5°, but fell to normal on the following morning, and remained so throughout the course of the case. There was no bad symptom after the first day of operation. The vaginal gauze plugging was left *in situ* for seven days, when it was removed and replaced by fresh plugging, and changed every two days subsequently. The skin sutures were removed on the tenth day. The deep sutures were kept in as long as possible, but at the end of the third week it was evident that they were cutting through, and they were removed. The patient was discharged from hospital wearing one of Macintosh's cup stem pessaries on December 21st, that is, seventy-one days after the operation. During her residence in hospital she was kept in bed, absolutely at rest, and was not allowed to strain in the slightest. Two months after the operation she was examined, and the uterus was then apparently firmly adherent to the abdominal wall. As she still complained of occasional incontinence of urine she was kept in hospital for four days. During this time the pessary was removed and the incontinence ceased. She was then discharged, and advised to wear the instrument during the day removing it at night. She was examined a month later. The uterus was found still firmly fixed to the abdominal wall, and the incontinence had disappeared. Ten months later she appeared for examination. There was no recurrence of the prolapse, and no incontinence or discomfort of any kind. She was advised to dispense with the pessary.

REMARKS BY MR. DUNCAN.—The points of interest in this case to which I would especially direct attention are threefold: (1) The age of the patient; (2) the fact that she was nulliparous; (3) the grounds upon which the operation of ventral fixation was specially selected. (1) The extreme youth of the patient (she was only 16 years of age) is peculiarly worthy of note. So far as I have been able to ascertain from the literature at my disposal, the case under consideration is unique in point of age. (2) The patient was a nullipara, as previously stated. There was no congenital defect in the arrangements of the pelvic organs, while the strain of pregnancy had never been brought to bear upon the pelvic floor. Now Kelly, of Baltimore, points out in his *Operative Gynecology* that pregnancy is a very important factor in the causation of prolapse. In 35 of his cases there was but one who had had no pregnancy, and in that case the prolapse was only partial. (3) As to the reasons which prompted the operative procedures of ventral fixation. The principal operations usually undertaken for fixing in a normal position an abnormally situated, retroverted, or prolapsed uterus are three in number. Two extraperitoneal, namely, Alexander's operation and vaginal fixation; one intraperitoneal, namely, cœliohysteropexy or ventral fixation. Alexander's operation has fallen to a certain extent into disuse, partly owing to the difficulties sometimes experienced in finding the round ligaments and partly because the results of the operation have frequently been unsatisfactory and disappointing. Although the Alexander operation has a fair share of popularity in America and France, it does not hold such a high position in England. In Hart and Barbour's *Gynæcology* a footnote is published, stating that in England its value was recently discussed before the British Gynæcological Society in a paper on ventro-suspension of the uterus by Mayo Robson.[1] In the discussion, while Dr. Alexander referred to the large number of successful cases in which he had himself performed the operation, Dr. J. W. Taylor (Birmingham), Dr. William Duncan, and Mr. Mayo Robson gave the preference to ventral fixation. After vaginal fixation abortion and dystocia are extremely likely to occur, so much so that Mackenrodt, who is an authority on this particular procedure, has on those grounds alone abandoned the operation. If at all performed it will become restricted to patients in whom pregnancy is not likely to occur—that is, to those who are near the menopause. In the face of these objections, and influenced by the successful results which has attended the operation of ventral fixation in the hands of other surgeons, the operating surgeon in this instance adopted that method, and so far at least as regards the fixation of the displaced organ the result has completely justified the choice.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

FREDERICK T. GANT, F.R.C.S., Vice-President, in the Chair.

Tuesday, February 14th, 1899.

THE EFFECTS PRODUCED IN THE HUMAN SUBJECT BY THE ADMINISTRATION OF DEFINITE MIXTURES OF NITROUS OXIDE AND AIR AND OF NITROUS OXIDE AND OXYGEN.

DR. F. W. HEWITT read this paper. The investigation was based upon the following carefully-recorded and timed administrations: Pure nitrous oxide, 22 cases; nitrous oxide mixed with different percentages of air, 107 cases; nitrous oxide mixed with different percentages of oxygen, 102 cases; total, 231 cases. In each administration records were made concerning anoxæmic convulsion, cyanosis or other changes of colour, stertor, retching movements, phonation, excitement or reflex movements, after-effects, dreams, duration of inhalation, duration of anæsthesia, quantity of gas or gases

[1] *British Gynæcological Journal* of May, 1896.

inhaled, operation performed, etc. In order to compare cases and groups of cases with one another, and to ascertain to what extent certain symptoms were met with under certain mixtures, arbitrary numerical values were given to the phenomena of the different administrations. By this plan it was found possible to draw up charts and to make numerous interesting comparisons, not only between groups of cases, but between administrations of different mixtures to the same patient on different occasions. The author arrived at the following conclusions: (1) When pure nitrous oxide is administered to the human subject in such a manner that no free oxygen gains admission during the administration, certain phenomena arise, which for our present purposes may be regarded as being either (*a*) phenomena of anæsthesia or (*b*) phenomena of asphyxia. (2) The anæsthetic phenomena of nitrous oxide, although apparently very different from those of ether or chloroform, are in their essential features remarkably similar. (3) The most conspicuous of the asphyxial phenomena of pure nitrous oxide are (*a*) embarrassed and deeply stertorous breathing, (*b*) cyanosis, and (*c*) anoxæmic convulsion. All these may be eliminated without interfering with the anæsthetic effects of the gas by administering with it certain proportions of oxygen, either pure or as atmospheric air. (4) There are other less obvious asphyxial phenomena—such as wide dilatation of the pupils, swelling of the tongue and adjacent structures, and rapid cardiac action—which, like the more important symptoms above referred to, may be prevented or modified by similar means. (5) Under the influence of pure nitrous oxide breathing becomes deeper and quicker than usual. At the end of from fifty-five to sixty seconds its rhythm becomes altered either by (*a*) obstructive stertor, (*b*) anoxæmic convulsion attacking the respiratory muscles, or (*c*) both conditions combined. If the administration be pushed far enough, breathing becomes arrested in one of these ways. Paralytic cessation of breathing is very rare, and when it occurs is dependent quite as much upon cerebral anæmia from defective circulation as upon the presence of unoxygenated blood in the vessels supplying the respiratory centres. (6) The deep and obstructive stertor of pure nitrous oxide narcosis is not met with when employing mixtures containing moderate percentages of air or oxygen. With such mixtures only softly-snoring breathing is produced. When the percentage of air or oxygen is considerable—30 per cent. air or 13 per cent. of oxygen—respiration becomes noiseless and free from all obstruction. (7) The most marked cyanosis is met with when very small percentages of air (3 to 6 per cent.) or oxygen (under 3 per cent.) are administered with nitrous oxide. With pure nitrous oxide cyanosis may not have time, as it were, to become pronounced, for the administration may be cut short by deep stertor. As the percentage of air or oxygen increases cyanosis lessens, till with 30 per cent. of air it is very slight, and with 11 per cent. of oxygen it disappears altogether. (8) Anoxæmic convulsion, like cyanosis, is liable to be greater with small percentages of air or oxygen than with pure nitrous oxide itself, and for the reason just given. But as the percentages of air or oxygen increase the convulsion decreases, till with 30 per cent. of air and 6 per cent. of oxygen respectively it ceases to occur. (9) Reflex and excitement movements are most likely to arise either with pure nitrous oxide, or with nitrous oxide mixed with small percentages of air (3 to 7 per cent.), or with nitrous oxide mixed with considerable percentages of air (20 to 30 per cent.), or oxygen (10 to 20 per cent.). They are least likely to assert themselves with mixtures containing moderate quantities (12 or 16 per cent.) of air, or moderate quantities (3 to 7 per cent.) of oxygen. (10) Phonated sounds are most common when nitrous oxide is administered with large percentages of air (12 to 30 per cent.) or oxygen (20 per cent.). When nitrous oxide is administered pure, or with small percentages of air (3 to 5 per cent.), they are met with to a moderate extent only. Phonation is least likely to arise with nitrous oxide and air mixtures when air is present to the extent of from 6 to 10 per cent., and with nitrous oxide and oxygen mixtures when oxygen is present to the extent of from 3 to 11 per cent. (11) The duration of available anæsthesia after inhalation is found to be longest after the administration of mixtures containing from 3 to 11 per cent. of oxygen, the maximum duration having been attained with 7 per cent. mixtures. With nitrous oxide and air mixtures the resulting anæsthesia is distinctly longer than with pure nitrous oxide, but the results are very uncertain in these cases. The shortest available anæsthesia is recorded with nitrous oxide alone, and with nitrous oxide mixtures containing 30 per cent. of air. (12) In estimating the respective merits of the various mixtures used as anæsthetic agents, the investigation shows that the best results were obtained with mixtures of nitrous oxide and oxygen; the next best with mixtures of nitrous oxide and air; and the worst with nitrous oxide free from air or oxygen. Air is not nearly so suitable as oxygen for eliminating the asphyxial factors of a pure nitrous oxide administration, owing to the large volume of useless nitrogen which must necessarily be inhaled. The nitrous oxide and air cases were, as compared with those of nitrous oxide and oxygen, far more uncertain in their course. (13) There is no one mixture of nitrous oxide with air or with oxygen which will successfully anæsthetise every patient. (14) In order to obtain the best form of anæsthesia, oxygen should be administered with nitrous oxide by means of a regulating apparatus, the percentage of the former gas being progressively increased from 2 per cent. or 3 per cent. at the commencement of the administration to 7, 8, 9, or 10 per cent. according to the circumstances of the case. The longer the administration lasts, the greater may be the percentages of oxygen admitted. (15) The next best results to those obtainable by means of a regulating apparatus for nitrous oxide and oxygen are to be secured by administering certain constant mixtures of these two gases. Mixtures containing 5, 6, or 7 per cent. of oxygen are the best for adult males; and mixtures containing 7, 8, or 9 per cent. are the best for females and children. (16) The next best results to those last mentioned are to be obtained by means of mixtures of nitrous oxide and air, from 14 to 18 per cent. of the latter being advisable in anæsthetising men, and from 18 to 22 per cent. in anæsthetising women and children. (17) Paul Bert, whose valuable researches upon the effects produced by the inhalation of nitrous oxide and oxygen are well known, regarded an increased atmospheric pressure as essential to the production of anæsthesia by means of these gases. It is clear, however, from the foregoing investigation, that deep and satisfactory anæsthesia, unaccompanied by any obvious asphyxial manifestations, may be secured, at ordinary pressures, by mixtures of nitrous oxide and oxygen containing even as much of the latter gas as is present in our atmosphere. (18) The last-mentioned fact would seem at first sight to give a death blow to the asphyxial theory of nitrous oxide anæsthesia—a theory which supposes that this gas produces its anæsthesia by limiting or arresting normal oxidation processes within the central nervous system. But are we justified in assuming that because no obvious asphyxial manifestations make their appearance during the inhalation, no such interference with oxidation is taking place?

Dr. John S. Haldane (Oxford), after complimenting the author of the paper, referred to the subject from the physiological point of view. He said the paper raised the question, What was it that produced anæsthesia in nitrous oxide administration? Was it the want of oxygen or was it some definite specific action of the nitrous oxide gas? He thought that the paper proved that the anæsthesia was due to some specific action of the gas, since there was no lack of oxygen. He referred to some experiments that he had carried out by the administration of pure hydrogen and nitrogen, and the length of time necessary to produce anæsthesia by these gases was about the same, namely, 53 seconds, as that taken by administration of nitrous oxide; the period of anæsthesia following, however, was very much shorter, and he thought the production of anæsthesia might be due partly to the asphyxia produced and partly to the specific effect of the nitrous oxide gas.

Mr. John Fairbank said the paper was of great value, not only in showing how to administer nitrous oxide and oxygen together, but also as proving its superiority over nitrous oxide administered alone. The contrast in operating on a patient who had had the mixed gases and those who had had nitrous oxide alone was most marked, the patient under the former lying in a condition resembling sleep, with the tongue occupying a low position in the mouth, while under the latter the movements of the patient were most troublesome, and the

tongue was swollen, and was in danger of being caught by the forceps.

Dr. R. L. BOWLES referred to some experiments which he had performed some years ago on animals by administering pure hydrogen, and it was found that the animals died of convulsions. When, however, a small amount of air was admitted, the animals recovered from the anæsthesia produced. In another series of experiments in which the animals were placed in an atmosphere of oxygen, they died of carbonic acid poisoning due to the failure of elimination, and not to want of oxygen, since it could be proved that the vessel in which the animals were still contained an excess of oxygen. He referred to the phenomenon of stertor, and contrasted the varieties mentioned in the paper; he said that the "paralytic" stertor was relieved by position, whilst the "spasmodic" stertor was not relieved by altering the position of the patient, and sometimes it was necessary to open the trachea.

Mr. GEORGE ROWELL doubted whether the test applied by the author to fix the time of return of consciousness, namely, asking the patient to open the eyes, was reliable, as this seemed to be almost a reflex act, and he thought the time should be fixed by the patient recollecting the request. With regard to the duration of anæsthesia, although dependent chiefly on the length of time of inhalation, it was also dependent on the nature of the respiration when the mask was removed, being considerably longer when the patient was breathing quietly and slowly than when respiration was short and jerky. He disagreed with the author as to the best results obtained by administering nitrous oxide and air, and considered that the more satisfactory results were obtained by giving pure nitrous oxide till the convulsive period, and then giving it interspersed with a few breaths of air; but this did not give such good results as a mixture of nitrous oxide and oxygen.

Mr. H. J. PATERSON criticised the method adopted for comparing the case. He thought that considerable variations occurred in the same patient at different times under the same anæsthetic, and this was due partly to the nature of the food taken, partly to the want of sleep; he believed that the latter was an important factor, for he had noticed that nurses who were on night duty took gas badly. He thought that the gas should be warmed before administration, and considered it probable that the retching and vomiting which sometimes occurred might be avoided by this means. He thought that the fact that the mixed gases could not be administered for a long time without air, together with the sweating and vomiting which occurred after prolonged administration, pointed to internal asphyxia, although there was no external manifestation of it. He hoped the time was not far distant when this mixture of gases would come into general use for prolonged surgical operations.

Dr. HEWITT, in reply, said that he had administered pure nitrogen, and, although he had never used hydrogen for anæsthetic purposes, he hoped at some time to do so. He could not understand how there could be blocking up of the CO_2 in the blood if there was free expiration, and he thought that the experiments of Waller had shown that CO_2 was not so deleterious as was generally thought to be the case; he believed that the nitrous oxide entered into rapid combination with the blood, and thus acted rapidly on the central nervous system.

CLINICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., President, in the Chair.

Friday, February 10th, 1899.

TUBERCULOUS CAVITIES IN THE LUNGS GIVING RISE TO GASEOUS METASTATIC ABSCESSES.

MR. W. G. SPENCER described an exceptional case in which abscesses formed in the back, in the right pleura, and in the upper part of the left thigh, the latter bursting into the rectum through the great sciatic notch. Meanwhile the disease of the lungs gave rise to practically neither symptoms nor signs. The patient, a West African negro, aged 22, was attended by Dr. Denne for pain in the left knee, headaches and vomiting, which he had had for eight months. A superficial abscess, extending from the left scapula to the lowest rib, was opened, but no communication with the chest found. As the patient still had fever he was admitted to the Westminster Hospital, where a tympanitic swelling was found occupying the upper portion of the left thigh and buttock. On opening this multiloculated abscess, gas and pus with a fæcal odour escaped, and it was found to communicate with the rectum through the great sciatic notch. There was no ulceration of the rectum nor infiltration of the ischio-rectal fossæ. Later the patient suddenly developed an acute effusion into the right pleura. The fluid was aspirated, and had a fæcal odour and contained pus cells; the right pleura was consequently drained. Then followed a period in which the patient declared himself better, the abscesses in the back and the pleural wound nearly closed, and the man insisted upon getting up, and asked repeatedly to be discharged. The septic fever, however, continued, and foul yellow pus was discharged from the thigh in spite of frequent irrigation. All the evidence of chest disease was an occasional cough and a few *râles*. Yet malaria, dysentery, typhoid fever, and fæcal fistula from intestinal ulceration, appeared to be clearly negatived. One day, after being five months under observation, the patient suddenly collapsed and died in four hours. *Post mortem* there was found a tuberculous cavity in the upper part of the right lung, the size of an orange, filled with a gummy purulent fluid, whilst the rest of the right and the left lung contained numerous caseous tubercles, extensive tuberculous caries of the sixth, seventh, and eighth ribs on the left side, and of the eighth and ninth ribs on the right side; the right pleura thickened and adherent; the upper part of the left thigh and buttock completely occupied by multilocular abscess cavities. There was no tuberculous ulceration of the intestines.

Dr. KINGSTON FOWLER asked whether tubercle bacilli had been found in the lungs. He was not aware of any cases in which gas and fœtid effusion had occurred in the pleura apart from gangrene or perforation of the lung.

Mr. MAKINS said it was a mixed infection, and suggested that possibly the fœtid abscesses were not directly traceable to the pulmonary lesions.

Dr. J. H. BRYANT asked if any anaërobic cultures had been made, and recalled the fact that the bacillus aërogenes capsulatus had been demonstrated in connection with gaseous abscesses of the liver and of other organs, and in that rare disease, pneumaturia occurring in diabetes. *Post mortem* he had found gaseous cysts, which had probably formed during life, in liver, spleen, and kidneys, in connection with the bacillus coli communis. He handed round photographs of the liver from that case.

Mr. SPENCER, in reply, said the bacillus coli was found in the abscesses, all of which evolved gas having a fæcal odour. Probably at first they were tuberculous, and tubercle bacilli were found in the lungs after death. The abscess in the back might have spread from the lung by way of the ribs, but the abscess in the thigh must have been metastatic, by way of the circulation.

MYOPATHY IN A BOY AGED 5 YEARS: NECROPSY.

Dr. THOMAS BARLOW and Dr. F. E. BATTEN contributed a paper on this case, which was shown at the Clinical Society in November, 1894, and the following account was given: The boy had suffered from weakness of the back and legs since birth; he had never talked clearly, but was considered fairly intelligent; he had never had any severe illness. He was a healthy baby, and nothing was noted to be amiss till the time when he should have begun to walk. No similar affection occurred in any member of the family, except possibly his sister—seen by Dr. Barlow—in whom it was noted that the pectorals and deltoids were small. On admission to the hospital the following note was taken: He was an intelligent-looking boy; his face, eyes, mouth, and tongue presented nothing abnormal. His speech was of the type known as "idioglossia." He sat up in bed and held the back very straight; if placed on his back he was unable to raise himself into the sitting position without turning on to his face. The child was unable to stand, and the legs were flexed at the hip and knee. The muscles were everywhere very weak and thin and had a tough feeling. In the upper limbs all movements seemed capable of being performed. The latissimus dorsi and pectoral muscles were very wasted: the infraspinatus was comparatively good. Both lower limbs were equally wasted: there was no hypertrophy; all move-

ments were capable of being performed, but the legs could not be fully extended. The knee-jerks were present, equal and active. Sensation was normal in all forms, and the electrical examination showed only a diminution to both faradic and galvanic elements. The boy developed an attack of gastro-enteritis and died. At the necropsy was found some defect in the arches of the lower lumbar vertebræ; the spinal cord and brain appeared normal. The pectoral muscles were very poorly developed, the serratus was small, the biceps was fairly developed, but was pale; the rectus abdominis muscle appeared normal. The glutei were converted into a mass of fat, and the rectus femoris was poor and thin. Microscopically no lesion could be found in the brain, medulla, or spinal cord. The anterior horn cells appeared quite normal, except for the deposit of some pigment which did not usually occur in young subjects. The medullated sheath of the root fibres appeared thinned out and not possessed of the regular contour of the normal fibres. In the muscles the following changes were found: Extreme variation in the size of the muscle fibres, some being considerably larger than normal; increase in the interstitial tissue between the fibres; vacuolation in some fibres, and a very considerable deposit of fat between the fibres; a fine granular (? fatty) change was found within certain muscle fibres, rendered apparent by staining in Marchi's fluid. The muscle spindles formed a striking feature in sections of the muscles, and were apparently normal. The sensory nature of these organs was no longer doubted, and it was argued if it could be proved that these organs remained normal while the rest of the muscles underwent atrophy, then it was probable that the primary lesion in this disease lay in that part of the nervous system where the motor and sensory paths were separate. The authors assigned the case to the group known as the Leyden-Möbius, although hereditary history was wanting in the present case. The muscular atrophy corresponded to the late pseudo-hypertrophic type.

The President specially commended the elaborate lantern slides and microscopical specimens exhibited by Dr. Batten.

Dr. Barlow said that the merit of the complete and elaborate report and preparations was due to Dr. Batten. He remarked on the clinical features of the case, which he considered remarkable and for a time puzzling. The case seemed intermediate between the cases of myopathy described by Erb and those of pseudo-hypertrophic paralysis described by Duchenne, approximating rather to the latter; and the necropsy confirmed this view. But in November, 1894, there was no true enlargement of any of the muscles, even those most atrophied presenting a noteworthy toughening and a "fibroid feel," especially the flexors of the thigh and the calf muscles, but without enlargement. None of the muscles of the upper limbs were so atrophied as in the advanced cases described by Erb. There was apparently an absence of the hereditary element, though one child had a poor development of the muscles of the upper limb, not, however, amounting to atrophy. He would still keep the brothers and sisters under observation, as they might possibly yet exhibit the symptoms of heredity. The thighs in his patient could not be completely extended, but they could be flexed. As to this symptom, he had shown years ago a case of undoubted pseudo-hypertrophic paralysis in which this symptom was much more marked at one hip than at the other. He thought the cases were instances of developmental pathology, and though no symptoms might be apparent at birth, they became manifested at various stages as growth proceeded. The fact that the laminæ of the lower vertebræ were wanting placed the case amongst those with a potential congenital defect. These patients had a very poor hold of life; this boy, for instance, died quickly of an attack of gastro-enteritis.

Dr. Beevor thought too much stress had been laid on the hypertrophy; similar cases without hypertrophy had been described. The muscles in this case had some of their fibres hypertrophied without the muscles themselves being visibly hypertrophied; and that condition doubtless existed in other cases also.

Dr. Bertram Abrahams said that the conditions of the individual muscular fibres resembled the nerve fibres in disseminated sclerosis; for whilst some fibres were hypertrophied others were wasted; and in both cases the hypertrophy was degenerative. In 1894 Babes had described changes in the motor ends of the nerves in pseudo-hypertrophic paralysis. Could the authors confirm these views?

Dr. Savill asked if the authors had found any change in the nerves of the cauda equina? In studying these cases in the London infirmaries two things had struck him: first, the little difference there was between the different kinds of myopathy described by various observers. Duchenne had originally described all; why were Erb's type and Leyden's type regarded as different? and why should Duchenne's pseudo-hypertrophic paralysis be regarded as different from primitive myopathy? Hypertrophy and atrophy occurred even in the same individual, and hypertrophy might occur in one member of a family and atrophy in another member. It was, indeed a markedly hereditary disease. Secondly, the electrical changes had not been sufficiently studied. Until quite recently it was taught that there were no electrical changes in primitive myopathy. But in this case the K.C.C. was said to be equal to the A.C.C. He had found the same changes in a case he had described. He thought the lower motor neuron was the site of the disease; that, in fact, the mischief was in the cauda equina, and that it was not truly a myopathy after all.

Dr. Batten, in reply, said he had not examined the motor endings of the nerves in the muscles, nor did he know how to examine them pathologically. He believed the changes in the nerves had taken place in the medullated sheath of the nerve fibres as they left the cord, and not in the nerves in the muscles.

Results of Operations for Enlarged Prostate.

Mr. J. R. Lunn described six cases upon which he had operated in the Marylebone Infirmary since October, 1896, when he read a most successful case of the kind reported by Mr. A. H. W. Hunt. Case I.—The patient, aged 72, had retention and hourly micturition, due to enlarged prostate. The left vas deferens and nerves were divided and tied, without apparent benefit. The right testicle was then removed, and a radical cure for right inguinal hernia performed. The patient's health subsequently improved, but the frequency of micturition continued. The left testicle was excised a year subsequently, when the right lobe of the prostate was found less prominent than the left. Seven months subsequently the micturition in twenty-four hours had fallen from 20 or 16 times to 10, a catheter had not to be passed, and there was no retention. In November, 1898, he developed dropsy, and died in December, sixteen months after the third operation. Case II, aged 63. Micturition about every half-hour. Catheterism often necessary; urine offensive and alkaline. Section of the right vas deferens at once reduced the frequency of micturition. Three months later he again had retention, was admitted to the infirmary, and improved, but had frequent micturition at night. A month subsequently, when the left vas deferens and nerves were tied, the prostate had not apparently altered much in size, though it felt soft. A month later the micturition was reduced to four or six times in the twenty-four hours, and there was no micturition during the whole night. He went out perfectly well, the urine having become normal. Case III.—This man, aged 63, had double tuberculous testes with discharging sinuses, and an enlarged prostate. Five months after double castration the prostate was quite shrunken. He had since remained quite well, and had no frequency of micturition. Case IV.—A man, aged 66, had retention of urine and cystitis due to stricture and enlarged prostate. Temperature 102.4°. The urine contained pus and albumen, was alkaline and offensive. The bladder was drained suprapubically, the urethral stricture divided, and the bladder washed out with lotio boracis; but the bladder symptoms increased and death seemed imminent, when double castration was performed. He improved rapidly, gained a stone in weight, and the urine became neutral. Six and a-half months subsequently he had vomiting and diarrhœa, and coma and death supervened. Case V.—A man, aged 76, had retention of urine, frequent micturition, both by day and night, and catheterism was often required. The prostate was much enlarged. The left vas and nerves were cut and tied under 10 per cent. cocaine injection, but no improvement of micturition ensued. Seven weeks subsequently the right vas was tied under 5 per cent. cocaine injection. Twelve days afterwards the frequency of micturition was much lessened. About five months later cancer of

the liver appeared, of which he died. At the *post-mortem* examination both testicles were found atrophied, and he had developed a double hydrocele of the tunica vaginalis. Case VI.—A coachman, aged 64, had retention, for which catheterism was required. The urine was alkaline, contained albumen, and had specific gravity 1005. Double vasectomy under chlorform was performed. A month later he could sleep all night without passing urine, and was discharged well.

The PRESIDENT recalled a case which occurred many years before vasectomy or castration was done for this condition. A gentleman, aged 68, had tuberculous disease of the right testicle and enlarged prostate, and the frequency of micturition (twenty times in the night) made his life wretched. Castration was performed. Three or four years afterwards, when he was next seen, the right half of the prostate was much diminished in size. His left testicle was then tuberculous and was removed; and since then the whole prostate had greatly lessened in size, and now at the age of 87 that patient micturated only twice or thrice in a night. One objection to castration was that patients after the operation sometimes became senile in the brain, and died of "old brain." He had seen such cases.

Mr. SPENCER said that some of Mr. Lunn's patients had died of "surgical kidney," which the operation had not averted. Double vasectomy or castration did not enable surgeons to dispense with the other measures for cystitis, such as catheterism, suprapubic drainage, washing out, etc. The senile degeneration already mentioned and the eunuchoid condition that occasionally occurred made one hesitate to advise the operation.

The PRESIDENT objected to the term "surgical kidney"; that condition was not the outcome of proper surgery, but of the want of it.

Mr. LUNN, in reply, said that some of his patients had become fat, but none had developed the mental troubles to which reference had been made.

MEDICAL SOCIETY OF LONDON.

EDMUND OWEN, F.R.C.S., President, in the Chair.

Monday, February 13th, 1899.

CLINICAL EVENING.

COXA VARA AFTER OPERATION.

Mr. WATSON CHEYNE showed two cases of coxa vara after operation. The paper is published at p. 400.

Mr. JACKSON CLARKE said he had four similar cases. In three, aged respectively 2, 2, and 3 years, as rickets was still in active progress he devised instruments to keep the foot looking forward and to take the weight off the hip. These patients had greatly improved and no operation was now necessary. In the fourth case he had seen the patient at a period anterior to the existence of a deformity, the symptoms being those of early tuberculous coxitis. In that case by extension, etc., the symptoms subsided and no deformity had resulted.

Mr. CHEYNE, in reply, said he had not been able to devise any splints that would be likely to effect the object he had in view. While he thought this was the best method of dealing with young subjects, the alternative operation of removing a wedge of bone from the neck of the femur might be preferable in adults.

CEREBELLAR ABSCESS: OPERATION: RECOVERY.

Dr. MAGUIRE showed a man, now 29 years of age, seen in March, 1896, with symptoms pointing to cerebellar abscess following on a discharge from the right ear. He was unconscious after having had convulsive movements of the left side. The head was turned to the right, the left arm and leg were flaccid, and the mouth was slightly drawn to the right, the right pupil being larger than the left. Temperature 101°. A few hours later he developed distinct weakness of the right arm and leg. He was trephined behind the right ear, and on cutting through about a quarter of an inch of cerebellar substance an abscess was reached and 2 ounces of pus evacuated. The patient recovered consciousness next day and made a perfect recovery.

Dr. STCLAIR THOMSON asked why the mastoid process was not opened and whether the piece of bone was replaced.

Dr. MAGUIRE, in reply, said they had thought it best to go straight to the abscess. The bone was not, he believed, replaced.

SO-CALLED PHARYNGO-MYCOSIS LEPTOTHRICIA.

Dr. STCLAIR THOMSON showed a man, aged 38, who presented on the lingual and faucial tonsils the characteristic appearances of what was generally described as pharyngo-mycosis leptothricia. The crypts were occupied by small isolated tough firmly-adherent white excrescences which had not coalesced, the mucous membrane between them, being apparently healthy. He pointed out that this affection was more common in adults and in females. It recurred rapidly after removal and if left untreated it generally disappeared, but might last for five or eight years. He questioned the etiological value of the presence of spores and mycelium of the fungus, adding that attempts at inoculation had failed. Siebenmann had proposed the term "hyperkeratosis lacunaris" for this condition. Local antiseptics had failed to improve matters, and he relied upon local surgical measures.

Mr. WATSON CHEYNE suggested removal of the tonsils.

Dr. F. DE H. HALL said he had obtained excellent results in several cases by the application of a 15 per cent. alcoholic solution of salicylic acid, and deprecated resort to surgical measures, except in cases that had resisted the salicylic treatment.

GRAVES'S DISEASE IN A MALE.

Dr. HECTOR MACKENZIE showed a stationmaster, aged 32, suffering from typical Graves's disease. In this country the estimated proportion of male subjects of the disease to female was as 1 to 20. He called attention to the occasional presence in the urine of these patients of a substance which was not glucose, but reduced Fehling's solution. A prominent symptom in this case was cutaneous itching, which he recalled was often complained of during the course of treatment of myxœdema by thyroid preparations.

Mr. WATSON CHEYNE had operated on a number of these cases with considerable improvement in respect of one or other of the symptoms, though the exophthalmos in no case disappeared. He did not admit that the proportion of cases in women and men was as different as stated by the author.

Dr. MAGUIRE had employed tincture of cactus grandiflora in those and other cases with marked palpitation with uniformly satisfactory results. No diminution, however, had ever taken place in the projection of the eyes.

Dr. MORISON pointed out that many of these cases improved in time without treatment of any kind. He suggested that the hypersecretion on the part of the thyroid was probably only a prominent symptom of an essentially nervous disturbance.

Dr. HADLEY said that if the history of these patients was followed up one generally found that after the lapse of years the more prominent symptoms had subsided, especially the palpitation. Some patients drifted into lunatic asylums, and others died. Of 3 cases, one died of granular kidney and one of endocarditis.

Dr. MACKENZIE, in reply, said several of his cases had been operated upon, but he could not say that their subsequent condition was better than that of others not so treated. He pointed out that the mortality of the operation itself was about 12 per cent. Though perfect recovery was rare, he had seen many cases in which the symptoms had improved to a very great extent. He recalled one case in which death took place from acute diarrhœa, but the danger of a fatal termination was most marked during the first eighteen months, comparatively few dying during the later stages. The mental element was often very difficult to combat.

A LARGE THORACIC ANEURYSM.

Dr. MACKENZIE also showed a man with an enormous thoracic aneurysm. He first came under observation two years ago complaining of pain in front of chest and through lung on left side, there being then no visible aneurysmal swelling, but there was dulness and pulsation in the second right intercostal space. Three months later he returned with a swelling so pronounced as to be visible without undressing. It reached from the clavicle above to the upper border of the fifth rib below. This large tumour had given rise to very insignificant symptoms, and the patient did not feel ill enough to enter the hospital.

Dr. HALL referred to a case of his own in whom he was trying the treatment suggested by Lancereaux in a recent number of the *Semaine Médicale*, of injections of gelatinised serum, and he promised to give the result at some future time.

Dr. Maguire, in view of the want of success of any method of treatment, thought it was better to encourage these patients to work on until the end. By placing the patient on his back perforation of the œsophagus was favoured.

Subcoracoid Dislocation of Head of Humerus with Fracture of Great Tuberosity.

Mr. Warren Low showed a man aged 51, who, after a heavy fall down stairs, developed swelling of, and pain in, the left shoulder. The head of the bone was absent from its normal position, and could be felt below and to inner side of the coracoid process, and several unsuccessful attempts were made to reduce the dislocation. During one of these attempts crepitus was felt, and a diagnosis was made of fracture of the surgical neck of the humerus with dislocation of the head. A fortnight later, as the arm was quite useless, Mr. Owen cut down on to the head of the bone, using the ordinary anterior incision. He found a subcoracoid dislocation of the head of the humerus; the great tuberosity had been completely torn from the humerus and comminuted, and a part of the glenoid fossa had been broken off. There was no fracture of the surgical neck. As even with the head of the bone exposed it was impossible to restore it to its normal position, Mr. Owen removed the head by sawing through the surgical neck. The patient made an uneventful recovery, and he left the hospital with some slight movement between the humerus and scapula.

Mr. Jackson Clarke referred to a similar case of his own in which as reduction was found to be impossible, and as there was much œdema of the arm, he cut down without opening the capsule, and forced the head back into position. A fortnight later, however, it came out again, and though it could be returned the œdema remained. He ultimately excised the head of the bone, but even then the œdema persisted, and he had at last to amputate the limb. Looking back on that case, he thought that if in the first instance he had opened up the joint and made an exact diagnosis, he might have wired the tuberosity to the humerus as it was not comminuted. The joint movements after excision were usually very restricted, and if reunion of the tuberosity could be obtained it was to be preferred.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

J. W. Moore, M.D., P.R.C.P.I., President, in the Chair.

Friday January 27th, 1899.

Erb's Juvenile Form of Muscular Atrophy.

Dr. Langford Symes exhibited a case of juvenile muscular atrophy. The patient was a boy, aged 8½ years. He was brought for advice for his "inability to walk properly," and had been ailing since he was 2 years old. It began when he was learning to walk; if he fell he could not get up alone; he was now getting more helpless, could not walk up stairs, and was unable to get in or out of bed. The chief symptoms were: (1) rather imbecile, foolish expression and lack of intelligence; (2) knee-jerks completely gone; (3) lordosis on standing, and sometimes lateral curvature from muscular weakness; (4) he cannot lie down or get up off the floor without falling (totally unable to get up); (5) extreme wasting of deltoids, pectorals, intercostals, trapezius, latissimus dorsi, and lip muscles; (6) some slight hypertrophy of the calves and portions of the deltoids; (7) walks with a "waddling" high action gait, with lordosis and a wide base; (8) high arched palate; (9) mouth affected, cannot whistle (orbicularis). The diseases resembled were (1) Erb's juvenile form of muscular atrophy; (2) pseudo-hypertrophic muscular paralysis in an atrophic stage; (3) facio-scapulo-humeral type of muscular atrophy (Landouzy and Déjerine). The distinguishing features were the shoulder girdle being badly affected; being a family disease (his mother's brother was similarly paralysed at 7 years of age and died at 16 years, never having walked); sensation normal; no general enlargement of the muscles, and the mouth being affected.

The Clinical Features of Beri-beri.

Dr. Conolly Norman read a paper in which he analysed the symptoms of beri-beri. Heart troubles were the most serious. An invariable condition was tachycardia, with extreme irritability of the pulse. Unconformability of heart and pulse was frequent and striking. Variable murmurs most commonly heard in the pulmonary area were not infrequent, also reduplication of the first or second sound. The heart was frequently dilated, and this dilatation, chiefly affecting the right side, often came on with singular rapidity. Death from heart involvement was common, sometimes occurring quite suddenly, and in apparent convalescence, sometimes after a prolonged agony. The sensory symptoms, always occurring primarily in the lower extremities, and sometimes confined to the legs, consisted of various degrees of superficial anæsthesia and hypæsthesia combined usually with paræsthesia and hyperæsthesia (painful anæsthesia). Deep (muscular) tenderness and tenderness of the nerve trunks coexisted with loss, diminution, or alteration of superficial sensation. Spontaneous pain (aching and cramps in muscles, painful formication in skin) were common. Œdema was probably always present, though sometimes very slight and transitory. It varied in character, being usually less marked than in ordinary anasarca, and sometimes approaching closely to the "solid œdema" of the myxœdematous state. It might be slight, fugacious, and confined to the pretibial region, or it might spread all over the body. Cases which were highly œdematous constituted the so-called "wet form" of beri-beri. Effusions into the joints were rare, but common in the serous cavities, especially in pleura and pericardium. In the latter situation they often accelerated death, which might also be brought about or hastened by œdema of the lungs. The motor symptoms were paralysis of various muscles or groups of muscles. The muscles first attacked were usually those supplied by the peroneal nerve. The gait in well-marked cases was characteristically neuritic. The greater engagement and less resistance of the extensors gave the shifting equilibrium in standing, the dropped and inverted foot, the high action in walking. The paralysis rarely involved the upper extremities. The muscles of respiration not rarely suffered, particularly the diaphragm, a fact which constituted one of the dangers of the disease. The muscles engaged tended to waste rapidly. When this wasting occurred after œdema had been slight and transient, the "dry" or "atrophic" form of the disease was produced, but the wasting might coincide with extensive anasarca, becoming manifest only when the latter was abated. The author desired to point out the importance of recognising the affection, which would certainly appear to be spreading and enlarging its habitat. Since 1894, when it first appeared in the Richmond Asylum, epidemics had been reported from two asylums in the United States, a few cases strongly recalling beri-beri had been reported from German asylums, and an epidemic which attacked 150 patients, of whom about 40 died, had occurred in the autumn of 1897 in an asylum in the South of France. Dr. Norman exhibited a number of photographs of beri-beri patients from the Richmond Asylum epidemics, showing the dropsical and the atrophic forms of the disease, showing also the peculiar dropping and inversion of the feet, and demonstrating the peculiar relaxation of the joints which occurred in this disease. For purposes of comparison, he exhibited some photographs of cases of alcoholic neuritis and tabes dorsalis.

Dr. Smith said that when the diagnosis of the cases in the Richmond Asylum was first hinted at, it was scoffed at and ridiculed by some, and it was not till Dr. Patrick Manson—who was specially invited over for the purpose—Sir Thornley Stoker, and himself had prepared a report on the matter that all doubt was set at rest. He considered that the diagnosis of beri-beri was easy only when it occurred in places where the disease might be expected or when one was already familiar with it. Quite lately two Norwegian sailors, who came from Florida, were admitted to Sir Patrick Dun's Hospital. The main symptoms which they presented were a curious combination of motor, sensory, and trophic conditions, which he thought would be hard to fit in with any other diagnosis than that of beri-beri. They would have been labelled probably as either cases of alcoholic neuritis, or perhaps some more high-sounding name, if the disease had not already been known in Dublin. It was a singular fact that on removing patients in the earlier stages of this disease to new surroundings they were likely to recover—a thing that would not happen in the case of other infective diseases. There was no use in removing a typhus fever patient to a

place where there were no other cases of the same disease, though such a procedure was of benefit to the beri-beri patient. On account of this fact Dr. Manson supported the theory that it was due to a peculiar poison which was distilled, so to speak, from the soil, the building, and the surroundings in which the patient lived, and by removing them from these surroundings they removed the cause. He thought that the most interesting point in the morbid anatomy and clinical history of the disease was the remarkable and serious interference with the neuro-muscular apparatus of the heart. The only other disease offering a pathological parallel to this was diphtheria, for in that disease, as in beri-beri, the heart was often heavily hit, and an interesting comparison might be drawn between the cardiac symptoms of these two diseases.

Dr. Littledale, Surgeon-General Potter, Dr. Dawson, Mr. Croly, Dr. Knott, and Dr. Martley also joined in the discussion.

Dr. Norman, in reply, said that Manson's opinion that the poison of the disease lurked about the soil of buildings seemed to be supported by appearances. Several writers on the subject had pointed out the seeming liability there was to an outbreak of beri-beri where the soil had been recently turned over, and this led them to think that it was a miasmatic disease. Some even had gone so far as to say that it was malaria. In answer to questions, he said that he had not found the spleen or liver enlarged in his cases. He had not noticed any change in the hair or nails. He remembered one case in which the teeth had all fallen out, but he did not think this was due to beri-beri. One patient had exhibited a series of herpetic patches, which turned into bullæ, and left little ulcers after them. There were three or four cases ushered in by a curious eruption not distinguishable by him from erythema nodosum. He could not enlighten Mr. Croly as to why beri-beri should occur chiefly in asylums in this climate, and amongst the epileptics in those institutions. He was disappointed in the use of electricity in this affection, more so since some writers on this subject had said that it was possible to diagnose beri-beri by means of the electrical reactions before other symptoms occurred. They had not found changes of any consequence in the spinal cord, which was disappointing, as other observers had stated that the cells in the anterior cornua were frequently found to be degenerated.

ULSTER MEDICAL SOCIETY.

Joseph Nelson, M.D., President, in the Chair.

Wednesday, February 8th, 1899.

Cases.

Dr. J. R. Davison showed a case of Erythema Migrans Linguæ.—Dr. Lindsay showed two cases of Cardiac Disease presenting some unusual features.

Microscopic Specimens.

Dr. Tennant showed some microscopic preparations illustrative of the pathology of pneumonia.

The Prevention of Tuberculosis.

Dr. Howard Sinclair moved a resolution approving of the objects of the National Association for the Prevention of Consumption and other forms of Tuberculosis, and recommending the members of the Ulster Medical Society to attend the town meeting to be summoned by the Lord Mayor.

Dr. Lindsay seconded the resolution, which was carried unanimously.

Pneumonia.

Professor Whitla opened a discussion on this subject from the point of view of pathology. He discussed the objections to Laennec's view that pneumonia was an inflammation of the lung, to which the constitutional symptoms were secondary. He insisted that the disease was a specific fever, and that the lung changes were the local manifestations of the general blood condition. He quoted statistics showing the frequency with which different micro-organisms were found in the lung and sputum, and held that the diplococcus of Fraenkel was the cause of the disease in the majority of cases. The causative relations of the streptococcus pyogenes and the bacillus of Friedlaender were discussed and accepted as the explanation of other forms of pneumonia. Dr. Whitla believed that these different microbes produced different forms of the disease, and that these forms could be diagnosed at the bedside by the ordinary auscultatory methods. Influenzal pneumonia was due to the streptococcus pyogenes, and was a mixed infection. Its physical signs were peculiar, their polymorphic character being remarkable. This form of pneumonia was highly contagious, and very apt to attack anyone in close proximity to the patient, though those actually suffering from influenza were most susceptible. He had witnessed many cases where a patient suffering from influenzal pneumonia had infected those about him not with influenza but with the streptococcus form of pneumonia. Fraenkel's diplococcus produced the ordinary honest pneumonia with its characteristic lobar hepatisation. He thought Dr. J. W. Moore's idea that the so-called erysipelas of the lung was identical with the influenzal or streptococcic pneumonia was correct.

Dr. Lindsay dealt with the subject from the point of view of diagnosis and treatment. In exceptional cases difficulties in diagnosis arose because (1) the symptoms might precede the physical signs by two, three, or even four days. One theory of these cases was that the pneumonia was centric and only became manifest when it had made its way to the surface of the lung. It was more probable that the blood infection might actually precede by a considerable interval the pulmonary manifestations. (2) In rare cases the disease might be practically non-febrile. He had recently seen a well-marked case of right basic pneumonia in which the thermometer did not begin to rise until eight or ten hours before death. There was an alcoholic history, the symptoms were asthenic, and the patient died on the third day. (3) The invasion might simulate typhoid fever. The term "typhoid pneumonia" should be discarded. The significance of certain symptoms was alluded to. The speaker's statistics showed that the mortality was less in cases with a maximum temperature of 103° to 104° than with lower temperatures. A low temperature in pneumonia often meant imperfect reaction, alcoholism, or age, and was hence unfavourable. Albumen in the urine had no significance. The absence of all sputum was not unfavourable and hæmoptysis seldom need give rise to anxiety. "Prune juice" expectoration was of evil augury. Intense dyspnœa was usually serious, but he had recently seen recovery in a man, aged 59, in whom the respirations were at one time 70 per minute. Diurnal delirium was grave. A delay in the crisis past the tenth or twelfth day might point to empyema, pericarditis, or abscess of the lung. Delay in resolution need not usually excite alarm. Apical pneumonia was not specially dangerous. There were usually no sequelæ. Phthisis never followed croupous pneumonia. He had known general bronchitis develop during convalescence and prove fatal. There was no routine treatment of pneumonia worthy of attention. Each case should be individualised, and attention given to the quarter where danger threatened. Cardiac failure was the chief source of danger, and should be guarded against by complete rest, suitable nourishment, alcohol, strychnine, and inhalations of oxygen. Ammonia was sometimes useful, and digitalis was worthy of a trial. Antipyresis was seldom required in any active form, but cold sponging and the use of the icebag were useful. His early trials of oxygen had been unfavourable, but he had recently seen decided benefit from it.

Surgeon-Lieutenant-Colonel Moorhead supported the view of the specific nature of pneumonia. He pointed out that the pneumococcus sometimes attacked the cerebral and the spinal meninges, and that in some cases the meninges were the only seat of the disease. He cited 5 fatal cases he had had in India where both meninges and lungs were attacked, and 6 other cases where the meninges alone were involved.

Dr. McCaw said that in patients under the third year probably 75 per cent. of cases were of the broncho-pneumonic variety, which was probably due to the lungs in early life containing more interstitial tissue, and the air cells being smaller and occupying less relative space. The epithelial lining of the small bronchi and alveoli was relatively larger. These structures responded readily to slight irritation, hence giving a catarrhal character to the resulting inflammation. After the third year the affection assumed more of the croupous type. The broncho-pneumonic form might either be primary or might follow measles, pertussis, diphtheria, or scarlet

fever. Crackling *râles* heard over the dull areas, with bronchial breathing, and increased vocal or cry resonance were usually sufficient for a diagnosis. Typical croupous pneumonia might be present in one lung, and typical catarrhal pneumonia in the other—often causing errors in diagnosis. He agreed with Dr. West (1) That primary and secondary broncho-pneumonia had a different bacteriological origin; (2) that secondary broncho-pneumonia was for the most part due to streptococcus infection derived from the air passages, throat, or mouth; (3) that primary broncho-pneumonia was of pneumococcal origin; (4) that pneumococcal inflammation produced massive and lobar consolidation in the adult, and disseminated or patchy inflammation in the child. Good nursing was most important in treatment. The free use of steaming and tenting was undesirable. Spongio-piline was preferable to poultices. Calomel was useful. Diaphoretics, expectorants, digitalis, emetics, strychnine, and leeching might be employed according to circumstances.

Dr. McKisack quoted statistics from the records of the Royal Hospital illustrative of various points in the diagnosis and prognosis of pneumonia. The unfavourable prognostic significance of low temperatures come out in these tables. He had met with no single instance of recurrence of the disease, which was remarkable, as all authorities represented recurrence as somewhat common.

Professor Byers related some cases out of his experience, and demurred to the theory of multiple infection. He thought the contagiousness of influenzal pneumonia really meant that influenza was contagious, and not its complications.

The discussion was adjourned.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Edwin Lee, M.R.C.S., President, in the Chair.

Friday, February 3rd, 1899.

Ocular Phenomena associated with Cheyne-Stokes Breathing.

Mr. Whitehead first mentioned conjugate deviation of the eyes, nystagmus, strabismus, and periodic fluctuations in the size of the pupils. Some cases of nystagmus and pupil movements similar to those observed in association with Cheyne-Stokes breathing were described as occurring without any alteration in the rhythm of respiration. Two cases of meningitis, in which periodic contraction and obliteration of the pupils took place without Cheyne-Stokes breathing being present, were then mentioned. The possibility of Cheyne-Stokes respiration being only one of a series of rhythmic disturbances of the nuclear centres, occurring in certain pathological states, was alluded to, and it was suggested that the loss of control exercised normally by the higher centres was the main factor in the production of the Cheyne-Stokes state.

Drs. Barrs, Churton, and Trevelyan took part in the discussion.

The Spread of Typhoid Fever.

Dr. Spottiswoode Cameron, dealing with the causes of the spread of typhoid, said that although a few held that the pathogenic germ was probably a variant of some innocent organism, at present the evidence for that theory was insufficient. Sudden outbursts, like that of Maidstone, were generally associated with the water supply; but was it not possible that in some cases a more diluted poison selecting the more susceptible individuals might be responsible for some of the increased autumnal prevalences of the disease? It had been noticed in milk outbreaks that members of a family taking only a few teaspoonfuls of milk to discolour their tea escaped infection, whilst those taking larger quantities and raw succumbed. Might not similarly the amount taken, along with the susceptibility of the individual, be the determining factors of attack in cases of slightly polluted water? Water obtained by impounding natural streams was more or less polluted. It was impossible altogether to ignore the possibilities of aërial convection. In a case he had recently published in the *Surveyor* he had shown how in a public institution the only common food of those attacked was milk, that the sources of the milk supply were pure, and that the infection of the milk must have occurred in the keeping cellar which communicated with the drain. The milk could only have been infected by the passage of the poison through the air. Dr. Cameron advocated: (1) The thorough inspection of the sources of water supply, and he thought it advisable that water authorities should themselves own their gathering grounds; (2) the protection of the soil around dwellings and upon which new houses were to be built from contamination; (3) the cremation of the typhoid bacillus as it left the person of the patient; and (4) to secure this, early notification by the practitioner even of doubtful cases. He feared much that was called disinfection consisted in destroying the competitive bacilli, and leaving Eberth's in full possession of the field.

Dr. Evans (Bradford) pointed out that the term "aërial convection" as used by Dr. Cameron in reference to the spread of typhoid fever was quite as reasonable as when applied to diffusion of small-pox. The poisons of the two diseases were recognised as being microbic, and could therefore be conveyed in the same manner. Nevertheless, it must be admitted that the distance through which the germs of typhoid fever might spread would be much less than the distance covered by the particulate infection of small-pox. He also pointed out, in reference to typhoid fever being conveyed by water, that the value of chemical analysis was not so great as members of sanitary bodies appeared to think, and maintained that such analysis was frequently misleading. Although chemical analysis might frequently indicate danger, it could never be relied upon to show that any particular sample of water was free from the specific infection of waterborne diseases.

Dr. Barrs and Mr. A. E. Pearson both thought that if nurses contracted the disease this was due to an imperfect disinfection of the hands. Surgeon-Major Robinson, Dr. Cheetham, Dr. Johnstone, Dr. Churton, Dr. Griffith, and the President also joined in the discussion.

Ligature of the Common Carotid for Hæmorrhage from the Ear.

Dr. Stewart said that on May 18th, 1898, he was called to a child suffering from hæmorrhage from the ear. On arrival he found a little girl, aged 3 years, lying on a sofa almost lifeless. Three weeks before she had got thoroughly wet, and a few days afterwards a lump appeared at the angle of the left jaw, with pain on swallowing. On the fourteenth day from the appearance of the swelling in the neck, the child complained of intense earache, and a few hours afterwards there was a profuse discharge of foul, greenish pus from the left meatus. Forty-eight hours afterwards an attack of hæmorrhage from the ear occurred, followed by another on the same day, and two more on the day following. The bleeding always ended in faintness. Dr. Stewart saw the child on the third day from commencement of the hæmorrhage, when she had another attack. He packed the external meatus with gauze, and bandaged the head up tightly, but, as the bleeding recurred during the night, the mother consented to an operation. The left common carotid was tied. The child was quite well within a week. The blood was distinctly venous in character. The only change noticeable after the operation, and which still persisted, was a flushing of the right side of the face, with profuse sweating on exertion, as compared with pallor on the left side, on which carotid was ligatured.

Drs. Tempest Anderson, Mr. Brown, Dr. Griffith, and Mr. Whitehead discussed the paper.

Specimens.

Cases and specimens were shown by Dr. Jenkins, Mr. Sims, Dr. Braithwaite, Mr. Ward, Dr. Griffith, Mr. Croft, Mr. Thompson, Dr. Barrs, Mr. Littlewood, Dr. Sharp, Mr. Lawford Knaggs, Dr. Hellier, and Dr. Trevelyan.

PATHOLOGICAL SOCIETY OF MANCHESTER.

R. B. Wild, M.D., President, in the Chair.

Wednesday, February 8th, 1899.

The Diphtheria Bacillus.

Dr. Trevelyan (Leeds) read a paper based on the examination of suspected exudation in the laboratory of the Leeds Medical School. He thought that the aggregation of the protoplasm in certain parts of the microbe was more characteristic than any arrangements of the micro-organisms in regard to each other. The short bacillus had comparatively rarely been found in these examinations, but mixed forms were

often present. Occasionally anomalous forms in the shape of long and short clubs had been obtained, but this no doubt depended largely on the culture medium used. Branching forms had not been seen, cultivation on egg albumen usually yielding the long form. Neisser's method of staining required manipulation, and perhaps the help to be obtained from it in doubtful specimens, especially of the short bacillus, was hardly so great as was at first expected. The serum media were of much value in the cultivation because the diphtheria bacillus outgrew other microbes, at least within the first twenty-four hours, but the cultivation could be continued on other media equally well. The growth obtained on antitoxic serum was sparse. Grown on alkaline, litmus, lactose, agar, typical forms did not always produce acid. This acid production, especially in glucose media, could not be of great value in the rapid diagnosis. The characters of the diphtheria colony were discussed, and illustrated by drawings and impression and other specimens. The colony was frequently thicker in the centre, but sometimes also round its margin —the slightly irregular margin—its somewhat dry aspect and loose attachment to the medium were important characteristics, but it was not always possible to recognise it with certainty. Finally, Dr. Trevelyan expressed the opinion that the bacteriological examination was of great importance to the clinician in a not inconsiderable number of cases, yet if the full value was to be obtained, the results must be promptly communicated. Thus in the large majority of cases it was possible to report by telephone or other means within twenty-four hours of receiving the specimen.

DIVERTICULUM OF THE BLADDER.

Mr. WRIGHT and Mr. COATES described an unusual case of diverticulum of the bladder, not due to obstruction, details of which it is intended to publish later.

MALIGNANT RENAL GROWTH.

Professor JONES and Dr. KELYNACK showed preparations of a sarcoma of the left kidney which had been successfully removed by lumbar nephrectomy from a man, aged 50. The chief symptoms had been hæmaturia and pain. The growth consisted of a very vascular myxo-sarcoma involving almost the whole of one end of the organ.

LIVERPOOL MEDICAL INSTITUTION.

W. MACFIE CAMPBELL, M.D., President, in the Chair.

Thursday, February 9th, 1899.

HOUSE-SURGEONS AND THE WORKMEN'S COMPENSATION ACT.

The report of a Committee to the effect

That house-surgeons to hospitals should be allowed to charge fees for reports under the Workmen's Compensation Act, and that such fee should be one guinea to insurance companies and employers of labour,

was adopted.

TUBERCULOSIS.

Dr. T. R. BRADSHAW proposed, and Dr. HOPE seconded, the adoption of a Committee's report on Tuberculosis in the Human Subject. The report suggested (*a*) diffusion of information to the public respecting tuberculosis; (*b*) the arrest of tuberculosis by diminishing the sources of infection; (*c*) the provision of sanatoria and special hospital accommodation; and (*d*) voluntary notification of infected houses and disinfection of the same by the health authorities.

After discussion, in which the PRESIDENT, Drs. GILL, IMLACH, PERMEWAN, GLYNN, E. T. DAVIES, BUSHBY, and Mr. RUSHTON PARKER took part, the report was adopted.

CASES.

Mr. THELWALL THOMAS exhibited a patient from whom he had removed an Epithelioma of the Larynx by Thyrotomy.—Mr. T. H. BICKERTON exhibited a patient, aged 51, on whom he had performed the "grattage" operation for Trachoma of the Right Eyelids. The disease was of long standing (two years and a-half), and owing to the "pannus" condition of the corneæ he could only count fingers, and for twenty-one months had been unable to follow his employment. The cornea was now clear; vision $\frac{6}{18}$ and Ja. 8. Dr. ALEXANDER thought that in most obstinate cases the roller operation was better than grattage. Dr. RICHARD WILLIAMS spoke in favour of roller and jequirity. Mr. RUSHTON PARKER spoke.

IDIOPATHIC DILATATION OF STOMACH.

Dr. T. R. GLYNN read a paper on the symptoms and treatment of idiopathic dilatation of the stomach. He pointed out that no single symptom or group of symptoms could be considered pathognomonic. He disposed of many of the direct stomach symptoms in a few words, remarking that in some instances there was evidence that the dilatation originated in hyperchlorhydria. He mentioned cases in illustration. Vomiting was more particularly discussed, its absence in many cases noted. Gastric crises and constipation were next dealt with. Diarrhœa as a crisis of purging was a chronic affection, mucus being noted in the evacuations in many cases; as general symptoms, the flabby abdominal wall with tendency to rupture and displacement of the right kidney. He did not accept Bouchard's view that the nervous symptoms were toxæmic, but regarded the depressed nervous system as the origin of the dilatation and of the nervous trouble. The disease was frequently met with in young men between 18 and 30 years of age. Cyclical albuminuria was met with. He considered that the affection was found almost invariably in the neurotic, in those with a neurotic family and personal history, and in those who presented the marks of degeneration. Treatment should be directed to the nervous system, general rather than local. He advised caution in the use of the stomach tube, mentioning two cases in which washing out the stomach had become a habit, one patient having continued to wash the stomach out for fifteen years, the other for nine years.

Mr. RUSHTON PARKER said exploration had not infrequently to be undertaken in cases where the diagnosis was doubtful. In one case he had operated on a case of dilated stomach where there was a history of gastric ulcer and probable cicatricial obstruction. Simple idiopathic dilatation was found and the abdomen closed. The patient was immediately relieved from symptoms and had remained free four months later.[1] Operation in such cases had occurred often enough to convince surgeons of its utility in abdominal ptosis. It was of course not recommended as a deliberate treatment for recognised idiopathic dilatation.

Dr. ARCHER had met with a considerable number of cases in a minor degree in young men and women, and he believed that irregularity of meals and insufficient exercise were conducive to it. He was of opinion that a general distension of the intestines often accompanied the affection. He had found mineral acids and nux vomica of service.

Dr. IMLACH alluded to the striking contrast in modern views as to surgical interference. In cancer of the pylorus surgical results would not bear telling. In pyloric obstruction from simple ulceration and thickening the results were far better than generally recognised. He regarded psychological surgery by operative interference in cases of idiopathic dilatation as quite unjustifiable. Of course there must always be a margin for mistake in diagnosis.

Drs. GILL, GRÜNBAUM, and DAVIES, and Mr. PAUL spoke.

BRITISH GYNÆCOLOGICAL SOCIETY.—At a meeting on February 9th, Dr. MACNAUGHTON JONES, President, in the chair, Dr. BANTOCK showed two specimens of Fibroid Tumour of the Uterus, the first removed by panhysterectomy, and the second by the *serrenœud*.—Dr. SNOW showed (1) a Myoma removed by abdominal hysterectomy; he had adopted a new plan of dissecting off a thin layer of uterine tissue with the flaps, instead of making them of peritoneum only; (2) a Small Myoma removed *per vaginam*.—Mr. MAYO ROBSON (Leeds) read a paper on Complete Removal of Fœtus and Sac in a case of advanced Extrauterine Pregnancy. He confined his remarks to the narration of a case, and the discussion of the treatment of advanced extrauterine pregnancy, with special reference to the mode of dealing with the sac. Operation in this case was undertaken two months after full term, the fœtal movements having ceased at term. After incising the sac and removing the fœtus, he found that it would be possible to remove the entire sac; so he ligatured off the ovarian vessels externally, and made a pedicle between the sac and the uterus. After separating the anterior layer of the mesosigmoid, which was expanded over the sac, the tumour could be shelled out from its bed. The patient made a good recovery. He quoted a passage from a recent textbook to show

[1] BRITISH MEDICAL JOURNAL, 1898, vol. i, p. 438.

that removal of the entire sac was not worth considering after the fourth month. Mr. Taylor, in his Ingleby Lectures, described the removal of the sac in intraligamentous pregnancy as unnecessary and dangerous. Kelly, on the other hand, advocated the removal of the sac whenever it was possible. He suggested the following general rules: When the fœtus was found among the intestines, and had been removed, if the placenta was attached to the expanded tube it could probably be removed, but if spread over the intestines or large vessel it was safer to leave it, and pack the placental area with gauze. If the fœtus was enclosed in a sac, then after extraction of the former the sac should be examined to see if its removal was possible. The preliminary securing of the uterine and ovarian arteries would facilitate the subsequent procedures.—Dr. Macpherson Lawrie (Weymouth) read notes of a case of Ectopic Gestation, which he recorded as a possible instance of ovarian pregnancy. The President elicited from Dr. Lawrie that there was no critical proof that it was a case of ovarian gestation, nor was it shown that any corpora lutea were present in the tissue examined. Mr. Bland Sutton emphasised the distinction to be drawn between the cases where the pregnancy was abdominal when the sac was formed only by fœtal membranes, and those in which it was intraligamentous, when the tissue of the broad ligament entered into the formation of the sac. The former were rare; he had seen only one out of 16 cases of advanced ectopic pregnancy. In these cases the sac could be removed without difficulty, but when intraligamentous the removal of the sac was a formidable matter, and should not be attempted. Dr. Bantock concurred in Mr. Sutton's views. Dr. William Walter (Manchester) pointed out the great difference there was in operating on advanced cases of ectopic pregnancy after the fœtus was dead. To remove the sac was not then attended by the same danger as when the fœtus was still living. Remarks were made by Dr. F. Edge (Wolverhampton), Dr. Arthur Giles, the President; and Mr. Sutton and Mr. Mayo Robson briefly replied.

British Laryngological, Rhinological, and Otological Association.—At a meeting on January 27th, Dr. J. Middlemass Hunt, in the chair, Mr. Lennox Browne showed a man, aged 68, with Laryngeal Epithelioma of at least two and a-half years' duration which had not been submitted to operation. Owing to the age of the patient no attempt had been made at eradication. The patient was in good health, and was able to take a fair amount of exercise. Dr. Macintyre (Glasgow) said the case did not seem to present the characters to be expected in an epithelioma of two and a-half years' duration. Remarks were made by Dr. Vinrace and the President; and Mr. Lennox Browne replied.—Mr. Bark (Liverpool) read notes, and exhibited a drawing of a case of Cyst of the Laryngeal Ventricle in a woman aged 66.—Dr. Stoker read a paper on the Curative Treatment of Laryngeal Phthisis: a Suggestion. Starting with the belief that laryngeal phthisis was due to the presence of micro-organisms or the toxins they produced, the suggestion consisted in the local application of the toxins after they had been oxidised, that was, that a culture should be taken from the affected part, and an oxidised toxin made and applied frequently.—Dr. R. H. Woods (Dublin) showed a specimen and microscopical section of Cancer of Right Vocal Cord removed by Thyrotomy from a man aged 74. The patient was able to leave hospital on the tenth day.—Mr. Wyatt Wingrave exhibited microscopic preparations illustrating Cholesteatomatous Changes associated with Chronic Suppuration of the Middle Ear.—Dr. Barclay Baron, in opening a discussion on the Value of General Treatment in Diseases of the Throat, Nose, and Ear, reviewed the treatment of tuberculosis, and more especially phthisis laryngea during the last few years. He pointed out how, twenty-five years ago, tuberculous patients were practically excluded from the air, kept in close rooms, and when they were sent away, the places selected were Ventnor, Penzance, or Torquay. Then came the era of high altitudes, starting with Davos, which was distinctly more satisfactory, though where the throat was affected the profession should avoid sending their patients to high altitudes. He considered the open-air treatment, as practised in Germany, together with the taking of large quantities of fat food, extremely satisfactory. Mr. Wyatt Wingrave, with regard to the nose and nasopharynx, emphasised the importance of regarding many forms of polypi as the symptoms rather than the disease itself. He referred to the necessity of a thorough appreciation of the physiological co-relation between the nose and other organs. Dr. R. H. Woods had observed that the tendency to suppurative otitis media, after measles and scarlatina, was greatly augmented by an ill-nourished and cachetic condition of the patient. He had found that cases of suppurative otitis media healed more quickly when, in addition to local antiseptic treatment, tonic internal remedies, especially iron, were given. After remarks by Mr. Lennox Browne and Dr. Macnaughton Jones, Dr. Dundas Grant drew attention to the satisfactory results obtained in some cases of nerve deafness by treating the anæmia and constipation which frequently coexisted. The President referred to errors frequently made in neurotic affections by paying too much attention to local treatment, such as the cautery, etc., when in reality general measures were chiefly indicated.

Association of Registered Medical Women.—At a meeting on February 7th, Mrs. Stanley Boyd, M.D., Vice-President, in the chair, Miss Walker-Dunbar, M.D. (Clifton), read a short paper on Callosities on the Hands and Feet not due to Pressure. She maintained that under certain conditions which depressed the nervous system, such as debility after influenza, thickening of the epidermis in places where pressure as a cause could be entirely excluded might occur. She also described a case of unusual Dislocation of the Head of the Fibula, illustrated by diagrams.—Mrs. Scharlieb, M.D., M.S., read a paper giving an account of two cases of Puerperal Septicæmia.—Miss K. M. Hunter, L.S.A., D.P.H.Camb., read a paper on Isolation *versus* Inoculation. She pointed out that in the presence of an overwhelming epidemic, such as was unknown here to day, but had lately raged in India, isolation must completely fail in England. In India, where the plan had been extensively used, labour and food were cheap, and the latter required little cooking; temporary hospitals could be used, and houses were so simple and possessions so few that disinfection was easy and inexpensive. In spite of all this, and combined with a splendid organisation, the plan of isolation had failed. From one plague-infected city alone 150,000 persons fled, many of whom died on the roads and spread infection over the country. The reasons given why a still more complete failure might be looked for in England were: (1) The impossibility of dealing with large numbers of people for such a purpose; (2) paucity of hospital accommodation; (3) enormous expense of administration and food; (4) difficulties of thorough disinfection of houses and their contents; (5) impossibility of using in this climate cheap temporary hospitals, such as in India were quite satisfactory; (6) facility and cheapness of travelling, which rendered it impossible to prevent infected persons from wandering from place to place.

Society of Medical Officers of Health.—At a meeting on February 10th, Dr. E. Gwynn (President) in the chair, Dr. F. J. Allan read a paper on Diphtheria, especially in regard to the Duration of Infection and the use of Antitoxin as a Prophylactic. He said private practitioners ought to be able to have the faucial secretions of convalescent patients examined by public expert officers, with a view to determining when the bacilli had disappeared, or, if present, had entirely lost their virulence, so that the child might be allowed to associate safely with others. The prophylactic use of antitoxin had not as yet made much way in this country, but in Germany and in America it was carried out extensively and with the greatest success. With the highly concentrated serums now in the market, the prophylactic dose of 100 to 300 units was very small in volume, and the curative doses of 500 to 1,000 far from bulky.—Dr. Symons said that in Bath whenever a case was notified he offered to immunise the family, with the consent of the medical attendant. Antitoxin treatment was most successfully carried out in their hospital.—Mr. Milsom believed that there was more diphtheria in his district of Newington than in any other part of London, though 95 per cent. of the cases were removed to hospital.—Dr. Wilkinson held that bacteriological examination must precede isolation or the use of antitoxin. Dr. Goodall was inclined to think that return cases were less frequent than

with scarlatina. He isolated adults for four weeks and children for six weeks after the disappearance of membrane. He immunised doubtful cases, but even before the introduction of antitoxin it was rarely that patients sent in through erroneous diagnosis contracted diphtheria. The unpleasant results of injections, now seldom seen, were due not so much to the inferior quality of the antitoxin as to the large volume of the horse's serum, apart from anything else, and were obviated by the high concentration of the best serums now in use, doses of 500 to 1,000 units being far less bulky than formerly.—Dr. Bullock said the duration of immunity depended on the dose of antitoxin, but never much exceeded three weeks, and susceptibility was greatly a question of age. Antitoxin had no influence on the bacilli, which could be destroyed only by washing the throat with effective bactericides. Diphtheria was rarely, if ever, spread by means of air or water, and not often by milk; the usual mode of diffusion was association of susceptible persons with others who carried in their throats bacilli that might or might not be virulent to themselves.—Drs. Bond (Holborn), Christopher Childs, Willoughby, and others having spoken, Dr. Allan replied.

Bristol Medico-Chirurgical Society.—The fifth meeting of the session was held at Bristol on February 8th, Dr. Roxburgh in the chair.—Dr. F. H. Edgeworth showed a specimen of Abscess of the Brain.—Dr. J. O. Symes read a paper on The Bacteriology of some Suppurations complicating Pulmonary Disease. Dr. Michell Clarke, Dr. Cave, Dr. James Swain, Mr. R. Williams, and Dr. Elliott discussed the paper.—Dr. Michell Clarke read a paper on Some Cases of Apoplexy, illustrated by lantern slides showing numerous temperature charts.—Mr. T. Carwardine showed microscopic and lantern slides illustrating Paget's Disease, and Mr. R. Williams spoke on the subject.—Mr. W. H. Harsant read notes on a case of Actinomycosis, and illustrated his paper with microscopic and lantern slides. Dr. Waldo made some remarks on the treatment of the disease.—Professor Fawcett showed a large number of lantern slides of Sections of the Cord, Medulla, and Mid-brain, stained by a modification of the Pal-Weigert method.

Glasgow Medico-Chirurgical Society.—At a meeting on February 3rd Dr. Hinshelwood showed (for Dr. McCall Anderson) a typical case of Psoriasis Rupioides occurring in a girl, aged 9.—Dr. John Love showed: (1) A case of Locomotor Ataxia associated with Diabetes Mellitus. The ataxia had developed with great rapidity. There had been some improvement of late under Frenkel's method of re-education of the muscle sense; (2) a case of Locomotor Ataxia with Charcot's Joint Affection very typically developed in the left knee, and commencing in the right; (3) a case of Pseudo-Hypertrophic Paralysis of four years' duration, beginning at the age of 14. The case was isolated, there being no nervous history in any other member of the family.

West Kent Medico-Chirurgical Society.—The fourth meeting of the forty-second session was held on February 3rd, Dr. Morgan Dockrell, President, in the chair. Five new members having been elected and several members admitted, Dr. Dundas Grant read a paper on Cases of Chronic Suppuration of the Frontal Sinus and Antrum of Highmore treated exclusively through the nose with good result. The paper was discussed by the President and Drs. Scholefield, J. P. Purvis, Toogood, Lorimer Hart, Clarke, Roberts, and Munro.—Dr. Grant replied.

The Cigarette before the Law.—The Supreme Court of Tennessee has decided that the cigarette is not a legitimate article of commerce. This decision was given in an action brought to test the law passed some time ago by the State Legislature prohibiting the sale of cigarettes. The Supreme Court has ruled that the law in question is constitutional, and must be enforced. The ingenuous youth of Tennessee will now have a double pleasure when they snatch the fearful joy of a cigarette: they will be doing what is declared by their sanitary oracles to be hurtful to health, and what is declared by the highest legal authority to be unlawful.

REVIEWS.

Diseases of the Heart and Aorta. By George Alexander Gibson, M.D., etc., Senior Assistant Physician to the Royal Infirmary, Edinburgh. London and Edinburgh: Young J. Pentland. 1898. (Roy. 8vo, pp. 932; 210 illustrations. 24s.)

In his preface to this important work the author claims to have put forward a faithful reflection of the present state of knowledge on the subject with which he deals. His readers will readily acknowledge the justice of this claim, and may well hold themselves indebted for the clearness, precision, and completeness with which the task has been carried out. Dealing with the normal conditions in special introductory chapters, he describes and discusses with sufficient fulness the limits of modern knowledge with respect to the heart and the aorta, and their innervation. Chapters on pathology, semeiology, and treatment succeed to these, and occupy the first third of the book. In considering all debatable questions full justice is done to other workers in the same field, and their respective views are carefully dissected, but the reader is left in some instances to discover for himself what the individual views of the author may be, as they are not in all cases clearly expressed. A full bibliography to each chapter is appended at the end of the work.

The greater part of the book is devoted to a detailed description and examination of the various morbid changes to which the heart and great vessels may be subject, the question of treatment in general being taken separately. The grouping of the various cardiac remedies is at once clear and readable and marked by sound common sense. Dr. Gibson's observations on these might well have been extended even at the expense of the more theoretical and conjectural part of the work. The successful treatment of heart disease depends a good deal more upon personal experience than upon an exact knowledge of the way in which drugs ought to act, and hence the experience of those who have given much attention to the subject cannot fail to be of value. While giving a full account of the treatment by baths and exercises he makes no secret of the fact that the successes of Nauheim are not always obtained by the practice of the Nauheim treatment at home. He attributes this to the greater amount of mental and physical rest that attends the treatment in the quiet routine of the life among the Taunus hills.

Opening the subject of individual diseases of the heart he discusses congenital affections and pericarditis. It may cause some surprise among southern readers to learn that tubercle is often a factor in the production of the latter disease, and in his figure of pulsus paradoxus as an attendant symptom of suppurative pericarditis he presents a tracing which differs widely from that which has been hitherto accepted as the type to be known by that name. The chapter on endocarditis is excellent and emphasises the fact, not always recognised, that the onset and progress of the condition may sometimes be so insidious as to escape notice altogether, and that the distinction between the simple and the malignant form of the disease is often so indefinitely marked by symptoms as to render both diagnosis and prognosis extremely difficult. That many infective process in the body may set up endocarditis, especially if the curtain of the valve be altered by previous disease, is shown to be possible by the records of cases in which different infective organisms, and especially the pneumococcus, have been found to be present in the inflamed areas of the endocardium.

In the sections dealing with valvular lesions and their results, special interest attaches to those which treat of affections of the right side of the heart. These conditions do not in ordinary practice receive all the attention that they deserve, and a careful study of Dr. Gibson's well-balanced review of the subject will well repay the time devoted to it. The same judicious use of the trustworthy observations of others tempered with the teachings of the author's own experience may be noted throughout the chapters on cardiac weakness and angina pectoris, and in the sections on diseases of the aorta which conclude the work. The book as a whole is a valuable addition to medical literature. It is written in a clear and eminently readable style, the illustrative cases recorded are for the most part aptly selected, and the reproductions of photographs of morbid specimens are admirably executed.

The Medical Register and Directory of the Indian Empire. By James R. Wallace, M.D., F.R.C.S.I. Second Edition. Calcutta: Barker Brothers. London: A. Reddick and Co. 1898. (Demy 8vo, pp. 756. 10s. 6d.)

The first edition of this work was compiled and published in 1892. The objects of the compiler in preparing the Directory are stated to have been: "(1) To clear the way for a system of State regulation of medical practice in India, and by means of such a register to accentuate the need and exemplify the feasibility of a proper scheme of medical registration; (2) to create an *esprit de corps* among the scattered members of our profession in the Indian Empire by placing them in definite knowledge of one another's existence; (3) to devise a reliable means by which communication may be readily established in all matters that concern the progress and advancement of the medical profession."

The difficulties of the undertaking were enormous; but the enterprise was successful, and resulted in the issue of a fairly accurate and complete list of men, possessed of medical qualification of one sort or another, practising in the Indian Empire.

Whether the excellent objects which have been quoted were in any considerable measure furthered or attained is a question. At any rate, a useful work of reference was provided. Things undergo rapid changes in India, and a compilation of this kind very soon needs revision. The present edition is an effort to bring the information contained in the first up to date. It contains useful information of a general (medical) description; a reprint of the laws relating to medical education and registration in Great Britain; an excellent guide to medical schools in Britain and India (compiled by Major R. R. H. Moore, M.D., R.A.M.C.); lists of the military medical services of India; a retired list; and a general alphabetical list of all medical men practising in India, indicating their qualifications, residence, and appointments.

The compiler's difficulties in collecting information regarding the employment of medical officers were greatly enhanced by the existence of famine and plague rendering frequent movements necessary. The work is on the whole very creditable to his enterprise and industry, and constitutes a good foundation for a periodical issue, which will no doubt become more accurate and complete as time progresses and as the chaos of Indian medical practice resolves itself into order.

Degeneracy: its Causes, Signs, and Results. By Eugene S. Talbot, M.D., D.D.S. London: Walter Scott, Limited. (Contemporary Science Series.) (Small 8vo, pp. 372, 120 illustrations. 6s.)

Dr. Talbot of Chicago has long been known for his industrious researches with regard to peculiarities of the palate and abnormalities of the jaws and teeth; but the present work has a much wider scope, dealing with the doctrine of degeneracy from the biological standpoint. Intended to be a more or less popular summary of the subject, we find in the volume much that is taken from the writings of others; but we have also a full account of the author's original observations, extending over twenty years, as to the stigmata of degeneration noted in the form of the skull, the development of the face and nose, the conditions of the lip, palate, eye, ear, teeth and jaws, and abnormalities of the body generally. In the chapter on the folklore of degeneracy we are told that in Shakespeare's day "stigmatic" was the popular expression for a deformed person; and reference is made to the epithet hurled at the unhappy Richard by Queen Margaret:

> But thou art neither like thy sire nor dam,
> But like a foul misshapen stigmatic.
> *III Henry VI.* ii. 2.

The views of Aristotle, Sylvius, Hippocrates, Erasmus Darwin, Rush, Morel, and Moreau of Tours are passed under review, and the principle of biologic degeneration, elucidated by Döhrn and further elaborated by Ray Lankester, is shortly stated to be "a reverse of evolution." This statement is illustrated from the studies of Niepce, Vogt, and others on idiot biology, and from those of Grohmann, Despine, Elisha Harris, Royce, and Hoyt on criminal types. The great value of Lombroso's publications in elucidating the modern doctrine of degeneracy, which attributes distortion of mental faculties otherwise seemingly high to deformity rather than disease of the brain, evidenced by certain physical concomitants, is fully recognised.

The stigmata of degeneracy are considered as divisible into mental and physical, and are said to be best observable in their relations to the "periods of stress." The heredity of acquired defects is discussed at some length, and in opposition to the doctrine of Weismann Dr. Talbot advances original information which he has obtained from experienced Jewish authorities in Chicago to the effect that preputial deficiency is somewhat frequently met with in Jewish infants, the prepuce being congenitally absent (according to the experience of Dr. Bauer) in no less than 3½ per cent. The transmutations of heredity are strikingly illustrated in the family history of an American "Napoleon of finance." Consanguineous marriages, it is urged, are not necessarily so disastrous as factors of degeneracy as those of "social consanguinity" (to adopt Strahan's term). The results of race intermixture are stated to turn largely on the environment, as illustrated in the career of the Dumas family.

In discussing the influence of toxic agents in producing degeneracy, Dr. Talbot, contrary to current opinion, gives the first place to tobacco, the second to alcohol or opium. With Krafft-Ebing, Kiernan, and Spitzka, he maintains that intolerance of alcohol is an expression of degeneracy. Opium he alleges to be a considerable factor in the causation of insanity, whilst all sorts of ills, both mental and physical, are attributed to the abuse of tobacco. "Tuberculous neurasthenia" is made much of, and the author considers that "tuberculosis is from every standpoint a social danger more serious than syphilis."

Climate, soil, and food are considered in connection with racial characteristics; and the "Yankee" change of type is illustrated by portraits of four generations of a noted American family. Changes in the form of the head and of the face in relation to degeneracy are traced out in considerable detail. Stress is laid upon the defective conditions of the occiput, and of the interdependence of cranial and facial characteristics in this connection. Arrest of development of the bones of the face and the upper jaw, often with asymmetry, is commonly met with in the criminal type. Dr. Talbot argues that deflection of the nasal septum may lead to the obliteration of the smaller cavity; that mouth-breathing results; that catarrh intensifies matters and leads to post-nasal growths; and that thus a vicious circle is established.

Dr. Talbot writes as an authority on the degenerate teeth and jaws. "The evolution of the jaw," he says, "is towards shortening in both directions ..... In the progress of evolution man has lost one lateral incisor on each side, and the second lateral seems also destined to disappear. Degeneracy of jaws has resulted from inability to adjust structure to a changing environment ..... If the jaw be arrested and be smaller in circumference than the teeth, a break takes place in the dental arch and deformity results." The primary division of irregularities is the V-shaped and saddle-shaped arches. About 50 per cent. of criminals at the Elmira Reformatory have shortening of the body of the lower jaw. A valuable table of deformities of jaws and teeth noted by the author in 7,950 cases, including criminals, insane, imbeciles, deaf-mutes, blind, and inebriates winds up this portion of the subject.

As may be gathered, the book is a valuable contribution to an important subject, but each of the eighteen chapters is so crowded with information that we find it difficult to give to our readers an adequate idea of its contents. The writer deals in a scientific manner with the many questions raised, and seeks to base his arguments and conclusions on observed facts, avoiding the large generalisations from scanty data which are to be found in too many books on the subject of degeneration.

Die Gynäkologie des praktischen Arztes. [Gynæcology for the Practitioner.] Von Dr. Wilhelm Nagel, a. o. Prof. der Geburtshülfe und Gynäkologie a. d. K. Friedrich-Wilhelms Universität, etc. Berlin: H. Kornfeld. 1898. (Roy. 8vo, pp. 375: 87 woodcuts, and 2 plates. M. 8.)

Nobody can doubt that the practitioner should not only be well grounded in gynæcology at the beginning of his career,

but should learn as years pass by all that can be known about the constant advances made in that speciality. The speedy removal of retained and adherent products of conception is a duty which a general practitioner is not rarely called upon to perform. Hence Dr. NAGEL includes, in the list of instruments needed, two blunt curettes, chiefly for removal of pieces of tissue after abortion, and one sharp curette for scraping out cancerous tissue. On the other hand, he does not encourage the abuse of this instrument. Thus under the head of endometritis he distinctly teaches that it is no panacea for that disease, though necessary in the hæmorrhagic form due to decidual relics.

Dr. Nagel rightly lays more stress on anatomical knowledge than on pathology. Without anatomy, he insists, correct gynæcological diagnosis is inconceivable. The diagrams of parametritis and other morbid conditions are fairly clear and instructive. On the other hand, ovariotomy and vaginal extirpation of the uterus are out of place in a work of this class. Abdominal hysterectomy is, it is true, not described at full length, but a more cursory note on the subject than the paragraphs actually written would have been advisable. There are general practitioners who from circumstances are experienced general surgeons and who sometimes find themselves called on to do an ovariotomy or hysterectomy. For them the directions in this treatise are insufficient. Dr. Nagel is nevertheless far less to blame in this respect than are the authors of nearly every other textbook of the same type. Altogether a better work on gynæcology for the practitioner would be difficult to find.

NOTES ON BOOKS.

BALNEOLOGY AND CLIMATOLOGY.

AT first sight it appears curious that a regular establishment can exist at Berlin for the treatment of patients with mud obtained in Italy. The mud, however, obtained from the thermal springs of Battaglia is very fine, and lends itself peculiarly well for application in the form of hot poultices. It is, moreover, naturally mixed with the thermal water, and needs no expensive preparation as does the mud at many other health resorts. More is obtained at Battaglia than is required for local use, and much can be exported. The Berlin establishment, we learn from Dr. HUGO DAVIDSOHN, who has written a book on the subject, *Die Ergebnisse der Fango-Behandlung nach den Erfahrungen an der Berliner Fango-Kuranstalt* (Berlin: A. Hirschwald. 1898. Pp. 56, four illustrations. M.1.70), was founded in 1897, and in the first year as many as 656 patients, suffering from chronic gouty and rheumatic joint affections, neuralgias, and other complaints, were treated. The results obtained in 387 cases are carefully tabulated by Dr. Davidsohn, and appear encouraging. The remaining patients are not included in the statistics, either because they did not continue to come or because they are still under treatment.

IN *Kritische Betrachtungen über Ernährung, Stoffwechsel, und Kissinger Kuren* (Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1898. Crown 8vo, pp. 136. 1s. 9d.), Dr. R. BRASCH gives his views of what should be the principles of balneo-therapeutics in general, and of the Kissingen treatment in particular. He believes that there are many persons who undergo courses of mineral waters according to some fixed plan they hear of, without consulting a local medical man. This, he thinks, is the cause of numberless mistakes—unsuitable diet, unreasonable use of the mineral water, and too much or too little muscular exercise during the cure. When speaking of gastric affections, he utters a caution against the occasional overuse of the stomach tube in cases where the mineral water treatment and a suitable diet can by themselves improve or cure. In the appendix are some general hints to visitors, notably one against excessive smoking during the course of treatment, and especially against passing a long time in rooms where much smoking is going on, for he thinks, probably with justice, that it is more injurious to sit in a room full of tobacco smoke than to smoke a cigar in the open air.

DR. G. LORIMER has provided an introduction and some notes for the twenty-seventh edition of the *Original and Standard Guide to the Use of the Buxton Mineral Waters*, by the late W. H. ROBERTSON, M.D., F.R.C.P. (Buxton: C. F. Wardley. Cr.8vo, pp. 61. 6d.) Much of what related to the topography and municipal progress of the district has been omitted, as being better suited to ordinary guide books than to a medical guide. The introduction gives an account of the climate of Buxton and the neighbourhood, the diseases suitable for treatment there, etc. The actual text has been left unaltered except by the addition of footnotes. A record of cases treated at the Buxton Devonshire Hospital during the last five years is appended.

There is an astonishing amount and variety of information in *Madeira and the Canary Islands* by A. SAMLER BROWN (London: Sampson Low, Marston, and Co. 1898. Demy 8vo, pp. 346, with numerous maps, plans, and diagrams. 2s. 6d.). The information contained in the present edition, which is the fifth, has been revised, and contains about 80 more pages than the last. Many additions have been made to the sections devoted to climate, and the medical matter has been greatly added to. The book is altogether very complete.

DR. A. PETRIDIS, surgeon to the Greek Hospital at Alexandria, has printed a brief clinical study of the operation for abscess of the liver recommended by Dr. Zancarol (*Etude Chirurgicale Clinique sur un Nouveau Procédé Opératoire Exploratateur concernant les Abcès du Foie*, etc.) Alexandria: Imprimerie Générale L. Carrière. 1898. (Cr. 8vo, pp. 148.) The method, which the author has somewhat modified, but not in any essential particular, consists in making by means of the thermo-cautery an incision starting in the mammary line at the level of the seventh rib, and directed horizontally outwards to the posterior axillary line. Portions of the seventh or eighth ribs are resected over a length of 12 to 15 cm., and the incision is deepened with the cautery down to the capsule of Glisson. The liver is then explored by the finger and by the needle, and a single abscess or multiple abscesses dealt with in the usual fashion. For this operation the author suggests the name "polypleurodiaphragmatomy." The dangers of exploratory puncture are dealt with at great length and with tiresome reiteration. The greater part of the volume is made up of verbatim quotations from many French authors and from the reports of societies. There is very little that is novel. A short article in a periodical would have sufficed to convey the author's message; a book was not necessary.

The faultiness of rum consists in a turbidity and increased fluorescence, both made more apparent by dilution. The authors of the *Micro-organisms of Faulty Rum* (J. H. VELEY, M.A., F.R.S., and LILIAN J. VELEY. London: Henry Frowde. 1898. Pp. 72. Plates vii. 5s.) show that this is due not to any resinous or other matters extracted from the casks, nor to saline or other precipitates, as has been supposed, but to the presence of an organism which they have christened coleothrix methystes. This they have cultivated in various media, and they show that it possesses three forms, namely, coccus, rod, and filament. Excellent illustrations are given of the various forms and stages met with in its life-history. A perusal of the various arguments brought forward inclines us to accept the author's decision that it belongs to the group associated by Migala under the title of chlamydobacteriseæ. The remarkable fact is that the organism retains its vitality in spirit of strength equal to 70 per cent. The writers display a complete knowledge of their subject, and have evidently made themselves well acquainted with the various streptothrix forms, with which their organism is allied. It is to be regretted that they advance no practical suggestions for the prevention of the mischief, though from a close perusal of the book ideas may be obtained of the lines upon which to work with reasonable hope of success.

THE Association of German Alienists will hold its annual meeting this year at Halle on April 21st and 22nd. Among the subjects to be discussed are the Limits of Criminal Responsibility in Diseased Mental States, and the Present Condition of the Neuron Doctrine.

THE Cheshire County Council has appointed a committee to consider the propriety of establishing a sanatorium or reformatory under the Inebriates Act, 1898, for the county of Cheshire. It was stated that an excellent site could be obtained in Delamere Forest on Crown property.

THE PREVENTION OF TUBERCULOSIS.

Cheshire County Council.

A quarterly meeting of this Council was held at Chester Castle on February 9th. Mr. George Cooke (Clayley) had on the agenda a motion calling upon the Parliamentary Committee to oppose the Manchester Corporation (General Powers) Bill, 1899, in order to obtain amendments of Section xx, with a view to protect the interests of the milk producers of the county. In announcing that he would not that day propose the motion of which he had given notice, he said that the Manchester Corporation had already removed several points to which his resolution referred. He thought, speaking on behalf of the farmers on that Council and the large body of farmers they represented, there would be no objection to local authorities protecting themselves. All they wished was that in protecting themselves they should not injure the producers, and that they should not interfere with a legitimate trade. They thought the Bill proposed to put too much power in the hands of an official who might be appointed by any local authority, by providing that such an official could come into the county and say what animals were fit to sell milk from and what animals were not. They had their own officers in the county, who were fully qualified for the work, and to them this work ought to be entrusted.

Dr. Hodgson (Crewe) said there were two questions involved in the Manchester Bill: First there was the suffering community; then there was the suffering farmer. He had sympathy with the suffering farmer, but if he had to place one position before the other he should place the position of the suffering consumptive before that of the suffering farmer. He should oppose in every way he could anything which would prevent Manchester from saying, "We have found consumption coming through this milk; that milk must be stopped." He was sure there was nothing which damaged the farmer more than the retention among a herd of cattle of a tuberculous animal. It was a fact even more positive, if that was possible, that there was nothing more necessary for the community or for the county than to get rid of the tuberculous milk which was poisoning the people. Their medical officer reported every year over 700 deaths from consumption. Consumption was now known to be preventable, and it was their duty to nip it at its source where it was derived from the food which came to man. That was what Manchester was asking for. He could not see how Parliament could deny to any community the protection that was sought in this respect. With regard to Cheshire, this matter would come before a Committee of the whole Council before anything was finally done, and he did not think it would be found difficult to introduce such clauses as would protect the farmer.

Dr. Hewitt (Northwich) said that the Dairies Order was not by any means carefully carried out in Cheshire, and those who were remiss in this matter were Boards largely composed of farmers. That being the case, it was only right that Manchester, Liverpool, Warrington, and Stockport should take some steps to prevent their large populations suffering. He was not at all surprised that Manchester should feel it to be its duty to move in the matter; but, while protecting Manchester, they ought to see that no injustice was done to their own farmers.

Mr. C. H. Pedley (Crewe), replying to the argument that enormous loss would ensue from the carrying out of such provisions as those sought by Manchester, said the medical officer had informed him that in the case of a tuberculous animal whose milk was not fit for consumption, the flesh of the animal in a few weeks might become fit for human consumption. Therefore the loss would be a very small matter indeed, and one that the nation would be glad to make good.

Manchester.

Dr. Pilkington (Preston) presided at a meeting of the North-Western Branch of the Incorporated Society of Medical Officers of Health held in Manchester on February 10th.

Professor Delépine read a paper on The Prevention of Tuberculosis, in which he said that in Manchester an attempt was made nearly ten years ago to establish a form of voluntary notification, and since that time some of the houses of persons who died of phthisis had been disinfected. But only the fringe of the question was touched. What was needed was a notification of the occurrence of tuberculosis—more especially of the most infectious form, phthisis—in the same way as other contagious maladies were notified. Any serious attempt to deal with the disease must have notification as its basis. The increased work and expense involved would not create so large a difficulty as some imagined. More money was voluntarily raised for hospitals than would be needed for a more useful system of notification, and if the Government could see its way to sanction the expenditure of public money in support of notification, it would be easy to stimulate public interest to such an extent that funds would be raised voluntarily and placed at the disposal of the sanitary authorities for the carrying out of this important work. The establishment of sanatoria for the treatment of consumptives was a wrong measure, because it passed over the most important preliminary step by which the sources of infection should be discovered.

Dr. Niven (Manchester) said the difficulties in the way of notification were considerable, but not insuperable. They could not carry education on the subject to the people who needed it most—in the slums and lodging-houses—except by a system of notification.

Dr. Howarth said at Darwen he always had the houses disinfected in which persons had died of consumption.

Dr. Wheatley (Blackburn) moved that in the opinion of the Branch the notification of phthisis was necessary as a preliminary to further action. Disinfection of death chambers, he said, was equivalent to an admission that the disease ought to be notified. Everything used by a consumptive should be disinfected. One advantage of notification was that the disease would be earlier diagnosed by the medical attendant than was now the case. The expense of notification would not be very great, although medical officers' staffs would have to be augmented. The objection of the public to notification would soon disappear when it was thoroughly understood that the disease was infectious and not hereditary. The doctors of Blackburn had unanimously passed a resolution recommending the Health Committee of the Corporation to add phthisis to the list of notifiable diseases, but the Local Government Board could not allow it to be done.

Dr. J. Vacher (Medical Officer of Health for Cheshire) criticised the programme of the recently formed National Association, because it left notification out, and confined itself to public education and the influencing of administrative bodies.

Dr. Berry (Wigan) said phthisis was not so infectious as scarlet fever, measles, or whooping-cough, and, though he supported the resolution, he believed the disease was often inherited.

Dr. Hayward (Haydock) could not see the benefit to be derived from notification. The expense would be prohibitive. The disease ran too long a course, and it would not be possible to shut up phthisical persons who needed to be out of doors. Notification suggested a state of things in which a man with tuberculosis would not be able to cough in public without first ringing a bell.

After further discussion, a resolution in favour of notification was carried.

Dundee.

A public meeting called by the Lord Provost was held at Dundee on February 8th, to consider the advisability of aiding the national movement for the prevention of consumption and other forms of tuberculosis. Lord Provost M'Grady, who presided, said the meeting had been called that day in consequence of a request made to him by the members of the Forfarshire Medical Association, that he should ask the inhabitants of Dundee to meet to consider what should be done locally to support the national movement to which he had referred. The movement was being very heartily taken up both by doctors and by laymen. Having explained the objects of the National Association for the Prevention of Tuberculosis, he said that when the time came to consider the erection of a local sanatorium he thought they would find that they were well situated for that. They had on the southern slopes of the Sidlaws an ideal situation for such an institution. In conclusion, he read a letter from Mr. Kyd, Inspector of Poor, to the effect that the Parish Council supported the request of the Forfarshire Medical Association for the holding of a public meeting on the subject.

Dr. J. W. Miller moved:

That this meeting desires to express its full sympathy with the aims of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, and to urge upon the public of Dundee the strong claims which this movement has upon them for their active support.

At one time, not so very long ago, the man who spoke of stamping out typhus fever was considered a dreamer. Let them look at the state of things now. New knowledge had come to them concerning tuberculous diseases, and he had no doubt that, recognising this, their authorities would show the same spirit as in the past. He had little doubt that sooner or later even in their own near neighbourhood they would have sanatoria of different classes in which open-air treatment should have a fair chance.

Dr. Charles Templeman, Medical Officer of Health for the City, seconded the resolution. He sympathised with all the Lord Provost and Dr. Miller had said with regard to the movement. Experiments showed the necessity for local authorities in burghs and in large cities having a very complete control over the milk supplies from outside their boundaries. The Corporation of Dundee had tried to get these powers, but were unsuccessful. With regard to tuberculous milk, he thought Dundee was as well protected from this danger as any place in the country. In Dundee, thanks to the enlightened policy of their municipal rulers, who had cleared out most of their narrow streets and lanes and crowded areas and given them the whole well-ventilated streets which they now possessed, the tuberculous death-rate had been reduced 25 per cent., and the death-rate from consumption had been reduced 24 per cent. in the same time.

Dr. Sinclair moved:

That this meeting, while gratefully acknowledging the excellent measures already adopted by the local authority, respectfully recommends the Town Council, the Parish Council, the Directors of the Dundee Royal Infirmary, and of the Victoria Hospital for Incurables to adopt further measures in the light of present knowledge for the prevention and treatment of tuberculosis.

Looking to the two well-known facts that consumptive clients made a heavy annual drain on the funds of Friendly Societies, and that the best of these companies had large funds which they found it difficult to invest, he would throw out the suggestion that they might make a move in the direction of establishing sanatoria to their own advantage and that of their clients, as well as to the advantage of the health of the community at large.

The motion was unanimously adopted.

Bailie Doig moved:

That copies of this resolution be sent to the Town Council, the Parish Council, the Directors of the Dundee Royal Infirmary, and the Victoria Hospital for consideration.

Rev. J. M. Campbell, Chairman of the Parish Council, seconded. He said the Parish Council were extremely anxious to associate themselves with any public movement for the prevention of consumption, and he could promise that the body would do its utmost to give the movement a practical effect. This motion was also unanimously carried.

ECCLESHALL.

At a meeting of the Eccleshall Board of Guardians on February 8th, the Clerk read a letter from Dr. Duncan Burgess, Honorary Secretary of the Sheffield Medico-Chirurgical Society, forwarding a copy of a resolution adopted by that Society at their meeting on February 2nd, as follows:

That in view of the importance of educating the public in methods of prevention of tuberculous disease, it is, in the opinion of this Society, desirable that the Lord Mayor be requested to call a public meeting in Sheffield to form a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

Dr. Burgess further stated that his Society would like to know the views of the guardians on the subject, and with this object invited a deputation of the Board to meet a committee of the Society in their library at the medical department of the University College on Tuesday, February 28th.

The Chairman asked the views of Dr. Gale, the workhouse medical officer, with regard to the treatment of tuberculous cases in the workhouse infirmaries. Dr. Gale advised the guardians to assist the Society by joining in any scheme for the better prevention of tuberculosis.

The Chairman suggested that it would be very advisable for a deputation of the guardians to attend the meeting accompanied by Dr. Gale, and this suggestion was adopted.

EDINBURGH.

A conference on certain points connected with consumption was held in the Edinburgh Council Chambers on February 9th, under the presidency of Bailie Pollard, the Convener of the Public Health Committee. The members of the Conference were the Subcommittee (10 in number), to which the question had been referred, and certain invited representative members of the medical profession. The Royal College of Physicians was represented by the President (Dr. Andrew), Sir Thomas Grainger Stewart, Sir John Batty Tuke, Professor Greenfield, Drs. Wyllie, Affleck, Byrom Bramwell, G. A. Gibson, Noël Paton, and R. W. Philip; the Royal College of Surgeons was represented by the President (Professor Chiene), Sir Henry Littlejohn, Drs. John Smith, Argyll Robertson, John Duncan, Blair Cunyngham, Peter McLaren, and Francis Cadell; the University was represented by Professors Sir Thomas Grainger Stewart, W. S. Greenfield, and Hunter Stewart. There were also present Drs. Claud Muirhead, James Foulis, Andrew Smart, A. James, Caverhill, Claude B. Ker, and Williamson; and the Principals of the two Veterinary Colleges. The President of the General Medical Council (Professor Sir William Turner) wrote to express his regret that he was prevented by indisposition from being present.

Bailie Pollard in opening the meeting said they proposed to discuss: 1, The preventability of phthisis; 2, its curability; 3, sanatoria for treatment; 4, liability to the disease; 5, the question of notification. He called on the President of the Royal College of Physicians, who said a few words. He was not yet convinced as to the exclusion of heredity, nor as to the question of notification unless associated with compulsory removal.

The President of the College of Surgeons (Professor John Chiene) believed that any attempt at notification as yet would be in advance of public opinion. If there was to be notification there must be compulsory removal, and therefore an enormous hospital. Early cases ought to be taken for cure, and late cases for preventive reasons. From the surgeon's point of view, all discharges from tuberculous joints and glands, from genito-urinary diseases, etc., should be seen to. As to the milk supply, he did not believe that the tuberculin test could be used with effect till that test was under Government control and was applied by the authorities. It might then be gradually used week by week on all cows before they were admitted to dairy byres. There were several difficulties: for example, there was a difficulty in regard to milk coming into the city from a distance, and there was the thorny question of compensation for slaughter of infected animals. He thought the town could meanwhile attend to the flushing of closes and common stairs. Sir Henry Littlejohn's suggestion of using seawater for this he thought an excellent plan. Sweeping was quite unsafe. He approved of the circulation of leaflets to educate the people. There should be a city hospital of at least 100 beds for the acutely ill. He strongly commended the laws laid down for infectious hospitals at Crewe, whereby pure and non-infected milk should be supplied to these hospitals.

Sir Thomas Grainger Stewart spoke on the preventability of phthisis. He thought the municipal authorities might help in prevention: 1. By the diffusion of information among the people by some such leaflet as Sir Henry Littlejohn's (a printed stiff card would be advisable; 2, by continued perseverance in all hygienic precautions; 3, by removal of dust from closes, common stairs, schools, churches, and other public buildings (Sir Henry Littlejohn's great central flushing tank was an admirable suggestion); 4, by careful examination and supervision of milk and its sources; 5, by attention to the meat supply, though that was a long way second to the milk question; 6, by the establishment of sanatoria. These should be made very attractive for patients in the early stages. In the later stages of the disease the authorities ought to have power to act for the safety of the public. 7. He thought they were scarcely yet in a position to propose compulsory notification, but there might be some scheme of "automatic notification." The city must take up the testing

of sputum, which had hitherto been done by the laboratories of the Colleges of Physicians and Surgeons, and that of the Victoria Hospital. When sputum was sent, it ought to be accompanied by the name and address of the patient, for the private use of the authorities.

Dr. Claud Muirhead spoke on the subject of curability. They must educate the people to give careful attention to colds which hung about them. The new doctrine of hospitals or sanatoria could not work miracles. They would always have phthisis with them.

Speaking of sanatoria, Dr. Affleck said that this matter ought to be worked out on medical lines, and not rushed into by public authorities while as yet they were on their trial. On the question of hospitals for the treatment of advanced cases, it must not be forgotten that the Royal Infirmary had in this matter done a great work for poor sufferers from phthisis. But only a small number of the deserving cases could be taken in. The suggested 100 beds, it must be remembered, would stand on a quite different basis from the beds in a fever hospital. The patients would be long fixtures. They must be kept in till they died. Thus the hospital would be less available than a general hospital.

Professor Greenfield next discussed liability to phthisis. He submitted certain points for the consideration of the city authorities. Everyone was liable to pulmonary consumption. Certain conditions of public sanitation diminished the liability—drainage, air-space, absence of dust, etc. Was air-space being sufficiently considered in those lofty tenements being erected in the city? The plans of those tenements did not admit of thorough ventilation in relation to disinfection as they ought. Then there were those most objectionable sleeping-places, which were essentially cupboards off a room. Rooms and houses let as lodgings ought to be inspected and disinfected. In childhood and youth there was greater susceptibility to phthisis, and this was specially increased by zymotic disease, and by measles in particular. Children were too long in school without food; young people too long in workshops along with an infected person or persons. Factories with one definite case of consumption were sources of infinite danger. Expectoration was the main channel of infection, but undoubtedly milk was a factor. All the milk used in the Royal Infirmary, in the City Hospital, and in other hospitals ought to be sterilised.

Dr. R. W. Philip discussed the subject of notification, which he said was the only logical solution of the difficulty. On the other hand, medical and public opinion was not yet ripe for notification. Was there any possibility, short of notification, approximately helpful? 1. The organisation should include a central bureau under the direct control of the medical officer of health. All patients, not under treatment at any of the hospitals or dispensaries, should be directed to this central bureau. 2. This central institution should have arrangements for nursing some patients. 3. Such a central bureau should disseminate information. 4. The bureau ought to have powers, etc., to examine all expectoration. 5. Such a central institution ought to receive official information from the registrars as to deaths from pulmonary consumption, and thus a large bulk of information would be available for public purposes. 6. Such a central institution should look forward to all institutions that take in or will take in cases of pulmonary consumption. Patients would then be drafted to pauper hospitals or elsewhere. 7. Such an organisation ought to arrange for tuberculous colonies. This, of course, was a big question, just as was leprosy.

Professor Hunter Stewart thought the question of disinfection had been overlooked. Hotels and lodging-houses should have the rooms which had been occupied by consumptives disinfected by the authorities. So, also, where a death from tuberculous disease had occurred, the room should be at once seen to. In that respect the example of Paris, Berlin, Breslau, Hamburg, and other towns should be followed.

Dr. John Duncan thought that what applied to pulmonary consumption applied to every other form of tuberculous disease.

Sir John Batty Tuke suggested that the Health Committee should look to the sweeping of the streets by huge brushes drawn by horses. These in a summer midnight sent up clouds of dust to the height of the highest buildings, and unfortunate members of the community who slept with open windows could not fail to suffer. Water carts should be sent ahead of these brushes.

Dr. Alexander James and Dr. Caverhill also made some remarks.

In response to a question by one of the members of the Public Health Subcommittee, Dr. Wyllie suggested that the municipal authorities should begin work with the very advanced cases. It was the duty of the authorities to protect the healthy members of the community from infection from such cases.

Principal Dewar, of the Edinburgh Veterinary College, advocated the systematic use of the tuberculin test, and that milk should be got only from dairies where the cows had been certified free from tuberculous disease.

Principal Williams, of the New Veterinary College, urged a pure herd of cattle for the supply of the city, and an absolute separation of affected cows from those not affected. He thought it possible to stamp out tuberculous disease as rinderpest had been stamped out.

Various other questions were asked and answered, and Bailie Pollard, in winding up the conference, said it was merely a preliminary one, and he begged the continued interest and help of the medical profession for his Committee. If the way were distinctly pointed out his Committee, the Town Council, and the citizens of Edinburgh were prepared to go on.

The Crusade against Consumption.

Under the auspices of the Edinburgh Health Society a lecture was delivered (by special request) in the Free Assembly Hall on January 28th by Dr. Caverhill, the Medical Officer of Health for the County of East Lothian, on the Crusade against Consumption. The Lord Provost presided, and there was a very large audience.

Dr. Caverhill dealt fully with the subject, urging that for the prevention or extermination of consumption in Scotland it was imperative to organise public effort on national lines. He suggested the formation of a Central Joint Committee of Edinburgh and Glasgow affiliated to the National Society in London; this would stimulate cities and counties, or groups of counties, to form local Associations for the Prevention and Cure of Consumption and other Forms of Tuberculous Diseases. He suggested also that special sanatoria should be erected by (1) private enterprise, (2) associations of commercial and industrial workers, (3) philanthropic organisations, (4) sanitary authorities and parish councils. The lecture was illustrated by limelight views of the principal sanatoria in Europe. The Lord Provost moved a vote of thanks to the lecturer, and referred to the fact that in Edinburgh during 1898 consumption gave a death-rate of 2.65 per 1,000 of the estimated population, or 14.75 per cent. of the total mortality for the year from all causes, the total number being 5,320.

The Open-air Treatment of Consumption.

At a meeting of the South-West London Medical Society on February 8th, Dr. Duke in the chair, Dr. Arkle read a paper on Some Points in the Treatment of Tuberculosis. He said that, probably of all remedies, the open-air method was the most successful. Some years ago he had brought this question before the West Sussex District of the South-Eastern Branch of the Association (Journal, May 16th, 1896, p. 1233). Since that time he felt more certain that the method could be worked well in the British Isles. The preliminary "hardening" of patients was a *sine quâ non*, and attention was called to this preparation as carried out (by daily sponging with spirit, etc.) at Falkenstein and other Continental sanatoria. Hospitals for consumption in towns would probably always be valuable as depôts, collecting stations, places where patients were taught the nature of their disease, and where much good could be done by the destruction of tuberculous sputum.

Frozen Meat for Soldiers.—A thesis on this subject has been presented to the Faculty of Medicine of Lyons by M. Henri Viry, a pupil of the School of Military Hygiene. After pointing out the advantages of frozen meat, M. Viry concludes by stating that its supply in peace permits, first, of certainty in the examination of living animals for utilisation and the easy supervision of the meat obtained, thanks to the installation of slaughterhouses and military freezing manufactories; secondly, the distribution in all garrisons of a food of known quality and certain innocuousness; and, thirdly, economy realised at the profit of the general food supply of the soldier. M. Viry says that in time of war and in case of siege frozen meat has also advantages in a hygienic point of view.

THE PATHOLOGY OF INSANITY.

THE COUNTY OF LONDON ASYLUMS LABORATORY AT CLAYBURY.

PROFESSOR CLIFFORD ALLBUTT not long ago said that clinical laboratories are the factories out of which the new medicine is to come. He instanced those recently initiated by von Ziemssen and Curchsmann in Germany, and by the late Professor Pepper in the United States. Perhaps a more striking example than any of these of the intimate connection between the laboratory and the hospital ward is one in our own country, which Professor Clifford Allbutt did not mention—namely, the Pathological Laboratory established by the London County Council at their great asylum at Claybury. The notion that the pathology of insanity could be investigated by ordinary methods of scientific research would have been deemed by most physicians, even of the last century, as akin to profanity, and as foolishness by many till near the middle of the present one. The laboratory at Claybury, where every form of mental derangement is traced to physical and chemical changes in the structural elements of the nervous system, and to the operation of pathological processes which may be seen at work in other parts of the body, is in itself a concrete illustration of the great advance that has been made in this province of medical science.

During Professor Virchow's visit to England last autumn nothing impressed him more than what he saw at Claybury. This testimony from a witness of such authority is all the more gratifying that this country—where freedom is apt to exhibit the defect of its qualities in the form of fanaticism—lies under the reproach of being behind other great nations in biological research. Splendid work in the elucidation of the pathological processes underlying insanity has been done by such pioneers as Bevan Lewis, Batty Tuke, and others in this country; and by Griesinger, Westphal, von Gudden, and others abroad. But the establishment of the Claybury Laboratory marks the dawn of a new era, as it is the first of the kind founded by a public body on a basis of complete independence from the administrative authorities of the asylum. A representative of the BRITISH MEDICAL JOURNAL some time ago had the privilege of inspecting the laboratory under the guidance of the pathologist, Dr. Mott, and a short account of what he saw may be interesting to our readers.

THE ASYLUM.

A few words may first be said about the asylum itself. This is a magnificent pile of buildings standing in 250 acres of ground near Woodford Bridge, and providing accommodation for 2,500 patients. Any person energetic enough to investigate every corner of the institution would have walked ten miles at the end of his round of inspection. The wards are bright and cheerful, everything being arranged for the comfort and safety of the patients. Lavish provision is made for their amusement. There is a ballroom, of palatial dimensions and artistically decorated in mediæval style, where dances take place to the music of a band of 25 players, and theatrical performances are given. The comfort of the officers and attendants is also well attended to. The asylum is a small town in itself. The engine rooms are suggestive of a considerable railway station. The bakehouses and kitchens recall what one reads of the old abbeys in the days of their grandeur. Four hundred and fifty 8-pound loaves are baked daily, to say nothing of cakes and other confectionery. Seventeen hundred pounds of meat are cooked every day. Everything in the bakehouse and kitchen is resplendent with cleanliness, and the sights and smells are so appetising that a visit may be recommended to sufferers from anorexia as a likely remedy.

THE LABORATORY.

The laboratory was established two and a-half years ago as the outcome of a report by a special Subcommittee of the Asylums Committee of the London County Council appointed on November 1st, 1892:

"To consider as to whether a pathologist should be appointed at each asylum, or whether one or more pathologists should be appointed, and their services be rendered available for all the asylums; and also as the precise nature of the duties to be performed by the pathologists, the salary attaching to the office, and upon any other details that may arise during consideration, with power to confer with the medical superintendents."

This Subcommittee, of which Dr. W. J. Collins was not only the Chairman but the moving and guiding spirit, collected a large amount of information from provincial and foreign asylums, and reported that a pathologist for all the county asylums should be appointed, and that he should be provided with adequate laboratory accommodation adapted both for physiological and physical examinations, and also for elaborate microscopical and chemical investigations. The pathologist was to be required to devote himself exclusively to the work, to report from time to time, and to publish the various researches in which he had been engaged and those of other medical officers under his guidance. He was not, however, to have charge of the patients, and his work was not to conflict with that of the medical superintendents. Accordingly, the Council resolved to authorise the expenditure of £4,000 for the building of a pathological laboratory and museum at Claybury Asylum, and for providing the necessary fittings and apparatus. Dr. F. W. Mott, F.R.S., who had already gained high distinction as an investigator in the field of neurology, was appointed to the post at a salary of £700 a year.

The laboratory (Fig. 1) stands entirely apart from the



Fig. 1.—The laboratory.

asylum. Here the pathologist reigns supreme, and everything is arranged to serve the purposes of research. Vivisection is excluded from the scope of the investigations, but there is a chemical room (Fig. 2), a microscopic room (Fig. 3),

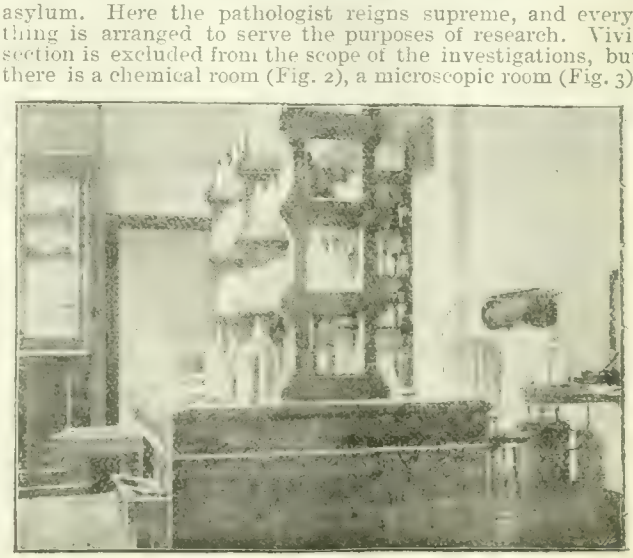


Fig. 2.—Chemical room.



Fig. 3.—Microscopic room.

a room for physical examination, with dark room for ophthalmoscopic work, and a micro-photographic room (with Zeiss's apparatus), all spacious, well lighted, conveniently arranged, and fully equipped according to the most modern ideas. Then there is a library and reading room (see Fig. 4) supplied

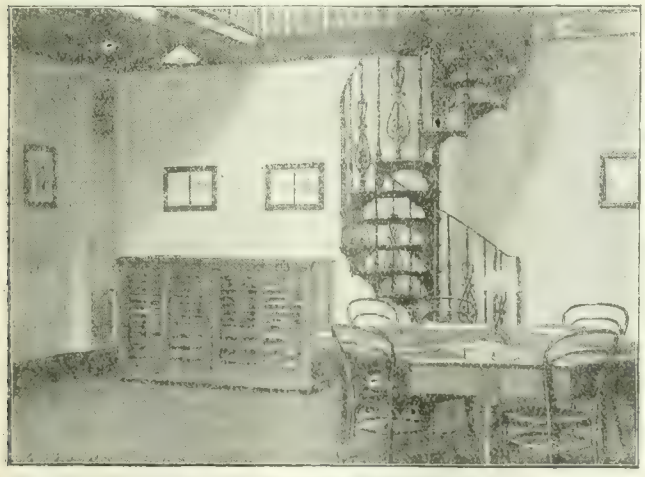


Fig. 4.—Library and reading room.

with the best neurological literature. This room is decorated with photographs of masterpieces of the art of staining, executed in the laboratory.

The *post-mortem* room is well lighted and absolutely free from smell. Our representative was much struck by the care taken to save the feelings of the friends of the dead. There is a cheerfully-furnished waiting-room for their special use; when they wish to take their last look at the departed the coffin is wheeled into the central hall where there is no trace of anything unpleasantly suggestive. The bodies of all patients who die in the asylum are examined. The number of necropsies averages 200 in the course of the year. The examination is very complete, and the notes of the results are extremely full. In the *post-mortem* book four pages are given to each case—two for the results of the naked-eye examination, one for the results of the microscopic examination, and one for the clinical history and such facts bearing on the case as can be obtained from the patient's friends, who are always interviewed whenever practicable. The pathological records at Claybury are not only singularly complete in themselves, but they are brought as far as possible into relation with clinical facts. The materials thus obtained are kept in an ingenious case of shelves in the reading room, the clinical and *post-mortem* notes, with drawings of the microscopic appearances and slides, being all collected together, so that the whole record of any given case is at once accessible. Dr. Mott holds strongly that laboratory research requires to be supplemented by the results of clinical observation, the pure laboratory worker being apt to degenerate into a narrowness of view which is as unscientific as it is unpractical.

One of the most interesting features of the Claybury laboratory is the "cold chamber" for the preservation of pathological material, which was devised by Dr. Mott and constructed in accordance with his ideas by Mr. Clifford Smith, engineer to the asylum. This "cold chamber" excited the particular interest of Professor Virchow. A similar one has been constructed in the new laboratories at Liverpool, and we understand that others are likely to be introduced at St. George's and the London Hospitals. A short description of it will therefore not be out of place (Fig. 5).

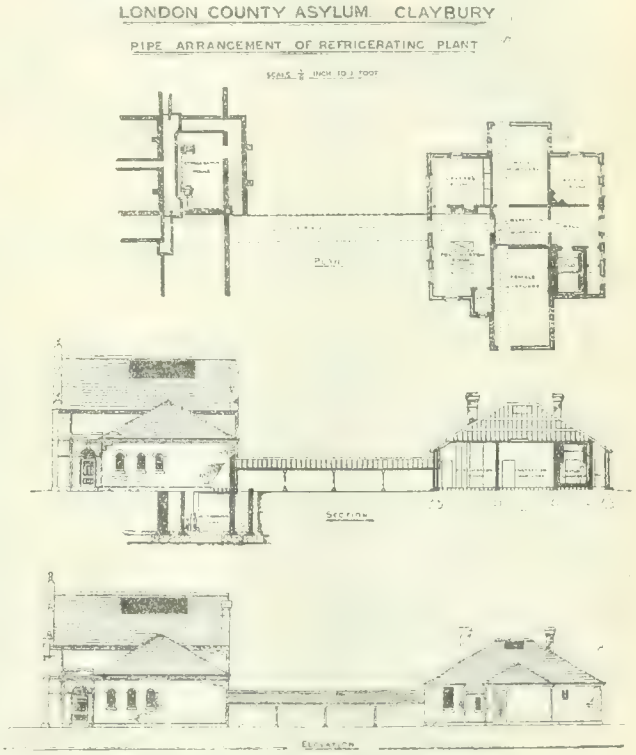


Fig. 5.—The "cold chamber."

The chamber in which the bodies are placed is a room 10 feet 6 inches long by 7 feet wide by 10 feet high, and it is protected from the outside changes of temperature by insulating the walls, floor, and ceiling with wooden casings filled with sawdust some 14 inches thick.

Two wrought-iron tanks 9 feet long by 4 feet wide by 6 inches deep are secured to the walls at a height of 5 feet from the floor. Through these tanks the brine solution from the refrigerating machine is pumped, and the temperature of the chamber is thereby reduced to the desired point, from 32° to 35° F. An inspection window enables the attendant to take the temperature without opening the doors, and the electric lamp lighting the thermometer is controlled by a switch which is also outside.

The refrigerating machine and electric motor for driving it are placed in a cellar at a distance of 96 feet from the cool chamber. The agent used to bring about the low temperature of the brine solution is carbonic anhydride gas. Work is done in compressing the gas with consequent rise of temperature in the compressor of the machine. The gas then passes through a series of coils (Fig. 6) which are surrounded by cold water, and is thus cooled and liquefied. The liquid carbonic anhydride next passes into a second series of coils placed in the brine solution. The carbonic anhydride evaporates, does work, and in so doing absorbs from the brine solution the amount of heat equivalent to the work done. The gas then passes into the compressor and repeats the cycle of operations

The brine solution, which in this case is cooled to 20° F., is pumped through pipes leading to the tanks in the cool chamber, a constant circulation being maintained. The refrigerating apparatus was made by Hall, of Deptford.

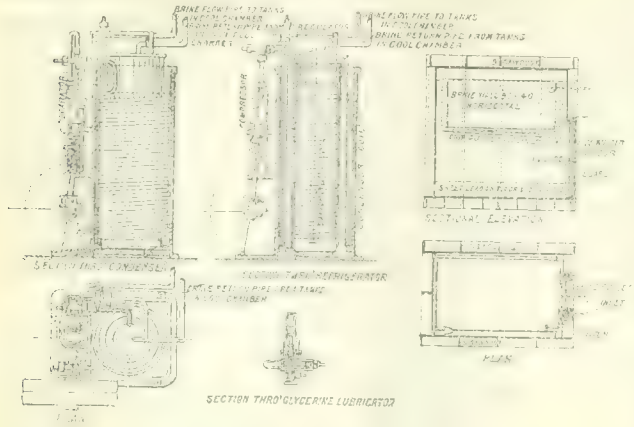


Fig. 6.—Refrigerating apparatus.

The requirements of Claybury are fully met by running the plant for seven hours per day during summer and two hours and a-half per day during the winter months.

THE STAFF.

Of the head of the laboratory, Dr. Mott, but little need be said; his work speaks for him. The London County Council may be congratulated on having secured a man of such distinction as their pathologist. They may also be congratulated on their enlightened policy in leaving him a free hand in the organisation of the laboratory, and on their liberality in the supply of whatever he thinks necessary for the successful carrying on of the work with which they have entrusted him. In the position which he holds as an officer of a body which to some extent represents the prejudices of the public, as well as its better instincts, it is easily conceivable that his work might be spoilt by ignorant and meddlesome interference. Dr. Mott is, however, fortunate in having behind him a committee which does all in its power to help him. From Dr. E. B. Forman, the Chairman of the Pathological Committee, from Dr. W. J. Collins, from Dr. Cooper and Dr. Blake, and from Mr. Hubbard, the Chairman of the Asylums Committee, he has received steady and loyal support, and the Council as a whole has shown itself progressive in the best sense in its interest in the work which he is doing. As to what that is something will be said presently. Here it is sufficient to say that, although Dr. Mott's work was interrupted a year ago by a serious illness which disabled him for several months, the two annual reports which he has presented to the Council give proof of much work actually accomplished and promise of future results of the highest importance. It should be mentioned that Dr. Mott is pathologist to the county asylums at Hanwell, Colney Hatch, Cane Hill, and Bexley Heath, as well as at Claybury. He keeps a list of cases which are likely to present features of special interest, and is immediately informed when death takes place. Dr. Mott has been assisted for more than eighteen months by Dr. Wakelin Barratt, who holds a special scholarship from the Board of Technical Education. Dr. Barratt, who has been appointed Pathologist to the West Riding Asylum, will leave Claybury in March. The term of his scholarship, which is of the value of £150 a year, expires in June. The election is made for a year, and the duties of the scholar are to do research work under the pathologist. A regular assistant has lately been appointed in the person of Dr. Hamilton Wright, who has already done good work in neuropathology. Among others who have worked in the Claybury laboratory are Dr. Head, Mr. Tredgold, and Dr. Durham. All earnest workers are welcomed in the laboratory as far as there is accommodation for them; the apparatus, reagents, etc., are placed freely at their disposal, but they must work under the general direction of the pathologist. It is to be hoped that advantage will be taken of the excellent opportunities for research provided by the Claybury Laboratory by increasing numbers of students, and that a school of neuropathology may be developed there.

LINES OF WORK.

It is impossible here to do more than refer in the briefest way to the lines of research which are being pursued at Claybury. The relation of syphilis to general paralysis is an important subject which Dr. Mott is doing much to elucidate. He was particularly struck by the fact that in cases of general paralysis which he had occasion to investigate he could usually obtain a history of venereal infection, particularly in those cases which come to the hospital and are therefore seen in the early stages before the dementia is marked. Dr. Mott showed our representative the notes, photographs and microphotographs of 20 cases of the juvenile form which clearly showed that syphilis had played a prominent part in the pathogeny of the mental disturbance. He asked Mr. Lewis, senior medical officer on the male side at Claybury, who was sceptical as to the relation of general paralysis to syphilis, to make personal investigations on the point during one year. By careful observation Mr. Lewis was able to show that a history of signs of syphilis was obtainable in a large majority of general paralytics. Dr. Mott's *post-mortem* records show that syphilis is a common cause of organic brain disease, and this agrees with hospital experience. No doubt, as his records prove, arterial disease is often overlooked.

Dr. Mott has examined a large number of cases of brain syphilis. In 32 cases, mostly met with in his practice at Charing Cross Hospital and at the asylums he has been able to obtain trustworthy information as to the date of infection, and he has found that one-half of those cases occurred within the first four years. The worst cases are those that occur soon after infection. The cases presenting the greatest difficulty in regard to diagnosis are those in which there are no paralytic symptoms, only headache and mental disturbance. Dr. Mott has also been engaged in investigating the relation between ororganic brain disease and insanity.

Another research has had reference to the changes in the pyramidal cells of the brain, fatty degeneration of the heart, striped muscles, the kidney and the liver in cases of status epilepticus and prolonged epileptiform convulsions of general paralysis and other diseases. A preliminary communication, illustrated by lantern slides and microscopic specimens, was given at the last pathological meeting of the Neurological Society.

Dr. Wakelin Barratt has, under the direction of Dr. Mott, studied the condition of the vagus, and some of the sympathetic nerves in general paralysis of the insane. With a single doubtful exception no nerve degeneration has been met with. Dr. Barratt has examined the nerves and organs in two cases of beri-beri, the specimens being obtained from patients who died in the Branch Seamen's Hospital, Albert Docks, under the care of Dr. Manson. Here some of the medullated nerves were found to be degenerated, but no micro-organisms were met with either in the nerves or in the tissues, excluding one lung which was affected with pneumonia. He has also been engaged in the estimation of phosphorus and sulphur in the brain and spinal cord in healthy and diseased brains, and in the histological examination of the brain cortex in these cases. Dr. Barratt is also engaged with Dr. Mott in describing the clinical and pathological phenomena of a series of cases of tumour of the third ventricle.

Dr. Durham has been engaged in working out the pathology of ulcerative colitis. He has succeeded in isolating a very minute coccus which has hitherto eluded observation.

The work of the Claybury Pathological Laboratory is necessarily rather summarily described in the reports presented by the Pathologist to the London County Council. It is satisfactory therefore to learn that there is a prospect of the publication of a series of *Archives* in which the researches of Dr. Mott and his fellow workers will be set forth in detail. These will, there can be no doubt, contribute most materially to the progress of neurology, and the London County Council will deserve well of science and therefore of mankind by undertaking their publication. A body which has shown such enlightened liberality in the erection and equipment of the fine laboratory at Claybury may be trusted to do everything necessary to ensure the complete success of the work so well begun.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 18TH, 1899.

THE HUNTERIAN ORATION.

In some respects it is no easy task to act as Hunterian Orator; in other respects it is quite easy. It is no easy task because since the year 1814 the Hunterian Orator, in the opinion of his contemporaries, has been the most learned, the most thoughtful, or the most fluent member of the Council of the Royal College of Surgeons of England. In the early years of the century the orators were the relatives, the friends, and the pupils of John Hunter, and we owe them a debt of gratitude, for they have preserved to us many reminiscences which must otherwise have died. On the other hand, it is still quite easy to give the Hunterian Oration, for John Hunter was a man of so many sides and of such infinite knowledge that justice has not even yet been done to him, though the fifty-ninth oration has now been delivered. It is fitting, too, that the oration should be delivered, for the vastness of his knowledge and the importance of his teaching are by no means apparent to everyone. There are many who seem to be quite incapable of understanding either his methods or his teaching. Repelled by the ruggedness of his style and the occasional obscurity and inaccuracy of his conclusions, they do not love to think, and they hate to pile fact upon fact, leaving others to generalise. Yet it was precisely in his love of thought and in his power of accumulating individual instances that Hunter outshone his compeers and stood alone in biological science until the advent of Darwin. But Hunter differs from Darwin in that he rarely draws any conclusions from his repeated observations. He is often content to say, "I have seen," or "I remember." It is not until we are familiar with the state of contemporary knowledge and thought that it is possible to realise how much he was in advance of his time, for his methods were those which have only come into general use during the latter half of the present century, the methods of repeated experiment and patient observation.

It is from this standpoint indeed that Sir William Mac Cormac has chosen to consider his Master in the well designed, excellently expressed, and very lucid oration which he delivered last Tuesday in the presence of H.R.H. the Prince of Wales and a large audience. After a short but sufficient sketch of Hunter's life the Orator proceeded to contrast the very different manner in which the subject of animal heat was treated by Harvey and by Hunter. Harvey considered it wholly in a metaphysical spirit. Hunter availed himself of experiment supplemented by the results of the latest researches in chemistry. The experiments led him to the hibernation of animals and made him write the half-serious, half-jesting letter of condolence to Edward Jenner, a former pupil who had lately been jilted, which ended with the queer *remedium amoris*, "But never mind her, let her go. I shall employ you with hedgehogs." Turning from the physiological to the more strictly surgical side of Hunter's work, Sir William Mac Cormac passed in review Hunter's observations upon injuries of the head, and he arrived at the remarkable, but probably correct, conclusion that "I doubt if our modern surgery, despite its knowledge of cerebral localisation, can advance much further than Hunter was prepared to go."

Hunter's name is associated in the minds of many surgeons solely with the operation of ligature of the femoral artery at a distance from the seat of aneurysm, and Sir William Mac Cormac did well to recall the stroke of genius which led to so great an advance in the practice of surgery. Hunter, who was engaged in studying the growth of horn, caused a buck to be thrown in Richmond Park and tied its carotid artery. The pulsation in the velvet ceased and the antler grew cold. A week later the antler was growing and warmth was restored. The buck was killed; the ligatured artery was found to be obliterated, and the circulation was carried on by small vessels above and below the place of ligature, which had proved themselves sufficient to restore the blood current to the growing antler. Hunter pondered this result in his heart from July to December, 1785, when a coachman suffering from popliteal aneurysm was admitted into St. George's Hospital. Him Hunter persuaded to have his femoral artery tied. The man was cured of his aneurysm and recovered from the operation, which thenceforth took rank as one of the most successful in surgery, quite displacing amputation and the method of Antyllus in the treatment of aneurysm.

Sir William Mac Cormac is discriminating in his praise for he shows that Hunter was inaccurate even to error in his essay on venereal disease, but that his treatises on inflammation and on gunshot wounds were truly epoch-making, and justify the estimate of Buckle, who places Hunter amongst the great masters of organic science, Aristotle, Harvey, and Bichat. After alluding to the utility and excellence of the Hunterian Museum, as it is fostered by the College of Surgeons of England, and paying a tribute of respect to the work of Lister, Sir William Mac Cormac ended with this fine testimony to Hunter's worth: "That of all the great minds which have illuminated the scientific world and guided its destinies, John Hunter's is the one which first directed surgery into the pathways of science, and, dying, left to surgeons a future in the memory of his past. He is the one great man without whose aid it is impossible to imagine surgery all that it now is; we cannot take his influence away and yet retain all that we now possess. Our science might have spared some other workers, but it could not have become the science we know without John Hunter."

DIPLOMAS AND DEGREES FOR OPTICIANS.

OUR attention has recently been drawn to the regulations not long since prescribed by the Worshipful Company of Spectacle Makers under which opticians and their assistants may be admitted to the guild and receive the diploma of membership of that Company on passing the required examination, and we think it may be desirable briefly to refer to the objects which the Company have in view, and the consequences which may result from the grant of the diplomas in question.

The Spectacle Makers Company in their prospectus state that it is the object of the Company to advance the status and knowledge of the optician, and to reassociate with the guild all who possess the necessary technical ability, and they accordingly prescribe a theoretical and practical examination to be passed by candidates approved by the Optical Committee of the Company on the recommendation of two well-known members of the craft.

Then follows a syllabus of the examination, which prescribes arithmetic and algebra, trigonometry, a simple knowledge of the construction and uses of instruments for measuring temperature, atmospheric pressure and moisture, the elementary laws of light, refraction, index of refraction, refraction as applied to lenses and prisms, the elementary theory and construction of optical instruments, and then the following: General anatomy of the human eye, the course of light passing through the media of the eye alone and modified by lenses, cylinders and prisms, hypermetropia, myopia, astigmatism, presbyopia, instruments commonly used for determining the refraction of the eye, trial lenses, test types, astigmatic chart, the optometer, the principle of the ophthalmoscope, the theory of retinoscopy, and in addition practical work in visual optics. The revised syllabus issued in January, 1899, omits, it appears, "the theory of retinoscopy," and makes other modifications, but substantially the examinations are to be of the same character.

The requisite knowledge for passing such an examination as that above referred to may, it is true, be deemed desirable in order to effect the objects which the Company presumably have in view of promoting a higher standard of excellence in the mechanical skill of a maker or vendor of optical instruments, or at any rate as has already been suggested as only sufficient to enable the optician to determine when the assistance of the skilled surgeon may be required; but, on the other hand, it may be contended that the acquirement of a diploma after passing such an examination may be deemed sufficient to empower and authorise its possessor to prescribe for and treat cases of defective vision and other diseases of the eye.

The diploma conferred, and proposed to be conferred, by the Spectacle Makers Company on its Fellows is in form extremely simple, that is to say, it is merely a certificate to the effect that the candidate has been admitted to the freedom of the Worshipful Company of Spectacle Makers, and having been approved by the examiners and the Optical Committee, is thereby granted the Diploma of Fellowship by order of the Court of the Company.

It will be observed that this diploma does not confer or purport to confer any degree in ophthalmic surgery, nor, indeed, would the Company have a shadow of legal authority for adopting such a course; but notwithstanding this there is ample scope for the apprehension which has already been expressed that if the Company is allowed to continue to hold the examinations referred to and to grant its diplomas, serious questions may arise as to whether or not there is an infringement of the provisions of the Medical Acts. This will appear from the following advertisement which we take from the London *Daily Mail*:

— — — —— F.S.M.C., Sight Specialist, Certificated Optician by Examination. Mr. —— ——'s treatment of defective eyes is entirely successful; headache, neuralgia, pain in the eyes due to eye strain permanently cured. Eyes examined, sight tested, and all information free of charge.

The practice here indicated is altogether inconsistent with the avowed objects of the Company, and the qualification conferred by the examination in question does not authorise members of the guild to undertake the treatment of diseases, which is the function exclusively of the legally qualified medical practitioner.

We would suggest that if the Spectacle Makers' Company, as they profess, are simply desirous of advancing the status and knowledge of the optician in the proper sense of the term they will do well closely to scrutinise the conduct of those to whom the diploma is granted, and in case of anything being done which may reasonably be deemed to be an infringement of the Medical Acts promptly to withdraw the diploma. Otherwise we have no hesitation in saying that the examination held and diplomas granted might afford a colourable pretext for the unqualified practice of ophthalmic surgery, and would necessarily lead to measures being adopted in order to prevent the issue of any such diplomas in future.

The user of the letters F.S.M.C. coupled with words which clearly imply the practice of ophthalmic surgery affords ample reason for having the case brought to the attention of the General Medical Council. We have before expressed the opinion that the objects of the Company are in themselves most praiseworthy if confined to their proper and legitimate sphere, but this must on no account be exceeded.

In justice to the Company we must not omit to note that in the revised regulations issued in January, one of the conditions imposed on holders of diplomas of the Company is the following: "That he will not publish any advertisement unfair to fellow craftsmen or misleading to the public, and especially will not use or advertise this diploma in any way which would lead the public to infer that it conveys medical qualifications." This is a step in the right direction, and if the provision is enforced in its integrity will go far towards removing the apprehensions which have arisen. At the same time the provision should be extended to meet the case of any member or Fellow of the company directly or indirectly engaged in the practice of ophthalmic surgery.

While on this subject, we would refer to a diploma purporting to be granted by the Philadelphia Optical College which certifies that the person named has completed the prescribed course of instruction, and has passed a most satisfactory examination in the theory and practice of refraction; is duly qualified to scientifically correct the errors of refraction of the human eye, and is entitled to the highest honours the College can bestow, and by virtue of the College Charter he is thereby declared a Doctor of Refraction, "Ref. D."

With regard to diplomas of this kind we have no observations to make beyond this—that the public should be warned that the holders are not qualified to practise ophthalmic surgery in this country, and that those who do so and use the degrees purporting to be conferred on them may render themselves amenable to the penal provisions of the Medical Acts.

MOSQUITOS AND MALARIA.

The history of the theory that there is a connection between mosquitos and malaria is interesting, and would be curious did not the annals of science afford many parallels. The theory appears first of all to have been thrown out by Crawford, who published a paper on the Mosquital Origin of Malarial Disease in the *Baltimore Observer* as long ago as 1807. Nobody seems to have revived it seriously until 1883, when King published in the *Popular Science Monthly* a paper entitled Insects and Disease, Mosquitos and Malaria. Still, it made little way, or, rather, lay dormant, until Manson, by a really brilliant piece of inductive reasoning, showed in his Gulstonian Lectures of 1896 that the natural history of the disease and the life-history of the mosquito afforded grounds for looking upon the hypothesis as reasonable. He also indicated the lines upon which research to settle the question should be conducted. The admirable work which Major Ronald Ross of the Indian Medical Service has since done on these lines is well known to our readers, for his papers and reports have been for the most part published in our columns. Dr. Manson gave an account of the results of the research down to last July in an address in the Section of Tropical Medicine at Edinburgh, which was published in the British Medical Journal of September 24th, 1898. In another column we give the facts of the latest report which Ross has issued, containing full details of experiments more briefly communicated to the Section at Edinburgh.

M. Laveran, the discoverer of the hæmatozoon of malaria, who has for some time shown that he is impressed by the weight of the evidence in favour of the mosquito theory, brought the subject before the Académie de Médecine on January 31st, when he paid a warm tribute to the excellent work done by Ross. His communication took the form of a report on Ross's paper, and in introducing the subject he said that the hypothesis that the hæmatozoon of malaria might probably exist outside the human body as a parasite of mosquitos was at first received with much scepticism, but had gradually made its way, and was now accepted by most writers on malaria. Manson in England, Koch in Germany, and Bignami and Grassi in Italy had all published very interesting observations on the point; but it is, he said, "the patient researches of Ronald Ross which have put beyond the range of doubt the part that mosquitos play in the complicated evolution of the hæmatozoon of malaria and of the endoglobular hæmatozoon of birds, which is very nearly allied to malaria."

M. Laveran said that he had been for some years in correspondence with Ross, from whom he had received histological specimens showing the transformation of the hæmatozoon in mosquitos. "I can, therefore," he said, 'bear witness to the admirable perseverance which our distinguished *confrère* has shown in the study of this difficult question, and to the exactness of his observation." M. Laveran then traced the course of Ross's researches since 1895, and said that in their course he had discovered a series of very interesting facts. Ross had been the first to observe the transformation of the hæmatozoon of malaria in certain mosquitos; he had been the first to see, and to describe with precision, the transformations of the proteosoma of birds in the digestive canal and body-cavity of mosquitos. Finally, he had succeeded in infecting healthy birds by causing them to be bitten by mosquitos which had fed on diseased birds.

M. Laveran then pointed out that further investigations were particularly required with regard to the following points: (1) The manner in which the proteosoma introduced into the stomach of mosquitos becomes transformed into the pigmented spherical bodies which are found after thirty hours in the substance of the stomach wall. (2) The mode of formation and the nature of the black spores and the part which they play. (3) The mode of formation and the structure of the germinal threads. (4) The determination of the species of mosquitos which act as hosts. (5) The verification of the theory that mosquitos play the same part in transmitting the hematozoon to man as Ross has shown they play in carrying a similar parasite to birds. M. Laveran observed that Bastianelli, Bignami, and Grassi had followed the development of the crescentic bodies in the intestines of mosquitos which had sucked the blood of patients suffering from Italian summer-autumn fever, and that the changes observed were precisely those described by Ross in the case of the proteosoma. Finally Bignami recently succeeded in giving an individual malaria by exposing him for several consecutive nights to mosquitos obtained from a malarious district.

It was not, M. Laveran continued, surprising having regard to the great difficulty of these researches that an isolated observer working as Ross did, often under defective conditions, had not succeeded in solving all these problems; but, thanks to his discoveries, it might now be hoped that it would be easier to elucidate the remaining questions, since investigators had been put on the right road, and on all sides were beginning to verify and to complete Ross's researches. In conclusion M. Laveran sincerely congratulated Major Ross on the important contribution that he had made to the history of the evolution of the parasite of malaria outside the human body, and the Academy adopted a special vote of thanks to him for the interesting communication which he had addressed to it on the subject.

Professor Koch also has recently issued a report on the results reached by the German Commission which spent last August and September in Italy in the study of malarial disease. Professor Koch was the head of the Commission, and the other members were Professors Pfeiffer and Kossel.[1] The subjects to which the Commission specially directed their attention were: (1) The relationship of the different forms of malaria grouped together under the name of *febbri estivo-autunnali*; (2) the connection between Italian and tropical malaria; and (3) the etiology of malaria, espe-

[1] *Deut. med. Woch.*, February 2nd, 1899.

cially in reference to its transmission by blood-sucking insects.

With regard to the first point, Professor Koch reports that the Commission came to the conclusion that the *febbri estivo-autunnali*, though they could be divided clinically into several varieties, were all caused by a single form of parasite. Cases newly developed were all of the same tertian type, and it was only when their course was interfered with by the action of quinine or of a naturally-acquired immunity that they became quotidian and finally irregular.

With regard to the second point, the opinion is expressed that there is no essential difference between the malaria of Italy and that of the tropics. Distinctions reported by Italian observers were shown by improved methods of research to be artificial. This Professor Koch considers to be a great step in our knowledge of malaria.

Light was also thrown on the third point. It had been assumed by some that the so-called semilunar forms and the flagellated bodies derived from them were degenerated forms of the malarial parasite, mainly on the ground that they did not take on a chromatin stain—a sure indication that the reproductive powers of an organism have been lost. Owing to improvements in Romanowsky's staining method, however, it was discovered, first, that there were chromatin bodies in the semilunar forms; and, secondly, that the so-called flagella contained chromatin, and were really analogous to spermatozoa.

Koch was able to recognise in Italy the parasite (proteosoma) in birds, the development of which Ronald Ross has described. He was able to confirm Ross's statement that after the blood infected with proteosoma has reached the stomach of the mosquito, a number of coccidia-like bodies make their appearance, and that within these spores develop, some of which ultimately reach the poison-salivary glands, whence they are injected into the victim's skin.

Professor Koch and his colleagues were thus able completely to confirm Ross's observations, and they express the opinion, founded on the close resemblance of the malarial parasite to the proteosoma, that it is probable that the two have a similar life-history. Ross's work is therefore, they conclude, of the greatest value as a guide to future workers in the field of human malaria.

The report points out that the city of Rome itself, though it lies in the midst of a wide expanse of malarious country, is nevertheless (at all events as far as the central part is concerned) free from malaria. This immunity cannot be due to its water or food supply, for its water, vegetables, and fruit come from malarious districts. In these parts of Rome, however, in which large gardens provide a habitat for mosquitos, there malaria is found.

Koch mentions incidentally that certain cases of malaria in which quinine—from a fear of blackwater fever—was contraindicated, did very well on methylene blue. Some of the cattle of the Campagna were examined, and it was found that those of them which suffered from Texas fever were infested with the same species of tick which produces Texas fever in East Africa and in Texas itself.

The confirmation of Ross's work by an observer so experienced as Koch, and the high praise accorded to it by Laveran, will, we venture to expect, encourage the Indian Government to afford still further opportunities and facilities to this distinguished member of the Indian Medical Service.

OVERSEERS' ORDERS FOR MEDICAL ATTENDANCE.

The liability of guardians to pay district medical officers for attendance on urgent orders granted by overseers is a subject which for many years past has occasionally been the cause of great trouble and annoyance to Poor-law medical officers; and though the question has often been discussed at some length, we are not aware that any legal decision has ever been given upon which reliance could be placed, and the law has consequently remained somewhat doubtful on the point at issue. The question is whether a Board of Guardians, whose duty it is to administer relief, medical and other, in all cases of proved destitution, when proper application is made for it, are bound by an order given for medical attendance in urgent cases of illness by a parochial overseer, who, though doubtless empowered and required by law to relieve all urgent cases of destitution, is technically not an officer of the guardians, and not subject to any directions he may receive from them. This appears to be the reason why Boards of Guardians so frequently object to meet the expense of orders for relief of even urgent cases when issued by parish officials. To the ordinary mind this highly technical objection to paying for services officially requisitioned appears to be absolutely monstrous, and we are glad to find that it was thus characterised by the judge. A short time ago,[1] we were asked to give an opinion on a case of this description in which the guardians refused to pay the fee claimed by a district medical officer for attendance on an urgent case of midwifery on the order of the overseer of the parish. To this inquiry we replied that we considered the guardians were liable for the fee claimed; and it is satisfactory to know that this opinion has since been confirmed by the county court. At Crediton, before His Honour Judge Woodfall, Dr. C. Haycroft, a district medical officer, sued the guardians of the Crediton Union for the fee of 10s. 6d. for attending an urgent case of midwifery, the order for such attendance having been given in writing by a parochial overseer to attend "at once." These latter words of course implied urgency, and this note of urgency is a point of importance in the matter, as it is generally conceded that only in urgent cases can the overseer properly grant relief. That this order was properly granted could not possibly have been doubted by the medical officer when it was presented to him, and it is a curious circumstance in the case that he had two years previously attended the same patient on a similar order when in a similar condition, and had been paid for that attendance by the guardians without any dispute. The same Board now denied their liability, on the ground that the order ought not to have been given by the overseer, and that the medical officer should have satisfied himself as to the destitution of the patient before he attended the case in his official capacity, and that as he had omitted to do this his claim for payment was against the overseer who granted the order, or against the husband of the patient. This defence by the guardians does not appear to have impressed the judge in their favour, as after hearing their legal representative at some length, he did not hesitate to describe any such contention as "monstrous," and added that if the plaintiff, after receiving the overseer's order, had, instead of giving immediate attention to what was represented as an urgent case, adopted the plan suggested of going about to make inquiry as to the financial position of the patient, and death had in the meantime occurred, he might have found himself in a

[1] British Medical Journal, January 21st, 1899, p. 187.

serious position. The judge considered that the medical officer was bound to obey the order as issued by the overseer, and that it was no part of his duty to inquire as to the destitution of the patient. Judgment was at once given for the plaintiff, with costs on the higher scale. Application was made for leave to appeal, which the judge granted. It may at first sight be difficult to see why it should have been necessary to take legal proceedings for the recovery of the fee in this case, as the regulations of the Local Government Board would appear to be sufficiently explicit to justify them in ordering the guardians to pay the fee which Dr. Haycroft claimed.[2] We do not know whether he referred this question to the Local Government Board, but unfortunately the attitude of the Local Government Board, when somewhat similar cases have in the past been referred to them, has not been such as to encourage further applications. After this decision, against which we cannot think any appeal is likely to be successful, we hope that similar litigation will become unnecessary, and that the Local Government Board will relieve medical officers of the disagreeable duty of having to sue their employers for fees in such cases.

COMPANY PRACTICE.

The Companies Acts Amendment Bill has been introduced and passed its second reading in the House of Lords, but it was explained by Lord Dudley that it is so far the same measure as that which had been before the House in a previous session, and it has now been referred to a small Select Committee. Hence it does not as yet contain any clause bearing upon that class of companies which are formed for the infringement of the Medical and allied Acts, and until the new Select Committee reports we shall not know what measure of success has attended the efforts of the General Medical Council through its Committee to procure the insertion of some clause providing a remedy for the existing abuses. The Select Committee of the House of Lords has lost no time, having already within a few days of its appointment held a meeting, but its deliberations were conducted in private; the publication of its report will be awaited with much interest. It is an instructive fact that several new companies which appear to be of this type have been incorporated quite recently, and it appears that the existence of this loophole is becoming more widely known to the class who seek to avail themselves of it.

THE CHAIR OF PATHOLOGY AT CAMBRIDGE.

Dr. German Sims Woodhead has been elected Professor of Pathology in the University of Cambridge in succession to the late Dr. Kanthack. Dr. Woodhead, who was born in 1855, and graduated at Edinburgh in 1878, has become very well known to the medical profession during the eight years for which he has held the post of Director of the Laboratories of the Conjoint Board of the Royal College of Physicians and of the Royal College of Surgeons in London. During his tenure of that office he has not only added to a scientific reputation already high, but he has proved himself to be an admirable organiser, and a master capable of inspiring others with some of the enthusiasm and single-minded devotion to science with which he is himself so largely endowed. There is every reason to feel confident that under his direction the school of pathology in Cambridge will grow in importance, and that Professor Woodhead will be able to bring to perfection the work which his predecessors Professor Roy and Professor Kanthack were, in the chances and changes of this mortal life, only permitted to outline as in a sketch.

NOTIFICATION IN DUPLICATE.

The question whether a consultant ought to notify a case seen by him along with another practitioner is one which will be answered in different ways under different circumstances. As the law at present stands, if he does not he runs the risk (should the practitioner in attendance fail to do so) of being mulcted in penalties. This is of course a somewhat remote contingency, for the authority would naturally proceed in the first instance against the man actually in attendance. We do not suppose that the 2s. 6d. for the certificate often enters into the consideration of the certifier. Where a change of doctor has been effected the matter is slightly different. It is in this case less unusual to ensure the carrying out of the Act by the sending of a second notification. Compared, however, with the number of cases notified, the number of duplicate fees demanded is trifling. It seems hardly worth legislating about. We see, however, from the *Liverpool Mercury*, that the matter has engaged the attention of the Wrexham Rural District Council. At the last meeting of that body Mr. Cromar moved to memorialise the Local Government Board that it was the opinion of the District Council "That after a case of infectious disease has been notified to the medical officer of health no further notification of the same case should be paid for, but returned to the medical practitioner with an intimation that a certificate has already been received." A further reduction of fees was to be effected by the next resolution, which read as follows: "That the fee of 2s. 6d. per case in private practice should only be paid for the first case occurring in any one house, and that the fee for subsequent cases in the same family should not exceed 1s. per case." It is contended that the notification of subsequent cases occurring within a month of the first is not necessary, inasmuch as when one case has been notified it is the duty of the sanitary authority to keep an eye upon the house, and that the duty of the occupier to notify the new cases remains. This is an example of the many attempts made to obtain a medical opinion for nothing. The authority needs to know the nature of the later cases, and accurate information on this head is well worth the small fee at present paid for it.

CENSURE ON A MIDWIFE.

The Honorary Secretary of the Lincoln Maternity Society, Mrs. Bond, considers that the report of the inquest at Lincoln to which attention was drawn in the British Medical Journal of February 4th, and some comments that have appeared in the public press "are calculated to convey a very erroneous impression about Nurse Southwell and the benevolent society by which she is employed." She consequently sends us a letter which she requests us to print, but as it was written on February 2nd, and published in the *Lincolnshire Echo* before the report of the case appeared in the British Medical Journal, it was evidently not written in reply thereto, nor is it in any sense an answer. The midwife's statements to the coroner were so inculpatory, that comment on her conduct in our columns was, we felt, quite unnecessary; and we confined ourselves to the remark "that any Midwives Act ought to contain a clause distinctly forbidding a midwife, under penalty, to give a certificate as to the death of any infant or of stillbirth." The justice of that observation is enforced upon us by cases which frequently occur in coroners' courts; and the Midwives Bill, as amended by the Parliamentary Bills Committee, has a clause forbidding a midwife to give such certificates. Mrs. Bond states that "the Lincoln Maternity Society employs none but thoroughly trained nurses, who have knowledge enough to distinguish those simple cases which they may safely treat themselves;

[2] The terms of Article 206 of their General Consolidated Order, dated July 24th, 1847, were as follows: "*Duties of District Medical Officer.*—To attend duly and punctually upon all poor persons requiring medical attendance ..... *whenever* he may be lawfully required to furnish such attendance or medicines, by a written or printed order of the guardians, or of a relieving officer of the union, *or of an overseer.*"

and in any other cases *they immediately summon at the cost of the Society* (our italics) the assistance of a medical man. Again, "our Society supplies them" (that is, the poorest) "with medical assistance whenever it is needed, without any addition to the small fee paid in the first instance for the services of the midwife." But the midwife Southwell did not summon a medical man, and for the failure to do so she was censured by the coroner, at the instance of the jury, who added a rider to their verdict, that "the midwife had exceeded her duty, and ought to be censured." So far Mrs. Bond deals in generalities. The last part of her letter is more to the point. She states that if a solicitor had watched the case on behalf of the nurse, it would have appeared (1) "That she recommended such treatment for this immature child as a medical man suggested at the inquest." But this is beside the question; she considered the case hopeless, and told the parents it was not necessary to have a medical man; hence the censure passed upon her by coroner and jury. (2) "That while her experience led her to think that the child could not survive, yet she advised the father to send for a medical man to see it." But, according to the report of the inquest, the exact reverse of this was stated by the father of the child, and the midwife in evidence strenuously defended her conduct to the coroner when he commented on its wrongness. (3) "That when he" (the father) "neglected to do this" (send for a medical man to see the child) "and the child died nine days after Nurse Southwell's attendance upon the mother had ceased, she simply wrote down what she knew about the matter in order to help the parents in their trouble, and she by no means presumed to give such a 'certificate' of the cause of death as could only be given by a qualified medical man." We fear this statement is scarcely borne out by the report, which states that "the midwife herself certified the death to the registrar, who reported the matter to the coroner." Altogether, it would appear that the advocacy of Mrs. Bond has not improved the case of the censured midwife; it has rather drawn fresh attention to her *lâches*.

WATER GAS.

ATTENTION has been directed on many occasions in these columns to the dangers which may arise from the use of water gas as an illuminant, whether alone or mixed with ordinary coal gas. Just a year ago the Home Secretary appointed a Departmental Committee to inquire into the manufacture and use of water gas and other gases containing a large proportion of carbonic oxide. Lord Belper was the Chairman of the Committee, and among the members were Dr. J. S. Haldane, F.R.S., of Oxford, Dr. H. F. Parsons, Assistant Medical Officer of the Local Government Board, and Professor Ramsay, F.R.S., of University College, London. This Committee has now presented its report, and in view of the fact that a large increase in the use of water gas is to be expected in several localities, and that the use of pure carburetted water gas is contemplated in some places, they recommend that its use and manufacture should be regulated by legislation. In the first place, they recommend that the distribution for heating and lighting purposes of any poisonous gas, which does not possess a distinct and pungent smell, should be made illegal, and that all persons applying for statutory powers to make and distribute gas should be required to state the kind of gas they propose to sell, whether ordinary coal gas, carburetted water gas, plain water gas, or other variety of gas, separately or mixed. It is further recommended that it should be reckoned obligatory to give public notice of any proposal to distribute any kind of water gas, and that as long as there is any water gas in the gas supply, the fact should be stated on every demand note. Power, it is thought, ought to be conferred upon a central department to make regulations enforceable by penalties limiting the proportion of carbonic oxide in the public gas supply at night, and it is suggested that the limit should be 12 per cent. It is proposed also that power should be given to local authorities to make by-laws, subject to the approval of the central department, regulating the hours during which carbonic oxide may be added and the proportion permitted, the character of the gas burners and fittings, and the testing of the same. In conclusion, the Committee draws attention to the insufficiency and untrustworthiness of the statistics relating to particular causes of mortality which can be gathered from returns of coroners' verdicts, and though the matter is outside the terms of the reference to them, they recommend strongly that some steps should be taken to secure that these verdicts should lend themselves more readily to clear classification by the Registrar-General; and, in particular, that in every case where the coroner is in possession of a medical certificate of death, or where medical evidence has been taken at the inquest, a copy of that certificate or an abstract of that evidence should be appended to the coroner's certificate when sent to the Registrar-General.

VACCINATION STATIONS.

THE health authorities of Liverpool and the various select vestries have independently petitioned the Local Government Board to exercise its discretionary power to retain the vaccination stations in Liverpool. These authorities are of opinion that there are certain exceptional circumstances which make it undesirable to abolish the stations in Liverpool, the most important being the existence of a great floating population, and the fact that the people have become thoroughly used to take their children to the stations, and do not understand the new regulations. Liverpool is one of the best vaccinated communities in the country, and there is practically no opposition to the practice of vaccination, only two or three "conscientious objectors" having applied for exemption since the Act of 1898 was passed. The prosperity of the city is entirely dependent on its foreign trade, and it would be seriously endangered if anything approaching an outbreak of smallpox occurred. As an instance of the difficulty met with in the attempt to carry out domiciliary visits for the purpose of performing vaccination, it is related that on a certain date a vaccination officer notified fifteen families that he would call to vaccinate the children on a certain day, but he found only three at home. The Local Government Board has, however, written to the health authorities declining to recognise the existence of exceptional circumstances in Liverpool, and refusing to sanction the continuance of the vaccination stations.

CONFERENCE ON RIVERS POLLUTION.

A CONFERENCE on the subject of Rivers Pollution and the Protection and Purification of Water Supplies was held under the auspices of the Sanitary Institute at the Parkes Museum on February 14th. The chair was taken by Sir Francis Sharp Powell, Bart., M.P., Vice-President of the Institute, and among those present were Sir John Dorington, M.P., Mr. Hobhouse, M.P., Sir John Hibbert, Chairman of the Lancashire County Council; Mr. Miles Gaskell and Dr. Maclean Wilson, of the West Riding Rivers Board; Mr. R. A. Tatton, Chief Inspector, Mersey and Irwell River Boards; Mr. W. Naylor, Chief Inspector of the Ribble Joint Committee; Mr. Willis Bund, Chairman of the Worcestershire County Council; Major Lamorock Flower, of the Lee Conservancy Board; Dr. H. E. Armstrong, Medical Officer of Health for Newcastle, and other medical officers and engineers especially interested in the subject. A resolution was passed on the motion of Dr. Childs, seconded by Dr. E. Sergeant, M.O.H. Lancashire, recommending that the officers of local sanitary authorities should have free access for the purposes of inspection and

taking of samples to any land and premises from or through which water is supplied for domestic purposes to the public in their district, and that such inspection should be made periodically and the results reported. A second resolution, proposed by Dr. G. Reid, M.O.H. Staffordshire, and seconded by Dr. J. C. Thresh, M.O.H. Essex, recommended that the authorities should be required to make regular inspection and examination of the waters supplied by them and report the results to the local authority; while a third resolution, proposed by Mr. Wynter Blyth, M.O.H. Marylebone, and seconded by Lieutenant-Colonel Jones, Aldershot, recommended that the wilful or negligent pollution of any water supply should be regarded and treated as a penal offence. A further resolution recommended the appointment of special authorities representative of the interests involved for each gathering ground or group of gathering grounds to have general care and supervision of the waters within each watershed, with powers to take prompt measures to prevent such pollution and to arrest detected pollution. Finally a resolution was adopted approving the Rivers Pollution Prevention Bill to be introduced by Sir Francis Sharp Powell, M.P. The resolutions are to be forwarded to the Local Government Board, and we venture to express the hope that the Government will see its way to give facilities for early legislation. We have already on several occasions drawn attention to the importance of giving power to sanitary authorities to enter land from which the water supplied to their districts is taken, or through which it passes in order to ascertain that it is not being polluted by careless owners. There is a story of the medical officer of health of a large county borough, who, having occasion while on a short holiday to enter an inn, found that the drainage of the establishment went into the water supply of his own town. The horror of the zealous official may be imagined, but it is clear that the discovery of such defects should not be left to chance, and that authorities should have the power of safeguarding the purity of one of the first necessaries of life.

DEATH OF "CAVENDISH."

The death is announced of "Cavendish," the well-known authority on whist, whose handbook on the subject is familiar to all whist players. Whist is a game so popular among doctors that it was appropriate enough that a member of the medical profession should have been one of the chief authorities on the game. Mr. Henry Jones was the eldest son of a well-known practitioner in Soho Square, and was himself a Member of the Royal College of Surgeons of England, and a Licentiate of the Society of Apothecaries. Though never a first-rate whist player, he began to play early in life, for his father was a devotee, and the son, while still a young man, wrote a small treatise on the game anonymously; "Cavendish" soon became an authority, and Mr. Jones had the pleasure of hearing that authority quoted by his father when some dispute arose as to a point of practice. It was, indeed, some years before the name of the author became generally known. Mr. Jones retired from practice in 1869 in order to devote himself to literary work, but down to the time of his death he was a member of the Court of Assistants of the Society of Apothecaries of London. He died on February 10th, at the age of 68.

THE VICTORIA HOSPITAL FOR CONSUMPTION. EDINBURGH.

An important step in advance has been taken by the Victoria Hospital for Consumption, Edinburgh. The acting Committee have succeeded, after prolonged negotiations, in arranging for the purchase of the Craigleith property, on which the hospital, at present held only on lease, stands. The purchase includes a park which adjoins the other, making in all close on sixteen acres. As those who have visited the hospital know, the property is well situated, and its eligibility for the purpose intended has been well tested during the past five years. The parks lie delightfully to the sun, on a gentle slope, and are sheltered in most directions by belts of noble old trees. The entrance to the grounds is situated less than a mile and a-half to the north-west of the west end of Princes Street. In the immediate neighbourhood of the property are several open spaces of considerable size which cannot be built on, so that the amenity of the hospital is ensured for many years to come. The Committee propose to take advice immediately regarding the best lines on which to proceed with extension of the hospital.

THE PARENTAL FORM OF FILARIA PERSTANS.

One of the Congolese patients suffering from sleeping sickness whose case was described by Dr. Manson in the British Medical Journal of December 3rd, 1898, page 1672, died recently. For two months previously he had been confined to bed and almost constantly asleep. The immediate cause of death was hyperpyrexia, which rapidly developed. The details of the *post-mortem* examination will be published in due course; but one interesting fact has already been established—namely, that the filaria perstans of West Africa is the same species as the blunt-tailed filaria of British Guiana. A mature filaria was found by Mr. O'Neill, Charing Cross Hospital, in the connective tissue behind the abdominal aorta; on comparing it with specimens sent from British Guiana by Dr. Daniells, it was found to correspond with these in every detail. The nematode worm described by Dr. Daniells in the British Medical Journal of April 16th, 1898, page 1011, is therefore the mature form of filaria perstans, a parasite which is now proved to be endemic in tropical America as well as in tropical West Africa.

THE LONDON COUNTY COUNCIL AND CREMATION.

We understand that some of the friends of cremation on the London County Council have under consideration a scheme which, if carried out, will provide London with a place for cremation at once accessible and well situated having regard to its purposes. In the early part of last year the Council passed the following resolution:

> That the Parliamentary Committee be asked to take measures with the view of obtaining power for local authorities under the Metropolitan Burials Act to provide for cremation.

Upon this the Committee prepared and the Council approved a Bill, entitled, the Metropolitan Burial Boards (Cremation) Bill, but, owing to the pressure in Parliament of other business, no progress was made with the measure during the session of 1898. Fearing the same fate during the present session, the Parliamentary Committee reported to the Council at the meeting last week that the Bill be not further proceeded with. Thanks, however, to the vigilance of Sir Arthur Arnold and the wide feeling of approval of the purposes of the Bill which appears to exist in the Council, the report was referred back *nem. con.*

EPIDEMIC INFLUENZA.

This is the tenth consecutive winter during which epidemic influenza has prevailed in Great Britain. The epidemic began, it will be remembered, in October, 1889, after a period of immunity which had lasted for nearly forty years. It was hoped at that time that after prevailing for one, two, or at most three years, the epidemic would pass away as had been observed on previous occasions, but this anticipation has been to a great extent falsified, and the annual recurrences, though they have not been so extensive as during the first two years, have been sufficiently widespread to cause very serious inconvenience on many occasions, very distinct increase in the death-rate, and, as is generally believed, a notable accession to the number of chronic maladies, especially of the nervous system, which

are characteristic of the present generation. There has been this year a considerable epidemic in the eastern parts of the United States, and there is at the present time a very severe epidemic both in Sweden and in Norway. More recently the prevalence of the disease in epidemic form has been reported in various parts of the south and west of England, and a severe outbreak has occurred on the training ship *St. Vincent* at Portsmouth. The number of cases rose suddenly within two days from 20 to 70, and the most severe were transferred to the wards of the Haslar Hospital, which are already stated to be very full. Although influenza has recently been somewhat prevalent in several parts of London, the number of deaths directly attributed to this disease had, until last week, shown but little tendency to increase. The fatal cases of influenza registered in London, which had been 20, 21, and 22 in the three preceding weeks, suddenly rose to 50 during the week ending Saturday, February 11th, a higher number than in any week since March, 1898. Of these 50 deaths, 7 only were of persons under 20 years of age, 7 of persons aged between 20 and 40 years, and 17 of persons between 40 and 60; while 19 were of persons aged upwards of 60 years. The disease appears to be most prevalent in North and South London, especially in Islington, Hackney, and Brixton.

PHTHISIS IN LUNATIC ASYLUMS.

AT the last meeting of the Governors of the Richmond Lunatic Asylum, Dublin, Dr. Conolly Norman read a report from the Inspector, Dr. Courtenay, recommending the providing of means of isolation for cases of consumption. This was particularly necessary in an asylum, because there was among the insane a particular inability to resist the infective action of the disease. Dr. Norman said it was indispensable to provide for each sex an isolation wing. This recommendation was adopted. The report as to the dietary and the management of the patients was very satisfactory. The pathological department is well equipped, and the scientific work ably carried out by the pathologist, Dr. Rambaut.

WORKHOUSE SCHOOLS.

A GENERAL order of the Local Government Board embodying a series of new regulations in respect of workhouse schools has been issued. It is provided that, unless the Board shall otherwise direct, no child under the age of 3 years, and no child suffering from any contagious affection of the scalp, skin, or eyes, shall be admitted, and that orders of admission shall be subject to the result of medical examination. The order directs further that the children in the schools shall be medically examined at least once a month, and those suffering from such affections separated from the others. The order, which is to come into operation on March 26th, will apply to the Poor-law Unions of Hackney, Holborn, Mile-end Old Town, Poplar, St. George-in-the-East, St. Leonard Shoreditch, St. Marylebone, St. Mary Islington, St. Mary Lambeth, St. Matthew Bethnal Green, St. Pancras, Strand, and Westminster.

STRIKE OF STUDENTS AT LIEGE.

A STUDENT strike has recently occurred in the University of Liége. The students of the Medical Faculty, overburdened with lectures and clinical visits, together with an examinational programme of inordinate length and variety, have risen in revolt. The Rector, Professor Masius, was hissed at his opening clinical lecture, and retired amid a storm of hooting. Professor von Winiwarter has taken the part of the students, and is correspondingly popular. The immediate cause of the strike was that a very hard-working student, who had already given proof of high ability, was refused admission to an examination because he had not put in the prescribed number of appearances at lectures. Of 90 students no fewer than 80 have been threatened with academic pains and penalties of a more or less serious nature if they are not more regular in their attendance.

AN INTERNATIONAL ANTIVACCINATION CONGRESS.

UNDER the auspices of the German Antivaccination League, an international conference is being organised. It is to be held in Berlin on June 18th, 19th, and 20th. There is to be a large mustering of the clans who have sworn a feud against Jenner. The occasion is to be graced by the presence of Mr. William Tebb, who will appear at the head of a number of his henchmen like a highland chieftain of old "with his tail on." Other prominent antivaccinists from Sweden, Switzerland, Holland, and the United States are expected. Italy will be represented by Professor Ruata, of the University of Perugia. The Imperial Health Bureau is to be invited to send representatives. The vaccination question is to be discussed from the medical, legal, and philosophical standpoints, "in a practical manner and with all publicity."

AN INTERNATIONAL CONGRESS OF MEDICAL ETHICS.

IT has been arranged that among the Congresses to be held in Paris in 1900 there shall be one entitled "International Congress of Medical Ethics." The Organising Committee, which recently met under the Presidency of Professor Gariel, includes among other well-known members of the profession in France, Professor Brouardel, Dean of the Paris Faculty of Medicine, Professor Cornil, member of the French Senate, Drs. Marcel Baudoin, Jules Comby, Julien De Ranse, A. Sevestre, and Jules Thiroloix. M. Léreboullet was chosen to be chairman. All communications in regard to the Congress should be addressed M. le Dr. Léreboullet, President, 44, Rue de Lille, or to M. le Dr. Jules Glover, Secretary-General, 37, Faubourg Poissonière, Paris. The regulations of the Congress and the list of the questions proposed for discussion will be published shortly.

THE Prince of Wales has accepted the office of President of the National Association for the Prevention of Consumption.

THE new poison regulations adopted by the Pharmaceutical Society of Great Britain on January 11th, and published in the BRITISH MEDICAL JOURNAL of January 14th, have received the approval of the Privy Council, and have been embodied in an Order in Council dated January 31st.

DR. T. G. RODDICK, Member of the Canadian Parliament, Professor of Surgery in McGill University, Montreal, and President of the British Medical Association in 1897-98, has been elected an Associate Fellow of the College of Physicians of Philadelphia.

MR. CHARTERS J. SYMONDS, M.S., F.R.C.S., will deliver the first Hunterian Society's Lecture at the London Institution on February 22nd, at 8.30 P.M. The subject of the lecture will be the Value of Individual Symptoms in Perforative Peritonitis, more especially in regard to Operation. Members of the profession are invited to attend.

THE Paris Académie de Médecine is about to build itself a new house on a palatial scale. The plans have been drawn by M. Rochet, and all the architects who have seen them are said to have been unanimous in declaring that the building will be one of the finest in Paris. It is expected to be completed in two years.

A *conversazione* took place at the Royal College of Surgeons, Lincoln's Inn Fields, on February 13th, when about 700 guests assembled, upon the invitation of the President of the College and Lady MacCormac, who received their friends at the entrance to the anatomical museum. The band of the Coldstream Guards played a selection of music, which was highly appreciated. Refreshments were served in the Library. The various collections of the College were objects of much interest to the company.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The Midwives Bill has not had much luck this session. Through an omission to give notice of its title on Thursday evening one of its promoters lost his chance of introducing it, and securing a higher place in the list. It now stands for second reading (the first reading being purely formal) on April 12th, but as the Fire Brigades Bill and the Evicted Tenants (Ireland) Bill have precedence on that day, it has, as matters now stand, no chance of being reached. It is introduced, as last year, by the late Lord Advocate (Mr. J. B. Balfour), and backed by Messrs. De Tatton Egerton, Schwann, Heywood Johnstone, Hazell, Bonsor, Tennant, and Skewes-Cox. Unless all opposition to it is withdrawn there is no probability of the second reading being obtained this session, except under the contingency, believed to be very unlikely, of its adoption by the Government.

Vaccination has been the subject of several questions, and on Thursday last week Mr. Chaplin made a long statement on the number of unvaccinated children. He said that there was no warrant for supposing that the number of children not protected by vaccination was largely increasing under the Act of last year. The returns of the Local Government Board showed that since 1885 the total number of children unvaccinated has been steadily increasing. In 1885 the number was 136,000, and in 1898 the estimated number was 370,000. The total number of children born between 1885 and 1898 was 12,500,000, and of these 3,235,000 were not vaccinated. Out of this last number certificates of conscientious objection were granted in respect of fewer than 239,000 children up to the end of 1898. The President of the Local Government Board referred also with satisfaction to the large increase in the demand for glycerinated calf lymph, and drew from this the satisfactory assurance that vaccination was now on the increase as compared with recent years. On the same day Mr. Bartley was granted a return of the number of certificates of conscientious objection in respect of each Poor-law union and union county in England and Wales.

The Revaccination Bill which it was understood would be introduced this year will apparently not be forthcoming, as Mr. Balfour announced on Friday last that it was not the intention of the Government to bring in any vaccination legislation in the course of the present session. On the same day it was stated that all pupil teachers, and all men and boys entering the army and navy, are required to be vaccinated. The Home Secretary also announced that he had suggested that the inclusive fee for certificates of exemption should be 1s. 6d., and that he was advised that magistrates have power to reduce or remit fees in suitable cases.

Poor-law Reform, more especially as it affects old age, will be raised on February 22nd by Mr. J. A. Pease's Bill for Providing Cottage Homes for the Deserving Poor. The Bill will seek to remove selected old persons from the direct control of the Poor Law, and place them in almshouses under the control of the County Council or local authority. This is a half-way stage on the road to old-age pensions, and will receive a good deal of support; indeed it is quite possible, some members think, that the Government may adopt some such scheme as an experiment, before attempting to grapple with the more extensive and expensive proposals for the general endowment of the aged poor by means of pensions.

The Half-time System will be dealt with by Mr. Robson, who drew first place in the ballot for Private Members' Bills. His Bill, entitled Education of Children, has first place for March 1st, and seeks to raise the age of child labour to 12 years at once, and to 13 in three years' time. As Sir John Gorst some years ago supported this proposal on behalf of the Government, there are great hopes that this reform will be carried, and that this country will after this year no longer lag behind other civilised nations in its protection of the rising generation.

The Petroleum Bill introduced by Mr. Reckitt, who drew the second place in the ballot, is down for second reading on March 15th. The Bill seeks to raise the flash point from 73° F. to 100° F. as recommended by the Select Committee. As the Government is said not to take this view of the necessary legislation, but to prefer to leave the flash point unaltered and to impose regulations on the manufacture of unsafe lamps and the storage of petroleum, the Bill is sure to meet with opposition. The *Star* has recently published a ghastly catalogue of 100 victims to the low flash oil, namely, 56 in the provinces and 44 in London, during the single year 1898. The matter is therefore one which is certain to evoke a warm discussion, and much support will be given to Mr. Reckitt's Bill as the surest method of saving lives now sacrificed every week.

The Purity of Milk has recently been under the consideration of the Local Government Board, and a circular is to be sent to local authorities referring to disease in dairies and cowsheds, and especially dealing with disease of the udder of a tuberculous kind. It is sought to prevent the milk of such cows being mixed with other milk, and being sold as human food. Local authorities are also alive to this danger, and in some cases are seeking Parliamentary powers to deal with the matter. The attention of Parliament is likely to be called to the whole question of tuberculosis as affecting animals on an early day, and an important debate is expected.

The Universities Degrees Bill is third on the list for March 15th, and may therefore be regarded as not likely to pass a second reading on that day. It proposes to require all foreign graduates to put after their degrees the name of the university from which they are derived. At first sight this is a reasonable proposal enough, but one which it is thought ought not to apply to medical degrees recognised and registered by the General Medical Council. The Bill is really directed against degrees other than medical degrees, but as it would affect a large number of ministers of all denominations, teachers, and musicians, as well as medical men, it is likely, whenever it comes on, to meet with considerable opposition.

The Pollution of Rivers is, as last year, the subject of proposed legislation, but although two Bills have been introduced, and have been formally read a first time, they do not stand much chance of being carried unless the Government takes them up. It is a very large subject for legislation by a private member and as local authorities are, in many instances, the chief sinners, large central powers will be requisite to effect any general improvement. County councils are regarded by some as suitable authorities, but the jealousy which exists between municipalities and these bodies would render interference in the case of many boroughs very difficult.

The University of London, and the question of finding a new home for it, were mentioned incidentally in a question put by Mr. Hogan, which seemed to foreshadow some objection on the part of Colonial Governments to assigning any part of the Imperial Institute to the University. Mr. Chamberlain parried the question by stating that it would be premature to express any opinion until the result of a conference shortly to be held between representatives of the Government, the Imperial Institute, and the London University is known.

The Doctrine of Constructive Murder seems likely to claim some of the attention which it undoubtedly deserves. The Attorney-General, in reply to a question, said that he was fully alive to the objection to the pronouncement of the death sentence under circumstances in which there was no reasonable probability of its being carried out. It was, he said, a grave question, and the Home Secretary at a later date stated that the whole subject, which he admitted to be one of great importance, had his anxious attention.

The University of Birmingham.—At the annual general meeting of the Patent Nut and Bolt Company held at Birmingham on February 13th, it was resolved that the Company should contribute £5,000 to the fund now being raised for the establishment of a University in the City of Birmingham.

MOSQUITOS AND MALARIA.

The Infection of Birds by Mosquitos.

Major Ronald Ross, Indian Medical Service, has forwarded to us a preliminary report on the infection of birds with proteosoma by the bites of mosquitos. The report is dated October, 1898, but the copy forwarded to us contains certain additions. The leading features in this report were described by Dr. Manson at the Edinburgh meeting of the British Medical Association, but the subject is of such far-reaching importance that we have thought it advisable to give a fuller account of the report.

The report commences by recalling the main facts of that presented in May, 1898. In this report it was shown that the proteosoma of birds, and one of the crescent-forming malarial parasites of man were capable of development in grey and in dappled-winged mosquitos respectively, and that in the mosquito the parasite was first observed as a small, oval, pigmented cell lying in or close to the outer muscular coat of the insect's stomach. The cells gradually increased in size, losing their pigment, and became protruded into the cœlom or body cavity. At the end of about a week in the case of proteosoma they reached a diameter of about 60μ or more. Major Ross considered these bodies to be coccidia, but under date December 31st, 1898, adds that this opinion "is provisional. The true zoological significance of the mosquito stage of the parasites is a difficult subject, and will be discussed in the final report."

The present report deals briefly with his later researches on the same subject, and is preliminary to a more detailed exposition which it is proposed to submit later.

Reproduction Forms of the Proteosoma-Coccidia.—The examination of a very large number of grey mosquitos fed on sparrows infected with proteosoma showed clearly that the proteosoma-coccidia, after reaching maturity (seventh day) formed two different kinds of reproductive elements, namely (1) a large number of delicate thread-like bodies, or (2) a smaller number of large black spores.

The Thread-like Bodies are from 12μ to 16μ in length, about 1μ in breadth, and flattened in the third dimension. From the middle, which contains vacuoles and chromatin granules, they taper to each extremity; and when viewed under the best conditions they are not unlike small trypanosomes, though Ross has never succeeded in detecting any certain indications of movement in them. They are closely packed in thousands within the capsule of the mother coccidium. Figures 18 and 19, reproduced here from the former report, represent two "striated" coccidia, which in reality were coccidia containing these elements. On rupturing such a body by pressure on the cover-glass, the thread-like elements can be seen pouring out in vast numbers, and floating away in the surrounding fluid.



Fig. 18.—Coccidium containing thread-like bodies.

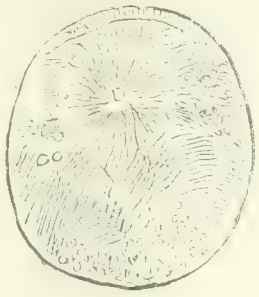


Fig. 19.—Another coccidium containing thread-like bodies.



Fig. 20.—Coccidium containing black spores.

The Large Black Spores, when mature, are from 16μ to 20μ or more in length, and 2μ or 3μ in thickness. They are cylindrical, closed at the ends, and are straight, curved, sigmoid, or variously twisted. Their colour is a dark brown, they have a black contour, and they are evidently capable of resistance to outer forces. Figure 20, reproduced here from the former report, depicts several of them contained within a coccidium. It is difficult to estimate the number of them produced by each parasite, as many appear to be ejected before being fully matured. Ross has never observed both the thread-like elements and the black spores in the same coccidium. It appears likely that the hyaline cells described in the previous report produce the former, and the vacuolated cells the latter.

Escape of the Reproduction Forms.—On the eighth or ninth day—that is, shortly after the coccidia have matured and produced their reproductive elements—they burst *in situ* in the living insect, and pour those elements into the general cavity of the body, which contains the so-called blood or circulating juices. The empty capsule of the coccidium remains behind still attached to the wall of the stomach; but the reproductive elements are swept away by the blood current and distributed throughout the tissues of the mosquito. If, for example, a mosquito be killed ten days after it has fed on a sparrow with proteosoma, larger numbers of the thread-like bodies will almost certainly be found in the juices of the head and thorax, and similarly some of the black spores in almost all the muscular and connective tissues of the body.

Further Migration of the Thread-like Elements.—While examining the thread-like elements in the blood of mosquitos, Ross observed that they were frequently to be found collected within the cells of a gland in the thorax, which eventually proved to be the salivary or poison gland of the mosquito. This lies in the neck or the anterior part of the thorax of the mosquito, and consists of a number of separate lobes. The ducts of the several lobes ultimately unite and form a single main effluent. This runs up the under-surface of the head in the middle line, enters the base of one of the stylets or lancets of the proboscis, namely, the central unpaired one, called the tongue or epipharynx, traverses the whole length of it and opens at its extremity in such a manner that the secretion of the gland must be poured into the very bottom of the wound made by the piercing apparatus of the proboscis.

It is in the cells of this gland that the thread-like reproductive elements of the proteosoma-coccidia have the power of accumulating. They can be found in them in large numbers, either floating separately in the grape-like cavity of the cells, or crowded together within them in hundreds. Generally only one or two of the lobes of the gland contain these elements, the other lobes being free from them. Ross estimates that one lobe must contain many thousands.

Interpretation of these Facts.—The secretion of the gland is obviously meant to be injected into the wound made by the tongue and the other stylets. Its function is, it is contended, to check the spasmodic contraction of the torn capillaries, which would otherwise quickly stay the flow of blood into the wound. The thread-like elements in the secreting cells of the gland remain there, waiting the opportunity when they shall be carried, together with the secretion, directly into the blood vessels of the victim of their mosquito host. There, if that victim happen to be a bird of an amenable species, they doubtless originate an infection of proteosoma, thus completing the cycle of the parasite.

Infection of Birds by the Bites of Mosquitos.—All that was now required to obtain complete proof of this theory was actually to infect healthy birds in the manner suggested. This was accomplished very easily. At the end of June, 1898, four sparrows and one weaver bird, whose blood on several examinations had been found to be entirely free from proteosoma, were subjected nightly to the bites of numerous grey mosquitos fed more than a week previously on a sparrow containing proteosoma. On July 9th these five birds were found to have become infected with swarms of the parasites. All of them died very soon, and the liver was profusely charged with the characteristic black pigment of malaria. The experi-

ment was next repeated on a number of sparrows and other birds:

1. Out of 28 originally healthy sparrows subjected to the bites of grey mosquitos previously fed on diseased sparrows, 22, or 79 per cent., became infected, all with a very large number of parasites, in from five to eight days. This excludes a number of birds which died before the end of the incubation period from diarrhœa and other disease to which sparrows in captivity in Calcutta are subject. Out of the 6 birds which failed to become infected after these experiments, one was subjected to a second trial, which gave a successful result.

2. Out of 2 crows and 4 weaver birds, some of which contained halteridium though none contained proteosoma, 1 of the crows and all the weaver birds showed a copious proteosoma infection within nine or ten days of being bitten by grey mosquitos fed previously on sparrows with the latter parasite.

3. Out of 5 sparrows which originally contained a very few proteosoma, 4 showed a new and much more copious infection a week after being subjected to a similar experiment.

4. The attempt to transmit the proteosoma of sparrows to mainas and some other birds failed.

In all the birds in which the parasites appeared after the experiment, the invasion presented such constant and unmistakable characters that no possible room for doubt was left as to the infection being due to the mosquitos. The blood of the birds experimented with was examined both before the experiment and on several occasions afterwards. The course of events was always as follows: The blood would remain entirely free from proteosoma (except in the case of the five sparrows which originally contained a few of them) until the fifth, sixth, seventh, or eighth day after the experiment, when one or two parasites only would be found in an entire specimen. Next day it would invariably be seen that the number of parasites had largely increased; and this increase would continue until in a few days, in almost every case, the parasites become so exceedingly numerous that from ten to sixty, and even more, could be counted in almost every field of the oil-immersion lens, while as many as seven distinct parasites in a single corpuscle were often observed. The only exceptions were the case of the crow and that of the five originally infected sparrows, in which the number of parasites did not exceed about one in each field, even this being a high figure for proteosoma. Most of the birds now died, and showed not only the characteristic pigmentation of the liver, but also a distinct inky colour in the blood itself. In the few which recovered, however, the number of parasites rapidly declined. It is necessary to compare with these results those obtained from the examination of wild sparrows caught in Calcutta:

5. Out of 111 of these proteosoma was found in 15 only, or in 13.5 per cent., and in most of these the parasites were very few in number, exceeding in only two of them an average of one to each field.

Hence, in the infections artificially induced, both the percentage of birds affected and the number of parasites found were so largely in excess of the normal rate that, apart from other reasons, it is impossible to question the fact of proteosoma being communicable by mosquitos.

Major Ross adds under date December 31st, 1898, the following note: "Control experiments were not absolutely necessary in these experiments. The gradual invasion of the blood by the parasites offers a definite incubation period; the absence at first of forms containing discrete pigment; the enormous number of parasites finally observed; and the large percentage of birds in which these results were obtained sufficed to establish this law of communication. Nevertheless a large number of healthy sparrows were kept as controls, being preserved from accidental infection from the bites of free mosquitos in the laboratory by being placed every night in their cages within a mosquito netting. Only one of these birds was found to have become infected on a second examination; and in this case the parasites were so few that I think I must have overlooked them on the first observation. Later, many of the control birds were transferred to the other nets and became infected after the usual incubation period."

Communicability of Human Malaria.—Ross had not been able to study the reproductive elements of the mosquito stage of the human gymnosporidia; but he considers that there is no reason to suppose that they differ much from those of the proteosoma-coccidia, or that the modes of infection of human malaria are unlike those of avian malaria. The pigmented cells found in mosquitos fed on blood containing crescents were exactly like those derived from proteosoma.

Function of Black Spores.—This also remains undetermined. They have failed to infect several sparrows to which numerous mosquitos containing them were administered by the mouth; they have also failed to infect mosquito larvæ when given in a similar manner, and have undergone no change when kept in the damp chamber for seven weeks. Nevertheless, Ross thinks it probable that they infect larvæ after a period of maturation; and that malaria is probably produced only by the bite of the mosquito.

In conclusion, Major Ross writes: "Further details of these observations, together with drawings and photographs, are reserved for a future report, in which also I hope to deal, at least in part, with the conjugation of the smaller elements of proteosoma, the communicability of the parasites from one species of bird to another, immunity, and other questions now open to study."

THE PLAGUE.

Action of Gaseous Disinfectants on the Plague Bacillus.

In the British Medical Journal of November 19th, 1898, a short account was given of some experiments conducted by Mr. W. Watkins-Pitchford, M.B.Lond., on the action of disinfectants on the plague bacillus. Since then reports on the germicidal value of certain gaseous products have been issued. The action of gaseous sulphide dioxide is the subject of three reports from the Plague Research Laboratory, Bombay, on investigations carried out by Major Bannerman, I.M.S., and Drs. Marsh and Watkins-Pitchford. These experiments were performed in such manner as to test the efficacy of the disinfectant on plague bacilli both in cultures and in infected materials exposed to the fumes of the gas liberated into a room of known cubic capacity. It is noted at the outset that the rooms of the native houses do not lend themselves to gaseous disinfection, for the construction of the houses, doors, etc., is such as to make it impossible to render them airtight. Thus the native huts have tiled roofs without any ceiling; hence the impossibility of maintaining the requisite percentage of disinfectant for the prescribed time. But a room which could be rendered airtight in a particularly well-built native house was chosen. The sulphur dioxide was obtained in liquid form, under pressure, in small tins, each of such capacity as to be sufficient for the disinfection of 1,728 cubic feet.

Major Bannerman, experimenting with a room of 1,684 cubic feet, obtained living subcultures from all the agar growths exposed to the action of the gas, while Dr. Marsh, using a room of 1,152 cubic feet capacity, found that cultures of the B. pestis, freely exposed to the action of the gas, as for example agar plate cultivations, were killed by the sulphur dioxide, but similar cultures, not so openly exposed, retained their vitality. Drs. Marsh and Watkins-Pitchford obtained slightly more favourable results on another occasion. They conclude from their experiments that the vitality of cultures is destroyed when such cultures are freely exposed, and also when protected by thin coverings of earth, wool, leaves, etc.; and also that the gas acts as an efficient aërial disinfectant in a room of the size stated (1,150 cubic feet), and that it penetrates certain thicknesses of different substances likely to retain infectious material. They also found that the artificial addition of moisture to the atmosphere increased the potency of the disinfectant. The action of nitric fumes evolved on the addition of nitric acid to copper is also the subject of a report by these two investigators, but they found that these fumes possess only limited powers of penetration and diffusion, and an exceedingly feeble disinfectant action. Lastly, the action of vaporised carbolic acid forms the subject of a report by Major Bannerman. Pure carbolic acid was poured into an iron vessel previously raised to red heat in a fire, and the fumes so generated allowed to act for several hours. In such case he obtained entirely negative results so far as the B. pestis was concerned, though the insects in the room were killed by the gas.

Drs. Marsh and Watkins-Pitchford have also issued a report on the same method, and are in agreement with regard to the destruction of insect life. They found also that the vitality of the bacillus of plague is destroyed, provided that the bacillary growth is freely exposed to the action of the fumes, but that any obstruction to the free access of the fumes prevents the disinfectant action. They conclude from their experiments that compressed sulphur dioxide is superior as an

aërial disinfectant to either carbolic acid or nitrous oxide fumes. Professor Haffkine, in whose laboratory these experiments were carried out, in forwarding the reports to the Secretary to the Surgeon-General with the Government of Bombay, emphasises the difficulties that attend gaseous disinfection of native houses as at present constructed, and remarks that they can only be of service to supplement the action of liquid disinfectants, more particularly with the object of killing the insect life in the air, as insects in infected rooms are likely to be carriers of contagion.

PLAGUE IN SINDH.

The Province of Sindh occupies the north-western corner of the Indian Empire, and constitutes the south-western termination of the Indus Valley. It is an alluvial, partly deltaic, plain; sandy and dry, merging south-eastward into almost rainless desert, cold in winter, very hot in summer, sparsely peopled, and comparatively isolated. It is within from 36 to 48 hours' journey by sea from Bombay to Karachi, communicates with the Punjab by the north-western railway, and with Beluchistan by the Sindh-Pishin line. It was visited in 1896-97 by plague, of which Surgeon-Colonel G. Bainbridge, M.D., Administrative Medical Officer of the Sind District, has written a very interesting and instructive report.

Plague had appeared in Bombay in August, 1896. Early in October the health officer of the Port of Karachi was ordered to inspect all vessels arriving from Bombay, and to detain, segregate, and disinfect any cases of plague that might be discovered. Later in the same month quarantine was imposed upon vessels with plague on board or without a doctor, and accommodation for those detained provided. In January quarantine was abolished and amended rules for inspection issued. "In 42 vessels from Bombay and intermediate ports entering harbour between November 1st, 1896, and July 31st, 1897, and carrying 6,697 passengers, only two persons were found to be suffering from plague; but out of 4,929 passengers by these vessels who were detained in quarantine or under observation 13 subsequently developed plague." This proves the inadequacy of mere inspection to arrest infected travellers in India. They elude detection during the period of incubation. Inspection at railway stations was largely resorted to, and equally inefficient for the same reason. Moreover, travellers dodged inspection by either proceeding by road or booking to a station short of the inspection station and re-booking beyond it. These inspections may act beneficially in reducing somewhat the number of infecting foci; but nothing short of general detention for a period sufficient to cover the duration of the incubation stage can exclude importation, and even then there are contingencies connected with evasion, fomites of sorts, rats, birds, and insects, and perhaps atmospheric conveyance of the *materies morbi*, against which no system of inspection or even quarantine can provide.

The disease broke out in Karachi about the middle of December. Its origin could not, as in the case of Bombay, be traced; but towards the end of the month it was recognised to be fairly established as an epidemic. Cases continued to multiply until the first week of February, in which 321 were reported. The disease maintained a high level till the beginning of April when a decline set in, which in May was rapidly progressive. A few cases continued to occur in June and July, and the epidemic then disappeared. The general mortality presented a corresponding curve reaching a maximum of 244 per mille per annum in the last week of January, and in July reverting to the normal level. The total number of cases was 4,181, and of deaths 3,391, giving a case mortality of 81 per cent. The disease was concentrated in the oldest, most thickly populated, and worst sanitated quarters of the town. It spread slowly from quarter to quarter; but once established it progressed rapidly. The cantonment area and sudder bazaar, which are less densely peopled and under military control, and where measures of segregation and disinfection were more vigorously and effectively carried out, suffered comparatively slightly. The incidence among the male population was 11.0 per 1,000 and among the female 5.3. Hindus suffered more than Mohammedans, the incidence rates being 11.0 and 6.7. This result is attributed to the former being more mobile. No soldier or European was attacked.

From Karachi as a centre the disease spread to many towns and villages of the province. The statistics of inspection of outgoing passengers from the port indicate the possibilities of dissemination very clearly. Among 19,623 such 11 cases of plague were discovered previous to embarkation, and among 50 others who were detained under observation, 13 developed the disease. Dr. Bainbridge gives a list of twenty-three places into which the disease was imported from Karachi, Bombay, and Kutch Mandvi, and from Hyderabad and Sukkur, which became secondary centres. In these places 1,512 cases occurred, of which 235 were imported. In ten of the twenty-three localities into which cases were imported, no local development of the disease occurred; and in the thirteen in which a local development arose, four to six weeks elapsed between the importation and local outbreak. The importation took place in the months of January, February, and March. Dr. Bainbridge can assign no cause, climatic, local, or sanitary for this large proportion of local immunity, and contends that the manifest hesitation of new places to take the disease strengthens the case for preventive measures, even of an incomplete description.

The measures of prevention which were adopted mostly came under this designation. No restriction was placed upon the movements of the inhabitants, and even in segregation camps people were allowed to go to their work and be visited by their friends. Disinfection was largely resorted to of streets, houses, clothing, etc.; hospitals were provided and persuasion more or less strong employed to induce people to send their sick to them and vacate their houses and huts, and camps were organised in Karachi and other places in order to remove the inhabitants from infected places and provide more or less segregation. Dr. Bainbridge pronounces a strong opinion regarding the value of these camps of segregation, and gives striking illustrations of their influence in reducing or extinguishing disease. The hospitals fulfilled an eminently humane and excellent purpose. The municipalities and public generously contributed to their support, and the medical and nursing work was conducted with skill and efficiency. The people at first were averse to entering them, but eventually became less reluctant, or even willing to enter them. The mortality of cases treated was 66 per cent., against a general mortality of 81. The report indicates strikingly the difficulties experienced in dealing with a plague-stricken Indian population.

The fact that it is almost impossible to control and restrain movement has been referred to. The detection of cases is another task of great difficulty; in a temple at Sukkur five persons ill with plague and thirty-five dead rats were found. All matters connected with domestic, social, and industrial life presented grave obstacles; and the fact that no disturbance of consequence arose during the outbreak attests the caution and tact with which preceedings were conducted.

Dr. Bainbridge records many facts and opinions which merit notice. From statistics and observation of particular instances he concludes that the ordinary period of incubation is five days, the interval between exposure to infection and appearance of first symptoms seldom exceeding eight. He believes in aërial transmission as the most common mode of infection, and argues against cutaneous inoculation being otherwise than an occasional event. He gives reasons for concluding that "rats play an active part in carrying plague from one section of a town to another," and urges the importance of destroying them. As regards the origin and development of plague in places, he remarks that "each new focus of infection results from the movement of infected persons; local cases follow importation in about a month, diffusion is then rapid." The progress of the plague on the whole is therefore a slow process. He does not consider that climatic conditions materially influenced the advance and development of plague, but the general history of the epidemic in Sindh points to an opposite conclusion. The types of disease observed are roughly classified as bubonic and non-bubonic. The former constituted about 83 per cent. of cases. The non-bubonic include the pneumonic and septicæmic. Inguinal and femoral buboes were most common (67 per cent. of all bubonic cases); axillary came next in frequency (16), submaxillary and nuchal next (11.2), and a few cases of iliac and multiple buboes were noted.

The non-appearance of buboes was an unfavourable sign. In women and children axillary and nuchal buboes were more common than in men. Primary pneumonia constituted

from 5 to 15 per cent. of cases. It was a very fatal type, the case mortality being nearly 100 per cent. The lung lesion was lobular, and there was free hæmoptysis, the expectorated blood being almost a pure cultivation of plague bacilli. Abortion was a common event in plague-stricken pregnant women, and generally fatal. Nursing and feeding were found to be the most important elements in treatment. Stimulants, general and cardiac (alcohol, ammonia, strychnine, and caffeine), and sedatives and hypnotics (hyoscine, sulphonal, and morphine) were the most serviceable drugs. Early incision of buboes was found to be good practice, resulting in a fall of temperature and avoidance of destructive local changes. Most of the deaths occurred in hospital within forty-eight hours of admission. The average duration of residence of fatal cases was five days, and of those which recovered twenty-nine days. The services of medical officers and subordinates and of nurses were very meritorious and valuable. Many of the nurses were volunteers. The instances of infection of hospital attendants were very rare.

Bombay.

The plague returns for the week ending February 14th show 708 deaths. This is an increase on the preceding week of 120, and it would appear, from history of the past three weeks, that plague is recrudescent in an epidemic form. The Bombay authorities have come to regard 100 deaths a day as sufficient to stamp plague as epidemic and, judged by this standard, Bombay is again visited by plague in an epidemic form. The natives are becoming scared, and a considerable exodus is taking place.

Pretoria.

Owing to plague having appeared at Middleburg, in the Transvaal, the Republican Government is prohibiting coloured persons from Asia, Mauritius, and Madagascar from entering the country from the eastward, unless they have an official permit.

Madagascar.

The French authorities in the island declare that they have plague well in hand and that it is being stamped out.

The Special Commission.

The Plague Commission whilst at Daman were given to understand that the disease was brought to Daman from Karachi by the crew of a native craft. The greatest mortality was among the Mohammedans who refused to adopt ordinary sanitary precautions. At Daman the duration of the outbreak was short, owing to the evacuation measures adopted.

At Bombay, Mr. Stewart of the Bombay Government, strongly advocated evacuation and disinfection as a means of combating plague.

Lieutenant-Colonel Waters stated in his evidence that he thought plague in Bombay was associated with the system of the protracted storage of grain prevalent in India and the East generally.

Dr. Mayrs, of the Austrian Mission, gave evidence as to the efficacy of Lustig's curative serum. In two cases where the blood of the patient was examined subsequent to injections by this serum, the microbes were found to have disappeared and the patients recovered.

Dr. Blaney gave the following figures showing the number of deaths in Bombay according to caste per 1,000: Jains, 38; Hindus, 22; Brahmins, 20; native Christians, 15; Parsees, 9; Eurasians, 7; Jews, 5; and Europeans, 1.

THE NEW VACCINATION ACT IN OPERATION.

Public Vaccinators and Medical Etiquette.

S. C. A. writes: Your article on the new Vaccination Act and the warning contained therein comes very opportunely. I hope it may have the desired effect on public vaccinators who may be, unintentionally, rather careless about professional etiquette, and, consequently, cause unpleasantness with their medical brethren.

One-Mark or Two-Mark Vaccination.

Vaccinia writes: What I as a public vaccinator have most to complain of in the working of the new Act is, as so aptly expressed in your leader of February 4th, the "downward competition on the part of my brethren in private practice." I find that the people welcome the domiciliary visit, they welcome the offer of glycerinated calf lymph, but many of them strongly object to four-mark vaccination, especially when they know that they can get a one-mark or two-mark vaccination from the "sixpenny doctor," or from their family medical attendant. It is distinctly unfair on the part of the Local Government Board to fix one standard for the public vaccinator and another for the private practitioner, and at the same time to accept the two classes of results as of equal value.

Vaccination on the Leg.

Mr. John Gabb, M.R.C.S., etc. (Bewdley), writes: The new departure in vaccination of appointing teachers at the medical schools, as at St. George's Hospital, affords a very advantageous opportunity for establishing a new custom, such as would diminish greatly the objection of mothers to the operation.

My proposal is that, as many mothers object more to the disfigurement of the arm by unsightly scars than to vaccination itself, the leg should be operated on instead of the arm. A line of half a dozen scars, if so many are considered necessary, may be made on the outside of the leg between the tibia and fibula, without causing the least objectionable disfigurement. I have myself vaccinated a few children as suggested, to the unbounded satisfaction of the mothers in all the stages of the process. The ladies are a power on the question of vaccination, and are certainly entitled to a voice in the matter, especially when the disfigurement of a daughter's arm is concerned. Anything which might have a tendency to lessen objections to vaccination is worth consideration. If the age of the child were extended to twelve months, within which period the operation should be performed, and the leg were selected instead of the arm as the limb to be disfigured, all objection to vaccination, except by fanatics, would soon be of the past.

Mr. Hubt. C. P. Masser (Longford, Coventry) writes: In justice to the National Vaccine Establishment, may I state my experience?

52 cases vaccinated with the new glycerinated lymph issued by the National Vaccine Establishment.
47 cases, 4 fully-developed vesicles.
2 cases, 3 fully-developed vesicles.
2 vaccinated from the same tube in the same house; no result.
1 inadvertently punctured in five places; 5 fully-developed vesicles.

My mode of procedure is to wash the arm with Fell's germicide soap, carefully dry and place four spots of lymph on the arm, diligently working it in with the lancet, avoiding as far as I can drawing more than the merest trace of blood. Request the parents to allow the lymph to dry, and direct them to leave the vaccinated surface quite uncovered with clothing (so as to avoid friction), and dust it with starch. So far I have had the best possible results; in 4 cases there has been slight constitutional disturbance, but this has disappeared after a mild aperient and saline (magnesium sulphate). I have obtained the grant, I think, ten times in succession, and have never had to give a certificate of insusceptibility.

Mr. T. F. Raven (Broadstairs) writes: I for one have no fault to find with the glycerinated calf lymph supplied this year by the Local Government Board. With tubes numbered Series 51, 55, and 57 I have obtained 26 vesicles, generally typical, out of a possible 28. I use the lymph directly I receive it. I remember that some years ago I met with some comparative failures owing to the employment of a sharp instead of a blunt lancet. Is it possible that the failures mentioned in the columns of the British Medical Journal are to be accounted for in this way?

Mr. G. M. Sharpe, Public Vaccinator, Hunslet Union, writes: I am surprised at the number of failures mentioned by "P.V." in the British Medical Journal of February 4th. I obtained four tubes of National Vaccine Establishment lymph to commence operations with, and in no fewer than thirty-eight instances have I obtained good plump typical vesicles, four in number, in each child. The lymph has given me much more favourable results than the previous arm-to-arm system, both in uniformity, in size, and general character. In only two instances have I failed to secure satisfactory vaccination, and in both cases I found the dressings had been removed by parent. The parents will tell you the dressings "came off" after "P.V." left, but this is impossible in the system I adopt, namely, of strapping the boric wool pad down with Seabury and Johnson's half-inch rubber strapping. These dressings are intentionally, no doubt, removed, and I cannot but think this has been the case with "P.V.'s" cases. I have written the National Vaccine Establishment, thanking them for the excellence of lymph supplied. I used No. 38 series.

Vaccination of School Board Teachers.

E. asks for suggestions as to wording of a resolution that School Board teachers shall have been efficiently vaccinated.

*** The following would probably meet the case: That in future every teacher before being elected shall produce sufficient and satisfactory evidence of having, within the previous five years, been efficiently vaccinated or revaccinated; but this regulation shall not apply in the case of any teacher who shall produce sufficient and satisfactory evidence that he or she has already had small-pox, or who shall agree to submit himself or herself to the operation of vaccination or revaccination by a medical man to be nominated by the Board, such operation to be repeated not less than twice in the event of its failure on the first, or first and second attempts.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary meeting of Council was held on February 9th, Sir William MacCormac, Bart., K.C.V.O., President, in the chair.

Medical Acts.—The Council having been advised by counsel that the independent action of the Council of the College would be seriously affected by the clauses proposed by the General Medical Council for the amendment of the disciplinary clauses of the Medical Acts,[1] resolved that the President of the General Medical Council be informed that the Council of this College do not approve the clauses in their present form.

Portrait of the late Mr. Henry Lee.—A portrait of the late Mr. Henry Lee, F.R.C.S., offered to the College by Mrs. Henry Lee, was accepted with thanks by the Council.

Standard of Preliminary Education.—A letter was read from Sir John Batty Tuke, Chairman of the Education Committee of the General Medical Council, seeking information bearing on the question of the desirability or otherwise of raising the standard of preliminary education for medical students.

[1] British Medical Journal, February 4th, p. 291.

after due notice, to that of the "senior local" and "higher grade" examinations. The consideration of this was referred to the Committee of Management.

LITERARY NOTES.

According to the New York *Publishers' Circular* 143 new books dealing with medical science and hygiene were published in the United States during 1898, while of new editions there were 45. In 1897 the number of new books was 129, and of new editions 24. Of medical books "by American authors, including new editions, manufactured in the United States," the number in 1898 was 119; of books "by English and other foreign authors, including new editions, manufactured in the United States," there were 33; of medical books "by English authors, imported, bound, or in sheets, into the United States," there were 36.

The January-February number of *Janus* contains a portrait of Sir Joseph Fayrer, with an appreciative sketch of his career, by Dr. A. Davidson. Dr. Lucien Hahn, Sublibrarian of the Paris Faculty of Medicine, writes of oxygen and its employment in medicine since the time of its discovery. Dr. Ludwig Hopf contributes a "medicinisch-kulturgeschichtliche Studie" on the history of "Organotherapy"; Dr. E. T. Withington (whose name is misprinted "Wittington") discourses on medical history in England, making kindly reference *inter alia* to the "interesting series" of Archæologica Medica in the British Medical Journal. The rest of the number, which is considerably less bulky than its predecessors, is made up of the usual *omnium gatherum* of historical, therapeutical, and miscellaneous excerpts and fragments. A notice on the cover states that the collaboration of "several eminent English men of science" having been secured, the editor will "in future be more able to give to the English language the space so justly due."

The influence of diet on literature is a subject which has not yet been fully studied. Perhaps our new French contemporary, the *Revue des Rhumatisants*, which takes everything connoted by the term "gout" as well as rheumatism for its province, will give attention to this matter; it will find a plentiful supply of clinical material among its contributors who are by no means backward in confessing their dietetic indiscretions. Byron, when he felt himself in danger of becoming more fat than bard beseems, lived for some time on biscuits and soda water, and asked Tom Moore if beef steaks did not make him ferocious. From the works of these two poets one would be inclined to conclude that Byron's diet tended more to ferocity than Moore's. Mr. Herbert Spencer, who lived as a vegetarian for a year, is said to have summed up the effect of his diet on his literary productions as follows: "At the end of that year I read over all that I had written during the period, and forthwith consigned it *in toto* to the fire."

The Chinese, who anticipated the "Western devils" in the invention of gunpowder and printing, seem to have been before us also in one of the very latest discoveries of modern science. According to a writer in a recent number of the *Archives Russes de Pathologie*, the physicians of the Celestial Empire have for a long time treated neurasthenia, cachexia, and general debility with the cerebral substance of the common or barndoor fowl. The brain is dried, powdered, and mixed with "excitant and nervine" substances, and so administered.

A great sculptor of antiquity is said to have tortured a slave that he might catch the expression of agony required for a statue, and actresses of our own day have studied death scenes, the phenomena of poisoning, and nerve storms in hospitals. Writing in the January number of the *St. Bartholomew's Hospital Journal*, Mr. Benjamin Barrow, F.R.C.S., of Ryde, relates the following anecdote, which shows that musicians are sometimes as thoroughgoing in their studies:

> There are few who remember Paganini, the great musician who produced from a one-stringed violin many clever musical and other sounds. He applied to the then Mr. Lawrence to be allowed admission to the operating theatre that he might hear the agonising cry of a patient under suffering. Upon being asked whether the request should be granted, I said on one condition: "That the man gives a musical entertainment in the anatomical theatre and pays to the funds of the hospital five shillings per head for everyone attending." I remember the shrug of the shoulder of the professor, and the the rapid turning on his heels, and departure. So much for philanthropy!

But what has Art to do with philanthropy? Nero, who saw in the burning city only matter for a song, had the true artistic temper.

M. Paul Bourget, the psychological novelist, has given the world his views on the medical profession in the following passage which occurs in a story published in the *Revue des Deux Mondes* of January 15th. The words are put into the mouth of one of the characters, but they read as if they expressed the author's own feelings:

> What has decided me to take up medicine, strange as it may seem to you, is the need of certitude. My personal tastes would have led me to something more abstract. I should have entered the École Normale to work at metaphysics had I not read Kant and also Taine's *Intelligence*. It seemed to me that the object of philosophical studies is too doubtful. My mind is, as it were, an hungred and athirst for something positive, indisputable. The natural sciences supply this. I therefore turned towards them; then I reflected. I don't know your state of mind in regard to moral convictions. As for me, my position is that of absolute agnosticism. I am of opinion that we cannot know of certain knowledge whether, to take the simplest formula, there is a God; or, if there is not, whether there is any good or evil, or not; merit or demerit, or not; another life, or not. Nevertheless, one must act. I at least feel the necessity of action, especially since I saw war. I have the impression that I should have on a ship in danger in a storm. It is a shame to take no part in the work, if one is able to do so. I recalled to myself the reasoning of Pascal—you remember, don't you?—about the bet. I said to myself, which among the natural sciences is the branch which lends itself to a practical use such as can be applied in all hypotheses? It seemed to me that medicine, understood in a somewhat high sense, answered this requirement. In fact, examine one solution and the other. Suppose all the spiritualist theories, nay more, all the Christian theories, to be demonstrated. What is one's duty? To relieve the being who suffers. The doctor does that. Suppose all the opposite theories to be demonstrated, to what is morality reduced? To an instinct which must be recognised and satisfied like all instincts, and which consists in the need of associating ourselves with others, of helping our fellow men, and of being helped by them against Nature, which is our enemy. Who accomplishes this task better than the doctor? He is the altruist *par excellence*. He is right, whatever be the metaphysical postulate which we accept. And this is so true that since the day when I first registered myself as a student and entered the door of the hospital I have felt a kind of calm to which I was before a stranger. It has been borne in upon me that intellectually and morally I have—how shall I say?—had my feet on the ground, that I was walking on something solid. In short, I was no longer in doubt.

Carlyle said the same thing more tersely when he wrote to a young medical man about his profession: "Whoever is wrong, *you* are in the right."

We have had occasion to point out—we hope with becoming meekness—that "*per orem*," which occurs with distressing frequency in medical writings, is a form of words not sanctioned by classical usage. The *New York Medical Journal* was, not long ago, moved to express a wish to know to what language the word "orem" belongs. Our contemporary received unexpected enlightenment from a "physician," who, with all the gravity in the world, vouchsafed the following interesting information:

> In the *New York Medical Journal* for December 24th, 1898, page 930, you "would like to know to what language the word '*orem*' belongs." Answer: Latin. It is the accusative case singular of the word *os*. Accusative because it follows and is governed by the preposition *per*. Nom., *os*, gen., *oris*; dat., *ori*; accus., *orem*; abl., *ore*.

The *New York Medical Journal* gently puts this learned Theban right in his eccentric notions of Latin accidence. For ourselves we can only say with Macaulay that if a schoolboy under our care were to be guilty of such a concatenation of blunders, our soul assuredly should not spare for his crying. We should indeed have thought a double strength of the local application indicated—a corrective being required for impudence as well as for ignorance.

In a more recent issue of our contemporary, another correspondent, writing from the "hub of the universe," Boston, defends the "*per orem*" barbarism by the following exquisite reason:

> I venture to call your attention to a good Latin authority, Harper's *Latin-English Lexicon*, published in your good city. If you turn to the word *os*, you will read as follows: "1, *Os*, *oris*, the mouth." After a series of etymological paragraphs, if you turn the leaf you will find "2. *Os*, *ossis*, a bone, plural *ossa*." So there are *two* Latin words *os*; and when you write the phrase *per os*, as signifying by mouth, you use the accusative singular of the second *os*, and the meaning would be "by the bone."

As to all which we can only say, with Dominie Sampson, "Prodigious!" But when this vessel of erudition goes on to regret "how general the use of *per os* is getting to be in the medical journals south and west of New England," we venture to suggest that there is at least one other thing which he may with more reason regret, and that is the quality of the classical instruction imparted to him in his youth. With a fatuity so childlike and bland that it almost disarms criticism, the Bostonian Priscian adds:

I have never yet met the phrase in any of the English, Scotch, or Irish medical journals which I read.

We have a good deal of criticism from confident ignorance of one kind or another, and we try to bear it with such humility as we can command. But if that *monstrum horrendum*, "*per orem*," were imputed to us, verily we think the worm would turn.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF SPECIAL MEETING.

A Special Meeting of the Council will be held at the office of the Association, No. 429, Strand, London, W.C. on Friday, the 10th day of March next, at 2 o'clock in the afternoon, to consider the recommendation of the special meeting of the Parliamentary Bills Committee held on February 3rd.

Francis Fowke, *General Secretary.*

429, Strand, February 15th, 1899.

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch: South London District.—The next meeting will be held in the Governor's Court Room of Guy's Hospital on Friday, February 24th, at 4 P.M. The following papers will be read and cases demonstrated on: Dr. Bryant: Carcinoma of the Stomach. Mr. L. A. Dunn: Reduction of Hernia *en masse*.—Theo. B. Hyslop, District Secretary, Bethlem Royal Hospital, S.E.

South Wales and Monmouthshire Branch.—A clinical meeting will be held on Tuesday afternoon, February 28th, at the Hospital, Swansea. Titles of papers, cases, etc., to be sent to the Local Secretary, on or before Wednesday, February 22nd.—A. Sheen (Cardiff), D. Arthur Davies (Swansea), Honorary Secretaries

Bath and Bristol Branch.—The fourth ordinary meeting of the session will be held at Bath on Wednesday evening, February 22nd, at 7.30 P.M., Dr. Lionel A. Weatherly, President. Business: To consider a communication from the Worcestershire and Herefordshire Branch relative to the Vaccination Act, 1898. To consider a communication from the Western Counties Branch of the British Dental Association relative to (*a*) unregistered practitioners of dentistry, and (*b*) dentists who advertise. The following communications are expected: Dr. J. Michell Clarke: Treatment of Adhesions and of Pyloric Stenosis due to Gastric Ulcer. Dr. J. G. Douglas Kerr: Treatment by Hot Air, with demonstrations. Dr. T. Wilson Smith: Some Events in the course of the Uric Acid Diathesis. Dr. James Pearse: A case of Rupture of the Uterus: Recovery. Dr. E. J. Cave: Some recent applications of Bacteriology to Clinical Medicine.—W. M. Beaumont (Bath), J. Michell Clarke (Clifton), Honorary Secretaries.

Midland Branch: Lincolnshire District.—A meeting of this District will be held at Spalding on March 9th. Notices of papers, notes of cases, or exhibition of cases or specimens on that occasion should be sent to Dr. E. Mansel Sympson, Deloraine Court, Lincoln, Honorary Secretary.

Lancashire and Cheshire Branch.—A meeting of this Branch will be held in the Medical Institution, Mount Pleasant, Liverpool, on Tuesday, February 28th, at 2.30 P.M. Agenda.—The Secretary will move: "That every accredited representative of this Branch, when attending a Committee or Subcommittee meeting in London on the business of the British Medical Association, and every member of a deputation to London, appointed by this Branch or by the Council of this Branch, on Association or Branch business, shall be paid out of the funds of this Branch his first-class return railway fare. However, this regulation shall not apply to representatives of this Branch on the Council of the Association when in attendance at meetings or on deputations at or about the times of the Council meetings in London, or to the attendance of anyone during a meeting of the Association, or to anyone when his fare or expenses are paid out of the funds of the Association." Dr. Carter will move: "That the Lancashire and Cheshire Branch of the British Medical Association desires to express its opinion that the efficient primary vaccination of every child is necessary in order to afford protection against outbreaks of small-pox; that stringent measures should be adpted to enforce such efficient primary vaccination; and that no certificate should be recognised unless the requirements of the Local Government Board have been fully complied with." Dr. J. Brassey Brierley will move: "That seeing the persistent refusal of the promoters of the Midwives Registration Bill to secure efficient medical and lay control over their proposed practitioners, the Lancashire and Cheshire Branch of the British Medical Association declines to take any further part in this question, and will use all its power to defeat this Bill or any modification of it." Medical and Surgical Communications:—Mr. W. Mitchell Banks: Some Surgical Cases (with patients). Dr. G. Thurstan Holland: Case of Lupus treated by X Rays (patient). Dr. G. C. Stopford Taylor: Cases of Lupus and Favus (patients). Mr. Rushton Parker: Case of Plexiform Neuroma of Eyelids, Excision; Ptosis completely corrected by Plastic Operation. Mr. W. Thelwall Thomas: Four Cases of Tumour of the Urinary Bladder, diagnosed by Cystoscopic Examination, and operated upon. Mr. R. W. Murray: Case of Suppurative Peritonitis. Mr. Robert Jones: Cases of Foreign Bodies in the Œsophagus. Mr. Damer Harrisson: Two Cases of Traumatic Epilepsy (with patients); Three Cases of Intestinal Obstruction. Dr. Wm. Bain: The Relative Excretion of the Nitrogenous Waste Products in a Case of Liver Abscess. There will be an exhibition of patients in the Library, from 2.30 to 3 P.M., by Drs. and Messrs. Mitchell Banks, Barendt, Barr, Damer Harrisson, Robert Jones, R. W. Murray, Rushton Parker, Paul, Stopford Taylor, Thelwall Thomas, etc. There will be an exhibit of New Drugs and Chemicals, Medical and Surgical Instruments, etc. Arrangements will be made for a dinner at the Adelphi Hotel, at 6 P.M., if twenty members notify their intention of being present. Tickets (wine not included), 5s. each. In order to facilitate arrangements, the Secretary will feel much obliged if every member who intends to be present at the meeting will kindly inform him whether he purposes being present at the dinner. Those gentlemen who intend coming, but who on the day of meeting may find it impossible to do so, will not be held responsible for their dinner tickets. The Secretary is very anxious to get the number as correctly as possible. A Council meeting will be held at 2 o'clock on the day of the meeting. Those who wish to become members of the Branch, or of the Association and Branch, should communicate with the Honorary Secretary at once. There are over 1,500 members of the medical profession in these two counties who are not members of the British Medical Association, and nearly 400 who are members of the British Medical Association, but not of this Branch. There is thus a large field in which members can render valuable aid in stimulating the growth and importance of this Branch. The Secretary hopes that members will induce as great a number of these as possible to join the Association and Branch. Anyone wishing an application form can have it by applying to the Secretary, James Barr, M.D., 72, Rodney Street, Liverpool.

Edinburgh Branch.—The annual winter meeting of the Edinburgh (Fife and Lothians) Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, March 17th. A Medical Congress for Clinical Demonstrations will be held at 4 P.M. The museum (pathological and apparatus will be open from 3.30 P.M. onwards. Dinner in the Royal Hotel, Princes Street, at 6.30 P.M.; dinner ticket, 5s. Intimation of exhibits (clinical or other) should be made to Jas. Hodsdon, M.D., 6, Chester Street, Edinburgh, or R. W. Philip, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

Staffordshire Branch.—The second general meeting of the session will be held at the North-Western Hotel, Stafford, on Thursday, February 23rd. The President, Dr. McAldowie, will take the chair at 4.30 P.M. There will be dinner at 6.30 for those staying.—F. Milnes Blumer, Hon. General Secretary, Stafford.

HONG KONG AND CHINA BRANCH.

A meeting of this Branch was held on December 15th, 1898, Dr. Jordan, President, in the chair.

Representative of Branch on the Association Council.—Letter read from Mr. James Cantlie thanking the Branch for re-electing him its representative on the Council and on the Parliamentary Bills Committee.

New Members.—The following gentlemen having been elected members of the Association by the Branch, were duly elected members of the Branch: Fleet-Surgeon Alexander J. J. Johnston, R.N., Dr. J. H. Swan, Dr. George Montague Harston; and the following gentlemen, already members of the Association, were elected members of the Branch: Captain John Frazer Clark, R.A.M.C., Fleet-Surgeon J. C. Dow, R.N.

Communications.—Dr. Jordan showed a case of Cystic Adenoma of the Breast and two Teale's Amputations, one above the ankle and the other above the knee.—Dr. Stedman showed a large Gall Stone which was found impacted in the biliary duct of a Chinese prisoner, who had died somewhat suddenly from biliary colic and syncope.—Dr. Thomson showed specimens of Typhoid Ulcers of the Intestines of two Chinese infants, and a specimen of Tuberculous Ulcers of the Intestine.

Balance Sheet.—The balance sheet showing a credit balance of $3.20 dollars was submitted and adopted.

Election of Officers.—The following officers of Council were then elected for the ensuing year: *President:* Dr. J. C. Thomson. *Vice-President:* Colonel Evatt, P.M.O. *Council:* Dr. Atkinson, P.C.M.O.; Staff-Surgeon Home, R.N.; Dr. Rennie, Dr. Stedman. *Secretary and Treasurer:* Dr. Francis Clark, M.O.H.

Retiring President's Address.—The retiring President, Dr. Jordan, then delivered a valedictory address, taking as his subject the Treatment of Operation Wounds without Drainage, and the meeting closed with a vote of thanks to Dr. Jordan.

Typhoid Fever in the Yukon.—It is reported that there were 300 cases of typhoid fever in hospital at Dawson City on January 8th. Very few of the cases, however, were proving fatal.

BRITISH MEDICAL ASSOCIATION.

SIXTY-SEVENTH ANNUAL MEETING.

THE sixty-seventh annual meeting of the British Medical Association will be held at Portsmouth on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1899.

President: Sir THOMAS GRAINGER STEWART, M.D., LL.D., F.R.S.E., Professor of Practice of Medicine and Clinical Medicine in the University of Edinburgh, Physician in Ordinary to Her Majesty the Queen for Scotland, Edinburgh.

President-Elect: JOHN WARD COUSINS, M.D., F.R.C.S., Senior Surgeon, Royal Portsmouth Hospital.

President of the Council: ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Physician to the General Hospital, Birmingham.

Treasurer: CHARLES PARSONS, M.D., Dover.

An Address in Medicine will be delivered by Sir RICHARD DOUGLAS POWELL, Bart., M.D., F.R.C.P., Physician Extraordinary to Her Majesty the Queen, Physician to Middlesex Hospital.

An Address in Surgery will be delivered by Professor ALEXANDER OGSTON, M.D., Surgeon in Ordinary to Her Majesty the Queen in Scotland, Regius Professor of Surgery in the University of Aberdeen.

The scientific business of the meeting will be conducted in twelve Sections, as follows, namely:

A. MEDICINE.

President: JOHN MITCHELL BRUCE, M.D. *Vice-Presidents:* EDWARD JAMES WALLACE, M.D.; ROBERT WILLIAM BURNET, M.D. *Honorary Secretaries:* WILLIAM SYKES, M.D., Bury Place, Gosport; HUMPHRY DAVY ROLLESTON, M.D., 112, Harley Street, W.

B. SURGERY.

President: HENRY TRENTHAM BUTLIN, F.R.C.S. *Vice-Presidents:* Deputy-Inspector-General RICHARD SAMUEL PURNELL GRIFFITHS, R.N.; ALFRED LLOYD OWEN, M.D. *Honorary Secretaries:* HENRY RUNDLE, F.R.C.S., 13, Clarence Parade, Southsea; D'ARCY POWER, F.R.C.S., 10A, Chandos Street, Cavendish Square, W.

C. OBSTETRICS AND GYNÆCOLOGY.

President: GEORGE GRANVILLE BANTOCK, M.D. *Vice-Presidents:* JOHN ROBERT KEALY, M.D.; JOHN WM. TAYLOR, F.R.C.S. *Honorary Secretaries:* CHARLES PLUMLEY CHILDE, F.R.C.S., Cranleigh, Kent Road, Southsea; ERNEST WILMER PHILLIPS, M.R.C.S., Victoria Crescent, Victoria Road North, Southsea; WALTER WM. HUNT TATE, M.D., 57, Queen Anne Street, W.

D. STATE MEDICINE.

President: GEORGE WILSON, M.D. *Vice-Presidents:* Surgeon-General CHARLES MACDONAGH CUFFE, C.B.; JOSEPH GROVES, M.B. *Honorary Secretaries:* HENRY RICHARD KENWOOD, M.B., Granville House, Alexandra Villas, Finsbury Park, N.; A. MEARNS FRASER, M.B., Epworth, St. Edwards Road, Southsea.

E. PSYCHOLOGY.

President: DAVID NICOLSON, C.B., M.D. *Vice-Presidents:* SAMUEL RUTHERFORD MCPHAIL, M.D.; PETER WILLIAM MACDONALD, M.D. *Honorary Secretaries:* JAMES NEIL, M.D., Warneford Asylum, Oxford; BONNER HARRIS MUMBY, M.D., Medical Superintendent, Boro' Asylum, Portsmouth.

F. ANATOMY AND PHYSIOLOGY.

President: JOHN JAMES CHARLES, M.D. *Vice-Presidents:* AURELIUS VICTOR MAYBURY, M.D.; ANDREW FRANCIS DIXON, M.B. *Honorary Secretaries:* EDWIN JOHN NORRIS, M.R.C.S., May Villa, Cottage Grove, Southsea; WM. JOSEPH ESSERY, M.B., Netley Lodge, South Parade, Southsea; MARCUS SEYMOUR PEMBREY, M.D., Charing Cross Hospital, W.C.

G. PATHOLOGY.

President: JOSEPH FRANK PAYNE, M.D. *Vice-Presidents:* FREDERICK JOHN DRIVER, M.D.; OTTO JACKSON KAUFFMANN, M.D. *Honorary Secretaries:* EDMUND FAURIEL TREVELYAN, M.D., 40, Park Square, Leeds; WILLIAM CARLING, M.B., 11, Rosebery Terrace, Highland Road, Southsea.

H. OPHTHALMOLOGY.

President: SIMEON SNELL, F.R.C.S.Edin. *Vice-Presidents:* LYSANDER MAYBURY, M.D.; EDWARD TREACHER COLLINS, F.R.C.S. *Honorary Secretaries:* ARTHUR VERNON FORD, M.R.C.S., South View Lodge, Kent Road, Southsea; ARNOLD LAWSON, F.R.C.S., 12, Harley Street, W.

I. DISEASES OF CHILDREN.

President: EDMUND OWEN, F.R.C.S. *Vice-Presidents:* JAMES GREEN, M.R.C.S.; DAWSON WILLIAMS, M.D. *Honorary Secretaries:* ALFRED HERBERT TUBBY, M.S.Lond., 25, Weymouth Street, Portland Place; GEORGE AUGUSTUS TULLIS, M.D., 20, Clarence Parade, Southsea.

J. PHARMACOLOGY AND THERAPEUTICS.

President: JOHN BUCKLEY BRADBURY, M.D. *Vice-Presidents:* C. H. WATTS PARKINSON, M.R.C.S.; SAMUEL GOSS, M.R.C.S. *Honorary Secretaries:* JOHN EDWARD HARRY KELSO, M.B., 67, Elm Grove, Southsea; WILLIAM TUSTING COCKING, M.D., 277, Glossop Road, Sheffield.

K.—LARYNGOLOGY AND OTOLOGY.

President: E. CRESSWELL BABER, M.B. *Vice-Presidents:* JOSIAH GEORGE BLACKMAN, M.D.; PATRICK WATSON WILLIAMS, M.D. *Honorary Secretaries:* HERBERT TILLEY, M.D., 101, Harley Street, W.; LYSTER COLE-BAKER, M.D., Bayfield, Kent Road, Southsea; THOMAS ARTHUR MUNRO FORDE, M.R.C.S., 21, Clarence Parade, Southsea.

L.—TROPICAL DISEASES.

President: GEORGE THIN, M.D. *Vice-Presidents:* Colonel KENNETH MCLEOD, M.D.; JAMES WATSON, M.D. *Honorary Secretaries:* Fleet-Surgeon JOHN TYNDALL, R.N., Tresco, St. Ronan's Road, Southsea; JOHN ROBERT STEVENSON ROBERTSON, M.B., 5, Western Parade, Southsea.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 1ST, 1899.

9.30 A.M.—Meeting of 1898-99 Council.
11.0 A.M.—Church Service; Sermon by the Right Reverend the Lord Bishop of Winchester, at St. Mary's Portsea.
2 P.M.—First General Meeting. Report of Council. Reports of Committees; and other business.
8.30 P.M.—Adjourned General Meeting from 2 P.M. President's Address.

WEDNESDAY, AUGUST 2ND, 1899.

9.30 A.M.—Meeting of 1899-1900 Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Second General Meeting. Address in Medicine by Sir Richard Douglas Powell, Bart., M.D.

THURSDAY, AUGUST 3RD, 1899.

9.30 A.M.—Meeting of Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Third General Meeting. Address in Surgery by Professor Alexander Ogston, M.D.
7 P.M.—Public Dinner of the Association.

FRIDAY, AUGUST 4TH, 1899.

10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Concluding General Meeting.

SATURDAY, AUGUST 5TH, 1899.
Excursions.

Honorary Local Secretaries.

C. C. CLAREMONT, M.D., 57, Elm Grove, Southsea.
C. P. RUEL, M.R.C.S., L.R.C.P., Cromwell House, Kent Road, Southsea.

ANNUAL MUSEUM.

The Annual Museum in connection with the sixty-seventh meeting of the British Medical Association will be arranged in the following Sections:

SECTION A.—Food and drugs, including prepared foods, chemical and pharmaceutical preparations, etc.

SECTION B.—Instruments comprising medical and surgical instruments and appliances, electrical instruments, microscopes, etc.

SECTION C.—Books, including diagrams, charts, etc.

SECTION D.—Sanitary Appliances and Ambulances.

A fine and well-lighted hall will this year be utilised for the purposes of the Museum. This room is 150 feet in length, and 60 feet in width, and is in close proximity to the Reception Room.

Exhibitors (other than members of the medical profession) will be charged for table, floor and wall space as follows: In Sections A, B, and C, from 2s. 6d. per square foot, depending on the position of the table; tables 3 feet and 3 feet 6 inches

wide being provided. In Section D, 6d. per square foot for floor space (all fittings to be provided by the exhibitor). Wall space (where available) will be charged for advertisements at 6d. per square foot. Section D will be held in the Swan Street Board School, a short distance from the Drill Hall.

Advertisements in Museum Catalogue.—A catalogue will be printed, and 2,000 distributed gratis to members of the Association. Prepaid advertisements, to be sent before June 20th, will be inserted. Further particulars will be sent on application.

The plans of the hall and forms of applications for space will be ready early in May.

Regulations.

1. All communications on general matters connected with the Museum, and all applications for space, should be addressed to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth, before June 1st. N.B.—No space will be allotted before that date.

2. A brief description of each exhibit for insertion in the Museum Catalogue must be in the hands of the Secretary before June 20th.

3. Space will as far as possible be allotted in the order of application, and in proportion to the amount applied for, the Committee reserving power to give preference to *bonâ fide* inventions and improvements not previously exhibited, and also to refuse any exhibit they may consider unsuitable.

4. In the event of more space being applied for than is actually available, the allotment will be made at the discretion of the Committee.

5. The Committee reserve to themselves the power to utilise any of the floor space set apart for Section D (if it is not all required for sanitary exhibits) for the erection of additional tables, or for any other purpose they may think fit.

6. All exhibits should be addressed to the Secretaries of the Museum, British Medical Association, Drill Hall, Grigg Street, Portsmouth, with the name of the Section for which they are intended, with the exception of those for Section D, which should be addressed The Board School, Swan Street, Portsmouth. Packages should not be addressed to a firm's representative at the Museum.

7. All exhibits must be delivered between July 27th and July 29th, and each package must bear a card showing the name and address of the exhibitor.

8. All exhibits must be placed in the allotted space by 2 P.M. on July 31st.

9. No signs or placards will be allowed in the hall which may interfere with neighbouring exhibits. No exhibit or placard on the central tables must reach higher than 2 feet 6 inches from the table. The arrangement of signs, placards, exhibits, etc., will in every case be subjected to the approval of the Committee.

10. Intimation of the space allotted to each exhibitor will be sent as promptly as possible after June 1st, marked upon a plan. On receipt of cheque for the cost of such space, a card for the admission of the exhibit will be sent.

11. All cheques to be made payable to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth.

12. No exhibits will be received except on the understanding that the above regulations are strictly complied with.

H. Rundle, F.R.C.S., *Chairman*,
13, Clarence Parade, Portsmouth.
R. Emmett, M.R.C.S., L.R.C.P.,
83, Kingston Road, Portsmouth.
James McGregor, L.R.C.P. & S.Edin.,
9, St. Mary's Crescent, Portsmouth.

Pathological Museum.

Specimens of interest for exhibition in the Museum should be forwarded, addressed to the Secretary of the Pathological Museum, British Medical Association, Boys' School, Seaman's and Marines' Orphan Home, Portsmouth, during the last week in July; and a brief description of each exhibit for insertion in the Museum catalogue must be in the hands of the Secretary by June 20th. Intending exhibitors are requested to communicate with the Secretary of the Pathological Museum, Staff-Surgeon L. Lloyd Thomas, R.N., Royal Naval Depôt, Portsmouth. All specimens must be mounted ready for exhibition.

SPECIAL CORRESPONDENCE.

PARIS.

The Prevention of Hospital Abuse.—Excursions to Watering Places.—The Abatement of the Smoke Nuisance.

Dr. Le Blond has sent to the "Union des Syndicats" the following proposals which are to be submitted to the Superior Council of the Public Assistance. Hospitals ought to be at the service only of the really poor. Paying patients should be domestic servants, or members of the working classes or employees whose wages do not exceed a certain limit to be fixed. Anyone paying £40 a year rent or paying for a licence is to be considered as not entitled to admission in a hospital. An exception to this rule would be made in favour of those who require serious surgical operations, and have not the means of paying the fee. An inquiry would be instituted in order to ascertain the position of the patient. In every district benevolent people would be appointed to undertake the task of inquiring into the pecuniary condition of patients desiring to be admitted into a hospital. Medical men attached to the Bureaux de Bienfaisance of each district would have the right to give tickets of admission to poor patients unable to pay who cannot be treated at home. After the patient has been admitted an inquiry will be made. Except in very urgent cases no patient will be admitted simply on application.

Dr. Carron de la Carrière has had the happy idea of organising for the benefit of medical men and medical students excursions to the different mineral water stations in France. These stations are classed in four divisions, as follows: (1) The Central Division: Auvergne, Pouges, Saint Honoré, Bourbon Aichambault, Héris, Vichy, Chatel-Guyon, Royat, Sanatorium de Durtol, La Bourboule, Mont-Dore, Saint Nectare. (2) The Southern: Pyrenees, Luchon, Capvern, Bagnières de Bigorre, Cauterets, Saint-Sauveur, Barèges, Pau, Eaux-Bonnes, Eaux-Chaudes, Salies de Béarn, Biarritz, Dax, Arcachon. (3) The South-East: Dauphiné, Savoie, Besançon, La Mouillère, Salins, Eiran, Saint-Gervais, Aix, Le Renard, Marlioz, Challes, Salins Moutier, Pralognan, Brides, Allevart, Uriage. (4) The Eastern Division: The Vosges, Bourbonne, Martigny, Contrexéville, Vittel, Gerardiner, Bussang, Luxeuil, Plombières, Pierrefonds, Enghien (Seine et Oise Department), Lamalou (Hérault), Bagnols Orne, Forges (Seine Inférrieure), Saint-Armand (Nord). These last mineral stations being dispersed about France, and isolated from other stations, cannot be attached to any group, but they will be included in the different itineraries. Each journey will be carefully planned before undertaking, in order to obtain as much instruction as possible in the twelve days devoted to these visits. The exact expense will be fixed, and the places to be visited each day will be determined. Medical men will thus have every facility for studying the therapeutics of mineral wells impossible to be studied anywhere but at the watering places. The first excursion will be organised for September, 1899.

For some time past the Police Prefecture has been occupied in enforcing the police regulations of June 22nd, 1898, concerning the smoke nuisance, by which it was forbidden to let thick black smoke escape over the city of Paris. Six months' grace was given to factory owners and others. No system of suppressing the smoke was enforced. The administration indicated to the persons concerned that the merimmated chimneys might be made higher, or special smokeless fuel used, or smoke-consuming apparatus used. A circular of July 4th, 1898, called upon the police to seek out in their districts those chimneys which did not conform to the regulations, and notify the same to the owners of the factories; 1,486 chimneys were reported. Two months' respite is allowed when these are issued. If the requisite improvement is not achieved proceedings will be taken.

GLASGOW.

Memorial to Professor Coats.—The Chair of Pathology.—The Prevention of Tuberculosis.

The loss which the medical profession in Glasgow and the West of Scotland has sustained by the death of Professor Joseph Coats

is being recognised on all sides, and has already been publicly expressed at some of the learned societies with which he was connected. There is a feeling that some memorial of his life and work should be raised, and a meeting of some of his former colleagues, assistants, and professional friends was held last week to consider the institution of such a scheme. It has been agreed that the memorial shall take the form of a prize or scholarship to be called "the Joseph Coats Memorial Prize in Pathology," and an influential Committee has been appointed, with the Principal of the University as convener, to carry out the scheme. The sum aimed at is £1,000, and no doubt all the late Professor's friends will welcome this opportunity of showing their regard for his memory.

Interest is already being taken in the filling up of the vacancy that has been caused by Professor Coats's death. The Chair of Pathology occupies a different position from any of the other medical chairs in the University. Most of the professorships are in the gift of the Crown, while one or two are controlled directly by the University Court. But the work of the Professor of Pathology being closely connected with the Pathological Department of the Western Infirmary, where the class room and laboratory are, the Chair of Pathology, as was stated in the BRITISH MEDICAL JOURNAL of February 11th, is in the gift of a Board of Curators, of whom 4 are appointed by the University Court and 3 by the managers of the Western Infirmary. The new professor will be appointed in April in time to undertake the work of the summer session.

The objects of the National Association for the Prevention of Consumption and other forms of Tuberculosis are not being neglected in Glasgow, and the matter has been under the consideration of the Medico-Chirurgical Society. This Society has already drawn attention to tuberculosis and the duty of the sanitary authorities in regard to its prevention, and the Glasgow Health Department has done much in this direction under the able supervision of Dr. J. B. Russell. At present a Committee of the Medico-Chirurgical Society has been formed to confer with the other medical societies of the city, and to consider what action should be taken.

ABERDEEN.

The Royal Infirmary: Need for further Accommodation: the Financial Position: Consumptive Patients.—The Convalescent Hospital.—The Royal Asylum.

AT the annual meeting of the Aberdeen Royal Infirmary and Lunatic Asylum Corporation, the Chairman of Directors, in presenting the report, drew attention to the fact that in spite of the increased accommodation which has been provided in late years by the new buildings, the number of patients requiring indoor treatment has so largely increased that already the space afforded is insufficient to meet the demand. The admissions for the past year have been 2,605 as against 2,038 five years ago. Special difficulty has been met in making provision for surgical patients, and the newly-founded department for diseases of women is already in need of more space. Although the total income for the year has been £1,000 in excess of last year, the accounts again show a deficit of considerably more than that sum, and the total debt of the institution now amounts to £23,640. That the expenditure has been kept down as far as possible is shown by the extremely low figure of £47 16s. as the cost per bed. In the past year, while some large sums have been received, notably from the Diamond Jubilee Fund and from the Hospital Saturday Fund, it is felt that the annual subscriptions have been very insufficient, and while some few country districts have had special collections for the institution, this practice should be far more extensively carried out than it is at present, considering the great services of the institution to country patients. The suggestion made at the meeting that a house-to-house collection should be instituted in the city met with approval from many. The Chairman, in dealing with the numerous cases of consumption treated in the hospital, drew attention to the importance of finding some means of making separate provision for these patients, and commended the matter to the serious attention of the public.

The new Convalescent Hospital at Pitfodels has done most excellent work in the past year, and with strict economy shows a small balance on the right side of the account.

At the Royal Asylum there has been a considerable increase in the number of admissions during the past year as compared with former years. Extensive additions to the building are being carried out, and while the present estimate for the completion of these improvements exceeds by some £19,000 that originally presented, it is hoped that the necessary sum may be provided for from the ordinary revenue of the institution.

BELFAST.

The Irish University Question: Resolutions adopted by Queen's College.—Letter from the Principal.

AT a meeting of the Corporate Body of the Queen's College, Belfast, held on February 10th, the following resolutions were unanimously passed:

1. That in our opinion the present provision for university education in Ireland is unsatisfactory.

2. That it is desirable that all candidates for university degrees should have attended complete courses of lectures at a recognised college or institution.

3. That in any resettlement of the university system of Ireland it is essential that in this College provision should be made for the endowment of new chairs, especially those required to meet the particular needs of this community, for the appointment of assistants and demonstrators, for additional laboratories, for museums of science, art, and antiquities, for more liberal additions to the library, and for facilities of research. The want of these at present seriously impairs the efficiency and lowers the status of this College as a place of learning and education.

4. That in our opinion the higher education of the North of Ireland would be admirably served by the re-establishment of the old Queen's University on its former broad non-sectarian basis, with such modifications as would meet the altered circumstances of the case, but with its seat in Belfast, and with the provision of an adequate endowment.

5. We are of opinion that in the proposed new Queen's University it is essential to include Chairs of Philosophy and Modern History.

6. That copies of these resolutions be sent to His Excellency the Lord Lieutenant, the Chief Secretary, the Prime Minister, and the Leader of the House of Commons.

The President of the Queen's College contributes a long and able letter to the Belfast papers of February 11th, in which he forcibly demonstrates the inconvenience and injustice of the present university system, and argues in favour of a fresh settlement on the lines of the above resolutions.

For the North of Ireland, what if we should have the old Queen's University, around which so many happy memories cluster, and which during its too brief life rendered such splendid service to the cause of Irish education, re-established—re-established with this difference, that its seat should be in Belfast instead of Dublin, which must not be allowed to monopolise everything; and with of course other changes which the lapse of the twenty years which have passed since its overthrow, and the experience thus gained would render necessary, but with no change in the broad, non-sectarian, academic basis on which it stood, and on which a true university must ever stand? Give the North of Ireland this, with of course an ample endowment, and what should we have? We should have an end put at once and for ever to the miserable state of things which for the last twenty years has harassed and depressed all engaged in university work here. We should have a university of the lowest type replaced by one of the highest, bearing an honoured name, with a splendid history of fifty years behind it, and governed by men of our own—men whose names at once rise to our minds when we think of the project. Belfast, now a city with over 300,000 inhabitants, would get, to its enormous advantage, what Birmingham, under the lead of Mr. Chamberlain, is now trying to obtain—a university of its own, with this difference, that what Birmingham is raising £100,000 to procure, Belfast would get for nothing. . . . Ulster would receive for its sons and daughters a university suited to the *genius loci*, which we might hope might do not only for her literary and scientific advancement, but for her manufactures, her commerce, and her agriculture, what the Scotch universities have done for Scotland, and the German for Germany, while Ireland would have a new and powerful element cast into the bitter waters of her national life, from the salutary and sweetening influences of which I am sanguine enough to hope for effects of the happiest kind.

It would be well if the opinions here expressed were carefully considered by those who view this thorny question from the point of view of religious or political partisanship.

MEXICAN GOVERNMENT AND YELLOW FEVER.—According to the *Yale Medical Journal*, the Government of Mexico, after repeated scourges of yellow fever along its coast, has roused itself so far as to order an extensive system of sewers, and the carrying out of the latest American methods of sanitation at Vera Cruz and Merido, with the object of endeavouring to stamp out the scourge at these points.

CORRESPONDENCE.

THE GENERAL MEDICAL COUNCIL AND THE HUNTER CASE.

Sir,—The sublime is said to be very nigh to the ridiculous, and recent proceedings in the Divisional Court before Mr. Justice Lawrance and Mr. Justice Channell tend to support this adage. What is a physician? This is not a conundrum, but a serious question of law, which occupied the Divisional Court the best part of a day. We must assume it to be a matter of great importance, for were it not the General Medical Council would scarcely have fought the question up to the Divisional Court. It is true there are some disquieting rumours. We have it on so great an authority as Mr. Victor Horsley that the Council never authorised the prosecution of Mr. Hunter for calling himself a physician, never gave permission for counsel to contest the appeal. This, however, makes matters worse, and it will be interesting to observe the attitude taken by the Council on this question when it meets next May; but, in the meanwhile, it seems more reasonable to assume that the officials did not act altogether without warrant, and that their action does represent, at least, the policy of a certain section. It is therefore necessary to assume for the present that in the opinion of a majority of the Council the question as to what legally constitutes a "physician" is of paramount importance to the profession and the public.

Most people have been satisfied with the definition in standard dictionaries, and few medical men outside the Council thought there was any difficulty in comprehending the meaning of the word. A country practitioner, however, wrote to the Council to know what an L.S.A. since the Act of 1886 might style himself, and in his innocence he proffered the information that he had hitherto been in the habit of describing himself as "physician and surgeon." An alacrity was then shown in prosecuting him only too conspicuous by its absence in the Council's dealing with illicit medical practice. The rural justices were no doubt a little taken aback, but it was the General Medical Council that was prosecuting, and they were not long in becoming convinced that the ordinary meaning of the word "physician" was incorrect, and that it was their duty to convict the offender.

This was the first act of the drama, but a point of great importance to the Apothecaries' Society was involved, and that body stepped into the breach. The second act opened at the Royal Courts of Justice. In the place of country justices in Petty Sessions, two of Her Majesty's judges, sitting as a Divisional Court, were called upon to resolve the intricate question as to what a "physician" really was. After long arguments, often displaying ingenuity worthy of a better cause, and in which case after case was quoted, most having arisen before the Act of 1886, some before the Act of 1858, and one even going back to the classic time of Queen Anne, the requisite degree of obscurity was arrived at. As most of the cases had no bearing on the question, and those that had often flatly contradicted one another, it might have been hoped that the judges' decision would have been given in accordance with common sense without regard to any of them. But the fiat was that the magistrates' conviction of Hunter must be quashed on the ground that the offender had not acted wilfully, but that the "L.S.A." as such had no legal right to the title of "physician."

What will be the result of the present state of affairs it is difficult to forecast. There are a large number of Licentiates of the Apothecaries' Society practising throughout the country, and nearly all call themselves "physicians." It seems scarcely probable that they will unanimously bow to this decision. Even if the next case be taken up warmly by the Apothecaries' Society, and fought before every possible tribunal, constant litigation would seem to be the inevitable outlook. If ever the profession were justified in demanding an explanation from the General Medical Council, it has a right to know why these unfortunate proceedings against the late Mr. Hunter were ever undertaken. If the accounts given by certain authorities, who ought to know, are correct, no words would be too strong to condemn the way in which important business has been transacted by that body; but in common fairness the subject should be considered *sub judice* till after the meeting.

It may, however, be interesting to glance at some of the arguments and cases brought before the Divisional Court. Mr. Muir Mackenzie may be complimented on his laborious exploration of the lumber of medico-legal antiquities. Whether the facts he brought to light had any real bearing on the case in hand is another matter, and I must protest against the way some of the cases were used. In such a trial as this it is hardly justifiable for a counsel representing the General Medical Council to put forward all that supports his contention to the exclusion of all that tells against him. Take, for instance, the case of Royal College of Physicians *v.* Harrison. Harrison was a medical graduate of the University of Edinburgh, who was practising medicine in London without the licence of the College. The latter, after in vain trying to force the Scotch graduate to take their licence, sued him for infringing their charter. His defence was that he was practising surgery only, and even then it would appear there was some difficulty in defining the limitations of these Arts, so that the defence was very much to the point. Lord Tenterden summed up strongly against Harrison, but the jury refused to be convinced by his lordship's arguments, and found for the defendant. Mr. Muir Mackenzie did not point this out to the Court, and I would ask any reader of the report of the trial whether he would have understood this from the learned counsel's words.

Next as to Ellis *v.* Kelly. It was there decided that a registered practitioner with a foreign degree could not be convicted for falsely describing himself as a doctor of medicine; and Mr. Justice Channell intimated that that was his interpretation of the case. Mr. Muir Mackenzie then said: "I think your lordship should read that decision subject to the qualification in the later case of Andrews *v.* Styrap."

Now, what is this later case? Andrews, the delinquent here, was not a registered practitioner at all; so that the case had really no connection with the former one. Section xl of the Act of 1858 clearly applied to Andrews, for by using the title of "M.D." he implied he was on the *Medical Register*, which was not the fact. But the judges in Ellis *v.* Kelly rightly considered that Section xl was intended to protect the public against unregistered practitioners only, and refused to allow it to be used to prosecute a registered practitioner.

Then, again, as to R. *v.* Baker. Clearly this case had no authority, for the "L.S.A." there was one of the old order, licensed by the Apothecaries' Society before 1886, and it is almost incredible to find the standing counsel for the General Medical Council expressing ignorance as to whether or not the old L.S.A. diploma authorised the diplomate to practise surgery. Everyone who knows anything about the history of our licensing bodies is aware that till 1886 the Apothecaries' Society never gave any diploma in surgery; and, further, that the latter never would have had that power up to the present day could the General Medical Council have prevented it, so that it would seem that Mr. Muir Mackenzie has forgotten the litigation that took place on this subject between the Council and the Apothecaries' Society only a few years ago. Time would have been more profitably spent in mastering commonplace facts of this nature than in looking up such fossils as the College of Physicians *v.* Harrison, Blogg *v.* Pinkers, and College of Physicians *v.* Rose.

In the last case it might also be remarked that Mr. Muir Mackenzie did not tell the Court that the decision he referred to was afterwards reversed by the House of Lords. The College had sued an apothecary for practising as a physician because he had visited a patient and had then sent him the medicines he prescribed. This, it was argued, was an infringement of the College Charter (14, 15 H., 8, c. 5). It would appear, however, that the apothecary had not charged for his visit but only for his medicines, so that, although judgment was at first given for the College, it was reversed on appeal. One fact that stands out clearly in these old cases is that our ancestors paid more regard to what the practitioners of those days did than to what they called themselves. The point on which the old decisions turn is invariably one of practice. All the present proceedings have nothing whatever to do with practice.

It is curious to note the ignorance shown by the Bench of ordinary medical matters in the various trials that have

taken place during recent years, dealing with the interpretation of the Medical Acts. Lord Coleridge, in *R. v. Baker*, pronounced dicta utterly at variance with the Act of 1886, and showed that he regarded "physician" and "M.D." as synonymous. In the latest case Mr. Justice Lawrance was under the impression that the College of Physicians could grant the degree of M.D. It is exceedingly difficult for medical men to feel proper respect for judgments, the authors of which seem to be so badly informed about what is common knowledge to most of them.

In conclusion I would urge that it is of paramount importance that the Medical Acts should be amended and simplified with the least possible delay, so that it may be made impossible for a judge to misunderstand them. As there is now only one kind of medical qualification recognised by the law, it is absurd to take exception to what a medical man calls himself if duly registered. It does not matter one iota to the public whether he styles himself "doctor," "physician," or "surgeon."—I am, etc.,

MAJOR GREENWOOD, M.D.Brux., LL.B.Lond.,
Hackney Road, N.E., Feb. 15th. Barrister-at-law.

MIDWIVES BILL.

SIR,—I think it necessary to explain my reasons for seconding Mr. Brown's motion "to recommend the Council to oppose the Midwives Bill," as the few hurried remarks I made are somewhat misleading.

The statement that "I came from an agricultural district where the members of the medical profession were the professional rivals of the midwives" was meant to be a somewhat indignant reply to an objection made by, I think, Dr. Woodcock, to a proposition that the local supervision of midwives should be entrusted to the Rural District Council instead of the County Council—namely, "that the medical officers were often professional rivals of the midwives, and would be unfitted thereby to supervise them."

My reasons for protesting against the Midwives Bill are:

1. That whenever the question has been brought before the general meeting of the Association the members present have always voted against midwives' registration, while recognising the need of trained midwifery nurses to attend the poorer classes during the lying-in period, and competent to attend a case of natural labour or emergency pending the arrival of the medical practitioner, and until that vote has been reversed the Council and Parliamentary Bills Committee should act in accordance with the wishes and directions of their constituents.

2. That every woman should have skilled medical attendance at childbirth. This is provided for the pauper class by the Poor Law, and the guardians are empowered to grant orders on loan to all those who cannot afford to pay the medical fees.

3. That the restriction of midwives' practice to natural cases is, at any rate in country districts, useless as a protection to the patient, as hours must often elapse before the medical practitioner could arrive, and often the serious emergency, and the patient, would then have passed away.

4. That so many cases would be attended by midwives that the younger practitioners would not be able to obtain that skill and proficiency in midwifery which can only be attained by experience and practice, and not only would they lose a good part of their income, but the general public would suffer by their want of experience, and probably the whole practice of midwifery pass into the hands of the midwives and a few specialists.

5. That it would be a retrograde step, and would, notwithstanding all proposed safeguards, set up an inferior order of practitioners, who would eventually take the place of the unqualified assistant, and many struggling men who are employing qualified assistants would be unable to retain their services, and practices would be further cut up and underselling increased.

6. That there would be no difficulty in providing medical attendance for every woman in the present overstocked condition of the profession, as it would only give about 40 cases to each medical man per annum, and many men do five times that number.

In conclusion, I would express my entire agreement with the remarks made by Mr. G. Brown, Dr. Groves, and Dr. Major Greenwood, and, while fully recognising Mr. Victor Horsley's great ability and his energetic and unselfish work for the best interests of the profession generally and the general practitioner in particular, would venture to hope that, after thirty years' practice in a rural district, I may be permitted to give my opinion, although not quite in accordance with his six months' experience.

Knowing as I do by bitter experience the hard life and unending anxieties of the struggling doctor, the insults and impertinences he has to endure patiently, and the persecutions he has often to fight against, I feel bound to make my feeble protest against any measure which will make his position more unendurable. I see in the BRITISH MEDICAL JOURNAL of February 11th a list of 21 practices for sale, only 2 over £400 gross, while over 1,000 purchasers' names are on the books of the same firm of agents. Surely we shall soon want a "Poor Doctor's Fund."—I am, etc.,

Wimborne, Feb. 13th. C. H. WATTS PARKINSON.

THE MIDWIVES' INSTITUTE AND THE MIDWIVES BILL.

SIR,—I see that the Midwives' Institute is credited with the production of the Midwives Bill. May I ask to be allowed to state that the Midwives Bill Committee consists of about forty members, only two of whom represent the Midwives' Institute: the rest of the Committee is composed of representatives of the medical profession (14), the legal profession (4), Parliament (11), and various public bodies, political and philanthropic (6).

It will therefore be seen that it is quite incorrect to speak of the Bill as "a Bill of the Midwives' Institute." The misapprehension has most likely arisen owing to the Midwives Bill Committee holding its meetings in the same building in which the Midwives' Institute has its offices.—I am, etc.,

Buckingham Street, W.C., Feb. 12th. J. WILSON, President of the Midwives' Institute.

OÖPHORECTOMY FOR MAMMARY CANCER.

SIR,—In his recent article on oöphorectomy for mammary cancer, which appeared in the BRITISH MEDICAL JOURNAL of February 4th, Mr. Stanley Boyd has made reference on more than one occasion to a case that I showed at the meeting of the Edinburgh Medico-Chirurgical Society in illustration of this line of treatment. This seems a suitable opportunity to mention her present condition, and to give a brief summary of her case since the oöphorectomy on June 15th, 1895.

On May 20th, 1896, the patient was shown at the meeting of the Edinburgh Medico-Chirurgical Society, and at that date she was apparently in excellent health, with a sound cicatrix and healthy thoracic tissues, all traces of malignant disease having disappeared locally. This satisfactory condition of things continued until July, 1897, when two small nodules made their appearance in a situation where cancerous tissue had previously existed, but had disappeared subsequent to the oöphorectomy and the use of thyroid extract. These nodules slowly increased, and in October one of them was removed, and microscopic examination of it revealed the structure of a typical scirrhus. The other nodule was left. At the present it has somewhat diminished in size, and no fresh nodules have appeared in or near the cicatrix. In the right breast, however, at its upper and inner quadrant, a small, hard mass can be felt, and below the left clavicle the infraclavicular hollow is occupied by a hard swelling in the neighbourhood of the first rib. For about twelve months the patient has complained of her back, and this has been accompanied by a change in the vertebral column, which now presents in the lower cervical and upper dorsal regions a curvature not unlike that seen in Pott's disease. There is no evidence of any lung or pleural infection, and the patient's general appearance is that of a healthy woman. To me the point of interest in the case is the reappearance of malignant disease in a situation where it had previously disappeared, and further that this recurrence, contrary to all experience, should have again shown no sign of further increase.

In a communication such as this, I cannot attempt to discuss the various points raised by Mr. Boyd in his paper, but I hope to allude to them in a further communication that I propose to make on this subject.—I am, etc.,

Glasgow, Feb. 9th. GEORGE THOMAS BEATSON.

THE SURGICAL AID SOCIETY AND ITS METHODS.

SIR,—Most surgeons are under the impression that this body has for its object the providing of surgical apparatus to the poor, chiefly hospital patients, on the recommendation or certificate of a surgeon only as stated in their advertisements.

The following incident, which has recently occurred, and which I am led to believe is not an isolated case, shows how grievously their confidence may be misplaced, and requires an explanation from the Society.

A little child, a patient of mine at the Children's Hospital, Shadwell, was recommended to get an apparatus by me, and the requisite number of letters was collected. A lady interested in the child's welfare, and who originally asked me to see her, took her up to Salisbury Square, and was there told by an elderly official that the doctor had ordered quite the wrong thing. She was advised to see another surgeon, and sent away with a printed paper bearing the name of a surgeon to the National Orthopædic Hospital, Great Portland Street, with the cheering prospect of getting much more efficient treatment. Fortunately she refused to be cajoled by any such seductive offer, and returned to me with the document.

The first question I would ask is, Does the Society provide apparatus as they state on the recommendation of any surgeon? If they do not, then let the profession openly know that it is provided only subject to the approval of a specialist. What is absolutely indefensible is the flagrant attempt to divert patients from one surgeon to another, to say nothing of destroying the patient's confidence by the delicate suggestion of his incompetence.

As this is a matter of great importance to hospital surgeons, I trust you may find space for this letter in your valuable JOURNAL.—I am, etc.,

Upper Wimpole Street, W., Feb. 13th. HY. BETHAM ROBINSON.

THE VISION OF SCHOOL CHILDREN.

SIR,—Dr. J. Acworth Menzies published in the JOURNAL of January 14th a series of tables setting forth percentages of normal and abnormal vision in school children, and he refers to previous publications by others. I wish to call serious attention to the subject from another point of view.

Like Dr. Menzies I investigated the eyesight of a large number of children attending Board schools, but the tables which I submit for criticism are based upon one school alone (a girls' school of higher grade) because in that school I was better able to have the tests checked than in any other.

	Number Tested.	Passes.	Failures.	Percentage of Failures.	Analysis of Failures. Sub-normal. one eye.	Sub-normal. two eyes.	Defective. one eye.	Defective. two eyes.	Defective. ( )	Defective. one eye.	Defective. two eyes.	Percentage. Subnormal	Percentage. Defective.
										V	V		
Standard I.	29	10	19	65.5	...	14	...	5	...	...	...	48.3	17.2
,, II.	44	31	13	29.5	1	4	...	3	...	2	3	11.3	18.2
,, III.	44	32	12	27.2	1	1	...	1	1	2	5	4.5	22.7
,, IV.	54	39	15	27.7	1	4	...	1	...	...	9	9.2	18.5
,, V.	66	41	25	37.9	1	11	...	2	...	...	11	18.2	19.7
,, VI.	45	23	22	48.8	...	10	2	1	..	...	9	22.2	26.6
,, VII.	31	10	21	67.7	1	10	...	...	...	...	10	35.5	32.2
,, Ex-VII.	5	1	4	80.0	...	...	...	...	...	...	4	...	80.0
Totals	318	187	131	41.1	5	54	2	13	2	4	51	18.5	22.6

This table shows nothing as to hypermetropia or myopia, but simply inability to read the type at the normal distances.

I proceed to quote from my report to the School Board:

At this school every child in attendance was tested; every case of failure was re-tested by the teacher, sometimes three times, and I personally tested about 30 per cent. of the cases of failure.

The results are remarkable, and, if confirmed by further investigations, form a heavy indictment against the present system of education in its effects on the eyesight of children.

It is important to observe that the head mistress states that but few of these children have attended infants' schools. They come, therefore, with untrained and unstrained eyes.

This school being one where fees are paid, it is reasonable to suppose that at least average care is taken of the children by their parents, and that such factors as malnutrition do not seriously invalidate our results.

These untrained and unstrained children on first coming to the school show a high percentage (65.5 per cent.) of subnormal vision. But investigation shows that 48 per cent. are but slightly subnormal, and are probably, many of them, cases of inaccuracy rather than of actual defect, and only 17 per cent. are downright defective.

At any rate the second and third standards show progressive improvement in sight, or at least a diminution in the total percentage of failures, and also in the percentage of cases of slight defect; but apparently in Standard III we have reached our best results. The eyes have been trained, and as yet show little evidence of strain.

Standard IV tells another tale. From this standard onwards not only does the ratio of thoroughly "defective" cases increase steadily, but also that of merely "subnormal" cases, till in Standard VII the total percentage of failure is higher than that in Standard I, half the cases being "defective" and half "subnormal."

I should state here that I have drawn the distinction in this way: I have estimated as "subnormal" only cases which get $\frac{6}{9}$ with one or both eyes, any cases which get less than that with one or both eyes I have grouped as "defective."

In Standard I no child had vision less than $\frac{20}{40}$.

The extraordinary percentage of failure in Standard VII (80.0) admits of a special explanation:

These children are shortsighted; and whereas healthy children are glad to leave school as early as may be, those with short sight take pleasure in books and fine work, for which their eyes are well adapted, and therefore are willing to stay on at school.

I wish to state that I had no expectation whatever that the evidence would tend to this result. I had no theory of my own on the subject. I did rather expect to find evidence to show that the malnutrition of the poorer children affected their vision, but I do not find this hypothesis supported by facts.

RECOMMENDATIONS.

The great thing is to avoid strain. To this end all work which is a trial to the eyes should be abolished, or at least carried on under the best possible conditions as to light and ventilation, and for only very brief consecutive periods. The law of development is "First general then particular:" but the modern child is set down to needlework, writing, figures, and the reading of small type at an age when its eyes are quite unfit for the strain of "accommodation" for prolonged periods. And, as if this were not bad enough, we have adopted from the myopic Germans their kindergarten system, much of which may be useful, but much of which is calculated to severely tax the soundest eyes, and is a simple abomination for those which are sensitive to strain. Of all standards the infants require the most perfect light in their class rooms. If once the eyes begin to yield under the strain of work in a bad light, hardly the best possible conditions can arrest the tendency. On the other hand, every year spent without putting the eyes to a strain diminishes the risk of such damage. If gas or other artificial light is unavoidable at certain hours, as is constantly the case in winter afternoons, let the lessons be so arranged that singing, or other exercises which do not tax the eyesight, may be given when the light is bad.—I am, yours faithfully,

Tottenham. A. OGIER WARD.

A DEGREE FOR DOUBLY QUALIFIED MEN.

SIR,—I fully endorse the letter of "A University Graduate" in the BRITISH MEDICAL JOURNAL of February 4th. It is a glaring injustice that we diplomates of the two great London Colleges are compelled to style ourselves "Mr.," while other men, by the lucky accident of their having been educated in Scotland or Ireland, are styled "Dr." People often say to me, "Why don't you do some more study so as to become an M.D. like Dr. Blank"—referring to a Scotch or Irish graduate.

Since I became qualified ten years ago, there has been much talk of a Teaching University for London, to which the Colleges of Physicians and Surgeons would be in some way affiliated, in order that their diplomates may obtain the degree of M.D., with or without further examination. But nothing has been done. I cannot understand why these two Colleges do not move in this matter, for they must see that men prefer to go to Scotch and Irish Universities, where by passing an examination of the same calibre as their own they become "Dr." I may mention in this connection that some years ago I applied for an appointment, and was told that the chief objection to me was that I was not an M.D., as "it looked better."

I, like many others, was when in my teens and before I properly understood these matters, placed by my parents at an English medical school, and began to study for the London Colleges because three-fourths of the other students did so. Now I can only obtain a degree in this country by waiting till I am 40 years of age, and then reading for the M.D. Durham

for practitioners of fifteen years' standing—that is, if I can find the necessary time without neglecting my practice. Suppose I were to obtain a foreign M.D., will you or any of your readers kindly tell me if there is any legal or other objection to my styling myself M.D. on my doorplate or billheads?—I am, etc.,

February 10th. M.R.C.S., L.R.C.P.

SIR,—It is difficult to follow the logic of the arguments which your correspondent "A University Graduate" employs in his letter on the above subject in the BRITISH MEDICAL JOURNAL of February 4th. He apparently contends that it is only those who are "canny" or "cute" who obtain their medical qualifications from the universities, while those who lack these qualities are content with "licences to practise." He further suggests that those who have them should "water the capital" of their licences by obtaining the title of M.D., etc., from the Royal Colleges, and so have their lack of "cuteness" condoned by the higher authorities.

His main argument seems to be that the examinations for the R.C.S. and R.C.P. are at least equal to those for the degrees of "some" universities, and that the students who pass through the former deserve the M.B. equally with those who obtain the latter. Still each man selects his "school of medicine" with his eyes open.

The number of Royal Colleges proportionately to Universities in both Ireland and Scotland is greater than in England, particularly so in Ireland, where there are two universities and three licensing bodies. Your correspondent is quite wrong when he states that "four-fifths of Irish-born or educated medical men hold university degrees," as it is a well-known fact in the Irish schools that the majority seek licences. Further, in ordinary fairness, he should have mentioned with what universities he compared the Royal Colleges of England, and his remark about "watering the capital" is quite unjustified. I cannot help thinking that "A University Graduate" is, to say the least, excessively chivalrous when he desires to bestow "the gown and hood galore" on all his fellow practitioners who boast of a licence to practise medicine and surgery; as, of course, the Royal Colleges of Scotland and Ireland would also desire, and could not well be denied that privilege. —I am, etc.,

February 14th. M.B.

THE COEXISTENCE OF ZYMOTIC DISEASES.

SIR,—Your columns within the past few weeks have been open to the noting of various cases of coexisting diseases. I am able to give particulars of two cases occurring in practice during the past year—namely, measles and pertussis, varicella and scarlet fever.

In October, 1898, I was attending H. P., aged 17 months, female, for pertussis, then in the third week, with violent paroxysms. Measles was prevalent in the house, four brothers and sisters being affected; isolation was imperfect. On October 18th the child had the initial symptems of measles, coryza, lachrymation, etc., and the next day a typical eruption of measles appeared on face and body. This all disappeared in the course of a week, but the cough still persisted, retaining its characteristic whoop until the sixth week, when it ultimately yielded; the child is now in perfect health.

On August 19th, 1898, I saw B. G., a boy aged 14 months, then covered with a profuse vesicular eruption having all the characteristics of varicella; he was also feverish, and his throat was inflamed. Next day the vesicles had all disappeared, and instead was an extensive punctiform rash on the body and limbs of the child, with high temperature, throat still more inflamed and swollen; recovery was rapid and uneventful, and desquamation profuse.—I am, etc.,

Haulbowline, Jan. 29th. F. C. FITZGERALD.

OBITUARY.

THOMAS COOKE, F.R.C.S.ENG., M.D. AND B.SC.PARIS.

WE recorded with deep regret last week the sudden death of Mr. Cooke on February 8th, in his 58th year. He was the only son of John Hawley Cooke, and was born in America in 1841. He crossed the Atlantic in early infancy, and was brought up in Paris. As his father objected to send him to school, at 13 he betook himself thither, himself making all arrangements with the schoolmaster. He commenced his medical studies also in Paris, taking B.A. and B.Sc. in 1862, and the M.D. degree in 1870. He was House-Surgeon in turn to the five following hospitals: Bicêtre, Ste. Eugénie, St. Louis, Lariboisière, and Le Midi, and Demonstrator of Anatomy in the Ecole Pratique de la Faculté de Medecine. He was in Paris during part of the siege, and experienced great hardships. He came over to England in 1870, became M.R.C.S. in January, and F.R.C.S. in May, 1871, and was that same year appointed Demonstrator of Anatomy and Physiology to the medical school of Westminster Hospital. He retained the post until 1875. He was also Assistant-Surgeon to the hospital for many years, and at the time of his death was Surgeon to out-patients in the same institution.

In 1870, Mr. Cooke founded the London School of Anatomy and Physiology, which he thenceforward conducted up to the time of his death. He was constantly animated by the earnest desire to provide his students with a "knowledge of anatomy derived from individual practical examination of the human body, and investigations which the student can himself repeat, as opposed to scientific abstractions." He started with some two or three pupils, but by dint of never-tiring energy he raised the number until his school came to hold a perfectly unique position in the United Kingdom as the only private medical school licensed to keep a dissecting room, and recognised to take students during the curriculum. He was ever at pains to further the progress of his pupils, and endeared himself to them by his kindly manner and ready sympathy with their work. The ideal which he sought to inculcate inspired his men with a lofty conception of their profession, and encouraged them to persevere in honest practical work. Some of the best-known teachers in the profession were among his students. At the time of his death he was able to "sign up" his pupils for the Universities of London and Durham, the Colleges of Physicians and Surgeons, and the Society of Apothecaries.

Mr. Cooke contributed both to English and French medical literature. Among his works were *Aphorisms in Applied Anatomy and Operative Surgery; Dissection Guides; A Plea for Practical Work in Anatomy; Esquisse d'une Anatomie Opératoire*, and several other similar productions. He also contributed to periodical literature articles on Suspension by the Head in Sayre's Treatment of Spinal Curvature,[1] Treatment of Strumous Abscess of the Neck,[2] Alcohol as an Antiseptic for Dressings,[3] as well as many other papers.

Mr. Cooke married in 1870, and has left three sons, one of whom is following his father in the medical profession; also two daughters, one of whom is a staff nurse at St. Bartholomew's Hospital. He was a fervent Christian, and an incessant worker for his school and his pupils, being always up at 6.30 A.M., though he seldom retired before midnight, and rarely took any recreation. He seemed, in fact, to have lately undermined his strength, and had suffered from angina pectoris. In the morning of February 8th he had delivered his lecture as usual, and was demonstrating in the dissecting room, when a sudden fatal seizure occurred.

The funeral took place at Kensal Green on February 13th, and was attended by a large number of his former pupils.

Mr. J. Bland Sutton, F.R.C.S., writes as follows: Mr. Thomas Cooke was a man for whom I entertained deep respect. He was the first anatomist with whom I came in contact on beginning my medical studies in April, 1878. At that period dissections were not encouraged in the regular London schools of anatomy during the summer, but, thoroughly aware of the deep importance of a sound knowledge of anatomy, I entered for a six months' course at Cooke's well-known room. His objective methods of teaching appealed to me, and his intense enthusiasm for human anatomy was so contagious, that I look back with the greatest pleasure to his vivid and inspiring demonstrations. His method consisted in exhibiting the chief anatomical points on the dissected subject in strict relationship through a series of demonstrations lasting three months. In order to do this with advantage it was necessary that the students attending the class should be familiar with the chief details of human

[1] *Lancet*, 1879.
[2] BRITISH MEDICAL JOURNAL, 1876.
[3] *Practitioner*, 1873.

anatomy. As a result, when the class was good there was a brisk round of question and answer for an hour, enlivened with sallies of wit and repartee, often of a brilliant, kind which delighted me.

Cooke was extremely anxious that I should become his demonstrator, and when he found my goal was surgery he kindly used his influence with Mr. Henry Morris, who, solely on Mr. Cooke's recommendation, made me a prosector and demonstrator at the Middlesex Hospital, and he was thus the means of initiating a friendship with one for whom I have ever since entertained the highest respect, and which has been attended with great and good consequences to me.

It is too true that Cooke in recent years felt that I have been in a measure responsible for leading students to "mix morphology with plain anatomy," and thereby made them impatient of mastering the details of anatomy in the dissecting room. However, a few years ago I felt deeply honoured when my old master attended my morphology class and became enamoured with the new order of things, or, as he humorously termed it, "the fairy morphology," and the last edition of his famous *Tablets* shows clearly enough that he was on the eve of conversion.

It is usual to speak of my friend as a "grinder," inasmuch as he taught men for examinations; he was a coach, but he taught in such an objective and real way that I regard him as one of the best teachers of human anatomy with whom I have come in contact, and there are hundreds of men in England and in the British Empire who are under deep obligation to Thomas Cooke for the real knowledge which he imparted in the pleasantest manner in his quadrilateral building of corrugated iron in a disused cemetery.

That he should be seized with his fatal illness and die in the room where he worked and taught is as impressive as the tragic end of Molière. Fitzgerald translates a quatrain of Omar thus:

'Tis all a chequer-board of nights and days,
Where destiny with men for pieces plays:
Hither and thither moves and mates and slays,
And one by one back in the closet lays.

For me destiny has removed from my chequer-board a man who largely influenced my play in life, and I doubt if I shall meet his like again.

CHARLES ARTHUR DIXON, M.R.C.S.Eng., L.R.C.P.Lond.

It was with great regret that the members of the medical profession in Leeds, as well as a large circle of friends, heard of the death of Mr. Charles A. Dixon at the early age of 29. Mr. Dixon's health began to fail in the middle of last year, when he suffered from a blood-stained pleural effusion, and later from hæmoptysis. In December last, after being entertained at a farewell dinner by his more intimate friends in the profession, he left for South Africa. When he arrived there his health became so much worse that he soon returned, and landed at Southampton on February 3rd. Here he was met by Mr. W. H. Brown and Mr. W. A. Stott of Leeds. He was found to be so seriously ill that it was unwise to remove him, and he rapidly succumbed to an increasing dyspnœa on February 6th.

Mr. Dixon was an exceptionally good student in the Leeds School of Medicine, where he carried off several prizes. After taking his diploma in 1891, he worked with Mr. Pridgin Teale for eighteen months, and then served for a year as a Resident Medical Officer at the Leeds Public Dispensary, where he gave great satisfaction to all concerned. After this he commenced practice in Leeds, and soon attained a very considerable success. During his student days Mr. Dixon also passed the intermediate M.B.Lond. examination, and was vigorously preparing himself for the last part of the M.B.Vict. before the commencement of his fatal illness. No doubt this work along with that of his practice helped to precipitate his breakdown in health.

The kindliness of his disposition, the evenness of his temper, and his straightforward honesty of purpose endeared him to all who came into contact with him. Such characteristics, combined with a sound knowledge of his professional work, marked him out early as one assured of success, and his loss is deplored by all who were fortunate enough to know him.

JAMES ARMSTRONG McDONAGH, F.R.C.S., Etc.

We regret to have to record the death on February 10th of this old and much-respected general practitioner, aged 79 years. Mr. McDonagh was the son of the late Dr. McDonagh, of Ranelagh County, Dublin, was educated at Trinity College, Dublin, Member of the College of Surgeons of England 1842, Fellow 1873, was also Licentiate of the Apothecaries' Hall and Licentiate of Midwifery, Dublin, and for some time Lecturer in Anatomy in the School of Medicine of the Apothecaries' Hall of Ireland, and a member of the Court of Examiners of that institution.

In the early part of his career he served as Surgeon in the Cunard Company's service, and was also attached to the Crimean Expedition as Civil Surgeon. For a considerable number of years he was engaged in general practice in the Hampstead district, and endeared himself to a very large circle of friends, owing to his genial manners and extensive fund of information on general and social subjects. He had retired from practice for ten years, and afterwards for some time resident in Parliament Hill, Hampstead. He took much interest in local affairs, and was for some years a very active member of the Hampstead Vestry. Mr. McDonagh was thrice married, and had a family of two sons and a daughter by the first wife, one son only surviving.

Mr. McDonagh was for many years a member of the British Medical Association and of many of the medical societies of London.

Dr. Dumontpallier, the distinguished Paris physician, who recently died at the age of 72, was born at Honfleur, and studied medicine in Paris. He obtained the much-coveted prize of the Internat in 1856, and in 1857 took his degree with a thesis on Purulent Infection and Putrid Infection after Delivery. From 1861 to 1863 he was Trousseau's *Chef de Clinique* at the Hôtel Dieu, and had a considerable share in arranging the great clinician's lectures for publication. In 1886 he became Physician to the Paris Hospital. During the Commune in 1870 he organised a service for the assistance of the wounded at La Pitié. In 1875 the Académie de Médecine awarded him a prize for a paper entitled A Contribution to the Study of the Anomalies of the Vaccinal Eruption. He was *décoré* many years ago, and was promoted to be an Officer of the Legion of Honour in 1884. He was elected a member of the Academy of Medicine in 1892. Dumontpallier was a most successful teacher, and first at La Pitié and afterwards at the Hôtel Dieu his clinical lectures on Gynæcology were largely attended. He was an indefatigable worker, and took an active part in the scientific work of several societies. He was perpetual Secretary of the Society of Biology, a past President of the Société Médicale des Hôpitaux, and perpetual President of the Society of Hypnology and Psychological Medicine. His work ranged over the whole province of medicine, but he took special interest in Gynæcology, Hypnotism, and Neuropathology. He was a member of the Committee of the Society of Biology, the other members of which were Charcot and Luys, who examined the metallotherapeutical experiments of Burq, and reported favourably thereon. He was the founder of the Société d'Hypnologie. Dumontpallier made many ingenious additions to gynæcological and general therapeutics. He was a conscientious and straightforward man, and in nothing showed those qualities more conspicuously than in his investigations of transference of sensation and other matters in the "misty mid-region," where nervous disease and imposture are mingled in varying and perplexing proportions.

By the death of Dr. Thomas Jones, of Preston Grange, Bournemouth, which occurred on January 25th at the age of 60, the medical profession has lost one of those men who in their own comparatively narrow sphere do more good and shed more lustre on their profession than many who bulk larger in the world's eye. He received his medical training at St. Bartholomew's Hospital and was admitted a member of the Royal College of Surgeons of England and a Licentiate of the Society of Apothecaries in 1860. His early career was spent on the Gold Coast, where he remained nearly five years. When he left there was no European of the same standing as himself in the Colony. His own power of endurance he attributed to his

having plenty of work, not only in his medical capacity but from time to time, through the invaliding or death of other Government officials, as Colonial Treasurer, Colonial Secretary, Collector of Customs, Postmaster-General, and Coroner; for a time on two occasions he administered the Government of the Colony. Subsequently Dr. Jones saw much service in India and China. Some twenty years ago he gave up his colonial practice and settled down at Mansfield, where he soon formed a large circle of friends. Failing health, however, compelled him to take up his residence in Bournemouth, where he has resided for this last two years. He had suffered for some time from Bright's disease and latterly extensive dropsy accompanied with heart disease, the end coming very suddenly. Dr. Jones was the author of "Medical Reports on the Gold Coast," 1867-70, *Parliamentary Reports H.M. Colonial Possessions;* "Notes from the Gold Coast, especially on the Non-Coincidence of Dysentery and Hepatic Abscess," *St. Bartholomew's Hospital Reports*, vol. xi, etc.

Staff-Surgeon Henry S. Jackson, R.N., died at his residence, Royal Naval Hospital, Chatham, of double pneumonia on January 23rd, at the age of 41. He received his medical education at Trinity College, Dublin, and at the Medical School of the Royal College of Surgeons in Dublin. He obtained the diplomas of L.R.C.P.Edin. and L.M. in 1878, and entered the Royal Navy as Surgeon in 1882. He was promoted to the rank of Staff-Surgeon in 1894. He became a Fellow of the Royal College of Surgeons in Ireland in 1891. Mr. Jackson was an enthusiastic surgeon and devoted to his duties. His loss will be deeply felt by the service to which he belonged.

We regret to record the death of Dr. Gifford Ransford, at the age of 55, at Sussex Square, Hyde Park, on February 12th. He was born at Clinton, Canada, in 1844, and came to England in early childhood. He received his medical education at St. George's Hospital, where he finally held the appointment of House-Surgeon. He qualified as M.R.C.S. in 1865 and L.R.C.P. in 1866, and graduated M.D.Durh. in 1885. In 1869 he joined the late Mr. John Morgan, of Sussex Place, Hyde Park, the partnership continuing for three years. Subsequently he had a wide circle of patients in the West End of London, by whom his death is keenly felt as a direct personal loss. Dr. Ransford was a member of the Clinical Society, but rarely appeared at its meetings. Nor, after he once started in practice, did he ever occupy any public post in the profession. He devoted himself to practice alone, and was rewarded by a marked success. A fortnight ago Dr. Ransford, who had been ailing for some time, was seized with severe illness, which, notwithstanding the constant and devoted attention and skill of Sir William Broadbent and other medical friends, proved fatal. The funeral took place at Hampstead Cemetery on February 15th.

By the death of Alexander Walker, M.D.Aberd., which took place on February 1st, from pneumonia, the district of Newton Heath, Manchester, has lost a man who will not easily be replaced. Dr. Walker was in his usual health, and attended to his patients up to 8 P.M. on January 28th, when his illness commenced with severe rigors. Dr. Walker graduated in 1870 with highest honours. His first appointment was at the County Asylum, Aberdeen. He then went to Whaley Bridge, where he took charge of a branch practice, and his services were so esteemed that on leaving about two years afterwards he was presented with a testimonial and a purse of 60 sovereigns. From Whaley Bridge he migrated to the district in which he has since practised for the last twenty-five years. A shrewd and close observer, and overflowing with genial wit and kindliness, Dr. Walker established and maintained himself in the confidence and affection of a large *clientèle*. He was an assiduous student of medical literature, and his knowledge of his art was both extensive and ready. He was indeed an excellent example of the fact that general practice absorbs much of the best intellect of the profession. His interests were, however, by no means confined to medicine, and his ardent temperament drew him into a variety of movements. A vehement freethinker and Home Ruler, he pursued a vigorous propaganda, lightened by the saving gift of humour. No tale of distress or injustice failed to move him to impetuous sympathy and activity. Thus he was not rarely regarded kindly by those who differed from his views. A striking feature of his character was the eagerness with which he seized every opportunity of extending his hospitality and assistance to young men entering on a professional career. He leaves a record of conscientious and unstinted professional work, performed with zeal and knowledge.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Josef Maschka, sometime Professor of Forensic Medicine in the University of Prague, aged 79; and Dr. G. Vlakovich, Professor of Anatomy in the University of Padua.

ROYAL NAVY AND ARMY MILITARY SERVICES.

MEDICAL AND SANITARY REFORM IN INDIA.

This is the title of an anonymous pamphlet,[1] written, we understand, by an Indian medical (European) officer, which has had considerable circulation in India. It suggests and advocates reforms in the medical and sanitary administration of our great dependency in certain directions. In some parts of his pamphlet the author writes in a style perhaps needlessly aggressive; and occasionally shows scant consideration for that service, age, and seniority which, we trust, he will himself attain in due course. Still his forcible observations merit the attention of all who have the welfare of a great and noble public department at heart. He draws attention in a direct and lucid manner to certain shortcomings, both administrative and executive, in the Indian Medical Service; and anyone who looks into the matter must conclude that some recasting of it seems to be necessary, although into what form or mould is a difficult matter to decide, and one requiring much local knowledge. It is, moreover, a matter as to which considerable divergence in opinion is likely to develop.

The question as it stands may be broadly reviewed under the following two affirmative propositions:

1. The needs of Indian civil administration are alleged to have outgrown the capabilities of the quasi-military medical service as constituted.
2. The advance of medical science has unquestionably outdistanced Indian sanitary administration as it exists.

Two recent occurrences may be cited in support of these propositions. First, the serious dislocation in both civil and military duties caused by the late frontier war; secondly, the urgent necessity of importing outside aid in dealing with the plague. Had the medical service been on a really comprehensive and efficient basis, neither of these disturbing causes would have produced such overpressure as actually arose, nor so readily exposed deficiencies both in organisation and establishment. From these facts it is argued that the wants of India have outgrown existing medical provisions, and that some change is demanded. We trust, however, whatever changes may be made, they may not be such as would break the continuity of a noble service with a glorious past.

The original and now existing constitution of the Indian Medical Service may be stated as follows: The officers in its commissioned ranks were at first necessarily wholly Europeans, and it was established on a military basis. The requirements of civil government, however, soon led to a "lending" of a portion of the military body for civil duties; and by such transfer arose a practical division of the medical ranks into those in civil employ, and those holding regimental appointments; yet the lending theory has always been maintained, and the two classes of duties have continued in practice interchangeable, the civil being regarded as a military "reserve" in emergency. This arrangement was originally based on sound military considerations, which, however, have now lost much of their early force.

It has usually happened in the past that lucrative civil employment once obtained was retained. This was natural, but the result was that many medical officers ultimately lost military connection, and continued practically civilians until the end of their service.

[1] *Medical and Sanitary Reform in India: An Appeal to all whom it may Concern.* Calcutta: Thacker, Spink, and Co. 1896.

From this lending system has arisen a certain amount of antagonism in interests between men in civil and in military employment—although all on the same army seniority list. A striking and unfortunate illustration of this was lately afforded in the reception accorded to the new simple military titles; while most of those in military employ, feeling the want of intelligible army status, welcomed them, some in civil employ, thinking the titles ill-assorted with their civil status, rather derided them. Such regrettable diversity in aims and interests must weaken homogeneity in a service which should be *inter se* absolutely united.

The reasons which originally gave the Indian Medical Service a purely military constitution as a body of European officers became much modified when natives were admitted to its commissioned ranks. This was a step the wide effects of which were apparently not foreseen when taken, but which is now regarded by many as having been a political error. To have conferred military commissions on natives on the same footing as Europeans, whether such natives were Indian graduates or held British diplomas, was, it is urged, not only needlessly expensive but impolitic from several points of view. Of the arguments used in support of this, only two need be mentioned: (1) The great majority of medically educated natives are very unwarlike, while many are without doubt morally and physically unfitted to hold military commissions; (2) Imperial policy demands, in the interests of discipline and efficiency in the native army, that medical officers of corps should be Europeans just as commanding officers must be.

This racial intermixture in the medical service has rendered the complete interchange between military and civil employment difficult if not impossible; has altered the original military constitution of the service, and now affords, it is maintained, a very strong argument for the separation and division of duties into civil and military.

In a purely civil branch, the politic and profitable employment of medical natives would be well and appropriately secured to the State; and a suitable and congenial field opened for their talents, without placing them in the false and needlessly expensive position of commissioned military officers.

The author of the pamphlet, in view of such arguments, proposes a complete separation of the civil from the military medical duties. He would create:

1. A Military Medical Service, to be called the Indian Medical Staff, or Corps, whose officers would be wholly military, and, we infer, entirely European.

2. A Civil Medical Service, to be designated the Indian Civil Medical Service, and completely disassociated from military work. It would consist of two divisions:

(*a*) *Covenanted:* recruiting by competitive examination in London, and therefore presumably European; from it would be obtained district surgeons, central gaol superintendents, and generally the occupants of the higher and more responsible sanitary and educational appointments.

(*b*) *Uncovenanted:* recruited by simultaneous competition in Bombay, Madras, Calcutta, and Allahabad, and of course natives or Eurasians. From this body he would fill civil surgeoncies, health officerships, and appointments generally of the second rank.

The pay and pension of the covenanted European servants would, of course, be necessarily higher than that of the native uncovenanted, while it is believed the great opportunities of clinical work and of professional distinction, together with liberal pay, would attract able Europeans for a purely civil service. But we would add that pay and pension for medical officers in purely military employ would also have to be made sufficiently attractive, or we fear that there would be difficulty in recruiting such a body at home. It is needless to add that any such rearrangement of the service would not touch the existing very valuable subordinate medical department.

The scheme sketched at all events deserves attention, but in view of the very sharp divergence of views, not merely in details but in fundamental principles which constantly reach us, we are constrained to admit that fuller information is desirable before any satisfactory scheme can be evolved.

The second proposition we laid down does not hinge upon the first, and should therefore at once receive consideration. A complete overhaul of the sanitary authority is needed; the existing Presidency Sanitary Commissions require remodelling. All that is included under the terms hygiene and demography demands immediate Government attention. The establishment of several bacteriological laboratories should be at once completed, and placed under competent superintendence whether procurable in or out of India.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

		From	To
Lieut.-Colonel	A. T. Sloggett	—	Egypt.
,,	J. T. Carey, M.D.	Egypt	Bengal.
,,	R. D. Hodson	Sheerness	Chatham.
Major	T. Dorman, M.D.	Queenstown	Punjab.
,,	A. E. J. Croly	—	Madras.
,,	G. F. A. Smythe	—	Egypt.
,,	T. F. MacNeece	Egypt	Madras.
,,	P. M. Carleton	Limerick	Kinsale.
,,	H. J. Barnes	Golden Hill Frt	Colchester
,,	W. J. Baker	Bermuda	Chatham.
,,	G. H. Younge	Chatham	Sheerness.
,,	C. E. Nichol, M.B.	Bengal	Dover.
,,	R. Kirkpatrick, M.A.	—	Fort George.
,,	T. B. Winter	—	Portland.
,,	G. F. Gubbin	Chatham	Bengal.
,,	H. P. Birch	Devonport	Horfield
,,	G. D. Hunter, D.S.O.	Egypt	Bengal.
,,	G. E. Anderson	—	Cork.
,,	M. W. Russell	—	Dover.
,,	A. Stables, M.B.	Aldershot	Bombay.
,,	J. D. Moir, M.B.	Nova Scotia	Woking.
,,	H. D. James	—	Shoeburyness.
,,	W. E. Berryman	Portsmouth	Bengal.
,,	S. E. Duncan	Crete	Belfast.
,,	H. G. Hathaway	—	Woolwich.
,,	H. M. Adamson, M.B.	Egypt	Cork.
,,	J. J. Gerrard, M.B.	—	Ballincollig.
,,	E. S. Marder	Portsmouth	Madras.
Captain	W. C. Poole, M.B.	—	Dublin.
,,	J. Thomson, M.B.	Egypt	Madras.
,,	G. T. Rawnsley	Adj. Vol. Med. Staff Corps	Punjab.
,,	L. Way	London	Adj. Vol. Med. Staff Corps.
,,	H. J. M. Buist, M.B.	—	Woolwich.
,,	F. J. Wade-Brown	Bombay	Portsmouth.
,,	G. S. Crawford	Madras	Dublin.
,,	J. D. Alexander, M.B.	—	Curragh.
,,	H. A. Bray	Bombay	Egypt. Army
,,	J. H. Rivers	,,	,, ,,
Lieutenant	S. L. Cummins, M.B.	Punjab	,, ,,
,,	J. M'Ardle, M.B.	Crete	,, ,,
,,	H. G. F. Stallard	Punjab	,, ,,
,,	H. G. Martin	Aldershot	Bombay.
,,	F. F. Carroll, M.B.	,,	,,
,,	J. D. G. Macpherson, M.B.	Portland	Bengal.
,,	W. P. Gwynn	Chester	Madras.
,,	A. C. Lupton, M.B.	Aldershot	Colds. Guards.
,,	G. B. Carter, M.B.	Curragh	Punjab.
,,	N. H. Ross, M.B.	Portsmouth	Bombay.
,,	J. S. Gallie	Fort George	Edinburgh.

ROYAL NAVY MEDICAL SERVICE.

Fleet-Surgeon Alfred H. Miller has been placed on the retired list at his own request, February 3rd. He was appointed Surgeon, June 4th, 1878; Staff-Surgeon, June 4th, 1890; and Fleet-Surgeon, November 3rd, 1898. He was Surgeon of the *Dee* during the Egyptian war in 1882, and has received the medal and Khedive's bronze star.

The following appointments have been made at the Admiralty: Thomas Austen, Surgeon, to the *Wildfire*, for Sheerness yard, February 23rd; John D. Hughes, Surgeon, to the *Tartar*, February 28th; Richard Miller, M.B., Surgeon, to the *Mildura*, February 28th; John E. Coad, Surgeon, to the *Barracouta*, February 28th.

The Naval Medical Department is to be largely increased in consequence of the additional requirements of an increased fleet. Fifty officers are to be added progressively to the list, including nine of the senior grades.

ROYAL ARMY MEDICAL CORPS.

Captain William J. Trotter, whose first commission dates from July 28th, 1886, is promoted to be Major, February 5th. He was with the Isazai expedition in 1892.

The undermentioned Captains, having completed twelve years' full-pay service, are also promoted to be Majors, dated February 5th:—Frederick J. Morgan, William H. Horrocks, M.B., Charles H. Hale, D.S.O., Hugh C. Thurston, Bertal H. Scott, M.D., Walter C. Poole, M.B., Oliver R. A. Julian, George Raymond, M.B., Eustace A. Burnside, Thomas M'Culloch, M.B., Alfred B. Hinde, Alexander Y. Reily, M.B., John W. Cockerill, John Ritchie, M.B., F.R.C.S.Edin., Harry St.G. S. Hore, Stuart Macdonald, M.B., Alexander O. C. Watson, M.B., F.R.C.S.Edin., Edward W. Gray, M.B., F.R.C.S.I., David Stiell, M.B., Lawrence E. A. Salmon, George A. Wade, M.B., F.R.C.S.I., James Minniece, M.D., Maurice P. C. Holt, William L. Gray, M.B., Edward G. Browne, James C. Morgan, Herbert I. Pocock, George Hilliard, C.M.G., M.B., Charles R. Elliott, M.D., Charles A. Young, John W. Bullen, M.D., James C. Weir, M.B., Benjamin J. Inniss, Robert C. Thacker, Stephen F. Clark, M.B., Edward M. Hassard. The war services of these officers are as follow: Major Hale:—Operations

in South Africa, 1896 (mentioned in despatches, D.S.O. and medal). Major Thurston: Burma, 1891, with Wuntho Field Force (medal with clasp). Major Scott: Chitral Relief Force, 1895 (medal with clasp). Major Reily: Dongola Expedition, 1896 (medal); Nile Expedition, 1898 (mentioned in despatches). Major Cockerill: Burmese Campaign, 1891 (medal with clasp); he has also the bronze medal of the Royal Humane Society for assisting to save three ladies from drowning at Pentire, near Newquay, Cornwall, in August, 1878. Majors Gray and Browne: Chitral Relief Force, 1895 (medal with clasp). Major Morgan: Zhob Valley Expedition, 1890; N.W. Frontier of India, 1897-8, with Tirah Expeditionary Force as Staff-Surgeon at Headquarters (mentioned in despatches, medal with two clasps). Major Hillard: Ashanti Expedition, 1895-6 (star). Major Young: Burma, 1892, with Irrawaddy Column (medal with clasp). Major Inniss: Burma, 1891, with Wuntho Field Force (medal with clasp); N.W. Frontier of India, 1897-8, with Tirah Expeditionary Force (medal with two clasps). Major Hassard: Isazai Expedition, 1892.

Lieutenant-Colonel M. R. RYAN, M.D., has been granted increased pay under Article 362 of the Royal Warrant.

Major WILLIAM KELLY, M.D., died at Leeds on December 29th, 1898. His commissions were dated: Surgeon, February 2nd, 1884; Surgeon-Major, February 2nd, 1896. He had no war record in the Army Lists.

The following is a list of successful candidates for commissions in the Royal Army Medical Corps at the recent examination in London:

	Marks.		Marks.
Delap, G. G.	2,393	Murison, C. C.	2,052
Warren, F.	2,388	Onraet, H. B.	2,047
Cunningham, R. A.	2,385	Falkner, P. H.	2,043
Crawford, V. J.	2,384	Hart, H. F.	2,025
Palmer, F. J.	2,275	Winslow, L. F. F.	2,016
Challis, O.	2,360	Norman, H. H.	1,971
Simson, H.	2,316	Chopping, A.	1,935
Stokes, T. G. N.	2,282	Prescott, J. J. W.	1,930
Butler, S. G.	2,151	Elsner, C. W. A.	1,925
Irvine, G. H.	2,140	Webb, A. L. A.	1,914
Woodside, W. A.	2,133	Ellery, E. E.	1,899
Blackwell, W. R.	2,109	Nicholls, H. M.	1,846

INDIAN MEDICAL SERVICE.

DEPUTY-SURGEON-GENERAL HENRY R. L. MACDOUGALL, M.D., late of the Bombay Establishment, died at Oban on February 9th in his 64th year. He was a son of the late Vice-Admiral Sir John MacDougall, K.C.B., and entered the service as Assistant Surgeon, May 28th, 1858: he became Brigade-Surgeon, May 1st, 1883, and retired with the honorary rank of Deputy-Surgeon-General, May 20th, 1886. He was engaged in the China war of 1860, and was present at the capture of the Taku Forts (medal with clasp).

The following candidates for Her Majesty's Indian Medical Service were successful at the Competitive Examination held in London on February 3rd and following days:

	Marks.		Marks.
C. Dykes	3,457	A. B. Fry	2,708
W. E. McKechnie	3,276	E. C. G. Maddock	2,685
E. D. W. Greig	3,275	A. W. Tuke	2,682
D. McCay	3,119	F. C. Lewis	2,574
J. J. Urwin	3,069	M. W. Manuk	2,552
W. F. Harvey	3,037	W. H. Tucker	2,432
H. D. Peile	2,990	C. S. Lowson	2,390
W. C. H. Forster	2,949	J. H. S. Beaman	2,369
D. H. F. Cowin	2,927	W. H. Dickinson	2,295

THE VOLUNTEERS.

THE undermentioned gentlemen have been appointed Surgeon-Lieutenants in the respective corps cited, dated February 4th: ROBERT HANTON, M.B., 4th Durham Artillery (Western Division Royal Artillery); WILLIAM M. TAYLOR, M.B., 1st Midlothian Artillery; JOHN E. B. WELLS, 1st (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment; WILLIAM N. EVANS, 1st Volunteer Battalion the Duke of Cambridge's Own Middlesex Regiment; CHARLES A. MORRIS, M.B., 13th Middlesex Queen's Westminster) Rifles; ARCHIBALD N. MCLELLAN, M.B., 2nd Volunteer Battalion the Highland Light Infantry; JAMES C. TAYLOR, M.B., 9th Lanarkshire Rifles.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains: A. D. DUCAT, 1st London Rifles, February 4th; A. R. STODDART, M.B., 1st Volunteer Battalion the Prince of Wales's Own West Yorkshire Regiment, February 8th; A. P. NUTTALL, M.B., 1st Volunteer Battalion the Lancashire Fusiliers, February 8th; Surgeon-Lieutenant C. R. HANDFIELD-JONES, 24th Middlesex Rifles, February 8th.

The Volunteer Officers' Decoration has been conferred upon the following: Surgeon-Captain J. P. ELLIOT, 1st Volunteer Battalion the Northumberland Fusiliers; Surgeon-Lieutenant-Colonel H. F. HURST, retired, 2nd Volunteer Battalion the Northumberland Fusiliers; Surgeon-Lieutenant-Colonel J. S. MUIR, M.B., 1st Roxburgh and Selkirk (the Border) Volunteer Rifle Corps; Surgeon-Major CHARLES KNOTT, 3rd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment; Surgeon-Lieutenant-Colonel EVAN JONES, 3rd Volunteer Battalion the Welsh Regiment.

A SPECIAL AMBULANCE FOR CAVALRY.

IN the remarks by the Commander-in-Chief on the medical arrangements during the recent autumn manœuvres, it is stated that "a special pattern of light ambulance is desirable to accompany mounted troops." This, of course, may be made to apply to cavalry, horse artillery, or mounted infantry. Early in 1892, Brigade-Surgeon Williams, the Principal Medical Officer of the New South Wales Military Forces, went fully into the details of a "mounted ambulance service" to meet the rapid movements of troops in the field, especially cavalry, and suggested the organisation of a certain number of "mounted bearer companies." Brigade-Surgeon Williams's suggestion was that each company should consist of five medical officers, eight non-commissioned officers, and twenty-eight rank and file; further, ten "specially-constructed" light ambulance waggons horsed with twenty horses, four light ambulance store waggons horsed with eight horses, two water carts (80 gallons each) with four horses, and twelve cacolets on six horses. He also proposed that the medical and surgical equipment should be of a special pattern and suitability. It is almost incredible that some such cavalry ambulance has never been organised for the British army, where the requirements must be infinitely greater than in a military force such as New South Wales is possessed of, which, according to the latest data attainable, consisted in 1897 of 1,065 artillerymen, 118 engineers, 4,239 infantry, 876 mounted rifles, 380 lancers, 68 army service corps, with a medical staff corps of 123. It will be remembered that New South Wales contributed a "Soudan contingent" some years ago, selected chiefly from its forces.

MEDICAL OFFICERS OF THE HOUSEHOLD TROOPS.

THE Army Order respecting the medical officers of the Household Troops has been issued. It recites that it is deemed expedient that, notwithstanding the change in the ranks of the officers of the late medical staff consequent on the formation of the Royal Army Medical Corps, the ranks and terms of appointment of the medical officers on the establishment of the Household Troops should remain as they were before such formation. And it is decreed that medical officers appointed to the regimental establishment of the Household Troops shall be transferred from the Royal Army Medical Corps to such regimental establishment; and that the rules for their ranks, pay, and retired pay shall continue the same as are laid down in the Warrant of April 26th, 1897.

MEDICO-LEGAL.

CONSTRUCTIVE MURDER.

CONVICTION OF A NURSE: REPRIEVE.

JANE WHITE, aged 67, a "nurse," was on February 9th, at the Central Criminal Court, found guilty of the murder of a woman by having performed on her an illegal operation, in consequence of which death resulted.

On December 3rd, 1898, information was given to Scotland Yard, in consequence of which the coroner was communicated with, the body (which had been buried on December 1st) was exhumed by his order, and a *post-mortem* examination made by Mr. Jackson Clarke, in the presence of Dr. Luff. A lacerated wound was found (the report before us does not say where), caused, in the opinion of both the medical men, by some hard or blunt instrument, probably a catheter, used for the purpose of procuring abortion. They are reported to have said that the wound would not have caused miscarriage had it been made with a clean instrument, but septic inflammation occurred, followed by suppurative peritonitis, causing death.

The evidence proved that on November 1st the deceased went with a friend to see the prisoner, with whom she had had previous transactions of a similar character. The alleged operation was performed then and there by the prisoner in the presence of the friend, who swore she saw an instrument in the hand of the nurse, but did not see her use it, and did not know anything wrong had been done. For the next twelve days deceased was apparently quite well, but on November 4th she felt ill and kept to her bed. Dr. Norton, of Upper Gloucester Place, was called in, but, judging from the patient's statements, accepted the view that it was a natural abortion, and ordered some medicine to stop the hæmorrhage. He was not called to the patient again.

On November 21st, the deceased having got much worse, Dr. Jones, of Church Street, Edgware Road, was called in. He found the patient very ill, suffering from peritonitis. He visited her several times during the next twenty-four hours, and on the evening of November 22nd death took place. Dr. Jones, having no suspicion that there had been anything but a natural miscarriage, gave a certificate of death from pelvic peritonitis and other complications, on which the body was buried.

At the trial, evidence was called to prove that the prisoner had made "examinations" of other women which were followed by miscarriages. Two women gave details of what passed between them and the prisoner on the occasions of their visits. There was abundance of evidence to prove the character of the business which the prisoner carried on systematically, and with so much profit that she offered another nurse £3 a week to help her.

Mr. Justice Bruce told the jury the crime imputed to her was of the gravest character. As the law stood, if a person in the commission of a felonious act dangerous to life caused the death of another, it was murder.

Prisoner was found guilty, with a very strong recommendation to mercy, and sentence of death was pronounced.

The prisoner was reprieved on February 13th.

A VACCINATION CASE.

THE QUEEN v. WEBB AND ANOTHER.

MR. H. S. SCHULTESS YOUNG writes: Your comments on this case are founded on so palpable a mistake that I am sure with your usual fairness you will be the first to repudiate them. The rule *nisi* was obtained on an affidavit sworn by the appellant, and only received in London on the last day on which the application could be heard. It was read by the Court, and I informed the Court I could not add to it, having no further knowledge. I certainly expected to find that it was because the Rev. Mr. Graham was not a solicitor that he was refused a hearing, but I did not express this surmise. Mr. Justice Channell expressly excepted Hawker's London advisers from his remarks which were directed to Mr. Graham who represented Hawker, and was pardonably ignorant of the requirements of the High Court. It was quite open to Mr. Justice Day, who granted the rule, to have refused it, the affidavit not being sufficient. If any proof were needed of the *bona fides* of counsel and solicitors, it would be the fact that we did not rest content with the rule *nisi*, but set the case down and took it before the Court, which we were not compelled to do, and having learnt the full facts had little chance of succeeding.

Mr. B. Alabone Cheverton, solicitor (Essex Street, Strand, W.C.) writes: By your comments in the British Medical Journal of February 4th, you imply that the High Court censured Mr. Schultess Young, counsel for the applicant, for not disclosing material facts on the application for the rule *nisi*. Nothing of the sort took place. The advisers referred to by the Court were not professional persons, and it is neither the duty of counsel nor solicitors to inquire into the accuracy of statements sent up to them on oath. As a matter of fact, the affidavits in support of the rule only reached us on the very last day when the rule could have been applied for, and consequently there was neither time nor opportunity to inquire further into them, even had it been one's duty to do so.

*** Both these letters purport to refer to "comments" upon the case, which we may observe was reported in the British Medical Journal of February 4th, 1899, pp. 320, 321. In reality, however, they apply not to our comments but to remarks attributed to Mr. Justice Channell. We regret that the report should have been in any respect incorrect, and willingly give publicity to our correspondents' explanation.

DEATH CERTIFICATES.

Country Practitioner writes: On two occasions recently I was sent for to see persons who had just died, and who had not been under medical treatment. One was the case of an infant a few hours old; the other an aged woman receiving outdoor relief. Before giving a certificate I informed the coroner of the occurrence, and in each case received a reply that no inquest or certificate was necessary. Is it a medical man's duty in such cases to inform the coroner or registrar of deaths, and is he entitled to any fee for doing so?

*** There is no legal obligation on the part of the medical practitioner to give notice either to the coroner or the registrar in such cases, and for doing so there is no fee. In deaths that have not arisen from natural causes, or when crime is suspected, it is the usual practice for the medical man in attendance or called in at the death to withhold the certificate of the cause of death until the matter has been further investigated by the coroner or the police. We would refer our correspondent to the British Medical Journal of January 28th last, where under the heading "Coroners and Medical Witnesses," pages 229 and 251, he will find the subject further discussed.

INSURANCE REPORTS.

A correspondent inquires: (1) Whether medical men are justified in furnishing an insurance company with particulars regarding a proposer's previous state of health without consulting the proposer? (2) Would a proposer have any legal right to complain or could he claim any compensation?

*** We believe that it is the ordinary practice for proposers to give the insurance company the name of their usual medical attendant, and a question asking the name of the medical attendant is frequently found on forms of proposals for life assurance. Where the proposer complies with this request he has impliedly authorised his medical man to give the particulars asked for. We are advised further that a *bond-fide* report is privileged.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Electoral Boards.—The following appointments of Electors to Professional Chairs are announced: *Chemistry*, Mr. P. T. Main, St. John's; *Physics*, Professor Liveing; *Botany*, Dr. S. H. Vines; *Downing of Medicine*, Dr. Allbutt; *Anatomy*, Professor Liveing; *Physiology and Zoology*, Dr. A. MacAlister; *Surgery*, Dr. L. Humphry; *Pathology*, Dr. Bradbury; *Mental Philosophy*, Professor Foster.

Balfour Studentship.—Mr. J. S. Gardiner, of Caius College, has been elected Balfour Student in Animal Morphology.

UNIVERSITY OF DUBLIN.

At the Spring Commencements, Hilary Term, held on Shrove Tuesday, February 14th, in the Theatre of Trinity College, the following degrees were conferred by the University Caput in the presence of the Senate:

Doctor in Medicinâ (*Honoris Causâ*).—T. C. Allbutt.
Doctor in Litteris (*Honoris Causâ*).—T. W. Moffett.
Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetriciâ.—J. A. Kennedy, R. C. H. Kennedy, D. Ogilvy, G. C. C. Ross, A. H. Shepard, R. J. Wilkinson, J. H. R. R. Winder, S. H. Woods (B.Ch. *stip. cond.*).
Doctor in Scientiis.—A. F. Dixon (*stip. cond.*).
Doctores in Medicinâ.—G. Glynn, K. E. L. G. Gunn, D. Ogilvy, R. J. Wilkinson, J. H. R. Winder.

In presenting Dr. T. Clifford Allbutt, F.R.S., for the Honorary Degree of Doctor of Medicine at the Shrove Tuesday Commencements, Dr. R. Yelverton Tyrrell, the Public Orator of the University, said: Duco ad vos virum in arte medica et exercenda et illustranda plane principem, Thomam Clifford Allbutt. Hic summis disciplinæ suæ muneribus atque honoribus perfunctus, nunc cathedram inter *Sellas Potentum* primariam implet, Cantabrigiae Professor Regius Medicinae. Vixdum e pueris egressus, in Collegio Cantabrigiensi, quod medico illustri Caio illi originem debet, litteris humanioribus feliciter excultis se insignivit. Postea dedit se studiis ad artificium proprium magis pertinentibus, et in Scientia Naturali primum honorum gradum consecutus est. Sed cui amori adulescens operam dedit, eidem adultus constanter servit. Unde fit ut tam perpetua scribendi elegantia res medicas tangat ut auditores sive lectores semper secum jucundo studio rapiat. Dissertationes et conciones quarum ipsa nomina longum est perscribere tanta concinnitate perpolivit ut diceres Musarum sacra ferre ingenti percussum amore. Sive enim de hydrophobia disserit, sive de diphtheria, sive de bacillis illis letalibus, de denique aliis

quae plurima terrae
monstra ferunt,

omnibus adfert non solum ingeni lumen sed orationis ipsos nervos atque interdum etiam aculeos. Talem virum lubenter vobis commendo ut plane dignum qui purpura nostra decoretur, ut purpurae nostrae decus insigne adlaturum.

The following is a translation of the Public Orator's address:—I introduce to you Dr. Thomas Clifford Allbutt, a man pre-eminent both in the practice and illustration of the healing art, who has earned the highest awards and honours of his profession, and now occupies that primal Chair among the "Seats of the Mighty"—the Regius Professorship of Physic at Cambridge University. When little more than a boy he distinguished himself by the prosperous pursuit of polite letters in that College, which owes its origin to the renowned Dr. Caius. Subsequently he devoted himself to the study of these arts which pertain more closely to his proper calling, and secured a first class in the Natural Science Tripos. In manhood he consistently applied himself to the passionate predilection of his youth, and hence it is that he treats medicine with such unfailing literary art that he inspires both hearers and readers with his own enthusiasm. With such eloquence has he polished that series of treatises and lectures, whose very names were long to mention, that you might fancy him "smitten with passionate love, the Muses' relics bearing." Whether he writes of hydrophobia, of diphtheria, or of the deadly bacillus, or those other "countless monsters born of earth," he brings to every subject not only the clear light of intellect, but the very nerves, and sometimes the stings of style. This is the man whom I gladly recommend to you as fully worthy to be adorned with our purple, and to adorn it.

THE ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

At a special meeting of the Royal College of Physicians of Ireland, held on Tuesday, February 14th, the Honorary Fellowship of the College was conferred on Dr. T. Clifford Allbutt, the Regius Professor of Physic in the University of Cambridge. In admitting the new Honorary Fellow, the President said that, in conferring upon Dr. Clifford Allbutt the highest dignity which it was in their power to bestow, the Fellows felt that they were doing honour to themselves, but above all to that ancient College of which they were so proud, and the prestige and good name of which they so jealously guarded. A distinguished student of Caius College, Cambridge, Clifford Allbutt graduated in Arts and Medicine in that famous University. As a physician he won his spurs in Leeds, and the esteem in which he was held by the inhabitants of the great Yorkshire town was evidenced by the fact that he was consulting physician to the Leeds General Infirmary, the Leeds Hospital for Women and Children, and the Leeds Fever Hospital. The fruits of his work were to be seen in his published writings on fever, heart diseases, and kindred topics. After leaving Yorkshire, Dr. Allbutt served Her Majesty faithfully and well as a Commissioner in Lunacy, from which important post he passed to the Regius Professorship of Physic in the University of Cambridge. It was hardly necessary to enumerate the many honours which had fallen to his lot. He was Doctor of Laws *honoris causâ*, of the University of Glasgow, and that very day he had been made an honorary Doctor of Medicine of the University of Dublin. He was a Fellow of the Royal College of Physicians of London, of the Royal Society, of the Society of Antiquaries, of the Linnean Society, and of Caius College, Cambridge. Nor had he failed to leave his mark in public life, for he held the Commission of the Peace for the West Riding of Yorkshire and for Cambridge, being also a Deputy-Lieutenant for the West Riding of Yorkshire. Of his literary and oratorical powers there was no need to speak. The Fellows gladly welcomed Clifford Allbutt into their ranks.

CONJOINT BOARD IN IRELAND.

Final Examination.—Candidates have passed this examination as undernoted:

In all Subjects.—J. McDonald and Bernard Scribner.
Completed the Examination.—W. Bennett, D. B. Bradlaw, J. Conway, Miss A. Cooper, B. A. Craig, R. M. Fisher, H. E. Howley, M. J. Hynes, A. W. A. Irwin, W. F. Kennedy, M. M. Maughan, E. M. J. O'Farrell, C. N. O'Sullivan, V. P. Tighe, C. J. Vahey, R. J. White, and A. A. Woods.
In Medicine.—G. Carroll and T. F. O'Connor.
In Surgery.—E. S. Barnard, E. E. Roberts, J. Sinclair, A. F. Studdert, and F. W. Woods.
In Midwifery.—E. S. Barnard, G. Carroll, H. H. A. Carter, G. W. T. Clarke, J. A. Martin, R. A. O'Donovan, and A. J. T. Young.
In Ophthalmology.—E. S. Barnard, H. H. A. Carter, and J. Sinclair.
In Mental Disease.—G. Carroll and R. H. Moffit.
In Forensic Medicine and Hygiene.—E. S. Barnard, J. J. Cormack, and J. F. Smyth.

Diploma in State Medicine and Public Health.—The following gentlemen have passed this examination:

Honours Division (in order of merit).—W. P. Carson, Lieutenant-Colonel I.M.S.; J. O. Littlewood, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.
Pass Division.—E. G. Fenton, F.R.C.S.I., L.R.C.P.I.

University of Jurjew.—According to the official report recently published, the number of students in the University of Jurjew (perhaps better known by its old name of Dorpat) for the current year is 1,248, of whom 644 belong to the medical faculty. The teaching staff consists of 59 professors (37 ordinary and 22 extraordinary). During the last year academical degrees were conferred upon 450 candidates, 306 of whom were members of the medical profession.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

VITAL STATISTICS OF LONDON SANITARY DISTRICTS DURING THE FOURTH QUARTER OF 1898.

[SPECIALLY REPORTED TO THE BRITISH MEDICAL JOURNAL.]

In the accompanying table will be found summarised the vital statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the fourth or autumn quarter of last year. The mortality figures in the table relate to the deaths of persons actually belonging to the various sanitary areas, and are the result of a complete system of distribution of deaths occurring in the public institutions of London among the various sanitary areas in which the patients had previously resided.

The 32,402 births registered in London during the three months ending December, 1898, were equal to an annual rate of 28.9 per 1,000 of the population, estimated at 4,504,766 persons in the middle of last year; this rate was, with one exception, lower than in the corresponding period of any of the ten preceding years, during which the birth-rate averaged 30.1 per 1,000. The birth-rate during the period under notice in the various sanitary areas showed, as usual, wide variations, owing principally to the differences in the sex and age distribution of the population. In Kensington, St. George Hanover Square, Westminster, St. James Westminster, Hampstead, St. Martin-in-the-Fields, and London City the birth-rates were considerably below the average; while they showed the largest excess in St. Luke, Shoreditch, Bethnal Green, St. George-in-the-East, Mile End Old Town, and Bermondsey.

The 18,804 deaths of persons belonging to London registered during the three months ending December, 1898, were equal to an annual rate of 16.7 per 1,000, against 17.7 and 19.0 in the corresponding periods of the two preceding years; with the exception of the fourth quarter of 1894, when the rate was only 16.2 per 1,000, the rate last quarter was lower than in the corresponding period of any year on record. During the ten preceding years the death-rate in London in the fourth quarter averaged 19.3 per 1,000. The lowest death-rates last quarter in the various sanitary areas were 11.2 in Hampstead, 11.9 in Stoke Newington, 12.0 in St. George Hanover Square, 13.2 in Wandsworth, 13.3 in Lewisham, and 13.6 in Kensington; the highest rates were 21.6 in Newington, 21.7 in St. Saviour Southwark, 21.8 in Bermondsey, 22.6 in Holborn, 24.5 in St. George Southwark, and 25.9 in St. Luke. During the quarter under notice 1,894 deaths resulted from the principal zymotic diseases in London; of these, 506 resulted from diphtheria, 470 from diarrhœa, 271 from enteric fever, 264 from measles, 240 from whooping-cough, 138 from scarlet fever, 3 from ill-defined forms of continued fever, 1 from typhus, and 1 from small-pox. These 1,894 deaths were equal to an annual rate of 1.68 per 1,000, against an average rate of 2.36 in the corresponding quarters of the ten preceding years, 1888-97. In the fourth quarter of the three preceding years the zymotic death-rate was 2.83, 1.59, and 2.70 per 1,000 respectively. In the various sanitary areas the lowest zymotic death-rates last quarter were 0.32 in St. Martin-in-the-Fields, 0.36 in Stoke Newington, 0.65 in St. George Hanover Square, 0.66 in Hampstead, 0.75 in St. Giles, and 0.76 in Plumstead; the highest rates were 2.76 in Bethnal Green, 2.81 in Newington, 2.85 in St. George Southwark, 3.22 in Limehouse, 3.51 in St. Luke, and 3.75 in St. Saviour Southwark.

One fatal case of small-pox was registered in London during the three months ending December last, being the first death referred to this disease in the metropolis since August, 1897; this fatal case belonged to St. George Hanover Square sanitary area. Measles showed the highest proportional fatality in Clerkenwell, St. Luke, Shoreditch, Bethnal Green, Whitechapel, Limehouse, Mile End Old Town, and St. Saviour Southwark; scarlet fever in Hammersmith, Fulham, Chelsea, St. Pancras, Clerkenwell, and St. Luke; diphtheria in City of London, Lime-

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1898.

Sanitary Areas	Estimated Population middle of 1898	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
LONDON	4,504,766	32,402	18,804	28.9	16.7	1.63	1,894	1	264	138	506	240	1	271	—	470	1,973	137
West Districts.																		
Paddington	127,480	755	479	23.8	15.1	1.60	51	—	—	1	21	12	—	—	1	7	46	143
Kensington	172,174	851	584	19.8	13.6	0.80	34	—	—	3	3	5	—	—	—	12	47	133
Hammersmith	107,370	760	411	28.4	15.4	1.54	41	—	1	10	7	5	—	—	—	9	30	158
Fulham	125,275	1,006	464	32.2	14.9	1.78	56	—	4	11	14	—	—	11	—	11	44	134
Chelsea	96,713	520	369	21.6	15.3	1.20	29	—	3	7	4	—	—	—	—	6	37	104
St. George Hanover Sq.	80,608	347	242	17.3	12.0	0.65	13	1	—	—	4	1	—	—	—	4	29	75
Westminster	52,574	248	219	18.9	16.7	1.00	13	—	—	—	2	4	—	2	—	1	35	161
St. James Westminster	22,200	104	93	18.8	16.8	1.26	6	—	1	—	2	—	—	—	—	3	9	202
North Districts.																		
Marylebone	140,483	997	582	28.5	16.6	1.14	40	—	1	3	16	4	—	12	—	9	75	104
Hampstead	78,755	368	219	18.7	11.2	0.66	13	—	—	1	3	—	—	—	—	2	7	87
St. Pancras	243,416	1,670	1,112	27.5	18.3	2.36	143	—	17	35	43	12	—	21	—	32	126	138
Islington	344,616	2,272	1,274	26.4	14.8	1.20	103	—	12	5	12	27	1	17	—	17	151	132
Stoke Newington	34,660	198	103	22.9	11.9	0.36	3	—	—	—	1	—	—	1	—	1	10	70
Hackney	219,630	1,654	799	30.2	14.6	1.50	82	—	13	—	21	7	—	7	—	14	77	123
Central Districts.																		
St. Giles	37,519	249	164	26.6	17.5	0.75	7	—	—	1	2	1	—	—	—	1	31	88
St. Martin-in-the-Fields	12,424	47	51	15.2	16.5	0.32	1	—	—	—	—	—	—	—	—	1	8	170
Strand	23,284	125	118	21.5	20.3	1.21	7	—	—	—	—	—	—	3	—	4	19	152
Holborn	30,056	186	169	24.8	22.6	1.86	14	—	1	—	3	3	—	1	—	6	26	210
Clerkenwell	66,120	503	344	30.5	20.9	2.72	45	—	15	4	5	11	—	5	—	17	48	183
St. Luke	41,076	468	265	45.7	25.9	3.51	36	—	12	9	7	—	—	1	—	7	25	115
London City	29,088	122	133	16.8	18.3	1.38	10	—	—	—	9	—	—	—	1	—	9	139
East Districts.																		
Shoreditch	121,485	1,074	591	35.5	19.5	2.24	68	—	26	5	11	2	—	5	—	14	70	155
Bethnal Green	129,027	1,202	688	37.4	21.4	2.76	89	—	37	4	21	1	—	9	—	17	102	159
Whitechapel	80,559	688	400	34.3	19.9	1.99	40	—	17	1	4	4	—	2	—	12	57	140
St. George-in-the-East	48,241	496	239	41.2	19.9	2.09	25	—	3	—	5	9	—	2	—	8	24	159
Limehouse	58,661	480	300	32.8	20.5	3.22	47	—	13	2	12	6	—	5	1	8	37	123
Mile End Old Town	112,528	1,087	568	38.7	20.2	2.75	77	—	26	2	28	1	—	7	—	10	49	132
Poplar	170,220	1,495	799	35.2	18.8	1.70	72	—	19	3	14	5	—	15	—	27	73	159
South Districts.																		
St. Saviour Southwark	24,562	182	133	29.7	21.7	3.75	23	—	13	—	3	4	—	3	—	1	13	143
St. George Southwark	60,461	529	370	35.1	24.5	2.85	43	—	6	2	11	7	—	5	—	12	54	174
Newington	123,163	1,009	663	32.9	21.6	2.81	86	—	11	3	23	21	—	2	—	23	77	171
St. Olave Southwark	11,288	92	49	32.7	17.4	1.07	3	—	—	—	—	2	—	1	—	—	5	109
Bermondsey	85,738	756	466	35.4	21.8	2.47	53	—	4	2	25	8	—	2	—	12	47	179
Rotherhithe	40,849	307	178	30.1	17.5	0.99	10	—	—	1	2	4	—	1	—	2	19	137
Lambeth	304,073	2,223	1,200	29.3	15.8	1.64	124	—	2	11	45	19	—	15	—	32	112	122
Battersea	171,921	1,240	662	28.9	15.4	1.94	83	—	1	5	47	9	—	9	—	12	74	127
Wandsworth	202,526	1,274	664	25.2	13.2	1.40	70	—	3	3	20	18	—	8	—	18	68	115
Camberwell	261,189	1,830	994	28.1	15.3	1.33	86	—	4	5	20	15	—	10	—	28	95	143
Greenwich	130,441	1,419	795	31.6	17.7	1.40	60	—	1	0	14	9	—	15	—	21	80	138
Lee	39,717	234	141	23.6	14.2	1.21	12	—	—	1	6	2	—	1	—	2	14	128
Lewisham	88,562	561	294	25.4	13.3	1.37	30	—	1	—	9	3	—	5	—	12	17	111
Woolwich	141,478	906	192	29.6	18.6	2.51	26	—	1	1	11	3	—	5	—	5	20	105
Plumstead	62,531	408	224	30.0	14.4	0.76	12	—	—	1	1	2	—	2	—	6	18	165

house, Mile End Old Town, St. Saviour Southwark, Newington, Bermondsey, Battersea, and Woolwich; whooping-cough in Holborn, St. George-in-the-East, Limehouse, St. Saviour Southwark, St. George Southwark, Newington, and St. Olave Southwark; enteric fever in Fulham, Hampstead, St. Pancras, Strand, City of London, St. Saviour Southwark, and Woolwich; and diarrhœa in Strand, Holborn, Clerkenwell, St. Luke, St. George Southwark, and Newington.

During the three months ending December last, 1,973 deaths from phthisis were registered in London, equal to an annual rate of 1.76 per 1,000, against 1.80 and 1.83 in the corresponding periods of the two preceding years. Among the various sanitary areas the lowest phthisis death-rates were recorded in Kensington, Hammersmith, Hampstead, Stoke Newington, Lewisham, and Plumstead; and the highest rates in St. Giles, Strand, Holborn, Clerkenwell, Whitechapel, and St. George Southwark.

Infant mortality, measured by the proportion of deaths under 1 year of age to registered births, was equal to 137 per 1,000 last quarter, against 150, 137, and 151 in the corresponding periods of the three preceding years. Among the various sanitary areas the rates of infant mortality were lowest in St. George Hanover Square, Marylebone, Hampstead, Stoke Newington, St. Giles, and Woolwich; while they showed the largest excess in St. James Westminster, Holborn, Clerkenwell, St. George Southwark, Newington, and Bermondsey.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,730 births and 4,797 deaths were registered during the week ending Saturday last, February 11th. The annual rate of mortality in these towns, which had been 17.0 and 19.5 per 1,000 in the two preceding weeks, further rose to 21.9 last week. The rates in the several towns ranged from 11.1 in Burnley, 14.0 in Brighton, 15.1 in Croydon, and 15.7 in Norwich, to 25.0 in Manchester, 25.2 in Oldham, 30.5 in Liverpool, and 32.4 in Preston. In the thirty-two provincial towns the mean death-rate was 21.3 per 1,000, and was 1.5 below the rate recorded in London, which was 22.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.1 per 1,000; in London the rate was equal to 1.8, while it averaged 1.9 per 1,000 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.4 in Cardiff, 3.5 in West Ham, 3.9 in Sunderland, and 4.4 in Preston. Measles caused a death-rate of 1.0 in West Ham, 1.6 in Manchester, and 2.9 in Bolton; scarlet fever of 1.1 in Sunderland; whooping-cough of 1.1 in Halifax, 1.3 in Preston, 1.5 in Bristol, 1.8 in Sunderland, and 2.5 in Cardiff; and "fever" of 2.7 in Preston. The 111 deaths from diphtheria in the thirty-three towns included 49 in London, 10 in Leeds, 8 in West Ham, 7 in Sheffield, 6 in Birmingham, 6 in Liverpool, and 4 in Leicester. No fatal case of small-pox was recorded last week either in London or in any of the thirty-two large provincial towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,665 at the end of the six preceding weeks, had further fallen to 2,642 on Saturday last, February 11th; 253 new cases were admitted during the week, against 249, 220, and 265 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 11th, 879 births and 951 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 21.3 to 28.4 per 1,000 in the three preceding weeks, further rose to 31.2 last week, and was as much as 9.3 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.6 in Perth and 24.2 in Leith to 35.0 in Glasgow and 39.9 in Paisley. The zymotic death-rate in these towns averaged 3.3 per 1,000, the highest rates being recorded in Leith and Aberdeen. The 494 deaths registered in Glasgow included 6 from measles, 3 from scarlet fever, 3 from diphtheria, 15 from whooping-cough, 4 from "fever," and 7 from diarrhœa. Four fatal cases of measles, 4 of diphtheria, and 7 of whooping-cough were recorded in Edinburgh; 8 deaths from measles and 4 from whooping-cough occurred in Aberdeen.

BACK-TO-BACK HOUSES AT LEEDS.

The Local Government Board have given their decision in the matter of the desire of the Leeds Town Council to erect houses on the back-to-back system on part of an "insanitary area" which has been cleared. The Board have decided against the proposed erection, the conclusion having been arrived at only after a deputation from the Council had visited London and fully discussed the questions involved in all their bearings with the authorities at Whitehall. The Board have had regard to several factors in the case, and would appear to have given due consideration to the strongly expressed wishes of the Town Council. The Board has not only maintained its own well-known aversion to such dwellings being newly built, but have taken note of the opinion of the Medical Officer of Health of Leeds—although the Council seem to think his opinion has been misconstrued—and the memorial against the class of house in question from the Leeds Trades and Labour Council. The Board has not seen in the evidence of the Leeds Improvement Bill Committee of 1893 on the subject any such approval of the principle of back-to-back houses as the Town Council would have it understood was given. Doubtless there are local considerations which seem to the Town Council to outweigh the general consensus of opinion against back-to-back dwellings; but, on the other hand, it seems a little difficult to get away from the idea that public health and finance are here, as in so many instances, at opposite ends of the argument. The problem of how to erect dwellings of a certain grade and standard at a certain remunerative rental, with due regard to health, comfort, and fresh air, has to be met. But it has elsewhere, and even in Leeds itself, been successfully worked out. The Plans Subcommittee has been asked to discover some "satisfactory method" of meeting the difficulty raised by the final decision from Whitehall. We do not doubt that such a method will be "discovered," the more so since the housing of a portion only of 2,000 persons on the back-to-back system is in dispute.

FEVER AND FILTH.

Dr. Theodore Thomson, of the Medical Department of the Local Government Board, has made a report on the persistence of enteric fever in the Swinton and Pendlebury Urban District, a locality only four miles outside Manchester, and having a population of upwards of 25,000 persons, engaged chiefly in collieries, cotton spinning, and weaving. The report deals also with the administrative aspects of the district, and bears testimony to a variety of sanitary needs. The general method of excrement disposal is by huge privy-middens, the contents of these receptacles being in places deposited in the streets after carriage through houses, prior to further removal. Badly-paved yards, accumulated refuse in back premises, defective sink pipes and drains, and other insanitary conditions in and about dwellings, all add their quota to the filthy state of the district. The soil is, and has long been, liable to serious pollution, and is such as to form a suitable nidus for the typhoid germ. Then, again, jerry building seems to flourish, and appears likely to prove a source of trouble in future, and the very excellent sanitary inspector is apparently overburdened. The sewage outfalls, too, need immediate attention, the present methods of disposal being unsatisfactory. Dr. Thomson gives, in regard to fever prevalence, some useful comparative data for the district, England and Wales, and fifty large towns. As to attack rate, during 1890-97 the rate of 2.13 per 1,000 annually in Swinton and Pendlebury compares very badly with 1.03 of the fifty towns, and is exceeded by only six of them in the five years 1893-97. As to mortality, enteric and continued fever yielded a death-rate in 1888-97 more than double that for "fever" in the thirty-three great towns of the Registrar-General, and two and a-half times that of England and Wales.

THE OVERCROWDING OF WORKHOUSE INFIRMARIES.

From the reports of a recent meeting of the Lambeth Guardians it appears that the infirmary is much overcrowded. It was reported "that patients were sleeping on the floor." We fully sympathise with guardians who are confronted with the difficult problem of adapting the buildings of the past to the increased population of the present; but this problem is not the growth of yesterday. These official bodies have been too ready to go on from hand to mouth, hoping that relief might come somehow. If the population of the locality has been steadily increasing, a growing proportion must be expected to seek aid from the Board, especially as the hospitals are not increasing to any appreciable extent. The scientific to say nothing of the rational treatment of disease under these circumstances, is out of the question, and bearing in mind the result of the late investigations on the spread of tuberculosis, the condition of these overcrowded infirmaries is of grave importance to the community. Are they not in reality propagating phthisis among the lower classes in our large cities?

BACTERIOLOGICAL DIAGNOSIS.

M.—The absence of diphtheria bacilli from the swab is of course no proof of the absence of diphtheria, and our correspondent would seem to be entitled to his fee. The fee, of course, is only payable on account of a notification of the name, etc., of a person suffering from one of the notifiable diseases. To sue for the fee our correspondent would require to prove that his diagnosis was correct. Why was a second bacteriological examination not made?

NOTIFICATION FEES.

Dr. Thomas Graham (Paisley) writes: I observe in the British Medical Journal of February 11th an instance noted of the refusal of a local authority to pay fees for notification of cases of infectious disease on the ground that they by time are proscribed as legal debts. Should all local authorities and their clerks take as a model the procedure of the local authority of this town, they would perform a statutory duty in a satisfactory manner. Every medical practitioner is supplied with a book of forms and counterfoils, so that, if the practitioner be ordinarily careful, he has a check on the local authority. The sanitary inspector sends to each practitioner from whom certificates have been obtained a statement containing the number of cases he has certified, and also the amount which is owing him, at the end of each quarter. He is at the same time informed when the account will be paid, and on the morning of the day named he receives a cheque. This mode of carrying out the Act for the Notification of Infectious Diseases, and the remuneration of the practitioner therefor, may be interesting and instructive.

Not being a legal practitioner, I do not give an opinion on the validity of W. M.'s claim.

VITAL STATISTICS FOR 1898.

T. P.—The usual table and article relating to the 33 large English towns will very soon be ready for the British Medical Journal. In the meantime the following figures may be useful to our correspondent:

	Birth-rate.	Death-rate.	Zymotic Rate.	Infant Mortality.
England and Wales... ...	29.4	17.6	2.22	161
33 towns...	31.3	19.0	2.85	178

Epileptics in Massachusetts.—The Massachusetts Hospital for Epileptics at Monson, which was opened in May, 1898, is already crowded, and an appeal is to be made to the Legislature for funds to enlarge it. It was intended to accommodate 200 patients, but there are said to be 4,000 epileptics in the State, many of them urgently needing care in a special institution.

MEDICAL NEWS.

We are informed that a Bradford and West Riding Medical Union has been constituted with Dr. T. W. Hime as President, and Drs. John Dunlop and William Mitchell as Secretaries. The object of this new Society is stated to be to consolidate medical opinion in the West Riding, and to take steps towards securing reform of the medical charities.

The Liverpool School of Tropical Medicine.—The office of Demonstrator of Tropical Pathology in the newly-formed School of Tropical Medicine in Liverpool has been filled by the appointment to it of Mr. H. E. Annett, M.B., B.Ch.Vict., D.P.H. Mr. Annett was a student of the Liverpool School, and gained, among other distinctions, the Lyon-Jones Scholarship and the Holt Fellowship in Pathology. He has been an 1851 exhibition scholar, and has spent the last two years in study in Professor Koch's laboratory in Berlin. The post of Lecturer on Tropical Diseases has not yet been filled.

Edinburgh Public Health Committee.—The Public Health Committee of the Edinburgh Town Council on January 31st received a deputation of ladies on the subject of the appointment of women as sanitary inspectors. At the same meeting it was reported that the cost for the last half year of reporting cases of infectious disease amounted to £542, which represented 4,339 cases. In the previous half year the cost was £353, representing 2,826 cases; in all £895 paid to medical practitioners in the city for reporting cases of infectious disease during the year 1898. In the year 1897 the total amount paid was £1,345 7s. 6d.

Lingfield Training College.—A body of Christian Workers, representing all Protestant denominations, and presided over by Lord Meath and the Bishop of Hereford, has acquired a farm of 260 acres in Lingfield, Surrey, where it proposes to provide agricultural work for the unemployed, to establish a one-storeyed home for crippled children, and a home for epileptic children. In these two latter departments of work especially the medical profession will take a keen interest, the need of such refuges being constantly brought under their notice. It is also proposed to establish a home for inebriates of the middle class. The Rev. J. L. Brooks is the Resident Director of the colony.

Industrial Farm Colony, Duxhurst, Reigate.—This establishment, founded by Lady Henry Somerset for the treatment of female inebriates, consists of a series of real cottage homes, each containing not more than six inmates under the charge of a sister. These are situated upon a breezy Surrey down, and open-air employment, under the direction of a lady gardener, is provided for all capable of it. There is also a weaving shop and of course a laundry. From the report of the medical officer (Dr. Walters), we learn that of 83 cases who stayed the full term of one year (less than this is considered useless), 55 (or 67 per cent.) were doing well. There is also on the estate a holiday home for children ("Birds' Nest"), where also the babies of inebriate women are looked after—a feature in the colony which appeals to womanly feeling and exercises a brightening effect upon the life of the inmates.

A Test for the Differentiation of Bacillus Coli Communis and Bacillus Typhosus.—In an interesting paper communicated to the Sydney and New South Wales Branch of the British Medical Association by Dr. Sydney Jamieson on his experience of the Widal reaction in typhoid fever, in the Pathological Department of the Sydney Hospital, he refers to what is a test for the differentiation of bacillus coli communis and bacillus typhosus. He observed that in most cases of cystitis accompanied by fœtid urine, the prevailing organism was the bacillus coli communis, and concluded that probably the growth of this organism was the cause of the ammoniacal decomposition of the urine. He then inoculated several tubes containing sterilised healthy urine with cultures of the bacillus coli communis, and a similar number with the bacillus typhosus, and incubated them at 37° C. In the course of a few days it was found that the urine in the tubes which had been inoculated with the former had undergone ammoniacal decomposition, while the urine in the tubes inoculated with the latter remained unchanged even for several weeks. If these results are confirmed this will be a very simple additional negative test for the identification of the bacillus typhosus.

Margate Cottage Hospital.—The Diamond Jubilee of Her Majesty has been commemorated at Margate by the enlargement of the Cottage Hospital. The suggestion for this method of celebrating the jubilee emanated from Mr. Bertram Thornton, one of the surgeons to the hospital, and it was adopted at a public meeting of the burgesses held on March 17th, 1897, and has been most successfully carried to completion. The original "cottage" which formed the nucleus of the institution has been entirely pulled down, but two added wards and the operating theatre were left standing. On the vacant site and part of the front garden a large building has been erected with all the requirements of a modern hospital. It contains a reception room for examination of patients and treatment of minor injuries, an addition of 5 beds to the men's ward, rooms to accommodate the matron and nurses, a new ward for two women, and cots for two children, and spacious rooms for the servants. All these are far more suitable to their purposes than the corresponding rooms in the old building. The hospital also will now accommodate 6 more patients. Altogether the Building Committee, and especially Mr. H. Keble, the Secretary to that Committee, are to be heartily congratulated on the success of their labours. The inception of the original cottage hospital was due to Mr. W. K. Treves, F.R.C.S., many years ago, and the Committee have decided to call one ward "Treves Ward" in honour of that gentleman. The growing needs of the district called for this extension, the population of Margate in the winter season being over 18,000, and in the season amounting to 100,000.

Diphtheria at Darenth Asylum.—At a recent meeting of the Metropolitan Asylums Board an interim report was presented from Dr. A. Shadwell—formerly cholera superintendent under the Board—with reference to the recent outbreak of diphtheria at Darenth Schools. It will be remembered that, at the first meeting after the Christmas recess, attention had been called to the fact that 9 cases of diphtheria had occurred at the asylum, and it was alleged by one of the members of the Board that the sanitation of the institution was obsolete and defective—in fact, that the sanitary arrangements were "thirty years behind the times." It would appear from the report of Dr. Shadwell that 13 cases in all had arisen, and that the infection existed principally amongst the boys. The conditions discussed did not in any way account for the outbreak, and, so far as evidence at present went, Dr. Shadwell was of opinion that the infection was probably introduced from outside, diphtheria having been prevalent in the neighbourhood of the asylum. The matter being still under investigation we forbear further remark, but the public will expect, after previous allegations, a thorough examination of the conditions accountable for the outbreak.

The Sanitary Condition of Italy.—The Italian Minister of the Interior has decided to institute an inquiry throughout the kingdom with the object of ascertaining the hygienic condition of every commune at the end of last year. A schedule of questions has been drawn up, and the answers given to these questions, together with the information already in possession of the Government, will, it is hoped, enable the authorities to get at the exact state of sanitary matters in Italy.

MEDICAL VACANCIES.

The following vacancies are announced :—

BIRMINGHAM: GENERAL HOSPITAL.—House-Physician. Salary, £70 per annum. Also House-Surgeon. No salary. Residence, board, and washing provided in each case. Applications to the House Governor by February 25th.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street, Queen's Road, Brighton.—Non-resident House-Surgeon. Appointment for six months, but renewable. Salary at the rate of £75 per annum. Applications to the Secretary, 10, Black Lion Street, Brighton, by February 28th.

BRISTOL ROYAL INFIRMARY.—Resident Obstetric Officer. Salary £40 per annum, with board, lodging, and washing. Applications to the Secretary by February 21st.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant. Applications to the Secretary.

DEVIZES URBAN DISTRICT COUNCIL.—Medical Officer of Health; must reside within the Borough. Salary, £50 per annum. Applications, marked "Medical Officer of Health," to the Town Clerk, by March 4th.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Board, lodging, and washing provided, no salary. Applications to the "Secretary of Medical Committee" by first post on February 23rd.

EAST LONDON HOSPITAL FOR CHILDREN, GLAMIS ROAD, SHADWELL, E.—House-Surgeon. Board and residence provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 18th.

ESSEX COUNTY ASYLUM, Brentwood.—Junior Assistant Medical Officer, unmarried, and not over 26 years of age. Salary, £120 per annum, with board, residence, and washing. Applications to the Medical Superintendent by February 28th.

FARRINGDON GENERAL DISPENSARY.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Applications to the Secretary, 17, Bartlett's Buildings, Holborn Circus, E.C., by February 28th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £80 per annum, with board, residence, and laundry. Also Assistant House-Surgeon. Salary, £30 per annum, with board, residence, and laundry. Applications to the Honorary Secretary by February 24th.

HALIFAX UNION WORKHOUSE, St. Luke's Hospital.—Assistant Medical Officer for the Hospital and Workhouse, unmarried, and not over 35 years of age. Salary, £60 per annum. Applications on forms provided, to be endorsed "Assistant Medical Officer," and sent to the Clerk to the Guardians by March 1st.

HEREFORD GENERAL DISPENSARY.—Assistant House-Surgeon and Dispenser. Salary, £75 per annum, with board, residence, and washing. Office tenable for two years. Applications to the Secretary, 37, Bridge Street, Hereford, by February 21st.

HERTFORDSHIRE COUNTY ASYLUM, Hill End, St Albans.—Assistant Medical Officer. Salary, £130 per annum, increasing to £150, with furnished quarters, board, washing and attendance. Applications to the Medical Superintendent by February 24th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon to Out-patient Department. Appointment for six months, but eligible for re-election. Salary, 25 guineas. Applications, on forms provided, to the Secretary by February 21st.

HUDDERSFIELD INFIRMARY.—Assistant House-Surgeon. Appointment for six months, but may be extended. Salary at the rate of £60 per annum, with board, lodging, and washing. Applications to the Secretary.

LEEDS UNION.—Assistant Medical Officer for the Workhouse, Schools, and Infirmary, Beckett Street; unmarried, and not above 35 years of age. Salary, £100 per annum, with board, washing, apartments, and attendance. Applications, on forms provided, to be endorsed "Assistant Medical Officer," and sent to the Clerk, Poor law Offices, East Parade, Leeds, by February 21st.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £225 a year, and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

LONDON THROAT HOSPITAL, 204, Great Portland Street, W.—Assistant Surgeon. Applications to the Medical Committee before February 26th.

MANCHESTER CHILDREN'S HOSPITAL.—Junior Resident Medical Officer. Appointment for six months, but eligible for re-election as Senior for six months. Unmarried. Salary, £80 per annum as Junior, and £100 as Senior, with board and lodging. Application to the Secretary, Dispensary, Hartside Street, Manchester, by March 1st.

MANCHESTER EAR HOSPITAL, 23, Byrom Street.—Clinical Clerkship. Appointment for six months. Honorarium, 10 guineas. Applications to the Secretary by March 1st.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Surgeon unmarried and not more than 30 years of age. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by February 28th.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and residence. Applications to the Honorary Secretary by March 4th.

PRESTON ROYAL INFIRMARY.—A Junior and an Assistant House-Surgeon. Salaries, £30 and £50 per annum respectively, with board, lodging, and washing. Applications to the Secretary, 5, Winckley Street, Preston, by March 4th.

RICKMANSWORTH: DALRYMPLE HOME FOR INEBRIATES.—Resident Medical Superintendent. Salary, £200 per annum, with unfurnished house, food, coals, gas, etc. Applications to the Chairman, House Committee, by February 24th.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—Resident Medical Officer. Salary, £70 per annum, with board, lodging, and washing. Applications to the Secretary by March 1st.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior Out-patient Surgical Officer. Salary, £50. Applications to the Secretary by February 28th.

RYDE: COUNTY HOSPITAL.—House-Surgeon. Salary, £50 per annum, with board, lodging, etc. Applications to the House Surgeon by March 1st.

ST. ANDREWS UNIVERSITY.—External Examiner for Graduation in Public Health. Applications to Mr. C. S. Grace, Factor to the University Court, by February 21st.

SHEFFIELD: UNIVERSITY COLLEGE.—Demonstrator in the Bacteriological Laboratory. Salary, £150 per annum. Applications to the Council of the College by February 23rd.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, Marylebone Road, N.W.—Anæsthetist. Honorarium, £20 per annum. Applications to the Secretary by March 10th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by February 23rd.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. No salary, but board, washing, and lodging provided. Applications, endorsed "Assistant House-Surgeon," to the Hon. Secretary, by March 3rd.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Physician. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary by February 25th.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon, unmarried. Salary, £60 per annum, with board and residence. Applications to the Honorary Secretary by February 28th.

WINDSOR ROYAL INFIRMARY.—House-Surgeon. Salary commencing £100 per annum, with residence, board, and attendance. Applications to the Secretary, 13, High Street, Windsor, by February 22nd.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary by February 21st.

MEDICAL APPOINTMENTS.

ADDINSELL, A. W., M.B., C.M., appointed Pathologist to the Chelsea Hospital for Women.

AYRES, G. H., L.R.C.P., L.R.C.S.I., appointed Medical Officer and Public Vaccinator for the Tarporley District of the Tarvin Union, *vice* Allen McCulloch, M.B., C.M.Glasg., resigned.

BUTLER, W. B., M.R.C.S., L.R.C.P., appointed Medical Officer for the Second District of the Flaxton Out-relief Union.

DAVY, W. R., L.M., L.Ch., L.A.O. Univ.Dub., appointed Medical Officer to Fannett Dispensary, Milford Union, co. Donegal.

DENT, E. A., M.B., C.M.Edin., appointed Medical Officer for the Third District of the Cheltenham Union.

DUNCAN, A., M.B., D.P.H., appointed Clinical Assistant to the Chelsea Hospital for Women.

GLASSON, C. J., M.D.Brux., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Third District of the Romford Union.

HIBBERD, E., M.D.St.And., M.R.C.S.Eng., appointed Medical Officer of the Casual Wards of the Paddington Workhouse.

HOPKINS, H. C., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Second District of the Bath Union.

MURRAY, John, M.B., F.R.C.S., appointed Surgeon to Out-patients at the Paddington Green Children's Hospital.

NARIMAN, B. K., M.B., B.Sc. (Public Health), C.M.Edin., etc., appointed Assistant Surgeon to the South Dispensary, Liverpool.

NORGATE, R. H., M.R.C.S., L.R.C.P., appointed Medical Officer for the Stapleton Workhouse of the Bristol Union.

OGILVY, Alec, M.D., F.R.C.S.I., appointed Surgeon to the Bristol Eye Dispensary.

PEIRCE, J. E., M.R.C.S.Eng., appointed Medical Officer for the Bexley District of the King's Norton Union.

ROWLAND, H. A., M.B., C.M.Edin., appointed Medical Officer for the Seventh District of the Ashton-under-Lyne Union.

THOMSON, James, M.D.Glasg., appointed Medical Officer and Public Vaccinator for the Carshalton District of the Epsom Union, *vice* F. S. Moger, M.R.C.S.Eng., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons, 5 P.M.—Dr. T. G. Brodie: On the Chemical Pathology of some Infective Diseases. (Erasmus Wilson Lecture I).

Medical Society of London, 8.30 P.M.—Dr. Samuel West: Some of the Clinical Aspects of Granular Kidney. (Lettsomian Lecture II.)

TUESDAY.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Mr. Horsley: On the Surgery of the Nervous System. (Lantern Demonstration).

Chelsea Clinical Society, Holy Trinity Parish Hall, Pavilion Road, Sloane Square.—Card Specimens at 8 P.M. Papers at 8.30 P.M. Dr. G. Herschell: Atony and Dilatation of the Stomach. Dr. Penny: Radical Cure of Hydrocele.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: On the Slighter Forms of Mental Disorder, and how to Deal with Them.

Pathological Society of London, 8.30 P.M.—Professor G. Sims Woodhead will open a discussion on Pseudotuberculosis, and will be followed by Professor S. War in Professor John Macfadyean, Dr. Washbourn, Dr. Wethered, Mr. Fulberton, Mr. Pakes. Specimens, microscopic and lantern slides, will be shown.

WEDNESDAY.

Royal College of Surgeons, 5 P.M.—Dr. T. G. Brodie: On the Chemical Pathology of some Infective Diseases. (Erasmus Wilson Lecture II.)

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M.—Dr. Weitenreg: On the Difficulties of Diagnosis in Pulmonary Tuberculosis.

Hunterian Society, 8.30 P.M.—Mr. Charters J. Symonds, M.S., F.R.C.S.: The Value of Individual Symptoms in Perforative Peritonitis, more especially in regard to Operation.

Dermatological Society of Great Britain and Ireland 20, Hanover Square, W., 5 P.M.—Informal exhibition of cases at 4.30 P.M.

Evelina Hospital, S.E., 4.30 P.M.—Dr. George Carpenter: Clinical Demonstration on Medical Cases (Post-graduate Course).

THURSDAY.

Royal College of Physicians of London, 5 P.M.—Dr. G. Vivian Poore: On the Earth in relation to the Preservation and Destruction of Contagia. (Milroy Lecture I.)

Chelsea Hospital, Post-Graduate Course, 4 P.M.—Dr. Galloway: Dermatological Demonstration.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Barlow: Demonstration of Selected Cases.

FRIDAY.

Royal College of Surgeons, 5 P.M.—Dr. T. G. Brodie: On the Chemical Pathology of some Infective Diseases. (Erasmus Wilson Lecture III.)

West End Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, 8.45 P.M. Special general meeting to receive and discuss the report of the Subcommittee appointed to revise the rules of the Society.

Clinical Society of London, 8.30 P.M. Clinical Evening. Patients in attendance at 8 P.M. The following cases will be shown:—Dr. Rolleston: Multiple Periarticular Bursæ. Dr. F. Parkes Weber: Recommencement of Muscular Atrophy long after Infantile Paralysis. Dr. Cahill: Unilateral Hypertrophy of the Female Breast resulting from Pressure. Dr. Caley: A Case of Tabes Dorsalis with Arthropathy and Pulmonary Fibrosis. Mr. G. Bertram Hunt: Rheumatoid Arthritis, with Enlarged Spleen and Glands in an Infant. Dr. Washbourn and Mr. W. Auburtnot Lane: A Patient from whom a Cerebral Tumour was removed Seventeen Months ago. Dr. Mouat-Biggs: Extreme Case of Factitious Urticaria. Dr. Raymond Crawford: Myositis Ossificans Progressiva. Dr. Conrad Guthrie: A Case of Congenital Paralysis. Dr. St. Clair Thomson: Man, aged 36, complaining of Dysphagia; found to be affected with Unilateral Paralysis of the Eighth and Bulbar Nerves. Dr. Leonard Guthrie: Acute Atrophic Paralysis affecting both Upper Extremities. Mr. E. W. Roughton: Tumour of Maxilla of Doubtful Nature.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

BIGGS.—On Thursday, February 9th, at 147, Newport Road, Cardiff, the wife of J. J. E. Biggs, M.R.C.S., L.R.C.P., of a son.

MACMILLAN.—On February 8th, at Mousall Lodge, Prestwich, Lancashire, the wife of David Macmillan, M.D., of a daughter.

OSBORN.—On February 7th, at the Chalet, Dover, the wife of Arthur Osborn, M.R.C.S. and L.R.C.P., of a daughter.

SAYRES.—On February 12th, at Woodford, Essex, the wife of A. W. F. Sayres, M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., of a son.

MARRIAGES.

COCKING—BIRKS.—On February 9th, at the Parish Church, Sheffield, by Rev. James Henry, F.R.G.S., Vicar of St. Bartholomew's, Birmingham, brother-in-law of the bride, assisted by Rev. W. Bracewell M.A., Curate of the Parish Church, Wm. Tasting Cocking, M.D.Lond., to Alice Mary, youngest daughter of Edward Birks, Birchcliffe, Broomhall Park, Sheffield.

DARLING—SMAILL.—On February 8th, at St. John's Free Church, Edinburgh, by the Rev. George Philip, D.D., Thomas Brown Darling, M.D., T. e Hawthornden, Merchiston Place, Edinburgh, to Elizabeth Danlop, second surviving daughter of the late George Barclay, merchant, and widow of W. R. Smaill, Edinburgh.

SHAW—SCHMOCKER.—On January 25th, at the St. Marylebone Registrar's Office, privately, John Shaw, M.D.Lond., M.R.C.P.Lond., of 92, New Cavendish Street, Cavendish Square, W., to Rosa Schmocker, of Ringgenberg, near Interlaken, Switzerland.

DEATHS.

DICKINSON.—On January 27th, at Westby House, Roscombe, Bournemouth, J. B. Dickinson, M.D., M.R.C.S., late of Stalybridge, in his 71st year.

WILLIAMS.—On February 7th, after a long and painful illness, at Broomfield, Swinton near Manchester, John Williams, M.D., M.R.C.S., L.S.A., aged 64 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M., W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

S. asks for suggestions for the treatment of an obstinate case of gonorrhœal rheumatism. Nearly every joint is affected.

TURCO asks what books would be most useful to a person reading for the diploma in Public Health of the Conjoint Scottish Colleges.

L. M. desires to know of any sanatorium for a patient aged 30 with quite incipient physical signs of phthisis. The patient has no means, but friends would assist him.

QUÆRENS would like to know the best local anæsthetic for the removal of small growths, circumcision, etc.—in fact any small operation—where it is not necessary to administer chloroform or ether.

PROGNOSIS IN FACIAL PARALYSIS.

DR. ROBERT MACKINLAY (Santa Barbara, California) asks for an opinion as to the prognosis of a case of facial paralysis that occurred in a youth, aged 18, two or three days after an operation on the mastoid antrum of the same side, and has not improved in spite of electrical treatment of six months' duration.

*** The prognosis, as in all cases of peripheral facial paralysis, is modified by the condition of the electrical excitability of the paralysed muscles. If there is now reaction of degeneration, recovery, if it occur at all, cannot be expected for several months. The absence hitherto of any improvement, the causal relation to ear disease, and probably to injury of the nerve during the operation are unfavourable. If the muscles do not react to galvanism, or if there is much contracture, the case is well-nigh hopeless, but if otherwise, hope of recovery should not be abandoned for at least another year.

ANSWERS.

R. M.—The urethra should be examined in order to determine the source of the shreds. Treatment would depend on what was found.

CYMRO might communicate with the Secretary of the Medical Defence Union, 4, Trafalgar Square, W.C.

A.E.C.—The question is hardly susceptible of any satisfactory answer unless the period of the illness at which death took place (whether during the acute attack or later) be stated.

COTTAGE.—We can see no reason why a medical man should not take a leading part in the foundation of a cottage hospital. The best way to begin would be to consult in the first place all the medical men practising in the district to be served by the proposed hospital.

E.R.F.M.—The action of the officer, which has not unnaturally caused our correspondent some annoyance, was in all probability due to an error of judgment. We should be inclined to recommend our correspondent to communicate with the Secretary of the Society stating the facts.

DR. L. W. K. TRUBRIDGE writes to point out that "Mesmer" will find full information as to pellagra in Professor Lombroso's book, a German translation of which was reviewed in the BRITISH MEDICAL JOURNAL of February 4th, 1899, p. 282. A copy of the translation is in the Library of the British Medical Association.

ENQUIRER.—Probably the most useful book for the purpose would be the *Manual of Family Medicine and Hygiene for India*, by the late Sir William Moore (London: J. and A. Churchill. 12s.) A general manual of nursing, with a sketch of elementary physiology, such as that by Laurence Humphry, published by Charles Griffin and Co. (3s. 6d.) might also be of service.

OCULENS.—The case appears to be one of paralytic valgus. The usual specific remedies should be adhered to; and locally massage and galvanism to the calf muscles will prove of service. If the flat foot is of a moderate degree, a boot with the inner edge of the sole and heel one third of an inch thicker than the outer, and with a vulcanised pad sewn in the boot, will be of service. But if there is much loss of power in the leg, a walking apparatus, single outside from the ground to the calf, with a valgus pad and T-strap, will be required. This is described in Tubby's *Deformities*, p. 479, and may be obtained of any well-known instrument maker.

T. F.—On the whole, as the facts are disclosed in the two letters, we can blame neither practitioner. The statements of what the mother said differ. Hearsay evidence usually does, and we think no medical man ought to blame a professional brother on mere hearsay testimony. If A. had been in continued attendance, B. should have retired, but when A. was sent for to people usually attended by B., he might not unreasonably have inquired if his summons was merely official as his father's deputy. B. probably considered himself bound to notify the cases, and we cannot say that he was wrong in so doing. We may refer our correspondent to the paragraph entitled Notification in Duplicate, p. 427.

CIVIL MEDICAL OFFICER IN A POOR COLONY.—Condensed milk is not generally employed as a substitute for fresh milk in hospitals in England, but where cow's milk costs 5d a quart it would probably prove more economical. It is as a rule taken without difficulty by patients suffering from gastric disturbance, and there is no reason for thinking that its introduction would damage the health of the patients or affect the reputation of a public institution. It will, however, be necessary to make sure that a good brand of condensed milk is obtained containing all the cream of the original milk. Condensed milk made from separated milk would not be a suitable substitute for fresh milk.

B. W.—The apparatus depicted is not a satisfactory one for giving nitrous oxide gas by itself. It answers fairly well when that anæsthetic is employed simply as an introduction to the giving of ether. For "gas" a considerably larger bag is advisable, and expiration valves either in the face-piece or in the three-way stopcock. The larger gas and ether inhaler designed by Clover, and more recently improved and sold by Mayer and Meltzer is probably the best for giving gas and ether, but the one mentioned in our correspondent's letter is satisfactory, although perhaps less handy.

Motor Cars.

Motor and F. H. M.—The following are the names and addresses of the makers of the motor cars mentioned in the British Medical Journal of December 3rd, 1898, p. 1719: Daimler Motor—Daimler Motor Company, Limited, 219 to 229, Shaftesbury Avenue, London, W.C.; De Dion and Bollee Motors—Motor Manufacturing Company, Limited, 47, Holborn Viaduct, London, E.C.; Benz Motor—Messrs. Benz, Mannheim, Germany.

Tinnitus and Electricity.

Dr. J. J. Wallace (Weobley, Herefordshire) writes in answer to "H. T. T." (British Medical Journal, February 11th, page 386): The best form of electricity for tinnitus is the "*souffle*" from a Wimshurst static machine. The *souffle* may be directed into the ear or through the open mouth to the back of the pharynx. In the latter use the electrode should have a vulcanite guard, and the operator should test the current in his own mouth, using a mirror to direct the electrode. No sparks should be drawn. The interrupted current of a Spammer battery would probably aggravate the disturbance

Commercial Use of Potassium Cyanide.

G. H.—The occurrence in workmen of chronic potassium cyanide poisoning is extremely rare. In the reports of the factory inspectors of Great Britain, France, Germany, Austria, Holland, and Switzerland no case has been reported during the last twenty years. Reuter states that during thirty years' experience of electroplating works he has never seen any bad results from inhalation of the fumes. The symptoms of chronic poisoning are dryness of the throat, oppression of the chest, palpitation, and muscular weakness. These do not occur if the most ordinary precautions as to cleanliness are taken.

Parrots and Tuberculosis.

R. E. G. P.—It is not easy to make any very definite statement concerning the risk of acquiring tuberculosis from parrots. Some authors (Fröhner) find that tuberculosis is quite a common affection of parrots, whilst others (Greene, *Lancet*, 1897, p. 1367) have met with very few cases. It appears that when the birds are affected they are especially liable to show superficial lesions, such as swellings, covered with horny crusts, about the eyelids, conjunctivæ, commissures of the beak, wings, etc.; in this they differ from other birds (fowls, etc.). As the disease progresses they become emaciated. Experiments made by Straus to infect parrots were successful only when cultures of "avian tubercle" were used for the inoculation. Probably the risk of contracting tuberculosis from parrots is extremely slight. If the birds are healthy and are kept under sanitary conditions, and are not kissed or otherwise brought into close contact with their owners, it is difficult to see how they can be a very serious factor in the spread of tuberculosis.

NOTES, LETTERS, Etc.

The Appeal on Behalf of the Widow of the late James McGregor Laing.

Drs. J. Pickett (Colville Square) and Reginald Hartley (Porchester Terrace) write: The following donations have been received in addition to those already acknowledged in the British Medical Journal of July 9th and October 29th, 1898: Dr. T. Brett Young, Halesowen, £1 1s.; W. F. B., £1 1s.; and we think it now advisable to close the account. A small business has been found for Mrs. Laing. We beg to thank you for your courtesy in allowing the appeal to appear in the Journal.

Sanitation in Aldershot.

In the letter from Dr. Moyle O'Connor published in the British Medical Journal of February 11th, p. 376, in col. 2, line 32 from bottom, "disease" should read "decrease." In line 16 from bottom "smaller" should read "similar." And in line 13 from bottom, "mixing freely" should read "and mix."

The Pathological Society.

Dr. T. Wardrop Griffith (Leeds) writes: In your report of the meeting of the Pathological Society, held February 7th, the necessarily greatly abridged expression of my views as to the causes of fusiform dilatation of the œsophagus, credits me with the suggestion that some irritation of the stomach may cause atony of the œsophagus. What I wrote in my paper on the subject (*Medical Chronicle*, November, 1898) was: "Atony or paralysis of the muscular coat (of the œsophagus), whether due to nervous influences or secondary to œsophagitis, has, however, a place in the explanation of the condition—namely, in its initiation."

Sierra Leone.

The following information with regard to the outfit suitable for a person proceeding from this country to Sierra Leone, with some particulars as to the care of health which have been furnished to us by an experienced member of the profession, may be of use to some of our readers: For outfit, light summer clothing of tweeds, light under vests, and drawers and stockings all wool. A soft felt wideawake. Field boots and puttees. Light flannel shirts and a suit of tennis tweeds, also pyjamas for sleeping in of wool. A sponge, towels, and looking glass. Portable bed and bedding in valise from A.S.U. stores. A light 12-bore shot gun and a Winchester carbine large ball. Plenty of ammunition. A waterproof coat; umbrella, one white cotton. Light walking boots and strong slippers. A lantern. A medicine chest and surgical instruments same as supplied by Messrs. Burroughs and Wellcome to the Sierra Leone Boundary Commission. See medical officers report of same at Colonial Office. Read Patrick Manson on *Tropical Diseases*, Grant's *West African Hygiene*. Make a special study of remittent fever and pernicious remittent fever, and recollect intermittent fever is not of frequent occurrence and seldom met with at Sierra Leone. "Blackwater fever" is pernicious remittent fever and is not an official name. Yellow fever outbreaks are not uncommon on the West Coast of Africa. Read paper on Yellow Fever, 1884, in British Medical Journal, 1885, at Sierra Leone. At the commencement of the rainy season, May-June, as a rule outbreaks of remittant fever are common and of a severe type. During the dry season the Colony is fairly healthy, as it is when the heavy rains are falling, July-September. Avoid exposure to the sun; avoid chills. Take plenty of exercise in the morning up to 11 or 12 o'clock noon and from 4 P.M. to 7 P.M. Change when the clothing is damp, it is therefore necessary to take quite a dozen under vests and two suits of tweed; one a blue serge, other light Harris. Working hours for Europeans should be from 5 A.M. to 12 and from 3 or 4 to 6 or 7 P.M. Hot chocolate and biscuits before going out. Breakfast on return to camp 11 to 12, after the bath. No lunch. Dinner must be very substantial, with soups, fish, joints, and wines and spirits.

Weather at Sevenoaks, 1898.

Mr. W. W. Wagstaffe has issued an interesting and succinct report of the weather at Sevenoaks during the past year. The month with the highest average temperature was September, with 71°; the actual maximum of any day was September 8th, 88°, and that month was on the average as much as 8° higher than usual. The lowest average temperature of any month was March, 33.0°. The actual minimum was 20° on February 21st, and the minimum in every month equalled or was above the average, excepting June, when the deficiency was 4°. The highest amount of rain was in May (3.19 inches), the lowest in September (0.47 inch). The highest amount collected in any single day was in June (1.51 inch); the highest in any single night was in October (2.32 inches). In only one month (May) was the rainfall above the average; in July it was no less than 3.22 inches below the average of that month. In September rain fell on five days only, in May on twenty-one days. The rainfall of the whole year was 20.65 inches (of which 8.18 inches fell in the day, 12.47 inches in the night), and it was no less than 11.41 inches below the average of the ten previous years. The prevailing wind was from a westerly direction in every month except in the second week of March (N.E.) and in the first half of October (E.). Frost occurred on 6 nights in January, 11 in February, 19 in March, 8 in April, 1 in May, 4 in November, 8 in December. Snow fell on 2 days in February and 4 days in March. Strong gales prevailed on November 23rd and 26th, and on December 27th.

Academical Costume.

M.R.C.S.Eng. writes: May I inform your correspondent, "Nothing Venture, etc.," that in the clerical profession a licentiate of a theological college has no right to call himself a Doctor of Divinity, or wear a hood showing that he is a graduate in theology of a university. Therefore why should a Licentiate, Member, or Fellow of a college of physicians or surgeons presume to either call himself Dr., or to wear the hood, which is the distinctive privilege of a university graduate? Of course, if he has an Arts, Science, or other university degree he would wear the distinguishing hood of the degree, according to its shape and colour denoting the university to which he belonged. Is there not a little bit of humbug in wanting to appear what a man is not?

Dr. Frederick W. Collingwood writes: It will be noted with regret by many that the authorities of the Royal College of Surgeons of England have seen fit to postpone *sine die* the consideration of the question of permitting Members to wear a distinctive gown. It is difficult to see on what grounds the authorities have come to this decision. If Fellows are sanctioned to wear a distinctive garb why should not a similar privilege be extended to Members? The policy of ignoring the feelings and wishes of Members, both by non-recognition of a reasonable wish and excluding them from the franchise, is at strange variance with modern notions in connection with institutions around us, and compels us to look for a counterpart of their policy to the early institutions of Rome. Considering the financial support rendered by the Members, apart from other considerations, it will, I submit, be thought by most unbiassed persons an anomalous policy for a college to pursue in the nineteenth century.

M.R.C.S. writes: The usual custom at most colleges and universities is that where Fellows wear gowns Members do the same; to which the Council of College of Surgeons seem to take exception. In order to equalise matters and make them agreeable to all parties concerned I venture to suggest: 1. That both Fellows and Members have a special gown to wear on all suitable occasions. 2. That the colour of the gown be royal blue with red facings. 3. That the distinction between Fellows' and Members' gowns should be by the shape and texture of the gown worn, as is the case with Queen's Counsel and ordinary Barristers-at-Law. 4. That the matter should at once be taken in hand by the College Council and brought to a happy conclusion instead of causing angry feelings by delay.

The Midwives Bill.

Dr. Frank M. Pope (Leicester) writes to point out that in the draft of the Midwives Bill as amended, published in the British Medical Journal of February 11th, p. 350, Clause 11, paragraph 1, the words "cases of" in line 2 of the paragraph were on his proposal directed to be omitted. The paragraph of the clause should read: "In this Act the term 'midwife' means a woman who undertakes for gain to attend women during natural labour and the lying-in period," etc.

Consumptive Patients in Cape Colony.

Dr. Edward S. B. Eames, M.R.C.S.Eng., L.R.C.P., late Surgeon Union S.S. Co. (Bury St. Edmunds, Suffolk) writes: In a letter which I have read in the British Medical Journal for January 21st *re* consumptive patients in Cape Colony, I can speak with a certain amount of experience as regards the condition in which some of them are sent out. During my last voyage to the Cape, there were about eighty third-class passengers; out of that number there were quite twenty of them in various stages of phthisis. I will quote three cases to show how absurd it is to place them on board ship for a voyage of three weeks or more.

Case I was a youth, aged 18. He came on board with hæmoptysis, which became very profuse a few hours after we started. He remained ill on and off during the whole voyage. He arrived in Cape Town with a few shillings in his pocket, and knowing no one.

Case II was a man with advanced fibroid phthisis. His means were very limited, so much so that a subscription was got up for him by the kindness of some of the lady passengers. This man died four days after landing.

Case III was a youth with an empyema tube in his side and advanced lardaceous disease.

Now, Sir, if these cases occur on one ship during one voyage, how many such people arrive at the Cape in the course of a year?

Glasgow Obstetrical and Gynæcological Society.

Dr. Robert Jardine (Glasgow) writes: In the condensed report of my paper on Saline Injections, which appeared in the British Medical Journal of February 4th, there are several errors. "Glass filters" should read "glass filter." The amounts of bicarbonate of potash and common salt used in eclampsia cases is half a teaspoonful of each and not a teaspoonful to the pint.

The Epidemiological Society.

Dr. George F. Still (Gower Street, W.C.) writes: In the report of the paper read by Dr. Bruce Low at the Epidemiological Society, on Epidemic Cerebrospinal Meningitis, in the British Medical Journal of February 4th, you publish the following statement: "Jaeger of Stuttgart proved that this (the diplococcus intracellularis) which he called tetracoccus was itself characteristic and causative of the epidemic cerebrospinal fever, distinguishing it from the other forms of meningitis. His conclusions had since been fully confirmed by numerous observers in Germany, Austria, and America, and by Dr. Still in this country, who had by its means identified the so-called 'infantile paralysis' with the disease under consideration"—that is, epidemic cerebrospinal meningitis. Dr. Bruce Low made no such statement. The sentence referred to is this: "Dr. Still, in the *Journal of Pathology and Bacteriology*, No. 2, 1898, contributes a paper on Simple Posterior Basic Meningitis of Infants, and again, in the British Medical Journal of October 15th, 1898, he writes on the same subject, and expresses the opinion, based on *post-mortem* examination and bacteriological investigation, that this infantile ailment, the simple posterior basic meningitis of infants, is a specific disease due to an infection associated with a particular micro-organism. He believes this organism to be only a variation or modification of the diplococcus intracellularis of Weichselbaum."

Reichardt Fund.

Dr. Goodhart (25, Portland Place, W.) and Dr. Savage (3, Henrietta Street, Cavendish Square, W.) write to acknowledge the following further subscriptions, and are pleased to report that many of Dr. Reichardt's patients and lay friends are subscribing to a separate fund.

	£ s. d.		£ s. d.
Mr. W. J. Walsham ...	5 5 0	Mr. H. D. Palmer ...	1 1 0
Dr. Samuel West ...	2 2 0	Dr. J. Kenrick Jones ...	1 1 0
Miss Flora Petley ...	2 2 0	Mr. Rayley Owen ...	1 1 0
Dr. J. C. Barker ...	1 1 0	Mr. Claude Haye ...	1 1 0
Dr. Hugh Ealand ...	1 1 0		

Membranous Colitis and Colotomy.

Dr. R. Neale (Hampstead, N.W.) writes: I have waited several weeks to see whether anyone traversed the statement of Dr. J. Christian Simpson, at p. 1493 of the British Medical Journal in December, 1898, that "Mr. Keith's claim to the priority of this operation has never been disputed." A reference to the *Medical Digest*, Section 866: 3 (Appendix) will show that in 1893 Mr. Mayo Robson read a paper upon Colotomy in Membranous Colitis before the Clinical Society, and in the discussion that followed, Mr. H. B. Robinson stated that he had performed a similar operation in 1891. Is it not advisable for gentlemen to see what has been done during the last 50 years before making positive statements, when they have at hand such facilities as the *Medical Digest* affords?

Intracerebral Injection of Antitoxin.

Dr. W. Stewart MacDougall (Wallington, Surrey) writes: In referring to the operation for "sturdy" in sheep as suggesting a simpler method of intracerebral injection of antitoxin, Dr. Watson (British Medical Journal, February 4th, p. 324) does not take into account an important fact in the pathology of "sturdy." In order to locate the cyst the sheep-farmer usually waits until the overlying area of bone has become so softened as to pit on pressure with the thumb-nail. The trocar in going through this softened part of the skull meets no more resistance than it would in going through carious bone, and of course there can be no splintering of the inner table.

An Unusual Cause of Dystocia.

Dr. Sophia Grumpell (Cape Colony) writes: Several years ago, while holding an appointment in India, I was sent for by my assistant to a case of labour. I found the patient, a primipara, a tall well-built young woman 18 years of age. On examination the arm was found prolapsed, having evidently been pulled on by the native *dai*. I found a roomy pelvis, and anticipated no difficulty in turning, but found that though the fœtus was freely movable for about an inch either way it then met with some obstruction. On introducing my hand I found a partial septum about 2 inches long and the child lying with the head on one side of the septum and the knees on the other, hence the impossibility of turning from without. I then seized the outside foot—the right—and by turning the body round from before backwards brought it down, the other following; the rest of the delivery was easy.

"Phosphatic Diabetes" following Influenza.

Mr. C. Owen-Snow, M.B., C.M.Aberd. (Government District Surgeon, George Town, Cape Colony) writes: Tessier has proposed the name "phosphatic diabetes" to cases in which the earthy phosphates are increased, both absolutely and relatively to the alkaline phosphates, as distinguished from "azoturia," in which the urea, and "baruria," in which all the solids in the urine are increased. This is a subject which receives scant attention in the textbooks, and one to which I venture to draw attention as a not altogether uncommon and a troublesome sequela of influenza. I give brief notes of one case: F. S., aged 46, farmer, had had a sharp attack of influenza; this was followed by symptoms of chronic gastritis, and pains, aches, and tremors of bewildering complexity of which he had made a careful study, and for which he had applied acetic acid, poultices made of beaten-up eggs and bran, and other more or less heroic remedies. He was a well-built man of neurotic temperament, heart and lungs normal, tongue large, flabby, and covered to the tip with a thin white fur. Urine (average) 59 ounces, specific gravity 1014, whey-coloured, slightly alkaline, deposited phosphates, urea 510 grains, albumen and sugar absent.

His recovery was slow. The treatment was dietetic and moral, assisted by warm baths and a mixture of nitro-hydrochloric acid and strychnine mixture. Has the increased metabolism of the nervous system present in influenza any causal relation to this condition, or is it due wholly to dyspepsia?

LETTERS, COMMUNICATIONS, Etc., have been received from:

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THE MILROY LECTURES

ON THE

EARTH IN RELATION TO THE PRESERVATION AND DESTRUCTION OF CONTAGIA.

Delivered at the Royal College of Physicians of London

By G. V. POORE, M.D., F.R.C.P.Lond.,

Professor of Medical Jurisprudence and Clinical Medicine, University College; Physician to University College Hospital.

Lecture I.

Earth.

Mr. President and Gentlemen,—That which we commonly speak of as "earth" is largely composed of excreta and the dead remains of animals and vegetables which, as the result of fresh biological processes, are either returned to the bodies of living vegetable organisms, or, after becoming mineralised and soluble, are washed downwards by the rain and ultimately find an exit in the sea. It is obvious that not only does "earth" vary in composition with the varying conditions of subsoil, climate, flora and fauna, but that "earth" must undergo seasonal variations necessitated by the vigorous upgrowth in the spring or the decay of the fall—the heat and drought of summer or the flood and frost of winter. The interstices between the particles of "earth" are filled at one time with air, at another time with water, and the line of demarcation between earth and air on the one hand, and earth and water on the other, is often not very definite. Again, the dust which is suspended in the air and which settles on everything is liable to contain infective particles, harmless to breathe but dangerous if they fall upon a wound. It is obvious that such particles may be regarded as belonging to the earth or the air. Some of them doubtless emanate from the earth, having been raised as dust; but we must admit that there may be organisms which grow in the air, live in the air, and die in the air without ever touching earth or water and which elude all attempts at identification or artificial cultivation. While there are organisms which may live equally well in air or water others are probably more exclusive in their obligatory conditions. The mutual interaction of earth, air, and water must never be lost sight of. It is the life in the earth, both vegetable and animal, which helps, by its influence on vegetation, to maintain the quality of the atmosphere. Again, it is the earth which gives the quality to spring and river water. Pure water is a body of definite chemical composition and pure air is a tolerably definite mixture of gases, and it is not difficult to approximately measure the degree of pollution of either. The chemical composition of earth, however, is complex and constantly changing, so that it is not possible for the chemist to fix any standard of quality. The practical agriculturist by the aid of touch, smell, and vision will say at once whether any given sample of earth is foul or pure, sour or sweet, rich or poor, fertile or sterile, and we must perforce content ourselves with the terms used by the practical man. The word "earth" in the ensuing lectures will usually be regarded as meaning humus in a healthy condition.

There are certain organisms which are constantly found in the earth, and which appear to be ubiquitous. They adhere to our skins and clothing, get under the nails, and lodge in the hair. They produce various disorders of wounds and diseases in wounded persons, and we now recognise that in the absence of those precautions which we call "antiseptic" it is never safe to inflict even the smallest wound. The organisms which produce the various wound infections are saprophytes which flourish external to the body. They are ubiquitous and (probably) necessary, and so long as we have a whole skin and uninjured mucous membrane they do us no harm. As all organic matter is constantly circulating, passing through death to other forms of life, and necessarily undergoing humification in the process, it follows that the agents of these changes, the microbes which are to this end hatched in the soil vary with the circumstances. Dr. Houston[1] gives the estimated number of microbes per gram found in twenty-one samples of soil. These vary from 8,326 in a virgin sand and 475,282 in a virgin peat, to 115,044,492 in the soil from the trench of a sewage farm. Broadly speaking, the microbes bear a direct proportion to the amount of dung. Warington estimated that a gram of dung from a cow fed on hay contained 165,000,000. They all presumably have their optimum conditions—chemical and physical qualities of the nutritive medium, access of air or other gases, lightness or darkness and temperature—and when the optimum conditions concur, growth and multiplication go forward at a pace which we can hardly appreciate. The fact that for the growth of some the access of air is necessary, while others obtain their oxygen from the medium in which they grow, and others again are able to take in oxygen from either source, has formed the basis of a classification which has assisted our understanding.

Saprophytes, including those which produce wound infection, are presumably of service in bringing about the decomposition of complex organic bodies. Whether we are able to check the growth and multiplication of these facultative parasites outside the body is doubtful, and whether or not we should be gainers by so doing, is still more doubtful. Bacteriologists have experienced no little difficulty in discovering the exact conditions which are necessary for the growth and development of many of the micro-organisms which have been studied. Some organisms are more exacting than others, and those which are best able to accommodate themselves to varying circumstances naturally obtain the mastery when several are attempting to grow simultaneously in the same medium. Some of the larger saprophytes, such, for instance, as the common mushroom, require no little skill for their artificial production, involving far more attention to exact details than is necessary with ordinary green-leaved garden plants. We know that for a few weeks in the autumn they may appear in great numbers in dry pastures where horses have been fed, provided the conditions of the air as to temperature, light, and moisture be favourable, and we also know that directly the necessary conditions fail, the mushroom harvest is at an end. We also know how strange is the predilection of certain fungi for the dung of particular animals, and I would allude to a list furnished to me by Mr. George Murray, F.R.S., which shows that the optimum conditions for the growth and development of these short-lived and delicate organisms must be marvellously subtle, probably quite beyond the ken of the chemist.

I will now proceed to deal *seriatim* with some of the contagia which are best understood, and will begin with

Tetanus.

Among the organisms which are habitually found in earth is the bacillus of tetanus. It is said to be present in almost all rich garden soils, and that the presence of horse-dung favours its occurrence. It is strictly anaërobic, and has been artificially cultivated by Kitasato in an atmosphere of hydrogen. It forms spores, and grows best at a blood heat. Marchesi has found it at a depth of 2 metres, but no lower. The pure cultivation of the bacillus, which has a disagreeable aromatic odour, is often not very virulent. It is fatal to animals as well as man, and among animals the horse appears to be most liable to be attacked. Infection always takes place by inoculation through the wounded skin or mucous membrane—never, it is believed, through the healthy alimentary or respiratory tracts. Cases of "idiopathic" tetanus are reported, but it has fallen to the lot of few of us to see a case, and professional opinion seems to lean to the idea that in such cases the inoculated wound has been overlooked. The toxin which the bacillus brews locally in the wound is toxic to the central nervous system, and the antitoxin to be effectual must, it is said, be injected subdurally into the central nervous system. The exhaustion of the nervous system seems to increase its vulnerability, which is, perhaps, the reason why tetanus has been relatively common in the domain of military surgery. There seems to be no doubt as to the ubiquity of the tetanus spore. Every child who falls on the ground and gets an abrasion of the skin, all tillers of the soil who get accidental wounds in the course of duty, and every horse which "breaks its knees" by falling in the London streets, runs a risk of inoculation with tetanus. I have made inquiry of many practitioners in the Thames valley where market gardening is the chief industry, and where countless tons of London horse-dung are spread upon the land, and learn from them that tetanus is, in their

experience, the rarest of diseases. Seeing that the bacillus is so strictly anaërobic, one is justified in supposing that the tillage of the soil, which brings it in contact with the air and sunshine, must be unfavourable to its growth and virulence. The bacilli must die out under such conditions, and the inoculation of the spores alone is said by Vailliard, Rouget, and Vincent to be incapable of setting up tetanus. If the bacillus or the spore be carried in dust, or if either be washed into the water and drunk, we have no evidence that any harm results therefrom. In common with other microbial diseases, tetanus is more virulent in the tropics than in temperate climates. Friedberger and Frohner state that it is so common among horses in St. Domingo, especially after the operation of castration, that geldings are worth twice as much as stallions.

In an article by Mr. Sidney Villar in the *Journal of Comparative Pathology and Therapeutics* for December, 1897, an observation by Mr. Joseph Woodger is quoted, to the effect that tetanus is particularly common among horses used in dust-carts, and Mr. Villar continues: "In my own practice in Middlesex there are two farms where the disease is specially prevalent. One of these, at Alfreton, is occupied by a farmer who habitually spreads on his fields large quantities of London refuse; at the second farm, five miles away, the bailiff brought two large loads of the sweepings of London roads in 1893 and dressed his home meadows with it. On these meadows his colts and young stock were pastured, and for two and a half years tetanus was endemic on his farm; during this period six colts became affected, and I believe only one entirely escaped the disease."

This experience of Mr. Villar seems to point to the danger of placing upon grazing land material which is probably mixed with broken glass or crockery.

In connection with Marchesi's observation that the tetanus organism has not been found at a greater depth than two metres, I would allude to a fact, to which I shall return later, that this approaches the maximum depth to which the earthworm burrows. It is obvious that if a spore were carried downwards by a worm it would meet with anaërobic conditions favourable for its preservation. It is remarkable that in face of the ubiquity of the cause, the disease in man should be so rare. This is probably in part due to the fact that we wear boots.

ANTHRAX.

Anthrax is a disease which is undoubtedly connected with the soil. The bacillus was discovered by Pollender in 1849, a discovery which is just fifty years old, and marks the dawn of pathological bacteriology. The identification of the bacillus in the laboratory and the diagnosis of the disease in animals from quarter evil and septicæmia is not without difficulty, and are sufficient to throw a shade of doubt over some of the earlier observations, but the discovery of bacilli anthracis in the blood clinches the diagnosis. It was in 1850 that Rayer and Davaine described the bacilli, and in 1877 Pasteur communicated to the Academy of Sciences the important fact of sporulation observed in these bacilli by Koch and himself, and, further, pointed out that the bacillus anthracis was essentially aërobic, and was quickly destroyed in the blood of the dead animal after the onset of putrefaction.

In August, 1878, M. Pasteur fed sheep on lucerne previously watered with a pure cultivation of bacillus anthracis, and found that "in spite of the immense number of spores taken in with the food many of the sheep escaped death." The mortality was much increased when the infected food was mixed with prickly material such as the leaves of thistles and the chopped heads of barley, and the *post-mortem* examination of sheep rendered *charbonneuses* by fodder of this kind gave reason to suspect that they were really "inoculated" through injury by the prickly food at the back of the throat.

It is recognised by professional "knackers" that they run little risk of contracting "charbon" by manipulating dead animals far advanced in putrefaction, and both Pasteur and Koch have shown that putrefaction soon destroys the bacilli in the blood and tissues of an animal, and that being aërobic sporulation does not take place inside the putrefying body, but is very liable to occur in the blood which escapes from it whether upon the earth or a dung heap.

In August, 1878, Pasteur made a necropsy on the body of a sheep and then buried the carcass. Ten months and fourteen months afterwards Pasteur found spores of anthrax in the earth of this animal's grave, and established the fact by the inoculation of guinea-pigs. The spores were found in the surface soil over the grave, although since the burial the ground had not been moved. Similarly spores were found in the soil over the grave of a cow buried two years previously, and at a depth of 2 metres. These spores were found over the graves of dead animals after all the operations of cultivation and harvest. Earth taken at a distance from these graves did not give charbon.

He attributes the uprising of spores to the action of earth worms, and claims to have actually recovered spores from the bodies of earth worms living in soil polluted with anthrax. In a footnote Pasteur calls attention to the fact that in Cantal there are pastures which from time immemorial have escaped (*sont épargnés*) and others in which from time to time the cattle were decimated, which are known as "*montagnes dangereuses*," and are abandoned for several years at least. "But the cause, whatever it may be, which produces charbon in a locality disappears with time." In Beauce Pasteur saw certain fields in which the folding of sheep had been interdicted for several years—that is, since the last death thereupon from charbon. "Now we placed flocks of sheep on five of these fields, and the mortality was *nil* except in one flock where it amounted to 1 per cent."

M. Colin of Alfort, a professor at the Veterinary School, controverted some of Pasteur's experiments; a further report therefore was made on May 17th, 1881, by a commission composed of M. Bouley, M. Davaine, M. Alphonse Guérin, and M. Villemin. Earth from a twelve-year grave, a three-year grave, and from virgin soil was kept at a temperature of 90° C. for fifteen minutes, and the fine sediment injected into guinea-pigs. Of 5 guinea-pigs inoculated with twelve-year earth on March 19th, 4 died on March 21st and 22nd from septicæmia and 1 died on March 23rd from charbon. Of 5 guinea-pigs inoculated with three-year earth on March 19th, 4 died from March 21st to 23rd from septicæmia and 1 died on March 23rd from charbon. Of 5 guinea-pigs inoculated with virgin soil on March 13th none died. One had a small abscess at the seat of puncture. Of 6 guinea-pigs inoculated with twelve-year and three-year earth on March 30th, 5 died from septicæmia on April 3rd and 1 died from charbon (twelve-year earth) on April 3rd. Of 3 guinea-pigs inoculated with excreta taken from the bodies of living earth worms, 2 died from septicæmia and 1 from charbon on March 30th. Of the 19 animals killed by the above experiments, 15 died from septicæmia and 4 from charbon.

Since 1879 M. Pasteur had asserted that most soils when inoculated were capable of causing death from septicæmia quite apart from any contamination by the death of anthrax animals. Of three guinea-pigs inoculated on March 28th with worm castings taken from above the graves of some of the victims of the Commune, situated on waste land, one died from septicæmia on April 1st and two were unharmed.

Pasteur had clearly demonstrated that the anthrax bacillus is essentially aërobic, that it is soon destroyed by putrefaction, and that for sporulation free exposure to air and a temperature above 15° C. are necessary. These facts seem out of harmony with the view that earthworms bring spores from a deeply buried carcass to the surface, while the skinning and transportation of an animal dead from anthrax must necessarily be a most dangerous process.

All are agreed that anthrax is a disease liable to haunt localities.

It is alleged by Friedberger and Frohner that the spores may vegetate in the soil and surface water quite independently of the animal body. The disease is said to occur among horses, cattle, and buffaloes in Eastern Bengal, Manipur, and Burmah without the agency of infection and to be in that part of the world a truly miasmatic disease. As spore formation requires something like a blood heat, it is only what might be expected to find the disease becoming endemic among cattle and horses in tropical countries. Where infected animals drop dung and other discharges on the soil it becomes impossible to say whether the infective spore originates in the soil or in the animal. These authors assert that "there exists a well-marked connection between the disease and the amount of moisture in the soil. It appears most frequently in lowlands and plains exposed to inundations and great heat." Copeman also asserts that the disease is prevalent on damp soils containing much humus, as, for instance, upon peat bogs and near the borders of lakes and rivers which have overflowed. On the other hand, we have Pasteur speaking of "*montagnes maudites*" in connection with anthrax, and asserting that the mortality is great in soils which are *secs et calcaires*.

Many of the outbreaks of anthrax in this country have been in the neighbourhood of Bradford, and have been traced to the use of infected wool refuse as manure. A map published by the Board of Agriculture shows that the outbreaks of anthrax are most frequent in those counties of Great Britain where *dry* foreign wools, hairs, hides, and skins are manufactured into goods. It is the anthrax spore which is

the danger, and if, as is the case, a high temperature and free admission of air be necessary for sporulation, an excess of water would be unfavourable for that process. There seems a concurrence of opinion that the bacillus anthracis is killed by putrefaction and soon disappears in the unopened and unskinned body. The advice which is usually given in this country to bury anthrax carcasses deeply and unopened and unskinned is doubtless sound, although it is doubtful if the depth of the grave adds materially to the anaërobism of the surroundings. It is very doubtful if in an unopened body spore formation be possible after a short period of burial. It is clear that the animal should be buried at the spot where it dies, and that the spot should be enclosed and planted with a few saplings of some indigenous tree. The value of "quicklime" is doubtful.

All Pasteur's experiments in relation to graves appear to me to be vitiated by the fact that they took place in an anthrax district, and it is very difficult to say whether the spores were derived from the buried animals or from the dung of infected ones which had been used as manure, or from the blood-stained wool which, we are told, is of "bad omen" in a flock. It is a noteworthy fact that of the 19 guinea-pigs inoculated by the Alfort Commission 4 only died from anthrax and 15 from septicæmia, and that the earth from the three-year-old grave and from the twelve-year-old grave conveyed anthrax in the same proportion, that is, 1 in four inoculations. There seems no doubt that spores may be found in earthworms or their castings, and there is equally no doubt that if the worms have brought the spores from the depths of the earth, such spores must have originally been formed on the surface. It is, of course, quite impossible to say whether a worm swallowed the spore on the surface or below it, and it is certain that recently dead bodies have no attractions for worms.

There are some discrepancies amongst observers as to the infectivity of food grown on anthrax ground. On the one hand, Pasteur was unable to do much harm to sheep by feeding them on lucerne sprinkled with spores, and, on the other hand, we have a story quoted by Pasteur of an old woman whose goat and cow died from anthrax when fed with clover stolen from over a grave two years after the burial of an anthrax animal.

Anthrax in the human subject is a rare disease. Man is never infected through the alimentary tract, as appears to be the rule among animals. Cutaneous anthrax (malignant pustule) is caused by direct inoculation.

Pulmonary anthrax, or woolsorter's disease, was first noticed in the Bradford worsted district after the introduction of alpaca and mohair as textile materials in 1837. It appears to be generally accepted that "this form of anthrax may attack any person exposed to the inhalation of anthrax spores in dust arising from the products of diseased animals." And yet I have hitherto found no records of pulmonary anthrax from the inhalation of dust from highly manured ground which must, one would suppose, especially in the West Riding of Yorkshire, often contain anthrax spores. The lungs of the agricultural labourer and the market gardener appear to be immune to the infectivity of anthrax spores. It seems to be of very great importance to bear in mind: (1) that anthrax spores persist even in the finely pulverised soil of worm castings, which must be very easily dried and converted into dust; (2) that anthrax may undoubtedly infect man by the inhalation of dust; and (3) that pulmonary anthrax among agriculturists has not been recorded. The persistence of the anthrax spore in the earth does not admit of a doubt, but there is no evidence that man is ever infected directly from from the earth. How far anthrax in animals is due to inoculation rather than to feeding requires further and very careful investigation.

Diarrhœa.

Diarrhœa is a disease which in its epidemic form has been supposed to be engendered in the earth.

The third quarter of the year 1898[2] was characterised by a very large infantile mortality, mainly attributable to diarrhœa. The rainfall for the quarter was unprecedentedly small, the temperature was above the average, and the harvest was one of the best on record.

Excluding the towns, infant mortality in the remainder of England and Wales was in the proportion of 184 to 1,000 births. Diarrhœa caused 22,524 deaths, equal to an annual rate of 2.85 per 1,000, or 1.21 above the average rate of mortality in the third quarters of the previous ten years.

The mortality from diarrhœa was, however, mainly urban; the rates averaged 3.85 per 1,000 in the thirty-three great towns. Among counties it is the rural which have least and the industrial which have most diarrhœa; and if we turn to the mortality returns for those counties where diarrhœa was especially rife, we shall find the mortality greatest in the urban districts. It is a point not without interest to note that the diarrhœa death-rate and the fever death-rate in this quarter bore no relation to each other, and that, while the diarrhœal death-rate was 1.21 above, the fever death-rate was 0.03 below the average for the corresponding quarter of the last ten years. In the following table some figures are collected which show this very strikingly.

Table showing the Death-rates per 1,000 from Fever and Diarrhœa during the Third Quarter of 1898.

	Fever.	Diarrhœa.
England and Wales	0.16	2.85
London	0.11	3.19
Wolverhampton	0.18	6.38
Leicester	0.11	5.34
Manchester	0.09	5.38
Preston	0.28	6.41

Diarrhœa is a disease of hot weather. Ballard thought that when the 4-feet temperature of the earth reaches 56° F. diarrhœa becomes common. Tomkins of Leicester (Leicester is a "diarrhœa town") shows that the disease becomes common when the 1-foot thermometer stands at 60°. Snow of Buffalo, U.S.A., showed that in 1886-88 diarrhœa mortality was highest when the minimum atmospheric temperature attained its highest average range. The London statistics for 1887 and 1888 collected by Dawson Williams show a similar relationship between diarrhœa and a high average minimum range of temperature. Copeman considers it highly probable that the disease is due to "microphytic processes" going on in the upper layers of the soil. "This would afford an explanation of the fact that summer diarrhœa is especially a disease of cities having a polluted soil."

The bacillus enteritidis sporogenes is believed by Klein to be the cause of infantile diarrhœa.[3] It is an anaërobic bacillus which forms spores and may be easily cultivated in milk. It is fatal to rodents when injected hypodermically and produces a foul-smelling bloody œdema of the cellular tissue and adjacent muscle tissue. The spores were found in 4 out of 10 cases of infantile diarrhœa examined and in 6 out of 8 cases of "cholera nostras." It was found in 8 out of 10 samples of milk purchased in London milk shops between April and the end of June (when diarrhœa was not epidemic?) including samples of so-called "pure sterilised milk." It has been found in large quantities in sewage and in sewage effluents. It is found in horse dung and in all matters polluted with it. It has not been found in pig dung or cow dung or in the dung of a healthy human being.

In face of the wide distribution of the microbe it is evident that the vulnerability of the individual must be an important factor in determining an attack of diarrhœa. If we are to consider diarrhœa as a soil disease it is evident that its cause exists only in the upper layers. It is more common among city streets than in agricultural districts. According to Klein the probable cause is largely to be found in horse dung which is pulverised and blown about generally. That it is a "soil" disease in any true sense is certainly not proven.

[The lecturer at this point discussed dysentery, cholera, and Malta fever as soil disease, and then proceeded as follows:]

Plague.

Plague has been regarded as a soil disease, but recent evidence must materially modify this opinion. Experiments carried out in districts where a disease is epidemic or endemic necessarily acquire a measure of certainty from that fact alone. The unfortunate accident which occurred last year in Vienna, much as one may deplore it, was an object-lesson of the greatest value and converted what many regarded as mere theories into facts which all can read and understand. In the recent epidemics in the East the theory that plague grows "in the soil" has received no support whatever.

In India the two facts which have come to the front are the danger in relation to plague of (*a*) rats, and (*b*) abrasions on the skin; and it may be said that the following are the most important items in the spread of plague:

1. Filthy habits of the people, such as spitting over the floor and others mentioned above.
2. Filthy houses.
3. Overcrowding, and consequent rapid increase of contagious disease when once imported.
4. Presence of rats, insects, and other vermin.
5. The naked condition of the people going about, such people presenting almost unlimited opportunities for the entrance into their tissues of plague poison by inoculation and through abrasions.
6. Pollution of soil and houses with the excretions of man and animals.
7. Filthy clothing and absence of bodily hygiene.

Diphtheria.

Dr. Arthur Newsholme in his work on *Epidemic Diphtheria* (1898) while admitting that personal infection is the chief means by which diphtheria is spread, contends that

> The specific micro-organism of this disease has a double cycle of existence, as have the specific micro-organisms of enteric fever, erysipelas, scarlet fever, rheumatic fever, etc. One phase is passed in the soil, another in the human organism. One is saprophytic, the other parasitic.[4] It is not strange, therefore, that the epidemic prevalence of all the above diseases is favoured by deficient rainfall if this is sufficiently long continued. This deficient rainfall implies a low subsoil water and a subsoil above the level of this water which is relatively dry and warm, probably the optimum conditions of the saprophytic life of the above pathogenic micro-organisms. The causes of the transition of the diphtheria bacillus from the saprophytic to the parasitic phase of life may be surmised both as regards (*a*) season and (*b*) years of special epidemic prevalence. Diphtheria is most prevalent in the autumn and early winter months, when the optimum temperature and the optimum degree of humidity of the soil are rapidly disappearing or have departed. It is also most prevalent after the wet weather occurring in or immediately following exceptionally dry years. Both these conditions tend to raise the ground water and to drive out any pathogenic micro-organisms from the soil.
>
> Dr. Newsholme is of opinion that in order to account for the epidemic and even pandemic waves of diphtheria, "the diphtheria bacillus under certain conditions becomes more actively virulent and infective, more remote from its saprophytic phase of life, and that thus persons who can resist the ingress of the feebler fall victims to the more powerful micro-organism." The latter is probably the correct hypothesis, and the evidence already given clearly points to the conclusion that of the external cultural conditions leading to increased virulence of the diphtheria bacillus, and greater readiness for assuming a parasitic life, exceptional deficiency of rainfall, and consequent exceptional deficiency of moisture in and exceptional warmth of the subsoil form an essential part.

The above is a very ingenious hypothesis, but it is essential to point out that the diphtheria bacillus has not been recovered from the soil, and that the bacilli of rheumatic fever and scarlet fever have not yet been identified. Before Dr. Newsholme's hypothesis can be accepted a great deal more evidence will be necessary.

Dr. Newsholme's figures generally seem to show that diphtheria is now a disease more of the towns than of the rural districts. It is not very easy to understand how, in a city where pavements and other impermeable coverings to the soil are general, the bacillus is driven by the rising subsoil water into the air. Of course, it may be driven out of the sewers and sewer ventilators, in which case it becomes a sewer disease rather than a soil disease. Most of the facts collected by Dr. Newsholme are explained as readily, if not more readily, on the theory that diphtheria is an air disease as upon the theory that it is a soil disease. That diphtheria is a soil disease is certainly not proven.

Malaria.

A few years ago I should have spoken of "malaria" as undoubtedly caused by something in the soil itself, but the discovery of hæmatozoa in the blood of sufferers from malaria has altered our point of view. The most widely spread poison in the world has become something which is visible and tangible and inoculable. No discovery which has ever been made in the domain of medicine is likely to have such far-reaching effects. Further, it seems certain that the infection of human beings may take place *viâ* the mosquito, and we are now concerned to find out whether this is or is not the only medium through which the blood of man receives the parasite. Some who are well qualified to speak would answer in one way and some in another.

If, however, on the one hand, we are able to show Europeans the importance of protecting themselves against the attacks of insects, we must, on the other, continue to make use of our accumulated knowledge as to the conditions of soil which indirectly cause remittent fevers to be endemic. The conditions of soil which give rise to malaria are too well known to need any lengthy discussion here, but airborne infection or waterborne infection cannot be lightly dismissed.

It is generally conceded that the turning up of virgin soil is one of the most fruitful causes of malignant malarial fevers, and under this heading is included blackwater fever, which has recently become so common. Surgeon Bowden, R.N., D.S.O., informs me that the turning up of fresh soil is often followed by an influx of mosquitos. On the other hand, the cultivation of the soil seems ultimately to lead to the decrease and disappearance of malaria.

After referring to a group which (like malaria) seems to be dependent upon the bites or stings of insects which, affecting animals rather than man, yet throw much light upon the pathology of infection, a group including ngana or tsetse fly disease, the "louping ill," a disease which is common in the North of England and Scotland which has been noticed to be fatal to sheep frequenting certain pastures; Texas fever of cattle, and the South African horse disease, the lecturer concluded as follows: There are other diseases more or less suspected of being soil diseases, but the facts are at present too few to make any discussion of them profitable. These are yellow fever, beri-beri, swine fever (undoubtedly propagated by fouling of the surface soil), cancer (?), thread worms, hydatids, and ankylostoma duodenale.

References and Note.

[1] Local Government Board Report, 1897-98. [2] Quarterly Return of the Registrar-General. [3] Twenty-seventh Local Government Report, 1897-98. [4] It is not contended that there is a regular alternation of saprophytic and parasitic generations, but that such alternations do occur.

THE LETTSOMIAN LECTURES
ON
SOME CLINICAL ASPECTS OF GRANULAR KIDNEY.

Delivered before the Medical Society of London.

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Lecture II.
Albuminuria.

Of albuminuria in granular kidney it is not necessary to say much. We know that it is usually small in amount, and that it is not constantly present. It may be found at special times only or may be absent for irregular periods, and might therefore be described as cyclical or intermittent respectively. It may be absent for long periods—even, it is said, altogether, though this is hard to prove. Its amount may be large—as much as half or more—but this generally depends upon some accidental complication, intercurrent nephritis or failure of the heart.

Given a clear case of granular kidney, these variations in the albuminuria do not cause surprise; but clinically the question often presents itself in a somewhat different form. In a given case albuminuria may be the chief symptom; we have then to decide whether granular kidney is the cause or not. It often happens that the evidence is not conclusive, for the patient appears to be in ordinary conditions of health. We are thus introduced to a problem of very great difficulty—that of so-called physiological or functional albuminuria.

For the present purpose we may regard the causes of albuminuria as falling into two groups, according as they lie in the kidney or outside it. In the latter case it may depend, on the one hand, upon some changes in the tissue or blood before the blood has reached the kidney, and may therefore be called prerenal; and, on the other, the urine may be normal when secreted, the albumen being added to it after secretion; these may be called postrenal. In each of these groups there may be some obvious cause or no cause obvious. Thus, the forms of albuminuria may be arranged into five groups:

Albuminuria	Prerenal	1. Obvious cause—for example, morbus cordis, fevers, etc.	Physiological.
		2. No obvious cause.	
	Renal	3. No evident renal disease.	
		4. Evident renal disease.	
	Postrenal	5. From urinary passages, etc., or generative organs, vagina.	Accidental.

Groups 2 and 3 are included under the term physiological albuminuria.

This table draws attention at once to the difficulties which have to be dealt with before the diagnosis of physiological albuminuria can be safely made. The postrenal group is of great importance, for in all cases care must be taken to exclude all accidental contamination, especially such as would result from the presence of cystitis, gonorrhœa, or from the admixture of discharges from the uterus and vagina, or from the prostate and vesiculæ seminales.

Experimentally, albuminuria has been produced in perfectly healthy persons by excessively albuminous diet, by violent muscular exercise, by cold bathing and exposure to cold; but even then it is probably not capable of being produced in every person, or at any rate not with equal ease, so that even in such cases some other factor is necessary.

Again, in an apparently healthy person albumen may be found occasionally present under certain circumstances, as, for instance, on rising in the morning or after food; and the albuminuria has then been called postural, dietetic, cyclical, or intermittent respectively. Intermissions or variations in the occurrence of albuminuria are no evidence that there is no disease of the kidneys, for they are frequently observed in persons recovering from acute nephritis, in whom it is by no means uncommon to find albumen absent, it may be, for the greater part of the day, and present only at certain times; in other words, the kidneys may be affected, and yet albuminuria be only intermittent or cyclical. This is, of course, well known to be the case in granular kidney. Even acute nephritis in slight degree may be very easily overlooked, especially in children, and when œdema is absent the nephritis may not even be slight, as the presence of blood and epithelial casts show.

Admitting all these exceptions, there remains a group of cases in which albuminuria is present, with apparently nothing whatever in the previous history or the actual condition of the patient to explain it. The choice of a term by which these cases can best be described is difficult. Latent albuminuria is, perhaps, that to which least objection can be raised, but it is often not so much latent as overlooked. Early albuminuria is open to the objection that it might be thought to refer to albuminuria only in the young, which would be incorrect, or that it implied the opinion that it was an early stage of disease, and this again would be begging the question. Albuminuria in the apparently healthy, on the whole, seems to me to have least objection to its use, and to state the facts best.

Albuminuria in the Apparently Healthy.

The statements made by different observers as to the frequency with which albuminuria occurs in the apparently healthy vary greatly.

Thus, Leube's[1] observations upon presumably healthy young adults, which are so often quoted, yield 30 per cent. Fürbinger's[2] observations upon children yield 10 per cent. Goodhart's[3] observations for all ages on the contrary only 2.6 per cent, while more recent observations upon boys yield more than 22 per cent. Finally, Possner states that albumen may be shown to be present in the urine of everyone.

To consider Possner's statement first. There is no doubt a certain shedding of epithelium in the genito-urinary passages of everyone; if, then, a large quantity of urine be taken, and, after concentration, treated in elaborate ways, it is evident that the albumen will be detected which is derived from the normal epithelium, and which must be present to a greater or less extent in the urine of everyone. Whether this be the origin of the albumen or not, so far as Possner's observations go, they amount to no more than this, that by special methods a minute amount of albumen may be detected in everyone's urine. This, however, is not what is meant by the clinical term albuminuria.

Variations so considerable as these in observations made by equally competent observers show that there must be a fallacy somewhere, and it may lie in the fact that different sets of cases have been observed or different tests employed. Looking broadly at the figures given by the different authors, these facts are evident:

1. The majority of observations upon which the statements are based have been made upon children and adolescents.
2. And those almost entirely of the male sex.
3. That the higher percentages have been obtained by including cases in which very minute traces of albumen were found by the most delicate tests.

In respect of age, Heubner[4] states that of the cases published, 77 per cent were in persons under 20 years of age, and 39 per cent in children, and to this I may add that hardly more than 10 per cent. at the most were in persons above 25. In respect of sex, the choice of males has probably been chiefly determined by convenience; at any rate I do not think sex has any influence upon the frequency of albuminuria, although the question has never, I believe, been worked out specifically from this point of view.

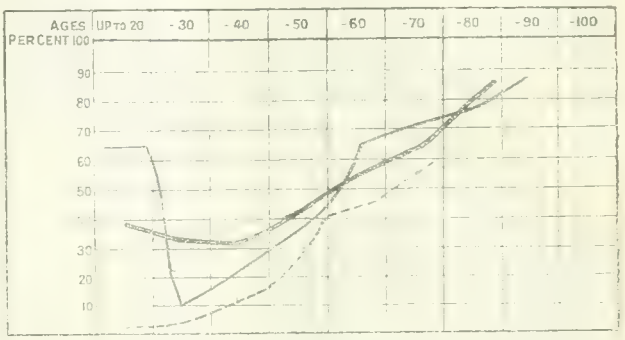


Diagram constructed from the figures given by Stirling (light line) and Levison (thick line). The dotted line shows the frequency of granular kidney in proportion to healthy kidneys derived from Mahomed's figures.

Roughly speaking, the cases thus group themselves into two periods: (1) those before the age of 25, and (2) those after 25. The difference between these two periods is indicated upon the diagram, which shows the remarkable frequency of albuminuria before the age of 25 years, the drop which occurs about that age, and the gradual rise with each age-period after that age. The diagram also indicates that the conclusions which apply to the one age-period cannot, without due allowance, be applied to the other.

There are many forms of albumen, but we need only consider two forms: (1) serum-albumen, which for our purpose will also include serum-globulin; and (2) nucleo-albumen, a mucin-like body, which has been till lately confused with mucin. It is by reckoning nucleo-albumen in with serum-albumen that the high percentages of albuminuria have been obtained.

Serum-albumen and nucleo-albumen both alike are precipitated by heat and acetic acid, by salicyl-sulphonic acid, and by picric acid.

The distinguishing tests are these:

1. Nucleo-albumen gives with acetic acid and dilution a distinct cloud, while albumen gives at most a haze or nothing at all. Acetic acid alone precipitates both albumen and nucleo-albumen, the former less rapidly: but on dilution the nucleo-albumen reaction is not diminished, or may be somewhat increased, while the haze with albumen becomes less distinct in proportion to the dilution.
2. Heller's test gives a distinct line with albumen at the junction of the two fluids. But with nucleo-albumen the ring forms ½ to 1 centimetre above the junction, or, if there is no ring, a haze is produced throughout the solution.
3. A saturated solution of sodium chloride with acetic acid, when heated, gives a faint reaction with nucleo-albumen but a distinct one with serum-albumen.
4. Ferrocyanide of potassium and acetic acid, which is very sensitive to serum-albumen, gives a reaction with nucleo-albumen only if it be present in considerably more than a trace.
5. A saturated syrupy solution of citric acid precipitates nucleo-albumen much more readily than serum-albumen. The ring method, as in Heller's test, is the most satisfactory way of making this test.

Mucus also gives some of the above reactions—for example, with heat and acetic acid, salicylsulphonic acid, and picric acid, as well as acetic acid in the cold, but it is present only in very slight amount. It does not give the ferrocyanide of potassium test if performed in the right way—that is to say, if the urine be added to the ferrocyanide and acetic acid solution, and not, as the test is often made, by adding the ferrocyanide solution to the urine or by adding acetic acid first.

There is no single test upon which reliance can be placed to distinguish absolutely between nucleo-albumen and serum albumen, but these tests systematically used in order will suffice to make the distinction quite clearly in most cases.

Desiring to form my own opinion upon this question, I asked Mr. Levison to undertake some observations for me. He has done the work with very great care, and his paper will shortly be published *in extenso*; for the present I shall only give the more important conclusions:

He examined 336 healthy persons, of whom 108 were young soldiers; the rest were hospital convalescents. The cases were thus grouped:

	Below 25.	Above 25.
Males ...	254	155	99
Females ...	82	31	51
Total	336	186	150

A proteid reaction of some kind was obtained in 136, or 40.47 per cent., and of this serum-albumen occurred in 22.02 per cent., and nucleo-albumen in 18.05 per cent. The figures are set forth in the following table:

	Below 25.	Above 25.
Proteid reaction of some kind in 136 cases=40.47 per cent.	75 cases	61 cases
Serum-albumen in 74 cases=22.02 per cent. ...	42 ,,	32 ,,
Nucleo-albumen in 62 cases=18.44 per cent. ...	33 ,,	29 ,,
Negative in 200 cases	112 ,,	88 ,,

Making allowance for the different numbers in the two groups—that is, above 25 and below 25, the percentage was almost exactly the same in each. The amount of albumen in all cases was extremely small, and probably in half the cases would have been overlooked in the ordinary methods of examination. The largest amount in these series was not more than would give a ring of 1 to 2 millimetres in thickness with nitric acid. Nucleo-albumen was found alone in nearly one-half of the cases—18.44 per cent., and this was the same in both the groups—that is, before 25 as well as after 25. It is probable, therefore, that in Leube's results, as in these, one-half were due to nucleo-albumen.

Of the cases in which serum-albumen was present (22 per cent.) in 12 per cent. the amount was quite minute, and only in the remaining 10 per cent., would have been easily recognisable by the ordinary methods.

No clinical difference could be detected between the cases with serum-albumen and those with nucleo-albumen, nor should any be expected if it be true that nucleo-albumen is but a salt of ordinary albumen with chondroitic-sulphuric acid or nucleic acid, which are constituents of normal urine.

The age distribution of the cases examined is shown in the following table:

Age-Period.	Total Number of Cases Examined.	Albumen: Serum-A. Nucleo-A.	Percentage to Cases at each Age-Period.
1— 5 years ...	1	0	0.00
5—12 ,, ...	18	2	11.10
12—18 ,, ...	37	14	37.80
18—25 ,, ...	129	59	45.70
25—35 ,, ...	47	17	36.10
35—45 ,, ...	32	11	34.40
45—55 ,, ...	37	15	40.50
55—65 ,, ...	22	11	50.00
65—75 ,, ...	11	6	54.10
Above 75 years ...	1	1	100.00
	336	136	40.37

These observations show that the great frequency of albuminuria in apparently healthy persons is not overstated if all those cases be included in which there is the minutest possible trace evident only on careful examination, but inasmuch as in most of these cases, probably one-half, the trace is so small that it can only be detected with great care when specially looked for, the contrast between these results and the general impression obtained from ordinary clinical experience is not so great as at first sight it appears to be.

It is also evident, as I have already stated, that the conclusions drawn as to the frequency of albuminuria in one age-period must not be applied without due allowance to any other age-period, and that speaking generally the significance is entirely different before 25 and after 25. What is required is a systematic series of observations in which the same carefully-selected tests have been employed, and a sufficient number of cases of the one sex and of the other examined at the different age-periods.

1. In infants up to the age of 5.
2. In young children from 5 to 10.
3. In boys or girls from 10 to 18, that is, the school age.
4. In young adolescents, 18 to 25.
5. In young adults, 25 to 35.
6. In the middle period of life, that is, from 35 to 50.
7. In the later periods of life, over 50.

1. *Infancy and Early Childhood.*—Of albuminuria in infancy and early childhood we have not much information. In new-born infants albuminuria is stated to be common, but that need not be matter of surprise. In babies up to a few months old, Holt quotes Cruse as having found albuminuria in 28 out of 90 cases (31.1 per cent.).

2. *From Infancy up to the Age of 10.*—Albuminuria is said to be less frequent up to the age of 10. Ward examined 120 cases between the ages of 5 and 12 years, but his results bear this statement out fairly well, for he obtained a reaction with heat and acetic acid in 29 (24.16 per cent.), but the amount was always minute and sometimes the merest trace. In only 9 cases (that is, 7.5 per cent.) was the amount appreciable.

3. *10 to 18 Years—that is, Children during School Age.*—At this period statistics abound and show the extraordinary frequency of albuminuria. The following are some of the figures:

Stirling	369 boys	3 per cent.
Ribbert	240 ,, ...	,,
	summer (104 cases) ...	20.6 ,,
	winter (136 ,,) ...	10.0 ,,
Dukes	many years' experience	22.0 ,, at least.
Grainger Stewart ...	100 ,, ...	17.0 ,,

Stirling's table shows a gradual increase in frequency from the age of 12 to 15 or 16.

Age ...	12	13	14	15	16
Number of cases ...	20	59	88	147	55
Percentage... ...	5.0	10.2	16.0	29.4	23.6

Although the amount of albumen is usually small it may be considerable.

Thus in a specimen which was kindly sent me recently for examination by Dr. Clement Dukes the amount of albumen was as much as 2 per cent.—that is, 20 grams in the litre. This was in the morning urine. In the evening, after a day's rest in bed, the albumen was not more than a trace, and this chiefly nucleo-albumen. In a third sample, after the boy had got up again, the amount of albumen was nearly as large as before—namely, 1.4 per cent., and about $\frac{1}{3}$=0.18, was serum-globulin and nucleo-albumen. This specimen was centrifugalised, and showed a few granular and epithelial casts and some epithelial cells.

It has been suggested that the presence of albuminuria at these ages is due to the active development of the sexual organs, and probably also to the presence in the urine of discharges derived from these organs, and that the form of albumen is generally nucleo-albumen. The albumen is, however, generally serum-albumen and not nucleo-albumen and there is no proof that nucleo-albumen is derived from the urinary passages and not from the kidney. Nor is there any proof that masturbation is a predisposing cause; indeed, what evidence there is, is against it.

4. *18 to 25 Years, Adolescents.*—It is upon cases of this period that most of the statements as to physiological albuminuria in adults are based.

Most of the observations have been made upon young soldiers:

Leube	119 young soldiers	...	20.4 per cent.
Grainger Stewart	265 ,, ,,	...	27.6 ,,
Tieman... ...	186 ,, ,,	...	27.4 ,,
Zeehuisen ...	144 ,, ,,		14.6 ,,
Levison ...	108 ,, ,,	...	47.25 ,,

The 108 young soldiers which Levison examined ranged from 17 to 27 years of age, but of these only 8 were above 25.

A proteid reaction of some kind was found in 51 cases = 47.25 per cent.
This was due to serum-albumen in 30 cases = 27.75 per cent.
This was due to nucleo-albumen in 21 cases = 19.50 per cent.

In all the nucleo-albumen group and half the serum-albumen group the quantity present was very minute = 33.4 per cent., that is, in only 14 per cent. was the quantity certain to have been detected by ordinary testing.

In 3 of the latter cases in which a moderate amount of albumen was found, careful microscopical examination was made after centrifugalising, and nothing discovered except a few epithelial cells.

The effect of exercise is well shown thus:

In 29 Cases after Drill.	In 79 Cases without Drill.	24 New Recruits who had not been Drilled.
Proteid of some kind in 18 cases = 62.3 per cent.	In 33 cases = 41.7 per cent.	5 cases = 20.75
Serum-albumen in 10 cases = 34.48 per cent.	In 20 cases = 25.31 per cent.	3 cases = 12.54
Nucleo-albumen in 8 cases = 27.82 per cent.	In 13 cases = 16.45 per cent.	2 cases = 8.25

Thus morning drill considerably increased the total frequency of albuminuria, but made no difference in the relative frequency of the two kinds of albumen.

5. *25 to 30 Years.*—For this period there are very few published statistics. By the kindness of friends I have been enabled to obtain the experience of some life offices relative to the occurrence of albuminuria in applicants for insurance presumably healthy below the age of 30 years. At the Provident Clerks Life Assurance Association, I find that in the course of the five years 1893 to 1898, 7,950 policies came before the office, and 4,488, that is to say, a good deal more than half, were persons under 30 years of age; out of this number, 25 cases were found to have albumen in the urine. This was a percentage well under 1, actually of 0.55; of this number no fewer than 18, that is, two-thirds, were under the age of 25. At another office, for the period of ten years, the number of applicants below 30 years of age was, roughly speaking, about 750, and out of these 7 only were deferred or rejected on the ground of albuminuria; this gives a percentage of nearly 1.

No doubt more precise examination would have raised this percentage somewhat; still I think the facts are sufficient to show that at this age-period albuminuria is much less common than in any precedent period, and that it probably stands at its lowest point in life.

6. *Above 30 Years.*—There are a great many figures to show the general frequency of albuminuria for all ages during the insurance period, but they tell us little of what we really want to know—namely, the relative prevalence of albuminuria at the different age-periods throughout adult life.

Thus Washbourn, for	1,000 cases, found	3.5	per cent.
,, Munn	,, 1,000	,, 11.0	,,
,, Tieman	,, 2,000	,, 9.0	,,
,, Anonymous	,, 6,400	,, 7.1	,,

To these we may add as derived from general sources:

Grainger Stewart,	100 adults ...	... 10.0 per cent.
Goodhart,	1,600 out-patients	... 2.6 ,,

With these we may compare Levison's figures, which yield a much higher average percentage, equal to 40 per cent. Petersen's results give the key to the difference in the percentages obtained. He examined 1,000 soldiers and recruits by Heller's test only, and found albumen present in the morning urine, on rising, in 3.79 per cent.; at 11 A.M., after three hours' drill, 15.11 per cent.; at 6 P.M., after two hours' drill, 9.02 per cent. The difference in results is evidently due to the different tests employed.

It would greatly simplify matters if we could agree upon a standard test, and the best, in my opinion, would be Heller's. It is sufficiently delicate, for it will show 1 part in 10,000 at once, and 1 part in 35,000 in 4 minutes. An amount of albumen which cannot be shown by Heller's test may, *qua* albumen, be disregarded clinically.

The Significance of Latent Albuminuria.

Latent albuminuria, that is, in the apparently healthy, apart from its scientific interest, has a practical bearing—in boyhood as affecting the school career, in young men as affecting the chance of appointments, and in adult life as affecting insurance.

In considering the significance of albuminuria, it will be well to retain the division into two groups, before and after 25, as we have hitherto done.

1. *Significance in Boys and Adolescents.*—Albuminuria is common during the period of growth and immaturity, and becomes less frequent when development is approaching completion. The question arises whether we can connect these two facts together. Assuming that during the period of growth all the tissues of the body are in a condition of instability and immaturity, it is easy to suppose that very slight causes might disturb their balance, and thus in the case of the kidneys albumen might appear in the urine as the result of causes which would have no effect upon the fully-developed or adult organism or organ.

What the clinical significance of this albuminuria in childhood and adolescence is can only be determined by clinical observation, by carefully investigating the cases at the time, and watching them over a long period. The boys in whom albuminuria is found appear to fall into at least two groups. In one the child appears to be robust and healthy, has a rigid artery and a high tension. These are the cases which Clement Dukes has recorded as met with so frequently in schoolboys. In the other the children are not robust and healthy, but feeble and pale, and in them the tension is low and the artery not thickened. These two groups probably indicate not only different conditions but a different prognosis. In no case is the albuminuria strictly speaking physiological; it is always pathological, though not necessarily renal.

What we require to know is the course which these cases run in after-life.

If albuminuria is so common in youth and adolescence, and becomes so much less frequent in early adult life, it follows that many of the cases have no very serious significance—in other words, that they get well. This, indeed, we also know from direct observation. Yet with those who have most experience there is evidently still some lurking doubt about the ultimate result in not a few instances.

Granting that many, perhaps the majority, ultimately recover, there remains another group in which the patients continue to pass albumen for many years and yet remain in good health, and a third in which signs of renal disease ultimately develop.

Johnson[6] described a case in which recovery took place after seven years of persistent albuminuria, and other cases in which the albuminuria persisted for ten, fifteen, or even twenty years, without other evidence of disease appearing. Saundby[7] records the case of a man rejected for insurance on account of albuminuria who was in good health eighteen years afterwards.

Yet, as will be shown later, maintenance of health for many years is not incompatible with damaged kidneys and premature death. Making all allowance for exceptional cases such as these, the significance of albuminuria in early life must for the present still remain doubtful.

Clement Dukes says in one of his last writings on the subject: Familiarity with the disease has not bred the proverbial contempt, for I am convinced that a number of these cases never recover. In many, indeed the majority, the albuminuria is transient and never recurs; in others it becomes persistent from a frequent repetition of transient attacks, from neglect or imprudence, or from failure of accurate diagnosis, and eventually results in chronic disease of the kidney.

Holt says: All these cases must be carefully watched for a long time, and many observations made before nephritis can be positively excluded. If albumen is constantly and persistently present it is probably pathological, and the longer it continues the more serious the outlook.

Significance in Adult Life.—This is important in relation to life insurance. Before 25 many cases may be curable; after 25 the chances of renal disease increase rapidly. Conclusions drawn from cases under 25 cannot be applied without consideration to cases over 25. The diagram already given shows, first, the frequency of albuminuria at the different age-periods after 25, and, secondly, the frequency of granular kidney after 25.

There is a great difference of opinion professionally as to the significance and importance of the traces of albuminuria met with in otherwise apparently healthy persons applying for insurance, and I think there is also much difference in practice. It would be important therefore to trace these cases in order to ascertain what became of them in after-life. In some instances this has been done.

Thus, in Washbourn's series, out of 1,070 cases, 38 had albuminuria—that is to say, 3.55 per cent. Of these 38 cases, 18 were traced; 14 more of these cases were known to be living, but the condition of the urine was unknown, and 6 were lost sight of. Of the 18 cases traced, 6 were stated to have recovered; 6 died of renal disease; 5 others had albumen still some years after; and 1 died of phthisis. Thus, out of 18 cases, 6 had renal disease for certain and 5 more probably, giving a percentage of not less than 33, and possibly of 60. Washbourn calculated that the mortality-rate among these cases for the age was 17.54 per cent.—that is to say, was nearly double the normal average.

Munn found that, out of 25 cases, 1 died within the year following the examination, and 4 more died during the subsequent three years, while in all the rest the health had obviously deteriorated.

Rabagliati's results bear, perhaps, only indirectly upon the question we are discussing. He showed in connection with the Scottish Widows Fund that, of 3,246 deaths, 255 were referred to urinary diseases—that is, 7.8 per cent.—and of these, 4.3 per cent. were due to diseases of the kidneys and nephritis. During the same period in Bradford the general mortality from urinary diseases of males above 15 yielded the rate of 3.4 per cent. Thus, the insured lives had a mortality-rate for kidney disease much above the normal. He further states that the average age of albuminuria at death was 57.

We may thus conclude that, in spite of all ordinary care and consideration, a considerable number of renal cases slip through the medical examination; and hence the importance of not minimising the evidence, even when it is slight, if any early renal mischief is apparent.

From another office I have a very valuable report, to the author of which I should like to acknowledge my indebtedness, but I am prevented by the condition upon which the

information is furnished me, so that, while I can vouch for the figures, the report must remain anonymous:

In a series of 6,400 adults examined between the years 1877 and 1893, 454 cases of albuminuria were found. Of 137 cases among these in which the urine was examined microscopically, casts were found in 31—that is, in about 23 per cent. Thus, in round numbers, albumen occurred in about 7 per cent. of all apparently healthy adults; the probability of finding casts in the urine associated with albumen was about 1 in 4. Some of these cases have been traced in after life, and the following figures have been furnished me.

Albuminuria in Adults apparently Healthy.

Very few were examined microscopically. The specific gravity ranged from 1034 down. Personal and family history and build were good as a rule, but some cases have been admitted in which one or more of these factors have been under the average.

Table I.

	Ages between 20 and 39 (A).		Ages 40 and over (B).	
	Living at End of.	Died During.	Living at End of.	Died During.
1st year ...	194	2	120	4
2nd ,, ...	192	1	115	5
3rd ,, ...	188	5	113	2
4th ,, ...	187	1	109	4
5th ,, ...	181	8	100	3
6th ,, ...	174	7	101	5
7th ,, ...	166	5	89	12
8th ,, ...	147	6	78	2
9th ,, ...	99	2	53	3
10th ,, ...	44	—	27	2
11th ,, ...	22	1	13	1
12th ,, ...	16	1	10	—
13th ,, ...	11	—	5	—
14th ,, ...	4	—	5	—
15th ,, ...	3	—	1	—
16th ,, ...	3	—	—	—

Among these cases 49 were stated to have had casts.

Table II.

	Ages between 20 and 39 (A).		Ages 40 and over (B).	
	Living at End of.	Died During.	Living at End of.	Died During.
1st year ...	25		22	2
2nd ,, ...	25	—	20	2
3rd ,, ...	24	1	18	2
4th ,, ...	24	—	18	
5th ,, ...	22	2	18	
6th ,, ...	21	1	18	—
7th ,, ...	20	1	13	3
8th ,, ...	20	—	12	1
9th ,, ...	17	1	10	1
10th ,, ...	12	—	5	1
11th ,, ...	5	1	4	
12th ,, ...	2	1	3	
13th ,, ...	2	—	3	
14th ,, ...	2	—	—	
15th ,, ...	1	—	—	
16th ,, ...	1	—	—	
17th ,, ...	1	—	—	—

Table I.—For the first eight years or so nearly all the cases were traced, and the record is remarkably complete; after this many apparently were lost sight of. During those eight years the total mortality in Group A, that is, in cases under 40, was 17 per cent., and in Group B 30 per cent., a very considerable death-rate for presumably healthy lives. Evidently, therefore, the albuminuria largely increased the risk. But the table also shows that some of the cases lived a long time. Thus, in Group A, at least 44 persons, that is, 22 per cent., were known to have lived 10 years, and probably several others were alive who had been lost sight of. Sixteen were known to be alive after 12 years, 8 after 14, and 2 at least lived more than 16 years. Similar facts are shown in Group B.

Table II. In this class, taking 8 years also, the mortality was higher—namely, 20 per cent. in Group A and 50 per cent. in Group B. Still, here again some individuals were known to have survived for many years.

The following table has been, with great kindness, calculated for me by an actuary-friend, to show approximately, as far as the figures permit, the difference in mortality compared with healthy males, and to make the results more obvious they have been taken for difference of two years in age:

Ages Attained.*	Rate of Following Year. A	Rate of Following Year. B	Ages Attained.	Rate of Following Year. A	Rate of Following Year. B
30	—	—	50½	3.70	1.97
32	1.56	1.06	52½	2.64	2.20
34	3.27	1.11	54½	3.74	2.43
36	3.33	1.76	56½	7.13	2.69

* Starting with average of those given, and assuming uniform increase for eight years.

Without laying any stress upon the actual figures these calculations show how largely the presence of albuminuria raises the mortality, as well in those below 40 as in those above. We must conclude, therefore, that for the ages at which life insurances are generally effected, that is, from 25 years upwards, the presence of even a trace of albumen in the urine is of considerable significance. It is more and more likely to mean disease as age advances, and therefore the risk to the office continually increases. Even at the earlier periods—from 25 to 35—it is a question whether these lives should be accepted even with a considerable addition, owing to the difficulty of excluding the commencement of granular kidney.

Rabagliati threw his conclusions into the following form: (1) over 40, reject; (2) under 40, load heavily; (3) in young adults, rate up moderately. With the first recommendation I entirely concur. The second is necessary, but the loading might be prohibitive and tantamount to rejection for any age over 30. In respect of the third, between 25 and 30 there would have to be a fairly heavy loading, but between 18 and 25 many cases could be safely accepted without any great risk. Each case of this kind, however, must be considered on its merits. Albuminuria is not the only fact to be considered, suspicious as it may be; and just as a diagnosis should not be made on a single physical sign, neither should a life be rejected on a single physical sign. At each age there may be innocent and harmful albuminuria, and it is the business of the physician to distinguish, if possible, between them.

I do not know any class of case which presents greater difficulties to the medical adviser to the life office, or affords greater scope for good judgment and skill; so that while rightly appraising the risk to the office on the one hand, he should at the same time advise what is fair and just to the proposer.

Conclusions.

The general conclusions to which these considerations lead are these: that the so-called physiological albuminuria is always pathological, even if not always renal, when the amount of albumen is more than the merest trace, and probably pathological, even in these cases when there is but a trace, and no cause obvious. In this respect it is interesting to recall the experience of Eales, who, out of 14 cases sent him as instances of physiological albuminuria, found no fewer than 5 with marked albuminuric retinitis, showing that what he had to do with was not even physiological albuminuria at all, but well advanced granular kidney.

It is clear, therefore, that in every case the patient must be carefully examined, every possible cause of albuminuria searched for, and every other condition in the patient noted. If nothing else be found and the albuminuria exist alone, it may possibly be harmless or accidental, and of no serious significance. If renal derivatives are found as well as albumen, it must be almost necessarily due to renal disease, and this is in all probability also the case even if no renal derivatives are found in patients in whom the arteries are thickened and the pulse-tension high.

Albuminuric Retinitis.

Albuminuric retinitis brings me to another group of signs—those of the later stage. In its early stage and typical form albuminuric retinitis is characteristic and pathognomonic—that is, occurs in no other condition except that of chronic renal disease. In the later stage, and especially in the

inflammatory form, it may closely resemble the optic neuritis met with in some brain affections—for example, cerebral tumour, but in such cases its importance is not so great, for the diagnosis is generally clear on other grounds.

The question arises whether albuminuric retinitis occurs in any other form of chronic renal disease than granular kidney. In amyloid disease I know of no instance recorded, and I have seen none myself, but amyloid disease is rare nowadays, so that experience of it is small. In acute parenchymatous nephritis it is, I believe, never seen, but it is stated to occur occasionally in chronic parenchymatous nephritis. I have already drawn attention to the fact that the kidneys may be granular before the acute nephritis commenced, so that in any case of chronic parenchymatous nephritis in which albuminuric retinitis developed, it would be necessary to prove the kidneys sound prior to the acute attack.

The cases of McPherson and Blakeborough, to which I referred in my first lecture, are the only two cases of the kind which I have actually observed myself. In both these cases there was interstitial fibrosis in the kidneys, which in McPherson's case was patchy, and in Blakeborough's general and extreme. In both cases the albuminuric retinitis did not develop until after several months' illness, and in the latter case the arteries were observed to be somewhat thickened from the first. The nature of the retinal change in both cases was the same—namely, small white patches symmetrically placed in both eyes.

The lesions of albuminuric retinitis consist in (1) white patches, (2) hæmorrhages, (3) exudations, and (4) inflammatory conditions. They generally develop in the order in which I have placed them. Of these changes, the earliest and most characteristic are the white patches, which are generally found in the region of the macula or yellow spot. They are white and glistening, like fish scales. They are spots of degeneration in which the nerve cells and fibres have undergone fatty change and disintegration, to which in later stages some exudation from the blood vessels, both of cells and serum, may be added. In their typical and favourite form they are arranged in a radiating fashion round the yellow spot, like spokes in a wheel. Then they are usually found in both eyes and are remarkably symmetrical in position. In very early stages they may be so minute as to be easily overlooked, and may be found here and there only, generally between the disc and yellow spot; even then it is remarkable that they are usually present in both eyes, and often symmetrical, though of course in this early stage they are more likely to be unilateral and unsymmetrical. The white patches may for a long time be the only lesion visible, if we disregard for the present certain changes in the vessels, which are probably still earlier and will be referred to later.

Hæmorrhages.—These generally occur at a later period. They are minute and flame-shaped if seated in the upper layers of the retina, but, if in the deeper layers, are larger and less regular; sometimes they are also numerous round about the yellow spot, but at other times are scattered widely over the fundus; when they are of considerable size they naturally interfere seriously with vision. There is nothing characteristic about them, for similar hæmorrhages may be seen in grave anæmia and in optic neuritis of other origin. They may in time be absorbed, sometimes without leaving any trace behind.

The white patches, it is stated, may also disappear. This, however, can hardly occur except where the renal disease upon which they depend is itself curable—that is to say, in those exceptional cases in which they develop in the course of chronic parenchymatous nephritis. I have never observed true white patches disappear myself, but the fact is recorded on good authority.

The explanation of this difference of opinion lies, I think, in the fact that there are two kinds of white patches, which ought to be, but generally are not, distinguished—the one white, glistening, flat, and due to degenerative changes; the other usually not white and glistening, but grey, woolly, raised above the surface, and due to œdema or effusion. The latter no doubt may disappear in granular kidney as in any other form of retinitis.

When exudations occur the appearances present a close resemblance to other forms of optic neuritis, thus the vessels may be covered with effusion and the discs be swollen, the edges indistinct and frayed out; yet even in the most extreme cases there is generally something in the appearance of the fundus to suggest the cause of the trouble.

I have recorded two cases in which the resemblance to cerebral tumour was so close that the diagnosis was not made with confidence till the patient had been under close observation. In both cases the symptoms were violent headache, vomiting, giddiness, loss of sight, and double optic neuritis.

Early as the white patches are they are preceded by and result from still earlier changes in the vessels. The lesions in the vessels have been carefully studied by Brailey and Edmunds,[2] and are briefly described by them as obliterative arteritis leading to inflammatory degeneration of the structures supplied.

> The small arteries and even the capillaries are thickened, degenerate, and rigid. In the arteries the earliest change appears to be a general thickening and hypernucleation of all the coats of the artery without any diminution of their calibre. Gradually the arteries become still more thickened and structureless, and the capillaries hyaline and rigid. Later still the arteries show very great thickening of all the coats, especially the subendothelial part of the intima; this leads to an increased total diameter of the vessel, though the lumen is greatly diminished or may even be completely obliterated. In the most advanced stages some of the arteries may be found in a state of fibroid or structureless degeneration, and similar change may affect many of the capillaries. The changes are exactly the same as those found in the renal vessels. All the vessels in the retina are affected, but not every vessel nor even all parts of the same vessel to the same extent.

The ophthalmoscopic appearances connected with these changes have been admirably described by Marcus Gunn.[3]

> The arteries look narrower than usual. They are somewhat irregular in breadth in different parts, sometimes presenting fusiform enlargements, and in others a long tubular enlargement followed by a constriction; they are often tortuous; they present frequently a wide bright central streak, sometimes running uniformly for some distance along it, at other times patchy or dotty. This is especially seen in the secondary branches of the central artery, that is to say, at some little distance from the discs. It is present in some branches only and not over the whole vessel. The whole vessel shows a broader reflex than normal, and gives the impression of unusual fulness and roundness of contour. The vessel loses its translucency, so that the veins below are not visible through it, or, on the other hand, if the vein lie above, the artery may show through the vein with unusual distinctness. Where a vein lies below an artery it loses its central streak, showing that it is somewhat pressed upon, and may be distended peripherally. The whole retina is usually grey and hazy, which Gunn explains on the assumption of there being a small amount of œdema, especially near the macula, and in the area of distribution of the most diseased vessels. The hæmorrhages are frequently due to rupture of the distended veins, but the arteries, of course, often rupture, too, in the eye as in other parts of the body
>
> The ophthalmoscopic appearances Gunn thus connects with the changes in the vessels; narrowness and irregular size of the vessels is explained by the thickening and by the diminished lumen; the tortuosity by the increased rigidity and loss of elasticity; the increased light reflex and the bright central streak by the fibro-hyaline change; the distension of the veins by the great thickening and resistance of the artery as it lies upon them. The difficulty of circulation leads to the general œdema; the progressive disease of the vessel to hæmorrhage; the defective nutrition of the nerve cells and fibres to the white patches. The radiating arrangement of the white patches round the yellow spot he refers to the radiating folds into which the retina in that region is thrown when œdema occurs there. The changes described, Gunn states, begin to be seen usually between the ages of 40 and 50, but they are not due to old age, that is, to atheroma, for this does not produce them, but they may occur much earlier in life than this.

The changes of which Gunn gives so good a description are really the early changes of granular kidney, as his cases prove, for of the 14 cases upon which the paper is based 9 were certainly cases of granular kidney and 3 more probably, while in the remaining 2 only is the diagnosis indefinite.

The dependence of these changes on granular kidney is confirmed by a collateral series of observations which Gunn made. He chose 17 cases of hemiplegia presumably due to vascular disease, for the purpose of comparing with those in his paper; 7 showed characteristic retinal changes such as he had described, and 4 of these had albumen in the urine; 3 more had slight vascular changes in the eye, and 1 of these had albumen; 7 had no changes in the eye at all, but 1 of these also had albumen. Of these last 7, 4 died, and *post-mortem* examinations were made. In 3 of them well-marked granular kidneys were found, and in the other the kidneys were not granular, but as there is no record of any microscopical examination, the absence of interstitial nephritis is not proved.

The papers of Brailey and Edmunds, on the one hand, and of Gunn on the other, are complementary, and together establish the fact that the changes in the eye which we know as albuminuric retinitis depend certainly on the disease of the vessels, and that at the time these changes become

evident, the kidneys are already granular. Unfortunately, they give us no help in determining whether the vascular changes or the renal changes are the primary. On the whole, they seem to show that the vascular changes are late, considering how delicate the retina is, and how early the changes in the vessels could be detected by the ophthalmoscope if they were present. Gunn's paper will attract attention to the changes in the vessels which precede albuminuric retinitis, and possibly these changes in the vessels will be found at a much earlier period in the disease than is now supposed.

It is obvious that the degenerative changes described, though generally bilateral and more or less symmetrical, might be unilateral, so that a high degree of albuminuric retinitis might be found in one eye, while the other remained perfectly normal, or nearly so.

Several cases of well-marked unilateral albuminuric retinitis have been recorded, and I have recently published two instances myself,[10] but cases of the kind are certainly rare. The most remarkable instance is that recorded by Anderson, in which no change took place in the other eye for four years and a quarter.

The vascular changes of granular kidney are of great importance in relation to various hæmorrhagic affections of the eye. Thus Gunn connects hæmorrhagic retinitis with granular kidney. Brailey and Edmunds found the retinal arteries extensively diseased in 16 out of 17 eyes excised for hæmorrhagic glaucoma. Gunn suggests that many cases of so-called embolism of the central artery of the retina are really due to thrombosis in an artery so diseased, and that thrombosis here may give rise to neurotic disturbance similar to that met with in retrobulbar neuritis, which some of the extreme forms of albuminuric retinitis closely resemble. Similar conditions might be produced by hæmorrhage into the sheath of the optic nerve, of which some instances are recorded.

Free hæmorrhage occasionally occurs behind the eyeball in the orbital chamber. Then sudden pain is felt behind the eye, which is thrust considerably forward. The hæmorrhage may soon extend forwards and become visible beneath the conjunctiva, or, if not, in a day or two the characteristic staining appears in the eyelids or beneath the conjunctiva. In most cases there is no defect of vision, and recovery is complete.

Spontaneous hæmorrhage under the conjunctiva is not at all uncommon, just as occurs in aged people as the result of atheroma. In younger persons such hæmorrhage is very significant. Similar hæmorrhage into the eyelids, especially the upper, is also sometimes seen.

Knies[11] describes one result of hæmorrhage which I mention, but cannot endorse—namely, paralysis of the ocular muscles, the consequence of hæmorrhage either into the nerve trunks or into their nuclei. The cases, he states, recover with or without treatment, but are subject to relapses.

Thus he describes abducens paralysis in a case of albuminuria of fifteen years' standing; this relapsed twice, and the patient died. In another case, diagnosed as granular kidney, paralysis of the left trochlear nerve occurred, and when, six months later, the patient died, hæmorrhage was also found in the optic nerve. In a third case there was complete right ophthalmoplegia externa with albuminuria. At first the trochlearis was affected, then the internal rectus, finally the other branches of the third, and later there was a unilateral and subsequently bilateral ptosis. All these symptoms ultimately disappeared, and the patient recovered.

The obvious objection to all these cases is that third-nerve paralysis generally develops more or less gradually, whereas, if it were due to hæmorrhage, its onset ought to be abrupt. I cannot recall a case of the kind in which the onset of ocular paralysis was as sudden as the theory of hæmorrhage would require, and I do not think that such unusual cases could have been overlooked.

Detached retina, a not altogether rare phenomenon in granular kidney, is in most cases due to an effusion of serum beneath the retina, and not, as might be expected, of blood. I have seen hæmorrhagic detachment of the retina, but it is a rare affection. The detachment is usually peripheric—that is to say, occurs at the outer part of the retina, and in very many cases affects both eyes, and is remarkably symmetrical. I suppose, if the hæmorrhage is very profuse, it might burst the retina and fill the eye, as happened—unless it was due to rupture of one of the ciliary arteries—I believe, in the case of the woman, now aged 58, to whom I shall refer again as under observation with well-marked albuminuric retinitis for four years. When last seen, the right eye was found completely filled with blood, right up to the posterior surface of the lens. The sight had been entirely lost for some time previously, but the hæmorrhage had apparently occurred a month prior to her last visit, when she was seized suddenly with severe pain in the eye.

Cataract is rare in granular kidney, but Gunn suggests that it might be the result of the sclerotic changes in the vessels. Knies records two instances of iritis. I cannot remember to have seen any instance of either affection, and I should regard their association with granular kidney as accidental.

Symptoms.—The early lesions of albuminuric retinitis produce no defects of vision, and even in the later stages it is very remarkable how extreme the eye-changes may be without a complaint being made of impairment of sight. Routine examination with the ophthalmoscope will often discover albuminuric retinitis when it is not expected, and will make a diagnosis clear which may till then have been obscure. Indeed, the recent progress in our knowledge of granular kidney has been large and coincident with the systematic use of the ophthalmoscope in medicine. As a rule, we may say that when patients complain of defect of vision, the albuminuric retinitis is already very far advanced. When the vision once begins to fail it fails rapidly, so that in two or three weeks it may be completely lost.

In albuminuric retinitis, as in optic neuritis, transient attacks of great impairment of sight or even of complete blindness occasionally occur, lasting, it may be, but a few minutes at a time, the sight in the intervals being good and equal to the finest work—they would be called attacks of amblyopia. They may recur during weeks or even months, but, as a rule, vision soon begins to fail, and then is quickly lost.

Amblyopia is often said to be a common symptom of uræmia, and is usually regarded as either of peripheral origin in the retina or central in the brain or special ganglia. Most of these statements date from a time when the ophthalmoscope was not systematically used. Of toxic retinal amblyopia we know little or nothing, for most of the cases are associated with very definite lesions in the retina, visible with the ophthalmoscope. The amblyopia of central origin, that is, non-retinal, is often associated with other symptoms—for example, hemiplegia. In such cases the amblyopia is also due to lesions of an organic kind. It is not rare, when a patient dies of uræmia, to find the symptoms, which appeared to be merely toxic or functional, explained by organic lesions in the brain, namely, small hæmorrhages. In cases of amblyopia, in which the defect of sight persists after the uræmic attack is past we must presume there has been an organic lesion. In cases of toxic amblyopia recovery ought to take place in the course of a few hours or less, though instances are recorded in which recovery has been sudden and complete even after four days.

Some clue as to the place of origin of the amblyopia may be given by the condition of the pupil. If the pupil reaction be retained and normal, the lesion, if there be one, must be high up or cortical. If the reaction to light be lost, there is probably some affection of the optic nerve or optic ganglia. In some cases described by Lytton in which absence of the pupil reaction to light occurred, each attack was associated with pronounced swelling of the discs, so that there was probably some hæmorrhage or lesion in the optic nerve. Toxic amblyopia no doubt occurs, but it is rare; it may even be unilateral, as uræmic fits may be; yet lesions are found much more frequently than used to be thought likely.

It would be an interesting question to ascertain in what proportion of the cases of granular kidney albuminuric retinitis occurs; but that is impossible, for we have not yet the figures upon which a conclusion could be based. I should say that in most cases of granular kidney, if life lasts long enough, albuminuric retinitis does ultimately develop, but a large number of patients with granular kidney die from other causes, for example, from hæmorrhage in the brain, and so may not reach the stage in which albuminuric retinitis is found.

A certain number of figures from different authors are quoted in Eales's paper, but they are evidently of little value, for they vary from 6 per cent, to 33 per cent.

Albuminuric retinitis is said sometimes to recover. On this point, I think, some caution must be exercised. Hæmorrhage of course may be absorbed and disappear, whether due to granular kidney or not, but I have never seen the white patches of granular kidney disappear, though instances are recorded by good observers. It is of course possible where eye changes occur in the course of chronic parenchymatous nephritis, that if the primary disease get well, the eye changes also should disappear, but this is not so in granular kidney. The cases that are usually quoted are those which occur in pregnancy.

The significance of albuminuric retinitis is always grave, not only in respect of sight, but also of life. It is not possible to determine accurately the duration of albuminuric retinitis, or of life after its appearance, for albuminuric retinitis is not as a rule discovered in its early stages, either because the patients do not come under observation early enough, or because the eye is not examined with the ophthalmoscope until defects of vision are complained of. Speaking generally, the duration of life after albuminuric retinitis has been discovered is short.

Thus Miley[12] traced 45 cases, and found the average duration of life to be under four months from the time when the eye changes were first observed, and, though one of the patients lived eighteen months and two fourteen months, all the rest died within the year.

In 9 cases in which the first appearance of eye changes was noticed, the duration averaged less than six months, and in 2 cases it took a month for white patches to develop after the appearance of hæmorrhages.

Bull,[13] in 100 cases of albuminuric retinitis, found that 86 out of 103 died, 57 in the first year, 12 during the second, and 17 after a longer period. Of the 17 remaining cases that were still living at the time his paper was published, 14 had been seen only during the six months immediately before the paper was written, but 1 had been diagnosed seven years previously.

Where the patients are in a condition to take the best care of themselves, life may be prolonged for some time; thus the Baroness Possauer, in some observations at Zurich, found that within two years of the time of observation; among hospital patients all the men died, and 68 per cent. of the women; among private patients, of the men 59 per cent. only died, and of the women 53 per cent.

Instances, however, are recorded of considerable duration. Thus I have a patient of my own who has been under observation now for more than four years, and, except for a large hæmorrhage into the blind eye, she is still in much the same general condition as she was when she was first seen, and I have already referred to a case of Miley's in which the patient was known to have lived for more than seven years.

Anderson records some remarkable cases. One died twelve years after the albuminuric retinitis had been detected, and 2 others were living four and seven years afterwards respectively.

Cases such as these are quite exceptional, and, speaking generally, when patients are found to have albuminuric retinitis they have not many months to live.

NOTES AND REFERENCES

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A CASE OF INVERSION OF UTERUS BY A FIBROID: ENUCLEATION OF FIBROID AND REPOSITION OF UTERUS.

BY

G. ERNEST HERMAN, M.B., F.R.C.P. and LESLIE DURNO, M.D.

A PATIENT, single, aged 45, had been quite well, excepting the results of accidents, up to the age of 39. Then she began to have excessive bleeding when she menstruated, with severe pain and often diarrhœa and sickness. Dr. Durno was sent for two years and a-half ago, and found that the uterus was enlarged to the size of one four months pregnant. It gradually increased in size till it reached considerably above the umbilicus. The patient had two attacks of hemiplegia, from which she recovered. She had much pain and tenderness in the left side, and there was at times œdema of the left leg. About six months ago the patient began to have an offensive discharge, and the abdominal swelling was noticed to somewhat decrease. Several times she had retention of urine. The temperature was at times raised. Lately a mass was noticed protruding at the vulva, and the patient herself snipped a piece of it off with scissors.

On January 21st, 1899, the patient was anæsthetised. An abdominal swelling was felt reaching to the umbilicus. The vagina was filled with a mass having the characters of a fibroid, and which was decomposing at its lower part. With volsellæ and scissors this mass was pulled down, cut up, and removed in pieces. When the greater part of the tumour had been in this way removed, it became possible to explore the relation of the tumour to the uterus. It was found that the tumour was attached to the fundus uteri, which was inverted. The remainder of the tumour was peeled off the inverted uterus, and then the hand was passed into the vagina. The abdominal walls were very thin and relaxed, so that the ring formed by the cervix could be plainly felt through the abdominal wall, and the fingers could be pressed down into it. The fundus uteri was supported by the vaginal hand, and the cervix stretched open by the fingers pressed down into it through the abdominal wall. This done, taxis was made by the vagina, and the fundus uteri readily went up into its place. The patient recovered without a bad symptom. The tumour weighed 2 lbs. 4 ozs.

SUPRARENAL GLAND EXTRACT AS A HÆMOSTATIC.

BY E. A. LERMITTE, M.B., B.S., M.R.C.S., L.R.C.P.,
London.

IN 1896 Dor, and subsequently Darier, made use of an extract of suprarenal gland in ophthalmic practice. Their object was to reduce hyperæmia of the conjunctiva in cases where operation was urgent, but in which, owing to local congestion, it was difficult to obtain anæsthesia with cocaine alone. Marked success attended these trials, and suggested its further employment in cases of conjunctivitis, keratitis, and iritis. It was found that a single drop of a watery extract was sufficient to render the bulbar conjunctiva anæmic, and under its use, in conjunction with cocaine, iridectomies were performed.

In 1897 Velich confirmed these statements, and affirmed that a watery extract, when dropped into the eye, caused a marked vascular constriction, and so relieved conjunctival hyperæmia, however caused. Velich also investigated the action of suprarenal extract on the vessels lying under the unbroken skin, and found that the normal pink colour quickly disappeared under its application. The same vaso-constrictor action was noticed when the extract was applied to eczematous skin, nævi, and even sarcomata.

In 1898 J. A. Mullen reported the results he had obtained from the use of suprarenal extract in nasal surgery. He, like his predecessors, made use of it for the purposes of operation only, and claimed for it that it not only prevented primary but also secondary hæmorrhage, and increased the anæsthetic effect of cocaine to so marked a degree that the cautery could be carried down to the periosteum with the greatest confidence.

In the light of these results I determined to endeavour to carry the investigations into the hæmostatic qualities of suprarenal gland a step further, and to widen the scope of its utility by treating actual hæmorrhage with it. A suitable case for this purpose presented itself early in August of last year.

The patient, a boy, aged 5, was brought to me with the following history. He had a severe attack of diphtheria in 1894, and during the stage of convalescence had repeated attacks of epistaxis. These had persisted up to that time in spite of every form of treatment adopted. The treatment had been entirely constitutional, not local. For one year before I saw him he had been taking a mixture containing potass. chloras., gr. iii, and tinc. ferri perchlor., m v. three times a day with more or less persistence, but without any effect in diminishing the bleeding from the nose. These attacks of hæmorrhage occurred at all hours of the day and night, often without apparent cause, but sometimes they followed on any unusual exertion. The attacks varied in intensity and duration, often lasted a considerable time (an hour or longer), and the loss of blood was always great. At times he would have three or four attacks on three suc-

cessive days, and then would follow an interval of a fortnight without an attack. On the whole they averaged three or four a week. During the attacks the child was laid prone, and cold compresses, generally of vinegar and water, applied to the forehead.

On examination of the nasal cavities the only abnormality present was a dilated and angeiomatous condition of the vessels. The site of the hæmorrhage could not be detected. Constitutionally the boy was in a weak state and had enlarged glands in the neck and right groin, probably tuberculous. The lungs, heart, and kidneys (urine normal) were apparently healthy.

At first I ordered a nasal douche containing ext. hamamelidis liq. to be given every night and morning. This was continued for one month without success. On September 17th, 1898, I commenced treating the nose locally by inserting a pledget of cotton wool soaked in a 5 per cent. solution of cocaine into each nostril and leaving them *in situ* for five minutes. On withdrawing these similar pledgets soaked in a saturated solution of boric acid containing 5 grains of dried extract of suprarenal gland to the ounce were inserted and left in for the same length of time. These applications were made on alternate days till October 7th (three weeks); then on every third day till October 31st (three weeks), and afterwards on every fourth day up to November 22nd; making in all twenty-four applications.

The immediate result on the nasal mucous membrane was to produce a condition of ischæmia and the effect on the epistaxis was to cause its cessation. Up to the time of writing there have been no attacks of hæmorrhage since the first application was made.

That there was no hæmorrhagic diathesis present I had occasion to prove on November 28th, when I removed the enlarged cervical glands. There was nothing more than a very moderate amount of bleeding at the time of the operation and no subsequent oozing, the scar having healed perfectly by the sixth day.

I hasten to report this case in the hope that others may be induced to use suprarenal gland extract in the treatment of hæmorrhage due to various causes, as I am led to the conclusion that in this, one of the latest additions to our armamentaria derived from the animal kingdom, we possess a very powerful hæmostatic whose use, unlike some others, is attended by no unpleasant effects either at the time of its application or subsequently.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

DEATH UNDER CHLOROFORM.

A. L., aged 11, an apparently healthy child, was admitted for the removal of a rectal polypus. She was prepared for chloroform in the usual way, and the night before the operation her heart sounds were noted as normal except for an occasional reduplication of the second sound in the mitral area.

On the 10th instant chloroform was administered by the drop method on a single fold of towel by the chloroform clerk supervised by the house-surgeon. The inhalation was gradually increased, the towel being held at first a good way off as the child was a little nervous. In about five minutes she seemed ready. I looked at her, and seeing nothing amiss had her put in the perineal position, and began to stretch the sphincter. She winced, and received three or four more whiffs. After this no more chloroform was given. After the sphincter was stretched and the polypus drawn down the house-surgeon noticed that she was breathing in an irregular and spasmodic way, and that there was some laryngeal inspiratory crowing. The chin was drawn forward, and as she then seemed to be breathing freely I ligatured the pedicle of the polypus and removed it. This took, perhaps, about a minute, and by this time her breathing, which still continued, had again become somewhat irregular and unsatisfactory, although the air passages were free. Her face was pale, pupils dilated, and her pulse was imperceptible; her muscles were relaxed. The head of the operating table was at once lowered, and artificial respiration was begun and continued for about three-quarters of an hour in all. Strychnine was injected, hot cloths applied over the heart, and as a last resort about half an ounce of blood was withdrawn with an aspirating needle from the right auricle, but all without avail.

Her face, although pale at first, rapidly became of a livid hue, although never intensely so, and the veins at the root of the neck were not distended. Once or twice, as I intermitted the artificial respiration for a few seconds, we could see that voluntary movements of respiration went on. This was quite evident to all present, but after one or two breaths the movements became feebler, and we began artificial respiration again. As time went on these voluntary movements became less and less perceptible, then one or two spasmodic gasps were recognisable while the artificial respiration continued, and after that all signs of life ceased. Once or twice at first her colour improved for a few seconds and her pupils contracted slightly, but the improvement rapidly faded away again. Her pulse was never re-established.

From the beginning of the anæsthesia to the first alarm was about seven minutes, and from that to the full alarm was about three minutes, that is, ten minutes in all. Unfortunately, no *post-mortem* examination was obtained.

I am quite convinced that the heart in this case failed before the respiration, and I have recorded the observations which were made at the time in order that others may know the grounds on which this conviction is based. I may, perhaps, be allowed to add that the chloroform was most carefully administered. The same bottle of chloroform was used in two operations on children immediately before this one. Each operation lasted about half an hour, and in neither did the anæsthesia give any anxiety.

Edinburgh. CHARLES W. CATHCART.

THE OPEN-AIR TREATMENT OF CONSUMPTION.

BEFORE building too extravagant hopes upon the results of this new departure in the treatment of consumption, it would be well to consider one or two physiological facts that appear to have been somewhat overlooked when estimating the value of the open-air factor of the cure. Nature has arranged that the air we breathe shall be both warmed and moistened. This end she has attained through the adaptations to that purpose of the nasal cavity. When tracheotomy has been performed, one of the risks to be guarded against is pneumonia caused by breathing cold and dry air, and this calamity is guarded against by artificially warming and moistening the air the patient breathes. Now it can hardly be maintained without a degree of hardihood that crippled and diseased lungs need less protection than healthy ones; and when one sees patients suffering from consumption exposed to cold and rimy air till quite late in our winter afternoons or still later, one cannot but feel that the value of the open-air factor is unduly estimated to the disadvantage of the patient and the discredit of the new treatment.

The average vital capacity of the lungs of a healthy Englishman is taken as 230 cubic ins. The amount of air that he is unable to expire from his lungs, the residual air, is somewhere between 80 and 130 cubic ins. As, of course, in ordinary breathing the lungs are not filled to their fullest extent, but from 100 to 130 cubic ins. less than this, we must deduct say 130 cubic ins. from the vital capacity and add the remainder, say 100 cubic ins., to the residual air to enable us to arrive at the amount of air the lungs normally contain. Taking the residual air at 130 cubic ins. this gives us 230 cubic ins. Then the tidal air, or the amount breathed in and expired in ordinary respiration, is variously estimated between 20 and 30 cubic ins. We therefore find that in ordinary breathing a $\frac{1}{10}$ or a little more of fresh air is added to the $\frac{9}{10}$, or a little less, of air contained by the lungs.

Now the air in an ordinarily pure atmosphere contains rather less than 4 parts in 10,000 of carbonic acid: but what is the condition of the amosphere of the lungs? It contains (Landois and Stirling) 4.38 per cent. of carbonic acid, or 438 parts in 10,000. Well, in ordinary breathing we add about $\frac{1}{10}$ of air containing less than 4 parts in 10,000 to about $\frac{9}{10}$ of air in the lungs containing carbonic acid to the extent of 438 parts in 10,000. This is a very important consideration, for it affects our estimate of the advantages likely to be conferred upon a patient by enabling him to mix fresh air containing carbonic acid to the extent of less than 4 parts per 10,000 and in the proportion of 1 part to 9, with his $\frac{9}{10}$ of impure air contained in his lungs (438 parts of carbonic acid in 10,000), at the cost of some personal discomfort and in some cases at all events of considerable risk, when in a well ventilated room that could be made comfortably warm, he could without risk of chill take into his lungs his 20 to 30 cubic ins. of air containing perhaps

5 parts per 10,000 at each breath and mix it with the very foul air contained in his lungs.

Of course the open air and plenty of it is an excellent thing when climate and atmospheric conditions are favourable, and its benefits can be procured for the patient without subjecting him to discomfort and risk, but when one considers the facts of respiration one fails to see where the charm comes in that is to banish the demon of consumption.

When one considers the other factors in the modern treatment of phthisis, the careful and regular feeding, or rather over-feeding, and the perfect rest enjoined whilst there is any rise of temperature, one feels more hopeful, for one perceives in the economising of the expenditure and the adding to the reserves of the strength of the body, a recognition of the fact that Nature is fighting an uphill battle and that she must fight it out on her own lines, and that only by endeavouring to understand her plan of campaign are we able intelligently to assist her in the struggle.

Bournemouth. G. A. George.

PUERPERAL ECLAMPSIA: CONVULSIONS OF MOTHER AND CHILD: RECOVERY OF BOTH.

On December 11th, 1898, at noon, I was called to attend Mrs. K., who was in labour. I had not previously seen her, and therefore knew nothing of her past history. She was a primipara. I found a first cranial presentation and the os well dilated. I ruptured the membranes and a few sharp pains brought the child down to the outlet. During a pain the woman became convulsed, tonic and clonic spasms being well pronounced, and lividity over the whole body. She remained absolutely unconscious, even after the clonic spasms had passed away. I was able to feel the clonic spasms of the child *in utero*. During a pause I delivered her on the back by means of Simpson's forceps, but this act brought on another fit, and on the birth of the child—a very small one—I found that it also was in convulsions and remained so for a period of 15 to 20 seconds, the spasms passing away from both mother and child at the same time. The placenta was removed naturally.

The patient remained unconscious for an hour and a-half, having a fit at intervals of half an hour. At this point an idiotic expression passed over the patient's face, and she sprang up in bed and attempted to tear the face of the nurse. By restraint, and the absence of the nurse, the patient was quieted. I then injected subcutaneously $\frac{1}{3}$ gr. morphine and $\frac{1}{50}$ gr. atropine, and with the exception of one fit, she remained quiet but unconscious for five hours. Then a succession of fits supervened, six taking place in half an hour. I further injected subcutaneously $\frac{1}{4}$ gr. morphine, and she then seemed to sleep.

At 8 o'clock next morning she was still sleeping, and had had no recurrence of the fits during the night. She woke as I called at 11 A.M., and recognised me and the nurse, and, though in a dazed condition, was able to converse rationally. From this time on she made a quick recovery. She was unable to pass her urine for two days, necessitating the use of the catheter. On the third day the temperature was 100° F., and I then douched the uterus. I put her on a sedative mixture, and had belladonna plasters applied to the breasts, and she made an uninterrupted recovery. On the fourteenth day I visited her for the last time, and found mother and child doing well.

Dunstable. A. Barnes Hughes, M.B.

FUNCTIONAL APHONIA.

By the kind permission of Dr. McBride I had the opportunity of trying, in some cases of functional aphonia, a new method of treatment based on the following principle:

It occurred to me that the aphonia being due to a paresis of the adductor muscles of the cords, this paresis might be treated like that of any other weakened muscle in the body, namely, by repeated exercise against resistance (for example, moderate hill climbing in cases of weak heart, etc.).

For this purpose, while the laryngoscopic mirror is held in the left hand, the non-cutting laryngeal forceps is introduced into the mouth, and, a deep breath being taken in order to open the glottis, their point is pushed down between the vocal cords. The patient is now told to try and phonate, and during these attempts the blades of the forceps are kept well apart, thus resisting the action of the adductors.

This method has been tried with good results in three cases, one of which, a case of inter-arytenoid paralysis, had previously resisted all other treatment, including endolaryngeal electricity.

Edinburgh. William Finlay, M.B., C.M.

GREEN STOOLS IN ENTERIC FEVER AND DYSENTERY.

With reference to the editorial note[1] on the occurrence of green stools in some cases of typhoid fever, and the suggested explanation "that the unchanged bile-pigment in the stools may be due to hastened peristalsis associated with extensive ulceration or catarrh about the lower ileum and colon," may I refer to the frequent occurrence of "green stools" in cases of dysentery (as may be seen in an article lately published by me,[2] on 102 cases of dysentery treated by magnesium sulphate). I called special attention to the green colour, which I stated I did not understand. These cases appear to lend support to the suggestion, as the ulceration and catarrh existed in all. Many of the stools I used to call "green pea soup" stools. At first I was inclined to think it due to the use of magnesium, but I found it in other cases treated with ipecacuanha and with olive oil. I may add, however, that though I have since collected notes on over fifty more cases treated by magnesium, this appearance of green stools is much less common. The 102 cases were patients in Dacca, in Eastern Bengal, the later 50 were in Bhagalpur. In the former the patients were all rice eaters; in the latter, rice in morning and wheat in evening was the diet scale. I see no mention of "green stools" in Gemmel's new book on *Dysentery*, but have read of it in connection with cases of yellow fever.

W. J. Buchanan, M.B., Capt. I.M.S.,
Superintendent, Central Prison, Bhagalpur.

FIBROMYOMATA OF THE VAGINA.

The paper of Dr. John Philips in the British Medical Journal of February 4th, p. 262, brings to my mind a case I saw of this affection some ten years ago; a lady complained of an offensive discharge from the vagina. I found a small fibromyoma equal in size to a hen's egg situated in the anterior vaginal wall. It was sessile, and extended from half an inch posterior to the meatus urinarius nearly to the os uteri. The vaginal mucous membrane was in a sloughy state over the tumour. I removed this portion of the mucous membrane, and enucleated the tumour, brought together the edges of the vaginal mucous membrane, having first of all put some iodoform gauze into the cavity left after the tumour had been removed. A portion of the gauze protruded at the lower angle of the wound, and served as a drain for a few days, when it was all removed, and the wound healed completely in fourteen days. These cases are very rare. I have only seen this one in twenty-six years' hospital and private practice.

Clifton. A. E. Aust Lawrence, M.D.

A CASE OF BELLADONNA POISONING.

Having just read the paper by Dr. Coutts in the British Medical Journal of January 28th on the treatment of broncho-pneumonia by large doses of belladonna, perhaps the following notes on a recent case of belladonna poisoning in my practice may be of interest.

The patient, Mrs. M., aged 62, was suffering from chronic rheumatoid arthritis and carcinoma of the cervix. She complained much of pain at times, for the relief of which morphine suppositories were ordered. After the insertion of the third of these their use had to be discontinued, as severe nausea, vomiting, and faintness came about an hour after use.

On December 23rd, 1898, I ordered a belladonna pessary, gr. ij, instead of the morphine. At 8 P.M. the first was inserted. At 9 P.M. she rang her bell, and her attendant then found her almost speechless, and in such a condition that she at once sent for me. On arrival I found Mrs. M. in bed, and in a constant state of movement, endeavouring to raise her-

[1] British Medical Journal, December 21st, 1898, p. 1947.
[2] *Indian Medical Gazette*, December, 1898, p. 448.

self time after time, but failing to do so. Her hands were perpetually picking at the bedclothes, or removing imaginary things from the bed. The mouth was open, the tongue dry, both pupils only moderately dilated. She did not recognise me. She was talking incessantly in a rambling, incoherent manner. The skin was dry and hot, the pulse 104, the temperature normal. I found it impossible to get her to swallow, liquids simply dribbled back out of her mouth, and the contact of a spoon with her lips made her start violently. Putting a candle near her face, to see if the pupils reacted to light, also made her start, and brought on various convulsive movements. The face was much congested, but there was no stertor. This condition lasted till 7 next morning, when she dropped off into a few minutes' natural sleep to awake practically herself, with a slight headache, and no recollection of any of the events of the preceding night, nor of my visit to her.

Clifton. Reuell Atkinson, M.D.Durham.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CARDIFF UNION HOSPITAL.

CASE OF TRAUMATIC RUPTURE OF THE DUODENUM AND JEJUNUM.

(Under the care of A. Sheen, M.D., Medical Officer.)
[Notes and observations by L. G. Davies, M.D., Resident Medical Officer.]

History.

S. A., a Maltese sailor, aged 33, of powerful physique, was admitted at 6.30 P.M. on December 27th, 1898. On the evening of the 24th he had been engaged in a drinking bout with his companions. During an altercation he drew his knife upon one of these, who in self-defence seized his (S. A.'s) two wrists, and in the ensuing scuffle struck him with the bent knee in the abdomen. There was no evidence of a blow from the fist, or of a kick. The next morning Dr. Girvan, District Medical Officer, was summoned to him, and, suspecting internal injury and peritonitis, though unable to make out definite evidence of either, advised instant removal to the hospital. At this time neither abdominal swelling, vomiting, nor marked rapidity of breathing could be observed. There was paralysis of the bladder, and, on catheterisation, Dr. Girvan drew off urine, which was at first clear but subsequently contained coffee-ground deposit, evidently hæmaturic. Owing to the dilatoriness of the patient and of his friends, he was not brought to the hospital until the 27th, as stated.

Condition on Admission.

The man appeared to be dying; breathing very rapidly, his face drawn and anxious and covered with sweat. An ounce of brandy in hot milk was given him at the workhouse entrance before removing him to the hospital, and he revived somewhat. On examining him about half an hour subsequently he was found to be breathing entirely with the thoracic muscles, with a typical "abdominal" face, coated and dry tongue, and marked distension of the abdomen. Examination of the latter did not reveal any localised tenderness, this being general; the pain being chiefly referred to the umbilical region. Tympanites everywhere, the liver dulness, however, being but little encroached upon. Abdomen absolutely silent to auscultation. Rectal examination negative, and at no time was an abnormal motion observed. A full-sized metal catheter passed with ease and drew off clear urine. Pulse rapid and small, but heart sounds good. Regurgitation of gastro-intestinal contents occurred every few minutes; it was not bile stained to any marked extent, nor of fæcal odour at this time, nor did it ever show blood corpuscles under the microscope. Great thirst complained of. Patient's mind quite clear; temperature slightly above normal. Rupture of some portion of the intestinal tract, probably the duodenum, was diagnosed, but operation was considered entirely contra-indicated, and palliative treatment by ice, morphine, etc., adopted. Subsequently signs of fluid appeared in the flanks and hypogastrium, the vomiting took on a fæcal odour and occurred more and more often, and death took place at 7.25 on the morning of the 29th, the patient's intellect being unimpaired almost to the last.

Post-mortem Examination.

This was made the same day, five hours after death. No external mark of violence, rigor mortis passing off.

The Abdomen.—On reflecting the parietes of the abdomen, which was examined first, the much-distended small intestine appeared, with injected patches in places. A large quantity (which could not be measured, but which was several pints) of dirty, sero-purulent fluid escaped, with some foul-smelling gas. On examining the intestines *in situ*, the signs of recent peritonitis were most marked in the region of the cæcum and ascending colon; there was also much recent lymph over the rectum as it lay in the recto-vesical pouch. "Suction lines" were general. Only the small intestine was distended, and but the upper portion of this. The intestine being thrown over to the left, the cæcal region was explored. The vermiform appendix was normal. The cæcum was injected and obviously inflamed; these signs increased in intensity on following up the ascending colon, reaching their maximum in the middle of the right flank, where intense recent injection and adhesion of the peritoneum appeared, with flaky yellow lymph, fluid fæces, and apparently altered food (milk ?) thrown out into the peritoneal cavity. The colon was here bound down, though not toughly, by recent adhesions.

Rupture.—The pylorus being now exposed, the duodenum was divided between the ligatures, and the lower ileum being similarly treated, the included small intestine was removed and carefully examined. (Before doing this it was seen that the large omentum was, so to speak, crowded over into this corner—that is, the region of the duodenum—and partly held there by recent adhesions; it was much inflamed. The stomach was neither greatly distended nor collapsed.) On washing out and examining the duodenum, no sign of antecedent ulceration could be found. It was now seen that the junction of the duodenum and the jejunum was collapsed in appearance, not markedly distended as further down. A linear tear, with thinned and ragged edges, about 4 inches long, was seen on the posterior aspect, apparently starting at the junction. Here the gut was intensely injected with petechial hæmorrhages, the appearances of an extremely acute and deep-seated enteritis being general. The mucous membrane was of a deep reddish-purple colour, the coloration shading away gradually into the normal pink, extending down the jejunum and ileum for 12 or 14 inches. In the mucous membrane at the situation of the tear there were no fæces, although present a few inches lower down.

Other Organs.—The head of the pancreas, in direct relation to the tear, "cut" very firmly, almost like so much fibrous tissue, it was deeply injected, and both in feel and appearance differed markedly from the tail and body of the gland. The whole of the intestines, excepting the last few inches of the rectum, were washed out and slit up, but were normal. The stomach, bladder, kidneys, and spleen were normal, also the ureters. The prostate was not dissected out, the bladder being examined *in situ*. Thoracic organs and brain normal; calvarium exceptionally well developed. Finally, the flaps of the abdominal incision were cut into and dissected freely, but no subcutaneous or intramuscular hæmorrhage could be found, and the parietal peritoneum was quite normal.

Remarks.

In Erichsen's *Surgery* (Ed. 10, i, 874) it is stated that "the frequency with which the duodenum is ruptured is due partly to its position, and partly to its fixity. The third part of the duodenum.....is uncovered by peritoneum, and is consequently fixed so firmly that it receives the full force of any violent pressure, being unable to slip away from beneath it, as do those parts of the intestine which are completely covered by peritoneum, and attached to a loose mesentery. When the force is applied in an oblique direction from right to left [as was probably the case in this man's opponent

dodging the downward thrust of his knife], rupture occasionally takes place at the junction of the movable jejunum with the fixed duodenum. Rupture of the duodenum may therefore occur with or without injury of the peritoneum." I presume that this case belongs to the latter class, the peritoneal inflammation being subsequent to the escape of intestinal contents, judging by the long duration of the case (about four and a-half days), and the apparently delayed onset of symptoms of peritonitis. The rupture was probably facilitated by distension of the gut during the drinking bout, which was a heavy one. The absence of an external or intraparietal lesion of the abdominal wall was completely verified. The distension of the small intestine was no doubt paralytic. Clinically I think the remarkable features were the comparatively little pain felt (although tenderness was marked enough) and the clear-minded state of the patient up to the last. I cannot account for the hæmaturia observed prior to admission. It could scarcely have been due to catheterisation with a congested mucous membrane, or to prostatic hæmorrhage, for one would have expected the blood to be red. Certainly no sign of recent hæmorrhage could be found in the kidneys, although looked for.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. Payne, M.D., President, in the Chair.

Tuesday, February 21st, 1899.

Discussion on Pseudo-Tuberculosis.

Dr. G. Sims Woodhead stated at the outset that the term "pseudo-tuberculosis" had been responsible for a good deal of misunderstanding, and the number of conditions classified within it were so numerous that pseudo-tuberculosis was no longer of the slightest value as a term in classification, for after eliminating a number of specific conditions which at one time were included under this heading, they had still numerous pathogenic conditions, most varied as to appearance and etiology, described by different writers as pseudo-tuberculosis. The author first referred to a series of cases which came under his own observations during the investigations carried on for the Royal Commission on Tuberculosis, and which were for the sake of convenience spoken of at the time as "pseudo-tuberculous" and which might undoubtedly have been mistaken for true tuberculosis, had not the conditions under which they occurred and the microscopic examination given such definite indications to the contrary. In one case, a guinea-pig which died on the second day after injection of tuberculous meat, much too early therefore to show tubercle as the result of ingestion, the following conditions were found. Venous congestion of the large intestine and cæcum; the solitary glands and Peyer's patches were enlarged and œdematous, and there were small hæmorrhages into their substance; in these glands in the small intestine were white opaque points, sometimes scattered over the whole glandular patch; the mesenteric glands were slightly enlarged; the liver was mottled with small yellow patches; in the lungs were two yellowish grey points; the spleen was normal; the mediastinal glands were evidently enlarged. The degenerated patches were much whiter than in tubercle nodules, and the breaking down was more complete, so that on microscopic examination one could not make out even the outlines of any cells in the degenerated area; no tubercle bacilli could be found in any of the lesions, but micrococci, especially in the form of diplococci, were numerous. As all the other guinea-pigs in the experiment were perfectly free from tubercle, it was agreed to look upon it as some mycosis other than tuberculosis. Without having recourse, however, to microscopic examination, he could not have satisfied himself that it was not a case of tuberculosis. In a couple of guinea-pigs inoculated with raw meat from the same cow, small nodules resembling infarctions were observed in the spleen. On microscopic examination these nodules were found to have a central necrotic area of dead cells, which had lost their outlines and had become fused into irregular masses. Short bacilli, with polar staining, almost like diplococci, were found near the margin; around this central area was a zone of shadowy-looking splenetic tissue; whilst outside this again was a distinct capsule of connective tissue and leucocytes. In another guinea-pig injected with artificial tuberculous milk heated to 70° C. for one hour, at which tubercle bacilli were rendered innocuous, at any rate as regards guinea-pigs, the animal died eleven days after injection. In some adenoid patches there were opaque areas, which were found on microscopic examination to consist of tissue in an advanced stage of necrosis, and at the margin micro-organisms were found, again in the form of short bacilli with polar staining. In another specimen injected with artificial tuberculous milk, heated as before to 70° C. for ten minutes, the animal was killed 101 days after inoculation, and a small yellowish nodule was found near the surface of the liver, and which was found to be made up of a large mass of organising connective tissue, not a single tubercle bacillus could be found and no evidence of caseation. Dr. Woodhead described one or two other conditions which at first sight were mistaken for tuberculous granulations, but microscopical examination showed that there was no true tuberculous structure, and the tubercle bacilli could never be demonstrated. The author next proceeded to discuss some conditions found in the lungs of sheep brought to him by a medical officer of health, who stated that he had had to confiscate large numbers of sheep, showing this condition as tuberculosis. The author at once recognised the condition as what is called in Scotland "hoos"—small, glistening, pearly-grey nodules produced by strongylus or filariæ. Microscopical examination showed that the nodules consisted of small nematode worms coiled and surrounded by proliferating connective cells. Here there was a perfectly distinct process, and one which should certainly not be called a pseudo-tuberculosis. Dr. Woodhead then called attention to Professor Muir's article on pseudo-tuberculosis in birds, where at least six different conditions were referred to as having been described. Professor Muir described a form in birds which was probably the same as that described by Mallassez and Vignal, Nocard and Pfeiffer. Several of these forms of pseudo-tuberculosis had been separated from animals inoculated with material from patients supposed to be suffering from atypical tubercle. In others, again, the guinea-pigs appeared to have been affected "spontaneously," that was, they had contracted the disease quite apart from experimentation. This was a point of considerable importance in connection with Dr. Woodhead's own observations on pseudo-tuberculosis, which evidently occurred, in certain cases at any rate, spontaneously, as in the animal that died two days after inoculation, whilst in another of his cases in which bacilli identical in appearance with those described by Nocard, Muir, and Pfeiffer were found to give rise to this condition on the eleventh day. This corresponded very closely with the condition presented in Professor Muir's experiments, who pointed out that a very marked feature in this special form of pseudo-tuberculosis was that the cells, both leucocytes and connective tissue corpuscles, underwent a very rapid necrotic breaking down, and that caseation and softening both took place at a very early stage, the result being that the centre of a nodule became almost purulent rather than caseous. The proliferative changes in both the author's and Dr. Muir's cases were well marked, and were confined almost entirely to the periphery of the nodule. There was an absence of giant cells, and the bacilli were usually found near the margin of the caseous centre. This accorded perfectly with what the author observed in the pseudo-tuberculosis of guinea-pigs described in the report to the Royal Commission on Tuberculosis. In referring to the fact of old cases found in museums, labelled "tuberculosis," but which more recent investigators had recognised as being cases of actinomycosis, he called attention to a case of aspergillo-pneumonomycosis described by Professor Boyce, of Liverpool. Kotljar divided pseudo-tuberculosis into two groups—those of bacterial origin and those of mycotic etiology, these latter being produced by aspergilli. In comparatively recent times they had passed from an anatomical pseudo-tuberculosis to a pseudo-tuberculosis bacillus. A serious question was opened, however, by the discovery by Frau Rabinowitch in milk, cream, and butter, of a bacillus which morphologically and in its staining reactions, but in little else, was identical with the tubercle bacillus, and there were two positions from which it was absolutely necessary to extricate oneself. There were, on the one hand, pseudo-bacilli which had the morphological and staining

characters of the true tubercle bacillus, but which pathologically appeared to be widely separated from it; whilst, on the other hand, there were a whole series of lesions which presented certain superficial resemblances to tubercle, but with certain specific differences, and, most important of all, were not induced by the action of tubercle bacillus. The protean forms of the histological lesions in tubercle made it difficult to describe any single form as typical. They varied at different stages and under different conditions, so that almost every new tissue at some period of its development might be said to be like some stage of a tuberculous process—that was, the rapid infiltration of leucocytes, even the giant cells might be mimicked, the various forms of phagocytic cells, the conditions under which foreign bodies were to be absorbed, and in which, too, irritant substances were produced, the phenomena of endarteritis obliterans, mechanical irritation, etc. Taking the tubercle bacillus as the etiological factor and basis of classification, and taking the investigations of comparative pathologists in recent years who had found many lesions to be tubercle which were not previously so recognised, the author thought it very inadvisable that they should, just as order was being evolved from chaos—bring in any nomenclature which could only ultimately lead to confusion; and he hoped that the discussion would lead to the drawing up of an accurate and comprehensive nomenclature of many of those forms of disease which at present were practically unnamed. Pseudo-tuberculosis as a pathological entity was now no longer in existence; and although it might be necessary, owing to the exigencies of use and wont, to retain the term "tuberculosis," that term should be restricted, as far as possible, to a process which had a distinct etiological factor, and they should minimise as much as possible the evil of the term by eliminating altogether any pseudo-tuberculous processes or pseudo-tuberculous organisms.

Professor Sidney Martin observed that his experience covered somewhat the same ground as that gone over by Professor Woodhead in connection with the work undertaken on behalf of the Royal Commission. The speaker preferred to call the tubercle-like lesions met with in the guinea-pig, cow, pig, and other animals, "bacterial necrosis." The term "pseudo-tuberculosis" was only a makeshift in the absence of more accurate knowledge. One great difference between such bacterial necrosis and true tuberculosis appeared in the difference of distribution. In the guinea-pig, inoculation of tuberculous virus into the subcutaneous tissue of the hind limb was followed invariably by tuberculous infection, which proceeded by a definite course, first the inguinal, then the lumbar glands, the spleen, liver, and later, the thoracic organs becoming involved. "Bacterial necrosis" had been described by Professor Hamilton in one case in the human subject (affecting the liver), but the speaker had not himself seen any example; in the spleen, liver, of the lower animals the condition was not uncommon. Among the most interesting cases of non-tuberculous, caseating, and nodular affections, followed by metastasis, was that, now fairly well-known, recorded by Flexner, of the Johns Hopkins Hospital; this case concerned a negro, 70 years of age, in whom there were areas of consolidation and scattered nodules in the lung; some of these were calcified. There was, in addition, nodular disease of the peritoneum, indistinguishable in its general characters from tubercle. No tubercle bacilli were discovered in section or on culture; an inoculation into the guinea-pig was followed by equally negative result. The latter part of the evidence the speaker regarded as the strongest against tuberculosis. Bacteriological examination revealed the presence of a streptothrix in the lesions, for which last Dr. Flexner had proposed the name of pseudo-tuberculosis hominis streptothricia. He cited two other examples, observed abroad, of streptothrix disease simulating somewhat tuberculosis; in one, that of a young man, there was extensive destruction of the lung and empyema; a streptothrix was present in the consolidated areas of the lung; in the other, besides consolidating lesions of the lung, there were suppurating foci in the skin.

Dr. Washbourn said that it would be advisable to discard the term pseudo-tuberculosis, as it was somewhat misleading. There were several bacilli which resembled the tubercle bacillus in morphology and in staining reactions. By some observers such bacilli would be called pseudo-tubercle bacilli. They were of importance from the point of view of clinical diagnosis, for by relying upon a microscopical examination alone they might easily be mistaken for the tubercle bacillus. In the urine pseudo-tubercle bacilli of this nature were by no means uncommon. It was on this account that inoculations were necessary for the diagnosis of tuberculosis of the genito-urinary tract. The term pseudo-tuberculosis was usually applied in quite a different sense to the above. It was used to denote diseases which resembled tuberculosis in morbid anatomy, but which were caused by other organisms than the tubercle bacillus. Of late a large number of such diseases had been described. There were many organisms which produced similar anatomical lesions to those produced by the tubercle bacillus. These organisms were of widely different character. There were bacilli such as the bacillus pseudo-tuberculosis, giving rise to caseating tubercles in many animals; the bacillus pseudo-tuberculosis murium, causing caseating tubercles in mice; and the bacillus pseudo-tuberculosis liquefaciens, causing tubercles in the peritoneum in the human subject and similar lesions in rabbits. There were various kinds of streptothrix such as the one described by Flexner in the human lung. There were also organisms which did not belong to the class of bacteria. A form of mould, the aspergillus, had been described as causing a tuberculous lesion in the human lungs. An organism belonging to the class of the blastomyces was described by Gilchrist and Stokes as producing a lesion resembling lupus vulgaris in the human skin; while even nematode worms might produce tubercles consisting of giant cells and epithelial cells in the lungs of cats and the kidneys of dogs. The skin disease described by Gilchrist and Stokes was of especial interest. It resembled lupus vulgaris in its clinical aspect, but it was caused, not by the tubercle bacillus, but by a blastomyces, which was obtained in pure cultivations, and which produced in animals by inoculation tubercles consisting of epithelioid cells and giant cells. It was quite probable that many of the cases of so-called tuberculosis of the skin were due to other organisms than the tubercle bacillus. The speaker had seen such a case lately, in which tubercle bacilli could not be obtained either by microscopical examination or by inoculation. It was quite clear that the lesions caused by the tubercle bacillus were by no means specific, for many organisms might produce exactly the same changes. Again, the lesions produced by the tubercle bacillus were not constant: sometimes there was much caseation with formation of giant cells, while in other cases there was the production of a granulomatous tissue. In fact the tubercle bacillus and the other pathogenic organisms mentioned obeyed a general law. They set up a more or less chronic form of inflammation, the character of which depended partly upon the virulence of the organism, and partly upon the relative susceptibility of the animal. Then the same pathogenic organism might produce several types of inflammation, and the same type of inflammation might be produced by several pathogenic organisms. The most important lesson to be learnt from that discussion was the importance of making a systematic bacteriological examination of every case in the *post-mortem* room. The speaker was afraid that such a procedure was very much neglected, and he did not know of any *post-mortem* room in London where an adequate examination was conducted in every case.

Dr. James Galloway observed, in regard to the streptothrix described by Flexner, that it broke up into coccal and bacterial forms; and that Murray had described in what was classed as a case of mycosis fungoides (in a shepherd, following a kick from a sheep) a bacterium which the speaker suggested was possibly a phase form of a streptothrix. In connection with cutaneous disease there were two rare lesions to which he might refer as having some likeness to tubercle. One of these was xanthoma, with giant cells. No tubercle bacilli were demonstrable in such lesions, which might be multiple on the face, as in one case that had come under his own observation. The other condition was one in which growths containing giant cells in large numbers occurred over the body. Such had been classed as giant-celled sarcomata, but erroneously, as appeared from the spontaneous disappearance which such might exhibit. He thought that more weight should be

attached to the results of inoculation upon susceptible animals than to histological examination.

Professor Woods Hutchinson exhibited specimens of the viscera of different animals and birds which he had examined at the Zoological Society's Gardens. Some such pseudo-tuberculous lesions were due to strongyli or filariæ ("worm knots"); others, in birds, took the form of plaques involving the surface of the lungs or the walls of the air sacs. Aspergillary mycosis he had observed in the duck, parrot, cormorant, and trumpeter.

The discussion was adjourned.

HARVEIAN SOCIETY OF LONDON.

Henry Juler, F.R.C.S., President, in the Chair.

Thursday, February 16th, 1899.

Varieties of Eczema and their Treatment.

Dr. Arthur Whitfield read a paper on this subject. After pointing out that although eczema was one of the commonest of skin diseases, there was no unanimity on the subject of its subdivision, Dr. Whitfield referred to the old classifications of eczema according to etiology, course, and distribution. All these were unsatisfactory, as they either implied a higher state of knowledge than at present existed, or else did violence to the truth by separating different stages of the same disease. The introduction by Unna of the class of seborrhœic eczemas was then discussed, and the evidence upon which this variety was based was examined. The author pointed out that some of Unna's grounds for including seborrhœa of the scalp and psoriasis in this class were in his opinion insufficient, since the histological characters were little else than those of simple inflammation, whilst the bacteriological evidence was incomplete. He then described the characteristics of the seborrhœic group of eczemas which remained after separating off pityriasis of the scalp and psoriasis. These were: (1) follicular origin, (2) sharply-defined margins to the patches, (3) serpiginous spread. After quoting a case of Audry's to show that this variety could occur on parts devoid of glands and follicles, and was probably parasitic in origin, he referred shortly to some other forms, including eczema folliculorum, eczema mycoticum, and eczema circumscriptum. These he considered had better be classed under the general heading of seborrhœic eczema until more was known about the parasites causing them. Passing on to the subject of so-called simple eczema, he said that there were two main opinions about its etiology, one that it was parasitic in origin, and the other that it was a constitutional disorder. He reviewed the evidence in favour of the relationship between eczema and gout, and concluded that although it appeared that gouty persons were more prone to attacks of eczema than others, there was no evidence to show that eczema was invariably associated with gout, nor were there any distinctive points of diagnosis between an eczema in a gouty patient and one in an otherwise sound individual. Colombini's researches on the urine in eczema were referred to as tending rather to prove that there was not any evidence of a toxæmia as a cause of eczema. Dr. Whitfield then summed up his remarks by saying that he thought there were at least two main classes of eczema, in one of which there was no proof of a parasitic origin, whereas in the other there was a good deal of presumptive evidence that the disease was infective in nature. He pointed out that the value of an accurate diagnosis lay in the fact that it was much safer to use strong antiparasitic remedies from the beginning in the treatment of the seborrhœic form than in the so-called simple variety.

Dr. Galloway remarked that he thought Dr. Whitfield had taken an appropriate opportunity of protesting against the too easily accepted hypothesis of the bacterial origin of eczema, and he especially agreed with Dr. Whitfield in protesting that no special coccus such as the "morococcus" had been discovered to act as a specific organism. If anyone took the trouble to examine carefully the evidence on which Unna had based his description of his "morococcus" as the specific cause of seborrhœic eczema, it would readily be seen how slight it was. In the case which Unna demonstrated before the Hamburg Medical Society, in which he produced what he called his inoculation vesicle from pure cultures of this "white" coccus, the important clinical fact outstanding was that the lesion so produced was not eczema at all, but something much more closely resembling impetigo. From the time of this demonstration this coccus had been quoted by Unna and many of his disciples as the specific organism in his large group of "seborrhœic eczema." About the same time as Unna, Professor Welch, of Johns Hopkins University, published his observations on the bacteriology of the skin. He showed that the organism which he called the staphylococcus epidermalis albus was a constant denizen in the skin, where it lived a saprophytic existence and appeared to produce no pathogenic effects. No sufficient evidence was on record to prove that the "morococcus" was not an organism of the same class, and there was much to support the view that it was simply a saprophyte. One could not help coming to the conclusion that if any organism did produce seborrhœic eczema, at any rate it was not the "morococcus." Dr. Galloway felt inclined to look upon eczema as the ordinary inflammatory reaction of the skin to many varieties of irritation. There was little doubt that amongst these various irritants bacteria exercised considerable influence. The type of eczema which appeared to be of parasitic origin was the seborrhœic variety, but he wished to emphasise the fact that the evidence in favour of this at the present time was almost completely clinical, and had no definite bacteriological support. It was most important, however, from the practical point of view, to recognise the fact that these varieties existed, as the use of appropriate remedies must be determined by the exactitude with which they were able to define the causation of any individual attack. The value, which had long been appreciated, of antiseptic remedies in the treatment of eczema depended upon the fact that certain manifestations of it were produced by parasitic influence. The more clear they were, therefore, in the recognition of the forms of eczema produced, or influenced by micro-organisms, the more successful would their treatment of the clinical varieties become.

Dr. Bezly Thorne said that he attached more importance to toxic conditions of the blood in relation to eczema than Dr. Whitfield was disposed to accord to them; and he could not regard as valid the argument that, if the kidneys were sound they must be innocent of mischief, because they might, by habit and regimen, be inhibited from performance of their normal function. He entertained no fear of the local effect of salt water, as, in every instance in which patients affected with seborrhœic eczema, had, under his observation, undergone a course of saline baths, the skin had become sound before the termination of the treatment. That result might possibly be attributed to the diuresis which the baths, in all cases, induced.

Dr. Alfred Eddowes had found Unna's "bottle" bacillus so frequently in seborrhœa cases that he was disposed to think with him that it probably had a causal relation to the disease. But this was hardly the time to deal with the bacteriology of eczema in detail. He thought the word eczema should mean a condition, not a definite disease, unless the word was qualified with an adjective—seborrhœic eczema, impetiginous eczema, tuberculous eczema, etc. He had accidentally inoculated two of his nail beds by handling a patch of impetiginous eczema, and obtained pure cultures of the staphylococcus aureus from the resulting subungual abscesses. Dr. Sims Woodhead referred to the fact in a paper in the *Lancet* some years ago. Dr. Eddowes showed a photograph of a case of eczema contracted probably from a school thimble, and expressed his opinion that this slowly advancing form of dry eczema was of a tuberculous nature. He also showed a photograph to illustrate what he called sympathetic eczema. He had painted a chronic, stationary, sharply-defined patch of eczema on the right forearm of a (?) gouty patient with strong iodine tincture. The following week an exactly symmetrical patch of eczema appeared on the left forearm. In attempting to explain this remarkable reaction he suggested that the vasomotor system, like the muscular system of nerves, was so linked together that a sufficient stimulus to the centres could produce bilateral response, as was observed in the involuntary, genuine, bilateral laugh of the hemiplegic. As for treatment, it was easy to lay down certain definite principles which were always useful. One should keep in mind the physiological state of normal skin. One must dry a wet skin and grease a dry skin. Dabbing

with spirit and dusting with powder answered the former requirement, and ointments the latter; while pastes occupied the intermediate place, and were most valuable. Take, for instance, a bad case of "scald head," eczema of scalp in a child. One thorough dressing with a paste such as Lassar's frequently left nothing more to be done by doctor or mother for a whole week, and at once made such a case greatly better and quite manageable. He was surprised to hear the reader of the paper say that he did not find pastes of great service.

Dr. WHITFIELD replied.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

PATHOLOGICAL AND CLINICAL SECTION.

JORDAN LLOYD, F.R.C.S., President, in the Chair.

Friday, January 27th, 1899.

METHOD OF INCREASING THE MOVEMENT OF AN ARTIFICIAL EYE.

MR. PRIESTLEY SMITH showed a patient in whom he had sutured the tendons of the internal and external recti to the conjunctiva as a first step in the excision of the eye, the object being to retain as much movement as possible in the bed upon which the artificial eye rested. In several instances it had given very satisfactory results. This method, in conjunction with Snellen's recent improvement in the form of the artificial eye, would, he thought, prove valuable in lessening the sinking and immobility too often present.

SPASTIC PARESIS.

Dr. KAUFFMANN showed a boy, aged 5, who suffered from spastic paresis of both legs and arms, slightly more marked on the right side. The paralysis first appeared four months before, immediately after the patient—then in perfect health—was knocked down at play. When picked up he was unable to stand, but this power returned in a few hours, and on the following day he walked to school; but on the same day the power of walking again left him. From that time until his admission to hospital the father had noticed no change in the child's paralysis, either progressive or regressive. At present the gait was feeble and uncertain, and the feet were kept wide apart, but there was no reeling. There was slight unsteadiness of co-ordinated movements in the legs in the recumbent posture, and some similar unsteadiness in the hands, resembling that met with in early insular sclerosis. There was no interference with sensation. The superficial reflexes on admission were all lively, but within the last fortnight the plantar reflexes had gradually disappeared, the others being preserved. There had also been observed an increasing contracture of the calf muscles, so far easily overcome by pressure on the foot; and quite lately a spastic flexed attitude of the hands and arms had been noticed. All the limbs were unusually weak, the right hand showing this a little more than the left. The intelligence and mental state were in excellent order; speech had at no time been affected, and the eyes showed no abnormality whatever. The family history was beyond reproach. There was no muscular atrophy and the general nutrition was good. Dr. Kauffmann inclined to regard the case as one of psychical neurosis set up by the injury.

DUODENAL GROWTH.

Dr. FOXWELL showed the liver, bile ducts, and duodenum of a man, aged 39. The gall bladder was much thickened and its mucous membrane ulcerated in places. The cystic duct was normal in size, but the common and hepatic ducts were greatly dilated up to half an inch in diameter. The liver was enlarged and olive green in colour, in life reaching below the umbilicus. In the duodenum, apparently surrounding the ampulla of Vater, was a large ulcerated cancerous growth, deeply placed in the duodenal wall. The patient was a railway carter, muscular, and well built; both his previous and family histories were good. Eighteen months before admission he had an attack of jaundice, loose, white stools, and dark urine, lasting three months, during which he lost 18 lbs. In January, 1898, he had a second similar attack, losing the 14 lbs. which he had regained since the first attack. The present (third) attack began in September. He had only regained 4 lbs. in weight since the second attack, and during it he lost another 14 lbs. At no time had he observed any pain or tenderness. He was admitted under Dr. Foxwell, December 20th, and died January 15th. His temperature was hectic throughout, at first 97° to 101°, later 97° to 99.5°, and then rising slowly to 97° to 102°. The liver was somewhat tender to firm palpation, and his jaundice steadily increased. On January 13th Mr. Marsh opened the gall bladder and let out 34 ozs. of a transparent mucous fluid the consistence of glycerine. He was unable to pass a probe through the cystic into the common duct, nor did the common duct feel dilated, but the large size of the liver and the unsatisfactory condition of the patient made a thorough examination very difficult. The absence of pain and the presence of hectic with wasting made Dr. Foxwell look upon the case as one of ulceration of the ducts, though the questions of stone and growth were naturally discussed; indeed, three very small stones were found by Mr. Marsh at the time of operation. The difficulty of passing a probe into the common duct was probably due to kinking of the cystic duct somewhat early in the illness owing to the double distension of ducts and bladder. There was no evidence of growth anywhere else in the body.

SUTURED INTESTINE.

Mr. J. W. TAYLOR showed two specimens of sutured bowel removed from a patient, aged 47, who had been suffering from chronic obstruction of the small intestine. Operation was performed on January 29th, 1898, and the obstruction was found to be due to very dense adhesions. In undoing these the bowel had to be cut away, and at the most constricted part was slightly opened. The opening was closed by a fine continuous suture, but the operation was followed by a small fæcal fistula. A second operation was accordingly done on June 9th. At this operation the whole of the diseased portion of intestine was excised and the healthy bowel—above and below—united end to end by a double continuous silk suture. During the operation the patient had an apoplectic fit from which she never recovered. She remained unconscious and died, with a rising temperature, on the third day. On opening the abdomen after death no trace of any peritonitis was found, and the sutured bowel was in perfect condition. The specimens produced showed: (1) Small intestine sutured longitudinally; the upper part was still dilated, and a very fine track (of fistula) could be seen proceeding from this to the skin. (2) Small intestine showing circular suture and union after excision.

ULCERATIVE COLITIS.

Dr. FOXWELL showed the colon of a woman, aged 25, which was intensely ulcerated throughout, except the upper 3 inches, the transverse portion being most severely affected. The ulcers were all deep, and fæcal extravasation had occurred in several places. The omentum was plastered down over the intestines: the stomach was dilated, the liver soft, very dark brown, and friable. The onset of the illness was sudden and definite six and a-half weeks prior to death. The symptoms were throbbing pain in the lower abdomen on both sides, but chiefly on the left; this pain was increased by food, drink, and exertion; also diarrhœa, severe, but without tenesmus, the stools resembling pea soup, often having small flakes of blood, but no mucous nor shreds of false membrane. With these were increasing weakness and emaciation, though she was able to continue her work for seventeen days. She was only 4 feet 9 inches, and weighed 6 st. 8 lbs. Her mother died of phthisis at 26, and her father of gastric cancer. She died a week after admission. During her stay in hospital she had six to twenty stools a day of the nature above described. The temperature was irregularly hectic, reaching 104°. The abdomen above the umbilicus appeared normal, but below it was doughy, bulging, tender in patches, but nowhere dull nor rigid. An ulcer arose on the tongue, and rapidly increased to the size of a sixpence. She was perfectly conscious to the last.

LIVER FROM A CASE OF GALL STONES.

Dr. STANLEY showed this specimen.

DISEASE OF ELBOW-JOINT.

The PRESIDENT showed parts forming the elbow-joint removed that morning from a man, aged 26, who had symmetrical

elbow-joint disease of nearly two years' duration, which had the clinical characteristics of Brodie's chronic gelatinous synovitis. The man was of typical tuberculous type, and his neck was scarred with the old cicatrices left by chronically suppurating glands during childhood. The bones removed showed in parts well-marked features of so-called "chronic rheumatoid arthritis — stalactitic osteophytis, patches of 'enamel' induration," etc.—whilst in other parts they presented the naked-eye characteristics of chronic tuberculous degeneration. The President thought the joint presented evidence of a double affection—a combination of tuberculous and of "rheumatoid" processes.

H. Langley Browne, F.R.C.S.Edin., in the Chair.

Thursday, February 9th, 1899.

Multinodular Myoma of Uterus.

Mr. Lawson Tait showed a specimen from a case in which he removed the whole uterus on account of multinodular myoma, the chief trouble of which arose from its filling the pelvis, and pressing on the bladder, the whole mass being firmly fixed. At the operation the broad ligament was found to run straight from the brim of the pelvis on to the tumour, so that delivery of the tumour was not possible until the broad ligament was opened up according to Penn's plan. This had recently been resuscitated as "panhysterectomy," an entirely indefensible name. Although much lauded for a few months and on a very short trial, its mortality was now found to be as high as in Penn's own time, and it was not likely to find permanent favour. In this case the patient made a splendid struggle for recovery, but died on the ninth day.

Uterine Fibroid with Ovarian Cyst.

Dr. Purslow showed specimens which he had removed by abdominal section from a widow, aged 40. She was nulliparous, and had suffered from menorrhagia for several years; for eighteen months the hæmorrhage had been almost continuous, and, owing to the weakness and pain, the patient had been bedridden in a union infirmary during that time, and was sent to the Queen's Hospital by the guardians. There was an abdominal tumour filling the lower half of the abdomen, and varying in consistence, at one point appearing to fluctuate. The abdomen was opened by an incision 8 inches long on April 30th, 1898, when it was then seen that both an ovarian cyst and a uterine fibroid were present, each tumour being about the size of a six months pregnant uterus. The cyst was tapped, and its attachment to the uterus, which covered a large area, was clamped with Doyen's forceps, and the cyst cut away. The uterus, together with the fibroid tumour, was then removed by the method known as panhysterectomy, the broad ligaments being tied in sections from above, the ends of the ligatures left long, and turned down into the vagina. The abdominal wound was entirely closed. The patient made a good recovery, and was now earning her own living in domestic service.

Nephrectomy for Chronic Calculous Nephritis.

Mr. Jordan Lloyd showed a kidney removed by lumbar nephrectomy from a man, aged 45, who had been operated on for bladder calculus some twenty-five years before. Nearly seven years ago a stone was removed by lumbar nephrectomy from this same kidney. A lumbar fistula resulted from this operation; the urine always contained pus, and the man was frequently laid up by attacks of lumbar pain. The kidney was small and fibroid, firmly fixed in its bed, and was enucleated from within its true kidney capsule, the vessels being ligatured separately after being caught with forceps. The patient was recovering.

Ulerythema Sycosiforme.

Dr. Leslie Phillips showed a case of ulerythema sycosiforme in a man who had had the disease for thirty years, and presented the last stage of the disorder—namely, that of bald scar tissue. In view of the failure of ordinary treatment the exhibitor expressed the view that it might be worth while to freely use the cautery to the spreading border of more recent cases.

Splenectomy for Rupture.

Mr. George Heaton showed a boy, aged 9 years, on whom he had operated for severely lacerated spleen, with intra-peritoneal hæmorrhage. The abdominal section was performed on December 2nd, 1898, five and a-half hours after the accident. The boy was rapidly dying of internal hæmorrhage. There was no external wound. Two-thirds of the spleen had been completely torn away from the gastro-splenic omentum, and lay free in small portions in the abdominal cavity. The hæmorrhage from the torn splenic vessels was furious. They were clamped and tied, and the remaining portion of the spleen removed. No attempt was made to cleanse the abdomen of blood or portions of the spleen. The boy remained in a most critical condition for several days, but afterwards made a slow convalescence. He was now apparently quite well. During convalescence he suffered from a train of symptoms characterised by feverishness, anorexia, rapid wasting, with anæmia and marked leucocytosis, from which he slowly recovered.

Perforated Gastric Ulcer: Operation: Recovery.

Mr. Barling showed for himself and Dr. Carter a girl, aged 18, domestic servant, who on November 24th, 1898, was seized with sharp pain in the epigastrium about 8 A.M., after taking a cup of tea and a little bread and butter. The patient rested for a time, and feeling better, got up, when there was a return of the severe pain with marked collapse. Dr. Carter saw her at this time, and diagnosed perforation of a gastric ulcer, administered morphine hypodermically, prohibited mouth feeding, and insisted that the patient should be kept horizontal. There was at this time some vomiting. The pulse was about 30. The patient was seen by Mr. Barling soon after midday, who found her with a rigid tender abdomen, the liver dulness practically abolished, with very high-pitched resonance in the epigastrium extending up behind the sternum; temperature 101°, pulse 108 and feeble. The diagnosis of perforation having been confirmed, it was some hours before the permission of the friends could be obtained for operation. The girl was driven to the General Hospital and operated upon at 8.30 P.M.—that was, twelve hours after the perforation. On opening the abdomen free escape of gas took place, and a considerable quantity of turbid fluid was found towards the pylorus, duodenum, and hepatic flexure of the colon, suggesting that the perforation was in the right end of the stomach. To the vertical incision first made a transverse one through the right rectus was added, and the perforation not being detected here, a further search was made towards the cardiac end. A perforation nearly half an inch in diameter, and entirely free from induration, was now found on the anterior surface of the lesser curvature, and nearer to the cardiac than to the pyloric orifice. This was not accessible to suturing through the wound already existing, so a further transverse incision was made through the left rectus, which greatly facilitated the next step. The perforation was closed with two rows of Lembert sutures, the abdominal cavity was cleansed by flushing with normal salt solution and gently sponging, especially in the subphrenic regions, and the incision was closed except an exit for a drainage tube. Mouth feeding was commenced at the end of thirty-six hours, and the patient had made an uninterrupted recovery, being able now to take solid food without any pain. On careful inquiry into her history before the perforation the only symptom suggestive of stomach lesion was the occasional rising of an acid fluid into the mouth, which the patient described as "heart-burn," and slight vomiting two days before the perforation.

Osteoma of Arm.

Mr. F. V. Milward showed a tumour removed from the arm of a woman, aged 25. It was noticed for the first time three weeks after her elbow had been reduced for a recent dislocation, and was a hard swelling just above the inner condyle of the humerus, movable and causing no pain, but limiting the movements of the joint. Its position was indicated by a faint haze by the *x* rays. It was found to consist of a shell of cancellous bone nearly half an inch in thickness, containing a cavity lined by a membrane of very delicate connective tissue with spicules of cartilage becoming transformed into bone, and containing a yellowish gelatinous material. The tumour was connected by a fibrous cord to the structures about the elbow-joint.

Nævus of Soft Palate.

Mr. F. Marsh showed a boy, aged 6, with a nævus chiefly

venous, occupying the right half of the soft palate. Two attempts to obtiterate it had been made in hospitals in London, and Mr. Marsh now proposed to try electrolysis, as excision or ligature would probably mean the loss of a considerable area of the soft palate. The case was shown on account of its rarity.

SPECIMENS.

Mr. JOHN W. TAYLOR showed a series of eight specimens illustrating some of the many applications of Vaginal Section in the Treatment of Pelvic and Abdominal Disease. (1) Ovarian Cyst; operation, August 22nd, 1898; discharge, September 5th, 1898. (2) Tubo-ovarian Cyst; operation, February 17th, 1898; discharge, March 3rd, 1898. (3) Tubal Mole from a case of tubal pregnancy; operation, December 17th, 1898; discharge, January 1st, 1899. (4) Tubal Mole, Right Tube and Right Ovary from a case of tubal pregnancy; operation, November 15th, 1898; discharge, November 30th, 1898. (5) Uterus enlarged by Chronic Metritis (possibly myomatous) removed for intractable hæmorrhage, the ovaries and tubes of both sides being reclaimed: operation, May 17th, 1898; discharge, June 2nd, 1898. (6) Uterus, the seat of a Growing Myoma removed together with the appendages of both sides; operation, November 20th, 1897; discharge, December 6th, 1897. (7) Uterus, the seat of Cancer in the posterior wall: operation, September 27th, 1898; discharge, October 15th, 1898. (8) Uterus, the seat of a Large Myoma removed by the combined method of vagino-abdominal, "panhysterectomy;" operation, November 10th, 1898; discharge, December 8th, 1898. The first four specimens were removed by posterior vaginal cœliotomy: specimens 5, 6, and 7 were removed by vaginal hysterectomy. Only in the last case was it necessary to make an incision above the pubes. All of the patients made good recoveries and were convalescent in from two to four weeks after operation.

TONSIL GUILLOTINE.

Dr. FOXCROFT showed a tonsil guillotine for which he claimed the following advantages: (1) That two prongs attached to the knife transfixed the tonsil, and prevented its falling into the pharynx; (2) that the act of drawing back the blade ejected the portion of tonsil, so that the instrument could be immediately used for the second. The instrument had been made from his design by Messrs. Mayer and Meltzer.

PAPERS.

Mr. LAWSON TAIT read a paper on the term "Conservative Surgery," as it has been proposed to apply it to the Uterus and its Appendages.—Dr. F. M. ROWLAND read a paper on the Pathology and Treatment of Angina Pectoris.

EDINBURGH OBSTETRICAL SOCIETY.

J. HALLIDAY CROOM, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, February 8th, 1899.

SPECIMENS.

THE PRESIDENT showed a simple Ovarian Tumour with special reference to the cause of death (acute mania). The operation was simple and easy, and it seemed unintelligible why acute mania should have supervened.—Professor A. R. SIMPSON showed a Colloid Ovarian Tumour.—Dr. HAULTAIN showed an early Twin Abortion illustrative of Deciduitis Tuberosa.—Dr. LAMOND LACKIE showed a drawing of an incarcerated Umbilical Hernia in an infant.

THE PESSARY IN GYNÆCOLOGICAL PRACTICE.

Dr. J. W. BALLANTYNE read a paper entitled On the Place of the Pessary in Modern Gynæcological Practice. During the last thirty years the question of the pessary had been under the notice of the Society ten times, and the record of these communications occupied 6½ pages out of a total of 5,463 pages. The last word on the pessary had not yet been spoken. The Edinburgh surgical instrument makers affirmed that during the last twenty years there had been a steady increase in the number of pessaries sold to the medical profession, a steady decrease in the number of varieties asked for, the ring and the Hodge being those mostly in request, the Albert Smith modification of the Hodge in vulcanite being the favourite, and the simple india rubber instrument containing a watch spring the favourite of that type. There had been an increase in the demand for intrauterine curettes (especially Martin's), a decrease in caustic carriers, and intrauterine stems were hardly ever asked for. The catalogues of makers elsewhere supported these data. Next, 20 well-known textbooks on gynæcology were analysed. Eight writers were strongly in favour of this method of treating uterine displacements, 5 were strongly against it, and 7 were critical and even sceptical. The most pronounced advocates did not deny inconveniences, that it required to be fixed with care and intelligence, that it seldom cured, and that it occasionally must give way to operative procedures. Those most strongly opposed to it admit that there was a small residuum of cases in which the pessary either might or must be used. The chief objections that had been raised against the use of pessaries were:—General Objections: (1) Inconvenience.—It necessitated periodical visits to the doctor, entailed frequent douching, might set up or aggravate malodorous discharge, and it might with certain kinds of pessary interfere with marital relations. (2) Inefficiency.—Lawson Tait hated pessaries, but there were cases where he was compelled to use them. Some averred that the evidence of patients as to their help was misleading. (3) Injuriousness.—The intrauterine stem, the Zwanck, and the large ball pessary had been specially condemned, while the ring and the Albert Smith had been generally acquitted. Pruritus, vaginitis, ulceration, fistulous formations, prevention of union of a torn cervix, subinvolution, cancer, and septic inflammation of uterus and tubes were among the alleged evils produced. Balls-Headley was an "apostate from complete faith in pessaries" after having been an intense believer. With advancing knowledge, pessaries, like bleeding, would cease to be. General advantages: (1) Convenience and the avoidance of plastic operation, which was often impossible. (2) Efficiency.—That was undoubted in a considerable number of cases many writers averred. (3) Safety.—Most gynæcologists admitted that the ordinary vaginal pessary with ordinary care was perfectly safe. It was now necessary to take notice of the gynæcologists who gave a critical approval to the employment of certain kinds of pessaries in certain kinds of displacements, and under certain circumstances. Pessaries in prolapsus uteri: I. Incomplete prolapse. The india-rubber rings of Hodge-Smith were claimed as giving relief to symptoms. The alternative kinds of treatment in incomplete prolapse with a certain degree of perineal efficiency were: (1) Purely palliative plugging of the vaginal vault with glycerine or ichthyol tampons, (2) uterine curettage, (3) anterior colporrhaphy, (4) perineorrhaphy. II. Complete prolapse. The stem with an abdominal belt, outside straps, and perineal pad were the only form of support possible. These in old women who either refused or were too weak for operation, or in younger women who absolutely refused any other treatment. By their means a complete prolapse was sometimes converted into an incomplete one, and in time it might be possible to replace the stem and outside straps by a simple vaginal pessary. The alternative procedures to pessaries in the treatment of complete prolapse were (1) perineorrhaphy; (2) colporrhaphy, anterior or posterior, or both, with or without perineorrhaphy; (3) ventrifixation of the uterus; (4) Alexander's operation; and (5) vaginal hysterectomy. Dr. Ballantyne then indicated the rules he laid down for his own guidance in cases of prolapse, and then proceeded to discuss pessaries in antrorsions. 1. Anteversion: In most cases the condition gave no trouble and the remedy was not called for. 2. Anteflexion: Here practically the question was of employing intrauterine stem pessaries, and there was a widespread opinion that these were too dangerous for ordinary use. The alternatives were treatment of the metritis, the occasional passage of the sound, cervical dilatation, division of the cervix, electric treatment twice a week, and, in grave cases, removal of the ovaries. Dr. Ballantyne himself scarcely used pessaries in antrorsions of the uterus. A large number of cases were really rheumatic, and antirheumatic internal remedies gave great relief to the state. Pessaries in retrorsions: Skene thought the good and the evil done by pessaries in retrorsions was about equally balanced. J. C. Webster divided the cases of retroversion into seven classes, and gave special directions for the management of each. Dr. Ballantyne then referred to some leading points of interest in regard to the use of pessaries in retrori-

sions, and quoted the opinions and statements of various writers. The correction of a posterior deviation of the uterus by a pessary was followed by an amelioration or disappearance of the symptoms. The alternative methods were vaginal tamponing, uterine curettage, pelvic massage, cervical amputation, vaginal fixation of the uterus, ventrifixation, and the Alexander-Adams operation. Dr. Ballantyne found it difficult to decide on the means to be adopted in individual cases, and indicated some of his difficulties, and the course he pursued in certain cases. He also cited some illustrative cases. He commended J. C. Webster's rules, and said he tried to follow them. There was great need for a fuller consideration of the kind of pessary to be used. Finally, pessaries in modern gynæcology still had a sphere of usefulness within which their value certainly as palliative, and possibly also as curative, means must be conceded. Dr. Ballantyne appended a bibliography to his paper, which was spoken to by the President, Professor Simpson, and Drs. Haig Ferguson, Church, Brewis, Haultain, Lackie, and McVie, and the author replied.

Vaginal Hysterectomy for Cancer.

The President read a paper on a series of cases of vaginal hysterectomy for cancer. The immediate risks of the operation, when undertaken in circumstances at all favourable, were small. Those cases which succumbed shortly after the operation must and could only be badly selected ones, where the fornices were small, where the disease had involved the posterior wall of the bladder—a condition always difficult of diagnosis beforehand—or where sepsis had resulted. But in any well-selected group of cases such an untoward event was seldom to be expected. In the list of cases now presented all the cases immediately recovered except one, who died from sepsis some days after the operation, due to failure to realise that the uterus was closely attached to the bladder. The question in the present paper was one of remote results, how far the operation prolonged the life of the patient. A case to be immediately and also remotely successful must be attacked in its most early stage. A very early carcinoma of the cervix, still more an early tubular carcinoma of the uterus, will under ordinary circumstances give an expectation of life for the patient of eighteen months to three years. With sarcoma the expectation was distinctly longer. The first question to decide was whether an operation could prolong the patient's expectation of life; and the second, Did it relieve her symptoms and give her an easier death than without operation. The President exhibited a table of all his cases of cancer during the last ten years, remarking that: (1) It was a record, not of all the cases of cancer he had seen, but of those admitted to his ward or seen in his consulting room. (2) Those operated on were differentiated from those not. The majority were private cases, and this was because they were seen earlier. (3) These cases included all the recognised forms of cancer, affecting the cervix and the body of the uterus. An example from each of three forms of cancer was taken. First, a hospital case. A widow, mother of four children, a worker in a mill, presented herself complaining of slight pain in the back, and menorrhagia. There was no leucorrhœa, no fœtid discharge, no bleeding, no emaciation; a certain slight degree of erosion and eversion of the cervix was the only sign of disease found. It was supposed to be cervical catarrh, and was treated as such. There was no improvement in a fortnight; the cervix appeared to become suspiciously hard; a microscopic examination revealed a malignant condition. The case fulfilled every one of the conditions for hysterectomy—mobility, non-involvement of glands, and freedom of ligaments, apparently no infection of the body of the uterus or the bladder. The operation was performed in eighteen minutes, and the patient made a perfect recovery. The operation was done on July 16th. The following Christmas there were several bleeding nodules at the site of the cicatrix, and she was suffering pain. In April the whole pelvis was occupied by a cancerous mass, with hæmorrhage, emaciation, and great pain. She died in summer. Commenting on this case the President said: (1) A more suitable case could not be wished for; both as to general and local conditions the operation could not have been easier or shorter. (2) For a month or two the patient was comparativey well. (3) In six months the disease had returned, in nine months there was a fungating cancerous mass in the pelvis, and in a year the patient was dead. Had she been left alone her expectancy of life would have been from eighteen months to two years, and her sufferings, which were very great, would have been less. A second type: A lady, aged 47, evidently in robust health, but with severe pain in the back and loins, with some hæmorrhagic discharge. The uterus was perfectly mobile, not enlarged, the fornices were free, no glands were involved; there was nothing abnormal save a hard nodular cervix. Examination confirmed the belief that the condition was malignant. The operation was done easily and quickly by Doyen's method. The patient made an unbroken recovery, and went home in a month. Three months later the pain recurred, and soft granular bleeding masses appeared at the site of the wound. She practically lived on opium, and died seven months after operation. The President pointed out that this patient had only a very short immunity from pain. In three months it recurred, and save for morphine her life would have been intolerable. The disease had markedly affected the perineum, though the mass in the pelvis never became very large. Her expectation of life when first seen was from a year to eighteen months, while with all the so-called advantages of the operation she lived seven months. A third type: A lady, in excellent health, save for persistent hæmorrhage for two months, supposed to be incomplete abortion. The uterus, which was enlarged, with the cervix somewhat gaping and well-marked ectropion, was curetted. The *débris* was found to contain tubular carcinoma. A fortnight later another scraping gave the same result. The operation of vaginal hysterectomy was done, the operation being perfectly easy. The broad ligaments were absolutely free, the disease was entirely localised to the fundus and body. Within six weeks she had slight recurrence of the hæmorrhage from the cicatrix, and an enlarged gland in the left groin. She died of malignant peritonitis within a year. A woman's expectation of life with intrauterine cancer was from two to five years. This patient was in excellent health, had hæmorrhage, but absolutely no pain. It was when the disease had spread to the peritoneum that pain came on, became intense, and she died from malignant peritonitis after terrible suffering. A converse case was cited. A lady with supposed senile uterine catarrh, gaping os, profuse hæmorrhage. The cervix was dilated, the uterus curetted, the cavity packed. The scrapings revealed well-marked carcinoma. Further operation was declined. That was in 1894. Now, though seriously ill, she was still alive, and only recently had she suffered much. During these years she had had many consecutive weeks of excellent health. It was pointed out that the duration of four and a half years was probably an under-estimate, because it was certain that her cancer had originated a considerable time before she was seen. Doubtless this was a longer duration than was usually met with. The President concluded by saying that he was dealing only with his own results, and was venturing to criticise no other operator's work. His experience had been unfortunate. The cases operated on were exceptionally favourable ones, and were selected with special care. Bad though his results had been, he trembled to think of them had he operated on cases indiscriminately.

The paper was spoken to by Drs. Brewis, Haultain, Haig Ferguson, and Lackie, and the President replied.

LIVERPOOL MEDICAL INSTITUTION.

Pathological and Microscopical Section.

F. T. Paul, F.R.C.S., in the Chair.

Thursday, February 16th, 1899.

The Pineal Gland.

Dr. Alfred W. Campbell read a paper entitled Observations on the Anatomy of the Pineal Gland, and on certain pathological conditions arising in it. He described the naked-eye and microscopical characters of this organ. He had examined a large number of glands, and found that normally there was a central cavity or ventricle surrounded by a collection of specialised tissue resembling neuroglia. In exceptional cases, when the cavity was absent, the special tissue was still present. In some glands he found pigmented elements similar to those found in the retina. Dr. Campbell also described

several pathological conditions that he had found in the pineal glands. The paper was illustrated by anatomical and microscopical preparations, drawings, and lantern transparencies.

The CHAIRMAN, Mr. LARKIN, and Dr. GRÜNBAUM discussed the paper; and Dr. CAMPBELL replied.

THE DENTAL TISSUES.

The CHAIRMAN read a note on some points in the structure of the dental tissues, and illustrated his remarks by some microscopic specimens and lantern photographic transparencies.

This note was discussed by Drs. and Messrs. RUSHTON PARKER, LARKIN, GRÜNBAUM, MONSARRAT, and BUCHANAN.

SPECIMENS.

Mr. C. G. LEE showed an Epithelioma of the Auricle, and discussed its frequency and relative malignancy in that situation.—Mr. THELWALL THOMAS showed a Testicle and part of the Spermatic Cord, into which extensive hæmorrhage had occurred. They had been removed from a man aged 32. The swelling had appeared spontaneously, and was accompanied by great pain and drawing up of the testicle. The microscope showed no new growth.—The SECRETARY (Mr. Larkin) showed for Dr. JOSEPH WALKER a large Pedunculated Soft Fibroma of the Labium Majus, removed from a middle-aged woman.—Mr. NEWBOLT showed the Left Humerus of a boy aged 16. The upper end was occupied by a round-celled sarcoma. Amputation was performed 10 months ago, and as yet there had been no recurrence.—Dr. STOPFORD TAYLOR showed a microscopic section of an Epithelioma of a Lupus Scar. The growth was situated on the left side of the neck of a man aged 46, who had suffered from lupus for 40 years.—Mr. DOUGLAS CRAWFORD showed some microscopic sections of a portion of an enlarged Prostate, which had been removed suprapubically for urinary obstruction. The patient was aged 54, and had already had bilateral vasectomy performed with no permanent benefit. The section showed an excess of glandular tissue.—Dr. ALEXANDER showed the Brain of a male epileptic aged 20. There was complete atrophy of the left temporo-sphenoidal lobe and of the posterior parts of the frontal convolutions. The fits always began in and affected chiefly the right side of the body. The right leg was permanently partially paralysed, but the paralysis was always much increased after a fit.—Dr. BUCHANAN showed specimens illustrating the structure of Molluscum Contagiosum.—A short discussion followed, in which several members took part.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 15th, Mr. T. DAVIES PRYCE, President, in the chair, Mr. A. E. ANDERSON read a paper based on 117 cases in which he had operated for the radical cure of Inguinal Hernia, to which variety he confined his remarks. These included strangulated cases in which this operation had been done. There were four deaths, two occurring in the strangulated cases. The deaths in the non-strangulated cases were one from bronchitis after ether, and one from cellulitis of the abdominal wall in a fat, middle-aged man, with a bulky, irreducible hernia containing large intestine. Of late he had performed exclusively the Bassini-Halsted operation, which he considered the best. Fifty cases had been operated on by this method without a single relapse as far as he was aware. He said his results would not be accepted by many surgeons, as it was only three years since he commenced to perform this operation; but he considered that experience of Bassini's operation would remove the doubt felt by some as to the probability of a radical cure being effected by operative means. He agreed that this doubt still existed for all operations that left the cord in the canal, and did not obliterate as well as close it. He did not admit that it was necessary for five years to elapse before a Bassini could be accepted as having effected a radical cure; on the contrary, an examination of the dense resulting cicatrix, occupying the site of what was once the inguinal canal, conveyed the conviction from the first that the patient would never again be ruptured at this spot. Mr. Anderson described the operation he was in the habit of performing, and discussed the questions of truss-wearing after operation and the advisability of operating in young children. He never ordered a truss after Bassini's operation unless the circumstances were altogether exceptional. With respect to operating in children, he said it should be adopted as the routine treatment at any age in the children of the poor, and in the children of the well-to-do in all cases of complete scrotal hernia. Among the children of the former it was impossible to ensure accurate truss or pad fitting, and very difficult amongst those of the latter, whilst the absence of mortality and the tendency towards cure rendered the operation at this period of life one of the most successful in surgery. Mr. Anderson showed two cases in which he had recently operated—namely, a man aged 25, and a child aged 19 months, and directed attention to the obliteration of the canal, the absence of bulging, and the firmness of the scar.—Mr. WILLIS showed a male, aged 18, suffering from Dyspnœa of many years' duration caused by a unilateral enlargement of the thyroid, which he suggested was an adenoma and proposed its enucleation.

FORFARSHIRE MEDICAL ASSOCIATION.—At a meeting held in Dundee on February 3rd, Dr. MCGILLIVRAY in the chair, Professor KYNOCH showed a Solid Tumour of the Ovary, associated with a multilocular cyst, weighing 7½ lbs., removed on account of rapid ascites. The liver was cirrhotic, and so the cause of the ascites was doubtful. Reference was made to two other cases of solid ovarian tumours.—Dr. HALLEY showed a Uterus from a case of Ruptured Extrauterine Gestation, and with a fœtus *in utero*. The patient, aged 29, was admitted to the infirmary, in an extremely collapsed condition, suffering severe pain, which had come on suddenly eight hours previously. She stated that she was seven weeks pregnant. On opening the abdomen it was found to be filled with blood, which was seen to be escaping from a rupture in the right Fallopian tube, just external to its junction with the uterus, which was noticed to be somewhat enlarged. The Fallopian tube was ligatured as rapidly as possible and the wound closed, but the patient scarcely rallied at all from the excessive bleeding, and died in ten hours.—Dr. J. W. MILLER read notes of a case of Lateral Sclerosis which he had under his care twenty years ago. The illness commenced with a sudden attack of abdominal pain which recurred at intervals, and was followed later by tetanic contractions, at first in the right arm and later extending. These tetanic spasms were the most marked symptom, and were easily induced. The patient lived three and a half years, having been bedridden three months before her death with paralysis of upper and lower extremities, but having no impairment of the intellect.—Professor STALKER gave an account of a case of Bright's Disease with Uræmia, which had been treated by venesection, with the result that the convulsions ceased. When any signs of impending uræmia showed themselves venesection was performed, and the signs disappeared and the convulsions were prevented. After four venesections the headaches did not recur, but the daily amount of urine still remained low. This improved under internal administration of pilocarpin and tapping of the abdomen for ascites. Other remedies had failed, and the patient was now doing well. Professor Stalker referred to a case which his colleague Dr. Whyte had treated by venesection with the same result. He thought venesection was of distinct benefit in cases of kidney disease where there was very little dropsy and persistent headache, and also in some cases in which cardiac distress was at its worst. Dr. STEELE MOON, Dr. J. W. MILLER, Professor KYNOCH, and Dr. DUNCAN made remarks.

OXFORD MEDICAL SOCIETY.—At a meeting on February 10th, Mr. H. P. SYMONDS (President) in the chair, Mr. FARMER showed (1) A Stomach from the body of a man, showing well-marked Hour-glass Contraction. (2) A Vermiform Appendix lying in the post-cæcal fossa, and firmly attached to the intestine. (3) A Skull with a clean-cut perforation through the mastoid, exposing the antrum. No history attached to the specimen, but the opening suggested the trephine.—Mr. WINKFIELD read a paper on the use of Antitoxin in Diphtheria. Reviewing the mortality returns for Oxford during the past 10 years, he showed that there had been a striking decrease since the discovery of antitoxin in 1894 (the present mortality of hospital cases being 14.17 per cent.). He laid stress on the fact that in no case did laryngeal symptoms set in after the

use of antitoxin, while in several cases its timely use rendered the operation of tracheotomy unnecessary. He used Behring's serum, giving 600 units as an ordinary dose in mild cases, 1,000 units in severe cases, while 1,500 units were regarded as a "treble dose." For prophylactic purposes 200 units were sufficient. He rarely had occasion to repeat the injections. After one injection the membrane was noticed to curl up at the edges; it then cleared off rapidly, the glandular swellings of the neck subsided, and the child would usually appear well within a week. He noticed free perspiration, and a tendency to faintness after injection, and usually kept children lying on their backs for three weeks. A rash had occasionally occurred, but he had noted no kidney complications. Mr. Parker read a paper on Training in Relation to Athletics.—He drew attention to the importance of (1) regular and graduated exercise; (2) diet. These methods he stated to have been in vogue since ancient times, especially among the Greek athletes. Their diet was at first farinaceous, but meat was substituted later. The chief exercise in training should be that for which the athlete was preparing. By gradually increasing the amount of work done, the body might be trained to undertake tasks which at first would have been impossible; therefore, in those sports, such as rowing, which required severe and prolonged exertion, the training should be long and gradual, rowing in untrained men being decidedly injurious. Mr. Parker insisted on the importance of training according to individual requirements. He deprecated the sudden change from an ordinary diet to an almost entirely proteid one. Since physiologists showed that muscular exertion, unless carried to exhaustion, did not involve increased nitrogenous waste, he advised that the bulk of food taken by an athlete in condition should be of the carbohydrate order. He discussed the vexed questions of "second wind" and "staleness." He regarded second wind as either the result of the readjustment of the systemic and pulmonary circulations, or as due to the respiratory centre becoming habituated to the action of some toxic product of muscular exertion, for example, sarcolactic acid. "Staleness," he thought, was probably an auto-intoxication. An interesting discussion followed.

Wigan Medical Society.—At the annual meeting, held on February 9th, the following office-bearers were elected:—*President:* Mr. Luther Cooke, L.R.C.P. and L.R.C.S.Edin. *Committee:* Messrs. Street, Graham, Roocroft, Brady, Cowan, White, and Benson, with the President, Honorary Treasurer, and Honorary Secretary, *ex-officio*. *Honorary Treasurer:* Mr. E. H. Monks, L.R.C.P. and L.R.C.S.Edin. *Honorary Secretary:* Mr. William Berry, F.R.C.S.I.—At the annual dinner, which took place afterwards, a goodly number of members were present, with the following visitors: Professor W. Mitchell Banks and Dr. Barr (Liverpool), and Dr. Hayward, President of the St. Helens Medical Society.

REVIEWS.

The Anatomy of Labour as Studied in Frozen Sections, and its Bearing on Clinical Work. By A. H. F. Barbour, M.A., B.Sc., M.D., etc. Second Edition. Edinburgh: W. and A. K. Johnston. (Cr. 8vo, Pp. 362; pl. xi; fig. 15. 6s.)

Dr. Barbour is well known as a pioneer in this country of the study of the anatomy of labour. The first edition of this work, published in 1889, was the first attempt by an English writer to place within the reach of the profession a systematic account of the contributions made by sectional anatomy to the scientific study of obstetrics. The new edition is rendered necessary by the publication during the last ten years of 25 additional sections, so that we are now in possession of 38 in all. Of these, 7 were taken before labour, 13 in the first stage, 8 in the second, 2 in the third, and 8 in the puerperium. No fewer than 6 of these cases have been observed by Dr. Barbour himself, either alone or in collaboration with Dr. Clarence Webster. This is the largest contribution made by any single observer to the subject.

The results obtained by the second series of sections are, in the main, confirmatory of previous observations, but valuable additions to our knowledge of the anatomy of the second stage have been made by a case, published by the author, of a woman in labour who died suddenly from cardiac disease, with the fœtal head distending the perineum. The principal facts brought out by this case, with their clinical bearing, are set forth in a new chapter, which will be found to be of the greatest interest and importance. The drawings and casts of the parturient canal at the end of the second stage show very clearly the differentiation into an upper active portion which thickens, and a lower passive one which thins, the two being separated by a more or less well-marked retraction ring. The latter is now known to be found in normal labour, while in obstructed labour it merely becomes exaggerated.

With regard to the attitude of the fœtus, the important point has been established that the normal position of the head before labour begins is one of full flexion, the chin lying against the sternum; it is doubtful, therefore, whether anything comparable to the classic description of the movement of flexion can occur early in labour, for the head is fully flexed beforehand. Flexion, in fact, is, as Dr. Barbour says, "not a movement but an attitude." Another point brought out is that the movement of internal rotation is due to rotation of the head on the neck, and is unaccompanied by a corresponding movement of the shoulders. The beautiful illustration on Plate vii of the fœtus from the author's second-stage section, shows that at this period there is marked extension of the spine producing a considerable space between the flexed arms and legs. This extension of the body accounts for the fact that the fundus of the uterus is at about the same level, at the end of the second stage, as at the commencement of labour.

The plan adopted in the first edition is preserved, the book being divided into two parts. Part I consists of a systematic description of the anatomy of pregnancy and labour, while Part II is made up of abstracts of the principal literature of the subject, which is now large. The number of illustrations has been doubled, and the letterpress increased by 100 pages. The plates are beautifully executed, and, with the exception of those illustrating the microscopic structure of the placenta, are clear and exact, as anatomical drawings should be. The placental sections are, however, as the Germans would say, *schematisch dargestellt*, and therefore of less value.

Idiopathic Ulcerative Colitis (Dysentery). By James F. Gemmel, M.B. London: Baillière, Tindall, and Cox. 1898. (Demy 8vo, pp. 148, 6 coloured plates and 18 other illustrations. 12s. 6d.)

Dr. Gemmel's work is a valuable contribution to the study of dysentery. It is the result of over ten years' experience of the disease in England. In the seventeenth century the number of deaths in London due to dysentery was never less than 1,000 annually, and in some years exceeded 4,000. Now, like malaria and leprosy, dysentery is almost unknown in ordinary practice, but, as Dr. Gemmel points out, it is still prevalent in the asylums for the insane, and especially in some of the larger institutions which have been for years endemic foci of the disease. Idiopathic ulcerative colitis is the name under which most cases are tabulated in the asylum reports, but Dr. Gemmel believes them all to be cases of genuine dysentery. The disease shows no predilection for any special form of mental disease, but attacks the feeble and debilitated of all types. Age and sex have no importance, but length of residence seems to increase susceptibility. Contrary to the statement of some writers, second attacks are by no means uncommon. Although, as a rule, the disease shows no seasonal preference, it is usually more prevalent in winters of exceptional severity. When scurvy and purpura were prevalent dysentery was frequently associated with them; now it follows in the wake of typhus, influenza, and malaria. The combination of dysentery and tuberculous disease of the lung is rare; the author's opinion that tuberculosis confers a peculiar immunity against dysentery must be received with caution.

Dr. Gemmel gives an accurate sketch of the disease as it manifests itself in the communities of the insane. In speaking of complications, he notes the frequency and fatality of pneumonia, the rarity of abscesses of the glands

and viscera, and especially the rare occurrence of peritonitis which is so frequently connected with tuberculosis of the bowel.

The author mentions the several methods of treatment which have been most vaunted, such as venesection, purgatives, mercury, ipecacuanha, and medicated enemata. He recommends the use of quinine, which he has found to be most efficacious.

Four coloured plates and several reproductions of microscopical sections within the text show that special attention has been bestowed on the morbid anatomy. The author is led from his observations to maintain that the disease begins in the mucous coat, and is only secondarily extended to the follicles.

As to etiology, Dr. Gemmel is not inclined to believe bacterium coli commune and amœba coli to have more than an accidental relationship to dysentery, because they are so frequently found in the stools of healthy individuals. He admits, however, that there may be several forms of dysentery due to distinct parasites, and publishes the investigations of Dr. Goodliffe who, having isolated another bacillus from the rich fauna of the colon, claims it to be the cause of English dysentery.

MANUAL OF BACTERIOLOGICAL TECHNIQUE AND SPECIAL BACTERIOLOGY. By THOMAS BOWHILL, F.R.C.V.S., F.R.P.S., late Special Lecturer on Bacteriology, Medical Department, and Professor of Bacteriology, Veterinary Department, University of California, etc. Edinburgh: Oliver and Boyd. London: Simpkin, Marshall and Co. 1899. (Roy. 8vo, pp. 296, 100 illustrations. 21s.)

IN recent years the number and excellence of the textbooks on bacteriology have been so great that the courage of an author who adds to their number must be admired, though we cannot expect many new features. Mr. BOWHILL has justification for adding to the list, for his book may be said to be a handbook of methods, accompanied by an atlas along with short textual descriptions of the more important organisms found in disease. The work will be especially valuable to those who wish to have a laboratory handbook giving the most recent methods now in use, especially in the German laboratories, in which, from internal evidence, it would seem that the author has comparatively recently been working. His classifications and descriptions of organisms, moreover, are those usually adopted in Germany.

The author commences with a very sketchy classification of bacteria, followed by a short account of their morphology. He then gives methods of sterilisation, one of which, a very simple one, will be useful to those using *post-mortem* instruments, and may be mentioned here. The knife is dipped in benzine, which is then lighted, the flame being sufficient to sterilise the metal. If this contention be borne out in practice, this method should be a very convenient one, especially for laboratory use. The principles of bacteriological technique, though somewhat condensed, will be specially useful for reference by those who are being, or have been, taught in a practical class. The section dealing with staining methods is very full, and many of the stains given are exceedingly good. Under potato media the advice given in italics not to use the potatoes until they are cold is surely superfluous.

The most important new features in the part devoted to special bacteriology are that the author gives an account of the bacteria found in milk, whilst he lays considerably more stress on those organisms that are found in diseases of animals than do most authors of bacteriological textbooks. He discusses such conditions as African farcy, pleuro-pneumonia contagiosa bovis, foot-and-mouth disease, canine distemper, gives an account of the streptothrices, and also of the bacteria associated with meat poisoning; whilst for the general student of bacteriology he goes into the causation of acetic and butyric fermentation, deals specially with the abnormal fermentative changes occurring in beer, wine, and sugar, and gives an account of the organisms occurring in the leguminous nodules and in the nitrifying processes. He also has chapters on the hyphomycetes or mould fungi; on the various forms of pathogenic and non-pathogenic blastomycetes or yeasts; whilst in a supplementary chapter he gives an account of the protozoa or animal parasites, of which he draws up a list of a dozen, including those found in the Texas cattle fever, in the Australian tick fever, and in the ixodic fever of Jamaica.

The book is one to be used in class and along with tutorial instruction, as most of the descriptions are so condensed that they form reference notes rather than full descriptions. For those for whom the work is intended this of course is a very great advantage, but it is necessarily accompanied by the disadvantage that it renders the work of comparatively slight value to those who have had no practical instruction. However, this after all should be looked upon as a distinct merit, as bacteriology is now advanced to such a position that a mere textbook knowledge, however full, cannot be of sufficient value to the student who wishes to make himself master of the subject. It should be noted here, too, that the work is entirely morphological except in so far as the organisms are related to disease and fermentation. No attempt is made to go into the chemical and physiological questions bound up in the life-history of these bacteria; there is offered simply a basis for a study of the examination and cultivation of the special bacteria mentioned. The work is well printed, and the microphotographs are excellent.

DAS AEUSSERE OHR, von Professor Dr. G. SCHWALBE (Strassburg). MITTELOHR UND LABYRINTH, von Professor Dr. F. SIEBENMANN (Basel). [The External Ear by Professor Schwalbe (Strassburg). Middle Ear and Labyrinth by Professor Siebenmann (Bâle)]. HANDBOOK OF HUMAN ANATOMY, by Professor KARL VON BARDELEBEN (Jena). Fifth volume. 2nd Section. Jena: Gustav Fischer. 1898. (Roy. 8vo, pp. 113-324.)

THE importance of this work will be obvious when we consider the eminence of the authors concerned in its production. The book begins with a description of the auricle, from the point of view of its conformation in man and the lower animals, its development, size, position, and variations both in individuals and races. Gradenigo's observations on the abnormalities of the auricle in criminals and lunatics are freely quoted. The relative frequency of the "Darwin" auricle among the English is interesting, if not important. The muscles of the auricle are beautifully illustrated. The next chapter deals with the external auditory meatus, and is richly illustrated with engravings of sections and casts. The paragraphs of the external meatus, at the various periods of its development, is peculiarly interesting, showing well the fibrous tympanic plate described by Symington, whose work has evidently been accepted as of the highest authority. A very full list of literary references is appended.

The description of the middle ear and labyrinth forming the second half of this volume is given with great fulness by Professor SIEBENMANN. He commences with a short account of the comparative anatomy, including, among other interesting observations, those of Kreidl made on goldfishes to the effect that they perceive sounds although devoid of a cochlea. This they appear to do by means of the highly-developed sense organs along the lateral line. Very valuable accounts are given of the various methods of dissection and preparation which Professor Siebenmann has carried out with extraordinary industry, as his specimens in the Anatomical Museum of Bâle amply show. Among the most recent is the Semper-Riehms turpentine method, which preserves the skin and other soft parts almost like an india-rubber cast. The corrosion method of preparation with which Professor Siebenmann is so much identified in the minds of otologists comes in for the fullest description, and, in point of fact, it is from the results of this method of preparation that a great part of his description is derived. The extraordinary complexity of the cells in the petrous bone can hardly be realised by any method except by the combination of corrosion and metal cast. The description of the middle ear is extraordinarily full, and will appeal not merely to the pure anatomist, but to the practitioner of aural surgery. The anatomy of the pockets of the external attic will be found extremely helpful to those who treat the diseases thereof, and they explain how an inflammation of the middle ear may subside but yet leave a focus of disease in this particular region. The want of agreement between the anatomical and the otoscopical description

of the position of the handle of the malleus is made clear, as is also the explanation of the appearance known as the triangular light spot. Professor Siebenmann looks upon the cuticular layer of the membrane as a very thin epidermic stratum devoid of corium, and quite different in its histological structure from any other part of the covering of the body, approaching, however, most nearly to that of the cornea and the finger nails. With the last it has the further analogy that, under normal conditions, its superficial layers do not peel off, but push their way towards the margins (p. 262).

The inclination of the tympanic membrane at different ages is described, including some original observations showing that the angle of declination and inclination in the newborn child is somewhat less than in the adult. The idea, that the plane of the membrane at birth is nearly horizontal, is therefore eroneous. The description of the tympanic cavity, the observations in regard to the floor, are all of extreme interest, the relation to the bulb of the jugular vein being particularly important. The corrosion preparations show a multiplicity of air cells communicating with this cavity, which accounts for the difficulty in treating many cases of suppurative disease in this part. The casts showing the anatomical conditions at different ages (page 295) are very instructive, that of the newborn child with well-developed antrum and wide Eustachian tube being very striking.

The description of the internal ear is extremely detailed, and is intended for the investigator rather than for the student, to whom a more schematic and graduated guide to the anatomy of this structure would possibly be more welcome. Professor Siebenmann has evidently made a labour of love of the investigation of the vascular supply to the labyrinth, the bearings of which on the understanding of the pathology of the part are extremely significant. Several illustrations, similar to those published in his monograph on the subject, help to make his description interesting and intelligible. From what has been said above, it will be seen that the practical otologist will find a sympathetic and helpful description of the parts with which his practice is concerned, and the pure anatomist will find those details which he most desires.

Manual of Diseases of the Skin. By L. Duncan Bulkley, A.M., M.D. Fourth Edition, revised and enlarged. London: J. and A. Churchill. 1899. (Crown 8vo, pp. 362. 6s. 6d.)

This is a brief account of diseases of the skin intended for the use of students and general practitioners. That a fourth edition has been called for is a proof that the *Manual* has found favour. Looking at it from the point of view of those to whom the book is addressed, there is certainly room for improvement. To use the terms Lichen, Lupus, and so forth, without qualification must lead to confusion. Lichen alone means practically nothing. Again, such a statement as "bullæ are observed in dermatitis" is vague. The author introduces and uses terms not usually employed in this country, such as "tinctura" for stain, "phyma" in a general way for tumour, and anthrax in the sense of carbuncle. An interesting feature is the analysis of 20,000 cases in public and private practice, but here again the usefulness of the table for purposes of comparison is diminished by the nomenclature adopted: erythema, lichen, herpes, cystum, and so forth. Epithelioma is made to include rodent ulcer and Paget's disease; and contrary to the views which obtain in England, herpes gestationis is considered under herpes, and apart from dermatitis herpetiformis. The list of diseases in which micro-organisms "have been claimed to be etiological factors" must be confusing to the student. Tokelau ringworm is given as a synonym of eczema marginatum. The descriptions vary in quality; some are so brief as to be of very little use to the general practitioner. The paragraphs on differential diagnosis cannot be considered as adequate. The book is furnished with a formulary, a general index, and a separate diagnosis index.

NOTES ON BOOKS.

Two Vaccination Pamphlets.

Few writers are so well acquainted with German vaccination statistics as is Dr. Arthur F. Hopkirk. His special knowledge enables him, in a pamphlet entitled *Anti-Vacc. Veracities: a Commentary* (printed and published by the author at 111, Fleet Street, London, E.C., price 1d., post free 1½d.) to expose various antivaccination sophistries and misstatements relating to Germany, and promulgated in this country. The facts which he adduces are themselves quite strong enough to convey their own inferences regarding the writers whom he criticises; and, indeed, their effect is apt to be lessened rather than increased by any unnecessary vehemence of language, though no doubt it is rather aggravating to a man who knows the facts to read the unmitigated nonsense which often appears in newspaper letters against vaccination. Dr. Hopkirk's tract contains a good deal of information very useful for controversial purposes, and medical men who are interesting themselves in public correspondence on this subject would do well to obtain a copy. We would also recommend the pamphlet to the consideration of the Jenner Society, as a possible addition to its list of publications.

A second edition of *Facts Concerning Vaccination* for Heads of Families (8pp. Sanitary Publishing Company), has been issued by the National Health Society, 53, Berners Street, W. It is a useful leaflet, and states briefly and in simple language most of the leading facts about vaccination as a preventive of small-pox. The leaflet is intended for local distribution, and has on its front page blank spaces for the names of the public vaccinator, medical officer of health, and sanitary inspector. It is supplied at 9d. per dozen, 5s. per 100, and 21s. per 1,000.

Annuals.

The thirty-fifth annual issue of *Herbert Fry's Royal Guide to the London Charities* (London: Chatto and Windus. 1s. 6d.) is again edited by Mr. John Lane, who, in his preface, expresses the opinion that the year 1898 was not a good one for charitable institutions. He attributes this in some measure to the Prince of Wales's Hospital Fund, which diverted contributions to one great centre, from which distribution was for a time delayed. He does not, however, deny that the net result may be a gain to the revenue of charities. The volume contains in a condensed form trustworthy particulars as to the charities of London, their objects, annual income, and chief officials. The information is arranged in alphabetical order, and the volume is supplied with a classified index.

The Local Government Annual for 1899, edited by S. Edgecumbe-Rogers (London: *The Local Government Journal* Office. 2s. 6d.) has now reached its eighth year of publication. It gives the names and addresses of the chief officers of local authorities in England and Wales, but for convenience of reference it is marred by the sprinkling in of advertisements. There is a chapter which under the title "encyclopædia of local government," gives a good deal of miscellaneous information of use to officials. We find here a statement to the effect that local bodies in England and Wales are now taking from the ratepayers 25 per cent. more than four years ago, and it is calculated that if this rate of increase goes on ratepayers will be paying in 1907 just twice as much as they were paying in 1891. The rate in the pound has increased by 13 per cent. in London and by 20 per cent. in the country as a whole during the four years, while the amount raised from rates has gone up by nearly 35 per cent. between 1887 and 1897. The amount expended by local authorities in 1895-96 was sixty-two and a quarter millions; four years earlier it was not quite fifty-three millions. Moreover, the borrowing is going on at a greater rate, for the loans received in 1895-96 amounted to nearly twelve and a quarter millions, whereas in 1891-92 the amount was ten millions. The outstanding loans in 1895-96 amounted to nearly two hundred and forty-three and a quarter millions as against two hundred and seven and a half millions in 1881-82. Dr. Poore foretold some years ago the coming revolt of the ratepayer, but these figures would appear to indicate that his endurance was underestimated.

The new edition of *Dod's Parliamentary Companion* (London: Whittaker and Co. 1899. 4s. 6d.) is corrected down to the end of 1898, and contains in an appendix a list of the New Year honours so far as they affect members of either House of Parliament. This annual is too well known to need special commendation from us. Not the least useful part of its contents is a kind of glossary of Parliamentary terms, which has been revised by Sir Reginald F. D. Palgrave, Clerk of the House of Commons, than whom no greater authority on the subject exists.

THE PREVENTION OF TUBERCULOSIS.

AMONG the many signs of a general awakening to the necessity of taking steps for the effective prevention of tuberculosis, it is especially satisfactory to note the ardour with which medical officers of health all over the country are throwing themselves into the fray. Not only are they prominent in the public meetings which are being held in so many places with the object of forming branches of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, but they continue to press the matter as one of urgent importance on the attention of local authorities. Tuberculosis begins to bulk large in their reports. Mr. W. Brown, the Medical Officer of Health for Carlisle, referring in his report to the operation of the Carlisle regulations for the prevention of tuberculosis, suggests a temporary solution of the difficulty caused by the want of notification. Three months before the report of the Royal Commission on Tuberculosis was published, Mr. Brown induced the Carlisle Health Committee to adopt three recommendations, which were subsequently approved by the Council. One was that all dairy cattle supplying milk for Carlisle should be subjected to regular veterinary inspection; another was the rigid enforcement of by-laws as to air space in cowsheds; the third was an extension of the provisions of the Infectious Diseases Notification Act to pulmonary phthisis, tuberculous meningitis, and tabes mesenterica. As regards the last of these regulations, the Local Government Board, as was stated in the BRITISH MEDICAL JOURNAL at the time, refused to confirm the decision of the Carlisle Council. Mr. Brown sees no more objection to the notification of the three tuberculous diseases mentioned than there is to the notification of diarrhœa, which is recommended by the Local Government Board as a temporary expedient when Asiatic cholera threatens to invade this country. In any case he thinks there can be no insuperable reason against a voluntary notification from medical men connected with public medical charities and from Poor-law medical officers among whose patients tuberculous diseases chiefly prevail. The information obtained in this way would afford valuable data as a basis for action. The tuberculin test, to which dairymen were at first opposed, is now looked upon with greater favour in the district, but the Urban District Council have no jurisdiction over the dairies outside their area. The question of establishing veterinary supervision over those dairies is now under the consideration of the Cumberland County Council.

In his report to the Kensington Vestry, Dr. T. Orme Dudfield refers to the fact that in his report for 1881 it was stated that "modern researches, which have thrown great light on the origin of tubercle, raise a presumption that tuberculosis may really be an infectious disease—a specific fever of slow progress, with a veiled resemblance to other specific eruptive fevers." The view that the spread of tuberculous disease was favoured by insanitary conditions, as well as the means of combating the disease, found expression in the report for 1879, wherein it was observed that "abundance of sunlight and warm air, efficient drainage and its corollary, a dry soil, good food and warm clothing, and temperance in all things are powerful antidotes to the bane of tubercle which is fostered by the opposites—by filth and squalor, by cold and nakedness, by the want of the proper necessaries of life, by overcrowding in ill-constructed, unventilated, and sewage-tainted houses, and, in a word, by whatever is inimical to the maintenance of a typical condition of health." Dr. Dudfield refers with approval to the objects of the National Association for the Prevention of Consumption.

Dr. Chas. J. L. McLean, in his report to the Yeadon Urban District Council speaking of the tuberculin test, says:

> In Denmark (the greatest of dairy countries) this test is applied to every animal on the various farms, and any affected ones are at once removed, and kept separate until recovered, which takes place in a large percentage of cows, or if found to be in an advanced stage of the disease, or incurable, are destroyed, full compensation being paid to the owner by the State. Doubtless this method will soon be made compulsory in England, and the matter of compensation for animals destroyed can surely never stand in the way of the State when the question of the lives at stake in the country is considered, and it seems to me quite possible that some method of insurance might be devised giving mutual benefit alike to the buyers and sellers of all cattle should any of them be found to be tuberculous. When this becomes law we may expect a further improvement in the death-rate from consumption and other tuberculous diseases, and in the meantime much may be done by the cowkeepers to reduce the evil by keeping their cows under the most sanitary condition possible, and certain it is that the more this is done the greater will be the demand for the milk they supply. Dr. Brown, the medical officer for Carlisle, has very recently pointed out that certain breeds of cows are more susceptible to this disease than others, for example: "Old cows of the shorthorn breed are more dangerous than the Scotch Galloway, or the cross-bed blue-grey, a point which might well be observed by dairy farmers in their selection of milch cows." Quite recently a movement has been set on foot to erect sanatoria in various parts of the country for the treatment of consumption. This is a very great advance on the present methods, and will be readily appreciated, especially by sufferers in poor circumstances, but in my opinion the *prevention* of the disease rather than its cure is *the* correct principle to adopt.

In connection with the pressure that is being brought to bear on public authorities in regard to the prevention of tuberculosis, it may be mentioned that more than 3,000 copies of the report issued by the Council of the British Medical Association on the subject have been circulated among members of municipal councils, vestries, and other bodies. A large number of copies have also been sold.

ABERDEEN.

At a meeting of the Public Health Committee of Aberdeen Town Council on January 15th, Dr. Robertson, convener, in the chair, a report was submitted by Dr. Matthew Hay, stating that practically all the local authorities in Aberdeenshire and Kincardineshire, and several in Banffshire and Nairnshire, had agreed to join the arrangement that was recently made between the Aberdeen Town Council and Professor Hamilton, Marischal College, for the conducting of bacteriological investigations in connection with infectious disease. In regard to the remit from the council on the sterilisation of milk, Dr. Hay said that he would much prefer that the subject should be widened, and that a further remit should be obtained from the Town Council to deal with the whole question as to what steps should be taken in order to prevent the spread of tuberculosis. The sterilisation of milk formed only one point of a very important question, and he suggested that something should be done in the way of the Town Council taking the initiative in a private sanatorium or hospital for the treatment of cases of consumption. Dr. Beveridge urged very strongly the desirability of having such a hospital or sanatorium in Aberdeen. Dr. Hay thought that something should be done by the Public Health Committee to prevent spitting in tramcars and other public conveyances, this being a prolific source of infection. This disgusting practice ought to be put down in some way or other for the public safety. After consideration it was unanimously agreed to ask the Town Council for a remit to consider the whole question.

TUBERCULOSIS IN DAIRY STOCK.

The Royal Agricultural Society of England, with the object of assisting dairy farmers in meeting the requirements of sanitary authorities under the present circumstances, has issued a leaflet giving instructions as to the use of the tuberculin test, and as to the precautions to be taken in order to prevent the spread of tuberculosis among herds. The leaflet concludes with the following passage:

> That the decided effort which is now being made to arrest the spreading of consumption and other forms of tuberculosis in man will gradually lead to the enforcement of strict precautions against the sale of milk from tuberculous cows cannot be doubted; and it is of the utmost importance that dairymen should realise the necessity of doing everything in their power to eradicate tuberculosis from their herds. It has been proved that much can be done in this direction by the owner, with the advice and assistance of his veterinary adviser.

Copies of the leaflet, which gives in simple language just the information which owners of stock and dairymen need, can be obtained free of charge on application to the Secretary of the Royal Agricultural Society, 13, Hanover Square, London, W.

JERSEY.

We have received a copy of a report presented on December 2nd, 1898, to the Jersey Medical Society by a Subcommittee appointed on June 9th, 1898, to investigate the prevalence of human and bovine tuberculosis on the island. The members of this Subcommittee were: Drs. Alf. C. Godfray, President; Edwin Godfray, Vice-President; Ernest O. B. Voisin, Librarian; and P. B. Bentlif, Honorary Secretary. Their report states that in order to get definite data on the subject of their investigation they determined to ascertain the number of deaths from tuberculous disease registered in the town of St. Helier for a period of five years, and to compare

these results with a similar period of five years taken after a lapse of twenty years.

The death registers for the whole island were not examined, because twenty-five years ago registrations of deaths in many of the country parishes were of a very vague and uncertain character—as, indeed, they are at present. The periods chosen were from 1872 to 1876 inclusive and from 1892 to 1896 inclusive. All the deaths reckoned in this investigation were those tabulated under the following headings: (1) Phthisis and tuberculosis; (2) tuberculous meningitis; (3) tuberculous peritonitis and tabes mesenterica; (4) scrofula. From 1872 to 1876 there were 542 deaths from tuberculous disease, 514 registered as phthisis and tuberculosis, 25 from tuberculous meningitis, 1 from tuberculous peritonitis, and 2 from scrofula. These 542 deaths show a mortality per 1,000 living of 4.2 per annum, and of 182.5 per 1,000 deaths, taking the population of St. Helier as 27,000 during those years in which the mortality in town averaged 22 per 1,000. This shows a death-rate of 4,400 per million living as compared with that of the United Kingdom of 5,764 during the years 1851-60. From 1892 to 1896 inclusive the total deaths from tuberculous disease were 305, made up as follows: (1) Phthisis and tuberculosis, 283; (2) tuberculous meningitis, 17; (3) tuberculous peritonitis, 4; (4) scrofula, 1.

This shows a mortality per 1,000 living of 2.105 per annum, or a reduction of the total number of deaths per annum from tuberculosis of 47. The proportion is 106.57 of 1,000 deaths, or a reduction of 75.9 per 1,000. The total number of deaths from phthisis per million living being 2,103.5 as compared with 4,155 in the United Kingdom during the years 1891-95. These figures are based on the estimate of a population of 29,000 in the town of St. Helier, and a death mortality during these years of 21.2. (The mortality of the whole island from 1892 to 1896 was 19.2 per 1,000.) These latter figures compare most favourably with those of the large towns of the world.

The leading medical men of the island agree in the opinion that phthisis has greatly diminished there, and all are inclined to attribute its rapid decline to better sanitation and improved dietary, and more attention to bodily health and cleanliness, and also in no small degree to the very small amount of bovine tuberculosis in the island. During the five years 1892-96 there were only four deaths registered under the heading of tuberculous peritonitis or tabes mesenterica. This is in itself a very strong proof of the absence of tubercle bacilli in the milk of the island cattle.

With regard to bovine tuberculosis the Subcommittee communicated with the veterinary surgeons and the leading cattle breeders, who unanimously expressed the opinion that there is very little bovine tuberculous disease in the island. Practically all the cattle examined for exportation have successfully passed the tuberculin test. The Society urged that inasmuch as the cattle of the island are at present so free from tuberculous disease as compared with cattle in other countries, it behoves the authorities to take such steps as may diminish or even stamp out entirely the little that may exist. With this object they suggest the application of the tuberculin test to every animal in the island and the destruction of such as show reaction. The question of compensation for the slaughter of infected animals should, they think, be allowed only for a limited period and never exceed a fixed sum, which ought to be provided either by the island or a mutual insurance amongst the farmers. Quite as important is the necessity for a very thorough and complete supervision of the cattle sheds, byres, and dairies, with power to order such improvements as may be necessary.

As regards treatment of human tuberculosis, both actual and preventive, it is pointed out that in Jersey there exist many factors of great importance. First, they have many hours of sunlight, a fairly temperate climate, not liable to great extremes of cold or heat, and many a sheltered nook where the phthisical patient can pass most of his days in the rays of the sun, and the breathing of fresh air which seems to retard the disease and accelerate cure more than any special drug. They add that the freedom of their cows from tuberculosis ensures both healthy and sick against the danger of contamination from the milk supply and should render the island an ideal one for the nurture of young children.

LITERARY NOTES.

Messrs. Longmans and Co. announce that a fourth edition of the well-known *Manual of Pathology* of the late Professor Coats of Glasgow will be ready for publication in the early autumn. The lamented author himself had made considerable progress in the work of revision before his death, and in compliance with his wish the task of completing the preparation of the new edition has been entrusted to Dr. Lewis R. Sutherland, Senior Assistant to the Professor of Pathology in the University of Glasgow.

Mr. H. K. Lewis has just published Sir Richard Douglas Powell's Lumleian Lectures *On the Principles which Govern Treatment in Diseases and Disorders of the Heart*. The same publisher has in the press a new work on extra-uterine pregnancy by Mr. J. W. Taylor of Birmingham, and one on the exploration of the urethra and bladder by Dr. Maro Tuchmann. Both these works will be abundantly illustrated.

Mr. Redway has ready for issue an edition of the collected works of James Braid, the Manchester surgeon, whose name is well known to all students of hypnotism.

Among the medical journals which came into being with the New Year is *Obstetrics*, which is edited by Dr. Edward A. Ayres, Professor of Obstetrics in the New York Polyclinic Medical School and Hospital, and published by the Van Publishing Company, New York. *Obstetrics* is a companion journal to *Pediatrics*, published by the same company, and will appear monthly.

The British Food Journal has been established, as we gather from some introductory editorial remarks, for the purpose of bringing the power of the press to bear on the remedy of abuses and frauds in regard to the food supply. As the official organ of the International Commission on Adulteration, our new contemporary claims to be possessed of "a necessary and a sufficient authority" to speak with our enemies the adulterators in the gate. The most suitable gate by the way, for these colloquies would be that of one of Her Majesty's prisons. We wish the *British Food Journal* all success in its efforts to establish "a check.....on adulteration and fraudulent trading.....thoroughly effective and capable of application to immediate public needs."

In a paper reprinted from the *Caledonian Medical Journal*, Dr. H. Cameron Gillies discusses the Gaelic names of diseases and of diseased states. The essay is interesting even to the Sassenach, to whose bewildered eye Gaelic looks like a fortuitous concourse of alphabetical atoms, on account of the side lights thrown by philology on medical folklore. Thus in regard to *Fiabhras*, or fevers, we learn that the Gaelic people were acquainted with typhus fever, which they called *fiabhras dubh*, or "black fever." They had also a "yellow fever," though it is not clear what disease was denoted by that term. Jaundice was common among them, but Dr. Gillies thinks it unlikely that simple jaundice would be classed as a fever. He quotes the report from Tarbat in the Old Statistical Account, which states that

No diseases are peculiar to the parish from climate or from any other cause. Epidemic distempers find their way here, and we are at the present time suffering from fevers of nervous and putrid kinds. A species of the latter is distinguished by the name of yellow fever, so termed because as soon as the patient expires the body comes of that colour.

Dr. Gillies thinks it probable that the disease here meant was typhoid fever, or perhaps typhus "under its known aspect of bilious fever." He quotes the following opinion of Dr. George Henderson, of Oxford:

Our climate must have been much warmer 1,200 years ago than it now is, and in Ireland it must have been hot enough for yellow fever, and favourable to epidemics by reason of its large population and insanitary condition.

There are many names in Gaelic for small-pox, which, however, is not distinguished as "small," as the great variety was unknown among the simple Gaels. Small-pox had to be mentioned by some respectful euphemism, such as *bean mhath* or the "good wife," which seems to show that the old women of the Highlands agreed with M. Drumont in regarding the disease as a beneficent agency. The nomenclature of skin diseases—particularly in regard to itch—was, as might be expected, very rich. Such expressions as *a chnuimh-fhiacal*, literally "toothworm," meaning toothache; and *meilechartain*, literally "fleshmites, generally under the toes," signifying chilblains, may perhaps be taken to indicate some glimmering of modern parasitic theories.

The annual general meeting of the Royal Medical and Chirurgical Society of London will take place on Wednesday next, March 1st, when the Council will nominate Mr. Thomas Bryant as President, Dr. Gee and Mr. Howse as Vice-Presidents, Dr. Thomas Barlow as Honorary Secretary, and Dr. Norman Moore as Honorary Librarian.

INDIAN HOSPITALS AND DISPENSARIES.

INDIAN reports are numerous and bulky, and those relating to medical institutions are no exception to this rule. An effort has been made to reduce them to reasonable proportions by curtailing the figured statements which contribute mainly to their size, and issuing orders that a full report shall only be prepared every fourth year; the tables relating to intervening years being accompanied by brief comments. Considering the extent of India and the number of hospitals and dispensaries which have been opened in each province, it is difficult to see how further abbreviation is possible. The number and class of institutions, the attendance of patients, the diseases treated, the operations performed, the classes, sexes, and ages resorting for relief, the finances, are elementary and essential facts, and some explanations accounting for fluctuations are obviously necessary; and this is the sort of information which these reports furnish. Uniformity is secured by the adoption of the same forms, which have been laid down by the Government of India. The statements relating to surgical operations require further revision to this end. We have received a large number of these reports for the year 1897, which was in many respects a trying one on account of famine, plague, and war; these events seriously disturbed the arrangements connected with the charge and working of these hospitals. There is, necessarily, a great deal of repetition and similarity in figures relating to successive years. In the following abstracts we have endeavoured to present salient features and facts in the fewest possible words:

Bengal (exclusive of the city of Calcutta).—There was an increase of 22 institutions, the number open at the close of the year being 477—1 to 318 square miles and 147,526 persons for the province. There was a substantial increase of attendance, which amounted to 2,834,112 patients, or 4.01 per cent. of the population of the province. The relative number of female patients seeking relief was larger, and it is expected that the proportion will rise still higher when arrangements are made for separate reception, both outdoor and indoor, of this class. A new plan of cottage hospital has been devised for this purpose. The arrangements made for treatment of patients indoor are considerably in excess of the demand. Separate accommodation for pauper and moribund patients is being provided in many hospitals for the purpose of segregating those whose condition may be specially repellent; and the question of making room for the friends of patients, without whose company and attendance many will not remain in hospitals, is being considered. The death-rate among indoor patients rose from 11.64 to 14.68 per cent. This is attributed to the famine, and hospitals admitting pilgrims had specially high rates. There was an increase in the number of cases of malarial fevers, bowel complaints, and cholera treated. The number of surgical operations performed amounted to 135,505, a decided increase on the preceding year. The majority of these were comparatively trivial, but the total contains a fair proportion of really important operations, and the detailed list indicates skill and success: 2,718 extractions of cataractous lenses were done, 254 important amputations, 227 stone operations, 75 scrotal tumours removed, and 15 ovariotomies performed. The accounts are displayed at great length. The money spent on medical relief amounted to Rs.9,30,578, of which Government contributed about one-tenth. The report is submitted by Surgeon-Colonel T. H Hendley, C.I.E.

North-West Provinces and Oudh.—The report for 1897, which includes all hospitals and dispensaries in the provinces, was compiled by Surgeon-Colonel W. F. Warburton, M.D. There was an increase of five institutions, giving a total of 355 in operation on December 31st—one to 307 square miles, and 134,104 units of population. Notwithstanding famine and fever, the attendance of patients was less than in 1896; the total treated being 3,692,416. The decrease is attributed to the opening of poor houses and relief works hospitals, in which were treated 726,929 persons, the fear excited by plague preventive measures, and the removal for plague, famine, and war duties of so many officers and subordinates whose place was taken by strange and inferior men. The number treated bore a rate of 7.87 per cent. to population, or, including poorhouses, etc., 9.42. The death-rate among indoor patients rose, as might be expected, from 5.93 to 7.02. The indoor accommodation provided more than sufficed for demands. There was an increase in malarial fevers, bowel complaints, venereal diseases, scurvy, debility, anæmia, and goitre. A large quantity of quinine was distributed gratuitously, and the amount sold by vaccinators, post offices, etc., realised Rs.4,115, against Rs.188 in 1896. Reference has already been made in the BRITISH MEDICAL JOURNAL to the excellent and important surgical work done in these hospitals. The total number of operations amounted to 168,534. The attendance of women showed an increase. There are 46 hospitals and dispensaries for females in these provinces officered by women. There are also leper, blind, and poor asylums in 26 districts. The total income of the year from all sources was Rs.6,57,133, and the expenditure Rs.6,32,088. The invested capital amounted on December 31st to very nearly 13 lakhs of rupees, yielding an annual income of Rs.48,561. The financial position of these institutions is therefore sound.

The Punjab.—Surgeon-Colonel D. O'C. Raye, M.D., submits a concise report of all the hospitals and dispensaries in the province for the year 1897. The number of institutions open at the close of the year was 265. Three new dispensaries were opened and 5 closed. There was a small decrease in the attendance of indoor patients and a considerable increase of outdoor cases, the aggregate of both classes treated being 3,293,924, or about 16 per cent. of the population of the province. There was an increase in the number of cases of malarial fever and of eye diseases; bowel complaints were also numerous. The number of cases of natural labour treated was 138. Efforts are being made to extend this line of practice, and improve the means of treating special diseases of women generally. Owing to the famine and plague there was a falling off in the number of surgical operations performed, but they amounted to 173,808, and the list includes 4,671 cataract operations and 1,811 stone cases; of these latter, 289 were removed by cutting with a death-rate of 12.4 per cent., and 1,522 by crushing with a mortality of 3.3. The list exhibits a great variety of important operations, and the work is very creditable to the surgeons in charge of these institutions. The income for the year amounted to Rs. 5,44,990, which more than sufficed to meet the expenses. There are six leper asylums in the province, in which 604 patients were treated at a cost of Rs. 24,360. There is a dispensary for every 410 square miles and 78,131 units of population in the Punjab.

Bombay (exclusive of the city of Bombay).—Surgeon-Major-General G. Bainbridge, M.D., submits a concise and interesting report for 1897. There were 312 institutions open at the close of the year, 2 fewer than at the commencement. There was an increase of indoor and a decrease of patients treated, the total being 1,742,804, against 2,319,346. Bombay has 1 dispensary to 398 square miles and 60,194 units of population. The numbers treated bore a ratio of about 6 per cent. of the population of the province. The decrease of patients was due to the existence of plague, and withdrawal of officers and subordinates for special duties. The death-rate among indoor patients was 14.6 per cent. There was no marked excess of any particular disease or class of diseases, except that 4,104 cases of plague were treated; this was but a fraction of the whole number of cases which occurred during the year in the province, which exceeded 60,000. There was also a diminution in the number of surgical operations performed, owing to the circumstances already specified. Cataract operations are few as compared with other provinces; there were only 166. Stone operations are also few as compared with the North-West Provinces and Punjab; 203 were removed by cutting, with 19 deaths, and 379 by crushing, with 13 deaths. Forty-eight operations for the cure of hernia were performed, with 1 death, and 6 ovariotomies, with 2 deaths; 4 abdominal sections were done without any death, and 40 operations for the removal of guinea worm. The finances of these dispensaries are in a satisfactory state, the income of the year being Rs.6,99 850, of which Government contributed about one-half. The invested capital amounts to Rs.5,85,200. The Local Government does not make any comment on this report.

Madras (exclusive of the town of Madras).—There were 470 institutions open on December 31st, 1 to 207 square miles of area and 75,011 units of population. Famine, plague, and war interfered seriously with administration; but the number of patients treated was larger than in the preceding year, the total being 4,092,551—about 12 per cent. of population. There was an increase in the number of cases treated of malarial fever, dysentery, debility, ulcer, skin disease, and diarrhœa. Cholera was severely prevalent throughout the presidency, and 23,500 cases were treated in hospitals and dispensaries. The death-rate among indoor patients was high—8.04 per cent. Inspection stations were opened for examining passengers with a view to the detection of cases of plague; only 2 occurred. The number of surgical operations performed amounted to 150,766, but this total includes trivial things, such as passing the catheter and giving hypodermic injections. Still a large amount of important and successful surgery was done. There were only 404 lens extractions and 32 stone operations—very small figures as compared with some other provinces. Madras is, however, advanced in respect of arrangements for giving medical aid to women; 290 trained midwives were employed in 21 districts, who attended 20,557 cases of natural labour; 17 pupils are under training for this work. There are 22 hospitals for women and children in the presidency under the charge of qualified females. A substantial amount of obstetric and gynæcological work was also done in the hospitals and dispensaries. There are 12 State hospitals and 4 leper hospitals, 13 private dispensaries, 23 mission hospitals and dispensaries, and 18 railway institutions, in addition to the 470 included in the report. The income for 1897 was Rs. 10,49,603, of which Government contributed one tenth. It sufficed for the expenses of the year. The invested capital is Rs. 3,02,846. The quinine sold in packets through the post-offices realised Rs. 7,877. The report is submitted by Surgeon-Major-General C. Sibthorpe, C.B.

Burmah.—The number of dispensaries underwent an increase of 3—from 96 to 99—during 1897. In addition to these 10 temporary hospitals were opened in connection with famine relief work, and 4 dispensaries are ready for work when the services of medical subordinates can be made available. The withdrawal of men for special work elsewhere crippled dispensary operations in the province considerably. There was a large increase of both indoor and outdoor patients, the total of both classes being 788,560. The death-rate among the former was high—8 per cent. of treated. The accommodation for indoor patients is inadequate in some places, and is being enlarged. Malarial fevers, bowel complaints, eye diseases, skin diseases, worms, and ulcers are the most common causes of admission. Cholera was very prevalent, and 254 cases of leprosy were treated; 19,610 surgical operations of sorts were performed. The income of dispensaries amounted to Rs.4,79,843. A sum of Rs.6,197, representing fines for working cargo in ports on Sunday, was handed over to the hospital. The Lieutenant-Governor complains that in some places all the available funds are not utilised. The report, which is drawn up by Surgeon-Colonel D. Sinclair, M.B., contains particulars of 14 railway dispensaries, in which were treated 28,950 sick, and 83 police hospitals, in which were treated 41,648 patients.

A SCHOOL for children suffering from trachoma was opened in Milan in January. This school, which has been erected at the expense of the municipality is annexed to the Ophthalmic Institute and comprises two rooms, each of which can accommodate fifty pupils. At the present time the total number of children in the school is sixty. When lessons are over the children go to the Institute to be treated, and only after treatment are they allowed to go home.

THE NEW VACCINATION ACT IN OPERATION.

The Duties and Trials of Public Vaccinators.

A Puzzled P.V. writes: As I read again the Amended Regulations, and turn over the various circulars of the instrument makers offering aseptic vaccination cases, I ask myself, Can this be sober reality? I take one circular, and I count up twenty-two articles, each of which is supposed to be necessary for each vaccination. I quote from it, "Without definite instructions from any responsible body, and without any definite knowledge as to the exact requirements of the Local Government Board, etc., etc." The price, close on £3, is said to be kept low "on account of the small remuneration which the public vaccinator will receive on account of his outlay." This case, 14 by 6 by 5 inches, weighs 5 lbs. I then turn to instructions by Drs. F. W. Leftwich, Sinclair White, and P. R. Cooper in the British Medical Journal of November 12th, 1898, p. 1519, and am still more astonished. A hospital surgeon tells me that to thoroughly sterilise the skin it should be first washed with ether, then with soap and water, and finally with turpentine; but would any baby or mother put up with such treatment? and of what use are half measures? The whole thing is a farce. The Local Government Board are asking what would be easy in an operating theatre, with nurses and attendants, but which is utterly impossible either in country districts or in the slums of towns. And all this for 6s. per successful case, with perhaps a few sixpences thrown in for mileage. Again, I cannot induce the mothers to keep either plaster or bandage on the babies' arms, and as I have taught them for the last thirty years to leave the arms uncovered, they smile when I talk to them of the Amended Regulations.

There is one saving clause. I have found the lymph uniformly good. If it should at any time prove untrustworthy we should indeed be "in evil case." It would be well, in any complaints on this score, that the number of the defective series should be stated.

Mr. Louis de Redmount, L.S.A., writes: Having the misfortune to be Public Vaccinator for the Bogland District of the Swampstead Union, I take the liberty of enclosing you a small sketch depicting the benefits conferred upon me by the new Act. I will only explain that the burden on my back is Brown Brothers' patent aseptic coke stove for boiling the water to be afterwards used in the same firm's admirable aseptic bath, drawn as being carried by a boy, to whom, by the way, I have to give 5s. out of the minimum fee allowed me by the Swampstead Guardians. The boy also carries Brown Brothers' carbolised towels for drying purposes, but these are not really required, as it is perhaps more healthy and quite as efficient to run about for ten minutes until dry. The watercan is best made of aluminium, as it is then very light, and only costs £20, or if fitted with Brown Brothers' patent aseptic thermometer £5 extra. My long experience has taught me that, preparatory to operating, the child should be thoroughly disinfected both inside and out. Brown Brothers' patent aseptic Gladstone bag, which I always carry, contains the necessary apparatus for this purpose, including their own aseptic stomach pump and long enema tube. I never operate before first administering an anæsthetic, as this keeps the child quiet, and prevents the arm being accidentally brought into contact with infected material. The whole time occupied in getting to the home of the child, vaccinating it, and returning to my house is hardly ever more than five hours, which I think very reasonable under the circumstances.



Mr. Louis de Redmount on his rounds.

Dr. J. P. Purvis (Public Vaccinator, Greenwich) writes: My equipment consists of a tube of Calvert's carbolic soap, a 1-oz. bottle of formalin solution, 1 in 400 (24 m to 0j), a 1-oz. bottle of boiled distilled water, a 1-oz. bottle with gauze top of powdered boric acid, a box of salicylic wool, a dozen sterilised vaccination pin-points (supplied by the Association for the Supply of Pure Lymph), wrapped in salicylic wool in a box, a blower supplied by the same Association, an empty box for pin-points after using, several half-ounce boxes filled with powdered boric acid, several Hartmann's wood wool vaccination pads, two clean cloths, and last, but not least, a supply of pamphlets, "A Plea for the Children," issued by the Jenner Society. All these are carried in a small bag, with loops at the side to hold the bottles; the bag could easily be carried strapped to the saddle, or the handle-bar of a bicycle.

My mode of proceeding is to get the mother (if possible) and the baby to sit facing the window, I sitting in front of them. One cloth is spread on a table, or other convenient piece of furniture, and the contents of the bag, or such as may be required, spread out on it. The baby is examined especially for cracks behind the ears, in the folds of the groin, or about the anus; the arm is bared, and the other cloth being placed beneath it, is washed (if really dirty) with the soap, using a small piece of the salicylic wool wetted with the sterilised water, then washed over with the formalin solution, and afterwards with the sterilised water, and finally dried with a pledget of the wool. The lymph is then blown on to the arm in four places, a pin-point taken out of the box, dipped in the formalin solution, dried on a piece of the wool, and scratches made through the lymph. These must not be very extensive—a smallish cross is sufficient. The pin-point is then reversed, and the lymph well worked into the scratches with the head by a circular movement first in one direction and then in the opposite. Whilst the arm is drying, the vaccination certificate is filled up, and before it is quite dry boric acid powder is dusted over it; this adheres slightly to the places. A Hartmann's wood-wool pad is then tied over all. A box of boric powder is left, with instructions to the mother to apply some every morning under the pad.

The following week the vesicles are dusted thickly with the powder, a clean pad applied, and instruction left to apply the powder about three times a day. The whole proceeding takes a shorter time to do than it does to write and can easily be completed in ten minutes. Dusting the arm with powdered boric acid I find to be the simplest and best method of treating the arm all through. Painting with flexible collodion is also very good, but necessitates longer waiting for the arm to dry, besides the carrying of two more bottles of collodion and one of methylated spirit to wash the brush.

I have also tried most of the other plans proposed for dressing the arm, such as painting with tr. benz. co., covering the place with "provac," a kind of goldbeaters' skin (this skin gets very dry during the week and shrivels up and rub the vesicles), the application of boric gelatine, the formula given in the British Medical Journal, November 12th, 1898, is much too moist and sticky. I tried it with half the quantity of glycerine, but even then it was very sticky and the dirt adhered to it and it got washed off with the washing of the baby; in my hands it was not satisfactory. Pads to stick on with plaster either in a ring round the edge or with strips are not so good as those to tie on, as they are messy, the plaster gets on the arm and the dirt sticks.

Taking the pin-points ready sterilised wrapped in antiseptic wool obviates the necessity of carrying elaborate and expensive sterilising apparatus, and saves the time taken up in sterilising at the people's home. After using the pin-points are again sterilised at home before using again.

Dr. J. M. Ferguson (Burnley) writes: There is certainly more to be done by the public vaccinators: but I cannot help thinking that some of your correspondents have interpreted the order of the Local Government Board far too elaborately. I fail to find that you are to use sterilised lint, and plaster the arm up with pads of carbolised gauze, etc.: and as a contrast to "A Public Vaccinator of Twenty-nine Years' Standing," I may state the method of procedure I adopt.

I cleanse the skin, which can be done by means of, say, izal or carbolic soap and warm water, and a clean towel can be got in the house. Then having cleaned and sterilised my scarifier (lancet or needles), I make the three or four punctures or scratches required by the Board. A "blower" is not necessary, as I find the lymph will run from the tubes without blowing. It is therefore only necessary to rub it in with the end of the tube. I instruct the mother to keep the arm uncovered and near the fire till the lymph has dried. This forms a film over the scarified area, and is of itself a protection against extraneous infection. Now to my mind, shields, tight clothing, or anything in the form of dressings applied tightly round the arm are a source of irritation from friction. I therefore advise either that the arm be left perfectly bare, or that a very loose balloon sleeve be attached to the child's dress, which will not interfere with the child's movements, and yet keeps the arm warm. When the vesicles are mature and the scabbing process begins, I apply a paste made of carbolic soap and water (boiled) to which I add some izal. This I paint over the vesicles thickly, and allow to dry. Further, I instruct the mother to apply a paste of carbolised soap every morning, and do not allow any other covering, the loose sleeve being worn till the scabs drop

off. This process is much less cumbrous, and quite as effective as that mentioned by your correspondent, and only entails the carrying of a small bottle of paste in addition to the instruments and lymph. I may say that since I adopted this method six months ago, I have not seen an arm where there was an undue amount of inflammation; and that it is satisfactory is proved by the fact that I have in my district some of the most insanitary property in Lancashire, and from which, up till now, a large proportion of the children vaccinated have come.

Since January 1st I have received from the vaccination officer two lists of children born after August, 1898, and several of children born before that time, but not vaccinated, in all 78. Notices to visit were sent to all, and visits have been paid to the houses with this result:

Vaccination Performed.*	Refused or Exempt.	Postponed.	Promise to be Vaccinated Privately.	Removed.
36	19	10	6	7

* Two of these cases did not "take," but have been vaccinated again.

I may say in conclusion that I use every endeavour to prevent friction with my medical brethren. After sending the notice required by law, I call and offer vaccination, and always express myself as satisfied if the parents, preferring their own doctor, will promise to have the child vaccinated by him, provided they will do so at once, or get the vaccination postponed, and I am happy to say that so far I have had no unpleasantness.

GENERAL PRACTITIONER writes: Let "Public Vaccinator for 29 Years" leave his saucepans and lamps at home and take with him only his lancet, blower, lymph, some carbolic wool, a half-ounce bottle of rectified spirit, and a yard of ambulance bandage, with safety pin. First, let him saturate some of the wool with some spirit and wash the arm with it: then set the wool on fire and sterilise the lancet in the flame. Then scarify the arm, wipe off the blood, blow the lymph on to the scarifications, and work it well in with the lancet; then place a pad of wool on the arm (he need not wait for it to dry), and finish off with the bandage and pin. He will thus have complied with the Amended Regulations and be able to get away within 15 minutes.

THE LYMPH OF THE NATIONAL VACCINE ESTABLISHMENT.

DR. J. P. PURVIS (Public Vaccinator, Greenwich) writes: I have not yet had a total failure, and I never saw in the whole course of my 29 years' experience as a public vaccinator better and more typical Jennerian vesicles. I find the lymph very potent, and the vesicles nearly double their size from the eighth to the twelfth day, so it is necessary to be cautious and not scarify too freely. The following is a summary of the month's work:

January 3rd to 18th, 50 tubes from calf No. 49: 32 primary vaccinations, 128 vesicles attempted, 123 produced: 29, 4 places; 2, 3 places, 1, 1 place. 21 revaccinations, 84 vesicles attempted, 80 produced: 19, 4 places; 2, 2 places.

January 18th to 23rd, 10 tubes, No. 52: 10 primary vaccinations, 40 vesicles attempted, 34 produced: 5, 4 places; 4, 3 places, 1, 2 places.

January 23rd to 27th, 10 tubes, No. 53: 10 primary vaccinations, 40 vesicles attempted, 40 produced.

January 27th to 31st, 10 tubes, No. 55: 10 primary vaccinations, 40 vesicles attempted, 40 produced.

The partial failures with the second calf are, I think, due to overcaution, in consequence of the violence of some of the earlier vaccinations.

VACCINATION OFFICERS' ASSOCIATION.

AT the recent meeting of the Vaccination Officers' Association it was resolved to make it a national organisation, and it will in future be known as the National Vaccination Officers' Association.

AMENDMENT OF THE VACCINATION ACT, 1898.

AT a meeting of the West Penrith Medical Society on February 8th Dr. J. B. Montgomery, President, in the chair, it was decided to support a resolution passed by the Liverpool Medical Institution recommending the immediate amendment of the Vaccination Act, 1898.

THE ADMINISTRATION OF THE VACCINATION ORDER.

"PUBLIC TORMENTOR."—Article 3, Clause 2, of the Vaccination Order, 1898, expressly states that the fee of 1s. is payable on "the number of children in the lists to be sent by the vaccination officer to the public vaccinator ..... together with the number of children not included in such lists but vaccinated by the public vaccinator himself." It is clear, therefore, that if the public vaccinator visits and vaccinates at the request of the parent, and, before the visit of inspection, receives the name of the same child in the vaccination officer's list, the fee of 1s. is only payable once, because it is not payable on the number of visits but on the number of children. Similarly, if the vaccination is postponed time after time by the public vaccinator he gets no further fee except the fee for successful vaccination when he is able to certify its accomplishment. Still further, if the vaccination is unsuccessful he can only claim 1s. in case the child has been included in the official list from the vaccination officer, and however many times he may vaccinate unsuccessfully the fee is never payable in respect of the same child a second time. A question is also asked in respect to the advantage of glycerinated calf lymph over the ordinary form of calf lymph in tubes or on points. The answer to this is to be found in the Milroy Lectures for 1898, by Dr. S. M. Copeman, which were fully reported in the BRITISH MEDICAL JOURNAL last year, and which have just been published in a volume (6s.) by Messrs. Macmillan. The question as to the advisability of the public vaccinator putting up a notice in his surgery or waiting-room announcing the changes in the law is one which must be judged on general principles. No reasonable objection can possibly be taken to a carefully-worded notice of the kind.

INQUIRER asks: (1) What children is Form H. intended for? (2) What does "sterilise" mean?

*** 1. The official list on Form H. from vaccination officers to public vaccinators deals only with those children just over 4 months old, and must reach the public vaccinator "within three weeks of the child having attained the age of 4 months." A vaccination officer, however, may furnish the public vaccinator with an unofficial list if he pleases, containing the names of older children unaccounted for, and the public vaccinator may visit and offer to vaccinate such children, but cannot claim the visiting fee in such cases unless the child is successfully vaccinated, when he can add it to the fee for successful vaccination.

2. An instrument may be sterilised by dry heat, naked flame, boiling, or antiseptics. The naked flame destroys the temper of steel most rapidly, but this makes little difference to the vaccinating value of the instrument, and does not outweigh the advantages of the method. "The protection of the vaccinated surface against extraneous infection," has been secured by means of various forms of aseptic or antiseptic pads, taffetas, collodion, etc.

The answer to (1) will also give "T. W. S." the information for which he asks.

J. H. S.—Payment of visiting fee in respect of children "whose birth dates between August 12th and August 31st," 1898, is provided by Article 3, Clause (1) (a) "in respect of every child whose birth shall have been registered in his district after the 31st day of August, 1898." This includes children born in the middle of July, six weeks before, and therefore the children born between August 12th and 31st are practically, though not expressly, included in those for whom the fee is payable.

N. B. U.—The Vaccination Order of 1898, Article 5, prescribes that if the payments to be made by the guardians to the public vaccinator have not been agreed upon by the guardians and the public vaccinator before January 1st, 1899, the amount of such payment shall be determined by the Local Government Board. It would appear, therefore, that our correspondent's proper course would be to communicate with the Local Government Board.

IN the letter from Mr. G. M. Sharpe, published last week, page 435, the number of tubes mentioned should have been forty, and not four.

INTERNATIONAL CONGRESS OF GYNÆCOLOGY AND OBSTETRICS.

THE third session of the International Congress of Gynæcology and Obstetrics will be held at Amsterdam from August 8th to 12th, 1899.

The questions arranged for discussion are as follows:

1. The surgical treatment of fibromyoma.

2. The relative value of antisepsis and improved technique for the actual results in gynæcological surgery.

3. The influence of posture on the form and dimensions of the pelvis.

4. The indication for Cæsarean section compared to that for symphysiotomy, craniotomy, and premature induction of labour.

Among those who have consented to take part in these discussions are Drs. Doyen, Howard Kelly, and Schauta, who will treat the first question; Drs. Bumm, Richelot, and Lawson Tait the second; Drs. Bonnaire, Pinzani, and Walcher the third; and Drs. Leopold, Pinard and Pestalozza the fourth.

The reports with their translations in the official languages will be sent to all the members a month before the opening of the Congress. As regards private communications, preference will be given to those bearing upon the above-mentioned leading questions. Time will also be allowed sufficient for any demonstrations kindly afforded by the members. The official languages are English, French, German, and Italian. The subscription for membership is one guinea. Subscription forms and further particulars may be obtained from the Honorary Secretary for Great Britain and Ireland, Dr. Arthur Giles, 37, Queen Anne Street, London, W.

UNIVERSITY OF MOSCOW.—The total number of students in the University of Moscow at the beginning of the present year was 4,407. Of these 1,284 belonged to the medical faculty.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 25TH, 1899.

THE TREATMENT OF INCIPIENT INSANITY.

A deputation representing the British Medical and the Medico-Psychological Associations had an interview with the Lord Chancellor on February 22nd, to lay before him a draft clause to provide for the temporary care of persons suffering from incipient and unconfirmed mental disease. The deputation, which was introduced by Dr. Farquharson, M.P., had a most sympathetic reception from the Earl of Halsbury, who expressed great interest in the proposals made to him. These have been formulated by a joint Committee of the two Associations, and are designed to assimilate the provisions of the English law to those which have been for thirty years in force in Scotland. Experience has proved them to work advantageously, and the clause suggested for England[1] would provide that a person certified by a medical practitioner to be suffering from mental disease which is not confirmed might, as in Scotland, be placed under care for a period not exceeding six months in a private home, due notice being given to the Commissioners in Lunacy, who would have the right to visit the patient. The advantage of this would be that a person might be placed under suitable medical treatment in the very earliest stage of his malady, and before it would be under the existing law possible to certify him. It is believed that under suitable treatment complete recovery might take place in many such cases which now drift into confirmed insanity. A certificate given under the proposed clause would be a very different thing from a certificate in lunacy, and the disabilities which attach to the latter would be avoided. The new regulations suggested would, moreover, tend to obviate the objections of friends to the institution of treatment at an early stage, since the individual would be considered to be a person suffering from a disease susceptible of cure. The well-known risk to medical practitioners in signing certificates of lunacy in early conditions, in which there may be some room for doubt, would also be diminished, as the certificate given would be only an expression of opinion that the patient required a special line of treatment, the duty of taking action being left to the relatives. The position of the person receiving the patient would be safeguarded by a provision making Section cccxv of the Lunacy Act, 1890, inapplicable to such patients.

The views of the Committee were expressed by its chairman (Dr. Rayner), by Dr. Blandford, and by Dr. Savage, who dwelt upon the advantages which might be expected to flow from any alteration in the law that would have the effect of bringing cases of incipient unsoundness of mind early under medical treatment. It was pointed out that the clause would at the same time tend to diminish the temptation to evade the law to which friends anxious to save their relatives from the stigma which, rightly or wrongly, attaches to certification as a lunatic are, to the great detriment of the patient, apt to succumb.

The Lord Chancellor, in his observations to the deputation, showed that he fully appreciated the importance of facilitating the early treatment of cases of mental disorders, and was understood to express himself as being in general accord with the principle involved. He left the impression that he was not indisposed to initiate legislation in the direction desired, though he took exception to the period mentioned—six months—as being too long. It was clear, from the general tone of the Lord Chancellor's observations, that he attached much importance to the representations made to him. There is, therefore, reason to hope that a distinct step has been taken towards the removal of many of the practical difficulties which now attend the treatment of incipient cases of mental disease, and the British Medical and the Medico-Psychological Associations are to be congratulated on the success which has already attended their united action.

[1] The proposed draft clause and certificate are printed at page 501.

THE ENDOWMENT OF MEDICAL EDUCATION.

The great medical schools occupy a similar position in regard to medical science to that of the universities in regard to the arts and the other sciences. They perform two principal functions, the dissemination of knowledge by teaching, and the advancement of knowledge by research—functions which have been recognised and, as far as possible, carried out by the medical schools from the time at which they were first founded. In the past no great difficulties arose in the performance of these functions. Teaching was limited to anatomy and clinical study; research to observations in the *post-mortem* room and at the bedside. The fees paid by the students and the money allotted from the hospital funds for work common to the school and the hospital were sufficient to remunerate the teachers and to provide for incidental expenses.

But of late years great changes have taken place in the requirements both for teaching and for research. The student is now instructed in chemistry, physics, biology, physiology, bacteriology, and other special subjects, in addition to the subjects previously taught. For instruction in these subjects funds are required adequate to remunerate lecturers whose sole income is derived from teaching. Moreover, expensive apparatus and well-equipped laboratories are necessary, not only for teaching these subjects, but also for research, which has now extended far beyond mere clinical and *post-mortem* observations.

The medical schools abroad are supported by the State, or at least receive large subsidies from it, while in England the funds are derived almost entirely from the fees of the students.

The inadequacy of the income derived from this source to carry out the functions of medical education and re-

search was recognised in a report of a Committee of the Medical School of Guy's Hospital, in which the subject was brought before the notice of the Governors of the hospital. The latter body almost immediately started a fund for the purposes of the medical school, quite separate from that devoted to the purposes of the hospital; and Mr. Balfour brought the matter before the notice of the public when distributing the prizes to the students. In response to his appeal donations to the fund were soon made, and have been noticed in our pages. It is now announced that Sir Frederick Wills has generously given £5,000 for the purposes of the medical school. We believe that the particular purposes to which this gift will be applied are still under consideration, but we understand it will be utilised either for the erection of laboratories, the endowment of a lectureship, or for the purposes of research. The enlightened action of Sir Frederick Wills is deserving of the highest commendation. By advancing and disseminating medical knowledge such donors confer the greatest possible benefit upon humanity.

THE CEREBROSPINAL FLUID IN THE HUMAN SUBJECT.

THE old physicians called a cold *purgamentum cerebri*, as they fancied that the discharge from the inflamed Schneiderian membrane came from the brain. At a later day the superior person naturally smiled at this simple theory, and pitied the ignorance of anatomy and pathology which it displayed. We are gradually finding out, however, that our predecessors were not by any means such poor benighted creatures as some in their haste have said they were. Quite lately Dr. StClair Thomson has been able to prove that something of the nature of a *purgamentum cerebri* does actually occur, or, at any rate, that fluid may run away from the neighbourhood of the brain through the nose. The event is of the rarest; still he shows cause for believing that it is perhaps not quite so rare as it might seem to be, examples of the occurrence having been reported under names which hid its true nature. For some time past he has had under observation a patient suffering from a continuous dripping from the nose. The clinical details of the case are reserved for future publication; in the meantime it is sufficient to state that Dr. StClair Thomson came to the conclusion that the fluid was cerebrospinal in origin. Regarding this as a unique opportunity of studying the chemical composition and physiological properties of the fluid, he called Professor Halliburton and Dr. Leonard Hill into council. The result is a conjoint paper entitled Observations on the Cerebrospinal Fluid in the Human Subject, which was read at the last meeting of the Royal Society (on February 16th), where it excited great interest.

Since 1842, when Majendie published his *Recherches sur le Liquide Céphalo-Rachidien*, in which he placed beyond doubt the normal existence of cerebrospinal fluid, little was added to our knowledge of this liquid until the comparatively recent work of Halliburton.[1] It is very probable that further study of the subject has been impeded by the difficulty of obtaining fluid from the human subject, or at least fluid that might be regarded as fairly normal. Majendie drew his conclusions from observations on animals, or on the human cadaver. Later observations have necessarily been limited to chemical researches made on the fluid obtained from cases of spina bifida or hydrocephalus, where, of course, the fluid was not secreted under anything like normal physiological conditions. Dr. StClair Thomson's case gave Professor Halliburton ample opportunities of examining the fluid in its normal state, and his researches have resulted in establishing what may fairly be looked upon as a standard composition of this fluid. It is found to be clear and colourless, like water; of low specific gravity (about 1005); containing a trace of proteid (a globulin) but no albumen; and showing no cells or other elements under the microscope. The fluid reduces Fehling's solution, but this "mysterious reducing body"—as Professor Michael Foster called it—is not sugar, for it does not ferment with yeast. Possibly it is a substance related to pyrocatechin.

The rate of the flow was next investigated, and it was found, as might be expected, that this varied considerably with different circumstances, but that it might be 20 to 30 minims in 5 minutes and amount to as much as half a litre in the day.

Bearing in mind some researches of Cavazzani on the cerebrospinal fluid of dogs, Professor Halliburton and Dr. StClair Thomson next compared the composition of the fluid in the morning with that secreted in the evening The latter was found to be slightly poorer in solids, both organic and inorganic. This is what might be expected, as the decreased capillary pressure during sleep would lessen the rate of exudation of water.

Dr. Leonard Hill in his recent lectures at the College of Surgeons on the cerebral circulation, put forward the view that the rate of secretion of the cerebrospinal fluid when the cranio-vertebral cavity is opened depends directly on the difference between the pressure of the cerebral capillaries and that of the atmosphere. At the same time it was shown that the cerebral capillary pressure varies directly and absolutely with vena cava pressure. Thus the cerebral capillary pressure can be raised with great ease by any agency which brings about a rise of pressure in the vena cava or cerebral veins. On the other hand, cerebral capillary pressure varies directly, but only proportionately, with aortic pressure, for between the aorta and capillaries there lies the peripheral resistance. From these facts it follows that the easiest methods of raising the cerebral capillary pressure in man are: (*a*) By compression of the abdomen; (*b*) by the assumption of the horizontal posture; and (*c*) by straining or forced expiratory effort with the glottis closed. By all these methods the vena cava pressure is considerably raised; and by the last method the venous inlets into the thorax may be completely blocked and the pressure in the cerebral capillaries raised to something like aortic pressure. Dr. StClair Thomson's patient afforded Dr. Leonard Hill an opportunity of testing the correctness of his views on the human subject, and the experiments which they carried out together resulted in an entire confirmation of those views. The flow of cerebrospinal fluid was found to be accelerated by all the factors which raise the cerebral capillary pressure. Professor Halliburton's analysis of the fluid expelled under the varying conditions showed that the

[1] *Chemical Physiology and Pathology*, London, 1891.

increase of flow is, moreover, accompanied by a decrease in the percentage of solid matter; the fluid passed passively contained 1.1 per cent. of total solids, while that passed during straining was found to contain 0.43 per cent.

Lastly, the effect on blood pressure of the intravascular injection of the fluid was tested. Quantities varying from 7 to 10 c.cm. were injected into the circulation in dogs, but with entirely negative results. This observation is very interesting in view of the fact that such a quantity in the case of fluid from a general paralytic has been found by Drs. Halliburton and Mott to be quite sufficient to cause a marked fall of arterial pressure. The cerebrospinal fluid, however, removed in cases of brain atrophy contains a toxic substance, cholin, doubtless derived from the disintegration of lecithin in the brain. The normal cerebrospinal fluid contains no trace of cholin.

This interesting communication to the Royal Society has therefore added considerably to our knowledge of the rate of flow of cerebrospinal fluid; the difference of its composition at different times of the day; the influence of straining, posture, and abdominal pressure on the flow and composition of the fluid; and the effect of intravenous injection of the fluid in animals. It is of particular value since it is the result of observations with human cerebrospinal fluid in apparently a normal condition, and the interest which it aroused was shown by the suggestions offered that it would be important to determine the effect on the character of the liquid produced by intellectual labour and the administration of easily eliminated drugs.

Meantime, Dr. StClair Thomson is to be congratulated on his detection of the case, and on the scientific enthusiasm which prompted him to obtain the co-operation of two such experts in their special departments as Professor Halliburton and Dr. Leonard Hill. Their joint work has resulted in establishing the chemical composition of fresh, normal human cerebrospinal fluid, and in elucidating several questions connected with its secretion and with the cerebral circulation.

MR. CHAPLIN'S LITTLE BILL.

It is well to be thankful for small mercies. In this spirit, we suppose, will be received the Government proposals for preventing water famines in London. If a patient has a serious malady which may necessitate a capital operation for its cure, he might nevertheless feel grateful to the surgeon for opening a whitlow, or to the chiropodist for paring a corn, pending a decision on the character and advisability of the major operation. It is, perhaps, in this spirit that we must regard the modest measure which the President of the Local Government Board obtained on Monday night leave to introduce into the House of Commons. London is supplied by eight water companies, each with a limited right of appropriating supplies, and each limited to certain areas within which it can claim a monopoly of distribution. We set before our readers quite recently, in connection with the interim report of the Royal Commission, what some of these limitations were, especially what rights certain companies had of withdrawing water from the Thames itself. One right is zealously guarded by the statute—the right of monopolising the sale of water within the allotted district. So zealously has this monopoly of sale been guarded, that a company has not the right of extending its mains into the district of another company even when the latter is in difficulty—has not even the right of selling to a neighbouring company a portion of its surplus supply.

The recent East End water famine has placed the inconvenience of these disabilities in a strong light, and has emphasised the necessity for some change. The minimum of change, which will for a few years tide London over such difficulties as occurred last autumn, has been embodied in Mr. Chaplin's little Bill. It will provide that the several companies shall submit, when called upon to do so, schemes to the Local Government Board for connecting their various supplies in such a way as to be mutually helpful in times of distress. The cost of the necessary works will be distributed proportionately to income, and the payment for water transferred will be settled by agreement, or, in default, by arbitration. The Local Government Board is to have a sort of centralising or co-ordinating control.

The work of laying down pipes to make the necessary connections has already been commenced by some of the water companies in the expectation that the Bill will pass through Parliament this session, and there seem to be no good grounds for opposing a Bill which will merely remove an artificial obstruction to the distribution of water to districts which may be short of that necessary commodity. But the Bill cannot be accepted as in any way relieving the Government and the Legislature from the duty of dealing with the larger question at an early date. The Bill is, and indeed pretends to be, nothing more than a palliative: it provides no fresh supply, it provides no increased storage, it provides no single responsible controlling water authority for the metropolis. Nearly every important town in England controls its own water supply. The greatest of all is at the mercy of profit-making companies. The Bill makes these things neither better nor worse. It is a temporary measure and a temporising one. It will alleviate but not cure the disease which it proposes to treat.

THE PROPOSED MEDICAL ACTS AMENDMENT BILL.

The Royal College of Physicians of Ireland having had under reconsideration the two-clause Bill to amend the Medical Acts, drafted at the instance of the General Medical Council, has suggested to the Council to substitute for Clause 2 of the Draft Bill a clause enabling such of the Universities and other licensing bodies as do not at present possess disciplinary powers over their graduates or licentiates to exercise such powers in the future. We understand that the Society of Apothecaries of London, while approving of the objects for which the Draft Bill has been prepared, has felt unable to give its support to the Bill, as at present drawn, on the grounds that the language employed leaves it open to grave doubt whether disqualification, however temporary, does not involve re-examination as a condition of restoration to the *Register*, and further, that it is considered to be clear that unless the Bill extends to amending Section IV of the Apothecaries Act Amendment Act, 1874, the proposed clauses will be practically inoperative as regards the Society. We are informed that the Faculty of Physicians and Surgeons of Glasgow has intimated to the President of the General Medical Council that it approves of both of the clauses proposed for the amendment of the Medical Acts by the General Medical Council.

SCOTTISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The report presented to the recent annual meeting of the Scottish Poor-law Medical Officers' Association refers to the fact that the Bill introduced into the House of Commons last year by Mr. Alexander Cross, to amend the Local Government (Scotland) Act, 1894, was blocked, so that it was impossible to obtain a second reading. The report expresses acknowledgments to the British Medical Association for assistance given in various directions. Since this report was drawn up, however, matters have gone a little further, and at the last meeting of the Parliamentary Bills Committee of the British Medical Association, the Chairman was able to report that he had had an interview with Lord Balfour of Burleigh, who was prepared to give an amending Bill careful if not sympathetic consideration. The Committee resolved to ask Mr. Alexander Cross to introduce an amending Bill into the House of Commons, and requested Dr. Farquharson to sign a petition to Lord Balfour on behalf of the Committee. The Bill proposes that there should be a right of appeal to the Scottish Local Government Board in cases of dismissal of medical officers by district parish councils; that in fact Poor-law medical officers in Scotland shall be removable from office only by or with the consent of their Local Government Board, as is already the case both in England and in Ireland. It is difficult to see why the Secretary of State for Scotland should not be ready to give sympathetic consideration to the amending Bill and to show his sympathy practically by affording facilities for its second reading. We cannot help thinking that if the matter were rightly brought under the notice of Scottish members of Parliament by their constituents, the justice and reasonableness of the proposal would command their support. The Committee of the Scottish Poor-law Association requests that a statement of every case of unjust dismissal by parish councils should be forwarded to the Secretary, Dr. W. L. Muir, 1, Seton Terrace, Dennistoun, Glasgow. The other officers elected at the annual meeting were:—*Honorary President:* Mr. Robert Brand, J.P., Chairman of Glasgow Parish Council. *Honorary Vice-President:* Mr. Alexander Cross, M.P. *Chairman:* Dr. Gilbert Campbell. *Treasurer,* Dr. Mathew Martin, 138, Great Eastern Road, Glasgow.

"SMALL-POX IN A NEW LIGHT."

Under this heading we recently ventured to make some comments on a remarkable theory of small-pox propounded by M. Drumont, who professes to regard that disease as a means adopted by Nature to rid the body of the "evil principles" which are in it. We find that we were in error in attributing the invention of this theory to the editor of the *Libre Parole.* Dr. A. Cordes, of Geneva, has called our attention to the fact that some sixty years ago a French physician, Dr. Verdé de l'Isle, enunciated the doctrine that typhoid fever is nothing else than small-pox driven inwards and settling itself in Peyer's patches. But M. Drumont is entitled to the credit of having worked out the theory in exquisite detail. We were careful to point out that he is not to be numbered among the common "antivacks," because his charge against Jenner is that by ridding the world of small-pox he robbed mankind of a powerful prophylactic against other diseases. But the antivaccinists appear to think that anything will serve as a weapon against Jenner—even though, like a boomerang, it come back on their own heads. We have been favoured with a letter from one of the tribe, who appears to have been greatly excited by our innocent paragraph. He states his belief that M. Drumont's views are "radically sound," and he accuses us of blinding ourselves to his obvious meaning—namely, "that the vital powers of the body ever made for health and ever will unless poisoned, paralysed, and damned (we hope the recording angel will put this down not to our score but to that of our correspondent) more or less by vaccine virus or some equally suppressive and therefore fallacious method of 'healing.'" The writer (whose name we mercifully withhold) goes on to explain that "if M. Drumont's 'flowering, blowing, and sublime crisis' is not falsely interfered with, the natural result is a complete rejuvenation, so to speak, seeing that by the expulsion and surface deposit of the 'caustic matter' of small-pox are carried away those foul 'foreign matters,' which, if driven within by vaccine virus, are certain to develop sooner or later, barring the patient's sudden death from 'heart disease,' into the dreaded cancer or equally dreaded phthisis." The moral of all which appears to be that small-pox is your true Pentacle of Rejuvenescence, and that by "falsely interfering" with this elixir of life death was brought into the world. But did people never die before vaccine virus was invented to "poison, paralyse, and damn" their vital powers? And even in these degenerate days, when the baleful shadow of Jenner is over us all, do all vaccinated persons who are not carried off suddenly by heart disease, fall victims to cancer or phthisis? The saner opponents of vaccination will doubtless, on reading the rubbish which we have quoted, be inclined to say, *Non tali auxilio nec defensoribus istis!* But we submit to them that in M. Drumont's theory they will find a more logical basis for their position than they have yet been able to establish. If small-pox be the best preservative of health, they are clearly justified in their efforts to keep it among us, and to diffuse its benefits as widely as possible.

TUBERCULOSIS IN MILK.

The new Order which Mr. Chaplin has promised shortly to issue, extending the definition of "disease" in the Dairies, Cowsheds, and Milkshops Order of 1885, so as to include, in the case of a cow, such disease of the udder as shall be certified by a veterinary surgeon to be tuberculous, will undoubtedly go a long way towards diminishing the risk that now attends the use of milk from herds of cows which have not been proved by the tuberculin test to be free from tuberculosis. Theoretically, indeed, it might be held that it would go far enough, but there is reason to fear that in practice this will not be case. It is true that the risk of infection of milk by tuberculosis even if the disease be in an advanced stage is small, unless the udder is affected, but in a cow suffering from the disease in a well-developed form the udder may become affected at any moment, and it is certain that under ordinary circumstances some weeks, or even a longer time, might elapse before the fact that the disease had extended to the udder could be ascertained. A tuberculous cow may go on yielding milk even after the disease has become very extensive and has produced much emaciation; indeed, such a cow may yield quite an unusual quantity of milk. An illustration of this is afforded by a story which is told of a distinguished veterinary authority. He wished, in connection with some investigations of the disease, to obtain a cow in a very advanced stage; he asked a dealer to try to obtain one, and the man replied that he thought he could do so at once, as a certain dairy farmer of his acquaintance had a cow so ill with "tubercollisis" that he would probably be glad to get rid of it for nothing. The dealer was told not to haggle about the price, but he came back in a few days to say that he had been unable to obtain the cow; it had rallied a little, and the farmer said that it ate so little and gave so much milk that he would not part with it at any price! This is a rather gruesome story, but it reveals an attitude of the bucolic mind which is probably not very uncommon. If the scope of the promised Order could be so far enlarged as to embrace cases such as these, it would undoubtedly tend still further to diminish the risk of infection. We

understand that the National Association for the Prevention of Consumption and other forms of Tuberculosis may not improbably take an early opportunity of calling the attention of the President of the Local Government Board to this point.

INFLUENZA.

Although the mortality last week from diseases of the respiratory organs in London showed a decline from that recorded in the preceding week, and was below the average, the fatal cases of influenza showed a marked increase. The deaths directly attributed to this disease, which had been 22 and 50 in the two preceding weeks, further rose to 74 during the week ending February 18th, and exceeded the number recorded in any week since February, 1898. Of these 74 deaths, only 15 were of persons under 40 years of age; 22 were of persons aged between 40 and 60 years; while 37, or precisely one-half, were of persons aged upwards of 60 years. There was a marked increase last week in the fatal prevalence of influenza in West London, especially in Paddington, Hammersmith, and Chelsea; in South London, where the disease is proportionally more fatal than in any other part of the metropolis, the largest number of deaths directly referred to influenza were recorded in Lambeth, Battersea, Wandsworth, and Greenwich. The scourge is also heard of as having visited Bournemouth and other places in England. In the West of Scotland, and in Glasgow particularly, it is said to be widespread. In Vienna the disease is raging: there is hardly a family which has been spared, and all the hospitals are overcrowded. The disease there is mainly of the catarrhal type, the most common complications being pneumonia and otitis, the latter being particularly frequent.

THE QUEEN'S VISIT TO CIMIEZ.

We understand that all the arrangements made for the Queen's comfort at the Hotel Regina, Cimiez, were found to work so satisfactorily last year that it has not been necessary to make any modification either in the house itself or in its sanitary arrangements. A limited outbreak of typhoid fever, which occurred in Nice last autumn, ceased after a short time, but it served to call attention to the necessity of recasting the drainage system of the town. A strong Commission was appointed, and as the result of its labours during the winter it is probable that the necessary engineering works will be commenced as soon as the season is over. The defects discovered in the drainage of the town, however, do not affect Cimiez, which stands isolated on its own hill. The weather during the winter, though, like that of the rest of Europe, rather broken by the series of storms that have traversed the Continent, has on the whole been good, and the thermometric range has been unusually high.

INFLUENZA LITERATURE.

Once again we are threatened with the influenza, that too familiar foe which we began by despising, and which we now perhaps look upon with somewhat unreasonable dread. It is certainly better to treat it too seriously than too lightly, but only those who have been severely hit by the scourge will deny that it has certain compensations. The average sensual man, indeed, who resents the humiliation of being prostrated by a thing which has about it so little of the pride and circumstance of illness, is apt to fret and fume at his confinement. But the enforced rest not seldom brings increased vigour later, while it gives an opportunity of indulgence in light literature with an unracked conscience such as is afforded by no other kind of disablement, unless it be a broken leg. Here the question arises, What kind of literature is best adapted for the victims of influenza? The idiosyncrasy of the patient must, of course, count for much in the solution of the problem, but there appear to be some general principles which may guide us in the selection of literature appropriate to the disease. The novel naturally presents itself to the mind as the class most likely to fulfil the indications in the general run of cases, and it is interesting to recall that the *New York Times* about a year ago stated that influenza is the only disease that promotes the sale of works of fiction. But what is one man's meat is another man's poison—which for our present purpose may be taken to mean that there be those to whom Meredith gives a headache and others who heave the gorge at Sarah Grand. Our own experience would lead us to recommend Scott, Dickens, and Thackeray, but we are painfully aware that this lays us open to the charge of fogeyism. A recent writer in the *Daily Chronicle* quotes Mr. Birrell as saying that for invalids there are no books like those of George Borrow. "Lassitude and Langour (says the author of *Obiter Dicta*), horrid hags, simply pick up their trailing skirts and scuttle out of any room into which he enters: they cannot abide him." Unfortunately some readers cannot abide him either; the writer in the *Chronicle*, for instance, found that Borrow sent up his temperature two degrees. Balzac bored him, as we can readily believe, for the author of the *Comédie Humaine* is not light reading even when one is in robust health. He tried successively Peacock, Jane Austen, Bagehot, but none of them answered. Even Casanova failed. Some relief was got from the Micawber parts of *David Copperfield*. After much experimentation he came to the conclusion that Mr. Birrell himself is the best author for influenza, because he is quiet and "free from the sickly disease (one would like by the way to have the writer's notion of a healthy disease) of *literaturitis*." On medical principles we should not be inclined to recommend theological literature of an inflammatory character. The mildly sentimental kind might be useful as a sedative, but—speaking, be it observed, from the purely medical point of view—we think that, at least in cases of not more than ordinary severity, Dame Quickly's advice to Falstaff, not to trouble himself about such thoughts yet, is therapeutically sound. On the whole, we incline to the belief that the majority of unregenerate mankind would find even a scrofulous French novel more beneficial to their bodily estate than a tuberculous tract. But here also there must be discrimination in the selection of an author. In a case of influenza of the gastro-intestinal type there would be a risk of serious aggravation of the symptoms if the patient were to allow himself large doses of undiluted Zola. The *Sorrows of Satan*, the *Murder of Delicia*, and other works likely to stimulate the flow of the tear of sensibility are not to be recommended in cases of the catarrhal type, and Young's *Night Thoughts* or the *Proceedings of the Society of Psychical Research* are distinctly contraindicated in the nervous form of the disease. On the whole, the only general rule that can be laid down for the selection of literature in influenza is that given by Lord Bacon for the choice of diet. Let a man read whatever he finds good of, and avoid whatever he finds hurt of. In other words, let him follow his taste—which he will doubtless do in any case.

A VACCINATION CASE.

Certain proceedings at Huddersfield, reported in the *Leeds Mercury*, indicate the desperate anxiety of antivaccinationists to discover anything which may be twisted into an allegation of evil results from the use of the Local Government Board's glycerinated lymph. A child, Marion Beckwith, aged 5 months, was vaccinated on Thursday, February 2nd, and died on the Sunday morning immediately following. Lieutenant-General Phelps, President of the Antivaccination League, was present at the inquest. The father told the court that after the death of the child he was approached by representatives of the League, who

offered to take up the case and represent him at the inquiry. They first asked him if he thought the infant had died from vaccination, to which he replied in the affirmative, whereupon they asked to see the body. The public vaccinator stated that he made a *post-mortem* examination, and that in his opinion the cause of death was double pneumonia at an early stage. Dr. Irving corroborated. Sixteen other children had been vaccinated from the same lymph. One juryman said he had seen the body, and that its appearance was altogether different from many others he had viewed, and that from his own knowledge he thought vaccination had something to do with the death. The jury, however, after hearing the evidence, returned a verdict of death from natural causes. That such a case as this should have been taken up by the League shows the straits to which it is reduced in its efforts to discredit vaccination. We should not, indeed, be surprised if it turns out that the League has decided to adopt regularly the *post hoc propter hoc* argument, and to contend that deaths following vaccination are due to vaccination. If it only persists in taking up cases such as that just referred to the extravagance of its attitude ought to be a sufficient antidote to the poison with which it seeks to inflame the public imagination.

MEMORIAL TO THE LATE PRINCIPAL CAIRD.

THE proposal to erect a memorial to Principal Caird has now taken definite shape. The intention is to put up a window on the east side of the Bute Hall of Glasgow University. The design will consist of twelve figures arranged as follows: First row—Plato, Aristotle, Spinoza, Hegel; second row—Athanasius, Chrysostom, Augustine, Aquinas; third row (below gallery), symbolic figures representing Philosophia, Jurisprudentia, Medicinia, Theologia. This selection appears to be particularly happy, as those members of the Association who remember the admirable philosophic sermon which Principal Caird preached to the Association on the occasion of the last meeting at Glasgow, will readily agree. The subscriptions received from old students of the University and other friends have come from many parts of the world (Newfoundland, Canada, South Africa, British East Africa, and the Argentine Republic), and now amount to £731 11s. The sum of £100 has been raised by a class collection made by the students of the present session. The total cost of the window is estimated to be fully £900, so that further subscriptions are desired, and should be sent to Mr. Archibald Craig, 156, Vincent Street, Glasgow.

THE GOLDSMITHS COMPANY'S GIFT TO MEDICAL RESEARCH.

AT a recent meeting of the Court of the Goldsmiths Company, Sir Walter S. Prideaux submitted to the Court a report with reference to the antitoxin treatment of diphtheria, in connection with which a grant of £1,000 had been made to the laboratories of the Royal Colleges of Physicians and Surgeons, for the purpose of aiding in the work of improving the quality of antitoxic serum and of making investigation into the action and composition of antidiphtherial serum. The report points out that Dr. Martin's work done in connection with this grant "had been generally of scientific and pathological interest;" that he had shown the way in which antitoxic serum antagonises the chemical poisons produced by the disease, and that "by demonstrating the harmlessness of this serum to the animal which receives it he had helped to put the knowledge of and confidence in the new method of treatment on a firm footing." Dr. Wood's work carried out under the grant was also of great pathological interest, and "had been directly and immediately valuable" in connection with the treatment of diphtheria. It is pointed out in this report that one of the most important practical difficulties in the employment of antitoxic serum was the long period necessary for its production and the comparatively low potency of the serum. "This period, through Dr. Wood's investigations, was reduced from months to weeks," whilst it also became "possible to supply serum of greatly augmented strength," thus rendering it possible to use much smaller doses. Dr. Brodie's experiments on the chemical nature of antitoxic serum are also referred to, whilst it is pointed out that under the grant considerable quantities of antitoxic serum have been supplied for the use of the poor in London in fifteen general and children's hospitals. Finally, it is reported "that the object to which the grant has been devoted is twofold: (1) To improve the efficiency, safety, and practical adaptability of the antitoxic serum, which is the only remedy at present known to meet the dangers of diphtheria, and (2) to supply the best possible serum which could be produced for the gratuitous treatment of poor patients." The Committee under whom the work has been done "has been fortunate in being able to obtain the services of gentlemen of the highest skill and experience in these elaborate investigations, to whom grants have been from time to time voted, which must be regarded as honoraria rather than recompense for time, labour, and skill expended," whilst serum of great strength and purity has been supplied to the various hospitals for children in London and for the treatment of urgent cases of diphtheria among the poorer classes. The Goldsmiths Company has further proved its liberality and farsightedness by making a further grant of £500 for the purpose of carrying on research in connection with the serum treatment of other diseases and of maintaining the supply of diphtheria antitoxin for the use of poorer patients. There can be no doubt that under this grant much has been done to improve the antitoxic serum treatment in this country, and we hope that still further light may be thrown on this complicated question by those investigators who at present are engaged in solving some of the difficult problems connected with the production, composition, and action of antitoxins.

THE OPERATIVE TREATMENT OF BALDNESS.

DR. MENAHEM HODARA, of Constantinople, has recently presented the world with that rarest of all gifts, a new idea. Having had two cases of favus under treatment, he was not satisfied with curing the disease, but made a bold attempt to remedy the baldness resulting therefrom. Briefly stated, his plan was to scarify the bare surface and to implant thereon hairs removed from other parts of the patient's head. The hairs used for the purpose were trimmed with scissors at each end. Some four weeks after implantation a certain number of the hairs were found to have taken root, and in no long time a goodly new crop was produced. Encouraged by these results, Dr. Hodara has since applied the method in other cases of baldness following favus, and he thinks himself justified in stating that "clinically there can be no doubt as to this very curious fact—that small bundles of hair stems cut with scissors and implanted in the incisions made with the scarifier can take root and grow, forming in time long and viable hairs." By microscopic examination he has satisfied himself that after some weeks a real new bulb forms at the lower end of the implanted hair. Dr. Hodara's results are interesting in themselves, and still more in the promise which they appear to offer of further results, undreamed of, or at any rate unmentioned, by the ingenious author. Why should not the same treatment be applied in cases of ordinary baldness? Many bald men would gladly submit to have their scalps ploughed and afterwards sown with new hairs if there was a reasonable hope of even a moderate harvest. This new system of capilliculture opens out still larger possibilities. Dr. Hodara takes the hairs which he plants into the furrows made by his scarifier from the patient's own head. But alas! there are unfortunates whose denuded polls could not supply even the few stray

hairs required. There appears to be no reason why in such cases the necessary material could not be got from someone with whom Nature has dealt in less stepmotherly fashion in the matter of hair. Again, the new method seems to be likely to make hair dyes superfluous. In the scarifier elderly persons will have a means of repairing the "irreparable outrage" of years, and younger folks whose *rutilantes comæ* of too fiery a hue make them conspicuous among their fellows may hope to substitute for their natural locks a fine head of jet-black, nut-brown, or golden hair.

THE LATE PROFESSOR KANTHACK.

We understand that a wish has been expressed by numerous friends of the late Professor Kanthack, whose premature death has caused so much sorrow, that his work should be commemorated in some suitable way. In response to numerous communications Mr. Henry T. Butlin, Mr. Anthony A. Bowlby, and Dr. Drysdale have issued a letter in which it is stated that it is probably not generally known that, largely on account of his generous expenditure of money in his various researches, Professor Kanthack had not been able, during the few years in which he was in receipt of an adequate income, to provide sufficiently for his widow. It is therefore proposed to raise a fund, the interest of which shall be devoted to the use of Mrs. Kanthack during her life, whilst the capital amount can eventually be employed in founding some permanent memorial to the late Dr. Kanthack. All who desire to contribute to the fund are requested to send subscriptions to Dr. J. H. Drysdale, 25, Welbeck Street, London, W.

THE BERLIN MEDICAL SOCIETY AND FEMALE MEMBERS.

A second attempt has been made to introduce female members into the Berlin Medical Society. At the meeting of the Society last week a lively debate took place on the proposal of Drs. Freudenberg and Zadek to call a general meeting for the express purpose of altering the Society's statutes in such a way as to make them include female Doctors of Medicine. Professor Virchow, the President, strenuously opposed the notion of calling a special general meeting, and Dr. Fraenkel moved that the whole matter stand over until the next annual general meeting. But there was no majority even for this compromise, and finally a suggestion of Professor Virchow's was carried—to send back Drs. Zadek's and Freudenberg's motion to the Committee for further consideration.

A RURAL TYPHOID OUTBREAK.

It is probably known to most of our readers that Mr. John Brigg, M.P., for the Keighley division of the West Riding, has been lying for weeks past in a precarious state. His illness was complicated, and Mr. Mayo Robson found it necessary to remove a limb. When Mr. Brigg returned home to Kildwick Hall in the beginning of December his illness was regarded as pneumonia, but on Christmas Eve the case was notified to Mr. Atkinson, the medical officer to the Skipton Rural District Council, as typhoid fever. Dr. Scatterty, of Keighley, who notified it, regarded the case as an imported one. It is said that Mr. Sharpe, who accompanied the patient home, returned to Matlock ill, and that his ailment was at the time regarded as typhoid. On January 12th Mr. Atkinson received intimation of a case of enteric fever in the district supplied by Kildwick water, and in a very short time there were 24 cases, with 4 deaths. Since then other cases have occurred both in Kildwick and in the neighbouring villages, and at the beginning of this week the total number of known cases was 47, and the number of deaths down to that date had been 8. The water supply mentioned came from the neighbourhood of Kildwick Hall, and had been regarded as pure. A sample examined showed no sediment or visible evidence of contamination, but on January 24th, fifteen minutes after introducing an aniline dye into the drainage system of the Hall, its colour was detected in the water tank. The sequence of events would therefore seem to have been (1) a limited population drinking with apparent impunity sewage-tainted water; (2) an imported case of typhoid, and the introduction early in December of the specific bacterium into the contaminating water; (3) cases of typhoid amongst the drinkers of the water, the illness of the first attacked beginning about January 3rd. As usually happens in such outbreaks there was not wanting the exception to test the rule. A young man, a teetotaller, from Bradley, attended a dinner at Kildwick. As the only abstainer present he seems to have justified his principles by drinking two glasses of water, and was afterwards taken ill at home.

THE STUDY OF TROPICAL DISEASES.

The Governors of the Seamen's Hospital Society, at their annual meeting held last week, approved the scheme to found a school for the study of tropical diseases at their Albert Dock branch hospital. We understand that the buildings for the school and hospital extension are being rapidly pushed on, and that the school will be opened in October. The festival dinner in connection with this school, at which Mr. Chamberlain will preside, is to be held at the Hotel Cecil on May 10th. It is satisfactory to find that one of the first subjects to which the newly-formed West African Trade Association is giving its attention is that of the prevention of malarial diseases. The Association has rightly perceived that the first step towards any effective prevention must be a thorough investigation of the etiology and pathology. So impressed is it with the importance of the scientific study of the disease, that the President stated that the executive committee was ready to contribute towards the expenses of sending experts to the West Coast of Africa, and he added that whatever suggestions might come from the special commission appointed by the Colonial Office and the Royal Society to visit various centres of malarial disease would receive the encouragement and the pecuniary help of the traders. A hope was expressed that good results would flow from the establishment of the School of Tropical Medicine in Liverpool, and it was stated that the Traders' Association would give active support to the school.

HOW THESE ANTIVIVISECTORS LOVE ONE ANOTHER.

Antivivisectors as a class seem to suffer from a serious defect of the heart. In them that organ—in the metaphorical sense—has only one cavity, and that is so filled with the love of animals that there is no room in it for the love of their kind. Next to their highly cultivated talent for perversion of the truth, nothing is more striking in the writings of the "zoöphilist" fraternity than the fierce joy which they feel in inflicting pain on those who differ from them. They weep for the sufferings of a consumptive guinea-pig and shiver in sympathy with a malarious mosquito; but they have no compunction about practising moral vivisection on their fellowmen. Their victims may perhaps find some consolation in the fact that if they love men in general little, they love each other still less. We have heard whispers in this country of quarrels among the zoöphilists; of schisms and excommunications; of leaders in the movement cutting themselves adrift from the main body and setting up what the irreverent might call an "opposition show." We have not yet heard that they have actually come to blows—at least in public, but so high does feeling run that, unless meetings are carefully packed, appeal is too likely to be made to the *ultima ratio* of the umbrella. This consummation has nearly been reached in America. At the last annual meeting of the New England Antivivisection Society at Boston a free fight seems to have been imminent. Only a partial report has been allowed to leak

out, but that is sufficiently edifying to deserve quotation. We take it from *Science* which gives it on the authority of the *Boston Transcript*: "Back into the room again swarmed the rest of the gentlemen, and soon another wrangle was going on in which old gentlemen in silk hats talked loudly and vigorously to one another. Threats were beginning to be made—threats of violence. Secretary Brazier finally secured a hearing. 'As custodian of all the property in this room I ask everyone present to leave,' said he, and simultaneously several women arose and started to leave the room. But Mr. Greene again had the floor. 'Don't go, ladies, he has no right to order your departure.' . . . Several personal altercations followed, one of which seemed about to culminate in violence, when the meeting broke up in confusion." Such harmony is in immortal souls!

THE PREVENTION OF ANTHRAX IN WOOLSORTERS.

ANOTHER case in which neglect of the precautions prescribed by law in woolsorting has terminated fatally has occurred in Bradford. The evidence at the inquest, as reported in the *Bradford Observer* of February 20th, showed that a woolsorter, a woman aged 38, in the service of Messrs. Root and Co., contracted anthrax while engaged in sorting Persian wools. The disease started on the neck. A pimple was first noticed, and this the bookkeeper covered with a piece of plaster. This appears to be a precautionary measure designed to protect accidental scratches or other slight lesions of the surface from infection, and is in accordance with the Home Office regulations. The woman continued at work till the fourth day, when she was taken to the hospital on the direction of Dr. Bell, with whom the employers had communicated. The infected area was there excised, but she died four days later. The woman had made complaints at home for two months of the smell and dust arising from the goods. It was shown that the bales of wool were not opened or sorted under a downward draught, nor had they been previously treated with any disinfectant, as laid down in the regulations. The bookkeeper stated in his evidence that it was a stringent rule of the factory that all cuts, sores, or pimples were to be shown to him under pain of dismissal. Every week on an average he treated some 70 such slight cases with plaster; but any cases which appeared likely to be dangerous were sent to Dr. Bell, and a notice was posted in the works to the effect that, when necessary, an order could be obtained to consult Dr. Bell. The deputy coroner, Mr. J. G. Hutchinson, jun., in summing up, said that there had been neglect of the regulations, but it would be very difficult to declare absolutely that any particular omission was the cause of death. The jury returned a verdict of death from general anthrax, and stated that they were unanimously of opinion that there had been negligence, in that bales of dangerous wool had been opened on the floor of the sorting room, but that there was not sufficient evidence to show whether such negligence had been culpable and criminal. The number of deaths from anthrax certified annually to the Home Office is not large; still, the last return shows 26, and it is evident that the provisions which exist for the prevention of this mortality ought to be strictly enforced.

A LAW AGAINST TIGHT LACING.

A LONDON magistrate once declared his intention of "putting down" suicide. His well-meant attempt was not more Quixotic than that of certain grave and reverend seigniors of the law in foreign countries to "put down" tight lacing. In St. Petersburg, as was stated not long ago in the BRITISH MEDICAL JOURNAL, a ministerial decree has been issued to the effect that the girls attending universities, schools of music and fine arts, and other educational establishments of the same order, must on entering "doff the cuirass which they wear under the name of corset." Now Mr. Dagget, a member of the Wisconsin State Legislature, has introduced a Bill, which runs as follows:—"Resolved that a committee be appointed, consisting of three members, to draft a Bill to protect the health of the misses, old maids, and married women of the State of Wisconsin, by making a law to prohibit tight lacing." We do not know whether the elegance of style displayed in the terms of this proposition is due to the legislator from whose brain it emanated, or to the Parliamentary usage of Milwaukee, but the meaning is sufficiently plain. Equally plain is the fate of the resolution if it ever becomes law. Has not Mrs. Helen Barker, the President of the Women's Temperance Union, already declared that trouble will begin when the police begin to enforce such a law? And we are sure the indignant matron only speaks of that which she does know. In America, more even than in Europe, *ce que femme veut Dieu le veut*, and it may be taken as certain that whatever the Women's Temperance Union wish they will see that they get. They have in many places deprived man of any public facilities for getting drunk, and their zeal for the general legislative repression of the poor "lord of creation" has made them a power in the land. Man was made to be governed, and if he cannot govern himself woman must do it for him; but let him not think of attempting to govern her. Particularly let him not dream of interfering with her sacred right of wearing her stays in her own way. If he does, every woman will be a Wat Tyler against the minion of the law who attempts to test the tightness of her corset. Bolingbroke defined history as "philosophy teaching by examples." A historical example may serve to give Russian and American legislators sounder notions than they seem to have on the philosophy of stays. It is not only in modern times that the law has attempted to deal with tight lacing. Cesare Vecellio, whose work, *Degli Abiti Antichi e Moderni*, was published at Venice in 1590, says than in his youth stays, strengthened with plates of steel, were worn by the Venetian women. The effects were so injurious that a law was passed against the wearing of these instruments of cosmetic torture. But nothing came of it, nor do we think that even the Russian Government will be more successful.

THE CORONERSHIP FOR EAST SUSSEX.

THE County Council of Sussex have issued advertisements inviting applications for the vacancy created by the retirement of Mr. Hillman. The appointment is for life, and the salary, to include travelling expenses, has been fixed for the next five years at £400 a year. Already a considerable number of candidates are in the field, and amongst them are several well-known practitioners and solicitors practising in the county. The conflict between law and physic has always played an important part in the election of coroners whenever a contest for the appointment takes place; and this is not less manifest under the present mode of election than it was when the freeholders of the county recorded their votes at the hustings. In the metropolis we can chronicle a succession of medical coroners who have attained their position by an increasing majority of votes up to the present time, and the last two appointments made by the London County Council were of medical men, selected from a large number of candidates, including many members of the legal profession. That the medical man by his special education is better fitted than the lawyer to fill the post, provided other qualifications are equal, we do not hesitate to assert, and in confirmation of this opinion we may point to those who are now in office throughout the kingdom as well and ably performing the duties of the appointment. Not only in the holding of inquests, but in the preliminary investigations of reported cases and in deciding whether it is necessary to hold a public inquiry or not, the knowledge

of the medical coroner becomes especially important, and no amount of legal education can in itself compensate for its absence. It is not difficult for the medical coroner to acquire in a short time all the law that is necessary for the legal and proper discharge of his duties, but to obtain a knowledge of medicine sufficient to justify an opinion or a judgment would require years of close study hardly possible for a lawyer in practice to achieve. During the last few years many medical men have qualified themselves both in law and physic, and those holding this double qualification have been successful in obtaining similar appointments to that now vacant. We observe that Dr. George Vere Benson, who is also a barrister-at-law and Deputy Coroner for Middlesex, and Dr. Charles Norton Hayman, a practitioner of good standing in the county, and Mr. Bedford, solicitor, of Newhaven, late Deputy for East Sussex, are candidates for the vacant office. By the advertisement we observe that testimonials are to be limited to three of recent date, that personal canvassing is strictly prohibited, and that all applications are to be made to the Clerk of the County Council, Lewes, before March 14th.

NURSING EUROPEANS IN INDIA.

The Up-country Nursing Association, which was established in 1893, and is under the patronage of Her Majesty the Queen, has appealed for increased support with a view to extending the field and scope of its operation. This Association has already done good work in a quiet way. It has sent twelve selected and trained nurses to the North-Western Provinces and the Punjab, where local Committees have been formed for the purpose of co-operation and management. The funds placed at the disposal of the Association have enabled it to pay for the outfit and passage of the nurses, whose services have proved of great value to the sick in places where skilled nursing was not otherwise available. Fees have been paid by those able to afford it, and the Association is desirous by means of grants in aid to extend the benefit of proper nursing to those who can only afford to pay fees on a reduced scale. Appeals for help have come from other parts of India which cannot be met without further aid in the shape of donations and subscriptions, which will be received and acknowledged by Messrs. Henry S. King and Co., 65, Cornhill, E.C. Further particulars regarding the operation and aim of the Association may be obtained by application to the Honorary Secretary, Major-General J. Bonus, R.E., The Cedars, Strawberry Hill, Twickenham.

THE GEOGRAPHICAL DISTRIBUTION OF PLAGUE.

Professor Proust, Inspector-General of the French Sanitary Department, recently made a communication to the Académie de Médecine in which he deplored the fact that the measures adopted at the Conference of Venice in 1897 had not been efficiently put in operation. Having enumerated the various plague centres in India, he remarked that the strict prohibition of pilgrimage enforced in 1897 had been relaxed during 1898. Koch had stated there was still another plague focus in Africa, in the country of Kisiba, at the extreme north-west of German East Africa. Here again epidemics among rats were noticed. Plague had also declared itself in Madagascar, having apparently been imported from Bombay. According to the latest statistics, 204 cases had occurred at Tamatave, of which 132 had died, the incidence being mainly upon the natives. Professor Proust then detailed the circumstances of the outbreak at Vienna in connection with the laboratory in October last. He praised the promptitude and energy with which the little epidemic had been met. In consequence of this accident, a commission appointed by the French Government had drawn up a very stringent set of regulations to be observed in all laboratories in which cultures of the B. pestis were kept. He then called attention to the various cases which had occurred on ships arriving at various ports from India. He cited as instances the *Dilwara* and the P. and O. steamers *Carthage* and *Caledonia*. In the latter case he commented strongly on the action of the sanitary authorities on board and at Suez. He then mentioned the cases of the *Golconda* and of the *Mahallah*, and said that it was only by the active measures adopted by the port sanitary authorities that plague had not been introduced at the various ports at which these vessels touched. In the *Mahallah* disinfection was practised on three separate occasions, but, despite these precautions, two more cases of plague occurred on board. So the total destruction of the *Mahallah* was seriously discussed, and would probably have been carried out but for the strong representations made by the owners. Dr. Ruffer himself superintended the fourth disinfection, which for rigour and completeness rivalled that of a surgical operation. Finally the ship had been forbidden to make a voyage for six months. Throughout his paper Professor Proust appealed for strict enforcement of the regulations drawn up by the Venice Conference, and cited these instances of plague on shipboard as showing the real danger to Europe which had existed during the past two years, and which would continue to exist unless satisfactory precautions were adopted.

DEATH OF PROFESSOR RUTHERFORD.

Dr. William Rutherford, Professor of Physiology in the University of Edinburgh, died on Tuesday morning, February 21st. Two weeks ago Professor Rutherford was in his usual vigour. Then he had an acute tonsillitis. An abscess formed and discharged itself. Immediately after this signs of influenza showed themselves. The temperature varied from 101° to 104° F., there was great cardiac weakness and irregularity, and profound prostration; there were no pulmonary complications. He sank exhausted. By his death the University of Edinburgh has lost one of her most brilliant lecturers, physiology an accomplished exponent, and the social, medical, and scientific clubs of Edinburgh one of their most genial members. He will be greatly missed in all student gatherings, where he was always a delightful guest, both on account of his singing and his high social qualities. He was 60 years of age, and a bachelor.

MR. CHAPLIN'S FIGURES.

Mr. Chaplin, in his recent answer to a question as to the number of certificates granted to conscientious objectors, took a somewhat sanguine view of the situation. According to his figures, it appears that from the year 1885 the number of children remaining unvaccinated has been steadily increasing, that is to say, from 136,000 in 1885 to an "estimated" number of 370,000 in 1898. Over 12½ million births were registered during that period, and 3,325,000 infants were unvaccinated. Certificates were granted to the number of 239,000 during the part of last year when the Conscience Clause was in operation. It must of course be remembered that persons having the custody of children born prior to August 12th, 1898, and under the age of 14, were entitled to lodge a conscientious objection, and there is no doubt that a very large number of persons availed themselves of the privilege. We are therefore unable to say how many certificates were granted in respect of children actually born between August and December, 1898, and Mr. Chaplin does not appear to have given any figures upon which an approximate estimate might be based. Moreover, it is unsafe to assume that the number of certificates is equivalent to the number of children who have escaped vaccination within a given period, having regard to the fanatical views entertained by some parents and to the laziness of others. The statistics as to the number of conscientious objectors, if studied for the purpose of ascertaining the true effect of the Vaccination Act, 1898, are thus incomplete and

probably misleading. They are founded not upon the working of the Act as a whole, but upon the old vaccination law as modified by the conscience clause. It was pointed out in the BRITISH MEDICAL JOURNAL of September 3rd, 1898, where the various provisions of the Act were discussed, that other alterations were made in the law which not only facilitate the performance of vaccination, but ensure that it shall be carried out under the most favourable conditions. It would appear from evidence already published in these columns that the scruples of a conscientious objector rapidly melt away if, by consenting to the operation, he can save himself a little trouble.

THE FORTHCOMING TUBERCULOSIS CONGRESS.

THE organising committee for the approaching Congress on Tuberculosis is beginning its work of selecting among the large number of papers and addresses of which notice has already been given. As membership of the congress will be open to all professions, and to all classes of society, and as its duration has been limited to four days, the chief papers will be those dealing with the great general subjects of prevention and treatment, while the more technical questions will find their place in the subsequent debates and discussions. Professor Virchow has promised an address on Tuberculosis in its Relations to Food.

THE CENTRAL POOR-LAW CONFERENCE.

THIS Conference, which has come and gone, has been of unusual interest, dealing as it did with such questions as wider powers for guardians, the best means of providing and training nurses for the indoor poor, and old-age pensions and the Poor Law. These subjects covered ground on which opinions differ, and on which opinions are pretty pronounced, so that the discussions which followed the papers were lively. The question of most interest to us is that of the nursing of the workhouse infirmaries. Miss Wilkie, of the Halifax Union, contributed a thoughtful paper, in which she advocated the remodelling of the infirmary on the lines of the hospital. Dr. Blake Maurice, of the Marlborough Union, who followed, took the philanthropic view, and suggested the training of women who at the present time were doing unattractive and onerous work among the poor from religious motives. In the discussion that followed there was a consensus of opinion that the bad conditions of work and the uncertain position of the nurse were at the root of the difficulty. Miss Wilkie revived a suggestion, which has often been made in the BRITISH MEDICAL JOURNAL, that the Local Government Board should form a nursing department composed of lay and nursing experts, which should take cognisance of all questions affecting the large body of nurses employed under the Board. What is wanted is that the conditions of the nurse's work should be improved and the position made more honourable. The Poor Law in the abstract is commendable, but the administration is most faulty.

INDIAN CIVIL ASSISTANT SURGEONS.

THE regulations that have been issued by the Government of India improving the pay and status of this deserving and useful section of the subordinate medical department have been received with much satisfaction. The fiction of "unemployed pay," which was given to officers attached for duty to hospitals while awaiting appointment to substantive charges has been abolished. A new grade, carrying a monthly pay of Rs. 300 has been established to which promotion is to be given by selection, and without further examination, after twenty-one years' service; the existing grades, with salaries of Rs. 100, Rs. 150, and Rs. 200 respectively, being retained. Civil assistant surgeons have further been declared eligible for the charge of Civil stations, and in that capacity will receive a consolidated salary of Rs. 350, rising by increments of Rs. 30 to Rs. 500 per mensem. Nineteen appointments of this kind—five in Bengal, five in Madras, two in Bombay, two in the North-Western Provinces, three in the Punjab, and two in Burmah, have been reserved for this purpose, and it is proposed to increase the number to twenty-eight. It is further provided by Government that assistant surgeons lent to municipal bodies shall receive the full pay of their grade. These concessions are recognised as being liberal, and ought to attract the best graduates of Indian Universities, and to promote the efficiency of the public service.

MEMORIAL TO THE LATE PROFESSOR COATS.

A FORTNIGHT ago a meeting was held in Glasgow at which it was resolved to raise a fund for a memorial to the late Dr. Joseph Coats, and a proposal was adopted that it should take the form of a university prize or scholarship in connection with pathology. Many of the late Professor's colleagues, assistants, and numerous pupils will no doubt be pleased to learn of this endeavour to commemorate his name. The members of the medical profession estimate very highly his scientific work, and are best able to appreciate the services he has rendered to the progress of medicine and surgery, while his friends outside of the profession will no doubt be glad of an opportunity of testifying to their high estimate of his character as a man. To carry out the proposed plan, a sum of at least £1,200 will be required. Circulars are being issued, inviting subscriptions; but as many of Dr. Coats's friends and former pupils, who are widely scattered, may not be reached in this way, those who are managing the fund desire that it should be made known that contributions will be received and acknowledged by Dr. David Newman, Honorary Secretary, 18, Woodside Place, Glasgow; or by Mr. James J. MacLehose, Honorary Treasurer, 61, St. Vincent Street, Glasgow.

MILROY LECTURES.

AT the close of his lecture, published in another column, Dr. Poore exhibited an interesting series of rabbits which had been buried in wire cages for a year at different depths and under different conditions. The results of these experiments will be dealt with in an appendix. We are asked to state that the specimens will be shown again at the close of the lectures on Tuesday, February 28th, and Thursday, March 2nd next, to anyone interested in the subject.

WE regret to have to announce the death on February 22nd, from pneumonia, after a short illness, of Dr. Charles Arkle, Assistant Physician to Charing Cross Hospital.

THE Home Office is about to issue an Order adding trades in which mercury is used to the list of those to which special regulations apply.

WE understand that in consequence of the attention recently called to the liability of erythrol tetranitrate to explode with considerable violence by percussion or heat, it is the intention of the Home Office to issue a warning to those concerned as to the risk attending the handling of this compound.

THE memorandum of the Secretary of State relating to the Army Estimates for 1899-1900 proposes to provide 18 additional officers of the Royal Army Medical Corps and 150 men in this year's estimates. The increase in the Royal Army Medical Corps is the inevitable corollary of the general augmentation of the army. The total increase to the army now in prospect amounts to nearly 30,000 men.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

Vaccination continues to form the subject of many questions in the House of Commons. Mr. Hanbury, in answer to Mr. Bartley, has stated that candidates for admission to the permanent Civil Service and all established workmen in Civil Departments must have been satisfactorily vaccinated, or, if not, revaccinated. Customs boatmen must have been vaccinated within seven years. With regard to persons temporarily employed, each department fixes its own requirements. The Post Office requires both primary and secondary vaccination, the revaccination within seven years, and only excepts soldier candidates, who are presumed to be vaccinated, subpostmasters, and persons employed for very short periods. The practice of Government Departments has, it seems, extended to the Peabody Trustees, as the Home Secretary refused to interfere when asked by Mr. Lough to obtain for the tenants a right to plead conscientious objection if required to leave unless their children were vaccinated. In reply to Mr. Bartley, Mr. Chaplin also stated that any person who is not less than 10 years of age, and has not been previously revaccinated within a period of ten years, may still be revaccinated by the public vaccinator free of charge, as was the case before the new Act was passed. He added that the public vaccinator would, if so required, deliver to the person revaccinated a certificate of the result.

Vaccination (Conscientious Objectors) is the short title of the Bill introduced by Mr. Boulnois on Friday last to repeal Section 11 of the Vaccination Act, 1898. It is backed by the introducer, Sir John Lubbock, Mr. Whitmore, Sir Seymour King, Mr. Coghill, Mr. Duncombe, Sir Reginald Hanson, and Mr. Hozier, and is down for second reading on March 1st; but, as it is fifth order on that day, it is almost certain not to be reached. Its wording is brief and to the point. The first clause reads "Section 11 of the Vaccination Act, 1898, is hereby repealed"; and the second clause fixes the date of repeal as October 1st, 1899.

The Sick and Wounded in Egypt appear, from a question raised by Captain Norton, not to have been provided with a hospital ship, as suggested as far back as June last. The application then made seems to have been postponed for a time, and when an urgent demand was made in September the ship was not sent, as it would have taken five weeks to fit out. No fewer than 465 invalids were sent home on passenger ships between September 20th and October 30th, and it was stated by the questioner that 60 or 70 officers and men were down in hospital at Alexandria with only two nurses to attend to them. It would seem that whatever view may be taken of the non-provision of a hospital ship, the outbreak of enteric fever at the end of the campaign found the accommodation and staff at Cairo and Alexandria sadly inadequate. Tents were pitched close to the hospitals at Cairo and Alexandria, and in September the average number of patients was at Cairo 354, and at Alexandria 113; during October, Cairo 347, Alexandria 268. The total deaths were 104; the nursing seems to have been done by men of the Army Medical Corps, but further inquiries will no doubt elicit the actual number of female trained nurses engaged.

The Metropolitan Water Companies Bill was introduced and read a first time on Monday. Mr. Chaplin explained that its objects were to require the eight different companies, when directed by the Local Government Board, to construct works for supplementing the supply of any district in times of drought. The lamentable failure of the supply in East London last year could have been avoided, if the intercommunication between the mains of the companies had been constructed, for in spite of a dry season—unequalled for eighty-six years—the present sources of supply would have been adequate for all requirements had one company been able to immediately supply the deficiencies of another. The Bill also provides that the companies are to supply water to each other "at a reasonable cost, and to such extent as the Local Government Board may direct." The Bill was regarded as a small method of dealing with a great question, and giving by its very provisions additional weight to the policy that would regulate and control the water supply of all great towns by a strong central authority to deal with the whole area. A water famine is so terrible a calamity in itself, apart from its close connection with the spread of disease, that the Bill is sure to receive detailed criticism, and possibly attempts may be made to give it a much wider scope ere it leaves the Commons.

Convalescent Homes for Soldiers are at last to be formed by the selection of ten barracks in suitable districts, and their adaptation for the reception of 3,500 men. This will also probably entail the provision of special medical superintendence in these districts, and will in this way make the selected places more important centres of medical work. Many a soldier will have a better chance of being restored to active work, and in the end the scheme will be found, many think, like other schemes founded primarily on benevolent motives, an economic advantage to the country, and a decided gain as regards the efficiency and the popularity of the service. Captain Norton is to be congratulated on the success which his long-continued efforts have produced in the announcement made by the Under-Secretary for War on Tuesday last.

The Public Health Acts Amendment Bill, which was down for second reading this week, is an old friend. It failed to pass a stage on Wednesday, and is postponed to March 29th. It is an attempt to bring into a single general Act the many powers which have from time to time been granted to different local authorities in private Acts of Parliament. When all these various provisions are grouped together they present a somewhat formidable array, but as each one has already received the sanction of Parliament no alarm need be felt. The Bill will do much to improve the sanitary administration of backward localities, and generally protect the interests of the population as regards public health.

The Cottage Homes Bill came on for consideration on Wednesday. The Address ran over till Tuesday, and at one time threatened to occupy the Wednesday. This was, however, avoided by the withdrawal of some amendments, and so the private members had their day. They made good use of it, and obtained the second reading of the Cottage Homes Bill. The Government, while assenting to this, decided that the Bill should go to a Select Committee. This course was inevitable after the grave criticisms which the provisions of the Bill called forth. The proposal of the Bill that parish councils and other local authorities should build and administer homes for the deserving poor under the control of the county council, and out of money to the extent of three-quarters provided by a county rate and the remainder out of national funds, is a bold one, and will no doubt be greatly modified before it passes into law. The significance of the second reading is that it is a declaration in favour of making provision for old age outside the Poor Law and under some other authority.

The Amendment of the Indecent Advertisement Act is, the House was assured by the Home Secretary, under his very serious consideration. It is understood that Sir Matthew White Ridley would not be indisposed to introduce legislation, either to amend the Indecent Advertisement Act or otherwise, if a practical scheme would be evolved. There will, however, it is thought, be considerable difficulty in drafting such a Bill.

An Amendment of the Law as to Constructive Murder is to be attempted by Mr. Ambrose, Q.C., who has a Bill which is intended to carry out the recommendation of the Criminal Code Bill Commissioners, of whom the late Sir James Fitz James Stephen was one. The Bill would provide that upon a trial for murder no constructive or implied malice shall be imputed to the accused merely because it is shown that he caused the death of the deceased by or in the course of the commission of or attempt to commit some other felony.

PUBLIC HEALTH ACTS AMENDMENT BILL.

A VERY comprehensive Bill to amend the Public Health Acts has been introduced into the House of Commons by Sir Alfred Hickman. It was down for second reading on February 22nd.

The Bill, which is on the principle of the Public Health Act Amendment Act, 1890, adoptive in any one of its parts, consists of a number of clauses, which, with the consent of the Police and Sanitary Committee of the House of Commons, have been added to various private Bills promoted by various sanitary authorities. It contains seven parts. The first part has only two clauses, relating respectively to the short title and the mode of adoption of the Act. This is similar to that prescribed for adopting the several parts of the 1890 Act. Parts II and VII may be adopted by any sanitary authority, Parts III, IV, V, and VI by any authority having or obtaining urban powers. Part I contains sanitary powers usually so called. It has twenty-four clauses.

Dairies and Laundries.—Clauses 3 and 4 provide that dairymen and washerwomen (including those engaged in mangling, and of course laundrymen) may, under certain circumstances, be required to furnish the medical officer of health with lists of their customers at a fixed rate of remuneration. The 5th enables a medical officer to require from a milk purveyor a list of the farms from which he obtains his supplies; and the 6th requires all dairymen supplying milk to a district from farms beyond that district, to notify to the local authority of the district supplied (why not the M.O.H. as in the Notification Act?) "all cases of infectious disease amongst persons engaged in or in connection with their dairies." The wording of this clause could easily be improved. It is equally important to know of a case of scarlet fever at the home of a cow tender or in the house where the milk cans are washed; but this does not seem to be provided for.

Diseases of Milch Cows.—We give Clause 7 in full on account of its special interest at the present time:

> Every dairyman who shall sell the milk of any cow to his knowledge affected with tuberculosis or milk (or parturient) fever shall be liable to a penalty not exceeding *forty shillings*.

The annotated print of the Bill, issued with the name of the Town Clerk of Wolverhampton on the back, mentions Leicester, Ilford, Leyton, and St. Helens as already having this clause. No mention, however, is made of Edinburgh and Glasgow, both of which possess similar though somewhat stronger powers, so far, at least, as tuberculosis is concerned. The question as to what is "milk or parturient fever" is at least as debatable in the cow as in the human subject. Is it intended to include the disease known to veterinarians as parturient apoplexy, though often called by the cowkeeper milk fever? It might have been well to add all diseases of the udder to those rendering the milk unsaleable. The cowtender can generally detect these, and the most serious cases of tuberculosis, so far as the public are concerned, are those where the udder itself is affected. Section 8 requires the notification to the authority of the district supplied of "all cases of tuberculosis or milk fever," and the former remarks equally apply.

Infectious Diseases in Dairy and Fruit Workers.—Clause 9 would prohibit a person suffering from any infectious disease from milking, fruit picking, or otherwise having to do with food supply. No definition is given, here or elsewhere, of "infectious disease." Perhaps this is as well. No local authority is likely to proceed against a milk dealer under this clause on account of itch or other comparatively trifling ailment.

Books.—Clause 10 enacts that no one shall return an infected book to any public library [What about private circulating libraries?], but shall give notice to the inspector of nuisances, who shall cause the same to be disinfected and returned to the librarian. The method and efficiency of the disinfection is left to the inspector, but he seems to have no option of destroying the book if the authority, as so often happens, have no proper means of disinfecting books.

Infectious Hospitals.—Clauses 11 and 12 give power of making by-laws for infectious hospitals (temporary and otherwise), and make it clear that want of proper isolation is sufficient warrant for setting the compulsory power of the Public Health Act, 1875, in action. St. Helens, Leamington, South Shields, Leicester, Ilford, and Leyton, are mentioned as possessing this power, which, by the way, Huddersfield has had for a quarter of a century.

Home Nursing.—By Clause 13 the important power is conferred on an authority of providing home nursing for cases of infectious disease. Is tuberculosis being included under this category?

Slaughtering.—The next clause makes it unlawful to blow or inflate any carcass,[1] while the 16th exempts the provisions of the Diseases of Animals Act, 1894, from being interfered with by anything in this Bill.[2]

The following clause seems to provide against such a miscarriage as in the well-known Portsmouth case:

> Any person who sends or deposits, or permits to be sent or deposited for the purpose of sale, or of preparation for sale, any food intended for the use of man, which is to his knowledge diseased or unfit for the food of man, shall be liable to a penalty not exceeding £20.

It is perhaps worth remarking that Brighouse possesses this clause. It is not easy to see why the man who knowingly sends unsound meat for food should escape with a fine, when the immediate seller is liable to imprisonment without such option.

Clause 19 is also an attempt to extend backwards to the original vendor the penalties provided in Section 117 of the Public Health Act of 1875.

Section 20 enables the sanitary officers to enforce the testing of drains. The powers, however, only apply where the officer has reason to suppose a defect really exists. Why should not every householder have the right to have his drains examined periodically? Surely it is well to lock the door before the steed is gone.

House Drains and Cellars.—Clause 21 raises the vexed question of private drains. We have grave doubts, however, if legislation on the lines of the Bill will get rid of this opprobrium of sanitary law. If the proposed clause is sufficient it ought to be law for the whole country, not merely for the towns which may be willing to adopt the whole of this part of the Act. By Clause 22 the penalty for letting a cellar dwelling, not conforming to conditions in Clause 72 of the Public Health Act, 1875, is extended to embrace the permitting such occupation even where no rent is paid. The four following clauses deal with the closing and filling up of offensive cesspools and ashpits, the provision of sinks or drains, the power of entry to secure the purification of unwholesome houses and the provision of public conveniences.

Parks and Streets.—Part III has to do with parks and recreation grounds, and embraces Clauses 27 to 36. Part IV concerns streets and buildings. Clause 37 provides that passed plans not carried out within three years must be resubmitted; 38 allows the making of by-laws as to depositing copies of plans, etc.; 39 and 40 deal with building lines. Clause 41 provides that no new street shall extend more than two hundred yards without a cross street. Unfortunately, it allows the authority to enforce the provision or not, as it likes. It leaves it to be squeezed by the speculative builder. Crossing places, the defining of streets, the definition of new buildings are then dealt with. Clause 46 is important. It provides that, in future streets, no building shall without the sanction of the authority exceed in height two-thirds the width of the street. The next clause requires new houses to have water and drainage provided, and to be in conformity with the local by-laws before occupation. The two following clauses exempt Crown and railway buildings in some respects. Parts V and VI deal with street traffic and street advertisements.

Common Lodging Houses.—These are dealt with in Part VII, which contains three clauses, 53 to 55, requiring the keeper to reside in the lodging house, and either he or his deputy to be in from 9 P.M. to 6 A.M., making it penal to keep a common lodging-house without being registered, and giving the licensing authority power, for good cause, to refuse the registration of an unfit person.

It is, perhaps, to be regretted that at least the sanitary clauses are not individually adoptable. Many towns have stronger powers in certain directions already. Are they to

[1] The choking or silting up of a stream is made a nuisance under Section XCI of the Public Health Act, 1875, by Clause 15.

[2] Why Clause 17, providing for making known to persons interested in it the adoption of this Act, should have come here instead of in the first part is difficult to account for except on the score of careless drafting.

sacrifice these to gain some of the others they wish for? The Bill should at least contain a clause saving all existing powers to such places.

THE HULL LYING-IN CHARITY.

At the instance of the President of the East York and North Lincoln Branch of the British Medical Association, a meeting of medical men practising in Hull was held on December 22nd, 1898, to consider the mode in which the Hull Lying-in Charity is at present conducted. A Subcommittee was appointed on that occasion, and from its report we learn that the population of Hull, estimated at about 225,000 is on the whole a poor one, the bulk of the midwifery fees being 21s., or even less. The average number of births is 7,272, these cases being attended by private practitioners, Poor-law medical officers, certificated and uncertificated midwives, and the certificated midwife of the Hull Lying-in Charity. This Charity, established ninety-five years ago, "for the relief of poor married lying-in women," is managed by a committee of ten ladies. Previous to 1895, excluding an honorary physician and two honorary surgeons, the staff consisted of two medical practitioners and one midwife, who attended all the cases for a comparatively small fee; the administration of the charity being entrusted to the matron, who occupied the house in Reed Street. In 1895, however, "in order to reduce the working expenses of the Charity," the Committee decided to dispense with the services of medical practitioners, and to employ a certificated midwife to attend all the patients, except in cases of extreme difficulty, when she was instructed to call in one of the three medical practitioners, who were then appointed on the staff, and who were to act if summoned in case of necessity, and to receive fees for such services. In 1896, on the retirement of the matron, the midwife was appointed as matron and midwife, and took up her residence, rent-free, in the furnished house of the charity in Reed Street. The Committee also permitted her to increase her income by attending private cases, and by taking pupils. The average number of cases attended per annum for the years 1894-97 was 165.

At present it appears that the midwife is assisted by two additional certificated accoucheuses and three pupils, all living in the house of the Lying-in Charity, and that these six midwives are attending a very large number of private midwifery cases (estimated to be one-seventh of the total number of births in the city). The Committee only officially recognises the matron-midwife, but is cognisant of her co-operation with the other five midwives. It is understood that these midwives have entered into an arrangement with a medical practitioner to assist them in cases presenting difficulty in their private practice.

The meeting of medical men on December 22nd, 1898, was largely attended, and after full discussion it condemned unanimously the action of the Lying-in Charity, on the following grounds:

(*a*) That the Charity permits its matron-midwife to engage in private practice, instead of confining her attention to the cases of the Charity.

(*b*) That the Charity permits its matron-midwife to co-operate with five other accoucheuses, who reside with her in the furnished house in Reed Street, provided, rent free, by the Charity, and enjoy the advantages and prestige attached thereto, though the Charity exercises no control over them.

(*c*) That the Charity permits its matron-midwife to take pupils, and charge fees for their instruction, without exercising any control over them.

(*d*) That these six accoucheuses and pupils are conducting a very large private midwifery practice, over which the Charity exercises no control, but which is considered by the general public to be under the direction of the Charity itself.

(*e*) That these midwives actively tout amongst the private patients of medical men. One medical man writes: "One of my patients had been seen three times one morning about her case. I happened to call in and was informed about it;" and several speakers at the meeting gave other instances of this practice.

(*f*) That these midwives obtain many of their patients by offering to attend them for half or even less than half the fees they have hitherto paid, and are well able to pay; the temptation of a reduced fee in most cases cannot be resisted.

(*g*) That the midwives have entered into an arrangement with a medical man to assist them in cases of difficulty, where the patients are able to pay a fee.

(*h*) That in cases of puerperal diseases, where the patients are unable to pay the fee of this practitioner, these midwives urge the patients to obtain letters of recommendation to the Hull Dispensary, and then leave them.

(*i*) That in cases of difficult labour, these midwives, instead of sending for the regular medical attendant, have summoned this practitioner, and have thus given him an introduction to the family. (It may be mentioned that in many families these midwives attend the mother during her confinements, but the family doctor attends for other illnesses).

(*k*) That owing to the competition with this co-operation of unqualified persons, countenanced as it is by one of the oldest established charities in Hull, the incomes of many hard-working members of the profession had been considerably reduced. One medical man estimated his loss at £80 to £100 per annum, another had lost 25 per cent. of his cases, others estimated their losses at £12 to £40 per annum.

(*l*) That the tendency in the future would be towards further reduction in midwifery fees, already very low as compared with other towns.

The meeting decided that the only possible remedy was the suppression of the private practice of the midwife of the Lying-in Charity, and a Committee of seven medical men was thereupon appointed to draw up a letter to the Committee of the Charity, offering to confer with them on the subject. This Committee forwarded a letter to the Honorary Secretary of the Charity, which expressly stated that:

> There is no desire on the part of the medical profession to interfere with the *bonâ-fide* work of the Charity, which, as far as it is aware, has been carried out to the advantage of many poor lying-in women.
>
> It is, however, understood that the Charity has allowed its matron and midwife to co-operate with five other accoucheuses, who are living in the house of the Charity in Reed Street, and enjoying the advantages and prestige attached thereto; and that these midwives are conducting a very large private midwifery practice over which the Charity exercises no control, but which is considered by the general public to be under the direction of the Charity itself.
>
> The Subcommittee requests me to say that it will be pleased if your Committee will kindly suggest some date on which a conference may be held to consider the whole subject.

On January 21st, 1899, a reply was received from the Honorary Secretary of the Charity, which stated that the Committee of the Charity "unanimously agreed that they did not see the need for making any change in the existing management of the Charity." This reply, practically amounting to a refusal to discuss the subject, has left the whole question in a very unsatisfactory state. This Lying-in Charity, supported by public contributions, employs one matron-midwife to attend an average of about 165 patients yearly. She receives a fee for every case attended, and is lodged rent free in the house of the Charity. The error in the arrangements begins when she is allowed to increase her income by attending private patients, and taking pupils. The case is much the same as if the house-surgeon of a hospital were allowed to undertake private practice. The second error is that the matron-midwife may further increase her gains by being assisted in her private work by two certificated midwives and three pupils (necessarily non-certificated), all of whom live in the house of the Charity, and enjoy advantages and the prestige attached thereto. These midwives attend very many private cases (about 1,000 annually, it is suggested), over which the Charity exercises no control, but which are considered by the general public to be under the direction of the Charity. What would be thought—to revert to our former illustration—if a house-surgeon for his own gain was not only allowed to undertake private work, but to be assisted therein by other qualified surgeons and some unqualified assistants? Further, the house of the Charity is provided for the matron-midwife that the Charity's work may be properly performed, not that other similar practice for anyone's private gains may be conducted therefrom.

Upon whom does the responsibility for this state of things rest? Undoubtedly upon the ten ladies who form the Committee of Management of the Charity, under whose protection these procedures are sheltered. They, and they alone, are responsible, since the matron-midwife is in their service. They should withdraw the permission under which she and her assistants carry on this private work. Unfortunately at present the Committee refuse to take such action, but we may hope that they will shortly become convinced of the extreme impropriety of these procedures. If they should yet remain unconvinced, the facts should be brought to the attention of subscribers to the Charity, and it should be pointed out that the Charity is at present countenancing a very improper procedure.

Meanwhile, have the medical officers of the Charity no voice in its management? Have they communicated to the "Committee of ten" their views respecting the doings of the matron-midwife? Again, we are informed that a medical man has been found to assist the midwives; surely he should

at least join in making representations to the Committee and the supporters of the Charity.

The report of this Charity publishes a list of benefactors (including those from whom it has received legacies, donations, or collections at places of worship, etc., since the formation of the Charity) and annual subscribers. These latter receive one recommendation for each guinea contributed, and donors of 10 guineas one recommendation annually for life. There appear to be no governors, in the ordinary acceptation of the term, and the subscribers have no direct voice in the management of the Charity. Vacancies in the Committee of Ladies are filled by new members being introduced and voted for by the members of the Committee; apparently not by the annual subscribers.

The funds of the charity are derived from: (1) Legacies, (2) dividends, (3) donations and annual subscriptions, only the last two being practically certainties.

The number of annual subscribers is about 210, of whom about 112 pay 21s. or more, and the rest smaller sums.

TRIENNIAL BALANCE SHEET.
(October 1st, 1894—September 30th, 1897.)

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
Balance from last report	88 19 9	Patient's food	235 4 7
3 years' subscriptions ...	664 11 6	Accoucheurs' fees ...	170 9 0
Legacies	1,503 10 4	Salaries, rents, drugs, etc.	257 4 1
Dividends from invested funds	118 2 0	Invested in Consols ...	1,303 10 4
Bankers' interest	23 2 10	Balance in bank	422 12 11
		In hands of Treasurer ...	9 5 0
	£2,398 6 5		£2,398 6 5

As regards the accouchers' fees before 1895, whilst the cases were divided between two medical practitioners and one midwife, the former received 10s. 6d. for each case attended and the midwife a smaller fee (6s.). Since 1895 the midwife has been given 6s. for each case attended, and in difficult labours where it has been necessary to call in one of the three medical practitioners now attached to the Charity, these latter have received fees for their assistance.

The matron-midwife holds the certificate of the London Obstetrical Society, and the two certificated accoucheuses who co-operate with her are also certificated by the same Society.

THE PLAGUE.

BOMBAY.

ALTHOUGH the number of plague deaths during the past week has not materially increased, there is no sign of abatement. A few cases of plague which occurred at the gold mines led to an exodus of the miners and a serious scare, for the most part wholly unfounded.

CALCUTTA.

The Chamber of Commerce has addressed the Bengal Government regarding the recent repulsion of the steamer *Bhandara* from Zanzibar. The contention is that Sir A. Hardinge's action was a contravention of the terms of the Venice agreement regarding plague. The British authorities subscribed to the terms, and now a governor of a British protectorate is the first to set the law at defiance.

SAMARKAND.

The latest report from the Samarkand district is that plague is dying out. The statement which has appeared in several publications that 70 Russian doctors died of plague at Samarkand is most probably due to some error in transmission. Such a mortality amongst doctors, or attendants upon the sick from plague, is unheard of. A triple cordon is still maintained round the infected district. An enormous number of people have, it is said, been carried off by the disease.

TRANSVAAL.

The coolie who developed symptoms of plague died at Kaapmuiden, near Barberton, and a *post-mortem* examination tended to confirm the suspicion that he really died of plague.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF SPECIAL MEETING.

A SPECIAL Meeting of the Council will be held at the office of the Association, No. 429, Strand, London, W.C. on Friday, the 10th day of March next, at 2 o'clock in the afternoon, to consider the recommendation of the special meeting of the Parliamentary Bills Committee held on February 3rd.

FRANCIS FOWKE, *General Secretary.*

429, Strand, February 15th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—A meeting of this District will be held at the London Temperance Hospital, Hampstead Road, on Wednesday, March 8th, at 4.30 P.M. Dr. Morton will preside. Mr. L. A. Bidwell will read a paper on the Surgical Treatment of Gastric Ulcer. Cases of interest will be shown in the wards of the hospital. The District Committee will meet at 4.15 P.M.—H. J. MACEVOY, Brondesbury, N.W., Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will be held at Brighton on March 23rd. Members wishing to make communications to the meeting are requested to inform the Honorary Secretary before March 10th.—J. W. BATTERHAM, Bank House, Grand Parade, St. Leonards, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of this District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 9th, at 4 P.M.; Mr. E. Beaumont, of Upper Norwood, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. Agenda:—(1) Minutes of Reigate meeting. (2) To decide when and where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. (3) Election of Honorary Secretary. (4) To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read,—Dr. Patrick Manson: Demonstrations on Malaria. Mr. Marmaduke Sheild: Some points in the Diagnosis and Treatment of Nasal Polypi. Mr. Lewis A. Tallerman: Demonstration of the Tallerman Treatment by the Localised Application of Superheated Dry Air. Messrs. Allen and Hanburys will exhibit Surgical Instruments, etc. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him by postcard whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—A meeting of this Branch will be held in the Medical Institution, Mount Pleasant, Liverpool, on Tuesday, February 28th, at 2.30 P.M. Agenda.—The Secretary will move: "That every accredited representative of this Branch, when attending a Committee or Subcommittee meeting in London on the business of the British Medical Association, and every member of a deputation to London, appointed by this Branch or by the Council of this Branch, on Association or Branch business, shall be paid out of the funds of this Branch his first-class return railway fare. However, this regulation shall not apply to representatives of this Branch on the Council of the Association when in attendance at meetings or on deputations at or about the times of the Council meetings in London, or to the attendance of anyone during a meeting of the Association, or to anyone when his fare or expenses are paid out of the funds of the Association." Dr. Carter will move: "That the Lancashire and Cheshire Branch of the British Medical Association desires to express its opinion that the efficien t

primary vaccination of every child is necessary in order to afford protection against outbreaks of small-pox; that stringent measures should be adopted to enforce such efficient primary vaccination; and that no certificate should be recognised unless the requirements of the Local Government Board have been fully complied with." Dr. J. Brassey Brierley will move: "That seeing the persistent refusal of the promoters of the Midwives Registration Bill to secure efficient medical and lay control over their proposed practitioners, the Lancashire and Cheshire Branch of the British Medical Association declines to take any further part in this question, and will use all its power to defeat this Bill or any modification of it." Medical and Surgical Communications:—Mr. W. Mitchell Banks: Some Surgical Cases (with patients). Dr. G. Thurstan Holland: Case of Lupus treated by *X* Rays (patient). Dr. G. C. Stopford Taylor: Cases of Lupus and Favus (patients). Mr. Rushton Parker: Case of Plexiform Neuroma of Eyelids, Excision; Ptosis completely corrected by Plastic Operation. Mr. W. Thelwall Thomas: Four Cases of Tumour of the Urinary Bladder, diagnosed by Cystoscopic Examination, and operated upon. Mr. R. W. Murray: Case of Suppurative Peritonitis. Mr. Robert Jones: Cases of Foreign Bodies in the Œsophagus. Mr. Damer Harrisson: Two Cases of Traumatic Epilepsy (with patients); Three Cases of Intestinal Obstruction. Dr. Wm. Bain: The Relative Excretion of the Nitrogenous Waste Products in a Case of Liver Abscess. There will be an exhibition of patients in the Library, from 2.30 to 3 P.M., by Drs. and Messrs. Mitchell Banks, Barendt, Barr, Damer Harrisson, Robert Jones, R. W. Murray, Rushton Parker, Paul, Stopford Taylor, Thelwall Thomas, etc. There will be an exhibit of New Drugs and Chemicals, Medical and Surgical Instruments, etc. Arrangements will be made for a dinner at the Adelphi Hotel, at 6 P.M., if twenty members notify their intention of being present. Tickets (wine not included), 5s. each. In order to facilitate arrangements, the Secretary will feel much obliged if every member who intends to be present at the meeting will kindly inform him whether he purposes being present at the dinner. Those gentlemen who intend coming, but who on the day of meeting may find it impossible to do so, will not be held responsible for their dinner tickets. The Secretary is very anxious to get the number as correctly as possible. A Council meeting will be held at 2 o'clock on the day of the meeting. Those who wish to become members of the Branch, or of the Association and Branch, should communicate with the Honorary Secretary at once. There are over 1,500 members of the medical profession in these two counties who are not members of the British Medical Association, and nearly 400 who are members of the British Medical Association, but not of this Branch. There is thus a large field in which members can render valuable aid in stimulating the growth and importance of this Branch. The Secretary hopes that members will induce as great a number of these as possible to join the Association and Branch. Anyone wishing an application form can have it by applying to the Secretary, James Barr, M.D., 72, Rodney Street, Liverpool.

Midland Branch: Lincolnshire District.—A meeting of this District will be held at Spalding on March 9th, in the Johnson Hospital, at 2 P.M.; Dr. W. A. Carline, President. Communications:—Dr. G. M. Lowe: Fæcal Accumulations simulating Disease. Dr. Reginald Farrar: Labourers' Boots. Dr. E. C. Kingdon: Some Clinical Features of Acute Glaucoma. Mr. G. Lacy Barritt: Notes of (1) Brain Injury by a Ramrod passing through the Skull; and (2) Acute Suppurating Appendicitis; Abdominal Section; Recovery. Lunch at 1 P.M., at the White Hart Hotel: 2s. 6d. each. Those who intend to be present will kindly send an intimation, on or before Tuesday, March 7th, to Dr. Mansel Sympson, Deloraine Court, Lincoln, Honorary Secretary.

South Wales and Monmouthshire Branch.—A clinical meeting will be held on Tuesday afternoon, February 28th, at the Hospital, Swansea. —A. Sheen (Cardiff), D. Arthur Davies (Swansea), Honorary Secretaries

Edinburgh Branch.—The annual winter meeting of the Edinburgh (Fife and Lothians) Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, March 17th. A Medical Congress for Clinical Demonstrations will be held at 4 P.M. The museum (pathological and apparatus) will be open from 3.30 P.M. onwards. Dinner in the Royal Hotel, Princes Street, at 6.30 P.M.; dinner ticket, 5s. Intimation of exhibits (clinical or other) should be made to Jas. Hodsdon, M.D., 6, Chester Street, Edinburgh, or R. W. Philip, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

SYDNEY AND NEW SOUTH WALES BRANCH.

The regular monthly meeting of the Branch was held in the Royal Society's Room on Friday, December 23rd, 1898, Dr. W. Chisholm, President, in the chair. There were twenty-three members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Communication.—The Hon. Dr. Creed, M.L.C., read a paper entitled My Experience of Hypnotic Suggestion as a Therapeutic Agent. Two patients were exhibited and examined by the members. A discussion ensued in which the following gentlemen took part: Drs. Crago, Arthur, Thring, Chisholm, and Brady. Dr. Creed replied.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

A meeting of this Branch was held in Aberdeen on Wednesday, February 15th, Professor Finlay in the chair.

New Members.—Dr. Walter Crombie (5, Golden Square, Aberdeen), Dr. George Mellis Duncan (68, Schoolhill, Aberdeen), and Dr. W. Sinclair (Elion) were after ballot unanimously admitted members of the Branch.

Communications.—Dr. Ogston (Rosemount) read notes of a case of Puerperal Septicæmia in the treatment of which antistreptococcus serum had been employed. He also described a case of Suppurating Appendicitis in which the serum was found useful.—Dr. Scott Riddell showed a patient on whom he had performed Osteoplastic Resection of the Foot by the Wladimiroff-Mikulicz method three months ago. He also exhibited masses of Synovial Lipoma removed from the knee-joint in a case of hydrops articuli of two years' standing. Dr. Reddill also read notes of a case of Carcinoma of the Kidney, and showed the kidney, which weighed 14 oz. and was successfully removed by nephrectomy two months ago.

JOINT COMMITTEE OF THE BRITISH MEDICAL AND MEDICO-PSYCHOLOGICAL ASSOCIATIONS.

The following is the text of the draft clause for providing temporary care of persons suffering from incipient unconfirmed mental disease together with a form of certificate which have been drawn up by the Joint Committee of the British Medical and Medico-Psychological Associations on Incipient Insanity, and submitted to the Lord Chancellor:

Draft Clause.

1. Where a medical practitioner certifies that a person is suffering from mental disease but that the disease is not confirmed, and that it is expedient with a view to his recovery that the patient should be placed under the care of the person whose name and address are stated in the certificate for the period also therein stated not exceeding six months, then during that period the provisions of Section cccxv of the Lunacy Act 1890 shall not apply.

2. A medical practitioner who signs such certificate shall within three days after signing the same send a copy thereof to the Commissioners, and it shall be lawful for any Commissioner to visit the patient. The person under whose care the patient is placed shall not be the person who signs the certificate.

3. The person who receives a patient under such certificate shall within ten days after the expiration of the period mentioned in the certificate, or if he ceases to have the care of the patient under the certificate at an earlier date, then within ten days after such earlier date send a report to the Commissioners stating whether the patient recovered, and if not, in what manner he was dealt with when the person making the report ceased to have the care of him under the certificate.

Certificate.

I [*insert full name and address*] a duly registered medical practitioner certify that [*insert name, address, and description of patient*] is afflicted [*state the nature of the disease*], but that the disease is not confirmed, and that I consider that it is expedient with a view to his [*or her*] recovery that he [*or she*] should be placed under the care of [*insert full name and description*] at [*insert full address of the place where the patient is to be received*] for a temporary residence for a period of [*specify a period not exceeding six months*] from the day of 18 .

Dated Signed

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Lecture on Vaccination and Small-pox.—Appointment of Surgeon to the Northern Hospital.

Under the auspices of the Ladies' Sanitary Association Dr. T. R. Bradshaw recently delivered a lecture on small-pox and vaccination. He reminded the audience that we were in danger of forgetting the horrors of small-pox as it was known to our ancestors and as it is still known where vaccination is neglected. Various authorities were quoted to prove its extreme frequency and terrible mortality, and the great disfurement it wrought until Edward Jenner's discovery. Dr. Bradshaw based his argument in favour of vaccination chiefly on three grounds: (1) The enormous falling off in the mortality from small-pox which coincided with the introduction of vaccination into this and other countries; (2) The experience of recent epidemics and of the French and German armies, which showed that the mortality in communities and individuals varies inversely with the degree in which effective vaccination has been performed, and (3) the complete immunity enjoyed by doctors, nurses, and others in small-pox hospitals after they have submitted to revaccination. In the Liverpool Small-pox Hospital, 630 cases of small-pox had been admitted during the last seven years, and 128 cases wrongly suspected to be small-pox: 434 persons had been employed in various capacities about the institution, of whom fewer than 6 had had

small-pox before joining. Of this large staff only 2 contracted small-pox, and these were wardmaids who had inadvertently entered the wards for a few minutes before they were revaccinated. The 128 patients admitted with suspected small-pox were all promptly vaccinated, and not one caught small-pox, although in some instances they had spent some hours in the wards. Of 100 students and medical men who had attended the practice of the hospital and were revaccinated not one had caught the disease. The immunity did not extend to other fevers, such as typhoid, typhus, etc., of which there had been 26 cases among the members of the staff. It was impossible to explain the diminished fatality of small-pox by improved sanitation, first because it was by no means proved that sanitation had any material influence upon the spread of the disease; and, secondly, because other diseases which were known to be largely dependent on insanitary surroundings had not diminished in anything like a corresponding degree. There was only one condition which was constantly found in communities which escaped small-pox, and was never found in communities which suffered from it, and that was efficient vaccination. The lessons to be drawn from recent epidemics were: (1) That vaccination in infancy protects up to 10 years of age, with a high degree of probability against attacks of small-pox, and at most with certainty against death; (2) that even up to middle life it continues to give protection against attacks, though in a rapidly-decreasing degree; and (3) that revaccination at about 10 years of age is necessary in order to maintain a high degree of protection against accidental exposure. They knew that there was an enemy at the gate; that the antivaccinators, themselves protected against small-pox by vaccination in childhood, were striving by every means in their power to deprive the generations to follow them of a priceless blessing. Dr. Bradshaw suggested the desirability of taking steps to form a branch of the Jenner Society in Liverpool.

The office of Surgeon to the Northern Hospital, which was rendered vacant by the death of Mr. Arthur H. Wilson, has been filled by the election of Mr. R. W. Murray, F.R.C.S., Surgeon to the Infirmary for Children.

BRISTOL.

The Jubilee Memorial Convalescent Home.—The Superintendency of the Fever Hospital.—A Dissatisfied Patient.

THE news that appeared in the official letter of the Mayor and Hon. Secretaries that the Convalescent Home matters were progressing favourably was received with satisfaction, as expressions of surprise have been heard about the delay in opening the Jubilee Memorial. We now learn that the trust deed has been duly executed and the property conveyed to the trustees. To the original property, which was a large school building with grounds, an addition has been made which will be found advantageous. Of the donations promised £60,000 has been paid, leaving a balance of £2,554 yet to come. The house and grounds were bought with another donation of £20,000. The proposed alterations to the structure are: A new entrance by which the house can be divided into halves, the stable to be converted into a laundry, a system of steam heating, and the installation of electric light. The letter suggests that some generously inclined citizen should furnish the building throughout, thus saving the Committee a very considerable outlay.

By the appointment of Dr. Davies, the Medical Officer of Health for the City, at the original salary proposed, to the post of Superintendent to the Fever Hospital which will shortly be opened, the Council have gone back upon a resolution passed a month or so ago. This is a satisfactory ending to the matter, though it is much to be regretted that several things were said when the matter was first mooted that had better have been unsaid. No doubt some members of the Council were influenced in their voting by the knowledge that the appointment of anyone other than Dr. Davies meant a larger salary.

A case of some interest was heard before Mr. Justice Mathew at the Assizes on February 21st. The plaintiff claimed damages against Mr. H. Hayman, a dentist, and Mr. H. Kendale, a surgeon, for negligence. It appeared that he consulted Mr. Hayman about his teeth, and was recommended to have some extracted under ether. This was accordingly done, but it was alleged by the plaintiff that the defendant, Mr. Hayman, removed more teeth than he, the plaintiff, had agreed to have removed, and that Mr. Kendale gave him too much ether, and left him before recovery in a dangerous condition of collapse and exhaustion. The evidence on the plaintiff's side went to show that the plaintiff was in feeble health from malaria contracted abroad; that after the anæsthetic he did not recover, and that the gums continued to bleed, and that a fragment of tooth was left in the mouth. The defendants both swore that the plaintiff had sufficiently recovered to speak intelligibly before they left the house, and that in the event of help being required the plaintiff's friends had their addresses, of which no advantage was taken. There were several medical witnesses on each side, one saying that he would never advise eight teeth—the number extracted in this case—to be drawn at one operation. The jury found for the defendants with costs after about two minutes' deliberation.

MELBOURNE.

Confiscation of Plague Bacilli.—A Nail in the Brain.—The Late Miss Castilla.—"Pass and Pluck" in the Melbourne Medical Faculty.

IN consequence of the bubonic outbreak at Vienna the Victorian Government have been on the alert to prevent any possibility of the plague entering the country. Recently the Board of Public Health were informed that Dr. Leonard Haydon, who had been sent out from England by the British Government to India to deal with plague, had arrived about six months ago from India, and was staying with his brother, Dr. Gerald Haydon, and that he had in his possession a number of tubes containing cultures of the bacilli of the bubonic plague. The Government, acting on the advice of the Board of Health, regarded it as dangerous to the public health to permit experiments to be conducted with the bacilli in the Colony, and despatched an officer of the Board to ascertain if the report was correct, and, in case it were so, to demand the preparations from Dr. Haydon. The bacteriologist refused to part with his bacilli unless he received £300 compensation. No provision having been made by the Legislature to meet such a case, the Customs authorities hit on the ingenious idea of confiscating the specimens on the ground of their having been imported in gelatine, which is subject to a duty of 3d. per pound, and as this duty had not been paid the department was privileged to seize the gelatine. Ultimately, under strong protest, Dr. Haydon surrendered his property. The officer empowered to obtain the bacilli had special powers granted to him so that he would have been able to strain the law to its utmost in the execution of his instructions. "Law or no law," the Minister of Health declared to an interviewer, "the bacilli must be destroyed." Placed in a vessel containing kerosene, the result of 12 months' scientific work was destroyed. Dr. Haydon states that he brought the bubonic plague bacilli from India to Victoria with the sole object of protecting the people of this colony in the event of an outbreak of plague occurring, and not for experimental purposes, and that the officers of the Public Health Department not only knew that he had the cultures in his possession, but actually inspected the tubes immediately after his arrival in July last, and obtained from him information how to deal with the plague by means of inoculations should it get a foothold in Victoria. He consequently expressed natural indignation that after so long a period he should be treated as a smuggler and his work of over 12 months destroyed, without apparent reason. Dr. Haydon holds a certificate from the Chairman of the Plague Committee that he was specially deputed to conduct a series of experimental investigations on plague bacilli in the laboratory of Grand Road Hospital, and was entrusted with the diagnosis of doubtful cases in the surrounding districts. When he showed the tubes to the health officers here no objection was then raised to his retaining possession. He regrets that his work has been destroyed unnecessarily, and what is more important, the material that would have enabled him to provide an antidote for immediate use if an outbreak had occurred here. The only known antidote is the dead germ and its products, and he had great trouble to keep pure cultures for that purpose. He believed that there never was

any danger at any time, and he stigmatises the whole present action of the Victorian authorities as absurd. Our commercial intercourse with India may give rise to some apprehension that a vessel from an infected port may by means of rats import the disease and spread it. The means of dealing with the disease effectually, should it at any time break out, is taken away, and although there may be a fearful potency for mischief in the germ there is also a potency for good in it as an antidote. Until we know the details of what brought about the fatalities in Vienna we can hardly sit in judgment, but Dr. Haydon thinks that they had not taken the precaution of inoculating themselves before beginning their investigations. The rate of attack and death was very small amongst those inoculated, but amongst the others it was 90 per cent. Other doctors and himself were inoculated and were not in dread of contracting the plague. The only thing not determined was the period of immunity enjoyed by those inoculated. His own germs were not virulent, but were the attenuated virus which is used for inoculation. They were perfectly harmless when destroyed, and he would have swallowed them if necessary to prove it. Dr. Haydon made a demand for compensation, insisting on the unfairness of the authorities in suddenly seizing and destroying his property after allowing him to import it.

Dr. J. E. Neild, in making a *post-mortem* examination of the body of a female inmate of one of our lunatic asylums, found, firmly embedded in the top of the skull, and penetrating about half an inch directly into the actual brain substance, a bootmaker's nail of the sort generally used in the soles of very heavy boots. There were no signs of any inflammation having at any time been set up, and there was no indication that the insanity of the woman had in any way resulted from the injury. The woman had suffered from dementia for fourteen years. The brain was soft, but there was no evidence that a nail in the brain contributed to the disease. Some little time back a young man walked about a mile to the Melbourne Hospital with a steel ramrod sticking through his skull, which he had shot accidentally from his gun. In a few weeks he was about again without any detriment to his faculties.

Miss Amy Castilla, M.B., Ch.B., who recently died from pleurisy and pneumonia, was the granddaughter of Señor José de Castilla, who took refuge in England, and became the younger Pitt's private secretary. Miss Castilla's mother was Miss May Robertson, the niece of Patrick Robertson, the friend of Scott and Lockhart. Miss Castilla first entered the Alfred Hospital as nurse, and on obtaining her certificate she took up medicine, and was one of the first women graduates at the Melbourne University. She was then elected resident at the Women's Hospital, and afterwards obtained the position of resident at St. Vincent's Hospital, being the first woman who has ever held the position of medical officer in a general hospital. She was one of the founders of the Victoria Women's Hospital, and was actively and keenly interested in its progress.

The following figures form an interesting comparison of those who went up for examination in Medicine at the Melbourne University and of those who failed: First year medicine: number of students who presented themselves in 1897 were 61, passed 27; 1898, 62, passed 18. Fifth year medicine: number who presented themselves in 1897, 49; of these, 28 passed; 1898, out of 30, passed 8.

CORRESPONDENCE.

THE NEED FOR FURTHER VACCINATION LEGISLATION.

Sir,—With the general intention of the resolutions drawn up by the Parliamentary Bills Committee in reference to the Vaccination Act of last year, and adopted by the General Medical Council, no doubt everyone will agree, and will also endorse the pious expression of hope that the Government will introduce a Bill this session dealing with the question of revaccination.

I venture, however, to think that unless some strong and combined action is taken by the medical profession, there is a great fear that nothing will be done; and I would suggest either that a special general meeting of the Association be called to consider the whole question, or that all the Branches be asked to pass resolutions expressing their views on the subject. Such an expression must, I believe, have great weight with the Government, and had it been given last year I have but little doubt the present Bill would have been withdrawn.

I would therefore urge that some decisive steps should be taken without any delay, and that the Government should be petitioned to introduce a Bill dealing not only with revaccination, but also with the equally important question of efficient primary vaccination.—I am, etc.,

Malvern. Harry E. Dixey, M.D.

MIDWIVES BILL.

Sir,—The question of legislation on behalf of midwives is about to enter upon its last stage. From the very first the promoters of legislation have sought the protection of the woman of the diploma. Later, the opponents of legislation sought the control of all women who attended cases of labour whose names were not upon the *Medical Register*. The proposed legislation is a compromise.

An experience of the subject, which may be fairly claimed to be many-sided, has led me more and more to the firm belief that if the public weal is to be considered of the first importance any legislation which invests uneducated women with a diploma entitling them to practise midwifery, even under restrictions, is fraught with very great danger. My own experience is further supported by the facts frequently published in the newspapers. It is, perhaps, of some utility to consider how the present state of affairs originated.

The Obstetrical Society of London—or, to be correct, its Council—has for many years sold a diploma to those who passed an examination. It has also been the main fomenter of agitation in favour of the midwife from the outset. The proposal for legislation has therefore come from the medical profession, or from part of it.

The Society—judging from Dr. Cullingworth's address—has sold its diploma without any code of rules and regulations to be observed by midwives holding it until the present year. It is a matter of difficulty to distinguish between the Society which covers the practice of midwifery by persons who are not upon the *Medical Register* by means of a diploma from which an income is derived, and medical practitioners who cover the practice of unqualified assistants and derive an income from their work.

However, the position of affairs now arrived at is this: Registered practitioners individually are not allowed to employ unqualified assistants. Associations of registered practitioners are allowed to cover the practice of unqualified practitioners in midwifery by means of a diploma, from the sale of which some registered practitioners derive profit.

To put matters in order, legislation is demanded by such associations, and actively pushed forward. The main body of the profession, at first somnolent, is at last roused, and protests, and in the result a compromise is so far embodied in a Bill.

It is a matter of common notoriety that the restrictive clauses inserted by the British Medical Association are practically not accepted by the principal promoters of legislation, and moreover that the House of Commons is not a body which is likely to pass restrictive clauses in such a Bill.

If a case is made out for the resuscitation of the midwife, the House of Commons will probably not restrict her practice. This condition of affairs is indeed serious, and it is not easy to find a remedy so late in the day.

The birthright of the medical profession has been sold for a mess of diplomas to midwives. If it had not, very useful legislation might have been put forward, solely upon the basis of control over the practice of all persons who practised midwifery, and who are not registered medical practitioners, and legislation upon this basis would have had nothing but support from the medical profession. However this may be, I do not believe for an instant that any attempt to pass the restrictive clauses in the present Bill will be successful, and, as a matter of strategy, if the medical profession desires to secure the insertion into the Bill of proper restrictions, it will have to make it clear to the members of the House of Commons that control over the practice of midwives is what is

required, and not the formation of a midwife brigade sanctioned by Act of Parliament.

If the present Bill is passed I can see no end to the practical difficulties of its working. A Bill of very few clauses could be framed to control the midwife and to effectually protect the ignorant. It requires a Bill of the present size to conceal the intentions of the real promoters and to do a great deal of harm.—I am, etc.,

Hatfield, Feb. 21st. LOVELL DRAGE.

THE ROYAL ARMY MEDICAL CORPS.

SIR,—In the BRITISH MEDICAL JOURNAL of January 14th "M.B." takes exception to my proposal to alter the ages at entry to 22 to 25, saying such an alteration would "entirely exclude" candidates who hold degrees in Arts or Science. I can only say that in my own case I was a B.A., M.B.(first place), T.C.D. before I was 20, and many men qualify under 22.

The great objection to men entering the army old is that they never can hope for promotion to administrative rank, and, no matter how high their qualifications, must as a rule remain junior all their service to men who have passed in senior to them—for example, the last man of a batch, perhaps only an L.S.A., will be senior to the first man of the next batch, even though he be a B.A., M.B., F.R.C.S., etc. Again, men entering the army over 25 cannot be expected to acquire habits of discipline, etc., as well as younger men.

I note also remarks on page 128 regarding the pay of junior officers R.A.M.C., in India. Permit me to say I have made inquiries on this point, and find that even the combatant element agrees that the present arrangement is a scandalous one. Captains of infantry (the lowest paid of the combatant ranks) draw Rs.415 + Rs.30 contingent, while from three to five years' service captains R.A.M.C. draw but Rs.350. Note also that a veterinary-lieutenant draws Rs.400 from the start; in other words, gets Rs.50 per mensem more for attending horses than the medical officer for attending officers and men.

Indeed, the general treatment meted out to the R.A.M.C. in India is very bad. The *Pioneer* has just drawn attention to the fact that not one of the R.A.M.C. officers employed on plague duty got a decoration, while the officers I.M.S. were liberally dealt with. Again, the appointment of V.H.S., which used to be given equally to R.A.M.C. and I.M.S., are now nearly all bestowed on the local service.

Lord Lansdowne has done much for the R.A.M.C., but these are points that deserve his attention if he desires to see its ranks replenished with suitable candidates.—I am, etc.,

J. B. HAMILTON,
Lucknow, Feb. 1st. Surgeon-General R.P.

LUNACY LAW AND BORDERLAND CASES.

SIR,—I am sure that Dr. Handfield Haslett will pardon me if I venture, with your permission, to point out certain misconceptions under which he appears to have been labouring when writing the letter that appeared in the BRITISH MEDICAL JOURNAL of February 4th.

We are all agreed that it is advisable for all cases of unsoundness of mind, of whatever degree, to be treated under the supervision of the Lunacy Commissioners. Nor can I find in the leading article dealing with the matter in the JOURNAL of January 14th—to which he takes exception—any suggestion that such supervision should be evaded or ignored. But the point is this: that in the present state of the law it is impossible to obtain that supervision—apart from residence in asylums—without certifying our patients as lunatics. What the leading article referred to suggests, and what we all desire, is that it should be possible to notify such cases to the Commissioners—such notification carrying with it the invitation to exercise whatever supervision they think necessary—without certifying our patients as lunatics.

Dr. Haslett appears to think that there are no adequate objections to certification. But he must know that certification, although it does not necessarily mean incarceration in a lunatic asylum, does assuredly mean liability to such incarceration. Any person certified as a lunatic is liable to incarceration in a lunatic asylum. There is no power in the land to which a person, thus certified, might with confidence appeal to prevent such incarceration. There is not a single case on record where the Commissioners have stepped in to prevent it.

It is from this close and dangerous connection between certification and incarceration in a lunatic asylum that arise certain very grave objections to the system of certification now in vogue, that suffice to render it obnoxious, not merely to the patients and their friends but also to the public in general, and to such of us as have constantly to deal with cases of unsoundness of mind. In the first place this connection renders the system liable to abuse, which in the case of women might reach to an appalling extent, if all degrees of unsoundness of mind are to entail certification, or to render it possible. Hence the stubborn instinct against indiscriminate certification which the public are not slow to manifest on all occasions, and the weight of which they force us to recognise when, as juries, they sit in judgment on our actions. Secondly, this connection invests the whole treatment of unsoundness of mind with such horror in the minds of the patients and their friends that in all those cases of minor degrees of unsoundness of mind, of incipient insanity, and of the graver forms of hysteria, where early treatment might be applied with excellent results, the first thing that is thought of is to elude inquiry and to escape from treatment. Thirdly, this connection renders us liable to prosecution, because however unwilling agents we may be, we are compelled by the system of certification to become accomplices in the possible incarceration of the patient. It is true that recent enactments have, in appearance at least, rendered the process of certification less dangerous to the medical men concerned; nevertheless, it does remain one of considerable danger.

It is mainly for these reasons that the movement has arisen which has for its object the securing of a system of notification in England similar to that which already exists in Scotland. By such a system all cases of unsoundness of mind that offer no adequate reason for incarceration in a lunatic asylum could be perfectly well treated and supervised by the Commissioners. But a person thus treated under simple notification would never thereby be liable to incarceration in a lunatic asylum—a fact which would remove all the odium, the horror, and the danger that surround the present system, a system which is responsible for much of the increase of the preventable insanity of the present day. The matter has already been threshed out, and as Dr. Rayner reminds your readers in the JOURNAL of February 4th and as stated in your leading article of January 14th, the British Medical and Medico-Psychological Associations have given to the movement their sanction and have actually worked out a plan for carrying out the proposed innovation. It remains for us individual members of the medical profession to give effect to the counsels of our leaders, by refusing to certify and refusing to have any hand in the certification of patients for whose incarceration in a lunatic asylum there exists no sufficient reason. Only by such conduct and by stubbornly contesting the matter if necessary with the Commissioners can we hope to arouse the public to a sense of the necessity that exists for the modification of the law. That in so doing we are not acting against the spirit of the law is sufficiently proven by the verdict delivered in my case at Kingston.—I am, etc.,

Ewell, Surrey, Feb 14th. E. NOEL REICHARDT, M.D.Lond.

THE GENERAL MEDICAL COUNCIL AND THE HUNTER CASE.

SIR,—May I be permitted to point out that in the BRITISH MEDICAL JOURNAL of February 18th one of your correspondents has apparently misstated the decision in the case of Ellis *v.* Kelly in reference to Section XL of the Medical Act, 1858? Your correspondent makes, on page 441, two statements with reference to that case—namely (*a*) "It was there decided that a medical practitioner with a foreign degree could not be convicted for falsely describing himself as a Doctor of Medicine;" and (*b*) "the judges in Ellis *v.* Kelly rightly considered that Section XL was intended to protect the public against unregistered practitioners only, and refused to allow it to be used to prosecute a registered practitioner." Reference to the report of Ellis *v.* Kelly shows that both these statements are misleading.

The facts of the case were shortly as follows: Mr. Kelly was on the *Medical Register* as "Mem. Royal Coll. of Surgeons, England, 1856; Lic. Soc. Apoth. Lon., 1856;" and an information was preferred against him for having wilfully and falsely

pretended to be, and taking and using the name or title of, a Doctor of Medicine. It was shown that Mr. Kelly possessed a diploma of the University of Erlangen in Bavaria. The Court held that the information had been rightly dismissed, the ground of their decision being that it was not proved that Mr. Kelly's erroneous assumption of the title of Doctor of Medicine was wilfully false. So far from deciding, as your correspondent states, that a registered practitioner with a foreign degree could not be convicted for falsely describing himself as a Doctor of Medicine they decided the precise opposite, the words of Baron Bramwell being: "It appears to me that on the true construction of that section" (namely, Section XL) "if any person wilfully and falsely called himself a Doctor of Medicine he would be liable to a penalty, although he was in reality a Member of the College of Surgeons or of the Apothecaries' Company and was so registered." Nevertheless the Court exonerated Mr. Kelly because they thought on the facts that he had called himself "Dr. Kelly" upon a reasonable though erroneous supposition that he had a right to do so; in other words, he had falsely called himself a Doctor of Medicine, but had not wilfully and falsely so called himself. Further proof that in their opinion a registered practitioner could be convicted for falsely describing himself as a Doctor of Medicine is afforded by the concluding words of Baron Bramwell's judgment, where he says of Mr. Kelly, "I do not say that if he continues to use that description after what has taken place he may not be responsible." That is to say, that a description which at the time of the action was not one for which Mr. Kelly could be held punishable under the section, would nevertheless if continued after the action render him so punishable; because after the action had brought his error to his notice a continued use of the description of Doctor of Medicine would be wilfully false, although he was registered as a Member of the College of Surgeons and of the Apothecaries' Company.

It would seem, then, that the statement of your correspondent which I have labelled (*a*) should be corrected by eliminating the word "not," and that the concluding words of his statement (*b*) should run, "refused to allow it to be used to prosecute that particular registered practitioner."—I am, etc.,

Cornwall Gardens, S.W., Feb. 21st. B. L. Richmond.

THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

Sir,—It appears to me that the whole question of the title of the L.S.A. resolves itself into one of "honesty." Does the L.S.A., when he puts "Physician and Surgeon" on his door-plate, wish to convey to the public mind that he is a medical man of superior qualification? Is he a man holding a superior qualification, does he belong to a College of Physicians, or is he rather one holding the lowest English qualification? Do the the public, when they say they wish to consult a "physician," mean that they want the opinion of an L.S.A.? Surely the judges speak the interpretation the public put upon the word "physician" when they say that a "physician" means a medical man of the higher grade. Why does not the L.S.A. speak the honest truth, and say that he is a Licentiate of Apothecaries' Hall, or that he is a general medical practitioner? Now that the General Medical Council is making a desperate attempt to put down all dishonesty in its own ranks that it may be better fitted to go into the court with clean hands against outside quackery, is it not the duty of the whole profession to rise and say that it heartily approves the action the Council has and is taking? Had the profession put aside all consideration for personal or family interest and thus spoken in 1886, against the Society which has gradually crept from behind the counter, and is giving all the present trouble, that Society would long ago have ceased to exist.—I am, etc.,

February 13th. "Honesty is the Best Policy."

A DEGREE FOR DOUBLY QUALIFIED MEN.

Sir, I did not suggest that the English colleges should "water the capital" of their licences by granting the M.D. degree to the holders of the double diploma, as I did not suggest any terms upon which this additional degree or qualification should be granted. I simply said that the holders of the diplomas of the two Royal Colleges of London passed examinations in the aggregate quite equal to the examinations qualifying for M.B. and M.D. in other parts of the United Kingdom, and that they were entitled to an equivalent in degree value, and that the M.R.C.S. and L.R.C.P.Lond., conveying no title, but only a licence, were not a fair equivalent for the money and labour expended in attaining them—that is, as compared with the equivalent obtained for sometimes, I fear, a less expenditure of both money and brain force in some other parts of the United Kingdom.

In accordance with the terms of my suggestion it would be quite open to the combined Royal Colleges in London to insist on so many years of actual practice, and an additional examination and fee before granting this degree, which even need not necessarily be an M.D.; it might be an M.C.D. for instance, but whatever it was it should convey the legal right to be called "Doctor." No one can deny that a man who has passed the M.R.C.S. and L.R.C.P.Lond., been in actual practice, say, ten years, and then passed another examination in practical medicine or surgery or both, is not entitled to be called "Doctor," and that without a particle of injustice to any other holders of the title. The university M.D.s would still have their M.B.s and M.C.s, etc., to distinguish them.

I should like to see a union of the double diplomates of the kingdom with the avowed object of bringing about this desirable reform, which, after all, is only an act of the barest justice. In my opinion it would soon then be attained.—I am, etc.,

February 16th. A University Graduate.

Sir,—I, like "M.R.C.S., L.R.C.P.," whose letter is in the British Medical Journal of February 18th, went in for the London double because other men did so, my parents not knowing the ins-and-outs of medical qualifications. Since I have been qualified I have often heard the sneering remarks of university graduates, their open contempt, and their own superiority expressed, in discussing with the lay public the licences of doubly qualified men.

Many years ago one of my old teachers (M.D., M.R.C.P. Lond.) used to say the examinations of the Conjoint Board were much above the standard of most universities; the men themselves were more practical and certainly more conversant with their work than the average graduate. This has been borne out in my experience.

The time is ripe when all the London double men should combine and lay before the Royal Colleges their grievances. Everything must have a beginning, and nothing is gained in this world without perseverance; and unless something is done we shall have to live on, being subjected to the sneers of university graduates and the offensive remarks of the lay public, who, primed by some M.D., inquire what degree you possess. If the legal mind (*vide* Hunter's case) was so obtuse over the value of qualifications, is it surprising the lay mind is also?

The millinery (cap and gown) is quite a secondary consideration; let the Colleges give all the present doubly qualified men the M.D., and in the future all those who pass their finals.

I should be very pleased to join a society (if one could be formed) to protect and improve the status of the M.R.C.S. and L.R.C.P. men.

It would be interesting to know the proportion of London double men among the members of the British Medical Association.—I am, etc.,

February 19th. Another M.R.C.S., L.R.C.P.Lond.

Sir,—I must say that I do not quite see where the luck comes in in being educated in Trinity College, Dublin, that is unless luck is to be understood as meaning four years' hard work spent in obtaining a degree in Arts, without which the M.B. cannot be obtained. Personally, I think the proper course for *bonâ fide* university graduates to adopt would be to drop the M.D. on their door plates, and describe themselves as D.r. Blank, M.A., Physician and Surgeon.—I am, etc.,

[illegible]mer Smith, W., Feb. 19th. Marcus Eustace, B.A., M.D.

THE VISION OF SCHOOL CHILDREN.

SIR,—I am obliged to Dr. D. Love for calling attention to the fact that I omitted to state in my paper in the BRITISH MEDICAL JOURNAL of January 14th the proportion of the children examined who I considered ought to wear glasses. In submitting a report to the managers of the school, I classified the children as having good, fair, or bad sight. There were 292 children with good sight (⅝), including emmetropes and low hypermetropes, 56 with fair sight (⅝ or ⅛), and 43 with bad sight (⅛ or worse in one or both eyes), besides 7 cases of children with corneal nebulæ, for whom glasses would have been of little use. I recommended that the third group only should be advised to have glasses, but the children in the second group would undoubtedly have been benefited by spectacles, though to a less extent.

I should consider the indications for the use of glasses in children to be: (1) Markedly defective vision hindering the education of the children; (2) headaches due to eye-strain in cases of hypermetropia; (3) strabismus. I am not aware of any evidence to show that in such cases the use of accurately prescribed glasses produces any evil effects. There is certainly abundance of evidence to show the relief experienced by the little sufferers from the above conditions when they are provided with suitable spectacles, and of unsuitable spectacles I do not speak. If Dr. Love is in possession of facts which show that the relief and added joy in living which are brought to these children by glasses are purchased at the price of future harm, in justice to the children and to the profession he ought to let us have these facts.—I am, etc.,

Rochdale, Jan. 31st. J. A. MENZIES.

THE TEACHING OF MIDWIFERY.

SIR,—It is pretty generally recognised that the teaching of midwifery from a clinical standpoint is far from what it should be. Reform is needed, and the question arises, How are we to secure this? The remedy lies with the General Medical Council. It is utterly useless to offer extra facilities to students so long as there is no compulsion. A few men will avail themselves of the opportunities, but the majority will only do work sufficient to gain their certificates. This seems to me a matter which should be taken up by the medical societies of Great Britain and Ireland, especially the obstetrical societies. If a strong memorial were submitted to the General Medical Council a change might be brought about.

Now that the medical course has been lengthened to five years for the very purpose of students gaining more clinical experience, it seems the height of absurdity that part of that clinical experience should not be in midwifery, the very branch of the profession which at least 95 per cent. of the graduates will be practising. I do not think it would be asking too much to have it made compulsory for each student to attend a course of three months' instruction at the bedside and in the labour room of a maternity hospital over and above the personal attendance of at least twelve cases.

The Glasgow Obstetrical and Gynæcological Society has taken the matter up, and I hope other societies will do the same.—I am, etc., ROBERT JARDINE, M.D.,

Glasgow, Feb. 9th. Physician to the Glasgow Maternity Hospital.

THE TRAFFIC IN ABORTIFACIENTS.

SIR,—In your article on the above subject you say medical men should make known that no drugs have any appreciable ecbolic effect, but surely we ought also to point out that to destroy a fœtus at the ninth month before birth, or within a few weeks after conception, is only a matter of degree, and that the destruction of that entity which in the ordinary course of nature would become a human being is not only illegal, but morally a murder.

You also refer to the use of measures to prevent pregnancy. Adopting such means cannot be called a crime, but is it a high state of morality? Is it a proceeding that should be recognised by the medical profession? Surely our moral obligation to the State and to our race points out the course it is our duty to follow when our advice is sought on this subject: Explain that preventive measures are harmful; point out that the physiological conditions of certain organs are such that a man can abstain for any length of time and yet become the father of healthy children; state that the only moral method is abstention: to use preventives is lowering to the moral tone, must of necessity degrade the husband in the eyes of his wife; or should it be the wife who is desirous of such methods, alienate from her that respect without which her husband can possess no affection: in short, produce such results that the happiness and morality of home life would be undermined, the high moral tone of our homes—which is the basis of all civilised communities—possess a canker at its root that would ultimately cause destruction to our race and the downfall of this great nation, as other vices have been the ruin of nations in the past.—I am, etc.,

Wimpole Street, W., Jan. 27th. GEO. STEELE PERKINS.

THE COEXISTENCE OF ZYMOTIC DISEASES.

SIR,—Since my first letter to you on the above subject published in the BRITISH MEDICAL JOURNAL of January 21st I have learnt that the theory I then referred to—namely, that one zymotic disease excludes (or tends to exclude) another, was strongly held, and emphatically taught by no less an authority than John Hunter.

I think this very probably accounts for the widespread credence which the theory, undoubtedly an erroneous one, has received in spite of the evidence of facts being altogether against it.

It is one more proof of the fallibility of even truly great men and the necessity for caution in accepting any theory or doctrine, no matter how high the source from which it emanates, until the evidence of facts has first been examined and found to support it.—I am, etc.,

Birmingham, Feb. 4th. C. KILLICK MILLARD, M.D., D.Sc.

THE SURGICAL AID SOCIETY AND ITS METHODS.

SIR,—With reference to Mr. H. Betham Robinson's letter under the above heading in the BRITISH MEDICAL JOURNAL of February 18th, will you permit me to say that the letter in question was the first intimation I had had of any dissatisfaction in regard to the case to which he therein alludes; but I am now in correspondence with Mr. Robinson and have no doubt that the explanation of the contingent circumstances will fully satisfy him as to the Society's action? In the meantime may I say for the information of your readers, and in answer to the question asked by Mr. Robinson, that this Society does, as stated in its prospectuses and other publications, accept the certificate of any duly qualified surgeon; and indeed a form for that specific purpose is provided at the foot of each letter of recommendation for the benefit of patients who are unable to attend here? Of course this rule, like all others, is liable to exceptions under some special circumstances.—I am, etc.,

RICHARD TRESSIDER, Secretary.

The Surgical Aid Society, Salisbury Square, Fleet Street, London, E.C., Feb. 21st.

OBITUARY.

PROFESSOR LABOULBÈNE,

Paris.

DR. ALEXANDRE LABOULBÈNE, Professor of the History of Medicine in the University of Paris, who died recently at the age of 73, had won great distinction as a pathologist and an entomologist before he was appointed to the chair which he occupied for the last twenty years of his life. Born at Agen in 1825, he studied medicine in Paris, gaining the gold medal of the *internat* in 1853, and taking his doctor's degree in 1854. He became *agrégé* in 1860, and Physician to the Paris hospitals in 1863, and was elected a Member of the Académie de Médecine in 1875. In 1879 he was appointed professor of the history of medicine and surgery. He was the author of a large number of papers on pathological and entomological subjects, presented not only to the Académie de Médecine, but to the Société de Biologie, the Société Anatomique, and the Société Entomologique de France. In many of his researches he had as collaborators such men as Milne-Edwards, Brown-Séquard, Claude Bernard, Blainville, Davaine, Vulpian, etc. Laboulbène was the author of a *Traité d'Anatomie Pathologique*, a *Traité des Pseudo-membranes*, a *Faune Entomologique Française*, and numerous articles in the *Dictionnaire Encyclopédique des Sciences Médi-*

cales. In the domain of medical history he wrote with sound erudition on the Arabian physicians; the Hippocratic treatises: Galen and his works; Paracelsus and Van Helmont, etc. Professor Laboulbène was President of the Académie de Médecine in 1893.

On February 13th there died in Birmingham, at the comparatively early age of 55, a familiar figure and well-known friend of the poor—Mr. W. T. Crabbe, F.R.C.S.Ed. For more than twenty-two years Mr. Crabbe was Medical Superintendent of the Medical Mission in Birmingham, an institution founded in 1875 to minister to the bodily welfare and spiritual wants of the poor of the city. Through all his life in Birmingham Mr. Crabbe devoted his energies to this work, and the success of the Mission is due in no small measure to his untiring devotion to its cause. Mr. Crabbe was born in 1844, and received his medical training at Edinburgh. After a distinguished career as a student he entered practice first at Lasswade, a suburb of Edinburgh, and then devoted himself entirely to mission work. This he undertook first at Aberdeen and then at Edinburgh, removing to Birmingham in 1876. From that time until his death he devoted his entire energies to the work of the mission, and took an active part in training medical missionaries for various parts of the world. His health began to fail in 1896, but after a long holiday he returned apparently restored, and continued in active work till two months ago. He leaves a widow and three sons, two of whom are members of the medical profession.

ROYAL NAVY AND ARMY MILITARY SERVICES.

THE STATISTICAL REPORT OF THE HEALTH OF THE NAVY FOR 1897.

This concise and elaborate report deals first with the total force serving afloat, and it is stated that the returns of 1897 are, on the whole, very satisfactory, as compared with those of the previous year, 1896, and the average of the last ten years, and, in fact, the lowest recorded since 1856, when the present system was adopted.

Death-rate.—In the year 1897 the total force numbered 80,540 officers and men, distributed thus:

Number.	Ages	Percentage.
47,720	[illegible]	59.25
28,749	[illegible]	35.67
7,[illegible]	[illegible]	[illegible]
1,439	[illegible] and upwards	1.77

Deaths.—The total number of deaths was 422—that is, 305 from disease and 117 from injury. Table 3 in Appendix I gives the ratios of deaths from disease and injury on the several stations. Although the death-rate of the total force is under that of 1896, of the average of the preceding ten years, or of any record since 1856, the invaliding rate shows an increase of 4.62 per 1,000 over that of 1896, and of 5.44 over the average for the last ten years. This is to be accounted for by the large amount of remittent fever contracted during the operations against the King of Benin. Of 33 cases of wounds in action 8 proved fatal and 2 were invalided. Out of 4 cases of yellow fever reported from the North American and West Indian stations, 3 died and 1 was invalided. On a more extended scale, that would be a heavy mortality.

Enteric Fever was on the increase in the Mediterranean, but the greater number was attributable to an outbreak on board the *Fonte* at Phalerum Bay.

Sickness Rate.—The total number of cases of disease and injury entered on the sick list was 72,068, being a decrease of 16.26 per 1,000 compared with the previous year, of 71.32 per 1,000 when compared with the average ratio of the last ten years. The number of days' sickness in the total force brings out the large amount of 1,117,782, but this was 0.43 days less than the previous year, and a decrease of 1.24 days in the average of the last ten years.

Invaliding.—The invaliding amounted to 2,576, or 31.98 per 1,000, an increase of 4.62 per 1,000 compared with the previous year, or of 5.44 in the decade. Out of the above number 1,553 were finally invalided out of the service, being in the ratio of 18.9 per 1,000 of the whole force, or 59.12 per cent. of the number invalided, showing an increase of 1.02 per 1,000 compared with 1896.

Venereal Disease.—Primary and constitutional syphilis showed a slight increase, but there was a decrease in gonorrhœa and its sequelæ. Nevertheless, amongst the general diseases, primary and secondary syphilis and gonorrhœa with its sequelæ take a prominent place. Thus, out of 11,906 cases, primary syphilis took up 3,956, secondary syphilis 2,177, and gonorrhœa 5,773. The number invalided for these diseases was 218, and there were 10 deaths; 6,367 of them are found in the records of the home stations. Estimating the cases of primary syphilis at 4,000, or 50 per 1,000, it may be said to affect 5 per cent. of the whole force. Of course the number would vary on different stations, but it is only fair, however, to notice that on reviewing the entries for venereal diseases in the greater number of naval hospitals both at home and abroad we see a slight decrease:

Hospital.	1897.	1896.	Decrease.
Haslar	2,429	2,471	42
Plymouth	940	1,068	128
Chatham	450	500	50

On the home stations primary syphilis alone numbered 2,036 in 1897, as against 2,204 in 1896, showing a decrease of 3.66 per 1,000 when compared with previous year, and of 10.68 per 1,000 when compared with the average of the last 10 years. But at 53.86 per 1,000 and 50.2 per 1,000 we still reach over 5 per cent. of the total force.

Medical Officers' Returns.—It is pleasing to see so many quotations from the medical officers' returns with the insertion of their names. The excellent report of the Benin Expedition, quoted from the returns of the Principal Medical Officer, Fleet-Surgeon Michael Fitzgerald, C.M.G., may be noticed in particular. It commences with a very important statement under the head of "General Remarks," as follows: "The ships taking part in the Benin Expedition, under the supreme command of Vice-Admiral Sir Harry H. Rawson, K.C.B., were the *St. George*, *Theseus*, and *Forte*, which remained anchored off the mouth of the Forcados River, and *Philomel*, *Phœbe*, *Barrosa*, *Alecto*, *Widgeon*, and *Magpie* employed at various points up the river. In addition, the P. and O. ss. *Malacca*, fitted as a hospital ship, arrived off the Forcados River on February 8th, with a force of 120 Marines, under the command of Captain G. L. Byrne, R.M.L.I., and two subalterns; the hospital staff being composed of one fleet-surgeon and 1 staff-surgeon, with 4 surgeons, 3 nursing sisters, and 24 sick berth ratings." The medical and surgical incidents and remarks would amply repay perusal, as well as all the returns from the other stations; but we need only further remark here that while the statistical returns occupy 120 pages, the elaborately-wrought Appendix occupies 77.

ROYAL NAVY MEDICAL SERVICE.

The undermentioned Surgeons, having completed twelve years' full-pay service, are promoted to be Staff Surgeons, dated February 28th: John D. Hughes, William J. Colborne, John H. Stenhouse, M.B., Joseph A. Moon, Robert Hardie, M.B., Cornelius Bradley, M.D., George T. Collingwood, Richard Miller, M.B., John E. Coad, M.B., Hubert Holyoake, George Wilson, M.B., Walter Bowden, D.S.O. Their war services, as given in the *Royal Navy List*, are as follow: Staff Surgeon Moon was wrecked in H.M.S. *Victoria*, flag-ship of Vice-Admiral Sir George Tryon, K.C.B., Commander-in-Chief of the Mediterranean Fleet, which was sunk off Tripoli, on the Syrian coast, in collision with H.M.S. *Camperdown*, when the admiral, 21 officers, and 350 men were drowned, June 22nd, 1893. Staff Surgeon Collingwood served in the Naval Brigade landed by Rear-Admiral F. G. D. Bedford, C.B., from the *Raleigh*, *Alecto*, *Magpie*, *Satellite*, and *Widgeon*, at Bathurst, on the River Gambia, West Coast of Africa, in February, 1894, in co-operation with two companies of the 1st West India Regiment, for the punishment of Fodi Silah, a rebellious slave-raiding chief (mentioned in despatches); served also in the Naval Brigade landed under the command of Rear-Admiral Bedford, C.B., Commander-in-Chief, for the punitive expedition against Chief Nanna, of Brohemie, in the Benin River, resulting in the capture of his stronghold at Brohemie, September, 1894; also landed as Senio:

Medical Officer in charge of the forces in the punitive expedition against King Koko, of Nimby, the chief town of Brass, on the River Niger, February, 1895 (general Africa medal, Benin River, 1894, Brass River, 1895, "Gambia, 1894," clasps). Staff-Surgeon Miller was awarded the bronze medal of the Royal Humane Society, February 28th, 1889. Jumped overboard from H.M.S. *Iron Duke* to the assistance of Corporal Hitt, R.M.L.I., took him a life buoy which was afterwards thrown, and brought him alongside the the ship; ship was anchored at Gibraltar; there was a westerly gale blowing and a very heavy sea running; no communication with the shore; was fully dressed at the time. Staff-Surgeon Wilson served in the naval brigade landed by Rear-Admiral Rawson at Mombassa from the *St. George*, *Phœbe*, *Barrosa*, *Racoon*, and *Blonde*, accompanied by 60 Soudanese and 50 Zanzibar Askaris, for the punishment of Mburuk, a rebellious Arab chief, resulting in the capture of his stronghold, M'weli, August 17th, 1895 (general Africa medal, "M'weli, 1895," engraved on rim); mentioned in despatches; also present on the occasion of the bombardment and capture of the Sultan of Zanzibar's palace on August 27th, 1896, by the Squadron of Rear-Admiral H. H. Rawson, C.B. Staff-Surgeon Bowden served in the naval brigade landed by Rear-Admiral F. G. D. Bedford, C.B., from the *Raleigh*, *Alecto*, *Magpie*, *Satellite*, and *Widgeon*, at Bathurst, on the River Gambia, West Coast of Africa, in February, 1894, in co-operation with two companies of the 1st West India Regiment, for the punishment of Fodi Silah, a rebellious slave-raiding chief; was in medical charge of the Royal Marines, volunteered to take charge of the ammunition, especially recommended by Colonel Corbet, Royal Marines, and mentioned in despatches; was present in medical charge at the bombardment and occupation of Gunjur, March 7th to 9th, 1894; D.S.O. for this service (general Africa medal, "Gambia, 1894," clasp).

The following appointments have been made at the Admiralty: HENRY C. WHITESIDE, Surgeon, to the *Pembroke*, for disposal, February 15th; CHARLES C. MACMILLAN, M.B., Surgeon, to the *Wildfire*, for disposal, February 15th; GEORGE GIBSON, Surgeon, to the *Tamar*, February 15th; HAMILTON MEIKLE, Staff-Surgeon, to the *Severn*, February 16th; HAROLD R. OSBORNE, Staff-Surgeon, and HUGH CLIFT, Surgeon, to the *Edgar*, undated, and to the *Royal Oak* on recommissioning; LAWRENCE BIDWELL, Surgeon, to the *Edgar*, undated; MONTAGUE L. B. RODD, Surgeon, to the *Vivid*, for Devonport Yard, undated; FREDERICK J. LILLY, Staff-Surgeon, to the *Resolution*, February 16th; WILLIAM TAIT, Staff-Surgeon, to the *Colossus*, temporary, February 16th; JOSEPH R. MCDONNELL, M.D., Staff-Surgeon, to the *Mars*, February 16th; WALTER BOWDEN, D.S.O., Surgeon, to the *Trafalgar*, temporary, February 28th; ROBERT H. MORNEMENT, Surgeon, to the *Eclipse*, February 28th.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL C. F. CHURCHILL, M.B., Principal Medical Officer at Bombay, has been ordered to proceed to Simla to officiate as Principal Medical Officer in India, pending the arrival of Surgeon-General W. Taylor, M.D., C.B.

ROYAL ARMY MEDICAL CORPS.

THE undermentioned Surgeons on probation are appointed Lieutenants, dated January 28th:—HAROLD P. W. BARROW, JOHN E. HODGSON, ALIC L. SCOTT, LIONEL E. L. PARKER, JAMES G. GILL, GEORGE W. G. JONES, MATTHEW H. G. FELL, GERALD H. GODDARD, WILLIAM B. WINKFIELD, THOMAS C. LANDER, M.B., JONAS W. LEAKE, JOHN W. H. HOUGHTON, DUNCAN E. CURME, HERBERT S. TAYLOR, GEORGE M. GOLDSMITH, M.B., RICHARD H. LLOYD, DAVID HARVEY, M.B., JOHN M. SLOAN, M.B., HENRY E. HAYMES, FRANCIS J. BRAKENRIDGE, GEORGE C. PHIPPS, NATHANIEL J. C. RUTHERFORD, M.B., GILBERT J. A. ORMSBY, M.D., HARRY D. PACKER, LAWRENCE HUMPHRY, ROBERT S. RODGER, M.B., WILLIAM W. SCARLETT, HORACE K. PALMER, ARTHUR O. B. WROUGHTON, FRANK ASHE.

Captain JOHN P. MORTON, Madras Establishment, who was transferred to the half-pay list June 21st, 1898, is restored to the effective list from November 7th, 1898.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN ANDREW A. ABRAHAM, 5th Volunteer Battalion the Durham Light Infantry, is appointed Surgeon-Captain, February 22nd.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL EDWARD PALMER, Bengal Establishment, in medical charge of the 9th Bengal Lancers, on being relieved by Captain H. B. Luard, M.B., 45th Sikhs, is directed to proceed to Miran Shah, and take up his appointment as Principal Medical Officer Tochi Field Force, *vice* Lieutenant-Colonel J. T. B. BOOKEY, Bengal Establishment, granted sick leave to England.

Major SYED HASSAN, M.B., Bengal Establishment, has retired from the service from January 1st. He was appointed Surgeon October 2nd, 1880, and Surgeon-Major, October 2nd, 1892. He was with the Burmese Expedition in 1886-7 (medal with clasp); with the Chin-Lushai Force in 1889-90 (clasp), and with the Miranzai Expedition in 1891 (clasp).

THE VOLUNTEERS.

THE undermentioned Surgeon-Lieutenants have resigned their commissions from February 22nd; W. R. MARTINE, 7th Volunteer Battalion the Royal Scots (Lothian Regiment); C. C. BRODRICK, 2nd (Prince of Wales's) Volunteer Battalion the Devonshire Regiment; E. H. SUTCLIFF, M.B., 4th Volunteer Battalion the Devonshire Regiment; P. J. BARCROFT, 1st Wiltshire Rifles.

Surgeon-Lieutenant-Colonel J. MCALISTER, 1st Volunteer Battalion the Royal Scots Fusiliers, has retired from the service, retaining his rank and uniform, February 22nd.

Mr. RICHARD J. SWAN is appointed Surgeon-Lieutenant in the 1st Surrey (South London) Rifles, February 22nd.

Surgeon-Captain T. A. DODD, 1st Newcastle-on-Tyne Engineers, is promoted to be Surgeon-Major, February 15th.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated February 15th: FREDERICK E. A. WEBB, 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment; REGINALD G. HANN, 3rd Volunteer Battalion the Prince of Wales's Own West Yorkshire Regiment; EDWARD T. MCDONNELL, 2nd Tower Hamlets Rifles.

Surgeon-Lieutenant J. H. H. WILLIAMS, 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment, has resigned his commission, February 15th.

Surgeon-Captain H. G. THOMPSON, M.D., 1st Volunteer Battalion the Royal Fusiliers, is promoted to be Brigade-Surgeon-Lieutenant-Colonel on appointment as Senior Medical Officer to the West London Volunteer Infantry Brigade, February 15th.

PRECEDENCE.

RETIRED writes: Referring to Captain Trevor's remark on the "Army Doctor" in the BRITISH MEDICAL JOURNAL of February 11th, that he is now "a real live officer" with a military title, may I ask why he still occupies an inferior position at mess? *Vide* par. 944, Queen's Regulations, 1898. Under the heading of Precedence at Mess in these Regulations, readers are referred to the above paragraph.

*** This is a pertinent question. The paragraphs in the Queen's Regulations which, under the old bad *régime*, stamped the medical officer as an inferior being, must now be revised.

MEDICO-LEGAL.

ACTION BY THE APOTHECARIES' SOCIETY.

AT the Whitechapel County Court, on February 11th, before his Honour Judge Bacon, Thomas Allen, Commercial Road, was sued by the Society of Apothecaries for the payment of £20, the penalty prescribed by Section XX. of the Apothecaries Act, 1815, for having acted as an apothecary without authority.

Mr. Turner appeared on behalf of the Society, and according to a report in the *Morning Post*, said that in July last the Society's attention was drawn to the conduct of Allen, who had previously been cautioned by an East London coroner for having given advice and prescribed remedies for which he received payment.

Evidence was given by a witness, who said he had visited Allen, who had examined him and supplied him with medicine and pills, for which he had paid a charge of 1s. on each occasion.

It was contended on behalf of the defendant that he gave advice free, but only charged for the medicine which he supplied to the patients.

His Honour gave judgment for the plaintiff Society for £20 with costs.

THE CONSCIENCE CLAUSE.

THE "conscience clause" and the procedure under it have once more demanded the attention of the Divisional Court, in the case of R. *v.* Justices of Buckingham, heard by Lawrance and Channell, J.J., on February 13th, which was a case in which a rule *nisi* had been obtained calling on the justices to show cause why they should not hear and determine an application for exemption under the Vaccination Act. The facts were shortly as follows: Arthur Bedford applied to the defendants for a certificate of exemption from vaccination for his two children upon the usual grounds. When the case reached the higher court they filed an affidavit, in which it was stated that in pursuance of a rule made by the Bench the application had been refused because no birth certificates had been produced. Evidence of the birth, in the form of the oral testimony of him and his wife, had been tendered by the applicant, and he also produced the child itself, but the justices declined to hear the application.

Counsel for the applicant (Mr. Schultess Young) argued that the evidence tendered was the best evidence of the fact of the birth, and that the rule made by the justices was *ultra vires*. It was not authorised by the Act. Eventually the Court discharged the rule. Mr. Justice Lawrance said that it was important that the child should be identified both for the purpose of making out the certificate, and also for future use; while Mr. Justice Channell observed that the justices were entitled to require a birth certificate unless some reason were shown why it could not be given.

The point decided in this case appears to be that it rests with the magistrates to determine what proof is best suited to all the circumstances of the case, with a view of fixing the identity of the child for the guidance of the vaccination officer. As a birth certificate only costs 3d. if applied for at the time of registration, no great hardship will ensue from the enforcement of its production before the magistrates.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE

BOTANY.—Mr. A. W. Hill, B.A., of King's College, has been appointed Demonstrator of Botany.

DEGREE.—At the Congregation, on February 16th, Mr. C. Powell, B.A., of Emmanuel College, was admitted to the Degrees of M.B. and B.C.

AGRICULTURAL SCIENCE.—The graces for the establishment of a Department of Agriculture, for the maintenance of which offers to the amount of over £20,000 have been made by Sir Walter Gilbey and various public bodies, will be submitted to the Senate on March 2nd. The discussion in the Arts School was favourable to the proposal.

EXAMINATION FOR DEGREES.—Parts I and II of the Third Examination for the degree of M.B. and B.C. will commence on Tuesday, April 25th. The examination for the degree of M.C. will commence on Friday, April 28th.

UNIVERSITY OF EDINBURGH.

DISEASES OF TROPICAL CLIMATES.—At the meeting of the University Court on February 13th, it was resolved to invite applications, by advertisement, for the office of Lecturer in Diseases of Tropical Climates.

and it was remitted to a committee to consider and report as to the qualifications of the candidates, the first appointment to be for a period of three years, which may be renewed. The following are the regulations pertaining to the Lectureship: "1. The course of instruction shall extend over not less than twenty or more than twenty-five lectures, and shall consist of lectures and demonstrations and other practical work, the number of meetings for each to be arranged by the Senatus. 2. The class fee for the course shall be £2 2s., with an entrance fee of 5s. in the case of non-matriculated students. 3. Two such courses shall be given in each year, one in the winter and the other in the summer session, should a course in each session be required. 4. Each course of instruction shall be open to (1) qualified medical practitioners; (2) students who have completed the curriculum for the Final Examination in Medicine of any of the qualifying medical authorities; and (3) others specially interested in the subject. 5. Certificates of attendance will be granted as follows: (*a*) A class certificate to each member of the class who has performed the work of the class in a satisfactory manner; (*b*) a University certificate to be signed by the Dean of the Faculty of Medicine, to each member of the class who has attended a course of instruction on practical bacteriology, including the micro-organisms of tropical diseases, who has also attended the course of instruction in tropical diseases, and who has performed the work of both of these classes in a satisfactory manner. This certificate shall be based on evidence received from the teachers of practical bacteriology and tropical diseases."

RESEARCH GRANTS.—Grants recommended by the Senatus from the Earl of Moray Endowment for the purposes of research were approved.

EXTRA-ACADEMICAL TEACHERS.—The following were recognised as extra-academical teachers whose courses of instruction qualify for graduation in medicine in the University: (1) Professor W. E. F. Thomson, Anderson's College Medical School, Glasgow (Physiology); (2) John Macpherson, M.D., Larbert (mental diseases).

UNIVERSITY OF ABERDEEN.

UNIVERSITY COURT.

Proposed Subdivision of the Chair of Natural History.—At the meeting of the University Court on February 15th, some points of considerable general interest were dealt with. The great loss sustained by the University in the death of Professor Nicholson was alluded to with deep regret by the Principal. It may be mentioned that a request has been forwarded from the University authorities to the Secretary for Scotland, to which he has agreed, namely, that the appointment to the vacant Natural History Chair shall be delayed for a few weeks in order that the possibility may be considered of separating the subjects of zoology and geology, which have hitherto been included in the teaching of the Chair.

Teaching of Tropical Medicine.—A representation was received from the Senatus advocating the institution of a course of instruction in Tropical Medicine. The proposed course should consist of some twenty-five lectures, and it was suggested that the remuneration of the lecturer should be derived from the fees paid for the course. The importance of such teaching at the present time is emphasised by the wish of the Colonial Secretary only to appoint as medical officers in tropical districts those who shall have previously obtained knowledge of the diseases of the Tropics. The argument that such teaching, without clinical material, would be useless, was met by the statement that such a course was only intended as preliminary for the curriculum in London. The representation was adopted by a majority of votes, and the Faculty of Medicine was asked to make a recommendation for the appointment.

Proposed Gymnasium.—A memorial signed by some 425 students was submitted, which requested the attention of the Court to the great benefit which students would derive from the establishment of a gymnasium. It was known that the late Dr. Mitchell, in his generous benefactions to the University, had had this in view in the extensions of Marischal College, and many obvious reasons were given for its expediency. The Court passed a resolution expressing its cordial sympathy with, and approval of, the object of the memorial, and remitted it to the Sites and Plans Committee with the view of taking the earliest opportunity of providing a gymnasium for the University.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

BOSTOCK SCHOLARSHIP.—The trustees of the Reid Trust for the Education of Women have resolved to offer a scholarship of the annual value of £60 at the London School of Medicine for Women. The scholarship is founded in memory of the late Miss Bostock, one of the trustees. It will be tenable for two or four years, and will be given on the results of the Preliminary Scientific Examination of the University of London. The scholar must prepare for the medical degrees of the University of London. Further particulars can be obtained from the Hon. Secretary of the Reid Trust, Bedford College, York Place, W.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following gentlemen having passed the necessary examination have been admitted Licentiates in Dental Surgery of the College: A. T. Green and D. Saville.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, February, 1899.—The following candidates passed in:

Surgery.—A. E. Malaher, St. Thomas's Hospital; R. R. Mowll (Section II), King's College Hospital; C. A. C. Salmon, Guy's Hospital; E. C. Thomas, London Hospital; R. Le G. Worsley (Section I), St. George's Hospital and Durham University.

Medicine.—P. A. Chillcott, London Hospital; C. J. Coleman, Cambridge University and Birmingham; F. Dengler (Sections I and II), Munich; J. Gallagher, Bombay; E. MacD. Judge, Guy's Hospital; L. Lehmann, Strassburg and Leipzig; R. R. Mowll (Section II), King's College Hospital; B. J. Nolan, Dublin; E. C. Thomas, London Hospital; D. O. Williams, Leeds.

Forensic Medicine.—P. A. Chillcott, London Hospital; C. J. Coleman, Cambridge University and Birmingham; H. Cooper, Aberdeen; F. Dengler, Munich; J. Gallagher, Bombay; E. S. Johnson, St. Mary's Hospital; E. MacD. Judge, Guy's Hospital; L. Lehmann, Strassburg and Leipzig; P. Power, Cork and Edinburgh; S. A. Rowley, Bristol; E. C. Thomas, London Hospital; D. O. Williams, Leeds.

Midwifery.—H. Clough, Leeds; H. Cooper, Aberdeen; F. Dengler, Munich; J. Gallagher, Bombay; E. S. Johnson, St. Mary's Hospital; V. S. Partridge, Charing Cross Hospital; J. W. Robertson, Kingston, Ontario; S. A. Rowley, Bristol; E. C. Scarlett, Royal Free Hospital; A. E. Shaw, Cambridge University and St. Thomas's Hospital; A. Y. St. Leger, Cambridge University and St. Mary's Hospital; E. C. Thomas, London Hospital; J. M. Twentyman, Cambridge University and King's College Hospital; D. O. Williams, Leeds; T. R. Wilshaw, Birmingham; E. D. Wortley, St. Bartholomew's Hospital.

The diploma of the Society was granted to Messrs. H. Clough, E. MacD. Judge, R. R. Mowll, A. E. Shaw, E. C. Thomas.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN 1898.

IN the accompanying table will be found summarised the vital statistics of 1898 relating to the thirty-three large English towns, including London, dealt with by the Registrar-General in his weekly returns.

The 339,350 births registered during 1898 in these thirty-three large towns were equal to a rate of 30.3 per 1,000 of their aggregate population, estimated at nearly eleven and a quarter millions of persons. This rate was 1.4 per 1,000 below the mean rate in the preceding ten years, 1888-97, and was lower than in any year on record. In London the birth-rate last year was equal to 20.5 per 1,000, while it averaged 30.9 in the thirty-two provincial towns, among which it ranged from 22.5 in Huddersfield, 22.9 in Halifax, 24.0 in Bradford, and 24.8 in Brighton to 34.7 in Salford, 35.2 in Liverpool, 35.4 in Sunderland, 35 5 in Gateshead, and 35.8 in Wolverhampton.

The 212,848 deaths registered last year in the thirty-three towns were equal to an annual rate of 19.0 per 1,000; this rate almost corresponded with that in the preceding year, and was 1.3 per 1,000 below the average rate in the ten preceding years. With two exceptions the rate of mortality during 1898 in these large towns was the lowest yet recorded. The death-rate in London during the year under notice was equal to 18.7 per 1,000, while it averaged 19.3 in the thirty-two provincial towns, among which it ranged from 13.9 in Croydon, 14.8 in Cardiff, 15.4 in West Ham, and 15.9 in Huddersfield to 21.4 in Newcastle-upon-Tyne, 21.9 in Manchester, 22.6 in Sunderland, 22.7 in Salford, and 24 0 in Liverpool.

During the year under notice 31,752 deaths were referred to the principal zymotic diseases in the thirty-three towns, equal to a rate of 2.85 per 1,000, which slightly exceeded the mean rate in the ten preceding years, 1888-97. The zymotic death-rates in these towns last year ranged from 1.61 in Huddersfield, 1.99 in Croydon, 2.04 in Burnley, and 2.15 in Plymouth, in Oldham and in Halifax to 3.26 in Norwich, 3.35 in Leicester, 3.69 in Sunderland, 3.82 in Sheffield, and 4.03 in Salford. The 31,752 deaths referred to the principal zymotic diseases included 13 which resulted from small-pox, 6,200 from measles, 1,570 from scarlet fever, 3,419 from diphtheria, 4,658 from whooping-cough, 2,190 from "fever" (principally enteric), and 13,612 from diarrhœa. The fatal cases of small-pox registered in the thirty-three large towns, which had been 732, 450, 120, 25, and 18 in the five preceding years, further declined to 13 during 1898, of which 3 occurred in Gateshead, 3 in Newcastle-upon-Tyne, 2 each in Leeds, Liverpool, and Sunderland, and 1 in London. The death-rate from measles, which had been, 0.52, 0.71, and 0.55 per 1,000 in the three preceding years, was 0.56 last year and was slightly below the mean rate in the ten years 1888-97. In London the measles death-rate was 0.68 for 1,000, while it averaged 0.48 in the thirty-two provincial towns, among which the highest rates were recorded in Brighton, Plymouth, Bristol, Swansea, Norwich, Leicester, and Halifax. The death-rate from scarlet fever, which had been 0.18, 0.22, and 0.18 per 1,000 in the three preceding years, declined to 0.14 during the year under notice, and was little more than half the average rate in the ten preceding years; in London the rate of mortality from this disease was equal to 0.13 per 1,000, while it averaged 0.15 in the thirty-two provincial towns, and was highest in Wolverhampton, Birkenhead, Liverpool, Salford, Leeds, and Sunderland. The death-rate from diphtheria, which had been 0.35, 0.38, and 0.31 per 1,000 in the three preceding years, was again 0.31 during 1898, and corresponded with the average rate in the ten preceding years; in London the diphtheria death-rate was 0.39 per 1,000, while it averaged 0.25 in the thirty-two provincial towns, among which the highest rates were recorded in West Ham, Portsmouth, Cardiff, Swansea, Wolverhampton, Leicester, Birkenhead, and Leeds. The rate of mortality from whooping-cough, which had been 0.37, 0.57, and 0.41 per 1,000 in the three preceding years, was 0.42 during 1898, against an average rate of 0.52 per 1,000 in the ten preceding years; in London the death-rate from this disease was equal to 0.48 per 1,000, while it averaged 0.37 in the thirty-two provincial towns, among which whooping-cough showed the highest proportional fatality in Birmingham, Liverpool, Salford, Preston, Sheffield, Gateshead, and Newcastle-upon-Tyne. The death-rate from different forms of "fever" (including typhus, enteric fever, and simple and ill-defined forms of fever), which had been 0.20, 0.19, and 0.18 per 1,000 in the three preceding years, rose again to 0.20 during the year under notice, and corresponded with the average rate in the ten preceding years, 1888-97. In London the "fever" death-rate did not exceed 0.13 per 1,000, while it averaged 0.24 in the thirty-two provincial towns, among which the highest rates were recorded in Norwich, Birkenhead, Bolton, Salford, Preston, Sheffield, Sunderland, and Newcastle-upon-Tyne. The rate of mortality from diarrhœa, which had been 1.20, 0.79, and 1.24 per 1,000 in the three preceding years, was 1.22 during 1898, and considerably exceeded the average rate in the ten preceding years; in London the death-rate from this disease was equal to 0.97 per 1,000, while it averaged 1.38 in the thirty-two provincial towns, among which diarrhœa showed the highest proportional fatality in Wolverhampton, Bolton, Manchester, Salford, Preston, Sheffield, Hull, and Sunderland.

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Year 1898.

Towns.	Estimated Population in middle of 1898	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	11,218,378	339,350	212,848	30.3	19.0	2.85	31,752	13	6,290	1,570	3,410	4,658	2,190	13,612	178	1.2
32 Provincial Towns	6,713,612	206,918	128,912	30.9	19.3	2.87	19,187	12	3,215	987	1,647	2,498	1,592	9,236	185	1.6
London	4,504,766	132,432	83,936	29.5	18.7	2.78	12,565	1	3,075	583	1,772	2,160	598	4,376	167	0.6
West Ham	286,654	8,749	4,406	30.6	15.4	2.68	765	—	91	23	180	119	72	280	170	2.4
Croydon	124,421	3,146	1,723	25.4	13.9	1.99	248	—	34	9	17	35	11	142	150	—
Brighton	122,310	3,024	2,062	24.8	16.9	2.36	288	—	82	7	21	21	18	139	180	0.5
Portsmouth	186,618	4,974	3,033	26.7	16.3	2.16	402	—	69	32	55	43	43	160	156	1.0
Plymouth	99,136	2,935	1,932	29.7	19.5	2.15	212	—	70	4	16	28	6	94	170	0.6
Bristol	316,900	9,055	5,437	28.6	17.2	2.69	852	—	307	14	44	115	25	347	164	0.7
Cardiff	177,770	5,520	2,627	31.1	14.8	2.24	396	—	50	8	129	43	17	149	158	0.7
Swansea	102,001	2,941	1,889	28.9	18.6	3.21	326	—	88	11	124	40	13	50	184	1.5
Wolverhampton	88,051	3,140	1,868	35.8	21.3	3.19	280	—	19	23	38	9	20	171	200	1.1
Birmingham	510,343	17,316	10,179	34.0	20.0	2.78	1,417	—	181	46	131	251	114	694	191	2.9
Norwich	111,699	3,329	2,112	29.9	19.0	3.26	363	—	75	23	14	37	43	169	192	0.8
Leicester	208,662	6,156	3,522	29.6	16.9	3.35	697	—	214	44	62	19	—	328	191	2.4
Nottingham	236,137	6,800	4,160	28.9	17.7	2.37	558	—	104	34	24	58	56	282	178	0.8
Derby	104,834	2,861	1,759	27.4	16.8	2.26	235	—	53	20	9	28	28	97	169	—
Birkenhead	113,189	3,429	1,969	30.4	17.4	2.53	285	—	30	32	49	8	38	128	186	0.8
Liverpool	633,645	22,224	15,153	35.2	24.0	3.22	2,034	2	276	143	147	326	166	974	184	3.4
Bolton	122,495	3,776	2,368	30.9	19.4	2.93	358	—	31	23	8	45	38	213	168	0.3
Manchester	539,079	17,591	11,766	32.7	21.9	3.11	1,673	—	271	65	53	170	125	989	197	0.8
Salford	215,702	7,475	4,884	34.7	22.7	4.03	867	—	99	62	32	130	80	464	212	1.0
Oldham	148,288	3,748	2,600	25.3	17.6	2.15	319	—	85	24	10	65	22	113	175	0.1
Burnley	109,546	2,964	1,781	27.1	16.3	2.04	224	—	3	6	30	7	27	146	195	1.7
Blackburn	133,228	3,595	2,451	27.1	18.4	2.57	342	—	5	16	31	5	32	208	206	3.3
Preston	116,356	3,596	2,245	31.0	19.3	3.07	356	—	1	4	3	61	41	238	225	2.9
Huddersfield	102,454	2,295	1,627	22.5	15.9	1.61	164	—	32	10	13	11	10	88	153	2.2
Halifax	96,729	2,210	1,724	22.9	17.9	2.15	207	—	70	14	8	35	15	62	163	2.7
Bradford	233,737	5,594	4,102	24.0	17.6	2.12	493	—	104	11	17	68	20	244	185	1.2
Leeds	416,618	12,968	7,983	31.2	19.2	3.12	1,295	2	191	119	223	161	72	507	182	0.4
Sheffield	356,478	12,044	7,197	33.9	20.2	3.82	1,358	—	175	56	94	210	114	672	195	2.3
Hull	229,887	7,666	4,209	33.4	18.4	2.99	686	—	92	28	17	68	58	423	182	1.4
Sunderland	143,849	5,077	3,247	35.4	22.6	3.69	532	2	85	32	9	68	69	267	202	0.7
Gateshead	103,775	3,679	2,133	35.5	20.6	3.10	320	3	51	19	10	66	16	154	208	0.3
Newcastle-on-Tyne	223,021	7,041	4,764	31.4	21.4	2.82	634	3	126	25	30	139	67	244	190	0.7

Infant mortality, measured by the proportion of deaths under 1 year of age to births registered, was equal to 178 per 1,000, and exceeded by 11 per 1,000 the mean rate in the ten preceding years. In London the rate of infant mortality was equal to 167 per 1,000, while it averaged 185 in the thirty-two provincial towns, among which it ranged from 150 in Croydon, 153 in Huddersfield, 156 in Portsmouth, 158 in Cardiff, and 163 in Halifax to 200 in Wolverhampton, 202 in Sunderland, 206 in Blackburn, 208 in Gateshead, 212 in Salford, and 225 in Preston.

The causes of 2,538, or 1.2 per cent., of the 212,848 deaths in the thirty-three towns during 1898 were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon and in Derby; in the other towns the lowest proportions of uncertified deaths were registered in Oldham, Bolton, Leeds, and Gateshead, and the highest in West Ham, Birmingham, Leicester, Liverpool, Blackburn, Preston, and Halifax.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 7,028 births and 4,275 deaths were registered during the week ending Saturday last, February 18th. The annual rate of mortality in these towns, which had increased from 17.0 to 21.9 per 1,000 in the three preceding weeks, declined to 19.5 last week. The rates in the several towns ranged from 10.5 in Leicester, 12.1 in Huddersfield, 14.5 in Portsmouth, and 14.9 in Cardiff and in Hull, to 25.4 in Birkenhead, 27.7 in Salford, 27.9 in Liverpool, and 28.8 in Preston. In the thirty-two provincial towns the mean death-rate was 19.7 per 1,000, and slightly exceeded the rate recorded in London, which was 19.3 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.6 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.7 in Halifax, 2.8 in Manchester, 3.0 in Swansea, and 4.1 in Birkenhead. Measles caused a death-rate of 1.3 in Manchester; whooping-cough of 1.3 in Nottingham, 1.4 in Sunderland, 1.6 in Halifax, and 2.3 in Birkenhead; and "fever" of 1.0 in Gateshead. The mortality from scarlet fever showed no marked excess in any of the large towns. The 88 deaths from diphtheria in the thirty-three towns included 40 in London, 8 in Sheffield, 5 in West Ham, 5 in Swansea, 4 in Birmingham, 4 in Liverpool, 3 in Birkenhead, and 3 in Leeds. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,642 at the end of the seven preceding weeks, had further fallen to 2,587 on Saturday last, February 18th; 202 new cases were admitted during the week, against 220, 265, and 253 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 18th, 955 births and 855 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had risen from 21.3 to 31.2 per 1,000 in the four preceding weeks, declined to 28.0 last week, but was as much as 8.5 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.0 in Dundee and 18.6 in Perth to 32.5 in Greenock and 34.5 in Paisley. The zymotic death-rate in these towns averaged 2.5 per 1,000, the highest rates being recorded in Aberdeen, Leith, and Perth. The 452 deaths registered in Glasgow included 5 from measles, 7 from scarlet fever, 11 from whooping-cough, 6 from "fever," and 6 from diarrhœa. Ten fatal cases of whooping-cough were recorded in Edinburgh, and 4 in Leith.

PUBLIC HEALTH OF EDINBURGH.

THE Public Health Committee of the Edinburgh Town Council, on February 14th, on a motion by Bailie Pollard, the Convener, unanimously resolved to recommend to the magistrates and Council that in the contracts for the supplies of milk to the various city departments the following special condition should be introduced: "That cows from which milk is taken for the contract supplies shall have withstood the tuberculin test, applied by a qualified veterinary inspector approved by the Town Council."

At the same meeting Sir Henry Littlejohn, the medical officer of health, reported that during the six weeks of the present year 788 deaths from all causes had been registered, giving a death-rate of 22.84 per 1,000. Of these 788 deaths, 267 were due to diseases of the chest, and 73 to phthisis. On the other hand, there was less zymotic disease than usual. The City Hospital was now entirely free from the recent outbreak of typhus fever, and the number of patients on that day in the hospital was only 218.

POOR-LAW OFFICERS SUPERANNUATION ACT AMENDMENT BILL.

THE Poor-Law Officers Superannuation Act (1896) Amendment Bill introduced into the House of Commons by Sir J. W. Maclure is a short Bill of two clauses. It proposes that the provisions of the Poor-Law Officers Superannuation Act (1896) shall extend to and include all assistant overseers. The Bill is also backed by Mr. Ashcroft, Mr. Bailey, Lord Balcarres, Sir John Brunner, Mr. Cawley, Mr. Leigh Clare, Mr. Bromley Davenport, Sir F. Fitzwygram, Mr. Harwood, Mr. Hatch, Sir A. Hickman, and Sir W. H. Houldsworth.

AN ETHICAL QUESTION *RE* MIDWIFERY FEE.

G. P. writes as follows: Dr. A. attends an emergency midwifery case at the request of the relieving officer for the district, the Union medical officer, Dr. B., not being available at the time. As Dr. B. had neither

attended the case, nor been engaged to do so, the relieving officer made out the order to Dr. A., and the guardians will only pay the fee to the latter. What is Dr. A.'s duty under the circumstances?

*** The whole proceeding is irregular. G. P. does not say that A. is the recognised deputy of B. We therefore assume that he is not so, and if this is the case A. ought not to have been applied to, as it was the duty of the relieving officer to procure the attendance of B.'s deputy, if possible, during his absence.[1] There could be no justification for any application to A. till this had been done. The duty of A. under such very peculiar circumstances is difficult to define. An equal division of the fee between A. and B. would, we think, be a fair settlement of the question.

HOSPITAL AND DISPENSARY MANAGEMENT.

FIFE AND KINROSS ASYLUM.

The annual report for the year ending July 31st, 1898, shows that during the twelve months 131 patients (59 males and 72 females) were admitted, 73 cases were discharged, and 27 died. The average daily number resident was 493, while there remained on the register at the close of the year 516, as compared with 485 at the close of the previous year. As showing the continuous increase in the number of admissions, it may be mentioned that during the ten years 1880 to 1890 the average annual number admitted was 87; during 1890 to 1895 it was 101; and during the last three years it has risen to 128. As Dr. Turnbull very properly points out, whether the increase in the numbers are readmissions or not, in considering whether there is any real increase in insanity or not, the fact remains that there is at any rate a large increase in the call for asylum care. Of the discharges, 44 were recovered, giving a percentage of 33.58 per cent. of the admissions. The death-rate was unusually low, only reaching 5.47 per cent. of the average daily number resident. The accommodation of the asylum is only sufficient for present numbers, and any increase in the number of patients will call for further accommodation being provided to prevent overcrowding. The net cost of maintenance has been £24 11s. 8d. per patient.

THE EARLSWOOD ASYLUM FOR IDIOTS.

At the close of the year 1897 there remained in the asylum 562 patients—373 males and 189 females—and Dr. Caldecott points out with regret that owing to deficiency of revenue the admissions had been limited to 40. This is much to be regretted, as the benefits conferred by this institution are so well known and recognised it is worthy of more generous public support. It is gratifying to learn that the greater number of those admitted already show signs of improvement. Of the discharges 27 were males and 16 females, all having been benefited by their residences in the institution. The deaths numbered 18, and no fewer than 11 of these died from phthisis and 2 from "congestion of the lung," truly a formidable death roll due to diseases of the lungs. In the girls' school 178 pupils and in the boys' schools 100 pupils attend, and much progress is made in educating these mentally deficient inmates in reading and writing, whilst the workshops bring out in a wonderful manner the intelligence of some of the patients who are incapable of higher education. No fewer than 23 prizes were gained at the Lancaster Arts and Crafts Exhibition by patients of this institution.

THE RETREAT, YORK.

This old and well-known institution has been continuously full during the year covered by the report, and patients have been declined owing to lack of room. During the twelve months ending June 30th, 1898, covered by the report, the total number of cases under care was 195—namely, 78 males and 117 females. There were 39 admissions and 28 discharges; of the latter there were only 11 discharged recovered, giving an average of 28.20 per cent. calculated upon the admissions, as compared with 50 per cent. during the previous year. The death-rate was exceedingly low, standing at only 1.3 per cent. calculated upon the average daily number resident, while the weekly average cost for the maintenance of the patients was for the financial year 36s. 7d. per head per week. It is gratifying to observe that in addition to the 30 patients already maintained at 12s. a week 6 new patients were admitted at the same rate, whilst a like number of necessitous patients were received at reduced rates on account of their connection with the Society of Friends. Dr. Bedford Pierce tells us in his report that 67 patients are at present in the Retreat whose payments do not cover the cost of their maintenance. This is carrying out the principle of true charity in the administration of the institution. The systematic training of the male and female nurses of the institution continues, and several have gained the certificate of the Medico-Psychological Association for proficiency in nursing.

INDIA AND THE COLONIES.

NEW SOUTH WALES.

Proposed New Maternity Hospital at Sydney.—The Royal Commission recently appointed by the Government of New South Wales to investigate and report upon the public charities have recommended the transference of the maternity department of the Benevolent Society in Sydney to a more commodious building on a better site. The lying-in wards form a part of a very old building used as an asylum for women and children. There have been several outbreaks of puerperal fever in these wards in past years, and the medical staff have long urged the necessity for the removal of the maternity department in consequence o the incommodious and insanitary condition of the present building. The Commission have recommended the resumption of the premises in Darlinghurst used as the School of Industry, and their adaptation for a maternity hospital. The constitution of the new hospital would be framed on lines somewhat similar to those of the other public hospitals in Sydney, so as to invite and elicit support from the public for its maintenance. Under present arrangements the medical students have to attend their practical midwifery under very uncomfortable circumstances; and a new hospital on the lines suggested would be a great boon not only to the poor lying-in women, but also to the medical staff and medical students.

Report of the Inspector-General of the Insane.—The annual report of the Inspector-General of the Insane for New South Wales has just been presented to Parliament by Dr. Eric Sinclair. Early in the year Dr. F. Norton Manning resigned the post which he had held for over twenty years and in which he had done such excellent work. Dr. Eric Sinclair, the Medical Superintendent of Gladesville Asylum, was appointed his successor. The number of insane persons in the various asylums at the close of 1897 was 3,957—2,408 males and 1,549 females—being an increase of 112 on the number for 1896. But this increase is considerably less than has been customary during the last few years, and approaches more the average for twenty years. The proportion of insane to the population in 1891 was 2.69 per 1,000; at the close of 1897 it was 2.99 per 1,000. This compares favourably with the proportion in the other Australian colonies and in Great Britain. The diminution in the number of new cases admitted during the year was probably due to the improvement in the general condition of the colony and the recovery from the financial depression of previous years. The recoveries show a percentage of 41.47, and the cases relieved a percentage of 5.78 on the admissions. This again compares favourably with the rates in other countries. The total number of patients under care during the year was 4,837; the average daily number resident was 3,822, of whom 2,355 were males and 1,467 females. The deaths numbered 249, being a percentage on the daily average number resident of 6.51; of these, 134 were due to diseases of the brain, the remainder to various diseases of the heart and lungs and old age; 1 patient committed suicide and 1 died from an accident—snake poisoning.

BRITISH SOUTH AFRICA.

Memorial Hospital at Buluwayo.—This hospital at Buluwayo was built as a memorial of those who fell in the war in 1893. The foundation stone was laid in October, 1894, and the hospital was opened in April, 1895. By the end of the year, in consequence of the Matabele rebellion, the accommodation was quite inadequate to meet the requirements of the sick and wounded. Rinderpest, too, was so prevalent that transport was paralysed, and ordinary food stuffs, such as milk, eggs, and butter, could scarcely be obtained, and then only at exorbitant prices. The hospital was also kept in a state of siege by the Matabele, and had to be fortified and guarded night and day. These unfavourable circumstances conduced, no doubt, to the high death-rate which marked this period. In June, 1897, the hospital, which had previously been controlled and financed by the Government, was handed over to the public of Bulawayo, as it was felt that it would receive more generous support if it became a public institution. It is now managed by a Board of nine members, six of whom are elected by the public and three nominated by the Government. The income for the first year from all sources was £12,341 12s. 3d., and the expenditure £9,499 3s. 6d. In May, 1898, a contract was let for the erection of additional buildings, to cost £12,110. The number of patients treated during the year was 1,204 whites and 415 blacks; there are practically no out-patients. From the report of Dr. Arnold, the resident surgeon, we learn that cases of malarial fever constitute a large proportion of the patients, the death-rate being very small among the Europeans, but considerably higher, as in all forms of disease, among the natives admitted to hospital. There have been but few cases of typhoid fever, and pulmonary diseases have not been prevalent, only five cases of pulmonary phthisis having been admitted. Of forty-six operations performed, eleven were major, consisting of laparotomies, operations on the head, and for abscesses of the liver; only one death occurred from operation, and that was in a native.

MEDICAL NEWS.

By the resignation of Dr. S. Rees Philipps the position of Medical Superintendent of the Holloway Sanatorium, Virginia Water, is rendered vacant. We are requested to state that the committee of the institution will meet in March to appoint a successor.

We are requested to state that Cooke's School of Anatomy, Physiology, and Operative Surgery was reopened on Tuesday, February 14th, and that it will be carried on in future according to the methods so successfully initiated by the late Mr. Thomas Cooke, F.R.C.S.

French Congress of Medicine.—The fifth French Congress of Medicine, which is to be held this year at Lille, will open on July 28th. The following are the questions proposed for discussion: (1) Myocarditis; (2) Lymphadenoma and Leukæmia; (3) Habituation to Drugs.

An International Medical Press Congress.—The French Medical Press Association held its forty-third meeting on February 3rd, under the presidency of Dr. Gézilly. It was decided to organise an International Congress of the Medical Press to be held in Paris in 1900 at the same time as the other congresses which are to take place there in that year.

[1] Every medical officer shall, as soon as may be after his appointment, name to the guardians some legally qualified medical practitioner to whom application for attendance may be made in case of absence from home, etc., and the name and residence of such named practitioner shall be forwarded to each relieving officer, etc. (Art. 200, Consolidated Order, July 24th, 1847.)

The Manchester Corporation has been advised that the estimated cost of dealing with the sewage and storm water of the city by means of 60 acres of bacteria beds will not exceed £300,000. The works proposed are anticipated to relieve Manchester of all future embarrassments in respect of the purification of sewage.

Female Nurses in the United States Army.—Surgeon-General Sternberg recommends the employment of expert female nurses in the United States army, their number not to exceed 1 per cent. of the army. These nurses are to receive not more than 50 dollars (£10) per month, and the chief nurses not more than 75 dollars (£15) per month. The nurses and chief nurses are to be graduates of training schools for nurses.

The late Baroness de Stern has by her will bequeathed £500 each to the Surgical Aid Society, the Bexhill Convalescent Home, the Brompton Hospital for Consumption, the Hospital for Consumption, Hampstead, Earlswood Asylum, and the Hospital for Incurables, Putney. She also bequeathes to her trustees £60,000, to be applied in founding and endowing a hospital or a convalescent home, or almshouses or other public institutions, or for the purposes of enlarging any such existing institution in memory of her husband, whose name is to be associated therewith.

A Russian Ophthalmological Society.—An Ophthalmological Society has recently been founded in Moscow, and already numbers 27 members. At the opening meeting Professor F. A. Jewezki delivered an address on the development of ophthalmology in Russia. He said the first ophthalmic surgeon of whom there was record in that country was David Brun, who settled in practice in 1628. In the seventeenth and eighteenth centuries there was practically no skilled treatment available for people afflicted with eye diseases, and the proper cultivation of that branch of surgery dated only from the second half of the present century. Professor A. A. Krjukow was elected President, and Professor Jewezki Vice-President, of the new society.

Medical Co-education.—Cornell University, the first college to admit women in co-education with men, has now been obliged to add a medical department to allow the sexes to study together. The professors, it is stated, were at first opposed to receiving the young women in the same medical classes with the young men; but the charter of the institution having been granted for co-education, it was not possible to close any department to either sex. The example of the medical department of the University of Buffalo, which admitted women in 1875 on the same basis as men, is thus followed. Nineteen young women are enrolled among the medical students at Cornell.

A State Home for Aged Persons.—A Bill is to be introduced in the Legislature of New York State to provide a State home for the aged in the city of New York, and the counties of Westchester, Rockland, and Suffolk. The Bill appropriates 100,000 dols. (£20,000) to buy the land and build, furnish, and maintain the home, with permission to the governors to apply for more money each year. The buildings are to consist of a central hall and a number of one-storey cottages, all properly plumbed, heated, and lighted. A Board of Governors, appointed by the Mayor of New York and the superintendents of the poor of the three counties above mentioned, will manage the home under the terms of the Bill. Respectable, industrious, law-abiding aged persons, twenty years resident of any of the counties, may become inmates upon proof of lack of means of support. Employers of labour may also obtain admittance for superannuated employees on payment of a fixed yearly sum.

Male Nurses for Male Patients.—At the annual meeting of the York Home for Nurses, Mr. W. Draper, Senior Surgeon to the York Dispensary, stated that it was his opinion, strongly held, that male patients should be nursed by male nurses. He objected to the nursing of men by females on moral as well as on many other grounds. It was not necessary; the nursing in the army and navy was done by medical orderlies, and well done. Indeed, some nursing duties might be better performed by men than by women: and he advocated the extension of the system to civil life. There would be no difficulty in obtaining the services of plenty of temperate, respectable, and sufficiently-educated young men who would be willing to go through a proper course of training in hospital, and then to qualify themselves as efficient male nurses. In London a very successful male nurses co-operation existed, having in its ranks about 100 male nurses, whose average earnings per man amounted to over £100 a year, after all expenses are paid. He trusted that the time was not far distant when every nursing institution of importance would have its branch for male nurses.

Working Colony for Epileptics.—The Asylums Committee of the London County Council have had under consideration provision for 300 male epileptics in eight detached buildings on their estate at Horton Manor, Epsom, where their seventh county asylum is now in course of erection. The plan of so-called cottage homes has been already tried at Alt-Scherbitz and other places in Germany, and has been favourably reported on; and in this country certain large Lancashire unions have combined for the purpose of providing accommodation of this kind for their imbeciles and epileptics. It is intended specially to select from amongst the patients of the London county asylums epileptics who appear suited for colony life; they will of course continue to be under the supervision of the Commissioners in Lunacy. The estimated expense of permanent buildings is at the rate of about £200 per bed.

The Medical Profession in Austria.—Official statistics recently published show that in 1895 the total number of Doctors of Medicine in Austria was 7,620. The proportion of medical practitioners to population in the different parts of the empire were as follows: Vienna, 1 in 691; Baden, 1 in 1,956; Linz, 1 in 1,070; Salzburg, 1 in 859; Graz, 1 in 604; Klagenfurt, 1 in 737; Laybach, 1 in 1,349; Trieste, 1 in 1,364; Innsbruck, 1 in 328; Prague, 1 in 452; Brünn, 1 in 832; Troppau, 1 in 1,024; Lemberg, 1 in 859; Krakau, 1 in 395; Czernowitz, 1 in 1,444; Lower Austria, 1 in 1,129; Upper Austria, 1 in 4,000; Krain, 1 in 8,564; Galizia, 1 in 6,792; Bukowina, 1 in 6,990. The number of doctors given above does not include the lower grade practitioners known as *Wundaertze* (surgeons, or literally "wound doctors"), who in 1895 numbered 1,181.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Applications to the Secretary, John Bright Street, Birmingham, by March 10th.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street, Queen's Road, Brighton.—Non-resident House-Surgeon. Appointment for six months, but renewable. Salary at the rate of £75 per annum. Applications to the Secretary, 10, Black Lion Street, Brighton, by February 28th.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junio Assistant Medical Officer, unmarried, and not more than 26 years of age. Salary, £80 per annum with board and residence. Applications to the Medical Superintendent.

DEVIZES URBAN DISTRICT COUNCIL.—Medical Officer of Health; must reside within the Borough. Salary, £50 per annum. Applications, marked "Medical Officer of Health," to the Town Clerk, by March 4th.

DUBLIN: MERCER'S HOSPITAL.—Resident Medical Officer. Applications to the Registrar by February 27th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Board and residence provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 18th.

EDINBURGH UNIVERSITY.—Lecturer on Diseases of Tropical Climates. Applications to the Secretary of the University Court by March 6th.

EDINBURGH: VICTORIA HOSPITAL FOR CONSUMPTION.—Resident Physician and a Non-resident Medical Officer. Appointments for six months. Salary at the rates of £20 and £60 per annum respectively. Applications to the Honorary Secretaries, 1, North Charlotte Street, Edinburgh, by March 11th.

ESSEX COUNTY ASYLUM, Brentwood.—Junior Assistant Medical Officer, unmarried, and not over 26 years of age. Salary, £120 per annum, with board, residence, and washing. Applications to the Medical Superintendent by February 28th.

FARRINGDON GENERAL DISPENSARY.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Applications to the Secretary, 17, Bartlett's Buildings, Holborn Circus, E.C., by February 28th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GREAT NORTHERN HOSPITAL.—Surgeon to In-patients; must be F.R.C.S. Junior House-Surgeon. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Applications to the Secretary by March 15th and 20th respectively.

HALIFAX ROYAL INFIRMARY.—Assistant House-Surgeon, unmarried. Salary, £30 per annum, and an extra allowance of £9 2s. 6d. per annum; also residence, board, and washing. Applications to the Secretary by February 28th.

HALIFAX UNION WORKHOUSE, St. Luke's Hospital.—Assistant Medical Officer for the Hospital and Workhouse, unmarried, and not over 35 years of age. Salary, £60 per annum. Applications on forms provided, to be endorsed "Assistant Medical Officer," and sent to the Clerk to the Guardians by March 1st.

HEREFORD GENERAL INFIRMARY.—Senior House-Surgeon, unmarried. Salary, £90 per annum, with furnished rooms, board, washing, gas, coals, and attendance. Applications to the Secretary by February 28th.

KING'S COLLEGE, London.—Sambrook Surgical Registrar and Assistant Ophthalmic Surgeon at King's College Hospital. Applications to the Secretary for the former by March 13th.

LIVERPOOL: BOOTLE BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £50 per annum, with board, lodging, etc. Applications to the Secretary.

LIVERPOOL HOSPITAL FOR DISEASES OF THE THROAT, NOSE, AND EAR, 25, Oxford Street, Liverpool.—Honorary Assistant Surgeon. Applications to the Honorary Secretary, Sand Lea, West Kirby, Cheshire, by March 1st.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance. Applications to the Chairman of the Committee by March 9th.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £250 a year and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Residence, board, and washing provided, and honorarium of 5 guineas. Applications to the Secretary by March 16th.

MANCHESTER CHILDREN'S HOSPITAL.—Junior Resident Medical Officer. Appointment for six months, but eligible for election as Senior for six months. Unmarried. Salary, £80 per annum as Junior, and £100 as Senior, with board and lodging. Application to the Secretary, Dispensary, Gartside Street, Manchester, by March 1st.

MANCHESTER EAR HOSPITAL, 23, Byrom Street.—Clinical Clerkship. Appointment for six months. Honorarium, 10 guineas. Applications to the Secretary by March 2nd.

MANCHESTER ROYAL INFIRMARY.—Honorary Aural Surgeon, Honorary Assistant Surgeon, and Junior Administrator of Anæsthetics. Salary for the latter post, £50 per annum. Applications to the General Superintendent and Secretary for the two former appointments by March 18th, and for the latter by March 4th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician, and Assistant House-Surgeon. Appointments for six months. The two former will receive salary at the rate of £40 per annum, and the two latter at the rate of £20 per annum. Applications to the Secretary by March 13th.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £40 per annum, with board, attendance, and washing. Appointment for six months, with prospect of re-election as Senior. Applications to the Secretary by March 8th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Surgeon, unmarried and not more than 30 years of age. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by February 28th.

PORTSMOUTH: ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House-Surgeon. Appointment for six months, but renewable. Board, residence, and honorarium of £15 15s. Applications to the Secretary by March 2nd.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and residence. Applications to the Honorary Secretary by March 4th.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Appointment for six months, but renewable. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by March 11th.

PRESTON ROYAL INFIRMARY.—A Junior and an Assistant House-Surgeon. Salaries, £80 and £50 per annum respectively, with board, lodging, and washing. Applications to the Secretary, 5, Winckley Street, Preston, by March 4th.

READING: ROYAL BERKS HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Salary, £30 per annum, with board, lodging, and washing. Applications to the Secretary.

ROXBURGH DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with furnished quarters, board, washing, and attendance. Applications to the Medical Superintendent.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—Resident Medical Officer. Salary, £70 per annum, with board, lodging, and washing. Applications to the Secretary by March 1st.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior Out-patient Surgical Officer. Salary, £50. Applications to the Secretary by February 28th.

RYDE: COUNTY HOSPITAL.—House-Surgeon. Salary, £50 per annum, with board, lodging, etc. Applications to the House-Surgeon by March 1st.

ST. GEORGE HANOVER SQUARE PROVIDENT DISPENSARY, Little Grosvenor Street.—Resident Medical Officer. Salary, £100 per annum, with allowance about £80, and residence. Applications to the Secretary by March 10th.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, Marylebone Road, N.W.—Anæsthetist. Honorarium, £20 per annum. Applications to the Secretary by March 10th.

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Junior Assistant Medical Officer, unmarried, and under 30 years of age. Salary, £100 per annum, increasing to £150, with furnished quarters, board, etc. Applications to the Medical Superintendent.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. No salary, but board, washing, and lodging provided. Applications, endorsed "Assistant House-Surgeon," to the Hon. Secretary, by March 3rd.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon, unmarried. Salary, £60 per annum, with board and residence. Applications to the Honorary Secretary by February 28th.

MEDICAL APPOINTMENTS.

BLATHERWICK, Henry, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Dulwich District of the Parish of St. Giles, Camberwell.

BOSTOCK, E. Bernard, M.B., B.S.Lond., M.R.C.S., L.R.C.P., appointed Resident Medical and Surgical Officer to the Jaffray Branch of the General Hospital, Birmingham, Gravelly Hill.

BRENNAND, F. J., M.B., C.M.Aberd., appointed Medical Officer for the Fourth District of the Shepton Mallet Union.

COOKE, F. H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Fifth District of the Lexden and Winstree Union.

DE BEAUVAIS, L. N., L.S.A., appointed Medical Officer for the Milton Abbott District of the Tavistock Union.

DICKEY, A. A. G., M.D., L.R.C.S.I., appointed Medical Officer for the Colne District of the Burnley Union.

DUNN, J. P., M.B., C.M.Glasg., appointed Medical Officer for the Bishopton District of the Sedgefield Union.

FLINT, F. S., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Orford District of the Plomesgate Union.

FRYER, R. A., M.B., C.M.Edin., appointed Medical Officer for the Hoxton New Town District of the Parish of St. Leonard, Shoreditch.

GRAHAM, J., M.B., C.M.Edin., appointed Medical Officer to the Cockermouth Union Workhouse.

GRAHAM, J. W. F., L.S.A., appointed Medical Officer for the Brill District of the Thame Union.

HILLMAN, G., L.S.A., appointed Medical Officer of Health to the Castleford Urban District Council.

HANLY, J. J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the No. 2 District of the Shepton Mallett Union, *vice* L. Powell, M.R.C.S.Eng., L.R.C.P.Edin.

JACOB, F. H., M.B.Lond., M.R.C.S., L.R.C.P., appointed House-Physician to the Nottingham General Hospital, *vice* J. C. Buckley, M.D., resigned.

KEMPE, Gilbert, M.D., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Surgeon to the Salisbury Infirmary.

ENNARD, D. G., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of the Workhouse and the Faringdon District of the Faringdon Union.

KIRBY, S. J. J., M.D.Brux., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Roxne Rural District Council.

LONGFORD, J. M., L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Litcham District of the Mitford and Launditch Union.

MANN, F. W. S., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Revesby District of the Horncastle Union.

MARSHALL, C. Devereux, F.R.C.S., appointed Ophthalmic Surgeon to the Victoria Hospital for Sick Children, Chelsea.

RAWLINGS, J. D., M.B.Lond., appointed Medical Officer for the Northern District of the Dorking Union.

RENNIE, George E., M.D., M.R.C.P.Lond., appointed Pathologist to the City of London Hospital for Diseases of the Chest, Victoria Park.

ROBINSON, James, M.D.Brux., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Turton Urban District Council.

ROCHE, Antony, M.R.C.P.I., etc., reappointed Examiner in Medical Jurisprudence and Public Health in the Royal University of Ireland.

ST. JOHNSTON, George, M.D.Lond., M.R.C.S., L.R.C.P., appointed Surgeon to the E Division, Birmingham Police.

TAYLOR, James, M.D., F.R.C.P., appointed Physician to the Royal London Ophthalmic Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Dr. Sidney Martin: Auto-intoxication and its bearing on the Treatment of Disease.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. McAdam Eccles: The Application of Trusses and of Abdominal Supports. (Lecture I.)

Royal College of Surgeons, 5 P.M.—Mr. B. G. A. Moynihan: On the Anatomy and Surgery of the Peritoneal Fossæ. (Arris and Gale Lecture I.)

Royal Institute of Public Health, 20, Hanover Square, W., 8.30 P.M.—Professor John McFadyean: On Tuberculosis in Cattle.

TUESDAY.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Mr. Gunn: On the Value of the Visual Fields in Diagnosis.

Royal College of Physicians of London, 5 P.M.—Dr. G. Vivian Poore: On the Earth in relation to the Preservation and Destruction of Contagia. (Milroy Lecture II.)

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Dundas Grant: Cases of Aural and other Forms of Vertigo.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. W. J. Walsham: A case of Extirpation of a large Non-pulsating Aneurysm, involving the common, internal, and external carotid arteries of the right side of the neck, with remarks on Non-pulsation in Aneurysms and the Treatment of Aneurysms by Extirpation.

WEDNESDAY.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M. Dr. Hector Mackenzie: Medicinal Treatment of Pulmonary Tuberculosis.

Royal College of Surgeons, 5 P.M.—Mr. B. G. A. Moynihan: On the Anatomy and Surgery of the Peritoneal Fossæ. (Arris and Gale Lecture II.)

Evelina Hospital, S.E., 4.30 P.M.—Mr. P. C. Abbott: Clinical Demonstration on the Complications of Ear Disease (Post-graduate Course).

Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. Tweedy: Diseases of the Conjunctiva, with special reference to their General Pathology and Classification.

Obstetrical Society of London, 8 P.M.—Specimens will be shown by Mr. Bland Sutton and Mr. Targett and others. Inaugural Address by the President (Mr. Alban Doran). Paper: Dr. C. Hubert Roberts: A second case of Primary Carcinoma of the Fallopian Tube.

THURSDAY.

Neurological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Clinical evening: Dr. F. E. Batten: Muscular Atrophy in a Child. Dr. T. D. Savill: Epileptiform Seizures of probable Vasomotor Origin. Dr. Caley: Syringomyelia with sudden increase of Symptoms. Dr. Wilfrid Harris: Hæmorrhage into Spinal Cord (? Syringomyelia). Dr. J. H. Bryant: Paralysis Agitans following Typhoid Fever in a Man aged 31. Dr. Stansfield: Epileptic Insanity associated with Mastoid Disease: Operation: Relief of Mental Symptoms. And other cases.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Garrod: Demonstration of Selected Cases.

British Balneological and Climatological Society, 20, Hanover Square, W., 3.30 P.M.—Dr. Douglas Kerr (Bath): On Treatment of Diseases by Heat. Dr. Hedley (London): The Therapeutics of Heat.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Montague Murray: Demonstration of Medical Cases.

St. John's Hospital for Diseases of the Skin, Leicester Square, 4.30 P.M. Dr. Morgan Dockrell: Cases of Telangiectasis and Vascular New Growths.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

Harveian Society of London, 8.30 P.M.—Mr. D'Arcy Power: On Vanishing Tumours. Mr. Bellamy Gardner: A new Ether Inhaler.

Royal College of Physicians of London, 5 P.M.—Dr. G. Vivian Poore: On the Earth in relation to the Preservation and Destruction of Contagia. (Milroy Lecture III.)

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. McAdam Eccles: The Application of Trusses and of Abdominal Supports. (Lecture II.)

FRIDAY.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, 8.45 P.M.—Clinical cases, etc., will be shown by Dr. McCann and Dr. Ezard, Mr. Ernest Clark, and Dr. Toogood.

Royal College of Surgeons, 5 P.M.—Mr. B. G. A. Moynihan: On the Anatomy and Surgery of the Peritoneal Fossæ. (Arris and Gale Lecture III.)

West London Medico-Chirurgical Society, West London Hospital, W., 8.30 P.M. Clinical evening. Cases will be shown by Dr. Seymour Taylor, Mr. Rowland Pollock, Mr. McAdam Eccles, and others.

Laryngological Society of London, 20, Hanover Square, 5 P.M.—Cases will be shown by the President, Dr. De Havilland Hall, Mr. Bowlby, Dr. E. Law, Dr. StClair Thomson, and others.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

WELSH.—Felton, Northumberland, on the 15th instant, the wife of Robert A. Welsh, M.B., B.S., of a son.

THOMAS.—On February 18th, at Greenlawn, Penylan, Cardiff, the wife of Mr. J. Lynn Thomas, F.R.C.S., of a daughter.

DEATH.

BAREFOOT.—On the 19th instant, at the residence of his brother, The Bank, Grays, Essex, suddenly, John Richard Barefoot, Major, Royal Army Medical Corps, aged 37.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 8.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Th.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Laryux, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. Electricity, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 3; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

A. R. H. asks for particulars of the Maiche process for sterilising water.

L. A. W. will be glad to know of an efficient treatment for a young married lady—first confinement four months ago—whose hair is rapidly coming out; general treatment with tonics has no effect, and a local application is the present want.

J. A. M. desires to hear of a home or institution into which a governess, aged 54, who is suffering from aphasia without hemiplegia, could be received. She has no money and no friends, and is not likely to be able to earn her own living again.

TOWN DUST DESTRUCTORS.

PROVINCIAL MAYOR would like to know the name of some book which describes the methods of getting rid of town refuse, and which contrasts the relative advantages of the various types of dust destructors in use.

DURHAM AND LONDON.

DR. W. G. KEMP (38, Alleyn Road, West Dulwich, S.E.) writes: I am seeking information upon the best way to combine study at these two places. Will some of your readers who may have practical knowledge upon this question kindly favour me with answers to the following queries: (1) Which year is most advantageously spent at Newcastle by a student commencing medical studies in, say, October next? It must be remembered that attendance upon medical and surgical practice and clinical lectures upon the same is compulsory upon those who spend one year out of the five at Newcastle. (2) What the increased cost, in fees, is to those who spend a year at Newcastle as compared with those who spend the whole time in London? (3) The advantages or otherwise of living at the Residential Hall?

HYDROCELE OF THE CORD AND SCROTUM.

MR. COTTENHAM FARMER, M.R.C.S., etc. (Hexham) writes: A farmer, aged 28, had suffered for years from a tumour in the groin, the pain being sometimes intolerable. I found a swelling in the inguinal region, connecting directly with a fairly large hydrocele, the communication between them being free. I introduced a trocar, and drew off 5 or 6 ounces of clear fluid, but did not empty the sac; but I fancy I felt the atrophied testicle in the upper tumour close to the ring. A week ago I again punctured, but with too fine a trocar drew off little fluid, and injected tincture of iodine, producing great pain and shock, probably due to over-distension. Six days later the swelling appeared the same; there was no thickening of the sac and no pain. I again tapped with a large trocar, but only succeeded in drawing off a certain amount of fluid, and I again injected iodine. He used pressure upon the inguinal tumour, and so distended the hydrocele whilst I operated. I shall be glad of the advice of some surgeon of more experience than myself.

A QUESTION OF TASTE.

J. G.—Our correspondent wishes to know whether on a joint doorplate his partner should be described as J.P., Medical Officer of Health; and himself as M.B.London, Physician and Surgeon?

*** It is well known that there is no absolute standard of taste, and that manners and customs change from one generation to another. Undoubtedly it has not hitherto been usual to put the initials J.P. or such a designation as Medical Officer of Health upon a doorplate, while the practice of adding Physician and Surgeon after the name is comparatively new, and is not followed by the leading general practitioners, who are content to put their name only upon their doorplates, or at most to add the word Surgeon. There is so much difference of opinion upon all these questions that, in the absence of any rule beyond what may be derived from such customs as we have pointed out, we must decline to occupy the insecure position of an arbiter of taste.

THE SECOND PROFESSIONAL EXAMINATION, EDINBURGH.

J. asks for advice in the choice of books for the Second Professional Examination, Edinburgh University.

*** We are advised that the following books would suit our correspondent's requirements: Gray's *Anatomy*, 14th edition, by T. Pickering Pick, F.R.C.S. (London: Longmans, Green and Co., 1897, 36s.); Ellis's *Demonstrations of Anatomy*, 11th edition, by Professor G. D. Thane (London: Smith, Elder and Co., 1890, 12s. 6d.); *Manual of Practical Anatomy*, by D. J. Cunningham, M.D., 2nd edition (Edinburgh and London: Young J. Pentland, 1896, 25s.); Turner on the *Brain*: the late Professor Rutherford's Class Syllabus, and his notes on Histology and Physiological Chemistry, or *Kirkes's Handbook of Physiology*, 14th edition, by W. D. Halliburton, M.D., F.R.S. (London: John Murray, 1896, 14s.); *Elements of Histology*, by E. Klein, M.D., F.R.S., and J. S. Edkins, M.A., M.B. (London: Cassell and Co., 1889, 12s. 6d.); *Manual of Pathology*, by J. Coats, M.D., 3rd edition—a new edition is promised in the autumn—(London: Longmans, Green and Co., 1895, 31s. 6d.), or Green's *Pathology and Morbid Anatomy*, 8th edition, by H. M. Murray (London: H. Renshaw, 1895, 17s.), with *Practical Pathology*, by G. Sims Woodhead, M.A., 3rd edition (Edinburgh and London: Young J. Pentland, 1892, 12s. 6d.); Sir A. B. Garrod's *Essentials of Materia Medica*, 13th edition (London: Longmans, Green and Co., 1890, 12s. 6d.), or *Pharmacy, Materia Medica and Therapeutics*, by W. Whitla, M.D., 7th edition (London: H. Renshaw,

1898, 10s. 6d.), or *Materia Medica and Therapeutics*, by J. Mitchell Bruce, M.D. (London: Cassell and Co., 1893, 7s. 6d.), or *Therapeutics*, by H. C. Woods, M.D., LL.D. (London: Smith, Elder, 1894, 18s.).

After-History of Cases of Chronic Dysentery Treated by Colotomy.

Major L. Tarleton Young, M.D., I.M.S. (Flushing, Falmouth) is anxious to have information as to the subsequent history of cases of chronic dysentery treated by colotomy or ileotomy. He asks as to the part of the colon in which the lesions were situated in successful cases. In some cases examined in India *post mortem*, he observed marked attempts at cicatrisation. Many cicatrised ulcers, completely healed up, were found side by side with others which were small, clean, healthy, and punched-out in appearance. In these cases the liver was found to be small, atrophied, and pale yellow in colour. It had all the appearance of a cirrhosed liver in which fatty degeneration had occurred. In other cases, he continues, I found absolutely no attempt at any reparative changes, and in such cases the liver exhibited no marked macroscopic changes. The intestine itself was also always much more thickened and hypertrophied than in the other type of cases. Clinically we also find that liver abscess supervenes with greater frequency in those cases in which the cæcum and ascending colon are affected, and that it is these cases which are most impossible of cure. Chronic dysenteries of other parts of the colon often recover when put to bed for from three to five months on absolute milk diet. The chronic dysenteric bowel is most susceptible to all kinds of irritation; even the slightest change of food affects it. Irritations of other portions of the digestive tract also seem to leak or travel over to the dysenteric portion. Taking this extreme sensitiveness into consideration, does no possibility exist of fresh dysenteric trouble being lighted up by any operative interference?

ANSWERS.

A Member.—The removal of superfluous hairs by electrolysis can be carried out by any dermatologist.

Saxon.—We are informed that a moderate degree of myopia does not necessarily disqualify a candidate for the medical service of the Royal Navy.

We are informed that such a case as to which "A. P." inquires in the British Medical Journal of February 11th, p. 386, would be received at the Yorkshire Home and Hospital for Chronic and Incurable Diseases, Harrogate. The usual terms are 12s. 6d. a week, but other arrangements are sometimes made for special cases. Further particulars can be obtained on application to the secretary.

Ruling.—The rule suggested in *The Medico-Chirurgical Tariffs* is as follows:

Consultations.—When the ordinary medical attendant has to meet another practitioner in consultation, he is fully entitled from loss and disarrangement of time, to not less than double his usual fee—exclusive of that for inordinate or needless detention. If, however, the consultations are frequent, the increase may be remitted at his discretion; and in the following case, also, if requested by the practitioner in attendance. When a general practitioner is himself called in consultation he is entitled to the consultant's *minimum* fee of 21s. Obstetric consultations should be charged by arrangement between the practitioners.

Ajax; W. B. S.; B. C. T.—The rule suggested in *The Code of Medical Ethics* is as follows:

All legitimate practitioners of medicine, their wives, and children while under the paternal care, are entitled (*not* as a matter of *right*, but) *by professional courtesy*, to the reasonable and gratuitous services—*railway and like expenses excepted*—of the faculty resident in their immediate or near neighbourhood, whose assistance may be desired. In the case, also, of near relatives who are more or less dependent upon a professional brother (other than wealthy), it will likewise be well, at his request, to forego or to modify the usual fee. On the other hand, a son or a daughter altogether independent of the father—or the widow and children of a practitioner left in affluent or well-to-do circumstances—should be charged as ordinary patients, unless feelings of friendship, or other special reasons, render the attendant practitioner averse to professional remuneration; in such case, the rule need not apply. Moreover, if a wealthy member of the family seeks professional advice, and courteously urges the acceptance of a fee, it should not be declined—*for no pecuniary obligation ought to be imposed on the debtor which the debtee himself would not wish to incur.*

Medical Inspectorships.

J. H. E.—We do not know how far the D.P.H. is essential to appointment as Medical Inspector under the Local Government Board, but we imagine that, all else being equal, such a diploma would have great weight in determining the chance of success of a candidate.

The Tuberculous Test in Milch Cows.

Dr. A. Eyton Lloyd.—The best plan would be for our correspondent to apply directly to the Principal of the Royal Veterinary College, Camden Town. He prepares tuberculin and sends out along with it instructions for its use, giving the temperature, etc., and some general observations.

Treatment of Gonorrhœal Arthritis.

W. T. T. writes: In answer to "S," I have found most marked and steady improvement in obstinate gonorrhœal rheumatism follow the long continued administration of mercury and iodide. ℞ Liq. hydrarg. perchlor. 3j; potassii iodid. gr. 4 or 5ss; sp. ammon. aromat. 3ij; aq. ad 3viij. 5ss t.d.s. In three very chronic and severe cases, in which all the joints of the body were affected, with marked effusion in each joint, this treatment enabled the patients to return to active work. Of course any urethral affection must be cured. My reason for resorting to the treatment was based on the pyæmic nature of the affection requiring an attempt to soak the tissues with a powerful germicide, which the biniodide of mercury in solution seems to effect.

The Inebriates Act, 1898.

G. D. W.—No one can be sent to, or detained in, any reformatory or home under the Inebriates Act, 1898, unless he or she has been convicted of some offence, and has been found to be a habitual drunkard; or has been convicted of drunkenness and a minor offence after three similar convictions within the preceding twelve months. By the 1879 Act a habitual drunkard can be detained in a licensed retreat only after having applied for admission and detention, the application having been attested by a justice.

Qualifications of Public Vaccinators.

Mr. W. G. Dunwoody, B.A., M.D. Univ. Dub. (Ely) writes: May I correct a statement of yours in your answer to "M.D." under the heading "Qualifications of Public Vaccinator" in the British Medical Journal of February 11th? You say the University of Dublin does not seem ever to have required a certificate of proficiency in vaccination. This is erroneous, as candidates for the M.B. in Dublin University have to produce certificates of attendance at vaccination classes and of proficiency at the end of such attendance. The course is taken out at the Local Government Board Vaccine Institute, 47, Sackville Street.

NOTES, LETTERS, Etc.

Membranous Colitis and Colotomy.

Mr. Skene Keith (London, W.) writes: In the British Medical Journal, p. 436, Dr. R. Neale states that my case of right inguinal colotomy for membranous colitis is not the first on record, and he brings forward two cases in support of his statement. In both of these the colon was opened on the left side. I entirely support Dr. Simpson's positive statement, that my case was the first where right inguinal colotomy with removal of the ovaries was performed. The production of two cases of a different operation does not shake my belief.

Dr. J. Christian Simpson (Cambridge) writes: With all deference to Dr. Neale, I think his note in the British Medical Journal of February 18th is most misleading. Both Mr. Keith and I are aware of the case treated by left inguinal colotomy, and reported by Mr. Mayo Robson in 1893, and also the case mentioned by Mr. H. B. Robinson, in which he opened the sigmoid or descending colon for ulceration in that part in 1891. But surely Dr. Neale has not read and digested the whole of my note in the Journal of December 31st, 1898, or the paper by Dr. Lawrie in the Journal of November 5th, 1898, in which Mr. Golding-Bird gets the credit of priority of performing right inguinal colotomy for membranous colitis in May, 1895. Why did Dr. Neale not correct (?) this statement? Again, Dr. Neale cannot have have done me the honour of reading or digesting my original paper and its full title which appeared in the *Medical Press and Circular*, July 29th, 1896, or the Further Note on the same case in the same journal for July 20th, 1898. If Dr. Neale can kindly refer me to a case of membranous colitis treated prior to June 24th, 1894, by performing right inguinal colotomy and double oöphorectomy, I shall be greatly indebted to him and sincerely apologise to the author and operator thereof for my erroneous (?) and positive statement.

Ascitic Fluid.

Dr. W. Stewart McDougall (Wallington, Surrey) writes: M.S., a single woman, aged 43, was first tapped by me on July 7th, 1893. On July 22nd paracentesis was again necessary, and a third time on August 29th. On the first two occasions I drew off only part of the fluid present, and each time after I left oozing took place from under the collodion dressing. Fagge's prognosis of this accident is gloomy in the extreme, but in this case no harm resulted. Afterwards oozing never occurred, for practically all the fluid present was evacuated at each paracentesis. On December 17th, 1897, I tapped her for the eighty-ninth time, and my successor tapped regularly up to her death, which occurred a fortnight ago. During the four years and a-half she was under my care the intervals between the tappings diminished from a month to a fortnight, and the amount of fluid withdrawn each time was about 5 gallons (800 ounces). I cannot give the maximum amount, but the above quantity was accurately measured on an ordinary occasion in 1893. In the first year of her illness she developed eczema around the paracentesis punctures, which disappeared when I ceased to apply collodion over the puncture, and simply dressed with carbolised lint for a day or two after tapping. Up to the end of 1897 she was able to go about two days after each operation, and was seldom confined to bed until my arrival for the next. While she was under my observation the only obvious changes in her condition were the development of "stigmata," an increasing tendency to ecchymosis from the slightest bruise, a progressive enlargement of the superficial abdominal veins, shrinking of the liver, enlargement of the spleen, thickening of the intestinal coats from deposit of lymph on them, and a diminution in the quantity of urine excreted. The diagnosis was cirrhosis of the liver, and this was supported by Dr. William Russell, of Edinburgh, who saw her with me in 1893. Unfortunately, as there was no *post-mortem* examination, this can never be verified. The case was published in the *Scottish Medical and Surgical Journal* of December, 1898 (before the patient's death). After December, 1897, Dr. Rutherford, Tongue, N.B., tapped the patient 32 times, and the maximum quantity was 30 quarts. She was a comparatively small woman, though her abdomen measured 5 ft. in circumference before tapping.

Lieutenant Cox will find recorded by Fagge a case of Sir T. Grainger Stewart's in which 606 pints were removed from the abdomen in twenty-one operations (averaging about 580 ounces each paracentesis). The patient recovered, so in all probability this average gives no idea of the maximum amount.

Dr. F. J. Sawdon (Hull) writes: I notice in the British Medical Journal of January 28th, Lieutenant W. H. Cox inquires if 480 ozs. of fluid has ever been exceeded in one tapping. I have in my case book notes of a Mrs. W., aged 50. She was first tapped in 1882, and once in each consecutive year to 1884. Then the fluid increased rapidly to the end of 1886. The fluid was clear, and pale yellow. Time was taken in removing it (two hours). She never exhibited any signs of fainting or

anything. She dressed on the third day, and went about her work as usual up to the date of the next tapping. Of course she became very anæmic from the immense drain on her. In my absence from home she was induced to become an in-patient in an institution. Here they removed the fluid, I imagine, too quickly, for she sank from syncope.

Dates.	Fluid.	Dates.	Fluid.
1882. March 20th	38 pints.*	1886. April 16th	50 pints.
1883. May 31st	38 ,,	,, August 26th	50 ,,
1884. February 28th	44 ,,	,, December 29th	54½ ,,
1885. January 29th	51 ,,	1887. April 19th	54 ,,
,, October 29th	54½ ,,	,, July 27th	51½ ,,
		,, October 20th	50 ,,

* 1 pint = 20 fluid ounces.

ERYTHEMATOUS RASH PRODUCED BY SMALL DOSES OF QUININE.

MR. J. M. MORRIS, M.B.Edin. (Neath) writes: Dr. A. St. Lawrence Burke recounts an interesting case of the above in the BRITISH MEDICAL JOURNAL for February 4th. Having seen several instances I do not think it is so uncommon as he seems to judge. In fact, I consider that he is to be congratulated less upon the discovery of the rapid appearance of the erythematous rash than upon its prompt disappearance within 24 hours of withholding the drug.

In his case the patient had presumably taken 20 gr. in the course of the night, whereas in the following instance, which I met with some few months ago, a single dose of 4 gr. sufficed. A female patient, complaining of headache, was given this dose in a little warm milk. Within ten minutes she began to experience great tingling and irritation of the face and neck, and in less than half an hour an urticarial rash was seen to be spreading over this region. Moreover, within an hour of taking the quinine menstrual flux ensued, it being a week since the cessation of her regular period. The menstrual flow, in normal quantity, continued for over 12 hours, but the urticaria, along with considerable œdema, persisted for 4 days, during which the patient suffered much mentally owing to the hideous countenance that she presented.

My experience of these cases seems to show that they may occur in those who have been accustomed to take quinine without exhibiting any such reaction, but that once this has appeared a recurrence will certainly be met with, even when the very smallest doses of the drug are given.

ACADEMICAL COSTUME.

MR. J. M. CARVELL, M.R.C.S., L.S.A. (Catford, S.E.), writes: Under the above heading, one of your correspondents—"M.R.C.S.Eng."—states that in the clerical profession a licentiate of a theological college has no right to wear a hood, which is a distinctive privilege of a university graduate. With reference to the first part of the statement, I would refer him to the penultimate paragraph of the article on University Hoods and Degrees, in *Whitaker's Almanack*, page 709: "It has been resolved by the Upper House of Convocation, that all the theological colleges of the Church of England have a uniform hood for their non-graduate members . . . each college, however, being at liberty to add to the hood a coloured edging, border, or binding, by which its own students might be distinguished." If the hood is a distinctive privilege of a university, how is it that hoods are granted to theological licentiates, the associates of King's College, London; associates, licentiates, and Fellows of the College of Preceptors?

ELEPHANTIASIS OF THE VULVA.

MR. THOMAS H. AQUINO, F.C.S., L.M.S. (Assistant Surgeon, Sholapore) writes: Adverting to Dr. William Renner's case of elephantiasis of the vulva published in the BRITISH MEDICAL JOURNAL of September 24th, 1898, I wish to remark that I had a similar case (brief account in the *Indian Medical Record* of May 1st, 1896):

S. E., a Hindu woman, aged about 22 years, was admitted into the Gadag Dispensary for elephantiasis of the vulva of seven years' duration. The left labium was chiefly affected, the growth forming a round, heavy mass of the size of a large pomelo, and pendulous. The tumour in connection with the right labium was much smaller and flattened laterally; the clitoris and the nymphæ were also hypertrophied. General health was fairly good. The tumours were excised one after another—the left one first—by bold and rapid sweeps of the knife, after having taken the precaution of emptying them as much as possible of their blood by keeping them in an elevated position for some time before the operation and by applying an elastic ligature tightly round the base of each just before beginning the operation. The bleeding was chiefly venous, and, though considerable, was much less than was anticipated and readily controlled. The clitoris and the nymphæ were also trimmed. The larger tumour weighed 8¾ lbs., the smaller 1½ lb. The raw surfaces left after the removal of the growths healed nicely and rapidly by granulation, and the patient made an excellent recovery.

From this it will be seen that the tumour removed by me weighed 2 lbs. more than Dr. Renner's. I may also add that the immense size of the growth and its situation necessitated its being pushed back between the thighs on to the nates whenever the patient wished to sit down—or, rather, squat down, as is the habit with natives. It also caused an awkward impediment in locomotion. In other respects the two cases presented many points of similarity.

MEDICAL TITLES.

HAIR-SPLITTING writes: Some years ago a patient came to me from a distance with a somewhat trifling surgical complaint. On asking if there was no doctor nearer his home who could attend to such a small matter, with some hesitation he replied: "Oh, yes, there is, but he is a very queer man, and we don't trust him very much in our neighbourhood." "How is he 'queer'?" I asked, and, with creditable hesitation, the man answered: "Well, you see, we are afraid there is something wrong there (pointing to his head). He calls himself 'Mr.' ——, and he won't allow anybody to call him 'Dr.,' and always says when we call him 'Dr.' that he is not a 'Dr.'; so we don't reckon to trust a man very much when he practises as a doctor but says he isn't a doctor." *Verb. sap.* I have since learned that Mr. —— is an exceedingly capable and conscientious man, and a licentiate of one of the Royal Colleges.

LETTERS, COMMUNICATIONS, ETC., have been received from:
A Dr. A. G. Auld, London; Dr. R. Atkinson, Chilton; Alpha; Mr. J. A. Atkinson, Knaresborough; Aylesbury Dairy Company, Aylesbury; Apothecaries, Society of, Secretary of, London; Mr. R. B. Anderson, London; A. Z. O.; Mr. C. E. Ady, London. **B** Mr. P. B. Bentlif, Jersey; Dr. J. W. Batterham, St. Leonard's-on-Sea; British Medical Temperance Association, Secretary of, London; Birmingham and Midland Counties Branch, Secretary of, Birmingham; Mr. A. A. Bowlby, London; T. M. Bonar, M.B., Probus; Dr. E. G. Barnes, Eye; Mr. L. A. Bidwell, London; Messrs. Burgoyne, Burbidges and Co., London; Dr. Berlioz, Grenoble; Mr. W. Bassett, Newport, Mon.; Dr. T. Beattie, Newcastle; Messrs. Burroughs, Wellcome and Co., London; Mr. J. Brunt, Fleetwood; Messrs. Baillière, Tindall and Cox, London; Dr. A. Brocchi, Paris; Dr. J. Brown, Bacup; Mr. J. W. Burdwood, Bourne. **C** Mr. A. Cheatle, Oxford; Mrs. Coats, Glasgow; Carnos Limited, Great Grimsby; Dr. L. Cobbett, Weybridge; Mr. F. W. 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Wilson, Cheltenham; West Kent Medico-Chirurgical Society, Secretary of, London; Miss C. S. Wilkie, Halifax; Mr. R. Williams, Liverpool; W. L. F.; W. T. T.; Messrs. Whitwell and Co., London. **X** X. **Y** Mr. L. T. Young, Falmouth; etc.

BOOKS, ETC., RECEIVED.

The Municipal Yearbook of the United Kingdom for 1899. Edited by Robert Donald. London: Edward Lloyd. 2s. 6d.

Pathogénie et Traitement des Hématuries Rénales dites Essentielles. Par Dr. R. Robinson. Paris: Jouve et Boyer. 1899.

Anleitung zur Uebungs-Behandlung der Ataxie. Von Dr. A. Goldscheider. Leipzig: Georg Thieme. 1899.

St. Bartholomew's Hospital Reports. Edited by N. Moore, M.D., and D'Arcy Power, F.R.C.S. Vol. XXXIV. London: Smith, Elder and Co. 1899. 8s. 6d.

The Englishwoman's Yearbook and Directory for 1899. By Emily James. London: A. and C. Black. 1899.

Whitaker's Naval and Military Directory and Indian Army List, 1899. London: J. Whitaker and Sons. 5s.

The Annual Charities Register and Digest. London: Longmans, Green and Co. 1899. 1s.

Les Verres Isométropes. Par Dr. D. Bourgon. Paris: A. Maloine. 1899. Fr. 5.

Apoplejia Cerebral. Par J. C. Castelvi. Barcelona: L. Tasso. 1899.

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AN ADDRESS

ON THE

INDIVIDUAL VALUE OF THE SYMPTOMS IN PERFORATIVE PERITONITIS, MORE ESPECIALLY AS REGARDS OPERATION.

Delivered before the Hunterian Society.

By CHARTERS J. SYMONDS, M.S., F.R.C.S.Eng.,
Surgeon to Guy's Hospital.

Mr. President and Gentlemen, I shall endeavour to fulfil your trust by asking your attention to a subject of practical interest. I propose to deal with acute perforative peritonitis, and especially to examine into the value of the symptoms as directing operation. There is no more important question before us to-day, for while on the one hand it must be our aim to avoid operating unnecessarily, on the other hand it must be recognised by all that early operation has saved many lives. Though one would make the statement with the deepest sense of its gravity, I think it not too much to say that operation in these acute diseases need never be harmful however early it be undertaken.

Our recent knowledge has taught us the frequency with which the appendix is the cause of acute symptoms and my remarks will centre around the acute affections of this body. In using the term "perforative" I must add that so far as the appendix is concerned, though the symptoms are acute and alarming, there is at the moment no pathological perforation in the majority of cases. My title must be regarded as a clinical one.

The patient, whose case I will relate as a type of the acute condition, was a woman of 50. In better health than usual, on account of a holiday, she was seized at 10 o'clock on Wednesday night, April 29th, with severe pain in the abdomen and vomiting. The bowels acted three times within a few hours. The pain continued through the night. She was first seen and examined by Dr. Hugill, on Thursday, April 30th, fourteen hours after the onset. The pain was chiefly limited to the right inguinal region, although the whole abdomen was more or less tender. There was slight general distension. The temperature was 99°, and the pulse 80. She was given a hypodermic of morphine. At 6 P.M. the temperature was 100.8°, pulse 96. The pain still continued, but was less severe; the abdominal distension had not diminished, and the right inguinal was still the more tender region. The patient felt sick, but there had been no vomiting. Five hours later (11 P.M.) the temperature registered 100.2°, and the pulse 92. She complained of feeling faint, and of pain in the back; the abdomen was resonant, and moved slightly on inspiration. There was marked tenderness on the left side. The second night was passed with much restlessness, and very little nourishment was taken. Early in the morning, somewhere about 5 o'clock, she was taken with intense pain all over the abdomen. When Dr. Hugill arrived soon afterwards he found her in a condition of collapse. The temperature had fallen to 97°, the pulse was rapid, the whole expression typical of the most severe peritoneal injury. A full dose of morphine was administered hypodermically. In eight hours the temperature stood at 103°, the pulse 128; the abdomen did not move so freely on inspiration; it was distended, and very tender. One hour-and-a-half later the temperature of 103° was maintained, the pulse had dropped to 112, there had been a little vomiting, and the pain continued to recur, though some relief was obtained from hot applications. When I arrived at 6.30 P.M., forty-four hours had elapsed since the onset. The patient was now practically free from pain, and thought herself much better. She conversed in a bright, lively manner, and could not understand our taking a serious view of her case. The abdomen was uniformly distended, and did not move on inspiration. There was distinct resistance in the right iliac region, with tenderness, but no dulness, and no localised swelling. The temperature was 102°, and pulse 100.

The main question was, whether the case was one that might terminate in localised abscess, or whether it would not be wiser to operate at once. We decided to operate, and for the following reasons:—The sudden onset indicated a severe peritoneal injury; the early abdominal distension, growing more marked and unrelieved by treatment, indicated extending irritation; the localising symptoms settled the seat of the disease. Then the continued pyrexia pointed to a septic process in the wall of the appendix itself. We had as a special point the sudden collapse of the morning, marking probably a fresh and sudden extension. On these grounds, in the face of the placid condition into which the patient had entered, we incised at once. A foul abscess was found, the appendix was gangrenous, the adherent great omentum was black and green, and the suppuration was extending towards the pelvis. After removing the omentum and appendix and flushing with an abundance of boiled water, it was thought wiser to put a drain into the pelvis above the pubes. A tampon of gauze was placed in the inguinal wound deep into the cavity. The operation was well borne, and by 10 P.M. the temperature was 101° and pulse 104. For the first twenty-four hours there was a good deal of distension, relieved, however, by the flatus tube. Hiccough occasionally gave trouble, and there was some sickness. Only a small amount of thin reddish fluid was withdrawn from the drainage tube, which was removed in thirty-six hours. The inside of the tampon was removed in twenty hours and replaced. It is unnecessary to relate the further progress of the case, which was uneventful, as I am dealing mainly with the question of operation.

Now when a patient in perfect health, no matter of what age, is seized in the way I have related, what are the prominent causes that may give rise to the symptoms? Dr. Fagge used to say we should think of three conditions, namely, perforation of the appendix, perforation of the stomach or duodenum, and a ruptured ovarian abscess, or, as I am told is more correct, ruptured pyosalpinx. Such a remark was not intended to be complete. We must bear in mind such conditions as ruptured tubal pregnancy, ruptured hydatid and gall bladder, suppurating mesenteric gland, perforation by a gall stone on its way to the duodenum, and even tuberculous peritonitis.

Pain.

Taking the symptoms in detail, the first point we will consider is the value of pain at the onset of the case. It was sudden and alarming, was felt all over the abdomen, and was accompanied by sickness. These initial symptoms are common in three other conditions, which may be termed the "colics," namely, renal, hepatic, and intestinal colic. In these the onset closely resembles the graver complaints, and the diagnosis is often difficult. As a broad general distinction separating these two groups of cases, it may be said that the colics improve quickly, are not accompanied by a sustained elevation of temperature, that in two of them localising symptoms quickly develop, for example, jaundice in one and vesical irritation in the other, while in the third (intestinal), if not soon relieved, the symptoms become very grave, the pain remains general, and indications of strangulation and obstruction of the bowel arise. Here let me point to some errors that may occur if we rely wholly upon the initial symptoms, especially pain.

A man aged 42, a couple of hours before we saw him, was seized with violent abdominal pain and sickness. He was in great agony, rolling about in the bed, with pain in the "pit of the stomach," perhaps a little to the right of the median line, and he was retching and vomiting. The diagnosis was that of perforating ulcer of the stomach.

My present impression being that it is as well to allow such cases to pass into the stage of repose usually following the onset before operating, we waited six hours. On going to the man's bedside, we found him breathing rapidly, with dilating nostrils, with great pain in the side, and all the aspects of pleuro-pneumonia. The man went through an ordinary right basic pneumonia, and went out quite well. Within a week of this occurrence we were called one evening to a woman between 50 and 60, with great abdominal pain and tenderness about the region of the gall bladder. She was somewhat sick; a little jaundiced, had a high temperature and a rapid pulse. The diagnosis first suggested was that of suppurating gall bladder. After carefully considering her case, and noting that the pulse could not be counted at the wrist, because of its great rapidity and irregularity, we decided that operation was out of the question. This woman went through an attack of acute pneumonia on the right side, and walked out of the hospital quite well.

Not more than a week after these instances, a girl of 20 was brought with a history that at 11 P.M. she was seized with violent abdominal pain and vomiting, both of which persisted up to the time we saw her, about 3 P.M. the following day. We explored, with the expectation of finding a perforating gastric ulcer, for there was a long history of indigestion, and she was young. We found a perfectly normal peritoneum and stomach, closed the wound and put her to bed; she was never sick again, got rapidly well, and we came to the conclusion it was all hysteria.

Pain at the onset is no doubt an indication of severity, allowance being made for the difference in the ability of patients to bear pain. When pain is localised to the right iliac fossa, its value as to the seat of trouble is obvious. When pain is continuous, I mean is independent of handling, and thus to be distinguished from tenderness, it is a sign of great value, and an important indication for operation.

I would say that pain recurring after the period of repose is always a grave sign, and an important indication for operation. Therefore, we see the absolute necessity of not obscuring this valuable guide by the continuous use of sedatives.

General Abdominal Distension and Immobility.

These are two of the most important symptoms. In the

present case, the abdomen when first seen, some fourteen hours after the onset, was slightly full, and when I saw her forty-four hours after the onset, it was uniformly distended and tympanitic, and was not moving on respiration. What does this distension in the early stages signify?

It has been clearly shown by Dr. Malcolm that the early distension occurring after operations, called by Mr. Tait peritonitis, and which he claimed to cure with sulphate of magnesia, is reflex. It is not peritonitis, but a sympathetic irritation, and is relieved by a flatus tube or a turpentine enema. This early distension is, I take it, the effect of injury to the peritoneum, or more correctly to the abdominal sympathetic. I use the word "injury" advisedly, for we see these symptoms frequently in abdominal injuries, and after operations of all degrees of severity involving the abdominal contents. The first effect of perforation is injury, and is quite comparable to that inflicted by an operation or ordinary traumatism.

Let me here remark that we must examine the abdomen carefully to rightly estimate this distension. Everyone must have observed that when a patient is placed upon an operating table the distension appears much greater than in the bed, whether the enlargement be due to intestinal distension or tumour. In bed the patient lies in a hollow and much of the swelling is concealed. I am, therefore, in the habit of bringing the patient to the edge of the bed, tucking a pillow under the other side so as to let the body be as flat as possible. The value also of bringing the bed well into the light and drawing aside the curtains so as to obtain a really good inspection cannot be over-estimated, for upon the amount, character, and distribution of the distension the diagnosis may depend. This distension, then, following upon an acute onset has a most grave significance. If it yield in twelve hours to a turpentine enema or a flatus tube, we shall know it is reflex and not serious; but if it do not yield or it recur we must look upon it with great concern, for it does not disappear so long as there is progressive peritoneal irritation. Lastly, if, as in this case, it persists during the period of repose, it becomes a valuable indication for operation, and, together with temperature, decided me to advise interference. In attempting to separate these cases of acute perforation from those of acute obstruction, I would say that the early appearance of distension and its continuous presence point rather to perforation. In ordinary cases of strangulated hernia distension is by no means an early sign, being often absent after three to four days. When the strangulation is within the abdomen altogether the distension is earlier, but is not so early or so marked as in perforation.

To summarise the value of distension:

1. It is absent in the early stages, when there is rigidity only.

2. In all cases the general distension, which does not yield to a tube (or turpentine enema) on the second or third day, indicates progressive disease, and the case will probably require operation.

3. When a perforating gastric ulcer is suspected, there may be no distension for twelve to twenty-four hours, at which period it is a serious symptom.

4. In appendix cases, general distension without localised tumour, without dulness, but with pain and tenderness, has a grave significance.

If with the points mentioned in the previous paragraph, the temperature be continuously raised, the case is still more grave, and may call for immediate operation, even forty-eight hours after the onset.

When general distension has subsided, or yielded to the flatus tube or an enema, and a localised swelling can be felt, the outlook is favourable. Four leading signs remain to be watched—namely, increase of swelling, aggravation of pain, persistent elevation of temperature, and the general condition I will refer to, as indicative of septic absorption, in the absence of pyrexia.

The first two, associated as they must be with one or other of the last two signs, form a group of symptoms pointing to the necessity of immediate operation.

In examining these distending abdomens, movement of the bowel or coiling will sometimes be noticed. Now, this is generally seen in chronic cases, as, for example, obstruction in the large intestine or adhesion in the small, but it is common to see it also in strangulated hernia, and in these it is not an unfavourable sign, as I have seen many such cases recover after operation. This visible peristalsis in acute obstruction is uncommon, though its occurrence in strangulated hernia comparatively frequently would lead us to expect it. It was well marked in a case of obstruction from impacted gall stones on the sixth day, and it led me to give a more favourable prognosis than other conditions justified.

The next sign is that of localised tenderness and swelling. In the case under consideration, where the diagnosis of the site of perforation was never in doubt, the pain was soon localised to the right iliac fossa, and the only question remaining was as to the wisdom of operating at once. When a swelling is not found in the iliac fossa, we must examine the rectum. Here I have on several occasions found the abscess filling the pelvis, and even when no abscess has formed, the swelling around the appendix may be felt and the diagnosis made.

When an appendicitis runs a favourable course the distension quickly subsides, and the swelling can be isolated. It may be said, in fact, that when in appendicitis the swelling can be felt, immediate anxiety is over. By immediate, I mean for a few hours. If it increases steadily, then operation is called for; especially is this demanded if the temperature keeps high. But when the temperature is of the hectic type there is less immediate risk. In acute cases, however, there may be no local swelling to be felt and no dulness. These are the difficult cases. The general distension masks the dulness and conceals the swelling. The presence of gas in the abscess in a few cases contributes to the resonance. In the case here related, though there was a fair amount of pus, there was no dulness; and this is a frequent observation. We may take it, then, that localised swelling and dulness, when present, are of great value; but that with large collections of pus these signs may be absent. One curious point is to be noted, and that is, that tenderness and pain may be felt in the left side and obscure the diagnosis. I have several times seen this, and on the whole think it of little value. I mean it does not indicate suppuration on the left side. Persistence or increase of tenderness and pain, with an increasing swelling, demand operation in the presence of a normal temperature and pulse, but especially if the temperature be high. Moreover, the inability to find swelling and dulness, in the presence of pain and distension, marks a serious case.

VOMITING.

This symptom is usually present in all cases, certainly in all where a sudden onset occurs. The vomiting is immediate and subsides with the pain, and is followed by repose, and this repose will continue a variable time, even till the last few hours of life. The greater the amount of sedative the longer the delay. This form of vomiting marks an important distinction between perforative peritonitis and strangulation of the bowel. Vomiting is more persistent in strangulation. In the perforating cases vomiting is early, subsides rapidly, and a period of repose follows. Its persistence would lead me to diagnose strangulation. Fortunately it is a symptom which presses for operation in any case.

Notice that while it always accompanies the onset of perforation, it may be, and often is, absent in cases of gangrenous appendicitis. As a symptom of onset it indicates severity or suddenness, and is present in most cases that run a favourable course. If it recurs after careful feeding, rest, and a sedative, it becomes an alarming symptom, and as a rule the case demands immediate surgical interference. Of all the symptoms, it may as a single one be most relied upon. Its value is enhanced if it return during the period when all food is withheld.

If vomiting be an important symptom its absence has a significance equally great. In fact I should be disposed to say that the absence of vomiting causes more anxiety when the question of operation is raised than its presence. We must not, in fact, rely upon this sign as a necessary indication for operation. In the period of repose it is absent, for the initial attack empties the stomach, and often the lower bowel as well. Then, again, our method of treatment aims at preventing vomiting. We withhold food, giving only the simplest materials; we keep the patient at perfect rest, and administer sedatives. Thus we delay the reappearance of this important guide. It has often appeared to me that the patient who comes into hospital after home treatment—com-

prising, as it does, little rest to body generally, frequent attempts at feeding, one or more doses of oil, and gives in consequence a good history of two to three days' vomiting—runs a better chance than one who has been carefully treated and the vomiting kept in abeyance. I am not sure, in fact, that a good meal of bread and milk, for instance, or a free drink given when we were doubtful as to the existence of an obstruction, would not be a good treatment. Such a measure is justified by the observation that those patients who in obstruction or appendicitis are frequently sick during the first two or three days appear to be none the worse for it, and being in consequence operated upon early generally do well. I mean that where a case has been very carefully treated vomiting may be absent, while the patient is steadily getting worse. This we see constantly in the septic peritonitis of appendicitis, and we see it in gall-stone obstruction. We must not wait for this sign; if we do, the only opportunity for operation may be lost. We must remember that strict abstention from stomach feeding retards for a time its occurrence, and when vomiting does recur under careful treatment the end is probably near.

Temperature.

It has been long known that the temperature of the patient is of no particular value in cases of strangulation of the bowel. In hernia, for example, the temperature is always low, and the same is true of internal strangulation. Nor do we find the temperature raised in cases of perforating gastric ulcer, nor again in a ruptured tubal pregnancy. When the temperature however does rise in one of these acute cases, and remains elevated, it has a special significance, is a valuable aid to diagnosis, and an important indication for operation. A rise at the onset, followed by a rapid decline, and succeeded perhaps by a rise of one degree, or a degree and a half, indicates irritation, as for example that due to the passage of a stone along the ureter. This temperature is not of a septic nature. The temperature in the case under consideration rose early and remained high.

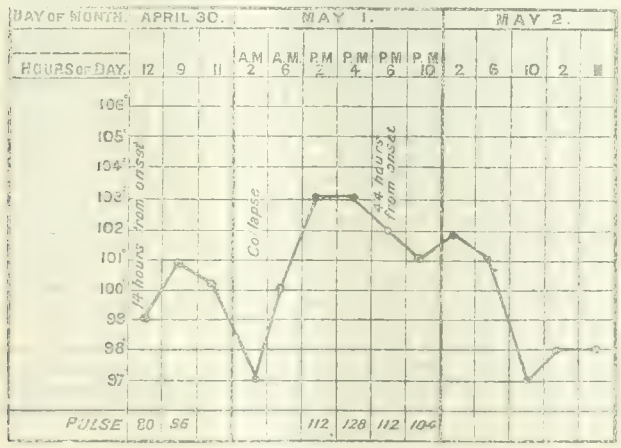


Chart I.

One might furnish a large number of similar cases from one's own experience. To take one other instance. A girl of 17 was seized during Monday night with diarrhœa and sickness and was given, at 2.30 A.M. on Tuesday, a dose of senna, followed by three enemata as home treatment. Later on Tuesday the temperature was found to be 101°, and was high in the evening. The records in the accompanying chart begin on Wednesday, the third day.

When called to decide the question of operation we had, in the presence of a general condition, exactly similar to the text case and with no local dulness, the best of all guides, a temperature which had been continuously high for two and a half days at least. In contrast with these illustrations let me refer to cases where the temperature, though it may rise high in the early stages, falls with advancing disease. No better illustration can be given than a case seen with Dr. Dunbar at Clapham. The man was first seen on the third day with a temperature of 101.8° in the morning and

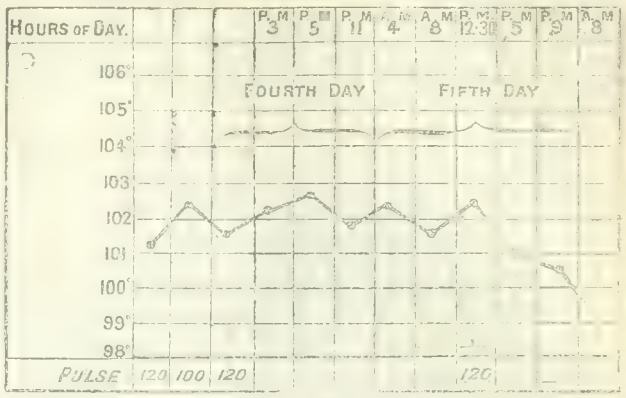


Chart II.

102.6° in the evening, and as you will see, it fell in a most deceptive way, especially as the pulse fell in association.

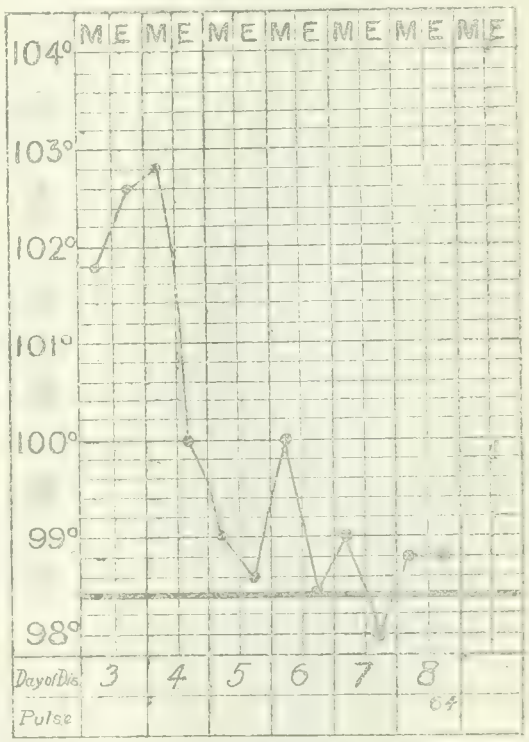


Chart III.

It was in this case that the general condition to which I refer later proved so valuable a guide, and in conjunction with local pain and tenderness, decided operation. A large and very septic abscess was opened through the loin and recovery followed.

I might give many such examples to illustrate this pregnant fact, namely, that temperature and pulse may steadily fall, while dangerous septic processes are advancing.

When it is elevated, as in the two cases I have related, what does it signify? These high elevations point to septic infection of the connective tissue of the appendix, for where the peritoneum alone is concerned absorption is slight, but if the connective tissue be involved the absorption may be as rapid as in any other part of the body. I will go so far as to say that such a temperature as occurred in the case under consideration points to the necessity of immediate operation, and I believe that the appendix will almost uniformly be found to be gangrenous to a greater or less extent. What may happen if we do not interfere in such a case? First, the septic pro-

cess extends to the peritoneum and the patient dies. Secondly, absorption may take place in the liver, leading to pylephlebitis—a complication uniformly fatal. Thirdly, its necrosis may be partial or complete, the entire appendix coming away on opening a localised abscess.

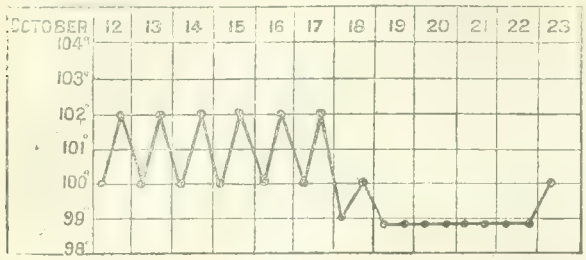


Chart IV

Chart IV. depicts the temperature in such a case. It may be divided into three periods, first, from the sudden onset on October 12th to October 18th, a period of six days, when the morning record averaged 100°, and the evening 102°. Secondly, October 19th to the 23rd, during which time—five days—it was normal both morning and evening; and thirdly a rise to 100° up to the fourteenth day, when a large abscess was opened. The reading of such a temperature seems to be that there was a septic process in the connective tissue of the appendix, lasting for a week, during which time the temperature was high. When this ceased and no further absorption took place, the temperature fell, though there was a large collection of pus around the sphacelated appendix.

The temperature in this case gives further support to the view I suggest—namely, that the high and continuous temperature indicates a septic process in the connective tissue of the appendix. When this is completed the temperature falls, though a large abscess lies in a portion of the peritoneal cavity, and is increasing. Absorption sufficient to cause elevation of temperature does not take place through the peritoneum, now covered and protected by lymph. We may look upon the fall of temperature as indicating a cessation of the septic process in the appendix itself. When all danger of secondary infection has passed, rupture of the abscess into the peritoneal cavity is the remaining danger, and this not infrequently occurs on the tenth or fourteenth day.

It has also been suggested that a bacillus is absorbed which depresses the temperature. Certainly there would appear to be some such reason for the notable absence of temperature, though I prefer, as more in accord with what we see elsewhere, the explanation I have given above; for could absorption take place, there are abundance of pyogenetic organisms present in the pus.

To summarise the directing value of pyrexia:

(*a*) If the temperature be high in the initial stages—say 102° to 104° for the whole of two days—it indicates a septic process in the wall of the appendix. Before a localised abscess can form there may be fatal metastasis to the liver. This continuous temperature, as in Chart II, as a single guide may be relied upon as an indication for operation. While a good number end in localisation, and may be opened on the eighth or fourteenth day, an almost equally large number die from extension to the peritoneum, or from metastatic abscesses.

(*b*) If this "continuous" temperature fall after five to seven days, there will still almost invariably be suppuration, which will be evidenced by distension, increasing pain, the general signs of septic absorption, even with a normal pulse and temperature (see Charts III and IV).

(*d*) The absence of pyrexia, at the time we are called to decide the question must be discounted, in the face of a good history of onset, of early fever, and the fact that the patient is not decidedly better after four to six days from the onset.

(*e*) When the fall in temperature is accompanied by diminution of pain and local tenderness, so that the swelling can be outlined; when the distension yields, and the general condition is free from the signs of irritation, then operation is not immediately necessary. Fortunately this occurs in the great majority of cases, and spontaneous recovery follows. In a fair number, a local abscess of slight infectivity results, giving plenty of time for decision, and carrying little risk.

Period of Repose.

The most striking feature in the case forming the text for these remarks was the general condition that existed just before operation. Too much attention cannot be given to this stage. Let me describe it more fully. The woman lay in bed feeling well; there was no distress, no general abdominal pain, the pulse was quiet, she felt very much better, and in her own opinion and in that of her friends was rapidly recovering. The food taken had been retained, and the change from the acute pain in the morning and that of the onset was so complete as to give a general impression to everyone of true improvement. There were three signs, however, which showed that this was fictitious. First, the temperature was high, and had been so—except when it suddenly fell for a few hours—for more than twenty-four hours; secondly, there was general distension of the abdomen, which had not yielded to a tube; and thirdly, there was an increased swelling in the right iliac fossa. These three associated, as in this case, point to the immediate necessity for operation.

I wish now to draw attention to the value of this period of repose. In nearly all the acute cases a stage is reached soon after the onset marked by a cessation of all acute symptoms. The patient passes, unaided by sedatives, into a condition of repose. A lull takes place in the advance of the disease, or, more correctly, the relief from pain and sickness and the general sense of comfort experienced by the patient are interpreted as being signs of improvement. This period of repose, if wrongly interpreted, may lead to disaster, and, if deepened by the regular administration of sedatives, will almost certainly do so. It is in its early stage a period of safety—one in which operation is successful. That this lull takes place in all these four conditions let me illustrate by some striking examples. A girl of 20, seen forty-eight hours from an acute onset, was considered so well on arriving at the hospital that operation was postponed until next morning, when a foul abscess was evacuated.

In a case of perforating gastric ulcer the patient, a girl of 20, was at first refused admission, and no operation was deemed necessary by the physician, yet in a few hours, when the abdomen distended and operation was performed, it was too late.

The first case of perforating gastric ulcer to which I was called by my colleague, Dr. Perry, was a man of 45. The perforating symptoms occurred twelve hours before, and few, I believe, would have recognised the necessity for immediate operation. The pulse was 60, the man calm and free from pain, the abdomen free from distension though rather rigid. I was obliged to confess that to me there seemed no good reason for operating. I immediately, however, carried out the operation requested, and had the satisfaction of finding a perforating ulcer on the anterior wall, from which bile and gastric contents were escaping.

We must not wait for the graver symptoms if we are to save these patients. Details might be given of any number of cases where waiting for the development of such symptoms as vomiting, elevation of temperature, characteristic pulse, and pain, have led to fatal results.

General Condition.

I have in relating my case remarked that the general condition of the patient was deceptive, and have enlarged on this point under the "period of repose." There is another general condition occurring in appendix cases where suppuration exists in the presence of normal pulse and temperature, which is a most important guide to operation. It was well exhibited in a man, aged 22. On the eighth day the pulse was 64, the temperature 98.8°, but the aspect of his face and skin was that of septic poisoning. He was flushed, with a moist skin; the pulse was irritable, the tongue furred, and he was restless. One expected a temperature of 102°, and a pulse of 110. The fact that he showed this condition on the eighth day pointed to extending suppuration, and rendered operation imperative. A large collection of foul pus was evacuated by the loin, and he recovered. In this case, in addition to the general aspect, we had extreme tenderness in the anterior and posterior lumbar regions, and definite fulness, though no dulness.

Summing up the study of these symptoms, let me add that the diagnosis cannot always be made at the first visit. It is by the wise conduct of the case and careful watchfulness that success is attained and mistakes avoided.

My own experience is drawn from cases seen in hospital at various times after the onset, or in private also at various intervals, and from such experience I venture to draw up the following method of treatment and after-care.

In the first place, when called to an acute case the various symptoms must be written down. An apparently simple colic may prove to be a perforating gastric ulcer or, again, we may find ourselves being elaborate over an ordinary stomachache. It may be quite possible to make a diagnosis at our first visit. Much depends upon the time that has elapsed since the onset, and this interval must be carefully borne in mind. We may see the patient during the pain and stress of onset or again, after the period of repose has set in, or later when pain has recurred and the third stage of the attack entered upon, or, lastly, when the pulse is failing and the patient's condition negatives any interference. The effect of sedatives again must be estimated if administered before we see the case, and all the symptoms weighed carefully in the light of the period upon which the case has entered.

If we can decide that a gastric ulcer has perforated, a tubal pregnancy ruptured, or find the worst and most acute form of perforating appendix, then operation offers in most cases the only hope. I say in "most cases," for it is well known that spontaneous recovery does take place in all these cases, even when the early symptoms are most urgent.

There are cases of appendicitis alarming in their fulminating progress, in which operation to be successful must be undertaken within twenty-four hours. In one instance we operated successfully nineteen hours from the onset, found a gangrenous patch at the root of the appendix surrounded by pus, and so situated that there could have been no lateral boundary.

Suppose we are called in at the period of onset, and cannot decide between the "perforative class" and the "colics," what is our best line of action? If the pain be moderate and subsiding the best plan is to apply hot fomentations and dispense with sedatives, give no medicine of any kind (unless it be a carminative placebo), and make a second visit in four hours. If the pain be great we must administer a dose of opium—hypodermically, if possible—employing the smallest quantity that will give relief, and then make our second visit in four to six hours. The importance of this early second visit cannot be overestimated. Over and over again a patient has been ordered a purge for an attack of colic at a first visit, and at the second a graver diagnosis has been made.

Having given a hypodermic injection, or 20 drops of Batley's solution every hour till the pain subsides, we enter upon the second stage of our case. Repose follows, as I have pointed out, naturally in most cases, and is deepened or initiated by the sedative, and at the second visit the obvious comfort will screen the signs of advancing disease.

Now we enter on a stage in which an error may be fatal, and in which everything depends upon the accurate observation of the symptoms and the correct use of sedatives. No words are too strong in which to condemn the prescription of opium to be given by an attendant at regular intervals. The only safe plan, and one I would urge as a routine practice, is to give the sedative when the visit is made. We can time this second visit, and adjust the dose, so that we see our patient free from the effects of the drug, and are in a position to review the symptoms, little if at all masked by treatment. Again, when the period of repose sets in, as it frequently does after the initial dose, no sedative is required. If we have a simple colic to deal with, a single dose will be sufficient, and for the rest fomentations will answer, and the same may be said of the many cases of appendicitis that recover. I remember Sir Samuel Wilks saying over an appendix case, many years ago, that he had never seen anyone die for the want of a purgative. I am afraid I must say that I have seen a good many die because sedatives were regularly and continuously employed. In the case under consideration, a single full dose was given by Dr. Hugill at his visit and nothing was ordered, so that I saw the patient free from the effect of opium, and was able to make good observations. When a second dose is required, after, say, twelve hours, and especially if required after twenty-four hours, then the case begins to look serious, and we can put aside many of our possibilities. The advantage of a second visit within a few hours, say six, is of the greatest value, and in all cases presenting a serious initial aspect should be made.

I have more than once been called to a case, and withheld operation, and at a subsequent visit when the patient at my request was free from opium, operated, or, on the other hand, was equally certain that no operation was or would be required. I am fully aware that frequent visits are often difficult to make; still, I hold it a paramount duty to stand by these acute cases for at least forty-eight hours, so as not to miss the development of any symptom. By that time, we know pretty well how the case will go.

In offering these observations I do not forget that each case has an individuality. The ability to endure pain, we all know, is a most variable factor. In the most simple appendix case, a patient may require sedatives for several days, and, on the other hand, in the most serious septic cases there may be no pain at all, at least not enough to demand a sedative.

How may we know that the case is doing well? Relief from pain in the absence of sedatives will be one of the leading signs, but one of the most misguiding. In appendix cases there will be diminution of distension; we can localise the swelling though it may be very tender; the patient does not require any further sedative; sickness has not returned, and, if distension exists, it yields to the enema or tube. Now, in the great number of appendicitis cases these signs of improvement will appear within twenty-four or forty-eight hours. Most of these will get well without further symptom; others will end in the formation of an abscess, giving plenty of time to form an opinion and to direct treatment. When a case is not doing well, I would say that perhaps one of the most valuable of the early signs of advancing disease is general distension of the abdomen, then tenderness, the absence of local swelling, the absence of dulness, the patient continues to complain of pain, and if with these there be a rise of temperature and of pulse we have cause for the greatest anxiety.

In the perforating gastric ulcers, if we cannot form an opinion at the first visit and have followed the line of treatment I have suggested, then the first sign of distension or of renewed pain indicates the commencement of peritonitis.

Turning now to the question of operation, it will be gathered from what has preceded that I am in favour of early interference, though we may not infrequently open an abdomen to find everything healthy and the diagnosis wrong. Now the more frequently we operate in these acute cases the more often will we find mistakes, and therefore we should be in a position, before undertaking such an operation, to say that if the case end in a simple exploration, no harm will result. The responsibility attending this position everyone will understand, and will certainly appreciate, if in their hands a fatality occurs in conducting such an exploration. We encounter the same problem in severe abdominal injuries. Here it is very difficult to distinguish between the early signs of shock and those indicating rupture of the intestine or other viscus. The only safe plan is to see the patient every three or four hours until symptoms indicating definite progress one way or the other have developed.

Such an experience and training it is impossible for us all to obtain, or the judgment and knowledge that go with it. But even those less happily placed can at the present day be fairly correct in method, and where life is in peril and no other help available, the best under the circumstances must be done. How good and how successful this best has become in our smaller towns and cottage hospitals, we have only to look at the admirable records in the journals to appreciate. In speaking, therefore, freely of operation, of the small risk attending early exploration, in advocating early interference, I am fully conscious that such a measure of success can only be obtained in the hands of an operator whose training makes an error in method almost impossible. To error in judgment we are all liable; we may err in deciding upon operation, we may err in the management of the difficulty we encounter, but as our means for diagnosis improve these errors will grow less.

THE ARRIS AND GALE LECTURES ON THE ANATOMY AND SURGERY OF THE PERITONEAL FOSSÆ.

Delivered at the Royal College of Surgeons of England,

BY B. G. A. MOYNIHAN, M.S.LOND., F.R.C.S.ENG.,
Assistant Surgeon, Leeds General Infirmary, etc.

LECTURE I.—THE DUODENAL FOSSÆ. DUODENAL HERNIA.

MR. PRESIDENT AND GENTLEMEN,—The subject I have chosen for the lectures which, by the grace of the Council of this College I am permitted to deliver, is the anatomy and surgery of the peritoneal fossæ. In the first lecture I propose to consider the anatomy of the duodenal fossæ, and the various forms of duodenal hernia. In the second I shall describe the pericæcal fossæ and discuss the reported cases of hernia occurring in the neighbourhood of the cæcum. In the third lecture the intersigmoid fossa, and intersigmoid hernia and hernia into the foramen of Winslow will be discussed.

THE DUODENAL FOSSÆ.

In describing the anatomy of the various fossæ found in the duodenal region it is well to clear the ground a little by referring to the exuberant and redundant nomenclature that has been adopted by various writers at different periods. Most unfortunately the same name has been adopted to describe entirely different fossæ. The name "duodeno-jejunal" has been applied to at least three separate pouches. It is a matter of no little difficulty to choose an exactly appropriate name. I have given the most apt title first, and the alternative names are mentioned in order to avoid misunderstanding.

I have examined for the purposes of these lectures over 200 bodies, not consecutively, but when time and opportunity permitted. In all cases where a vestige of old peritonitis existed I have made no record. I have also examined the bodies of 34 fœtuses of all ages.

The varying descriptions given by authors to the same fossa and its determining fold may be readily accounted for. The folds and fossæ vary in their appearance according to the age of the patient. In the fœtus and in children they are very distinctly and clearly seen. In the aged, owing to the deposit of fat, traction effects, and so forth, they may become considerably altered. The true typical forms are seen in the young, and it is upon observation of young subjects that I have based my descriptions.

I recognise the following fossæ as occurring in this neighbourhood:

1. The superior duodenal fossa.
2. The inferior duodenal fossa.
3. The posterior duodenal fossa.
4. The duodeno jejunal fossa.
5. The intermeso-colic fossa.
6. The infraduodenal fossa.
7. The paraduodenal fossa, the fossa of Landzert.
8. The mesenterico-parietal fossa, the fossa of Waldeyer.
9. The parajejunal fossa, the fossa of Brösike.

1. The superior duodenal fossa (Recessus duodeno-mesocolicus superior) (Fig. 1) is present in from 40 to 50 per cent. of cases. It may exist alone or with the inferior duodenal fossa. It lies to the left of the ascending portion of the duodenum. It is bounded in front by the superior duodenal fold, triangular in shape, presenting a lower free margin, slightly concave, whose inner end is blended with the peritoneum on the duodenum, and whose outer margin is lost on the posterior parietal peritoneum.

2. The inferior duodenal fossa (fossa duodeno-jejunalis of Treitz; recessus duodeno-mesocolicus inferior of Brösike). (Fig. 1.) is the most frequent of all the peritoneal fossæ in this region, being present in from 70 to 75 per cent. of cases. It is placed on the left side of the ascending portion of the duodenum opposite the third lumbar vertebra. The orifice looks upwards, and is opposed to the mouth of the superior fossa. The fossa is bounded by the inferior duodenal fold, thin, sharp, and with a concave upper margin. The inferior mesenteric vein and the left colic artery are generally found well to the left side of the point of fusion of the fold with the parietal peritoneum. The fossa is liable to variation in size and extent. Treves has figured many of the aberrant forms. In general the first joint of the middle finger can be easily passed into the fossa. The superior and inferior duodenal folds are not infrequently blended at their outer extremities, so that a single oval orifice leads to the two fossæ. The inferior fossa very commonly extends some little distance behind the ascending portion of the duodenum.



Fig. 1.—The superior and inferior duodenal folds and fossæ.

Genesis of the Superior and Inferior Duodenal Folds. It is to Treitz (1857) that we are indebted for the first explanation given of the formation of the folds. He considered that they were traction folds, due to the dragging of the intestine in the displacement of the cæcum and ascending colon to the right. Waldeyer believed that they were vascular folds, raised up by the inferior mesenteric vein. According to Treves, the inferior duodenal fold represents the remains of the meso-duodenum, and is comparable to the duodenal fold of the hyæna. None of these views are acceptable. As shown long ago by Toldt, the folds are fusion folds. They are caused by the process of "physiological adhesions" between the original left, afterwards anterior, surface of the ascending portion of the duodenum and the right or anterior surface of the descending mesocolon, and date their origin from the time when these two peritoneal surfaces are in close apposition.

3. The *posterior duodenal fossa* (recessus duodeno-jejunalis posterior of Brösike. The fossa of Grüber (Fig. 2 x). This is



Fig. 2.—The paraduodenal fossa and the posterior duodenal fossa (x).

a small fossa lying immediately behind the upper portion of the ascending limb of the duodenum. Its orifice is directed

upwards and to the left, and on its right side is the plica suspensoria, a fold raised up by the muscle of Treitz. It was described as an "accessory sac" by Grüber.

4. *The Duodeno-jejunal Fossa* (recessus duodeno-jejunalis superior) Fig. 3.—On dragging the transverse colon upwards



Fig. 3.—The duodeno-jejunal fossa.

and the jejunum downwards, and to the right there can be seen at the root of the transverse meso-colon, a fossa which results from the plunging of the duodeno-jejunal flexure into the root of the transverse meso-colon. This fossa is the duodeno-jejunal; it exists in from 15 per cent. to 20 per cent. of the bodies examined. Its lateral boundaries are two folds, the duodeno-mesocolic, which are in reality the continuations backwards of the two layers of the mesentery. The fossa is bounded above by the pancreas, to the right by the aorta, to the left by the kidney. In the floor lies the left renal vein. The duodeno-jejunal flexure is a hernial content of the sac.

5. *The Intermesocolic Fossa* (recessus intermesocolicus transversus) Fig. 4.—Probably a modification of the last fossa. It



Fig. 4.—The intermesocolic fossa.

runs horizontally in the root of the transverse mesocolon. In all cases there is a marked deviation of the duodeno-jejunal flexure to the left.

6. *The Infraduodenal Fossa* (fossette rétroduodénale of Jonnesco) Fig. 5.—The orifice of this fossa looks downwards; its apex reaches the duodeno-jejunal angle, the muscle of Treitz, and the pancreas. It is bounded in front by the posterior aspects of the horizontal and ascending portions of the duodenum, behind by the aorta, and laterally by two folds, the duodeno-parietal.

7. *The Paraduodenal Fossa* (recessus venosus, fossa of Landzert) Fig. 2.—The complications of this fossa are frequent. In its typical form it may be thus described:—It is placed to the left and some distance from the ascending limb of the duodenum. The fossa is caused by the raising up of a fold the plica venosa, by the inferior mesenteric vein, a fold which may be not inaptly described as a "mesentery" for that vein. Behind, the sac is bounded by the parietal peritoneum covering the psoas, the renal vessels and ureter, and a portion of the left kidney. Below it is limited by the mesenterico-mesocolic fold. The orifice of the sac is wide, and looks downwards and to the right. The plica venosa consists of a



Fig. 5.—The infraduodenal fossa.

vertical and a horizontal portion, the vertical being to the left and below the fossa, the horizontal bounding the fossa above.

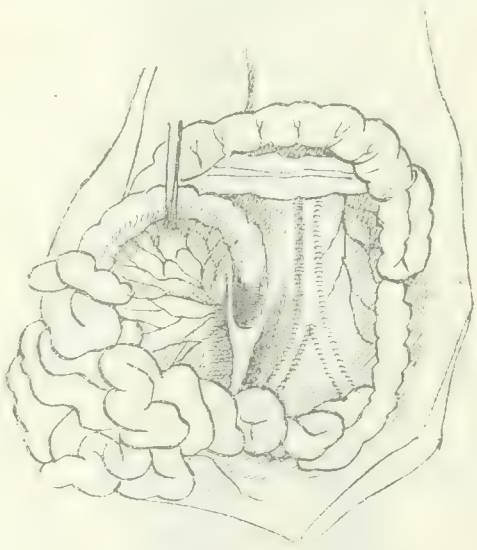


Fig. 7.—The fossa parajejunalis of Brösike.

The inferior duodenal fossa may be present with the paraduodenal. In that case there is always an amalgamation of the determining folds. Such a fossa was described by Treitz, and was considered by him as the normal condition.

8 and 9. *The Mesenterico-Parietal Fossa* (Fig. 6) and *the Fossa Parajejunalis* (Fig. 7).—These may conveniently be studied



Fig. 6.—The mesenterico-parietal fossa: fossa of Waldeyer.

together, for they are practically the same fossa under different conditions. The fossa is situate in the first part of the meso-jejunum, immediately behind the superior mesenteric artery and immediately below the duodenum. Waldeyer, who is the only observer who has noticed a fossa in this

position with the intestines normal, has described it as existing only in the fœtus. I have, however, seen two well-marked examples in the adult. Brösike, who describes a similar, or more probably the same, fossa, asserts that it can only be found when the first portion of the jejunum is adherent to the posterior abdominal wall. As the fossa in any case lies immediately behind the first portion of the superior mesenteric artery, the jejunal adhesion is probably merely an episode, and in no causal relationship with the fossa. The peritoneum of the left leaf of the mesentery lines the pouch, whose opening is to the left and fundus to the right. A forcible enlargement of the fossa results in the lifting up of the posterior parietal peritoneum in the right half of the abdomen.

Duodenal Hernia.

Duodenal hernia is of two kinds. In the first the hernial sac is situated on the left side of the abdomen; in the second, to the right. In both cases there may be also an upward and downward increase, but the essential difference between the two forms lies in the varying direction of their lateral deviation. In the later stages of each the sac may practically fill the abdominal cavity. I propose to apply the terms "left duodenal hernia" and "right duodenal hernia" to the two varieties, to emphasise the fact that there is an intrinsic difference not only in the mode of growth but also, and chiefly, in the points of origin of the two forms.

Left Duodenal Hernia.

The commoner variety; 57 cases are recorded. A perfectly typical case, for which I am indebted to Dr. T. Wardrop Griffith, is here depicted. (Fig. 8.) Without discussing the



Fig. 8.—Left duodenal hernia.

matter closely it may be affirmed that only one of the fossæ above described is capable of developing into the sac of a hernia—that one is the paraduodenal fossa, or fossa of Landzert. In all the cases recorded it has been found that in the anterior margin of the orifice of the sac lies the inferior mesenteric vein. With it, for a shorter or longer distance, there runs the ascending branch of the left colic artery. The anterior margin of the sac is formed, in fact, by the plica venosa. The plica venosa normally bounds the fossa of Landzert, and it is in that fossa alone that a hernia can develop. A left duodenal hernia is characterised by three points:

1. The presence of the inferior mesenteric vein in the neck of the sac.

2. The hernia spreads either outwards towards the descending mesocolon, or upwards towards the transverse mesocolon, or both.

3. The hernial sac consists of a single layer of peritoneum. Behind the sac lies in contact with the posterior abdominal wall, and in front of it there is the posterior parietal peritoneum.

The orifice of the sac is situated at the back of the hernia in close approximation to the lumbar vertebræ. In a large hernia it is necessary, in order to expose the neck of the sac, to drag the whole tumour well over to the left side. The orifice is then seen close down to the third lumbar vertebra. The average size of the opening is 6 cm. long and 4 cm. broad. The size of the hernia varies enormously. The smallest is recorded by Brösike. It occurred in a child 14 days old, and the length of intestine in the sac was between 2 and 3 cm. In several cases, including the first recorded by Neubauer, the whole of the jejunum and ileum lay in the sac. As the hernia increases in size it reaches the descending colon on the outer side.

In some cases the colon is pushed backwards and covered by the hernia; in other cases the hernia passes behind the colon, which then lies in the anterior wall of the sac, the hernial tumour appearing therefore on the outer side of the colon. The difference in the behaviour of the colon I believe to be due to the condition of its peritoneal surroundings. When no descending mesocolon is present the colon is pushed backwards by the hernial swelling; when a descending mesocolon is present it is used up, so to speak, as a covering for the sac, and the hernia, passing behind the colon, comes to lie on its outer side.

Right Duodenal Hernia.

This is the rare variety. Only 13 cases, exclusive of the specimen shown, are recorded. This specimen (Fig. 9) for



Fig. 9.—Right duodenal hernia.

which I am indebted to Dr. T. Wardrop Griffith, has been preserved for some years in the *post-mortem* room of the Leeds Infirmary. The notes of the case have not been traced, but Dr. Griffith's recollection is that the death of the patient was unconnected with the hernia.

The point of origin of this hernia has never been satisfactorily explained. Jonnesco gives an unintelligible description of the process by which a left duodenal hernia is supposed to turn over to the right. Brösike believes that in all specimens that are recorded there has been a jejunal adhesion to the posterior abdominal wall.

The fossa of Waldeyer (mesenterico-parietal) has entirely escaped observation by other authors. I believe it to be in this fossa that a right duodenal hernia develops.

On examining the orifices of the case recorded by Dr. Barrs, and the specimen placed at my disposal by Dr. Griffith, this opinion seems beyond disproof. The drawing of Dr. Barrs's case (Fig. 10), shows the orifice of the sac in precisely the spot occupied by the fossa of Waldeyer. Brösike figures a case observed by himself in which the jejunum was adherent posteriorly. In order to clear this point as to jejunal adhesion up, I have carefully examined the reports of all the cases recorded. In 7 of them we may take it that this adhesion was present. In the remaining 7 it was certainly absent. We

may, therefore, describe two forms of right duodenal hernia, the former as hernia mesenterico-parietalis parajejunalis, and the latter as hernia mesenterico-parietalis paraduodenalis. In both varieties the anterior margin of the sac contains the

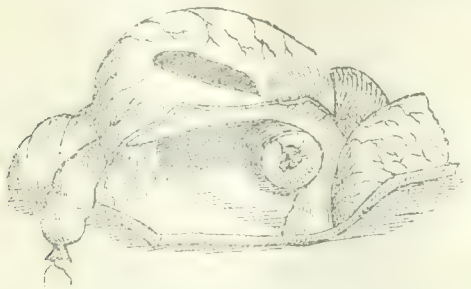


Fig. 10.—Orifice of the sac of a right duodenal hernia.

superior mesenteric artery. It is interesting to note that in two recorded cases, Zwaardemaker's and Neumann's, there was a twisting of the bowel at the orifice of the sac, amounting, it is said, to volvulus.

Diagnosis.

Duodenal hernia, unless strangulated, gives rise to practically no symptoms. In many cases the hernia has been found accidentally on *post-mortem* examination. When strangulation occurs, in addition to the symptoms of acute intestinal obstruction a characteristic appearance of the abdomen has been noted. (Fig. 11.) There is a tumour in the central part of

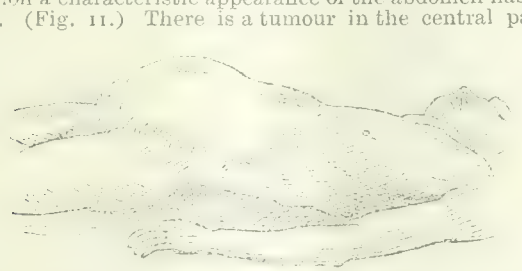


Fig. 11.—Aspect of abdomen of Dr. Barrs's case of right duodenal hernia.

the abdomen and around it a flattened area. The tumour has the following attributes.

1. It is limited to a definite region of the abdomen. In left duodenal hernia it lies at first to the left and upper, in right duodenal to the left and lower parts of the abdomen, but in each case spreads eventually over almost the whole abdominal cavity. Around the tumour is an area of depression corresponding to the position of the colon. In size the tumour may vary. It has been described as being of the size "of a child's head." In Dr. Barrs's case it was "equal to a nine months pregnancy." It is slightly movable, but fixed during respiration.

2. The tumour is marked out distinctly by palpation. On percussion it is always resonant. The degree of resonance varies in different cases, and in different parts of the same tumour. But the striking feature is that the tumour is a palpable, definite, resonant mass. In the centre of the tumour or over its whole mass may be seen coils of intestine. The tumour may bear a very obvious relation to the clinical condition of the patient, becoming more tense and prominent and very much more tender when the symptoms undergo exacerbation. As the symptoms decline the tumour becomes less aggressive.

3. On auscultation distinct gurgling sounds may be heard anywhere in the tumour.

It is important to remember that, owing to the position of the inferior mesenteric vein in the neck of a left duodenal sac the radicles of this vein may become enlarged, as in the case of the hæmorrhoidal veins; or venous trunks on the anterior abdominal wall may be so increased in size as to form a striking feature of the case.

The medical practitioners of Yukon have, it is announced, organised a Yukon College of Physicians and Surgeons to examine all practitioners seeking to settle at Klondyke.

THE MILROY LECTURES

ON THE

EARTH IN RELATION TO THE PRESERVATION AND DESTRUCTION OF CONTAGIA.

Delivered at the Royal College of Physicians of London

By G. V. POORE, M.D., F.R.C.P.Lond.,

Professor of Medical Jurisprudence and Clinical Medicine, University College; Physician to University College Hospital.

Lecture II.[1]

Enteric Fever.

Mr. President and Gentlemen,—Enteric fever has of late years much occupied the attention of epidemiologists and bacteriologists, and our knowledge of its definite relationship to filth, milk, and water has undergone considerable increase. The laboratory experiments connected with enteric fever are of great interest and value, but it would be, to say the least, hazardous to build upon them any measures intended for practical sanitation. It must never be forgotten that the typhoid bacillus does not fulfil one of Koch's postulates. The disease produced by the inoculation of guinea-pigs with pure cultivation of typhoid bacillus has but a remote resemblance to the disease which we clinically know as enteric fever, a disease which seems limited to the human species. Sidney Martin[2] finds that hitherto "none of the ordinary cultures of the typhoid bacillus obtainable in the laboratories will kill an animal, but that it may be rendered virulent by inoculation and transference through a succession of peritoneal cavities, and also by injecting simultaneously the products of other micro-organisms, such as streptococcus or bacillus coli communis. It is noteworthy that the bacillus coli communis and Gaertner's bacillus, when subjected to similar manipulations, are as toxic to rabbits as is the typhoid bacillus. It must be remembered that "pure cultivations" of the bacillus typhosus cannot be said to exist in Nature. We recognise, and it may be taken as proven, that the main cause of the endemicity and epidemicity of enterica in this country is to be found in the fæces of the patient, and yet Martin tells us that while the bacillus is invariably found in the spleen and mesenteric glands and in intestinal lesions, "it is found in some cases in the motions of typhoid fever and also in the urine."

Dr. Carver, working under Delépine at Manchester, found the typhoid bacillus twice in twenty samples of typhoid fæces and once in sixteen samples of typhoid urine.[3] Martin, working with sterilised soils, has shown that in soils which are more or less "polluted" with organic matter, the bacillus typhosus will continue to live and spread at ordinary temperatures, but that in virgin soils the pure cultivations of the bacillus die out from some unexplained cause. Martin gives one experiment[4] to show that in unsterilised soil containing much organic matter the bacillus may continue to live, but as yet there has been no evidence of spreading.* Robertson and Maitland Gibson[5] collected thirty samples of soil from areas which they considered likely to be infected. "In not one single instance was bacillus typhosus found."

Laboratory experiments tend to show that vegetation (grass) prevents the growth of the organism, which may explain "why typhoid fever is so much more prevalent in towns than in rural districts." Attempts to prove the aërial conveyance of the organism from liquid filth have failed.

Let us now turn from these experiments to the practical experiences of sanitarians. It may be premised that Martin's experiments show that the bacillus typhosus will grow in any soil rich in organic matter, and that, although aërobic, it can be cultivated as an anaërobe, even in an atmosphere of carbonic acid,[6] and that it is destroyed by sandy or peaty "virgin" soils. Robertson and Gibson cultivated the bacillus on a soil in which clay predominated. Sir Charles Cameron is of opinion that it flourishes in gravel.

Dr. Scurfield of Sunderland has said that "the greater part of the county of Durham in which typhoid fever had been prevalent during the last few years was covered with stiff boulder clay, and in the urban district of Sunderland typhoid

* The persistence of the bacillus typhosus appears to depend on feeding it with fluid nourishment. A sewer leaking into the soil would do this or liquid filth in a privy.

fever had been just as prevalent in the boulder clay as in the houses built on sand or gravel." Pettenkofer is mainly answerable for the theory that enteric fever is due to a soil organism which grows with maximum vigour when the level of the ground water falls.

The subsoil water in Munich is derived from the mountains, and when these are covered with snow the subsoil water falls. It is a most interesting fact that Pettenkofer's Munich typhoid fever was a disease of winter.

The average English sanitarian, reading an account of Munich with its soak-away cesspools and foul drinking water, would not need any new theories to account for the prevalence of typhoid fever. If we accept Pettenkofer's theory that the fever was due to organisms in the subsoil, it is interesting to observe that the Munich fever, unlike typhoid fever in other places, reached its maximum in February, and was most rife in the coldest weather, when the surface of the ground must have been often frozen. During the winter months, when the big houses were closed and the stoves were lighted, the interior of the houses must have been filled with cesspool air. An organism permeating the soil might be expected to die out gradually. The sudden fall of the death-rate from 72 in 1880 to 18 in 1881 seems to imply that the organisms suddenly died over the whole area of the city. Munich is a city in which the general sanitary condition has undergone gradual amelioration. Sewers on modern lines were begun in 1878, and 800 private slaughterhouses were destroyed in the same year. There is now a highland water supply, and typhoid fever has gone. But it is needless to say that the subsoil water rises and falls precisely as it did half a century ago. The connection of typhoid fever in Munich with organisms growing in the soil is to my mind not proven.

Enteric fever has long been regarded as a filth disease, and there is abundant evidence that filthy surroundings, such as water-logged privies, soil sodden with the leakage of sewers, the air of cesspools and traps, proximity of waterclosets to the kitchen, in some way or another predispose to it. While we agree as to the fact we may differ as to the explanation. Some would assert that the bacillus typhosus is actually growing and spreading in the filth, and, indeed, that is possible, but direct evidence of it is wanting. Some would even say that the soil being inoculated the specific organism may continue to grow and spread in it far away from the point of inoculation, and so (by growth, not irruption) may poison the local water at a distance. Of this there is positively no evidence whatever. If for the sake of argument we allow that the bacillus typhosus may grow in the soil we have to ask how it emerges from the soil to do us harm? We are here confronted with contradictions. Robertson and Gibson showed that the bacillus disappeared in the winter to reappear in the summer, while at Munich the increase of enteric was a phenomenon of mid-winter. In Buda-Pesth it is associated with a rising ground-water, and at Munich with the opposite condition. In this country it is a disease of autumn and the period of floods, while others assert that it may be conveyed by dust, which ought to produce a prevalence in March. The opinions held by sanitarians and bacteriologists on this question differ widely, but there will be a consensus of opinion that a water-logged soil rich in organic matter is the one in which the bacillus typhosus is most likely to flourish. If this should be true the official position that in sewage treatment filtration through earth is a *sine qua non* becomes untenable.

Loesener, in a paper[7] on the Viability of Pathogenic Bacteria in Interred Corpses, states that he injected into the vessels and cavities of dead pigs a great quantity of pathogenic bacteria, so that their number should exceed that of the saprophytes. In the first experiments the animals were not interred, and under these conditions the viability of the bacilli of typhoid fever and cholera did not exceed four or five days. When the animals were buried in a porous soil the pathogenic bacteria manifested a maximum viability as follows: Typhoid fever, 96 days, cholera 28 days, tubercle 95 days, bacillus pyocyaneus 33 days, pneumobacillus of Friedlaender 28 days, micrococcus tetragenus 28 days, and tetanus 361 days. The bacillus anthracis preserved its complete virulence during the whole year of the experiment, and the bacillus of *rouget du porc* and septicæmia of mice 234 days. As for the typhoid bacillus, it was possible to isolate it from the buried corpses only once. In only two cases was there evidence of any escape of the disease germs from the body.

Loesener's conclusion is that cemeteries are not harmful, provided the graves be surrounded by a layer of earth sufficient to filter the liquids traversing them.

In the fifty-ninth annual report of the Registrar-General (1896) attention is directed to the special prevalence of enteric fever in a group of districts comprising nearly the whole of the county of Durham, together with the adjacent parts of Northumberland and Yorkshire. In the six years 1890-95 the mortality from enteric fever in these districts averaged 343 per 1,000,000 persons living, as against 173 for the whole of England and Wales. This seems to point to the fact that enteric fever is a disease of overcrowded industrial centres.

The epidemic of enteric fever in Maidstone in 1897 is of great importance in relation to the influence of the earth on contagion, and the report to the Local Government Board by Mr. Davy, Dr. T. Thomson, and Mr. Willcocks has put us in possession of most of the essential facts.

It was conclusively shown that the outbreak was due to the pollution of a spring or springs belong to the Farleigh water system. Of persons drinking this water nearly 8 per cent. were attacked, while of those drinking water belonging to other systems of supply less than 1 per cent. were attacked. The Farleigh springs, which are 15 or 16 in number, crop out on both banks of the Medway (mainly on the left bank) where the overlying and permeable green sand (locally known as "ragstone") rests upon the impermeable clay beneath. The water of these springs is for the most part pumped to the Barming reservoir, whence it is distributed mainly to the higher parts of the town. The Farleigh springs yield over 3,000,000 gallons a week, and their waters were all mixed in one reservoir, holding 500,000 gallons, before distribution. That this reservoir and the pipes connected with it became polluted with enteric poison was beyond doubt, but it was not quite so clear which of the contributing springs was at fault. When, however, the springs were examined on September 10th (between a fortnight and three weeks after the pollution which caused the outbreak had commenced) one, and one only, was found to be dirty—namely, the spring known as "Tutsham-in-Field." In order to condemn this spring, which yielded only 35,000 gallons per week, both chemical and bacteriological analyses were wholly superfluous, and accordingly it was cut off from the supply on the following morning, September 20th. This spring was reported as still dirty a month later, and when I saw it on November 5th it was still turbid and manifestly unfit for drinking purposes. Not only did chemical analysis indicate pollution, but great variability of composition even on the same day. It is noteworthy and of very great importance that diligent search was made for the bacillus typhosus by six eminent bacteriologists engaged but without success.

The lecturer at this point explained the differences in the physical conformation of the springs of the Farleigh group. That of Tutsham-in-Field, which alone showed evidence of animal contamination, is supplied by the under drainage of a hop garden. Its natural flow, as Fig. 1 shows, is aided by some 20 feet of earthenware pipes with open joints, lying on the clay 2 feet from the surface near the catchpit and 4 feet at the distant end. Above the channel where it is 2 feet below the surface is a fence made of stakes driven into the ground which must undoubtedly have acted as conductors

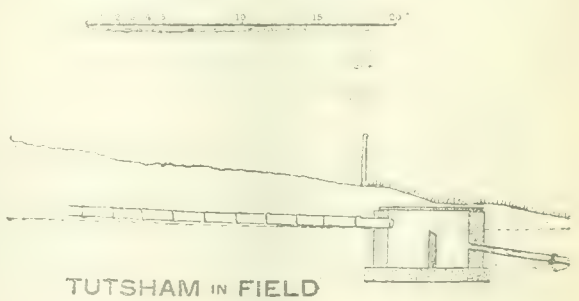


Fig. 1.

directly down to the water pipe. Near the fence were deposits of fæces. The line of the water pipe where it is near the catchpit corresponds very closely with the bed of the

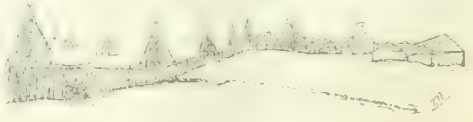


Fig. 2.

natural surface drainage, and this spot is only a few yards from a path leading to a stile on the fence (see Fig. 2). In the case of two springs yielding good water, Tutsham-in-Orchard (Fig. 3) and Ewell (Fig. 4), the water pipes, open-

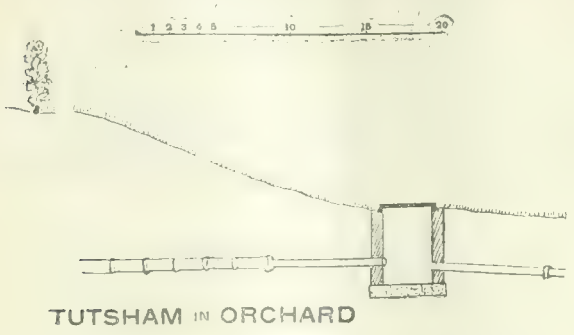


Fig. 3.

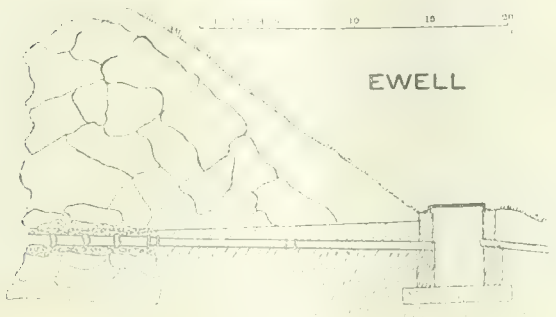


Fig. 4.

jointed indeed as in the former case, are at no point nearer the surface than 5 feet and feet, respectively, and the surface consists in each case of turf.

The other epidemiological facts of this outbreak were shown by the lecturer to be quite compatible with the theory that the dirty water supplied from Tutsham-in-Field was the main cause of the outbreak. He then continued as follows: The inspectors in their report fix October 18th as the day when the influence of the Farleigh water ceased to be felt in Maidstone, and they say (p. 32): "Nearly all the cases notified after October 18th (some 280 in number) are to be regarded as having had a cause other than the consumption of Farleigh water." This opinion seems to imply that in the estimation of the inspectors the disinfection of the Farleigh water system, which began on October 16th and continued until November 4th was superfluous and useless. Speaking of the 280 cases, they say: "By Mr. M. A. Adams they were referred to direct infection from previous cases, and to insanitary conditions of waterclosets, drains, and sewers. This explanation appears to us to be the probable one if the insanitary conditions referred to be taken in the wide sense of including the fouling of the soil by leakage from these defective drains and sewers. Recent researches into the life-history of the bacillus of typhoid fever go to show that this organism finds in a soil contaminated with foul matters from leaky sewers, drains, and cesspools—conditions especially favourable to its vitality and multiplication. That the soil on which Maidstone stands is thus contaminated was set beyond doubt by the evidence put before us. To the existence of these conditions is mainly, we consider, to be attributed the remarkable persistence of fever in Maidstone after the primary cause of the outbreak had been removed by cutting off the Farleigh water supply."

Do the facts of the case really establish the conclusion which the inspectors say is "set beyond doubt?" I do not find a single word in the report or a single experiment to prove that the bacillus typhosus was growing in the soil of Maidstone. The epidemic is remarkable, not only for its severity, but from the fact that six gentlemen, all eminent for their skill in bacteriology, failed to discover a single typhoid bacillus. It may be, as the inspectors hint was the case, that the bacillus typhosus was permeating the soil of Maidstone in November, December, and January, very much as a blue mould permeates a cheese, but no examination of the soil is recorded in the report. There are facts, however, which make strongly against any such contention. These were the total escape of the barracks and prison.

The report states: "The barracks and the Maidstone prison are both within the borough and both are connected with the town sewers." "The water supplied to the barracks is that of the Boarley system of the water company's supply." "At the prison the water used on week days is from a well 34 feet deep sunk in the Hythe beds of the lower greensand." During the five months—August to December—there were probably 800 persons who drank water from the 34-feet well sunk in the "contaminated" soil of Maidstone. Reference to the map (Fig. 5) will show that the prison is



Fig. 5.

closely hemmed in on the north and east by fever stricken houses, yet neither rise nor fall of subsoil water brought typhoid fever or diarrhœa to the prison.

The investigations connected with the Maidstone epidemic are of great interest as pointing to the wonderful protection which the humus affords to the underlying water against pollution from above. The whole of the Farleigh springs were of the same character, the catch-pits of many of them were liable to leakage in time of flood, and the gathering ground of most of them was highly cultivated and manured land. And yet none of them—always excepting Tutsham-in-Field—afforded evidence of serious bacterial impurities. It may be added that in the third quarter of 1898 there was one death from enteric fever in Maidstone and another death from the same cause in the fourth quarter, so that the "contaminated" soil of Maidstone was not able to contaminate the inhabitants during the drought of July, August, and September or the rains of October, November, and December of last year.

Immunity.

Bacteriologists have abundantly proved that the germs of disease are ubiquitous. They are found in earth, air, water; in the dust and on the walls of our dwellings, in clothing, in meat, milk, bread, and even occasionally, as Andrewes has shown, in hot baked rice-pudding. The fact that many of us manage to live to a respectable age, and to die from something that is non-infective, cannot but make us consider whether the immunity of the individual is not the fact which tends more than any other to the improvement of the public health. It is wholesome for us to remember that the greatest sanitary achievement of our time has been the practical disappearance of typhus fever. Of the *causa causans* of this disease we know nothing. Its absolute disappearance has not been produced by successful germ hunting. Its disappearance is probably due to the improved conditions under which the masses of the population live as regards food and

cleanliness. Few of us doubt that if this country should become involved in war, and food should become dear and scarce in consequence, the relative immunity of the population would be lessened, and typhus fever would regain its sway. Whether or not we succumb to an infective disease probably depends in great measure on the dose of the poison we receive. When an endemic disease such as enteric fever become epidemic it is due to the sudden dissemination of a poison in relatively large or virulent doses. Even in the most severe epidemics it is rare for more than 10 per cent. of those who have run obvious risks of receiving the poison to be attacked. The questions of virulence and vulnerability are most important. It seems to be well established that the virulence of some of the pathogenic microbes varies immensely with the conditions of soil, temperature, air, sunlight, etc., under which they are grown, and it must be remembered that it is not always the pure cultivation which manifests most virulence. Many infective diseases assume a virulence in the tropics which is rarely met with in temperate countries. This appears to be true of tropical malaria, enteric fever, cholera, yellow fever, anthrax, and tetanus. In hot countries, where a temperature equal to the optimum for the growth of many pathogenic microbes is often continuously maintained for weeks in succession, the risks of contagion and the danger of uncleanliness must often have become apparent in a manner more convincing than among us. The repeated injunctions as to uncleanliness in the Mosaic law, and the rigid rules laid down as to the conditions which made a man unclean and necessitated his subsequent purification, must have been the outcome of experience. To eat with unwashed hands in a tropical country, and without knives and forks, would clearly be to run considerable risks. The regulations in force among the Hindus were even more stringent, and although some of the regulations may appear to us to be extravagant and nonsensical, it is impossible not to admit that most of them have for their aim the protection of the individual and his fellow man from the risks of infection.

There can be no doubt that the health and vigour of the individual is all-important in relation to infective disease. The enervating influence of a tropical climate upon Europeans is recognised as a potent predisposing cause of infective disease, and if to the effects of climate be added those of inordinate fatigue and insufficient food, the risks of infection of the organism are greatly increased. In the Nile expedition of 1889 those troops suffered most which had undergone most exposure and fatigue. Dr. Maclean, R.N. (in a letter to Sir J. Fayrer), alludes to the occurrence of enteric fever in the Island of Ascension, under circumstances of close observation, where no connection could be traced with defective sanitary arrangements, though it is probable that malarial influences did occur. "The water, partly collected from the roofs of buildings during rain and partly condensed, is stored in iron and cemented stone tanks, and removed from all possible sources of contamination." It is of course possible that in a case such as this the bacillus typhosus may be lying dormant in the body ready to assert itself when bodily enfeeblement reaches a certain pitch. It has been asserted—and the assertion received the support of the late Professor Kanthack—that the bacillus typhosus may be found in an abscess years after the attack, and the same thing holds good in a less degree with regard to the microbes of diphtheria and cholera.

Nothing is better established with regard to tubercle than its relation to overcrowding and unwholesome occupations. So "filth diseases" are especially fatal to those who live in the midst of filthy surroundings. It is not, I think, at all necessary to assume, although it is po sibly the case, that specific organisms are growing in the filth. In the cramped dwelling of the artisan, where the privy is often barely 6 feet from the back door, the risks of fæcal befoulment of the food or person are very great, and when in such places large pails of fæces are left to putrefy for a week or more, it is not to be wondered at that the inhabitants should show an undue predisposition to the infection of enteric fever as has been pointed out by Boobbyer and others. But it must be remembered that wherever putrefaction is going on, and wherever anaërobic organisms are growing in a filth-sodden soil, unwholesome gases, such as CO_2, H_2S, CH_4, and H, are being given off, and it is impossible not to admit that the breathing of these gases from week end to week end in the crowded courts of a great city may so lower the vitality of the body as to increase its vulnerability to infection of all kinds. We must admit that to live in stinks and filth may greatly depress the health and increase the susceptibility to infection by microbes.

Professor Stewart Stockman[9] reports an investigation which he carried out on a septic organism which proved fatal to 380 fowls out of 400 on a poultry farm. He says: "The most important thing about this bacillus seems to me to be its fatal effect on tuberculosis, while it appears to be non-pathogenic, or nearly so, for healthy birds. It is also interesting to note that it killed a rabbit affected with the coccidium oviforme, although the healthy ones were little affected by it. This observation, I think, affords fresh evidence in favour of what is taught about certain other microbes, namely, that they are only pathogenic to the enfeebled organism."

Danger of Wounds.

It is an established fact that infective organisms may gain access to the body through the smallest wound, whether of the skin or the mucous membrane. The various forms of septicæmia as well as erysipelas and malignant œdema are due to this cause.

Tetanus, as we have seen, is always due to the inoculation of a wound, and it is a question whether anthrax of cattle is not more often caused by inoculation of a skin abrasion than has hitherto been suspected. Whether any of our common infective fevers are communicable by accidental inoculation is a moot point, and one which is certain to receive a full share of attention in the immediate future. It is certain that in the transmission of plague a broken skin bears a most important part, and it may be that other infections may be conveyed by the same channel. A distinguished pathologist is credited with having infected himself with enteric fever by a *post-mortem* wound. The infections brought about by flies, ticks, and mosquitos are at present attracting much attention, and it seems probable that the danger of certain "soils" and climates may be shown to be due in an increasing degree to the insects which find in the localities the various conditions necessary for their existence.

It may be that in some instances an abrasion of the skin made by an insect may merely serve as a point of entrance for infective organisms abounding in the surface of the soil or in the immediate surroundings of the individual, and having no necessary connection with the insect itself. It seems certain, however, that in the majority of instances which have been worked out a particular species of insect serves as an intermediary host for a specific organism that affects a specific animal. We hear much about flies conveying fever, which may be true; but we must always bear in mind what I feel inclined to call the excessive specialism of Nature. Insects which feed on dung and carrion are seldom attracted by the food of human beings, and I confess to being somewhat sceptical as to the accidental conveyance of infection by "flies" which heedlessly buzz first into the fæces and then into the milk. The pathologist of the future will clearly have to call in the help of the entomologist.

Practical Considerations.

The Maidstone epidemic has been very useful in directing attention to some of the common conditions which endanger water supplies. Pasteur and all subsequent bacteriologists have directed attention to the value of the earth as a filter, and it is a matter of common knowledge that a very shallow layer of compact earth will remove the bacteria and much of the organic matter from water percolating through it.

The greatest danger to shallow wells is to be found in subterranean collections of filthy fluids which leak through fissures in the earth with a gradually increasing hydraulic pressure. The lined well, 5 feet deep, which I have in the middle of my garden, has given water of exceptional purity for years, notwithstanding that the ground is cultivated with human excreta to within 6 or 7 feet of the well. Dr. Macmartin Cameron, medical officer of health for Kirkcudbright and Wigtown,[10] shares my opinion that a "surface well," properly constructed and in a selected situation, is a safe source for water. [The lecturer then referred to Dr. Cameron's observations on the limits of danger and safety in relation to shallow wells.]

Reverting to the conditions which obtained at Maidstone,

I will mention a few considerations which, though obvious enough, are often neglected. During a drought such as occurred in June, July, and August, not only would the stiff hop land be liable to crack, but the earthworms would retire to the lowest point in search of moisture. At such times they go deeper and deeper into the soil and lie coiled up in oval knots at the bottom of their burrows. I have upon the table a piece of a worm-burrow removed from my garden in September last at a depth of more than two feet. It is more than a quarter of an inch in diameter, and would act as a drain from the surface to the deeper parts. This question of worm-burrows is one of great practical importance to sanitarians, because, especially after a drought, they may serve to conduct surface water to considerable depths without its really being influenced by that biological filter, the humus. Darwin[11] says that, although worms generally live near the surface, they may burrow to a considerable depth during long-continued dry weather and severe cold; the depth varies with the soil, and may extend to 66 inches.

Then, again, we must not forget the effect of harvest on the soil. Before harvest the amount of moisture retained upon the growing plant and absorbed by the still active root would prevent anything except the heaviest rain from penetrating, although even at such a time one must admit that even half a pint of water, if thrown on a suitable place, might travel *viâ* clay-crack and worm-burrow to a depth of five feet or more. When harvest begins, not only is the earth deprived of its green protecting mantle, but the upward drainage of the root action ceases, and with the falling temperature of autumn and the lessened evaporation the rain has an ever-increasing power of penetrating the soil. In a hop garden the first step in harvesting is the removal of the pole, and the hole thus left is capable of conducting rain water to a depth in the soil of two feet or more. If, therefore, there be open-jointed stoneware pipes in a hop garden at a depth of two or three feet from the surface, it is possible—nay, likely—that when the hop poles are removed a surface channel three or four inches in diameter may communicate with these pipes and a heavy rain may wash solid matters into them from the surface.

If a plant or tree dies, the roots, instead of helping the upward drainage of the soil and preventing surface water from reaching the springs may serve as a direct guiding channel from the surface to the spring. And if the spring be artificially maintained by under-draining it with open-jointed pipes (an operation which involves a considerable disturbance of the ground and its artificial remaking), this danger is considerably increased. Burrowing animals are necessarily a danger in this connection, and if rats or rabbits establish themselves anywhere near the outcrop of a spring they should be exterminated. Rats and rabbits sometimes burrow very deeply, but I have not been able to get any authentic statement as to the maximum depth in the soil to which they may penetrate. When rats crawl from the sewers (their favourite lurking place in towns) to our houses, it is possible that they may be at least as dangerous as sewer gas. Rats occasionally make their homes in dungheaps, especially if such heaps be made in outlying places and are long neglected. It is well known that they invade cornricks in spite of elaborate precautions. It is a safe plan, indeed, to regard the rat as a haunter of foul places and a lover of filth, and its presence as often due to delay in removing accumulation of filth.

The danger of having a catchpit flooded from the surface is one which can easily be guarded against by covering it with suitable structures. The ground above the outcrop of a spring ought to be carefully turfed to a point 6 or 7 feet above the level of the spring. If the water become turbid, or if a worm find an entrance to the catchpit, the use of such water should be discontinued, or it must be boiled and filtered until the cause of the turbidity be satisfactorily demonstrated. Such springs should always be carefully inspected during heavy rains, because it is at such times especially that shallow springs establish surface relations.

The question arises whether it is safe to allow the gathering ground of a spring to be cultivated? This is a national question of the very greatest importance.

Provided there be a fairly thick layer of earth above the spring, I am inclined to think that there is safety rather than danger in the cultivation of the overlying soil. Any spring which is covered by 7 feet of soil—that is, 6 inches more than the depth of the deepest recorded earthworm—might be considered safe from the risk of unchanged organic matter soaking into it from above. In the first place, the cultivation of the land ensures that it is visited more or less frequently by individuals more or less intelligent. A gathering ground for water which is remote from the haunts of man has dangers of its own. Rats or rabbits may burrow in it, and these, as well as other animals and birds, may provokingly die in the runnels which primarily collect the rain water; and I cannot understand how anybody who has ever walked over a moor can maintain the thesis that water running off a neglected waste is safer to drink than that which has percolated through well-cultivated land.

Last year I visited a spring which was, and had been, supplying water of excellent quality for public purposes. It rose in a little copse lying in a natural dell in a remote and seldom visited spot, and was enclosed and protected against surface washings which the configuration of the ground would certainly conduct towards it in times of flood. Some of the trees were dead, and their stumps were permeated with fungi, and one could not but regard it as possible that these rotten roots might serve as conducting channels from the surface to the water which was running beneath to the neighbouring towns. Further, there was evidence to show that this dell was visited by an occasional tramp, and had been made a playground by the children from the nearest group of cottages. It is clear that the non-cultivation of this particular spot was a source of danger rather than of safety to the purity of the spring.

Enteric fever is a disease especially liable to become epidemic in the autumn, when after the removal of the crops the parched earth is soaked, and when there are large accumulations of manurial matters waiting to be spread upon the land. In the summer the yield of springs is seldom increased, no matter how heavy may be the rains. The water which falls upon the earth is all absorbed by the roots of growing plants, and, to a large extent, mounts upwards in the plant to help metabolism and to quicken growth. With the ripening and harvesting of the crops root action ceases, water which falls upon the earth tends more and more to percolate, and when the early frosts have given its deathblow to the greenery of summer, then the springs begin to yield more water. The nitrification and final solution of organic matter in the soil goes forward mainly, if not entirely, in the upper layer, and it is doubtful if any appreciable amount of oxidation takes place in the parts which are beyond the reach of tillage. A certain proportion of the mineralised organic matter necessarily escapes absorption, and percolates with the water, and if there be much unused nitrates remaining in the soil after harvest, the amount which percolates to the springs may be considerable. If nitrates be placed upon the soil in the form of artificial manures, they are often dissolved and washed beyond the reach of plant roots by the first heavy shower. Not only nitrates, but soluble salts of ammonia, are placed on the ground in large quantities, and the presence of free ammonia in the drainage water of cultivated land that has been artificially manured need not be an indication of pollution in the proper sense. It must be very hazardous to draw just conclusions as to the wholesomeness or otherwise of water from the amount of nitrates in it.

References.

[1] Lecture I was published in the British Medical Journal of February 25th. [2] *Croonian Lectures*, 1898. [3] *Lancet*, August 20th, 1898. [4] Local Government Board Report, 1897-98. [5] British Medical Journal, January 8th, 1898. [6] Local Government Board Report, 1867. [7] *Arbeiten aus dem Kaiserlichen Gesundheitsamte*, vol. xii, f. 11, p. 448. [8] *Annales d'Hygiène Publique et de Médecine Légale*, Troisième Série, t. xxxvii, January, 1897. [9] *Veterinarian*, September, 1898. [10] British Medical Journal, August 13th, 1898. [11] *Vegetable Mould and Earthworms*, p. 111 *et seq.*

Regulation of the Sale of Poisons in New York.—A Bill has been introduced into the New York Legislature, requiring druggists, pharmacists, manufacturers, and wholesale or retail dealers who shall sell any proprietary medicine containing poison or poisons in any form, to put it in "such bottles or packages, of such size, shape, or condition as to give notice of its contents." Failure to do so is made a misdemeanour. The *Medical Record* says such an indefinite law as this would accomplish nothing, and it is safe to assume that the Bill will never pass the Legislature.

A CASE OF ACUTE DERMATITIS CAUSED BY HANDLING THE RHUS TOXICODENDRON.*

By FRANK NICHOLSON, M.D.Lond.,
Physician to the Hull Royal Infirmary.

On July 30th, 1898, a young lady, aged 19, living in Lincolnshire, was sent to me by Dr. Godfrey Goodman of Brigg, and Dr. Ffrench of Barnetby.

She had been quite well till the day before, when she began to suffer with prickling and smarting in both hands and the face, which quickly became red and swollen.

Both hands were covered on their backs with scattered red spots varying from the size of a pin's head to that of a split pea, and there were a few on the lower parts of the forearms. The face, however, was much more extensively affected; the redness was much more uniform, and there was considerable swelling, so that the eyes could scarcely be opened. Almost the whole of the face and forehead was invaded by the rash, which had a fairly sharp margin, and there were a few scattered islets beyond on the healthy skin. Both on the face and hands, but especially the latter, there was a tendency to the formation of vesicles. The rest of the body was entirely free from any eruption, the temperature was normal, the tongue clean, and there was no feeling of ill health beyond the local discomfort. At first sight the face presented the appearance of an ordinary case of erysipelas of moderate severity, and in fact in a previous attack it had been treated as such.



Rhus toxicodendron.

The past history was good, with the exception of six or seven similar attacks, all of which had occurred during the preceding five years, during which period she had lived in the same farmhouse with her parents, and the attacks had all occurred when she was at home, most of them in the month of August.

From the story and the appearance of the case, dermatitis venenata suggested itself. The number of attacks, their occurrence most frequently in August, when possibly some plant might be flowering or seeding, and so be specially noxious, and the fact that they never occurred before the tenancy of the present house, all seemed significant. I then gathered that the father had three times been affected, but only on the hands, and on one of these occasions it had followed pruning a certain creeper which grew over the porch. The groom-gardener had also had an irritable rash from an unknown cause on two or three occasions. I asked about the primula obconica, which is a recognised delinquent, but they had not had one for some years. Nothing else in the garden that they knew of was unusual or likely to be the offender, and, suspicion attaching to the creeper over the porch, I advised that it should be destroyed.

I wrote to Dr. Godfrey Goodman to this effect, and in reply was pleased to hear that at his next visit, to his satisfaction, but to the disgust of the groom who had undertaken the destruction of the creeper, that unfortunate menial was covered from head to foot with a scarlet, blotchy, irritable rash, and that a specimen forwarded to Kew had been identified as the rhus toxicodendron. The leaves are trifoliate, thin, shining when fresh, and dark green, and not unlike the clematis. The leaves, branches, and flowers contain a milky juice, which blackens on exposure, and which may be used as an indelible ink when applied to cotton or linen.

The plant cannot be common, I think, either in East Yorkshire or North Lincolnshire, as I do not remember having seen it growing, nor have I previously met with a similar case; but I understand from the Curator at Kew that in many parts of England it is fairly common in old shrubberies. The farmhouse in North Lincolnshire where this was growing had had a sea captain as a tenant some years ago, and it is not improbable that he had brought this plant home with him from abroad as a highly-prized treasure.

* Read at a meeting of the East Yorkshire and North Lincolnshire Branch of the British Medical Association.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE OF URETHRAL STRICTURE IN WHICH DEATH OCCURRED FIFTEEN HOURS AFTER PASSING A CATHETER.

P.B., aged 57, a retired boatswain R.N., was first seen by me on December 26th, 1898. The history given was that about thirty years previously he contracted a stricture of the urethra, which had troubled him ever since. He had suffered twenty years later from perineal abscess, and had been in various naval hospitals for his complaint. Of late years he had regularly catheterised himself, usually passing a No. 8 gum elastic English catheter at intervals of a fortnight. Lately he had neglected this, and five weeks had elapsed since passing any instrument. On December 26th he was unable to pass even a No. 2 gum elastic catheter, and had made himself bleed rather freely.

I found him to be a rather plethoric-looking man, with a pulse of 75, temperature 98° F., and very nervous about himself. There was no retention of urine, which was clear and did not contain albumen. No attempt at catheterisation was made; rest in bed, a diet of milk and barley water, and an alkaline mixture with tincture of hyoscyamus, were ordered.

The next day a No. 4 silk web catheter was passed through the stricture, which was tortuous and in the membranous portion of the urethra. On the 29th No. 4, No. 5, and No. 6 gum elastic catheters were passed, the last named being gripped tightly.

On the 31st, just after midday, I made another attempt, beginning with a No. 5, but this would not enter the stricture: a No. 4 entered the stricture, but would not pass through it. A No. 3 with a stilette was then tried, but this also would not pass through; and as a little blood was in the eye of the catheter on withdrawal, I desisted from further attempts. Before leaving the room the patient complained of feeling cold, and said that he was sure "the shakes" were coming on. At 2 P.M., in response to an urgent summons,

I again visited him. He was looking very ill, he had a dusky colour, with noisy respiration, and with the skin bathed in perspiration. He complained of intense pain in the lower part of the back and right lumbar region. About 5 ounces of urine had been passed, which was clear, and contained a little unmixed blood, evidently from the urethra; the passage of this had caused intense burning pain in the urethra. The pulse was 130 per minute, small and feeble, and the temperature 98° F., while great thirst was complained of. Hot fomentations with turpentine were ordered to the back, and a mixture containing liquor ammoniæ acetatis and spiritus ætheris nitrosi every two hours was given by the mouth.

At 4 P.M. he was worse, livid in aspect, streaming with perspiration, still complaining of intense pain in the back. The bowels had acted freely, and he had vomited once. The pulse was about 170, very feeble. Tincture of digitalis, 5 minims, and tincture of nux vomica, 3 minims, were ordered every hour.

At 10 P.M. he was evidently moribund from cardiac failure; his pulse was almost imperceptible; he was barely conscious, and the skin still acting freely. Death took place at 3 A.M. on January 1st, 1899. No definite convulsions were noticed at any time. A *post-mortem* examination was not obtained.

The case appears to present none of the usual features of death from uræmia with suppression of urine, but rather to have resulted from a reflex cardiac failure.

H. W. Webber, M.D., M.S.,
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CYST OF POSTERIOR VAGINAL WALL.

M. K., aged 26, consulted me on May 1st, 1897, complaining of her "womb coming down." The swelling she complained of appeared about ten months previously, and was slowly increasing in size. When lying down she found it disappeared into the vagina, but in the erect position it protruded beyond the labia. It caused no pain, only discomfort, and a feeling of pressure, and some leucorrhœa.

On examination the swelling was soft and boggy, and as large as a hen's egg. Examination with a finger in rectum and another in vagina clearly showed tumour to be cystic, and growing between layers of rectovaginal septum.

On May 5th I removed the cyst. An attempt was first made to enucleate it, but this proved impossible, owing to the thinness of its walls and its intimate connection with the tissues forming the septum. An elliptical piece was therefore excised from its wall, evacuating about 1½ oz. of gelatinous fluid, and the cavity (which measured 3 inches) was scraped with a sharp spoon and swabbed with 1 in 10 carbolic lotion. The vagina was lightly packed with iodoform gauze.

Subsequent treatment consisted of a Condy douche night and morning, the use of iodoform and eucalyptus pessaries, and packing the vagina fairly firmly with iodoform gauze, so as to promote closure of the cavity. On May 25th a speculum examination showed no sign of any cavity, the wound being soundly healed. Throughout the temperature was normal.

At the time of this operation the patient was three months pregnant, and on November 6th after a very tedious and difficult labour I delivered her of a full time male child by forceps. The operation scar did not give way and she recovered without a bad symptom.

Whitehaven. G. W. H. Tawse, M.B.

DECREASE OF UTERINE MYOMA AFTER EXCISION OF BREAST.

In connection with Mr. Stanley Boyd's paper on Oöphorectomy in Cancer of the Breast, I might mention an interesting observation made under circumstances of a somewhat opposite character.

Miss M. H. had suffered for a number of years, before she came under my care, from a very large myomatous uterus which it had not been considered advisable to operate upon. As usual in these cases, she was greatly impeded and distressed by the size of the growth. In March, 1892, menstruation ceased, and the tumour began to show signs of decrease in bulk. This latter, however, was not marked until April, 1894, when, in consequence of scirrhus of the right mamma (the development of Paget's disease of the nipple) her breast was excised by Mr. C. B. Ball. She was then 59 years of age. Within a week there was a most noticeable change in the growth. The usual firm condition gave place to a softened tissue, which, with further considerable diminution in size, conduced greatly to the lady's comfort. Owing to her removal I have lost sight of her for some time. I may note, in passing, that a sister died of pulmonary cancer secondary to a mammary growth which had been removed.

Monkstown, co. Dublin. R. Lynn Heard, M.B.

THE TREAMENT OF HÆMOPHILIA.

In the British Medical Journal of February 11th, Mr. Davies, of Tredegar, has given the results of his treatment of a family of "bleeders" which appears to have been very successful.

There is a simple remedy which proved efficacious in three cases under my observation, and it would be interesting if those who have the opportunity would give it a further trial. It is the administration internally to an adult of 20 minims of dilute sulphuric acid in an ounce of water three times a day.

When I first went on as dresser at St. Thomas's Hospital in 1863 there was a case of wound over the kneecap of a "bleeder." The house-surgeon tried pressure, tincture of iron, nitrate of silver, etc., for two days, but without any beneficial result. Mr. (now Sir John) Simon ordered acid sulph. dil. ℥xx, aq. ℥j, three times a day, the result was that the bleeding soon ceased.

This made a great impression on me, and I was able to test the efficacy of the treatment when I was subsequently house-surgeon. During my tenure of office two brothers came in at different times with scalp wounds, and both bled. In their cases, after pressure had been tried, the acid had the desired effect.

I have never met with any other "bleeders," but have frequently administered the acid in repeated epistaxis; and, combined with 10-grain doses of sulphate of potash, for bleeding piles, with satisfactory results.

J. B. Siddall, M.D., C.M.Aberd., D.P.H.Cantab.
Northam.

A CARTRIDGE IN THE RIGHT BRONCHUS.

C. K., aged 7 years, was admitted into the Somerset Hospital, Cape Town, for slight dyspnœa and cough. Eight days before he had been throwing a pistol cartridge up into the air and catching it in his mouth, when he fell with a cry just as the cartridge got into his mouth. While at rest he was only slightly dyspnœic, and he could walk about with comfort, but he was said to have turned very blue once or twice after coughing.

On admission his pulse and temperature were normal, but his respirations were about 30 per minute. The right side of his chest moved less than the left, and there was deficient entry of air over the right chest below the fourth rib in front. There was no dulness or bronchial breathing. In the third and fourth right spaces was a loud rhonchus, which was traceable across the sternum into the right axilla. With the *x*-rays and screen a foreign body could be seen just to the right of the spine. The next morning there was dulness in front below the fourth rib, with complete absence of entry of air, and dulness below the sixth rib behind. The temperature was normal.

Having obtained leave to operate a low tracheotomy was done under chloroform, the trachea being opened freely. With a stout piece of silver wire with blunted point I was able to feel the cartridge distinctly in the right bronchus. Each manipulation caused the patient to cough, although under the anæsthetic. After several trials with nasal polypus forceps having a crocodile mouth, I succeeded in catching one edge of its open end and it was removed quite easily. He made a good recovery and was discharged well on August 23rd, the breath sounds and resonance being then normal.

The cartridge was an ordinary brass one ⅝ inch long, the circumference of the rim being 1 inch.

The greatest difficulty was caused by the coughing, which immediately followed the gentlest manipulation. The cartridge came out quite clean and was full of mucus, but had no blood on it.

Buluwayo. W. A. Moffat, F.R.C.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

TEWKESBURY HOSPITAL.

GANGRENE OF THE LUNG TREATED BY CREOSOTE VAPOUR.

(By W. Devereux, M.A., M.B.Cantab., Surgeon to the Hospital.)

C. T., aged 11, an ill-nourished, delicate-looking boy, was admitted to the hospital on May 27th, complaining of pain in the left side of three weeks' duration and shortness of breath.

On admission his temperature was 100.8°. There was slight cough, but no expectoration. The pain was situated over the left side of the chest, between the two axillary lines. Percussion revealed absolute dulness below the lower border of the sixth r.b, extending forwards as far as the nipple line, and backward to the angle of the scapula. Over this area there was a total absence of breath sounds. Around it there was a zone about 2 inches in breadth over which moist *râles* could be heard, with slight dulness on percussion. Friction sounds were audible over the combined area.

During the fortnight after admission the patient's condition changed for the worse. The temperature assumed a hectic type, and there was profuse perspiration. The cough was troublesome, especially at night, and there was a slight viscid expectoration. The dyspnœa and pain increased, being worse at night. The area of dulness increased slightly.

An exploring needle was inserted over the dull area, but no fluid was found. The needle was then driven into the lung to a depth of 3 inches. Some creaking was felt on moving the end of the needle, and a few drops of blood came away.

The boy was put on a nutritious diet with egg flip, and had a mixture containing morphine and squill. On June 13th there was a sudden change in the quantity and character of the expectoration. It increased to half a pint in the twenty-four hours. It was watery and opaque, with a greenish tinge, slightly streaked with blood and lumpy. It did not coagulate on boiling. On microscopical examination an abundance of pus cells was found, but no lung tissue or tubercle bacilli. The smell, especially during an attack of coughing, was horribly fœtid. The bed was covered with a tent, and a steam kettle containing creosote was employed.

On June 14th the patient coughed up about a pint of similar sputum. Towards evening he seemed slightly better, and his temperature ran down during the night to normal. The pulse had improved considerably. On auscultation over the dull area, physical signs of a large cavity were found.

During the next five days he seemed slightly better, but the sweating continued and the temperature was irregular, and the sputum was still fœtid. It was therefore determined on June 20th to try the inhalation of coal-tar creosote vapour. A small room, connected with the hospital by a porch, was used, the fireplace and window being rendered as airtight as possible, and the creosote vaporised in a metal dish over a spirit lamp.

The patient was provided with plugs for the nose and watch glasses for the eyes. The vapour at first aggravated the coughing, and the patient brought up a large quantity of watery sputum, but after 10 minutes the cough diminished, and he felt much easier. At the end of 20 minutes the boy felt weaker, and was taken back to bed, when he again expectorated a large quantity of sputum.

During the next week the inhalations were continued, each lasting from 10 to 15 minutes. His general condition showed considerable improvement, the fœtor of the breath ceased, and the cavity in the left lung showed signs of diminishing. On June 28th, during the inhalation he brought up, after a severe fit of coughing, about 1 ounce of thick, yellowish-green sputum. He went out into the garden for the first time on that day.

By July 4th, he had gained 3½ lbs., his weight being 3 st. 12 lbs. On July 18th, his weight was 3 st. 13½ lbs., the cavity had disappeared (though there was still dulness), and the expectoration had nearly ceased.

On July 25th, the weight was 4 st. 2½ lbs., and on August 1st 4 st. 6½ lbs. The inhalation had been continued daily until July 30th except on June 23rd, when the temperature rose slightly.

The patient was discharged on August 3rd, the dulness having greatly diminished. He was seen again on his return from the convalescent home on August 17th, when he looked extremely well; his weight had gone up to 4 st. 9 lbs., and the physical signs in the lung had completely disappeared.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. Bryant, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, February 28th, 1899.

THE TREATMENT OF ANEURYSMS BY EXTIRPATION.

Mr. W. J. Walsham read a paper entitled a Case of Extirpation of a Large Non-pulsating Aneurysm, involving the Common, Internal, and External Carotid Arteries of the Right Side of the Neck, with remarks on non-pulsation in aneurysms and the treatment of aneurysms by extirpation. The patient, a strong, healthy-looking man, 49 years of age, had noticed a small swelling for six years on the right side of his neck. It had grown slowly and without pain until a few months before he came under observation, since which time it had got rapidly larger. The swelling extended from the angle of the jaw nearly to the clavicle, and from near the middle line in front passed deeply beneath the sterno-mastoid muscle. It was roughly globular in shape, and generally hard in consistence, but soft and fluctuating in places. The skin was not adherent, and the swelling had no connection with the larynx or bones. There was neither pulsation nor *bruit*, and nothing escaped on puncture with an exploring syringe. It was thought that the swelling was glandular and probably malignant. An exploratory incision was made and the tumour discovered to be an aneurysm. No pulsation was detected at the operation. The common carotid was ligatured in two places below the sac, and divided between the ligatures; the sac was dissected up, collateral vessels entering it were secured as met with, and finally the internal carotid was ligatured above. The sac was then removed entire. The patient made a good recovery. The author stated that non-pulsation in an aneurysm, except when it had become consolidated, diffused, or inflamed, appeared to be rare, only a few cases having been found recorded in literature. The cause of non-pulsation in these was not very evident, but was attributed either to leaking of the sac, or to blocking of its mouth with clots. Nine cases of extirpation of carotid aneurysms were tabulated; all recovered. The wider question of the treatment of aneurysm by extirpation was next discussed, and a table of 33 cases of spontaneous aneurysms treated by extirpation was appended. The chief methods of extirpation employed were: (1) The old operation of opening the sac, turning out the clots, and securing the artery above and below; (2) the old operation *plus* the removal of the sac by dissection; and (3) the removal of the sac after the artery had first been tied above and below. The last method, slightly modified as in the author's case by dividing the proximal artery between two ligatures, dissecting up the sac, and finally tying the distal vessels, was submitted as the ideal one. The conditions most favourable for extirpation appeared to be: (1) Where there is insufficient room to apply a ligature to the artery on the proximal side, or where a proximal ligature is attended with great risk, as ligature of the innominate for subclavian aneurysms; (2) where a number of large vessels communicate with the sac; (3) where other measures have failed to cure the aneurysm; (4) where the aneurysm as in the popliteal artery, has become diffused, or rupture of the sac or gangrene of the limb is threatened; (5) where the setting free of emboli, as in carotid aneurysms, would be attended with risk of cerebral softening. From a review of the 32 cases, and from the experience gained in his own case, the

author considered it to be shown that the operation of extirpation might be looked upon as a most successful method of treating an external aneurysm, and was perhaps the best that could be adopted in the conditions above mentioned. But for an ordinary popliteal aneurysm without complications enucleation could hardly be compared with such a simple, and, as a rule, satisfactory, procedure as ligature of the popliteal or even of the femoral at the apex of Scarpa's triangle.

Mr. R. J. Godlee had had a case of a large, soft, popliteal aneurysm under his care, in which, after ligature, pulsation returned in the sac; he therefore excised it. But the operation was by no means easy and took a long time to perform; there were numerous branches coming off from the aneurysm, and it was very difficult to effect a separation between the aneurysm and the popliteal vein, in fact, the vein might have been injured. There was no gangrene of the foot, but there was more œdema of the leg than is ordinarily seen after ligature, and recovery was very slow. Hæmorrhage of an alarming character was not likely to be troublesome in excision of a popliteal aneurysm, inasmuch as it could be controlled by a tourniquet. He was not inclined to excise all popliteal aneurysms as a routine practice. The knee was an inconvenient situation for a scar. He pointed out that it was advisable, before excising an aneurysm, to determine the condition of the walls of the arteries in the neighbourhood of the aneurysm. One possible explanation of the absence of pulsation in an aneurysm was that the aneurysm exerted pressure on the trunk of the artery.

Mr. T. Holmes had listened with the greatest pleasure to the paper, which reminded him of many difficult cases of diagnosis, for aneurysms did not always pulsate, while pulsating tumours were not always aneurysms. He had discussed the reasons why aneurysms sometimes did not pulsate in a paper in *St. George's Hospital Reports;* if there was not a free exchange of blood between the artery and the aneurysm, pulsation might be absent. A *bruit* might also be absent over an aneurysm; and this absence might be due to the mouth of the aneurysm being either too large or too small. He quoted two cases; in the first the patient had a tumour projecting on the back, but not pulsatile; the diagnosis lay between a malignant renal growth and an abdominal aneurysm. It was found to be due to a large false aneurysm communicating by a small orifice with the abdominal aorta; by rupturing it had produced death. The other case was under Sir Prescott Hewett, and was regarded as a psoas abscess; it was not interfered with surgically, but on the man's death it was found to be an aneurysm connected with the abdominal aorta that had also caused death by rupture. He thought cases of aneurysm that did not pulsate and could not be diagnosed were rare. The treatment in the author's case—that was, excision of the sac—was greatly superior to the older method of opening the sac, turning out the clots, and hunting for the arteries.

Mr. A. Pearce Gould related a case of a soldier, aged 28, who had a popliteal aneurysm on the right side, for which the femoral artery was ligatured at the apex of Scarpa's triangle. Six months later the patient came under his care with a popliteal aneurysm, the size of an orange, on the left side. This he excised, but the operation was not an easy one; it was found impossible to separate the popliteal vein from the aneurysm, and therefore he left that part of the sac, and did not completely excise the aneurysm. There was more interference with the circulation on the side where the femoral artery was ligatured at a distance from the aneurysm than on the side where the aneurysm was excised; for six months after the first operation the right leg felt numb, and no pulse could be detected in the tibial arteries, while pulsation returned in the tibial arteries on the left side three weeks after excision of the aneurysm. He asked the author of the paper why he preferred complete removal of the sac to removal of most of it. For his part he thought it unnecessary to spend a long time in dissecting off the adherent structures. He referred to a patient with a popliteal aneurysm who, though of active life, was liable to faint. On this account he judged it better to tie the femoral artery than to excise the aneurysm. Gangrene of the foot, necessitating amputation of the thigh, resulted, which might, he now thought, have been avoided had he excised the aneurysm instead.

Mr. A. A. Bowlby had always considered that there was a time during the spontaneous cure of aneurysm at which pulsation disappeared. In aneurysms showing a tendency to undergo cure the artery between the aneurysm and the heart became narrowed, as the result probably of a free collateral circulation diverting the blood stream. The routine excision of aneurysm was bad surgery, as it exposed the patient to a considerable risk of hæmorrhage that might be profuse and difficult to control. Where an artery and vein were in close contact, the vein was almost certain to become closely incorporated with the aneurysm; this was markedly so in popliteal aneurysm. It was generally—and he believed, erroneously—assumed that the artery in the neighbourhood of the aneurysm was in a condition of disease. From an examination of the hospital museums in London he had found that in popliteal aneurysm the artery was healthier in the neighbourhood of the aneurysm than higher up in the thigh. He therefore considered that ligature was inadvisable at the apex of Scarpa's triangle, and that it could be performed close to the aneurysm. He believed generally that in cases of aneurysm the artery was in a better condition close to the sac than nearer to the heart, and that this proposition was especially true of popliteal aneurysms.

The President was convinced from his experience that any damage to the accompanying vein was fraught with serious consequences to the patient, and since there was some danger of this in incision, that operation was only advisable in exceptional instances. He referred to a man, aged 80 years, with heart disease, who was in Guy's Hospital under the care of the late Dr. Owen Rees. This patient had a popliteal aneurysm which burst; he accordingly ligatured the femoral artery in Hunter's canal and the popliteal artery, and tried, but unsuccessfully, to excise the aneurysm.

Mr. Walsham, in reply, pointed out that he did not recommend excision as a routine treatment for aneurysm; it was much better in simple cases of popliteal aneurysm to ligature the vessel. Formerly he ligatured the femoral, but recently he had tied the popliteal artery in cases of popliteal aneurysm. He was in favour of removing the whole of the aneurysm sac, because, as was shown by his collected cases, the wound then healed more readily, and also because if some of the wall of the aneurysm was left, vessels coming off from it might escape notice and ligature, and so give rise to secondary hæmorrhage.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Friday, February 24th, 1899.

Clinical Evening.

Muscular Atrophy Recommencing long after Infantile Paralysis.

Dr. Parkes Weber showed a boy, aged 17, who at 2 years of age had been affected apparently by a combination of infantile hemiplegia ("polioencephalitis" of Strümpell) of the right side and infantile paralysis (acute anterior poliomyelitis) of both lower extremities. Both lower limbs were considerably wasted (especially the right one), and the right half of the body was somewhat smaller than the left half. About five months ago the patient noticed a loss of power in the right hand and wasting of the muscles of the right thumb. It was feared that the case would turn out to be one of progressive muscular atrophy, like those described as commencing long after infantile paralysis. The thumb muscles had, however, during recent weeks somewhat recovered, so that it was now hoped the disease was not really of a progressive character in the present case. The patient had been treated by small doses of strychnine.

Unilateral Hypertrophy of the Breast from Pressure.

Dr. Cahill showed a woman, aged 27, with hypertrophy of the right breast due to pressure of a paralysed and contracted right arm. At the age of 9 she had right hemiplegia after diphtheria, and the right arm became spastic and contracted, being firmly flexed and adducted, so that the hand pressed on the thorax just above the mamma, and this breast had always been larger than the other. That this was due to the pressure was confirmed by the diminution which had taken place since the arm had been kept extended at night by a splint.

The President thought that the breast was not so much hypertrophied as displaced downwards by the arm.

Pulmonary Fibrosis associated with Tabes Dorsalis and Arthropathy.

Dr. H. A. Caley showed a woman, aged about 40, suffering from these diseases. She first came to St. Mary's Hospital in October, 1896, with characteristic symptoms of tabes. As there was some cyanosis of her lips he examined her chest, and found signs of pulmonary fibrosis, most marked on the right side, a cavity at the right posterior apex, and bronchiectasis at the right base. She had no cough or other pulmonary symptoms. There was a history of her having attended a hospital for chest trouble at the age of 13, and Dr. Caley thought that the chest trouble dated from then. In 1897 she developed painless effusion in both knees of the type described by Charcot in tabes. Dr. Caley regarded the association of the pulmonary and nervous diseases as purely accidental.

Rheumatoid Arthritis with Enlarged Spleen and Glands in a Child.

Mr. Bertram Hunt showed a boy, aged 6, with the history that while he was in hospital suffering from tonsillitis and broncho-pneumonia, his knees and elbows became painful and then swelled. The effusion was not great, and skiagraphs showed that the bones were normal. There had been irregular pyrexia, the temperature sometimes reaching 104° F., progressive anæmia, enlargement of the lymphatic glands in the axilla and groins, and considerable enlargement of the spleen. Bacteriological examination of the synovial fluid gave negative results. Mr. Hunt thought that the joint disease had been secondary to tonsillitis.

A Patient after Removal of Cerebral Tumour.

Dr. Washbourn and Mr. Arbuthnot Lane showed a woman from whom Mr. Lane had removed a tumour growing from the pia mater over the arm area two years ago. The case was recorded in the Clinical Society's *Transactions*, vol. xxx, p. 154. Permanent paralysis of the right arm had followed the operation, but she was otherwise in good health, and there had been no recurrence of the fits from which she previously suffered.

Factitious Urticaria.

Mr. Mouat Biggs exhibited a young man suffering from factitious urticaria, who was a healthy athlete, and had never suffered from urticaria from any of the usual causes. Remarkable urticarial wheals could be induced anywhere on his skin by drawing lines on it with any blunt instrument. A white wheal rose on a scarlet background, forming an elevation of quite an eighth of an inch. This reached its maximum in five minutes, and faded in the course of an hour. There was not the least itching or discomfort. Pressure alone brought them about. Some cases had been described in which similar wheals were produced by local cold such as that by ether spray; several of the cases had also paroxysmal hæmoglobinuria; but neither of these was the case with this patient.

Myositis Ossificans Progressiva.

Dr. Raymond Crawfurd (with Mr. Lockwood of Sheffield) showed a well-marked example of this condition in a boy, aged 6½. There were no traceable evidences of rheumatism in the family, though the child himself had disease of the mitral valve, which presumably was rheumatic. Injury, as in so many cases, appeared to have been the direct exciting cause at 2½ years of age. The bony growths for the most part seemed to have originated from the spinous processes of the vertebræ, and to have spread into the retro-vertebral muscles, more particularly the latissimus dorsi and trapezius; the child's back was traversed in several directions by elevated ridges of bone. The fixed curvature of the spine and the rigidity of the cervical muscles gave the child a very characteristic attitude. The upper arms were glued to the sides by ossification of the humeral attachments of the latissimus dorsi on either side. Skiagraphs were handed round to show the actual condition of the thumbs and great toes. The shortness of the thumbs was chiefly due to shortness of the metacarpal bones, and their rigidity to synostosis of the first and second phalanges. In the great toes the metacarpal bone was completely united by bone to the first phalanx, and the effort of Nature to compensate this condition had resulted in a throwing outward of the ungual phalanx beneath the second toes.

Congenital Paralysis.

Dr. Leonard Guthrie showed a case of myopathy in a child of 4 years of age. The disease appeared to have been congenital. The child had never been able to walk or stand. He could sit up, but easily fell backwards and was unable to rise. All the muscles were extremely weak, but in the arms he could perform most movements, although feebly. In the legs there was almost complete loss of power. There was diminution of both faradic and galvanic irritability, but no definite reaction of degeneration.

Acute Atrophic Paralysis Affecting both Upper Extremities.

Dr. Leonard Guthrie also exhibited a boy, aged 6 years, with infantile paralysis affecting both arms, and also the intercostal muscles, so that the breathing was purely diaphragmatic. The legs were unaffected.

Dysphagia, associated with Unilateral Paralysis of the Eighth and Bulbar Nerves.

Dr. StClair Thomson showed a man, aged 36, complaining of dysphagia, and found to be affected with unilateral paralysis of the eighth and bulbar nerves. He had complained of giddiness and deafness for three years, and a year ago he became hoarse, and had difficulty in swallowing. On examination his left vocal cord was found to be paralysed. There was no œsophageal obstruction. Six months ago his palate became paralysed on the left side, and taste was lost on the back of the tongue on that side. The pulse had been rapid throughout. There was no specific history, but considerable improvement followed a course of mercury and iodide of potassium. Dr. Thomson remarked that intracranial lesion had here caused symptoms in many ways simulating malignant disease of the œsophagus, and that while it had destroyed the auditory nerve it had left the facial nerve intact.

Rheumatoid Arthritis.

Sir Hugh Beevor showed a case of chronic rheumatic arthritis in a man aged 60. It was almost confined to the metacarpo-phalangeal joints in either hand. The fingers were flexed to the ulnar side. This was attributed to the use of his hands in working the large "sweeps" of a barge. Skiagraphs of the hands were also exhibited.

Asthenic Bulbar Paralysis.

Dr. Harry Campbell showed a woman, aged 29. He believed this to be the fourth reported case in this country. The paralysis was incomplete, but became much aggravated if the muscles were used. Symptoms showed themselves fifteen months ago, when she noticed that she had difficulty of utterance if she sang for a short time. At the present time all the muscles ordinarily concerned in bulbar paralysis were affected by this curious weakness, and also the anterior part of the occipito-frontalis, and occasionally there had been loss of power in the arms when they had been raised for a time. The symptoms were always better in the morning after a night's rest. During mastication, for example, the muscles of the tongue became weak; and although she could at first speak well, yet after speaking for a time articulation became difficult. No lesion had been found in the brain in any of the recorded cases. There was no sensory change, and the electrical reactions were normal.

Dr. Ormerod had not seen a similar case of bulbar paralysis, but had seen the same kind of condition obtaining in other parts of the body, for example, in a man in whom the upper muscles of the thigh were affected.

Multiple Sarcomata of Skin.

Mr. A. H. Tubby showed a man, aged 65, suffering from multiple sarcomatous tumours of the skin. The primary tumour was in the upper part of the right side of the scrotum, and was noticed six months before. A second tumour appeared on the left side, and then one under the jaw. Now there were hundreds, some of them of considerable size, all over the surface of the body, some of which had appeared during the last five days. The liver was enlarged, and there

was some jaundice. Two members had seen similar cases. In one the original tumour appeared in the ischio-rectal fossa; in the other it occurred in the scrotum.

The President mentioned a similar case, and commented on the fact that a wide dissemination of sarcoma throughout the body was evidently compatible with fair general health.

Anterior Dislocation of the Hip, probably Congenital.

Mr. Tubby also showed a child with an anterior congenital dislocation of the hip. He remarked that this form was more common than usually described, being present in one third of the cases. It was uncertain whether they were intra-uterine dislocations or birth dislocations. In this case there was no difficulty in the birth, and not until nine weeks afterwards was it noticed that something wrong existed. Three-fourths of an inch of shortening of the right limb existed. It was a true pubic dislocation. He had attempted to replace the bone under an anæsthetic, but had failed, as there was no definite acetabulum, and the head of the femur was misshapen and small. The anterior dislocations were more difficult to treat than the posterior dislocations, which themselves also presented great difficulties.

MEDICAL SOCIETY OF LONDON.

Edmund Owen, F.R.C.S., President, in the Chair.

Monday, February 27th, 1899.

Auto-intoxication and its Relation to the Treatment of Disease.

Dr. Sidney Martin, who read this paper, began by contrasting infection with intoxication, the latter meaning poisoning by chemical agents, usually the products of activity of the living germ. In auto-intoxication the body manufactured its own poisons, but the term comprised many different conditions, in some instances so widely different that he questioned the propriety of retaining it. He described auto-intoxication under three headings: (1) gastro-intestinal, (2) occurring in the course of chronic disease, (3) occurring in association with the glands of the body. He pointed out that the activity of a tissue in disease might be altered, and so produce symptoms in various ways—for example, by interference with vascular and nervous supply; by the accumulation of products of its activity: by the preponderance in it of certain mineral salts, especially potash, and by the action on it of some poison of external or internal origin. It followed that the determination of the cause of the effect on the tissue might be difficult, if not impossible; in other words, that what was observed as a symptom might be produced by many different causes which might throw an organ or tissue out of activity. A poison, he remarked, did not necessarily kill, and, failing death, the final effect of the poison was in many cases the result of an action on various tissues and organs. This was particularly to be noticed with the poisons that acted in disease. In reference to auto-intoxication of intestinal origin the chief examples were ascribed to bacterial decomposition of the gastro-intestinal contents, as distinguished from bacterial infection of the intestine. With the exception of the bacillus coli communis, most of the intestinal bacteria were non-pathogenic as long as they remained inside the intestine. If, however, the products of putrefaction were absorbed the body was poisoned, and this process frequently passed from one of intoxication to one of infection of the intestinal wall, or of the peritoneum. He thought that intestinal bacterial intoxication should be grouped with the bacterial processes that occurred in disease and not as an auto-intoxication. Another form resulted from the indigestion of food in which, in addition to the local symptoms, there were others described as remote or reflex. This subject was a very complex one, and must be discussed in reference to auto intoxication since during the normal processes of digestion bodies were formed which possessed poisonous properties. He pointed out that normally in the process of absorption the albumoses were transformed by the mucous membrane of the stomach and gut into the proteids of the body, but it was quite possible that their occasional presence in the blood might account in part for some of the symptoms of disordered nutrition. Passing on to Group 2 he observed that some of the cases must probably be ascribed to an auto-intoxication in which the poisons originated in the tissues of the body, and were not due to bacterial activity. Although most of the proteid substances of the body were non-toxic some had a distinct physiological action, but it was quite possible that in disease some of the altered products might determine functional disturbances. He added that, so far, no poisons resulting from the splitting up of proteid or other body substances without the aid of bacteria had ever been separated. Discussing the nature of Bright's disease and diabetes, he suggested that the symptoms of uræmia should be ascribed to the selective action of a poison or poisons on the cerebral centres. He referred to Bouchard's contention that in uræmia the normal toxicity of urine was greatly diminished, from which that observer inferred the retention of poisons in the body. The substances met with in diabetic patients which were not present in health were not very toxic, and no poison had been isolated which would account for the phenomena, though the occurrence of peripheral neuritis might be taken as evidence of an intoxication. He discussed cholæmia and anæmia from this point of view. The author then passed on to consider the effects of removal of normal glands in respect to nutrition and their bearing on disease. The effects of their removal had, he said, been ascribed to the absence of an internal secretion which was normally given to the body, and which was essential for the carrying out of certain physiological processes; or, on the other hand, the phenomena following removal might be due to the non-elimination of some poison inimical to life. In view of the well-marked physiological action of certain normal glands, it was fair to suppose that in the normal body these glands formed substances as internal secretions which were essential to the maintenance of the complex physiological processes of health. But an excess of this very physiological activity might in itself be a determinative cause of disease.

The President asked whether rickets was not a form of autointoxication of gastro-intestinal origin, to which cause, moreover, he attributed the headache and fatigue which sometimes followed excessive exertion, massage, etc.

Dr. Mott said he had been engaged with Dr. Halliburton in some interesting researches on the biochemical changes associated with general paralysis of the insane. The degeneration of nervous tissue led to the formation of fatty substances which stained black with osmic acid, which ordinary myelin did not, so that there was evidently some change. This fatty change was also well marked in muscle fibres and other tissues. They had made experiments with the cerebrospinal fluid of general paralytics, which brought about a fall of the blood pressure, an action also exerted by cholin. They inferred that the action of the fluid was due to its containing cholin, a supposition which was confirmed by direct investigation. They also found a small quantity of nucleo-protein, which was a powerful coagulating agent, and might possibly explain some of the complications of general paralysis due apparently to venous stasis. Neurin, which was readily converted into cholin, was also a powerful poison. Injections of glycero-phosphoric acid into the circulation gave negative results. He had examined 150 cases of general paralysis with the view to determining the cause of death, and in addition to widespread degeneration of the kind described, he had remarked the existence of a very high blood pressure during the epileptiform seizures. He pointed out that the muscle degeneration could not be due to degenerative changes affecting the nerves, of which he had convinced himself by direct examination. He attributed these effects to a process of auto-intoxication, to counteract which he advocated copious injections of saline solution.

Dr. Washbourn agreed that the term auto-intoxication was very misleading, as it was used to express two distinct conditions, one the absorption of substances from the intestine and the other to denote certain changes occurring in chronic disease such as cholæmia and uræmia. It still remained to be proved moreover that these conditions were due to the circulation of poisonous substances in the blood. He asked for some explanation of the fact that the toxic substances formed during digestion were not absorbed along with the other products of digestion. He suggested that in cholæmia and uræmia there was probably an alteration in the metabolic functions of the organs profoundly affecting nutrition.

Dr. Martin, in reply, said he was unable to define the exact nature of rickets. He thought it was a mistake to include under the head "auto-intoxications" processes of bacterial original.

Fothergillian Prize and Medal.

The President announced that the Fothergillian prize and medal for 1899 had been awarded to Dr. Monckton Copeman for his work in connection with glycerinated lymph and on the excellent effects thereof.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

R. L. Swan, M.D., P.R.C.S.I., President, in the Chair.

Friday January 20th, 1899.

Dislocations and Fractures of the Astragalus.

Mr. H. Gray Croly read a paper on astragalus dislocations and fractures, and gave a history of several very important cases which had occurred in his hospital and private practice.

Mr. Lentaigne exhibited a cast of fracture of the astragalus. This particular injury was exceeding rare. It was a fracture of the anterior portion of the astragalus, with displacement forwards and outwards of the fractured head of the bone, and was caused by jumping off a car. After an interval operation was allowed. The loose head of the astragalus was found to be completely detached from all structures except by a few threads of fibrous tissue. The head of the astragalus was reduced and the wound closed. The case was still in hospital, and would be exhibited, he hoped, later on.

Mr. W. I. Wheeler said Hancock's statistics of 109 cases of complete removal of astragalus for compound dislocation, simple dislocation, and disease showed 14.6 per cent. death-rate.

The President had seen one case of dislocation which was remarkable, inasmuch as it bore our what Mr. Croly had said—the apparent facility with which the astragalus could be dislocated by accident. He had made several endeavours to imitate that force on the dead subject, because he had often had occasion to remove the astragalus for aggravated equino-varus in the adult. It was a very successful operation. In this operation he always had to remove the astragalus piecemeal.

Mr. Croly, in reply, said that Boyer thought that bony ankylosis between the tibia and os calcis was inevitable after excision of the astragalus. With regard to immediate excision at Broca's time, he had 16 deaths following immediate excision, but none following excision when the sloughs took place. It was a remarkable fact that if, when the astragalus was dislocated forwards, forwards and inwards, or forwards and outwards, it was not removed, it acted as a foreign body; but if it went backwards, where it had plenty of room, it did not do any harm whatever. His strong opinion was that immediate removal of the bone, with careful dressing of the wound was the proper treatment.

Chronic Intestinal Obstruction.

Mr. John Lentaigne exhibited a patient from whom he had removed the cæcum and a small portion of the ileum for chronic intestinal obstruction, resulting from stricture at the junction of the ileum and cæcum. The patient, a girl, aged 12, had come under his care on April 16th, 1898. She was then in a very miserable condition, vomiting frequently and rejecting almost all food, and complaining of constantly recurring attacks of severe pain in the abdomen; the abdomen was greatly distended, and the attacks of pain were usually accompanied by visible peristaltic movements of the intestines, which formed large tumours under the parietes moving slowly in various directions. These attacks would last for one or two minutes, after which the patient would be free from pain. The bowels were very constipated, no motion ever coming except after the administration of purgatives followed by enemata. The illness had commenced two years before, and the girl had been steadily getting worse. On April 22nd he opened the abdomen in the median line. Huge coils of intestine, which proved to be the ileum enormously distended and with greatly thickened wall, came out at once. On passing the hand along this enlarged intestine it was found to end in a hard mass firmly bound down by adhesions in the right iliac fossa. Owing to the adhesions it was impossible to bring this mass into view, and as the patient was almost moribund before the operation, Mr. Lentaigne decided to give temporary relief by forming an intestinal fistula in two stages, after first emptying the distended bowel by enterotomy. On incising the gut two large basinsfull of pea-soup-like fæces flowed out, and the intestinal cavity was irrigated and washed out with a stream of warm water; the opening was then closed by silk sutures, and the gut was returned to the abdominal cavity. When emptied and flattened out, the intestine seemed to be about 4 inches across from lower margin to mesentery. The left hand of the operator was introduced into the cavity and directed well over to left side; it was then cut down upon and the bowel securely fastened to the opening by a few sutures passing through the parietal peritoneum, muscle, and skin. The incision in the median line was closed with three layers of sutures, the two deeper of silk for peritoneum and muscle, and the superficial of catgut for the skin, covered by a layer of celloidin. The small opening on the the left side of the abdomen was kept open by a plug of iodoform gauze, and on the third day after operation the fistula was made complete by an incision into the bowel. There was an immediate improvement in the patient's condition. The bowels emptied themselves continuously through the fistula, and the vomiting and attacks of pain ceased almost at once. On June 27th, as the patient had got into good condition, and was anxious to be relieved of the annoyance of the fistulous opening, excision of the cæcum was performed, with end-to-end suture of intestine by Kocher's method. The bowels acted naturally four times on July 29th, and almost every day after. There was considerable delay in the healing of this wound, as infection of the silk used in suturing the parietes seemed to have occurred, the silk slowly coming away through a small sinus at the upper end of the wound, and it was not completely healed until October, 1898. The intestinal fistula closed of itself as soon as the bowels acted normally, and on July 12th it had practically closed, neither fæces nor flatus coming through it. It was now represented by a firm, clean scar, no trace of the opening existing. The patient was shown to be in excellent health and condition, the bowels acting regularly every day.

Remarks were made by Mr. Wheeler and Mr. Croly; and Mr. Lentaigne replied.

Epidemiological Society.—At a meeting held on February 17th, the President (Dr. Franklin Parsons) in the chair, Dr. Boobbyer, Medical Officer for Nottingham, read a paper on Ten Years' Experience of Typhoid Fever in a Midland Town. He described, with the aid of maps, the geological and physical characters of the site of the city, which was built on the sandstones and red clays of the trias, the greater part on the Bunter sandstone, at elevations of 80 to 400 feet above the river Trent, one district lying low on alluvium and gravels, and subject to occasional floods. Two important features were the occurrence beneath the town of numerous caverns in the rock, frequently converted into huge cesspits, which often interfered with building and sewerage operations and the cleaning out and filling up of which was a work of much difficulty; and, secondly, the extensive use of polluted refuse, and made soil in levelling building sites to a depth of 20 or 30 feet. Prior to 1845 there was within the city a population of 50,000 crowded on 920 acres of sewage-sodden soil, but with the extension of the municipal boundaries, and the inclusion of a large semirural district, many of these rookeries had been cleared, while cottages and houses were being erected at the rate of many hundreds annually. The water supply was at the rate of 21 gallons per head, drawn from deep borings in the rock at a considerable distance from the town. The sewers were of recent construction and well planned, the sewage, 6 to 7 million gallons daily, being conveyed by gravitation or by pumping to a sewage farm six miles away, and 1 300 acres in extent. But there were as yet only 10,000 houses with waterclosets; in 400 middens were retained, and the remainder were provided with 40,000 pails. The death-rate from typhoid was always high, having equalled the mean of the great towns in three years only—namely, 1879, 1888, and 1892, in which the mean summer temperature and the mortality from diarrhœa were also very low. No relation could be

traced between the prevalence of typhoid and the rainfall, the geological formation, or the elevation of the site. Poverty, dirt, overcrowding, and soil pollution seemed to be the sole determining local conditions of its special incidence. Houses with five or more rooms amounted to 45 or 50 per cent. of the whole, but contributed only 14 per cent. of the cases, 86 per cent. occurring in those with fewer than five rooms. The incidence of cases was 1 in 558 of the houses with waterclosets, 1 in 120 of those with pails, and 1 in 37 with midden privies, being evidently connected with the relative degree of soil and air pollution. He had investigated several local outbreaks that could not be traced to water, milk, or shellfish, but in which its spread by means of human intercourse was conclusive, while in the general hospital 843 cases, and in the children's 157 cases, had been treated in the ten years, 22 and 11 of the nurses respectively, or 2.5 and 7.0 to 100 patients, had contracted the disease. His conclusions were that (1) a sustained mean temperature of over 55° F. was followed by a higher autumnal rise in the prevalence of typhoid, and a cooler summer by a lower than the average; (2) that the disease was endemic in poor crowded districts irrespective of elevation and geological formation, provided soil pollution and like favourable conditions were present; (3) that even on foul made-soil and where pail closets were in use the better class of houses suffered less than the poorer; (4) that the incidence was far less in houses with water-closets than with dry conservancy, and heavier on those with middens than on those where pails were used, the differences being more marked the poorer the class of houses; and (5) that it was directly communicable by personal intercourse even in well-regulated hospitals, and more so in the confined dwellings of the poor.—The President felt that much harm was done by underrating the communicability of typhoid.—Dr. Seaton thought that too much attention had been paid to water as a cause to the neglect of sanitary conditions. Remarks were also made by Dr. Whitelegge, Dr. Bulstrode, Dr. Willoughby, Dr. T. Thompson, and Mr. Shirley Murphy; and Dr. Boobbyer replied.

British Orthopædic Society.—At a meeting on February 17th, Mr. Jackson Clarke showed a case of Severe Congenital Talipes Calcaneo-valgus. There was no defect of the fibula. The child after birth showed a tendency to fold the legs on the front of the abdomen with the feet together. He suggested that this had been the position *in utero*, and was the cause of the deformity. The patellæ were dislocated outwards. In this and other respects the child had much improved under treatment by manipulations and splints.—Mr. Muirhead Little showed two cases of Supposed Injury to the Shoulder at Birth. In both there was a history of difficult labour, one being instrumental, while in the other there was difficulty in delivering the shoulders. In both there was marked inward rotation of the arm at or just below the shoulders, and the movements of that joint were very limited, in one case so much so that paralysis was suspected, but electrical examination showed that it was not present. The head of the humerus felt unduly prominent behind, and there was a distinct depression in the region of the neck, as though the diaphysis were displaced forwards and inwards. He diagnosed separation of epiphysis with rotation of lower fragment. Massage and manipulations had effected some improvement. He had skiagraphed the parts, but at this early age (3 and 5 years) ossification was not advanced enough for much to be shown. Remarks were made by Mr. Jackson Clarke, Mr. John Poland, Mr. William Thomas, and Mr. Keetley.—Mr. Poland showed: (1) Specimens of Fractured Neck of the Femur with vicious union in a youth of 21, with symptoms like coxa vara—he had excised the head of the femur and the redundant callus that prevented movement; (2) a specimen obtained by excision of Dislocation of the Shoulder with separation of the great tuberosity; (3) the cast of a case of Hallux Varus coming on at the age of 12 in a congenital club-foot, there was some wasting, as if from paralysis, he was inclined to excise the joint, but it had proved unnecessary: (4) a case of Hallux Valgus from no apparent cause, he had excised the joint.—Mr. William Thomas showed a Wrench for the Treatment of Talipes. He did not think that wrenching would alone cure talipes, but, whatever could be done by wrenching, this instrument would enable them to do.—Mr. Chisholm Williams showed (1) casts of cases of Webbed Fingers from burn and of Great Progressive Hypertrophy of the first and second toes in a girl aged 4 years, first noticed three weeks after birth; (2) the cast of a Hand with Webbed Fingers from a burn which he had successfully treated.—Mr. Keetley showed a patient and a skiagraph. The case he thought was one of Coxa Vara. She was 19 years old, and had had very severe knock-knees straightened by another surgeon by means of instruments. She had only then been able to hobble by lifting the upper part of each instrument with her hands. She now wore no instruments, and could not walk at all.

Dermatological Society of Great Britain and Ireland.—At a meeting on February 23rd, Dr. H. Radcliffe Crocker in the chair, the following cases were shown and discussed: The President: (1) Acne Varioliformis in a man; (2) Elephantiasis Græcorum in a woman—leprosy in its earliest stages—in a healthy-looking young patient.—Dr. P. H. Abraham: A father and child with Tinea Tonsurans. Each had a small patch on the back of the scalp. Specimens of the fungus (probably large-spored) were shown under the microscope.—Dr. A. Eddowes: A man with Folliculitis Necrotica.—Mr. W. T. Freeman (for Dr. Stowers): A case of Lichen Spinulosus in a woman.—Mr. W. T. Freeman: (1) A case of Leukomelanoderma in a woman; (2) a case with a number of Senile Seborrhœic Warts in a woman; (3) a doubtful case of Rodent Ulcer upon the forehead of a woman.—The President, Dr. Bowles, Dr. Abraham, Dr. Hope Grant, Dr. Eddowes, Mr. Pernet, and others joined in the discussion.

Birkenhead Medical Society.—At a meeting held on February 10th, Dr. H. Nazeby Harrington (President) in the chair, the following resolution was unanimously adopted:

That the fee for filling up certificates under the Workmen's Compensation Act should be one guinea, and that the hospital authorities should be asked to allow their house-surgeons to charge the same.

—Dr. James Barr of Liverpool delivered an address on Meningitis. He showed that the classification of the various types of the disease grouped under the generic head of lepto-meningitis was still very indefinite, and even in the present day an anatomical basis was frequently adopted, according as the vertex, the base of the ventricles were chiefly affected. Bacteriology, from which much might be expected in the future, had so far taught very little except in tuberculous meningitis and cerebrospinal fever. They were, therefore, still obliged to classify cases as simple, purulent, tuberculous and syphilitic. As subdivisions of the purulent type might be mentioned traumatic and septic. He discussed the etiology, pathology, and symptoms of these different types, and held out a much more favourable prognosis than was usually given in such cases. Dealing with treatment, he condemned mercury and iodide of potassium except in cases of syphilitic meningitis. In this disease he had no faith in the new antipyretic and analgesic drugs. Bromide of potassium he had long discarded, while chloral hydrate, sulphonal, paraldehyde, urethane, and all the newer soporifics were by him discredited. In the way of drugs his sheet anchor was opium, freely administered. Latterly, he had been using morphine almost exclusively in quantities varying from about two up to six grains daily. In very young children he started with a twentieth of a grain every three hours, and rapidly increased the dose so as to keep the child constantly under the action of the drug. With children of 6 or 7 he began with a sixth of a grain: over that age he generally gave the drug hypodermically. In a very successful case in an adult he administered six grains daily for a fortnight. If the treatment were commenced early before there was any effusion into the ventricles it was very difficult to poison a patient suffering from meningitis with opium. He did not look upon opium as a specific, but merely used it as a means to an end—to allay cerebral excitement, and to keep the patient in the most favourable condition for getting well. The patient was placed in a quiet, dark, carpeted room, in a comfortable bed, so that his nervous system might not be disturbed by any external impressions. So long as the patient's temperature was above the normal he wore an ice cap, and

cold compresses were also usually applied to the abdomen. In all these cases Dr. Barr was convinced there was impaired nutrition, hence his patients were well fed with light articles of diet such as peptonised bread and milk, various kinds of children's foods, and other farinaceous articles of diet, vegetable juices, maltine, bread and butter, etc. The bowels were kept open, and, as occasion required, various remedies were used to check vomiting, while, almost as a routine, internal antiseptics such as salol, naphthol, etc., were used.—A vote of thanks to Dr. Barr was proposed by Dr. H. L. Pearson, seconded by Dr. Dixon, and supported by Drs. Harris, Stansfield, Marsden, and the President.—Dr. Barr replied.

Glasgow Medico-Chirurgical Society.—At a meeting on February 17th, Professor T. Kennedy Dalziel showed a patient, aged 15, on whom he had three months previously performed Laparotomy, and sutured an enteric ulcer perforation eleven hours after its occurrence, which had taken place in the third week, soon after the fall of the temperature. The Lembert suture had been applied in the longitudinal axis of the bowel, the peritoneum flushed with normal saline solution, and drainage tubes inserted into the pelvis, from which the fluid was withdrawn every half-hour by a syringe. The occurrence of the perforation had been characterised by sudden onset of pain, tenderness, distension, and rapid elevation of temperature, which, however, fell from 103° to normal the day after the operation. Specimens were shown of sutured perforations where the patient had survived some days. These were seen to be satisfactorily healed. Dr. Dalziel drew attention to the fact that, though the operation had been performed in nearly 100 cases elsewhere, this was the first successful case in Glasgow, if not in Scotland. He had operated on eight cases in all, four of them, however, being moribund ere seen, so that one success had been obtained in four possible cases. Recent statistics suggested this as a probable percentage of recoveries. He also strongly insisted on the importance of accurate bacteriological estimation of the peritoneal infection in these cases, as it seemed probable that the issue would be found largely to depend on its nature. Leucocytosis as an aid to the early diagnosis of rupture was considered.—Mr. R. H. Parry showed a case of Extracapsular Fracture of the Femur, on which he had operated on account of marked shortening, which could not be overcome by extension. With the aid of a periosteum elevator the displaced surfaces were reposed and maintained in position simply by extension. The result was extremely satisfactory.—Dr. J. Galbraith Connal showed a very large Nasal Polypus, with cystic degeneration, from a female patient, aged 47 years.—The Secretary showed, for Dr. Glen, a specimen of a Heart with a single ventricle.—Professor R. M. Buchanan showed outline drawings of a Heart with a single ventricle and a single auricle. This very malformation had been found in an infant of about six months, who had presented during life the ordinary symptoms of *morbus cæruleus*.

Northumberland and Durham Medical Society.—At a meeting of this Society on February 9th, Dr. James Murphy (in the absence of the President) in the chair, Dr. G. V. Miller exhibited a case of Recurrent Intraocular Hæmorrhage. The patient, a man aged 28 years, had five months previously observed a black spot before the right eye, which gradually increased in size, and in four hours the eye had become totally blind. Fifteen years before, and again five years ago, the patient noticed a similar spot before the same eye, followed by dimness of vision lasting about a fortnight. There had been frequent attacks of epistaxis; there was no history of injury nor any discoverable cause. Upon examination, at the onset of the present attack, there was evidence of extensive intraocular hæmorrhage, either subhyaloid or between retina and choroid, the media at that time being clear. At a later date, however, the hæmorrhage had evidently burst into the vitreous. Dr. Miller reviewed and discussed the etiology and pathology of this condition, in which discussion Dr. William Robinson and Dr. Bennett also took part.—Dr. Oliver showed a man suffering from Plastic Bronchitis, and exhibited several large and very perfect bronchial casts which the patient had expectorated. The history extended over a period of four years, during which severe attacks of dyspnœa followed by the expectoration of the casts had occurred every three or four months. The casts in this case were solid and not tubular. No cause had been discovered.—Dr. G. R. Murray showed: (1) A case of Unilateral Glosso-laryngeal Paralysis in a man, aged 46—the lesion was not considered to be central, but rather to be due to a localised syphilitic meningitis involving the roots of the spinal accessory and hypoglossal nerves; (2) a case of Progressive Muscular Atrophy in a woman aged 43 years, passing into the condition known as amyotrophic lateral sclerosis; (3) a case of Locomotor Ataxia with Goitre in a man, aged 52, with a definite history of syphilis; (4) a woman, aged 23 years, showing distinct, though slight, evidences of Cretinism.—Dr. Hume exhibited a series of stomach cases: (1) A patient after Gastrostomy, by Witzel's method, for Carcinoma at the Cardiac Orifice; (2) a man after Gastro-enterostomy for Dilated Stomach due to dense adhesions and kinking at pylorus; Dr. Hume urged the direct method of suturing in this operation without the use of any plate or bobbin; (3) a man after Pyloroplasty for Inflammatory Stenosis of Pylorus.—Dr. Hume raised the subject of spasmodic stenosis of the pylorus. In the discussion which followed, Mr. Williamson, Mr. Martin, Dr. Beattie, Dr. Murphy, Dr. Murray, and Dr. Hind took part.—Mr. Williamson showed a boy upon whom he had recently operated for Acute Infective Epiphysitis of the upper end of the Humerus. He related a series of cases of acute osteomyelitis, and reviewed the extent of the various operations he had performed for this condition. His present opinion was that it was not necessary to remove the shaft. He thought that cases of chronic necrosis were now comparatively rare owing to infective osteomyelitis being recognised and treated early.

North of England Obstetrical and Gynæcological Society.—At a meeting on February 17th, 1899, Dr. Donald (President) in the chair, the following specimens were shown:—Dr. Walter: (1) Dermoid Tumours of Ovary, (2) Ovarian Cyst, (3) Scrapings from Endometrium.—Dr. Briggs: Diffuse benign Adenomyoma of the Uterus occurring in one Horn of a Bicornuate Uterus.—Dr. Gemmell: Uterus removed for early Malignant Disease, together with Microscopic Sections.—Dr. Grimsdale: Multiple Fibroids of the Uterus complicated with Pyosalpinx removed by abdominal hysterectomy.—Dr. S. Buckley read notes of two cases of Uterine Fibroids complicating pregnancy in which abdominal section was performed. Case I, a patient, aged 28, pregnant 3½ months. The fundus was pushed to the left by a firm rounded swelling reaching up to the umbilicus, and very tender to the touch. On opening the abdomen the mass was found to be a soft fibromyoma springing from the right side of the uterus. It was not pedunculated, and could only be removed by abdominal hysterectomy. As the symptoms were not urgent the abdomen was closed. The patient made a good recovery, and five months later was delivered naturally of a full-term living child. Case II, a patient, aged 28, 5½ months pregnant. A tumour the size of a large cocoanut, was found to be attached to the left side of the fundus. It was freely movable, very hard, and had caused severe pain, the result of localised peritonitis. The abdomen was opened, and a pedunculated myoma found attached to the left cornu of the uterus. The pedicle was transfixed and ligatured in the ordinary way, and the tumour removed. The patient made an uneventful recovery, and was now almost at full term.—Dr. Arnold Lea read notes of a case of Sarcoma of the Ovary in a girl aged 13 years. The tumour, which had attained the size of a seven-months pregnancy, had been noticed for four months, and had grown rapidly. Abdominal section was performed. The tumour was adherent to the great omentum, which was removed along with it. The right ovary was normal, and was not taken away. The patient made a good recovery from the operation. The tumour was a soft sarcoma, very vascular, and showing numerous hæmorrhages. Microscopic sections showed it to be of the round-celled variety. The prognosis of sarcoma of the ovary in young girls was very bad. Of 26 cases recorded as operated upon, 7 died as the result of the operation (27 per cent.). Recurrence within a short time was very frequent, most cases dying from secondary

growth within a year of the operation.—Dr. W. K. Walls read a communication on the treatment of Severe Accidental Hæmorrhage—generally concealed—based upon a personal experience of 38 cases, and he discussed the treatment of this condition. He maintained that rupture of the membranes, as generally advised, was injudicious, owing to the inertia of the uterus generally present in these cases. He upheld the value of the plug and dilator combined, as in De Ribes's bag. After summarising the methods of active delivery *per vias naturales*, he discussed the value of abdominal section, expressing the opinion that it could only have a very limited field of usefulness. He suggested that after delivery of the child, if the uterus remained inert and did not respond to ordinary stimuli, vaginal hysterectomy might be justifiable, alleging that many of the fatal cases of concealed accidental hæmorrhage were brought about by the intractable *post-partum* hæmorrhage so commonly experienced.

Newport Medical Society.—At a meeting on February 1st, Mr. H. E. Williams (President) in the chair, Mr. O. W. Morgan showed a case of Cystic Tumour of the Neck.—Mr. H. B. Seddon read notes of and showed a case of Raynaud's Disease.—Mr. J. Lynn Thomas read a short paper on Thyroidectomy with and without General Anæsthesia, and showed specimen of tumour removed. Mr. Thomas also showed a special form of Scissors for convenience whilst operating.—The Honorary Secretary read a report of Committee referring to the proposed lending library of the Society with draft of rules. The same were discussed and agreed to.

REVIEWS.

The Yearbook of Treatment for 1899. A Critical Review for Practitioners of Medicine and Surgery. Cassell and Company, Limited, London, Paris, New York, and Melbourne. (Crown 8vo, pp. 480, 7s. 6d.)

The *Yearbook of Treatment* is now so well established in the favour of the profession, not only in this country but in Greater Britain and in the United States, that it is hardly necessary to do more than notify the appearance of the fifteenth issue. The book gives a bird's eye view of the whole field of therapeutics, and it is interesting to note the points in the mental landscape thus presented that stand out most prominent at the first glance. This year tuberculosis overtops everything else. The most valuable feature in the new issue of the *Yearbook*, and a novel one, is an article on the Open-air Treatment of Phthisis by Dr. F. W. Burton-Fanning, which is one of the best and briefest accounts of the subject that we have met with. Dr. Vincent D. Harris deals with Diseases of the Lungs and Organs of Respiration, and here also the prevention of tuberculosis and its treatment in sanatoria hold the place of honour. In regard to diseases of the heart and circulation, Drs. G. A. Gibson and James A. Dunlop have but little in the way of progress to chronicle, and the same thing may be said concerning most of the other articles, which are contributed by writers whose names are a guarantee of their competence for the task. Needless to say they have done their work thoroughly well, as far as there was material available for the purpose; but even the most practised of "eminent hands" cannot make bricks without straw. Speaking of dermatology, Mr. Malcolm Morris says that "the tide of progress flows more strongly at one time than another, and this year has been a period of slack water;" and this remark may be extended to therapeutics in general during the last twelve months.

The *Yearbook of Treatment* is so conveniently arranged and so fully indexed, contains so much matter, and is withal of such manageable size that it is no wonder it should have become indispensable to all members of the medical profession who wish, with the least possible trouble, to keep themselves abreast of therapeutic progress. In its adaptation to its purpose it reminds us of a royal personage's description of an ideal secretary, who was "never out of the way and never in the way." So in the *Yearbook of Treatment* the busy practitioner will find at once just what he wants, and no more. He is not irritated by foolish or crude fancies which might lead him to say in his haste that all men are liars. The gaseous elements in the therapeutic output of the year have been evaporated, till only a solid residue of useful knowledge is left. We are gratified to observe that, as in former issues, the Epitome of the British Medical Journal has proved of service to the writers of many of the articles, though the indebtedness is not always acknowledged.

We commend this edition of the *Yearbook* to the profession as giving in the smallest compass the greatest amount of information selected by recognised authorities in all the practical departments of the healing art on the advances made in their respective provinces.

Descriptive Catalogue of the Anatomical and Pathological Specimens in the Museum of the Royal College of Surgeons of Edinburgh. By Charles W. Cathcart, Conservator, Fellow of the College. Vol. II. Diseases of the Skin, Nervous System, Eye, Alimentary Canal, and Urinary Organs. Edinburgh: James Thin. (Demy 8vo, pp. 558. 7s. 6d.)

We had occasion to review favourably the first volume of this *Catalogue* nearly nine years since. Mr. Cathcart has clearly continued his work with most methodic deliberation. The compiler has his own views on classification in pathology; In the *Edinburgh Medical Journal* for July and August, 1896, he advocated a very rational method for the arrangement of pathological specimens. A strict relation between the physiological basis of health for organs or tissues, and the disturbances of that physiological basis which leads to disease, is maintained. This system will alter catalogue classification if generally adopted. Thus the first physiological basis of health in the new order is "normal original structure." The second "basis" is "original endowment of vital energy and the power of maintaining these (*sic*)." Against these first two normal bases Mr. Cathcart places first congenital malformations, functional defects, new growths, and senile changes. Thus, without going further into his scheme, Mr. Cathcart's arrangement of pathological conditions is both logical and scientific.

When it is applied to the arrangement of museum specimens, however, some difficulties would arise. Thus "congenital malformations" include teratology, but the work of Ballantyne and other living authorities shows that while many monsters and malformations depend on perversions of development, causing an "original structure" to be abnormal from the first, on the other hand many other types of monstrosity and malformation arise from inflammatory and other pathological processes common to fœtal and adult life, appearing in such cases very early, no doubt, but still not till after the "original structure" has developed. Again, "senile changes" are hard to distinguish from many active and passive forms of degeneration not peculiar to age. Mr. Cathcart's principles of pathological classification deserve, however, the respectful consideration of all pathologists.

As may be seen from the heading, this volume includes a wide range of specimens as far as difference of type is concerned. Several classes are of a kind in which the specimens always show well, and therefore always prove instructive, provided that they are properly mounted. The museum seems to possess a good series of specimens of diseases of the stomach and intestines. Mr. Cathcart's descriptions of these specimens are clear, so that the *Catalogue* will be of some value to workers who cannot visit Edinburgh to study the collection itself.

A Manual of Obstetrics. By A. F. A. King, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, and in the University of Vermont, etc. Seventh Edition. London: Henry Kimpton. 1898. (Demy 8vo, pp. 574. 10s. 6d.)

It is not necessary to say much about the seventh edition of a work, the first edition of which appeared in 1882. The continued demand for it attests its utility. It makes no pretence to be anything but a condensation for the benefit of students of larger treatises, and, regarded as a summary, it is clear and good. It bears evidence of having been written, like so many

students' textbooks, before the author had had enough experience to enable him to judge for himself on points of practice. Thus, in the section on decapitation, the learner is given his choice of three methods: (1) Pulling down the neck with a blunt hook, and then "nibbling" through it with scissors; (2) Ramsbotham's sharp hook (the name, however, not being given); (3) chains, wires, and strings passed round the neck through a long double cannula to protect the vagina, the neck being supposed to be severed by a sawing to-and-fro movement. No one who has had practical experience will hesitate for a moment between these methods. The string plan will not work. To pass an *écraseur* wire over the neck in a case of impacted shoulder is a matter of no small difficulty. Cutting through the neck with scissors is tedious and not easy. Ramsbotham had had enormous experience in difficult midwifery and in consequence was a practical man, who knew what he was about, and whose statements as to matters of practice are always to be trusted. His sharp hook is comparatively easy to introduce, and severs the neck in a few seconds. No one who has used it would mention the far inferior alternatives here classed with it. Speaking of instruments for internal pelvimetry, the author says, "They can scarcely be used during labour, when most often needed, and give no better results than the hand under any circumstances." We agree with him: but why, then, figure or describe them?

The last chapter of the work is devoted to the jurisprudence of midwifery, a subject not handled by most writers on midwifery, but we think very properly included. We can on the whole recommend Dr. KING'S book, as containing much information in a comparatively small compass.

LEHRBUCH DER GEBURTSHILFE. [Textbook of Midwifery.] Zur wissenschaftlichen und praktischen Ausbildung für Aerzte und Studierende. Von F. AHLFELD. Zweite völlig umgearbeitete Auflage. Leipzig: W. Grunow. 1898. (Royal 8vo, pp. 648. M. 6.)

THIS second edition is practically a new book. It is one of the most considerable works on midwifery that have yet appeared. It is full, well arranged, clearly and concisely written, and on the whole well illustrated. The reader is helped to find the subject he wants, not only by an index, but by marginal indications of the contents of each paragraph.

The author states in his preface that he looks at things from a decidedly conservative standpoint. He sees at present a growing eagerness for operations in midwifery which are not followed by such good results as the old ways of trusting to natural processes. As an example, we may take his views upon the use of the forceps. He says that people speak of "the indications of the school" and "the indications of practice" as if they were different and opposed. But the "indications of the school" are those based on scientific knowledge, and they alone ought to be acted on in practice. The forceps is by no means a harmless instrument, but a dangerous one. Hundreds of women die every year from unskilful and unnecessary use of forceps; a far greater number are gravely damaged; and no small number of children suffer from injuries produced by the untimely application of this instrument. In lying-in hospitals the deaths are fewer, partly because antiseptics are used, but chiefly because the instrument is seldom used, and the so-called "high forceps" is avoided. Not only would AHLFELD have the forceps seldom used, but he would limit closely what is to be done with it. In his view forceps should never be applied till the head has entered the pelvic cavity, and should be removed before the head has passed the vulvar orifice, the delivery of the head being completed by "Ritgen's manœuvre"—that is, pressing forward the head by a finger in the rectum. Ahlfeld must have sympathetically welcomed Professor Sinclair's address at Montreal.

The plugging of the uterus with gauze for *post-partum* hæmorrhage has not captivated Ahlfeld. He says he has only done it once, and then without effect. The uterus did not contract, and after removing the plug hæmorrhage was stopped by kneading the uterus. He does not advise his students to do it; for he thinks that if the uterus is compressed, emptied, and the hot douche used, gauze plugging will not be required. He says: "When Dührssen says that hundreds have used gauze plugging with success, that only shows to me that many accoucheurs have not yet learned to use the simplest means of combating *post-partum* hæmorrhage," he adds that numerous contributions to the medical journals show that gauze plugging cannot be relied upon either to stop hæmorrhage or to prevent septic infection.

Our author is not in all things bound by the teaching of his youth. He has discarded the trephine perforator, so long the favourite of the German obstetrician, and adopted an English scissor-shaped instrument. He suspends judgment on symphysiotomy, for he rightly says that the observations of the next few years must teach us how many women are and remain crippled by the operation, in private practice as well as in lying-in hospitals. Only then shall we be able to judge of the true value of the operation.

It is not necessary to quote further the opinions of Professor Ahlfeld. It will be enough to say that this is a book well worth reading by all who have to teach midwifery, and by general practitioners who know German well enough to enable them to read it easily.

NOTES ON BOOKS.

TROPICAL MEDICINE.

DR. IZETT ANDERSON, in his small work *Yellow Fever in the West Indies* (London: H. K. Lewis. 1898. Demy 8vo, pp. 122, 3s. 6d.), differs from other authors as to the geograpical distribution of the disease, He says: "It generally occurs in the West Indies, the tropical regions of Africa, and North and South America, but it has also been met with in Europe and elsewhere." It is usually believed that yellow fever is endemic only in the West Indies, and in certain sections of the Spanish Main, and to be unknown in tropical Africa, with the exception of certain portions of the West Coast, where it has prevailed epidemically. In North America it has also prevailed only epidemically in the Atlantic States, the valley of the Mississippi, and recently on the West Coast as far as Port Guagmas. It has been carried several times to European ports by infected ships, but it has never spread on land with the exception of the south-west coast of the Iberian peninsula, Majorca, and once in 1804 from Cadiz to Leghorn. Asia and Australia have never been visited. Dr Anderson briefly disposes of its etiology by saying that as there is nothing definitely settled with regard to its bacteriology, "it is allowable to conjecture that the disease may be due to combined atmospheric and telluric conditions," and he hazards the suggestion that blankets and clothes may convey contagion by absorbing and retaining "a section of the climate of a yellow fever district." Dr. Anderson believes that the disease can be cut short by the administration of calomel and quinine in doses of about a scruple each. He further recommends the administration of carbolic acid and bicarbonate of potash in effervescence with fresh lime juice throughout the whole course of the disease. A similar mixture was vaunted many years ago by Pacini in the treatment of cholera. Although some of the statements in the book are open to doubt, the author gives a good sketch of the disease, and his remarks on diagnosis are valuable.

Dr. HEATON'S *Medical Hints for Hot Climates and for those Out of Reach of Professional Aid* (London and Calcutta: Thacker, Spink and Co. Crown 8vo, pp. 160. 3s. 6d.) contains 166 pages, and is divided into six chapters. An introduction deals with medicine chests, drugs, appliances, doses, and measures. The first chapter is on the preservation of health and the filtration of water; it contains some remarkable statements, the most wonderful being, perhaps, those on malaria. The author tells us to "kindle fires near the camps, since they ward off malaria, and by decomposing it render it inert"; and further: "marsh miasm is absorbed or rendered innocuous by its transit across water, and its poisonous properties are arrested and neutralised by trees." The second chapter is headed "Food, Diet, and Recipes," but it consists of three pages, which deal only with milk, beef-tea, barley water, egg flip, and imperial drink. The third chapter is on fevers, at least such as Dr. Heaton pleases to call so, because while "hectic fever" forms one of the group, erysipelas, pneumonia, rheumatic fever, diphtheria, influenza, etc., are placed amongst the general diseases which compose the following fourth

chapter. The fifth chapter is on accidents, and the last on the description of drugs. The book is not deserving of much praise.

An outbreak of relapsing fever in 1891, among the workers engaged in the Khojak tunnel works, gave Surgeon-Captain L. J. Pisani, F.R.C.S.Eng., I.M.S., an opportunity of studying the disease, and in *The Pathology of Relapsing Fever* (Calcutta: Thacker, Spink and Co.: 1897; demy 8vo, pp. 106, 3 coloured plates), he deals with the specific micro-organisms and the pathological changes it induces. There is nothing very original in the book, but it contains an account of recent literature and a good bibliography. The author gives an accurate description of the parasite, and mentions the methods used for examining and staining it in blood specimens and sections. He confirms the observations of the many authors who have noticed during the apyretic stage very motile, round structures, often united in pairs by a faint connecting thread, and supposed to be spores. But Metchnikoff, Baumgartner, and others, have not found these structures, and believe the spirillum to multiply by division. The author states that the mode of entrance of the parasite is still unsolved, but it is certain that it can enter through scratches or wounds inflicted while making *post-mortem* examinations in cases of relapsing fever, and, therefore, it seems not unreasonable to suppose that the parasite may be inoculated by blood-sucking insects. The disease occurs mostly among the poor and dirty, who are generally infested with bugs and fleas.

Annuals.

Whitaker's Naval and Military Directory and Indian Army List, 1899 (London: J. Whitaker and Sons. Demy 8vo, pp. 652, 5s.).—This work undoubtedly meets a "felt want" among a large section of the public who have neither time nor opportunity to consult naval and military official lists. It will therefore be welcomed as a handy book of reference, and as such we can recommend it. We find it, on the whole, wonderfully correct, but there are some errors which can readily be corrected by careful—and we would add expert—revision in a future edition. For instance, at page 127, we find the name of a well-known medical officer inserted twice over, and in the first entry his titles are wrongly stated. Perhaps in future editions the publishers will see their way to give the district staffs of the army more fully, and the departmental as well as the regimental lists.

The Muncipal Year Book for 1899, edited by Robert Donald (London: Edward Lloyd, Limited. Cr. 8vo, 2s. 6d.), is a useful annual, giving a good deal of information with regard to the great towns and boroughs, a short account of their general character, and the names of their principal officers. There are also shorter particulars with regard to urban districts councils. The special feature of the book, however, is the attention given to municipal industries, including the supply of water, gas, electricity, the management of tramways, and the erection of artisans' dwellings and municipal lodging houses. These are dealt with in separate sections, which apply to all the towns in the United Kingdom, with the exception of London, which, owing to the special characters of its municipal government, has to be dealt with separately.

We have received Vol. xxxv. of the *Minutes of the General Medical Council and of its Various Committees and Branch Councils* for the year 1898 (published and sold for the Council by Spottiswoode and Co., London; pp. 700, 12s.).—The minutes come down to December 1st, 1898; that is to say, to the conclusion of the last session of the Council. It is a matter of regret, and of no little inconvenience to those who have to make frequent reference to the minutes of the Council, that there should have been so long a delay as three months between the conclusion of the last session and the appearance of the volume of the minutes with the customary general index. The volume contains 16 appendices consisting of various reports presented to the Council during the year 1898, and the usual financial statement.

The new laboratories of the Middlesex Hospital Medical School are now complete, and a *conversazione* will be held in the new buildings on March 15th. The laboratories are equipped with the best modern appliances for instruction in original research, and at the *conversazione* many objects of interest will be exhibited.

THE PREVENTION OF TUBERCULOSIS.

York.

A meeting was held at York on February 25th for the purpose of forming a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. The Lord Mayor presided, and there was a large attendance. Mr. Frederick Shann, President of the York Medical Society, explained the origin of the movement, and Mr. H. M. Platnauer set forth the constitution and rules of the Association. Mr. Alderman Gray moved that the constitution be approved and adopted, and the motion was seconded by the Dean of York.

Mr. Malcolm Morris, in supporting the resolution, stated that since the commencement of the movement, seven months ago, it had spread beyond their wildest expectations. Branches of the National Association then inaugurated were now being formed in many cities in the empire, and it had spread not only through their own islands but to the colonies, Toronto having formed a branch association. Branches had been formed or were in course of formation in York, Huddersfield, Ipswich, Carlisle, Warwick, Plymouth, Bristol, Bournemouth, Dublin, Belfast, Glasgow, Dundee, Keswick, Leicester, Kendal, Chelmsford, Darlington, Sheffield, Nottingham, Londonderry, Stockton-on-Tees, and Toronto. After sketching the progress in sanitation which had taken place since Queen Victoria came to the throne, and describing the means by which tuberculosis was spread, Mr. Morris, referring to Mr. Chaplin's proposed measure, said he would make it a criminal act to sell milk from a cow which had visible signs of tuberculosis about it, and he considered it was the duty of public bodies and large institutions not to buy milk without a guarantee from the retailer that the cows had been tested with tuberculin. Turning to another point, an eminent scientific authority had recently criticised the Association on the ground that they had taken hold of the wrong end of the stick. It was urged by this gentleman that it was their duty to impress upon the Government the necessity for compulsory notification, but they considered that such a step would be too drastic. The person would then have to be placed in an institution and protected, and this was physically impossible. No Government would take it up unless the people demanded it, and he thought the best way out of the difficulty was to educate the people to adopt voluntary notification—a very different thing. The speaker pointed out the necessity for active personal support being given to the movement by men and women, and said they looked to women especially because they had charge of the children.

The resolution was adopted.

Mr. Butcher moved:

That the following ladies and gentlemen constitute the Council of the Association for the ensuing twelve months:—*President*: The Right Hon. the Lord Mayor (*ex-officio*). *Vice-Presidents*: The Very Rev. the Dean of York, Earl of Feversham, Lord Deramore, the Sheriff of York (*ex-officio*), Mr. J. G. Butcher, Q.C., M.P., Lord Charles Beresford, M.P., Rev. Canon Watson, Rev. F. A. Russell, Hon. Reginald Parker, Sir C. A. Milward, J.P., the President of the York Medical Society (*ex-officio*), the Senior Member of the Honorary Medical Staff of the York County Hospital, the Senior Member of the Honorary Medical Staff of the Dispensary, the City Medical Officer of Health (*ex-officio*), Mr. J. S. Rowntree. *Council*: Hon. Mrs. Wilkinson, Mrs. Edwin Gray, Mrs. Jalland, Mrs. Phillip Newman, Miss Wilkinson, Dr. Tempest Anderson, J.P., Mr. Butterfield, Dr. Evelyn, Mr. Edwin Gray, Captain Dunnington-Jefferson, Mr. W. H. Jalland, J.P., Mr. Robert Kay, Dr. Macdonald, Dr. Ramsay, Rev. H. Robinson. *Honorary Treasurer*: Mr. W. F. H. Thomson, J.P. *Honorary Treasurer*: Dr. Macdonald.

Dr. Jane Walker, in supporting the resolution, mentioned her own experience of the open-air treatment in Norfolk. She said that much of the work of the branch associations might come under the description of an "after-care" association. Their Association should be in touch with the sanatoria for the poor, with the charity organisation societies, with the workhouses, and with all agencies that aimed at poor relief.

The resolution was carried, and the meeting terminated with the usual votes of thanks.

Halifax.

At a meeting of the Halifax Board of Guardians on February 22nd it was stated that Dr. Dolan, the Workhouse Medical

Officer, had called the attention of the Infirmary Committee to a report made by him on November 19th last with respect to the consumptive cases in the house, and suggesting that it would be preferable if the cases could be sent to a sanatorium outside the town. The Committee resolved that the Clerk be instructed to write to the Huddersfield, Bradford, Dewsbury, Leeds, North Bierley, and Todmorden Unions, and ascertain what action these unions were taking in the matter, and suggesting the desirability of amalgamating with these unions for the provision of a hospital in the district for the treatment of workhouse consumptive cases. The Infirmary Committee also resolved that a revolving shelter for open-air treatment of consumptive cases be obtained and placed on the male side of the hospital.

After some discussion the following resolution was agreed to:

That the Clerk arrange for a conference of representatives of adjoining unions to consider the treatment of consumptive cases in workhouses, and to discuss the question whether such cases should be treated otherwise than in workhouses.

Manchester.

A special meeting of the Committee recently appointed to make arrangements for a conference with a view to the formation of a society for preventing the spread of tuberculosis was held on February 21st, Professor Leech, M.D., presiding, when after full discussion it was resolved to convene the proposed conference. The nucleus of a Committee to embrace representatives of other towns and districts in the area to be covered by the Association was appointed. An early meeting of the more representative Committee will be held, when the objects of the Association will be further discussed and all arrangements for the conference made.

Norwich.

At meetings of the Norwich Medico-Chirurgical Society held on February 7th and 21st, Mr. W. E. Wyllys in the chair, a discussion took place on the aims and objects of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

Sir Peter Eade opened the discussion, speaking first on the necessity of educating the public, and referring to our increased knowledge of tuberculosis. As regards treatment sanatoria must be public and private, and houses must be less damp with better surroundings. Speaking finally on the inspection of slaughterhouses, Sir Peter thought more good would be derived from Government inspectors than from medical men.

Dr. Barton observed that the strongest argument against notification urged by Dr. Pattin was that it would intimidate the early incipient cases from applying to their doctor at a time when there was the best chance of cure by the fear of being publicly branded as a consumptive. The sweeping assertion that all tuberculous cows must be killed was, if necessary, impracticable, as the outlay would be at least £12,000,000. Sir R. Thorne, in his Harben Lectures, asserted that it was only from the cows with tuberculous udders that experimentally tubercle bacilli had been found in the milk. He thought that the workhouse authorities ought to consider the question of supplying the accommodation for the consumptive poor in their districts, and might even use much of their spare workhouse accommodation for such cases.

Dr. Burton-Fanning observed that there were already twenty branches of the Association in process of formation, and he sincerely hoped that the outcome of the meeting would be the starting of one in Norwich. He described the objects of the Association as twofold—the education of the public as to the common channels of infection, and the erection of sanatoria for those already attacked. He remarked that at more than one place the establishment of a sanatorium had been followed by a diminution in the number of consumptive natives. Owing to the precautions taken, the risk of infection at a special institution for phthisis was reduced to a minimum. It was in the sanatorium that he was most interested, and he showed the charts of patients treated in the hospital, in their own homes, and at Cromer. He illustrated by these the part played by the various items of the treatment, and insisted on the absolute necessity of close medical supervision, the effect of half an hour's too much exercise being shown by the temperature.

Dr. Pattin, M.O.H., was of opinion that it was absurd to start upon a campaign against the tuberculoses without informing ourselves of their number and disposition, and this knowledge we could best acquire by notification. He therefore placed in the first rank notification of all tuberculous diseases, with, as a necessary corollary, the establishment of hospitals for the segregation of the dangerous cases. The policy propounded, as he understood it, of providing sanatoria for the well-to-do, was inadequately described as scratching the surface and neglecting the root of the mischief, which root he found to be most firmly implanted in the dwellings of the helpless and the wretched. Next, he placed regular infection of dairy cattle and the tuberculin test, though he warned members that in his judgment a lot of exaggerated statements had been made about ridding the world of intestinal tuberculosis in children. They would lower that amount, he hoped, but they would not eradicate the disease. Milk, in his opinion, was often contaminated in the dwelling. So important did he think infection in the dwelling that for five years he had carried out systematic disinfection after the death or removal of a tuberculous patient, whenever he could gain consent to do so. He thought instructing children while at school in the methods of preventing tuberculous infections was certain to be more efficacious than lecturing to grown-up people.

Dr. Crowfoot advised affiliation with the central Association, so as to obtain good speakers for a public meeting. He thought there ought to be fully equipped sanatoria for the poor; that this was better than trying to educate them with regard to the disposal of sputum, etc.; and that Boards of Guardians should provide these for their phthisical patients.

Dr. Long observed that we did not all regard the infection in the same light. Being due to the tubercle bacillus, a facultative saprophyte, it was both of a direct and indirect nature; the former, he thought, played a minor part in the spread of the disease, whereas the latter mode of infection could never be entirely got rid of, and hence the disease could never be stamped out. A protective serum might be discovered, but till then much good could be done by sanatoria. He thought the public had been misled as to the importance attached to milk and food as sources of infection, and in support of his contention instanced the account given by Dr. Clifford Allbutt, in the January number of the *Practitioner*, of his own family and several others drinking milk for several months known to contain swarms of tubercle bacilli, and yet none of them got tuberculosis.

Mr. Cecil Muriel, in reply to a question, said he had 8 patients under treatment in the Norwich Workhouse Infirmary—7 in an advanced stage. The guardians, he thought, would not do anything in the way of building sanatoria.

Dr. Beverley thought that the milk ought to be thoroughly investigated.

Dr. Burton-Fanning then moved:

That the members of the Norwich Medico-Chirurgical Society are in favour of starting a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis for Norwich and district.

This was carried unanimously.

Mr. Haynes Robinson moved:

That a Committee be formed to carry out suggestions, and to call a public meeting, and that the following be nominated as members of the Committee: (for the City)—Drs. Barton, Beverley, Burton-Fanning, Pattin, M.O.H., and Mr. Haynes Robinson; (for the County)—the President (Mr. W. S. Wyllys), Drs. Crowfoot, Dent, Reeve-Manby, Owens, and Mr. H. Bournes-Walker, with power to add to their number.

This resolution was unanimously carried.

Portsmouth.

A well-attended meeting of the members of the medical profession in Portsmouth and district was held on February 13th in the Mayor's Banqueting Room in the Town Hall. The subject for discussion was the new campaign against consumption, and it was resolved to send a requisition to the Mayor of Portsmouth, asking him to call a public meeting to take into consideration the formation of a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

Plymouth.

A public meeting, convened with the object of forming a

Devon and Cornwall Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, was held on February 21st at Plymouth. The meeting, which was large and representative, was presided over by the Earl of Mount-Edgcumbe.

After some introductory remarks from the noble chairman, Dr. Theodore Williams (who with Dr. Childs represented the Association for the Prevention of Consumption) described in detail the objects of the Association. It was not medical men alone who were needed to grapple with the evil; they wanted all classes alike to help them. After explaining the nature and methods of the open-air treatment, and quoting statistics of the phthisis mortality in this country and abroad, Dr. Williams in conclusion expressed the hope that the land would be as free from consumption as it had been from leprosy. The successful attainment of that object would be another glorious achievement to mark the reign of Queen Victoria.

Mr. Paul Swain, speaking on behalf of the Plymouth Sanitary Authority, said he was certain that when the matter was ripe for their consideration that body would give it that patient, intelligent, and earnest advocacy which had always characterised them in the administration of sanitary matters. He could not agree with what Lord Salisbury had said on the question of compulsion. The time must come when the population was sufficiently interested in the question as to lead the sanitary authorities of great towns and urban districts to deal with consumption in the same way as they did scarlet fever, typhoid, and other infectious diseases. He hoped the people of the two counties would join the Association in great numbers.

Dr. Childs supplemented the information given by his co-delegate, Dr. Williams, and urged the audience to consider the question as a national one.

The Mayor of Devonport proposed the formation of a Devon and Cornwall branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, and that those present should form themselves into a general Committee for that object.

Dr. F. M. Williams seconded, and the resolution was agreed to unanimously.

Sir Massey Lopes moved:

That an Executive Committee of twenty gentlemen from Devon and Cornwall be nominated to organise the newly-formed branch.

The motion was seconded by Dr. May, who announced the names of the gentlemen nominated for the Executive Committee as follows: Drs. M. Bulteel, W. L. Fox, W. Gordon, W. Hammond, Montgomerie, N. E. Norway, E. Thompson, R. Pollard, H. Webber, and W. L. Woollcombe, and Messrs. W. H. Bloye, D. Cameron, E. St. Aubyn, R. J. Lake, A. R. Bouchier, W. Grylls, L. C. Foster, G. Soltau Symons, C. H. Radford, and R. E. Page.

The motion was adopted.

Archdeacon Wilkinson proposed, and Mr. R. J. Michie seconded, the election of the following officers of the Branch:—President: The Earl of Mount-Edgcumbe. Vice-Presidents: Lord Falmouth, Sir J. B. Phear, Sir Massey Lopes, Dr. Clay, Mr. W. H. Alger, Dr. Davey, Dr. Montgomerie, Dr. Hingston, Mr. Harris, Dr. Huxley, Mr. Sharp, and Mr. W. Coryton. Chairman of the Committee: Mr. Paul Swain. Honorary Treasurer: Mr. T. Bulteel. Honorary Secretary: Dr. Bushnell.

It was announced that a gentleman residing at Dartmouth had offered to give a site on his property for the erection of a sanatorium.

Glasgow.

The University Lecture was delivered on February 20th, by Professor Glaister, who spoke on the prevention of tuberculosis. He said the crusade against the disease was only likely to be efficient in the measure in which the following precautions were taken: (1) The extermination of tuberculous milch cows from herds, the milk of which was used as food of man, and especially of young children—and it ought to be generally known that boiling or sterilisation of the milk would protect our infantile population; (2) the inspection of our meat supplies, so as to prevent tuberculous meat being sold, made compulsory on all local authorities—urban and rural alike—by an Act of Parliament; (3) the education of the public in the infectivity of the expectoration of the victims of tubercle of the lungs; and (4) careful attention to the ventilation of our homes, the maintenance of good sanitary conditions in our populous places, the provision of open-air spaces, and the repression of the smoke and fog-producing nuisance.

Camberwell.

At a meeting of the Camberwell Vestry, on February 22nd, Dr. Smith, on behalf of the Sewers and Sanitary Committee, submitted a series of recommendations giving notice to persons with regard to consumption and its prevention. These included:

(1) That notice be sent to the medical men of the parish, pointing out that the vestry is prepared to disinfect, free of cost, all rooms and their contents recently occupied by patients suffering from consumption; (2) that notice be sent to the persons in charge of public institutions, pointing out the importance of disinfection; (3) that notice be sent to the occupiers of houses where deaths had taken place, offering disinfection free of cost; and (4) that the cost of giving effect to the recommendations be included in the sum of £20 which the Committee had requested in connection with the circular relating to measles.

The recommendations were agreed to.

Roumania.

It is proposed to form a League against tuberculosis in Roumania to educate the public as to the dangers of tuberculous infection and the means of avoiding them, and to promote the formation of sanatoria and special hospitals for sufferers from the disease.

A CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW OFFICERS.

The Act of 1896, "to provide for superannuation allowances to Poor-law officers and servants, and for contributions towards such allowances by such officers and servants," is, on the whole, a decided boon to those to whom its provisions apply, but a short experience of its working has already shown that on one most important point it fails to meet the requirements of those on whose behalf it was passed.

The Act provides that "every officer and servant in the service or employment of a union or parish" shall become entitled to a superannuation allowance:

1. On his becoming incapacitated by bodily or mental infirmity, or by old age.
2. On his attaining the age of 60 years, having then completed an aggregate service of 40 years.
3. On his attaining the age of 65 years.

The scale for superannuation is as follows:

Any officer or servant who has served for ten years, but less than eleven years, shall be entitled to an annual allowance equal to ten-sixtieths of the average amount of his salary, or wages, and emoluments during the five years ending on the quarter day which immediately precedes the day on which he ceases to hold his office or employment, with an addition of one-sixtieth of such average amount for every additional completed year of service until the completion of a period of service of forty years, when a maximum allowance of forty-sixtieths shall be granted.

The scale of pension is fairly liberal, and the contributions required from the officers and servants are not excessive. They are, in the case of those with less than five years' service at the passing of the Act, or appointed after the passing of the Act, 2 per cent.; those more than five and less than fifteen years, 2½ per cent.; and those more than fifteen years, 3 per cent. of the salary or wages and emoluments for each year. Though not, as we have said, excessive, yet in some cases, especially among those in the third category, the amount will seem high.

The weak place in the Act is in the provision in Clause 11, that the officer or servant

shall be entitled, on resigning or otherwise ceasing to hold his office or employment, to receive during life, *out of the common fund of the union*, a superannuation allowance according to the scale laid down in this Act.

The words italicised throw the whole burden of each superannuation allowance on to that particular union in which the officer or servant who obtains the pension happens to end his official career. The result is that any union taking into its employ an officer or servant of long standing in other unions has, in addition to paying his salary, to take upon itself the burden of providing for the pension to which he will in a few years become entitled, while all the contributions he has hitherto made will be retained by unions which will bear no part in the cost of his superannuation allowance.

It is clear that as the working effect of this clause of the Act becomes known to the union guardians it may become a very

serious bar to officers or servants of long standing who wish to enter another union. In the BRITISH MEDICAL JOURNAL of January 28th appeared a letter from "Poor-law Member," giving particulars of a case in which this clause prevented an otherwise very eligible candidate from obtaining the post of district medical officer. On his informing the guardians that he had been a Poor-law officer for fourteen years, one of them replied, "Then I shall oppose your appointment, as, if you break down next week, our Board will have to superannuate you." This was hard on the candidate, but the objection was not an unnatural one from the guardians' point of view, and it shows that the longer a man's record is the greater will be this obstacle to his obtaining an appointment under another union.

The remedy suggested by the correspondent "W. L.," who first raised this question, is that "a central fund for the superannuation of Poor-law officers" should be established. Under this arrangement the contributions of the officers and servants would not be retained by the unions in which they were made, but paid by these unions into a common fund from which all superannuation allowances would be paid, and consequently no union would be debarred by pecuniary considerations from employing any eligible officer or servant of long standing. This idea of "pooling" the contribution is already contained in the Act, for in Clause XVII it is enacted that:

> When the district of a superintendent registrar is situate in more than one union the percentage amount of his fees to be carried to the common fund of each union and the amount of any superannuation allowance or gratuity to be paid to him by the guardians of each union shall be in proportion to the rateable value of the portions of the district in each union.

An extension of this to officers or servants "who have served in different unions" would seem to suggest a means of overcoming the difficulty.

It would appear to be assumed that the superannuation contributions of the officers or servants are not, and were not, intended to be sufficient to furnish the pensions without aid from the general fund of the unions, and therefore under the suggested plan each union would have to contribute to the central fund some amount in addition to the contributions collected by it from its officers and servants. This condition, however, if found to exist need give rise to no difficulty, as the total contribution could easily be calculated and apportioned among the various unions on the basis of rateable value.

In Clause V of the Act it is enacted that in computing the amount of superannuation allowance the guardians may, in consideration of peculiar professional qualification or of special circumstances, add somewhat to the amount given in the scale. In cases in which guardians might wish to do this the contribution could still come from their own funds.

If all allowances were paid from a central fund a Board of Guardians would probably appreciate "peculiar professional qualifications and special circumstances" more keenly than under a system whereby any such appreciation had to be paid for by the union they represented. But as such additions, which are in any case limited to an increase of the time of service by ten years, can only be made with the consent of the Local Government Board, they are not likely to be too numerous. There is therefore no real objection to the scheme of a central fund, and the principle of such a combination is already contained in the Act.

WOOLWICH AND SANDHURST.—The report of the Board of Visitors of the Royal Military Academy, Woolwich, and the Royal Military College, Sandhurst, for 1898 has been issued as a parliamentary paper. The health of the Academy was good, the average daily sick being 3.86 out of an average strength of 224, giving a daily percentage of 1.72. The Board understand that the whole system of drainage has been remodelled since their last visit, and they trust with good results. Smoke and water tests are regularly employed. Some of the class rooms are quite unsuited for the work done in them both in the day and in the evening, owing to the light and ventilation being bad. In the Royal Military College the health of the cadets has been generally good. The daily average sick had been 3.47 out of an average strength of 347, giving a daily percentage of 1. Some improvements have been made in the drainage, and the medical officer reports the sanitary state of the buildings as satisfactory.

THE LONDON GOVERNMENT BILL.

OPINIONS OF MEDICAL OFFICERS OF HEALTH.

THE Bill which was introduced into the House of Commons on February 23rd by Mr. A. J. Balfour must inevitably, when it becomes law, have a great influence on the future of public health administration in London.

The text of the Bill was only issued to members of the House of Commons on Wednesday afternoon, so that there has been no time as yet for examination in detail.

The first part of the Bill deals with the delimitation of the new areas, with the constitution of the new borough councils and the mode of election. The second part sets out the powers which will belong to the new borough councils. They will inherit all those possessed by elective vestries and district Boards in the county of London as well as their liabilities. The additional powers to be transferred to the boroughs include powers under the London Building Act of 1894 with regard to licensing of wooden structures, the removal of unauthorised sky signs, and obstructions of the streets; the powers under Section XXVIII of the Public Health (London) Act, 1891, of registering dairymen, and the power and duty of executing Acts relating to common lodging-houses, excepting the powers of making regulations under Section IX of the Common Lodging-house Act of 1851. The Privy Council are to make an order determining which of the powers under the London Building Act, 1894, or any amending Act, other than those already mentioned, are to be exercised by the London County Council and the borough councils respectively.

Clause 7 also relates to the additional powers and duties of borough councils, and refers to the maintenance of main roads and highways, the stopping up of streets, the enforcement of regulations with respect to dairies and milk, slaughterhouses, knackers' yards, and offensive businesses, and the alienation of lands vested in the council, for the discharge of any loan of the council, or otherwise for any purpose for which capital may be applied by the council.

The additional powers to be exercised by borough councils are further defined in a schedule. They include powers under Sections CLXX, CXCVII, and CC of the London Building Act, 1894; under Sections XVII to XXV of the Metropolis Water Act, 1871, with respect to the regulation of water companies, power to adopt Part 3 of the Housing of the Working Classes Act, 1890, and power to make by-laws under Section XXIII of the Municipal Corporations Act, 1882. The third part of the Bill deals with rates and overseers, and the fourth with orders and schemes issued by commissioners approved by a committee of the Privy Council. Clause 23 makes arrangements for the transfer of existing officers, and provides against pecuniary loss which may be suffered by any such officer by reason of anything in or under this Act. The short title of the Bill is to be "The London Government Act, 1899."

We are glad to be able to publish the following observations on the scheme as explained by Mr. Balfour with which some Medical Officers of Health for metropolitan districts have been kind enough to furnish us in response to our request.

Dr. LOUIS C. PARKES, M.O.H. Chelsea, writes: From the outlines already given by Mr. Balfour in introducing this Bill to the House of Commons, it would not appear that any very momentous changes in the metropolitan public health administration will ensue, except in so far as the proposed combination of existing separate sanitary areas into a much smaller number of municipalities breaks up the existing system of administration by substituting one staff exercising powers over a large area for a number of smaller staffs each regulating the affairs of a much smaller district. This will be a step in the direction of increased uniformity, economy, and efficiency if care is exercised not to make the new areas too large and unwieldy. It is doubtful whether, having regard to efficiency of administration, any area should be incorporated with a population exceeding 250,000, but opinions are likely to differ on this point. As regards transference of powers from the London County Council to the new district authorities, there is really not very much that could be transferred with advantage,

seeing that the central authority must necessarily have the control and management of what appertains to London as a whole. The supervision of common lodging-houses, of offensive trades, the licensing and supervision of cowsheds, dairies, and slaughterhouses might be transferred to the new municipalities. The question might also arise as to whether the new municipalities might not be made the authorities under the Housing of the Working Classes Act, 1890, for dealing with "unhealthy areas" and "working-class lodgings" (Parts I and III), which are now administered by the London County Council, as well as with "unhealthy dwelling-houses" (Part II), with which, at present, the vestries and district Boards are more immediately concerned.

It is proposed in the new Government Bill that the new municipalities should have the power to promote and oppose Bills in Parliament. It is very doubtful if it is wise to confer such powers on municipalities which, existing side by side, are likely to be interested very greatly in the proposals made by their neighbours, and more often in the direction of antagonism than consent. It seems difficult to avoid the inference that much money would be spent in promoting or opposing Bills in Parliament that would be better spent in other ways. The existing system by which the London County Council promotes all Bills dealing with London measures is right in principle, although no doubt capable of improvement in detail and practical application.

As regards the supposed improvement in the *personnel* of the members of the new administrative bodies that is anticipated from the establishment of mayors, town councillors, and aldermen, instead of vestrymen and members of district Boards, no doubt some good may result, if political motives exercise no greater disturbing influence upon the elections than they do at present. If aldermen are chosen for the respect which they enjoy among their neighbours as honest and sound men of business, or by reason of their knowledge of local affairs and good social standing, the one very good reason why really eligible men are so unwilling to devote their time and energies to local affairs—the worry of constantly recurring elections—will be removed. It is much to be feared, however, that political exigencies will have more to do with the election of aldermen than administrative capacity and ability. Speaking for the vestries of the better parts of London, it is only right to say that at the present time they will probably stand comparison with the generality at least of the members of provincial town councils. A very few men of deficient tone in a vestry will give an appearance of unseemliness and disorder to meetings, for which the great majority of the members are not responsible, and can do but little to rectify. To those who know the real facts, it is astonishing what a number of really good men of almost every class of life there are who, without any sort of recompense, give up valuable time, year after year, to the services of the community they live amongst, the majority of whom are absolutely indifferent to what so closely concerns them.

Dr. F. J. Allan, M.O.H. Strand, writes: I think that, from the speech of Mr. Balfour in introducing it, the conclusion may be drawn that this Bill is only intended to be a preliminary measure, and doubtless will in due course be followed by one extending the powers and duties of the municipalities. The County Council and the present sanitary authorities have already in conference agreed upon certain matters the carrying out of which could well be done by the local authorities, and these will probably be transferred in any case. But there are numerous other duties which must in course of time be handed over by the Council to the municipalities. Among these may be mentioned the enforcement of by-laws in regard to slaughterhouses, cowhouses, dairies, milkshops, common lodging houses, etc. At present the Council seems to consider that these can best be carried out by their own officers.

In the future there will probably be a transference of duties now devolving upon other bodies; thus it is only reasonable that the authorities dealing with the prevention of infectious disease should supervise vaccination and should have some say in the provision of hospital accommodation for the sick. At present the Asylums Board is chiefly composed of representatives of the guardians instead of the sanitary authorities, or it may be this anomalous body may be merged in some other.

Another question of importance to sanitary authorities is the method by which registration of births and deaths is effected. The areas mapped out for this purpose are coterminous with the Poor-law rather than with the sanitary districts. The Registrar-General, in taking the census, necessarily follows the same plan, and this causes considerable inconvenience to many sanitary authorities in obtaining correct and detailed information as to the distribution of population in their districts.

In some future Bill, if not in the present one, we must hope to see these anomalies rectified.

Dr. A. E. Harris, M.O.H. Islington, writes as follows: 1. The Bill will not affect public health administration to any appreciable extent in the large areas, which are entitled to become municipalities at once, for in most of them the execution of the Public Health Acts is as good as in any of the great provincial towns. In the case of the small areas which are about to be combined, the effect of the Act will be to encourage more activity, because it is the invariable rule throughout the country to find that the greater the municipality the better the work done, and the smaller the greater the neglect. In London the small vestries and Boards were the more negligent bodies, but when they are combined into large areas, and the sanitary administration placed in the hands of a well-paid medical officer of health, who will give his whole time to his duties, they will be certain to follow the example of the best metropolitan and provincial authorities.

2. The Bill will confer very few additional duties on the Public Health Departments of the various authorities. It is understood that the supervision of the cowsheds, dairies, and slaughterhouses will be handed over to the new authorities, and probably also the control of the common lodging houses. These are only small matters, although their proper inspection is undoubtedly of moment as regards the health of the districts. It is to be hoped, however, that the London County Council will continue to be the authority to make the by-laws for the government of these places, as otherwise each municipality throughout London will probably devise rules of its own; and then the safeguards which may be considered necessary in one place will be neglected in another; it may be in the neighbouring district.

3. The present state of affairs as regards drainage work in London is disgraceful, chiefly because no regulations have been issued by the London County Council under powers given to it by the Metropolis Management Act.

4. In the provincial towns the sanitary authorities have the charge of infectious diseases hospitals, but under the Bill I take it that the control of the Metropolitan Asylums Board Hospitals will remain as it is, which is unfortunate, because it is most desirable that the municipalities should have a voice in their management, particularly as (*a*) they will have to raise the money to meet the precepts, as (*b*) it is their constituents who will use them, and as (*c*) circumstances have altogether changed since the Metropolitan Asylums Board Hospitals were first instituted for the isolation of pauper patients. The time for the guardians to cease choosing representatives on the Metropolitan Asylums Board has surely now arrived.

Dr. Edmund Gwynn, M.O.H., Hampstead, writes: I consider that the new Government Bill, as far as it has been outlined by Mr. Balfour, will be a distinct gain to those engaged in the sanitary administration of London. By reducing the number of councillors and providing for aldermen a better educated class of men will be attracted, and a more continuous and progressive sanitary policy be possible. At present there is a reactionary process against sanitation going on in many vestries, and a determined effort is frequently made by the Radical majority to disgust and drive out the better educated by noisy procedure and want of courtesy in debate. The amalgamation of the smaller areas has been long called for, and will be a general gain to the metropolis. Every care must be taken of the interests of the dispossessed officers, and it must be remembered that many of the medical officers of health who will lose their posts are gentlemen who gave up lucrative practices to occupy the positions they are now called upon to vacate. It is to be hoped that the Government will seize this opportunity of dealing with the general question of superannuation of existing officers.

THE NEW VACCINATION ACT IN OPERATION.

THE DUTIES AND TRIALS OF PUBLIC VACCINATORS.

A. B. C. (Public Vaccinator) writes: Having picked up several hints from your correspondence on this subject I beg leave to draw attention to a difficulty that has troubled me. If I send out the prescribed notices a large percentage of the mothers go out for the day and takes their babies with them. If I call without notice everything goes smoothly. The antiseptic arrangements give but little trouble and the lymph takes in every case, but irregularly: sometimes all vesicles being large in a few only, some three or two taking mildly. But those notices in my experience are an unmitigated nuisance. They play into the hands of those who wish to avoid vaccination and bind a busy practitioner down to an appointment which may be impossible to keep. Midwifery cases and the many emergencies of general practice pay no attention to the public vaccinator's plans made at least twenty-four hours beforehand.

D. M. S.—The Vaccination Order, 1898, Article, 3, par. 2 reads: "The number of children in respect of whom payments are to be made under paragraph *a* of this article shall be the number of children in the lists to be sent by the vaccination officer to the public vaccinator ..... together with the number of children not included in such lists, but vaccinated by the public vaccinator himself." The definition of a child by the same order is, "any young person not more than 14 years of age." Putting these two together, there seems to be no other interpretation of the Order possible than the one given in the BRITISH MEDICAL JOURNAL, February 11th, p. 370.

PRIVATE PRACTITIONERS AND PUBLIC VACCINATORS.

M.B., B.C.CANTAB.—There can scarcely be a question of underselling in vaccinating a child among one's own patients at a lower fee than is payable to the public vaccinator. In the first place the private practitioner can vaccinate anywhere, the public vaccinator only at the home, in the case of a young person under 14 years of age. If the the public vaccinator vaccinates a person over 14 at his surgery or elsewhere than at the home, he gets a minimum fee of 2s. 6d., not of 5s. We question, however, whether any such comparison is necessary or even desirable. The multitude of other duties, clerical and otherwise, which the public vaccinator is called upon to perform, must be borne in mind when discussing his remuneration. Private practitioners are not under the same restrictions, and have no legal obligations under the Vaccination Acts.

A CASE OF POST-VACCINAL ERYSIPELAS AND ITS CAUSATION.

W. H., Public Vaccinator, writes: An infant, aged 8 months, was vaccinated on January 26th with Government calf lymph. The child was without sores and in perfect health. The house was sanitary, and I was assured before operating that there was no illness in or near it. The arm was washed with thymol soap solution and wiped with new lint, and absorbent lint was applied after vaccination. The instruments were sterilised before and after use. Full directions were given for the exercise of care. When inspected on February 2nd a perfect vaccination was found, there being four vesicles with no areola. I ordered dusting of the arm with flour, as I have done with all my successful vaccinations for twenty-three years. A fresh covering of lint was applied.

On the evening of February 11th I was sent for, and found both arms and chest inflamed. Three of the vesicles were dry normal scabs, one partially dry with a little suppuration at one edge. The body was dusted with flour, and a poultice of linseed was applied at the place of vaccination. Repeated and careful inquiries made on that and the following day failed to elicit any cause for the attack. I was assured that there was no knowledge of anyone suffering from sores of any kind in the house or about it. Failing absolutely to find any explanation, I was on the point of leaving the house in the belief that the vaccination must be at fault, when from the backroom door came in a boy half dressed, and carrying in his hand a dirty poultice, which had evidently been on a whole night. He was suffering from an inflamed and suppurating parotid gland. The mother, obviously annoyed at my discovery, took the poultice from the boy's hand and threw it into the fire. She then, without any washing of the hands, began to make with linseed I had brought, a poultice for the vaccinated arm. She used the same cup in which she had made the poultice for the suppurating gland, the cup being still caked with the old linseed.

Comment is needless; but I may add that I had neither dressed nor operated on any suppurating wounds, and had not been in contact with inflamed tissues. I have vaccinated about 128 cases with Government calf lymph, and no signs of erysipelas have appeared.

THE APPOINTMENT OF VACCINATION OFFICERS.

As was anticipated, certain Boards of Guardians have failed or refused to appoint vaccination officers, the ground of refusal being that it will be the duty of these officers to carry out the functions appointed to them under the Vaccination Acts and Order, even if their Boards of Guardians should desire them not to do so. The Local Government Board appear to have decided to make the action of the Wellingborough Guardians the basis of their first legal proceedings to enforce the appointment of a vaccination officer. The district for which the officer is required is that of Higham Ferrers, where exemption certificates were recently sought for and granted in unusually large numbers. In a letter to the guardians the solicitors to the Local Government Board stated that they had received instructions to apply to the High Court of Justice for a *mandamus* commanding the guardians forthwith to appoint an officer. When this letter was considered by the guardians, they determined by a majority of 23 votes to 17 to refuse to make the appointment. The majority included all the lady guardians, while, with one exception, all the clergymen were in the minority. The result of the proceedings will be awaited with interest, especially by other Boards which have taken up a similar attitude.

LITERARY NOTES.

MESSRS. SMITH ELDER AND CO. announce as for immediate publication the Hunterian Oration on Hunter as the Founder of Scientific Surgery, delivered by Sir William Mac Cormac in theatre of the Royal College of Surgeons in the presence of H.R.H. the Prince of Wales on February 14th.

Messrs. Longmans, Green, and Co. are publishing this week a volume entitled *The London Water Supply*, by Arthur Shadwell, M.A., M.B.Oxon. The book consists of eleven chapters and a series of appendices giving extracts from Acts of Parliament and official reports. The writer holds a brief for the water companies, and his advocacy of his clients is so warm that it must bid the prudent pause. However, it is well to have even one side of the case stated in a handy form.

Dr. Philipp Karl Lange, of Potsdam, a retired medical officer of the German army, who has just died, was well known as the author (under the pseudonym of "Philipp Galen") of a number of novels. His writings, without being remarkable for depth of thought, were of a high order of literary merit, and were very popular in Germany.

Dr. A. Steuermann, who in October, 1898, took his doctor's degree in the Medical Faculty of Jassy, with a thesis on the treatment of epithelial cancer by arsenical lotion, has gained for himself a high place in Roumanian literature by his verses. He is looked upon as one of the best poets of the younger generation in Roumania.

Reference was made in this column not long ago to the *Index to the Times* by Miss Bailey, which Messrs. Eyre and Spottiswoode proposed to publish. We have received the January number of the *Index*, and from actual testing we can say that Miss Bailey's execution of her troublesome task leaves nothing to be desired. Taking a few of the matters that are now prominently before the mind of the profession, we find under the head of "Medical Practitioners" references to the following cases: "Franks *v.* Hargreaves (Negligence), 13th, 5 (4); Hunter *v.* Clare (Falsely using the title of Physician), 25th, 13 (2); Nugent, E. J., alias Rowland—Reg. *v.* (Negligence and Perjury), 14th, 4 (6), 16th, 14 (5). Under "Tuberculosis" we find: "Africa, South, Warning to Consumptive Immigrants (Correspondence), 17th, 10 (6); 28th, 12 (3). Animals, Tuberculosis in: Hunting, Mr., on, 27th, 13 (5); Penberthey (*sic*), Professor, on, 31st, 7 (6). *British Dairy Farmers' Association, Journal of*, Tuberculosis in Cattle, 16th, 4 (6). Butter as Source of Danger (Letter), 17th, 10 (6). Compulsory Notification: Incorporated Society of Medical Officers of Health Meeting, 14th, 8 (6). Correspondence, 3rd, 13 (1); 7th, 10 (3); 13th, 13 (4). Liverpool Consumption Hospital Reconstruction (Willox-Hartley Donation), 10th, 8 (4). Londonderry, Marquis of, on, 26th, 4 (1). Meat Supply (Letter), 26th, 2 (6). Milk, 23rd, 6 (6). Prince of Wales and Social Democratic Federation, 17th, 6 (4). St. Saviour's (Southwark) Board of Guardians: Notice of Resolution, 6th, 10 (4). Sanatoria for in Germany (Meeting), 10th, 3 (6)." These extracts will show how extremely useful Miss Bailey's *Index to the Times* is likely to be not only to journalists, officials, and public men, but to everyone who follows with intelligent interest the "movement" of the day in any particular direction.

Mr. Kumagusu Minakata writes in *Nature*, February 16th, to the following effect:

In the *Encyclopædia Britannica*, ninth edition, vol. xix, p. 168, Dr. J. F. Payne writes: It is remarkable that of late years reports have come of the occurrence of oriental plague in China. It has been observed in the province of Yunnan since 1871..... It appears to be endemic, though there are rumours of its having been brought from Burmah and become more noticeable after the suppression of rebellion in that province (1872). However, the following passage I have lately found in Hung Liang Kili's *Peh-Kiang-Shi-Hwa* (British Museum copy, 15.316. *a*, tome iv, fol. 4, *b*) bears witness to the much earlier occurrence of the pest in Yunnan, inasmuch as the author, who was born in 1736, and died in 1809, speaks of his contemporary dead thereby: "Shi Rau-Nan, the son of Shi Fan, now the Governor of Wang-Kiang, was notorious for his (poetic) gift, and was only 36 years old when he died..... Then, in Cháu-Chau (in Yunnan) it happened that in day time strange rats appeared in the houses, and lying down on the ground, perished with blood spitting. There was not a man who escaped the instantaneous death after being infected with the miasma. Tau-Nan composed thereon a poem entitled Death of Rats, the masterpiece of his; and a few days after he himself died from this 'queer rat epidemic.'"

SIR J. STIRLING MAXWELL, Bart., M.P., will preside at the festival dinner of University College Hospital on June 15th.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 4TH, 1899.

THE LONDON GOVERNMENT BILL.

The reception accorded to the lucid speech in which Mr. Balfour introduced his measure of local government for London was such as would appear to ensure the safety of the Bill, although it will doubtless be keenly criticised and will probably meet with considerable opposition from the Liberal party. Still, it seems probable that the Bill will be carried in some form, and that November, 1900, will therefore be an epoch in the administration of the metropolis, which will begin the new century with some thirty or forty new municipalities each with its mayor, aldermen, and town councillors. The Bill, as usual with modern domestic legislation, is a compromise. The privileges of the City, the status of the London County Council, the huge spending possibilities of the School Board and the Asylums Board are all left intact. The new municipalities, which will be created either out of the existing areas or by the coalescence of smaller areas, will have populations ranging from 100,000 to 400,000. The various districts will be governed by a maximum number of six dozen councillors and aldermen, and from the aldermen will be elected a mayor. By the courtesy of several metropolitan medical officers of health we are enabled to publish in another column some notes which will show the first impression produced by Mr. Balfour's own account of his scheme on men of large experience in public health administration.

Dr. Parkes's testimony to the fact that many good and competent men are even now attracted to vestry work will be read with satisfaction, and will be an encouragement to those who believe that the formation of municipalities will have the effect of inducing a larger proportion of men of character and education to take their share in municipal work in London, and of infusing into it some of the larger public spirit which is now lacking. Probably the opinion expressed by Dr. Harris, of Islington, that the larger the municipality the better the work done is as a general proposition correct. But the new municipalities will not possess full municipal powers, and it would be too sanguine to hope that even Greater Westminster, which will be the chief of the new bodies, will attain the dignity of such corporations as those of Manchester, Liverpool, Leeds, or Glasgow, or indeed of any of the other large cities.

The new corporations are to have the right to promote and to oppose Bills in Parliament, a power which may well excite some apprehensions in the breasts of ratepayers, for the reasons indicated by Dr. Parkes. On the other hand, as he also points out, the formation of large municipalities by the combination of existing parishes will make for economy, since it will lead to the substitution of one staff for the large area in place of separate staffs for each small area. It is proposed also to give to the new bodies the powers agreed upon between the vestries and the London County Council, including the supervision of cowsheds, dairies, and slaughterhouses, and of common lodging houses. It would be well if this delegation of duties could be carried further in certain directions, provided that the right of framing the by-laws is reserved to the Council so as to ensure uniformity of administration. Such reservation appears to be contemplated by the framers of the Bill.

There seems to be no intention to deal with the constitution of the Metropolitan Asylums Board, which undoubtedly stands in need of reform to bring it into line with the new conditions of municipal life which have arisen since it came into existence. There can be no doubt, however, that the new corporations as soon as they get to work will desire to take a part in controlling the work of isolating persons who may be found to be suffering from infectious disease within their areas. It seems clear, therefore, that the Board must be reconstituted in the near future, and it is to be regretted that the matter cannot be taken in hand as a part of this year's Bill.

It is inevitable that such a change as is contemplated in the areas of a number of districts should affect profoundly the position of many of the metropolitan medical officers of health, but compensation for loss of office is provided for in the Bill, and we trust that if any amendments are introduced with regard to this part of the question they will tend to liberality rather than parsimony, and will permit any special circumstance which may exist to be taken into consideration.

The scheme is probably as good as could be carried into law under present circumstances. In some cases the areas might have been made still larger with advantage, and the omission of the City is open to criticism. When the Bill has been studied as a whole there will, no doubt, be found many details which will require careful consideration. Nevertheless, the scheme of the Bill will probably tend to greater efficiency of local government, and sanitary questions will be looked upon from a broader and higher standpoint. The proposed measure is a development rather than a revolution, and we hope and believe that its influence will be in the direction at once of economy and of efficiency in local administration.

MEDICAL OFFICERS FOR TWO ARMY CORPS.

We are bound to express disappointment at the Under-Secretary of State for War's reply to Sir Walter Foster's question as to the source from which medical officers can be obtained for the two army corps, which are said, on the highest authority, to be always "complete in every respect" for immediate mobilisation and embarkation.

The question was certainly not asked in any captious spirit, but solely on account of its direct bearing upon the

efficiency, or otherwise, of the present establishment of medical officers of the army, which, according to Lord Wolseley himself, in his report of the late autumn manœuvres (paragraph 12), "requires augmentation."

The Under-Secretary appeared mainly satisfied with correcting the figures of his interrogator as to the number of medical officers and men employed at the manœuvres, which he stated was not 23 and 215, but 68 and 312. The former numbers were taken from Appendix XI of Lord Wolseley's report; apparently they represent only those present at the review, according to the field state on September 8th, and do not include all those actually employed at the manœuvres.

A careful enumeration of the Medical Service mentioned in various parts of the report appears to show that, including the principal medical officers and their staff, there were 54 officers (including quartermasters ?) and 274 men, not 68 and 312 as given by Mr. Wyndham. We cannot reconcile the discrepancies in these figures, but the matter is really of very small moment beside the larger issue involved in the more important part of the question.

The Under-Secretary is reported to have said that the 224 officers required for two army corps can be provided from existing home establishments; and the vacancies thereby created "supplied by civilian practitioners." We do not doubt the literal accuracy of this statement; but it confirms the misgivings which many persons have as to the ability of the present attenuated army medical service to cope with a serious foreign war.

The question turns upon the efficiency, or otherwise, of "existing home establishments." Taking, therefore, 224 as the number of officers of the Royal Army Medical Corps required in the first field line of two army corps, there would still have to be provided a sufficient staff for the lines of communications, and for hospitals at the base. The numbers for this duty would vary according to circumstances, but could hardly be less than 50, or perhaps nearer double that number. On the most moderate computation, at least 270 medical officers would be required for two army corps proceeding on active service. How is that number to be got together?

According to the Estimates for the ensuing financial year, the number of medical officers (exclusive of India) is, in round numbers, about 500. Nearly 200 officers are usually in the colonies and in our foreign garrisons: and about 40 in various staff and other appointments, and with the regiments of Guards. The number on full pay available for mobilisation is under 300, to which about 60 may be added, representing retired officers "liable to recall," who might probably be found fit for foreign service. With such an establishment, after the demands of two army corps had been met, a poor remnant under 100 would be all that would be left to carry on a great amount of important duty at home, as well as to form a reserve to meet the inevitable casualties which would at once set in with an army in the field, and also to furnish reliefs for India and for foreign garrisons.

This is indeed an alarming prospect, which surely no amount of "civilian" aid could meet. Even if such aid could be obtained, is it desirable that it should be relied on? Those who think so cannot surely have read the remarks of the Surgeon-General of the United States Army, embodied in General Miles's report on the late war with Spain. It is therein stated that the number of regular medical officers allowed to the army being inadequate, even in peace times, it was necessary on the assembling of the army straightway to employ "650 contract surgeons," to whom "were assigned responsible positions," for which, through lack of special knowledge, training and discipline, they were not fitted. Not unnaturally they failed, and were afterwards unjustly "charged with incapacity." To this scratch assemblage of "contract surgeons" hastily brought together and entrusted with special duties, with which they could not but be imperfectly acquainted, much of the sickness and mortality in the American army is frankly ascribed. The experience of an improvised medical service thus obtained was truly said to have been "dearly bought."

We, too, had a similar costly experience in the Crimea, and it is the dread of a repetition of any such folly, as in that war, which prompts such questions as these concerning the supply of medical officers for two army corps. It is on such broad grounds, we think, that Sir Walter Foster's question did not meet with a satisfactory or reassuring reply.

THE GOVERNMENT AND REVACCINATION.

In reply to a question in the House of Commons, Mr. Balfour has stated that the Government do not propose to introduce any legislation regarding vaccination during the present session. In reply to another question Mr. Chaplin has told Mr. Bartley that persons over 10 years of age who have not been revaccinated within ten years will be revaccinated free of charge on application to the public vaccinator, and will receive from him a certificate of revaccination.

Before commenting on Mr. Balfour's statement it is necessary to note that Mr. Chaplin's reply practically means that as regards revaccination by public vaccinators matters stand pretty much as they did before. Under the General Order of February, 1888, public vaccinators, provided they could afford the lymph without interfering with their primary vaccinations, were empowered to revaccinate any applicant who "has attained the age of 12 years, or in case there be any immediate danger of small-pox the age of 10 years, and has not before been successfully revaccinated." For such revaccinations the fee payable by the guardians to the public vaccinators was fixed by the Act of 1867 at two-thirds of the fee for successful primary vaccinations. This restriction as to fees has been abolished by the Act of 1898, and the age restriction has been altered from 12 years to 10. That is all the difference between the old position and the new, excepting, of course, in the provisions for the abolition of public stations, and the use of Government lymph, and so forth, which apply alike to primary vaccination and revaccination.

Mr. Chaplin, in his reply to Mr. Bartley, neither conveyed nor intended to convey any impression that he was doing more for revaccination than is above indicated; but to those who do not know the facts it is well to point out exactly how matters stand. Excepting in the public services, we are at present under a system of absolutely voluntary revaccination. When the age for revaccination

comes there is no statutory duty laid on anyone to call parental attention to the subject, nor does the law bring to bear on anyone the very slightest pressure towards the performance of a duty which cannot be neglected without involving very serious risk of illness and disfigurement and death. The medical profession has not asked for compulsory revaccination, but it has asked, and does ask, for something more than this practical legislative indifference regarding it. The Government and Parliament have accepted the conclusions of the medical profession and of the Royal Commission—have accepted what is indeed the teaching of a century of worldwide experience—regarding the value and necessity of vaccination and revaccination if small-pox is to be prevented or controlled in this country. But at the same time they have determined rather to let small-pox come than to insist even on such a degree of legislative pressure as would be involved in the infliction of single penalties. As a result they have passed the conscience clause. That clause, owing to its having been adopted, not as a matter of principle in the original conception of the Bill, but only under pressure near the fag end of the session, when there was no time for thinking out or elaborating the details of the contemplated procedure, has failed to provide any proper test between persistent objection and mere parental laziness. Mr. Chaplin has declared that he will not revise it this session because it has not been in force long enough.

The Government are under no sort of promise, whatever may be their moral obligation, to revise the conscience clause, and the medical profession have at least the satisfaction that their conscience is clear on the subject, and that Parliament must bear the responsibility for its own bad work; but as concerns revaccination, Parliament, and especially Ministers, are in a different position. No one will deny that primary vaccination and revaccination should stand or fall together. If the one is bad then the other is bad; but in legislating as it has done for primary vaccination, the Legislature has acknowledged its belief that vaccination is good, and that it ought to be promoted and encouraged, and this acknowledgment cannot but extend to and include revaccination. The same law, the same pressure, the same good, bad, or indifferent conscience clause should apply to both. Government and Parliament are indeed alike under a moral obligation to legislate for revaccination.

In the case of the Government, however, there is much more than a moral obligation. There is the fact that last session they took advantage of the strong feeling which exists in favour of a Revaccination Bill to force their conscience clause on an unwilling and rebellious House of Lords. They led Lord Lister to accept and to express the "confident hope" that such a Bill would be introduced this session, and they set up Lord Harris to support him in that attitude, and through them they induced the Upper House to swallow the obnoxious clause. In a previous article[1] we quoted from the speeches of the two noble lords. What has happened this session everyone knows. The Speech from the Throne contained not a word on the subject. In the debates on the address Ministers made no reference to it. In reply to a question, Mr. Balfour curtly stated, without explanation or apology, that the Government intend to introduce no legislation on the subject of vaccination this session. We are bound to say that in giving a merely categorical answer he has acted discreetly. Explanation would have made matters only worse. If the Government had seriously considered the question as they definitely promised, and if they had found good reasons for determining to do nothing in the matter, they should and would most certainly have taken the earliest opportunity of stating their reasons, and of trying to reconcile the public and the profession to the disappointment.

Medical men, looking to the effects of the maladministration of Section 11 of last year's Act, may ask if it makes any great difference whether revaccination is legislated for in the same fashion or is left on its present wholly voluntary footing. Such a question could not, of course, be put by Mr. Balfour, for in putting it he would be admitting that the conscience clause is a failure. As a matter of fact it does make a great difference. In the first place it is most important to establish the legislative principle that primary vaccination and revaccination shall be treated exactly alike as subjects of national concern. In the second place it is most important that the question of acceptance or rejection of vaccination for children before leaving school shall be definitely brought before all parents, and that they shall be required either to procure vaccination for their offspring or to register anew their formal rejection of the offer made by the State.

These two points are well worth fighting for, and we would call on the medical profession, as a whole and as individuals, and on every member of the public who realises what small-pox is and what vaccination does to endeavour even yet to influence the Government to introduce and pass a Revaccination Bill, and so help to protect the public against the ever-increasing danger of epidemic small-pox.

[1] British Medical Journal, February 11th, p. 357.

QUINQUENNIAL CENSUS ENUMERATIONS.

A letter which is published at another page draws attention to the desirability of an amendment of the Census Bill in favour of a quinquennial instead of a decennial census. The subject is one of real importance in the interest of public health, for accurate vital statistics are possible only where a fairly accurate estimate of population can be made. Experience has shown that the assumption that the same rate of increase which held good in the preceding will continue in the current decennium leads in many instances to gross errors. Added to this, the steadily declining birth-rate increases the difficulty of arriving at any correct estimate of population in the later years of an intercensal period. During 1811-21 the decennial increase of the English population amounted to 18.1 per cent.; in 1881-91 it had fallen to 11.6 per cent. Taking local instances, at the census of 1891 the population of Salford was found to be 20.9 per cent. below, that of Liverpool 16.6 per cent. below, and that of Nottingham 15.6 per cent. below the respective estimates based on the rate of increase in 1871-81; while at the opposite extreme the population of Newcastle-upon-Tyne was 13.6 per cent. above, and of Portsmouth 10.9 per cent. above the estimate. The proper remedy consists in more frequent enumerations of population. The only valid argument against a quinquennial census appears to be that of expense. The census of 1881 for Great Britain and Ireland cost about 5 guineas per 1,000 of enumerated population. The expense of each enumeration would doubtless be diminished if their frequency was increased. If not, the value of the

results obtained would abundantly justify the double expenditure on the present basis. The Departmental Committee, which reported in 1890, recommended that "the number of the population and its distribution as regards age and sex be ascertained midway between the decennial periods at which a full census is taken." This recommendation was only acted on in 1896 for London, on the initiative of the London County Council; and in this case the value of the intermediate census was diminished by the absence of information as to the age and sex of the population. Now is the opportunity for the Legislature to place the matter on a sound basis by establishing a permanent Census Department in connection with the General Register Office, and by providing in the Census Bill for 1901 for a quinquennial census.

THE GENERAL MEDICAL COUNCIL.

THREE of the Committees of the General Medical Council have held meetings this week—namely, the Executive, the Penal Cases, and the Dental Committees. A large number of suggestions have been made by the various licensing bodies upon the subject of the disciplinary Bill to which we have recently alluded. As the Privy Council declines to take active steps to further any Bill which does not meet with the tolerably unanimous support of these bodies, it does not seem probable that any immediate steps will be taken to introduce it. While the majority of the licensing bodies do not appear to be opposed to the introduction of some such measure, it is doubtful whether the numerous suggestions made are capable of reconciliation without practically emasculating the Bill. This is the first occasion upon which any part of the General Medical Council has met since the termination of the Hunter trial. It would be premature to attempt to forecast the line of action—we had almost written of defence—which will be adopted, but it is hoped that wiser counsels will prevail, and that no attempt will be made to justify every detail of its proceedings. We do not wish to prejudge a matter of which all the details are not known, but from the facts which have already been published, it seems impossible to doubt that, to say the least, an error of policy was committed in undertaking the original prosecution. A frank admission that a mistake has been made would be the wisest and most dignified course for the Penal Cases Committee to adopt, and if endorsed by the Council—as we can hardly doubt would be the case—it would probably not be without effect in inducing the various licensing bodies to entrust it with larger disciplinary powers, which at present, to all appearances, they seem somewhat unwilling to do.

INFLUENZA AND ITS PREVENTION.

ALTHOUGH the mortality from influenza and its collateral affections fortunately falls far short of that recorded in the great epidemic, the situation is not free from anxiety. There was a further marked increase last week in the fatal prevalence of influenza in the metropolis. The deaths attributed directly to this disease, which had been 22, 50, and 74 in the three preceding weeks, further rose to 113 during the week ending Saturday last, February 25th, and exceeded the number registered in any week since March, 1895. Of these 113 fatal cases, 35 were of persons under 40 years, and 28 of persons aged between 40 and 60 years; while as many as 50, or nearly a half of the total number, were of persons aged upwards of 60 years, and no fewer than 21 of these were of persons above 80 years of age. It is probable that even now many people fail to realise the fact that influenza is a highly contagious disorder, and one of the most virulent of the acute specific diseases. When cholera breaks out in a community, every possible precaution is taken to prevent its spread, but in the case of influenza little or nothing is done, and the patient is often unwilling to sacrifice his social engagements. It is the reckless exposure of the infected which makes the disease so difficult to eradicate. Everyone is exposed more or less to the danger of being invaded by the bacillus, and it is difficult to devise prophylactic measures on which absolute reliance can be placed. Much, however, may be done by attention to a few simple rules. When a person is ill with influenza, it is better not to visit him, or, if a visit is imperative, it is advisable to avoid unnecessary personal contact. After the interview, the hands should be thoroughly washed in an antiseptic solution, and the outer garments should be aired by being exposed to a current of fresh air, or, better still, to the direct rays of the sun. The condition of the general health of those exposed to infection should be maintained by plenty of outdoor exercise, by good food, and by the avoidance of indulgence in alcohol. On the onset of the initial symptoms the patient should remain in bed, and should at once obtain medical advice. No reliance should be placed on popular remedies, for the complications are so grave that the best possible treatment is required. All articles such as sheets and pockethandkerchiefs, which have been used in the sick room, should be put into a vessel containing an efficient disinfectant. That recommended by the Local Government Board is made by mixing half an ounce of corrosive sublimate, 1 fluid ounce of hydrochloric acid, and 5 gr. of commercial aniline blue, in 3 gallons (a bucketful) of water. It is poisonous, but it is a good disinfectant, and it is cheap. Articles after being allowed to stand for some time in this mixture should be rinsed in clear water for three or four hours before being sent to the wash. Clothing may be disinfected in a suitable disinfecting apparatus by heat, and local sanitary authorities should be urged to give notice of their willingness to undertake this duty. After the patient has vacated his room the furniture should be removed and cleansed, and the room disinfected, perhaps preferably with formalin. These may seem unnecessary precautions, but the disease is so infectious and its consequences so far-reaching, that it is wise to treat its risks seriously.

MAXIMS OR MICROBES?

WE would not underrate the courage that leads a man to seek the bubble reputation even in the cannon's mouth. But there can be no doubt that a higher degree, as well as a finer quality, of courage is needed to tie an artery under fire than to lead a cavalry charge. Mere excitement or "Berserkir rage," or even the frenzy of fear, will make a man do deeds the thought of which in cold blood would make him turn pale. But "Dutch courage," whether born of grog or of the thirst for glory, avails nothing to the surgeon when called upon to dress wounds with the enemy's bullets whistling about his ears. We have often wondered that Kipling, who has noted every other aspect of military life, has not touched into one or other of his battle pictures the doctor at his work of mercy amid the storm of battle. And the medical officer has to face other dangers just as appalling that would unnerve most of his combatant comrades. This phase of medical duty has lately been well described by Dr. Nicholas Senn, who, it may be remembered, did good service in the late war between Spain and the United States. In response to a toast at a banquet of the Inter-State National Guard Association the distinguished Chicago surgeon said: "Can you give me a more striking example of genuine patriotism and heroism than the twenty-four hours' work performed by our disciple of Æsculapius on the field of battle? If you cannot, I can. It is the same Æsculapian away from the bloody field in the fever camp. It requires courage to stand up in a rain of bullets and in an atmosphere torn asunder every few moments by shot and shell but it requires more courage to enter the silent fever camp, with its myriads of invisible foes. The song of the

bullet is sweet music compared with the silent, invisible microbes that cause yellow fever, typhoid fever, malaria, dysentery, and camp diarrhœa. It is a privilege to die a glorious death on the battlefield; no such halo of glory surrounds the deathbed in the fever hospital. It is here that the greatest deeds of heroism are witnessed. It is here where the true manly courage of our Æsculapian hero is put to the severest tests. Let me ask you a plain simple question to test the correctness of the assertions I have made—a question the significance of which, I fear, is not fully understood. If left to choose for yourself, would you not be more willing to engage in a battle than to live and work in a camp filled with typhoid or yellow fever patients? It would take me, or any other disciple of Æsculapius, not long to decide in favour of the battlefield." We agree with Professor Senn, but, as he says, the significance of his simple question is not fully understood by those who are not disciples of Æsculapius. If we were to put the question in another way, as, for instance, Which would you the more readily face, Maxims or microbes? most people would probably choose the latter. There is a grim materiality about the Maxims, and their effect is immediate and visible. But, to the eye of scientific faith, the microbes are not less real, and they are certainly not less deadly; moreover, they have to be faced day and night, for weeks and months, instead for a few breathless minutes. Decidedly the "non-combatant" is the greater hero.

MR. KIPLING'S ILLNESS.

Mr. Rudyard Kipling's illness, which has been watched during the past week with so much anxiety by the whole English-speaking world, is clearly not a typical attack of ordinary acute pneumonia, but appears to be due to that irregular form of pneumonia with which we have become familiar during the numerous recent epidemics of influenza. Instead of the rapid consolidation of a large part of one lung—or, indeed, of both lungs—which quickly reaches a maximum and subsequently passes through well-recognised phases, there is a more gradual and irregular spread through one or both lungs, the inflammation creeping from area to area, so that it may be resolving in one part while yet only in the early stage in another. Though this form has dangers of its own, yet it is possible to feel more hopeful of the ultimate result than was the case when it was understood that Mr. Kipling was suffering from double pneumonia of the typical kind. The chief danger now is the exhausting effect of the prolonged fever, and struggle for life imperilled by the blocking of the lungs and the great strain put upon the heart. Mr. Kipling, though a man of apparently frail physique, has a sound constitution, and it is in such emergencies as that which he is now encountering with so much courage that, as he himself said of the hero of one of the stories in his last volume, clean living tells.

AGUINALDO AS A MEDICAL STUDENT.

There have been not a few instances in recent years of members of the medical profession who have played a considerable part in other spheres of activity, notably in exploration, in colonisation, in imperial diplomacy, and in the government of savage or semicivilised races. The names of Sir John Kirk, Sir George Robertson, Dr. Jameson, Sir Halliday Macartney, Sir William MacGregor, the late Sir Rutherford Alcock, and David Livingstone rise at once to the mind, while the career of Mungo Park shows that like men were not wanting in earlier generations. Among Frenchmen the most notable example is, perhaps, M. Clémenceau, who has been a political leader for a quarter of a century. M. de Lanessan, formerly Governor of Cochin China, is a Doctor of Medicine, and Paul Bert was Governor of Tonquin. It appears that medicine may also have the perhaps doubtful honour of at least partly claiming Aguinaldo, the Filipino patriot. His face and features, and the conformation of his skull, are of European type, and he is believed to be the son of a Spaniard, though there is a conflict of testimony as to whether the honour of his paternity belongs to a general or a Jesuit. He was born at Cavite, and was in boyhood in the service of a priest, who gave him some education. At the age of 15 he entered the medical department of the Pontifical University of Manila, where he worked under Professors Nalda and Buitrago. He afterwards studied at the Victoria College, Hong Kong. He was remarked for his ability when a student, but nothing else is known of his college career. We are, therefore, unable to say positively whether he was ever pronounced *dignus entrare in nostro docto corpore*.

METROPOLITAN IMBECILE CHILDREN.

At the last meeting of the Metropolitan Asylums Board, it was ultimately resolved that in future a classification of the imbecile children under the care of the Board should be made into two groups—improvable and non-improvable. With a view to such classification a central receiving house is to be established for new cases, and those considered improvable are to be drafted to probationary wards attached to a training school to be set up apart from the Darenth Asylum. Further, it was resolved that after undergoing such training as might be in each case possible, the patients should, on arriving at adult age, be transferred to a colony to be employed in the industrial occupations for which they were suited. It was also agreed to ask for legislation to raise the statutory limit for school life from 16 to 21. These resolutions will constitute a satisfactory basis for the settlement of the long-standing controversy with regard to the Darenth Schools. It is most important, in the first place, that the improvable should be separated from the unimprovable children, as is intended to be done by means of primary selection and of probationary wards; and, secondly, that the industrial training should be utilised as is contemplated under the colony system. It will be necessary, however, to guard the surroundings of the children and colonists. If (as has been stated) there is an idea of placing them on an estate upon which blocks for the chronic infirm from metropolitan workhouses are also erected, it must be observed that such environment is not suitable for children at the plastic age, nor even for weak-minded workers of adult years. There can be no doubt as to the wisdom of seeking power to raise the age at which under Local Government Board regulations the imbecile child becomes (in theory) an adult. Nothing can be more absurd than to place the unfortunate whose physical and mental development have been arrested on the same level in this respect with the able-bodied and active-minded pauper child.

AN IMPROVEMENT IN *X*-RAY TECHNIQUE.

We have had an opportunity of witnessing the results obtained with a new "break" for the induction coil which has been installed in the *x*-ray department of Charing Cross Hospital, under the direction of Dr. Mackenzie Davidson. The effect as we observed it in screen work was exceedingly good, the light being steady and the definition very fine. The new device has been introduced by Dr. Wehnelt, of Charlottenburg.[1] It has been known for a long time that a strong current passed through an electrolyte will become intermittent or interrupted, and produce a note—sometimes a shrill one. It occurred to Dr. Wehnelt to use this as an "electrolytic break" for the induction coil. The apparatus consists of a cell filled with sulphuric acid and water, the specific gravity of the mixture being about 1205. A sheet of platinum foil (such as is used in a Groves cell) is the cathode or negative plate in the cell. The anode or

[1] *Electrotechnische Zeitschrift*, January 26th, 1899.

positive consists of a small platinum wire fused into the end of a closed glass tube, and contact inside the tube is made by a little mercury and a copper wire dipping into it. This is immersed in the fluid. This cell is interposed between a 100-volt current and the primary terminals of an induction coil. When the current is turned on violent electrolysis takes place, a more or less shrill note is produced according to the size of the platinum point, and a thick ribbon-like discharge is produced at the secondary terminals. The method promises to be very useful. The Crookes tube is brilliantly and steadily illuminated and the fluorescent screen gives such an effect as is seen when a large Wimshurst machine excites the tube, but it is more brilliant, and photographic exposures are greatly shortened; the difficulty will be to get tubes to stand the current, and already the anodes of several tubes have been melted. Osmium is not disintegrated, but soon becomes white hot, and the vacuum alters rapidly under the intense bombardment. The primary of the coil used at Charing Cross Hospital took from 3 to 10 amperes, according to the size of the platinum wire used in the cell. No "hammer" or condenser is required, and a point of importance seems to be that this "electrolytic break" is very sensitive to any change of resistance in the secondary discharge, and reacts accordingly without the sudden jerks usual with the "hammer break."

THE PRINCE OF WALES'S HOSPITAL FUND.

At the meeting held on February 28th at Marlborough House, Lord Rothschild, the Treasurer of the Prince of Wales's Hospital Fund, had to report that the receipts of the fund for 1898 had been much smaller than for 1897, though they reached the respectable total of £39,270. As was pointed out, 1897 was the Jubilee year, and from that cause and from the fact that at the initiation of a scheme of this sort a good many large subscriptions are received which are not likely to be repeated, a falling off was perhaps only to be expected, but a tone of disappointment pervades the utterances of the speakers on the occasion, and it is apparent that the high expectations entertained have not so far been realised. The names of those who take an active part in the administration of the fund undoubtedly command public confidence, and are an assurance that the moneys subscribed will be well used; yet the subscriptions do not pour in as had been anticipated, and the Chairman of the Executive Committee, in expressing a hope that the fund may come in for a share of the large amount of legacies bequeathed annually for charitable purposes, tells us by implication that at present it has not. Why is this? No one can say with certainty, but a perusal of the speeches affords material upon which to hazard conjectures. The average donor, say of a sum sufficient to make him a life governor of a hospital, very willingly and with satisfaction to himself, bestows it upon an institution with which in some way or other he feels himself to be in touch, but he may hesitate to give the same sum to be distributed he knows not where, notwithstanding that he might have the fullest confidence that it would be well bestowed; the element of personal interest is gone, and he feels that his contribution is but a drop in the ocean. Moreover, the man who makes a considerable donation or legacy may not unnaturally prefer that some hospital of which he knows something should get it intact, without the 7 per cent. deduction which is the present cost of administration of the fund. There is another question of policy touched upon in the report; it is said that His Royal Highness the President does not desire to hoard money unduly by capitalisation, but at the same time we are told that in order to ensure permanent utility to the fund it is desirable to increase the invested capital up to a large amount. It is to be feared that the policy of forming a large capital, only the interest of which will be available for the hospitals, is not one which will attract subscriptions. Many people have the feeling that each generation should bear its own burdens in such matters as these; and most donors of, say £100, would prefer the feeling that their money was being spent for the purpose to which they intended it at once, or at all events was being held by some hospital against its hour of necessity, to the prospect that £2 5s. a year would be spent in the desired direction for an indefinitely long period. Hence, although it would appear that only some £4,000 has this year been added to capital, we think that, at all events in the present state of the income of the fund, even this would have been better spent if the popularity of the movement is to be studied. The scheme of accumulating a great fund the interest of which should be adequate to place our hospitals beyond the pinch of poverty was a grand one, but it seems that at present it cannot be realised. The managers of the fund would do well to accept the position fully, and unless and until they can place the whole upon an absolutely different scale, regard themselves as the collectors of moneys for immediate use. In this way they may best hope to carry out their expressed wish that they may attract the contributions of the lower middle and working classes, who are not very likely to subscribe to a trust which is for the future rather than for the present. At a meeting at Marlborough House on March 1st, under the presidency of the Prince of Wales, it was determined to organise a League of Mercy to promote the welfare of the fund, especially by encouraging personal services on the part of large numbers. In connection with the League an Order of Mercy will be established which will be conferred as a reward for gratuitous personal services rendered in the relief of sickness, suffering, poverty, or distress.

TUBERCULOUS PATIENTS UNDER THE POOR-LAW.

We stated recently that a conference of Poor-law guardians representing the three large unions of Liverpool was about to be held at the invitation of the West Derby Union. The Conference took place last week, and it was unanimously decided to erect a sanatorium in some suitable locality for the treatment of early cases of tuberculosis among the poor. A complete scheme has been drawn up by Dr. Nathan Raw, medical superintendent of Mill Road Infirmary, which has regard to the treatment of early cases in sanatoria, to the isolation of chronic and hopeless cases in separate wards of Poor-law infirmaries, and to the necessary precautions to prevent the spread of the disease. This is, we believe, the first instance in which Poor-law guardians have taken this enlightened view of their duties with regard to the disease; and it is sincerely to be hoped that the good example will be followed by other Boards of Guardians in this country. Already, indeed, the matter is under consideration at other places. Thus, the Halifax Board of Guardians at their last meeting, after considering a report presented last November by Dr. Dolan, the medical officer, resolved to make arrangements for a conference with representatives of adjoining unions to consider the treatment of consumptive cases in workhouses, and to discuss the question whether such cases should be treated otherwise than in workhouses.

HOSPITAL RATING IN LONDON.

At the last meeting of the London County Council Mr. Porter moved a resolution expressing the opinion that it was expedient that some of the hospitals in London should be exempted from the payment of rates, and directing the Local Government and Taxation Committee to make a report upon the subject. He mentioned that the principal London hospitals paid as much as £8,000 to £9,000 a year in rates, and pointed out that that amount, if remitted would enable them to open at least 180 of the 400 beds at present closed for want of funds. Mr. Lawson seconded the motion, but said that an Act of Parliament would be necessary. Dr. W. J. Collins urged that hospitals if not

rate-aided should at least be unrated, and that even if it could not be proved that the ratepayers' pocket was saved by hospitals, at least the ratepayers should leave the hospital pocket alone, having regard to the work of mercy those institutions were doing. Eventually the matter was referred to the Committee mentioned without any expression of opinion as to whether it was expedient to exempt hospitals from the payment of rates. The matter is obviously one of very considerable importance to hospitals, and we are glad to see that the question is to be examined in a sympathetic spirit by the London County Council. It may perhaps be difficult to prove to what extent the work of hospitals does relieve the rates, but that it does have such an effect can hardly be doubted. Apart from this, it seems to us that Dr. Collins's argument is in equity unanswerable.

THE ROYAL PORTSMOUTH HOSPITAL.

The Duke and Duchess of York visited Portsmouth on Monday last to open the two new blocks of the Royal Portsmouth Hospital. The opening ceremony took place in the lower ward of one of the new blocks. Sir W. D. King, President of the Committee, in addressing their Royal Highnesses, recalled the fact that the foundation stone of the original hospital had been laid by Prince Albert in 1847. The growth of the population, which had risen from 60,000 to 200,000, had rendered enlargements of the building necessary, but in 1897, the year of the Queen's Diamond Jubilee, it was resolved to raise a fund to improve the structure of the hospital, and bring it into accord with modern requirements. A sum of nearly £16,000 was raised locally, and he believed that the new wards would not be surpassed by those of any hospital in the south of England. After the Mayor had thanked the Duke and Duchess of York, and had reminded them that the first stone of the new wards had been laid by the Duke of Connaught, a vote of thanks was moved by Sir John Baker, M.P., seconded by Lord Northbrook, and supported by Dr. J. Ward Cousins, who pointed out the immense benefits which a properly-constructed hospital afforded to the sick and injured. He expressed his belief that no better designed or constructed wards than these new ones could be found anywhere in the country, and confidently predicted that the other two blocks would be built before long. The Duke, in response, expressed his best wishes for the prosperity of the institution, and concluded by declaring the wards open. Subsequently, at the request of the Chairman, he named the women's wards "Victoria" and "Duchess of York," and the men's wards "Albert" and "Connaught."

CONSTRUCTIVE MURDER.

It will be remembered that in an article on the law as to criminal abortion, which appeared in the British Medical Journal of December 3rd, 1898, we pointed out the need for a short Bill to deal with the whole subject of "constructive murder." We therefore learn with satisfaction that such a Bill has been brought in by Mr. W. Ambrose, Q.C. The Bill—the operative part of which consists of two sections only, together with the memorandum by which it is prefaced—is printed at page 560. As far as the Bill affects cases in which the accused is charged with causing the death of a person by performing, or attempting to perform, an illegal operation on the deceased, no fault need be found with the way in which the sections are worded. But in certain respects the Bill seems to be too widely drawn, and in some cases would entitle a person accused of murder to be found guilty of manslaughter only, when, in fact, he was guilty of the full offence. Let us assume that the only facts proved against the accused are that, while committing a burglary he was disturbed, and, being armed, fired at his disturber, whom he hit and killed. At the trial the accused goes into the witness box and swears, as is probably quite true in every such case, that he did not intend to kill the deceased, but only wished to wound him in order to make good his escape. In this case surely the accused is guilty of murder. Yet under the Bill as it now stands, it would seem that he would only be found guilty of manslaughter. It will be noticed that the main points of difference between the example given above and most other cases of constructive murder are that the burglar by firing does an act which is necessarily dangerous to life, and in itself likely to cause death without caring whether death is occasioned by it or not; whereas in the other cases the act which occasions death is not necessarily dangerous to life, and not likely in itself to cause death, nor is the idea of death in any way contemplated. It is true that in Section II it is provided that, apart from the constructive or implied malice mentioned in Section I, nothing in the Act shall prevent or restrict any presumption arising from the circumstances of the case as proved; but in our illustration no malice in fact exists, and no presumption of malice arises from the circumstances of the case. Whether the above contention as to the application of the Bill to such a case is correct or not, the point seems at least doubtful, and before the Bill becomes law all doubt should be removed, as could easily be done in Committee if once the principle involved in the Bill is approved by Parliament. The recommendation of the Criminal Code Bill Commission mentioned in the memorandum has remained in abeyance for a period of twenty years, but it is earnestly to be hoped that the present session will see "the law on this subject freed from the fiction of implied or constructive malice," and a blot which has remained much too long on the English criminal law at last removed.

THE LATE LORD HERSCHELL.

The sudden death of Lord Herschell deprives the University of London of one of its most distinguished graduates. He was at the time of his death Chancellor of the University, a post to which he was appointed in June, 1893, on the death of the Earl of Derby. He was, we believe, the first graduate of the University chosen for that office, and also the first graduate to be made a Peer the second being Lord Lister. Lord Herschell showed great interest in the movement for the reform of the University of London, and before his election as Chancellor took part on several occasions in the debates in Convocation. He was in favour of a compromise of the nature which has now been effected, and the loss of his cool and impartial judgment on men and things will be much felt in the final settlement of this question. The accident which he met with on February 15th was, in the first place, supposed to be of a trifling nature, but it appears to have been in reality fracture of the neck of the femur. The sudden deprivation of exercise to a man of Lord Herschell's vigorous and active habits, no doubt contributed to bring about the fatal seizure which occurred on Wednesday morning.

PRELIMINARY EDUCATION IN IRELAND.

The evidence given before the Irish Intermediate Education Commission should stimulate the General Medical Council to further action. At present they still admit the notoriously inadequate Junior Examinations, the requirements of which are quite proper for little boys, but are not of the standard which our students should possess, and among them is the Junior Intermediate in Ireland. The Council have long urged upon the Colleges of Physicians and Surgeons of Ireland that, being themselves licensing bodies, they should not also hold a Preliminary Examination. To this monition these bodies are at last giving heed, and have been petitioning the Intermediate Board to hold more examinations for the convenience of intending students. At present there is only one Junior Examination (alas!)

each year, and, as Dr. Atthill remarks, "At the present time sixteen years was the maximum age for passing in the Junior Intermediate grade, which was earlier than the College wished, and if the candidate failed at the examination for that grade he would have to go on the following year at a higher grade examination." It was requested therefore that an examination of the same standard should be held for older students, 17 or 18 years of age, and should recur twice or thrice a year. Before the same Board Mr. McNeill also gave evidence, and spoke for himself and Mr. Beere as examiners. Passages of Dr. Purser's report (1897) were read to him. "The chief faults of the greater mass of compositions in both grades are (1) a grievous disregard of the concords, (2) ignorance of the difference between the active and passive voice." "It is the exception to meet with a boy or girl who does not in ten or twelve lines of Latin fail to make practical use of the rule that a verb should agree with its nominative case in number; still more rarely is a relative found agreeing with its antecedent in gender." With these strictures Mr. McNeill cordially agreed. He was asked, "Must we not infer that an immense number of candidates passed in the senior grade who were ignorant of the elements of Latin grammar?" He answered "Yes; and the ignorance is much worse in the lower grades." It is the lower grade which the General Medical Council still accepts as adequate, and which the Royal Colleges of Physicians and Surgeons in Ireland are asking to be applied to young men of 17 and 18 years of age.

MUSEUM OF THE INTERNATIONAL OTOLOGICAL CONGRESS.

IN connection with the International Otological Congress to be held in London from August 8th to 12th, we are asked to state that one of its special features will be a museum, which it is hoped will be thoroughly comprehensive. The Committee ask for the loan of specimens of all kinds illustrating the anatomy and pathology of the ear, nose, and naso-pharynx. Descriptions of specimens should be sent to Mr. Arthur Cheatle, Honorary Secretary, at 117, Harley Street, on or before June 30th. The specimens themselves may be sent to the Honorary Secretary any time before July 26th, or may be sent direct, between July 26th and August 5th, to the Examination Hall, Thames Embankment, where the museum will be formed. It is intended that the catalogue shall be of permanent value for reference purposes. A copy will be presented to all members of the Congress.

DOCTORS AND DISTRICT NURSES.

A COUNTRY correspondent, in commenting upon a case in his neighbourhood in which friction had occurred between a medical officer and public vaccinator to a union and the district nurse, makes some remarks that seem worthy of publication. He believes "the prejudice of medical men against district nurses is only too frequent. Such prejudice is the chief obstacle to contend with in many places where a nurse is started, but it often arises because the medical man is ignored." The nurses in our correspondent's district are not allowed to see or treat any case without medical advice, and they prefer this after working with the other free and easy method. It is indeed difficult to understand how friction can fail to result if nurses are allowed to work in any other manner. To interfere with the doctor's treatment without his sanction is wrong, and it ought not to be possible for it to occur. The Committee controlling a nurse or nurses consists probably of ladies and gentlemen with a single-minded purpose—the relief of suffering in their fellow beings. They are naturally, however, "not always acquainted with the methods of medical practice, or the proper conduct of a nurse from the doctor's point of view; and they would do well to invite the medical men concerned to join their Committee—not merely invite them, but persuade them—and the medical men should have an influence in their deliberations. Occasionally a medical man may prefer to stand aloof; in that case the association and committee can only expect the smallest return for their subscriptions and their energy. There should for all district nurses be a rule, understood if not written, that no case shall be attended that has not been seen once at least by a medical man, and that no treatment shall be altered or initiated without his sanction. In case of accident or emergency the nurse shall do what she considered best until medical advice be obtained."

THE INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

THE tenth meeting of the International Congress of Hygiene will be held in Paris in August, 1900. The division of Hygiene will comprise seven sections as follows: 1. Microbiology and Parasitology applied to Hygiene. M. Laveran is President, and M. Netter Secretary, of this section, in which the questions to be discussed are the measurement of the activity of serums; the prophylaxis and preventive treatment of diphtheria; meat poisoning, its causes and the means of its prevention; pathogenic microbes in soil and water (cholera, typhoid fever, and other diseases); the part played by water and by vegetables in the etiology of intestinal helminthiasis. 2. Chemical and Veterinary Sciences applied to Hygiene; Alimentary Hygiene, in which the questions to be discussed are tinned provisions and the means of preventing accidents; unification of international control; the establishment of a general and uniform system of inspection of slaughterhouses, etc. 3. Engineering and Architecture applied to Hygiene, in which the question to be discussed is the protection of water supplies. 4. Personal Hygiene, in which the question to be discussed is contagious patients from the hospital point of view. 5. Industrial and Professional Hygiene. 6. Military, Naval, and Colonial Hygiene, in which the question to be discussed is the means of ensuring the purity of water from the point of view of colonial hygiene. 7. General and International Hygiene (Prophylaxis of Communicable Diseases; Sanitary Administration and Legislation), in which the questions to be discussed are the prophylaxis of tuberculosis in regard to individuals, families, etc.; the compulsory notification of communicable diseases, its necessary consequences (isolation, disinfection) and its results in different countries; the prophylaxis of syphilis; and the international prophylaxis of yellow fever.

LORD LISTER has been appointed a Foreign Associate of the Paris Academy of Medicine.

SIR J. ACCACIO DA GAMA, of Bombay, has been appointed by the King of Portugal a member of His Majesty's Privy Council.

MR. ALFRED COOPER, who recently resigned the office of Surgeon to St. Mark's Hospital for Fistula, etc., after thirty-four years' service, has been elected Honorary Consulting Surgeon to that institution.

THE honorary degrees that are to be conferred by Glasgow University at the graduation ceremony in April next are now published, and we are glad to see that Dr. James Finlayson, Physician to the Western Infirmary, who has contributed largely to the literature of clinical and historical medicine, is to receive the honorary degree of Doctor of Laws (LL.D.).

SUCCESSFUL VACCINATION.—Dr. John Galletly, Public Vaccinator for the Rippingale District of the Bourne Union, has been awarded for the third time in succession the Government grant for successful vaccination in his district.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The London Government Bill, which Mr. Balfour introduced last week, has been the subject of much conversation in the Lobby, and opinion seems to be growing less favourable to it. When the Bill has been studied many critics will no doubt disappear, for a large measure like this cannot be properly judged till all its provisions are before the public. It will substitute for the vestrydom which has hitherto ruled the local areas of the metropolis a number of municipalities, which by their size and wealth will give local government in London a dignity which it has never before attained. The elevation of the local governing bodies will indirectly affect the medical profession by improving the position of the municipal health officers, and bringing larger areas under strict sanitary control. So far, there is no indication that the County Council will in any serious degree be shorn of its powers or importance.

The Inebriates Act (1898) Amendment Bill is a little Bill of two clauses to remedy omissions in last year's Act. The Act had not got to work before it was necessary to bring in this measure to provide that the expenses of prosecutions under Section 11 should be payable as in cases of felony. This is the object of the first clause; the second gives power to deal summarily with breaches of the regulations made by the Secretary of State with respect to inebriate reformatories. It is to be hoped that the Act will be amended as proposed, and that work will soon be accomplished under it. The Home Secretary has promised to consider the appointment of a woman inspector should it become necessary, in addition to the medical man who has already been appointed.

The Nursing Staff in the Egyptian Campaign was again discussed by Captain Norton on the Supplementary Estimates, and although the division gave the Government a majority of 68, the debate was not very favourable to them. It was admitted that the Principal Medical Officer of the army of occupation in Egypt had asked for a hospital ship, and that the General Commanding in Egypt had said he would consult Lord Cromer and make the application if necessary. No application, apparently, was made, and so no actual refusal could be proved against the authorities. The Under-Secretary argued against the advantage of a hospital ship, and contended that no injury had been done by its absence. He admitted that the 280 men sent home had to wait some time. In September the average number of days of waiting at Cairo was 26, in October 29, and in November 19 days, while at Alexandria it averaged 7 days for each of the months. There were at the hospital base 226 men nurses and 10 women nurses, all trained, for an average of 541 patients, of whom nearly 150 had neither wounds nor enteric fever. The difficulties of discipline were alleged as reasons against having more trained women nurses. The debate on the whole was unsatisfactory, as it left the impression that some unwise economy had been exercised, and the matter is sure to crop up again in some form or other.

The Sale of Food and Drugs Act Amendment Bill was introduced and read a first time at the end of last week. Mr. Long stated that it was divided into two parts, of which the first dealt with certain dairy products, such as cheese, butter, and milk, and like the Bill of last year contained powers to deal with these articles of food at the port of entry. The Margarine Act was extended, analyses regulated, the mixing of margarine and butter limited, and cumulative penalties were imposed in the second part in connection with the adulteration of food and drugs. The second reading has been put down for March 2nd, but is not likely to come on so soon.

Rabies in Ireland appears from the figures given by the Irish Secretary to have decreased since the muzzling order has been in force. In the first six months of 1897, before the muzzling order came into operation, there were 335 cases; in the second six months of that year only 162, while in the whole of 1898 there were only 132 cases. Under these circumstances the order will not be suspended.

The Universities (Scotland) Acts Amendment Bill is a small measure which makes provision for professors' retiring allowances when the University Court has required retirement. In such cases, in default of other funds, the retiring allowance will be made chargeable on the future emoluments of the Chair. It specially applies to the University of Aberdeen, and is brought in by the Lord Advocate and Mr. Anstruther. The second reading is down for March 2nd.

The Education of Children Bill of Mr. Robson occupied Wednesday afternoon, and provoked a most interesting debate. The opposition came mainly from the agricultural and textile districts, but the arguments in favour of raising the age from 11 to 12 for half-timers, and eventually to 13, were so strong that the second reading was carried by 317 to 59.

ROYAL EDINBURGH ASYLUM.

Physician-Superintendent's Annual Report for 1898.

Statistics.—In the beginning of the year the number of patients was 899 (including 11 on probation, and on December 31st it was 945 (including 7 on probation). The admissions were 451—201 men and 250 women. The total number of patients under treatment was, therefore, 1,350. The patients discharged number 302—135 men and 167 women. The number of patients who died was 103—50 men and 53 women. The average number of patients resident during the year was 910, of whom 447 were men and 463 women.

The number of admissions (451) was the largest in any one year, with two exceptions, 1894 and 1896, and had it been possible to admit all the private patients who applied at the lower rates of board, it would have been the highest on record. The average number of yearly admissions for the past five years has been 432, so that 1898 is 19 above that average. During the past quarter of a century the average numbers for each period of five years have gradually risen by 23 each quinquenniad, and this year the increase was so great that 200 more patients were admitted than twenty-five years ago. The increase has been more among rate-paid patients; it has been 54 per cent. in this class in the twenty-five years. There is, on the other hand, an increase of only 12 per cent. in the average yearly number of private patients admitted in these twenty-five years. This has been largely due to the West House being full of rate-paid patients, and the consequent inability to receive all the private patients that applied; indeed, during the last six months of the year no private patients could be received at the West House. It has now been arranged to transfer 60 rate-paid patients to Larbert and Hartwood Asylums to relieve the tension.

The Advantages of Hospitals for the Insane.—Dr. Clouston points out that a more extended realisation among society of every grade of the benefit and convenience of hospitals for the insane will increase the admissions for many years to come. It is becoming better understood that many forms of mental disease are morbid accentuations of natural dispositions—in one case temper shading off into mania, in another keen sensitiveness of feeling passing into melancholia, and in a third suspiciousness verging into insane delusions, so that the subjects of such changes become unfit for family or social life. The relief and safety of a well-appointed hospital becomes necessary in more and more cases.

The Etiology of Mental Disease.—Certain mental diseases are preventable, others are not; some, "taken in time," can be arrested; others "run their course," little influenced by any treatment in any stage. Prevention is the great aim of modern medicine. Diagnosis in early stages, and endeavour to arrest or modify its symptoms, the next aim. Few cases of mental disease, Dr. Clouston believes, can be prevented, because the patient's brain has a hereditary predisposition to nervous instability if not to insanity. This is roused into actual disease by events in his physiological life, or his circumstances, or his environment, over which he or others had little control. No doubt the 115 cases who owed their mental breakdown to excess in alcohol and immorality could have saved themselves, and a terrible penalty has been enacted of them for their lack of control, but the cases due to the physiological periods and processes of development and decadence, of childbirth and nursing—there were 167 such

cases this year—are most of them not preventable. Only lately had it been fully realised how the mere natural process of building up and development of the organism from infancy up to full manhood and womanhood was attended by innumerable risks to the brain and nervous system. From idiocy, the great mental risk of the earliest age of development, to the insanity of adolescence which comes on from the age of 18 to 25, and is the last risk of development, there are many intermediate stages. Epilepsy, with insanity, appeared more frequently during the developmental period than any other, and 14 such cases had been sent during the year. Throughout Great Britain 40 per cent. of all mental defects are due to errors in development. In this relation the high nervous death-rate before 25 should be noted. Further, unrelational development accounted for much insanity and neurosis.

Unphysiological Old Age.—Dr. Clouston next referred to the mental and nervous risks of growing old. Of the 103 such cases received during the year many resulted from a limited and unrelational decay of single functions and faculties before their time. About 5 per cent. of the whole insanity of the country is due to faults of decadence, but that does not represent the real risk of growing old, for over 20 per cent. of the yearly occurring mental disease is due to it. Nature lessened the output of energy of the brain as years went on. No man has his natural force unabated at 70; 33.2 per cent. of the general population die from nervous diseases from 51 to 75; but calm wisdom was an easy process to the nerves. The recent views of Krepelin were referred to and a warning note given to men and women over 50 to the effect that they should be more careful of alcohol excesses, of avoiding the causes of rheumatism, gout, bronchitis, and other diseases. They succumb for want of nerve energy. Rules for growing up and growing old safely were a desideratum. To have altogether prevented certain cases of insanity Holmes says we should have begun 200 years ago. Our position then must be, *Obsta principiis*. The difficulty was to interpret early signs.

Recovery and Death-rates.—Three hundred and two patients were discharged during the year, of whom 163 were recovered and 94 relieved of their worst symptoms—that is a recovery of 36 per cent., 4 per cent. less than average of the past sixty years; 66 per cent. left in six months, 90 per cent. within the year. The death-rate was high, 11.3 per cent. on the average number resident, but many old broken cases were sent in; 51 per cent. die within the year after admission. This class was becoming more numerous. The death-rate did not differ much from that of the county and borough asylums of England. Irish lunatics lived longer. A striking fact in regard to the death-rate was that it went up from 8.8 per cent. on the average numbers resident (the average rate for the ten years previous to 1890) to 13.1 in 1890, and had kept up to 11.9 for the nine years 1890-98. Influenza was largely responsible for the increase; a larger number died from pulmonary consumption and tuberculous diseases. Probably this was due to overcrowding of the West House.

Miscellaneous.—The report concludes with references to the new drainage system for the West House, to the meeting of the British Medical Association in July last, to the favourable opinion of the medical profession given of the Edinburgh asylum, to the reunion of the old staff of the asylum, and to the subjects then discussed, to the meeting of the Medico-Psychological Association, to Dr. Ford Robertson's continued successful work in the laboratory of the asylums, to the need for extension in the range of work in that laboratory, to the changes in the staff of the asylum, and, finally, to the fact that Dr. Clouston had himself now completed twenty-five years' service.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual general meeting of this Society was held on Wednesday, March 1st, Mr. T. BRYANT, M.Ch., F.R.C.S., President, in the chair.

REPORT OF COUNCIL.

After the minutes of the last annual general meeting had been read and confirmed, the report of the Council for the past half year was read by Dr. NORMAN MOORE, the Senior Secretary. The affairs of the Society were in a satisfactory condition; 35 new Fellows had been elected, of whom 24 were resident, while 11 Fellows had died and three had resigned. The changes of hours for the use of the library had been found to work well, and to be for the greater convenience of the Fellows. During the temporary absence of the resident librarian from ill health the work had been admirably performed by the assistant librarian, Mr. Clarke. The Committee on Suspended Animation reported that arrangements were being made for further investigations at Claybury. The Committee on Climatology and Balneology were making progress, and reports on Ireland and on the Midlands were nearing completion. The treasurers had altered the arrangement of the financial statement, so as to show more clearly the exact position of the Society. There had been 351 volumes purchased for the library, and 241 works and pamphlets had been presented during the past year.

The SENIOR TREASURER (Dr. W. S. Church) explained the alterations of the financial statement. This had been done on the advice and by the help of Mr. T. Mundy, the auditor, who had been at great trouble to help the Society. This alteration put the affairs of the Society on a thoroughly business-like footing. After some discussion, in which Dr. C. T. WILLIAMS, Dr. ABERCROMBIE, and Dr. CHURCH took part, the report of the Council was, on the motion of the PRESIDENT, seconded by Dr. N. MOORE, adopted.

THE AWARD OF THE MARSHALL-HALL PRIZE.

The Committee appointed for this purpose unanimously recommended Professor C. S. Sherrington, M.D., F.R.S. This recommendation having been adopted, the PRESIDENT in graceful terms congratulated Professor Sherrington, handed him the diploma and prize, and expressed a hope that the Society would have an opportunity of hearing from him an account of his researches. Professor SHERRINGTON returned thanks to the Society.

PRESIDENT'S ADDRESS.

The PRESIDENT then delivered the annual address. All the reports, and especially the Treasurer's, showed good results. The papers had been valuable, but he should have preferred to have seen larger attendances. He expressed his appreciation of the valuable services of the retiring Secretary, Dr. Norman Moore. He read obituary notices of Sir R. Quain, Sir W. Jenner, Dr. Charles West, Dr. C. J. Hare, Mr. H. Lee, and Professor A. A. Kanthack.

Dr. DICKINSON proposed that the best thanks of the Society be given to the President for his address, and that he be requested to allow it to be printed in the *Transactions*.

Dr. R. L. BOWLES seconded this, and it was carried unanimously.

The usual votes of thanks to the retiring Vice-Presidents (Dr. Marcet and Mr. Gant), Librarian (Dr. Gee), Secretary (Dr. Norman Moore), and members of Council (Drs. Allchin, Bowles, Mitchell Bruce, and Savage, and Messrs. Cheyne, Clutton, Eve, and Meredith) were passed.

ELECTION OF OFFICERS AND COUNCIL.

The following officers were elected for the ensuing session:—*President:* Thomas Bryant. *Vice-Presidents:* George Fielding Blandford, M.D.; *Samuel Jones Gee, M.D.; *Henry Greenway Howse, M.S; Reginald Harrison. *Honorary Treasurers:* William Selby Church, M.D.; J. Warrington Haward. *Honorary Secretaries:* *Thomas Barlow, M.D.; Alfred Pearce Gould, M.S. *Honorary Librarians.* *Norman Moore, M.D.; Rickman J. Godlee, M.S. *Members of Council:* Francis Henry Champneys, M.D.; *Stephen Mackenzie, M.D.; *Seymour John Sharkey, M.D.; *Eustace Smith, M.D.; *Francis Warner, M.D.; *W. Bruce Clarke; *George Henry Makins; *Robert William Parker; *Edward Albert Schäfer, F.R.S.; Edgcombe Venning. (Those Fellows against whose names asterisks are placed were not on the Council, or did not fill the same office last year.)

BILE INOCULATION AND RINDERPEST.—The Ceylon Government Veterinary Surgeon, Mr. G. W. Sturgess, has published a report on the successful experiments he has recently made with bile inoculation as a preventive against rinderpest. The disease appeared among the cart bullocks belonging to Messrs. Lipton, Limited; 80 were attacked, 50 yielded to treatment and recovered, and 30 died. Mr. Sturgess then obtained permission to try the bile inoculation method. He inoculated four healthy bulls, and tied them up for a week by the side of an infected animal in an infected shed, but none of them contracted the disease, nor were any of them ill. Mr. Sturgess describes the method as very simple, and quite harmless if properly carried out.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF SPECIAL MEETING.

A Special Meeting of the Council will be held at the office of the Association, No. 429, Strand, London, W.C. on Friday, the 10th day of March next, at 2 o'clock in the afternoon, to consider the recommendation of the special meeting of the Parliamentary Bills Committee held on February 3rd.

Francis Fowke, *General Secretary.*

429, Strand, February 15th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

Meetings of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Cork and South of Ireland Branch.—A general meeting of this Branch will be held on Friday, March 10th, in the Medical Society Rooms, Cork, at 4.30 P.M.—Philip Lee, 25, St. Patrick's Hill, Cork, Honorary Secretary.

Metropolitan Counties Branch; North London District.—A meeting of this District will be held at the London Temperance Hospital, Hampstead Road, on Wednesday, March 8th, at 4.30 P.M. Dr. Morton will preside. Mr. L. A. Bidwell will read a paper on the Surgical Treatment of Gastric Ulcer. Cases of interest will be shown in the wards of the hospital. The District Committee will meet at 4.15 P.M.—H. J. Macevoy, Brondesbury, N.W., Honorary Secretary.

South-Eastern Branch: East Sussex District.—The next meeting of this District will be held at Brighton on March 23rd. Members wishing to make communications to the meeting are requested to inform the Honorary Secretary before March 10th.—J. W. Batterham, Bank House, Grand Parade, St. Leonards, Honorary Secretary.

South-Eastern Branch: East Surrey District.—The next meeting of this District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 9th, at 4 P.M.; Mr. E. Beaumont, of Upper Norwood, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. Agenda:—(1) Minutes of Reigate meeting. (2) To decide when and where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. (3) Election of Honorary Secretary. (4) To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read.—Dr. Patrick Manson: Demonstrations on Malaria. Mr. Marmaduke Sheild: Some points in the Diagnosis and Treatment of Nasal Polypi. Mr. Lewis A. Tallerman: Demonstration of the Tallerman Treatment by the Localised Application of Superheated Dry Air. Messrs. Allen and Hanburys will exhibit Surgical Instruments, etc. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him by postcard whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner.—Henry J. Prangley, Tudor House, Anerley, Honorary Secretary.

South-Eastern Branch: East Kent, West Kent, and North Kent Districts.—A conjoint meeting of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on Tuesday, March 21st, at 3 P.M., Dr. T. T. Brunyate in the chair, when Mr. Victor Horsley, F.R.S., will deliver an address on the Present Condition of the Medical Practitioner and his Relation to the General Medical Council. Dinner at the Bull Hotel at 6 P.M.; charge 6s. exclusive of wines. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. The Honorary Secretary of the West Kent District would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—Ludford Cooper, St. Bartholomew's Hospital, Rochester, Hon. Sec. West Kent District; T. F. Raven, Broadstairs, Hon. Sec. East Kent District; A. Tennyson Smith, Orpington, Hon. Sec. North Kent District.

Edinburgh Branch.—The annual winter meeting of the Edinburgh (Fife and Lothians) Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, March 17th. A Medical Congress for Clinical Demonstrations will be held at 4 P.M. The museum (pathological and apparatus) will be open from 3.30 P.M. onwards. Dinner in the Royal Hotel, Princes Street, at 6.30 P.M.; dinner ticket, 5s. Intimation of exhibits (clinical or other) should be made to Jas. Hodsdon, M.D., 6, Chester Street, Edinburgh, or R. W. Philip, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

Midland Branch: Lincolnshire District.—A meeting of this District will be held at Spalding on March 9th, in the Johnson Hospital, at 2 P.M.; Dr. W. A. Carline, President. Communications:—Dr. G. M. Lowe: Fæcal Accumulations simulating Disease. Dr. Reginald Farrar: Labourers' Boots. Dr. E. C. Kingdon: Some Clinical Features of Acute Glaucoma. Mr. G. Lacy Barritt: Notes of (1) Brain Injury by a Ramrod passing through the Skull; and (2) Acute Suppurating Appendicitis; Abdominal Section; Recovery. Mr. W. J. Cant: An Operation for Ptosis by Permanent Subcutaneous Wire Loop. Lunch at 1 P.M., at the White Hart Hotel; 2s. 6d. each. Those who intend to be present will kindly send an intimation, on or before Tuesday, March 7th, to Dr. Mansel Sympson, Deloraine Court, Lincoln, Honorary Secretary.

BATH AND BRISTOL BRANCH.

The fourth meeting of the session was held at Bath on February 22nd, Dr. Weatherly, President, in the chair. There were 54 members and visitors present.

New Members.—The following gentlemen were elected members of the Association and Branch:—Philip Flood, L.R.C.P., L.R.C.S. (Bristol); E. W. H. Groves, M.B., B.Sc.Lond., M.R.C.S., L.R.C.P. (Kingswood); H. F. Parsons, M.R.C.S., L.R.C.P. (Bristol); C. O'Brien, L.R.C.S.I., L.M. (Bristol).

Vaccination Act, 1898.—It was proposed by Mr. H. C. Hopkins, seconded by Mr. E. J. Sheppard, and carried:

That this meeting of the Bath and Bristol Branch of the British Medical Association expresses its entire disapproval of the Vaccination Act of the last year, believing it must eventuate in a great relaxation of vaccination in the country, and in a few years lead to a large increase in small-pox.

A series of resolutions sent by the Council of the Association was read and endorsed.

Unregistered and Advertising Dentists.—A communication was read from the Western Counties Branch of the British Dental Association, and on the proposition of Dr. Weatherly, seconded by Mr. Hopkins, it was resolved:

That it is unprofessional for registered medical practitioners to give anæsthetics for, or to meet in consultation, unregistered dentists, and that advertising should be discouraged as much as possible.

Papers.—Dr. Michell Clarke read a paper on the Treatment of Adhesions and of Pyloric Stenosis due to Gastric Ulcer, which was discussed by Mr. Paul Bush, Dr. Waldo, Dr. Markham Skerritt, and Dr. Goodridge.—Dr. Douglas Kerr read a paper on Treatment by Hot Air, with demonstrations. Messrs. Greville and Dowsing showed their respective methods of applying dry heat, and in the discussion which ensued Mr. Green and Dr. Wohlmann joined.—Dr. Wilson Smith read a paper on Some Events in the Course of the Uric Acid Diathesis, which was discussed by Dr. Watson Williams, Dr. Markham Skerritt, Dr. Michell Clarke, and Dr. Ruell Atkinson

BORDER COUNTIES BRANCH: COUNTIES OF ROXBURGH, BERWICK, SELKIRK, AND PEEBLES DISTRICT.

A meeting of this District was held at Galashiels on February 17th, Dr. Blair (Jedburgh), Chairman of the Section, presiding.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

The Next Meeting.—It was agreed to hold the next meeting in Newtown, St. Boswells, at the end of April.

Discussion.—Dr. MENZIES agreed to introduce a discussion on Typhoid Fever, its Etiology, Diagnosis, and Treatment at the next meeting of the Section.

The late Dr. Murray.—Dr. BLAIR moved a vote of sympathy on the occasion of the death of Dr. Murray (Galashiels) in touching and appropriate terms. This was seconded by Dr. SOMERVILLE, and unanimously carried. Dr. Tyrell was appointed to the vacancy caused by the death of Dr. Murray.

Communications.—Dr. CALVERT showed a case of Hip-joint Disease at an unusual age. The patient was 20 when it began and 22 when it recurred and he came under Dr. Calvert's care. He lay altogether 17 months with extension by a weight of 10 lb. all the time. For 3 months after it was put on at night only. Since then there had been no extension, but he wore a patten on the sound side and stilts were always in use. In March, when he would have been two years under treatment, walking in the ordinary manner would be resumed. The actual cautery was used two months after he lay down, and the sore remained unhealed twelve months. Two abscesses were opened; they were treated aseptically, and after discharging six months healed up entirely. There was now no shortening whatever; the limb was perfectly straight; and there was limited movement, gradually increasing, in the hip-joint.—Dr. STURROCK showed a cast of an Infant's Mouth at birth, in which there was a well-marked central incisor. He read a paper on Early Dentition, showing it was a rare occurrence but well known. He quoted instances of the kind previously recorded. He quoted from Jacobi, of New York, showing there were instances of people acquiring entirely new sets of teeth at 47, 63, and 90 years.—Dr. TYRELL read a paper on The Influence of Morphine in Controlling the Vomiting of Pregnancy. This drug was employed only after all the ordinary means had been tried—oxalate of cerium in large doses, rest in bed, and milk diet. He quoted cases in which half a grain of morphine was injected every day for three months prior to labour. The emesis usually ceased in about a quarter of an hour after the injection. The mother came well through the confinement, and there was no injury to the child. Several cases were detailed showing the advantage of this remedy hypodermically in the complication of pregnancy.—Dr. SOMERVILLE read Notes on Thrombosis. In this condition the thrombus softened from the centre outwards until a small rim was left, which burst, and then the fluid entered the general circulation. He quoted several cases showing no other explanation than the bursting of a thrombus which at once produced a sudden access of fever. He related several cases of thrombosis of the pulmonary artery. In some cases it began in the ventricle and extended into the artery; in others it began in the artery and extended back to the heart.—Dr. HADDON gave particulars of the case of a man, aged 20 years, who had been ill five months before he saw him, from the effects of an attack of peritonitis. There was dilatation of the stomach, with fulness to the left of the umbilicus. The bowels would not act without medicine, and there was great emaciation but no vomiting. The temperature taken night and morning for two months was higher in the morning than at night, seldom reaching 98° in the morning, even in the mouth, and going as low as 95.2° at nights. When kept in bed there was less variation between the morning and evening temperatures, both being just above or below 97°. He was familiar with inverse temperature in acute disease, and regarded it as an indication of an inflammation of a serous membrane. Thus, if in a case of pneumonia inverse temperature was seen, the pleura was affected; if in typhoid, the peritoneum. If seen in cerebral cases it pointed to meningitis. But with regard to such a chronic case as this he had no experience, and mentioned it in the hope of getting some information on the subject. In addition to dilatation of the stomach there was a suspicion of obstruction of the bowels.—Dr. CALVERT showed an Epithelioma Recti which he had removed nearly 2½ years ago from a lady over 80 years of age, without any return so far. He made a semicircular incision in front of the anus, then split up the perineal body by means of blunt-pointed scissors, guiding these by means of the finger in the vagina. The disease extended upwards in the anterior wall of the rectum about 2½ inches from the anal orifice.

STAFFORDSHIRE BRANCH.

THE second general meeting of the session was held at Stafford on February 23rd, Dr. M'ALDOWIE (President) in the chair. Twenty-two members were present.

Confirmation of Minutes.—The minutes of the last general meeting were approved and signed.

New Member.—Andrew Aiken, M.B., C.M. (Fenton) was elected a member of the Branch.

Death of Dr. J. Y. Totherick.—On the proposal of the PRESIDENT the Branch recorded the loss it had sustained in the death of Dr. Totherick of Wolverhampton, who was for so many years an active member and valued contributor to its work, and directed that an expression of its sympathy be forwarded to Mrs. Totherick. The motion was spoken to also by Mr. W. H. FALKER, Mr. LAWSON TAIT, Dr. W. G. LOWE, and Dr. RIDLEY BAILEY.

Papers.—Dr. KING ALCOCK read a paper on Some Complications of Anæmia, in which he commented on the clinical histories of some cases presenting the somewhat rare symptoms of optic neuritis and an intense form of headache in causal association with chlorosis and anæmia after hæmorrhage. Stress was laid on the importance of recognition of the true cause of these symptoms in such cases, since any failure to adopt the necessary treatment by iron might be attended by unfortunate results.—Mr. E. P. HUNT read notes of a Case of Chorea mainly treated by very large doses of morphine. The child, aged 14, came under treatment in January, 1898. For a month the case was of a mild character, but early in February convulsions became extremely severe. After more or less ineffectual treatment by arsenic, bromides, chloral, etc., morphine was given, at first in moderate doses, but the child getting no sleep, and death threatening from nervous exhaustion, the drug was pushed until the hypodermic dose reached 2 gr. She had a mitral systolic murmur, dilated heart, paralysis of the left arm, and absence of knee-jerk. The morphine produced no bad symptoms, and there was no constipation or interference with digestive organs. The child made a good recovery, and the heart is now healthy.

Specimen.—Mr. J. F. FERNIE exhibited a piece of the Small Intestine, situated about 18 inches above the ileo-cæcal valve, removed from a patient who had died of phthisis, and showing a diverticulum about 4 inches long. The lumen of it was equal to that of the bowel, and Mr. Fernie looked upon it as being probably a pervious portion of the omphalo-mesenteric duct.

CORRESPONDENCE.

THE CENSUS BILL FOR 1901.

SIR,—The Census Bill for 1901 being now under the consideration of the House of Commons, it behoves all persons interested in statistics and sanitation (whether general practioners, medical officers of health, or members of the Statistical Society) to exercise their power in order to obtain a "Quinquennial Census Bill" instead of a "Decennial" one, also that the same be taken at the end of June.

A quinquennial census is practised in France, New Zealand, Queensland, Manitoba, and North-Western Territory of Canada, and in some German States a triennial.

Vital statistics must always furnish the basis on which sanitary reforms shall rest, and as these are obtained from the population of districts, unless the said population is accurate the results desired after the trouble of gathering the statistics are worthless.

Means have been adopted to obtain the estimated population of places for intercensal periods, but these are found to be inaccurate, and the error increases the further the calculation is removed from the last census.

The effect of migration is so great in this country, and especially in rural districts, of which Cumberland, Westmorland, and Cheshire afford numerous examples, that no means can be adopted to cope with the same "except frequent census returns."

I therefore urge your readers in each parliamentary district to petition his representative in the House of Commons to

support and vote for a "quinquennial census" when the Census Bill is before the House.—I am, etc.,

John Penny, M.B., B.Sc.(Public Health)Edin.

Great Broughton, Cockermouth, Feb. 27th.

THE GENERAL MEDICAL COUNCIL AND THE HUNTER CASE.

Sir,—I emphatically deny the charge of your correspondent, Mr. B. L. Richmond. My statements *re* Ellis *v.* Kelly are as accurate as the accusation is unfounded. To prove this it is only necessary to refer to your report on the Hunter case. On page 303 of the British Medical Journal Mr. Justice Channell says (alluding to Ellis *v.* Kelly): "Because the Heidelberg degree of Doctor of Medicine prevented the man being convicted of falsely describing himself as a Doctor of Medicine."

To this Mr. Muir Mackenzie answered "Yes," but expressed an opinion that this ruling should be taken subject to the qualification in the later case of Andrews *v.* Styrap. I pointed out in my last letter that this case is altogether different, the former referring to a registered, and the latter to an unregistered practitioner, but at any rate it is quite clear that Mr. Justice Channell considered that the ruling to be deduced from Ellis *v.* Kelly alone was as I stated; and further, that the counsel for the General Medical Council admitted it. Your correspondent's first quotation from Baron Bramwell's remarks in Ellis *v.* Kelly proves nothing. My point is not that a registered medical practitioner may "wilfully and falsely" describe himself as a Doctor of Medicine; but that a registered practitioner, possessing a *bonâ fide* foreign degree, does not falsely call himself so, as was decided in Ellis *v.* Kelly.

With regard to the second quotation imputed to Baron Bramwell I will say nothing. There is good reason to believe the learned judge never uttered it. Your correspondent, as a barrister, should be aware that it does not occur in the official report of Ellis *v.* Kelly, referred to during the course of the Hunter case (30 *L. J.*, 35).

The truth of my contention, moreover, is fully borne out by experience. The Kelly case occurred about 1862, and up to the present time, with the possible exception of R. *v.* Baker, no registered practitioner has ever been proceeded against for falsely calling himself a Doctor of Medicine with a foreign degree. The gist of R. *v.* Baker was not the false assumption of the title of "M.D." so much as the appropriating of other registrable qualifications to which the defendant had no title whatever. His "M.D." likewise was a bogus one, and his only legal qualification the old "L.S.A." diploma, which did not authorise the practice of surgery.

As it is notorious that during the last thirty years registered practitioners all over the country have been in the habit of describing themselves as "M.D." on foreign degrees, there can be little doubt as to what is the general opinion as to the ruling in Ellis *v.* Kelly.—I am, etc.,

Major Greenwood, M.D.Brux., LL.B.Lond.

Hackney Road, N.E., Feb. 26th. Barrister-at-Law.

MIDWIVES BILL.

Sir,—I should like to especially draw the attention of all your readers to the concluding sentence of Dr. Lovell Drage's letter on the Midwives Bill. It is high time that general practitioners arose from their slumbers and strenuously opposed the Bill, fraught as it is with so much danger to their own interests. It is high time that we gave up quibbling about gowns and hoods, or whether our neighbour diplomate have a right to call himself doctor. With regard to the former question, if we could get all Members of the Royal College of Surgeons to band themselves together and take an active interest in burning questions, the settlement of which will either raise or lower our future status, I am sure no medical man would mind if they were all clothed in purple and fine linen to-morrow. Then, with regard to the title of doctor. Our practical work will tell in the long run what we are worth. Jealousy is often at the root of these quibbles. Because Mrs. A. calls in Snooks, who happens to be an M.D., do not think that it is a slight on you because you happen to be L.S.A.; for remember Mrs. B. calls in you in preference to Dr. Snooks, in spite, may we say? of your qualification. No; we shall, if we are not careful, find next door to our own a member of an inferior order of practitioners. It will then be too late to check the evil which will then be firmly established on a legal basis. We must look to the interests of our profession and patients. We cannot afford to look quietly on while our status as a scientific profession is being gradually lowered by the admission of a number of non-scientific midwives.

Every existing medical society should fearlessly thresh out the whole question. Then band together and oppose the Bill. It is essentially a question for the general practitioners to decide, not one for consultants, who know little of the struggling practitioner's difficulties, and probably what in earlier life they have learnt has now been forgotten. Again, practitioners fifteen, nay, even ten years, ago had not to contend against the evils which exist to-day.—I am, etc.,

Bedford, Feb. 27th. S. J. Ross.

MEDICAL CONTRACT WORK IN THE COUNTY OF DURHAM.

Sir,—In the county of Durham we are in the midst of a struggle to obtain a higher rate of pay from the miners of the collieries; in some parts we have succeeded beyond expectation; some are wavering and some are in direct opposition to the change. With patience and gentle forbearance we shall get all to agree to the increase. Our present danger is from those of our own profession who may step in and accept the old terms. I ask for your powerful aid in preventing any such occurrence.

Members of the Medical Union are working shoulder to shoulder, and will stoutly resist the invasion of strangers; and those of our number who may suffer loss from temporary suspension of pay will be assisted by their more fortunate brethren.—I am, etc.,

Edward Jepson,

February 27th. President of the Durham Medical Union.

THE KANTHACK MEMORIAL FUND.

Sir,—I sincerely hope the profession will make a prompt and hearty response to the appeal published in the British Medical Journal of February 25th. Of the late Professor Kanthack nothing but good can be said, and his premature and unexpected death came as a great shock to many who had the good fortune to hear and profit by his brilliant lectures on bacteriology and pathology at St. Bartholomew's. Dr. Kanthack was an enthusiast in the best sense of the word. His kindness and courtesy were unbounded, and his smile conveyed a hearty welcome to all. All who knew anything of him must have rejoiced at his well-merited promotion, and it is not at all surprising to read that he gave so freely of his means for the promotion of the science he lived to adorn. We cannot again see his intellectual face, nor hear his rich deep voice, nor marvel at his deft draughtmanship, nor wonder at the zeal and assiduity which, no doubt, contributed to the fell disease which cut him off in the flower of his manhood, but we can at least cherish his memory, and keep it fresh and green in the only way now possible, and he is poor indeed, both in pocket and in spirit, who will refuse his mite to the bereaved widow and to the cause of science, which is the poorer for the loss we all deplore.—I am, etc.,

East Sheen, Feb. 27th. Alex. McCook Weir.

OXYGEN INHALATIONS IN THE TREATMENT OF ACUTE AND CHRONIC DISEASES OF THE LUNGS.

Sir,—The use of oxygen in the above conditions is nothing new, better known, perhaps, than appreciated. Oxygen used in such cases may be said to have three distinct actions. (1) It offers increased facilities for the oxidation of the blood and consequent stimulation of the nerve centres. (2) It alters or profoundly modifies the toxins of certain micro-organisms, and retards their growth. This latter effect has been pointed out in reference to the diplococcus pneumoniæ by Mr. St. George Reid. (3) It lowers the temperature of the body. In acute cases this is marked. In chronic cases, where it is continuously inhaled, the temperature is usually about a degree below normal.

The indications in using oxygen (especially in acute cases) are to begin soon enough and to continue long enough. It is

no use waiting till the patient is moribund. As to the manner of using it, it is futile to simply let the gas loose in the room; it diffuses so rapidly that the hyperoxidation at which we aim cannot be thus accomplished.

To use it with a face piece or funnel is equally impracticable; what pneumonic patient could possibly tolerate this method? The sense of suffocation caused thereby is simply intolerable. The simplest and best way is by a tube passed into the nose. The tube terminates in a soft bulb, which is passed into the nostril, and retains it in position. The tube can be changed from one nostril to another at intervals of an hour or less. Patients stand this well for days and weeks together. The other end of the tube is attached to the gas bag. If a light book or magazine is placed on the bag a thin stream of oxygen is forced into the naso-pharynx, and at once diffuses, and is taken into the lungs with the inspired air. Using it in this way we can estimate exactly the amount of extra oxygen inhaled.—I am, etc.,

GEORGE STOKER, M.R.C.P.I., etc.

Hertford Street, Mayfair, Feb. 28th.

MEDICO-LEGAL.

COMET; EX CLUB DOCTOR; EAGLEHAWK.—All these cases appear to be matters upon which a solicitor should be consulted.

CONSTRUCTIVE MURDER AMENDMENT.

THE Bill introduced into the House of Commons by Mr. Ambrose, Q.C., and read a first time on February 21st, which is backed also by Sir Andrew Scoble, Mr. Abel Thomas, Q.C., and Mr. R. A. Yerburgh, is printed below, together with the memorandum by which it is prefaced.

MEMORANDUM.

In the report of the Criminal Code Bill Commissioners, 1879, page 23, for the purpose of illustrating the doctrine of constructive malice in charges of murder, the Commissioners (Baron Blackburn, Mr. Justice Barry, Sir Robert Lush, and Sir James Fitzjames Stephen) say:

> "The common law definition of murder is 'unlawful killing with malice aforethought.' Manslaughter may in effect be defined as 'unlawful killing without malice aforethought.' The objection to these definitions is that the expression 'malice aforethought' is misleading.....The inaccuracy of the definition is still more apparent when we find it laid down that a person may be guilty of murder who had no intention to kill or injure the deceased or any other person, but only to commit some other felony, and the injury to the individual was a pure accident. This conclusion was arrived at by means of the doctrine of constructive or implied malice. In this case, as in the case of other legal fictions, it is difficult to say how far the doctrine extended."

And for the purpose of illustrating the doctrine of constructive malice the Commissioners state the following case from Sir Michael Foster (p. 258):

> "A. shooteth at the poultry of B., and by accident killeth a man; if his intention was to steal the poultry, which must be collected from circumstances, it will be murder by reason of the felonious intent; but if it was done wantonly, and without that intention, it will be barely manslaughter."

The Commissioners then make the following comment on the law as above stated:

> "It seems to us that the law upon this subject ought to be freed from the element of fiction introduced into it by the expression 'malice aforethought.'"

The present Bill is intended to carry out the recommendations of the Commissioners that the law upon this subject should be freed from the fiction of constructive or implied malice, and if carried, will prevent juries from having to find verdicts that are untrue in fact, and will relieve the Home Secretary from having to intervene to prevent death sentences being carried out when there was no real murder.

The title of the Bill is "A Bill to Amend the Law of Murder with reference to the doctrine of Constructive or Implied Malice," and the two principal clauses read as follows:

1. On and after the commencement of this Act, upon a trial for murder, no constructive or implied malice shall be imputed to the accused merely because it is shown that he caused the death of the deceased by or in the course of the commission of or attempt to commit some other felony.

2. Nothing in this Act shall operate to prevent any person who shall have killed or caused the death of the deceased from being convicted of the offence of manslaughter, or of the offence in the commission of or attempt to commit which the death of the deceased shall have been caused, nor shall it prevent or restrict any presumption arising from the circumstances of the case as proved other than the constructive or implied malice mentioned in the preceding section.

CENSURE ON A MIDWIFE.

AT an inquest held at Walthamstow recently as to the death of a woman, aged 32, the jury found that the deceased died from septic poisoning, and in a rider expressed an opinion that Mrs. Avenall (the midwife who had attended her) was deserving of the highest censure for not paying sufficient attention to the symptoms of the patient, and overlooking her condition until it was too late. The husband of the deceased woman stated that he had understood Mrs. Avenall to be a fully-qualified and certified midwife, and to be really a "lady doctor." Four days after the confinement he noticed a great change in his wife, and thought a doctor should be called in. Dr. R. J. Woolf found the patient semiconscious and in a practically hopeless condition. Death occurred on the ninth day after the confinement, and was due to septicæmia, due to neglect and lack of necessary cleanliness. The midwife stated that she held a diploma of the Obstetrical Society; she did not take the patient's pulse or temperature, nor use any antiseptic. She denied that she set herself up as a lady doctor. The coroner read a circular issued by Mrs. Avenall "accouchier," as follows: "Mrs. Avenall begs to inform ladies in favour of female obstetric attendance that she passed successfully the curriculum of the Ladies' Medical College, and obtained a certificate of honour by examination from the under-mentioned professors. She also attended courses of lectures on hygiene, materia medica, and diseases of infants. Mrs. Avenall passed through an examination course of practice at and obtained a clinical certificate from the City of London Lying-in Hospital. The diploma of the Obstetric Society of London was also granted to her." The jury found that death was due to septic poisoning, and added the above rider censuring the midwife. The coroner remarked that the jury would have been justified in returning a much stronger verdict, but they had taken a merciful view of the case. The midwife stated that she was 71 years old, and would never take another case. The names of the professors are not given in the report before us, and our inquiries as to the existence of a ladies' medical college have been without result.

THE INEBRIATES ACT AND THE LONDON COUNTY COUNCIL.

AT the meeting of the London County Council this week it was resolved to exercise the powers conferred under the Inebriates Act, 1898, and a Special Committee was appointed to prepare and submit a scheme. The Committee consists of the following members: Dr. W. J. Collins, Dr. G. J. Cooper, Mr. W. Crooks, Mr. J. S. Fletcher, Dr. E. B. Forman, Mr. W. N. Hubbard, Mr. J. McDougall, Sir Henry B. Poland, and Mr. Nathan Robinson. This Committee will consider whether it will be better for the Council to erect a new building, or to acquire one already erected. A provisional estimate was given that a reformatory for 100 inmates would cost from £14,000 to £22,000, according to the character of the building. From inquiries previously made by the General Purposes Committee, it appears that it is not improbable that during the first year about 100 males and 200 females will be dealt with under Section 11 of the Act of 1898, which applies to persons who are convicted of having been drunk in a public place, or in a public conveyance, or in charge of a vehicle. The Special Committee now appointed will also consider whether the Council should contribute towards the establishment or maintenance of a retreat for the reception of persons who, being habitual drunkards but not convicted, are willing to place themselves under care for a period. As the Council under the new Bill has become the licensing authority for retreats in London under the Act, it is directed to report also as to what committee should be referred the duty of considering and reporting on applications for licences for retreats.

UNDERTAKERS AND STILLBIRTHS.

THE members of a body known as the British Institute of Undertakers has drawn up a petition to Parliament drawing attention to the present unsatisfactory arrangement with regard to stillbirths. The petition points out that the present requirements for the purpose of interment of a stillborn child are as follows:—The production to the cemetery authorities of what purports to be a certificate of the delivery of such stillborn child by a medical practitioner or a midwife. No registration with the district registrar of such delivery is required by the enactments now in force. The petitioners state that they experience great difficulty, responsibility, and inconvenience in accepting what purports to be the certificate of a medical practitioner or a midwife as to the birth of a stillborn child, as in many instances they are written upon scraps of paper, backs of envelopes, and sometimes in pencil. They have no ready means of testing the veracity of such unsatisfactory documents, nor, with a few exceptions, do the cemetery authorities object to them. The petitioners further state that they have grounds for the belief that the present unsatisfactory mode of certifying the birth of a stillborn child is open to serious abuses, which could be avoided by a proper certificate being issued by a proper authority. They conclude by suggesting that a select committee should be appointed to inquire into the question, and to devise a remedy for the evils complained of.

THE TITLE OF PHYSICIAN.

M. W. sends us the following question: Is a L.R.C.P.Lond. entitled to put "physician" only on his door plate?

*** We have always supposed that the answer to this question was in the affirmative, but the judgments given by Mr. Justice Lawrance and Mr. Justice Channell in the case of Hunter *v.* Clare, reported in the BRITISH MEDICAL JOURNAL of January 28th, appear to restrict the meaning of the word "physician." The decision of these learned judges has undoubtedly caused further confusion to arise on the vexed subject of medical titles. Why does not our correspondent address his question to the College from which he received his diploma?

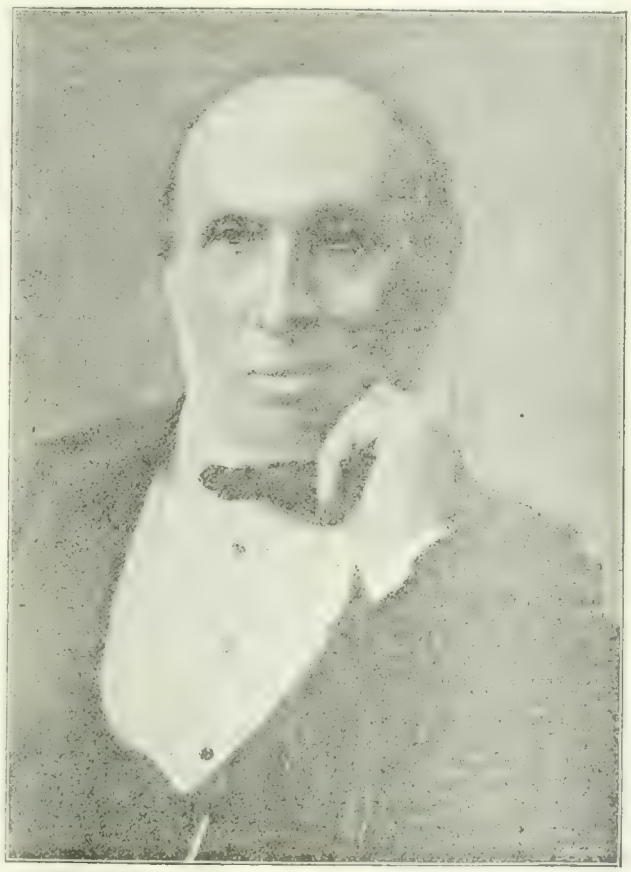
AT the annual meeting of the Surgical Home for Boys, Banstead, it was reported that 85 new cases had been received during the year, and there were 21 patients in the home, which contains 25 beds. The majority of the patients are sent in from London hospitals. The building stands in its own grounds. The fine, pure, dry air of Banstead is found to prove very beneficial to the many cases of tuberculous disease sent to the home, and only 1 death occurred during the year.

OBITUARY.

Sir JOHN STRUTHERS, M.D., F.R.C.S.E., LL.D.

Emeritus Professor of Anatomy in the University of Aberdeen; Vice-President of the Royal College of Surgeons of Edinburgh.

Another of the great figures of the Edinburgh Medical School has disappeared—Sir John Struthers, who died on February 24th. Although Professor of Anatomy in the University of Aberdeen from 1863 to 1889, where he succeeded Allen Thomson and Alexander Jardine Lizars, his memory will always be associated with the Edinburgh School. He was only lent to Aberdeen for a time. A pupil of Monro Tertius; a Lecturer in the Extra-Academical School from 1847 to 1863; Goodsir's substitute for a year; a Fellow, President, and Vice-President of the Royal College of Surgeons; a laborious worker for, and benefactor to, the museum, library, and laboratory of that College; a President of the Royal Physical Society; a Manager of the Royal Infirmary; Chairman of the Managers of Leith Hospital—he was bound up with Edinburgh and her medical institutions.



John Struthers was born at Brucefield, Dunfermline, in 1823, and was educated privately; he was the second of three brothers, who all became members of the medical profession. The eldest (James), after a brilliant academic course, settled in Leith, where he remained till his death in 1891, and where his name is to this day a heritage. The youngest brother went out to the Crimea, where he was associated with Dr. Patrick Heron Watson, and the late Dr. Greig of Dundee, and where he died of fever in 1855. John entered on the study of medicine at the University of Edinburgh in 1841, took his M.D. degree in 1845 at the same time as his life-long friend Sir William Gairdner, and in the same year he received the Fellowship of the Royal College of Surgeons.

He had not a high opinion of the teaching of anatomy in his day, for, writing in July, 1889, he says: "In my student days, in the Edinburgh School, anatomy was at its lowest ebb in the University under the third Monro; there was no comparative anatomy in the school except the silent museum Dr. Barclay had left behind him in the Royal College of Surgeons; Dr. Knox was gone; John Goodsir hadnot then arisen with the microscope and his morphology; the embryology of Allen Thomson, though original was then descriptive only; there was no anthropology; Owen's *Homologies of the Vertebrate Skeleton* had not yet appeared, still less had Darwin come with his interpretation of the facts. Surgical anatomy was well taught, admirably so by Spence my early teacher in that, and afterwards my respected surgical colleague of many years." He often to the present writer spoke with deep regret of the precious time he had wasted under the third Monro.

On October 22nd, 1847, he was licensed by the Royal College of Surgeons to teach anatomy in the Extramural School of Edinburgh, and such was the opinion entertained of him that during Goodsir's illness in the winter session of 1853-54, Struthers was asked to take his place.

In 1854 he was appointed one of the Assistant Surgeons to the Royal Infirmary; he had previously been a Resident Surgeon, and a few years later he was made a full Surgeon, and continued to hold the office till he went to Aberdeen. But his interests and his work were in anatomy.

In 1863 he was appointed to the Chair of Anatomy in the University of Aberdeen. He at once set himself to the reorganisation of the whole teaching of anatomy there; he resented mere dry-as-dust lecturing, insisted on his students having "their eye on the object," and made a museum of anatomy such that it had then few equals in the kingdom. He largely made the Medical School of Aberdeen. Not satisfied with the work of his Chair, he instituted and continued for many years Saturday evening lectures for the people which were largely attended and greatly appreciated. He became a member of the University Court, where he never failed to keep the claims of medical education in the forefront. He was a member of the Board of Directors of the Infirmary, and worked hard to have it reorganised and practically rebuilt. From 1883 to 1891 he was a member of the General Medical Council. Here he urged an extension of practical work and a diminution of pure lecturing, the institution of research laboratories, the extension of the medical curriculum to five years, the raising of the standard of the medical preliminary, the institution of a preliminary scientific year with physics as one of the obligatory subjects, and the registration of diplomas in public health. In 1881 he established a medal and a prize for anatomy in the University of Aberdeen.

He was not content to confine himself to purely medical questions. His mental outlook was much wider. Thus he urged the development of the University Local Examination Scheme, and the plans for university lectures. In 1885 the University of Glasgow conferred on him the honorary degree of LL.D.

On his retirement from the Aberdeen Chair in 1889 he returned to Edinburgh, and at once threw himself with zest into work of various kinds. He became Chairman of the Board of Directors of Leith Hospital, and worked to secure the extension of that hospital to a hundred beds, so as to fulfil the academic requirements of a hospital giving qualifying courses of clinical instruction. He was elected a manager of the Edinburgh Royal Infirmary, where he worked vigorously in all matters of detail, especially to improve and extend theatres for operation. He was a member and President of the Royal Physical Society, and a manager of the Royal Dispensary. In 1892 he was made an honorary member of the Royal Medical Society, and in the same year he was presented with his portrait, painted by Sir George Reid, the President of the Royal Scottish Academy, by a number of his former pupils. A replica now hangs in the University of Aberdeen. From 1895 to 1897 he was President of the Royal College of Surgeons, where his energies were directed to the reorganisation of accommodation for the examinations of the

Triple Board, etc., to the extension and improvement of the museum, to additions to the library, and to the establishment of a laboratory. His whole heart was in the College, and he was a great benefactor to its museum. From 1897 till his death he was Vice-President and an Examiner. In 1898 Her Majesty conferred on him the honour of knighthood.

The list of his published writings is a long one, from the first in 1848, On the Supracondyloid Process, to the last in October, 1896, On the Medical School of the Future, where he urged, as he so long and so often did, a return to Nature, to objective teaching, to a greater amount of practical instruction and less lecturing. In 1889 he printed, for the use of present and former pupils, References to his papers in Anatomy: Human and Comparative. That list includes seventy separate publications, thirty-six during his Edinburgh period, the rest during his Aberdeen professorship. In a prefatory note to these References, he says with characteristic frankness:

> I have to express my painful regret that more and better work has not been accomplished. The consumption of time in the Anatomical School, practically the whole day, winter and summer; in Aberdeen the forming of a museum of anatomy—human and comparative—the advancement of the medical school, and the calls of university business; the distraction of numerous projects in medical legislation threatening injury to the higher education in Scotland, requiring to be met—have all encroached seriously on my time for research. All along that has had to be relegated to the night and to holiday times. A number of researches yet unfinished may, or may not, be completed, according as health and strength remain.

Subsequently to 1889 there were nine more papers. Of the seventy publications enumerated in the References, the earlier were reprinted in *Anatomical and Physiological Observations*, Part I, 1854, Part II, 1864. In 1863 we have a description of a new craniometer. His *Historical Sketch of the Edinburgh Anatomical School*, published in 1867, is an invaluable piece of historical work. "At some future time," he wrote, "I hope to be able to resume this sketch." But alas, the pen is now laid aside for ever. In 1871 we have a paper on Some Points in the Anatomy of a Great Fin Whale; in 1881 on the Bones, Articulations, and Muscles of the Rudimentary Hind Limb of the Greenland Right Whale: On the Anatomy of the Hump-back Whale in 1887-89; and again on the same subject in 1893; and in 1895 96 On Separate Acromion Process, with Appendix on Subcoracoid Dislocation of the Humerus.

Such in brief outline was his life's work. He was a man of indomitable energy and perseverance. He was never idle. He was a born reformer and organiser. Of course he met with keen opposition; every reformer does. Others with better knowledge and longer experience will add their tribute.

During the winter of 1897-8 he had a severe attack of influenza with a slow recovery of strength. He had been obviously failing before this. In May, 1898, he went to Norway and returned without much benefit. He was President of the Section of Anatomy of the annual meeting of the British Medical Association at Edinburgh last year and took the chair on several occasions, although it was evident that the effort cost him much. He spent the summer of that year in Peebles with some improvement of strength. On his return he began to suffer from localised abdominal pain, which disappeared later. Weakness however steadily increased, and about five days before the end right pleural effusion developed. Aspiration afforded only temporary amelioration of his symptoms, and he gradually sank and passed away quietly at 7 A.M. on Friday, February 24th. The cause of death was ascertained to be malignant new growth in the splenic flexure of the colon with secondary involvement of the liver.

Dr. Struthers married a daughter of Dr. Alexander, of Wooler, and had a family of four daughters and three sons. The three sons all entered the medical profession. His eldest son died some eight years ago, the second some years later. The third is now one of the Residents in the Royal Maternity and Simpson Memorial Hospital of Edinburgh.

Struthers as a Teacher.

Dr. Joseph Bell, one of his old pupils, writes: I have been asked, probably from the fact that I must now be one of his oldest pupils, to note my impression of my late revered teacher, Sir John Struthers. More than forty years ago I went as a first year's student to his dissecting room, and boy as I was, the impression was given to me that here was an enthusiast in the details of anatomy, and that idleness, want of precision would not suit him. His gravity and maturity—he was not much over 30, but as a young man he looked old, while as an old man he looked young—added weight to his teaching even of the bones. Many of us owe much to the care with which he taught, and the example he gave of patient, earnest industry. While still teaching anatomy at Surgeons' Hall Struthers was appointed Assistant-Surgeon to the Royal Infirmary, and when he got the chance did operations and taught in the wards. He was never a brilliant surgeon; possibly he thought too much of anatomical details, but he was very anxious to make the best work in each case that was possible, and spared no pains in after-treatment, even returning to visit his cases in the evening. In those days it was not thought any bar to operating at 12 that the operator had been dissecting all the morning. Others can speak of the marvellous work Struthers did in Aberdeen; how he found a small school with appliances for teaching anatomy, and how he left it one of the best-equipped anatomical departments in the kingdom. We used to see him occasionally on his visits south, and watch his work in the General Medical Council. It was only on his return to Edinburgh in 1889 to enjoy his well-earned leisure that we began to see much of our old master. His idea of leisure was constant work, and his activity bodily and mental, sought various lines of usefulness. One great duty he set to himself was to improve Leith Hospital and to raise up in it a teaching school. For this he had two strong motives. One was to increase the amount of clinical teaching available for the great Edinburgh Medical School. This school has sometimes been accused of possessing too little clinical material for the proper training in practical work of its numerous students. To add another hospital in a seaport town within two miles of the University seemed to Struthers a wise course.

The second strong motive for his work in Leith was the love he bore to the memory of his brother, James Struthers, who had for nearly half a century held the foremost place in Leith as a family practitioner. He had worked in Leith Hospital, had showed a deep interest in its welfare, and that was enough to make John devote his time and talents to its service.

To the Royal Infirmary of Edinburgh, when elected to the Board of Management as a representative of the Royal College of Surgeons, he also did yeoman service. The pathological department operating theatres owed much to his zeal and the endless trouble that he took for their enlargement and improvement. Probably Struthers felt it the greatest honour and pleasure of his life when he was elected to the honourable office of President of his College. Its very dust to him was dear. He loved it with a passionate and touching devotion; its antiquity, its association with the great surgeons of past generations, were topics on which he loved to dwell. It was almost comic, had it not been so real, to notice how little he made of universities and other corporations when compared with his beloved College. Mushrooms!

What he did for the College, how royally he spent her money and improved her surroundings, his unselfish devotion to the museum and the laboratory, will be told by abler pens than mine; but certainly no man loved his College more, or more unselfishly, than the Vice-President whom we now mourn.

As a friend he was constant and sincere, not a man of phrase or flattery. He would tell you your faults and mistakes with absolute sincerity, and sometimes he would be surprised that his remarks were taken amiss. His tireless industry, his tenacity of purpose, made him a formidable antagonist in a debate or a controversy. He had the fine quality that he did not know when he was beaten. He sometimes provoked the other side unnecessarily by a sort of cocksureness he showed in his being in the right, which indeed he generally was. Those who disagreed in his views—and they were many—had always to own that Struthers was working for a cause or a college, and not for his own pocket or position.

It was sad during those last months, when the hand of Death was obviously in the air, to hear the brave old man planning fresh work, preparing to face fresh controversy, such as his soul always loved, and with a strange youthfulness watching the progress of science and the advances made by younger men.

Struthers as an Anatomist.

Mr. C. W. Cathcart, M.B., F.R.C.S., Conservator of the

Museum of the Royal College of Surgeons of Edinburgh, writes: Sir John Struthers, on returning to Edinburgh in 1889, seemed to feel that he never could do enough for the Royal College of Surgeons of Edinburgh, with which he had had so many happy associations in his early days. He was one of those whose mind never grows old; in every sense of the word he was an evolutionist, always striving after improvement, and using every achievement as a fulcrum on which to raise something else. He had leisure, energy, and untiring perseverance, and these qualities he focussed on the welfare of the College. The museum he considered a most important means of medical education, and he spared neither time nor trouble on its behalf. He enriched it with a valuable collection of specimens, chiefly of normal anatomy, and spent many uncounted hours in labelling and superintending the mounting of the specimens. Not satisfied with the lighting of the museum, he suggested an enlargement of the windows, and with characteristic energy saw carried out a work that has made many parts of the museum like a new place. Those who were officially connected with the museum during his term of office as President found him always on the look-out for suggestions, but while never unwilling to accept new ideas from others, he initiated the majority himself. The same endeavour to improve has left its mark on other departments of the College. He was instrumental in providing a series of special examination rooms for the Triple Qualification, and he gave much personal help and advice in the rearrangement of the library. Finding himself unable to carry out a scheme for union with the Royal College of Physicians in the management of their Research Laboratory, he never rested till he had seen the Fellows of the Royal College of Surgeons provided with a laboratory of their own. This was his favourite scheme in the declining months and weeks of his life. When his friends came to see him the prospects of the laboratory were never omitted from the subjects of discussion, and he always hoped to be up again soon in order that he might help to have it established in active usefulness.

Realising the importance of original research, Sir John Struthers, by his energy and personal influence, reinstituted occasional lectures by Fellows before the College, and revived special prizes for original observation and research. What has just been stated is merely an outline, to enumerate all the details would perhaps seem tedious. Enough has been said, however, to indicate the spirit and capacity of the man, and to show that he deserves to be reckoned as one of the great benefactors of the Royal College of Surgeons of Edinburgh in influence as well as in deed.

A Friend of Half-a-Century writes: Struthers was an equally early and earnest worker in anatomy. In 1843 or '44 the Anatomical School of No. 1, Surgeon Square, under Handyside, Lonsdale, and Spence, may be said to have seen his *coup d'essai* as a teacher. Many an unfinished and forsaken "part" he used there to take up and work out for his own delectation and instruction. He was of rather a severe and caustic temperament, but nevertheless could enjoy a joke. Handyside was the draughtsman of the establishment, and his diagrams in many-coloured chalks, although unique in their way, were indubitably instructive. Very frequently, for the sake of economising space, they occupied both sides of the blackboard, which was turned when the design on one side had served its purpose. On reversing the board one day the drawing disclosed was a diagram in red, blue, and white of the vascular structures in a cone of the kidney, but underneath some wag in the class had surreptitiously and beforehand written, "Eruption of Mount Vesuvius." The resemblance was too recognisable even for the staid and majestic Handyside, who at once gave way. Struthers often talked of this long afterwards with great gusto. He used with a vein of sarcastic humour frequently to allude to the defects of some of his early anatomical teachers, and playfully described how he had been out of pocket by having to attend two sets of lectures on this subject at the same time, one for graduation and the other for educational purposes—a state of things which his efforts materially contributed to improve.

Professor Struthers and Aberdeen University.

Our Aberdeen correspondent writes: In the death of Sir John Struthers Aberdonians must feel the loss of the man who perhaps of all others has done most for the Aberdeen School of Medicine. Appointed to the Chair of Anatomy in 1863, when the roll of students numbered 150, he resigned his post in 1889, at which time the students had increased to over 400, and it may justly be said that this increase was in large measure due to his energy. He came to Aberdeen at the age of 40 with much experience as a teacher, with an infectious enthusiasm in his subject which he viewed from the broad ground which his own researches in comparative anatomy had opened for him, and with the greatest ambition for the advance in reputation of the University which he had joined. It is difficult to realise nowadays, in the luxury of new buildings and with the number of teachers in special subjects which the present Medical School enjoys, what difficulties Struthers had to meet and overcome in the midst of prejudices and old-world estimates of the importance of instruction in medical science; but fortunately for the school, though perhaps not in all instances to the advancement of harmonious relations with his colleagues, Struthers was essentially a fighting man, and he carried his way. And though since his time the University has made immense progress in many ways, as a teaching university it must be heartily acknowledged that it was Struthers who roused the school, and who by his strenuous work gave the impetus towards progress and development which has been so excellently carried on and extended by his later colleagues and successors.

Struthers, by his abilities as a lecturer, by the individual interest which he took in students, not only in his own subject, but throughout their course, by the great extensions and improvements of his department, by the untiring and successful labour he bestowed on the formation of an excellent anatomical museum, by the important part he took in the establishment of medical bursaries, and by his constant interest and activity in all questions affecting the University as a whole, would for these causes only have acquired a very high reputation in Aberdeen.

But the scope of his life's work was far wider. He interested himself strongly in medical legislation, appeared frequently before Commissions of the House of Commons as a delegate of the Scotch Universities or as witness in matters of University Reform. He was appointed to the General Medical Council in 1883, and in his important report as Chairman of the Education Committee of the Council in 1890 showed his knowledge of systems of university education not only in Britain, but on the Continent. The value of his work on the Council was warmly acknowledged when he retired in 1891.

The reputation of Struthers as a comparative morphologist was high. He was an authority on the anatomy of Cetaceæ, and his memoir on the Anatomy of the Humpback Whale was a monument of careful and most useful research.

While at Aberdeen he took an active interest in the management of the infirmary and other public institutions; he was highly appreciated as a popular lecturer on scientific subjects, and he was President of the Medico-Chirurgical and Philosophical Societies, and was one of the foremost in securing the meeting of the British Association in the city in 1885, and in ensuring its success.

Though for the last nine years Professor Struthers has resided in Edinburgh, his memory is still very living in the University of Aberdeen, and his name will be handed down as that of a striking personality, a keen fighter, a kind-hearted friend to students, and one to whose memory the School of Medicine at Aberdeen will always owe the deepest gratitude.

Funeral.

The funeral of Sir John Struthers took place on Monday, February 27th, at Warriston Cemetery. There was a large attendance of university professors, of public men, and of prominent members of the medical profession. The pall-bearers were Dr. John W. Struthers (son), John Alexander (brother-in-law), J. G. Murray (nephew), the President of the Royal College of Physicians (Dr. Andrew), the President of the Royal College of Surgeons (Professor John Chiene), Professor Crum Brown, Dr. Alexander Bruce, and Mr. G. V. Mann, S.S.C.

The German Public Health Association, on the invitation of the magistrate of Nuremberg, will hold its general meeting this year in that city from September 13th to 16th.

WILLIAM RUTHERFORD, M.D., F.R.S.,

Professor of Physiology in the University of Edinburgh.

As we briefly announced last week, Professor Rutherford died of influenza on February 21st. We are indebted to an old fellow student and close friend for the following sketch of his life:

It is probable that no more difficult task could be undertaken than an appreciation of William Rutherford. Proud, shy, sensitive, resentful of injustice, he was no Laodicean, but one whose moral qualities made him loved and hated, misunderstood and admired, misjudged and enthusiastically applauded.

No doubt, as with all of us, the accidents of life as well as heredity largely determined his qualities. He was born on the Scottish Border, a region in which the characteristics of the people have been evolved under the stern melancholy of the desolate rounded hills that form the Southern Uplands, no less than by centuries of struggle and strife. He was the youngest of the large family of a farmer in Roxburghshire, and was educated at the grammar school of the district. He came to Edinburgh therefrom and entered on his medical studies a lad imbued with the traditions of his race and district. As a student he was reticent and retiring, but his readiness to respond to friendly advances, his ability and capacity for work, soon made him known to and the companion of the best men of his time. It is not merely the *laudator temporis acti* who would call that period a very brilliant one in the University of Edinburgh. The Chairs in the medical faculty were filled by giants, and of the companions of his student days many have been his colleagues in the University, in its extra-mural school, and in the higher walks of the profession throughout the world. That he held his own and in the end came out gold medallist and with an honours degree is proof of his mental calibre and determined industry. But these student days showed him also to be impressionable. His manners became elaborated, and his slight Border accent was over-corrected to that formal mode of speech which, still farther modified by subsequent experiences, became a second nature, and lasted through life.



A gold medallist and an honours man has little difficulty in obtaining appointments, and Rutherford became House-Physician and House-Surgeon to Haldane and Spence. These were days to which he often looked back with pleasure as days of splendid work and honest enjoyment. At that time there were none of the luxuries of modern residencies. A house-physician had only a single dingy sleeping apartment. But we managed to screw out of the managers a small recreation room, and while some of us introduced foils and single-sticks and boxing gloves, Rutherford brought up his favourite piano, and many an evening was spent in listening to his splendid bass as he introduced us to the Masters or sang his own compositions.

He now spent a year in demonstrating anatomy, a thorough knowledge of which is essential to all who aim at distinction in any branch of the profession. In the hard winter of 1865 he shivered with two student friends in Berlin, but laid the foundation in Du Bois-Reymond's laboratory of that knowledge of physiology, and especially of electrical physiology, which afterwards stood him in good stead. Thence passing to Dresden, Prague, Vienna, Leipzig, and Paris, he came home to receive the appointment of University Assistant to the Chair of Physiology. Professor Bennett was a prince among teachers, and there can be no doubt that Rutherford was much influenced by the perfect lucidity which was his master's chief characteristic. But he added to it the labour of research and preparation, so that his four years' assistantship established his reputation as a practical teacher, and, combined with his original investigations, procured for him the Professorship of Physiology at King's College, London. He threw himself into the work of that Chair with ardour. For the practical work his previous training had largely prepared him. But he determined that his lectures should be illustrated as no lectures had ever been before. His love of art and untiring energy enabled him, by himself and by superintending others, to produce in an incredibly short time a set of admirable diagrams for his first course, while the most precise and delicate experiments were, often with hours of work, prepared daily for the lecture table.

It was no wonder that when Professor Bennett resigned the chair Rutherford should have been appointed his successor. He returned from London to take up his duties not unaffected by his highly successful career, and with a full sense of the dignity of his office. Those mannerisms which had developed before he went were found to be accentuated with modifications on his return, and no doubt were partly the cause of some of the troubles which assailed him. But from that time, for five-and-twenty years, with undivided heart and soul, he devoted himself to his work as a teacher. No pains were too great to make even the most trivial experiment a success. No time was wasted which could add to the precision, the clearness, the all-embracing character of his lectures. This absorption in the work of teaching no doubt prevented him in later years from devoting so much time to those original investigations which in his earlier years had brought him so great distinction. But at least it had the effect of making his tenure of the Chair a brilliant success, a distinguishing ornament of the University of Edinburgh, and his death an irreparable loss.

Such a sketch of his career gives the impression of a determined, industrious man of great ability who commanded success. But the picture of Rutherford would be incomplete without further lights and shades. It would serve no good purpose to stir the ashes of old controversies, but one or two matters must be alluded to if we would have the man rightly understood.

His manner and mode of speech have already been alluded to. They were often spoken of as dictated by superciliousness, hauteur, vanity, carelessness of the feelings of others.

No doubt he thought it right to maintain his dignity, but the manner in which he did so was due to the overdoing of brusqueness to hide his real shyness, the affectation of calmness to hide his diffidence. He was at heart an exceedingly sensitive man, and was greatly afflicted by self-consciousness. The kindness of one pleased, as the unkindness of another hurt excessively; he dwelt upon and exaggerated both. His important investigations on the bile and on other subjects led him to perform experiments by vivisection. He thought it his duty to do it, and he rightly did it. But he was viciously attacked by certain people, Christian and other, and he felt it terribly—almost morbidly. There had been, for instance, such a thing as refusal to meet him at dinner, and he shrank from all but professional society for a time.

Under this strain, and weakened by unremitting toil, for a time his nervous system yielded, his mental balance and usual soundness of judgment were affected. Moreover, what recreation he indulged in was rather a variation of labour in the shape of metaphysical speculation and a study of Oriental religions. In this state he misinterpreted and unjustifiably resented on more than one occasion the gestures and actions of some with whom he was associated in his work. He was fiercely assailed in return, and efforts were made to drive him from his Chair. But his friends rallied round him and these efforts were unsuccessful; and, although it may be believed that his general health was never afterwards so thoroughly robust as it had been before, it is certain that his gratitude for this friendly support had the effect of mellowing and strengthening his mental and moral qualities, and that his life was more quietly happy. He entered with greater zest, for example, into the social life of the profession. Edinburgh is rich in associations meant to promote good fellowship and ameliorate the effects of the modern struggle for existence. From early in his career Rutherford had been a member of the Round Table Club, and, later, of the Æsculapian and others. At their social gatherings his musical ability and desire to please made him always welcome, and, as years went on, he derived more and more enjoyment from them.

There remains one distinguishing trait of Rutherford's character known to but few, though very strongly marked, which his outer crust hid from the many—the open hand and the open heart. His large professorial income was not selfishly spent; his keen intellect and great energy answered to every appeal for advice and help. The duties of kinship he amply fulfilled. His staunch friendship has been proved on more than one or two occasions by old friends, who have owed to him their deliverance from serious trouble and misfortune. To none of his teachers could a student in difficulty go with greater assurance of satisfactory response. He was in all these relations generous not only with money but with time and effort.

It can easily be seen that, outside his profession and his immediate friends, Rutherford's relationships were not extensive. But where he did occupy such a position as that of manager of the Royal Infirmary he was the same painstaking, keen, masterful man that he was as Professor of Physiology in the University of Edinburgh.

We are indebted to an old friend of Professor Rutherford's for the following estimate of his services to physiology:

When speaking of his predecessor in the chair of the Institutes of Medicine—the late Professor Hughes Bennett—Rutherford said that Bennett had indelibly "stamped upon the physiological department of Edinburgh University the impress of his great energy and his vast ability." With equal truth the same may now be said of Bennett's pupil and successor. Rutherford's experience gained when House-Physician and House-Surgeon under Dr. R. Haldane and Professor Spence was of great use to him in after-life, but more particularly was it of importance to the University and the Royal Infirmary itself, for as representative of the University on the Infirmary Board he could speak with that assurance which comes of practical experience.

The training he received as demonstrator of anatomy under Struthers satisfied part of his morphological bias, and the friendship begotten of the relationship between teacher and pupil was lasting and enduring. It is, indeed, sad to think that an interval of only a few days elapsed between the deaths of Rutherford and of Sir John Struthers.

A further basis for future usefulness was laid by means of visits to Berlin, Paris, Vienna, and Leipzig, the great fame of Ludwig attracting him to the last-named University.

Whatever else he was, Rutherford was undoubtedly a great and gifted teacher—a teacher of the highest order. In many respects unlike Hughes Bennett, both, however, were alike in this—that they were men of clear and logical intellect, and both had that methodical quality of mind which made them great teachers.

Professor Hughes Bennett has the great merit of being the first to institute in this country a class of practical physiology, and Dr. Argyll Robertson was his first assistant. Rutherford succeeded to this position in 1865, to be followed by Dr. McKendrick in 1869. Gradually the methods of practical teaching became more and more perfected under these successive demonstrators until they became a pattern and example for other medical schools.

Bennett's course at first was entirely histological, but thanks to the labours of the demonstrators under Bennett's supervision, it came ultimately to embrace chemical and experimental physiology. The simple histological methods were taught, but textbooks were not plentiful. Rutherford, who had a remarkable memory, dictated the chemical part from memory without notes. The experimental part consisted of the demonstration of experiments rather than of actual experiments done by the student himself. The time was not yet ripe for that development.

Appointed in 1869 to the Chair of Physiology in King's College, London, Rutherford carried with him a thorough knowledge of those methods of practical teaching which have largely helped to make the University of Edinburgh so famous as a great school of medicine. His influence soon made itself felt, and his fame as a teacher spread in the metropolis, where he acted under Huxley with Michael Foster and Lankester in connection with the South Kensington scheme of education and examination.

Besides his professional work in King's College he lectured with great acceptance as Fullerian Professor of Physiology in the Royal Institution. In his lectures there he largely followed the example set by Tyndall, making copious use of elegant demonstrative methods to enforce his facts and rivet the attention of his audience.

On the death of Professor Hughes Bennett in 1874, Rutherford was appointed to fill the Chair of the Institutes of Medicine. Bennett was elected to the Chair not merely on account of his claims as a physiologist, but because he was also a pathologist and a physician, for up to this time the Professor of Physiology had usually been a practical physician. With Rutherford's occupancy of the Chair all that was changed; he resolved to eschew practice; he took no part in clinical teaching, a department in which his predecessor proved himself so brilliant and successful. He resolved to devote all his energies and abilities to the duties of his office, and he never spared himself while perfecting and organising his department.

His lectures were lucid, clear, and attractive; his facts were marshalled and arranged in logical array—the result of great care and labour bestowed on their preparation, his aim being to present his subject not only in an attractive form, but in such a way that it could be grasped by the youthful mind, for he knew well the student's difficulties. He knew how to select the salient facts and to give them an appropriate setting and application, so that while teaching physiology as a science, his past training as house-physician and house-surgeon enabled him to give those facts a practical application to the art of medicine.

His preparations for each lecture were thorough. The exhibits, experiments, and diagrams had all to be faultless, and many an afternoon and evening were spent in making and devising apparatus and rehearsing experiments until they could be presented in an attractive and faultless form to his students. Nothing that was "indifferent well" or slovenly would he tolerate, and everything was as accurately and carefully arranged as human foresight and previous study and application could ensure. Diagrams had to be arranged in an orderly, logical, and symmetrical fashion; exhibits displayed to the best advantage from the point of view of the student.

His capacity for taking pains was infinite. Everything was accurately catalogued, so that anything wanted could be found at a moment's notice and referred to at once.

Rutherford's literary career practically began with his thesis for M.D. (1863), for which he received a gold medal. The first volume of the *Journal of Anatomy and Physiology*, founded by the late Sir G. M. Humphry, of Cambridge, and Sir William Turner, appeared in 1876. To this journal for several years, either independently or in conjunction with his intimate friends, Drs. Thos. R. Fraser, D. Ferrier, and A. Gamgee, he contributed reports on the progress of physiology—a sort of quarterly or half-yearly *Centralblatt*. In the early volumes of this journal also will be found many of his papers on more purely physiological subjects.

Electro-physiology in the middle of the century has received a great impulse from the researches of Du Bois-Reymond (Berlin), Helmholtz and Pflüger (Bonn). In 1859 Pflüger published his great work on *Electrotonus*. In the journal above named (1868) Rutherford gave an account of the demonstration of this phenomenon, at that time regarded as a most recondite subject. With Helmholtz's measurement of the velocity of a nerve impulse in a nerve fibre new problems were opened up in nerve physiology, and time as a factor in the simplest nerve processes was established. Pflüger, in his "avalanche hypothesis," advanced the view that the nerve impulse increases in velocity as it sweeps onwards along a nerve. In his paper on the Relative Excitability of the Different Parts of a Spinal Nerve in the *Journal of Anatomy and Physiology*, 1871, Rutherford combated this theory, and gave several striking experiments in support of his view. It is interesting to note that Mr. H. Power, when Rutherford made a communication on this to a London Society, asked the question whether the relative thinness of the nerve sheath had anything to do with the inequality of excitability of different parts of a nerve.

In a paper on A New Lesion of the Brain, published in the *Edinburgh Medical Journal*, 1868, in conjunction with his friends Dr. Batty Tuke and Dr. Skae, his histological bias began to show itself. For the proper localisation of the areas affected, these authors adopted the then novel classification of the cerebral convolutions propounded about that time by Sir William Turner.

For some years, influenced by the teaching and example of C. Ludwig of Leipzig, for he studied for a short time under Ludwig at Leipzig, he worked at the Influence of the Vagus on the Vascular System. He published his results in several forms, but most fully in the *Transactions of the Royal Society of Edinburgh*, 1870. As an offshoot from this subject, he explained the cause of retardation of the pulse which follows artificial or voluntary closure of the nostrils of a rabbit not as due to reflex inhibition through the afferent nasal nerves, but as due to alteration of the gases of the blood itself (*Journal of Anatomy and Physiology*, 1871).

His constant desire to devise models and schemata to simplify the work of the student, and to facilitate the comprehension of difficult subjects, led in 1872 to his making—after the method of Weber—a New Schema of the Circulation (*Journal of Anatomy and Physiology*), and his well-known working model of the heart—the latter a sheep's heart ingeniously arranged with tubes and funnels to represent the course of blood through the heart and the action of competent and incompetent valves. Uncertainty as to the action of the respiratory muscles led him to experiment on their actions, especially that of the internal intercostal muscles (1876).

His Lectures on Practical Physiology, with many illustrations (*Lancet*, 1871-72) were an amplification of the course he gave in Edinburgh, and are still models of accurate and graphic description. In this connection it may be mentioned that he intended they should form the basis of a Textbook of Practical Physiology, for which he collected much material in the form of woodcuts and electrotypes; nearly 100 pages of that book were in print just before Rutherford returned to Edinburgh, but the work never saw the light. Perhaps the great strain on his energies left him little leisure for its completion.

In 1870, the late Mr. A. B. Stirling, Assistant Curator of the Anatomical Museum under Sir William Turner, published an account of the microtome which he had invented, and by means of which he made those marvellously beautiful histological specimens for which he was so justly famous. Rutherford modified this apparatus—the parent of practically all microtomes in this country—by adding to it a freezing chamber, so that it become possible rapidly to make any number of sections of an organ by means of the freezing method. When Rutherford returned to Edinburgh in 1874, this new method—which had borne good fruit in King's College—made it possible to give each student specimens of all the tissues and organs, so that at the end of the practical course every student had a complete set of microscopical specimens in part at least prepared by himself. It is perhaps difficult in these days of endless varieties of microtomes and section-cutters to appreciate this advance at its full value. At any rate, in the Tercentenary Portrait of Rutherford, in *Quasi Cursores*, he elected to have this instrument figured by his side. About this time he published his *Outlines of Practical Histology* (1877), which did much to increase the efficiency of the teaching of practical histology in other medical schools.

The prospect of a meeting of a great scientific society to be held shortly in Edinburgh spurred him on to new researches, this time on the Secretion of Bile, a research which cost him infinite trouble and time, and in which he was ably assisted by a young Frenchman, Wm. Vignal—alas, also now no more. The results were published (1875-77) *Journal of Anatomy and Physiology*, and later on in a collected form under the title *On the Physiological Action of Drugs on the Secretion of Bile* (1879). He often spoke of the labour these researches cost him, and of the attentions bestowed on himself by those who were averse to experiments on animals. Long before Eck's fistula was devised, that is, union of the portal vein with the hepatic vein, and thus practically to exclude the liver from the circulation, Rutherford thought of this possibility, but surgical technique had not then advanced sufficiently to enable the method to be tried with success.

In the eighties, visions of a great textbook of physiology and of an atlas of histology were often in his mind, but only a single part of his textbook ever appeared, dealing with the simple tissues (*A Textbook of Physiology*, Part I, 1880).

During his later years he devoted much of his time to the study of the structure of striated muscle, especially of the crab; and in 1895, with characteristic loyalty and sense of admiration, he dedicated the results of his labours to the venerable Dr. Wm. Dobie, of Chester, whose early researches on muscle mark an epoch in the study of that recondite structure. This paper he communicated to the International Physiological Congress at Berne about four years ago.

The mechanism of the senses also attracted him, and at the Birmingham meeting of the British Association he propounded a new theory of tone-sensation in opposition to that of Helmholtz, a subject to which he referred only last year, when he embodied his modified views in an address to the Physiological Section of the British Medical Association at its Edinburgh meeting. The subject of colour-sensation also had great fascination for him.

Rutherford had many individual peculiarities, but beneath an occasionally severe and reserved exterior there beat a true, loyal, and vastly sympathetic heart. His burly presence, his fine, sonorous voice of rich timbre and great power made him an effective and agreeable speaker and lecturer—in fact, he stands out as one of the greatest and most brilliant lecturers that Edinburgh can boast of during many years past.

His sense of devotion to duty was of the highest; no effort was ever spared to arrive at the truth, and even in trying times his unswerving devotion to what he considered the best interests of the University and of the students committed to his care marked him out as a man who did what he had to do fearlessly and without favour. The students knew well and appreciated his many talents, and there existed between him and them a true bond of friendship and mutual regard.

Of the work partly inspired and partly directed by him there is ample evidence in the large number of scientific papers produced by his successive assistants and by others working in his laboratory. His wide, all-round knowledge of physiology enabled him to take a sympathetic interest in every department of his subject. He was always ready to offer suggestions, and invariably brought keen and critical powers to bear on any problem under investigation.

The writer—an old friend—has purposely refrained from over-adulation, and adhered to the good old maxim of *nil nisi bonum*. As the days and years roll on, the numerous finer traits in Dr. Rutherford's character will become better known and will be treasured by his many pupils and friends. Any shadows there may have been will only serve to enhance the glory and the brightness of his many virtues.

Professor Rutherford by his will bequeathed to the University of Edinburgh his medical library, his microscopical specimens and diagrams used in connection with the class of physiology, and also a portrait of himself.

The funeral took place at Ancrum Church on the morning of February 25th. The funeral procession was headed by some four hundred students walking four abreast. There was a large representation of University professors and assistants, of the medical profession generally, as well as of the public. The pall-bearers were: Dr. Rutherford, Kelso; Professor Simpson, representing the University and the Royal College of Physicians; Mr. Walter Rutherford, Crailing Tofts (nephew); Dr. Carlier, the late Professor's University Assistant; Mr. C. Rutherford (nephew); Mr. Walter Rutherford, jun.; and Mr. Carnegie Dickson, representing the students.

CHARLES JOSEPH ARKLE, M.D.Lond., F.R.C.P.,

Assistant Physician to Charing Cross Hospital.

In the British Medical Journal of February 25th, we briefly recorded the fact of the death of this promising young physician at the age of 37 after a few days' illness from pneumonia on February 23rd. He was born in Liverpool, and went to school at the Liverpool College. In 1879 he matriculated at London University, and was forthwith entered for the science classes at University College, London, and in October, 1880, entered the hospital as a medical student. Here he distinguished himself by winning the Atkinson-Morley surgical scholarship, the highest surgical prize in the school, and was successfully house-physician to Dr. Wilson Fox, house-surgeon to Mr. Marcus Beck, and obstetrical assistant to Dr. Graily Hewitt. He obtained his first qualification in 1884, and in 1885 graduated as M.B.Lond., taking honours in Medicine and Forensic Medicine; in 1887 he took the M.D. degree, and in the following year he took the diploma of M.R.C.P.

In 1887 he was appointed Resident Medical Officer at University College Hospital, and held the post for two years. In 1891 he was elected to the office of Medical Registrar at the Hospital for Sick Children, Great Ormond Street, but resigned six months later on being appointed to the newly-created office of Pathologist at the Charing Cross Hospital Medical School. Three years later a vacancy on the full staff there gave him the opportunity of becoming attached to a metropolitan school he had so long looked for and so well earned, and he became Assistant Physician to the Charing Cross Hospital; he was at the same time appointed Joint Lecturer on Practical Medicine and Joint Medical Tutor in the School. Subsequently he held the office of Lecturer on Bacteriology, a post he resigned a short time back. For the last three years he had been Physician in Charge of the Electrical Department, and had just completed on the very day of his death his term of office as Vice-Dean of the School. In 1897 he was appointed Assistant Physician to the Brompton Hospital for Consumption, and last year he was elected to the Fellowship of the Royal College of Physicians.

Dr. Arkle was not a voluminous writer, but he was a good teacher; he knew exactly what students wanted, and how best to bring home to their minds the facts that were essential, and his sturdy common sense prevented him from running after new doctrines at the expense of general principles. One of his former teachers once said of him that he was cast in a big mould, and it was true of him both physically and mentally; a hard-headed Lancashire man, he was essentially robust—no other word so aptly describes the whole man. His disposition was most genial, he was full of humour, and was esteemed by all, and beloved by those who knew him at all intimately.

As a student Arkle was a great football player, constantly representing his hospital. He was captain in the United Hospitals team, and played also for Richmond. In 1886 he gained the blue ribbon for every footballer—his cap in the international team. He was also an enthusiastic volunteer, and as a member of the Artists Corps for many years enjoyed their annual outings; for the last five years he had been Surgeon to the Inns of Court Rifle Volunteers, a distinction he highly prized. In 1886 he became a member of the Alpine Club, and no member of that club could have looked forward more keenly to his annual holiday in Switzerland or enjoyed it more thoroughly than Charles Arkle did. Dr. Arkle was unmarried.

The death of Mr. Bader, in his 72nd year, took place at his country residence at Stoke Ferry, Norfolk, on February 13th. He was born in the Grand Duchy of Baden, where he also received his early education. He left that country during the revolution of 1848, and settled in London. Ophthalmic work was at that time advancing rapidly in Germany under the leadership of von Graefe and Helmholtz, and Mr. Bader, who profited thereby, was so fortunate as to be appointed Pathologist to Moorfields Ophthalmic Hospital, and Curator of the Museum after becoming M.R.C.S.Eng., and L.S.A.Lond. In 1861 he became Assistant Ophthalmic Surgeon to Guy's Hospital; and in 1873 was elected Ophthalmic Surgeon to the Hospital, and retained the post for nine years. He was a great advocate of operation for almost all diseases of the eye and its appendages, and amongst the crowded out-patient rooms found multitudes of cases in which his manual dexterity was of service. He also acquired a large private practice in the City; and is said to have operated on 700 of his cases in one year. He possessed great energy, and for years rose at 4 A.M., at any rate during the summer months. His operations were often original in design and brilliant, but he failed to win the confidence of the general body of English ophthalmic surgeons. He was the author of a work on his special department of practice, and of some fourteen articles in the *Guy's Hospital Reports*. The chief of these were concerned with the description of the appearances of the human eye in health and disease, as seen by the ophthalmoscope. Of recent years he had nearly retired from practice, and had invested his savings in property at Stoke Ferry, where he devoted himself to agricultural pursuits, particularly the breeding of sheep and horses.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Professor C. L. Studsgaard, of Copenhagen, Surgeon-in-Ordinary to the King of Denmark; Professor J. H. Etheridge, of the Rush Medical College, Chicago, a distinguished gynæcologist; Dr. Eumner Pacha, Physician to the Imperial Palace, Constantinople; Dr. Nasse, of Constantinople, who was at the head of the German Red Cross in the Græco-Turkish War; and Dr. Biarnès, Lecturer on Chemistry in the Medical School of Toulouse.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF ST. ANDREWS.

T. G. Nasmyth, M.D., B.Sc., D.P.H., Medical Officer of Health of Fifeshire, has been appointed Examiner in Public Health in the University of St. Andrews.

UNIVERSITY OF BRUSSELS.

At the February examination the following practitioners were successful and obtained the M.D. degree: J. Q. Brown, Ashford; C. Franks, Newark; W. J. Jenner, London; M. J. Morgan, Aberystwyth; G. Tillike, Ceylon. There were 12 candidates, 7 of whom failed.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The following candidates having passed the necessary examination have been admitted Fellows of the College:

J. K. Denham, L.R.C.S.I.; E. J. Moore, L.R.C.S.I.; and T. G. Stevens, L.R.C.S.I.

The following candidates have passed the primary part of the examination for the Fellowship of the College:

R. J. Coulter, B.Ch.Univ.Dub.; J. P. Frengley, B.Ch.Roy.Univ.; R. D. Joyce, M.R.C.S.Eng.; C. R. Boyce, E. Glenny, P. J. Hanafin, Mrs. H. L. Hennessy, J. M. S. Levis, and J. F. Peart.

APOTHECARIES HALL OF IRELAND.

The following candidates have passed the recent examinations for the Licence in Medicine, Surgery, and Midwifery, in the subjects indicated: *Physiology*, S. Adye Curran and L. J. Farrell. *Anatomy*, S. Adye Curran and A. J. Barnes. *Materia Medica*, A. J. Barnes. *Pathology*, W. P. Harding,

who has also completed the Third Professional. *Surgery, Midwifery, and Ophthalmic Surgery*, W. W. Feris.

The following have passed the L.A.H.: F. G. Adye Curran, W. P. Delahunt, J. D. Power, M. P. O'Brien, and J. J. Ahern.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary Examinations, and having conformed to the By-laws and Regulations, have been admitted Members of the College:

Ackland, D.	Evans, A.	Pritchard, R. J.
Adams, H. C.	Evans, E.	Pryce, H. V.
Agnew, C. S.	Forster, F. C.	Rae, F. L.
Ainscow, J.	Frost, J. R.	Rhodes, J. H.
Allport, R. H.	Gaff, J.	Rice, H. R.
Anderson, H. G. S.	Goodbody, C. M.	Richards, F. G.
Anderson, M. C. B.	Hadley, F. A.	Richards, G. M. O.
Baiss, L. A.	Hearn, R. S. F.	Ricketts, A.
Bardswell, M. D.	Henderson, W. S.	Robinson, H. H.
Barnes, C. H.	Horn, A. E.	Robinson, J. H.
Barnes, J. A. P.	Howlett, B. E.	Roche, N. J.
Barwell, H. S.	Hughes, G. O.	Rose, F. A.
Beatty, H. A.	Hutchens, H. J.	Rowland, E. W. S.
Bellamy, J. H.	Hutchinson, G. A.	Schofield, C. R.
Berncastle, H. M.	James, S.	Schuller, W. J.
Bevan, A.	Jones, A. W.	Scott, C. W.
Blake, M. D.	Jones, J. H.	Sewell, E. P.
Bond, F. F.	Jones, L.	Silver, H. W.
Bourdas, E. C.	Kay, A. R.	Spear, G. A. W.
Bowles, A.	Kemp, J. H.	Stedman, S. B.
Bradley, J.	Kirkman, A. H. B.	Stilwell, R. J.
Brook, F. W.	Knowlton, A. J.	Tallent, J. H.
Bryan, H. J.	Landon, T. H. W.	Thomas, D. J.
Budd-Budd, E. J.	McComb, J. A.	Thompson, F. B
Butler, F. T.	McCoy, W. J.	Tucker, W. E.
Carter, A. H.	Manlove, J. E.	Turner, F. D.
Cato, C. S.	Martin, R. C.	Turner, H. S.
Challice, J. S.	Matthews, J.	Vaughan, A. L.
Clarke, A. E.	Mawson, J. A.	Von Eberts, E. U. M.
Coates, F. A.	Milbanke, W. B.	Wainwright, F. R.
Crawford, W. J.	Miller, G. V.	Walker, F. E.
Cullen, J. A. P.	Milton, W. T.	Walker, J. F.
Curtis, P. J.	Mitchell, C. M.	Ware, A. M.
Davis, W. H.	Mondy, S. L. C.	Wessells, C. A.
Dawe, F. S.	Moss-Blundell, C. B.	Williams, P. G.
Dawson, T. D.	Nicholls, F. J.	Wilson, A. G.
Dean, E. C.	Parker, H. F.	Wingate, B. F.
de Freitas, Q. B.	Parry, E. J.	Worthington, E. S.
Dixon, M.	Perrin, T.	Young, E.
Dunston, J. T.	Pilcher, C. W.	Young, J. C.
Edwards, E. S.	Porter, W. G.	

The following gentlemen having passed the necessary Examinations have been admitted Diplomates in Public Health in conjunction with the Royal College of Physicians of London:

S. Davey, L.R.C.P.Lond., M.R.C.S.Eng., London Hospital and King's College, London; J. R. Dickson, M.B., C.M.Edin., Edinburgh University and University College, London; J. R. Dodd, M.B.Durh., F.R.C.S.Eng., Durham University and St. Bartholomew's Hospital; G. Fowler, L.R.C.P. & S.Ed., L.F.P. & S.Glasg., Madras, Edinburgh, and Charing Cross Hospital; W. F. Grant, M.D., C.M.Edin., Edinburgh University and University College, London; E. W. Herrington, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., St. Mary's Hospital; W. Lansdale, M.D.Durh., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A. Lond., Durham University and Guy's Hospital; R. G. McGowan, M.B., M.S.Aberd., Aberdeen University and University College, London; W. A. Powell, L.R.C.P.Lond., M.R.C.S.Eng., Charing Cross Hospital; J. T. Simpson, L.R.C.P.Edin., L.F.P. & S.Glasg., Yorkshire College and General Infirmary, Leeds, and University College, London; G. C. Walker, M.B., Ch.B.Vict., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., University College and Royal Infirmary, Liverpool; E. G. H. Williams, L.R.C.P.Lond., M.R.C.S.Eng., Charing Cross Hospital and University College, London; E. M. Wyche, L.R.C.P.Lond., M.R.C.S.Eng., London Hospital.

ROYAL NAVY AND ARMY MILITARY SERVICES.

THE ESTIMATES FOR THE ARMY MEDICAL ESTABLISHMENTS.

THE Army Estimates for 1899-1900 are, as usual, compiled with much care and given in great detail; but some expertness is required in separating items and cross entries so as to arrive at totals that will exactly balance.

The following analysis may be taken by those who cannot examine the Estimates for themselves as correct in all practical particulars: Vote 2, "Medical Establishments, Pay, etc.," amounts to £305,800 against £295,000 last year, being a net increase of £10,000. This increase, if partly automatic, provides also for an augmentation of 18 officers and 150 men, Royal Army Medical Corps; but as regards the officers it cannot be counted as an absolute increase to a previously normal establishment, for that was greatly under strength, as explained in the following note: "It is anticipated that the actual numbers will more closely approximate to the establishment than has been the case during the last few years;" which, in other words, means that it is hoped some progress may be made during the financial year in filling up a depleted establishment.

The officers and men provided for the Home and Colonial establishments are as follows:

Officers	543
Warrant and non-commissioned officers and men	2,792
Total	3,335

Of this total 2,562 are for home and 773 for Colonial establishments.

The cost is as follows:

Pay, Army Medical Service	£238,200
Militia medical officers and civilian practitioners	13,900
Corps pay and extra duty pay of the Royal Army Medical Corps, nurses, clerks, and subordinates	39,700
Medicines and instruments	14,000
Contingencies	1,300
Total	£307,100
Deduct appropriations in aid	1,300
Net total	£305,800

But the above does not include the regimental pay of the Royal Army Medical Corps, stated at £84,430, or, less stoppages and fines, £83,500. The following medical officers in ranks are voted:

	Home.	India.
Surgeon-Major-Generals (title of Major still retained)	7	3
Surgeon-Colonels (term Surgeon still retained	13	10
Lieutenant-Colonels, Majors, Captains, and Lieutenants	495	322
Surgeons on probation	?	?
Acting medical officers (retired pay appointments)	85	—
Quartermasters	35	—
Assistant apothecary, Hong Kong Regiment	1	—
Totals	636	335
Grand total	971	

This grand total shows an excess of 18 officers over last year, as previously explained. But these numbers require further examination to arrive at a correct estimate of the truly effective medical strength of the service on full pay; from the total must be deducted the acting medical officers (so-called), the quartermasters, and the apothecary, leaving 850. This latter figure shows the full-pay strength still 40 under the establishment spoken of as "dangerously low" by the late Director-General, Sir Thomas Crawford. Taking into consideration the increase in army establishments, and the consequent greater demands on the medical service, it is to be hoped some progress will be made during the year in at least completing a deficient establishment.

The non-effective vote, which used to be railed at as abnormally large, but which is really proportionate to corresponding branches of the service, shows totals of 492 individuals and £201,000, a reduction of 10 persons and £4,000 on the previous year. The actuaries of Sir Ralph Thompson's Committee of 1879 foretold, with great accuracy, that the medical non-effective vote would, as the result of the great augmentation of the service during the Crimea and Mutiny times, attain its maximum about 1892; it has been shrinking since. But it is explained in a note that the vote is relieved of a charge of £32,400 by the employment of medical officers on the retired list, whose salaries are included in the active Vote 2.

It is sad to note how rapidly the old ranks of the department are disappearing from the pension list: only 1 inspector and 4 deputy inspector-generals of hospitals, about a dozen surgeons, and 8 assistant surgeons are left; and the same steady shrinkage, through death, is shown among the old captains of orderlies, apothecaries, and purveyors.

The total Vote for the Effective and Non-effective Medical Establishment is given at page 234 as £659,778. This includes all charges for officers and men, pay, pension, transport, provisions, forage, fuel and light, field allowance, rents, lodging, colonial allowance, barracks, clothing, and schools.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: HENRY C. WHITESIDE, Surgeon, to the *Boscawen*, for the *Dolphin*, February 22nd; STRATFORD D. T. HALLIDAY, Surgeon, to the *St. Vincent*, for the *Martin*, February 22nd; JAMES M. G. SWAINSON, Surgeon, to the *Boscawen*, for the *Pearlflower*, February 22nd; ADRIEN A. FORRESTER, M.B., Surgeon, to the *Boscawen*, for the *Wanderer*, February 22nd; WARREN G. WESTCOTT, Surgeon, to the *Lion*, for the *Liberty*, February 22nd; FRANCIS J. MCKENNA, M.B., Surgeon, to the *Impregnable*, for the *Nautilus*, February 22nd; EDWARD C. B. CARBER, M.B., Surgeon, to the *Impregnable*, for the *Pilot*,

February 22nd; Hugh L. Norris, William W. Keir, M.B., Percy H. Bannister, M.B., Henry W. M. Rees, and Henry R. Gardner, M.B., Surgeons, to the *Victory*, for disposal; Cyril Shepherd, John Stoddart, M.B., Edward C. Sawdy, and Mervyn W. Falkner, Surgeons, to the *Vivid*, for disposal; John K. Raymond, M.B., and Fairman R. Mann, Surgeons, to the *Pembroke*, additional, for disposal; James A. Forrest, M.B., and Richard S. Osborne, Surgeons, to the *Wildfire*, for disposal; Joseph A. Moon, Surgeon, to the *Boscawen*, February 28th; Gerald B. Brown, Surgeon, to the *Sharpshooter*, March 1st.

ROYAL ARMY MEDICAL CORPS.

Colonel J. M. Beamish, who is serving in the Bombay Command, is ordered to proceed immediately to Meerut to officiate as District Principal Medical Officer, Bengal Command.

Captain P. H. Whiston, from the Seconded Lists, is restored to the establishment, *vice* W. W. Smith, deceased, January 15th.

Captains G. A. T. Bray and J. H. Rivers are seconded for service with the Egyptian army, the former from February 14th, the latter from January 17th.

Quartermaster W. T. Vidler is cashiered by sentence of a general court-martial, February 8th.

Lieutenant-Colonel Poole R. Gabbett died on February 27th at Southsea. He was the eldest son of the late Major R. P. Gabbett, Royal Artillery, and entered the Army Medical Service as Assistant-Surgeon, April 1st, 1871; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; was granted the rank of Lieutenant-Colonel, April 1st, 1891; and made Brigade-Surgeon-Lieutenant-Colonel, October 26th, 1895. He had no war record in the *Army Lists*.

INDIAN MEDICAL SERVICE.

The following promotions in the Bengal Establishment of Surgeon-Lieutenant-Colonels to be Brigade-Surgeon-Lieutenant-Colonels have been notified: D. N. Martin, M.D., February 28th, 1898; R. L. Dutt, M.D., April 1st, 1898; J. Duke, April 2nd, 1898; J. McConaghey, M.D., April 7th, 1898; E. Palmer, June 26th, 1898.

THE INDIAN MEDICAL SERVICE.

Since the controversy over the status of the Army Medical Service received a satisfactory solution, the condition of the Indian Medical Service and of medical service generally in that country has come more prominently to the front.

We have before us a number of lengthy communications on this subject from medical officers of almost every rank, each giving his views on the existing condition of the medical service in India. As the opinions therein expressed are sometimes absolutely conflicting and often very divergent, only on one point do we feel on sure ground. This is that the Indian Medical Service is not what it once was, nor such as it should or might be; that in fact it requires some reforming or remodelling. This indeed may be denied, but it is the only logical conclusion we can arrive at. But in order that our readers may judge for themselves we give a fair *précis* of the letters before us.

Referring to a statement made in the British Medical Journal to the effect that there was "sharp division" in interests and views between officers in civil and military medical employ, a Senior Correspondent writes:

I. The Indian Medical Service is not "sharply divided" into men with civil and military proclivities; the majority, while preferring civil employment, are proud of being military officers, and glad to get to the front in war time. The knowlege of practical surgery they acquire in civil employment makes them valuable in the field: they form a real reserve in war time. No fewer than 55 commissioned medical officers were placed at the disposal of the military authorities during the recent frontier troubles, which naturally caused inconvenience to the civil authorities, and which has caused talk of a separation between the civil and military branches. But such would be fatal to both branches:

(1) The reserve would thereby be lost, and could only be made up by an extension of the military cadre at ruinous cost, in which men would rust in time of peace.

(2) It is the hope of gaining one of the big prizes in civil employ that mainly keeps up the high general standard of candidates for the service. The military branch, if left to itself, would deteriorate, as the R.A.M.C. has done.

(3) Those in civil employ are enabled by their definite military rank and status to hold their own with civil authorities, which they could not do if placed wholly under the civil power.

Both the civil and military branches would thus deteriorate by separation.

II. It is not the fact, as lately stated, that the competition for the Indian Medical Service has fallen off. Owing to the fact that candidates are now allowed but two chances has the number of competitors decreased, but the quality has not. Let them be compared with those for the R.A.M.C. It is wrong to state that Indian appointments are no longer sufficiently numerous or lucrative. The appointments are increasing yearly, but at some stations emoluments from private practice have fallen off through competition. The gaol and other departments have been remodelled and the pay increased. The pay of brigade-surgeons and junior military officers in regimental employ has been increased. The big prizes, which all but equal the best in London, remain as they were.

The service only wants to be let alone, and is doing as good or better work now than in the past.

The racial question causes some, but not great, embarrassment; in practice natives and Eurasians go to civil employment.

The foregoing may be taken as a fair defence of the existing *status quo* in the service; other correspondence shows other aspects.

I.M.S. writes: The "destructive and regrettable antagonism" spoken of in the Indian Medical Service does not exist; on the contrary, there is great *esprit de corps* between those in civil and military employ. There have been differences of opinion over the pure military titles, some considering their profession higher than any military status. You are right in stating that three-fourths of the men entering the Indian Medical Service do so in order to obtain civil employment. Natives are now largely employed in civil medical appointments, and their pay is relatively higher than that of European commissioned officers. The latter are, indeed, badly underpaid, when their education, life, and expenses in a foreign tropical country are considered; the native standards of living and comfort are much lower than those of the European; yet the latter for almost half his service draws perhaps only Rs. 50 per month, or £40 a year, more than the higher paid native subordinates of his own department. Indian pay cannot be judged by English standards. Native medical men, trained in European methods, now exist in every town of importance, and keenly compete with the European civil surgeon. It may be safely stated that, excluding such cities as Calcutta, Madras, and Bombay, the private practice that any civil surgeon gets will not average more than Rs. 50 a month, or say £40 a year. Then there are few stations with gaols for which he would as formerly draw pay, for the establishment of great central gaols has abolished that source of income.

The good emoluments so often spoken of thus vanish into next to nothing in all second class civil surgeoncies, and the medical officer has little but his bare pay; he would be better paid in charge of a native infantry regiment. Why do men, therefore, take these civil appointments? It seems to be in most cases from sheer love of professional work; in some the want of due status has driven them from regimental to civil employ. No one denies there are still some prizes left; but they are becoming fewer and fewer, a fact which is viewed with alarm. Little but irritating retrenchments are constantly being made at the expense of the medical service. An Indian medical officer can draw no staff pay until he passes the lower standard in Hindustani, but a subaltern in the Staff Corps can and does while studying the language. The following seem to be the needs of the service:

1. Increase of pay all round.
2. Increase in *personnel* of establishment.
3. Arrangements by which selected officers can study in England at Government expense, as ordnance and other officers do.
4. The abrogation of all rules referring only to medical officers that put them in a less favourable position than other officers, civil and military.

Civil Surgeon writes: All medical officers in civil employ will bear me out in the following: There is no private practice except in what are known as first-class civil surgeoncies, which about 5 per cent. of the whole service may hope to get; another 3 or 4 per cent. may make Rs. 200 besides their pay in the smaller cities; but the rest have only their bare pay, *plus* in some cases a small gaol allowance. How is this? Because the native assistant surgeons now do all the practice among natives in the cities. Good men are now turned out by the Indian colleges, and the natives know it, they prefer one of their own race, at one-third the cost, to calling in a European.

The European commissioned officer is much moved about, the native is rarely moved, and being civil cannot be sent away on service. The native lives at little cost, and rapidly accumulates wealth; one died lately leaving four lakhs personalty; the European has innumerable expenses. With such prospects before him it cannot be wondered that the European man thinks twice before he enters the Indian service. The service is discontented; private practice has gone for ever, and emoluments must be improved.

I.M.S. Reform writes: The profession at home are beginning to realise the drawbacks in the Indian service, and hence this once most popular service is rapidly declining in popularity. Only 28 candidates for 20 vacancies in August last! The following grievances may be briefly commented on:

1. Salaries are not sufficient to keep up necessary appearances and expenses in living: the pay code is most intricate and irritating and bossed by Bahoo clerks.

2. Private practice in military service *nil*; in civil employment in the vast majority of stations not worth naming, being in the hands of native practitioners, some good and some otherwise.

3. The service is overworked and undermanned; witness the sending out of a large number of "temporary" officers (100 during the last two years, 35 within the last three months), who, of course, are better paid than the permanent officers, and whose duties are not confined to plague camps.

4. Delays in promotions on vacancies; this increases so-called "officiating appointments" on lower "officiating" pay; the losers being the officers, the gainers the State.

5. Furlough pay, and particularly sick furlough pay, is inadequate; it is notorious many officers on furlough are forced into debt. There is no provision for free or partly-paid passages.

6. The department is office-ridden. Clerking and useless correspondence, regulations, orders, circulars issued, revised, interpolated, corrected, explained, amplified, countermanded, succeed in endless and bewildering profusion; but notwithstanding all this medical officers are treated like children, and rarely consulted either by civil or military as to the utility of reforming objectional regulations or procedure.

7. Incessant and harassing transfers, both civil and military; sudden orders to move with factitious urgency hundreds of miles at great personal risk and expense. This insecurity of tenure in appointments engenders deep-rooted discontent and distrust. In this matter medical officers are often at the mercy of local Government Secretaries.

Of all of the above, I maintain the Medical Service is not given fair play, and officers are not protected by their seniors, who have, indeed, little real power. Until they are given real authority there cannot be real reforms.

Another correspondent writes: The Indian Medical Service is unpopular at present in the Scottish universities because of several reports.

1. That the service is undermanned, causing overwork, and difficulty in obtaining furlough and other leave.

2. The low rate of exchange, greatly enhancing the cost of living both abroad and at home: the present pay rates remaining as fixed when the rupee was worth 2s.

3. The cutting up of private practice by native practitioners, who can work and live at rates impossible in the European.

4. The withdrawal of civil surgeons from their posts for famine, plague, and frontier war duties, and the placing of the civil stations in the hands of civilians, both European and native: even should the former occupants be reinstated they would find their civil practice gone, or have to compete with the *locum tenens*.

5. The dread of alleged nepotism or favouritism by the higher civilians in the patronage of civil medical appointments.

Some of these drawbacks may be real and some imaginary, but they all operate against the popularity of the service nevertheless.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

ZYMOTIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal zymotic diseases in London during the fourth or autumn quarter of 1898. The fluctuations of each disease and its fatal prevalence, as compared with that recorded in the corresponding periods of of recent years, can thus be readily seen.

Small-pox.—One fatal case of small-pox was registered in London last quarter, the corrected average number in the corresponding periods of the ten preceding years being 4; and no small-pox patients were under treatment in the Metropolitan Asylums Hospitals during the quarter.

Measles.—The deaths referred to measles, which had been 1,494, 1,078, and 238 in the first three quarters of 1898, rose again to 265 during the three months ending December last, but were considerably less than half the corrected average number. Among the various sanitary areas of the metropolis measles showed the highest proportional fatality in Clerkenwell, St. Luke, Shoreditch, Bethnal Green, Whitechapel, Limehouse, Mile End Old Town, and St. Saviour Southwark.

Scarlet Fever.—The fatal cases of this disease, which had declined from 247 to 108 in the four preceding quarters, rose again to 139 during the three months under notice, but were as many as 155 below the corrected average number in the corresponding periods of the ten preceding years. Among the various sanitary areas this disease was proportionately most fatal in Hammersmith, Fulham, Chelsea, St. Pancras, Clerkenwell, and St. Luke. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 2,377, 2,146, and 2,425 at the end of the three preceding quarters, had further risen to 2,883 at the end of December last. The number of new cases admitted into these hospitals, which had been 2,823, 2,802, and 3,060 in the three preceding quarters, further rose to 3,795 during the three months ending December last.

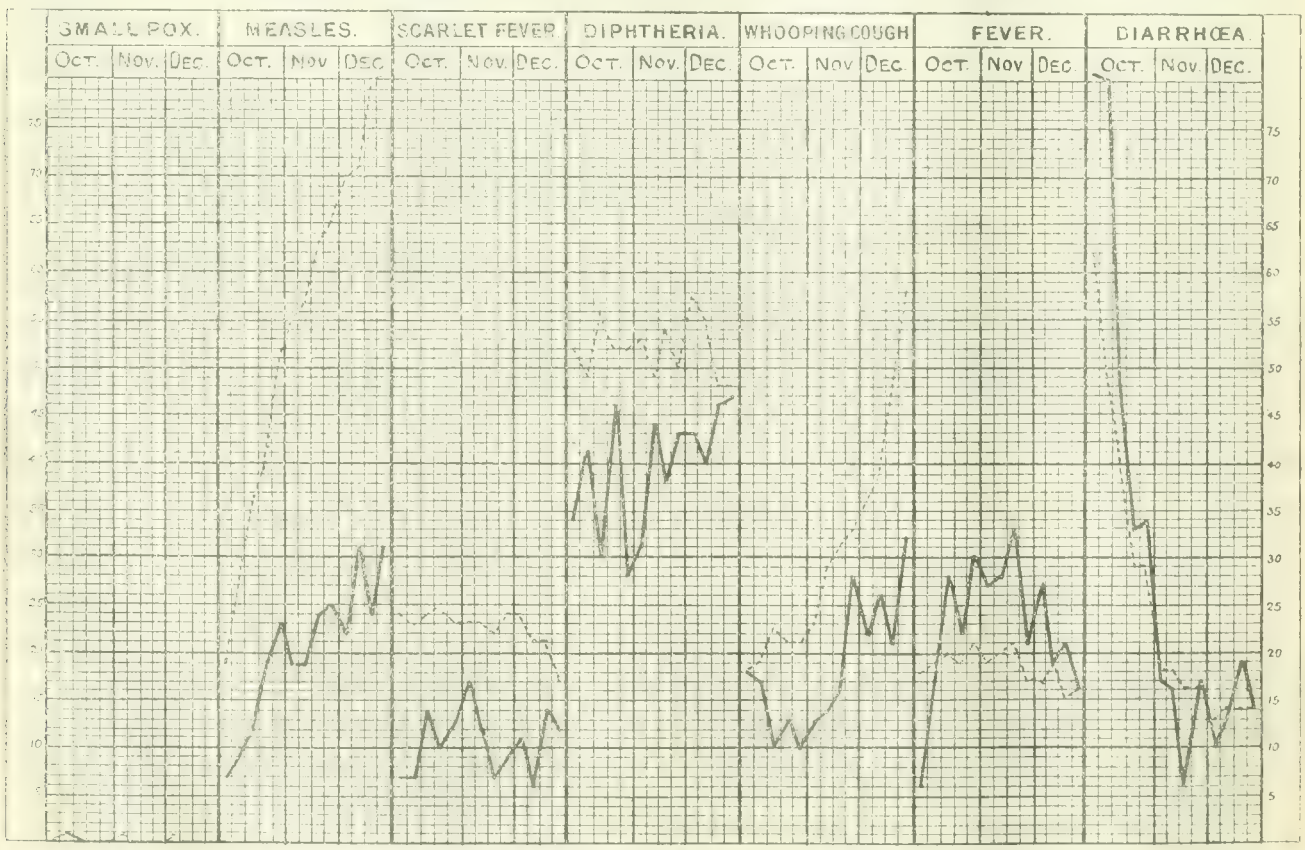
Diphtheria.—The deaths referred to diphtheria in London, which had declined from 704 to 360 in the four preceding quarters, rose again to 511 during the three months under notice, but were 163 below the corrected average number. Among the various sanitary areas this disease showed the highest proportional fatality in London City, Limehouse, Mile End Old Town, St. Saviour Southwark, Newington, Bermondsey, Battersea, and Woolwich. The number of diphtheria patients in the Metropolitan Asylums Hospitals at the end of December last was 1,239, against 1,009, 971, and 1,024 at the end of the three preceding quarters; 2,241 new cases were admitted during last quarter, against 1,733, 1,648, and 1,768 in the three preceding quarters.

Whooping-cough.—The fatal cases of this disease, which had been 817, 673, and 430 in the three preceding quarters, further declined to 240 during the three months ending December last, and were 159 below the corrected average number; among the various sanitary areas whooping-cough was proportionally most fatal in Holborn, St. George-in-the-East, Limehouse, St. Saviour Southwark, St. George Southwark, Newington, and St. Olave Southwark.

Fever.—Under this heading are included deaths from typhus, enteric, and simple and ill-defined forms of continued fever. The deaths referred to these different forms of "fever," which had been 107, 73, and 122 in the three preceding quarters, further rose to 296 during the three months ending December last, but were 55 above the corrected average number. Of these 296 deaths, 2 were certified as typhus, 293 as enteric fever, and 3 as simple continued fever. Among the various sanitary areas the mortality from "fever" was highest in Fulham, Hampstead, St. Pancras, Strand, London City, St. Saviour Southwark, and Woolwich. The Metropolitan Asylums Hospitals contained 255 enteric fever patients at the end of December, against 64, 32, and 155 at the end of the three preceding quarters: 531 new cases were admitted during last quarter, against 171, 133, and 281 in the three preceding quarters.

Diarrhœa.—The 473 fatal cases of diarrhœa registered in London during

DEATHS FROM ZYMOTIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1898.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years, 1888 97.

the three months ending December last were 142 above the corrected average number; this disease showed the highest proportional atality in trand, Holborn, Clerkenwell, St. Luke, St. George Southwark, and Newington sanitary areas.

In conclusion, it may be stated that the 1,925 deaths referred to the principal zymotic diseases in London during the fourth or autumn quarter of 1898 were 740, or nearly 28 per cent. below the average number in the corresponding periods of the ten preceding years 1888-97. The ortality from "fever" and from diarrhœa showed an excess, while that om each of the other principal zymotic diseases was below he average. Among the various sanitary areas the lowest zymotic death-rates were recorded in St. George Hanover Square, Hampstead, Stoke Newington, St. Giles, St. Martin-in-the-Fields, and Plumstead; and the highest rates in St. Luke, Bethnal Green, Limehouse, St. Saviour Southwark St. George Southwark, and Newington.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,900 births and 4,505 deaths were registered during the week ending Saturday, last, February 25th. The annual rate of mortality in these towns, which had been 21.9 and 19.5 per 1,000 in the two preceding weeks, rose again to 20.6 last week. The rates in the several towns ranged from 13.8 in Burnley, 14.1 in Leicester, 15.3 in Portsmouth and in West Ham, and 15.4 in Bristol, to 23.3 in Sunderland, 25.8 in Manchester, 26.7 in Liverpool, and 32.0 in Blackburn. In the thirty-two provincial towns the mean death-rate was 20.0 per 1,000, and was 1.5 below the rate recorded in London, which was 21.5 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.7 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.9 in Bolton, 3.6 in Birkenhead, 5.5 in Swansea, and 5.8 in Blackburn. Measles caused a death-rate of 1.0 in West Ham, 1.3 in Bolton, and 1.5 in Manchester; whooping-cough of 1.1 in Bradford, 1.4 in Sunderland, and 2.7 in Birkenhead; and "fever" of 1.9 in Blackburn and 2.3 in Wolverhampton. The mortality from scarlet fever showed no marked excess in any of the large towns. The 100 deaths from diphtheria in the thirty-three towns included 29 in London, 12 in Leeds, 11 in Swansea, 9 in Sheffield, 6 in Liverpool, 5 in Blackburn, 4 in West Ham, and 4 in Birmingham. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and 2 small-pox patients were under treatment in the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,587 at the end of the eight preceding weeks, had further fallen to 2,575 on Saturday last, February 25th; 241 new cases were admitted during the week, against 265, 253, and 202 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 25th, 893 births and 737 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 31.2 and 28.0 per 1,000 in the two preceding weeks, further declined to 24.1 last week, but was 3.5 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 16.0 in Dundee and 21.9 in Aberdeen to 26.8 in Edinburgh and 29.0 in Greenock. The zymotic death-rate in these towns averaged 2.1 per 1,000, the highest rates being recorded in Edinburgh and Aberdeen. The 355 deaths registered in Glasgow included 7 from measles, 3 from scarlet fever, 2 from diphtheria, 9 from whooping-cough, and 4 from diarrhœa. Ten fatal cases of whooping-cough, 3 of measles, and 2 of "fever" were recorded in Edinburgh, and 9 deaths from measles occurred in Aberdeen.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

Dr. Farquharson, M.P., received a deputation from the Council of the Poor-law Medical Officers' Association on Thursday, February 23rd, to lay before him their views as to the necessity for the formation of a common or central fund, from which Poor-law pensions might be paid, and to point out to him the hardship and injustice entailed by the present Act upon a large number of district medical officers, who, because they do not and in many cases cannot reside in their districts, are subjected to an annual or triennial re-election. Dr. Major Greenwood pointed out that the only way of making the Superannuation Act workable was to create a central fund. Dr. Holder, of Hull, spoke of the injustice of the appointment of medical officers by yearly tenure only, and also of the inadequacy of the remuneration of many urban district medical officers. Mr. Balding and others having spoken, Dr. Farquharson said that he sympathised thoroughly with the views of the deputation, and thought that if a central fund were formed it would meet the case. He promised to do all he could to help the movement.

BACTERIOLOGICAL DIAGNOSIS.

Dr. F. W. Alexander, M.O.H. for Poplar and Bromley, recently presented to the Board of Works for the Poplar District a report in which he pointed out the advantages which would be likely to accrue from placing at the disposal of medical practitioners in the district facilities for bacteriological examination in suspected cases of diphtheria and typhoid fever. An arrangement has been entered into with the Jenner Institute of Preventive Medicine to provide "diagnosis boxes" containing sterilised outfits and to make the necessary examination. One of these boxes will be supplied to any practitioner in the district who may be willing, in doubtful cases of typhoid fever and diphtheria, to avail himself of this opportunity to arrive at a correct diagnosis, more especially where no objection is raised to the removal of doubtful cases to isolation hospitals.

CERTIFICATION OF LUNATICS.

M. B. A. writes to ask whether a parochial medical officer can claim a fee for certifying a lunatic as fit for an asylum.

*** A parochial medical officer can claim the same fee as any other medical practitioner for this duty. It should never be less than one guinea.

Another question put by M.B.A. is unanswerable, as he does not say for what purpose he was requested to visit the patient, nor does he tell us the result of his visit.

Pauper.—We believe that the Local Government Board has full power to sanction any alteration of districts which they may consider desirable for the benefit of the poor, and if this be done our correspondent will have to submit to any loss that may be entailed thereby. He, however, does not state his case very clearly, and mixes up his Poor-law district work with public vaccination, duties of which are quite distinct.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ROYAL FREE HOSPITAL.

The Committee have resolved to improve the sanitary arrangements by making certain alterations and additions to the ward lavatories, sculleries, and bath rooms, and also to provide better accommodation for the nursing staff by building a fourth storey over the side portions of the central block, which will bring the whole of that block to the same height. It was stated that the visitors who inspected the hospital on behalf of the Prince of Wales's Hospital Fund strongly recommended the carrying out of these improvements, which are estimated to cost £8,500.

IPSWICH INFECTIOUS HOSPITAL.

At a meeting of the Ipswich Clinical Society on February 9th, Mr. S. O. Eades, President, in the chair, Mr. Corfe stated that the Board of Management of the East Suffolk and Ipswich Hospital had decided to admit into the hospital cases of diphtheria requiring tracheotomy. The following resolution, proposed by Mr. Moseley and seconded by Mr. Hosack, was unanimously passed: "That in the opinion of the members of the Ipswich Clinical Society, the present accommodation at the infectious hospital of this town is insufficient; and that Mr. G. S. Elliston, medical officer of health, be asked to approach the Health Committee to provide proper room for increased treatment, with special reference to the desirability for accommodation and treatment of persons suffering from diphtheria."

VICTORIA EYE AND EAR HOSPITAL, DUBLIN.

At the second annual meeting of the Victoria Eye and Ear Hospital on February 14th it was stated that a site for the new hospital had been approved. The terms were reasonable, but even if the space required could be procured it might not be possible to obtain possession for five years. The estimate for the new building was £30,000, of which £19,000 had been received. It was announced that Dr. Charles E. Fitzgerald had resigned his position as surgeon owing to other demands upon his time.

WORCESTER COUNTY ASYLUM.

The forty-fifth annual report issued by the Committee of Management shows a steady increase in the number of patients. During the last six years the numbers have steadily risen from 922 to 1,091, giving 169 more on the books and 56 of these accredited to the last twelve months. Mr. Braine-Hartnell, the Medical Superintendent, states that at the end of the year there were 39 more patients than the asylum is supposed to accommodate. The nature of the case admitted was not favourable for a high recovery-rate. Of the total admissions, numbering 209, 38 were over 60 years of age. There were 23 suffering from epilepsy, 17 were congenitally deficient, and 11 were general paralytics, while in reference to the general health of the cases admitted, only 16 were in good bodily health and condition. The recovery rate was 32.30 per cent., and the death-rate 7 per cent. Following the example of other public asylums, private patients are now admitted, and there are 49 now on the books. An outbreak of dysentery occurred, but it was speedily checked by free applications of chloride of lime solution to the floors and walls of the rooms and closets. The Committee place on record their high appreciation of the services of Dr. E. Marriott Cooke, who, after filling the post of Medical Superintendent with conspicuous ability, had been appointed a Commissioner in Lunacy.

DORSET COUNTY ASYLUM.

Dr. MacDonald, in his report for 1897-98, tells his Committee that the most unsatisfactory feature in connection with the admissions is the very high proportion of cases which, from one cause or another, will inevitably go to raise the already alarming list of the chronic insane, for the curable cases are few and far between, and this is bound to result in a material rise in the resident population. Another point of interest he draws attention to is the very high percentage of first admissions, for of the 108 patients admitted as chargeable to the county, no fewer than 94 were new cases. In six years the population has increased from 354 to 542. It seems hopeless to clear the chronic harmless cases out of the asylum, for when they are returned to the workhouse they nearly all find their way back to the asylum within a comparatively short time; and, says Dr. MacDonald, I have actually known such cases to be recertified and returned to the asylum, "while acute and curable cases were removed from their homes to the workhouse and there detained for weeks, to the injury of the patients' feelings as well as the loss of most precious time." This is a heavy indictment against the authorities. Among the discharges the recovery rate was 42.24 per cent., and the death-rate 7.1 per cent. The number of private patients has increased from 75 to 79.

MEDICAL NEWS.

The Treasurer of St. Thomas's Hospital has received a donation of £1,000 from "G. R." for the endowment of a surgical bed "in memoriam," being the fourth bed endowed by this generous benefactor.

Hospital for Diseases of the Throat.—Dr. Herbert Tilley has received from the executors of the late Edward Armitage, R.A., a donation of £500 to the funds of the Hospital for Diseases of the Throat, Golden Square.

The late Miss M. A. Macneilledge of Liverpool has by her will bequeathed £1,000 to the Liverpool Royal Infirmary, £500 each to the Infirmary for Children, Royal Southern Hospital, Northern Hospital, Stanley Hospital, Bootle Borough Hospital, and the Liverpool Out-door Maternity Charity; and £200 to the Liverpool Hospital for Cancer and Skin Diseases.

The Mahdi's Head.—With reference to the revived rumour that the Mahdi's head is at the present time in the possession of a certain medical institution in Edinburgh, our Edinborough correspondent telegraphs that he has made inquiry at the medical institutions, and has found that there is absolutely no foundation for the report.

Industrial Farm Colony, Reigate.—The annual report of Lady Henry Somerset's Industrial Farm Colony, presented to the recent meeting at the Mansion House under the presidency of the Lord Mayor, stated a fair proportion of cures had been effected by the moral and physical treatment adopted. Lady Henry Somerset said that the Home took not only police-court cases, but also women who, having become the victims of secret drinking, had wrecked their homes, and, in a moment of repentance, voluntarily entered the colony for a year. For this latter class the recent Inebriates Act made no provision, so that there was the greater necessity for public attention being drawn to this institution and its financial needs.

A Case of Malta Fever in Philadelphia.—In the *Proceedings* of the Pathological Society of Philadelphia for February 1st, Dr. J. H. Musser and Dr. J. Sailer (as we learn from the *New York Medical Journal*) report the case of an army officer who appears to have contracted the disease in Puerto Rico. Malarial plasmodia were frequently sought for in his blood, but never found. A culture of the micrococcus melitensis gave an agglutinative reaction with the patient's blood. The authors intimate that the name of febris undulans, suggested by Hughes, is the most appropriate for Malta fever, which, they remark, occurs in Malta, in Naples, at Gibraltar, on the northern coast of Africa, in India, and possibly in Hong Kong and along the Danube. So far as they know it has not previously been observed in the United States.

Aseptic Swearing.—We mentioned lately that objection had been taken and allowed, on sanitary grounds, in some American law courts, to the superstitious observance of "kissing the book," as to which there have been so many passages of arms between doctors and ultra-conservative judges in this country. Our American cousins, who are nothing if not inventive, have endeavoured to reconcile the claims of hygienic science with the sanctity of the oath by making the ritual of swearing aseptic. At the Court of Special Sessions of New York a new Bible with celluloid covers has been provided for the use of witnesses. A minister of the law has been instructed to sponge the cover after each witness has kissed the book in due form. At the close of the day the sacred volume is washed in a solution of carbolic acid.

Inoculation against Enteric Fever.—Since Professor Wright's visit to Bangalore—where, as we have already announced, he inoculated 250 soldiers of the West Riding Regiment against enteric fever—he has been at Rawal Pindi, and has addressed the "Queen's" on the advantages of inoculation, pointing out that 1,500 men are annually ill with enteric fever and that 300 die. He stated that, of 200 attendants at the Maidstone Asylum, 95 were inoculated, and none contracted enteric fever during the epidemic there, while of those who refused to undergo the process, 19 suffered from the disease. Further, that at Khartoum, of 8 young subalterns, 6 consented to inoculations and the other 2 agreed to take their chance; 1 was very ill with enteric and the other died; the inoculated officers escaped. He added that he had inoculated 3,000 troops, and had proved by their medical history sheets that more than half of this number never caught enteric fever.

Vital Statistics of Egypt.—A report containing a summary of statistics of births and deaths in Egypt for the five years 1886-90 has been issued recently by the Statistical Bureau of the Ministry of the Interior of the Egyptian Government. The delay in the appearance of the report is explained by the necessity of revising and verifying the statistics of births and deaths relating to the city of Cairo, which were found to be inaccurate, and by the fact that a census of Egypt was taken in 1897, the results of which it was thought desirable to await in order to obtain a more correct estimate of the population of the fourteen towns whose vital statistics are displayed. The figures which constitute the basis of this summary are admittedly deficient and faulty, both as regards number of events and accuracy of assigned death causes. They are, therefore, of very doubtful scientific value; still, from an administrative point or view, it appeared desirable to tabulate them more for the purpose of comparison with future registration than as a trustworthy representation of the real facts of Egyptian vital movements. The report is admirably drafted, the tables and charts are most skilfully constructed, and the conclusions drawn from them clearly stated. The statistics of the native and foreign populations are separately shown and in great detail. The pity is that so much labour and ingenuity have been expended on such faulty material. The section relating to hospital statistics embraces the period 1887-90, and includes the transactions of nineteen institutions. Particulars are also given regarding six hospitals for foreigners in Cairo and Alexandria.

The Medical Profession in Germany.—According to the *Reichsmedicinal-kalender* which has just appeared, the total number of medical practitioners in the German Empire at the end of 1898 was 25,757, being an increase of 884 as compared with the previous year. While the increase in the general population in 1875-85 was 9.7 per cent., and in 1885-95, 11.6 per cent., the number of medical practitioners increased in 1876-87 by 15.4 per cent., in 1887-95 by 46 per cent., and since 1895 by 11.5 per cent. The number of practitioners in Prussia is now 15,454, in Bavaria 2 803, in the kingdom of Saxony 111, in the kingdom of Würtemberg 851, in the Grand Duchy of Baden 1,000, in the Grand Duchy of Hesse 651, in Alsace-Lorraine 767, in the State of Hamburg 544, in Mecklenburg-Schwerin 276, in Brunswick 234, in Saxe-Weimar 195, in Oldenburg 144, in Bremen 141, in Anhalt 137, in Saxe-Coburg-Gotha 108, in Saxe-Meiningen 92, in Saxe-Altenburg 74, in Lübeck 66, in Lippe-Detmold 53, in Schwarzburg-Rudolstadt 39, in Mecklenburg-Strelitz 36, in Waldeck 34, in Schwarsburg-Sondershausen 32, in Schaumburg-Lippe 19, and in Reuss 18. The proportion of medical practitioners to population in the whole Empire is 4.93 per 10,000. In Prussia it is 4.85, in Bavaria 4.82, in Saxony 5.13, in Würtemberg 4.09, in Baden 5.80, in Hesse 6.27, in Mecklenburg-Schwerin 4.62, in Alsace-Lorraine 4.67, in Hamburg 7.98, in Bremen 7.18, and in Lübeck 7.92. In Munich the proportion of doctors is 14.2 per 10,000 inhabitants; in Dresden it is 12.1, in Leipzig 10.2, in Strassburg 15.2, in Stuttgart 12.3, in Nürnberg 7.7, in Brunswick 8.5, and in Chemnitz 5.9. In the other chief towns the number of medical practitioners relatively to population is as follows: Berlin 1 in 751, Breslau 1 in 774, Cologne 1 in 1,054, Frankfort-on-the-Main 1 in 783, Charlottenburg 1 in 532, Königsberg 1 in 735, Hanover 1 in 895, Halle 1 in 582, Magdeburg 1 in 1,269, Düsseldorf 1 in 1,107, Stettin 1 in 957, Danzig 1 in 872, Aachen 1 in 1,159, Altona 1 in 1,773, Dortmund 1 in 1,545, Elberfeld 1 in 2,144, Barmen 1 in 1,984, Krefeld 1 in 2,083. The number of doctors in Germany tends steadily to increase. During the last summer semester there were 8,633 students of medicine in the universities, as compared with 8,310 in the corresponding semester of 1897.

The French Otological and Laryngological Society will hold its annual meeting this year in Paris on May 1st and following days. The questions proposed for discussion are: (1) Anosmia; (2) Testing of the Hearing Power.

Medical Education in Constantinople.—Professor Rieder Bey, who was some time ago entrusted with a commission to reorganise the Turkish Imperial Faculty of Medicine, and also the School of Military Medicine of Constantinople, has presented a detailed report in which he recommends a considerable extension of the courses of clinical instruction and practical studies. The pupils of the Military Medical School will in future be required to attend Professor Rieder's clinic for two years after taking their degree before they are sent to join their regiments.

Medical Women in Roumania.—By a recent ordinance of the Superior Sanitary Council of Roumania women will not henceforth be permitted to hold the office of *plasa* medical officer (a sort of Poor-law doctor paid by the State) or physician to a communal hospital. Only large hospitals, with special departments for diseases of women, are to be allowed to have female physicians or surgeons on the staff. As there are very few such hospitals in Roumania, this ordinance practically closes the door of public employment in the face of the medical woman in that country.

The Irish Medical Schools' and Graduates' Association.—The St. Patrick's Festival Dinner of the Irish Medical Schools' and Graduates' Association will this year be held on Saturday, March 18th, at 7.15 P.M., at the Café Monico, Piccadilly Circus. The chair will be taken by the President, Sir William Thomson, of Dublin. The Association will have the honour of entertaining as the guest of the evening a distinguished Irishman, General Sir George White, V.C., G.C.B., G.C.S.I., G.C.I.E., the Quartermaster-General, and late Commander-in-Chief in India. We are requested to state that as a very large attendance is anticipated, members should make early application for dinner tickets for themselves and their guests to the Honorary Secretary, 46, Harley Street, W.

A Congress on Life Insurance.—A Congress on Life Insurance is to be held in Brussels from September 25th to 30th, 1899. A circular has been sent out by Dr. Poël, Chief Physician to the Belgian Company of General Insurances, stating the objects of the Congress to be to establish closer fraternal relations among physicians connected with insurance offices, to centralise statistics, and to submit to general discussion medical questions connected with insurance. Among these he mentions the following as instances of the important matters with which such a congress might profitably deal: The continuity of morbid states throughout life; the study of constitutional flaws; the admissibility of glycosuric, albuminuric, and syphilitic lives; neurasthenic patients; traumatic neuroses (accidents); statistics as regards life and as regards accidents; the necessity of a uniform medical schedule in regard to life insurances; general paralysis; professional secrecy in regard to insurance companies, etc. The hope is expressed that one result of the Congress may be the formation in each country of a permanent committee which should deal especially with medical questions regarding life insurance.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Applications to the Secretary, John Bright Street, Birmingham, by March 14th.

BRISTOL CITY HOSPITALS.—Resident Medical Officer at the Ham Green Fever Hospital. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. D. S. Davies, Public Health Offices, 40, Prince Street, Bristol, by March 18th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Registrar. Honorarium guineas per annum. Applications to the Secretary.

COVENTRY AND WARWICKSHIRE ASYLUM, Coventry.—Assistant House-Surgeon. Appointment for six months, subject to re-election. Salary at the rate of £50 per annum, with rooms, board, washing, and attendance. Applications to the Secretary by March 11th.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by March 20th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Anæsthetist. Applications to the Secretary by March 20th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Board and residence provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 18th.

EDINBURGH UNIVERSITY.—Lecturer on Diseases of Tropical Climates. Applications to the Secretary of the University Court by March 6th.

EDINBURGH: VICTORIA HOSPITAL FOR CONSUMPTION.—Resident Physician; and a Non-resident Medical Officer. Appointments for six months. Salary at the rates of £20 and £60 per annum respectively. Applications to the Honorary Secretaries, 1, North Charlotte Street, Edinburgh, by March 11th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street Glasgow, by March 24th.

GREAT NORTHERN HOSPITAL.—Surgeon to In-patients; must be F.R.C.S. Junior House-Surgeon. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Also Assistant Anæsthetist. Appointment for six months, but eligible for re-election. Honorarium at the rate of 10 guineas per annum. Applications to the Secretary for the first by March 15th and for the latter two by March 20th.

KING'S COLLEGE, London.—Sambrook Surgical Registrar and Assistant Ophthalmic Surgeon at King's College Hospital. Applications to the Secretary for the former by March 13th.

LANCASHIRE COUNTY ASYLUM, Whittingham.—Junior Assistant Medical Officer, unmarried and not over 30 years of age. Salary, commencing at £100 per annum, increasing to £250, with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium £42 for twelve months, with board, residence, and washing. Applications to the Secretary, 21, Friar Lane, Leicester, by March 20th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance. Applications to the Chairman of the Committee by March 9th.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar. Salary, £100 per annum. Applications to the House-Governor by March 16th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Residence, board, and washing provided, and honorarium of 5 guineas. Applications to the Secretary by March 16th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician, and Assistant House-Surgeon. Appointments for six months. The two former will receive salary at the rate of £40 per annum, and the two latter at the rate of £20 per annum. Applications to the Secretary by March 13th.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £40 per annum, with board, attendance, and washing. Appointment for six months, with prospect of re-election as Senior. Applications to the Secretary by March 8th.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Appointment for six months, but renewable. Salary at the rate of £30 per annum, with board and residence. Applications to the Secretary by March 11th.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Director of Conjoint Laboratories. Applications to the Secretary, Examination Hall, Victoria Embankment, W.C., by March 15th.

ST. GEORGE HANOVER SQUARE PROVIDENT DISPENSARY, Little Grosvenor Street.—Resident Medical Officer. Salary, £100 per annum, with allowance about £80, and residence. Applications to the Secretary by March 10th.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, Marylebone Road, N.W.—Anæsthetist. Honorarium, £20 per annum. Applications to the Secretary by March 10th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by March 15th.

STOCKPORT INFIRMARY.—Assistant House-Surgeon and Visiting Surgeon. Salary, £70 per annum, with board, washing, and residence. Applications to the Secretary by March 14th.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—Clinical Assistant for three or six months. Residence, board, and washing provided. Applications to the Resident Medical Officer.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Gratuity £20. Applications to the Secretary.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Applications to the Secretary-Superintendent by March 22nd.

MEDICAL APPOINTMENTS.

Adams, W. D., M.B., appointed Medical Officer of the Workhouse and the Second District of the Guiltcross Union.

Allen, W., M.D., appointed Medical Officer of Health to the Benfieldside Urban District Council.

Bennett, F. D., M.R.C.S., L.R.C.P., appointed Assistant Anæsthetist to the Royal Ear Hospital, Frith Street, Soho.

Benson, P. L., M.D., D.P.H., reappointed Medical Officer of Health for Rural District of Buckingham.

Brodrick, C. C., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Tavistock Urban District Council.

Cooper, Alfred, F.R.C.S., appointed Honorary Consulting Surgeon to the St. Mark's Hospital.

Cureton, Edward, M.D.Brux., M.R.C.P.Edin., appointed Honorary Consulting Physician to the Montgomeryshire Infirmary.

Fenwick, P. Clennell, M.B.Lond., M.R.C.S., L.R.C.P., appointed Surgeon to Christchurch Hospital, New Zealand.

Forsyth, Robert, M.B., C.M.Glasg., appointed Medical Officer and Public Vaccinator for the Cramlington District of the Tynemouth Union, *vice* Robert Anderson, M.D., resigned.

Gibbons, Henry, M.B., C.M.Aberd., appointed Medical Officer for the Desborough District of the Kettering Union.

Hodges, James, M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health to the Edmonton Urban District Council.

Kempe, Gilbert, M.D., B.S.Dunelm, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of Health for the Salisbury Rural District.

Langston, John James, L.R.C.P.I., L.M., L.S.A., appointed Medical Officer for the No. 6 District of the Lambeth Union.

Laverick, J. B., M.B., C.M.Glasg., appointed Medical Officer for the Lythe District of the Whitby Union.

Miller, Robert Craig, M.B., appointed Medical Officer for the Dervock Dispensary District, *vice* P. G. Cameron, M.D.Glasg., resigned.

More, John, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Rothwell District of the Kettering Union, *vice* James More, M.D.Edin., resigned.

Norman, Frederick, M.D.Brux., D.P.H., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Eighth District of the Lambeth Union, *vice* Dr. Percy Fox.

Pratt, John W., L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer of Health to the Wiveliscombe Urban District Council.

Roberts, K., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer of Health to the Ampthill Rural District Council.

Ross, James M., M.B., C.M., B.Sc.Edin., appointed County Medical Officer of Health for Wilts.

Sproulle, A. E., L.R.C.P., L.R.C.S.I., appointed Medical Officer of Health to the Withernsea Urban District Council.

Taylor, E. C., M.D., appointed Medical Officer of the Workhouse of the Parish of St. John, Hampstead.

St. Thomas's Hospital.—The following gentlemen have been appointed House Officers from March 7th:—

House-Physicians.—E. A. Gates, L.R.C.P., M.R.C.S.; A. E. Stevens, M.B.Durh., L.R.C.P., M.R.C.S.

Assistant House-Physicians.—E. H. Ross, L.R.C.P., M.R.C.S.; H. C. Thorp, M.A., M.B., B.C.Camb.

House-Surgeons.—S. O. Bingham, L.R.C.P., M.R.C.S.; E. M. Corner, M.A., M.B., B.C.Camb., B.Sc.Lond., L.R.C.P., M.R.C.S.; J. A. Barnes, L.R.C.P., M.R.C.S.; J. E. Kilvert, L.R.C.P., M.R.C.S.

Assistant House-Surgeons.—H. J. Phillips, L.R.C.P., M.R.C.S.; P. W. G. Sargent, M.A., M.B., B.C.Camb., L.R.C.P., M.R.C.S.; S. A. Lucas, L.R.C.P., M.R.C.S.; H. T. D. Acland, L.R.C.P., M.R.C.S.

Obstetric House-Physicians.—(Senior) R. H. Bell, M.A., M.B., B.C.Camb., L.R.C.P., M.R.C.S.; (Junior) S. H. Belfrage, M.B.Lond., L.R.C.P., M.R.C.S.

Ophthalmic House-Surgeons.—(Senior) J. S. Hall, L.R.C.P., M.R.C.S.; (Junior) T. Hoban, L.R.C.P., M.R.C.S.

Clinical Assistants in the Special Departments for Diseases of the Throat, Skin, and Ear.—Throat: E. C. Bourdas, L.R.C.P., M.R.C.S. Skin: J. Gaff, L.R.C.P., M.R.C.S. Ear: A. W. Jones, L.R.C.P., M.R.C.S.

Clinical Assistant in the Electrical Department.—A. Bevan, L.R.C.P., M.R.C.S.

Several other gentlemen who held offices before have received an extension of their appointments.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M. —Dr. Samuel West: Some of the Clinical Aspects of Granular Kidney. (Lettsomian Lecture III.)

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. L. A. Bidwell: The Examination of the Abdominal Viscera. (Lecture I).

Royal College of Surgeons, 5 P.M. —Professor F. G. Parsons: On Joints of Mammals contrasted with those of Man (Lecture I.)

Odontological Society of Great Britain, 40, Leicester Square, W.C., 8 P.M.—Papers by Mr. C. S. Tomes and Mr. F. T. Paul. Casual communication by Mr. Ashley Barrett.

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: Electricity in the Treatment and Diagnosis of Diseases of the Nervous System.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Mr. Ballance: Surgery of the Nervous System.

Chelsea Clinical Society, Jenner Institute of Preventive Medicine, 8.30 P.M.—Dr. Allan Macfadyen: Enteric Fever and Diphtheria in their Bacteriological Aspects.

Royal College of Physicians of London, 5 P.M.—Dr. G. R. Murray: On the Pathology of the Thyroid Gland. (Goulstonian Lecture I.)

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Adjourned discussion on Pseudo-tuberculosis. The following speakers are expected to take part in the debate: Dr. J. F. Payne, Professor John Macfadyean, Mr. Fowlerton, Dr. Wethered, Mr. W. G. Pakes, Dr. W. S. Lazarus-Barlow. Lantern slides, microscopic slides, and specimens illustrating pseudo-tubercul sis will be shown. Other card specimens will also be shown.

WEDNESDAY.

Medical Society of London, Whitehall Rooms, Hotel Métropole, 7.30 P.M.—126th Anniversary Dinner.

Royal College of Surgeons, 5 P.M. —Professor F. G. Parsons: On Joints of Mammals contrasted with those of Man. (Lecture II.)

Dermatological Society of London, 11, Chandos Street, Cavendish Square, 5.15 P.M.—Demonstration of Clinical Cases.

Sanitary Institute, 8 P.M.—Discussion on the Establishment of Public Abattoirs in the Metropolis in relation to the Prevention of Tuberculosis, to be opened by Dr. W. A. Bond.

Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. Nettleship: On Retrobulbar Neuritis.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M. —Dr. Acland: On Bronchiectasis.

Hunterian Society, 8.30 P.M.—Pathological evening. Specimens will be shown by Sir Hugh Beevor, Dr. Goodall, Dr. F. Oliver, Mr. Targett, and other Fellows.

Evelina Hospital, S.E., 4.30 P.M.—Dr. Frederic Willcocks: Clinical Demonstration on Medical Cases (Post-graduate Course).

THURSDAY.

Royal College of Physicians of London, 5 P.M.—Dr. G. R. Murray: On the Pathology of the Thyroid Gland. (Goulstonian Lecture II.)

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Barlow: Demonstration of Selected Cases.

Ophthalmological Society of the United Kingdom.—Card Specimens at 8 P.M. Papers at 8.30 P.M.—Mr. C. D. Marshall: Epithelial Implantation Cysts of the Iris. Mr. Work Dodd: Green Vision in a case of Tabes Dorsalis. Messrs. Arnold Lawson and Sutherland: Further note on a case of Albuminuric Retinitis in a Child. Mr. E. Donaldson: Strabismus Fixus.

London Temperance Hospital, 4 P.M.: Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr. Alfred Eddowes: Cases of Keloid and other Affections of Scars.

British Gynæcological Society, 8.30 P.M.—Specimens will be shown by Mr. C. Ryall and Dr. Wilson Ramsay. Papers: Dr. Granville Bantock: The Modern Doctrine of Bacteriology of the Germ Theory of Disease, with special reference to gynæcology. Dr. James Oliver: Adenoma Universale of the Endometrium infiltrating the Myometrium.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. L. A. Bidwell: The Examination of the Abdominal Viscera. (Lecture II.)

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Mr. Gibbs: Demonstration of Surgical Cases.

FRIDAY.

Royal College of Surgeons, 5 P.M. —Professor F. G. Parsons: On Joints of Mammals contrasted with those of Man. (Lecture III.)

Clinical Society of London, 8.30 P.M. —Mr. Betham Robinson: Hydatid Cysts of the Upper Lobe of the Right Lung and Liver successfully Removed. Mr. A. E. Barker and Dr. N. Nabarro: A case of Pancreatic Cyst treated by Incision and Drainage. Mr. Battle: Removal of a large Fungating Tumour of the Skull with subsequent grafting of the dura mater. Mr. Arbuthnot Lane: A case of Erasion of the Ankle-joint illustrating a new Operative Procedure.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

COLE.—On February 23rd, at Sneinton, Nottingham, the wife of George Cole, M.R.C.S., L.R.C.P., of a daughter.

HARGREAVES.—On January 10th, at Akaroa, New Zealand, the wife of W. H. Hargreaves, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

MARRIAGE.

SHINE—FITZGERALD.—On February 14th, at Holy Trinity Church, Brook Green, London, by the Rev. Father Grant, assisted by the Rev. Father Hill, Holyrood, Barnsley, John Power Shine, M.B., of Bicket Villa, Barnsley, to Margaret Mary Josephine (Gretta) Apjohn, fourth daughter of John Connell Fitzgerald, Esq., Abington House, Murroe, co. Limerick.

DEATH.

ARKLE.—On February 22nd, at 66, Wimpole Street, W., from pneumonia, Charles Joseph Arkle, M.D., F.R.C.P., fifth son of the late Benjamin Arkle, of Liverpool, aged 87.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Tu., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical; daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Tu., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2. [illegible]

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 2.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Sam, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 2; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., M. W. S., 9; Eye, Tu. W. Th. S., 2; o.p., M. Th., 1; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Surgery, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 3.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electrics, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 2.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

K. N. G. desires to hear of a home or institution into which an infirm elderly lady could be received. She could pay 10s. to 15s. a week.

J. C. asks: Where can information be obtained as to the formation of an association of ladies for district nursing, suitable for a small town of about 2,000 inhabitants?

M.D. asks if there is any law in connection with the Foresters' Society which provides that a medical contract does not extend to venereal disease. It is not usual to have written agreements with clubs.

CUPRIC ELECTROLYSIS IN OZÆNA.

G. F. N.—Our correspondent will find Dr. McBride's paper on this subject, in which the method of treatment is fully described, in the *Edinburgh Medical Journal* for March, p. 217.

EDUCATION OF DEAF-MUTES.

STAPES desires to hear of some place to which a deaf-mute, the son of middle-class parents, could be sent for education. A boarding school would be preferred.

*** For such a case (from the West of England) the most convenient boarding school would probably be the West of England Institution for the Deaf and Dumb, Exeter. Ordinary pupils pay £20 per annum, private pupils £50. Application should be made to the Secretary or Superintendent.

CHILBLAINS.

PRACTITIONER asks for hints in the treatment of chilblains.

*** In the BRITISH MEDICAL JOURNAL of April 19th, 1890, it was reported that Professor Baelz, writing from Japan to the *Monats. f. prakt. Derm.*, vol. x, No. 6, p. 288, recommended the following treatment for chilblains and chapped hands: ℞ Caustic potash, ½ per cent.; glycerine and alcohol, of each 20 per cent.; water, 60 per cent. The hands are bathed in warm water, and this mixture is then rubbed into the skin. This is done once daily, and in two or three days a cure is said to be the result.

In the JOURNAL of February 28th, 1891, p. 503, Surgeon W. G. Macpherson, Medical Staff (Woolwich), wrote: The effect of the application of ichthyol to chilblains is so marked as to deserve notice. The unguentum ichthyol (30 per cent. with lanolin or vaseline) relieves the excessive irritation completely and rapidly, and its continued use will cure the condition.

THE PHARMACOLOGY OF THE SUPRARENAL GLAND.

MR. J. C. MCWALTER (Dublin) writes: Will Dr. Lermitte supplement his valuable paper in the JOURNAL (February 18th, p. 467) by stating whether he used the extractum suprarenale hæmostaticum or merely a tablet representing 5 gr. of the crude gland? Königstein regards the extract, locally applied, as an anæmia-producing agent *par excellence* for all mucous membranes. A 10 per cent. aqueous solution visibly dilates the pupil, and induces energetic rhythmic contractions when dropped upon the heart of a frog. According to Bidl the contraction is due to the action of the extract upon the muscles and the peripheral ganglion. It has been stated by Merck that the extract possesses the advantage of being sterilisable without detriment to its efficacy. I should be pleased to learn if Dr. Lermitte has any experience of this, as I am not aware of any other organic extract of which it is true.

ANSWERS.

H. H.—We are unable to hear of any institution where such a patient could be admitted; but we are informed that he could get proper treatment as an out-patient at the Hospital for Mental Diseases, Welbeck Street, W.

DR. GEO. STEELE PERKINS (Wimpole Street, W.), in answer to "L. A. W.," suggests the application of the continuous current to the scalp twice a week, the positive pole on the spine and the negative pole applied to the head by means of a wire brush.

C.H.S.—Ptosis, like many other lesions, is not infrequently seen as a sequel to influenza. It depends upon so many different causes that, without thoroughly investigating the case, it would be impossible to suggest any treatment. The best course would probably be to suggest to the patient to consult a neurologist, as the condition may not improbably depend upon some central or peripheral nerve lesion.

CYCLE SADDLES.

DR. REUELL ATKINSON (Clifton) writes, with reference to various inquiries which have been made for a comfortable and hygienic cycle saddle, to recommend Pattisson's saddle, Model D.

TOWN DUST DESTRUCTOR.

DR. ALFRED ASHBY, M.O.H. (Reading) writes: In reply to "Provincial Mayor," on p. 514 of the BRITISH MEDICAL JOURNAL, I think *The Removal and Disposal of Town Refuse*, by W. H. Maxwell (the Sanitary Publishing Company, Limited, 15s. net), is the book he requires.

THE INEBRIATES ACT.

WOLVERHAMPTON.—Unless the lady signs a request (attested by a justice) for admission to and reception in a licensed retreat, or has been convicted three times within the preceding twelve months, or been found (after trial for some legal offence) to be a habitual drunkard, she cannot be made to enter an inebriate reformatory or retreat. It is doubtful if she would be certifiable as insane in her periodical outbreaks, and in any case she could not be legally detained in an asylum during the normal intervals. It is doubtful if a separation could be procured except by mutual consent, in which case the husband would have to give her an allowance; but legal advice is essential.

MASSAGE.

A. M.—The market, as regards London at least, is certainly overstocked, and there is very little demand for work of this description, but if a connection were assured the best course of instruction would probably be obtained in Stockholm.

WEST AFRICAN SERVICE.

J. W.—The risks to health and life on the West African Coast are undoubtedly considerable, but the emoluments are good. Our correspondent should balance in his own mind the advantages and disadvantages before embarking in such a career. There can be no doubt that, as the country gets more opened up, easier means of communication established, and Europeans are better housed and fed, the risks to the white man will diminish.

NOTES, LETTERS, Etc.

MEDICAL TITLES.

MR. GEO. E. JEAFFRESON (Framlingham) writes: Reply to "Hair Splitting." As the cap fits I wear it. I am L.S.A. 1857, and M.R.C.S. 1857. I am not a doctor of law, physic, music, or divinity, and of being an apothecary and surgeon I am in no way ashamed. I have no ambition to be mistaken for a University M.D., nor to be addressed with the same prefix as farriers, quacks, medical herbalists, or licensees without a name. I believe it is bad for medical men to be addressed by their calling that is, differently to all other respectable citizens; we do not say Lawyer A., Parson B., Grocer C., etc. Why Doctor D? If licensed practitioners have "Doctor" assigned to them as a title the University M.D.'s and Fellows will rigidly drop it. Solicitors are not Q.C.'s, curates are not bishops, collegiate licensees are not university graduates, and it seems to me downright snobbery to want a title belonging to others. I think, had I required a licence to practise medicine, that is, to do doctoring in 1867 instead of 1857, I should have asked it from the old city corporation which had done so much in the past for the improvement of medical education, and not from the physicians, who had just started their opposition licensing shop for snobs who were ashamed of the old name "apothecary," for they gave no name to the recipient of their licence, and the receiver had to accept from the city company the privilege of acting as an apothecary within certain limits. A country surgeon is good enough and strong enough to hold his own without meretricious titles, though he may be regarded as crazy for thinking so, and trying to make his *confrères* and neighbours think the same.

CORRECTOR writes: I have no desire to raise the question of the relative value of the different degrees and diplomas, but I feel bound to correct the misapprehension of "Honesty is the Best Policy," when he describes the L.S.A. as the lowest English qualification. I thought it was well known by this time that the L.S.A. dated after June 30th, 1887, is of precisely the same standard and character, and confers precisely the same privileges as the M.R.C.S., L.R.C.P. If "Honesty is the Best Policy" is still unable to believe that this is so, I would refer him to the report of the Visitor and Inspector appointed by the General Medical Council under the provisions of the Medical Acts.

A PAMPHLET ON QUACKERY.

THE Berlin Brandenburg *Aerztekammer* offers a prize of £20 for the best pamphlet on the dangers of quackery. The pamphlet, which is to be widely distributed, must, of course, be written in popular style.

THE TREATMENT OF DYSENTERY.

MAJOR R.A.M.C. writes: During two tours of Indian service I have had abundant opportunities of studying the effects of different remedies in acute dysentery, and my experience is directly opposed to that of Dr. J. J. Day as described in the BRITISH MEDICAL JOURNAL of February 4th, 1899. When in Secunderabad, a station of "dysenteric notoriety"—to use a phrase of the late Surgeon-General W. C. Maclean—I tried sulphate of magnesia in this disease, and the results were uniformly unfavourable. After two or three doses of the medicine the tormina and tenesmus invariable became much aggravated, the face assumed an expression of anxiety and suffering, and symptoms of both mental and physical depression set in. So marked was the distress following each dose of the medicine that the patients used to beg that it might be discontinued. On the other hand, I have found the action of ipecacuanha all that could be desired, so much so that during ten years' service in India I have seen only one fatal case of dysentery amongst Europeans, and in this case death was due to multiple abscesses in the liver.

The following is the routine treatment which I now adopt in all cases of acute dysentery in which no special indications exist: On being first seen the patient is given a small dose of castor oil guarded with tinct. opii. He is then put to bed, a layer of spongiopiline being applied over the abdomen, and placed on an exclusively milk diet. Pulv. ipecac. gr. xv is prescribed morning and evening, liq. opii sed. mxv being administered half an hour before the ipecacuanha. This treatment is kept up until well-marked "ipecacuanha motions" are established. The evening powder is then discontinued, but the morning one is still given for three or four days. If at the end of this time, as not infrequently happens, some looseness of the bowels continues, a mixture containing bismuthi nitrat. gr. x, liq. morphinæ mxv, is given three times a day. In very acute cases, where from the severity of the symptoms it is a matter of urgency to check the disease quickly, I have given two or three enemata of nitrate of silver, concurrently with ipecacuanha, with the best results. Strange as it may appear, these enemata cause little if

any suffering. My experience convinces me that ipecacuanha is far and away superior to all other remedies in the treatment of acute dysentery occurring in India.

A TEST FOR THE DIFFERENTIATION OF BACILLUS COLI COMMUNIS AND BACILLUS TYPHOSUS.

CH. M. writes: With reference to the account contained in the BRITISH MEDICAL JOURNAL of February 18th, p. 452, of the alleged new distinction between the bacillus coli communis and bacillus typhosus, worked out by Dr. Sydney Jamieson, of Sydney, New South Wales, I beg to point out that the facts enumerated therein have been observed for some years. It is well known that the bacillus coli communis will grow in ordinary sterilised healthy urine, and that the bacillus typhosus will not until this medium is rendered alkaline; and, furthermore, that if a suitable nitrogenous soil is inoculated with the former, the well recognised urinous odour characteristic of this micro-organism is manifest within a few days. Perhaps it is hardly worth mentioning also that the coli bacillus has often been described as one of the organisms very usually found in the fœtid urine passed by patients suffering from cystitis, and that this organism has already been described as one of the pathological factors in the disease.

THE PREVENTION OF PREMATURE BURIAL.

ACCORDING to the *New York Medical Record* a Bill has been introduced into the New York Legislature, the object of which is to prevent premature burial. It provides that in cities or places where there are 100 or more interments annually, each cemetery shall have a mortuary or mortuaries with a number of rooms sufficient to enable everybody received to be placed and kept therein a certain time. Each of these rooms must be at least 10 ft. in length, 6 ft. in width, and 10 ft. in height, with a door at least 6½ ft. high and 4 ft. wide. Over the door there is to be a transom kept open at all hours. The door must be kept unlocked at all times, and permission to inspect the body deposited shall be given at all hours of the day to the relatives or friends of the deceased. There is to be in each of the rooms a window at least 2 ft. wide and 3 ft. high, opening into the outer air. The attending physician or coroner must mention in the death certificate whether not one or all of the following signs of death have been noted: (1) Permanent cessation of respiration and circulation; (2) purple discoloration of the dependent parts of the body; (3) absence of blistering around a part of the skin touched with a red-hot iron; (4) rigor mortis; (5) signs of decomposition. No body shall be buried, cremated, or otherwise disposed of before twelve hours shall have elapsed from the time of death, as stated in the certificate of the attending physician or coroner, and before unequivocal signs of decomposition shall have appeared. The bodies of those dead from small-pox, scarlet fever, diphtheria, or Asiatic cholera are not to be exposed in the mortuary, nor need such exposition take place in cases in which death has resulted from an injury causing the destruction of any vital organs, nor any body which shall have been found dead in an advanced state of putrefaction; but in all cases the certificate of death must make mention of the five signs of death above given.

BELLADONNA FOR ECZEMA IN CHILDREN.

DR. H. B. TREHANE SYMONS (Luxor, Egypt) writes: The paper by Dr. J. A. Coutts published in the BRITISH MEDICAL JOURNAL of January 28th on the treatment of broncho-pneumonia in children has caused me to recall the results obtained by the use of the same drug in some one or two dilatory cases of eczema which had resisted other expedients. I used the tincture 10 minims thrice daily. This seemed to stop the copious secretion and lessen the irritation, rapid general improvement going with this. Though not new, I believe this seemingly useful application of belladonna may be advantageously mentioned.

WATER GAS.

SURGEON-LIEUTENANT-COLONEL THOMAS CAYGER, A.M.R. (Liverpool) writes: One gain is likely to accrue from the report of the late Inter-Departmental Committee on Carburetted Water Gas, etc., that is, the calling of medical evidence in all cases of gas poisoning upon which inquests are held. In Garston, no medical evidence was called in one case at a time when pure carburetted water gas was issued to the district. Dr. Molyneux was in attendance, and I was called in to advise with him; there was no unwillingness on our part. The Home Secretary spoke in favour of inquests in all cases of lead poisoning in potteries when answering a question in the House of Commons. Too seldom is medical evidence called for in coroner's courts in cases where there is at least some doubt.

ACADEMICAL COSTUME.

SENEX writes: I am interested and amused at the correspondence respecting "Academical Costume." If the writers on the subject will refer to a little book on *Degrees, Gowns, and Hoods of British, Colonial, etc., and Foreign Universities and Colleges*, by the Rev. T. W. Wood, Vicar of Eldersfield, and Chaplain to the Order of St. John of Jerusalem, they will find that no fewer than twelve theological and three musical colleges in England adopt both gowns and hoods. Surely the poor Dr., Fellow, or Member or Licentiate of Physic (whose education is equal, if not superior, to any possessing the above collegiate qualifications) may be allowed, if he desire it, a similar decoration.

THE NEW BILL TO AMEND THE MEDICAL ACTS.

VERITAS writes: There can be no doubt whatever about the ambiguity you observe in the second clause of the new Bill to amend the Medical Acts, as far as depriving practitioners of their diplomas or degrees. The Council does not grant the diplomas, and consequently cannot take them from a practitioner. The removal of the name from the *Register* does not seem to damage the offender pecuniarily, simply because unqualified practitioners are allowed to roam about the country unmolested, and the line of demarcation between the "struck off" practitioner and these cannot be drawn. Were the country cleared of all lay practice, then offending practitioners could be struck off the *Register* for a limited period, as the first clause of the new Bill suggests, and power granted to act in a subordinate position, such as assistant officer of some institution, or some such position as would prevent the total impoverishment which would result in many cases from the complete annihilation of the chances of making a living until restored to the *Register*.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Anticipation; Mr. E. G. Annis, Huddersfield; Another Public Vaccinator; Mr. F. W. Alexander, London; A. J. Anderson, M.B., Ashford; A. Ashby, M.B., Reading; Dr. F. J. Allan, London. B Dr. A. N. Boycott, St. Albans; B. T. C.; Mr. E. Boulnois, M.P., London; Dr. R. J. M. Buchanan, Liverpool; Mr. W. M. Beaumont, Bath; Dr. P. L. Benson, Steeple Claydon; Mr. A. H. Baird, Edinburgh; Mr. J. Boyd Rustenberg; Mr. T. Benson, Stanley; Dr. J. Booth-Clarkson, New York; Dr. J. Barr, Liverpool; Messrs. Burgoyne, Burbidges, and Co., London; Mr. V. C. Bensley, Peterborough; Mr. G. F. Blake, Dublin; F. M. Blumer, M.B., Stafford; Dr. F. G. Bushnell, Plymouth. C Mr. R. G. Coombe, Southminster; Mr. E. J. Cross, St. Neots; Mr. H. Cocking, London; Coronerships; Country Doctor; Dr. A. J. Campbell, Uley; Corrector; Dr. A. E. Cooper, London; Dr. W. H. Calvert, Melrose; C. H. S.; Messrs. T. Christy and Co., London. D D. P. F.; Mr. F. Deas, London; Messrs. W. Dresser and Sons, Darlington. E Eaglehawk; Mr. H. Elliot-Blake, London. F Mr. D. Fitzgerald, Folkestone; Mr. W. T. Freeman, Reading; Mr. F. B. Fisher, Dorchester; Dr. F. W. Foxcroft, Birmingham; P. C. Fenwick, M.B., Christchurch, N.Z.; Dr. P. J. Freyer, London; Dr. J. Freeman, Bristol; R. Forsyth, M.B., Cramlington. G Mr. L. Gorton, Coventry; J. Galletly, M.B., Bourne; Dr. M. Greenwood, London; Dr. E. Gwynn, London; Dr. W. Glegg, Bridge of Allan; Dr. J. Galloway, London; Messrs. Goddard, Massey, and Warner, Nottingham G. F. N.; Mr. H. R. Greene, Belvedere; Dr. A. E. Giles, London. H Mr. F. W. Howell, London; Dr. J. Highet, Workington; Mr. W. Holder, Hull; Mr. J. Hogg, London; G. Heaton, M.B., Birmingham; Mr. F. W. Higginson, Jersey; Mr. A. E. Harris, London. I Income Tax Repayment Agency, London; Irish Club, Honorary Secretary of the, London. J Mr. W. M. James, Edinburgh; Mr. A. Johnson, Aberdeen; Dr. H. L. Jones, London; Mr. G. E. Jeaffreson, Framlingham; J. C.; Mr. R. Jones, Liverpool; Dr. E. Jepson, Durham; Dr. W. R. Jack, Glasgow. K Dr. G. Kempe, Salisbury; K. N. G. L H. C. Lloyd, M.B., Dublin; Professor T. Landau, Berlin; Dr. A. W. W. Lea, Manchester; E. M. Little, M.B., London; Lex. M Mr. A. Maude, Westerham; Mr. J. H. Mummery, London; Dr. G. R. Murray, Newcastle-on-Tyne; Middlesex Hospital, Dean of the, London; Mr. G. E. Mould, London; Ma or R.A.M.C.; M.D.; J. S. McKendrick, M.B., Glasgow; M.R.C.S.Eng., L.S.A.; Mr. A. H. Martin, Evesham; Mr. J. C. McWalter, Dublin; Mr. F. C. Machado, London; M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.; Mr. E. C. Morgan, Newtown, Mont.; Dr. T. T. Macklin, St. Mary's, Scilly Isles; C. Martin, M.B., Birmingham; Dr. G. H. Mackenzie, Edinburgh. N Dr. D. Newman, Glasgow; N. B. U.; Dr. C. W. Nathan, San Francisco; Mr. H. C. Nance, Norwich; Dr. T. G. Nasmyth, Cupar Fife. O Orderly Officer; Dr. A. Ogston, Aberdeen. P Mr. E. Penman, London; H. J. Paterson, M.B., London; Dr. G. C. S. Perkins, London; Dr. T. D. Poole, Wolverhampton; Mr. J. Penny, Manchester; Provincial House-Surgeon; Dr. L. C. Parkes, London; Mr. G. C. Peachey, London. R Dr. J. C. Ross, Manchester; S. J. Ross, M.B., Bedford; Recent Member; Mr. L. D. Rea, London; Dr. N. Raw, Liverpool. S Dr. A. T. Smith, Rochester; Dr. E. M. Sympson, Lincoln; Senex; Mr. P. L. Sclater, London; Mr. W. D. Spanton, Hanley; Messrs. Smith Elder and Co., London; "Star," Editor of the, London; Signalman; Mr. J. B. Sutton, London; Dr. J. L. Smith, Belfast; Dr. T. D. Savill, London; Dr. S. Sunderland, London; Dr. C. J. Symonds, London; J. G. Soutar, M.B., Gloucester; Mr. J. J. Skegg, London; Miss Strangman, Morpeth; Mr. N. H. E. Sucklicer, Bombay; Dr. M. F. Simon, Singapore. T Mr. C. W. Thies, London; Messrs. W. Thacker and Co., London; Mr. W. T. Thomas, Liverpool; Timothy. V Mr E. W. Veale, Bristol; Vrilya. W Mr. J. Waddell, Stirling; Messrs. Wills, Limited, London; Dr. A. McC. Weir, East Sheen; Dr. F. Willcocks, London; Mr. J. T. C. Williams, Whitland; Mr. J. E. B. Wells, Hoddesdon; Mr. E. W. Wallis, London; Dr. S. West, London Mr. A. Wilson, Manchester; W. R.; etc.

BOOKS, ETC., RECEIVED.

The Sanitation of British Troops in India. By E. C. Freeman, Captain R.A.M.C. London: Rebman Publishing Company. 1899. 2s.

The Story of the British Race. By J. Munro. London: George Newnes, Limited. 1899. 1s.

The Pocket Pharmacopœia. By F. Hudson-Cox, F.I.C., F.C.S., and J. Stokes, M.D. London: Baillière, Tindall, and Cox. 1899.

Aids to the Diagnosis and Treatment of Diseases of Children (Medical). By J. McCaw, M.D., L.R.C.P. Second Edition. London: Baillière, Tindall, and Cox. 1899. 3s. 6d.

The Treatment of Lateral Curvature of the Spine. By B. Roth, F.R.C.S. Second Edition. London: H. K. Lewis. 1899. 10s. 6d.

On the Principles which govern Treatment in Diseases and Disorders of the Heart. By Sir R. D. Powell, Bart., M.D. London: H. K. Lewis. 1899. 6s.

The London Water Supply. By A. Shadwell, M.A., M.R. London: Longmans, Green, and Co. 1899. 6s.

Les Rayons de Röntgen et le Diagnostic de la Tuberculose. Par A. Becière. Paris: J. B. Baillière et Fils. 1899. Fr. 1.50.

De la Diminution de l'Activité Nerveuse dans le Psoriasis, le Cancer, et la Lèpre. Par Dr. Bouffé. Paris: A. Maloine. 1899.

La Philosophie aux Prises avec la Mer Rouge, le Darwinisme et les 3 Règnes des Corps Organisés. Par Dr. F. Jousseaume. Paris: A. Maloine. 1899. Fr. 5.

Rhinologie, Laryngologie, und Otologie in ihrer Bedeutung fur die allgemeine Medicin. Von Dr. E. P. Fried.ich. Leipzig: F. C. W. Vogel. 1899. M.8.

Chemistry for Photographers. By C. F. Townsend, F.C.S., F.R.P.S. Second Edition. London: Dawbarn and Ward. 1899. 1s.

*** In forwarding books the publishers are requested to state the selling prices.

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N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

THE GOULSTONIAN LECTURES
ON THE
PATHOLOGY OF THE THYROID GLAND.*

Delivered before the Royal College of Physicians of London.

By GEORGE R. MURRAY, M.A., M.D.Camb., F.R.C.P.,
Heath Professor of Comparative Pathology in the University of Durham; Physician to the Royal Infirmary, Newcastle-upon-Tyne.

Lecture I.

Mr. President and Gentlemen,—I must, in the first place, thank you very sincerely for the honour you have conferred upon me by asking me to deliver the Goulstonian Lectures for this year, an honour which I feel to be all the greater when I read the list of distinguished Fellows of this College who have preceded me in this lectureship, in whose footsteps I can but humbly endeavour to follow.

General Scope of the Lectures.

In selecting the subject for these lectures I have been guided by three considerations. First, the widespread interest which has been aroused in the pathology and treatment of diseases of the thyroid gland during the last few years. Secondly, the good example which the subject affords of how experimental research in pathology yields results which are of the greatest importance and assistance to the physician in his daily work of treating disease. Thirdly, the opportunity which I have had of devoting some attention to the subject, may, I venture to hope, enable me to present it in a manner which will interest you.

I shall not attempt to cover the whole ground, but shall for the most part deal with those parts of the subject which I have been able to examine for myself, nor will time permit me to allude to all the valuable work which has been done by the many workers in this branch of pathology. I trust, therefore, that this explanation will excuse any omissions I may make in not referring to the work of others.

It will be convenient, first, to consider the development and structure of the thyroid gland and the method in which its characteristic secretion is produced. This will clear the way for the consideration of the results which follow when this function is diminished or lost by excision of the gland in animals or by its destruction by disease in man. The removal of the thyroidal insufficiency thus induced by maintaining a supply of secretion from other sources will be considered as a means of treatment. I propose also to deal with the question of compensatory hypertrophy, as illustrated by the thyroid gland; while, in conclusion, the pathology of exophthalmic goitre will be considered as far as our present knowledge of the subject permits.

Development and Structure of the Thyroid Gland.

The embryology and comparative anatomy of the thyroid gland furnish us with important information as to the origin of its present situation, structure, and function in man. The gland is developed in the embryo in three different parts. A median diverticulum of the hypoblast which lines the pharynx of the embryo is formed between the ventral ends of the second visceral arches, while a lateral diverticulum is developed on each side from the posterior wall of the fourth visceral cleft. In man the median portion persists for a time as a hollow vesicle from which a small canal, the thyroglossal duct, leads to an opening on the dorsal surface of the tongue. At a later stage this vesicle becomes solid and the duct disappears, while its external opening on the surface of the tongue persists as the foramen cæcum in the adult. The two lateral diverticula fuse with the central portion, forming a mass shaped like a horseshoe encircling the embryonic larynx. All three portions become separated from the hypoblast from which they originated, and develop into a mass of branching cell-cylinders. These cell-cylinders are later divided up by the ingrowth of connective tissue containing blood vessels into separate vesicles. These gradually increase in size and become hollowed out by the accumulation of the colloid substance which is secreted by the epithelial cells into the lumen of the alveolus.

His[1] has found that in some cases the thyroglossal duct already mentioned does not become obliterated, but that it persists in the adult as the lingual duct, which has been traced from the foramen cæcum as far down as the hyoid bone. In some cases the middle lobe of the gland is continued upwards as a narrow tube, the thyroid duct as far as the hyoid bone. The late Professor Kanthack,[2] who examined a hundred adults for these ducts, however, found neither a lingual nor a thyroid duct in any of the cases which he investigated, and in many there was not even a foramen cæcum. The important fact remains that the thyroid gland is developed primarily as an outgrowth of the pharyngeal hypoblast, and in some lower animals this connection with the pharynx is still maintained. Andriezen[3] directed attention to the fact that the thyroid gland is represented in ascidians by a mass of glandular tissue, and in amphioxus by a hypobranchial organ which pours its secretion directly into the pharynx. In higher forms, such as fishes, the gland is embedded in the surrounding tissues, but the duct which communicates with the pharynx still remains. Thus both the ontogenetic and phylogenetic history clearly show that the gland as we now find it in man is descended from a secretory gland which originally was provided with a duct through which the secretion passed into the pharynx, just as the secretion of the salivary glands still flows into the mouth. In this we find an explanation of the fact that the activity of the thyroid secretion is not destroyed by passage through the stomach, but still can produce all its usual physiological effects when swallowed and absorbed from the alimentary canal, as it doubtless was by our remote ancestors. This mode of evolution seems to indicate that a ductless gland with an internal secretion is a higher stage of development of a duct gland with an external secretion.

The fully-developed gland consists of three parts, two lateral lobes and the isthmus which unites them. The two lobes are closely applied to the sides of the larynx and trachea, and extend backwards as far as the sides of the pharynx and œsophagus. At the level of the isthmus the recurrent laryngeal nerve lies in the angle between the œsophagus and the trachea, being covered externally by the lateral lobe of the gland on each side. In front the gland is covered by the sterno-hyoid, sterno-thyroid, and omo-hyoid muscles. Laterally the lobes extend outwards in front of the common carotid arteries. Each lateral lobe is shaped somewhat like an almond, but the upper end is narrower and more pointed than the lower. The lower end lies on the fifth or sixth ring of the trachea, while the upper is generally on a level with the middle of the thyroid cartilage. The position of the isthmus varies, but it generally lies in front of the second, third, and fourth rings of the trachea. In many cases variously estimated at from 40 to 68 per cent., the pyramid or middle lobe extends as a thin process from the isthmus or from a neighbouring part of one of the lateral lobes up to the hyoid bone, to which it is attached by muscular or fibrous tissue. The gland is firmly fixed to the larynx and trachea by fibrous tissue, so that it follows the movements of these structures which take place during deglutition. The gland when freshly removed is of a dark brown-red colour. It usually weighs from an ounce to an ounce and a-half (30 to 50 grams). It is relatively larger in the infant than in the adult, thus Huschke and Weibgen[4] found that in newborn children the weight of the gland was equal to from $\frac{1}{3}\frac{1}{5}$ to $\frac{1}{2}\frac{1}{5}$, and in adults from $\frac{1}{1}\frac{1}{2}\frac{1}{3}$ to $\frac{1}{1}\frac{1}{3}\frac{1}{0}$ of the total weight of the body. The gland is as a rule somewhat larger in women than in men, though Ewald[5] makes a contrary statement supported by Weibgen, who gives the average weight in the male as 34.2 grams and in the female as 29.3 grams. Each lobe is about 2 inches (50 mm.) long, $1\frac{1}{2}$ inch (30 mm.) broad, and $\frac{3}{4}$ inch (18 mm.) deep. The right is generally a little larger than the left. The isthmus is about $\frac{1}{2}$ inch (12 mm.) broad and $\frac{1}{3}$ to $\frac{3}{4}$ inch deep. The whole gland, however, is liable to considerable variations in structure, such as inequality in size between the two lobes, absence of one lobe, and absence or irregularity of the isthmus.

There is a rich blood supply from four arteries, the superior and inferior thyroid arteries on each side, and in some cases

* The expenses of this research have been partly defrayed by a grant from the Scientific Grants Committee of the British Medical Association.

there is a further supply by the thyroidea ima. These arteries are tortuous, and very large for the size of the gland which they supply; they form many anastomoses, and finally end in a network of capillaries closely surrounding each alveolus. The capillaries come into close relationship with the epithelial cells, and some capillary loops even project between them. The veins, which according to Sappey have no valves, unite to form the superior, middle, and inferior thyroid veins, the two former of which open into the internal jugular vein, while the latter enters the innominata. The lymphatics start from the lymph spaces in the connective tissue which surrounds and unites the vesicles of the gland. They unite to form large trunks, which freely anastomose both in the substance of the gland and also upon its surface. On leaving the gland the lymphatics pass through the superior and inferior deep cervical glands to join the jugular lymphatic trunk, which on the left opens into the thoracic duct, and on the right into the right lymphatic duct, each of which discharges into the venous blood stream at the point where the innominate vein is formed by the junction of the internal jugular and subclavian veins on each side. The nerves which supply the gland come from the middle and inferior cervical sympathetic ganglia, and pass into it with the blood vessels. The nerve branches are in close proximity to the base of the epithelial cells, but the actual nerve endings have not yet been described.

Histology.

Externally the gland is invested by a firm fibrous capsule from which septa extend inwards, partially dividing it into lobules of various sizes. Still finer divisions of this connective tissue framework surround the individual follicles and support the small divisions of the blood vessels, lymphatics, and nerves. The glandular structure consists of large numbers of closely aggregated follicles which vary in size and shape. In section they appear round, polyhedral, or flattened, and the diameter in man ranges from 0.045 mm. to 1 mm. In the great majority of the follicles there is a single layer of cubical epithelial cells surrounding a central area filled with their secretion the colloid substance. Some of the follicles seen in a section of the gland appear as masses of cubical cells without any central space. This appearance is in some cases due to one side of the alveolus alone being exposed in the section, in others to the alveolus not being distended with secretion. No basement membrane to this epithelium has been described. Two kinds of cells are found in this epithelium, the chief cells, and the colloid cells. The chief cells are usually cylindrical, sometimes cubical in shape. They measure from 8 to 16 μ in height and from 6 to 8 μ in breadth, while the nucleus, which is round, measures from 5 to 6 μ in diameter. The colloid cells are considerably shorter than the chief cells, thus Hürthle[6] found in one specimen that while the chief cells measured 12 to 14 μ in height, the colloid cells were only 7 to 9 μ high. The colloid cells are also distinguishable from the chief cells by the readiness with which they take up those staining fluids which also stain the colloid substance in the centre of the follicle. Intermediate types may also be observed.

The colloid substance which occupies the central space of the alveolus is a yellow glairy fluid which stains uniformly in microscopical sections. Scattered through it may sometimes be seen white blood corpuscles, epithelial cells, and the remains of red blood corpuscles undergoing degenerative changes.

The general appearance of the gland is shown in Figs. 1 and 2, which are taken from transverse sections through the lateral lobe of the thyroid gland of a bonnet monkey. This and the other microphotographs, which will be shown later, have been kindly prepared from my specimens by Dr. R. A. Bolam. This illustration also shows how closely in this animal the parathyroid is attached to the thyroid gland, in which it may even be embedded as in Fig. 2, an association to which I shall refer more fully in dealing with the functions of the gland.

Formation and Absorption of Thyroid Secretion.

The colloid substance is the secretion of the epithelial cells which line the alveoli. Hürthle has shown by observations made on normal glands and on portions of gland in which increased secretory activity had been stimulated either by removal of the greater part of the gland or by ligature of the bile duct so as to cause absorption of bile products into the blood, that the secretion may be formed by the epithelial cells in two ways. The colloid may be either formed in droplets in the cells and then gradually extruded into the lumen of the alveolus, or whole cells may break down and be discharged into the colloid substance, a part of which they thus help to form. In the first method the same cell continues to secrete, while in the second its place is taken by one of the reserve cells. It is doubtful if both these methods obtain during normal secretion, the first being probably the usual manner in which secretion takes place. The large amount of secretion which is found in many alveoli indicates that under ordinary circumstances it is not discharged as soon as it is formed, but that the central portion of the alveolus serves as a reservoir where the secretion is stored for a time before it finally escapes from the gland.

As the thyroid is a ductless gland it is clear that the secretion can only escape by either the lymphatics or the veins. The evidence we possess shows that the former is the usual path, for it was shown by King and by Horsley[7] that by applying pressure to the gland the colloid could be squeezed from the acini into the interacinous lymphatic spaces, where it could be seen with the microscope. Biondi and Hürthle have found that this escape of the secretion from the alveolus may occur in two ways. The wall of the alveolus, not necessarily as the result of distension, becomes thinned out at one point and finally ruptures, allowing the colloid to escape directly into the lymphatic space outside, while the empty follicle collapses and forms the starting point for the growth of a new one. Hürthle has found that the secretion can also pass out from the alveolus without rupture of the wall. He injected Berlin blue into the lymphatic spaces of the gland, using an intermittent pressure, and found that it passed on into the interior of the alveoli through minute intercellular channels, in which it could be seen. He also found that when the secretory activity was stimulated the colloid itself could be seen lying in these intercellular channels continuous with the colloid in the alveolus at one end and with that filling the lymph spaces at the other, proving that it was passing from the former position to the latter. By one or other of these methods, the secretion flows into and mingles with the lymph, which bathes the interalveolar spaces of the gland, and with it flows along the path already described to be discharged into the blood stream in the innominate vein, and so distributed to all parts of the body.

No doubt as in other glands the activity of secretion varies according to circumstances. Of these, however, we possess but little information. Stimulation of the laryngeal nerves or of the sympathetic with the faradic current produces no change indicative of increased secretion. Pilocarpin produces a marked increase in the secretion of the colloid, as was shown by Wyss, and Schäfer found that the changes produced in the cells were similar to those which occur in other secretory glands under the stimulating influence of this drug. As already mentioned, the presence of an excess of bile constituents in the blood after ligature of the bile duct also stimulates thyroidal secretion. Removal of the greater part of the gland was also shown by Hürthle to serve as a stimulus to more active secretion in the remaining portion.

Composition of Thyroidal Secretion.

At one time the thyroid gland was considered to be an excretory rather than a secretory gland, and the excretion a mucinoid substance, the retention of which led to an accumulation of mucin in the body and the production of the subcutaneous swelling in myxœdema.

Further investigation has shown that the colloid substance is a true secretion which does not contain mucin. Our knowledge of the actual composition of this secretion is by no means complete, but several important constituents have now been separated from it. Most of those who have examined the composition of the secretion have considered the proteids to be the important and active constituents of it. Notkin[8] regards thyreoproteid, a substance which he isolated from the gland, as an active constituent which behaves like an enzyme. Gourlay[9] found that a nucleo-proteid was the only proteid to be obtained from the thyroid in any quantity, and that it contained phosphorus, which by Morkutun's analysis

has been shown to amount to 0.32 per cent. Baumann and Roos[10] made the important discovery that the colloid substance contains iodine in an organic combination with proteid which they named "thyroiodin." This substance contains 9.3 per cent. of iodine, and 0.56 per cent. of phosphorus.

Hutchison[11] has found that two proteids are contained in the gland—a nucleo-albumin, which is contained in the epithelial cells and the colloid material which fills the acini. The formed secretion of the gland is split up by gastric digestion into two parts, one of which is proteid, contains only a small amount of iodine, and has but slight physiological action; the other is non-proteid, contains more iodine and all the phosphorus of the original colloid, and is more active in removing symptoms due to loss of thyroid secretion than the proteid portion. S. Fraenkel[12] obtained a crystalline substance with the formula $C_6H_{11}N_3O$, from the gland, which he named "thyreo-antitoxin." There is, however, no satisfactory evidence to show that this body is endowed with active properties.

It is evident from these observations that the secretion is a complex body, and we cannot as yet say whether its remarkable properties depend on one or, as is more probable, several constituents. Be this as it may, we shall now consider what functions are fulfilled by the secretion as a whole, for that is the form in which it mingles with the blood, and is thereby conveyed to the tissues.

THE RESULTS OF LOSS OF THE SECRETION IN ANIMALS.

A large amount of valuable information as to the properties and functions of this secretion has been obtained by observing what occurs when it is no longer present in the blood. This state of affairs is easily brought about by removal of the gland from an animal. Owing to the superficial position of the gland in the neck, this operation can easily be performed so as to entail no other secondary result than the loss of thyroid secretion forthwith, provided only that the parathyroid glands are not attached to the gland and removed with it, in which event the effects observed are the results of thyroidectomy *plus* parathyroidectomy. In man the results of failure of the normal supply of thyroid secretion from disease of the gland are seen in primary myxœdema, and from removal of the gland for goître in secondary myxœdema, or cachexia strumipriva, as it is also called.

My own observations of the results of thyroidectomy have been made on rabbits and monkeys. It has, however, been shown that although no effects have been observed in fishes: in lizards, and snakes, the operation is followed by loss of strength and activity, ending in death in the course of a few weeks.

In rabbits the different results obtained by various observers were difficult to explain, until it was shown by Gley[13] that removal of the parathyroid glands along with the thyroid gland produced different effects to removal of the thyroid alone. The double operation was followed by acute symptoms, the most important of which were muscular tremors commencing in the masseter muscles, clonic and often tetanic contractions of the voluntary muscles, paralysis of the extensors of the fore feet followed by that of the hind limbs, difficult and often rapid respiration, salivation, dilatation of the pupils, and rise of temperature. Removal of the thyroid gland alone was followed by no such immediate effects.

My own observations show that, although the immediate effects of thyroidectomy are very slight, after a long interval a chronic cachexia develops closely resembling myxœdema in man. Thus in two rabbits which were kept for a long time under observation after the thyroid gland had been removed, there was an early development of hebetude and loss of appetite. No further change was noticed until an interval of eleven months in one case and twelve in the other had elapsed after the operation. After this, in addition to the hebetude already mentioned, swelling of the subcutaneous tissues, dryness of the skin, loss of hair, and subnormal temperature developed, an entirely different condition to that described by Gley after removal of the parathyroids as well. These slides show you the appearance of one of these animals killed eleven months after the operation, and the ears of the other killed twenty-one months after. The ears were very dry, and rough, and cold to the touch, though they flushed readily when handled. The edges of the ears were dry and cracked to a depth of $\frac{1}{4}$ in. In many places this dried margin had broken off, leaving an irregular outline to the ear. In a third rabbit, which was kept for twenty-seven months after thyroidectomy, no symptoms appeared. When the animal was killed the reason of this was found to be that some of the glandular tissue had unintentionally been left at the time of the operation, and had undergone compensatory hypertrophy. The total amount of thyroid tissue found weighed only 0.07 gram, or about one-third the weight of a complete gland, but it had been sufficient to maintain an adequate supply of secretion for more than two years.

Dogs and cats both develop a rapidly fatal cachexia after thyroidectomy. More than forty years ago Schiff showed that dogs did not long survive the operation, and in 1884 he found that fifty-nine out of sixty dogs rapidly succumbed after total extirpation of the gland. In dogs the total duration of the symptoms induced by the operation may vary from a few days to five weeks, but rarely exceeds this period. Soon after the operation the animal becomes dull and listless, and loses its appetite. These symptoms are followed by fibrillary twitchings in the muscles and clonic convulsions of the trunk and limbs, during which the animal lies on its side with the head thrown back and the limbs extended. There is great dyspnœa during these attacks, and the animal is in a half-comatose condition which becomes complete before death. There is a general diminution of muscular power, and in many cases rapid emaciation. There is a slight rise of the temperature at first which becomes subnormal before death. The red corpuscles are diminished and the white increased in number. Very similar symptoms occur in cats. The observations of Vassale and Generali[14] on cats and dogs, of Edmunds[15] on dogs, and of Welsh[16] on cats show that if the parathyroid glands are excised without the thyroid gland very similar acute symptoms occur to those observed when the thyroid and parathyroid are removed together. These symptoms are tremors, slow and unstable gait, emaciation and weakness, all of which previously were regarded as being due to the loss of the thyroid alone.

The most important results of all have been obtained in monkeys, which have been employed by Munk, Horsley,[17] and myself. In the bonnet monkey (macacus sinicus), which I have used, with one exception, in all my experiments, a parathyroid gland lies in close connection with, or actually embedded in, each lobe of the thyroid gland, as is shown in Figs. 1 and 2. As a result of this, when the thyroid gland is removed



Fig. 1.—Transverse section of thyroid gland of bonnet monkey showing structure and close attachment of parathyroid gland.

the parathyroids are removed along with it. It would be difficult to remove the one without the other, for distinctly as the parathyroid can be seen in a transverse section, it is much more difficult to see it during life while the gland is

in situ. In two recent experiments I was unable to detect, even with a lens, the parathyroids on either side and remove them without the thyroid gland; they were, however, easily seen in transverse sections of the lateral lobes after removal of the whole gland. It is, therefore, important to bear in mind that thyroidectomy in this monkey involves removal of the parathyroids as well, so that the symptoms which occur afterwards are not solely due to loss of thyroid secretion, but in part are due to loss of the parathyroids as well.



Fig. 2. Transverse section of thyroid and parathyroid glands of monkey showing one portion of parathyroid at lower edge of section, and another kite-shaped portion just to the left of the centre of the section. Low power.

I have removed the whole or a part of the thyroid gland in nine bonnet monkeys and one rhesus monkey, in four of the former the symptoms were allowed to develop with the object of testing the influences of various preparations of the thyroid gland upon them. Some symptoms also occurred in the others, but these four form the basis for the description of the symptoms which result from the operation. These symptoms have been very carefully described by Horsley, but they have such an important bearing upon the whole subject that I shall briefly describe what I was able to observe in my own experiments. The gland is readily removed in the following manner, when the animal is fully under the influence of ether. The skin of the front of the neck is shaved and carefully washed with a 1 in 1,000 solution of perchloride of mercury. A medium longitudinal incision is made through the skin overlying the thyroid and cricoid cartilages and upper part of the trachea. On separating the muscles and exposing the upper part of the trachea the isthmus comes into view. Each lobe is then gently separated from the surrounding structures, and while the gland is held by one pair of forceps the blood vessels are torn out of it at the point of entrance by another pair. The loss of blood is trifling, and no ligatures are required. The usual antiseptic methods are adopted, and the muscles united by a couple of sutures. The skin is brought together with horsehair sutures set very close. The wound is dressed with carbolic gauze or some antiseptic wool and collodion, and heals rapidly by first intention. After the operation the animals have been kept in a room, the temperature of which ranged between 60° and 70° F. In about five days the symptoms first begin to develop, the early symptoms being entirely nervous. One of the first to appear is a fine regular tremor, which is most easily seen in the upper limbs, but which is also plainly visible in the lower limbs as well when the animal is held with the feet unsupported. Along with the tremor there is a marked change in the whole demeanour, which is the more noticeable owing to the naturally lively disposition and active habits of the healthy monkey. There is progressive apathy, with loss of natural curiosity and interest in surrounding objects, while the temper is irritable, interference being resented. There is loss of activity, as the animal sits still in one place on a perch or on the floor of the cage for long periods without moving; and increasing loss of muscular power, as climbing is done more slowly, and evidently with greater effort, as the symptoms advance. The attitude assumed is characteristic, the head is bent, the trunk curved forward, and the knees drawn up, so that the chin rests upon them, the joints of all four limbs being in a position of flexion. This attitude is well shown in Fig. 3 taken from one of my animals. Contractures owing to tonic spasm of the flexor muscles frequently occur; in fact I believe this attitude is partly a result of these contractures, as the limbs are often found to be rigid when it is adopted. Clonic contractions of the muscles are common. There may be a single contraction of a group of flexor muscles, or a series of three or four may involve all the flexors of one arm, increasing in intensity until a position of extreme flexion at all the joints is reached, after which relaxation takes place until another series occurs. Irregular fibrillary contractions of the superficial muscles are often visible through the skin. In consequence of these symptoms the gait is stiff and unsteady, and when the contracture is excessive the animal is obliged to walk on the heels owing to the tonic spasm of the flexors of the ankle raising the toes and sole of the foot from the ground. There is a marked tendency to fall over backwards, so that if a banana is held over the animal's head, it loses its balance in looking upwards at it and falls over backwards, and a very slight push when the animal is sitting has a similar effect. True epileptic fits of greater or less intensity may occur. There may be a sudden loss of consciousness, so that if the monkey is on the perch at the time, it falls to the ground.

In one case I observed several epileptic fits in succession in which there was loss of consciousness, tonic spasm of the flexor muscles of the limbs with risus sardonicus, followed by clonic contractions and micturition. In one fit there was in addition double internal strabismus with retraction of the eyelids, and in another conjugate deviation to the left. Retraction of the head and salivation were also observed. I have seen a temporary inability to use the arms owing to spastic rigidity limiting the movement, but not actual paralysis as described by Horsley, who twice observed a complete temporary hemiplegia. The temperature at first is raised and irregular, but soon becomes subnormal. Thus in one experiment, the chart of which I now show you, the rectal temperature, which is usually 100° F. in the monkey, was only twice below normal during the first week following the operation, as it otherwise ranged between 100° and 102°. During the second week it only once rose to the normal level, being otherwise between 98° and 99.6°, while in the third week it varied between 97.6° and 100°, except on two evenings, when it rose to 101° and 102.4°. In one experiment I found the temperature as low as 80° F. four days before death.

During the second and third weeks the myxœdematous swelling becomes distinct, and as in man is most apparent in the face. Both upper and lower eyelids become swollen, and with this there is sometimes transverse wrinkling of the forehead. Both lips are also swollen by the elastic œdema. The appearance of the face is shown clearly in Figs. 3 and 4, which were taken from two different monkeys. The skin, more especially of the ears, becomes dry and rough, and the hair may be shed. Examination of the blood shows that the red corpuscles are diminished and the white increased in number. The average duration of life was found by Horsley to be twenty-four days, but he showed that when the temperature of the air in the cage was maintained at 90° F., the average duration of life was increased to one hundred and twenty-five days, while the symptoms ran a more chronic course, like those of cretinism in man. Without giving any further details of this interesting condition, its resemblance to primary myxœdema in man is remarkable. The course of the symptoms is much more acute than in man, partly because the supply of thyroid secretion is cut off suddenly by the operation, while in primary myxœdema the supply only gradually fails as the disease of the gland advances.

In both conditions we have the same progressive loss of mental and bodily activity, subnormal temperature, elastic subcutaneous œdema, dry skin, and loss of hair. In the monkey we have, however, acute nervous symptoms which do not occur in primary myxœdema, though some have been observed after thyroidectomy in man. I would suggest, however, from the results of removing the parathyroid glands in rabbits and other animals, that these symptoms are in part



Fig. 3.—Monkey after thyroidectomy showing attitude and swelling of face.



Fig. 4.—Monkey after thyroidectomy showing swelling of eyelids and lips.

due to the loss of the parathyroids, which, as we have seen, are removed along with the thyroid. This view receives further support from the fact, which will be considered later, that these acute nervous symptoms are not readily controlled by treatment with thyroid extract as might be expected were they purely thyroidal in origin. The close anatomical association of the parathyroid with the thyroid renders the removal of the former without the latter or *vice versâ* very difficult in this animal. Under these circumstances we can remove both together, and afterwards give thyroid extract to prevent the onset of symptoms from loss of thyroid secretion. The symptoms which then occur, as I hope to show in my next lecture, are nervous in origin, and due, I believe, to the loss of the parathyroid.

Opportunities for observing the effects of total thyroidectomy in man have occurred in cases in which that operation has been performed for goitre. It is well known that in a certain number of these cases, as a result of the loss of thyroidal secretion, symptoms develop which are identical with those of primary myxœdema. Indeed, it was the striking similarity between the two, noticed by Sir F. Semon, which led to the appointment of the committee by the Clinical Society, whose report proved the identity of the two conditions and their dependence upon loss of function of the thyroid gland.



Fig. 5.—Thyroid gland and hypophysis from a case of myxœdema.

The Changes in the Gland in Primary Myxœdema.

In man only three of the diseases which occur in the thyroid gland appear to be capable of causing a sufficiently destructive lesion of the secreting cells to materially diminish the amount of secretion. Syphilis and actinomycosis of the gland have thus caused myxœdema. If these diseases are successfully treated the gland recovers, sufficient secretion is once more formed, and the myxœdema disappears. The great majority of cases of primary myxœdema are due to a fibrosis of the

gland with atrophy of the secreting epithelium. Unfortunately we know very little as yet of the cause or mode of origin of thyroidal fibrosis.

It may, according to the older views, be regarded as a chronic inflammation, a chronic interstitial thyroiditis as a result of which new fibrous tissue is formed, which by its slow contraction and constriction of the blood vessels and alveoli leads to the destruction of the epithelial cells. On the other hand, it seems more probable that the atrophy of the glandular tissue takes place primarily as the result of the action of some toxic agent, and that the fibrosis is only a replacement fibrosis, such as occurs in the spinal cord and elsewhere after more highly organised structures have been destroyed. This problem, which is one with that of the origin of fibrosis of other glandular organs, such as the liver and kidney, does not concern us further here; for however it originates, the result of the disease is a slowly progressing destruction of the gland with gradual diminution and final arrest of secretion. The structural changes in thyroidal fibrosis may be very extensive; thus, in one specimen for which I am indebted to Dr. Callcott, of Gosforth, the whole gland was much diminished in size, and pale yellow in colour.

The right lobe measured 1¼ in. in length and the left lobe 1¾ in., and the isthmus 1¼ in. in width. The general appearance is shown in Fig. 5. The day after it had been removed and placed in spirit it weighed 3.52 grams, or only about one-tenth of the normal weight. The microscopical structure is

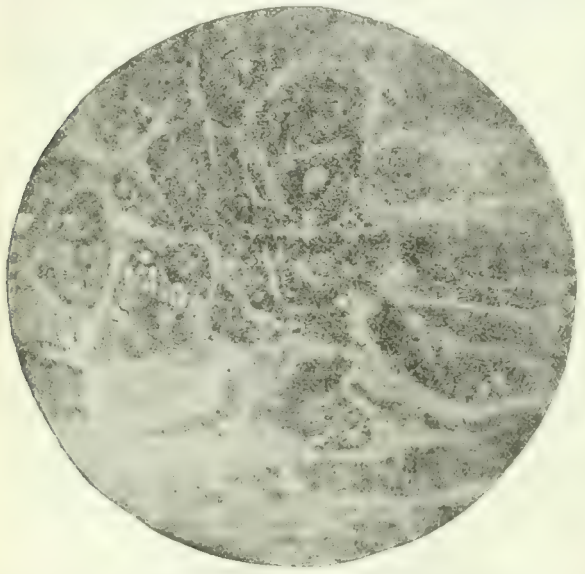


Fig. 6.—Thyroidal fibrosis with advanced atrophy.

shown in Fig. 6, from which it will be seen that only a few scattered alveoli are left, and even in some of these only a few of the epithelial cells still survive. The rest of the gland is made up of richly nucleated areas of young fibrous tissue divided by wide strands of older fibrous tissue with few nuclei. In another case in which death occurred from mitral disease eighteen years after the onset of the myxœdema, for the last six of which she had been treated by thyroid extract, the gland was pale yellow in colour and weighed 4.5 grams. The whole of the gland, as is shown in Fig. 7, was converted into fat and fibrous tissue, and not a trace of the original glandular structure remained. It is therefore quite evident that very little, if any, secretion could be formed by the gland shown in Fig. 6, and certainly none at all in Fig. 7, in which for long there must have been complete arrest of thyroidal secretion.

The symptoms of myxœdema which occur in man as a result of this destructive disease of the gland were so ably described by Dr. Ord in his Bradshaw Lecture last year that they are familiar to all. I should, however, like again to draw attention to the fact that there are many cases of early thyroidal fibrosis in which the symptoms are not nearly so definite as in the advanced cases. I have endeavoured in a recent paper[17] to show what are the chief characteristics of these cases—such as slight subcutaneous swelling and dryness of the skin, normal temperature, certain striking subjective nervous symptoms, etc. The opportunity of examining the condition of the gland at this early stage can only arise if death should occur from some accident or intercurrent disease. In the absence of definite information we can only conjecture that a much earlier stage of fibrosis will be found, for it is evident that in any given case the severity of the symptoms will vary directly with the amount of atrophy of the glandular structure.

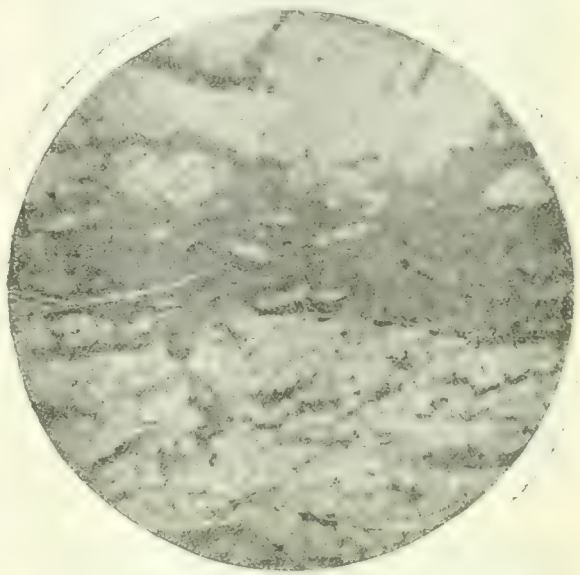


Fig. 7.—Thyroidal fibrosis with complete atrophy.

The gradual changes in the appearance of a patient suffering from slowly progressing fibrosis of the thyroid gland will be illustrated by some photographs which will be shown at the next lecture, in which I shall deal with results of disease of the thyroid gland in the young and the rational treatment of myxœdema and cretinism.

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The German Red Cross Medal.—A new decoration (the Red Cross Medal) has been created by the German Emperor, at the suggestion of the Empress. The medal, in three classes, will be given to persons belonging to the Red Cross Association who distinguish themselves particularly by their zeal. The medals of the second and third classes will be silver and bronze respectively, bearing on the one face the Red Cross with the letters W. R. (William Rex) on top, and at bottom the letters A. V. (Augusta Victoria). On the other face is the inscription "Für verdienste um das Rothe Kreuz" (for services rendered to the Red Cross), surrounded by a wreath of oak leaves. On the medal of the second class, the cross is of red enamel. The insignia of the first class consists of a cross in red enamel with a silver edge, and gold crowns up the four extremities. The medals of the second and third classes are suspended from a red, black, and white ribbon, while the cross of the first class is worn on the left breast as an order. It is intended to confer this decoration (Die Rothe Kreuz-Medaille), not only on men, but also women and girls who have successfully worked for some years in the interests of the Red Cross, or who have distinguished themselves by remarkable personal acts of devotion in any rank of life.

THE LETTSOMIAN LECTURES
ON
SOME CLINICAL ASPECTS OF GRANULAR KIDNEY.

Delivered before the Medical Society of London.

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Lecture III.

Symptoms.

Granular kidney may exist for a long time without appearing to affect the health or producing symptoms. When symptoms appear, no matter what their nature, the disease is far advanced and in its later stages. The symptoms are multifarious, and, unless there be intercurrent nephritis, in no way of themselves suggest renal disease. They fall into two groups—the cardio-vascular and toxæmic. Speaking generally, the cardio-vascular symptoms occur first, and the toxæmic subsequently, though both may be present together.

The cardio-vascular are important, because they often cause death earlier than might otherwise occur. The toxæmic always develop if the patient live long enough. They depend upon the wasting of the kidney, become manifest when it has reached a certain degree, and progress *pari passu* with it.

The cardio-vascular symptoms are more or less mechanical or accidental. The cardiac are summed up in heart failure. The vascular fall into two groups: the first is formed by hæmorrhage and its results; the second by chronic degenerative affections, especially in the nervous system, the result of imperfect nutrition through the diseased vessel.

A.—Cardio-vascular.

1. *Cardiac.*—Heart failure is often the first symptom to cause anxiety. Thus a little shortness of breath and palpitation on exertion, with, it may be, slight cardiac pain or some swelling of the feet, may direct attention to the heart, which is found hypertrophied or dilated, and that without obvious cause in the heart itself. The symptoms are usually gradual in onset, but may come on suddenly. The pain, though usually slight, may be severe enough to be called angina. In elderly persons these symptoms might be the result of atheroma, but in middle life and in the young granular kidney is the most likely cause. Cardiac symptoms are, however, not constant, even where the heart is greatly hypertrophied or the valves diseased.

I had a young man under my observation for some years with aortic regurgitation, who developed granular kidney, and subsequently died of uræmia, yet his heart gave him no trouble throughout.

Acute pericarditis belongs rather to the toxæmic group, but this is perhaps the most convenient place to refer to it. It is always a very serious complication, and even where it does not of itself cause death it is a warning that the end is near. It may produce few symptoms, and be detected only by physical signs, but the evidence of granular kidney is usually obvious enough. It may be the first sign of ill-health, as in a case I have recorded elsewhere.

2. *Vascular.*—The vascular lesions produce three sets of symptoms.

1. Those due to rupture and consequent hæmorrhage.
2. Those which result from nutritive disturbances in the parts supplied by the diseased vessels. This is especially met with in the central nervous system and in the eye.
3. Besides these, it is necessary to refer to aneurysm, and that not only of the small vessels, but of the main trunks.

I believe the connection of granular kidney with aneurysm of large vessels is a new point, but it is clearly shown in the *post-mortem* statistics from St. Bartholomew's Hospital (Woodbridge), for out of 219 cases of granular kidney the rupture of a thoracic aneurysm was the cause of death in 33, that is, in 6 per cent. There were, besides these, two cases of death from the rupture of small aneurysms at the base of the brain. To the possible causes of aneurysm, namely, laborious work, drink, and syphilis, must now be added granular kidney.

Hæmorrhage.

Hæmorrhage may take place in almost any part of the body, but it is in the brain that its most serious effects are produced, and *post-mortem* statistics prove the remarkable frequency with which granular kidney is found associated with cerebral hæmorrhage.

Dickinson states that 41 per cent. of all cases of cerebral hæmorrhage were due to granular kidney, and Pye-Smith states that in 75 per cent. of the cases of granular kidney death is brought about by cerebral hæmorrhage. The St. Bartholomew's Hospital statistics only show about 15 per cent.

In elderly persons, of course, due allowance must be made for atheroma, but even elderly persons may have granular kidney and a little atheroma, while in middle life granular kidney is the usual cause, and in the young may explain cases of cerebral hæmorrhage which would otherwise present great difficulty.

Thus in Woodbridge's cases there was 1 at 19, 1 at 27, and 1 at 30, and 2 at 37.

Of course, many patients with cerebral hæmorrhage do not die of it, but are left with paralysis, of which the following is an instance.

A young man, aged 21, recently presented himself with left hemiplegia. The attack had come on suddenly in the midst of apparent health, and was evidently due to hæmorrhage. No cause was apparent until the thickened radial and high arterial tension suggested granular kidney, and albumen was found in the urine.

Where the patient dies of apoplexy *post-mortem* examination may show the centre of the brain ploughed up by a large hæmorrhage of the common kind; but sometimes, without any extensive laceration of the brain, a large number of minute hæmorrhages are found of that peculiar kind known as miliary aneurysms.

Where the small hæmorrhages are not numerous they may produce no pressure signs, but only localised symptoms of varying character according to their position. They probably explain the unilateral fits occasionally observed in uræmia. Even when death follows general uræmic fits of the ordinary kind multiple minute hæmorrhages are not infrequently found, so that the distinction between the hæmorrhagic and the toxic form of uræmia is not always possible. In the medulla a very small hæmorrhage of this kind may lead to death or to localised nuclear paralyses of special nerves. Pontine hæmorrhage is, of course, rare, but in many instances granular kidney is the cause of it.

Of hæmorrhage into the spinal cord below the medulla I have met with no example myself, and I do not know any recorded.

Epistaxis is common, and may be the first symptom of disease, and its importance be missed. Even in the young granular kidney must not be disregarded as a cause of repeated epistaxis.

Hæmaturia.—The next most important group of cases is that in which blood is found in the urine. Attention had not been drawn, so far as I know, to granular kidney as a cause of hæmaturia until I published some cases a few years ago, but the fact is now generally recognised. The blood is intimately mixed with the urine and is bright in colour, and for this reason I am inclined to believe that it usually has its origin in the bladder; at any rate, except when granular kidney is associated with intercurrent acute nephritis, and but rarely then, is the urine smoky or dark in colour. In a case recently reported to me the cystoscope showed blood passing by the ureters. It may be so red and bright as to look almost like pure blood, but even then there are hardly ever any clots. This form of hæmaturia has led to frequent mistakes, as, for example, to the diagnosis of calculus in the bladder, for which operation has been suggested and performed. The hæmorrhage is not often copious, but in slight amount it is common and recurrent. To this recurrent hæmaturia experience leads me to attach considerable diagnostic value.

Of hæmorrhage from other parts in connection with granular kidney I have myself recorded one case of hæmatemesis. I know of one of hæmorrhage from the bowels. Hæmoptysis is described, but I have never myself actually met with it; and similar hæmorrhage, though not in large amount, is described from the pharynx.

I have recently had to deal with a case in which very troublesome and persistent hæmorrhage occurred from the uterus. It was ultimately checked by full doses of ergot.

In the last stages of granular kidney the patient may pass into an almost hæmophilic condition, in which slight though continuous and almost uncontrollable oozing takes place from various parts of the body—from the gums, nose, tongue, lips,

vagina, or from any wound or scratch in the skin. A considerable amount of blood may be thus lost, and the anæmia from which the patient is already suffering be very greatly aggravated.

DEGENERATIONS.

The next group of cases to which I wish to refer is that in which, as a consequence of arterial disease, degenerative changes result in various tissues. The most delicate of these is the nervous system; to this Gull and Sutton long ago drew attention. The subject has not since they wrote received the attention it deserves. Bond has drawn attention to the remarkable frequency of granular kidney in *post-mortem* examinations of the insane in an asylum, and has shown that it is nearly double that in a general hospital like St. Bartholomew's; and he rightly concludes that there must be a close relation between the two diseases. Although some of the diseases of the nervous system associated with granular kidney may rightly be attributed to defective nutrition in consequence of the disease of the vessels, it must not be forgotten that they may also be toxic in origin.

B.—TOXÆMIC.

The toxæmic symptoms fall into two groups; in the one they are of acute onset and great severity, and usually lead rapidly to death; in the other they are of more gradual onset and of longer duration and of less apparent severity, and of a very indefinite character. They are respectively called acute and chronic uræmia, but as the groups stand in strong contrast with one another, it would be well if different terms were employed to denote them. For the acute cases uræmia in its ordinary acceptation might be retained. For the chronic group, on account of its varied and indefinite symptoms, chronic renal toxæmia would be the better term.

There are three main theories of uræmia, which may be termed the "retention" theory, the "perverted metabolism" theory, and the defective "internal secretion" theory.

The general cachexia which develops in some forms of granular kidney bears a striking and suggestive resemblance to the condition which is met with in Addison's disease or even in myxœdema, but there is no other proof so far of an internal secretion in the kidney.

The retention theory, which implies that the symptoms are produced by the retention of some of the ordinary constituents of the urine in the body, such as urea, creatin, creatinin, etc., is now discredited; so that the third theory only remains—namely, that which refers the symptoms only to perverted metabolism. According to this theory, the products of metabolism—that is, extractives, as they are usually called—are either produced in abnormal amount, or not properly elaborated, so as to be eliminated in the normal way. In either case they would be increased in the tissues, and this increase can be demonstrated. The symptoms of uræmia might thus be referred to "extractive" poisoning, or as it is sometimes called auto-intoxication.

There are many different extractives, and they have different physiological action, and thus the symptoms produced might vary according as one or other of this extractive predominated.

Clinically we know that the symptoms of uræmia are closely simulated by many conditions which at first sight appear to have nothing to do with one another; thus, the typhoid state which develops in many fevers is like some forms of uræmia, and Murchison did not hesitate to call it uræmic. Again, when the tissues are rapidly wasting—as in malignant disease—symptoms arise towards the end which, if they happened in a case of renal disease, would be called uræmic. So, again, in the later stages of cirrhosis hepatis, diabetes mellitus, the last stage of Addison's disease or myxœdema, and, indeed, in almost all slowly-dying persons. We might thus place them all under the one heading of toxæmia, and it is for this reason that I prefer to call uræmia "acute and chronic renal toxæmia," so as to bring it into its proper relation with other allied clinical conditions.

In the case of uræmia there are two ways in which the toxæmia may arise: either the metabolism may be normal and elimination defective or the metabolism may be increased or perverted, while the elimination is not deficient but may be much increased. In uræmia the tissues are enormously rich in extractives, even when elimination by the kidney is active, and when elimination by the kidney is impaired they are still further increased.

If, then, we are thus led to associate the symptoms of chronic uræmia with chronic extractive poisoning—that is, with the presence of abnormal amounts of extractives in the tissues and the blood—we are tempted to refer the acute symptoms, which often develop with so little warning, to defective elimination by the kidney, and we might thus associate acute uræmia with the condition of the cells in the kidney, in granular kidney, just as we do in acute nephritis. It is to the chronic toxæmic group that most of the symptoms belong which bring the patient under medical observation.

The gastro-intestinal symptoms are often pronounced, and may be very misleading. Obstinate dyspepsia, especially if associated with pain, might suggest ulcer of the stomach, and this might be attributed, if there were much cachexia, to malignant disease, a suspicion which would be strengthened if hæmatemesis also occurred. As a matter of fact, hæmatemesis is rare, for the hæmorrhage is not likely to be profuse, and, unless it were profuse, the blood would not be vomited. Vomiting is often a source of difficulty, for it is very obstinate, and does not stand in relation to the taking of food.

In a man, aged 32, the diagnosis of pyloric stricture had been made and operation was proposed; the case proved to be one of granular kidney. In another instance, that of a man, aged 63, malignant disease had been suggested, but the diagnosis of granular kidney was confirmed by necropsy.

When to the vomiting retinitis is added, confusion with cerebral tumour is only to be expected. Morning vomiting, which is not rare, might suggest pregnancy, and I have seen cases confused with both these conditions. The symptoms in connection with the bowels are not, as a rule, so puzzling. Diarrhœa is common with any form of kidney disease, but there are cases in which diarrhœa is practically the only symptom, extremely obstinate, and almost uncontrollable. The dyspeptic symptoms are often associated with cramps. I have seen several cases in which cramps were the chief complaint.

Cramp leads naturally to the consideration of gout. The occurrence of chronic kidney mischief as the result of long-standing gout is well recognised, but it is quite possible that the opposite relation exists in many cases—that is, the patients are gouty because they have granular kidney.

The close association of chronic lead poisoning and granular kidney is interesting as supporting the view that granular kidney is the result of the circulation of some toxic substance in the blood, which like lead excites cirrhosis in the kidney with all its results, just as alcohol produces cirrhosis in the liver. On the other hand, it is also possible, considering that all persons who work with lead do not develop granular kidney, that the opposite relation may exist—namely, that they suffer so much from lead symptoms, just as others do from gout, because their kidneys are granular already.

Cachexia.—Patients with granular kidney may for a long time preserve their normal appearance of health, and that even when the signs of granular kidney are well marked; but, as a rule, as the kidney disease advances the nutrition suffers greatly. Failure of health and strength in persons of middle life, without any evidence of malignant disease, should always excite the suspicion of granular kidney. The cachexia stands in direct relation to the kidney wasting, and when it is extreme is an indication that the destruction of the kidney substance has approached dangerously near to the limits compatible with life. The cachexia of granular kidney is characterised by anæmia and asthenia, and to some extent by loss of flesh, but emaciation is rarely carried to that degree which is met with in advanced malignant disease. It is often out of all proportions to the other symptoms, or may even exist alone. In some cases the anæmia predominates, and in others the asthenia. I do not know that the blood has been systematically examined in these cases, but in the few which I have examined the changes have been those of simple though extreme anæmia. The asthenia is often extreme, so that the patient can hardly stand or walk without assistance. Of this extreme asthenia I have seen two striking instances recently. One of these was under treatment for a skin affection, and will be referred to in another place. In this case, with rest and feeding the asthenia greatly improved. In the other case the asthenia was extreme and fatal. This case is so remarkable as to deserve record.

The patient, a woman aged 41, came under observation twelve months previously for general pityriasis. She had some albumen in the urine, and was so extremely feeble that I did not expect her to live. However, after a few days' stay in the hospital she insisted on going home, as I thought, to die. However, she lived on, and in the course of time lost the skin eruption. About ten months later she appeared again, more anæmic and ill than before. She was again admitted into the hospital, where she died two or three days later. I never saw a patient so feeble and cachetic with so little to show for it; she was like a patient dying in the last stage of malignant disease or of Addison's disease. I examined her with the greatest possible care to discover any other cause than granular kidney, but failed to find one. Even the diagnosis of granular kidney at that stage was difficult, for the tension was extremely low, and the artery but slightly thickened. There was a small amount of albumen in the urine, but not more than might have been due to her feeble condition, and the eyes showed nothing. When the *post-mortem* examination was made all the organs were carefully examined, and absolutely nothing found except granular kidney. The kidneys weighed only 4 ozs. together. The only history I could obtain was that the patient had been ailing in an indefinite way for about six years, but had been in fair health until the skin eruption appeared, three weeks before she was first seen. From the time when the skin eruption disappeared there had been no other symptoms except those of extreme anæmia and asthenia. The cachexia was so extreme that many thought that granular kidney was hardly sufficient to explain it, and that there must be some malignant disease which had escaped detection.

Nervous Symptoms.

It is in connection with the nervous system that some of the most interesting conditions arise.

Headache which is so common a symptom, often occurs in such severe paroxysm as to closely resemble migraine. It is usually vertical, but may be frontal or occipital. When unilateral or localised as it may be, it is often diagnosed as neuralgia or tic douloureux. The vomiting is no doubt often central or nervous, for it stands in no relation with food, and is frequently periodical.

Renal Asthma.—The dyspnœa, which may be paroxysmal, is very often cardiac, and usually due to bronchitis and emphysema. The respirations in uræmic states vary much; thus they may be very slow—I have seen them as low as 10 in the minute—but they are deep, and there is no dyspnœa; or they may be rapid, noisy, and panting, not unlike that sometimes seen in diabetes. In this form, again, there is no dyspnœa. Cheyne-Stokes breathing is usually of cardiac origin. Where there is dyspnœa it is often cardiac, and, if not, is frequently due to emphysema and its attendant bronchitis, or the bronchitis itself may be of toxic origin. Any attack of the nature of true spasmodic asthma is very rare, and I must confess myself very sceptical as to its existence. I have certainly never met with it.

Peripheral neuritis is a rare condition in granular kidney. I have recorded a well marked case.

Epileptiform Convulsions.—Fits are, of course, the common form in which acute uræmia manifests itself, but epileptiform convulsions are not rare as one of the early symptoms of the late stage independent of uræmia. The fits occur in groups, two or three a day possibly, and last for a day or two; they may then disappear, and not recur for weeks or months, when a second bout of fits occurs with as little manifest cause as before, and so on. Before long grave symptoms of the usual kind develop, and the case passes into its final stage. In connection with fits may be mentioned the curious attacks of cerebral irritation, which are not at all uncommon. They may take the form of attacks of general nervous irritability, of emotional excitement, or of almost maniacal delirium. They may last a few days only, or be prolonged for some weeks, and in this condition patients have been certified as lunatics. These attacks, like the fits, are at first separated by long intervals, but gradually become more and more frequent, and finally end in a condition of chronic mental perturbation of either the excited or melancholic type.

Skin Affections in Renal Disease.

This subject has been but little written upon, and yet it is not without its clinical importance. The cases fall into two groups according as there is general œdema or not.

Where the subcutaneous tissue is distended with œdema the nutrition of the skin will naturally suffer, and from very slight local causes rashes are likely to be produced. Where there is no œdema the rashes are probably of a toxic origin.

1. *Rashes associated with Œdema.*—These are for the most part erythematous in nature, transitory in duration, produce but few symptoms, and when localised have but little clinical importance. If widespread the prognosis is less favourable, and becomes the more unfavourable the more general the eruption is. Patches of erythema are often found on the inside and front of the thighs, and on various parts of the trunk, especially the lower part of the abdomen. As a rule they last but a few days, and then do not itch or burn or produce any discomfort. Sometimes the rash is of a papular lichenous character, and is then generally met with on the backs of the thighs and arms.

Eczematous eruptions are not at all uncommon if there be much œdema where the parts lie in contact with each other. If the skin is leaking, as after puncture or when blebs have formed and burst, various forms of rash occur; they are often eczematous, and produced by the irritation of the discharge, or erythematous, and spread in a way which closely resembles erysipelas or other infective eruptions, and are no doubt of septic origin.

As in diabetes so in dropsy—the tissues lose their resistance to pathogenic organisms, so that if infection occurs it will produce very grave effects. This used to be so far recognised that puncture or drainage of œdematous limbs was regarded as a very dangerous proceeding from the liability to phlegmonous inflammation, or even gangrene. Under the use of strict antiseptic precautions the danger has almost entirely disappeared.

2. *Rashes without Œdema.*—These occur almost exclusively in granular kidney. Generally widespread, or even universal, they are of great obstinacy and of grave significance. Localised eruptions similar to those already described occur also in granular kidney, but these are not of much importance. The general rashes vary in character. They may be described as: (1) Erythema; (2) pityriasis rubra; (3) dermatitis exfoliativa; (4) general eczema; (5) a discrete, papular eruption, sometimes lichenous, sometimes resembling chronic urticaria. I have myself met with instances of each.

In the few cases in which I have seen the initial stage, the rash has commenced as a localised, patchy erythema on the lower part of the abdomen, or on the inner and front parts of the thighs.

It is strange, considering the frequency with which hæmorrhage occurs in connection with granular kidney, that hæmorrhagic eruptions are so rare. I do not remember ever to have seen a case resembling purpura, nor, as a rule, have the skin eruptions a specially hæmorrhagic character.

These rashes, of whatever kind they are, occur only late in the disease and when the symptoms are well marked, so that the diagnosis of granular kidney is usually obvious, and this is perhaps the reason why they have been so long overlooked, or at any rate not described. In some cases, where the diagnosis of granular kidney is not so obvious, the patients come under treatment for the skin affection, and the essential disease is frequently overlooked, or if albuminuria is discovered it is regarded as the consequence of the affection of the skin, and its significance missed.

The association of a generalised skin eruption with albuminuria is of great importance, and justifies a more cautious prognosis than might otherwise be given. Evidence of granular kidney is often found if looked for, and then I believe the prognosis is very grave, and the end is not far off.

Acute Renal Toxæmia: Acute Uræmia.

The symptoms of acute uræmia have by no means that definite and uniform character which seems to be often assumed. The cases really vary very much from one another, almost as much as do cases of so-called diabetic coma. Fits and coma are the two most characteristic symptoms, and yet patients may not have fits, or at any rate no marked convulsions, and they need not be comatose. A patient may be comatose without any fits, or at most with but very slight twitching, and the condition may then closely resemble apoplexy. Patients in such a state nearly always die, but I have recorded a case of recovery in a man, aged 43, who is still living 12 months after the attack.

In some cases the condition almost resembles that of narcotic poisoning. In others, again, symptoms of the most profound collapse develop. The patient seems to have been suddenly poisoned, and presents symptoms very much like those met with in acute ptomaine poisoning.

Whatever the form acute uræmia may take the prognosis is as grave as it can be. If any one of the forms has a less

grave significance than the others, it is perhaps that in which there are epileptiform convulsions, for uræmic fits in granular kidney may end in recovery now and then, as they much more frequently do in acute nephritis.

Frequently signs of cerebral irritation develop, the patient becomes extremely restless, sleepless, and more or less delirious, and sometimes passes into a condition of noisy, active delirium, not unlike delirium tremens, with which I have seen the condition confused. At other times the patient becomes violently maniacal, and is for the time a raging lunatic. If the patient does not die during this stage the attack may subside, and in a day or two pass off. But even then, the general condition rapidly deteriorates, and other symptoms develop, which before long end in death.

The most interesting fact about uræmia in the course of granular kidney is that it may develop so suddenly, and with little or no warning, in the midst of apparent health, and carry the patient off. Granular kidney is not generally recognised as a cause of sudden death, and I may refer again to the interesting statistics of Dr. Horder on the subject, which I quoted in my first lecture.

What with uræmia and other acute symptoms to which I have referred, I think we may say of advanced granular kidney, as we can of diabetes, that the patient's life is hardly worth a week's purchase, so sudden may be the onset of acute symptoms, which may rapidly end in death. Yet, on the other hand, we know that though death may be sudden, yet in the absence of acute uræmia or serious hæmorrhage life may last for many years.

Treatment.

If we knew the causes of the disease we might take steps to prevent it; but not only are the causes unknown, but the disease is not even recognised in most cases until it is already far advanced. Little or nothing definite, therefore, can be done at present in the way of prophylaxis or prevention. But as it is in the early stages that we are likely to be able to do most good, the importance of an early diagnosis is obvious. Nor when the disease is far advanced can it be cured, for scar tissue cannot be removed from the kidney by therapeutic means any more than from the skin or from the liver.

But because we do not know at present how to prevent the disease developing and cannot restore the diseased organs to their normal condition, it does not follow that treatment is of no avail. If we cannot treat the disease we can at any rate treat the patient; if we cannot cure the lesion we can at any rate attack the symptoms. If we can relieve the patient of the symptoms which trouble him, he will care but little for the morbid lesion; if we can cure his dis-ease, that is, discomfort, he will not much mind the disease.

We cannot cure myxœdema but we now know how to relieve its symptoms. We may hope for similar success hereafter in the treatment of granular kidney.

The objects we should have in view in treatment are:

1. To prevent the disease getting worse if possible, and to relieve the damaged organ in every way possible. With this in view exposure must be avoided as well as fatigue of either mind or body; the general health should be kept at its highest level; the diet should be appropriate, and, where feasible, the winter should be spent in a warm, dry, and genial climate.

2. To guard against the accidents specially likely to occur. These are failure of the heart and rupture of vessels. With this object violent exertion must be avoided, as well as all excessive mental work and anxiety; the patient should lead an easy life, both physical and mental; and, where unavoidable illness arises, such as a severe accident or acute pneumonia, if the weak spots be remembered much may be done to diminish the risks.

3 To counteract or relieve symptoms as they arise. I have already drawn attention to the extreme variability of these symptoms, and the treatment must therefore be correspondingly various also; but it is often surprising when the cause upon which these symptoms depend has been recognised, that is to say, when granular kidney has been diagnosed, how much may be done to give relief.

Of drugs, I do not know of any more useful than nitrate of pilocarpin given in small doses two or three times a day by the mouth, or in urgent cases *sub cutem*. Thus the headache, irritability by day and restlessness by night, vomiting and digestive disturbance, a foul tongue and a dry skin, may all rapidly yield to a dose or two of pilocarpin, and the patient be restored to comfort, or even threatening symptoms of uræmia be removed. There is one noteworthy fact about pilocarpin in chronic renal disease—namely, that it often does not produce the sweating which under normal circumstances and in similar doses it causes, and yet without the sweating its effect is striking.

There is one line of treatment to which I wish more particularly to refer, for it has not so far been investigated as fully as it deserves, and that is the treatment of chronic renal disease by means of renal extracts.

I have already said that there is no positive evidence at present of the existence of an internal secretion in the kidney; yet the cachexia which develops in chronic renal disease is not at all unlike that which is met with in Addison's disease or even myxœdema. Granular kidney also presents other resemblances with these diseases, in that the grave symptoms do not arise until the organ is very considerably diseased; in fact, as Bradford has shown, it is not until about three-fourths of the total kidney substance has been destroyed that life becomes impossible.

There was the same absence of conclusive evidence in the case of the thyroid gland until the administration of thyroid extract proved by its clinical effects that the symptoms depended upon the wasting of the gland. There can be no doubt clinically that the late symptoms of granular kidney do depend upon the disappearance of the glands, and it is therefore not at all improbable that the kidney has an internal secretion, though absolute proof is not yet forthcoming.

Renal extracts have not been used except in quite the latest stages of granular kidney at a time when probably the disease is too far advanced to be amenable to treatment at all. The subject is, of course, surrounded with difficulties; and yet, if we are to do any good at all by this or any other method, we must attack the disease before it has reached its later stages, and before the nutrition and general cachexia is so pronounced. The renal preparations I have been using are tabloids made by Burroughs and Wellcome.

The first question is whether the administration of renal extracts by the mouth has any effect at all. I have already said that if nitrate of pilocarpin be given by the mouth or *sub cutem* to patients with granular kidney, the dose which under ordinary circumstances would produce free sweating often fails to produce this effect. The following experience is one which I have had on several occasions:

A patient with granular kidney who had been taking nitrate of pilocarpin regularly was given renal tabloids two or three times a day. The dose of pilocarpin had hitherto caused no sweating; but within twenty-four hours or so after taking the renal tabloids sweating became marked, and followed each dose to such an extent that on some occasions it had to be stopped. As soon as this was done the sweating ceased. After a short interval the pilocarpin was repeated and the sweating returned. The pilocarpin was then continued and the renal tabloids stopped and the sweating again ceased. The administration of renal tabloids, therefore, did in these cases modify nutrition in some way so as to permit the nitrate of pilocarpin to have its normal action.

The most striking instance of the effect of the renal tabloids occurred in the following case:

A girl, aged 13, was under treatment for what appeared to be acute nephritis. After some weeks' illness she began to develop uræmic symptoms; the amount of albumen increased considerably; the amount of urea fell to 0.8 per cent.; there was a good deal of vomiting and abdominal pain, some diarrhœa, and also some bronchitis. A little later headache set in, vomiting became more troublesome, and she began to have fits. Under treatment the fits subsided, and in the course of a week or so she was in much the same condition as before the fits commenced. As she seemed to be going downhill, I administered renal tabloids, giving her 5 grs. twice a day. Coincidently with this she began to improve; the quantity of urine a few days after the first administration increased and reached 47 ozs.—the largest amount she had ever passed while under treatment, the usual average being not more than 15 or 20 ozs. With the increase in the urine the amount of albumen greatly diminished and the œdema began to disappear. In the course of a month the urine averaged 1 012 specific gravity, 40 ozs. in amount, and not more than 0.5 per cent. of albumen, and soon she was well enough to leave the hospital. Some months later she returned again in a condition of dropsy and chronic uræmia. She again took renal tabloids with great benefit, and left the hospital, except for the albuminuria, well. A third time she was brought to the hospital with uræmic convulsions, and died in a few hours.

I have had two or three other cases of the same kind, and in all the results have been the same, namely, an increase in the amount of urine and an improvement in the general condition. This improvement followed, and appeared to be due to the action of the remedy.

The use of renal extracts is still in a purely experimental stage. Judging by the analogy of myxœdema, it would be in the cases of chronic renal cachexia only that we should look for striking results, and this requires early and correct diagnosis. In acute uræmia there is so little time to act that recourse must be had to other and more active measures.

Sir, I have now finished the task you set me. My choice of granular kidney as the subject was inspired by the hope that what had interested me would prove of interest also to others. I trust I may not have misjudged. I have not hesitated to express my own opinions, even at the risk of appearing egotistic, though I trust with sufficient modesty to escape the charge of dogmatism. On a subject so full of difficult and contentious questions, I cannot expect that my views will commend themselves to all. Yet defined opinions challenge criticism, and criticism tends to advance knowledge.

THE MILROY LECTURES

ON THE

EARTH IN RELATION TO THE PRESERVATION AND DESTRUCTION OF CONTAGIA.

Delivered at the Royal College of Physicians of London

By G. V. POORE, M.D., F.R.C.P.Lond.,

Professor of Medical Jurisprudence and Clinical Medicine, University College; Physician to University College Hospital.

Lecture III.[1]

Agriculture.

Mr. President and Gentlemen,—Enteric fever, diarrhœa, plague, and some other diseases are favoured by filth, although we are ignorant of the precise way in which filth favours the occurrence of these diseases. Some might say that a filth disease is a soil disease, and that there is no line of demarcation between the two. This is true, but it is nevertheless very necessary for practical purposes to distinguish the one from the other. We are all agreed that it is dangerous to allow the purlieus of a house to become sodden with liquid filth, but it might be equally dangerous to the public health to encourage the idea that it is dangerous to dung the land for fear of inoculating it with infectious disease.

Infective organisms contained in dung have to run the gauntlet of many enemies—such as dogs, sparrows, rats, flies, maggots, beetles, earthworms, moles, sunlight, fresh air, innumerable saprophytes (both aërobic and anaërobic), and the chemical action of the roots of plants. Of course, there may be spores which emerge from these ordeals unharmed and still virulent, but it is evident that, being mortal as we are, they are likely to succumb before the digestive and disintegrating processes which they encounter. The bulk of the evidence goes to show that contagia must be largely destroyed in the soil, and that agriculture is really the corner stone of preventive medicine. It becomes of great importance, therefore, to devise means by which the fertilising material of our towns may be applied to the soil with safety and despatch.

I may be pardoned for reverting to the method of dealing with human excreta which I have practised now for twelve years in my experimental garden at Andover:

1. The excreta are moved every day so that there is no accumulation of filth near the dwelling.

2. They are put just below the surface of freshly-dug ground so that they are out of the reach of flies.

3. The ground is planted with plants of the cabbage order as quickly as may be, so that very soon there is no possibility of dust being blown off the surface of the ground, and the mass of living cabbage leaves freshens the air.

I cannot believe that dust from agricultural land is a danger in this country, whatever it may be in the tropics. In my garden the ground treated in the manner stated, apart from the growth of cabbages, soon becomes coated with a green growth of alga. Mr. A. Gepp of the Natural History Museum, who visited my garden last summer, took some of this growth away and very kindly examined it, and he pronounced it to be an alga—"chiefly vaucheria sessilis (in good fruiting state) with a little ulothrix, a gloeocystis, and an oscillatoria." Such a growth effectually prevents the possibility of dust.

Dr. Samuel Hyde,[2] speaking on the Open-air Treatment of Consumption, says: "Sparseness of vegetation, like thinness of population, is a climatic factor favourable to the treatment of consumption. Where vegetable life abounds, there vegetable decomposition must also abound, and *vice versâ*. Wherever there is life we have a corresponding amount of death accompanied necessarily by the products of decomposition." That is true, but it is also true that wherever there is death we have the potentiality of a corresponding amount of life. I believe that what I have called the circulation of organic matter is a beneficent fact from which there is no escape, and that whether we derive good or ill from the inevitable processes of death and decay depends very much upon ourselves. We must never forget that vegetation purifies the soil, freshens the air, rests the eye, and prevents dust, and these facts must be recognised as to a great extent counterbalancing the evils of dead leaves, and apart from the question of food supply, it is, I believe absolutely necessary to encourage agriculture in order that our race may be maintained in vigour. The strong contrast which exists between the agriculturist and the town worker in the matter of health is well known.

Agriculturists are amongst the healthiest in the community, and even the farm labourer, in the matter of health, is 33 per cent. better than the average.

The Maintenance of the Fertility of the Soil.

There is much evidence to show that dung is absolutely necessary to maintain the fertility of the soil. In a paper by Sir John Lawes and Sir Henry Gilbert on the valuation of unexhausted manures,[3] the difference between organic manures and mineral manures is well brought out. The lasting effects produced by farmyard manure (14 tons to the acre) are shown in the annexed table.

Experiments with Farmyard Manure on Permanent Grass Land.

	Unmanured every Year.	Manured 1856-63, Unmanured since.	Excess of Manured over Unmanured.
	cwt.	cwt.	cwt.
8 years, 1856-63 (1st crops only)	25½	42½	19½
12 years, 1864-75 (1st crops only)	19½	32½	13½
20 years, 1876-95 (1st and 2nd crops)	25½	29½	4

In only one year—1893, a year of drought—did the manured plot give less produce than the unmanured. The authors say: "It is true that the application of 14 tons of farmyard manure per acre per annum for eight years in succession is an unusually heavy dressing; but it is of interest to know that the

Showing the Yield of Wheat in Bushels per Acre.

Period.	Mixed Mineral Manure. Alone.	And NH_3 86 lb. N.	And NH_3 129 lb. N.	And NH_3 172 lb. N. for first 13 Years (1852-64) Unmanured for last 19 Years.
	Plot 5	Plot 7	Plot 8	Plot 16
13 years, 1852-64	18⅝	37⅛	...	39⅛
19 years, 1865-83	13⅛	...	...	14⅝

residue was very materially effective for some years, and that it was more or less so for thirty-two years after the application." The experiments on barley and wheat with artificial manures are equally instructive (see Table, p. 587).

In the above experiments, in which dung was not used, we find that the yield was less in the second period than in the first, and that when the large amounts of artificial manure were withdrawn in Plot 16 the yield dropped almost at once. The authors say: "There is, in fact, abundant evidence to show that there is but little effective manure residue after the growth of a grain crop by the application of ammonium salts; and there is little doubt that the produce of one bushel and a half of grain and its straw per acre per annum more over the nineteen years after the cessation of the application of ammonium salts than on Plot 5 with the mineral manure alone is, so far as it is to be attributed to residue, mainly due to the increased crop residue—stubble and roots accumulated during the thirteen years of the application; and much the same may be said of the after-effects when grain crops have been grown with nitrate of soda." Again: "When organic matter, animal or vegetable, is applied to the soil as manure, its complete decay and the complete liberation of its fertilising constituents extend over a considerable period of time. Poor land cannot be suddenly brought into condition by the consumption on the farm of purchased foods; nor can condition"—that is, accumulated fertility, be at once withdrawn by suddenly stopping the used of food.

Food Supply.—Sir William Crookes, the President of the British Association, in his address (Bristol, 1898) drew attention to the fact that if populations continued to increase we might expect to be short of wheat. Our remedy was to increase the fertility of the wheat-growing area of the world, and taking, as was perhaps but natural, a purely chemical view of fertility, he put forward the proposition that the productiveness of the soil might be expected to bear a direct ratio to the amount of fixed nitrogen which is applied to it, and he found comfort in the fact that after the exhaustion of the nitre beds of Chili and the guano beds of Peru the chemist of the future would be able by the aid of electricity generated by Niagara and other natural forces to fix the atmospheric nitrogen for the benefit of the farmer. In the course of his address Sir William Crookes made allusion to the sewage question in the following words:

> There is still another and invaluable source of fixed nitrogen. I mean the treasure locked up in the sewage and drainage of our towns. Individually the amount so lost is trifling, but multiply the loss by the number of inhabitants, and we have the startling fact that in the United Kingdom we are content to hurry down our drains and watercourses into the sea fixed nitrogen to the amount of no less than £16,000,000 per annum. This unspeakable waste continues, and no effective and universal method is yet contrived of converting sewage into corn. Of this barbaric waste of manurial constituents Liebig nearly half a century ago wrote in these prophetic words: "Nothing will more certainly consummate the ruin of England than a scarcity of fertilisers; it means a scarcity of food. It is impossible that such a sinful violation of the divine laws of Nature should for ever remain unpunished, and the time will probably come for England sooner than for any other country when, with all her wealth in gold, iron, and coal, she will be unable to buy one-thousandth part of the food which she has during hundreds of years thrown recklessly away." The more widely this wasteful system is extended, recklessly returning to the sea what we have taken from the land, the more surely and quickly will the finite stocks of nitrogen locked up in the soils of the world become exhausted. Let us remember that the plant creates nothing; there is nothing in bread which is not absorbed from the soil, and unless the abstracted nitrogen is returned to the soil its fertility must ultimately be exhausted.
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> Sir John Lawes and Sir Henry Gilbert, in a communication addressed to the *Times* on December 2nd, 1898, point out that even supposing that atmospheric nitrogen could be fixed at a remunerative price, the addition of nitrates without the addition of the other mineral constituents necessary for wheat growing would be of no permanent use; but they express the opinion that the stores of nitrogen and other fertilising salts existing in our own soils and the soils of foreign countries can be made available by thorough tillage and proper rotation of crops. The land wants labour, and the production of wheat is likely to be proportionate to its market value. They point out that the average wheat production of the unmanured plot at Rothamsted (over 13 bushels) is greater than the average of the whole of the United States, a fact mainly due to proper tillage and thorough weeding.

It is tolerably evident that fertility is not merely a chemical question. The year 1898 was remarkable for a fine wheat crop in this country. The yield is said to have averaged 35 bushels instead of 28 or 29 bushels per acre. Sir John Lawes, in his annual letter to the *Times* (October 22nd, 1898) on The Wheat Crop of 1898, states that at Rothamsted the yield in the experimental plots was as under:

Wheat Crop in 1898.

	Bushels per Acre.	Cwts. of Straw.
Plot 3, unmanured	12	12½
Plot 9, nitrates	23¼	33⅝
Plot 7, ammonia salts	28⅜	44
Plot 8, ammonia salts	29⅜	54⅜
Plot 2, farmyard manure	38	55

In 1898 at Rothamsted the plot dressed with nitrate of soda yielded 23 bushels, as against 38 bushels on the farmyard plot, and in explanation Sir John Lawes says: "For only the second time during a period of more than 40 years the wheat plant was much injured where we have used the heaviest dressing of nitrate of soda for want of enough rain to form and distribute a sufficiently dilute solution of it; and a similar result occurred in the year of drought of 1893; whilst in this year (1898) the barley plant was much injured with only half the amount of nitrate applied." Sir John Lawes also gives the average yield of these five plots for periods extending over 46 years.

	Unmanured.	Farmyard.	Ammonia Salts.	Ammonia Salts.	Nitrate of Soda.
36 years, 1852-87	13	33¾	32¼	36½	36¾
10 years, 1888-97	12½	40¾	34¼	37⅞	33⅝
46 years, 1852-97	12⅝	35½	33⅛	36¼	36⅞

From the above table it will be observed that not only has farmyard manure proved to be practically the equal of artificials for nearly half a century, but that during the last ten years the yield from it has been considerably more than that of any of the artificially-manured plots. It is interesting to observe, also, that had the wheat-growing area of this country in the year 1898 been sprinkled with nitrate of soda after the manner of Plot 9 at Rothamsted, the yield might have averaged only 23 bushels instead of 35 bushels. On 2,000,000 acres, which is approximately the wheat area of the United Kingdom for 1898, this means a deficit of 24,000,000 bushels, or 3,000,000 quarters. The chemical analysis of a soil often fails to give the clue to its fertility or sterility. Mr. Robert Elliot, in a paper on The Value of Plant Roots as Tillers of the Soil,[1] quotes Sir John Lawes to the effect that "All our experiments tend to show that it is the physical condition of the soil, its capacity for absorbing and retaining water, its permeability to roots, and its capacity for absorbing and radiating heat, that is of more importance than its, strictly speaking, chemical composition." It is, in fact, abundantly evident that the biological side of fertility is quite as important as the chemical, and that organic manures are absolutely necessary to maintain the fertility of the soil, and that of all organic manure there is nothing to be compared with dung. If all that comes from the land be returned to it there can be no reason why the agriculturist should trouble himself with chemical theories. He has only by labour to maintain the soil in a good physical condition, and he may rest assured that its fertility will increase.

SANITATION IN HOLLAND.

In Holland the connection of sanitation with agriculture is far closer than with us and it is possible that we may derive some useful hints from our neighbours. In Holland the sanitary problems are of a formidable kind. The level of the country varies from a few feet above to a few feet below the mean level of the German Ocean, and it is needless here to recount how the Dutch people, marvellous for their shrewdness and untiring industry, have maintained a successful warfare against the forces of Nature. With the exception of two or three inconsiderable areas the whole of the kingdom of the Netherlands is a flat plain intersected at very frequent intervals by canals and rivers. These water-

courses are all sluggish, and in some of them the slow current is maintained artificially by pumping. It may be said that every Dutchman lives within a few yards of a watercourse of some kind, be it ditch or canal. These canals form a very cheap and admirable means of internal communication and in consequence the barge population is very large indeed. The population of Holland tends steadily to increase, such increase being most marked in the big towns.

In no country in Europe, probably, has the state of public health improved more remarkably than in Holland.

The causes of this improvement in the death-rate are probably (1) the improvement in the physical and moral condition of the lower strata of society; (2) sanitation in its widest sense; (3) the rapid increase of population especially in the towns, causing a dilution of the high death-rates in the old crowded portions by the lower death-rates of new settlers in the outskirts; and (4) the decrease in the birth-rates. In Holland, as in England, the importance of pure water, especially for town populations, is abundantly recognised, and public supplies have within recent years been carefully protected from pollution and filtered before being distributed. The risk from drinking canal water must have been very great indeed. The mode of dealing with fæcal matters is necessarily different from ours. In Holland waterclosets are the exception and not the rule, and while the slop water of the houses is allowed to flow into the canals the fæces are collected and used for agricultural purposes.

In Holland generally the death-rate from enteric fever compares favourably with our own. Knowing as we do the great risk of drinking sluggish water liable to fæcal contamination (which has been exemplified in the Tees valley) the low enteric death-rate in Holland is not a little remarkable. Enteric being a fever of slow and insidious onset, it is impossible in sporadic cases to say where or how the patient may have been infected, and in cities with an ever-shifting population this difficulty is accentuated. That being the case, it will not be without interest if I give a few particulars concerning the provinces of Groningen and Friesland which I visited in the vacation of 1898. These two provinces are almost entirely devoted to dairy farming, the breeding of horses and cattle, and agriculture. The shifting and travelling population is a small one, and it is here if anywhere that we may learn the effect of local habits and customs on the public health.

In the town of Groningen, with 63,863 inhabitants, the improvement in the death-rate in the past twenty years has been as remarkable as that observed in the other Dutch cities or in any town or city in that country. In this town, as also in Leeuwarden, the capital of Friesland, and in the great majority of Dutch towns, the fæcal matter is collected in pails, and it is probable that in the whole extent of the two northern provinces of Groningen and Friesland there is not a watercloset to be found. The whole of the fæcal matter is scrupulously collected and returned to the soil. Dutch cleanliness is proverbial, and certainly I have never been in a town so exquisitely clean as in the town of Groningen. The accumulation of ordure in the streets and backyards is simply not tolerated, and the inhabitants co-operate with the scavengers in clearing away all refuse as quickly as possible. The collection of the fæcal matter is very simple. The closet pails are much smaller than those which are commonly used in this country, and they are emptied twice or thrice a week or daily if the householder is ready to pay a small fee. The collecting cart is really a tank upon wheels with a sort of hood projecting behind like the hood of a carriage facing the wrong way. The pails are brought out, and the man and pail are hidden by the hood as the contents are simply tipped into the tank. The pails, even when full, being such as one man can lift easily, the collection is probably ten times as rapid as is the case in those English towns which make use of huge two-man pails, which, when empty, weigh 50 lb. and more. Again, it is obvious that the Groningen authorities do not make the mistake of hauling about an immense weight of pails which add enormously to the expense. The depôt where the material is collected is on the outskirts of the town, where a wharf has been constructed with a view to its removal by barge for the purposes of the farmer. Here, again, the arrangements are very simple. The stuff is simply stacked beneath rough sheds covered with corrugated iron. The men employed have found out exactly how to do it, and by arranging a layer of street sweepings with peat ashes (the fuel used in this district is almost exclusively peat) alternately with a layer of pail contents, the whole mass drains and consolidates into a very rich black manure which the farmer highly appreciates. The floor of the depôt is concreted and provided with channels, so that the urine drains away into a large tank, whence it is pumped into barges for the use of the agriculturist. Considering the work which went on in it, this depôt was wonderfully neat; the stacks were as evenly made as the best hay stacks, and the paths between them were quite free from befoulments. The smell from the putrid draining was, to say the least, powerful; but the solid stuff soon ceases to be very offensive. There were large numbers of flies in this depôt, but I frequently remarked that the flies in the town of Groningen were not nearly so troublesome as is the case in cities less carefully scavenged.

In the town of Leeuwarden the pails are taken to and fro to the depôt, but the pails are much smaller and lighter than those in use in England, so that 54 of them (three tiers of 18 each) can be carried on a one-horse lorry. In the 10 years (1885-94) there were in each of the provinces of Groningen and Friesland 490 deaths from enteric fever and typhus fever, 980 deaths in all or an average of 98 per annum in a population of some 600,000, giving a rate for typhus fever and enteric fever of 0.16 per 1,000. During the same period there were 97 deaths from the same cause in the town of Groningen and 27 in the town of Leeuwarden, or 124, giving an average of 12.4. These figures are not large, but they show that as regards these diseases the condition of Groningen was slightly worse than the town of Leeuwarden. As in England so in Holland, the death-rate from enteric fever has been falling steadily, and the returns for the last available year (1897) are very instructive. From these returns I find that in the province of Groningen, with 296,521 inhabitants, there were 23 deaths from enteric fever in 18 parishes, giving a death-rate of 0.08, and in the province of Friesland, with 339,425 inhabitants, there were 19 deaths from enteric in 12 different parishes, giving a death-rate of 0.056 per 1,000. It is a remarkable and most interesting fact that in 1897 there was no death from enteric fever in either of the capital towns of Groningen or Leeuwarden, containing over 95,000 inhabitants (Groningen 63,863 and Leeuwarden 31,598).

The figures given above must be taken to show that in these two provinces there is no serious endemicity of enteric fever. When we consider that dairy farming is the staple industry of these provinces, that milk, which is most sensitive to typhoid fever infection, is everywhere abundant, and that human excreta containing a certain proportion of typhoid fever excreta are used, and have been used for ages, to manure this fertile district, which almost lies in the water, the comparative freedom from enteric fever seems very full of instruction.

These facts seem to me to afford a very large measure of proof that there is no inherent danger in the methods of sanitation pursued in Groningen and Friesland, and, in fact, in Holland generally.

In the United Kingdom of Great Britain and Ireland there are, including waste lands, 77,672,000 acres supporting a population of 40,000,000, and in Holland there are (excluding lakes and rivers) 7,786,000 acres supporting 4,894,000, so that Holland supports a bigger population per acre than the United Kingdom.

In the United Kingdom the area under cultivation (crops and grass) amounted to 47,868,553 acres in 1897, and this figure appears to be slightly decreasing. In Holland in 1895 the total area under crops and grass was 5,149,817 acres, showing an increase of 95,000 acres in the preceding three years. In the United Kingdom there is 1.2 acre of cultivated land per head of the population, and in Holland there is 1.05 acre. Let it not be supposed that the Dutchman owes his position of agricultural supremacy to the "natural" fertility of the soil of his country. Doubtless he has found a large amount of well-watered pasture land ready to hand, but it is undeniable that some of the very best of his land has been won from the sea, the desert moorland, and the bog, by indomitable pluck and perseverance. Above all, the Dutchman is fully impressed with the necessity of returning to the soil everything that comes out of it. Nobody knows better how to facilitate that circulation of organic matter which is a law of Nature, and he sees that his profit depends upon the completeness and rapidity of that circulation, and that in farming, as in other businesses, a rapid turnover of capital is to be aimed at. In Holland everything which has manurial value is returned to the land, and we find that the population is increasing as fast as ours, and that the land under cultivation is increasing, although the area of land is less per head in Holland than in the United Kingdom. The level of public health is as high in Holland as in the United Kingdom, and an enormous amount of farm, garden, and dairy produce is exported to this country, where the land under cultivation is tending to decrease, where manurial wealth is being recklessly burnt or turned into the sea, and where one-half of the population is absolutely ignorant of the uses and value of dung, and the other half is, if not ignorant, too squeamish to use it.

Carrington Moss.

This seems to be the place in which to allude to the spirited action of the city of Manchester, which has reclaimed Carrington Moss, and is about to reclaim Chat Moss by fertilising the ground with the organic refuse of the city. The ground is a virgin peat, which is admitted to be deadly to one at least of the supposed earth organisms. The experiment is a splendid one, and will certainly be the precursor of similar action elsewhere. The material sent to Carrington in 1897 consisted of 37,082 tons of nightsoil, 587 tons of sweepings

and garbage, and 11,673 tons of cinders. The Carrington Moss estate, therefore, regarded merely as a dumping ground for garbage and refuse, must be a source of satisfaction to the Cleansing Committee of the city of Manchester.

On August 11th, 1897, I visited Carrington Moss and had the advantage of being shown over it by Mr. McConnell, the bailiff. Carrington Moss was bought by the Manchester Corporation in 1886. It is ten miles from the city, in close proximity to the famous Chat Moss, from which it is separated by the Manchester Ship Canal, which serves for the transit of material from Manchester. The estate, for which the corporation gave £38,000, has an extent of 1,100 acres, of which 600 were wild Moss commanding a rental of a shilling an acre for sporting rights. The corporation has spent £56,000 on light railways, roads, drainage, rolling stock, buildings, etc., making the cost £94,000. (The outlay on the estate is given as £82,946 in the City Treasurer's Abstracts, 1897.) In the nine years 1889-97 491,686 tons of refuse material have been placed upon Carrington Moss, or very nearly 50 tons per acre per annum. The moss has been drained by a series of deep trenches, with nearly vertical sides, cut at regular intervals. The refuse, as it arrives from Manchester, is transmitted by means of a light railway to various parts of the estate, where for the most part it is placed in heaps and allowed to "ripen" before being placed upon the ground. These heaps soon cease to be in the least offensive. Nightsoil is frequently applied directly to the fields. At the time of my visit two barges, estimated to contain 80 tons of refuse, were unloading at the little wharf which has been especially constructed. The hay harvest was just over and the corn harvest was soon to commence. The crops one and all were in splendid condition. Oats, potatoes, carrots, wheat, and all the other usual farm crops appeared to be first-rate, quality excellent, quantity enormous. The roads were hard and firm, having been brought to this condition by the application of clinker and other forms of hard material from the city. The farm is not quite a dead level, but the inequalities of the surface are very slight, so that from every point the spectator is able to survey an area of very considerable extent. Without previous knowledge there was nothing in the appearance of the farm (except the deep trenches) to indicate the character of the subsoil. All indications of bog had completely vanished. On reaching Mr. McConnell's house we walked out upon a pretty lawn surrounded by a flower border brilliant with carnations and the ordinary garden plants. The lawn was firm and perfectly dry and I was not prepared for the demonstration which I was to have of the character of the subsoil. Taking an iron rod having a length of 11½ ft. and a diameter of about ¾ inch, Mr. McConnell with one hand drove it through the turf of his lawn completely up to the handle. I then did the same thing. As the rod passed through the first foot or so there was some resistance and a sense of grittiness was imparted to the hand, but, this first obstruction passed, the descent of the rod was progressively easier until it was finally stopped by the handle resting on the lawn. On withdrawing the rod the lower half was found to be wet, while the upper part was dry. To the upper half clung a little grit and peaty earth, the lower half was clean but wet. It was then only that one recognised that this fertile paradise was literally floating.

Mr. McConnell informs me that Carrington Moss is everywhere about 12 ft. in depth and that the variations in depth are very slight; whereas Chat Moss, although distant only a few miles, has a depth which varies from 4 ft. to over 30 ft. On Chat Moss, where the digging of drainage trenches was in progress, I examined the peat which had been removed. These trenches are dug to a depth of about 4 ft. to begin with. The peat near the surface had the ordinary fibrous character, whereas that from the bottom looked like brown jelly. The moss resembles a huge sponge. Mr. McConnell states that the surface of Carrington Moss is gradually sinking. The sponge is being squeezed and drained, and rendered more compact. The half million tons of garbage which have been placed upon the surface must exercise considerable pressure, and must serve to squeeze moisture into the deep trenches. Then, again, the upward drainage of the abundant crops is obviously very large indeed. The amount of moisture retained by and evaporated from an acre of oats or mangel must be very great.

Mr. McConnell assured me that the farm as a place of residence is by no means damp, and that the rain that falls upon his lawn quickly drains away to the reservoir beneath, and leaves the surface dry. He and his family and the employees on the farm have always enjoyed excellent health. There has been one case of enteric fever in nine years, the cause of which is doubtful.

Of the 1,100 acres of land occupied, 372 acres are farmed by the committee, 639 acres are let to tenants, and the rest is occupied by roads, wharves, plantations, etc. The rental of the portion which is let amounts to £1,516 19s., or about £2 7s. 6d. per acre, while the rent of the amount retained by the corporation is put in the accounts as £933 (that is, £2 10s. per acre for the 372 acres farmed, or just £2 if the roads, etc., be included).

In the year ended March 31st, 1897, the value of the farm produce amounted to £3,632, or about £9 15s. per acre, while the net profit on the farm appears to have been £1,041, or £2 16s. per acre. The amount paid in wages was £1,520, and the rent, as stated, was £933. If we may assume, as we have every right to assume, that the land rented was as productive as the land retained by the corporation, then the value of the produce of the 1,011 acres under cultivation would, at £9 15s. per acre, amount to £9,864, and we then arrive at the conclusion that each of the 49,342 tons sent to Carrington Moss in 1897 produced almost exactly 4s. worth of food. But now that the Moss is entirely reclaimed it will not take more than 30 tons of stuff to the acre, or, say, 30,000 tons per annum. Thus by a well-considered expenditure, Manchester has provided itself with (*quâ* refuse) a destructor capable of dealing with about 100 tons per diem for ever, and in its formation this machine has absorbed nearly half a million tons of refuse of which the city had of necessity to be rid at all costs. When the loans necessary for the purchase and development of this estate have been paid off it is certain that Carrington will cost the Manchester ratepayer nothing, and will probably yield a return in crops of about 6s. 8d. for every ton of refuse used. Land which produced nothing, and which let for 1s. per acre, has been made to yield £10 worth of produce, and an eventual rental of £2 10s. per acre. This is a result of which Manchester may well be proud.

CONCLUSIONS.

I have brought forward a considerable number of facts to prove that the dangers of applying dung to the soil are as nothing in comparison with the advantages—advantages which have been acknowledged from the dawn of historic time till now. It remains to say a few words on the financial side of the question. The great experiment at Manchester seems to prove conclusively that even in a huge city and with the heavy outlay which seems to be inseparable from all modern municipal undertakings, a well-considered scheme of application of offal and ordure in a dry state to the soil is the most economic way of getting rid of it. I have shown how in Holland great cities may be kept spotlessly clean, and in spite of obvious difficulties the public health be maintained by a well-devised system of scavenging. The cleanliness of Groningen is a thing which is scarcely realisable by one whose ideas of street sanitation are acquired in the West End of London, and the economy with which the scavenging is accomplished seems astounding to that poor pigeon, the London ratepayer. I have further shown that Holland, with a smaller area of cultivated land in proportion to population than England, is able to export to this country enormous quantities of farm and dairy produce; and that, while the English farmer can scarcely exist, the Dutch agriculturist grows rich.

It will not be uninteresting, perhaps, if I give some of the financial results of my small experiment at Andover, which is now in its fourteenth year of trial. In this experiment the ordure and house refuse of about 100 persons have been removed and applied daily for gardening purposes. The amount under the spade is now exactly one acre, one rood, and seven poles, and I should like to say that the quantity of fæcal matter at the disposal of my gardener by no means satisfies him. I am also convinced that the garden might take with advantage at least double the quantity, if not more. There is no evidence after a long experience that the soil is overdone. On the contrary, its "condition" has steadily improved. The produce of my garden has been sold on the principle of profit-sharing, so that the gardener is interested in extracting the greatest amount of produce from the soil. During the past year careful accounts have been kept, and I find that the produce fetched £72 9s. 6d., which works out to £56 per acre. Of this sum £41 12s. 7d. were received for fruit and £30 6s. 11d. for vegetables. The method of agriculture which I pursue is well known, but this has caused no prejudice against the garden produce, which finds a very ready market.

Except in the vacation, I certainly do not visit Andover more than once a month. My experience leads me to say that it is to me almost inconceivable that the daily scavenging of our towns should not yield enough profit to pay the wages. It is especially to be noticed that the yield of this garden has undergone steady increase, and I have every hope that such increase will continue. But it would be a great mistake to suppose that an acre of ground cultivated and manured as is my garden is going to yield £50 worth of produce per annum at once. The test of true gardening is increase. With the lapse of years and without appreciable cost the increase of fruit trees is automatic, and the yield of seeds is equally automatic and prodigious. My garden has gradually become fully furnished to a large extent with its own offspring, and in that fact lies part of the secret of its increasing yield. What we see in the London parks in the summer is not "gardening," but a beautiful display, after the manner of the bouquetiste, of the results of gardening elsewhere. In the same way the filling of flower beds with a crowd of named

and fashionable plants bought for the season is not gardening, but a mere evidence of wealth. The real gardener in these cases is the nurseryman.

The gradual increase in the yield of a plot of land, at least for a very long series of years, is limited only by the amount of skill and tillage which it receives and the amount of dung which is available for it. We are gradually becoming alive to the fact that fertility is a biological question rather than a chemical question. To imagine that chemicals can ever replace dung is a pure delusion from which we shall some day be aroused. The success or failure of agriculture is very largely a question of dung, and it must be admitted that the dung prospects in this country are very bad indeed. Imported animal food yields very little dung for the land, because it is mostly washed (ultimately) into the sea, while the use of steam engines, motor cars, and bicycles must mean a diminution of horse dung. The sanitary pioneers of half a century ago thought that the huge expenses of modern sanitation would be compensated by the yield from sewage farms. That has proved to be erroneous. Sewage has proved to be merely the happy hunting ground of sanitary tradesmen who have fattened on the ratepayer. The century closes with the spectacle of a Royal Commission still discussing the best way of destroying the potentialities of life and prosperity.

In these lectures I have brought forward many facts to show that there is no proof of any danger arising from the use of dung for agricultural purposes, while it is undeniable that the practice of agriculture is pre-eminently healthy and invigorating. I have been unable to find any evidence that contagia spread in the soil. To live in filth and to inhale the products of putrefaction given off from privies or pails of fæces or sodden ground result in disease, but there is no evidence whatever that disease thus generated is able to spread through the soil and infect a neighbouring house or street. Looked at in another way we must admit that filth disease, like many other forms of disease, is proportionate to overcrowding.

While we exult (not always reasonably) in our diminished death-rate, let us not forget the diminished birth-rate, the multiplication of asylums of various kinds, and the steady increase in the amount of help from public funds which is necessary to maintain the health and decency of the masses. The year just ended has been unsurpassed in the volume of trade and the bounty of the harvest, but the infant mortality in our towns for the Michaelmas quarter was the highest on record.

At present he who advocates any attempt to entice a fair proportion of the people "back to the land" is regarded as a Utopian dreamer. I feel convinced that the only chance of getting a living from agriculture lies in the due enrichment of the soil. There is no chance of this so long as the only form of sanitation which receives any official encouragement is one which involves a systematic starvation of the soil. One sometimes comes across statements which would lead one to suppose that cultivated land is a public danger, statements which are mere assertions. Our sanitarians, careless of food supply, are liable to be dominated by ideas and to fix their attention unduly upon one side of the question and upon one disease. The more enthusiastic of them, if they can secure a trifling diminution in the mortality from one disease, seem quite ready to "make a solitude and call it peace."

References.

[1] Lectures I and II were published in the British Medical Journal of February 25th and March 4th respectively. [2] British Medical Journal, October 8th, 1898. [3] *Journal of Royal Agricultural Society*, vol. viii, 1897, p. 674. [4] *Ibid.*, vol. viii, 1897, p. 469.

The Pasteur Institute in Hyderabad.—A Hyderabad correspondent states that the statement already made regarding the scheme being settled is premature and somewhat inaccurate. He, however, allows that a scheme for such an institute has been formulated, and is now before His Highness the Nizam for consideration and orders, and that it contemplates not only the foundation of a Pasteur Institute, but also of a bacteriological laboratory. For the last six or seven months work has been going on in a temporary laboratory in connection especially with the plague, and many important results have been obtained.

THE ARRIS AND GALE LECTURES
ON
THE ANATOMY AND SURGERY OF THE PERITONEAL FOSSÆ.

Delivered at the Royal College of Surgeons of England,

By B. G. A. MOYNIHAN, M.S.Lond., F.R.C.S.Eng.,
Assistant Surgeon, Leeds General Infirmary, etc.

LECTURE II.—THE PERICÆCAL FOLDS AND FOSSÆ.—PERICÆCAL HERNIA.

[Abstract.]

The pericæcal folds and fossæ are primary and secondary. The primary folds are vascular in origin; the secondary folds are dependent upon the adhesion, sometimes wanting, between the cæcum and ascending colon and the posterior abdominal wall. The primary folds are found whatever the position of the cæcum may be, the secondary are only present when the cæcum and ascending colon are normally placed.

The primary folds are:

1. An anterior, raised up by a branch of the ileo-colic artery as it runs over the anterior aspect of the ileo-colic junction.
2. A posterior, raised up by the artery to the appendix.
3. An intermediate, which is partly muscular and partly vascular in origin.
4. An accessory anterior fold due to a lateral branch of the ileo-colic artery.

The Ileo-colic Artery and its Branches.

The ileo-colic artery (Fig. 12) as it approaches the angle of



Fig. 12.—The ileo-colic artery and its branches.

junction of the ileum with the ascending colon gives off, as a rule, five branches. The precise mode of origin of these branches may vary within considerable limits. The most frequent arrangement is for the vessel to divide into two main trunks which subsequently split up, the anterior into two, and the posterior into three branches.

The anterior branches are: (*a*) A branch running to the left along the upper border of the ileum, and (*b*) a branch which continues, in the line of the ileo-colic, over the ileo-colic junction. In a few cases the largest offshoot of this latter branch is a vessel which runs to the right on to the colon, forming in its course a well-defined curve with the concavity upwards and to the right. The posterior branches are: (*a*) A branch running upwards to anastomose with the right colic; (*b*) a branch which runs to the posterior aspect of the junction of the ileum with the colon distributing twigs to the right and left: and (*c*) the appendicular artery which runs in the meso-appendix to the tip of the vermiform process. The chief branch of this last vessel arises close to the lower margin of the ileum, and runs

with a curve downwards and to the right, and again arches upwards and to the left in the ileo-appendicular fold.

The Anterior Vascular Fold (ileo-colic fold or fold of Luschka).—This fold is constant.—The younger the subject

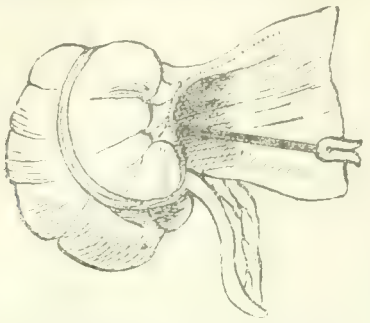


Fig. 13.—The ileo-colic fold and fossa.

the better marked the fold, as a rule. In the aged and in the obese it may become blurred and flattened, but it is always present. It is semilunar in shape, having a curved attachment to the anterior layer of the mesentery, the anterior aspect of the ascending colon, and the cæcum down to the root of the appendix. The free edge of the fold containing the vessel looks to the left, and is shorter than the attached margin, representing, as it were, the string of a bow. The fold is thin, sharp, and transparent in the young; thick, dull, and fatty in the aged. In its upper part are generally one or two lymphatic glands. The ileo-colic fold is sometimes continued on into the appendix, and the vessel it contains replaces the appendicular artery.

The Accessory Anterior Vascular Fold (Fig. 14).—In 17 cases out of 200 I have met with a distinct fold raised up by the

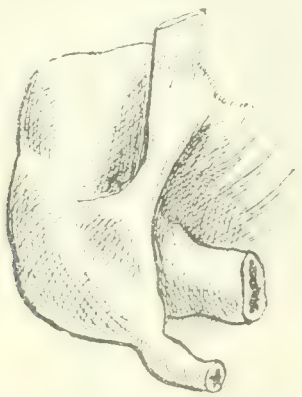


Fig. 14.—The accessory ileo-colic fold and fossa. The ileo-colic fold is continued into the meso-appendix.

lateral branch of the anterior division of the ileo-colic before referred to. The fold is well seen in the figure. A small fossa lies behind it. Both the fold and the fossa determined by it have hitherto escaped recognition.

The Anterior Vascular Fossa (ileo-colic fossa: fossa of Luschka).—This is a narrow fossa or chink situated between the ileo-colic fold in front, and the enteric mesentery, ileum, and a small portion of the upper and inner part of the cæcum behind.

The Posterior Vascular Fold—Meso-Appendix (Figs. 15 and 16).

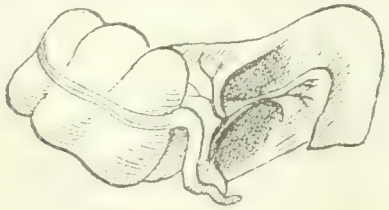


Fig. 15.—The ileo-appendicular fold and fossa.

—To see this fold clearly the cæcum and appendix must be turned upwards. It is quadrilateral in shape. Its superior border springs from the mesentery, the right is attached to the colon on its postero-internal aspect for a short distance, and then to the cæcum; the inferior to the whole length of the vermiform appendix; the internal or left border is free, and contains the appendicular artery. The anterior surface is joined by:

The Intermediate Fold: Ileo-appendicular Fold (bloodless fold of Treves) (Figs. 15 and 16).—This is quadrilateral in outline.



Fig. 16.—Diagram of attachments of the meso-appendix and ileo-appendicular fold.

The upper border is attached to the ileum, opposite the mesenteric attachment, for about $1\frac{1}{2}$ inch to $2\frac{1}{2}$ inches; the lower border extends from the angle formed by the appendix with the cæcum inwards on the anterior surface of the meso-appendix, or occasionally on the appendix itself. The outer or right margin is attached to the inner aspect of the cæcum as far down as the root of the appendix. The left or inner border is concave and free. This latter edge contains the recurrent, or ileo-appendicular artery, given off from the appendicular vessel close to the lower margin of the ileum. Between the two layers of peritoneum in this fold, especially in children, are seen some muscular bundles continuous on the one hand with the cæcum, and on the other with the ileum. In later years so much fat may be deposited between the layers that it forms a solid slab, resembling a minature thickened omentum.

The Ileo-appendicular Fossa (ileo-cæcal fossa) Figs. 15 and 17.

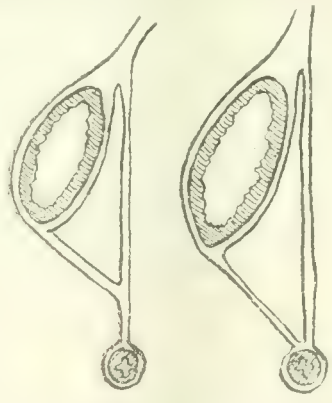


Fig. 17.—The ileo-appendicular fossa, in section.

—This fossa lies between the ileo-appendicular fold and the mesentery of the vermiform appendix. On section it is triangular, being bounded above by the posterior surface of the ileum and the mesentery, in front and below by the ileo-appendicular fold, and behind by the upper part of the meso-appendix. Two cases are recorded in which it is believed that this fossa has become closed at its mouth and subsequently dilated to form a cyst (Schott, Widerhofer).

The Fossa of Hartmann (fossa ileo-cæcalis infima).—In some cases the lower attachment of the mesentery to the iliac fossa

is prolonged into a sharp fold, the "inferior ligament" of Tuffier. Between this fold and the mesentery of the vermiform appendix there may be found a small fossa, funnel-shaped in general, but occasionally subdivided by a small peritoneal fold (Leichtenstern).

Secondary Folds and Fossa.

On lifting up the cæcum there may be seen:

The Retrocolic Fossa (Fig. 18) of variable size and capacity.



Fig. 18.—Retrocolic fossa.

In some cases the whole length of the index finger can be comfortably laid in a sort of peritoneal tube which extends upwards to the kidney. In others there may be merely a narrow and shallow dimple that would contain the tip of a lead pencil. This fossa is bounded and determined by two folds—(1) an outer and upper, and (2) a lower and inner.

1. *The Parieto-colic Fold* (fold of Hensing, superior ligament of the cæcum).—Roughly triangular in shape, this fold contains some tough, strong, shining, fan-shaped fibres. Its posterior border is attached to the abdominal wall from the lower border of the kidney over the iliac crest to the iliac fossa; the anterior or internal border is attached to the postero-external aspect of the colon, extending not seldom on to the cæcum also; the lower free border or base is concave, and extends from the iliac fossa to the intestine. The summit or apex is firmly fixed in the lumbar fossa.

2. *The Mesenterico-parietal Fold* (inferior ligament of Tuffier).—Is in reality the insertion of the enteric mesentery into the iliac fossa. In some cases it is prolonged downwards as far as the inguinal canal in the plica genito-enterica of Treitz. These two folds may be each continued downwards and coalesce in the formation in the iliac fossa of a falciform fold. In such a case the fossa formed by them would be retrocæcal, not retrocolic.

Fossa Iliaco-subfascialis (fossa of Biesiadecki).—This is situated about the middle of the iliac fossa; its orifice is directed upwards, and is bounded in front by a more or less well-defined fold, the inner extremity of which is directed upwards over the psoas towards the root of the mesentery, and the outer extends towards the iliac crest. The fossa is about 1½ inch to 2 inches in diameter, and is placed at the junction of the upper loose iliac fascia, and the lower tense and more firmly fixed portion.

Genesis of the Folds.—The ileo-colic fold and the meso-appendix are vascular in origin.

The ileo-appendicular fold is more difficult to account for. Luschka believed that it was muscular in origin. Treves asserted that it was the true mesentery of the appendix, the meso-appendix being a substituted mesentery. Jonnesco and Berry consider that the fold is a subsidiary mesentery of the cæcum. Without entering into the reasons, I may say that my view is that the fold is of dual origin; that it is primarily muscular, dependent upon the ileo-appendicular muscle; and that later its development is modified by, and attributable to, the ileo-appendicular vessel. This fold is the last to appear in the embryo, less constant than the meso-appendix, and receives its vessel (upon which it to some extent depends for its existence) from the posterior vascular fold.

With regard to the genesis of the retrocolic fossa and the parietocolic fold, I have already stated that they are secondary, and are due to the coalescence, sometimes wanting, of the posterior surface of the ascending colon, and sometimes, though rarely, of the cæcum to the posterior wall of the abdomen.

Pericæcal Hernia.

So far as I am aware, there are no cases on record which can be considered as hernial protrusions into either the anterior vascular fossa or the accessory anterior vascular fossa. The fossæ are only of anatomical interest; they have no pathology.

With regard to the ileo-appendicular fossa, I have already referred to its cystic dilatation. In 4 cases it has been the seat of a hernia.

Case I.—Recorded by Tuffier in a meagre and unsatisfactory manner. The patient was a man aged 50, very stout. An intestinal loop, which measured 8 cm., was contained in this pouch, which was very dilated.

Case II.—Specimen in the Musée Dupuytren (pièce de Michon). This is referred to by Tuffier as a true specimen of ileo-appendicular hernia. Jonnesco says of it that "it is not very convincing."

Case III.—Recorded by Dr. Little (Fig. 19). A drawing is given. Man, aged 60,

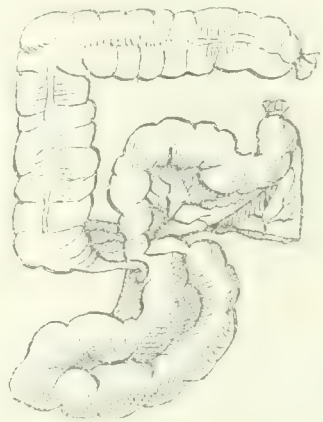


Fig. 19.—Little's case of ileo-appendicular hernia.

powerfully built. Nine days symptoms of intestinal obstruction, terminating fatally. "From a point near the tip of the vermiform appendix a narrow, but strong, whitish band is seen passing to an attachment into the front of the ileum, at a distance of about 2in. from the termination of the latter gut." A large loop (16 or 18 inches in length) was strangled by this band, which is evidently the ileo-appendicular fold. The case is very fully and graphically described, and remarks are made on the anatomy of this region.

Case IV.—Recorded by Mr. Partridge. A maid servant, aged 26, died after five days' acute obstruction. A knuckle of the ileum immediately above its termination was found strangulated and much congested, in consequence of having passed through, and become impacted in, a hole or interspace in the mesentery of the vermiform appendix. The specimen is said to be in the King's College Hospital Anatomical Museum, but it cannot be traced.

There are also many cases of hernia of the vermiform appendix into the pouch.

Hernia into the Retrocolic Fossa.—Jonnesco accepts the following as genuine cases of hernia into this fossa: 1 by Fages, 1 by Wagner, 1 by Parise, 3 by Rieux, 1 by Engel, 1 by Klebs, 1 by Moxon, 1 by Jesse, 1 by Furst. On careful perusal of these cases, the only ones that can be accepted as even possibly of this class are the last two recorded by Rieux. All the others are negatived either by paucity and inexactness of description, or belong quite obviously to a different variety altogether. Moxon's case, recorded by Pye-Smith, is in the Guy's Museum. It is a beautiful example of right duodenal hernia, and has no connection whatever with the cæcum.

Hernia into the Fossa of Biesiadecki.—One example of this was exhibited at the London Pathological Society by Dr. Mott. It was seen and recognised by Mr. Treves as a hernia into the fossa iliaco-subfascialis. A case recorded by Engel is very probably also of this variety.

Hernia into the Fossa of Hartmann.—One case has been recorded by Dr. Snow. A lady, aged 24, when in the eighth month of pregnancy, was seized with acute abdominal pain, which was followed by symptoms of intestinal obstruction, ending fatally on the fourth day. The record of the *post-mortem* appearances is rather bewildering. I think, however, that only one conclusion is possible, and it is that hernia occurred into the fossa of Hartmann. The case is so accepted by Leichtenstern.

THREE CASES OF CYST OF THE PANCREAS TREATED BY INCISION AND DRAINAGE THROUGH THE ANTERIOR ABDOMINAL WALL.

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THE diagnosis of pancreatic cysts by means of the clinical signs presented by them is admitted to be very uncertain, and, as the condition is rather uncommon, it is desirable that cases should be reported; and there is the further reason for this course that surgeons have not yet decided which is the best way of dealing with them. Pancreatic cysts have been completely removed by some surgeons; by others they have been incised and drained through an incision in the anterior abdominal wall: and by others they have been drained through the loin by an incision below the last rib. The cases recorded below were all treated by drainage through an anterior abdominal wound. It has been objected to this method, on the one hand, that the adhesion which must of necessity be formed between the anterior and posterior walls of the abdomen might be injurious, and, on the other hand, that possibly simple drainage might not effect a permanent cure of the disease. I have delayed publication of these cases in order that, in regard to them, time might show the validity or otherwise of these two objections. It is now nearly five years since my first case was operated upon; the second case was operated upon three years ago, and the third case two years ago.

CASE I.

J. N., male, aged 34, a signalman, was admitted to University College Hospital, under the care of Dr. Ringer, on March 10th, 1894.

History.—According to his account, about three weeks previous to his admission he was awakened one night by a sharp pain in his epigastrium, and he began to vomit. After two days the vomiting ceased, and the severe pain was replaced by a burning sensation in the epigastrium, whence it radiated to his throat. This pain, associated with occasional attacks of vomiting, had persisted since. During the last six years the patient had suffered from some half-dozen similar, though less severe, attacks.

Condition on Admission.—The patient, though not emaciated, had evidently lost flesh. His temperature ranged from 99.6° to 101.2°. He took food well, and suffered no discomfort from it. There was no jaundice. The motions were of good colour, and contained no excess of undigested fat. The urine was normal. The upper part of the abdomen and the lower part of the chest on the left side were bulged, owing to the presence of a mass which could be felt to occupy the whole of the left hypochondriac region and a large portion of the epigastro-umbilical and left lumbar regions. The lower and right borders of this swelling could be defined with ease, forming a well-marked curved edge, which extended to the right for 2 inches beyond the middle line and downwards to a point 2 inches below the level of the umbilicus; above and to the left the mass extended beneath the costal margin; it occupied the lumbar region, but it did not fill up the loin in the interval between the last rib and the iliac crest. Fluctuation and thrill were easily obtained. The mass was only slightly movable. It could not be moved on the deeper parts, but the relation of its lower border to the skin shifted about half an inch during respiration. A ridge which was thought to be formed by the transverse colon could be felt crossing the lower part of the swelling obliquely. The percussion note over the whole area of bulging was deficient, and where the prominence was most marked the note was quite dull. In the upward direction the dulness was continuous with that of the liver and heart; in the left axilla the percussion note was impaired as high as the sixth rib.

First Step of Operation—On the second day after admission Mr. Pollard operated. The abdomen was opened by an incision 6 inches in length in the left linea semilunaris. The stomach, the great omentum, and the transverse colon presented in the wound lying in front of the tumour, by which they were pushed forwards. The hand was passed into the abdomen, and the liver, kidneys, and spleen explored and found to be unconnected with the tumour. It was determined to open the cyst in the interval between the stomach and the transverse colon, and to do the operation in two stages. Some vessels were ligatured, and then the great omentum was divided tranversely between the stomach and the transverse colon, and the small bag of the peritoneum opened. The tumour was still covered by a layer of peritoneum. A strip of gauze was packed into the wound between the stomach and the transverse colon, and the abdominal wound above and below this spot was closed. A dressing of cyanide gauze and salicylic wool was applied.

Second Step.—After the operation the temperature rose gradually till the fifth day, when it reached 102°. On the sixth day the gauze plug was removed, and the cyst was tapped with a hydrocele trocar, and about 1,400 c.cm. of fluid were removed.

Characters of the Contents of the Cyst.—The fluid was turbid, of a dirty drab colour, alkaline reaction, and of a specific gravity of 1010. Microscopical examination showed the presence of leucocytes, some large granular cells, and some fat globules. A portion of the fluid was acidulated and boiled, with the result that an abundant precipitate of coagulated proteid was deposited. The filtrate gave the biuret reaction for peptones, and contained a small quantity of a copper-reducing substance. The action of the fluid on starch fibrin and fats was tested. It was found to possess active amylolytic properties; in its presence fats were emulsifie and fatty acids liberated; fibrin also was digested.

Third Step.—On the eighth day an anæsthetic was given, and after the removal of about 1,000 c.cm. of fluid by tapping the cyst was freely opened. Its wall was composed of dense fibrous tissue about $\frac{1}{12}$ inch in thickness. Some bleeding followed the incision into the cyst, and so the wound was packed with cyanide gauze. On the following day the gauze was removed: 500 c.cm. of dark-red, blood-stained fluid escaped, and a large drainage-tube was inserted. The temperature, which had been falling after the first tapping, rose again after the incision into the sac, but as soon as free drainage was established it fell rapidly, and subsequently remained normal.

After-History.—The man's general condition improved greatly after the evacuation of the cyst, and the farther history of the case is one of gradual recovery, uninterrupted except for a transient attack of jaundice some three weeks after the cyst was opened. This lasted two days only and was slight in degree. The discharge, which had been gradually lessening, increased in quantity with the onset of jaundice, and became tinged with green; it gave the reaction of bile-pigment with nitric acid. With the subsidence of the jaundice the discharge again diminished in amount, and changed to a clear, thin, serous fluid. Six weeks after the operation the man left the hospital; he was in very good health, but he was still wearing a tube 4 inches long.

In July, 1895, the patient was well-nourished and in excellent health, and had been at his work as signalman at Finsbury Park Railway Station for more than a year. He was still wearing a short tube, through which a small amount of clear discharge escaped. The tube was removed and in less than a week the sinus closed permanently. This patient was last seen in December, 1898. He said that since the operation he had had occasional attacks of burning pain at the epigastrium. The last attack was a year and nine months ago; since then he had enjoyed excellent health and had felt much better than he had done for several years previous to his operation. Nothing could be felt in the regions previously occupied by the cyst, and the patient had no discomfort there; the scar had yielded, and the patient was wearing a belt.

CASE II.

J. W., male, aged 56, was admitted to University College Hospital, under the care of Dr. Ringer, on January 17th, 1896, complaining of a tumour in his abdomen.

History.—On December 18th, 1895, he began to feel unwell. On the 22nd his abdomen felt distended, and he had slight abdominal pain, and felt short of breath. During the following night he awoke with severe abdominal pain, was repeatedly sick, and felt very short of breath. The attacks of pain and vomiting recurred, but were milder in character during the following days. On January 3rd a tumour was detected in the abdomen. During the illness there had been nothing abnormal in the characters of the urine, and the patient had not been jaundiced. The patient could not assign any cause for his illness. He had not had any injury to his abdomen. He had been losing flesh for two months. He had had frequent attacks of epistaxis, and four years ago "he broke a vessel" in the left side of his scrotum.

Condition on Admission.—The abdomen was greatly enlarged, and particularly so at the upper part. There was marked bulging in the epigastric and left hypochondriac regions. A large tumour could be felt in the abdomen filling the left upper quadrant of the cavity, and extending to the right nearly to the nipple line and downwards to just below the umbilicus. It extended upwards beneath the left costal margin, and gave rise to dulness on percussion in the left hypochondriac region, which reached to the level of the sixth intercostal space midway between the nipple and mid-axillary lines. Overlapping the right upper portion of the tumour in the epigastrium, and separating the dull area due to the liver from that due to the tumour, there was an area of resonance, the extent of which became considerably increased when the stomach was distended with gas. The surface of the tumour was smooth, and it had a tense elastic feel. There was well-marked pulsation in the tumour, but this was only communicated, for it disappeared when the patient rested on his hands and knees or turned on to his left side. The tumour moved very little if at all with respiration. It was slightly movable from side to side. It could be felt readily from the loin, but it did not fill the loin, and did not cause any bulging there. On percussing the tumour lightly an absolutely dull note was obtained, but on deep percussion there was some resonance in the note. A mass, which appeared to be the lower end of the right kidney, could be felt behind the tumour just below the last rib. When air was injected up the rectum a well-marked tympanitic note was obtainable in the left flank and at the upper part of the abdomen. This resonant area was behind the tumour. The urine occasionally contained a slight trace of albumen, but in other respects it was normal. The stools had a natural appearance. The patient was emphysematous, and expectorated slightly blood-stained mucus.

Operation.—The patient was kept under observation for fourteen days before operation. During this time the tumour became tenser, but in other respects it did not change. The patient lost 5 pounds in weight. On the fourteenth day after admission Mr. Pollard operated. The abdomen was opened by a longitudinal incision, 4 inches in length, placed a little to the left of the middle line, and over the most prominent part of the tumour. The great omentum was exposed; it was adherent to the parietal peritoneum below and to the left, but above and to the right there were no adhesions, and there the stomach and the lower border of the liver were displayed. The great omentum was torn through and the cyst wall was exposed. The cyst was punctured with a hollow needle, and a brownish fluid withdrawn. After sufficient fluid had been withdrawn to render the cyst walls lax, an incision, about one inch long, was made into the cyst, and its contents were thoroughly removed: 4,600 c.cm. of fluid were withdrawn. The abdominal wound was sutured at each end, and the margins of the incision into the cyst were secured by several stitches to the margins of the central portion of the abdominal wound. The cyst occupied the smaller bag of the peritoneum, and from its interior the left kidney could be felt of normal size behind it.

Characters of the Contents of the Cyst.—The fluid removed from the cyst had a greenish-brown colour; its specific gravity was 1012; its reaction was alkaline; it contained half albumen. Its digestive properties were

investigated by Dr. Vaughan Harley, who reported that it contained the three ferments—trypsin, steapsin, and amylopsin, of pancreatic juice. Some fluid which was withdrawn from the cyst on the fourth day after the operation had no digestive properties.

After-History.—The patient made an uninterrupted recovery. The highest temperature recorded was 100° F. on the day after the operation; with that exception it was normal. There was very little discharge, and the cavity contracted up rapidly. The patient got up on the sixteenth day after the operation, and he was discharged on the twenty-fifth. There was a tube 3 inches in length in the sinus, and the patient was told to keep it in as long as he could. He however removed it as soon as he left the hospital, and the wound healed in a few days. This patient was seen in December, 1898. He was quite well, and had not had any abdominal trouble since his operation. A small ventral hernia had protruded through an aperture in the centre of the scar at the place where the drainage tube had been. No recurrence of the cyst could be detected.

Case III.

T.A.B., male, aged 36, was admitted to University College Hospital on January 30th, 1897, under the care of Dr. Roberts.

History.—Towards the end of October, 1896, he began to suffer from pain in his back. On November 11th he was seized with a sudden pain in his left hypochondrium, which spread up into his chest, and, as he says, "nearly choked him." He kept his bed for a month, during which time the severe pain subsided, but the pain in his back continued until about a fortnight previously. About two months before his admission a tumour was noticed in his abdomen.

Condition on Admission.—The patient was well-nourished and looked healthy. There was fulness in the epigastric and the left hypochondriac and lumbar regions. A large tumour could be felt in the left loin and extending thence upwards beneath the ribs, downwards to the level of the umbilicus and across the epigastric and upper part of the umbilical regions to 2 inches to the right of the middle line. Though occupying the left loin it did not really fill it and could not be made to bulge out the space between the last rib and the iliac crest. The lower end of the left kidney could be felt behind the tumour just below the last rib. The borders of the tumour, with the exception of the lower, were not well-defined. It moved a little with respiration, and on grasping the tumour with both hands, one in front and one in the loin, it could be moved a little from before back. It felt distinctly elastic. The percussion note was deficient in resonance, but not dull. The stomach resonance and the succussion splash could be detected in front of the tumour in the epigastric region, over the abdominal mass, but percussion over the chest elicited a definite dull note, extending in the nipple line to about the fifth rib. The urine contained a trace of albumen, but was otherwise normal. There was no excess of fat in the stools. Temperature normal.

Operation.—On February 27th, 1897, Mr. Pollard operated. The abdomen was opened by an incision 4 inches long, passing through the rectus about an inch to the left of the middle line. The hand was introduced, and the tumour explored. It was free from the kidney, and it was found to be presenting between the stomach and the transverse colon. The great omentum was torn through, and the wall of the cyst was exposed. A large aspirator needle was then plunged into the tumour, and over a quart of brownish fluid was withdrawn. The cyst was then freely opened and emptied. The margins of the incision were stitched to the skin, and the upper and lower parts of the abdominal wound were closed. A large tube was passed into the cyst, and a dressing of cyanide gauze and salicylic wool was applied.

Characters of the Contents of the Cyst.—The fluid removed had a dirty brown colour and a rather offensive smell, and it deposited a large sediment. It had a faintly alkaline reaction, and leucin drops and crystals were seen with the microscope. The fluid was examined by Dr. Vaughan Harley, and was found to possess all the properties of pancreatic juice.

After-History.—After the operation the temperature gradually rose, and reached 102° F. on the third day; it then fell, and reached the normal on the sixth day. The dressing was changed daily, and sometimes twice a day, as there was a copious, foul-smelling discharge. Many large black sloughs presented at the wound and were removed. The patient left the hospital six weeks after the operation. He had a small sinus then, but that healed in a fortnight. This patient was seen in December, 1898. He had had no further trouble from the cyst. The upper and lower parts of the abdominal wound were firmly united, but at the centre, where the drainage tube had been, there was a weak spot through which a hernia protruded. Nothing abnormal could be detected in the regions which had been previously occupied by the cyst. The patient's general health was good, and he had gained flesh.

Cysts of the pancreas have frequently developed after abdominal injuries, and it has been suggested that their formation is due to extravasation of blood, and subsequently of pancreatic secretion from the lacerated gland. There was no history of injury in any of my cases. In two of them the onset of the illness was marked by severe pain in the epigastrium and by frequent vomiting; in the other case the patient had a sudden severe pain, which he located in the left hypochondriac region, and which he stated spread up to his chest and nearly choked him. Severe epigastric pain has been frequently noted as an antecedent of pancreatic cysts. Two of the patients had lost a good deal of flesh, and one of them lost 5 lbs. in fourteen days. In all the cases the urine was free from sugar. In two there was an occasional trace of albumen. The stools appeared natural, and there was no excess of undigested fat. There was no jaundice before the operation in any of the cases. In one there was a slight attack after the operation.

All the three cases presented very similar clinical signs. In each there was a large tumour occupying the epigastric and left hypochondriac regions, and portions of the umbilical and left lumbar regions. The tumours moved very little with respiration, but they could be moved slightly from before backwards and from side to side between the two hands. In two of the cases stomach resonance could be obtained by light percussion in the epigastric region, although the tumours appeared to fill that region, and the area of stomach resonance was increased by distending the stomach with gas. In one case the percussion note was dull over the most prominent part of the tumour in the epigastric region, although at the operation this part of the tumour was found to be covered by the stomach. In this case the transverse colon could be traced over the lower part of the tumour. In one case there was good resonance in the flank behind the tumour, and this was increased by injecting air up the rectum. In each case the tumour gave rise to a dull area in the left hypochondriac region, and it also occupied the lumbar region, but it could not be made to fill the loin in the way that a hydronephrotic kidney either does or can be made to do. In two of the cases the lower end of the left kidney could be felt behind the tumour just below the last rib. The fact that the tumours moved very little, if at all, with respiration, and the presence in two cases of the stomach and in one of the transverse colon in front of the tumour showed that the tumours were not situated in the liver, and suggested that they were located either in the small bag of the peritoneum or in the retroperitoneal tissue. In one case distinct fluctuation and thrill could be elicited, and in all three the tense and elastic feel of the swellings suggested that they were cystic. In the first case the tumour was diagnosed as a cyst which was not connected with either the liver or the kidney, and it was thought to be either a pancreatic cyst, or a collection of fluid in the lesser bag of the peritoneum. The diagnosis of pancreatic cyst was made in each of the other two cases on the grounds stated above and on their resemblance to the first case; and in all three the diagnosis was verified after operation by an examination of the fluid removed from the cysts. In each case the fluid removed at the operation contained the three digestive ferments of pancreatic juice—amylopsin, trypsin, and steapsin; but after they had been drained for a few days the discharge from the cysts was found to have lost its digestive powers over starch and fibrin; its fat-splitting properties were not tested.

Pancreatic cysts have come forward in at least three different situations, namely, above the stomach, opposite the small omentum; between the stomach and the transverse colon, opposite the great omentum; and below the transverse colon, opposite the descending layer of the transverse mesocolon. The second of these positions is the most common.

In the first of my cases the cyst lay behind the stomach and the transverse colon, but it had not disturbed their relations; in the third case the cyst presented between the stomach and colon, and separated them from one another; and in the second the cyst presented below the stomach, and had displaced the transverse colon downwards considerably, but as there were adhesions between the omentum and the abdominal wall below, it was thought unwise to disturb them sufficiently to determine the exact position of the colon. In all three cases the cyst was covered in front by omentum. In the first and third cases the great omentum and the ascending layer of the meso-colon had to be divided to reach the cyst wall; in the second case the tissues covering the cyst wall were so blended together that their component parts could not be identified.

The practice of aspirating abdominal tumours either for the purpose of diagnosis or treatment merits strong condemnation. In some cases undoubtedly it may be safely done, but it is not possible to determine which by physical signs. In the first of these cases if the most prominent part of the tumour, which was dull on percussion, had been aspirated the needle would have passed through the stomach. In the second case the most prominent part of the tumour had separated the stomach and colon so widely that aspiration could in all probability have been done without injury to the abdominal viscera. In the third case it would have been a lucky chance if the needle did not transfix either the stomach or the colon.

In the first case, which was operated upon nearly five years

years ago, the operation *à deux temps* was performed, but in the other two the cysts were opened at once, after the greater part of their contents had been removed by aspiration. The margins of the openings into the cysts were stitched up to the skin, and the cysts were drained for some time. It was quite easy to prevent leakage into the peritoneum when the cysts were opened at once, and on other grounds that method is preferable to that *à deux temps*.

The method employed for the treatment of these cases was the simplest possible, and I think it was the best. The removal of the cysts has been recommended, and the operation has been performed successfully in some cases, but in several there has been a fatal termination. In my cases extirpation of the cysts would have involved most difficult and severe operations. And since it is now clear that drainage alone will suffice for the cure of pancreatic cysts, I think it is no longer justifiable to attempt their removal. A point more worthy of consideration is the route by which drainage of the cysts should be effected. The advisability of draining these cysts through a posterior incision has been urged, in order to avoid the necessity of making an adhesion between the cyst and the anterior abdominal wall. In the cases above reported no harm has resulted from the adhesions. If the lumbar operation could be performed safely without making an anterior incision at all, I should be in favour of it; but in all cases I should think it would be advisable to make an anterior incision in order to verify the diagnosis; and possibly, too, in order to determine the spot at which the cyst could be best reached by the posterior incision. The posterior route would certainly be a good one in cases where the cyst is small, and in which it would be difficult to bring it up to the anterior abdominal wall. It must not be forgotten that important structures and large blood vessels may be encountered in attempting to reach the cyst through an incision below the last rib, and that owing to want of space it might be difficult to recognise and avoid them. The only objection to anterior drainage which has been apparent in my cases is the occurrence of hernia at the spot where the presence of the tube prevented primary union of the abdominal wound.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

OPERATION FOR ELEPHANTIASIS OF THE VULVA.

THE interesting cases reported in the BRITISH MEDICAL JOURNAL by Dr. Renner and Surgeon-Captain Smith of operation for elephantiasis of the vulva, remind me of one I treated when practising in Jamaica in the year 1865.

A black girl, aged 25, complained that she had for many years suffered from great enlargement of the external genitals. On examination, I found the parts greatly hypertrophied, and presenting all the well-known appearances of elephantiasis. The right labium formed a large tumour 19½ inches in circumference, which, when the patient was standing, extended to within 2 inches of the knee. The left labium was the size of a large turnip. The nymphæ and prepuce of the clitoris were also hypertrophied but not to a great extent.

To avoid the risk of hæmorrhage in removing the diseased mass a local mechanic made for me a clamp composed of two parallel bars of lancewood united at one end by a hinge, and on the inside edge of each bar were placed several short sharp metallic pins, the object of these being to prevent the tissues slipping from the grasp of the clamp when they became slippery with blood.

The patient being under chloroform, the clamp was applied around the base of the right labium, as close to the pubes as possible, and tightly held. A slightly-curved incision on each side, about half an inch below the clamp, was made, and a few more strokes of the knife from above downwards separated the mass. Not more than 3 ounces of blood were lost, and this came entirely from the tumour, as, on wiping the cut surface controlled by the clamp with a sponge, it was completely white and bloodless. The pressure of the clamp was gradually relaxed, and one by one as they bled ten large vessels were tied. The cut edges were brought together by several sutures. The redundant tissues of the nymphæ and prepuce were pared away with only a slight amount of bleeding. After a few days the left labium was removed in a similar manner with the aid of the clamp, and five vessels were tied. The patient recovered without a bad symptom.

After a considerable amount of fluid had drained away and the weight thereby lessened, the diseased mass on the right side weighed 3 lbs. 10 ozs., that on the left side nearly ¾ lb. The effect of the clamp in preventing hæmorrhage was very marked, and the sharp pins acted admirably in preventing the slipping which must have occurred had they not been used. As a curious circumstance it may be mentioned that, three years previous to my seeing her—and when, as she assured me, the parts were exactly in the same condition—she was delivered of a full-term child after an easy labour.

Eastbourne. IZETT ANDERSON, M.D.Edin.

THE TREATMENT OF PNEUMONIA BY IRON PERCHLORIDE.

I CAN add my testimony to that of Dr. King in the BRITISH MEDICAL JOURNAL of November 12th, 1898, as to the great value of large doses of perchloride of iron in the treatment of pneumonia—a remedy far more effective here than in diphtheria or erysipelas. I have to thank a correspondent who some four years ago drew attention to it in the JOURNAL.

The late Sir Andrew Clark, in the discussion in London on the treatment of this disease, spoke very highly of it as appearing to have the effect of preventing consolidation. I have, however, of late combined large doses of digitalis, and consider the results eminently satisfactory in comparison with the usual treatment by expectorants. It is not merely an empirical, but a scientific, remedy. With children it is not so successful, because the administering of large doses of steel is so apt to cause vomiting. As to the exhibition of stimulants, I am cautious, believing that many a patient is poisoned by alcohol.

Ballarat, Victoria. A. TEEVAN, M.R.C.S.Eng., etc.

A CASE OF OBSTINATE HICCOUGH.

A PATIENT aged 50 years, of a highly nervous temperament, suffering from hæmorrhoids had them replaced under gas and ether. About two hours afterwards he commenced to hiccough. Pressure on the epigastric region checked it for a short time, but it recommenced and continued practically all night, sleeping or waking, the spasm being regular in character. Crushed ice was given by the mouth, without effect. Bromide of ammonia and soda, half drachm of each, with 20 grains of chloral, merely caused the hiccough to be slightly less violent during sleep. Mustard to the epigastrium was tried without any good result; neither had calomel (4 gr.) followed by a saline draught.

After consultation injections of morphine were given in quarter-grain, and later in half-grain, doses. These merely gave slight relief during the sleep which followed. Inhalations of ammonia were next tried, but with equal want of success. Laughing temporarily arrested it.

On the night of the ninth day I prescribed 2 minims of a 1 per cent. solution of nitroglycerine, with a drachm of the spirit of chloroform in half an ounce of water, to be given every hour. The first dose was taken at 9 P.M. The hiccough shortly began to diminish in frequency and violence, and at 2 A.M. finally ceased.

Whether this satisfactory condition would have resulted from natural causes it is difficult to say, but apparently the medicine last used produced the good effect, and as such cases are very troublesome, both to the patient and his medical attendant, I would suggest the above as a possible remedy.

R. W. S. CHRISTMAS, L.R.C.P., M.R.C.S.

Streatham, S.W.

THE new medical faculty established in the University of Odessa will be formally opened in August next.

MEDICAL GRADUATION IN RUSSIA.—During 1898 the degree of Doctor of Medicine was conferred by the University of Moscow on fourteen, by the University of Charkoff on five, and by the University of Kieff on three candidates. The number of students of medicine in the three universities severally was on January 1st, 1899, as follows: Moscow, 1,294; Kieff, 895; Charkoff, 709.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GENERAL HOSPITAL, NOTTINGHAM.

PARIETAL OSTEOMA TREATED BY TREPHINING: IMPROVEMENT.

(By Henry Handford, M.D., Physician to the Hospital.)

The patient—who was shown to the Nottingham Medico-Chirurgical Society on February 1st, 1899—a young woman, aged 19, first came to the hospital on September 17th, 1895, and was admitted ten days later. No history of syphilis in the parents could be obtained, nor was there any sign of acquired syphilis in the patient. She had suffered no injury, and had no serious illness until the present, which commenced eight months before admission. She then woke up one morning, to find weakness of the left side. There was no affection of speech and no loss of sensation, though she had some tingling in the left leg. She could walk, dragging the left leg, but could not lift things with the left arm. The left knee-jerk was much exaggerated, and a wrist-jerk could be obtained on the left side but not on the right. She had some frontal headache and occasional vomiting. The pupils were equal. There was no loss of sight, but marked optic neuritis was found in both eyes. Three weeks later she was unable to read D 6 at 15 feet with either eye. The left visual field was slightly diminished but not the right. There was no localised tenderness of the skull to percussion nor any irregularity of contour.

By November 11th the vomiting had ceased, but she still complained of some headache. The optic neuritis was slowly progressing; otherwise she had greatly improved. The temperature had always been normal. The paralysis had greatly diminished, so that it was sometimes difficult to detect. She was very childish and emotional, and at times appeared mentally deficient. The treatment consisted of iodide of potassium in moderate doses.

With so much general improvement, it was not considered wise to do an exploratory operation, especially as it was thought the tumour might be near the base of the brain.

On January 11th, 1896, she was readmitted, but there was no material change except that the optic discs were atrophic. She could walk well, there was but little headache, and the vomiting had not returned. The weakness of the left side persisted in some degree.

In November, 1896, she came under the care of Dr. Laws at the Eye Infirmary, and I am indebted to him for the following account of her vision at that time.

Right eye: Vision = $\frac{6}{9}$; visual field extremely contracted, not extending more than 2° or 3° from the fixation point.

Left eye: No perception of light.

Ophthalmoscopic examination: Subsiding optic neuritis in each eye, passing on to atrophy, more advanced in the left than right. She has hallucinations of vision in the left half of the visual fields (sees people and animals close to her and larger than natural). There is also occasional twitching beginning with the left angle of the mouth, passing to the left eye, and then to the left hand and arm.

On June 2nd, 1898, the patient was admitted for the third time. She was able to see her way about, but could not read or sew. She could walk without much difficulty; the left knee-jerk was very greatly exaggerated, and the right to a less extent. The weakness of the left arm had somewhat increased, there was some stiffness of the fingers, and in consequence she was quite unable to feed herself with the left hand. For several months past she has been sick every morning, and has suffered much from pain on the right side of the head shooting over the eyes.

A lump was first noticed on the right side of the head about a year ago, and has gradually increased. It was now about the size and shape of half a duck's head divided longitudinally. It commenced at the posterior border of the right frontal bone, and extended backwards over the anterior two-thirds of the parietal bone. It was smooth and regular on the surface and underneath the scalp, which moved freely over it. It was firm and resisting to pressure, which caused great pain.

As regards diagnosis, the long history of cerebral symptoms before any change in the bone was apparent suggested a cerebral tumour bulging the cranial bones outwards; but the extreme pain and tenderness of the tumour led to the suspicion of a growth of the bone itself. It was certainly not an ordinary syphilitic node or gumma; but whether syphilis was the primary cause of the growth or not must remain uncertain, as both the history and the action of iodide of potassium were inconclusive.

On June 23rd the patient was transferred to the surgical wards for operation. My colleague, Mr. Anderson, trephined over the site of the tumour, and remove a disc of bone which proved to be about 1 inch thick. The opening was enlarged to about 2 inches in diameter, the bone remaining at the margins being only moderately thickened. There was no sharply defined tumour, but a diffused thickening shading away towards the periphery. The bone had projected as much internally as externally, so that upon removing the bone the brain and membranes were depressed. The surface of the brain appeared otherwise normal, and pulsated in the usual way. No indication of any cerebral growth could be discovered. The disc of bone has unfortunately been lost; but the general character of the change was thickening and induration of the diploë. It bore no resemblance to an ivory exostosis. It differed from the general thickening of the skull occasionally found *post mortem* and attributed to syphilis, in its strictly limited extent, and consequent marked projection from the surface.

Convalescence was rapid and uninterrupted. The headache and sickness have not returned. The patient thinks her sight is better, and certainly her mental condition is much brighter. She says the left arm and leg are both stronger than before the operation. She can now hold a fork in the left hand and feed herself, which she has been unable to do for three years. The knee-jerks are unaltered. On the site of the bony growth is now a soft fluctuating swelling over the trephine opening, rather less in area, but more prominent, and pulsating synchronously with the carotids.

On September 26th, 1898—that is, three months after the operation—Dr. Laws kindly examined the eyes again. His report is: Right eye, V.=$\frac{6}{9}$ and $\frac{6}{6}$ for one letter; left eye no perception of light. Complete post-papillitic atrophy of both discs, with some diminution of the arteries and tortuosity of the veins. Fields: A very small central field in right, not more than 2° or 3° from the fixation point.

From this it will be seen that central vision is quite acute in the right eye, though the field is very small. This condition is almost exactly the same as in November, 1896. Before the operation she did not read at all, and had not done so since the early part of her illness. Since the operation she has read several books for pleasure, and she can also assist her mother in lace mending. The power of reading, which has returned, appears not to be due to any improvement in the eye itself, but rather to the manifest general improvement in brain power since the pressure has been relieved. The bony thickening was hardly far enough back to press directly upon the angular gyrus; and the great benefit derived from the operation must be attributed to the relief of general tension.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. Payne, M.D., President, in the Chair.

Tuesday, March 7th, 1899.

Resumed Discussion on Pseudo-tuberculosis.

Professor John MacFadyean exhibited a series of lantern slides illustrating some of the conditions in cattle classed as pseudo-tuberculosis. He observed that true tuberculous lesions of the pleura and peritoneum in bovines commonly presented themselves not as tubercles properly so called, but formations which tended to become pedunculated; again, in tuberculous mastitis in the cow tuberculosis presented itself as a diffuse fibrosis which in different degrees underwent caseation. As to the lesions simulating those of

true tubercle, in the verminous pseudo-tubercle seen so commonly in the sheep's lung the centre might exhibit caseous change, and the periphery giant cells; the parasites causing these lesions were not all identical, and the species of some were undetermined. The speaker had isolated a bacillus from an affection seen at times in the ox, and leading to a so-called scrofulous swelling and abscess of the neck; the same organism also occurred in nodular lesions seen at times on the septum nasi in sheep, which, though suggestive of glanders, were really not due to this cause. He had failed, however, to reproduce the disease by inoculation with the unnamed bacillus in question, and equally failed on using the natural material for the same purpose. Again, "bacterial necrosis" of the liver in animals presented a certain resemblance to true tubercle, the lesions undergoing a firm caseation, and later on becoming extensively invaded with leucocytes. The "necrosis bacillus" causing such was found in the soil. He had, on one occasion, found a mould mycelium in a pulmonary nodule in the horse. The speaker deprecated the use of the term "pseudo-tuberculosis;" pulmonary glanders in the horse was more like "tubercle" than tuberculosis itself in the same situation in the horse. Although tuberculosis was not distinguishable histologically with absolute certainty, nevertheless experience rendered the diagnosis of the disease in cattle almost certain even to the naked eye. The demonstration microscopically of the presence of the bacillus was not always easy, and this test, if relied upon alone, might lead to fallacy. He had twice in milk found bacilli resisting decolorisation, like those of tubercle, but the thickness of which showed that they were not the latter.

Mr. A. FOULERTON remarked upon the likeness of "tubercle" arising from the action of different micro-organisms. More particularly the anatomical lesions of the human lung seen in aspergillary mycosis were indistinguishable by the naked eye and the microscope from those of true tubercle. He thought that pseudo-tubercle bacilli must be uncommon. The speaker exhibited specimens illustrating granulomatous lesions produced experimentally by the injection of a pathogenic yeast. Some such—as, for example, the caseous foci arising in the lungs of the rat—were in general characters indistinguishable from tubercle. The yeast cells in the tissues might present a capsule as described by Roncali.

Mr. W. C. PAKES agreed with Professor Sims Woodhead that the term "pseudo-tuberculosis" was one which should now fall into disuse. A great amount of confusion always arose when the term "pseudo" was applied, as was evidenced by the pseudo-diphtheria bacillus. When, further, such conditions as pseudo-rickets, pseudo-erysipelas, and pseudo-leprosy were described, the confusion became still worse. He thought that it would be preferable to attach a person's name to a condition until its pathology was determined, rather than prefix the term "pseudo" to a condition which merely bore a superficial resemblance to one of which the pathology was known. Aspergillo-pneumonomycosis was an interesting affection, and one which had been emancipated from its connection with tuberculosis. In this disease the pathological lesions very closely resembled those produced by the B. tuberculosis. Aspergillus fumigatus could induce lesions resembling both the acute and chronic lesion resulting from the bacillus tuberculosis. He had come to the conclusion that there were more cases of aspergillosis than was generally imagined, and suspected that some of the cases of supposed phthisis which recovered were due to this cause. It was not very rare to find moulds in fresh sputum, and on more than one occasion he had been struck with the large number of these organisms. On one occasion he had made cultivations, and found that the culture was an almost pure one of aspergillus fumigatus. The remark of Professor Sidney Martin that tubercle inoculated in (say) the groin of a guinea-pig was always followed by infection of the glands and lymph channels was, in his opinion, quite sufficient reason why tubercles found in the liver, omentum, etc., after inoculation, without any glandular disease, should not be called pseudo-tuberculosis. He had recently seen such a case which to the naked eye presented omental "tubercles." On section, however, small breaking-down cavities were found which contained a bacillus readily staining with carbol methylene blue.

Dr. LAZARUS-BARLOW did not think that the term "pseudo-tuberculosis" should be altogether discarded, as there was a certain residuum of cases in which it might still be of use. In diabetes there occurred pulmonary lesions closely resembling those of tubercle. He cited a case of caseous lesion of the lungs, in which an extensive mycelium was found in these organs; after many examinations he had found, however, tubercle bacilli present as well.

Dr. F. WETHERED referred to the lesions induced by the pseudo-tubercle bacillus: after experimental infection the different organs became studded with tubercles, a local abscess forming at the site of inoculation. In the sputum of what clinically appeared as advanced cases of phthisis he had at times failed to find tubercle bacilli; possibly the lesions present were aspergillary.

Professor WOODS HUTCHINSON also thought that "pseudo-tuberculosis" was a useful expression. In animals the true form was vastly the more common; and when the distribution of the verminous lesions, for example, was studied, it would be found to differ widely from those of the true disease. The animal, moreover, did not suffer in general health.

The PRESIDENT pointed out that besides micro-organisms various mechanical causes might produce "tubercle." In "ophthalmia nodosa" the small "tubercles" in the conjunctiva arose from the hairs of certain caterpillars reaching the part; the hairs were chemically irritating. But the hairs of the mouse would lead to similar productions if inserted into the same tissues. It was not surprising, therefore, that various kinds of living organisms produced the anatomical lesions classed as tubercles. In 1871 he had described a case of anatomical tubercle of the peritoneum and liver in man, which he did not at that time regard as true tubercle.

CARD SPECIMENS.

Mr. A. FOULERTON: Myoma of the Œsophagus.—Dr. LAZARUS-BARLOW: (1) Aneurysm of Splenic Artery; (2) Traumatic Rupture of the Trachea.—Professor J. MACFADYEAN: Congenital Tuberculosis in the Calf.—Dr. H. D. ROLLESTON: Aneurysm of the Splenic Artery; Myoma of Œsophagus; Myxoma of Thigh; Gastric Ulcer (Albuminuric) in Granular Kidney.

OBSTETRICAL SOCIETY OF LONDON.

ALBAN DORAN, F.R.C.S., President, in the Chair.

Wednesday, March 1st, 1899.

PRESIDENT'S ADDRESS.

THE PRESIDENT began his address by showing how the Obstetrical Society of London had from its earliest days taken the deepest interest in gynæcology, now a well-established speciality, which had rendered important services to general surgery. Uterine therapeutics and minor gynæcology were associated with abuses, but so were medicine and surgery. They were indispensable and must be well understood, because, as in the case of the abscess knife and the catheter, "minor" proceedings with the curette, the sound, and other special instruments might cause grave damage if unskilfully performed. The President specially dwelt on the judgment of gynæcological surgery on general surgical grounds, and insisted that good operating was not always good surgery. Plastic surgery had made great advances since 1859. Vaginal hysterectomy for cancer seemed to be good surgery as compared with the cancer practice of the general surgeon. Ovariotomy proved the key to modern peritoneal surgery. Drainage and flushing of the peritoneum were intimately associated with it; the latter, in turn, was closely related to transfusion as now understood. In operations for diseases of the appendages due to inflammation, a skilful and successful operation might be decidedly bad surgery, or else questionable surgery, or else very good surgery. Exploratory incision was often needed in chronic cases; sometimes it was sufficient to liberate the ovaries and tubes from the painful bondage of adhesions; sometimes only one tube and ovary needed ablation. On the other hand, bilateral suppuration of obstructed tubes of course demanded removal of both. Bad after-results chiefly arose from the pedicle, the tissues of which were often unhealthy, and not from the uterus. In reporting a series of these cases a long after-history was needed. Foreign authorities were very careless about this matter. Thus one operator

published tables where eight operations were performed within six weeks of the reading of the paper. They seemed also far too ready to remove the uterus with the diseased appendages. One operator, living in a relatively small capital, had performed this operation over five hundred times in a very few years; his mortality was low, but no reliable after-histories were given. Recovery in this class of operation was, for obvious reasons, no proof that the removal of the parts was necessary, whilst in bad cases, where the operation was good surgery, the results were not always entirely satisfactory. The removal of ovaries for neuroses was almost universally condemned; Weir Mitchell had categorically declared that the whole principle of such a proceeding was wrong. The surgery of uterine fibroids had greatly progressed, but much more had to be learnt. Fibroids of the broad ligament needed early removal, so did uterine fibroid in a very young subject, or in a case near the menopause where there was rapid increase of growth and manifest softening. When in doubt the surgeon should always wait: bleeding and slowly-growing fibroids allowed of watching and palliatives. Speculative operations, where the fibroid was small and caused neither severe hæmorrhage nor pressure symptoms, were not good surgery. In the field of uterine displacements there were many abuses. A long series of operations had been devised to fix the uterus up in its right place or to support it from below. The variations in opinion and practice showed that much remained to be settled. Even the pathology of displacements was yet obscure, nor did certain operations overcome the essential morbid condition associated with a flexion or version. Hysteropexy in well-selected cases was beneficial, but, as in operations for chronic disease of the appendages, long after-histories were needed, but were not always furnished in papers written by operators. Surgery must respectfully follow clinical exploration, otherwise not only the surgeon's knife but his power of diagnosis would be blunted by too many exploratory incisions. Patient clinical research was the sheet anchor of the gynæcological surgeon, and surgical proceedings were only justified when clinical research had proved that there was something which ought to be removed or rectified by an operation.

Cancer of Fallopian Tube.

Dr. Hubert Roberts read a paper on a second case of primary carcinoma of the Fallopian tube. The case occurred in a married lady, aged 60, never pregnant. No history of pelvic trouble. The menopause occurred at the age of 50. She was perfectly well up to June 27th, 1897, when she first noticed a cherry-coloured watery discharge, which lasted three days. Nothing was noted on vaginal examination. July 3rd, 1897: Discharge recurred, and was more profuse, but of the same character, lasting two days. September, 1897: Very severe abdominal pain; this was followed by another rush of water fluid. Repeated pelvic and abdominal examinations during the latter months of 1897 revealed no tumour. In the spring of 1898 a fourth attack of watery discharge and severe pain. April 3rd, 1898: A swelling was first discovered behind and to the left of the uterus. Subsequent examination at the end of April confirmed the presence of a tumour which had grown rapidly, and the preliminary diagnosis of a malignant ovarian tumour was made. Operation May 5th, 1898: Abdominal section. Tumour proved to be an enlarged Fallopian tube filled with growth. The operation was one of great difficulty owing to many adhesions, and the tube ruptured during the operation. The ovary on the same side was cystic, but not infiltrated with growth. The appendages on the other side were healthy. There was no secondary growth or infiltration of the pelvis at the time of operation, nor any free peritoneal fluid. The patient recovered from the operation. In November, 1898, a favourable report was received of the patient's condition; but early in January, 1899, she was not so well, and examination proved that there was already well-marked recurrence of malignant growth in the pelvis.

The President remarked that carcinoma of the tube certainly arose from papilloma such as occasionally developed in an old hydrosalpinx. Dr. Roberts's case seems to be of that type. In the tables which he himself had prepared,[1] the patient was 60 years of age in 2 out of a total of 25 cases, and between 58 and 59 in two more. He thought Doléris was correct in distinguishing an endosalpingitic papilloma, and had himself demonstrated the relation of papilloma to inflammation so long ago as 1879, and noted the malignant degeneration of papilloma in 1888. He had recently come across a case of papilloma of the tube associated with malignant tumour of the broad ligament. He doubted whether cancer had ever been seen to develop in a previously healthy tube.

Dr. Cullingworth said the question as to the connection between papilloma and carcinoma could scarcely be settled until an opportunity occurred of examining a carcinomatous tube at an early stage. Although he had had a fairly large experience of tubal affections, he had not as yet happened to meet with a single example.

Dr. Amand Routh alluded to a case of primary carcinoma of the Fallopian tube which he had reported to that Society. He doubted whether these cases began with papilloma, the microscopic sections showing nothing in common with the forms of malignant papilloma which he had seen invading the uterine wall.

Dr. Roberts said he had not been able to find any case recorded below the age of 36. He believed the pain to be due to the distension of the tube by fluid which, when the tension rose above a certain limit, escaped as a cherry-coloured discharge. Dr. Roberts thought it quite possible that the case started in an old hydrosalpinx, though there was nothing in the previous history to show this. It was very difficult, if not impossible, to distinguish between papilloma and carcinoma of the tube.

Specimens.

The following were shown: Dr. Smyly (Dublin): Three Myomatous Uteri, removed *per vaginam* by Doyen's method.—Mr. Bland Sutton: (1) A Ruptured Ovarian Tumour; (2) An Acardiac Calf.—Mr. A. Lionel Smith: An Infant showing Diffused Subcutaneous Induration.—Dr. Dakin: A Fibromyoma, spontaneously enucleated during labour.

[1] *Obst. Transactions*, 1898.

HARVEIAN SOCIETY OF LONDON.

Henry Juler, F.R.C.S., President, in the Chair.

Thursday, March 2nd, 1899.

Vanishing Tumours.

Mr. D'Arcy Power read a paper on this subject. He applied the term to swellings which disappeared after such slight surgical operations as incision, puncture, or even simple exposure. Such tumours were not to be confounded with phantom tumours, for they were real swellings, more often innocent, but sometimes malignant in nature. Mr. Power proceeded to quote cases of vanishing tumours which had occurred in his own experience. One was in a boy who had a large cystic lymphangioma of the neck, which disappeared absolutely some months after a part had been removed. A second case was that of a girl who had a greatly-enlarged liver with a hectic temperature. The temperature became normal and the liver began to decrease in size directly after the abdomen had been opened and the liver had been explored with a trocar and cannula to ascertain whether it contained an abscess. A third case occurred in a man, aged 21, with a large and seemingly inoperable tumour situated between the umbilicus and the pubes, and apparently fixed to the pubes. Three months after the tumour had been exposed it had completely disappeared and the patient had gained a stone and a-half in weight. The fourth case occurred in a tailor, aged 54, who had a well-defined tumour, shown by abdominal section to be adherent to the external abdominal wall, to the stomach and duodenum, and to the under surface of the liver above. The gall bladder seemed to be quite surrounded by the new growth, which thus proved quite irremovable, and was thought to be malignant. He was examined four months after the operation by many of the surgeons at St. Bartholomew's Hospital, who were agreed that no tumour could then be felt in his abdomen. A few months later he died in another hospital with all the symptoms of malignant disease in or near the head of his pancreas. A fifth case was that of a man admitted to the Royal Free Hospital, where he was seen by Mr. James Berry, who opened his abdomen to explore a rounded and hard lump as big as a fist,

situated in the region of the pylorus. Some adhesions were broken down, the man made an excellent recovery, and nothing more was seen or heard of the tumour. Mr. Bryant had also described cases of vanishing cysts which he had seen in the breasts of women. Mr. D'Arcy Power considered that these cases of vanishing tumour were in all probability innocent in nature and inflammatory in origin. But his sixth case was on the borderline between an innocent and a malignant growth. It occurred in a man, aged 24, who had received a blow on the top of his head from the flywheel of an engine. A few months after the injury a tumour appeared at the seat of injury. It grew until it attained the size of a sparrow's egg, and then it disappeared. Six or eight tumours subsequently appeared in different parts of the head, and then diminished in size. One of the tumours, however, continued to grow until it attained a size of 10 inches, when it was removed. Microscopic examination showed it to be a fibro-sarcoma and Mr. Morrant Baker, who had charge of the case, gave it the name of "withering sarcoma." Mr. Power also drew attention to the fact that carcinomatous ulcers of very considerable size had been known to heal, sometimes only superficially, the cancerous process continuing beneath the scar, but in some few cases the repair had been complete and permanent. Instances of atrophying scirrhus, too, were not very uncommon in old and spare people. He also alluded to another class of vanishing tumours: cancers which disappeared after the removal of an ovary; hypertrophied prostates which became smaller when a testicle had been cut out or when the vas deferens had been divided, and adenomata of the breast which vanished as a result of pregnancy and lactation. The cause of the disappearance in these cases was to be looked for in the intimate physiological connection existing between the organ removed and the part diseased. Mr. Power considered that many interesting points for discussion arose in connection with vanishing tumours. He desired to know what would have happened if no operation had been performed. The cystic tumour in the first case would probably have shrivelled in the course of eight or ten years, when it might have become a wen or it might have disappeared entirely. The enlarged liver would have suppurated, and a similar fate seemed to have been imminent in the cases of abdominal swelling. It was of extreme interest from a purely pathological standpoint to recognise that such apparently causeless swellings might appear and disappear in the body. It indicated that the connective tissue cells of the part were in a very unstable condition, and it was easy to understand that, given the necessary predisposition and the exciting cause, such a swelling might determine the position of a malignant growth. The effect of surgical interference in these cases seemed to be identical with that produced by the incision of any inflammatory swelling. Tension was relieved, and a series of complicated physiological changes were set up which ended in resolution, changes which seemed to be the direct outcome of alterations in the trophic and vasomotor functions. The older surgeons set these changes in action by bleeding; their successors with improved surgical methods had ceased to interfere with the blood pressure generally, and were content to modify it locally. Mr. Power concluded by deprecating any attempt to remove a tumour locally where it was in any way possible to eradicate it wholly. Modern surgery, based as it was upon pathology, taught most emphatically that tumours should be removed as completely and as early as possible, and that the more a swelling was thought to be malignant, the earlier and more complete should be the removal. But it had happened in these cases of vanishing tumours that from one cause or another so complete a removal was impossible, and yet by accident or good luck, coupled with some unusual modification of the morbid process, the result obtained was most satisfactory, though the method adopted was in the highest degree unsatisfactory if one looked to the means rather than to the end.

The PRESIDENT referred to the case of a woman who had been under his care in whom both eyeballs were protruding, and there was extensive anæsthesia of the forehead, and almost complete blindness. In each orbit an indurated mass could be felt at the outer canthus and below the globe. The growths were believed to be malignant, and a portion of one of one of them which was removed for microscopic examination presented appearances which were regarded as sarcomatous rather than gummatous. After a few months' treatment with mercury and iodide of potassium, however, the tumours entirely disappeared. They were in all probability gummata.

Mr. ALBAN DORAN suspected that Morrant Baker's "withering sarcoma" of the scalp was akin to the fibromas of the abdominal wall, a large specimen of which he had himself removed from the sheath of the rectus that very day. They caused danger by their size, but sometimes disappeared spontaneously. Reed of Cincinnati had recorded one case where the operator failed to remove the growth, the skin wound was closed, and the tumour, a fibroma, disappeared. Mr. Doran knew of a case where a patient refused operation for what seemed to be a fibroma of the abdominal wall. She became pregnant and the tumour vanished. The majority of cases of vanishing tumours in the abdominal wall were simply cases of tuberculous peritonitis. When a "cyst" was diagnosed, and a circumscribed collection of serum bounded by intestine bearing old tuberculous deposit was laid open, it was apt to be mistaken for a cyst of the urachus, or for a malignant ovarian tumour with metastatic deposits. Even after long experience the surgeon often found such a case very puzzling. But it nearly always got well. Mr. Doran had seen perfect cure follow incision in a large number of cases where he had designedly incised the peritoneum for the relief of tuberculous peritonitis, and also in two instances where he suspected the dense deposit in the parietal peritoneum to be malignant. He had never known improvement to follow exploratory incision where real sarcoma or carcinoma was detected.

Dr. COCK mentioned the case of a widow lady, aged 71, who was feverish. On examination a hard mass was found reaching from the right pelvic wall to the lower border of the liver, easily defined from side to side, not doughy to the touch, and extremely tender. The uterus was partly fixed, and there was a bloody discharge. Purgatives had no effect, nor were there any symptoms of fæcal accumulation. Consultants were of opinion that the mass was carcinomatous. After an illness of ten weeks the patient became better, the mass shrank, and at the end of a six months' holiday at the seaside she returned quite well with no tumour, and ultimately died five years after from bronchitis.

Mr. EASTES referred to the large number of vanishing tumours which were associated with various parts of the organs of generation (male and female), including the female breast. A striking instance was furnished by fibromata of the uterus occurring in middle life. He had seen a uterine fibroid (as large as a pregnant uterus towards the end of gestation) disappear almost entirely within a year after cessation of menstruation, and the patient recover health, though previously she had almost died on several occasions from excessive "monthly floodings." But the vanishing tumours most often seen in general practice were probably fæcal accumulations in the colon. One patient, who found aperient remedies always produce pain and consequently neglected them, had twice within the last two years allowed such an accumulation to occur, and passed through a severe illness before she was relieved. She probably had adhesions; at any rate there was a history of peritonitis in childhood, with constipation ever since. During each of these later illnesses the cylindrical accumulation in the ascending colon, measuring 6 inches in length and 4 inches in diameter, had occupied a fortnight in vanishing, and on several days in that period some ten or twelve distinct, hard, almost spherical masses of fæces were removed by finger or large enemata from the rectum. The medicine which had accomplished the removal in the last illness was a pill composed of resin podophyll. and ext. belladonnæ, an eighth of a grain of each in each pill, given once, twice, or thrice daily, according to the necessities of the case.

Dr. LEONARD GUTHRIE believed that there were well-authenticated instances of the spontaneous disappearance of tumours both malignant and benign. The causation of this was of greater interest than the occurrence. Mr. Alban Doran had mentioned a case in which a large abdominal tumour disappeared after ligature of its principal vessels. Perhaps this was the clue to the whole mystery. Tumours were dependent on their blood supply for their growth. If the blood were cut off the tumour would waste. In most cases this result could not be effected by surgery, but possibly the vasomotor system might at times cause local constriction of vessels, and

thus retard the growth of tumours. The phenomena of Raynaud's disease showed that vasomotor action was capable of producing local gangrene. Possibly the success which occasionally attended the treatment of cancer by drugs depended on their action as vascular astringents. In the last century cancerous breasts were treated by the application of toads, which were supposed to suck the venom from the ulcers. But Dr. Lauder Brunton had compared the action of phrynin, the active principle of the secretion of toad's skin, to that of digitalis and erythrophlœin, which were powerful vascular astringents. Phrynin had, moreover, a benumbing action on sensory nerves like aconite. Hence, although the remedy seemed absurd, it might possibly have been beneficial in some cases. A similar explanation might be offered of the effects of certain drugs vaunted as cures for cancer—for instance, carbonate of lime, chian turpentine, and cinnamon, which latter contained tannic acid. Finally, the success which sometimes followed oöphorectomy for inoperable cancer of the breast was possibly due to the profound effect produced by that operation on the whole of the sympathetic system. Perhaps in such cases a local dilatation of vessels in a cancerous region gave place to a local constriction. The effects of strong mental emotion on the sympathetic should not be forgotten. This might account for the miraculous cures of cancer and tumours at Lourdes and elsewhere. But all methods of treatment based on these assumptions were at best uncertain and their effects but temporary; they were only available in inoperable cases.

Dr. Washbourn mentioned some observations which had been made by Mr. Bellingham Smith and himself upon infective sarcomata occurring in dogs, and which they had published in the Pathological Society's *Transactions* and in the British Medical Journal. The sarcomata were originally situated in the mucous membrane of the vagina and penis, and were transmitted from animal to animal during the act of coitus. They consisted of round cells with an alveolated arrangement, and were similar in structure to the round-celled alveolar sarcomata met with in the human subject. By inoculation they would be transmitted to the subcutaneous tissue of dogs. At the end of two or three months the resulting tumours reached their maximum development, forming lobulated masses about 2 inches in diameter. They then took one of two courses: either they became disseminated, secondary nodules appearing in the internal organs causing the death of the animal, or they disappeared. In the latter case they either slowly dwindled away, being replaced by fibrous tissue, or they disappeared by a process of ulceration. A most interesting point was the fact that after the tumour had disappeared the animals were absolutely immune to subsequent inoculating. Up to the present time no micro-organisms bearing a causal relationship to the tumour had been discovered.

Mr. D'Arcy Power replied.

A New Form of Ether Inhaler.

Mr. Bellamy Gardner showed an improved ether inhaler which he had devised. Its advantages were said to be: (1) A breathing channel 2 inches in diameter; (2) a reservoir for 6 ounces of ether, the quantity required being emitted upon a sponge by simply turning a tap; (3) compactness and portability in the filled condition. He had used it in over 700 cases during the past two and a-half years, and recommended it as combining the advantages of Clover's and Ormsby's inhalers.

In answer to questions by Dr. Cock and Mr. Eastes, Mr. Gardner stated that the supply of ether could be accurately regulated, and that with ordinary care there was no fear of any fluid ether entering the face-piece.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Professor C. J. Wright, Vice-President, in the Chair.

Friday, February 17th, 1899.

Malignant Disease of Œsophagus.

Dr. Powell White read a short communication on malignant disease of the œsophagus and showed the following specimens: (1) Sarcoma of Pharynx; the primary growth was a small ulcer in the right sinus pyriformis which did not invade surrounding structures; the glands in the right side of the neck formed a mass half as big as the patient's head; there were metastatic deposits in the liver, lungs, and heart; (2) Lymphosarcoma of Mediastinum Invading Heart an Œsophagus; (3) Cystic Kidneys in an Adult; the left weighed 4 lbs. 14 ozs. and the right 2 lbs. 7 ozs.; he thought that the origin was a congenital malformation; (4) Multiple Diverticula of the Small Intestine from the same patient as the cystic kidneys; there were about 30 diverticula situated along the mesenteric border of the small intestine; they were formed by a protrusion of the mucous membrane through a deficiency in the muscular coat; (5) Spheroidal-celled Carcinoma of the Upper End of the Œsophagus with a Metastatic Growth in the Stomach.

Specimens.

Dr. Bedford Pierce (York) showed the following specimens: (1) Intracapsular Fracture of Femur in a male aged 64, the line of fracture being immediately below the articular surface of the head of the bone; in this case there was no shortening until some weeks after the injury; (2) repair of Fracture of Radius under most unfavourable circumstances, the patient being 84 years of age and maniacal; no treatment was possible; nevertheless, the bone had united well; (3) a Diverticulum of the Bladder, the cause of which was obscure; the diverticulum was about half the size of the bladder, and connected with it by an opening that would just admit a goose quill; (4) Brain of a Microcephalic Idiot of low type; Dr. Pierce pointed out that the lobes were small relatively to the rest of the brain, and that they failed to cover the cerebellum; he remarked that the brain when first removed weighed 38 ozs., and that, after being hardened in formalin for six weeks, it had gained 10 ozs. in weight.—Mr. Gough detailed the Microscopical Changes in the Lymphatic Glands, Spleen, Liver and Lungs from a case of Hodgkin's Disease, and showed microscopical preparations.—Dr. West Symes (Halifax) showed Dermoid Cyst of Ovary containing fully-formed teeth, hair, skin, and bone from a patient aged 39. At the operation the cyst was found very adherent to surrounding structures. The adherent vermiform appendix was removed with tumour. The patient was discharged after an uninterrupted recovery.—Dr. Churton showed: (1) A Thoracic Aneurysm which had pointed in the axilla; and (2) the parts involved in a Subphrenic Abscess.—Mr. R. H. Hall showed a Perforated Gastric Ulcer from a young man aged 22. The symptoms were indefinite, and death rapidly took place.—Dr. Eurich (Bradford) showed: (1) A large Ulcer of the Stomach, death having been due to hæmorrhage; (2) a Primary Sarcoma of the Sternum; and (3) a Glioma of the Brain from a boy aged 5 years.—Dr. Hellier showed a specimen of Hæmorrhage in the Ovaries, and a skiagram of Congenital Deformity.—Dr. Edgerley (Menston) showed a specimen of Porencephaly, in which the area involved extended from considerably in front of the position of the anterior limb of the Sylvian fissure on the left side to the posterior parietal lobule, and from the upper part of the second frontal convolution above to the inferior temporal sulcus. In this area the brain cortex was entirely absent, and the white matter was represented only by a thin membrane separating the cystic space from the lateral ventricle on the inner side. The outer wall was formed by the pia arachnoid membrane. The optic thalamus was atrophied and the opposite half of the cerebellum was much reduced in size. The pyramidal tract on the same side was diminished in the crus, pons, and medulla. The patient had died at the age of 43, and had been a congenital hemiplegic imbecile, who had suffered from epileptic fits for fifteen years before her death. The area involved corresponded to the distribution of the middle cerebral artery, a fact supporting the theory of vascular occlusion as a probable cause.—Mr. Littlewood showed, among other specimens: (1) Tuberculosis of the Flexor Sublimis Tendon secondary to disease of the synovial sheath; (2) a Pedunculated Subsynovial Lipoma removed from the knee-joint; and (3) Cysts of the Left Ovary and Half the Right Ovary also containing Cysts removed from the same patient.—Dr. Wardrop Griffith showed two specimens of Pneumonic Lung, one of which was associated with Infective Endocarditis; also specimens of Malformation of the Tricuspid Valve and of Abnormal Chorda Tendinea in the Left Ventricle.—

Mr. MOYNIHAN showed: (1) Three examples of Perforating Appendicitis; (2) Intussusception from a Dog; (3) photographs and water-colour drawings from cases of Retroperitoneal Hernia; and (4) (with Dr. GRIFFITH) Right and Left Duodenal Herniæ.—Mr. MOYNIHAN and Dr. POWELL WHITE showed: (1) A Retroperitoneal Tumour removed by operation; it occupied the position of the kidney and suprarenal body, which were absent, the mass also extended into the scrotum; microscopically it consisted of myomatous tissue, containing fat and the remains of glandular epithelium; (2) a Retroperitoneal tumour removed by operation; microscopically it was a lymphosarcoma.—Mr. WALTER THOMPSON showed an Epithelioma of the Upper Jaw arising from the nasal surface.—Dr. ALLAN showed: (1) The Intestines from Typhoid Fever in a woman aged 70; (2) Ulcerative Colitis apparently due to influenza; (3) a Collar-like Stricture in the lower part of the Œsophagus.—Dr. BRONNER (Bradford) showed numerous Microscopic Specimens demonstrating the various growths of the Nares—sarcoma, cylindroma, papilloma, myxoma, adenoma, carcinoma, tuberculous growths; also Specimens illustrating the degenerative and hypertrophic changes which take place in the Mucous Membrane of the Nares.—Dr. TREVELYAN showed: (1) Diphtheria Bacilli from a case of Membranous Stomatitis, without involvement of the Fauces; (2) True Hypertrophy of One Lung from a case of long-standing quiescent disease of the other lung.—Dr. TREVELYAN and Mr. SECKER WALKER showed Sections through the Cerebrum and Cerebellum from a case of Suspected Intracranial Abscess; no such abscess was found, although the symptoms during life were so marked as to necessitate an exploratory operation; the specimens showed considerable hæmorrhage along the tracks of the exploring trocar; no gross lesion such as would account for death, was found in the body; more than forty microscopic specimens were shown in illustration of the naked-eye specimens.—Professor BIRCH gave a Lantern Demonstration on the Commoner Blood Spectra produced by Poisons and Drugs.

LIVERPOOL MEDICAL INSTITUTION.

W. MACFIE CAMPBELL, M.D., President, in the Chair.

Thursday, February 23rd, 1899.

DISCISSION OF CRYSTALLINE LENS.

MR. HUGH E. JONES exhibited patients on whom discission of the crystalline lens had been performed for high myopia.

CHOLECYSTECTOMY.

Mr. FRANK T. PAUL submitted a case of cholecystectomy for gall stones and cancer. The tumour was a small villous carcinoma of the fundus of the gall bladder, which was removed, together with the upper half of the organ and 13 gall stones. The patient recovered from the operation in a few weeks, but in two and a half months died from enlargement of the liver, which was apparently not due to recurrent cancer, but to some inflammatory condition, probably set up by stones in the hepatic ducts.

Mr. RUSHTON PARKER, and Drs. IMLACH, E. T. DAVIES, and ALEXANDER spoke.

MYOSITIS OSSIFICANS.

Mr. ROBERT JONES showed a youth, aged 16, who came to him because of difficulty in flexing his knee, caused by a hard mass apparently attached to the upper two-thirds of the thigh, which interfered with muscular action. Further growths were found on the inner aspect of the right jaw below the ramus, a small lump below the right olecranon, thickening at the insertion of the right ligamentum patellæ, and at each first tarso-metatarsal joint. His back presented an extraordinary spectacle. Over the spinous processes a continuous line of hard material, cartilaginous or bony, extended from the level of the fifth dorsal to the fourth lumbar spine. This central edge bifurcated at the lower end, the extremities of the bifurcated portions almost reaching to the iliac crests. From the central tissue two transverse strips projected at the upper end and two at the lower almost symmetrical in appearance. The upper ones arose about the level of the seventh dorsal, and were about 2 inches in length: the lower ones at the level of the second lumbar, the right being about 3 inches long and the left 2 inches. These prolongations were movable, and the fingers could be placed under their tips. The boy was unable to stand absolutely erect from the fact that extension of the spine resulted in the jamming of structures in contact with the lower end of the prominence. Four years ago he fell on a doorstep and hurt his back; a year later the growth started in the centre of the spine. The origin of the tumour of the jaw could not be fixed. The thickening at the elbow started after a blow, and the tumour of the thigh had lasted four months. Mr. Jones purposed removing the growth on the back and any other deposits which might interfere with breathing.

Mr. RUSHTON PARKER made remarks.

PYLORECTOMY FOR STENOSIS OF THE PYLORUS.

Dr. ALEXANDER read notes of a case in which "Murphy's button" was employed and the patient quickly recovered.

Mr. RUSHTON PARKER said that cases such as this threw great light upon the question of ulcerated stomach. The cicatrices mentioned by Dr. Alexander and found by himself in a recent case of pyloroplasty for stenosis, together with the long continued dyspeptic symptoms, seemed to suggest the cicatrisation of ulcers as a cause. In his own case a small ulcer actually existed at the time of operation on the stomach side of the narrowed pylorus. In neither of the 2 cases operated on by himself was the mucous membrane of the narrowed parts itself the seat of recognisable scarring, which existed only in the neighbourhood.

Mr. F. T. PAUL thought the specimen shown was a congenital stricture.

Dr. CARTER also spoke.

VAGINAL SECTION.

Dr. BRIGGS read a paper mainly based on 16 operations in his own practice. In 13 posterior vaginal section, and in 3 anterior vaginal section, was the operation performed. The cases treated by posterior vaginal section included 5 of hæmatocele due to ectopic pregnancy, 3 of tubo-ovarian cysts (ovarian hydrocele), 1 of simple papilloma of both ovaries, 1 of hydrosalpinx, 1 of chronic infective salpingo-oöphoritis, 2 of chronic infective metro-salpingo-oöphoritis (with hysterectomy)—13 in all. Anterior vaginal section included 3 of chronic salpingo-oöphoritis with retroversion, for each of which, after the removal of the ovary and tube, the uterus was steadied forwards by vaginal fixation. In hæmatoceles the vaginal drain was employed in chronic cases, and the important question seemed to be, Was it necessary to empty or remove the Fallopian tube in cases of incomplete tubal abortion or tubal mole? The uncertainty of being able to recognise the tubal condition ought not to be disregarded until it had been shown that drainage alone was sufficient. In 3 cases a portion of the outer end of the tube was removed, and in 2 cases the tube was neither felt nor seen. All the cases, with one exception where the patient was lost sight of, recovered equally well. Operators seemed to agree that the tubes and ovaries might be left behind. Available evidence pointed towards posterior vaginal section as the treatment of chronic hæmatocele, distending the pouch of Douglas. Tubo-ovarian cysts, simple papillomatous growths and salpingo-oöphoritic lesions, if accessible from below, could be removed from the pouch of Douglas by posterior vaginal section. It was evident that where there was matting, thickening, and firm fixation, especially towards the lateral walls of the pelvis, there was difficulty in securing the pedicle. More room was obtained by removing the uterus, which in infective inflammations was often, as Landau has urged, in an incurable state. The author removed the uterus in two of the cases quoted, because of the conditions alluded to. One patient lost her life from hæmorrhage thirty hours after operation, the hæmorrhage having been concealed behind the cyanide-gauze pack, and escaped the notice of the attendants in charge. This case was a posterior vaginal section for adherent hydrosalpinx, with thickened broad ligaments and an enlarged stiffened uterus. The specimen was carefully examined, *post mortem*. The stump was apparently securely held by the silk ligatures still *in situ*; the end of the stump was swollen, and its margins recurved; the uterine artery was tested by injection; water oozed through the vessels of the stump, but a thicker pigmented starchy solution would barely pass. Shrinkage of the stump, and difficulty in securing the proper constriction of thick rigid tissues, rendered tense by forcible traction during

operation, explained the incomplete hæmostasis. The results in the cases of removal of the appendages, with vaginal fixation for retroversion effected by anterior vaginal section, were too recent to report upon. In the 16 cases there had been one death from hæmorrhage, as reported.

Remarks were made by Drs. Burton, E. T. Davies, Gemmell, and Grimsdale; and Professor Briggs replied.

CLINICAL SOCIETY OF MANCHESTER.

A. Hill Griffith, M.D., President, in the Chair.

Tuesday, February 21st, 1899.

The Operative Treatment of Malignant Disease of the Breast and Uterus.

Mr. F. Bowreman Jessett (London) in opening a discussion on this subject, referred to the bad results which had followed operation by the older methods, owing to the imperfect knowledge of the mode of spreading of carcinoma and sarcoma and to the ignorance of the anatomy of the lymphatic system. It was only during recent years that the importance of free and wide removal of the disease had been recognised. The researches of Mr. Harold Stiles and of Heidenhain as to the way in which many of the lymphatics of the breast entered the pectoral fascia and pectoral muscle were referred to. Malignant disease, wherever situated, was much more likely to recur after operation in persons under 30 or 35 years of age than in persons over 50. In old persons, by removing the enlarged lymphatic glands again and again, the disease might sometimes be eradicated. Hence it was important, after removal of the breast, to examine the patient every two or three months, so that any recurrent growth could be at once removed. The prognosis after operation in malignant disease of the breast depended not only upon the age of the patient but also upon the extent of the operation and upon the nature of the malignant growth. In cases of sarcoma and of duct cancer the prognosis was much better than in cases of scirrhus. Soft, rapidly-growing cancers were also more liable to recurrence. In cases of atrophic scirrhus possibly operation might do more harm than good. In order to preserve the movements of the arm and shoulder-joint it was recommended that the arm be fastened by means of a bandage to the head of the bed for some days after the operation. In at least 20 per cent. of his cases there had been no recurrence within three years. Mr. Jessett had performed vaginal hysterectomy for uterine carcinoma in over 120 cases. Cases of malignant disease of the os uteri and lower part of the cervix were most favourable for operation; 11 such cases operated upon between 1892 and 1896, in addition to others of later date, were alive and well. In the body of the uterus the prognosis was not so favourable. He expressed the opinion that many cases arose from malignant degeneration of a submucous fibroid tumour. Between 1891 and 1895 he had performed vaginal hysterectomy for cancer of the body of the uterus 16 times; 4 of these patients were free from recurrence at periods varying from three to six years. The most unfavourable cases were those in which the disease commenced in the cervical canal, owing to the rapidity with which the disease extended to the surrounding parts and the uterus became fixed. Of the whole 120 cases, 8 only had died as a result of the operation. Of 70 cases operated upon prior to July, 1896, 15 were known to be alive and free from recurrence, whilst 5 others had died more than three years after operation from other diseases than cancer. The importance of early diagnosis of malignant disease, both in the breast and in the uterus, was dwelt upon. Mr. Jessett had in two cases followed the recommendation of Dr. Beatson that oöphorectomy should be performed in certain cases of inoperable cancer of the breast, but in neither case was the slightest benefit noticeable.

Dr. Donald said that there were many undoubted cases in which a patient had been cured of uterine cancer by means of operation, and that there could not be any doubt about the advisability of the operative procedure.

Dr. Buckley referred to 3 cases in which both breasts were affected with carcinoma, and in which he had performed a double operation.

Mr. Stanmore Bishop protested against the dictum that those breast cases were least liable to recurrence in which suppuration occurred in the wound. Skin should be sacrificed freely, but it was always best to obtain primary union by gliding flaps or by Thiersch's grafts. He quoted examples to prove that cases so treated were equally free from return. That a surgeon should prefer to trust to the blind operation of suppuration rather than to a well planned and cleanly-finished operation leading to primary union, was a retrograde step.

Mr. Milner mentioned (1) a case in which, four years after amputation of the breast for cancer, there were numerous deposits in the scar and in the axillary and supraclavicular glands. No further operation was performed, but two years later most of these deposits had atrophied, and some had disappeared. The patient had been last seen nine years after the operation. (2) A case of fungating scirrhus of the breast in which the tumour and the axillary glands weighed nearly 10 lbs. There had been no recurrence four years after operation.

Dr. Helme expressed his entire agreement with Mr. Jessett's conclusions as to the value of vaginal hysterectomy in cancer. Although there was not a certainty or even probability of cure, yet the life of the patient was so much better in many ways that the operation was more than justified. On the other hand, he criticised the opinion that in all cases of discharge from the senile uterus one should infer a malignant origin, and should resort to hysterectomy. He instanced a case where the clinical symptoms three years ago pointed to cancer, but where cure was effected by a single curetting, the patient subsequently remaining well and free from discharge.

Dr. Walter referred chiefly to the importance of early diagnosis in cases of cancer of the uterus.

Mr. Platt referred to an investigation which he had undertaken some years previously into the after-history of 55 cases of cancer of the breast which had been operated upon at the Manchester Royal Infirmary. He had been struck by the fact that in cases which had had a return of the cancer the recurrent growth nearly always first appeared in the scar or in the axilla. Recurrence in the internal organs had been comparatively infrequent, and hence very free removal at the time of operation was indicated.

Mr. J. W. Smith thought that the weakest point in breast operations at the present time was the removal of an insufficient amount of skin. In many modern operations not so much skin was removed as in the older operations, where the projecting organ was sliced off. He referred to a patient of his operated upon in May, 1895, in whom there had been no local recurrence, but who had had a slowly growing mass in the sternum for two years past.

Dr. Graham mentioned a case in which sixteen years after the removal of the breast fatal cancer recurred in the uterus.

Mr. Jessett replied.

Nottingham Medico-Chirurgical Society.—At a meeting of this Society on February 1st, Dr. J. D. Pryce, President, in the Chair, Dr. Handford read notes of three cases which had been under his care. The first was one of Frontal Osteoma, which will be published. Mr. A. R. Anderson, who operated in this case, contrasted the use of the trephine and Hoffman's forceps with that of the mallet and chisel; the shock of operation was much less with the former than the latter. Mr. Willis also made remarks.—The second case was one of some obscurity, but was thought to be Actinomycosis of the Transverse Mesocolon. The patient was a gamekeeper admitted to the hospital in August, 1898, with abdominal pain and diarrhœa. During his stay in the hospital he wasted rapidly, losing four stone in six or eight weeks; he also had repeated rigors and jaundice once for twenty-four hours. An exploratory cœliotomy was performed and a large mass was discovered about the head of the pancreas, the intestines being matted together. Nothing could be done, and the wound was closed. He subsequently died, and the necropsy revealed a large, dense mass of fibrous tissue in the transverse mesocolon, with numerous scattered abscesses. Ulceration had taken place into the stomach from without. The ray fungus could not be demonstrated beyond doubt in any of the pus. Mr. A. R. Anderson, who had operated, remarked that he had no doubt that the disease was actinomycosis. He had operated on

about 12 cases of this disease now, and had been present at necropsies on several others, and his experience of actinomycosis was probably larger than that of any other English surgeon, and he was persuaded that this case was one of actinomycosis, even in the absence of discoverable ray fungus. —A third case related was that of a lad who had been treated for five weeks at the General Hospital for chronic gastric ulcer, of which disease he had the classical symptoms. He improved greatly, and was sent to the Convalescent Home. Shortly afterwards he was readmitted, suffering from abdominal pain, distension, vomiting, and a febrile temperature. Tuberculous peritonitis was diagnosed, and Mr. A. R. Anderson performed cœliotomy, the diagnosis being verified. The patient subsequently died. Dr. Handford suggested that he had become infected with tuberculous milk during his stay at the convalescent home, his diet having consisted of milk at that time, and that he had the more readily become a victim to the disease on account of his old and long-standing gastric trouble.

Glasgow Medico-Chirurgical Society.—The ninth meeting of the session was held on February 17th, when Dr. T. K. Dalziel showed a successful case of Laparotomy for Perforated Enteric Ulcer, the first of its kind in Glasgow.—Mr. R. H. Parry showed a case of Impacted Extracapsular Fracture of the Femur, treated by incision over the trochanter and replacement of the fragments in proper position. The patient was going about in seven weeks and there was no shortening. —Dr. J. G. Connal showed a very large Nasal Polypus with Cystic Degeneration, which had existed for at least eighteen months without causing inconvenience.—Dr. Glen showed a specimen of a Heart with a Single Ventricle from a child that lived to the age of 5 months; and Dr. R. M. Buchanan showed a drawing of a Heart with a Single Ventricle and a Single Auricle.

Midland Medical Society.—The second ordinary meeting of this Society was held on November 16th, 1898, at Birmingham, the President, Dr. W. G. Lowe, in the chair. The following gentlemen were elected members of the Society: Mr. A. Baldwin, Mr. J. M. Donovan, Mr. Herbert Malins, Mr. J. A. O'Dowd, Mr. H. Simms.—Mr. George Heaton showed a boy aged 9 on whom he had operated two years ago for very severe Talipes Equino-varus. Varus tenotomy had previously been performed, but the foot had always relapsed into its deformed position. Phelps's operation was performed, all the structures being divided on the inner side down to the bone. The wound was left quite open and allowed to granulate. The boy was afterwards fitted with leg irons. No after-treatment had since been adopted, and there was no recurrence of the deformity.—Dr. Kauffmann showed two women aged 36 and 49 suffering from Chronic Inflammatory Formation within the Thorax. In the younger the disease had commenced eight years ago with an acute illness accompanied by swelling of the neck and face and cyanosis. From that time there had gradually developed signs of obstruction of the superior vena cava, and at present she showed large prominent tortuous subcutaneous veins crossing over the front of the chest and carrying blood downwards into the diaphragmatic veins and to the umbilicus. The patient had noticed no change in these veins during the last few years, and in general health she was well. The only inconvenience was cyanosis of the face on stooping (when the diaphragm was more or less fixed). There were no other pressure signs, and the cicatricial contraction appeared to have come to a standstill. The older patient had developed gradually within the last eighteen months signs of pressure on the right innominate vein, together with a smooth uniform swelling in the right supraclavicular and infraclavicular regions. Within the last twelve months her voice had become hoarse, and laryngoscopic examination showed some ulceration of the right vocal cord. There had likewise appeared on the right side of the neck a cicatricial formation somewhat resembling keloid, but generally held by those who saw the patient to be syphilitic in nature. The doubtful history of syphilis was obtained. This patient was likewise in good health, free from pain and from anginal attacks, and the disease seemed to be no longer progressive from the fact that the veins had not materially altered within the last six months. In neither patient were there any abnormal physical signs in the heart or lungs.—Mr. J. W. Taylor read a paper on Gonorrhœal Salpingitis: its Medical and Surgical Treatment.

REVIEWS.

The University Education Question in Ireland: Its Difficulties and their Solution. By W. Whitla, M.A., M.D., Professor of Materia Medica, Queen's College, Belfast, etc. Belfast: Wm. Strain and Sons. (6d.)

In this vigorous and trenchant pamphlet Professor Whitla deals chiefly with present-day difficulties in administering the affairs of university education in Ireland, and pays special, but not exclusive, regard to the medical phases of the subject. While he is thoroughly courteous to his opponents, he expresses his own views with force and candour. The pamphlet appears at an opportune moment, for, as the author says:

> There has never been a time when such a deep interest has been aroused in any educational subject as that in which at present occupies the minds of Irishmen .... It is apparent to those who have studied the question that it is surrounded with intricate and even perplexing considerations. "The man in the street," however, is always positive that the problem is a very simple one, and that he could settle it in a few minutes, and "the man on the platform" generally thinks or says the same. ..... The present contribution is made with the view of placing before those interested in the subject who may not be familiar with university educational methods, some facts which may assist them in arriving at a conclusion about the best way in which the problem can be solved.

The objections of the Roman Catholic hierarchy to Trinity College are passed in review, the author remarking that

> little is now said or thought in the present agitation of making any radical changes in this ancient seat of learning .....The interest of the hour centres round the Royal University and the three Queen's Colleges, for no one believes that any settlement of the Irish University question can be attempted which shall not entail radical changes in all these institutions.

A short retrospect is then given of the founding of the Queen's Colleges in 1845, of their condemnation by the Catholic bishops at the Synod of Thurles in 1850, of the establishment from private funds of the Catholic University College in St. Stephen's Green, Dublin, in 1854, and of the abolition of the Queen's University and the founding of the Royal University in 1879. Dr. Whitla then observes that in his opinion

> no settlement of the Irish University question is possible if approached without realising that the Royal University Act established as valid the claims of the Catholic bishops that the acceptance of the principle of mixed University education is a violation of the conscience of those Catholics who enter a mixed College. It is, perhaps, sad that such a confession has to be made, but the time has now come when the fact must be realised. The battle was fought by the undenominationalists and lost in 1879. It is now evident that future legislation, if it is to be of such a nature as can be accepted by the Irish Catholics, must be framed upon a broad recognition of this conclusion.

The constitution and history of the Royal University are then described, and its working declared to be unsatisfactory. He contends that it has been organised to secure a real and substantial, though unrecognised, endowment of Catholic University education by the State. The Fellowships of the Royal University have been so allocated that

> the entire endowment received directly or indirectly for the Arts Faculty of Belfast Queen's College amounts to little over the half of that received by the Arts Faculty in the Catholic College in Stephen's Green, Dublin, whose professors are appointed without State authority or sanction.

Professor Whitla expresses the opinion that

> from an educational point of view the condemnation of the existing system does not lie in the fact that the endowment is received; much less does it lie in the amount which, after all, from the statesman's point of view is paltry; but it lies in the fact that the method of endowment is, in its working out, about the most injurious that can be conceived in the interests of higher education. No one can form any idea of the extent of this evil without some knowledge of the routine of the Royal University's work.

Professor Whitla states that in the appointment of examiners the Senate of the Royal University has acted uniformly upon "the two-and-two" principle—that is, in all subjects a Protestant examiner is balanced by a Catholic examiner and *vice versa*, and adds:

> It is at once evident that when the selection of an examiner is limited in a given case to men of one denomination, either Catholic or Protestant, a principle is introduced which is highly detrimental to education. It works for evil in two possible ways—either that the Senate is forced to appoint an inferior man because he belongs to a particular denomination, or to reject another and superior man simply because his denominational qualification does not chance to fit into the peculiar vacancy.

The distribution of examinerships in the Royal University is then considered in detail. It is stated that there is an overwhelming preponderance of examiners representing the Catholic College and its medical school on the Board of Examinations deciding the results in the arts and medical faculties in the Royal University.

The following illustrations of the actual working of the system are given: Belfast sends up about half, or rather more than half, of the candidates for the degree of M.B., but of the twelve examiners for this degree Belfast has two; five are teachers in the Catholic school; one is a Dublin physician and a member of the governing body of the Catholic School; one is a professor in Galway Queen's College; two are from Cork Queen's College; and one is a distinguished hospital surgeon and ex-President of the College of Surgeons.

This condition of affairs, we are told, is looked upon in the great medical school of Belfast as a gross injustice. In the Third Medical Examination, the one just preceding the Degree Examination, where Belfast students also largely preponderate, the Board consists of seven examiners. Two are from Belfast, one is from Cork, one from Galway, and three are teachers in the Catholic School of Medicine.

Dr. Whitla comments with severity on the absence of extern examiners in the Royal University, pointing out that the extern examiner, such as is found in the Scotch and other Universities, "is a public guarantee of the standard of the degree for which he examines." The results are stated to be very bad. In the days of the Queen's University, when the Belfast Medical School had more than 350 students, the man who deliberately started the study of his profession with the view of finally entering medical practice through the "lowest portal" of a licensing body (that is, not through the University) was regarded by his fellow students with something worse than pity. Now quite one-half of all our medical students, owing to the unpopularity of the Royal University, deliberately begin, continue, and end their collegiate career with no higher ambition than to obtain the lowest qualification which will enable them to begin practising upon the public.

The various solutions of existing difficulties are then passed in review by Professor Whitla.

1. The Nationalisation of Trinity College.—The author holds that should such a solution be attempted we should almost certainly find in another twenty years that Trinity College would be completely destroyed. The working of the Royal University should be an object lesson to all who dream of a settlement of the question on these lines.

2. A liberal endowment of one or more Catholic Colleges, the Royal University to remain as at present an Examining Board for the granting of degrees to these Colleges and the Queen's Colleges. The contentions and difficulties, and it may be said the impossibility of giving what each of these Colleges would consider an equitable representation upon the Examining Boards of the University, would cause all the objections of the present system to be intensified, and would act in a way which would be absolutely fatal to higher education in the North of Ireland. Moreover, it is evident that no settlement on such lines would be permanent. The situation is really fast coming to this: We are in Ireland forcing upon the Catholics a system of university education which is not acceptable to them, and which in its working out is injuring fatally our own ideal of what all higher education should be.

3. Mr. Balfour's proposals, of which Professor Whitla approves. He thinks two conditions are necessary to the success of the proposed new Catholic University and the proposed Northern University in Belfast. These are (1) that the Professorial Chairs should be filled by the Crown; and (2) that there should be extern examiners appointed by the governing body. As regards Ulster, Dr. Whitla feels sure that with these two safeguards, the Northern University proposed by Mr. Balfour cannot fail to prove a great success, and an unspeakable boon to the North of Ireland.

A useful appendix contains Mr. Balfour's letter, the resolutions of the corporate body of Queen's College, Belfast, and the letters contributed by President Hamilton to the Belfast newspapers.

A Treatise on "Unripe" Cataract. By William A. M'Keown, M.D., M.Ch., Surgeon to the Ulster Eye, Ear, and Throat Hospital, Belfast. London: H. K. Lewis. (Roy.8vo, pp. 202. 12s. 6d.)

This book consists of ten chapters and an appendix, and is illustrated by nine plates containing sixty original drawings. It is now fourteen years since Dr. M'Keown first gave to the world his views on the treatment of immature cataract in his address at the Ophthalmological Section of the British Medical Association when it met in Belfast. From this time to the present he has adopted the injection of fluid into the lens capsule and into the anterior chamber as the routine treatment when dealing with cataracts, especially with the immature ones.

The first chapter is devoted to general observations; the second to classification; the third to the examination of the patient; the next five have all to do with the special operative methods under discussion; while the ninth chapter is devoted to the statement of cases and the tenth to conclusions.

The method adopted by the author is well known in its general features. Its special feature is the washing out of the cortex by means of fluid injected either into the lens capsule or into the anterior chamber.

Very careful attention is given to the preparations for the operation, both regarding the patient and also the instruments, and especially the fluid used for irrigating the interior of the eye.

With regard to chemical antiseptics Dr. M'Keown considers "chinosol superior to all others"; the strength recommended is 1 in 4,000, though for actual injection into the eye nothing but sterilised saline solution is used. Preparations of mercury are especially to be avoided, on account of the tendency they have to produce permanent opacity of the cornea when they find their way into the anterior chamber.

The irrigating apparatus consists of a flat-bottomed Florence flask into the mouth of which is inserted a close-fitting cork, through which two glass tubes pass. One, a short tube with a bulb in it, passes just through the cork, while the other also passes through the cork, but reaches to the bottom of the flask, and has an indiarubber tube attached to its outer end. The flask is rather more than half filled with normal saline solution (sod. chlor. 4 gr. to 1 oz.), which is sterilised by boiling *in situ*; the long tube is then clamped, while the other which has the bulb upon it is left open, the bulb, however, having first been filled with cotton wool to act as a filter, while to the outer end of it is fixed a hand bellows so as to be able to start the siphon action when it is required for use. The fluid is used at the blood temperature or a little higher. Dr. M'Keown has devised several varieties of nozzles for introducing water both into the anterior chamber and also into the lens capsule. The object of the latter is to separate the cortex from the capsule of the former, to wash lens matter, which is more or less free, away from the chamber. The probable behaviour of the different varieties of cataract is described and given in a tabular form, and after a full description of the method as applied to senile cataract, the procedure in the case of lamellar and soft cataract is discussed.

The last 70 pages of the book are devoted to the statement of cases, together with an appendix.

The book is beautifully got up and the illustrations are excellent. The author's style is not so lucid as could be wished, but the book is valuable as a statement of the results obtained from the extensive practice of one who must have had abundant opportunities of seeing the method advocated by him put into daily practice. Although most surgeons are fairly satisfied with the ordinary operations in common use, yet we welcome this volume as the outcome of the very careful attention given to the subject by one who is so well known in this branch of surgery.

NOTES ON BOOKS.

The twelfth fasciculus of the *Atlas of Illustrations of Pathology*, compiled for the New Sydenham Society (London: H. K. Lewis), offers four excellent coloured plates of lymphadenoma or Hodgkin's disease. The illustrations have a certain interest of their own in that they are reproductions, now for the first time published, of original water-colour drawings made by Sir Robert Carswell. The true nature of the particular case recounted was recognised from the drawings by Dr. Hodgkin, who had previously observed the chief features of the lymphatic disease which is commonly named after him. The plates exhibit enlarged groups of lymphatic glands in the neck, axilla, and groin, beneath the liver, and about the spleen, as well as new formations within the spleen itself. No investigation was made into the condition of the bone marrow. The general effect of the figures is very good, but some are lacking in finish.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

Varnished Pills.—The varnish employed for coating pills may consist of sandarach dissolved in alcohol, or a mixture of chloroform and ether. For dark-coloured pills a solution is used made by dissolving in a chloroform and ether mixture the residue left in the manufacture of syrup of tolu. The objection to varnished pills is that, if kept, the varnish is apt to become impermeable so that the pills no longer dissolve readily. Some Blaud's pills submitted by Mr. Wand, manufacturing chemist, Leicester, were readily acted upon by warm water, and the contents were in an unchanged condition. Before using varnished pills which have been kept for any time it is necessary to ascertain that the coating remains soluble.

Thiocol.—Mr. Hugo Lorenz, 7, Idol Lane, London, E.C., has sent a sample of thiocol, a new remedy intended to replace guaiacol in the treatment of tuberculosis. The advantages it is alleged to possess over the latter substance are that it has no odour, is easily soluble in water, is non-irritating to the stomach, and easy of assimilation. Chemically thiocol is the potassium salt of guaiacol sulphonic acid, and contains 60 per cent. of guaiacol. It occurs in the form of a fine white powder, the taste slightly bitter at first but sweet afterwards. It is stated that one-third to half an ounce can be given for long periods without producing any ill-effects.

Preserved Fruit.—We have examined samples of the bottled plums, gooseberries, and cherries labelled "Preserved Fruit," and prepared by Mr. E. Blatchley, of 167, Oxford Street, London. It is claimed that these fruits are preserved without the addition of sugar, and that they are free from all chemical ingredients, a statement which is to be taken to mean that the fruits have been preserved without the addition of chemical "preservatives." The results of our analyses enable us to state that these claims are justifiable, the samples examined having been found to be free from added sugars and antiseptic chemicals. In the case of the plums the copper reducing substance present (after inversion) amounted to 2.65 per cent. calculated as glucose, in that of the gooseberries to 1.96 per cent., and in that of the cherries to 3.35 per cent. They are pleasant and satisfactory in taste and flavour, and upon the results we have obtained we think they are worthy of the attention of the profession.

Vibrona Wines.—We have examined a sample of a "tonic wine" prepared by Messrs. Fletcher, Fletcher, and Co., of Holloway, London, and called "vibrona." It is claimed that the preparation is a sound wine blended with a specially prepared extract of cinchona, and that the quantity of cinchona is standardised, the amount of total alkaloids being from about 0.25 to 0.3 gr. to 2 fluid ounces. The results of our examination show that the preparation consists of a sound wine of good quality, and that it contains 0.26 gr. of cinchona alkaloids in 2 fluid ounces. As it is evidently a high-class preparation, and as the makers take steps to ensure uniform composition, we are able to recommend it. It is very properly pointed out by the makers that this wine differs from many other prepared wines in that it is a tonic and not a narcotic preparation. The makers of vibrona have also submitted to us some samples of their "vibrona champagne" for examination. We find that this wine is a very dry champagne of good quality, containing only a small amount of total solid matter and a very slight amount of sugar (0.18 per cent., as glucose). The wine is free from added sugar, and contains a preparation of cinchona bark. The cinchona alkaloids present amount to 1.2 gr. per pint, and the taste is but slightly noticeable. The wine is pleasant and well prepared.

St. Raphael Quinquina Tonic Wine.—We have examined a sample of St. Raphael Quinquina wine, and from the results we have obtained we are able to state that the preparation consists of a wine of good quality containing an appreciable amount of extract of cinchona bark. We may point out that the usefulness of preparations of this kind would be greatly enhanced if, having regard to the great variations in the amounts of the alkaloids contained by cinchona barks, manufacturers would ascertain the actual amount of the alkaloids present in each batch of their products, and if, having done this they would give this information on the labels, and take steps to have the claims thus made independently controlled.

MEDICAL AND SURGICAL APPLIANCES.

A Case Paper.—Messrs. J. Wright and Co., Bristol, have published a "case paper," suggested by Drs. J. K. Couch and E. Le C. Lancaster. It contains headings for date, name, etc., family history, previous history, and present illness, followed by a section for notes concerning every system of the body, and two pages of outline figures of almost every region. Case-taking adds greatly to the interest of a practitioner's daily work and the reports thus obtained may furnish mines of information; but it entails extra labour, and is therefore too often neglected. By the use of such a form as this, however—particularly if shorthand or abbreviations are also used—the labour is reduced to a minimum, whilst the cases can be easily arranged in series for future reference.

Paper Pockethandkerchiefs.—We have received from Messrs. Squire and Sons, 413, Oxford Street, specimens of Japanese pockethandkerchiefs. They are made of very fine Japanese paper or cellulose, and prettily ornamented round the edges with Japanese figures. These pockethandkerchiefs, we are informed, are the finest made, and are such as are used by the ladies of Japan. They are agreeably scented with some resinous scent. The Japanese are and have been ahead of the Europeans in this sanitary measure for years. There is little doubt that the practice of carrying about pockethandkerchiefs, and, as often happens, leaving them lying about, is not free from danger of disseminating influenza, and even more serious diseases. The Japanese burn the handkerchief after it has been used, but we are not aware how this is carried out in the absence of the open domestic fire. The handkerchiefs are sent out in boxes of 100, at 2s. 6d. each. Infectious disease has frequently been traced to the laundry and the use for personal wear of material that can easily be destroyed unquestionably removes one source of danger.

A Truss Pad.—A truss to which the inventor, Mr. Vincent Wood, of Albion Place, Blackfriars Bridge, has applied the name "herno," is furnished with a soft and elastic pad made of a specially-prepared composition. The advantages claimed for this over other forms of elastic truss, as, for instance, those provided with rubber pads or with pads distended by air or fluids, are that it is not likely to be affected to any degree by heat or cold, and also that it is capable of bearing pressure without bursting. A prolonged and varied trial of this pad has convinced us that it is extremely soft and comfortable, and that at the same time it affords a firm and reliable support. If, as is believed by the inventor, it is capable of arresting extreme heat and much wear and tear, this support will be found a valuable addition to the many forms of hernial truss, in most of which a professed advantage, is neutralised by some defect. Though a little dearer than the ordinary padded truss, its cost, it is stated, is so low as to bring it within the reach of most subjects of hernial protrusion.

Pneumatic Pressure-preventing Pad for Lady Cyclists.—Even those who are not cyclists know that the effects of the pressure of the saddle are among the chief drawbacks to the enjoyment of cycling. Many variously padded saddles have been invented to lessen these effects. The inventor of the "Komphy" has designed pneumatic pads which are not applied to the saddle, but worn by the rider. We are informed that they are thought well of by those who have tried them. They can be obtained from Messrs. Barclay and Sons, 95, Farringdon Street, E.C.

AT the annual general meeting of the governors of the Montgomeryshire Infirmary, Dr. Edward Cureton (Shrewsbury) was, on the motion of Dr. Palmer, seconded by Mr. J. C. Gittins, elected an Honorary Consulting Physician of the institution.

NOVA ET VETERA.

GLIMPSES OF INFLUENZA IN THE PAST.

Our esteemed contemporary, the *Spectator*, has recently come forward as an authority on catarrh. This may possibly be the reason why it has been chosen by a correspondent to be the medium of communicating to the world a remarkable discovery which he has made about influenza. This is, that although "supposed by many people to be of recent growth"—as if it were a spring cabbage—it was actually known in this country in the year of grace 1837, as witness certain extracts from Lord Beaconsfield's letters to his sister. But alas for the pride of the discoverer! The next week another correspondent wrote to prove by a quotation from a play of Samuel Foote's (1721-1777) that "apparently the malady would have had good grounds in 1837 for celebrating its own Diamond jubilee, for its visitations must then have covered a period of at least sixty years." Had he said six hundred years he would have been well within the strict limits of historical fact; and had he said six thousand years he would have had the highest degree of probability on his side. If he will look into Hirsch's *Handbook of Geographical and Historical Pathology*, vol. i, chapter i, he will find a formidable list of epidemics of influenza extending over more than ten pages of small print, and "covering a period" of six centuries (1173-1874). And even this list does not tell the whole story, for Hirsch says that there are records of visitations before the twelfth century, and it may safely be assumed that down to comparatively recent times only the more serious outbreaks were deemed worthy of being chronicled. To the correspondents of the *Spectator*, and to all who may wish to learn the earlier history of influenza in detail, we recommend a study of Hirsch's great work to which reference has already been made. Of the visitations from which our own country has suffered, full accounts may be found in the *Annals of Influenza or Epidemic Catarrhal Fever in Great Britain* from 1510 to 1837 by the late Dr. Theophilus Thompson,[1] and the *History of Epidemics in Great Britain from A.D. 664 to the Extinction of the Plague*, by Dr. Creighton (p. 397, *et seq.*).

It is impossible here to give even a summary of the history of influenza; and a bare chronology of recorded epidemics would take up more space than we can afford, and would besides be of little interest or utility. But a glance at the disease as it meets us here and there in medical literature and in history will serve at least to show that though old, it is ever "new" to the generation upon which it comes with sudden fury, except to us in these days who, after ten years of annual recurrence, have come to know it too well. In this brief article we can only refer to a few of the epidemics which have occurred in our own country.

The "Mure."

In 1173 one reads of influenza as prevailing in Italy, Germany, and Great Britain. In the chronicle of Melrose under that year there is an entry relating to "a certain evil and unheard-of cough (*tussis quædam mala et inaudita*) from which few escaped and of which many died. Dr. Creighton takes this strange and fatal cough to have been influenza. In a chronicle kept by an unknown writer of the Abbey of St. Albans there is, under 1427, the following entry: "In the beginning of October a certain rheumy infirmity (*quædam infirmitas reumigata*) which is called 'mure' invaded the whole people, and so infected old and young that it carried a great number to the grave." Dr. Creighton says that in the *Report* of the Medical Department of the Irish Local Government Board for 1890 influenza is identified under the name "slaedan," or prostration, which was epidemic in Ireland in 1326 or 1328, the same epidemic being called "murre" in the *Annals of Clonmacnoise*. He adds that "murrain," or *morena*, which occurs in Latin chronicles, is probably the modern survival of "mure" or "murre."

The Coccoluche.

A pandemic wave of influenza swept over Europe in 1510. It is described as follows by Thomas Short, an epidemiologist of the last century:

> The disease called *coccoluche*, or *coccoluchio* (because the sick wore a cap or covering close all over their heads), came from the island of Melite in Africa, into Sicily, so with Spain and Italy, from that over the Alps into Portugal, Hungary, and a great part of Germany, even to the Baltic Sea, every month shifting its situation with the wind from east to west, so into France, Britain, Valeriola, Pechlin, etc. It attacked at once and raged all over Europe, not missing a family and scarce a person. A grievous pain of the head, heaviness, difficulty of breathing, hoarseness, loss of strength and appetite, restlessness, watchings, from a terrible taring cough. Presently succeeded a chilness and so violent a cough that many were in danger of suffocation. The first days it was without spitting, but about the seventh or eighth day much viscid phlegm was spit up. Others (through fever) spit only water and froth. When they began to spit, cough and shortness of breath were easier. None died except some children. In some it went off with a looseness, in others by sweating. Bleeding and purging did hurt Bole Armoniac was chiefly useful, with only lintus's pectoral troches and decoctions. Where blood was let, the disease proved malignant and pestilential, being attended with a violent, cruel, and unheard-of malignity and more bad work."

Dr. Creighton thinks that the mention of sweating as a feature in this epidemic may explain a statement made by Erasmus in a letter written from Cambridge in 1511, to the effect that his health was still shaky *a sudore illo* (from that sweat).

Of the "violent, cruel, and unheard-of malignity" of the disease when complicated by bloodletting there is a startling proof in the record of the next pandemic in 1557, when we are told by Short that "at Mantua Carpentaria, three miles from Madrid, the epidemic began in August, and bleeding or purging was so dangerous that in the small town 2,000 were let blood of, and all died." Sangrado himself could not have been more "thorough." In an epidemic which raged in 1578 in Rome, 2,000 persons are also said to have been cured of the "fever called living" by the lancet.

The "New Acquaintance."

That between the pandemic waves there were outbreaks of influenza which were considered beneath the dignity of history may be gathered from accidental references to the disease in letters or other documents. Thus, Miss Strickland in her *Life of Mary Stuart* quotes the following letter, written in November, 1562, by Randolph, the English Resident at the Court of Scotland, to Cecil:

> May it please your Honour, immediately upon the Queen's arrival here (Holyrood) she fell acquainted with a new disease that is common in this town, called here the "New Acquaintance," which passed through her whole Court, neither sparing lord, lady, nor demoiselle—not so much as either French or English. It is a pain in their heads that have it, and a soreness in their stomachs, with a great cough that remaineth with some longer, with others shorter time, as it findeth apt bodies for the nature of the disease. The Queen kept her bed six days; there was no appearance of danger, nor many that die of the disease except some old folks. My Lord of Murray is now presently in it, the Lord of Liddington hath had it, and I am ashamed to say that I have been free of it, seeing it seeketh acquaintance at all men's hands.

In some interesting Notes on Scottish Medicine in the Days of Queen Mary, contributed by Sir Thomas Grainger Stewart to *Blackwood's Magazine* some years ago, he identifies the affection so briefly and yet so clearly described by Elizabeth's astute envoy as influenza. In his recently-published "chronicle play," *The Good Regent*, he again refers to it. Moray says to Mary (Act iv, Scene vii):

> Your strength will soon return. Bethink you how
> You tottered feebly after that strange ill
> We called the "new acquaintance," and how soon
> You were yourself again.

The "new acquaintance" is a very old acquaintance now, but we know very little more about it than the good folk of Edinburgh did in 1562.

"Catarrhal Feaver."

Passing to the next century we have a description of "a catarrhal feaver epidemical in the middle of the spring," by "that renowned and famous physician" (as he is styled on the title page of his *Practice of Physic*), Thomas Willis. He says:

> About the end of April (1658) suddenly a distemper arose, as if sent by some blast of the stars, which laid hold on very many together; that in some towns, in the space of a week, above a thousand people fell sick together. The particular symptom of this disease, and which first invaded the sick, was a troublesome cough, with great spitting; also a catarrhal falling down on the palat, throat, and nostrils; also it was accompanied by a feaverish distemper, joyned with heat and thirst, want of appetite, a spontaneous weariness, and a grievous pain in the back and limbs; which feaver, however, was more remiss in some, that they could go abroad and follow their affairs in the time of their sickness, but complaining in mean time of want of strength and of languishing, a loathing of food, a cough

[1] Published by the Sydenham Society in 1852. A new and revised edition was issued by the author's son, Dr. Symes Thompson, in 1890 (Rivingtons).

and catarrh. But in some a very hot distemper plainly appeared, that being thrown into bed they were troubled with burning thirst; waking, hoarseness and coughing almost continual; sometimes there came upon this a bleeding at the nose, and in some a bloody spittle, and frequently a bloody flux. Such as were indued with an infirm body, or men of a more declining age, that were taken with this disease, not a few died of it; but the more strong, and almost all of an healthful constitution, recovered. Those who falling sick of this disease and died, for the most part died by reason of the strength being leisurely wasted, and a serous heap more and more gathered together in the breast, with the feaver being increased, and a difficulty of breath, like those sick of an hectic fever.

Willis's description of the nature of the "procatartic cause," pathology, and treatment of the mysterious "feaver" has no particular interest now, but in the observation of clinical signs it is clear that he would not have had much to learn from us.

THE "EPIDEMIC COUGH."

A few years later we have a brief description of an "epidemic cough" of peculiar character by our English Hippocrates, Sydenham. Writing of the year 1675 he says:

Then it was that coughs prevailed in greater number than at any other time within my remembrance. No one escaped them whatever might be his age or temperament, and they ran through the whole families at once. Nor were they only remarkable for their frequency, this being the case every winter. They were remarkable on account of the accidental dangers which they brought upon those they affected. The constitution of both the present time and the whole of the previous autumn exerted itself to the utmost in the production of the epidemic fever already described, and besides this there was no other epidemic disease by the antagonism whereof the activity of the present one might be traversed in even the least degree. Hence the coughs paved the way to fever and passed without difficulty into it. Meanwhile just as the coughs helped the constitution in producing the fever, so also was the fever determined by the cough to the lungs and pleura. These it attacked just as a week before it had attacked the head. The sudden change inclined the unthinking to consider the fever as either an essential pleurisy or an essential peripneumony. Yet it was neither more nor less than what it had been throughout.

Sydenham clearly differentiated this "epidemic cough" from ordinary catarrh, and in regard to treatment he said that "it is not the cough alone that must be attended to."

A "MOST COMPLEATLY EPIDEMIC" DISEASE.

In the eighteenth century, John Huxham records a strange epidemic with which Plymouth was visited in 1733:

About this time a disease invaded these parts, which was the most compleatly epidemic of any I remember to have met with; not a house was free from it; the beggar's hut and the nobleman's palace was alike subject to its attack, scarce a person escaping either in town or country; old and young, strong and infirm, shared the same fate. Finding it to prevail so much, and with so great force—insomuch that sooner or later it had spread almost all over the country—I resolved to commit a succinct history of the disease and its appearances to writing, with which I now present the reader.

This distemper had raged in Cornwall and the western parts of Devonshire, from the first coming in of this month (February), but did not reach us at Plymouth till about the 10th, which was on a Saturday, and that day numbers were suddenly seized. The day afterwards they fell down in multitudes, and by the 18th or 20th of March scarce any one had escaped it.

The disorder began at first with a slight shivering; this was presently followed by a transient erratic heat, an headache, and a violent and troublesome sneezing; then the back and lungs were seized with flying pains, which sometimes attacked the breast likewise, and though they did not long remain there, yet were very troublesome, being greatly irritated by the violent cough which accompanied the disorder; in the fits, of which a great quantity of a thin sharp mucus was thrown out from the nose and mouth. These complaints were like those arising from what is called catching cold, but presently a slight fever came on, which afterwards grew more violent; the pulse was now very weak, but not in the least hard and tense like that in a pleurisy; nor was the urine remarkably red, but very thick and inclining to a whitish colour; the tongue, instead of being dry, was thick, covered with a whitish mucus or slime; there was a universal complaint of want of rest, and a great giddiness. Several likewise were seized with a most racking pain in the head, often accompanied with a slight delirium. Many were troubled with a tinnitus aurium, or singing in the ears, and numbers suffered from violent earache or pains in the meatus auditorius, which, in some, turned to an abscess; exulcerations and swellings of the fauces were likewise very common. The sick were, in general, given very much to sweat, which, when it broke out of its own accord, was very plentiful, and continued without striking in again, did often in the space of two or three days wholly carry off the fever; the urine depositing a copious, whitish, or yellowish-coloured sediment, but very seldom a reddish one: numbers, however, had great difficulty in making water, whether from their blisters or from their profuse sweats I will not take upon me to determine. The disorder often terminated with a discharge of bilious matter by stool, and sometimes by the breaking forth of fiery pimples.

You have here a description of this epidemic disease, such as it prevailed hereabouts, attacking everyone more or less; but still, considering the great multitude that were seized by it, it was fatal to but few, and that chiefly infants and consumptive old people.

"It generally went off about the fourth day, leaving behind a troublesome cough, which was very often of long duration; and such a dejection of strength as one would hardly have suspected from the shortness of the time; but this chiefly happened where there had been an imprudent and untimely use of the lancet.

Huxham says that the affection (which he calls a "feveret") was rarely mortal, "unless by some very great error arising in the treatment of it." He adds these words, which show his acuteness as a clinical observer:

However, this very circumstance proved fatal to some who, making too slight of it, either on account of its being so common, or not thinking it very dangerous, often found asthmas, *hectics* or even consumptions themselves the forfeiture of their inconsiderate rashness.

MODERN EPIDEMICS.

Altogether from 1693 to 1790 eleven severe epidemics of influenza occurred in this country. The outbreak in 1782 was considered of sufficient importance to form the subject of an investigation by the Royal College of Physicians of London. The College issued a public advertisement asking all physicians in the three kingdoms to furnish all the information in their power "relative to the late influenza." On the replies a report was based, which may be found in the *Transactions of the Royal College of Physicians*, vol. iii. It is interesting as showing the identity of character of the disease with the scourge as we know it now, but it throws little light on its causation.

In the present century epidemics have occurred in 1803, in 1831, in 1833, in 1836, in 1847, and in 1874, without counting the series which began in 1889-90. In 1837 influenza formed the subject of an investigation by our own Association. The Council of the Provincial Medical Association, as it was then called, issued a circular to its members asking for information as to the origin, progress, and duration of the epidemic, its symptoms and treatment, and the atmospheric phenomena attending and preceding it. Much valuable information was collected in this way, and was embodied in a Report upon the Influenza or Epidemic Catarrh of the Winter of 1836-7, drawn up by Robert J. N. Stretten, M.D., and published in the *Transactions* of the Provincial Medical Association, vol. vi (London, 1838). But this report did not do much to elucidate the problem, and indeed, neither the College of Physicians nor the early Fathers of the Association can be said to have advanced the question much beyond the theory propounded by Molyneux in the seventeenth century, that the cause of influenza was to be sought in "something subtle and occult" in the atmosphere. Indeed, without accepting the somewhat malicious suggestion of Mrs. Carlyle—herself a victim of the scourge in 1847—that "influenza" is not a disease, but a comprehensive name invented by the doctors to save them the trouble of making a diagnosis, we may be allowed to express a doubt whether even now we may not say with Sydenham:

Concerning the nature and quality of that disposition of the air on which the disease depends, as well as of many other things on which the doting and arrogant crowd of philosophers trifle, we are totally ignorant.

CONTRACT MEDICAL PRACTICE.

EASTERN VALLEY MEDICAL ASSOCIATION.

WE are informed that at the meeting of this Association, which has been especially formed for the discussion and mutual settlement of matters affecting the medical profession in the eastern valleys (Monmouthshire), and safeguarding the interests of the profession generally and of its own members in particular, the position of Dr. Bowker, who has recently resigned his appointment as surgeon to the Cwmbran collieries, was considered. Dr. Bowker's resignation is due to a refusal on the part of the workmen to agree to an increased stoppage of one penny in the pound, which has already been accepted by the majority of the works and collieries in the district. The following resolutions were adopted:

That the secretary write to various medical societies, requesting them that in the event of an advertisement appearing for the position of surgeon to any colliery or works in the Eastern Valley, and especially the Cwmbran colliery, that they will use their influence to dissuade intending applicants for the appointment.

That intending applicants for the vacant post be requested to communicate with the Honorary Secretrry, A. B. Avarne, Crossfield House, Blaenavon, Mon.

THE next examination for the certificate in nursing and attending on the insane of the Medico-Psychological Association of Great Britain and Ireland will be held on May 1st. Schedules to be filled up by candidates can be obtained of the Registrar, Dr. Spence, Burntwood Asylum, near Lichfield, to whom they should be returned not later than April 3rd.

THE PREVENTION OF TUBERCULOSIS.

Carlisle.

On March 2nd a public meeting was held in the Town Hall, Carlisle, for the purpose of considering the desirability of forming a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis for the Cumberland. The meeting had been convened by the Lord Lieutenant (Lord Muncaster), the High Sheriff (Mr. G. G. Kirklinton), the Mayors of Carlisle, Workington, and Whitehaven, and the Chairman of the County Council. The High Sheriff presided, in the absence of the Lord Lieutenant, and there was a large and influential gathering from all parts of the county, including the Bishop of Carlisle; Dr. R.W. Philip, Edinburgh; Canon Rawnsley, Crosthwaite; Mr. Howard, Greystoke (Chairman of the County Council); Dr. Lockie, Carlisle (Chairman of the Provisional Committee); Dr. Barnes and Mrs. Barnes, Carlisle; Dr. Bird, Carlisle (Hon. Secretary of the Provisional Committee); Dr. Highet, Workington; Dr. Muriel, Whitehaven; Dr. Graham, Carlisle; and many others.

After some introductory remarks the High Sheriff introduced Dr. R. W. Philip of Edinburgh, who said there was a special fitness in this meeting in Carlisle, because it was only some two and a-half years ago that the British Medical Association partook of their kind hospitality, and the Association passed two resolutions regarding the prevention of tuberculosis. These resolutions had become famous, and were known nowadays as the "Carlisle Resolutions." They had not been barren in any sense, because based on these resolutions a Special Committee of the Association had framed, and the British Medical Association had issued, a report which he ventured to commend to their consideration. The National Association was the outcome of a big wave which was passing over, not only this country, but the world, with regard to the disease, a wave which had influenced the citizens as well as the doctors. The National Association recognised that for a successful campaign against the enemy there must be available a large amount of information, and it proposed to scatter such information widely amongst the community. In order to do this the Association must be national in every sense of the word, and representative also, and it would have the powerful support of the medical profession and of the representatives of veterinary medicine, and this, having regard to the intercommunication of the disease between animals and man, was a matter of the first importance. He described the methods the Association desired to follow and the measures to be adopted in the district, and he made special reference to the reception and treatment of the poorer classes. He would like to see the establishment of a tuberculous colony, where patients for a much longer period than could be kept in hospital might live under better climatic conditions and still contribute their particular work for the good of the community. This was not a chimerical conception; he had had a certain amount of practical experience of this on a small scale. Hospitals should also be established for the admission of dying cases of tuberculosis. Mere elevation had little to do with the cure of the disease. On behalf of the National Association he begged leave to invite the citizens of Carlisle and the inhabitants of the county of Cumberland to make common cause with those who had undertaken to combat the disease.

The Chairman said he had omitted to say that some £600 or £700 had already been subscribed without an appeal being made.

The Bishop of Carlisle moved the first resolution:

That a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis for the county of Cumberland be and is hereby formed.

Dr. Highet (Workington) seconded the motion. He said by all means let them get rid of tuberculosis in cattle if they could; let them see that their milk supply was above suspicion, and that their meat was pure and untainted; but let them remember that even if they provided a sanatorium for the better treatment of tuberculous disease, there would still remain that great susceptibility to diseases of that description which were found in badly ventilated and overcrowded workshops, and particularly in the dwellings of the very poor, which were a disgrace to nineteenth-century civilisation. He believed that providing better houses for the very poor they would get better results than from Direct Vetoes and Permissive Bills.

After some discussion the resolution was put and carried unanimously.

Mr. Crowder proposed the second resolution:

That the office-bearers of the branch shall consist of patrons, president, vice-presidents, treasurer, and honorary secretary.

This was carried unanimously.

Mr. John Milburn (Workington) proposed the third resolution:

That in order to carry out the objects of the branch a local committee be formed in each sanitary district of the county, consisting of the members of the branch resident in each district.

The resolution was carried unanimously.

The Mayor of Whitehaven proposed:

That an Executive Committee be appointed, to consist of fifteen members elected at the annual general meeting of the branch, and one representative appointed by each District Committtee; the President, Treasurer, and Secretary to be *ex-officio* members of the Executive Committee.

This resolution was carried unanimously.

Canon Waterton moved:

That the Executive Committee shall direct the affairs of the branch, subject to the control of the annual meeting of members, shall obtain approved public lecturers, collect subscriptions, diffuse literature relating to the prevention of tuberculosis, and promote the establishment, on a partially self-supporting basis, of open-air sanatoria for tuberculous patients.

Dr. Barnes, in seconding the resolution, said in Cumberland there was special need to take action in the matter, because a very large number of deaths took place from tuberculosis every year. He had during the last few years visited sanatoria in various parts of Europe and America, and he did not think anything tended more to the prevention of tuberculosis than the existence of those institutions. He considered the provision of a sanatorium one of the great needs of the future. In Carlisle last year there were 129 deaths from tuberculosis, while from eight other zymotic diseases there were only 103. The Corporation of Carlisle would, he thought, be exercising a useful function if they tried to prevent deaths from tuberculosis.

Mr. J. C. Dove proposed:

That the following be the office-bearers of the branch for the ensuing year:—Patron: The Right Hon. Lord Muncaster. President: The Right Rev. the Lord Bishop of Carlisle. Vice-Presidents: The Right Hon. the Speaker of the House of Commons (W. C. Gully, Esq.), the High Sheriff of Cumberland, the Right Rev. the Bishop of Barrow-in-Furness, the Ven. Archdeacon Prescott, the Rev. Canon Richmond, the Ven. Archdeacon Diggle, the Rev. Canon Waterton, the Rev. J. Christie, the Rev. B. Burrows, Sir R. J. Graham, Bart.; His Honour Judge Hills, His Honour Judge Steavenson, the Mayor of Carlisle, the Mayor of Workington, the Mayor of Whitehaven, Sir H. R. F. Vane, Bart.; Sir Wilfrid Lawson, Bart., M.P.; the Right Hon. J. W. Lowther, M.P.; Augustus Helder, Esq., M.P.; R. A. Allison, Esq., M.P.; the Hon. H. V. Duncombe, M.P.; David Ainsworth, Esq., J.P.; and John Stirling, Esq. Treasurer: W. I. R. Crowder, Esq., jun. Hon. Secretary: James B. Bird, Esq., M.D. That the following be the fifteen representative members of the Executive Committee: The Mayor of Carlisle (*ex-officio*), the Mayor of Workington (*ex-officio*), the Mayor of Whitehaven (*ex-officio*), the Rev. Canon Rawnsley, Henry Barnes, Esq., M.D.; Studholme Cartmell, Esq.; John Highet, Esq., M.D; Stewart Lockie, Esq., M.D.; Jas. Macdonald, Esq., M.D.; Roderick Maclaren, Esq., M.D.; Humphrey Stenhouse, Esq.; Colonel F. R. Sewell, Joseph Bowser, Esq., M.D.; Sir John Dunne; and J. Smith Hill, Esq., B.A.

Mr. I. Teasdale seconded the resolution, which was carried, and the usual votes of thanks brought the meeting to a close.

In the event of the branch proceeding to the establishment of a sanatorium in Cumberland for the treatment of the poor or persons of small means suffering from consumption, the following donations have been promised towards that object: Anonymous (per Studholme Cartmell, Esq.), £400; Isaac Teasdale, Esq., Carlisle, £100; Dr. Lockie, Carlisle, £100; William Walker, Esq., Whitehaven, £100; Mrs. Ford, Fisher Street, Carlisle, £10 10s.; Dr. Rowland Thurnam, Nordrach-in-Mendip, £5 5s. The following donations have been promised towards the funds of the branch: Sir John Dunne, £10 10s.; the Mayor of Whitehaven, £5 5s.; and Wm. Walker, Esq., Whitehaven, £10.

ST. GEORGE'S HOSPITAL.

At a meeting of the Weekly Board held on Wednesday, March 8th, it was unanimously resolved, on the recommendation of the medical staff, that in future contracts for milk a clause should be inserted providing that it should be supplied only from animals which have been duly certified to be free from tubercle.

LITERARY NOTES.

MESSRS. OLIPHANT, ANDERSON, AND FERRIER will shortly publish a book by Dr. Elmslie, medical missionary in Livingstonia, entitled *Among the Wild Ngoni*. Lord Overtoun will contribute an introduction, and the volume will contain sixteen illustrations from original photographs of missionary scenes and portraits.

Our French friends appear to be beyond hope of salvation in the matter of English titles. In the *Bulletin de l'Académie de Médecine* of February 28th it is announced that "Sir Lister (de Londres)" has been elected a Foreign Associate of that distinguished body. That this is not a slip of the pen—or the printer—is shown by the fact that Lord Lister's title appears in this form no fewer than three times.

An Account of the Proceedings of the Fourth International Physiological Congress held at Cambridge, England, August 23rd to 26th, 1898, has been issued as a supplement to the twenty-third volume of the *Journal of Physiology*. The supplement, which is issued by the Physiological Society of Great Britain, is edited by Mr. Leonard Hill. It consists for the most part of brief accounts of the demonstrations given or the papers read during the Congress; but in some instances the editor is reduced to the necessity of printing the title of the communication without any indication of its scope. The notes are printed in the original language of the contributor, so that the fasciculus is of a decidedly polyglot character. It affords an interesting memento of a successful gathering.

The King's Medicines for the Plague, Prescribed for the Yeare 1604 by the whole Colledge of Physitians, both Spirituall and Temporall, and now most Fitting for this Dangerous Time of Infection, to be Used all England Over. London, printed for Henry Goffon, and are to be Sold by F. Coules, at his Shop in the upper end of the Old Bayly, neere Newgate, 1636. So runs the title-page of a tiny pamphlet containing some curious prescriptions for the prevention of plague. Among these are the following:

Take three pints of Malmesie, a handfull of Rue, as much of Sage, boyle these to a quart; then strain out the herbs, and then take an ounce of Long Pepper, Vinegar, and Nutmegs, all beaten small in a Morter, and put into the Wine, and boyle it a little, then take it off, and put into it one ounce of Mithridate, two ounces of the best Treacle, and a quarter of a pint of Aqua-Vitæ, and put all into the Wine and so keepe it.

One spoonful of this was to be taken "as soone as the party doth presume himselfe infected, luke-warme," and he was "to goe to bed, and sweat two or three houres, and then dry the body well, and keepe warme, and drinke no cold drink, but warme drinke and cawdels, and posset drinke with marigold leaves and flowers." Sanitation was not altogether neglected, for the following are indicated as things which "ought duly to be looked into," viz.:

It is very convenient that you keepe your houses, streets, yards, back sides, sinks and kennels sweet and cleane from all standing Puddels Dunghills, and corrupt moystures which ingender stinking savours that may bee noysome or breed Infection; nor suffer no dogges to come running into your houses; neither keepe any (except it be backward in some place of open ayre), for they are very dangerous and not sufferable in time of sicknesse, by reason they runne from place to place, and from one house to another, feeding upon the uncleanest things that are cast forth in the streets, and are a most apt cattell to take infection of any sicknesse, and then to bring it into the house.

If for "dogges" in this recommendation one should read "cats," the advice might have been issued by a modern M.O.H. The "Colledge of Physitians" has also something to say in regard to "ayring your roomes," but this was to be done not by the free air of heaven, but with "charcole-fires," into which "a little quantity of frankincense, juniper, dried rosemary, or of bay-leaves" was to be put. "The King's Medicine against the Plague of the Soule," is prescribed *secundum artem*. The reader is directed to take the "herb of vertue" and the "herb of patience," to "straine these through the fine strainer of uprightnesse and integritie," to put thereunto "insteed of white ginger.....the hot ginger of love towards God and thy neighbour," to "adde also a good quantity of the comfortable treacle of hope," etc., etc.

In the *Archiv für Dermatologie und Syphilis* for January Dr. Leopold Glück quotes from the *Popularia Epigrammata Medica* of Gabriel Ayala (printed at Antwerp in 1562) two pieces entitled respectively "De Lue Venereâ" and "In Morbi Gallici agnitione multos decipi." The former is interesting as showing that even in the sixteenth century syphilis was not looked upon as a new disease. Ayala says of it:

Nec novas in nostras jam nuper missus es oras:
Es vetus, id quamvis publica fama neget,
Quippe ex quo cœpere homines contemnere summi
Jussa Dei, indignis ausibus, ultor ades.

He admits, however, that the disease raged in his day with a violence previously unknown owing to the corruption of the age:

Ac merito hoc nostro (quo non corruptius ullum)
Sæculo, inaudito vulnera more facis.

He rejoices in its ravages and calls upon to play the avenger on vice even more ruthlessly:

Judex, opprobrium, scortatorumque flagellum,
Salve adeo: inque tuos utere jure tuo.

Such a prayer in the mouth of a physician may sound suspicious, but Ayala's edifying zeal for the punishment of vice is perhaps to be explained by the fact that his book is dedicated "Ad Reverendiss. ac Illustriss. Cardinalem Granvellanum." Ayala's other metrical deliverance is chiefly interesting for the earnestness with which he warns practitioners against regarding and treating every affection of the skin as "syphilitic manifestions":

Ne mihi propterea, quicunque es, ab ulcere fœdo,
Aut scabie, aut alio stygmate, triste cane.
Syphilidemque statim clama in penetrale receptam
Corporis, Ah, multos turpis hic error habet.
Sive lucrum, rerum sive ignorantia cæcet,
Multorum crimen, Gallice morbe, subis.

The last line has not perhaps entirely lost its application at the present day. Syphilis is a convenient scapegoat not to the dermatologist alone, but to the neurologist.

The French are so jealous of the Germans that they will not even allow the latter the credit of having invented the Wörishofen water cure. M. Macé has unearthed a precursor of Father Kneipp, to wit one Bernard Georges Penot, who wrote a treatise, *De Aquæ Naturalis Virtute*, which was published at Berne in 1547. Penot, who was born at Port-Sainte-Marie, near Nérac, in 1521, became a Friar Preacher at Toulouse, but, having adopted the principles of the Reformation, left the Order in 1543, and died in the hospital of Yverdon, in Switzerland, in 1607. Penot anticipated Kneipp in prescribing walking on wet grass, as to the therapeutic virtues of which practice he discourses as follows:

In the morning, when the heavenly dew has given to the earth a new freshness, you must with naked feet and legs walk two hours on the freshened sward, for the dew is the daughter of God; it carries with it a kind of mysterious virtue which scatters itself in forces through the microcosm and chases away malign influences. Be not afraid that this chilling will do any harm, for all cold is the source of all heat, and water is the vehicle of health and the paragon of life.

The ex-friar, it will be observed, is decidedly mystical, not to say misty, in his notions of health and life; but in this he was no worse than the hierophant of Wörishofen, whose pathology was, to say the least, fantastic. Penot was as great a believer in the sovereign virtues of the douche as Kneipp, and he seems to have used it in various forms, as *aspergens*, *confluens*, *ascendens*, and so forth. Later, he published two further treatises, entitled respectively *De Medico Simplici* and *Thesaurus Vitæ*, in both of which the hydrotherapeutic principles enunciated in the first work are again set forth. But, after all, may not the invention of the water cure be traced to Pindar, who exclaimed in a fine frenzy, "Αριστον μὲν ὕδωρ?

PRESENTATION.—Dr. George Mathieson, who recently resigned the office of senior medical officer of the Staffordshire County Asylum to enter into private practice, has been presented by the staff of the asylum with some surgical instruments and a silver inkstand as a mark of appreciation and esteem. Dr. J. W. S. Christie, the medical superintendent of the asylum, made the presentation.

BRADFORD AND WEST RIDING MEDICAL UNION.—A special general meeting of the Bradford and West Riding Medical Union was held at Bradford on March 2nd. The rules and by-laws drafted by the Committee were presented to the Society for consideration, and were duly approved of. The next general meeting will be held on Thursday, April 20th, at 9 P.M.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 11TH, 1899.

THE LONDON GOVERNMENT BILL.

THE leading principles of the London Government Bill, which has now been printed, are obvious enough. Shortly stated these principles are: To reduce with the least possible disturbance 41 metropolitan local authorities to about 29, both population and wealth being taken into account in the delimitation of the areas; to reduce likewise the number of elective members—the large constituency will not have more than 72, the smallest may have 30; to give to the boroughs thus formed the trappings and externals of the great provincial cities, but to leave with a few exceptions the actual powers pretty well as before. Although the reception of the Government measure was exceptionally favourable, yet it seems clear that it will meet with some sharp criticism from various quarters. Those who desire complete autonomy—not, perhaps, a very numerous class—will fail to comprehend why populations such as St. Pancras, Lambeth, and Islington, all more numerous than those of Bristol, Bradford, or Nottingham, should not have all the powers and privileges of county boroughs, controlling education, administering the Building Acts, and being free practically from all outside interference. A great number will consider the Bill to be a half-hearted measure; they will criticise the too obvious adroitness of the political manœuvre which would relegate the thorny task of the adjustment of areas, housing a population not far short of two millions, to a Commission; they will object to the exclusion of the City, and to the omission from the measure of any provision dealing with the Metropolitan Asylums Board.

To the medical profession, especially to those members of it who are engaged in the Public Health service, the more important question is how it will affect the sanitary administration.

For years there have been powers sufficient, in the hands of sanitary authorities, if intelligently and consistently carried out, to ensure good sanitary administration. The difficulty has been to attain this ideal. It may reasonably be hoped that the natural selection which must take place during the process of diminishing the number of local representatives will result in a distinctly higher average of intelligence and administrative ability among the members of sanitary authorities. The Bill provides that nearly all matters of purely local sanitation shall be dealt with by each borough within its boundaries. The supervision of the common lodging houses formerly carried out by the police and now by the officers of the London County Council will revert to the local authority if the Bill becomes law. The registration and inspection of dairies, and the inspection of slaughterhouses and generally of offensive businesses, will also be carried out by the borough officers, but the Bill is silent as to the licensing of slaughterhouses. The power to adopt Part III of the Housing of the Working Classes Act can hardly be consistently given without the power to carry out Part I, that is, the part dealing with large unhealthy areas. It appears to be intended that boroughs should bear the expense of improvements within their own boundaries, and that the expense of a local improvement should not fall upon the whole county.

The tenure of office of the sanitary officers in about twenty-five of the districts will be affected by the Bill. It may be that the services of a good many will be dispensed with. These will not be left to the mercies of the local authorities, for compensation for loss of office is to be awarded by the Commission, which will, without doubt, act in an impartial and judicial spirit. On the whole, an examination of the text of the Bill confirms the first impression gathered from Mr. Balfour's speech. While it is not an ideal measure, the main principles on which it is based appear to be sound.

IRISH DISPENSARY DOCTORS.

THE meeting held in Dublin last week in support of the claims of the Irish dispensary doctors, a report of which is published at page 626, was encouraging. It was large and representative, but it was especially significant because of the number of provincial medical men who were present. This exhibition of living interest in the questions to be considered was particularly encouraging to those who have laboured hard in the cause, and it is to be hoped that the dispensary medical officers will not allow themselves to fall into a hopeless lethargy regarding their own interests. They can at least inform their advocates, and in their various spheres of influence they can do something to make the new councils more sympathetic in regard to the grievances from which the doctors unquestionably suffer.

It will be seen that the resolutions, which are printed *in extenso* in our report of the meeting, fairly cover the ground. They were proposed and seconded in convincing speeches, the speakers being representative men, well acquainted with the needs of the case. Finally, a deputation was appointed to wait on the Local Government Board to press upon them the necessity of reform, and we hope that something satisfactory may result from that interview.

That there is some possibility of improvement at the hands of the new Board is shown by the rules which it has just issued in regard to dispensary doctors. The issuers of the red tickets must be the duly elected wardens, who cannot delegate the power to others, or leave tickets signed in blank. A guardian, warden, or relieving officer who has issued a ticket for medical relief, on being furnished with additional trustworthy information, showing that the sick

person for whom the ticket was issued is not a poor person within the meaning of the Act, shall be at liberty to withdraw the ticket. An important rule provides that each medical officer shall be allowed an annual vacation not exceeding four weeks, and that the guardians shall pay to the medical officer employed temporarily to discharge the duties of the medical officer for that period such reasonable remuneration for his services as the Local Government Board shall approve or direct. This is a concession long withheld. The wonder is that it has taken fifty years to gain it, notwithstanding that its perfect fairness has always been manifest. Other claims are not less strong, although they are resisted; and the new Local Government Board will do something to signalise the difference between itself and some of their hard, mechanical, and unimaginative predecessors, if it makes a real effort to set the whole Poor-law medical system of Ireland on a proper basis.

SECRET COMMISSIONS.

The London Chamber of Commerce has this week issued a report on Secret Commissions. The report has been prepared by a Special Committee, and is founded, it is stated, upon the replies received from members of the Chamber, various trade associations, other chambers of commerce, and from the general public, in response to a letter which was published in various trade papers and the press generally. The report deals mainly with trades, but one of its earlier paragraphs runs as follows: "Your Committee conclude from the evidence before them that secret commissions in various forms are prevalent in almost all trades and professions to a great extent, and that in some trades the practice has increased, and is increasing; and they are of opinion that the practice is producing great evil, alike to the morals of the commercial community and to the profits of honest traders."

So far as regards the medical profession, its inclusion among the professions which accept commissions appears to be founded upon two statements received by the Committee. One was made by a pharmaceutical chemist who wrote that "secret commissions are given by chemists to medical men on their prescriptions supplied to patients, in some cases amounting to from 25 to 50 per cent. on the price charged by the dispensing chemist." The other statement was from an "optician, jeweller, and silversmith," who said that he had about fifty years' business experience. He wrote that "it is an open secret that hospital doctors received commissions from makers of surgical instruments," and he also stated that "recently a man of scientific eminence in Scotland received a very large commission for recommending a certain make of microscope."

The report contains certain recommendations, one of which is: "That all professional and trade bodies (such as those representing the medical, legal, artistic, and other professions and trades), be recommended to make an emphatic declaration on the subject of secret commissions, and adopt the course already taken by the Royal Institute of British Architects, the Institution of Civil Engineers, and other bodies by inserting into their by-laws a stipulation that any member guilty of the pernicious practice will be expelled the Society by the Council. In order to make such a provision effective this would require the aid of the general public, as well as of the members of the several professions and trades."

In a note to their report the Committee state that the greatest care has been taken to see that the statements contained in the appendices, from one of which we have quoted, have been made on reliable authority, but disclaim any responsibility for their absolute accuracy.

We may say at once that we think that this disclaimer is very necessary in regard to the statements which have been spread broadcast in this report to the disadvantage of the medical profession. In response to some inquiries upon the point, we have received a number of letters from medical practitioners—both surgeons and others—none of whom have ever heard of the granting of commissions by surgical instrument makers. Indeed, one surgeon of large experience writes: "I have never known of the suggestion even of the offer of a commission by an instrument maker to a hospital surgeon, and do not believe it is ever made. On the other hand, I have known surgeons charged for the making of special instruments which afterwards brought great profit to the makers."

Nor can we find that offers of commission are made by chemists or accepted by medical practitioners. One physician writes to us: "As a matter of convenience I send my patients to one particular chemist in whom I have confidence, but I have never received anything in any shape or form from him, and he regularly sends me in his bill for all drugs and medicines I have for my personal use." It is, we believe, the custom of pharmaceutical chemists to charge medical practitioners the minimum price for medicines supplied for their own use and for that of their families, but this is an act of courtesy and cannot be placed in the same category as a secret commission.

It is of course impossible to affirm of a large profession that the conduct of all its members is unimpeachable in this respect, but we believe ourselves to be in a position to assert that no such practice as is suggested of receiving commissions from chemists and surgical instrument makers prevails or is common. At the same time, if it can be shown that the practice of receiving secret commissions exists even to a limited extent, we have no doubt that the medical colleges and other licensing bodies would be quite ready to make an emphatic declaration on the subject.

THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

Sir Samuel Wilks has caused it to be understood that he does not desire to be re-elected President of the Royal College of Physicians, an office which he has held for the past three years. His decision has occasioned not a little regret, but it is recognised that he has well earned his right to repose, and that during his term of office as President he has greatly increased the debt of gratitude which the profession owes to him. The election of President takes place annually on the Monday after Palm Sunday, that is this year on March 27th. Among the many Fellows who are eligible for election opinion seems to have turned most generally to two, Sir William Broadbent, Physician-in-Ordinary to the Prince of Wales, and Consulting Physician to St. Mary's Hospital, who became a Fellow in 1869; and Dr. W. S. Church, Senior Physician to St. Bartholomew's

who was elected a Fellow in the following year. Other names which have been mentioned are those of Dr. W. H. Dickinson, Consulting Physician to St. George's Hospital, who became a Fellow in 1865; and Dr. S. J. Gee, Physician to St. Bartholomew's Hospital, who became a Fellow in 1870. It is understood that Dr. J. E. Pollock, whose name has also been mentioned, would not be willing to accept the office. The mode of election, as laid down in the by-laws, is as follows: "At the meeting assembled for the election of the President .... every Fellow present shall, without any formal proposal or nomination, write down and place in the urn the name of one of the Fellows qualified to be elected whom he votes for as President..... If the name of one of the Fellows shall have thus been placed in the urn by two-thirds of the Fellows present, he shall thereby be elected; otherwise the two names having the highest numbers shall be balloted for."

THE LEAGUE AND ORDER OF MERCY.

The success of the Prince of Wales's Fund must profoundly interest the medical profession, and we believe that at any rate most of the members of the profession share the opinion, which we have freely expressed, that up to the present time such success has not been obtained. The Fund has not yet attracted to itself the very class which it was formed to reach, that is to say, those who have not hitherto subscribed to any hospital. We have also expressed the opinion that in order to do so, something in the nature of house-to-house collection—or at any rate, some local means—would be necessary. Now this is the general aim of the scheme entitled "The League of Mercy," which was commenced by an enthusiastic meeting, presided over by His Royal Highness, and reported in the daily papers of March 2nd. We should be inconsistent, indeed, with our previous utterances if we did not recognise the admirable motives by which the Prince is actuated, and wish him every success. There are, it is true, several dangers and drawbacks to such a scheme. Sir W. Hart Dyke at the meeting pointed out one: the difficulty of keeping the collection reserved entirely for the Fund and preventing the diversion of any part of it to local charities. Another, no doubt, is the nuisance of genteel collectors being thus let loose to invade everyone's privacy and compel him to "stand and deliver." Still, these and similar objections can be comparatively easily met. The part of the scheme which, we frankly say, we like least is the "Order." It may be necessary to hold out to gentlemen and ladies these small distinctions and decorations in order to enlist them in a charitable effort which they would not undertake for charity apart from such reward; but if so, it is an ugly necessity. We could have wished that the scheme of the League of Mercy had been started on its own merits. Its success must depend on very careful handling. The inconveniences and scandals which made the "snowball" system offensive to the public must be avoided, and this scheme (as one of its chief supporters points out to us in a private letter) bears a striking resemblance to that system. Again, if it sets men and women hunting for decorations it will, we fear, fall into public ridicule. But the object of the League is good, and under wise guidance it may be made very effective. Such guidance we heartily pray that it may obtain.

WESTERN MEDICINE IN INDIA.

The Viceroy of India said many graceful and true things about medical science in his speech at the annual meeting of the Countess of Dufferin's Fund in Calcutta for giving medical aid to the women of India, on March 3rd. After saying that the British had come to India as conquerors indeed, but as benefactors also, bringing religion, law, literature, and science as gifts in their hands; and after admitting that there might be two views about the three gifts first mentioned, he said of science, and of medical science in particular: "Now I come to the last boon, of science, and medical science in particular. About this no two opinions can possibly be entertained. There may be prejudices and scruples arising from long custom, ignorance, or other causes, but doubts there cannot possibly be; and I say this, that if we had come back to you from the West with our medicine in our hand, and with that alone, we should have been justified in our return. For what is this medical science we bring to you? It is no mere collection of pragmatical experimental rules. It is built on the bed-rock of pure, irrefutable science; it is a boon which is offered to all, rich and poor, Hindu and Mohammedan, woman and man. It lifts the *purdah* without irreverence. So far as I know, it is the only dissolvent which breaks down the barriers of caste without sacrilege. Medical science, indeed, is the most cosmopolitan of all sciences, because it embraces in its merciful appeal every suffering human being in the world. Now, our Anglo-Indian poet Kipling—I claim him as an Anglo-Indian, though he is also the property of the world—in his latest poem, and I hope and pray—and I am sure you join in that prayer—that it will be by no means his last, has thus written:

> Take up the White Man's burden—
> The savage wars of peace,
> Fill full the mouth of famine,
> And bid the sickness cease.

Well, this part at any rate of the White Man's burden, this portion of the bounty of the Aryans of the West, has not been ignored by the British in India, and in my view every hospital we build in this country, every doctor we train, every nurse we turn out, every patient we cure, is part of the service that we owe to India; is an element of our duty in this country; is part of the home-coming gift which the Aryans of the West have brought back to their kith and kin." This tribute is as well conceived as it is generous, and we would venture to hope that Lord Curzon of Kedleston perceives the full significance of the words he uttered. Science, if it is really to do for a people the work which he sees it to be its duty to do, must be a living thing, a vital principle in the minds of men; and if it is to be all this it must not be represented by a dead routine, the mechanical application by over-taxed men of principles worked out by others. The Indian Government has been in the past too much disposed to live upon borrowed capital, to accept tardily the scientific results achieved by workers elsewhere. It has not taken the share which belongs to it in scientific investigation, nor has it given very hearty encouragement to those of its servants who have shown an aptitude for original work in science. Where is the wisdom or the policy of detailing a man for six months or a year on special duty to attack a problem which might well absorb all the energies of a lifetime? Science is cosmopolitan, but conditions of life vary, and under new conditions even familiar problems present themselves under new aspects. We have welcomed certain recent indications that the Government of India is beginning to realise that it is under an obligation to contribute to the advance of science, and not to rest content merely with the application of discoveries made elsewhere. We trust that the enlightened views which the Viceroy holds may tend to confirm this tendency, and to establish it as a principle of Government.

THE CHAIR OF PHYSIOLOGY IN THE UNIVERSITY OF EDINBURGH.

The Curators of Patronage, by whom the appointment of a Professor of Physiology in the University of Edinburgh, in succession to the late Dr. Rutherford, will be made, have now intimated that applications, with relative testimonials, must be lodged with Mr. R. Herbert Johnston, W.S., 66, Frederick Street, Secretary to the Curators, on or before May 20th next. By the Universities Act of 1858 the patronage of seventeen chairs—of which the

Chair of Physiology is one—previously in the gift of the Town Council, was transferred to seven curators—three nominated by the University Court and four by the Town Council. The curators hold office for three years. The names of the present curators are Principal Sir William Muir; the Right Hon. J. P. B. Robertson, LL.D., Lord Justice-General for Scotland; and Patrick Heron Watson, M.D., LL.D., elected by the University Court, while the following four curators are elected by the Town Council: the Right Hon. Lord Provost Mitchell Thomson; Lieutenant-Colonel Alexander Forbes MacKay; Sir James Alexander Russell, M.B., LL.D.; and George Auldjo Jamieson, C.A. We understand that already the following gentlemen are candidates for the vacant chair: Professor E. A. Schäfer, F.R.S., Jodrell Professor of Physiology in University College, London; Dr. William Stirling, F.R.S.E., Brackenbury Professor of Physiology and Histology, Owens College (Victoria University), Manchester; Dr. Diarmid Noel Paton, F.R.S.E., Lecturer on Physiology in the Extra Academical School of Edinburgh; Dr. E. Waymouth Reid, F.R.S., Professor of Physiology, University College, Dundee, and Dean of the Faculty of Medicine of St. Andrews University; and Dr. E. W. Wace Carlier, Senior Assistant to the late Professor Rutherford. Dr. Carlier is at present giving the lectures in Physiology in the University. The emoluments of the chair will in future, we understand, be of the annual value of £1,400.

TUBERCULOSIS IN RAILWAY CARRIAGES.

DURING the winter, 1890-91, considerable attention and some alarm were aroused by the discovery by W. Prausnitz of virulent tubercle bacilli in the railway carriages running between Meran and Berlin. His researches were based on observations on the dust of four carriages. At first sight it might seem that the importance attending the discovery of tubercle bacilli in railway cars is not of the same degree as that associated with their presence in dwelling-rooms; the sojourn in a railway carriage being comparatively short and the air being frequently renewed. On the other hand, however, the cubic space of a railway carriage is limited, it is very apt to become contaminated by the frequent stirring up of dust by the movement of its occupants, the ventilation in many cases is inadequate and inconvenient, while the cleansing is not always effectively carried out, and is in many instances hindered by the style of upholstery indulged in. Dr. Petri has carried out in the laboratory of the Imperial Sanitary Bureau at Berlin an extremely extensive and exhaustive research on the presence of tubercle and other pathogenic bacilli in railway carriages, the number of germs found in different compartments, and the cleaning found adequate for removing them. As might have been expected, these experiments showed that undoubtedly the chief source of pathogenic micro-organisms, and particularly of tubercle bacilli, was the expectoration scattered on the floor of the carriages. Of 91 animals which were inoculated with the sputum, 28, or 30.8 per cent., succumbed to disease produced by the inoculated material. The other 63 animals were killed at the end of six weeks, and of these 3 were found to be suffering from tuberculosis, manifestly due to the inoculation. In the 28 animals which died the following pathogenic bacteria were discovered: Staphylococcus pyogenes, albus and aureus; streptococcus pyogenes; the bacillus of the pseudo-tuberculosis of Eberth; and the bacilli of mouse septicæmia. The part of the carriage most infected was always the floor, and this was always more marked in the third and fourth than in the first and second classes. It was found that the ordinary process of disinfection did not produce a notable diminution in the number of germs, and that although the carriage might look very clean the only result obtained was a diminution in the rate of development. This unsatisfactory result was the more disappointing, as the method of disinfection costs a considerable sum; in the case of a coach made up of five first and second class carriages, which had not been cleaned for some time, it amounted in round figures to 69 francs. Dr. Petri and his assistants have formulated definite conclusions, and the Prussian Minister of Public Works has issued an order giving full details as to the method and time proper for cleaning and disinfecting railway carriages, waiting rooms, and platforms. It is published *in extenso* in a recent number of the *Revue d'Hygiène*, and it might be well worth the attention of the National Association for the Prevention of Consumption. The filth of railway staircases and platforms, the utterly inadequate and unsatisfactory method of ventilation, the stuffy plush cushions in the first class, the absence of proper spittoons in the smoking and third class carriages, and the inefficient cleansing generally, are all points that should be brought before both the public and the directors of railway companies. The dirt of suburban carriages and staircases tends rather to increase than diminish, while in the cars of American pattern the windows are constructed, for some unknown reason, so as to open only a few inches, and then only from the bottom. In this way a small supply of cutting air comes direct on to the unfortunate traveller's body, while the upper stratum in which he breathes is left unchanged. Not only is the crowded and dusty air of railway carriages responsible for the conveyance of specific germs, but its contamination with human exhalations predisposes travellers to the "colds" which are frequently attributed, wrongly, to an open window. At the end of a two hours' journey in a luxurious (!) drawing-room car, the sleepy, haggard faces of the occupiers are eloquent of the semi-asphyxia to which they have been exposed. In such a condition they are certainly well prepared for the reception of the tubercle and other pathogenic bacteria which Dr. Petri's researches show to be present in all railway carriages.

CONSTRUCTIVE MURDER.

ANOTHER judge, Mr. Justice Darling, has made an attempt to remove or minimise the absurdity of the law in cases of constructive murder in his charge. To the grand jury at the Chester Assizes on March 6th he referred to a case in which the prisoner was charged with the murder of a woman, whose death was alleged to have resulted from an illegal operation performed upon her by the prisoner, and according to the report in the *Daily News* told the grand jury that there was no doubt about the law, that any person performing such an operation and thereby killing another person was guilty of murder. He observed that several persons had recently been convicted of murder in similar circumstances, and that the sentences of death which had been passed had not been carried out, it being well known at the time that they would not be carried out. It was not well that the highest penalty which man had in his power to inflict should be gravely decreed against people with the full knowledge that the whole proceeding was nothing but a sham from the moment the trial began. He advised the grand jury to assist in putting an end to those unsatisfactory, and from some points of view ridiculous, performances; if they thought that the person who inflicted the wound wished to kill the woman, or did not care whether he killed her or not, then they would find a true bill, and he would be tried for murder. But if the prisoner only meant to procure abortion, and in the doing of that he did what he did not mean to do—namely, kill the woman—then he would advise them not to return a true bill for murder. He added that "he had taken care that another bill under the statute which made it a punishable offence to procure or attempt to procure abortion, should be presented to them." It appears to us that the course taken by Mr. Justice

Darling is open to objection on two or three grounds. If the facts placed before the grand jury amount in law to a *primâ facie* case of murder, it is their bounden duty to bring in a true bill, for they will clearly violate the oath which they have taken if they return no true bill on the ground that the law, as it now exists, is repugnant to them. Further, the direction by the judge that they may so act forms a very dangerous precedent, inasmuch as it may lead juries to believe that they may disregard their oath in cases in which it appears to them that the law should be altered. If the prisoner be only charged with procuring, or attempting to procure, abortion, evidence which would otherwise be admissible against him will be excluded, as was pointed out in the British Medical Journal of December 3rd, 1898. In the criminal law practice and procedure ought to be certain and uniform, and it is not at all probable that all or any of the other judges will adopt the course taken by Mr. Justice Darling in this case. However desirable it may be to put an end to the undignified and indeed absurd positions in which judges and juries are placed in such cases, we feel sure that the only satisfactory way to achieve such a result is by an Act of Parliament amending the law of constructive murder.

THE LABORATORY OF THE SCOTTISH ASYLUMS.

The second annual report of the Pathologist to the Laboratory of the Scottish Asylums has just been issued. Sixteen asylums now contribute to the scheme, but the Board of Management is hopeful that all the asylums of Scotland will yet join in this most important work, inasmuch as increase in the scientific knowledge of insanity must tend to a wiser and better treatment of the insane. Dr. Rutherford, of the Crichton Institution, Dumfries, succeeds Dr. Yellowlees as Chairman of the General Board. Dr. Clouston has been reappointed Treasurer and Chairman of the Special Executive Committee. During the past year 33 reports had been made on material sent for investigation; 5 assistant medical officers of the associated asylums had received a laboratory course of instruction; 2 other gentlemen, not attached to any of the asylums, had also, with the permission of the Committee, been given the laboratory course. Asylum demonstration sets had been sent out 51 times. Assistance of various kinds had been rendered to several gentlemen who had been making special investigations. The normal histology of the cortical nerve cells and their morbid alterations, more especially in cases of acute insanity, had been the chief original research of the pathologist during the past year. To Dr. Ireland they had been indebted for the loan of a large number of British and foreign neurological journals for the use of the laboratory. Much careful scientific investigation had been done in consequence of the stimulating effect of the laboratory.

THE MIDDLESEX HOSPITAL NEW SCHOOL BUILDINGS.

The Middlesex Hospital now possesses a series of new class rooms and laboratories of the very highest excellence. These new buildings are arranged in two main blocks, one facing into the hospital garden the other into Union Street. On the ground floor of the first block a handsome vestibule leads to a room for the official work of the school, and to a room for instruction in public health; it also connects the old buildings with the new. From the vestibule one passes into a series of rooms for chemistry, a large laboratory, a lecture room, and a private room beyond. The laboratory is arranged for 35, the lecture room for 50. Above, on the first floor, are the rooms for pathology; a spacious class room arranged both for practical work and for lectures, a bacteriological laboratory for advanced work, and a private room beyond. From this department there is direct access to the *post-mortem* room. The mezzanine floor provides an anatomist's room, a dark room for photography, and other accommodation. In the basement there are three anatomical rooms, which are connected by an electric lift with the dissecting room on the top floor. This room, 75 feet long, is warmed with hot water, ventilated with electric fans, and lit from above, and also by movable pendants of electric light. The floor is of terrazza stone, the tables are of glass, and the walls are panelled with slate for diagrams. On the same floor are the demonstrators' private room and a large room for the practice of operative surgery. The Union Street building is all of it given over to physiology. On the ground floor are three rooms—one for quantitative analyses, another for independent work, and a third large room for general class purposes. On the first floor there is a very large room for practical work, and a private room containing a small dynamo, whence a shaft will run the whole length of the work room, supplying motor power to revolving cylinders. The buildings are well designed, details have been carefully thought out, and the latest improvements have been adopted. Sir Charles Bell in 1836 wrote: "We have founded a school in the garden of the Middlesex Hospital. The building will be a complete little thing. You cannot imagine a prettier thing than that school." What would he say now if he could see these new buildings?

INFLUENZA AND DIPHTHERIA IN LONDON.

It is satisfactory to note that there was a slight decline last week in the mortality from influenza in London. The deaths directly attributed to this disease, which had increased from 22 to 113 in the four preceding weeks, declined to 97 during the week ending Saturday last, March 4th. Twenty-four of these were of persons aged less than 40 years, 28 of persons aged between 40 and 60 years, and 45—or nearly one half—were of persons aged upwards of 60 years. The disease continues to be exceptionally prevalent in West London, especially in Kensington, Fulham, and Chelsea. On the other hand, there was a marked increase in the mortality from diphtheria in London, 49 fatal cases being recorded, against 40 and 29 in the two preceding weeks. Of these 49 deaths, 5 were of persons belonging to Bethnal Green, 4 to Fulham, 3 to St. Marylebone, 3 to St. Pancras, 3 to Hackney, 3 to Bermondsey, and 3 to Lambeth sanitary areas. The notifications of diphtheria also showed an increase, 207 new cases being reported, against 199 in the preceding week. The increase was principally in South London, notably in Newington, where 17 new cases were notified, against 11 in the preceding week; in Battersea, where the new cases rose from 14 to 21; and in Wandsworth, where 19 new cases were notified, against 9 in the preceding week. The number of diphtheria patients in the Metropolitan Asylums Hospitals, which had been 1,396 and 1,388 at the end of the two preceding weeks, had further declined to 1,371 on Saturday last, March 4th; 142 new cases were admitted during the week, against 179 and 149 in the two preceding weeks.

A NEW MEDICAL ORDINANCE FOR TRINIDAD.

We have received from the Surgeon-General of Trinidad a copy of the new Medical Ordinance amending that passed in 1887, which has recently been brought into force in that island. It provides for the establishment of a Medical Board, which includes all the duly qualified medical practitioners in the island. From these are elected a President, Vice-President, Secretary, and Treasurer, and three others to constitute the Council of the Board. The Register of the Board contains separate lists of the members of the Board, licensed dentists, licensed druggists and assistant druggists, midwives, and rural shopkeepers. Any medical practitioner entitled to registration in Great Britain and Ireland, on furnishing proof of good character and payment of a fee of £5, is to be registered as a member of the Board. Anyone not registered who practises any department of medicine or surgery is liable to a fine

of £20 or imprisonment for three months for a first offence, and a fine of £50 or imprisonment with hard labour for six months for a second offence. The Board have the power to remove the name of any practitioner from the Register for infamous conduct in a professional respect; and can, if it think fit, direct the restoration of any name so erased. The Ordinance also provides for the registration of midwives. A midwife is defined to mean a woman who undertakes for gain to attend cases of natural labour. No midwife is allowed to practise unless registered by the Board, the penalty for a breach of this regulation being a fine of £5. Any registered midwife is liable to have her licence cancelled if it is proved to the satisfaction of the Council that she is incompetent, or negligent, or addicted to habitual intemperance. Provision is also made for the registration of druggists, and there are appended, in the schedules, lists of the various poisons and drugs which can only be sold by licensed druggists, and under certain restrictions.

AN ANGLO-INDIAN CENTENARIAN.

SURGEON-MAJOR JOHN BOWRON, the patriarch of the Indian Medical Service, died at Hove on March 5th instant, at the age of 100 years. He first joined the East India Company's service as a medical pupil on July 1st, 1813, and was appointed an Assistant Surgeon on the Bengal Medical Establishment on December 20th, 1825. After holding medical charge of several regiments in succession, he became Civil Surgeon of the important station of Jessore in Bengal, subsequently returning to military duty until the date of his retirement from the service on December 31st, 1851, with the rank of Surgeon-Major, after thirty-eight years' service. This stalwart servant of old John Company was throughout his long service a zealous and conscientious officer, and in his own person proved that with care a European can undergo a prolonged period of continued service in the plains of India without damage to the constitution.

"OSTEOPATHY."

AMERICA, to which the world is indebted for "Christian Science" and several other varieties of quackery which the effete Old World had not imagination enough to invent for itself, has brought forth yet another new system of healing which appears to surpass all her previous efforts in the same direction. We learn that the founder of the new system was one Dr. A. T. Still, who, finding rational medicine unsatisfactory, set about to discover something better. After a long and laborious gestation his great mind, dreaming of things to come, was, in 1889, happily delivered of a new system, the name of which was called "osteopathy." This name might mislead an unwary person with a tincture of philology into the belief that the new system concerns itself especially with diseases of bone: but from the description given of its aims and methods, it appears that it takes the whole human economy for its province. The fundamental principle of the system is that "all bodily disorders are the result of mechanical obstruction to the free circulation of vital fluids and forces." The following extracts from official publications of the sect will sufficiently set forth its claims: "Osteopathy has nothing in common with the faith cure, Christian Science, spiritualism, hypnotism, magnetic healing, Swedish movement, mental science, or massage. There is nothing supernatural about it. Its apparently marvellous cures are accomplished through purely scientific methods, based upon a profound knowledge of the human mechanism." "In massage the operator rubs and pats the nude body at random, often without any knowledge whatever of anatomy, and expects results simply because such vigorous stirring up of the surface of the body has proven beneficial in some other case. The osteopath, however, treats the patient through loose clothing, his hand rarely coming in contact with the flesh, except about the head and neck. He does not rub or pat, but manipulates osteopathically." If we ventured to ask what manipulating "osteopathically" means, we should probably get an answer recalling the classical definition of an archdeacon as one who performs archidiaconal functions. The manner of diagnosis is ingenious in its simplicity—at least from the point of view of the "osteopathic" practitioner. "The diagnosis is largely through the sense of touch, which is developed to its highest perfection. As the fingers of the blind are trained to read the letters of the alphabet through several thicknesses of cloth, so the fingers of the osteopath passed over the surface of the body seldom fail to detect the slightest disarrangement of the human mechanism. He not only knows how the body looks when the anatomy is normal, but also how it feels." The "osteopath" is no mere specialist; he treats disease in all its forms. "Osteopaths contend that diphtheria is caused by contraction of the muscles of the neck and thorax, as well as by those of respiration. These interfere with the circulation and produce inflammation of the larynx, bronchial tubes, and throat. This disease, even in its most malignant forms, succumbs to osteopathy." The virtues of the Royal touch were nothing to those of the fingers of the new healer, who drives away diphtheria by "manipulating osteopathically." It is interesting to hear that a Bill is now before the State Legislature of Massachusetts asking for the recognition of "osteopathy." The adherents of the new system moreover are petitioning for representation on the State Board of Registration and graciously express their willingness to submit themselves to the State Board of Examination—with the trifling exception of medicine and surgery. We gather that it is by no means impossible that the Bill may pass.

MUD AS MEDICINE.

"EATING dirt" is an unpleasant method of refection which occasionally has to be adopted for prophylactic reasons by persons of too impulsive temper; but, so far as we are aware, mud has not hitherto been recommended as an article of diet with a therapeutic purpose. "Mud baths" we are more or less familiar with, but mud emulsions or electuaries strike us as a novelty. This latest addition to the *Pharmacopœia* is not a product of the inventive genius of German chemistry, but is prepared in the laboratory of Nature. Its virtues were proclaimed to the people of Denver not long ago by a "professor," who, after announcing his nostrum as "the greatest discovery ever made by mortal," proceeded as follows: "In my stupendous investigations of animal life I have discovered that dogs, horses, pigs, etc., were not troubled with dyspepsia, rheumatism, consumption, appendicitis, hysteria, and other ailments. I observed that all animals were very much given to eating dirt; this suggested the thought, Why not do likewise? And under the inspiration of the idea I commenced to eat dirt, and have been doing so ever since, with the result that my physical ailments have departed, and I stand before you to-night the most healthy man in America. I guarantee, if any individual will take three doses of dirt a day, it will cure every disease that is known to the medical profession. There is only one brand of dirt, however, that I can safely recommend, and it comes from the banks of the dear old Missouri river. Anticipating a large demand for it, I took the precaution of having a large consignment shipped to Denver. I have had this great Nature's remedy put up in neat boxes which will be sold at popular prices. Special rates will be made to large families and public institutions on keg and barrel lots. I will guarantee that it is the quintessence of the banks of the Missouri river." Need it be added that this appeal to the "eternal gullible" in man was successful? Truly does Autolycus say, "What a fool Honesty is! and Trust, his sworn brother, a very simple gentleman!" But why should such special virtues be claimed for Missouri mud?

If the active principle is dirt, we think it likely that a "brand" of incomparable efficacy could be extracted from the Thames.

THE TEETH OF THE RECRUIT.

Many a man of good physique is rejected both by the army and navy Medical Examining Boards on account of defective teeth. It is, we believe, taken as a broad rule that when the teeth are lost or decayed there is no chance of the recruit being admitted to either service. Not only amongst the men, but also amongst those who wish to enter the service as officers, the question of good or bad teeth is an anxious one. For the recruit who wishes to join the ranks to be refused is not an actual monetary loss; but for a young man qualifying himself for a competitive examination, involving a considerable expenditure of time and money, to be rejected for having one more or less defective tooth is a serious matter. Mr. Wyndham, in his speech on the Army Estimates, stated that a good many would-be recruits were rejected on the ground of bad teeth, and these men are but examples of what is happening in all grades of society in this country. It is established as a fact, founded on widely-collected statistics, that 85 per cent. of British children under the age of 12 years require operative treatment. The question is, Can children with carious teeth grow into healthy adults? Can a race thrive whose children are so afflicted? When one has attained full growth it may not matter much whether the food is masticated by natural or artificial means, provided it is properly done; but with children it is a different matter, and the state of our children's teeth is a question of national importance. We understand that the question is to be brought up at the meeting of the British Medical Association at Portsmouth, where, in the Section of Public Health, direct attention will be drawn to the matter.

ITALIAN MEDICAL STUDENTS.

For the last ten years or so Italian medical students have been clamouring for examinations to be held in the middle of the term between Christmas and Easter. This desire has been the cause of various "eccentricities" on the part of the students of various universities. The authorities, on the other hand, seem to be of the opinion that this desire does not so much depend upon a genuine wish to be examined as upon a wish to procure that cessation of lectures which the holding of examinations would produce—in short, that they did not long to be examined, but to have a holiday. The authorities consider that the term is already sufficiently short for serious studies and refuse to shorten it. In the University of Turin there has been superadded a revolt against the Professor of Anatomy, Professor Fusari. A singular document has been going the round of the Italian daily press. It is a letter written to the students and signed by all the other professors of the Medical Faculty. It points out that Dr. Fusari obtained the appointment by competition, and that he had then and still enjoys the esteem and respect of all his colleagues as an anatomist and teacher. Many students absented themselves from his lectures, while those that did attend were entertained with hisses and noise. To these demonstrations were subsequently added turbulent meetings and violent speeches. The medical courses were suspended, a proceeding which naturally annoyed those students who were willing to work. The Minister of Education, Dr. Baccelli, Professor of Medicine, then intervened with a bitter-sweet letter of admonition. This had no more success than previous attempts at pacification. The lay press strongly condemns the conduct of the students, as do the general public. It is hoped that this attitude may have an effect, but this has not yet happened; and at the present time it is not at all unlikely that the whole Medical Faculty and not the Anatomy School alone may be closed for the rest of the year.

MEDICAL AID ASSOCIATIONS.

We publish in another column a letter from a member of the Association suggesting that the Council should be asked to consider the subject of medical aid associations, and to inform its constituents that the practice of soliciting and canvassing for members does not meet with its approval. The Council of the Association has repeatedly said that canvassing for patients is a ground for regarding any particular medical aid association as objectionable, and members have been requested to have nothing to do with such associations. The objection to canvassing on the part of medical aid associations would apply as strongly to canvassing on the part of a private practitioner. What is wanted is not a vague denunciation of the prevalence of improper practices, but that any particular instance should be brought before the Ethical Committee or the Council of the Branch, by whom it would be brought before the Council of the Association. It will be remembered that the matter is also under the consideration of a Special Committee of the General Medical Council, which reported last December that they had been in communication with the representatives of the great friendly societies, with reference to the evils generally admitted or complained of by the medical profession in connection with medical aid associations, and that these representatives showed a desire to ascertain the views of the medical profession, and a strong disposition to entertain proposals with the view of mitigating the friction now existing.

"THE CURE OF PNEUMONIA."

Dr. M. Wassermann has given an account of his researches upon immunity towards the pneumococcus in the *Deutsche Medicinische Wochenschrift* for March 2nd. The object of his investigation was to compare the protective powers of the blood serum and of extracts made from the various organs of immunised rabbits. He found that the bone marrow contained considerably more protective substance than an equal quantity of the blood serum, while the other organs contained none. From this and from other considerations he infers that the protective substances are formed in the bone marrow, whence they pass into the blood; the spleen and the lymphatic glands serving only as reservoirs. These researches are of interest in connection with the general question of immunity; but they hardly bear the interpretation put upon them by the lay papers. Indeed, Dr. Wassermann does not appear to claim that his researches can be utilised for the cure of pneumonia in the human subject. Although the bone marrow is more powerfully protective than the blood, nevertheless, on account of their relative bulk, more protective substance can be obtained from the latter than from the former.

MEDICAL SOCIETY OF LONDON.

The annual dinner of this the oldest medical society of the metropolis on Wednesday last at the Hôtel Métropole was a record dinner in regard to numbers, 168 being present, and whilst the toasts were few, the speeches were short and pithy. Mr. Edmund Owen, the President, occupied the chair, and was supported by Sir S. Wilks, Sir William Mac Cormac, the Director-General of the Medical Department of the Navy, Sir H. F. Norbury; Professor Clifford Allbutt, and Mr. T. Bryant. The toasts of the "Queen" and the "Members of the Royal Family" were proposed by the President, as also was the toast of the evening, the "Medical Society of London." Mr. Owen stated that the Society, although this was its 126th anniversary, showed no signs of senile ailments. Its numbers kept up from year to year. A successful paper was one which invited discussion, and such a paper was often heard at its meetings. The first dinner of the Society was held in 1773, when ten members were present. Then

came a crisis when the President and Secretaries resigned and the minute books vanished, after which Lettsom was elected President. He regaled the members with a turtle presented to him in 1775, and it was impossible to say how much of the subsequent success of the Society was "based on the carapace of that turtle." They would all drink "to a useful, happy, and honourable life to the Medical Society of London." Mr. Owen next called upon Dr. S. Monckton Copeman, and amid loud cheers presented him with the Fothergillian Gold Medal for his researches on glycerinated vaccine lymph and the excellent results accruing therefrom. The toast of "The Visitors" was proposed by Dr. S. West and responded to by Sir Samuel Wilks, Bart., and Sir W. Mac Cormac, Bart., K.C.V.O. Dr. W. M. Ord proposed "The President," on account of his office and for his own sake as a man, and said that Mr. Owen was eminently humorous and eminently receptive of humour, and that he would have equally graced his present position or the quarter-deck of one of Her Majesty's ships. The toast was received with musical honours, and the President replied. The musical arrangements, which were excellent throughout, were undertaken by Dr. Robert Maguire. Dr. Plummer gave a pianoforte solo which was enthusiastically encored, and Dr. Ronald Carter gave a violoncello solo. Mr. A. Foster Ferguson gave two songs which were much admired.

CHRISTIAN SCIENCE: SOME OF ITS RESULTS.

Dr. John B. Huber, Assistant to the Chair of Principles and Practice of Medicine in the New York University and Bellevue Hospital Medical College, has devoted three months to a painstaking study of Christian Science, and reports the results in the *Medical News* of New York. He personally investigated 20 cases of patients of one kind or another who had been treated by Christian Science methods. Dr. Huber's adventures with the oracles of the cult are interesting and instructive. He visited the "First Church of Christ Scientist" in Forty-eighth Street, and was favoured with an interview with the "pastor," Mrs. Stetson. He found her in highly artistic surroundings, it being, as she explained, a principle in Christian Science to arrange a patient's environment so that the senses shall be pleased and gratified. Dr. Huber had prepared a list of questions relating to the methods of Christian Science, but was referred to the Reverend Mary Baker G. Eddy, "Mother" of the Christian Science sect. The high priestess was coy, however, and in turn referred the inquirer to her solicitor. That authority, after allowing himself some time for reflection, delivered himself of a vague reply, to the effect that it would be futile to attempt to answer the questions so as to make the answers intelligible to the medical profession. Dr. Huber was recommended to study the writings of Mrs. Eddy, which he appears to have done conscientiously without gaining any enlightenment. Mrs. Eddy's books, if not luminous, are voluminous, and they appear to sell even more than "problem" novels. Dr. Huber was told that she had to borrow money for the publication of her first book, and that she is now a millionaire. She is, in fact, one of the most successful authors of the day, and Miss Marie Corelli and Mr. Hall Caine must hide their diminished heads beside her. Dr. Huber was present at several "experience meetings" in Christian Science churches. There is an organ prelude, then a reading from the Bible, followed by a similar reading from *Science and Health*. Next comes a discourse, after which several hymns are sung, and finally a number of people rise and "testify," relating how they have been cured by Christian Science. Among the audience, as might be expected, the devout female sex was largely predominant. The sect is said to number about 3,000 adherents in New York alone; and that enlightened city rejoices in the possession of no fewer than seven Christian Science churches, all in well-to-do quarters. The "pastors" are mostly women. To the poor the gospel according to Eddy is not preached; indeed, it is part of her doctrine that no one has any business to be poor. Dr. Huber says that among the followers of Mrs. Eddy there are few very young men or women. The majority are middle-aged or elderly persons, who appeared to him to have found it difficult in their earlier years to conform their minds and bodies to the laws of this universal frame of things, and who in consequence have been unhappy and dissatisfied with life, following one false prophet after another, seeking comfort in theosophy, spiritualism, and kindred delusions, and turning at last to Christian Science only to find it flat and unprofitable like the rest. Dr. Huber's account of the treatment adopted by Mrs. Eddy and her healers agrees with that given in the British Medical Journal of November 12th, 1898 (p. 1515), but he adds that they include veterinary medicine and surgery within the scope of their art. "In these cases" (says Dr. Huber) "the cure is achieved by thinking or talking, and it is alleged that no material remedies are used." As the Christian Scientist holds that, in the words of Iago, "there is nothing good or bad but thinking makes it so," and as the method of cure is to impress on the patient that he is not sick and knows it, but is foolish enough to make believe he is ill or in pain, we should be glad to have an opportunity of seeing the "miracle of cure" wrought on an animal. Mrs. Eddy persuading a lion with a periosteal abscess that he did not feel pain, or one of her disciples applying mental treatment to a sick donkey, would form excellent subjects for pictures for the adornment of the walls of Christian Science churches. Of the latter procedure there must be many examples in their records.

THE DERIVATION OF SUGAR FROM ALBUMEN.

The question of the exact origin of the sugar excreted in diabetes is one of great interest, both to the clinician and in the physiologist studying the metabolism of the body. Thus the derivation of sugar from albumen becomes to be of importance since it indicates a source of sugar, especially in cases where the glycosuria is not prevented by a diet from which carbohydrates are rigidly excluded. Mayer[1] has recently made a further contribution to the subject of the separation of sugar from yolk of egg. Dr. Pavy was among the first to occupy himself with the derivation of sugar from albumen, and subsequent observers have further added to our knowledge. The introduction of phenylhydrazin, by Emil Fischer, into the chemistry of the carbohydrates considerably facilitates such investigations, as it has thus been possible to compare the phenylhydrazin hydrochlorate combinations or osazones of the carbohydrates. F. Blumenthal, as Mayer points out, recently prepared from egg albumen an osazone with a melting point of 201° to 205°, and this was confirmed by Eichholz. The method followed by Mayer himself in the laboratory of v. Leyden's clinic is to extract the fat from fresh yolk of egg by ether, and to mix the remainder with 16 to 20 times its volume of water. The deposit of albumen is then collected, freed from water, and treated with 96 per cent. of alcohol and again with ether. A fine powder is thus obtained, showing no trace of sugar. Mayer then boils, after Krawkow's method, 25 grams of this albumen with 200 c.cm. of a 4 to 5 per cent. nitric acid solution for two hours and a half to three hours. After neutralisation and concentration the solution is found to give the reduction test. An osazone can be crystallised out from this solution with a melting point of 203°. A solution in acetic acid is lævo-rotatory. Neuberg found by analysis that this sugar is a hexose. Blumenthal also found that the sugar derived by him from white of egg was a hexose. The osazone obtained by Mayer accords exactly with the

[1] *Deut. med. Woch.*, February 9th, 1899.

osazone to be obtained from glucose. It cannot, however be definitely said to be glucosazone, as both mannose and lævulose also yield the same osazone. Mayer looks upon it as proved that the albumen molecule contains a carbohydrate group which belongs to the hexaglucoses.

THE HOSPITAL TREATMENT OF SYPHILIS.

Mr. F. W. Lowndes, who recently retired from the office of surgeon to the Lock Hospital, Liverpool, and who has been elected consulting surgeon, has published in the *Liverpool Medico-Chirurgical Journal* an article on The Study and Treatment of Venereal Diseases, especially Syphilis, a subject upon which his long experience entitles him to speak with authority. The treatment of venereal diseases among the civil population of this country has for years engaged the serious attention of the profession, and the question which Mr. Lowndes raises is, What can be done under existing conditions to resist the progress of this dire disease among the labouring classes? He states that at present the hospital accommodation for the treatment of syphilis throughout the whole of the United Kingdom is less than that provided in the city of Paris alone; our workhouses admit cases, but people can only enter these institutions as paupers, not as patients. So far as our general hospitals are concerned, this statement is true as regards the treatment of primary syphilis, and this is the more to be regretted because it is at this stage of the disease that under proper treatment it may be cured. But cases of syphilis in its secondary and tertiary forms are very frequently to be seen in the wards of general hospitals. Mr. Lowndes's remarks, therefore, apply largely to the want of hospital accommodation for the treatment of primary syphilis, and we concur in his opinion that it is very necessary that means should be taken to supply the existing deficiency. But then comes the question as to what that deficiency amounts to? We have at present no accurate information as to the extent to which syphilis prevails among the working classes. To enable an opinion to be formed as to the necessary accommodation in which to treat these cases trustworthy facts and figures are required. There should be no great difficulty in obtaining statistics on this subject, and we feel sure the physicians and surgeons in charge of out-patients would help in such an inquiry if organised by a central authority. It is true we should thus only obtain information regarding the number of people affected with syphilis who are ready to undergo treatment in hospitals, but it is to this class of patients that the observations of Mr. Lowndes apply, and he has done well to draw attention to the existing deficiency of our hospital accommodation for these cases.

THE CZAR'S PEACE PROPOSALS.

It is a remarkable fact in the history of the implements of warfare that as the weapons become more destructive the slaughter has grown less. In the old days of Fiji, for example, with clubs and spears, and hand-to-hand conflicts, the numbers of killed and wounded were always said to be large. But when firearms were introduced the whole tide of an action was turned in a very short time, when a few men on either side were shot down, but the results were quite as satisfactory. It happens also, that in more enlightened times, with the introduction of more destructive weapons, relatively more attention is paid to the wounded, and the aid is more scientific, merciful, and effective, quite discountenancing the children of Ishmael's idea of the total extinction of an enemy. There is an old adage that "the best peace society is a standing army," and the import of it is asserted when honest negotiation fails. As civilisation progresses arbitration will no doubt become easier, and in the lapse of time the Czar's dream may approach realisation, but so long as we can have no guarantee of the good faith of our neighbours, and the human heart is literally still uncivilised, force must and will intervene on certain occasions. In the case of Great Britain it must be admitted that necessity has been at the bottom of every improvement in the aids and munitions of war service, both naval and military. Her insular position demands a permanent naval force exceeding in effectiveness that of any two of her Continental neighbours; and if we take the words of the Russian General von Wendrich on the value of railroads to such a great continent as Russia, a large standing army is required for peace and security. Thus he remarks that "the military strength of Russia will grow to unheard-of limits the moment she begins to make use of the network of railroads, that most powerful military weapon of our age, being organised to a model plan. Who, then, on the face of the terrestrial globe will dare to brandish a weapon against the will of the Russian Czar peacemaker?" These words are slightly incompatible with the Czar's proposal "not to increase for a fixed period the present effective of the armed military and naval forces." However this may be, it seems possible that the fifth and sixth clauses of the Russian Circular might by discussion be got into a shape which would be effective in practice. The fifth clause proposes to apply to naval warfare "the stipulations of the Geneva Convention of 1864, on the basis of the articles added to the Convention of 1868;" and the sixth "to neutralise ships and boats employed in saving those overboard during or after an engagement." This would, of course, include the protection of hospital ships and depôts. As far back as Nelson's time boats employed in the rescue of men overboard or wounded were treated very kindly, and their neutrality was respected on both sides. In the Chinese expedition of 1860 we had a movable hospital ship attached to the Fleet (anchored well out of range of any fire). An old iron troopship called the *Simoom* was sent out for the purpose, and was utilised again during the first Ashanti expedition, when the *Victor Emanuel* was used for receiving soldiers, as was the *Coromandel* during the second Ashanti expedition. The most recent instance in which a hospital ship was fitted out by the Admiralty to accompany an expedition was during the disturbance at Benin. The vessel was especially devoted to the reception of sick and wounded, and had a nursing staff in addition to the usual medical staff of a ship of war.

STATE TREATMENT OF INEBRIETY.

At the present moment, when the establishment of inebriate reformatories under the Inebriates Act of 1898 is under consideration, we recommend a study of the Seventh Annual Report of the Massachusetts Hospital for Dipsomaniacs and Inebriates. The hospital is at Foxboro, and is held and managed by a Board of Trustees appointed by the Governor, with the advice and consent of the Council of the State. Many practical lessons can be learnt from this remarkable State experiment. Habitual drunkards may be committed by a judge of the Supreme Judicial Court, Probate Court, Police District, or Municipal Court, on production of two medical certificates and other evidence. The maximum term of each committal is two years. During the year ending September 30th, 1898, the daily average of patients was 164.58, and the weekly cost £1 2s. 4d. a head. This was an increase of 16 patients in the daily average, leading to a decrease in the average weekly cost of 2s. a head. Every year a careful inquiry is made throughout the State to ascertain the ultimate effect of the treatment. This investigation has shown that 36.73 per cent. of patients discharged from the hospital during the year ending May, 1897, were found to be abstinent; and 42.10 per cent. of those discharged in the succeeding year. Occupation and exercise medically employed—a broom shop the work of which is self-sustaining—have proved invaluable as remedial influences. An exact record is taken of the physical

capacity at entrance and on discharge, of each patient. In 141 patients who had attended the regular classes for physical training, only 4 had lost weight very slightly; most of the remainder had gained considerably. In lung capacity not one had lost, but all had made a substantial gain. In weight the average increase had been 7.2 kilos., and in lung capacity 0.428 litres. Of cultivated land there are 96 acres. There is a farm on the estate, and the buildings consist of three cottages, besides dining-room block, boiler house, barns, administration office, etc. The State contribution during the year amounted to £5,400. Sale of brooms produced £1,500, with a stock in hand valued at over £900. There was received from sale of produce £33. The excellent work at this State-endowed hospital has been greatly aided by frequent musical evenings, entertainments, and lectures.

THE NASAL ORIGIN OF LEPROSY.

In the January number of the *Practitioner* there is a suggestive review by Dr. StClair Thomson of some investigations which have recently been carried out by Jeanselme, Laurens, and Sticker on the condition of the upper air passages in cases of leprosy. These observations are of special interest as drawing attention to methods by which this dire affection can be recognised in its early stages, and hence more properly isolated. Jeanselme and Laurens examined the air passages of 25 lepers, and in 15 they discovered affections of the nose and throat. These regions are therefore affected in 60 per cent. of the cases. These statistics referred only to the cutaneous or mixed form, and not to the nervous. From the examination of 153 lepers in India, Sticker found the leprosy bacilli present in the nasal secretion 128 times. He believes that the initial lesion of this disease is a specific ulceration of the cartilaginous septum, and that this is often present in the latent stage of leprosy for years before the appearance of the first tubercles in the skin or the development of the first nervous symptoms. This primary lesion in the nose remains an active centre of infection throughout the course of the disease, as the bacilli are constantly being thrown off in great numbers in the nasal secretion, which is consequently the chief source of danger. The bacteriological researches of Jeanselme and Laurens on this subject have demonstrated the bacillus of Hansen in the muco-pus of leprous rhinitis, and when there is epistaxis, it is found in the blood. According to these authors, occasional but persistently recurring epistaxis may be one of the first symptoms of leprosy, and they suggest that it may be as indicative a symptom in leprosy as hæmoptysis is apt to be in pulmonary tuberculosis. In this they confirm Sticker, who argues that as tuberculosis generally finds its first lodgment in the apices of the lungs, so leprosy most commonly originates in the nostrils. The first external manifestation of leprosy may, indeed, be a common chronic rhinitis—a persistent coryza, with formation of crusts in the nostrils and occasional epistaxis. With the progress of the disease the conformation of the nose becomes altered. When the cartilage of the septum gives way, the bridge of the nose collapses, and the nostrils may assume the form of the *nez en lorgnette*. A rhinoscopic examination shows the mucous membrane of the septum to be swollen and ulcerated, so that the slightest touch with a probe brings on hæmorrhage. As the ulceration deepens perforation of the septum takes place. This is circular or elliptic, and quite regular. When recent the margin is thick, callous, and bleeds readily; when old standing the circumference is sharply defined, and the mucous membrane thin, pale, and cicatricial, or it may even appear normal. Leprous tubercles are often found in the pituitary membrane. The sense of smell is not noticeably affected, but anæsthesia of the mucous membrane is observed, either in connection with the presence of tubercles or quite independent of any local manifestation. Often the entire mucous membrane of the septum is quite insensitive to touch. The thermic sensibility is always more affected. In connection with this subject we would refer those interested to the admirable macroscopic and microscopic observations by Dr. Paul Bergengrun, of Riga, on leprosy as it affects the upper air passages. They were shown by the late Professor Kanthack at meetings of the Pathological and Laryngological Societies last year.

The Croonian Lecture before the Royal Society will be given on Thursday, March 16th, by Dr. Burdon Sanderson. The subject of the lecture is the Electrical Concomitants of Motion in Plants and Animals.

Mr. Frederick Treves, who has been appointed Emeritus Professor of Surgery to the London Hospital, will give a course of four clinical lectures during the course of the next winter session.

We learn that the communication from the General Medical Council referring to the amendment of the Medical Acts, has come under the consideration of the Council of the Royal College of Surgeons of Edinburgh, but that the decision of the College will not be taken till the meeting in May.

We understand that, owing to the lamented death of Professor Kanthack, a session of the Summer School of Medicine at Cambridge cannot be held this year as was intended. It is hoped that arrangements may be made to hold another session in 1900.

It was announced in the British Medical Journal last week that Lord Lister had been elected a Foreign Associate of the Paris Académie de Médecine. The honour is the highest which it is in the power of the medical profession in France to bestow, and it must be all the more gratifying to the distinguished man on whom it has been conferred from the fact that the vote was unanimous. Professor Koch was elected at the same time. In his case several members abstained from recording their votes.

We are glad to find that a medical man—Dr. G. Vere Benson—is one of the two candidates selected for the office of Coroner for East Sussex from a considerable number by the Finance and General Purposes Committee of the East Sussex County Council for election by the whole council at their monthly meeting on March 14th. Dr. Benson is Deputy Coroner for Middlesex, and, as has been mentioned, is a barrister as well as a medical practitioner. The other selected candidate is a solicitor well known in the county, a fact which must give him no little advantage over Dr. Benson, who is better known in Middlesex than in Sussex.

The Laryngological Society of Berlin, on the occasion of its tenth anniversary, elected Professor B. Fraenkel, who has acted as its President since its foundation, Sir Felix Semon, of London, and Professor Stoerk, of Vienna, honorary members. The only other honorary members of the Society are Professors Gerhardt, Tobold, and Lewin, so that this is the first occasion on which the Society has gone outside the professoriate of the University of Berlin.

We are asked to state that an extra meeting of the British Balneological and Climatological Society will be held at 20, Hanover Square, on Wednesday, March 22nd, in order to give an opportunity for the further discussion of the papers read at the last meeting on March 2nd by Dr. Douglas Kerr, of Bath, on the Treatment of Disease by Heat, and Dr. Hedley, of London, on the Therapeutics of Heat.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The Army Estimates occupied the last two days of last week in the House of Commons, and amid the general criticism the Army Medical Service received a good deal of attention. The Under-Secretary admitted that there was not an adequate army medical corps for the two army corps required to be ready for service, and said that sufficient money would be voted in the Estimates to make up the adequate strength by the addition of some fifty medical officers. The formation of convalescent stations for soldiers at certain barracks was recognised as a step in the right direction, but the very natural comment was made that the work might be done not only more effectively, but more economically, by taking advantage of existing civil institutions which were ready to receive military patients. As the first vote (Vote A) was only obtained, the discussion will be resumed on the remaining votes on Friday.

Sanitary Inspectors.—The President of the Local Government Board has at last been able to announce that the scheme originated by the last Government for forming a single portal examination for sanitary inspectors is complete. An association has been registered, with the sanction of the Local Government Board, to prescribe the course of study and hold the necessary qualifying examinations. All the chief public health societies will be represented in this association, and so it may be expected to place the education and qualification of sanitary inspectors on a thoroughly sound basis.

Vaccination still continues to be the subject of questions on the part of the faithful Commons. The last point settled was with reference to the visit of the public vaccinator to the private patients of another practitioner. Mr. Chaplin said that he had no information to the effect that medical practitioners objected to this visit, and he pointed out that it would not be made if the family practitioner himself performed the operation of vaccination before the date on which the public vaccinator was authorised to call.

The Notification of Infectious Diseases has been so great a success that Sir Francis Powell has drafted and introduced a Bill to extend the Act of 1889, and make it general throughout the country. The Bill has been generally approved by members, and as it is a small and unpretentious measure it may possibly pass into law this session.

Vivisection promises to give rise to a debate on the Estimates when the vote for the Home Office is reached. Pressure is being put on the Government—in the form of questions—to expedite the publication of the report of the Inspector on Experiments on Living Animals, so that there may be material ready for the discussion.

The Sale of Food and Drugs Bill occupied some hours of the time on Monday night, and gave rise to an interesting discussion. The Bill is not an ambitious measure, and deals mainly with milk, butter, margarine, and cheese. By inspection and sampling at the port of entry, the Customs officials will be able to enforce the proper marking of imported articles, and to prosecute offenders for adulteration. The margarine cheese trade and the importation of the impoverished and separated milk under the name of condensed milk will, it is hoped, be regulated, and fraud on the consumer prevented. The proposal of the Bill to place the Board of Agriculture in the position of supervising authority as regards agricultural food products was sharply criticised, and the qualification of the Board to issue regulations fixing standards of purity was also questioned. Sir Charles Cameron, who is more closely identified with legislation on adulteration than perhaps any other member of the House, supported the rejection of the Bill in a very stirrng speech. The debate was adjourned, but will probably be resumed this week

Volunteer Medical Staff Corps.—In reply to Dr. Farquharson, the Under-Secretary for War stated that in order to complete the *personnel* for transport sections an increased establishment had been given to all companies of Volunteer Medical Staff Corps. An allowance for practising transport duties would be made, but no alteration in the ranks of Volunteer medical officers was contemplated.

The Rivers Pollution Prevention Bill came on for discussion on Wednesday, and at one time looked as if it would pass the second reading. The Government agreed to allow its passage on condition that it was referred to a Select Committee, and when the announcement was made all looked well, but before the question was put there rose from almost behind the Speaker's chair the figure of Mr. W. L. Jackson, the member for Leeds, who in slow and deliberate tones went on till 5.30, and so talked the Bill out. Sir Francis Powell withdrew the Bill after this incident, and so it is dead for this year, the sixth in succession in which it has been unfortunate.

The Constructive Murder Bill was objected to a few minutes later, and the second reading postponed to Wednesday next.

The Prevention of Tuberculosis will form the subject of a debate on Tuesday next unless the exigencies of Supply compel the Government to take the day. Mr. Channing has first place for that day, and has put down a long resolution on the subject, dealing with the dissemination of tubercle through meat and milk, and calling on the Government to take early steps to protect the public against disease-producing food, and to test the herds by tuberculin so as to stamp out the disease throughout the country. If the motion comes on, it will receive considerable support from both sides of the House.

THE MEDICAL SICKNESS AND ACCIDENT SOCIETY.

The monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Friendly Society was held at 429, Strand, London, W.C., on February 24th.

In the absence of Dr. de Havilland Hall, the chair was taken by Dr. Major Greenwood, one of the vice-chairmen of the Society; and there were also present: Dr. J. B. Ball, Dr. Walter Smith, Dr. Alfred S. Gubb, Dr. J. W. Hunt, Dr. W. Knowsley Sibley, and Dr. F. J. Allan.

The accounts presented showed that the Society had received during the previous month an unusually large number of new proposals, and as the percentage of members who allow their benefits to lapse is very small, the Society is still rapidly growing in numbers. A certain number of members fall out of the Society every year through attaining the age limit of 65 years, but there are gratifying signs that the value of the benefits offered by this Society is becoming more widely known to the profession, and there seems no fear that the roll of membership will cease to grow for a long time to come.

The sickness claims, as is expected during the early months of the year, are numerous, and are rendered more than usually so by the recrudescence of influenza. So far the influenza claims experienced this year have been of short duration and of a mild nature, and compare very favourably with previous epidemics. In fact, there is already a sufficient slackening in this class of claims to warrant the hope that no serious epidemic need be feared.

The list of permanently incapacitated members still grows, and necessitates the payment of a considerable sum each week. This liability was, however, foreseen and provided for when the Society was founded, and at the valuation of the business in 1894 special reserves were made for it. The business is now being again valued, and the Committee hope to present the results to the general meeting to be held in May next.

Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

GENERAL MEDICAL COUNCIL.

MEETING OF THE EXECUTIVE COMMITTEE.

A MEETING of the Executive Committee of the General Medical Council was held on February 27th, those present being Sir WILLIAM TURNER, President, in the chair, Sir Dyce Duckworth, Mr. Carter, Mr. Bryant, Dr. Atthill, Dr. Heron Watson, Dr. Glover, Sir William Gairdner.

THE LATE SIR GEORGE BURROWS.

The PRESIDENT called attention to the gift of a bust of Sir George Burrows, a former President, by Sir Frederick Burrows and Mr. Alfred Willett, who received the thanks of the Committee.

REAPPOINTMENT OF MEMBERS.

Official notifications of the following appointments were received: Mr. Brudenell Carter, as representative of the Apothecaries' Society of London, for one year from February 6th, 1899; Sir Philip C. Smyly, as representative of the Royal College of Surgeons in Ireland, for one year from February 16th, 1899.

FINANCE.

The TREASURERS laid before the Committee statements duly audited of the receipts and expenditure of the General Medical Council and of the English Branch Council, and of the apportionment of the estimated expenditure for the year 1899. Resolutions were adopted accepting the statements, and requesting the respective Branch Councils to pay the amounts required from them by the estimates.

ILLEGAL CERTIFICATES.

A resolution of the General Medical Council at its meeting on December 1st, 1898, referring certain memorials on the subject of illegal certificates of proficiency in the departments of medicine, surgery, or midwifery to the Executive Committee, was considered.

The Committee resolved to recommend the Council to adopt the following resolution:

That as regards the issue of certificates in midwifery referred to in the memorials, the Council is of opinion that as the Midwives Bill is now before Parliament, it should at present refrain from taking any action. As regards the certificates granted to spectacle makers, the Council exercises no jurisdiction over such opticians, but will be prepared to consider any properly-substantiated charge of improper conduct made against a registered medical practitioner with reference to this subject.

UNQUALIFIED DISPENSERS.

Communications from the Privy Council with regard to the employment of unqualified persons as dispensers were received.

The first communication was from Arthur Oglesby, analytical chemist, Barnsley, who wrote under date January 23rd, 1899, as follows;

I beg to draw your attention to the recent fatality at Heaton Norris in which a doctor's dispenser—admittedly an incompetent man—was so thoroughly ignorant of doses as to cause the death of a person by giving such a quantity of morphine as no sane man—other than an ignorant—would have dispensed. And I would respectfully submit to your lordships' notice that the public run a serious risk by the careless dispensing that is done in thousands of doctors' surgeries throughout England..... The fact that even doctors themselves have a very vague knowledge of dispensing, and are not qualified dispensers, also that they are able so easily to cover up any mistakes their dispensers may make; that there are plenty of qualified dispensing chemists—taught the whole art of dispensing and examined by the Pharmaceutical Society—under your lordships' jurisdiction—to do this very work, and thus well qualified to do it certainly makes it a crying evil; that while, for the safety of the public, the chemist—who is a qualified dispenser—is hedged round with restrictions as to the dispensing of poisons, etc., the prescriptions of a medical man, possibly containing the most powerful toxic agents, are generally dispensed by the groom or some equally incompetent person. And I submit to your lordships that no medical man ought to be free to delegate the dispensing of his prescriptions to any other than qualified and therefore fit persons. Whether your lordships will think, after consideration, that the doctor himself should not be allowed to do his own dispensing—being so easily able to cover up any mistakes by a death certificate—I leave to your lordships judgment.

The second communication was from Mr. Albert Cooper, Fellow of the Chemical Society, and Member of the Pharmaceutical Society (80, Gloucester Road, South Kensington, S.W.), and was dated January 25th, 1899. The letter ran as follows:

The recent lamentable case of poisoning at Heaton Norris, near Stockport, brings vividly to mind the unsatisfactory manner in which dispensing is conducted in surgeries by unqualified assistants. Much has been done in recent years to protect the public by means of rigorously enforcing the provisions of the Pharmacy Act of 1868, on registered chemists, but it appears to me that the public require more protection—namely, that all dispensers of poisons should be qualified chemists or doctors. No Act has been passed with a view to protect the public from incapable dispensers in private surgeries, and the seriousness of the case is at once apparent when we learn that considerably more than half of the dispensing in this country is done by unqualified dispensers in surgeries. For the safety of the public I would respectfully suggest that the existing conditions under which poisons are dispensed in surgeries should receive immediate and serious attention.

The Executive Committee adopted the following resolution:

That the Committee recommend the subject to the consideration of the General Medical Council, but in the meantime express to the Privy Council that, whilst they fear that occasional accidents may arise from the employment by qualified medical practitioners of careless or incompetent dispensers, the cases, in their opinion, are very rare, and it appears to the Committee that probably the best protection is afforded to the public by the responsibility of the practitioner for the acts or defaults of the servants whom he employs.

BACTERIOLOGICAL LABORATORIES.

A letter was read from the Privy Council Office enclosing a despatch dated December 31st, 1898, from the British Ambassador in Paris, in which Sir Edmund Monson transmitted a copy of a Bill introduced in the Chamber of Deputies of France by a private member, M. Emile Dubois, for the establishment in every department of France of laboratories to conduct bacteriological researches with the view to the prevention of contagious diseases in general and of tuberculosis in particular. The Executive Committee adopted the following resolution:

That the proposed law is one which, in the opinion of the Executive Committee, is calculated to prove of great value and importance in the public interest. The Committee would further express the opinion that the foundation of similar laboratories in this country, to be supported by public funds, would meet with the approval of the medical profession.

MEDICAL PRACTICE IN ITALY.

A letter was read from the Privy Council Office referring to a letter received by the Privy Council from the Registrar of the General Medical Council (August 25th, 1897) on the subject of formalities necessary in this country for the recognition of degrees obtained at Italian Universities by Italian subjects. The Privy Council now transmitted a copy of a note from the Italian Ambassador asking whether Italian physicians can without a fresh diploma exercise their profession in this country, or at least on foreigners resident in Great Britain; and whether, if the answer to this question is in the negative, Her Majesty's Government would be willing to grant permission to Italian physicians to do so if the Italian Government were to engage to grant similar privileges to English physicians residing in Italy.

The Executive Committee adopted the following resolutions:

(1) That these communications be referred to the meeting of the Council in May next.

(2) That in the meantime the Registrar be directed to inform the Privy Council that the Committee would welcome such a recognition of a right by English practitioners to practise in Italy as would enable Her Majesty in Council, under the provisions of Section XVII of the Medical Act, 1886, to extend similar privileges to Italian practitioners in this country. And that with regard to the other questions raised in the correspondence, the Executive Committee would refer the Privy Council to a letter of date February 24th, 1898, addressed to Sir Charles Lennox Peel, containing a reply by that Committee to certain questions received through the Privy Council from the German Ambassador as regards practice by foreigners in this country.

PRACTICE BY MIDWIVES.

A letter was received from the Home Office, stating that the Italian Ambassador wished to be furnished with information respecting the regulations in England which govern obstetric aid by midwives. The Committee adopted the following resolution:

That the Secretary of State for Home Affairs be informed that up to the present time the practice of midwives in this country has not been subject to any legal regulation, but that a Midwives Bill is now under the consideration of Parliament.

VACCINATION STATIONS.

Communications were received from the Local Government Board in regard to instruction in vaccination, and were ordered to be received and entered on the minutes.

The first communication from the Assistant Secretary of the Local Government Board stated that the Board had arrived at the conclusion that it would not be in accordance with the intention of Section VII of the Vaccination Act, 1898, to require guardians to maintain stations in certain centres merely for the education of medical students, and the granting of certificates of proficiency in vaccination to them and to certain medical practitioners.

After communicating through their medical officer with the public vaccinators in England and Wales who are authorised to give certificates of proficiency in vaccination, the Board have arrived at the conclusion that the duty of providing vaccination stations for educational purposes, as regards both rent and maintenance, and the supply of a sufficient number of children to be vaccinated, must for the future devolve upon the authorised teachers themselves. This duty will carry with it certain expenses, and, having regard to this, the Board are of opinion that the several authorised teachers may properly charge a fee of one guinea and a half instead of one guinea as heretofore for each certificate, and the necessary tuition which they give. The Board will instruct their inspectors to report to them during the course of 1899 on the working of this new system, and especially as to how far each authorised teacher is able to carry on tuition in vaccination in such a manner as to fulfil the objects which have been held in view in his appointment to the post he holds.

The second communication was a copy of a circular letter sent to the deans of the London and provincial medical schools by Sir Richard Thorne, and conveys to the deans the information given in the Assistant Secretary's letter.

PENALTIES IN THE METROPOLIS.

A communication was received from the Home Office with regard to the allocation of penalties incurred in the metropolitan police district under the Medical Act, 1858, stating that the Home Secretary found that legislation would be necessary to effect the change desired, but that he did not see his way, for the present at least, to introduce a Bill for the purpose. The letter was referred by the Committee to Mr. Muir Mackenzie for his opinion on the legal question.

PROFESSIONAL SECRECY.

A letter was read from the Home Office stating that the Foreign Office had received a note from the Russian Ambassador asking to be furnished for the use of his Government with information as to the law of this country in regard to the professional secrecy of medical practitioners. By the President's direction, an opinion by Mr. Muir Mackenzie has been obtained, and the Committee resolved:

That Mr. Muir Mackenzie's opinion and memorandum in regard to this question be received and entered in the minutes, and that they be sent with a covering letter as the answer of the Committee to the letter from the Home Secretary.

Mr. MUIR MACKENZIE, in transmitting the following opinion, observed that he believed that he stated correctly the existing state of the law of the United Kingdom with respect to professional secrecy:

MEMORANDUM

ON THE LAW OF THE OBLIGATION OF MEDICAL PRACTITIONERS WITH REGARD TO PROFESSIONAL SECRECY.

There are two aspects of the question of the professional secrecy of medical practitioners—namely, first, whether a medical man can be made to divulge professional confidences in a court of law; and, secondly, whether he may under any circumstances be permitted to divulge professional confidences in the intercourse of daily life.

(1) As regards the first question, it is settled law that a medical man cannot claim the privilege, to which lawyers have been held to be entitled, of refusing to disclose matters communicated to them professionally. "A surgeon has no privilege, where it is a material question in a civil or criminal cause to know whether parties were married, or whether a child was born, to say that his introduction to the parties was in the course of his profession, and in that way he came to the knowledge of it. If a surgeon was voluntarily to reveal these secrets, to be sure he would be guilty of a breach of honour and of great indiscretion; but to give that information in a court of justice, which by the law of the land he is bound to do, will never be imputed to him as any indiscretion whatever"—per Lord Mansfield in the Duchess of Kingston's case, 20 *S. T.* p. 573. The same position is recognised by Buller, J., in Wilson *v.* Rastall, 4 *T. R.*, p. 760, where he says: "There are cases to which it is much to be lamented that the law of privilege is not extended; those in which medical persons are obliged to disclose the information which they acquire by attending in their professional characters;" and similarly in a later case Lord Chancellor Brougham, after referring to a lawyer's right of privilege, continues as follows: "The foundation of this rule is not difficult to discover; it is not (as has sometimes been said) on account of any particular importance which the law attributes to the business of legal professors, or of any particular disposition to afford them protection; though certainly it may not be very easy to discover why a like privilege has been refused to others, especially to medical advisors."—Greenough *v.* Gaskell, 1 *M. & K.*, p. 103.

In Rex *v.* Gibbons, 1 *C. P.*, 97, where the prisoner was indicted for the murder of her child, and a surgeon was called to prove confessions made to him, Park, J., overruled the objection that the witness was at the time attending the prisoner in his capacity of surgeon, adding "That is no sufficient reason to prevent a disclosure for the purpose of justice;" and the same rule, that "there is no privilege of this description in the case of a medical man," was repeated by Best, C.J., in Broad *v.* Pitt, 3 *C. P.*, 518.

From these cases it is clear that a medical man not only may, but must, if necessary, violate professional confidences when answering questions material to an issue in a court of law.

(2) Upon the second question there have been, not unnaturally, very few expressions of judicial opinion. It is admitted as a general principle that a medical man should not disclose communications made to him in his professional capacity, and in the Scotch Court of Session it has been judicially decided that "secrecy is an essential condition of the contract between a medical man and his employers, and breach of secrecy affords a relevant ground for an action of damages," A. B. *v.* C. D., 14 Dunlop, 2nd Series, 177. But upon this rule of the general inviolability of professional confidences (outside a court of law) the custom of the medical profession has engrafted two exceptions, (1) in cases of criminal communications, (2) where violation of secrecy is considered for the protection of wife or children (to which may be added a third exception, suggested by the Court in A. B. *v.* C. D., cited above, namely, instances conducive to the ends of science, though concealment of individuals should in such cases be secured). These two exceptions were the subject of testimony given by eminent medical witnesses, in the case of Kitson *v.* Playfair in 1896, as being generally recognised among medical men, but they are not judicially recognised as invariable exceptions, as is shown by the summing up of Sir H. Hawkins in that case. The defendant pleaded privilege on the ground of the second of the above exceptions, and though the point was not decided, owing to the jury finding that the defendant had been influenced by an indirect motive, the following passages are relevant to the matter of the obligation of secrecy among medical men. On medical evidence as to professional privilege being given, Sir H. Hawkins said: "The question of privilege is for me to decide, and, so far as it concerns that question, I shall not be influenced by this evidence."—*Times*, March 26th, 1896.

The following passage occurs in the report of the judge's summing up: "The medical profession might, no doubt, discuss among themselves rules for their own guidance; but they had not power to impose the rules they made upon the public. The medical men called said there were two exceptions to the rule imposing on them secrecy as to confidences gained during professional attendance. The first was to giving evidence in a court of law. His lordship did not altogether agree with what they said as to that. It all depended on the judge. The judge might in some cases refuse to commit a medical man for contempt in refusing to reveal confidences. Each case would be governed by particular circumstances, and the ruling of the judge would be the test. Secondly, that if there were circumstances from which they supposed a crime was intended to be committed they would have to inform the Public Prosecutor. If the doctor were called in merely to attend a woman needing physical aid, his lordship doubted very much whether he would be justified in going to the police and saying, 'I have been attending a woman who has been trying to procure an abortion.' That would be a monstrous cruelty. Therefore to say there was a general rule was going too far. There was a third exception, namely, a communication between the doctor and his wife or children. That required a great deal of limitation. For instance, there were cases in which the wife did not require protection, and where it would be a wanton act to communicate a secret to her. That was a delicate question, but did not arise in the present case. The law as to words spoken on a privileged occasion was pretty well known."—*Times*, March 28th, 1896.

From this it seems clear that on the question of violation of professional secrecy a medical man is in no more favoured position than anyone else, and further, that circumstances which, according to the custom of the medical profession, might be deemed to exonerate him from the imputation of improper violation of secrecy, might nevertheless in a court of law be deemed an insufficient justification.

IDENTIFICATION OF REGISTERED PRACTITIONERS.

The Committee considered the reference from the General Medical Council instructing it to report upon means to secure the identification of registered medical and dental practitioners, and to prevent fraudulent personation of such practitioners, and resolved:

That no application for the restoration to the *Medical* or *Dentists Register* of the names of persons who have been removed under Section XIV of the Medical Act (1858) or Section XII of the Dentists Act (1878) shall be entertained unless it be accompanied by a statutory declaration made by the applicant setting forth the facts of the case, and stating that he is the person originally registered, and by a certificate from a clergyman, a magistrate, or a registered practitioner as to his identity.

INSPECTION OF DOCUMENTS.

The Committee considered a resolution of the General Medical Council of December 1st, 1898,[1] directing them to report as to what arrangements can best be made to facilitate the examination by members of the Council of all documents which are the property of the Council, subject to leave being obtained for such examination and to the legal rights of the Council in regard to such documents, as also to their proper safeguard. The Committee resolved as follows:

That it be a recommendation to the Council in regard to the inspection of documents that the following be substituted for the present Standing Order XXIII:

That all documents of the Medical Council when not required for use by its legal advisers, be available for inspection by any member of the Council on the following conditions:

[1] BRITISH MEDICAL JOURNAL, December 10th, 1898, p. 1759.

(1) That a notice in writing of three clear days be given to the Registrar.
(2) That the subject of the documents needed for inspection be stated.
(3) That the Registrar be held responsible for the safe custody of all documents.
(4) That it be an instruction to the Registrar to have the documents so arranged with respect to chronological order and otherwise as to facilitate their inspection.
(5) That no documents be removed from the premises of the Council.
(6) That all such documents and the information therefrom derived be regarded as strictly confidential.

APOTHECARIES' HALL, DUBLIN.

It was reported that Dr. G. A. Gibson, of Edinburgh, had accepted the appointment of Inspector of the Examinations of the Apothecaries' Hall, Dublin, and that Dr. Church had accepted that of Visitor for the same examination.

PROSECUTION BY THE SCOTTISH BRANCH COUNCIL.

The treasurer was authorised to remit to the Scottish Branch Council the amount of £142 17s. 3d., the legal expenses incurred by the Branch Council in the prosecution of Abraham S. Eastburn and his appeal to the High Court of Justiciary.

PROFESSIONAL EDUCATION.

A letter was read from Sir John Batty Tuke, the chairman of the Education Committee, calling attention to the fact that the leaflet purporting to be a copy of the requirements and recommendations of the Council in respect of professional education issued to students was not in accordance with the revised recommendations, and the Registrar was directed to reissue the paper with the addition of Recommendation 5 as to the number of months to be reckoned as constituting a five years' course, and the recommendation as to practical midwifery.

PENAL AND DISCIPLINARY POWERS.

The PRESIDENT made an interim report on answers received from the medical licensing authorities, relative to increased penal and disciplinary powers.

The report gave the text of the latter addressed last November to the various medical licensing authorities transmitting the clauses to amend the Medical Acts which have already been published in the Journal of February 4th, page 291. The President reported that the University Court of Glasgow, the Faculty of Physicians and Surgeons of Glasgow, the Royal College of Surgeons in Ireland, and the Apothecaries' Hall, Dublin, had expressed without comment approval of the two suggested clauses. Certain authorities, while expressing general approval considered that the clauses should be amended in certain directions. Thus the University of Edinburgh by its University Court and Senatus expressed the opinion that the second clause should be so altered as to make it clear that a practitioner whose name has been erased from the *Medical Register* shall be deemed to be deprived of his degree only in so far as it confers a qualification to practise .....The University of Aberdeen approved generally on the understanding that the question of purely academical privileges is not involved. The Society of Apothecaries of London, while in accord with the objects for which the clauses were prepared could not without further explanation admit that it could give its support to a Bill framed on these lines for the reasons stated in the BRITISH MEDICAL JOURNAL of February 25th, p. 489. The Society added that it was ready through its Clerk to confer with anyone authorised by the Council. The University of Oxford stated through the Hebdomadal Council that it cannot acknowledge the right of any other body than the University to take away or restore university degrees, but would be ready to consider any way in which, without deprivation of the degree, it might in certain cases be treated as penal to use the title of the degree for the purpose of practice.

The University of Cambridge, through the Council of Senate, would object to an enactment making it possible for a practitioner to be "deprived" of his degree independently of the action of the University itself, but that they would raise no objection to the addition of a clause to the Medical Act (1858) debarring a practitioner, so long as his name continues to be erased from the *Medical Registor*, by the operation of Section XXIX of the Act, from using the title of his medical degree in such a manner as to imply that he is legally qualified to practise.

The Victoria University, by its Council, passed the following resolution: "That no graduate of the University should be deprived or deemed to be deprived of his degree or any right conferred thereby except by the act of the University."

The University of Dublin, through the Board of Trinity College, observed with regard to the first clause that it was not one with which the University was directly concerned. With regard to Clause 2 the Board stated that while they would have no objection that a man convicted of a criminal offence should be legally deprived of the right to use the title of a University degree which had been previously conferred on him, they cannot consent to the removal of this right on other grounds by any other authority than that by which the degree has been conferred, and that if the name of a practitioner were removed from the *Medical Register* for conduct which the General Medical Council might regard as infamous from a professional point of view, the University would need to be satisfied that it was infamous from their point of view before depriving him of the right to use the title of a degree formally given him.

The Royal College of Physicians of London stated that with regard to Clause 1, taken by itself, they saw no reason to oppose it. Clause 2, on the other hand, appeared to trench on the disciplinary powers and duties entrusted to the College by its charter and statutes, superseding them in particular cases. The College had taken the opinion of counsel on this point, and had been advised that the clause would be a serious infringement of the rights of the College, and not required in the public interest so far as the College is concerned, for it is not suggested that the authorities of the Royal College have in any way failed in the discharge of their duties under the By-law 188. In view of this opinion, the College was unable to express approval of the clause, and resolved that it would be its duty to oppose legislation in that sense, unless it were limited in its operation to degrees or diplomas conferred by bodies who do not possess the power of withdrawing or cancelling the qualifications they have granted.

The Royal College of Surgeons of England have expressed their regret that they cannot approve the clauses in their present form. They are advised by counsel that the first clause, in its present form, would enable the General Medical Council, at the end of the period of suspension from the *Register*, to restore a practitioner with the qualification M.R.C.S., even if the College had previously, or in the meantime, withdrawn his diploma. It appears, however, that without defeating the object of the clause, this objection might be met by the following amendment, namely: "And at the expiration of the period specified in any such order or subsequent order, the Registrar shall, if the practitioner shall then possess a registrable qualification, and unless otherwise ordered by the General Medical Council, restore the name of the practitioner and his then existing qualification or qualifications to the *Medical Register*."

No replies had been received from the following bodies: University of London, University of Durham, Royal College of Physicians, Edinburgh; Royal College of Surgeons, Edinburgh; University of St. Andrews, Royal University of Ireland.

The Committee resolved to remit the report, together with any further answers from the licensing bodies, to Mr. Muir Mackenzie to consider the objections taken and the suggestions for amendment.

AN AMENDING MEDICAL BILL.

A Bill drafted by the Incorporated Medical Practitioners' Association to prevent persons who have been removed from the *Medical Register* under the provisions of Section XXIX of the Medical Act, 1858, from continuing to act as medical practitioners was received from the Privy Council Office, and the Committee resolved to inform the Privy Council that this communication had been referred to the legal advisers of the Council for consideration and report.

COLONIAL DEGREES.

An opinion was received from Mr. Muir Mackenzie to the effect that it would not be legal to add to the name of a practitioner registered in the list of colonial practitioners a British qualification which he had obtained. This opinion was received and entered on the minutes.

MIDWIVES AND COVERING.

A letter was read from Dr. J. C. Thresh with regard to the assistance rendered to midwives in abnormal cases. In the course of this letter he wrote:

In certain districts our nurses, having obtained the certificate of the Obstetrical Society, attend the very poor women in their confinements, and have instructions to call in a medical man at once if the labour is not natural. We find that medical men refuse to attend, the excuse being that such an action would constitute covering, and be infamous conduct from a professional point of view. Is this the opinion of the General Medical Council?

The Committee resolved:

That the Council's memorandum in regard to covering be sent to Dr Thresh, and that he be informed that in the opinion of the Committee the case mentioned by him does not come within the terms of the notice.

DENTAL BUSINESS.

In addition to other business the Committee considered a supplementary notice to be issued to dental practitioners as to the administration of anæsthetics, as referred to in the resolution passed by the General Medical Council on December 1st, 1898; and the supplementary notice was approved as follows:

Any registered medical practitioner who knowingly and wilfully assists a person who is not registered as a dentist in performing any operation in dental surgery, either by administering anæsthetics or otherwise, will be liable, on proof of the facts, to be dealt with by the General Medical Council as having been guilty of infamous conduct in a professional respect.

MIDDLESEX HOSPITAL MEDICAL COLLEGE.—In connection with the inauguration of the new building of the Middlesex Hospital Medical School next Wednesday, Dr. Frederick Hetley, a former student, has contributed the sum of £1,000 to perpetuate the Hetley Clinical Prize of £25 a year, founded in 1884.

THE TREATMENT OF INCIPIENT AND UNCONFIRMED INSANITY.

Deputation to the Lord Chancellor.

The following is a report of the interview which a deputation of the British Medical and Medico-Psychological Associations had recently with the Lord Chancellor.

The deputation consisted of Dr. H. Rayner, Chairman; Dr. Fletcher Beach, Dr. G. F. Blandford, Dr. W. Douglas, Mr. George Eastes, M.B., Dr. W. J. Mickle, Dr. G. H. Savage, Dr. G. E. Shuttleworth, Dr. Ernest W. White, Dr. Dawson Williams, and Mr. Francis Fowke, General Secretary of the British Medical Association.

Dr. Farquharson, M.P., having briefly introduced the deputation,

Dr. Rayner said that the proposal which the deputation wished to make had been the subject of a resolution passed by the British Medical Association at its annual meeting held in Carlisle in 1896. He (Dr. Rayner) had been moved to read the paper which led to the resolution being adopted by the experience which he had had in the early treatment of insanity, especially at the out-patient department of St. Thomas's Hospital. He had been so impressed with the amount of recovery possible in the early stages that he thought that every improvement that could be made in the treatment of these stages ought to be made in the hope of checking that large increase of insanity in the country which all deplored. In every case of mental disease there was a stage between health and certifiable insanity. That was shown by many recoveries without certification, and by the statements as to the duration of the disorder prior to admission into asylums. The cases were always reported to have been mentally affected for three, six, or twelve months. In order that the existence of such a stage should be legally recognised, the deputation proposed that the Lunacy Acts should be amended by a Bill containing a clause similar to that which had been in force for thirty years or more.

The Lord Chancellor asked to be referred to the provision in the Scotch Act.

Dr. Rayner, having pointed out the section of the Scotch Act, emphasised the part he referred to in Clause 41: "Provided that this enactment shall not apply to any case where the party so received and kept has been sent to any such house for the purpose of temporary residence only, not exceeding six months, and under the certificate of a medical person, which certificate shall be in the form of Schedule (G) hereunto annexed." The advantages of the clause were that the Commissioners of Lunacy would be informed of the number of cases treated, of the duration of treatment, and the persons undertaking the treatment. This would give the Commissioners powers of supervision when necessary, and probably ultimately of regulating the treatment by such provisions as their experience would suggest. No pretext or excuse would be left to persons who now evaded the law. The deputation believed those improvements would lead to a large amount of recovery in the early stage, which did not now take place.

Dr. Blandford said that the medical profession had been teaching for many years that insanity was a disorder to be treated by medical means, and that it was curable in the early stages. It was therefore of the greatest possible importance that it should be treated at a very early stage. The Lunacy Act of 1890 had put a different complexion altogether upon the matter. It enacted that every person who was of unsound mind should be incarcerated by the order of a magistrate.

The Lord Chancellor pointed out that Dr. Blandford was somewhat misstating the effect of that Act, for which he was responsible. It was not that a person of unsound mind should be incarcerated by the order of the magistrate, but it was that the person should not be incarcerated unless a magistrate should so order.

Dr. Blandford said that that was what the friends of patients so strongly objected to. Consequently the patients were not brought under treatment in an early stage. Friends in many cases sought to evade in every way the requirements of the Act, and they would either send them abroad or send them to Scotland, or put them at the top of a house and tie them down there; they would do anything rather than face the magistrate unless they were absolutely obliged to do so, and very often most valuable time was lost in that way. Then when the case became chronic, and they could not do without the magistrate any longer, they brought the patient to an asylum, when too often the chance of recovery was past. He thought that if the clause which the deputation suggested were to become law, it would render it possible to treat many cases without the interference of a magistrate, and without certification, and in that way a very great deal of good might be done and a great number of people might be saved from the stigma of certification by a magistrate's order.

Dr. Savage concurred in everything that had been said, but felt that certain other practical points might be safely and fairly considered. There could be no possible doubt that there was a very strong feeling against certification among friends of patients. Certification in cases that were quite curable had a very serious effect and in different ways. Thus, if a person were certified as of unsound mind, that might put an end to a partnership in some important business, or it might lead to his discharge from an important position either in business or in civil or other life. This was not necessary, because insanity was so medically curable in many forms that to treat a person once insane as for ever incapable of transacting business was altogether wrong. The friends would accept anything rather than open certification, and the consequences, as they were seen by those engaged in this department of medical practice, were that patients were constantly sent away with male or female nurses. They were sent to farms, or small houses were taken for them in out-of-the-way parts of the country by the relations, and nurses or attendants were placed in those houses in charge of the patients, the letter of the law being fulfilled in some cases by a relation living near and coming and spending a certain number of hours in the house—perhaps not with the patient. Many patients were sent abroad, and their mental condition was not benefited thereby in any way. Cases of recurring attacks of insanity lasting only weeks or months occurred; the forms of insanity were so acute that no one would receive them in an asylum as voluntary boarders, yet those persons would certainly get well in a short time if properly treated. The deputation thought it would be a boon to these cases if they could be placed under temporary care without certification.

The Lord Chancellor asked if the deputation suggested that the law should be altered in respect of patients who were properly certifiable at present.

Dr. Savage said that the deputation did not desire that the law as such should be altered, except to the extent that persons who were certifiable, but who were suffering from quite temporary maladies, might by the permission of the law be allowed to be placed, as in Scotland, under private or single care and detained as patients under those conditions.

The Lord Chancellor said he had great sympathy with the clause suggested by the deputation, and he thought it might be defended on the grounds that it had been defended, but he was not quite sure that he should like so long a period as six months.

Dr. Savage pointed out that that was the period mentioned in the Scotch Act.

The Lord Chancellor, continuing, said that he was not quite sure whether there ought not to be a shorter limit, subject to its being renewed, but that was a matter of detail. With the substance he very much sympathised, and felt that there was a very great deal in what the deputation had suggested. In fact their opinion must be of great weight with anyone who had to deal with the subject of the law of lunacy. What he deprecated was the view which had been expressed that the intervention of the magistrate was objectionable, and that it ought to be got rid of. He could not agree with anything that would tend to diminish the safeguards for the liberty of the subject. Whether rightly or wrongly, a great many people in this country conceived that many persons had been detained in asylums who ought not to have been detained at all. It was right to have some sort of judicial determination as to the state of mind of the patients which would justify the restraint of the liberty of the subject. He was very strongly in favour of that proposition, and he should do nothing to

diminish or qualify that. If people disobeyed the law, that seemed to him to be a reason for making the law more stringent. The law of larceny would not be abolished because, notwithstanding all laws against larceny, people still stole. Such a line of legislation could not be followed. As to what had been justly described as non-confirmed insanity, or incipient insanity, cases which were capable of being cured, he might say that he entirely sympathised with their object, and certainly, as far as he was concerned, he would try to give effect to their suggestions.

The deputation then withdrew.

THE GRIEVANCES OF IRISH DISPENSARY DOCTORS.

On Thursday, March 2nd, a very large meeting of members of the profession was held in the Royal College of Surgeons, Ireland, for the purpose of considering the grievances under which the Irish dispensary doctors labour. The meeting was convened by the Irish Medical Association, and Sir Thornley Stoker, President of that body, occupied the chair.

There were about 200 members present, amongst whom were Dr. J. W. Moore, President of the College of Physicians; Mr. R. L. Swan, President of the College of Surgeons; Dr. Little, Physician to the Queen; Dr. T. Myles, Vice-President Royal College of Surgeons; Dr. E. H. Bennett, President Royal Academy of Medicine; Dr. F. T. Heuston, President Dublin Branch British Medical Association; Sir Charles Cameron, C.B., Sir William Thomson, Sir Philip Smyly, Dr. Dillon Kelly, Mullingar; Dr. Moorhead, Cootehill; Dr. A. H. Jacob; Dr. William Jacob, Maryborough; Dr. R. J. Kinkead, Galway; Dr. Chapman; Dr. Cotter, Cork; Dr. Gorham, Clifden; Dr. L. H. Ormsby; Dr. Olpherts, Downpatrick; Dr. Keating, Cork; Dr. Bennett, Clonakilty; Dr. Gray, Armagh; Dr. Dillon, Roscommon; Mr. H. G. Croly; Dr. Henry, Clones; Dr. W. McD. Wright, Dalkey; Dr. Agnew, Lurgan.

The Chairman said he had had a good deal of consultation with the Local Government Board, and he was prepared to assure them that no more sympathetic body could exist than that body as at present constituted. He had pleasure in telling them that as a result of the work of the Association the *Gazette* of the next day would contain new rules of interest to the medical officers of Ireland. He ventured to say that these rules would meet with their approval. He concluded by moving:

That the Local Government Board be requested to recommend to Boards of Guardians, in cases where dispensary medical officers have been deprived of one or more electoral divisions of their districts, and where the compensating pension allowed does not preserve their salaries at the full original amount, the Boards should supplement these salaries, so that the whole amounts, including pensions, shall remain undiminished.

Dr. Truell, D.L., of Wicklow, seconded the motion, which was carried.

Dr. J. W. Moore, President of the Royal College of Physicians, moved:

That the power conferred on individuals of issuing tickets for medical relief "at their discretion," and practically without responsibility, has in many instances led to injustice, and that the exercise of this power should in future be safeguarded against gross negligence or other misuse, and that when thus abused the power should be withdrawn.

He mentioned a case in which, out of 1,434 tickets, only 58 were issued by members of the Dispensary Committee. The story of the guinea fee he regarded as a myth. Doctors often did work for nothing, and sometimes a guinea fee covered a month's attendance.

Mr. R. L. Swan (President, Royal College of Surgeons) seconded the motion.

Dr. Welby (Bandon) produced a ticket ordering attendance on the signatory's mother, and another for attendance on the signatory himself. He urged that tickets should be presented before a fixed hour, as in England, unless in cases of emergency.

Dr. Wright mentioned that that rule had existed, but was withdrawn.

Dr. Moorehead (Cootehill) moved:

That a circular be addressed to the new Boards of Guardians throughout Ireland respectfully requesting that they will, after consulting with the medical officers of each dispensary district in their respective unions make such arrangements as may tend to reduce the hardship and injustice so frequently caused by the abuse of the present ticket system, and thus promote the efficiency of the dispensary medical service, to the advantage of the sick poor and the ratepayer, as well as that of the medical officer.

He pointed out that funds were needed to carry the agitation to a successful issue. The medical officers in this Union had agreed to and subscribed £1 each.

Dr. Donovan (Castlerea) seconded the motion, which was carried.

Sir William Thomson proposed:

That as in most of the dispensary districts in Ireland the largest part of the salary paid to the medical officer for the treatment of the sick poor, instead of going into the doctor's pocket as remuneration dearly earned, is actually required to pay (for the public benefit) the travelling expenses necessary to discharge the dispensary duty, the present salaries should be regulated so as to remedy this grievous injustice.

He said it was an unheard-of arrangement that a public officer should be required to provide conveyance out of a salary of £120, in order that he might discharge a public duty. A horse and car should be supplied to him.

Mr. J. McArdle seconded the motion.

Dr. Keating (co. Cork), Dr. Wright (Dalkey), Dr. McCarthy (Kenmure), Dr. Minchin Clark and Dr. Donovan (Castlerea), supported the motion, which was carried.

Mr. T. Myles, Vice-President of the Royal College of Surgeons, moved:

That inasmuch as the responsibility of the medical officer is so continuous night and day throughout the whole year, and his work is at times so laborious, his duty cannot be efficiently performed without sufficient rest and change. It is, therefore, necessary that a vacation should be allowed to every medical officer for a period of four weeks in the year, and his substitute remunerated by the Boards of Guardians.

Dr. Cotter (Cork) seconded the motion, which was carried.

Dr. James Little, Regius Professor, Trinity College, proposed:

That Poor-law medical officers, whose duties were so much more responsible and laborious than those of the ordinary civil servant, requiring more physical vigour for their performance and for resisting the risks incurred by exposure to weather and contagious disease, should be enabled to retire from active duty when overtaken by age or infirmity on the terms and subject to the requirements of Her Majesty's civil servants, the medical officers thus receiving a necessary release, and the sick poor a protection from the injustice of being dependent for medical relief on the service of men no longer physically able to discharge exacting and exhausting duties.

Dr. Heuston seconded the motion, which was adopted.

A deputation was then appointed to wait on the Local Government Board to submit the views of the medical profession of Ireland on the grievances of the Irish Poor-law Medical Service.

THE PLAGUE.

Laboratory Plague in Cochin China.

According to the *Archives Orientales de Médecine et de Chirurgie*, an outbreak of plague has occurred among the indigenous population of Nha-Trang, Cochin China, where M. Yersin is pursuing his researches on the microbe of that disease. The distinguished investigator has, it is said, a number of mice which had been inoculated with plague in cages. Every possible precaution appears to have been taken, but nevertheless the infection found its way to the outer world. It is supposed to have been conveyed from the cages in grains of rice supplied to the mice for food, the carriers being ants, which picked up the fragments that remained. No details are given as to the extent of the outbreak.

Jeddah.

The most important recent news is contained in the telegrams announcing that plague is officially declared to have broken out at Jeddah, the seaport for Mecca. Fortunately the annual pilgrimage has not yet commenced, but owing to the impossibility of restraining Mohammedan religious enthusiasts, the occurrence of plague at this port in the Red Sea is fraught with great danger to neighbouring countries. Egypt is immediately threatened, and already the harbour authorities at Alexandria have declared arrivals from Jeddah subject to quarantine.

Pretoria, Transvaal.

The bacteriological investigation of the blood and fluids of the Indian who died of alleged plague at Middelburg in the Transvaal does not support the belief that he died of plague, and all the other suspects are doing well. Although plague is now stated to be in neither the Transvaal nor Delagoa Bay, we would warn the authorities in these districts that in many places where plague is now epidemic similar experiences to theirs have been met with.

BOMBAY.

In the city of Bombay plague is again for the fourth time epidemic, the mortality from this disease alone amounting to about 150 deaths daily.

MYSORE.

The coolies at the Mysore gold mines were in a state of panic owing to an outbreak of plague. One mine had to close part of its surface works owing to the scare, but within the last few days the coolies have returned, and operations are again resumed.

THE SPECIAL COMMISSION.

Colonel Street, Sanitary Commissioner of Bombay; Major Dimmock, a former member of the Plague Committee; Mr. Monteith, Lieutenant Keelan, Dr. Venis, Major Dyson, Major Collie, Captain Meyer, Mr. Morrison, and Mr. Toms, Director of the Government Observatory, gave evidence before the Plague Commission. During the course of the evidence it was elicited that one patient had recovered from a second, and another from a third, attack of plague.

The number of plague deaths at Poona since the commencement of the outbreak was stated by Lieutenant-Colonel Fawcett to be as follows: In the first outbreak in Poona between January and May, 1897, 2,025 persons were attacked by plague, and of these 1,500 died; during the second outbreak—August, 1897, to April, 1898—there were 4,960 attacks and 3,633 deaths, the population of Poona being at the time 90,000. Although persons engaged in plague work were wonderfully immune, they were subject to neuralgic pains in neck, arms, and groins.

In the town of Satara the evidence went to show that chemical disinfectants had not proved successful. The unroofing of infected houses was found to be the best measure. Kiln burning was neither theoretically nor practically sound. After evacuation no houses were allowed to be reoccupied within four months. The population of the city of Belgaum was by plague reduced from 30,000 to 18,000. In the village of Neginhal, with a population of 2,949 persons, the disease abated spontaneously, although neither disinfection nor evacuation were practised.

Miss Cawthorn, M.D., stated that at Gadag 38,000 inoculations were performed, 18,000 of them double. Miss Cawthorn used a dose one-fifth stronger than the prescribed dose in three-fourths of the cases when 86 persons contracted plague; of the remaining one fifth on whom the ordinary dose was used, 66 developed plague, showing that an increased quantity gave greater protection. Double inoculations appeared advantageous. In the town of Sholapur the presence of plague reduced the population from 60,000 to 30,000. The plague disappeared after the city was disinfected.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

429, Strand, March 9th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of this District will be held at the Eastern Hospital, Homerton, on Thursday, March 16th, at 4 P.M., Dr. Shadwell in the chair. Dr. Goodall will read a paper on Some of the Difficulties of Diagnosis of Infectious Diseases, and cases of interest will be shown. Visitors are invited.—C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary on Friday, March 24th, at 3 P.M. Members wishing to read papers, etc., are requested to communicate with the Honorary Secretary as early as possible.—WM. COLLIER, St. Mary's Entry, Oxford.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting will be held at the Infirmary, Worthing, on March 23rd, at 4 o'clock. Dr. Leeds Harrison will preside. Mr. Anthony Bowlby will read a paper on Cases of Abdominal Surgery, illustrating (*a*) Actinomycosis of the Intestine, (*b*) Acute Pancreatitis, (*c*) Unusual forms of Suppuration about the Cæcum and Appendix. Dr. Harrison and Dr. Morris will show cases of Transposition of Viscera. Members desirous of making communications, or of showing cases of interest, are requested to communicate with the Honorary Secretary, FRANK HINDS, 14, The Steyne, Worthing.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will be held at Brighton on March 23rd.—J. W. BATTERHAM, Bank House, Grand Parade, St. Leonards, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST KENT, WEST KENT, AND NORTH KENT DISTRICTS.—A conjoint meeting of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on Tuesday, March 21st, at 3 P.M., Dr. T. T. Brunyate in the chair, when Mr. Victor Horsley, F.R.S., will deliver an address on the Present Condition of the Medical Practitioner and his Relation to the General Medical Council. Dinner at the Bull Hotel at 6 P.M.; charge 6s. exclusive of wines. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. The Honorary Secretary of the West Kent District would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—LUDFORD COOPER, St. Bartholomew's Hospital, Rochester, Hon. Sec. West Kent District; T. F. RAVEN, Broadstairs, Hon. Sec. East Kent District; A. TENNYSON SMITH, Orpington, Hon. Sec. North Kent District.

EDINBURGH BRANCH.—The annual winter meeting of the Edinburgh (Fife and Lothians) Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, March 17th. A Medical Congress for Clinical Demonstrations will be held at 4 P.M. The museum (pathological and apparatus) will be open from 3.30 P.M. onwards. Dinner in the Royal Hotel, Princes Street, at 6.30 P.M.; dinner ticket, 5s. Intimation of exhibits (clinical or other) should be made to JAS. HODSDON, M.D., 6, Chester Street, Edinburgh, or R. W. PHILIP, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.

A MEETING of this Branch was held in the Medical Institution, Mount Pleasant, Liverpool, on Tuesday, February 28th, 1899. There were about 100 members present, and the chair was occupied by Mr. W. BERRY, F.R.C.S.I., President.

Payment of Branch Representatives.—On the motion of Dr. BARR, seconded by Dr. GODSON, it was resolved:

That every accredited representative of this Branch, when attending a committee or subcommittee meeting in London on the business of the British Medical Association, and every member of a deputation to London appointed by this Branch or by the Council of this Branch, on Association or Branch business shall be paid out of the funds of this Branch his first-class return railway fare. However, this regulation shall not apply to representatives of this Branch on the Council of the Association when in attendance at meetings or on deputations at or about the times of the Council meetings in London, or to the attendance of anyone during a meeting of the Association, or to anyone when his fare or expenses are paid out of the funds of the Association.

The Vaccination Act.—There was a discussion on the Vaccination Bill, in which Dr. CARTER, Dr. BRIERLEY, Dr. C. J. RENSHAW, and others took part. On the motion of Dr. CARTER, seconded by Dr. BRIERLEY, it was resolved:

That the Lancashire and Cheshire Branch of the British Medical Association desires to express its opinion that the efficient primary vaccination of every child is necessary in order to afford protection against outbreaks of small-pox; that stringent measures should be adopted to enforce such efficient primary vaccination; and that no certificate should be accepted by the vaccination officer as a certificate of successful vaccination, unless it shows that the requirements of the Local Government Board, as set forth in their instructions to public vaccinators, have been fully complied with.

Midwives Bill.—On the initiation of Dr. J. BRASSEY BRIERLEY, there was a protracted discussion on the Midwives Bill. Among those who took part in the debate were Dr. BRIERLEY, Dr. MACFIE, Dr. RITCHIE, Dr. MACVIE, Dr. GLEDHILL, Dr. THORNLEY, Mr. W. MITCHELL BANKS, Dr. G. H. BROADBENT, and Dr. HELME.—Dr. BRIERLEY moved the following motion, of which he had given notice, and this was seconded by Dr. MACFIE:

That, seeing the persistent refusal of the promoters of the Midwives' Registration Bill to secure efficient medical and lay control over their proposed practitioners, the Lancashire and Cheshire Branch of the British Medical Association will use all its powers to defeat this Bill or any modification of it unless and until they have definite assurance that complete and definite medical control will be enforced.

Dr. RITCHIE moved and Dr. MACVIE seconded the following amendment:

That the Lancashire and Cheshire Branch considers that the Midwives' Registration Bill at present before Parliament is defective in matters of control and limitation of practice, and in other respects; that these defects are met by the amendments adopted by the Parliamentary Bills Committee of the British Medical Association, and urges on the Council of the Association the advisability of submitting these amendments to the Privy Council and to the General Medical Council should there be indications of legislation on this question going forward.

On the amendment being put to the meeting, 25 voted for it and 11 against, and, on being put as a substantive motion, there were 28 for and 2 against. A large number abstained from voting.

Medical and Surgical Communications.—Mr. W. MITCHELL BANKS: Some Surgical Cases, with patients.—Dr. C. THURSTAN HOLLAND: Case of Lupus treated by *x* rays (patient).—Dr. G. G. STOPFORD TAYLOR: Cases of Lupus and Favus (patients).—Mr. RUSHTON PARKER: Case of Plexiform Neuroma of Eyelids, excision; ptosis completely corrected by plastic operation.—Mr. W. THELWALL THOMAS: Four cases of Tumour of the Urinary Bladder, diagnosed by cystoscopic examination, and operated upon.—Mr. ROBERT JONES: Cases of Foreign Bodies in the Œsophagus.—There was an exhibition of patients in the Library, from 2.30 to 3 P.M., by Drs. and Messrs. MITCHELL BANKS, BARENDT, BARR, DAMER HARRISSON, ROBERT JONES, R. W. MURRAY, RUSHTON PARKER, PAUL, STOPFORD TAYLOR, THELWALL THOMAS, etc.

Medical Appliances.—There was an exhibition of Medical and Surgical Instruments.

Dinner.—The members dined together at the Adelphi Hotel at 6 P.M., under the presidency of Dr. BERRY.

METROPOLITAN COUNTIES BRANCH: SOUTH-EASTERN DISTRICT.

A MEETING of this District was held at Guy's Hospital on February 24th, Dr. R. PERCY SMITH, Vice-President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Demonstrations.—Mr. FAGGE demonstrated the following cases: Syphilitic Periostitis of Skull, Sarcoma of Clavicle, Bronchocele, Spinal Caries with Paraplegia.—Mr. TARGETT showed a case of Syphilitic Stricture of Pharynx and Larynx.—Mr. F. E. FREEMANTLE showed A. B., aged 14, formerly a healthy Devonshire boy, who was seized with swelling of the legs and abdomen about Easter, 1898. On admission in October there was marked œdema universally below the level of the diaphragm; no œdema of face. Urine healthy; heart healthy; slight bronchitis, which cleared up; soft and large liver down to umbilicus; some anæmia. Condition unchanged since then, but only healthy urine daily. Diagnoses: (1) Chronic mediastinitis; (2) adherent pericardium; (3) tuberculous peritonitis with fatty or lardaceous liver.—Dr. BRYANT showed a case of Ulcer of the Cardiac End of the Stomach in a man aged 51. The chief symptoms were severe stabbing pain in the lower part of the chest and back, great pain behind the ensiform cartilage at the end of the act of deglutition, and extreme hyperæsthesia of the skin over the lower third of the sternum and sixth to ninth dorsal spines. Also a case of Ascites due to chronic peritonitis and chronic interstitial nephritis. Paracentesis had been performed eight times. At first the diagnosis had been cirrhosis of the liver.

Carcinoma of Stomach.—Dr. BRYANT read a paper on Carcinoma of the Stomach. Four varieties were considered, according to the distribution of the growth—namely: (1) carcinoma of the pylorus; (2) carcinoma of the cardiac end; (3) local carcinoma of other parts; (4) diffuse carcinoma. He pointed out the differences in the condition of the stomach, the physical signs and symptoms, and the bearing these variations had on the surgical treatment of the disease. Mr. DUNN, Dr. HYSLOP, and Dr. TARGETT discussed the paper; and Dr. BRYANT replied.

Votes of Thanks.—A vote of thanks was given to the governors of the hospital for the use of the rooms, and to the gentlemen who had provided such an interesting demonstration. The meeting then adjourned.

PERTHSHIRE BRANCH.

A SPECIAL meeting of this Branch was held in Perth on March 3rd, Dr. W. ROBERTSON (Perth), Vice President, in the chair. The other members present were: Drs. Paton, Robertson, Taylor, Trotter, Simpson, Reid, Stirling, and Urquhart.

Confirmation of Minutes.—The minutes of last meeting were read, confirmed, and signed.

New Member.—Dr. Storrar, Pitlochry, was elected a member of the Association and of the Branch.

Conjoint Meeting with Edinburgh Branch.—The invitation of the Edinburgh Branch to join in a meeting on March 17th was cordially accepted.

The Prevention of Tuberculosis.—The SECRETARY read the report of the Committee on Tuberculosis and letters from the President and Dr. Muir. The report was adjusted and approved, and the Secretary was instructed to send a copy of it to the Lord Provost, respectfully requesting him to convene a public meeting for the purpose of considering the question of aiding the national movement for the prevention of pulmonary consumption and other forms of tuberculosis.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

A CLINICAL meeting of this Branch was held on February 28th, at the Hospital, Swansea, Dr. T. WALLACE (President), in the chair. A good number of members attended.

Multiple Uterine Fibroid.—Dr. ELSWORTH showed a specimen of multiple uterine fibroids. The tumours were situated all over the body of the uterus; one of the largest, growing from the lower part of the posterior surface, was firmly wedged in the pelvis. The broad ligaments were ligatured so as to include the uterine arteries low down at the level of the cervix, and the structures above the ligatures removed, namely, the uterus, with its tumours, tubes, ovaries, and broad ligaments. The raw surface left, including the cervical canal, was then closed with a continuous catgut suture, the edges of the peritoneum being brought together over it, the stump dropped into the abdomen, and the wound closed. The patient made an uninterrupted recovery.

Extrauterine Gestation.—Dr. ELSWORTH read notes on five cases of extrauterine gestation treated by laparotomy. Three of these were examples of tubal abortion, characterised by amenorrhœa at first, later by irregular uterine hæmorrhage, softening of cervix, enlargement of uterus, and the occurrence of a parauterine tumour. In all the hæmorrhage was free at the time of operation; the peritoneum was washed out in each case and drained. Two patients made excellent recovery, but one died from shrinking of a fleshy pedicle and subsequent hæmorrhage. Two cases were examples of ruptured tube, with severe internal hæmorrhage. In each there had been a period of amenorrhœa, when the patient was seized with sudden and severe pain in the abdomen, fainting and collapse, with some distension of the abdomen. There was softening of the cervix and enlargement of the uterus. In both cases the condition of the patient was critical: in both the abdomen was found full of blood. One case, which did not come under observation till the third day, died 24 hours after the operation; the other made a good recovery.

Neurectomy for Neuralgia.—Dr. ELSWORTH also showed three cases of neurectomy of the superior maxillary nerve for intractable neuralgia. In all three the nerve was exposed by Carnochan's method, and divided as it issued from the foramen rotundum. The relief from pain in all was immediate and complete.

Cholecystotomy—Dr. A. WILLIAM SHEEN read notes of two cases. The first was one of ordinary recurrent biliary colic in

a woman aged 25. In three years she had had about thirty attacks of colic, each followed by jaundice. The gall bladder was exposed, opened, and about a dozen stones removed. The gall bladder wound was sutured to peritoneum and aponeurosis of the abdominal wall, and the fistula soon healed. Since operation the patient had had only one attack of pain, and had never had jaundice. In the second case the gall bladder was distended so as to form an abdominal tumour. Recurrent attacks of pain had occurred for a year previous to operation, and the swelling had been noticed for three months. There had been no jaundice. The gall bladder was exposed, opened, found to have its walls thickened and its cavity filled with colourless mucoid fluid; a stone blocked the cystic duct, which all efforts failed to remove. The gall bladder was sutured into the abdominal wound as in the previous case. Since the operation the patient had been comfortable, but a fistula remained which discharged about an ounce of clear fluid daily. Both patients had been under observation for thirteen months since operation. With regard to the second case, the question of further operative procedure was discussed, especially in reference to attempting to crush the stone from outside after reopening the abdomen, or removing it through an incision in the wall of the duct.

Cases and Specimens.—Mr. Brook showed: (1) A specimen of Fibroma springing from the base of the skull, and the patient from whom it had been removed; a report of the case will be published; (2) a specimen of a Fibrous Odontome removed from the antrum of a child through the mouth; the Clinical Research Society reported the tumour to be "a fibroma with areas of hyaline change, as though it were becoming converted into cartilage; there were also some small deposits of calcareous material"; (3) a case of Recurrent Papillary Fibro-adenoma of the Uterus, in which vaginal hysterectomy was performed. When first seen the growth completely filled the vagina. Arrangements were made for operation at an early date, but in the meantime an attempt was made by an unqualified person to remove it by traction, with the result that at the operation the uterus was found to be completely inverted. This allowed of very thorough removal, and application of pure carbolic acid to the site of origin of the growth—namely, three parts of the interior of the body of the uterus. It recurred, however, and hysterectomy was successfully performed eight months later; (4) a peculiar case of Skull Deformity. The patient had been in a London Hospital four years ago, and the case was reported in the British Medical Journal, June 6th, 1896, as one of leontiasis ossea, megalocephaly, or hyperostosis cranii. In addition to stiffness and loss of power in the right shoulder-joint, with wasting of the muscles of the arm, which was looked upon as coincidental osteo-arthritis, there was stiffness of the elbow-joint and contraction of the flexor muscles of the forearm, leading to permanent flexion of the fingers into the palm, also loss of sense of heat and cold in the same hand, and progressive weakness of both legs; in the discussion that followed Dr. Jabez Thomas stated that he had attended the patient at the age of 3 years for a fractured skull; he had fallen from a window on to his head, and the bones of the cranial vault had been crushed down upon those of the base of the skull; (5) Stump after Pirogoff Amputation for crushed foot at the age of 17 years and 9 months; (6) Foot after Chopart's Amputation for Disease, in which the tendo Achillis had been divided, the head of the astragalus drilled, and the tendon of the tibialis anticus sutured to it, with the result that the movements at the ankle-joint were as perfect as in the other foot.—Dr. Cameron showed a case of Lichen Ruber Planus in a girl, aged 13. It had commenced nearly a year ago. The papules were most numerous on the back of the neck and shoulders, where they were grouped in crescentic form, in one patch almost simulating ringworm. Scattered papules were also seen on the arms. The eruption showed the usual characteristics—small, flat, and umbilicated. There was no special cause that could be assigned for the onset of the eruption. Local application had little or no effect, but a fortnight's treatment with doses of arsenic had caused a noticeable fading and improvement of the eruption.

The Council of the University of Lille has decided to establish a lectureship in laryngology in the Medical Faculty. The salary is to be £80.

SPECIAL CORRESPONDENCE.

ROME.

The Illness of the Pope.—The University Disorders in Italy.

On February 27th the Pope was taken ill with general *malaise*, rise of temperature, and severe pain in a cyst which had existed in the left flank, immediately above the crest of the ilium, for upwards of twenty-five years without causing any annoyance. Dr. Lapponi, at his visit on the following morning, found that His Holiness was suffering from inflammation of the cyst, and he requested a consultation with Professor Mazzoni, *Libero Docente* of Special Pathology in the University of Rome. The result of the consultation was that Professor Mazzoni enucleated the cyst on the morning of March 1st, having previously anæsthetised the part with the ether spray and injection of cocaine, because it was not thought advisable to administer chloroform to the Pope, owing to his great age (he completed his 89th year on March 2nd). Leo XIII bore the operation admirably, and in the evening the temperature had fallen to 99.5° F. from 102° F. in the morning; the pulse was good, and the general condition satisfactory. Professor Mazzoni tells me that the cyst was hæmatic, the size of a large citron or of a fœtal head at term; it was not suppurating. After the extirpation the Professor plugged the cavity and brought the edges of the skin wound together with strips of plaster, as it was thought that the introduction of stitches would be too painful. The following day the tampon was removed, and the edges brought together with plaster. Since then the Holy Father has made an uninterrupted recovery, the temperature has become normal, and the wound is healing very satisfactorily. In fact, Professor Mazzoni has told me this afternoon (Saturday, March 4th) that he considers the august patient almost cured.

Since Christmas the annual university disorders have recurred in Italy. This year they began in the University of Palermo, where the students were desirous of obtaining an additional session of examinations. Professor Baccelli, the Minister of Public Instruction, refused to grant the request, and threatened to close the University for the academic year if they did not cease the disorders, which had also extended to the University of Naples. This firm action soon put a stop to the disturbances in both Universities. Later the students attending the anatomical school of the University of Turin, by way of protest against the appointment of Dr. Fusari to the Chair of Human Anatomy, made such disturbances that it was impossible for him to continue his lectures. The Rector of the University published a manifesto, with the sanction of Professor Baccelli, in which he stated that the school of anatomy would not be reopened until the students pledged themselves in writing that order would be kept at Professor Fusari's lectures. If the students did not agree to this, the school would be closed for the whole year, and the summer and autumn examinations would not be held. On February 24th the course was reopened for those students who had complied with the Rector's demand. While these students were entering the school the anti-Fusarians tried to prevent them, crying out "*Tutti o nessuno!*" The latter were dispersed by the police, and they went to the University, where they tried in vain to get the support of the students of the other faculties. On February 26th they endeavoured forcibly to enter the school of anatomy, and came into collision with the public authorities. Many of them were arrested, and they are now being tried in Turin. The Academic Council then decreed the closure of the course of anatomy for the current year. Why the students object to Professor Fusari is not very clear, as he is a very able man, has had a distinguished university career, and has the warm support of all his colleagues. The firm action of Professor Baccelli in reference to these disorders has been warmly praised in the Chamber of Deputies and by the press.

PARIS.

Help for the Blind.—"Masks" for Operators.—General.

The Valentin Haüy Association held its general meeting a few days ago at the Continental Hotel. M. Gustave Jourdan, the Treasurer, stated that £1,680 had been spent during the year 1898 by the Association: 1,526 blind persons have been

befriended; a certain number of them are entirely supported and cared for by the Association. Its funds are insufficient to meet the demands made on the society. This association has organised a *vestiaire* where clothes are given, a library, and a rent fund. Work is also given out at the workroom or to be done at home. It consists of making paper bags: 100,000 kilos of paper have been given during the past year to the Association for this purpose. M. François Coppée, poet and Academician, presided, and, in a feeling and eloquent address, appealed to human sympathy for help for the Valentin Haüy Association.

M. Berger recommends surgeons whilst operating to wear a gauze mask. M. Berger has obtained in operations for hernia 68 complete cures and union by first intention; both he and his assistants wore masks, so that neither saliva nor their breath could come in contact with tissues operated on.

At the general meeting of the Œuvre des Enfants Tuberculeux d'Ormesson, Dr. Léon Petit stated that during the past ten years 9,514 tuberculous children have been treated at the Villiers and Ormesson hospitals, and in the Noisy and Trémilly colonies 19,000 out-patients were also treated.

Mme. Louise Hanicot, *sage femme en chef* at the Paris Clinique d'Accouchements, has been accorded the *palme académique*, and is enrolled as *officier d'Académie*. Mme. Louise Hanicot was highly esteemed by the late Professor Tarnier.

The Sultan has conferred on Professor Duclaux, Director of the Pasteur Institute, the second class of the Osman Order.

BERLIN.

The German Laryngological Society.—The forthcoming Tuberculosis Congress.—A Municipal Sanatorium for Berlin.—Sickness Assurance and Phthisis.—New Home for Inebriates.

ON February 22nd ten years had elapsed since the foundation of the German Laryngological Society, and, according to German custom, the "jubilee" day was celebrated by a banquet and appropriate theatrical performance, in both of which the wives, "sisters, cousins, and aunts" of the members took part. Among the after-dinner speakers was a Japanese, Professor Okada, who delivered a message of greeting and congratulation from the Tokio Laryngological Society, and expressed the warmest appreciation of German scientific methods—all in faultless German. The German Laryngological Society numbers at present 140 members, amongst whom are many of the most eminent names in this branch of medicine. In the list of honorary members appears the name of Manuel Garcia, the celebrated teacher of singing, who owes this distinction to his invention of the laryngoscope. On this "jubilee" occasion, three new honorary members were elected: Professor K. Stoerk, of Vienna; Sir Felix Semon, of London, and Professor B. Fraenkel, of Berlin.

The list of papers which are to be read at the forthcoming International Tuberculosis Congress has been made out, and is as follows:

I. *Dissemination of Tuberculosis.*—(1) General Remarks on the Dissemination of Tuberculosis and its Import as a National Disease (Koehler, Berlin); (2) Relations between the Outer Conditions of Life and the Diffusion of Tuberculosis (Krieger, Strassburg); (3) The Diffusion of Tuberculosis amongst the Part of the Population subject to Compulsory Insurance (Gebhard, Luebeck); (4) Tuberculosis in the Army (Schjerning, Berlin); (5) Tuberculosis amongst Domestic Animals and its Relation to the Dissemination of Disease among Human Beings (Bollinger, Munich).

II. *Etiology.*—(1) The Tubercle Bacillus in its Relation to Tuberculosis (Flügge, Breslau); (2) Ways and Means of Infection (C. Fraenkel, Halle); (3) Mixed Infection (Pfeiffer, Berlin); (4) Heredity, Immunity, and Disposition (Loeffler, Greifswald).

III. *Prophylaxis.*—(1) General Measures for the Prevention of Tuberculosis (Roth, Potsdam); (2) Prevention of Tuberculosis in Infancy (Heubner, Berlin); (3) Marriage (Kirchner, Berlin); (4) Living Rooms, Work Rooms, and General Intercourse (Rubner, Berlin); (5) Hospitals (von Leube, Würzburg); (6) Food (Virchow, Berlin).

IV. *Therapeutics.*—(1) Curability of Lung Tuberculosis (Curschmann, Leipzig); (2) Medicinal Therapeutics of Lung Tuberculosis, inclusive of Inhalation (Kobert, Rostock); (3) Treatment of Lung Tuberculosis with Tuberculin and Similar Remedies (Brieger, Berlin); (4) Climatic Therapeutics, including Sea Voyages, Forest Air, etc. (Sir Hermann Weber, London); (5) Hygienic and Dietetic Treatment of Lung Tuberculosis and Sanatorium Treatment (Dettweiler, Falkenstein).

V. *Sanatoria.*—(1) Development of the Sanatoria Movement (von Leyden, Berlin); (2) Financial and Legal Supporters of the Sanatoria Undertakings; (3) Co-operation of Sick Clubs and their Doctors with the Sanatoria Treatment; (4) Sanatoria Buildings (Schmieden, Berlin); (5) Inner Arrangements of Sanatoria and Curative Results (Werner, Berlin); (6) Care of the Families of Sanatoria Patients and for Discharged Convalescents (Panwitz, Berlin).

More than 600 applications for tickets of admission to the Congress have been received by the Committee, and it is gratifying to learn that a considerable portion come from other countries than Germany.

The Berlin magistrates have agreed on a project for building a sanatorium for tuberculous men, and will submit the plans to the City Council very shortly.

There seems to be a certain connection between the approaching Tuberculosis Congress and a statistical article published in the February number of the *Official Journal of the Imperial Board of Insurance*, which gives in rows rows of figures the costs and results of medical treatment directed and paid by insurance establishments and sick clubs under the German law for the insurance of the aged and disabled. This is the first time that such figures have been collectively published, and they show that the therapeutic results obtained in phthisis cases have been on the whole favourable. They show too that on the average the expenses of phthisis treatment are far higher than in the case of other diseases. No doubt this is due to the special feeding, the greater air space, etc., required for phthisical patients. Of the 10,483 cases considered in the statistical tables (all belonging to the year 1897), 3,568—or more than a third—were phthisis cases.

A home for dipsomaniacs is to be erected near Berlin by the Berlin Branch of the Society to Prevent the Abuse of Alcoholic Drinks. The municipal authorities are much interested in the scheme, and have promised pecuniary assistance, and one of the members of the society has offered an eligible plot of land, 120 acres in extent, at a very low price, and under the most favourable conditions of payment. The sanatorium is to be large enough for 50 inmates, and the building and furnishing costs are estimated at 110,000 marks (£5,500).

LIVERPOOL.

The School of Tropical Medicine: Communication from Professor Koch: the Consuls and the School: Proposed International Recognition.—Death from Blackwater Fever.—Banquet to Professor Oliver Lodge: The Proposed New Physics Laboratory.

THE new School of Tropical Medicine is steadily gaining ground, and is receiving encouragement from all the leading firms which have commercial interests in tropical countries. The promoters have been much gratified by two letters which they have received from Professor Koch of Berlin, in which he expresses regret that he is unable to accept the invitation he has received from the Committee to be present at the formal inauguration of the school, assures them of his sympathy with the new institution, and offers his best wishes for the success of the "grand and useful undertaking." He expresses the hope that he will be able to visit it later, and states that it is in contemplation to form a similar institution in Germany. A meeting of the Committee of the Liverpool Association of Foreign Consuls has lately been held with a view to promoting the recognition of the school by foreign governments. Mr. A. L. Jones, the representative of the Congo Free State, who was the first to come forward and place the scheme on a permanent basis, said that in the cause of humanity the consuls should stir up their respective governments to lend it their aid. Investigations were especially needed as to the causes of malaria, and whatever discoveries were made would be for the good of mankind at large, and all countries would benefit thereby. It would therefore be desirable to obtain recognition of the school in foreign countries, a recognition which might receive practical demonstration in the form of pecuniary aid. Other consuls who were present supported the suggestion of international recognition, and it was agreed to call a meeting of all the consuls at an early date to receive information concerning the school, which could be communicated to their respective governments. Professor Boyce stated that it was proposed to have special courses for the instruction of missionaries and for the training of nurses for the tropics.

The death of Captain the Hon. Richard Somerset in the Royal Southern Hospital has brought home to the community with painful acuteness the necessity for making special provision for the treatment of tropical disorders. The deceased

officer died of blackwater fever, which he contracted in West Africa.

Professor Oliver Lodge was entertained on March 4th by the Lord Mayor at the Town Hall in connection with his receiving the Rumford medal of the Royal Society. Amongst those present were Sir W. Crookes, Professor Rucker, Professor Myers, Professor Fitzgerald, Principal Glazebrook, and Dr. Caton. In the course of the evening it was announced that £10,000 had been promised towards the construction of a new physics laboratory by an anonymous donor, and £5,000 by Sir John Brunner. Mr. Alfred Booth has promised £2,500 if three other gentlemen will contribute equal amounts. The probable cost of a suitable laboratory is estimated at £30,000 or £40,000.

LEEDS.

Experimental Medicine at the Yorkshire College: Objections by Antivivisectors.—The Press and the Agitators.

During the past two or three weeks there has been a little mild excitement in Leeds upon the vivisection question. Strange as it may appear, the medical school here is not a licensed place for experiments on animals, although the need of such a licence has long been felt, yet a formal representation for permission to apply to the Home Office for it has not been made to the Council of the Yorkshire College until quite recently. The representation of the medical school authorities was considered in a full meeting of the Council, and the desired permission to apply for a licence was granted. The passing of this resolution involved the resignation of the Chairman of the Council, Mr. Rawlinson Ford, a gentleman who has rendered many services to the College. However much his resignation is to be regretted, yet the question of the licence is of such vital importance to the physiological and pathological departments, that the decision of the College must be approved of by all who really trouble themselves to understand the exact position of the question. The application for the licence would undoubtedly have been made long ago if it had not been for the well-known and at the same time respected objections of Mr. Ford.

As might have been expected of such papers as the *Yorkshire Post* and the *Leeds Mercury*, the press here has taken the most enlightened view possible upon the subject, but the correspondence necessarily admitted to its columns has been mostly characterised by the singular want of information upon actual facts which is always displayed in this vivisection controversy. It is a matter of congratulation that a great disability under which the Leeds School of Medicine has long suffered appears at length in a fair way of being removed.

ABERDEEN.

The Lectureship in Tropical Medicine.—Severe Epidemic of Measles.—Hospital Abuse.—Honorary Degrees.—The Gifford Lectureship.

At a meeting of the Aberdeen University Court, in accordance with the resolution of the last meeting to establish a Lectureship in Tropical Medicine, it was resolved to offer the appointment to George Archibald Maconachie, M.D., M.R.C.P., late Principal of Grant Medical College, Bombay.

An epidemic of measles, the most severe which has been experienced in Aberdeen for many years, has been causing considerable anxiety to the sanitary department. The week before last 700 cases and last week over 600 cases were reported. Fortunately the epidemic on the whole does not show a high mortality.

In view of the difficulty experienced at the Royal Infirmary of sufficiently accommodating applicants for admission there has been of late some correspondence in the Aberdeen papers. There seems no reasonable doubt that country districts should contribute more liberally than they do at present to the funds of the institution, though there are generous exceptions. Again, subscriptions from individual patients, so far as their means allow, in recognition of treatment received, are certainly very much less than they should be. It seems doubtful whether hospital treatment is made use of by those able to pay for private attendance to a greater extent than in other large centres. That such abuse is found to occur to a greater or less extent wherever public hospitals exist is unfortunately true, and it is useful that the public should be awakened to the sense of the wrongfulness of such abuse, but any means of gauging the pecuniary position of applicants for treatment before admission is notoriously difficult, and the abolition of the hospital-letter system has, it is believed, been of undoubted benefit to the community. There appears to be little, if any, truth in the assumption that cases of a lighter character are admitted now than formerly.

The Senatus have agreed to confer the degree of LL.D. on James Frederick Goodhart, M.D., F.R.C.P.; on Charles Stewart, M.R.C.S., F.R.S., Conservator of the Museum of the Royal College of Surgeons, and on George Frederick Stout, M.A., Lecturer in Comparative Psychology, Aberdeen University (appointed to the Wilde Readership in Psychology at Oxford), among others, at the forthcoming graduation ceremony.

The appointment of Professor Sayce, the distinguished Assyriologist and Egyptologist, to the Gifford Lectureship for the two terms, 1900-1901 and 1901-1902, is a matter of considerable interest to the University.

CORRESPONDENCE.

DIPLOMAS AND DEGREES FOR OPTICIANS.

Sir,—In your leader of February 18th, headed "Diplomas and Degrees for Opticians," there are several points to which I should have immediately drawn your attention but for pressure of work in connection with our examinations of last week. I venture to think that your leader partly misrepresents, and partly fails to do justice to, the work that our Company of Spectacle Makers is engaged in.

In the first place your article, while giving a detailed account of the syllabus, omits all reference to the practical part of the examination, which includes a knowledge of the microscope, telescope, photographic camera, projection and nautical instruments, thereby giving rise to the idea that the examination is confined to sight-testing and the theory of optics. But of this I do not complain, were it not that you suggest in the next paragraph that "it may be contended that the acquirement of a diploma after passing such an examination may be deemed sufficient to empower and authorise its possessor to prescribe for and treat cases of defective vision and other diseases of the eye." Now, the general anatomy of the eye and the principle of the ophthalmoscope are the only two subjects mentioned in the syllabus which trench in the remotest degree upon the treatment of disease or the province of the medical man. I wish to point out that the anatomy of the eye as taught in our classes and treated in our examination is entirely confined to the optics of the eye treated from a purely physical point of view; while as regards the ophthalmoscope, our teachers are instructed merely to explain the principles involved, so that opticians may learn to manufacture it with intelligence—an amount of knowledge which I can hardly imagine any one can find fault with. As for treating diseases of the eye, nothing can be further from the fundamental principles of the Company. Indeed diseases are never discussed, and as for treating them, our teachers are instructed to caution all their pupils that as soon as they find that they cannot at once bring the sight to normal, or nearly normal, vision, or the case presents any complications whatever, they are to recommend their customer to seek medical advice. In order to still further protect the public and the medical profession, those students who are entitled by examination to receive a certificate must sign a legal agreement in which they bind themselves "not to use any drug for the purpose of paralysing the accommodation of the eye," and "not to advertise the diploma in any way which would lead the public to infer that it conveys medical qualifications." These restrictive covenants have not been "revised," as your article suggests, but were a vital element of our scheme prior to our initial examination. These regulations will be enforced on all our members unless in the case of a medical man who might honour the Company by obtaining its diploma.

Again, you say "that if the Company is allowed to continue

to hold the examinations referred to and to grant its diplomas, serious questions may arise as to whether or not there is an infringement of the provisions of the Medical Acts." Surely, Sir, the Medical Acts cannot prohibit the Spectacle Makers' Company from examining opticians in matters connected with their own business, nor opticians from learning it. If you reply that sight-testing pure and simple, coupled with a knowledge of the optical qualities of the human eye, should be confined to the medical faculty, I can only add that, although the treatment of diseases of the eye has been confined to the medical profession, as it rightly should be, from time immemorial, it is little more than thirty years ago that the surgeon first commenced to scientifically test for errors of refraction, and to prescribe the requisite glasses. Prior to this time the fitting of spectacles to defective vision was entirely the province of the optician.

It is far from the intention of the Spectacle Makers' Company to deprive the oculist of a single patient. The oculist, by his highly scientific training, is by far the most competent person to take charge of so delicate and important an organ as the eye; but we should remember that of the 45 millions of people in the British Isles at least one half will require the aid of glasses during some part of their lives, and of this number it must be admitted, only a very minute percentage ever find their way to properly qualified oculists.

The advertisement you refer to was issued by an optician immediately after passing the examination, and before he had signed the agreement referred to above; but it was stopped the moment it was brought to our notice, on it being represented to him that it was contrary to our rules. We consider that advertisements should especially be controlled by the Company, and for this purpose we have appointed a special committee, of which a medical man is a prominent member, and which we would gladly strengthen by the election of others. We also have an ophthalmic surgeon on our full committee, who is one of our examiners. These facts are a sufficient guarantee that the interests of the profession in general, and the oculists in particular, will be jealously guarded, and that nothing will be allowed to pass the committee injurious to the interests of the profession. I also particularly wish to point out that the certificates issued by the Company are lent, and not given, to the successful candidates, and the committee are fully determined to recall them should the rules of the company be disregarded.

I am absolutely convinced, both from what I have heard and seen on all sides, that our scheme by giving increased knowledge to the optician, will be the means of very materially increasing the practice of the ophthalmic surgeon and medical man, by causing a very large number of people to seek professional advice who otherwise would have struggled on without it or would have been imperfectly treated by the optician himself. Properly educated opticians never prescribe glasses for cases which may need medical treatment or the high degree of skill which the oculist possesses. It is only the optical dealer who has no optical knowledge, or the quack, who encroaches on the ground of the surgeon or physician who does so, and the very fact of having the Spectacle Makers' Company's certificate will be a sufficient guarantee that the holder of it will not be of that kind.

We have been advised by our professional friends not to employ instructors who are medical men, as these might unconsciously encroach on the medical side of the subject, and our official teacher is consequently an optician. A good deal of the teaching is negative rather than positive, warning the students rather what cases not to undertake than what to deal with. Opticians always have undertaken cases of refraction and cannot be prevented from so doing; but they have not always understood what cases they might fit with safety and what cases should be sent to the oculist. The direction of the movement is not to send would-be patients to the optician, but rather to give him such intelligent knowledge as will enable him to send to the oculist all those who come to him for glasses who cannot at once be made to enjoy full vision. I append the questions which formed the written part of our examination, and which I venture to believe will meet with your entire approval.—I am, etc.,

W. THORNTHWAITE,
Master Spectacle Makers' Company.

Avonhurst, Chislehurst, March 7th.

QUESTIONS.

THURSDAY, MARCH 2ND, 1899, FROM 7 P.M. TO 10 P.M.

1. What are the essential optical differences between flint glass and crown glass? What other differences are there between them? Why is it necessary to use both kinds in optical factories?
2. Describe the optical properties of Canada balsam.
3. A narrow beam of sunlight entering by a small round aperture in a shutter is focussed upon a white card by means of a large bi-convex lens (of say 8 inches focal length) through the middle of which the light passes. Assuming that a distinct image has been formed at the full focal distance, what will be the effect on the image if (separately) the following things are done?—
   (*a*) Shifting the lens sideways to the right so that the light passes through the lens near its margin.
   (*b*) Tilting the lens obliquely, the light still passing through the middle.
   (*c*) Changing the round aperture by substituting a square hole.
4. Enumerate the different shapes of simple (spherical) lenses which exist. Classify your list under two heads:
   (*a*) Those in which the distance between the principal focus and the nearest face of the lens is the same for light passing in either direction through the lens, and
   (*b*) Those in which the distance for light passing only one way through the lens is different from that for light passing through the other way.
5. When long-sighted persons want to read print they are often observed to pull their spectacles down their nose, increasing the distances of the lenses from the eye. On the other hand, short-sighted persons habitually push their spectacles close to the eye. Explain in each case why they do so?
6. Formerly lenses were numbered according to their focal lengths. The modern system is to number them in dioptres. The change would not have been made unless there was some advantage to be gained. What are the advantages of the modern system of numbering?
7. Explain the principles on which Snellen's and Jaeger's test types are based. What relation do the reading types bear to distant ones?
8. A prescription is given to make up as follows:

$$R \; \frac{+ 3{\cdot}5 \text{ D.S.}}{- 2{\cdot}25 \text{ D.C. axis } 30.} \qquad L \; \frac{+ 2{\cdot}75 \text{ D.S.}}{- 4{\cdot}5 \text{ D.C. axis } 20.}$$

Show in what different ways the glasses could be made, and give reasons for your preference.

9. What are the advantages and disadvantages of periscopic glasses? A person requires a glass of

$$\frac{+ 4 \text{ D.S.}}{+ 2 \text{ D.C. axis horizontal,}}$$

in periscopic form.

How would you make it?

10. What do you understand by the terms "prism dioptres" and "prismatic effect"?

A prismatic effect of 1° deviation is required on a 5 D.S. lens. How much must it be decentred?

11. To a + 8 D.S. lens I add another lens the power of which is unknown. I find two focal distances on the same side—namely, 114 mm. and 154 mm. What is the power of the lens?

12. Explain precisely what is meant by spasm of accommodation? State how you would recognise such a case and give your reason for referring it to an oculist?

THE GOVERNMENT MEDICAL SERVICE, BRITISH GUIANA.

SIR,—Permit me to call attention to the present condition of the British Guiana Government Medical Service.

This service was reconstituted by an ordinance in 1886, being made a department of the Government, with the Surgeon-General as head; the officers became amenable to the privileges and penalties of the rules and regulations of the Colonial Office, a sufficient staff being appointed to allow for the prompt relief of medical officers going on leave or becoming ill. A circular letter from the Surgeon-General's Office, dated November 9th, 1898, headed "Proposing a Scheme whereby Long Leave of Absence may be Regulated," was withdrawn; and another circular, dated January 18th, 1899, was issued stating that "in view of the number of qualified private practitioners now in the colony, it is not necessary to retain the three supernumerary officers who are employed to relieve other medical officers going on long leave of absence, and the earliest opportunity will be taken to reduce the medical staff accordingly."

This alteration is looked upon as a hardship, for it is not likely that any private practitioner having a practice will break it up by going to take a few months' work in any distant part of the colony, or even out of the city, and those who cannot make a practice leave the colony, as five have done within the last few years.

Medical men often suffer from malaria, and I have recently seen a man who had suffered for a considerable time from a low, ill-defined malaria, not yielding to treatment, whose departure was delayed until he had alarming attacks of collapse, with irregular intermittent pulse and marked dilatation of the right ventricle. All other departments are so managed that the members can take their full pay vacation leave and half pay leave on the ordinary rules of the Colonial Office. It

should be noted that the new leave scheme does not apply to the Surgeon-General nor to the medical inspector, who are to relieve one another. A large majority of the staff took office long before the present Surgeon-General came into office, on the general understanding that their privileges were to be governed by the Colonial Office rules. They consider—and I think rightly—that there will be something in the nature of a breach of contract if they are now forced to give up an important privilege that has often been the means of saving their health and even their lives.

The suggested reduction of the staff has been more than carried out by anticipation within the last three years; four Government medical officers have retired, and one has died. These five vacancies have not been filled.

Vaccination is one of the duties of the district medical officers, the fee of 24 cents being paid from a special vote passed annually. A circular of January 18th, 1895, urged the district medical officers "to do their utmost to carry out at once the provisions of the vaccination law." A circular dated May 30th, 1896, restricted vaccination to "young infants," and in some cases the passing of the accounts has been refused because some other persons having presented themselves for vaccination and having been vaccinated, had also been included in the account. This happened whilst the neighbouring country of Venezuela was the seat of a severe small-pox epidemic. It must be stated that a circular dated February 6th, 1899, withdraws all vaccination circulars. Vaccination is compulsory in this Colony, and it appears that no public vaccinator can refuse to vaccinate any person asking to be operated on.

As an example of administrative method it may be stated that an order was issued that no Government medical officer on the staff of the public hospitals should be allowed to be absent between the hours of 8 A.M. to 4 P.M. (a further minute altered this from 8 A.M. to 2 P.M.) without stating to the resident surgeon the nature of his urgent private affairs. These Government medical officers are not raw youths; they are qualified men of over 30 years of age.

The work done by the Government medical officers of this service is arduous, and in some cases necessitates long journeys in the heat of a tropical climate; in other cases long hours in hospital wards, all the time in a country reeking with malaria—should they not be permitted to enjoy their privileges unimpaired as much as the officers of any other department?—I am, etc.,

F. H. Edmonds.

Georgetown, British Guiana, Feb. 15th.

PRELIMINARY EDUCATION IN IRELAND.

Sir,—I observe in your reference to the above subject in this day's number of the British Medical Journal that after commenting on the insufficiency of the standard of the lower grade examinations as hitherto conducted by the Intermediate Education Board, you add, "It is this lower grade which the General Medical Council still accepts as adequate, and which the Royal Colleges of Physicians and Surgeons in Ireland are asking to be applied to young men of 17 or 18 years of age." The latter part of this paragraph is inaccurate. I appeared before the Commission on behalf of the Royal College of Physicians, and Sir William Thomson on behalf of the College of Surgeons, to request that "an examination suited to the requirements of medical students in regard to the age of candidates, standard, and frequency be held."

The first question put to me by the President was, "What are the alterations in the examinations you would suggest?" To which I replied, "That it would need to be an absolutely separate examination. I do not see at present how your rules could be modified so as to suit us." Further I stated—I am so reported in the daily papers to have said—that "as to standard, the Colleges wish these examinations to be in all respects up to the requirements of the General Medical Council, and above the standard of some of the examinations recognised by the Council."

The reason which influenced the General Medical Council, or, to speak more accurately, the Education Committee of the Council, in urging that the examinations conducted by the Intermediate Education Board be utilised by medical students in Ireland is, that the Council is desirous of seeing the examinations in Preliminary Education conducted by examiners appointed by the Royal Colleges in Ireland discontinued, because the Council is of opinion that such examination should not be conducted under the auspices of Medical Corporations, in which opinion the Royal Colleges of Physicians and Surgeons in Ireland fully concur, and they continue to conduct them only because there is not in Ireland any other examination suited so the requirements of medical students. The Education Committee, however, admit that the Examination Board appointed by the Colleges "consists of men of experience and standing in the educational world who are otherwise unconnected with the Colleges," the excellence of the standard is above question.—I am, etc.,

Dublin, March 4th. Lombe Atthill, M.D.

*** We relied upon the following passages of the report in the *Irish Times*, February 18th:

1. Dr. L. Atthill: At the present time, sixteen years was the maximum age for passing in the junior intermediate grade, which was earlier than the College wished; and if the candidate failed at the examination for that grade, he should have either to go on the following year at a higher grade examination, or be shut out altogether.

2. Question: Could you not fix your own standard? We could allow you to fix it in any grade you wished irrespective of age.

Sir William Thomson: At present the General Medical Council accepts your junior certificate as it stands. The only question is as to the possibility of providing us with another examination in the year.

MEDICAL AID ASSOCIATIONS.

Sir,—We have heard much and have read more about the dignity of the medical profession, but until the members have decided to disassociate themselves from such purely trading companies as the medical aid associations undoubtedly are, I for one fear that the public will not feel disposed to consider our calling in any way superior to the ordinary business ones.

This is a pushing and an advertising age, but I would humbly submit that a line must be drawn somewhere, and that the profession as a whole should protest against its members soliciting and canvassing for patients in the same way as tradesmen canvass for orders.

I would suggest that the British Medical Association Council should be asked to consider this very important subject, and inform their constituents that such proceedings do not meet with their approval. It is perfectly manifest that the tactics of these medical aid associations do induce medical men to follow in their wake. The medical profession is either a trade or a profession; and if it is the former, let it be understood that it is not unprofessional for a man to employ canvassers to go from house to house and induce the people to become members of a family club. If, as I hope, we decide that we still belong to an honourable profession, then we are bound to take strong measures to put an end to a system which is rapidly reducing medical men to the level of credit drapers.—I am, etc.,

March 4th. A Member, B.M.A.

THE PROPOSED SCHOOL OF TROPICAL DISEASES.

Sir,—In the correspondence on the Tropical School of Medicine there has been no mention of one important part which such a school should play, namely, the chances it will give to those who are already practising medicine in the tropics of seeing diseases from other tropical countries. It hardly seems to be generally recognised how local are some of the important diseases, and that the knowledge of them is still more local.

There are diseases, such as Maltese fever and beri-beri, which are probably widely distributed, which are known by different names, and attributed to divers causes by those who have never had the opportunity, even in a long and varied experience, of making such comparison, and have been misled by minor differences in the clinical accounts of the disease they have read. For these purposes cases must be drawn from as wide an area and from as many races as possible, and no port can supply this want so well as London. Acute cases are more required than chronic, and the number, if well selected, need not be large.

For some time past great use has been made, to my knowledge, of the Branch Hospital by tropical practitioners, and the work done has been most beneficial to themselves and their patients. A laboratory, to be useful for those engaged in the tropics, must be attached to the hospital. In even the best supplied colonies the proportion of medical men to the

population is barely one-fifth of what it is in England, whilst the death-rate, and presumably the sick-rate, is everywhere higher. Little can, under those circumstances, be done in the way of elaborate process, but it is essential that the necessity of microscopic examinations for diagnosis and treatment should be demonstrated, and the readier methods of manipulation. The Branch Hospital, Victoria and Albert Docks, has been of great use in the past, and when enlarged may be more so. The other institutions mentioned have done nothing for colonial practitioners of medicine, whilst the amount of useful information retained after the ordinary course is worthless.—I am, etc.,

C. DANIELS,
Calcutta, January, 1899. Colonial Medical Service.

TUBERCLE OF THE BREAST.

SIR,—In the BRITISH MEDICAL JOURNAL of February 18th (EPITOME, No. 120) reference is made to a paper on tubercle of the breast, by Halsted and Le Count, in which the first description of this disease is assigned to Astley Cooper.

I am desirous of calling attention to the fact that mammary tubercle had previously been clearly discriminated by John Hunter (1728-93); and Cooper probably learnt most of what he knew about it from Hunter.

When I published my work on *Diseases of the Breast* (1894) I was unaware of the priority of Hunter's claims. I then wrote: "The history of mammary tuberculosis is that of a disease once well recognised, which after a time, having fallen into oblivion, has in comparatively recent times been rediscovered. Astley Cooper, Nélaton, and Velpeau long ago published excellent descriptions of it." So completely had these old descriptions been forgotten, that this was a revelation to most contemporary pathologists; but it did not go far enough. Not only had Hunter previously described mammary tubercle, but he had also pointed out how to differentiate it from cancer, which many modern practitioners seem unable to do.

In describing a case, he says: "I have seen a truly scrofulous breast, which came on at the age of 26, and increased gradually to 38. It was 18 to 20 lbs. in weight. In this case there was no disease leading to the axilla, so that I dissected it out, and it healed kindly, although the patient had other scrofulous appearances at the time."[1]—I am, etc.,

Clifton, Feb. 18th. W. ROGER WILLIAMS.

STATISTICS REGARDING SCHOOL CHILDREN'S VISION.

SIR,—Several papers have been recently published[2] in the BRITISH MEDICAL JOURNAL regarding carefully-made tests of school children's vision, but in each case the method of arranging the results has been such that they are practically worthless for comparison or collation with other results. This is especially illustrated where one writer gravely discusses the 80 per cent. defective out of 5 ex-VII girls examined; 3 of the 4 "short-sighted" might have been found hypermetropic if retinoscopy had been done.

Any deductions dealing with such numbers as the papers referred to are open to considerable errors, and may possibly lead to wrong deductions. A comparison of one single school against another is also risky from the same reason, that the age and sex distribution of the children is neglected.

The only useful way to arrange statistics regarding school children is to take large numbers, and in the first place distribute in age groups, and better, too, with the sexes separated. If this is done the opinions of the writers would be considerably modified. From analysis of over 50,000 tests of Bradford Board school children carried out since 1893 there seems little reason for supposing that the elementary school has much to do with deterioration of vision. It seems that social circumstances and general environment have a greater share than the ordinary Board school; school headaches in nine cases out of ten being due more to malnutrition and debility, and, as far as the school is concerned, foul air poisoning, than to error of refraction, which last does not seem a common cause in young children.

For comparison the following results referring to visual defect in children of both sexes, and using both eyes, quoted from the paper[3] referred to, may be useful:

(39,000 Children in Bradford Board Schools.

Standard	I	II	III	IV	V	VI	VII	Ex.VII
Per cent. defective vision	43	31	25	22	19	16	14	12

Taking the distribution by ages (15,552).

Age last birthday	6	7	8	9	10	11	12	13
Per cent. defective	47.8	35.7	28.3	24.6	24.5	19.9	19.3	18.8

The drop at the age of 11 is probably partly due to the elimination of many poorer children sent to work.

On the other hand, if only children from one standard be taken (3,145 children, Standard III):

Age last birthday	8	9	10	11	12
Per cent. defective	25	28	27	33	36

which shows a connection between visual defect and intellectual progress in school.—I am, etc.,

JAMES KERR, M.A., M.D.Cantab.,
February 20th. Honorary Surgeon, Bradford Eye and Ear Hospital.

THE NEED FOR FURTHER VACCINATION LEGISLATION.

SIR,—I am very glad to see Dr. Dixey's letter on this subject in the BRITISH MEDICAL JOURNAL of February 25th, and strongly support his view that the Government should bring in a Bill dealing with the revaccination question, notwithstanding the announcement made by Mr. Balfour to the contrary. The clause supporting the conscientious objector in the Act of last session should also be repealed, for as it is now carried out in the magisterial courts—of which I have had some experience, being on both county and borough Bench in my division—it is nothing more or less than a stupendous farce. Had the exemption certificate involved the applicants in the payment of 40s. instead of half a crown, these conscientious objectors would long ago have disappeared, and we should have heard very little by this time of these small-pox promoters. The present is the time for action; it is useless to delay until a small-pox epidemic is in our midst; and I hope the profession will express its opinion in a decided manner. There are no doubt numbers in our ranks who helped at the last election to place the present Government in power, but unless we get some definite pledge on this matter, I for one—and I know many who are of my opinion—shall hesitate before I vote again for a party which has reserved to itself the sacred right of spreading a fearful epidemic through the land.—I am, etc.,

Evesham, Feb. 25th. A. H. MARTIN.

LUNACY LAW AND BORDERLAND CASES.

SIR,—As long as Dr. Reichardt and his friends confined themselves to self-defence, it would have been needless for anyone taking different views to interfere. But when, as in his letter in the BRITISH MEDICAL JOURNAL of February 25th, a covert attack is made upon asylums, and a policy advocated of truckling to the astounding ignorance and prejudice that exist not only among the lay public, but also among many of the medical profession with regard to these institutions, it behoves someone connected with them to take up the cudgels.

Now the use of the word "incarceration," repeated half a dozen times with gusto in his letter, is nothing more or less than a transparent logical *suggestio falsi*. For it suggests the analogy of a prison, where people are confined for punishment, and implies that patients are sent to asylums not for treatment and cure, or for the amelioration of their lives, when the latter is impossible, but for the same reason that persons are sent to prison. Now I will assert that there is not a single asylum, lunatic hospital, or licensed house in the United Kingdom, that is carried on otherwise than on the lines that I have indicated. On the other hand, the lot of insane persons treated in private dwellings is often an unhappy one. Deprived of fresh air and exercise; sometimes confined to a single room, from lack of proper grounds for these purposes; mechanically restrained by illegal and cruel means, such as being strapped down in bed, from lack of an adequate staff, and the proper asylum accommodation (even the few humane means of mechanical restraint sanctioned by the Commissioners are seldom used in asylums); deprived of the right of visitation by those lawfully appointed for the purpose (for no conceivable Board of Commissioners

[1] Lecture XXI, On Principles of Surgery. Palmer's Edition of Hunter's Works, vol. i. 1835.

[2] BRITISH MEDICAL JOURNAL, June 18th, 1898, January 14th, 1899, and February 18th, 1899.

[3] *Statistical Journal*, September, 1897.

would be adequate if such a system came into general use) the recovery rate of these patients is much lower than that of those treated in asylums. And with regard to suicidal cases, I have heard an eminent authority on lunacy say that no person ever did from any motive commit suicide who was not insane. But without going as far as this, it is certain that any person who commits suicide without any adequate objective cause, but from a subjective feeling of mental anguish, profound depression or misery, due doubtless to physical causes, is insane and ought to be put in an asylum where only can those precautions be put into force that are essential for his or her safety.

The selfishness of relatives who would avoid at any cost insanity being connected with their family ought not to be regarded, and is responsible for many a life temporarily clouded, which if adequate means had been taken for its preservation for a time would have been capable of future usefulness and enjoyment.—I am, etc.,

Finsbury Park, N., Feb. 26th. G. E. Mould.

OXYGEN INHALATIONS IN THE TREATMENT OF ACUTE AND CHRONIC DISEASES OF THE LUNGS.

Sir,—The method of administration of oxygen recorded by Dr. Stoker in the British Medical Journal, page 559, proved a failure in a case of my own owing to the difficulty of regulating the supply, and also to the posterior nares becoming swollen and thus blocking the admission of gas.

It would appear that there is no recognised and uniform method of administration of oxygen in lung diseases, for one advises a Hewitt's N_2O facepiece, another the simple tube in nostril, another the opening of a cylinder of oxygen in the sick room.

I find no comparative record of cases treated with oxygen by different methods, nor any reference to the proper quantity and pressure, and the period for which it ought to be administered.—I am, etc.,

Kirkby-Stephen, March 6th. B. Walker, M.D.

OBITUARY.

JAMES Y. TOTHERICK, M.D.St.And., M.R.C.P.Edin.

Dr. Totherick, the much-respected Physician to the Wolverhampton and Staffordshire General Hospital, who died recently at his residence, Parkdale, Wolverhampton, had been in failing health for two or three months, and his death was due to anæmia.

Dr. Totherick was born at Perth of Scottish parentage. He received his education at Edinburgh University, and became L.R.C.P. and L.R.C.S.Edin., and M.D.St.Andrews, in 1862; in 1872 he became M.R.C.P.Edin. For some years he practised at Sudbury, Derbyshire; but in 1872 he went to Wolverhampton, and was appointed Honorary Physician to the Wolverhampton and South Staffordshire General Hospital. On leaving Sudbury he was presented by his friends with a gold watch as a mark of their high esteem. He afterwards won a high reputation in Wolverhampton, for he had a heartfelt sympathy with suffering and sorrow, and showed untiring devotion to his duties at the hospital and to his private patients.

Dr. Totherick was mainly instrumental in starting the working men's Hospital Saturday collections in Wolverhampton. At considerable sacrifice he visited the various works of the town and district, and explained his scheme to the workmen. The movement has since become a source of invaluable aid to the hospitals of the town, and the General Hospital in particular. On March 9th, 1897, he was presented with a portrait in oils of himself, painted by Mr. G. Phœnix, which now hangs in the Board Room at the hospital. On that occasion he spoke of the need of reform in hospital management, urging that the out-patient department should be used solely for the purpose of consultation, and not for treatment or for dispensing drugs, and that every medical man in the district should have the right of sending a case there for a second opinion. He believed that was the only way to check abuses of the charity, and to gain the sympathy of the medical profession. Canon Davis, in presenting the portrait, said that it was given as an expression of the high esteem in which Dr. Totherick was held by all classes of society, and in recognition of his valuable and faithful services for twenty-five years as honorary physician of the institution. The entire community joined in making the presentation.

Dr. Totherick was a member of the Wolverhampton Board of Guardians for some years, and Chairman of the Board in 1897-98. He was a Liberal in politics. He was a man who hated shams and counterfeits of all kinds, and was himself of exemplary life and most rigid consistency.

He was elected first President of the Wolverhampton Literary Club after its reconstitution in 1890. He possessed much literary ability, and the club benefited by this in several valuable papers on subjects of interest. Three years since he undertook a voyage round the world, and returned much benefited in health. He subsequently delivered a very interesting illustrated lecture on his travels. He was for many years also an active member of, and valued contributor to, the Staffordshire Branch of the British Medical Association, and the members at a recent meeting recorded the expression of the great loss they had sustained by his death, and passed a resolution of sympathy with his widow (see page 558). Dr. Totherick has left no children.

MICHAEL AUSTIN BOYD, M.D.Brux., F.R.C.P.I.,

Dublin.

We learn with much regret of the death of Dr. M. A. Boyd of Dublin, which occurred at his residence, 30, Merrion Square, on March 5th. Dr. Boyd had been out hunting on the previous Saturday week, and got a severe wetting. The run was long, and he walked his horse home a distance of many miles. He felt unwell next day and remained in bed, but he rose to attend the urgent call of a sick friend, and on his return he found himself seriously ill. He at once summoned the aid of one of his colleagues, who discovered that Dr. Boyd was suffering from double pneumonia. Treatment did not arrest the disease. On March 4th symptoms of meningitis supervened, and on the following day he died. Sir Francis Cruise, Dr. Redmond, and Dr. Hayes were unremitting in their care of their friend. A tragic aspect is given to the occurrence by the fact that Dr. Boyd's mother, who resided with him, died of shock on the day after her son.

Dr. Boyd became a Licentiate of the College of Surgeons just thirty-one years ago, and obtained the Fellowship in 1874. He began practice in Kingstown, and was one of the original staff of St. Michael's Hospital in that town. After some years he was appointed Visiting Physician to the Mater Misericordiæ Hospital in Dublin. In 1888 he obtained the M.D. of Brussels, and in 1894 he was elected a Fellow of the Royal College of Physicians in Ireland.

Dr. Boyd was one of the most respected members of the profession in Dublin. He attracted many friends by his conciliatory manner, and, although he was a man with views, he never offended anyone's susceptibility by inopportune advocacy of them. As a physician he was very well informed. His industry was marked, and the earnestness of his clinical work and observation made him a very sound and attractive clinical teacher. He contributed many useful papers to the journals. His death in such sad circumstances has caused sincere and widespread regret. Dr. Boyd was unmarried.

FRANCIS NOTTIDGE MACNAMARA, M.D.,

Late Professor of Chemistry, Medical College, Calcutta.

Dr. Francis Nottidge Macnamara, after passing through a distinguished career at King's College, entered the East Indian Medical Service in the year 1853. He was appointed Professor of Chemistry at Calcutta, and Chemical Examiner to the Government of India, and continued to hold this appointment until the year 1870, when he left India. On his return to England he was appointed Chemical Examiner to the Indian Government, and held this post down to the time of his death. Throughout this long service Dr. Macnamara did a vast amount of work of a highly technical and scientific kind. It is difficult for those unacquainted with the climate of Calcutta to realise the nature of his employment, day after day, and year after year, working in a close, badly-ventilated laboratory, in which the most delicate chemical analyses had to be carried on. Among other duties it was his business

to report on the contents of the stomach and other organs which were sent to him from all parts of Bengal in suspected cases of poisoning, a method of disposing of inconvenient persons by no means uncommon among the natives of India. Specimens of gunpowder and other explosives used by the military authorities in Bengal were referred to him for analysis. Beyond this he had to give a full course of lectures every year on chemistry to the large class of medical students attending the Calcutta College and University. His work on the *Climate and Medical Topography in their relation to the Disease Distribution of the Himalayan and Sub-Himalayan Districts of British India* is well known, and is full of accurate information on the subject of which it treats.

Dr. Macnamara was persuaded many years ago of the danger of using water contaminated with various impurities, and at a time when the sanitary advisers to the Government of India scouted the idea that cholera and other diseases were disseminated by means of a specific poison in drinking water which caused these diseases, he strove to impress on the Government correct views on this subject. He did much towards initiating and perfecting the scheme by which Calcutta has been supplied for many years with pure water, and thus helped largely to reduce the death-rate from cholera in the metropolis and throughout the cantonments of India.

Dr. Macnamara gave up a lucrative practice in Calcutta because he found it occupied more of his time than he thought right, and interfered with his Government work. He was held in great respect by his class of students and by the natives of Calcutta, and was without exception one of the most hard-working and unselfish men who ever entered the service of the Government of India. Few ever did better work in a more unobtrusive manner; he was foremost amongst those to congratulate others who gained honours and titles for professional or other work, but it never seemed to enter into his mind that he above other men was entitled to them. And so he died without any mark of approbation from the Government he had served so long and so well, but honoured and loved by those who had the privilege of knowing him as a wise, sympathetic, and trusted friend, far above the ordinary run of men.

JOHN STUART SMITH, M.D.Edin.

A NOTABLE link with the medical past (he was the personal friend of Sir James Simpson and Sir Robert Christison) has been broken by the death of Dr. John Stuart Smith, retired Staff Surgeon-Major, Army Medical Department, who died on March 1st at his home at Stuart Lodge, Polwarth Terrace, Edinburgh, at the advanced age of 84.

Dr. Smith was a son of Alexander Smith, of Archieston, in the county of Moray; his mother was a daughter of Donald Stuart, of Leanchoil, Abernethy, and a full cousin of Sir James McGrigor, who was during his time not merely the Director-General and the autocrat of the Army Medical Department, but was in a sense the creator of the Department.

John Stuart Smith, after a preliminary education at home and at school, entered the University of Aberdeen, took a full course in Arts, and graduated M.A. in 1834 or 1835. He then came southwards to the University of Edinburgh, where he graduated M.D. in 1839, when he must have been about 24 years of age. In the same year he became a Licentiate of the College of Surgeons of Edinburgh.

Under the guidance of his masterful relative, Sir James McGrigor, who was then Director-General, young Smith entered the Army Medical Department. He was twice on active work in India, and was in the first Chinese war, during which he was present at the capture of Canton. During the great Irish epidemic of typhus fever, in 1847-48, he was in charge of the civil hospital at Cork, and the large district of which Cork was the centre. Later he was in the Maori War. Hard work and varying climates affected his health, and in 1850 he was compelled to retire from active medical service. He chose Edinburgh as his evening home, and there he made himself useful and helpful in many ways. He had many friends in the medical profession, both in the present and in the former generation.

His younger brother, Lord Strathcona and Mount Royal (better known, perhaps, as Sir Donald A. Smith), is High Commissioner for Canada in London.

Dr. Smith has left two daughters to mourn his death.

THERE died at Antwerp on March 1st Dr. ABRAHAM MAYER, full of years and honours. Born at Düsseldorf in 1816, he would have completed his 83rd year had he lived until next July. He was an ex-President of the Society of Medicine of Antwerp, ex-Vice-President of the Belgian Medical Federation, Member of the Royal Society of Public Medicine, Medical Inspector of the Communal Schools of Antwerp, and had received the decoration of the first-class of the Civil Cross. It was only last September that he celebrated the Diamond Jubilee of his Doctorate. The admiration entertained for him by all classes were manifested by the fact that, though he was a Jew and a Liberal, the whole celebration was carried out by Conservatives and Catholics. The streets were decorated on a lavish scale, with flags, Venetian masts, and triumphal arches, which at night were illuminated with Chinese lanterns. Deputations were coming to the Doctor for twelve hours together, while the streets rang with the cheers and *vivas* of the crowd gathered near the house. The bouquets sent filled two large rooms. Dr. Mayer was a very able medical practitioner, and contributed largely to the literature of his profession, and his general knowledge was encyclopædic.

THE death took place at Lewisham on February 27th, 1899, in his 80th year, of JAMES CLEMENT SARGEANT, who for upwards of forty years held the office of Bedell to the Society of Apothecaries of London. His figure was well known to former candidates, to whom his manner was always courteous. By his death the Society has lost a much valued and faithful servant.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Manoel Joaquim Saraiva, Professor of Hygiene in the Medical Faculty of Bahia; Dr. G. H. Rohé, Professor of Materia Medica and Therapeutics in the College of Physicians and Surgeons of Baltimore, Superintendent of the new Maryland State Hospital for the Insane, President of the American Public Health Association, and ex-President of the Medico-Chirurgical Faculty of Maryland and of the American Association of Obstetricians and Gynæcologists, aged 48; and Dr. Hugues Evariste Desrosiers, Professor of Materia Medica in the Medical Faculty of the Laval University, Montreal, formerly Editor of the *Union Médicale du Canada*, and author of a *Traité de Matière Médicale et de Thérapeutique*, aged 45.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: WILLIAM J. COLBORNE, Staff-Surgeon, to the *Boscawen*, for the *Agincourt*, February 28th; HAROLD HUSKINSON, M.B., Surgeon, to the *Cambridge*, February 28th; GERALD B. BROWN, Surgeon, to the *Vivid*, additional, January 17th; HENRY W. W. TOWNSEND, Surgeon, to the *Jupiter*, March 4th; THOMAS S. HARTLEY, Surgeon, to the *Victory*, for Royal Naval Barracks, March 11th; WILLIAM TAIT, M.D., Staff-Surgeon, FREDERICK W. PARKER, and JOHN C. DURSTON, Surgeon, to the *Warspite*, March 28th; JOHN H. STENHOUSE, Staff-Surgeon, to the *Algerine*, February 28th.

Fleet-Surgeon Alexander McBride, M.D., died at Weston-super-Mare, aged 67, suddenly. He was appointed Surgeon, May 18th, 1855; Staff-Surgeon, February 14th, 1865; and Fleet-Surgeon, February 3rd, 1876. He retired from the service, November 30th, 1876. He served in the Baltic fleet in 1855 in the *Hastings*, was present at the bombardment of Sveaborg, and received the Baltic medal.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL H. S. MUIR, M.D., is appointed Deputy-Director-General, *vice* Surgeon-General W. Taylor, M.D., C.B., who has vacated that appointment, February 16th. Surgeon-General Muir's commission are as follow: Assistant-Surgeon, March 31st, 1864; Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; Brigade-Surgeon, November 1st, 1888; Surgeon-Colonel, December 23rd, 1893; and Surgeon-Major-General, November 30th, 1896. He was in the Afghan war in 1878-80, including the engagement at Shahjui, and received the medal for the campaign.

Deputy-Inspector-General JOSEPH JEE, V.C., C.B., half-pay, late Medical Department, is appointed Honorary Surgeon to the Queen, *vice* Surgeon-General Sir James Mouat, K.C.B., V.C., deceased, March 8th. Deputy-Inspector-General Jee was appointed Assistant-Surgeon, April 15th, 1842; Surgeon, June 23rd, 1854; Surgeon-Major, April 15th, 1862; and Honorary

Deputy-Inspector-General on retirement on half-pay, March 4th, 1868. He served in the Persian war in 1857, including the night attack and battle of Kooshab, and bombardment of Mohumrah (medal with clasp). With Havelock's column in the several actions leading to and ending in the relief of the Residency of Lucknow and subsequent defence; with Outram's force at Alumbagh, including the repulse of the numerous attacks, and operations ending in the final capture of Lucknow; present with Brigadier Campbell's columns in the affairs of March 20th and 21st; also the Rohilcund campaign in 1858, and capture of Bareilly (medal, with two clasps, C.B., Victoria Cross, and a year's service for Lucknow).

ROYAL ARMY MEDICAL CORPS.

Sergeant-Major John C. B. Whitehorn is appointed Quartermaster, with the honorary rank of Lieutenant, *vice* Honorary Lieutenant W. T. Vidler, cashiered by sentence of a general court-martial, March 8th.

Surgeon-Major John Stuart Smith, M.D., died at Edinburgh on March 1st, after a prolonged illness, aged 84. He entered the service as Assistant Surgeon, November 22nd, 1839; became Surgeon, October 27th, 1848; Surgeon-Major, November 22nd, 1859; and retired on half pay, January 21st, 1862.

Lieutenant Thomas H. M. Clarke has been appointed a Companion of the Distinguished Service Order, in recognition of his services during the outbreak at Kandia on September 6th, 1898.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant Conrad T. Green, 1st Volunteer Battalion the Cheshire Regiment, is appointed Surgeon-Lieutenant, March 8th.

INDIAN MEDICAL SERVICE.

Surgeon-Major John Bowron, M.D., Bengal Army, Retired, died at Medina Villas, Hove, on March 5th, in the 101st year of his age.

THE VOLUNTEERS.

Surgeon-Major R. J. Garden, 1st Aberdeenshire Artillery, has resigned his commission; he is also granted the rank of Surgeon Lieutenant-Colonel, and is permitted to retain his uniform, March 4th.

Surgeon-Major H. Colgate, M.D., 2nd Sussex Artillery, is promoted to be Surgeon-Lieutenant-Colonel, March 4th.

Mr. Elisha H. Monks is appointed Surgeon-Lieutenant in the 2nd Lancashire (St. Helens) Engineers, March 4th.

Surgeon-Lieutenant G. V. Worthington, M.B., 4th (Cambridge University) Volunteer Battalion the Suffolk Regiment, has resigned his commission, March 4th.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains, March 4th; D. D. Monro, M.B., Galloway Rifles; A. H. Vernon, 4th Volunteer Battalion the Hampshire Regiment; P. S. Spokes and J. W. Pare, M.D., 17th (North) Middlesex Rifles.

Mr. George A. Cohen, M.B., is appointed Surgeon-Lieutenant in the 1st Tower Hamlets Rifles, March 4th.

Surgeon-Lieutenant A. B. Lyon, M.B., 2nd Middlesex Rifles, is promoted to be Surgeon-Captain, March 8th.

Mr. Richard G. Worger is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion Prince Albert's Somersetshire Light Infantry, March 8th.

Surgeon-Lieutenant-Colonel M. Benny, M.D., 4th (Stirlingshire) Volunteer Battalion Argyll and Sutherland Highlanders, has resigned his commission, March 8th; he retains his rank and uniform.

HEALTH OF THE FRENCH ARMY.

The army medical statistics of 1898, just published by direction of the Minister of War, state that the sanitary condition of the French army was more satisfactory than during the two previous years. The lessened mortality is owing to a decrease in deaths from influenza, typhoid fever, and acute pulmonary affections. Young soldiers reported "good for service, but with infirmities," are no longer accepted.

BACTERIOLOGICAL EXAMINER IN INDIA.

The Government of India have applied for the services of Major Davies, Royal Army Medical Corps, to be extended for another year at army headquarters. This had been recommended by the late Principal Medical Officer, Her Majesty's Forces, India (Surgeon-General Gore), before he left India.

THE OPERATIONS ON THE GOLD COAST.

The *London Gazette* of March 7th publishes a despatch from the Secretary of State for the Colonies, in which he brings to the notice of the Marquis of Lansdowne the names of the officers and non-commissioned officers whose services in connection with the occupation of the protected territories adjacent to the Gold Coast and Lagos and on the Niger appear to Mr. Chamberlain to be deserving of special recognition. Among them are the following:—In the Northern Territories of the Gold Coast: Dr. E. H. Tweedy, Assistant Colonial Surgeon, Gold Coast; Dr. J. O. Coker, Assistant Colonial Surgeon, Gold Coast. In Lagos: Captain E. M. Hassard, Royal Army Medical Corps; Dr. W. W. G. H. Best, Assistant Colonial Surgeon, Lagos; the late Dr. F. W. Rock, Assistant Medical Officer, West African Frontier Force.

ARMY MEDICAL OFFICERS AND PLAGUE DUTY.

The *Pioneer of India* of January 29th draws attention to the unhandsome treatment by the Government of India of officers generally, and especially of the Royal Army Medical Corps, employed in the very arduous and hazardous plague duty.

We fully endorse our contemporary's contention that, if one duty more than another should have been expected to call forth generous special recognition by the civil power, it would be that of fighting a pestilence, at great personal risk, among a helpless and ignorant but fanatical population. Yet it is asserted that the military men who gallantly and successfully carried out such a grave imposed civil duty remain practically unrewarded. There can be no surprise that so unaccountable an omission has evoked feelings of pain as well as wonder.

Our contemporary writes: "It was noted as an extraordinary feature about the New Year honours that, while the Indian Government had gone out of its way to bestow a civil order of its own on a General for purely military service in the Frontier campaign, the two Generals who might have very fitly received the Star of India or the Indian Empire for their distinguished services in combating the plague went without any recognition. The indisposition to reward plague work in the British service seems to extend all down the line. The resuscitated Order of St. John of Jerusalem was conferred, very deservedly, on four officers of the Indian Medical Service; but their comrades of the Royal Army Medical Corps, who worked side by side with them, are left quite unrecognised.....When the plague was at its worst in Bombay in 1897, there were no fewer than seven officers of the Army Medical Staff, as it then was, working under the Bombay Plague Committee—namely, five in Bombay city, one in Calaba, and one in Kutch Mandavie. Their services in this capacity were purely civil and entirely in the benefit of India; and it would have been thought that the Government of India would have found a particular pleasure in signifying its approbation of the work of officers who had thus served it outside the run of their ordinary duties. Under these circumstances, can it be wondered that the omission of any mention of the army medical officers, though probably nothing more than an oversight, is felt to be marked?"

If the omission were only an oversight, why has it not been rectified, since it has attracted public attention and cause adverse comment? Or was there some official informality, such as the neglect of superiors to report the good services of officers on plague duty to the favourable consideration of the Government? In either or any case the omission is in no sense creditable to those concerned.

ORDERLY DUTY IN THE R.A.M.C.: A SUGGESTION.

Captain R.A.M.C. writes: Probably the most irksome duty at home is orderly duty. A few years ago it was the exception for officers with more than 12 years' service to be put on this duty, but at the present time many men with 18 or 19 years' service are detailed for it. At small stations the duty is a modified one, but at the larger stations the orderly officer has to spend his time in the hospital (most often with nothing to do), and sleep there at night. I would suggest that all officers be posted straight from Aldershot to the larger station hospitals for duty, if possible in pairs. Let them be given quarters in the hospital, be in the position that house-surgeons are in civil hospitals, and on duty on alternate days. Let them be relieved every six months by men fresh from the depôt. They would in this way learn the routine work of military hospitals, and relieve the senior men from orderly duty. Orderly duty has much to do with making old officers tired of the service.

Major R.A.M.C.—The reward of good work should not be given grudgingly, as rather seems to be the case with the Indian Government. It is inevitable that there should be some grumbling when this is so.

MEDICO-LEGAL.

MEDICAL ADVERTISING IN INDIA.

Several Indian correspondents have complained of the advertisements inserted in the *Pioneer* by Dr. H. D. McCulloch, who seeks to practise as an ophthalmic and aural surgeon at Delhi, and is conducting an "eye and ear infirmary" in that city, towards the maintenance of which he invites subscriptions and donations. Dr. McCulloch is registered as a graduate of the University of Glasgow, and does not appear to belong to any other corporation nor to the British Medical Association. We are not aware that the General Medical Council has ever given a distinct expression of opinion upon the subject of advertising which could be considered to be of general application, but an attempt might be made to get that body to take up the question.

THE ROYAL BLUE BOOK.

At the end of the Royal Blue Book is a "Trades and Professional Section." It is stated that "the names in this section are inserted by special arrangement." In the edition dated January, 1899, the list contains entries under a number of trades, but the only professions represented, so far as we have noticed, are those of dentists and physicians and surgeons. There is only one dentist, but there are two physicians and surgeons, one of them a lady. We are disposed to think that the unexpected appearance of these two names in this list must be due to some misunderstanding.

MEDICAL TITLES.

Mars.—In the present state of the matter we can only refer our correspondent to the opinions expressed by Mr. Justice Lawrance and Mr. Justice Channell in the case of Hunter *v.* Clare. The judgments in which these opinions were expressed were published in full in the British Medical Journal of February 4th, page 301.

DEATH CERTIFICATION BY UNREGISTERED PERSONS.

Our attention has been drawn to the following extract from the "Medical Column" of a weekly paper:

> "Admirer.—Certainly I can give a death certificate if a patient dies under my care. The Act says a certificate must be given by a *qualified* medical man, and says nothing about registration. But deaths in my practice are rare. I have a lady under my care who has turned her 100th year."

*** This statement is, of course, quite inaccurate, since it is expressly enacted that no certificate required by any Act to be given by any

medical practitioner shall be valid unless the person signing the same be registered under the Medical Acts (see Sec. XXXVII of the Medical Act, 1858).

COLONIAL DEGREES.

GERALD.—Such a degree is not registrable in the United Kingdom, and when a degree which is not registrable is used it is wiser to indicate the university from which it has been obtained.

D. P. F.—The question is one upon which our correspondent should consult a solicitor, but whatever the letter of the law it appears to us that the partner who does not give the lectures may very well waive any claim.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE DEATH-RATES OF LONDON SANITARY AREAS DURING 1898.

IN the accompanying table will be found summarised the vital statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the year 1898. The mortality figures relate to persons actually belonging to the various sanitary areas, and are the result of a complete system of distribution of deaths occurring in the public institutions of London among the various sanitary areas in which the patients had previously resided.

The 132,432 births registered in London during 1898 were equal to a rate of 29.5 per 1,000 of the population, estimated at 4,504,766 persons in the middle of that year; this rate was lower than in any of the ten preceding years, during which the birth-rate averaged 30.9 per 1,000. In the various sanitary areas the birth-rates showed, as usual, wide variations, owing principally to the differences in the sex and age distribution of their populations. In Kensington, St. George Hanover Square, Westminster, St. James Westminster, St. Martin-in-the-Fields, and London City, the birth-rates were considerably below the average; while they showed a marked excess in St. Luke, Bethnal Green, Whitechapel, St. George-in-the-East, Mile End Old Town, St. George Southwark, and Bermondsey sanitary areas.

The deaths of persons belonging to London registered during last year were 82,037, equal to a rate of 18.3 per 1,000 of the population, against 19.4, 18.2, and 17.7 per 1,000 in the three preceding years; this rate was 1.0 per 1,000 below the mean rate in the ten preceding years, 1888-97. The lowest death-rates last year in the various sanitary areas were 11.7 in Hampstead, 13.2 in St. George Hanover Square, 13.7 in Stoke Newington, 14.4 in Wandsworth, 14.9 in Lee, and 15.3 in Lewisham (excluding Penge): the highest rates were 23.6 in St. Saviour Southwark, 23.8 in Limehouse, 24.4 in St. George Southwark, 24.8 in St. George-in-the-East, 24.9 in Holborn, and 25.7 in St. Luke.

During the year under notice 12,482 deaths were referred to the principal zymotic diseases in London; of these, 1 resulted from small-pox, 3,069 from measles, 581 from scarlet fever, 1,756 from diphtheria, 2,157 from whooping-cough, 3 from typhus, 554 from enteric fever, 9 from simple and ill-defined forms of continued fever, and 4,352 from diarrhœa. These 12,482 deaths were equal to a rate of 2.77 per 1,000, against 2.62, 3.11, and 2.56 in the three preceding years: this rate slightly exceeded the mean rate in the ten preceding years, 1888-97, which was 2.69 per 1,000. In the various sanitary areas the zymotic death-rates ranged from 0.88 in St. Martin-in-the-Fields, 1.29 in St. George Hanover Square, 1.40 in Hampstead, 1.51 in St. James Westminster, 1.56 in Stoke Newington, and 1.76 in Strand, to 3.90 in Bethnal Green, 3.95 in Shoreditch, 3.99 in St. George Southwark, 4.04 in St. Luke, 4.13 in Woolwich, and 4.26 in Limehouse. Compared with the averages in the ten preceding years, the mortality from measles and from diarrhœa showed an excess, while that from each of the other principal zymotic diseases was below the

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions during the Year 1898.

SANITARY AREAS.	Estimated Population middle of 1898.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
LONDON	4,504,766	132,432	82,037	29.5	18.3	2.77	12,482	1	3,069	581	1,756	2,157	3	554	9	4,352	7,746	166
West Districts.																		
Paddington	127,480	2,967	2,041	23.3	16.1	2.41	307	—	93	8	61	44	—	17	1	83	175	161
Kensington	172,174	3,633	2,809	21.2	16.4	2.02	347	—	120	24	26	52	2	13	—	110	217	181
Hammersmith	107,370	3,026	1,964	28.3	18.3	3.19	342	—	129	22	23	36	—	12	—	120	159	183
Fulham	125,275	4,307	2,155	34.5	17.2	3.16	395	—	59	35	61	41	—	18	1	180	184	168
Chelsea	96,713	2,332	1,752	24.2	18.2	2.73	262	—	92	15	41	26	—	14	—	74	168	176
St. George Hanover Sq.	80,608	1,411	1,059	17.5	13.2	1.29	104	1	35	4	10	16	—	9	—	29	105	120
Westminster	52,574	1,081	1,090	20.6	20.8	3.00	157	—	52	5	22	43	—	3	—	32	138	182
St. James Westminster	22,200	446	411	20.1	18.6	1.51	33	—	15	2	5	1	—	1	—	9	42	177
North Districts.																		
Marylebone	140,483	4,061	2,565	29.0	18.3	2.36	331	—	129	13	45	43	—	22	—	79	251	132
Hampstead	78,755	1,516	917	19.3	11.7	1.40	110	—	26	3	19	27	—	10	1	24	58	125
St. Pancras	243,416	6,857	4,651	28.3	19.2	2.49	602	—	111	53	96	87	—	41	—	214	482	170
Islington	344,616	9,442	5,712	27.5	16.6	2.78	958	—	334	26	90	180	1	36	—	291	501	159
Stoke Newington	54,660	839	475	24.3	13.7	1.56	54	—	10	1	5	9	—	2	—	27	36	108
Hackney	219,630	6,445	3,588	29.4	16.4	2.64	576	—	111	30	120	94	—	41	—	180	304	152
Central Districts.																		
St. Giles	37,519	1,026	756	27.4	20.2	1.88	71	—	26	2	6	9	—	5	—	23	125	137
St. Martin-in-the-Fields	12,424	179	192	14.4	15.5	0.88	11	—	1	1	3	1	—	—	—	4	22	156
Strand	23,284	496	532	21.4	22.9	1.76	41	—	13	2	4	4	—	4	—	14	77	171
Holborn	30,056	807	747	26.9	24.9	3.37	101	—	35	2	22	12	—	2	—	28	95	221
Clerkenwell	66,120	2,072	1,432	31.4	21.7	3.75	246	—	61	13	36	35	—	7	—	94	155	196
St. Luke	41,076	1,853	1,054	45.2	25.7	4.04	165	—	37	15	24	24	—	2	—	63	108	150
London City	29,085	469	555	16.2	19.1	1.17	34	—	3	2	10	2	—	6	1	5	54	128
East Districts.																		
Shoreditch	121,485	4,266	2,707	35.2	22.3	3.95	480	—	108	21	44	98	—	17	—	192	245	196
Bethnal Green	129,027	4,779	2,872	37.1	22.3	3.90	503	—	152	11	62	110	—	17	—	142	279	184
Whitechapel	80,559	3,123	1,622	38.9	20.2	2.10	169	—	45	8	20	24	—	9	—	63	209	144
St. George-in-the-East	48,241	2,083	1,192	43.3	24.8	3.31	159	—	33	6	14	39	—	7	—	60	130	195
Limehouse	58,661	1,912	1,390	32.7	23.8	4.26	249	—	57	5	26	62	—	8	1	90	140	208
Mile End Old Town	112,528	4,294	2,229	38.3	19.9	3.51	393	—	93	8	63	74	—	13	—	142	164	155
Poplar	170,220	5,907	3,605	34.8	21.2	3.72	629	—	130	22	89	120	—	30	1	237	311	191
South Districts.																		
St. Saviour Southwark	24,562	739	577	30.2	23.6	3.09	76	—	17	1	15	14	—	4	—	25	75	211
St. George Southwark	60,461	2,138	1,470	35.5	24.4	3.99	241	—	43	20	36	34	—	9	—	99	192	188
Newington	123,183	4,165	2,520	33.9	20.5	3.17	388	—	55	24	72	45	—	10	—	182	298	173
St. Olave Southwark	11,288	357	232	31.7	20.6	2.31	26	—	5	1	3	11	—	1	—	5	25	132
Bermondsey	85,738	3,090	1,771	36.1	20.7	3.02	258	—	59	19	44	47	—	9	—	80	184	157
Rotherhithe	40,849	1,298	773	31.9	19.0	2.24	91	—	33	10	11	15	—	1	—	21	74	169
Lambeth	324,073	9,266	5,422	30.6	17.9	2.50	755	—	135	30	114	139	—	35	1	281	506	154
Battersea	171,921	5,157	2,897	30.0	16.9	2.93	503	—	114	28	120	68	—	14	2	157	257	166
Wandsworth	202,526	5,186	2,902	25.7	14.4	2.40	484	—	111	16	89	86	—	16	—	166	229	144
Camberwell	251,189	7,425	4,261	28.5	16.4	2.41	628	—	117	18	87	118	—	26	—	252	398	106
Greenwich	130,441	5,625	3,336	31.3	18.5	3.08	555	—	108	21	44	112	—	38	—	222	272	176
Lee	39,717	891	592	22.5	14.9	1.97	78	—	6	7	14	14	—	7	—	30	46	160
Lewisham	88,562	2,317	1,350	26.2	15.3	2.50	221	—	35	10	26	32	—	6	—	112	78	161
Woolwich	41,478	1,253	843	30.3	20.4	4.13	171	—	58	5	19	27	—	8	—	54	86	173
Plumstead	62,531	1,896	1,016	30.4	16.3	2.85	178	—	58	12	15	33	—	3	—	57	92	155

average. The single fatal case of small-pox registered in London during 1898 belonged to St. George Hanover Square sanitary area. During last year only 5 cases of small-pox were admitted into the Metropolitan Asylums Hospitals, and no case remained under treatment at the end of the year. Measles showed the highest proportional fatality in Hammersmith, Chelsea, Westminster, Islington, Holborn, Bethnal Green, Limehouse, and Woolwich sanitary areas. Scarlet fever was proportionally most fatal in Fulham, St. Pancras, St. Luke, St. George Southwark, Bermondsey, and Rotherhithe sanitary areas; 12,480 scarlet fever cases were admitted into the Metropolitan Asylum Hospitals during 1898, and 2,883 patients remained under treatment at the end of December last. Diphtheria caused the highest proportional fatality in Hackney, Clerkenwell, St. Luke, Mile End Old Town, St. Saviour Southwark, St. George Southwark, Newington, and Battersea sanitary areas; there were 7,390 diphtheria patients admitted into the Metropolitan Asylum Hospitals during 1898, and 1,239 remained under treatment at the end of December last. Whooping-cough was proportionally most fatal in Westminster, Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, Poplar, and St. Olave Southwark sanitary areas; enteric fever in St. Pancras, Hackney, Strand, City of London, Greenwich, and Woolwich sanitary areas; and diarrhœa in Fulham, Clerkenwell, St. Luke, Shoreditch, Limehouse, Poplar, St. George Southwark, and Newington sanitary areas.

During the year under notice 7,746 deaths from phthisis were registered in London, equal to an annual rate of 1.72 per 1,000; this disease was much more fatal in Central and in East London than in any other part of the metropolis. In West London the phthisis death-rate was 1.52 per 1,000, in North London it was 1.54, and in South London 1.66; while in East London it was 2.06, and in Central London as high as 2.66 per 1,000. Among the various sanitary areas the the lowest phthisis death-rates were 0.74 in Hampstead, 0.88 in Lewisham, 1.04 in Stoke Newington, 1.13 in Wandsworth, 1.16 in Lee, and 1.26 in Kensington; and the highest rates 2.64 in St. Luke, 2.70 in St. George-in-the-East, 3.06 in St. Saviour Southwark, 3.17 in Holborn, 3.18 in St. George Southwark, 3.32 in Strand, and 3.34 in St. Giles.

Infant mortality in London, measured by the proportion of deaths under 1 year of age to registered births, was equal to 166 per 1,000, and exceeded by 11 per 1,000 the mean rate in the ten preceding years. The lowest rates of infant mortality were 108 in Stoke Newington, 120 in St. George Hanover Square, 125 in Hampstead, 128 in City of London, and 132 in Marylebone and in St. Olave Southwark; while they ranged upwards in the other sanitary areas to 191 in Poplar, 195 in St. George-in-the-East, 196 in Clerkenwell and in Shoreditch, 208 in Limehouse, 211 in St. Saviour Southwark, and 221 in Holborn.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,730 births and 4,718 deaths were registered during the week ending Saturday, last, March 4th. The annual rate of mortality in these towns, which had been 19.5 and 20.6 per 1,000 in the two preceding weeks, further rose to 21.6 last week. The rates in the several towns ranged from 13.1 in Croydon, 13.7 in Cardiff, 14.6 in Leicester, and 14.8 in Burnley, to 25.3 in Preston, 25.4 in Birkenhead, 29.6 in Manchester, and 29.8 in Liverpool. In the thirty-two provincial towns the mean death-rate was 21.2 per 1,000, and was 0.9 below the rate recorded in London, which was 22.1 per per 1,000. The zymotic death-rate in the thirty-three towns averaged 2.0 per 1,000; in London the rate was equal to 2.0 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.5 in Swansea and in Manchester, 3.6 in Birkenhead, and 5.9 in West Ham. Measles caused a death-rate of 1.0 in Derby, 1.2 in Salford, 2.2 in Manchester, and 4.0 in West Ham; scarlet fever of 1.1 in Sunderland; whooping-cough of 1.0 in Plymouth, in Swansea, and in Bolton, 1.1 in Hull and in Sunderland, and 1.8 in Birkenhead; and "fever" of 1.2 in Wolverhampton. The 96 deaths from diphtheria in the thirty-three towns included 48 in London, 7 in West Ham, 7 in Liverpool, 5 in Swansea, 5 in Sheffield, 4 in Blackburn, and 4 in Leeds. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and 2 small-pox patients were under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 4th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,575 at the end of the nine preceding weeks, was 2,584 on Saturday last, the 4th inst.; 236 new cases were admitted during the week, against 253, 202, and 241 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 4th, 940 births and 765 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 31.2 to 24.1 per 1,000 in the three preceding weeks, rose again to 25.1 last week, and exceeded by 3.5 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 19.7 in Dundee and 27.8 in Edinburgh to 26.3 in Glasgow and 28.2 in Leith and in Greenock. The zymotic death-rate in these towns averaged 3.2 per 1,000, the highest rates being recorded in Leith and Aberdeen. The 371 deaths registered in Glasgow included 7 from measles, 4 from scarlet fever, 11 from whooping-cough, 4 from "fever," and 8 from diarrhœa. Five fatal cases of measles, 2 of diphtheria, and 7 of whooping-cough were recorded in Edinburgh; and as many as 19 deaths were referred to measles in Aberdeen.

THE MEDICAL OFFICER OF HEALTH OF BRIGHTON.

THE Brighton Town Council at their last meeting decided without dissent, on the unanimous recommendation of the Sanitary Committee, to increase the salary of Dr. Newsholme, medical officer of health, from £800 to £1,000.

FEES FOR ATTENDANCE AT ASSIZES AND FOR CERTIFYING LUNATICS.

INQUIRER.—1. We are advised that our correspondent cannot claim for evidence given at assizes on more than one of his cases. He should be paid a guinea for each day he attends, with something extra for each night he is compelled to be away from home.

2. The legal fee which can be claimed for certifying a case of lunacy as fit for an asylum is whatever the magistrate who acts in the case considers to be suitable. This he has power to order the guardians to pay. We believe one guinea is the amount most frequently ordered to be paid for this duty.

EXTRA FEE FOR FRACTURED THIGH.

LEX writes as follows: An aged pauper fell and fractured her thigh. She was attended by the union medical officer, but died within a fortnight. Is he entitled to the extra fee?

*** He is entitled to the extra fee if he held the appointment of district medical officer, but not if he was a workhouse medical officer.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

DEGREES.—At the congregation held on March 2nd, the M.B. degree was conferred on Arthur Graham Butler, B.A., of St. John's; and the M.B. and B.C. degrees on Francis Arthur Godson, B.A., of St. John's, and on Alfred Wilson Daniel, B.A., and Reginald John Willson, B.A., of Emmanuel.

MASTER OF SURGERY.—It is proposed to modify the conditions under which Masters of Arts may proceed to the degree of M.C. At present they are required to have passed the examinations for the B.C. degree before applying for permission to "incept," that is, to proceed to the higher title. In future, if the proposals of the Medical Board are adopted, it will suffice if they have three years previously become legally qualified to practise surgery. A similar provision exists in the case of the LL.M. degree, which is open to barristers and solicitors who have taken the M.A. degree.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE DUNDEE ROYAL ASYLUM.

THE total number of cases under treatment during the year ending June 20th, 1898, was 618. Of these, 242 were men and 376 women, showing an excess of 134 women. So large a proportion of females is unusual. Of the total number, 82 were private patients. The total discharged and died were 188, as against 147 admissions. The recovery rate in this asylum has always been well up to the average, and for the year under consideration stands at 45.58 as calculated upon the number admitted. The death-rate was 8.09 per cent., calculated on the whole number under treatment. In speaking of the causes of death, Dr. Rorie mentions one case in which the cause is given as typhoid fever, and he states that "in this instance the symptoms during life were very obscure, but the lesions revealed on *post-mortem* examination left no doubt as to the cause of death, so that it must have been one of the sporadic examples of this disease which from time to time are met with." This observation emphasises the oft-repeated opinion of the Commissioners in Lunacy upon the advisability of having a *post-mortem* examination upon all cases dying in lunatic asylums. A matter for congratulation is the resumption of lectures and demonstrations in mental diseases at this asylum, in connection with the Dundee University College and St. Andrews University.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.

THE children's wards of this hospital were recently reopened by the Duchess of Devonshire. After inspecting the wards, which have been painted, tiled, and decorated, the electric light installed, and a new and complete set of electrical appliances added, Her Grace was present at a meeting held in the large out-patient room of the hospital.

The Chairman addressed the meeting, calling attention to the circumstances which had led to this meeting, and called upon the Senior Physician, Dr. T. Outterson Wood, who drew attention to the large increase in the number of patients, and the excellent work being done at the hospital. He advocated a further extension of the building to meet the increased demand for in-patients' accommodation.

HOSPITAL CONVALESCENT HOME, PARKWOOD, SWANLEY, KENT.

SINCE the opening of this Home in June, 1893, the number of patients admitted up to the end of 1898 was 8,868, of whom 5,887 were men and 2,981 women. Of the 1,644 patients admitted in 1898, 424 came from the London Hospital, 418 from St. Thomas's, 296 from Guy's, 260 from Westminster, 240 from St. Mary's, and 6 from Middlesex. The closing of the Home for some weeks in March and April, 1898, for repairs and cleaning necessarily lowered somewhat the number of patients in the year. The average number in the Home daily throughout the past year was 88; the duration of the stay of each patient averaged twenty days. The benefits of the Home were bestowed upon the patients without charge of any kind except the cost of conveyance to and from the Home, that being the only payment made by the hospitals from which patients are received. The net outlay of the Home during 1898 was £5,190 8s. 2d., being an average of £3 3s. 1d. per patient, or £1 2s. 1d. per head per week. The very valuable work effected by this institution is fully appreciated by the staffs of the London hospitals, which have the privilege of sending their convalescent patients to the Home, and its value is enhanced by the fact that surgical cases, inadmissible at the majority of convalescent homes, are received there. Middlesex Hospital, having now its own convalescent home, finds that sufficient for its needs, and has surrendered its privileges at Parkwood in favour of other hospitals with greater necessities; but in doing so the Hospital Board has expressed its deep sense of gratitude for the assistance so beneficially afforded

INDIA AND THE COLONIES.

VICTORIA.

REPORT OF THE BOARD OF HEALTH.

Vaccination and Small-pox.—From the report of the Board of Health of Victoria for the year 1896-7, received recently, we learn that the percentage of successful vaccinations to the number of births after deducting from the latter the number of infants who died under the age of six months was 74.42, a decrease of 7 per cent. on the previous year. No case of small-pox has occurred inland, though several steamers arrived from the East with cases of small-pox on board. This result is attributed to quarantine regulations.

Bacteriological Diagnosis.—An arrangement has been made with the Council of the University of Melbourne whereby for the annual payment of £150 the following services were to be rendered by the Department of Pathology: Bacteriological diagnosis of cases of diphtheria, typhoid, and tubercle; a quarterly report on the Melbourne water supply in reference to the "colon bacilli"; occasional bacteriological examination of any water supply that may fall under suspicion, etc. This will meet the wants of medical practitioners and others who for some time have felt the need of a central institution where microscopical and bacteriological work required in connection with cases of patients in poor circumstances could be performed free of expense. Two samples of Yan Yean water were examined in December, 1897, and April, 1898; in the former colon bacilli were found in large numbers, while in the latter only a very few were found.

Ambulance Service.—There has been some improvement in the means for protection against communicable disease, the Councils of several of the large centres of population having provided a service for the speedy collection and destruction of the discharges of typhoid patients, and two or three of them have provided an ambulance service for cases of infectious disease.

Tuberculosis and the Milk and Meat Supplies.—The Board has also arranged for any dairy farmer to have his herd tested with tuberculin free of expense, on the understanding that any animal showing signs of disease under the test should be slaughtered. The Board have been impressing upon the Government from time to time the urgent necessity for the proper supervision of the milk and meat supplies, and a Bill has been prepared embodying these views, which it is hoped will soon become law.

Leprosy.—Two cases of leprosy were discovered in Melbourne in 1897 and were sent to the quarantine station. Two of the lepers there died and were cremated; the remaining Chinese lepers were sent back to China.

JAMAICA.

REPORT OF THE REGISTRAR-GENERAL.—From the annual report of the Registrar of Jamaica for 1898 we learn that the population for 1897-98 is estimated as 713,384. The marriage rate was 3.7 per 1,000 of the population, and that for the previous year 4.3, showing a decrease in 1897-8 to the extent of 365 marriages. The marriage rate has been steadily decreasing since the year 1893-4, and with this diminution there has been a high and increasing rate of illegitimate births. Over 47 per cent. of persons married during the year were unable to sign their names in the marriage register. The number of births shows an increase of 1,383 over the previous year, the number of illegitimate births reaching the high figure of 62.3 per 100 births. The death-rate was 23 per 1,000, an increase of 939 deaths on the previous year. Of the total deaths, 30.6 per cent. were of children under 1 year, and 44.8 per cent. of children under 5 years of age. This high rate of infant mortality is largely accounted for by the large number of illegitimate births. Over 75 per cent. of the deaths registered were not medically certified, so that the figures giving the number of deaths from different causes can hardly be reliable. The number of deaths stated to be due to old age—namely, 1,398 out of a total of 16,474—seems remarkably large, the figures for different ages being 626 at 75 years, 372 at 85, and 215 at 95 and over. Fevers unspecified were accountable for 2,758 deaths, phthisis 1,168, convulsions 1,584, and various ill-defined and unspecified causes 2,214.

MEDICAL NEWS.

PROFESSOR RAY LANKESTER has been elected a Correspondent of the Academy of Sciences of France.

A CASE of typhus fever originating at 110, Southwark Bridge Road, and admitted into Guy's Hospital, was notified on February 20th.

THE HAMPSTEAD HOSPITAL.—Sir Henry Harben has promised £3,000 for the fund for building a new hospital, provided that £14,000 is raised by June 1st. A further sum of £3,050 has already been promised.

A FRENCH "SPOOKICAL" SOCIETY.—A French analogue of the Society of Psychical Research has recently been established in France under the name of "Société d'Etudes Psychiques." The President is Professor Charles Richet, of Paris. Further information on the subject may be obtained from Dr. Joire, 42, Rue Gambetta, Lille.

ANOTHER MONUMENT TO PASTEUR.—A monument to Pasteur is to be unveiled at Lille on Sunday, April 9th. On the same day the Pasteur Institute of Lille will be formally opened. M. Viger, Minister of Agriculture (who, by the way, is a Doctor of Medicine), and M. Guillain, Minister for the Colonies, will preside at the ceremonies.

MEDICAL STUDENTS IN AMERICAN UNIVERSITIES.—The number of students in the medical department of the six leading Universities in the United States is as follows: Pennsylvania, 793; Columbia, 695; Harvard, 546; Michigan, 408; Johns Hopkins, 201; Yale, 112.

INOCULATION AGAINST ENTERIC AT LUCKNOW.—By invitation of the military authorities, Professor Wright, who is now working on the Plague Commission, paid a flying visit to Lucknow to inoculate the garrison troops against enteric fever, which continues to be very prevalent in the cantonments. The men undergoing the operation included over 300 of the 3rd Hussars, and 120 of the Cameronians, together with several officers. Thus three stations have been visited—Bangalore, Rawal Pindi, and now Lucknow.

A NEW MEDICAL SOCIETY IN PARIS.—A new society has recently been founded in Paris, the title of which, "Société d'Obstétrique, de Gynécologie et de Pædiatrie," sufficiently describes its character and objects. The President is Professor Pinard, the Vice-President, M. Terrier; the General Secretary, M. Varnier; the annual Secretaries, MM. Baudron and Legueu; the Archivist, M. Potocki; the Treasurer, M. Champetier de Ribes. Professors Hergott, of Nancy, and Moussous, of Bordeaux, were elected honorary members at the first meeting.

MEDICAL GRADUATION IN FRANCE.—During the academic year 1897-98 the total number of degrees granted by the seven medical faculties of France was 1,180. Of these 661 were conferred by the Paris Faculty, 167 by that of Lyons, 121 by that of Bordeaux, 96 by that of Montpellier, 56 by that of Toulouse, 51 by that of Lille, and 28 by that of Nancy. In 1896-97 the total number of medical degrees conferred was 1,106; in 1895-96 it was 1,059.

PURE BEER FOR NEW YORK.—A Bill to prevent the drugging of beer has been introduced into the Legislature of the State of New York by the Assembly Public Health Committee. The Bill provides that no fermented liquors known as beer, ale, or porter, in the manufacture of which any ingredient, material, substance, or element other than pure barley, malt, pure hops, or pure extract of hops, pure yeast and pure water are used, or which contain any other ingredient of any kind whatsoever, shall hereafter be manufactured or offered for sale in the State of New York, and no fermented liquor shall be sold or offered for sale which has been manufactured within three months prior to the time when sold or offered for sale. Any person or corporation manufacturing or offering for sale any beer contrary to the above provisions is to be deemed guilty of a misdemeanour, and punishable upon a conviction by a fine of not less than 500 dols. (£100), nor more than 3,000 dols. (£600), and for each additional offence by imprisonment for not less than one month nor more than one year. Any retailer violating the provisions of the Bill relative to the sale of the inhibited beer shall be punishable by a fine of not less than 50 dols. (£10) nor more than 200 dols. (£40), and upon a second conviction shall forfeit his liquor-tax certificate.

SKILLED NURSING IN SOUTH LONDON.—We have nothing but praise for the work of the South London District Nursing Association, the fifteenth annual meeting of which was recently held at 13, Carlton House Terrace, by kind permission of Sir Edwin and Lady Durning-Lawrence. During the epidemic of influenza through which we are still passing many of our readers must have noticed how much more favourably situated for progress and recovery were those families in which skilled nursing was available, and the object of this Association is to bring within the reach of the poorest what would otherwise be one of the luxuries of the rich. Seven nurses and a superintendent constitute the staff of the home at Battersea, from which more than 23,000 visits have been made to the homes of the South London poor; and if more generous public support were given to the Association, these numbers might be largely increased. We trust, with the speakers at the annual meeting—Bishop Barry, Sir W. Broadbent, and Mrs. Garrett Anderson—that this may shortly be the case.

Alcohol and the French Army.—The growing consumption of alcohol by certain classes in France is causing a certain amount of anxiety to the military authorities, evidenced by a series of posters which have been placed in all the barracks of the garrison of Paris, which clearly expose to the eyes of the soldier the ravages produced by alcohol on the human system. These bills, exhibited in the dormitories, lavatories, and dining rooms, show the internal organs of a person addicted to drink, and those of a sober healthy man. These diagrams are accompanied by a notice which enumerates the effects of alcohol from pathological and moral standpoints.

International Congress for the Protection of Infants.—An International Congress on matters relating to the protection of infants is to be held in Buda-Pesth under the patronage of His Imperial and Royal Highness the Archduke Joseph in the second half of September, 1899. It is to last five days. The last meeting of the Congress was held in Florence in 1896. The Medical Section, which is to be presided over by Professor Bokaï Janos, will discuss the following questions:—(1) Hygiene of the infant in the family; (2) assistance for foundlings and for children morally deserted or poor; (3) the care of children suffering from disease or having some bodily defect; (4) playgrounds and places of recreation; (5) hygiene in schools; (6) hygiene of persons under age in various industries or forms of labour; (7) alcoholism. In addition to the medical there will be legal, pædagogic, charitable, and philanthropic sections.

The New York Post-graduate Medical School.—The sixteenth anniversary of the New York Post-graduate Medical School and Hospital was celebrated on January 5th, among the speakers being Dr. St. John Roosa, Dr. George N. Miller, and Professor A. M. Phelps. Dr. Phelps stated that since the founding of the School in 1882 over 6,000 medical men had passed through it. Last year the number of entries was 523; this year it was expected that they would exceed 600. From a single room in 1882 the institution had grown till now it had a magnificent building with 175 medical and surgical wards; a lying-in department; dispensaries where there were treated over 20,000 patients a year; babies' wards said to be more perfectly equipped than any other babies' wards in the world; an orthopædic ward in which 1,000 crippled children were treated in the course of the year; machine shops, where braces, etc., for deformed children were made; besides laboratories and various departments for scientific study.

The Roentgen Rays in Spain.—A laboratory for the application of the Roentgen rays was opened in Madrid under the name of Instituto Radiografico de España on February 20th. The institute, the installation and equipment of which are on a magnificent scale, is said to have cost some two million pesetas (£80,000). We gather from the *Siglo Medico* that the impression produced by the size of the place, the luxurious manner in which it is fitted up, and the wealth of apparatus which it contains, on the large assembly of medical men and journalists who were present at the opening, was one akin to stupefaction. The Director of the Institute is Dr. Mezquita. In view of the statements that have appeared as to the grave financial position of Spain, one can hardly help wondering where the large sum of money mentioned above was obtained; but however it may have been got, it must be admitted that it has been applied for a useful purpose. If money on a proportionate scale is forthcoming for medical institutions generally, Spain, even if she dies politically, according to Lord Salisbury's cheerful prognosis, has a vigorous scientific life before her.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum, with board and lodging. Further sum of £20 to £25 per annum is usually obtained in fees. Applications to the Chairman of the Weekly Board by March 21st.

BIRMINGHAM: GENERAL HOSPITAL.—Two Assistant House-Physicians. Appointments for six months. Residence, board, and lodging provided. Applications to the House Governor by April 1st.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence £50 per annum, with board, lodging, washing, etc. Applications to the Secretary, 15, Richmond Terrace, Blackburn, by March 25th.

BRISTOL CITY HOSPITALS.—Resident Medical Officer at the Ham Green Fever Hospital. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. D. S. Davies, Public Health Offices, 40, Prince Street, Bristol, by March 18th.

HARING CROSS HOSPITAL, W.C.—Assistant-Physician and Applications to the Secretary by March 21st.

CHARING CROSS HOSPITAL.—Assistant Anæsthetist. Applications to the Superintendent by March 15th.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon. Salary, £80 per annum, with residence and maintenance. Applications to the Chairman of the Board of Management, 29, Eastgate Row North, by March 23rd.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House-Surgeon; unmarried. Salary, £100 per annum, with furnished rooms and attendance. Applications to the Secretary by March 20th.

CITY OF LONDON UNION INFIRMARY.—Dispenser at the Infirmary, Bow Road, E., between 25 and 40 years of age. Salary, £100 per annum, with dinner and tea daily. Applications, on forms provided, to be sent to the Clerk to the Guardians, 61, Bartholomew Close, E.C., by March 18th.

COVENTRY AND WARWICKSHIRE HOSPITAL, Coventry.—Assistant House-Surgeon. Appointment for six months, subject to re-election. Salary at the rate of £50 per annum, with rooms, board, washing, and attendance. Applications to the Secretary by March 11th.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by March 20th.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer; unmarried, and not more than 26 years of age. Salary, £100 per annum, with board and residence. Applications to the Medical Superintendent.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Anæsthetist. Applications to the Secretary by March 20th.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL, Leicester Square.—Demonstrator in Dental Histology, Honorarium of £25 a year. Applications to the Dean by March 21st.

DINORWIC QUARRIES HOSPITAL, Llanberis.—Assistant Surgeon. Salary, £150 per annum, outdoor, and one half midwifery fees attended by him. Applications to R. H. Mills-Roberts, Dinorwic Quarries Hospital, Llanberis.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Board and residence provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 18th.

EDINBURGH UNIVERSITY.—Professor of Physiology. Applications to R. Herbert Johnston, W.S., Secretary, 66, Frederick Street, Edinburgh, by May 20th.

ESSEX COUNTY ASYLUM, Brentwood.—Junior Assistant Medical Officer; unmarried, and not over 26 years of age. Salary, £120 per annum, with board, residence, and washing. Applications to the Medical Superintendent by March 14th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GREAT NORTHERN HOSPITAL.—Surgeon to In-patients; must be F.R.C.S. Junior House-Surgeon. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Also Assistant Anæsthetist. Appointment for six months, but eligible for re-election. Honorarium at the rate of 10 guineas per annum. Applications to the Secretary for the first by March 15th and for the latter two by March 20th.

GROVE HALL ASYLUM, Bow, E.—Junior Assistant Medical Officer. Salary at the rate of £120 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Assistant Physician and Resident House-Physicians. Applications to the Secretary, for the former by March 22nd, and for the latter by March 20th.

KING'S COLLEGE, London.—Sambrook Surgical Registrar and Assistant Ophthalmic Surgeon at King's College Hospital. Applications to the Secretary for the former by March 13th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium £42 for twelve months, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by March 20th.

LIVERPOOL NORTHERN HOSPITAL.—Resident House-Surgeon's Assistant. Appointment for six months, subject to re-election. No salary. Board and lodging provided. Applications to the Chairman by November 24th.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar. Salary, £100 per annum. Applications to the House-Governor by March 16th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Residence, board, and washing provided, and honorarium of 5 guineas. Applications to the Secretary by March 16th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician, and Assistant House-Surgeon. Appointments for six months. The two former will receive salary at the rate of £40 per annum, and the two latter at the rate of £20 per annum. Applications to the Secretary by March 13th.

MONMOUTHSHIRE ASYLUM.—Third Assistant Medical Officer: under 30 years of age. Salary, £100 per annum, increasing to £150, with board, lodging, and washing. Applications to the Medical Superintendent, Abergavenny, by March 23rd.

NORTH ORMESBY, MIDDLESBROUGH: THE HOSPITAL.—House-Surgeon. Non-resident; unmarried. Salary, £20 per annum. Applications to the Secretary by March 21st.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Director of Conjoint Laboratories. Applications to the Secretary, Examination Hall, Victoria Embankment, W.C., by March 15th.

ST. JOHN'S WOOD AND PORTLAND TOWN PROVIDENT DISPENSARY, N.W.—Third Medical Officer. Applications to the Secretary, 1, Henstridge Villas, St. John's Wood, by March 24th.

ST. MARY'S HOSPITAL, Paddington, W.—Surgeon for Diseases of the Ear. Applications to the Secretary by March 17th.

SEAMEN'S HOSPITAL SOCIETY (DREADNOUGHT), S.E.—House-Surgeon for the Branch Hospital, Royal Victoria and Albert Docks. Salary, £50 per annum, with board and residence. Applications to the Secretary by March 20th.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to the Medical Staff of the Royal Infirmary, Sheffield, care of the Secretary, by March 22nd.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House-Surgeon. Appointment for six months. Gratuity £10. Applications to the Secretary by March 23rd.

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Junior Assistant Medical Officer, unmarried and under 30 years of age. Salary, £100 per annum, rising to £150, with furnished apartments, board, etc. Applications to the Medical Superintendent.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by March 15th.

STOCKPORT INFIRMARY.—Assistant House-Surgeon and Visiting Surgeon. Salary, £70 per annum, with board, washing, and residence. Applications to the Secretary by March 14th.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £50 per annum, with board, apartments, washing, and attendance. Applications to the Secretary by March 21st.

TOTTENHAM HOSPITAL.—Resident Medical Officer. Salary, £60 per annum, with board, lodging, and washing. Applications to the Honorary Secretary.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Applications to the Secretary-Superintendent by March 22nd.

MEDICAL APPOINTMENTS.

BROWN, R., M.B., appointed Medical Officer of Health to the Blaydon Urban District Council.

HANLY, John Joseph, M.A.R.U.I., L.R.C.P., L.R.C.S., L.M.Edin., appointed Medical Officer and Public Vaccinator for [illegible] Sanitary District of the Shepton Mallet Union, *vice* L. Powell, M.R.C.S.) ng., L.R.C.P.Edin. resigned.

HOFFMAN, Arthur, M.D., appointed Medical Officer of Health to the Knighton Rural District Council, *vice* R. F. Cox, resigned.

JONES, F. F., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the No. 2 District of the Bath Union, *vice* H. C. Hopkins, M.R.C.S.Eng., L.R.C.P.Edin., resigned.

KEMPE, G., M.D., B.S., appointed Surgeon to the Salisbury Infirmary, *vice* J. Kelland, M.B., C.M.Edin., resigned.

KERR, J. L., M.D., appointed Medical Officer for the Biddenden District of the Tenterden Union.

MACKENZIE, Ernest, M.D.Glasg., appointed 'Medical' Officer of the Workhouse and Cheadle District of the Cheadle Union.

MILLER, Victor, M.B., C.M.Edin., appointed Ophthalmic Surgeon to the North Ormsby Hospital, Middlesbrough-on-Tees.

NOTT, Captain A. H., M.B., M.R.C.S., I.M.S., appointed Clinical Assistant to the Chelsea Hospital for Women.

THURNELL, Herbert Leslie, M.A.Cantab., M.R.C.S., L.R.C.P., L.S.A., appointed Public Vaccinator for the whole District of Gravesend and Milton.

WILLIAMS, F. E., B.A.Camb., M.R.C.S., L.R.C.P., appointed Medical Officer for the Sixth District of the St. Neots Union.

WILLIAMS, W. R., L.R.C.P., L.R.C.S.E., appointed Surgeon to the Bryneglwys Slate Quarries, *vice* A. O. Davies, resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Mr. John Langton: Radical Operation for Inguinal Hernia—and afterwards.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. G. L. Cheatle: The Treatment of Wounds and their Complications. (Lecture I).

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture I.)

TUESDAY.

Royal College of Physicians of London, 5 P.M.—Dr. G. E. Murray: On the Pathology of the Thyroid Gland. (Goulstonian Lecture III.)

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Taylor: Syphilitic Diseases of the Nervous System.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Mr. H. Work Dodd: Cases of Visual Disorder in Relation to Diseases of the Nervous System.

Royal Medical and Chirurgical Society, 8.30 P.M.—Dr. T. R. Bradshaw and Dr. W. B. Warrington: On the Morbid Anatomy and Pathology of Dr. Bradshaw's Case of Myelopathic Albumosuria. Mr. G. H. Makins: On Prevesical Hernia, with the Relation of a Case in which Subacute Strangulation occurred.

WEDNESDAY.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture II.)

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M.—Dr. Biss: On Chronic Pneumonia.

Evelina Hospital, S.E., 4.30 P.M.—Mr. Sydney Carpenter: Clinical Demonstration on Ophthalmic Cases.

Royal Microscopical Society, 20, Hanover Square, W., 8 P.M.

Royal Meteorological Society, 25, Great George Street, Westminster, S.W., 7.30 P.M.

North-West London Clinical Society. North-West London Hospital, Kentish Town Road, 8.30 P.M.—Annual General Meeting: Election of Officers: Demonstration of Cases.

THURSDAY.

Royal College of Physicians of London, 5 P.M.—Dr. Samuel Gee: On the Causes and Forms of Bronchitis. (Lumleian Lecture I.)

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr Still: Demonstration of Selected Cases.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. William Hunter: Pathological Demonstration.

Harveian Society of London, 8.30 P.M.—Dr. Mouillot: Modern Views on Gout in Relation to Treatment.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. G. L. Cheatle: The Treatment of Wounds and their Complications. (Lecture II.)

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr. Dockrell: Cases of Purpura and other Hæmorrhagic Affections.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

FRIDAY.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture III.)

Epidemiological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Dr. W. H. Crosse: On Blackwater or Hæmoglobinuric Fever.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 P.M.—Papers by Mr. H. Bellamy Gardner, Mr. A. Granville, and casual communications.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

ANGUS.—On March 2nd, at Bingley, Yorkshire, the wife of Henry Angus, M.D., of a son.

BATES.—On March 5th, at Lingfield Road, Wimbledon, the wife of J. Edwin Bates, M.B., of a son.

FULLER.—On March 4th, at 7, Oxford Row, Bath, the wife of A. Leonard Fuller, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

LEWIS-HUGHES.—On March 5th, at Gwernllwys Home, Dowlais, Glam., the wife of H. Lewis-Hughes, L.R.C.P.Edin., L.R.C.S.Edin., of a son.

SHAW-MACKENZIE.—On March 4th, at 31, Grosvenor Street, W., the wife of John A. Shaw-Mackenzie, M.D.Lond., of a son and daughter.

TABOR.—On March 2nd, at 5, Pulteney Street, Bath, the wife of Charles J. Tabor, M.B., M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

MORTON—MACPHERSON.—On February 28th, at Christ Church, Bayswater, by the Rev. C. Ridgeway, William Britain Morton, M.D.Lond., of Brislington, eldest son of William Morton, Esq., of Gayles, Yorks., to Louisa Elizabeth, daughter of the late Hon. John A. Macpherson of Melbourne.

ARSONS—HUNTER.—On February 20th, at Christ Church, Claughton, by the Rev. Canon Robson, Christopher Thackeray Parsons, M.D.Lond., of Hayle, Cornwall, to Amy second daughter of James Hunter of Liverpool.

DEATH.

RODGERS.—February 21st, at Ross, suddenly, Marshall Prime Rodgers, L.R.C.P., L.R.C.S., youngest son of the late J. M. P. Rodgers of Queniboro Lodge, Leicester. Deeply regretted. Interred at Ross, February 25th.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F.S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p. daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, 1.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.* M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F., 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F., 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations* —M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Tu., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Tu. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu., F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

S. I P.A. would be glad if some member (qualified before 1890) who has recently obtained the D.P.H.Camb. or Royal Colleges will say how much bacteriology is required; also, what book should be read.

M.B. asks for suggestions in the treatment of the following case: A gentleman with lachrymal obstruction has had the canal dilated (the canaliculus being slit up). The lachrymal secretion still refuses to pass through the dilated canal.

VRILYA (Edinburgh) asks to be recommended textbooks to read on surgery and surgical applied anatomy for the Final Examination of the Conjoint Board in London for M.R.C.S., L.R.C.P.

*** Any of the ordinary textbooks of surgery will answer the purpose of our correspondent. The works of Erichsen, of Walsham and of Rose and Carless are perhaps the books most used by the London medical students at the present time. The surgical anatomy may be read in the books by Sheild or McLachlan, but special stress is laid on the ability of the student to apply bandages, and to mark out the chief anatomical structures upon a living subject. Evidence has also to be produced that the candidate has personally performed surgical operations upon the dead body, and for this course Waring's *Manual of Operative Surgery* is recommended.

SEA AIR FOR ECZEMA.

P. P. asks for opinions as to the least irritating sea air for a case of eczema (gouty or syphilitic?) in a patient living in a high and dry part of East Anglia. Is the air of the sea really so injurious to these cases as one is taught to believe? Buxton and Harrogate seem to make this case worse.

HOSPITAL FLOORS.

INFIRMARY would be glad to learn the results of experience of linoleum for covering the wooden floors of hospital wards after the floor has become worn and rough. 1. Is linoleum suitable from a sanitary point of view? 2. Does it allow dust to accumulate and lodge underneath? 3. Do the bedsteads wear it out soon?

TUBERCULOUS CYSTITIS.

W. B. asks for advice as to treatment of the following case:—A deceased surgeon diagnosed as tuberculosis by aid of the microscope a case of cystitis of eight years' standing in a female. He made an opening above the pubes, cauterised the bladder, and drained it. The opening has refused to heal in spite of three further operations and injections of tuberculin. It is now three years since the operation. A catheter has been tied in repeatedly, and the wound will heal at times, but always breaks down again.

A LARGE CHILD.

MR. J. WRIGHT-GRANT, M.B. (Woburn Sands), writes: A few days ago my colleague and I delivered a lady of her first child, which at birth scaled 13 lbs. all but an ounce. Forceps failed to effect its delivery. It was only by turning (the mother being well under chloroform all the time) that we were able to get this huge child away. I should like to know if this is an unusual weight for a newly-born infant.

*** The weight is no doubt unusual, but cases are on record in which it has been much exceeded. Thus in Dr. Luff's *Textbook of Forensic Medicine and Toxicology*, vol. ii, page 192, we read: "The following are two instances in which the length and weight of children born at full term have considerably exceeded the average. Davies records a case in which a child was born alive weighing 19 lbs. 2 ozs. Ortega delivered a woman of a stillborn child which measured 27 ins. in length and weighed 24¾ lbs.

INFLUENZA AND TYPHOID FEVER.

DR. WILLIAM DOBIE (Keighley) writes: I should like to ask if any of your readers have observed cases the result of combined typhoid and influenzal poisons. Two cases have recently come under my notice that have suggested this idea. The onset was distinctly influenzal, that is, sudden seizure with headache, backache, rapid prostration, and other recognised symptoms of influenza. In the first case there was nothing to point to typhoid until the second week, when a few rose-coloured spots appeared, accompanied by diarrhœa and characteristic stools. Fortunately in this case the typhoid aborted. There were no serious chest symptoms. In the second case there was the same sudden seizure and symptoms of influenza, followed by broncho-pneumonia, but it was not possible until well into the third week to diagnose typhoid, that is, there were no spots and in place of diarrhœa, for a week obstinate constipation and no distension of abdomen, nor did the tongue at all suggest typhoid.

ANSWERS.

RECENT MEMBER.—We do not see why our correspondent should have any hesitation in accepting the assurance given.

PRACTITIONER.—The best way of removing permanently a great number of superfluous hairs from the chin is by electrolysis.

MEMBER B. M. A.—The circular is not in the best taste, but if it is only to the patients of the firm we do not feel justified in expressing any more definite opinion.

J.B.—Such misunderstandings between neighbouring practitioners are much to be regretted. The right of a patient to select his own medical attendant cannot be disputed.

W. B. D.—There is no home for such a case except at rates of 2 or 3 guineas a week, and therefore probably beyond the means of the patient in question. The alternative would be "voluntary boarding" in a lunatic hospital.

DIAGNOSIS.—The opinion expressed as regards the varicocele is probably quite correct. The question of potency is one about which an opinion should be formed only after careful consideration of all the circumstances of the particular case.

E. J. C.—It is so desirable to encourage self-help in all forms that medical practitioners are justified in accepting terms for making the necessary examination for small policies for assurance, which it must be recognised are not any adequate remuneration for the services rendered.

B. W.—We know of no book on the use of oxygen in pneumonia, but our correspondent will find various references in recent volumes of the BRITISH MEDICAL JOURNAL. As to the mode of administration we may refer him to Mr. George Stoker's letter in the JOURNAL of March 4th, page 559, and to the letter at page 635.

N. H. E. S.—We may refer our correspondent to a paragraph which appeared, under the heading of The British Medical Association and the Colonial Office, in the BRITISH MEDICAL JOURNAL of January 21st, p. 166, for an expression of our views upon the main point at issue. With regard to liabilities under the existing law, we are not in a position to express any opinion. The matter should be referred to a lawyer practising on the spot.

INQUIRER.—It is the duty of any practitioner, whether a newcomer or not, to ascertain whether the intended change has been communicated to the previous medical attendant. This should certainly be done by the patient as a matter of common courtesy. The neglect to do so is a frequent source of friction between members of the medical profession; such friction can be avoided only by the establishment of a good and friendly understanding among those who practise in the same neighbourhood.

"SPHINX" sends us a card of a sick and dividing club which has a rule permitting the committee at their discretion to allow a member to obtain the services of a bonesetter and to pay for the same out of the club funds. If the club wished occasionally to consult an astrologer or a professor of palmistry we presume it would be perfectly at liberty to do so. It is lamentable that the public should be so ignorant and the law so weak. Still it seems plain that no bonesetter is an officer of the club.

R. M. H.—Two guineas would, we think, be ample for our correspondent to charge for the services rendered. He made a mistake, in our opinion, in remaining to see the body conveyed to the mortuary after he had made the necessary examination. Subordinate officials, both railway and police, are ready enough to ask for services to be rendered without much thought as to how they are to be paid for, but a longer experience of both will teach our correspondent to take their suggestions for what they are worth.

BOOKS ON HEREDITY.

C. F.—Our correspondent might consult *Hereditary Genius*, an *Inquiry into its Laws and Consequences*, by Francis Galton (London: Macmillan and Co. 1892. 7s.); Weismann's *Essays upon Heredity and Kindred Biological Problems*, authorised translation by E. B. Poulton, F.R.S., 2nd edition (Oxford: Clarendon Press. 1891-2. Vol. i. 7s. 6d. Vol. ii, 5s.).

THE RISK OF HYDROPHOBIA AFTER TREATMENT.

A. J. A.—We are advised that if the patient has been discharged from the Pasteur Institute, and has developed no symptoms of any kind up to date, not only is there little fear of his communicating hydrophobia through his saliva to anyone else, but practically his mind may also be set at rest about his own case. Experience goes to show that the patient is now out of danger.

THE CLIMATE OF BRITISH NORTH BORNEO.

A. Z. O.—The climate of British North Borneo compares very favourably with that of some neighbouring countries. It is equable, and is not liable to the trying changes that occur in places further removed from the equator. There is a considerable British settlement in Borneo, and life there is by no means uninviting. A good description of Borneo is to be found in *Her Majesty's Colonies* (Wm. Clowes and Sons, 13, Charing Cross, London, W.C.), pp. 462-468.

PREGNANCY IN CASES OF UTERINE MYOMA.

COUNTRY DOCTOR.—Fibroids occupying the lower part of the uterine body may form very serious obstacles to delivery, owing to the impossibility of securing proper dilatation of the cervix. The chances of inducing premature labour with a successful result as regards the child are probably small. The best method to employ, however, if this course be decided upon, is the use of Champetier de Ribes's bag. Directions for the use of this appliance were given by Dr. Herman and Dr. Herbert Spencer in the BRITISH MEDICAL JOURNAL of January 7th, 1893, p. 5, where also will be found a discussion on the subject. Recent editions of all textbooks of obstetrics describe these bags. The child will have the best chance of surviving if an incubator be used; a convenient one is that supplied by Hearson of Regent Street. Directions bearing on the dieting and general hygiene of premature infants will be found in Ashby's *Health in the Nursery*.

EDUCATION OF DEAF-MUTES.

MR. K. LUNN (London, N.) writes: In reply to "Stapes," may I suggest that the boy be sent to the Normal School (at 11, Fitzroy Square) for the Deaf? This school is non-residential, but the pupils are boarded out in private families, under the supervision of a boarding-out committee—this plan being considered far preferable to that of boarding a number of deaf children together. The fees, both for tuition and residence, depend on the means of the parents. All particulars may be obtained from the Director, at 11, Fitzroy Square, London, W.

BOOKS ON FIRST AID.

F. H. G.—The number of books published as guides to lectures on first aid is legion. The following are well known: Shepherd's *First Aid to the Injured*, published by the St. John Ambulance Association (their textbook); *First Aid to the Injured*, by Dr. H. W. Gell, published by Allman for the National Health Society, price 2s.; *First Aid to the Injured*, by Dr. E. J. Lawless (Pentland, Edinburgh and London).

CHILBLAINS.

L. M. D. writes: As a severe sufferer from unbroken chilblains, erythema pernio, allow me to note that I have for years found the liniment suggested in *The Young Practitioner*, page 257 (London: Mr. H. K. Lewis), to be a very effective application and to afford more or less immediate relief.

The prescription referred to by our correspondent is as follows: R aconitiæ, gr. ss; atropiæ, gr. ss; spiritûs rectificati, ʒj; morphiæ hydrochloratis, gr. ij; linimenti potassii iodidi cum sapone, ʒij; olei amygdalæ amaræ, miij. Tere bene simul. Fiat linimentum cujus paululum (ʒi–ʒss) parti affectæ infricetur, nocte maneque.

NOTES, LETTERS, Etc.

THE CLINICAL RESEARCH ASSOCIATION.

DR. J. W. WASHBOURN (Cavendish Place) writes: As I am constantly receiving letters with reference to specimens sent to the Clinical Research Association for examination, I should like to point out that I have never been on the staff of this body, and indeed am not even a subscriber. By allowing this statement to appear in the columns of the BRITISH MEDICAL JOURNAL you will save me considerable trouble in replying to letters about matters in which I am in no way concerned.

THE NATIONAL DRINK BILL.

IN the columns of the *Times*, Dr. Burns, who, since the death of Mr. Wm. Hoyle in 1886, has annually presented in a letter to our contemporary an account of the drink bill for the preceding twelve months, has set out the expenditure on alcoholic intoxicants during 1898. The total amount was £154,480,934. As the population was officially estimated at 40,188,927, this was equivalent to an expenditure of £3 16s. 10½d. for each individual. It is encouraging, in the interests of the general sobriety to note that, though this was a total annual alcoholic disbursement of £7,192,175 more than in 1876, the increased population of 1898 showed an average alcoholic cost for each person of 12s. 1½d. less, the average in 1876 having been £4 0s., as against £3 16s. 10½d. during last year.

The expenditure on alcoholic beverages varied somewhat in the three great divisions of the United Kingdom. In England last year the average cost per head was £4 2s. 2½d.; in Scotland £3 1s. 1½d.; and in Ireland £2 14s. 10½d. There was an increase over 1897 of £2,087,642 in England, and of £115,602 in Ireland; while in Scotland there was a decrease of £4,032.

IDIOSYNCRASY IN REGARD TO EGGS.

W. R. writes: I shall feel obliged if any of your readers will kindly say if they have met with any case similar to the following which has recently come under my observation. A young lady, otherwise perfectly healthy, has symptoms of acute poisoning on any occasion on which she takes egg in any form and in the minutest quantity, the severity of the attack being in proportion to the amount which has been taken. Almost immediately after it has been swallowed she has rigors and vomiting, and in a very short time the tongue becomes parched and dry, the throat sore, and there is severe headache and pain in the back. The very smallest quantity of egg, no matter how disguised in any other form of food, will produce the symptoms, more or less severe. The symptoms may continue from a few hours to two days. A tiny particle of the white placed on the skin produces nettle rash.

*** We believe that the idiosyncrasy is not very uncommon, though this appears to be a very extreme example.

A COINCIDENCE IN MIDWIFERY PRACTICE.

MR. J. S. PURDY, M.B., C.M.Aberd. (Ashington, Northumberland) writes: On February 2nd, 1899, I was in attendance at two labours, and both the infants presented spina bifida. The first mother was a multipara, with narrow conjugate diameter, requiring instrumental delivery; the child survived twelve hours. On inquiry into the family history, the fact was elicited that an aunt on the mother's side had given birth to a child with a similar malformation. The first child of this woman was in perfect health, aged 3 years. On the evening of the same day I was summoned to attend a woman, who was delivered shortly after midnight. I was surprised to find the child was also afflicted with a well-marked lumbo-sacral spina bifida. This child is still living, the only symptom being paralysis of the sphincters. The second mother has a child, aged 7 years, with spina bifida and a meningocele about the size of a cricket-ball. The latter case was treated by Morton's injection without any permanent benefit. This child is paraplegic, though healthy in other respects.

TREATMENT OF TROPICAL HÆMOGLOBINURIA.

DR. VINCENT FFRENCH-MULLEN (District Medical Officer, Plantain Garden River, Jamaica) writes: During a practice here of some twenty years I have seen but three cases of blackwater fever. In each case the fever was of the remittent type. I treated them with an alkaline mixture, and gave quinine freely. The urine quickly cleared up, and in a few days my patients were convalescent. I noticed that they took much longer to recover their strength than cases of remittent fever in which hæmoglobin was absent from the urine. The type of fever as seen by Dr. Cross must differ from that seen by me, as I feel certain the treatment suggested by him would not have been sufficient in my cases. I remember some years ago attending a negro for hæmoglobinuria which had persisted for some weeks ere I saw him. As he lived in a swampy place I am of opinion the cause was malaria, though he had not suffered from fever for some time before coming to me. A change of residence and liquor ferri perchloridi in doses of mv soon restored him to health.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Dr. B. Addy, Southport; Mr. A. E. Aspinall, London; Mr. T. Aquino, Sholapore; Dr. L. Atthill, Dublin; Professor T. Clifford Allbutt, Cambridge; Mr. A. B. Avarne, Blaenavon. **B** Messrs. Burroughs, Wellcome and Co., London; Dr. E. Boix, Paris; Mr. M. R. J. Behrendt, Scunthorpe; Dr. G. G. Bantock, London; Professor de B. Birch, Leeds; Mr. F. Broadbent, North Collingham; Mr. W. F. Brook, Swansea; G. Birt, M.B., Stourbridge; Mr. C. Biddle, Merthyr Tydvil; Mr. W. Berry, Wigan; W. C. Burns, M.B., Wells; Berkefeld Filter Company, London; Dr. J. B. Bird, Carlisle; Mr. P. D. Barker, Colchester; Mr. J. Bigwood, M.P., London; J. F. Bullar, M.B., Southampton. **C** Mr. H. B. Collins, Kingston-on-Thames; Mr. J. W. S. Christie, Stafford; Correspondent; Mr. C. Challinor, Leigh; Mr. F. W. Collingwood, Hastings; Dr. A. Cohen, London; Messrs. J. and A. Churchill, London. **D** Dr. A. T. Davies, London; Mr. W. B. Darroll, Leintwardine; Dr. W. Dobie, Keighley; Mr. E. S. S. Davis, St. Blazey. **E** W. Edmunds, M.B., London; Mr. F. H. Edmonds, George Town, Demerara; Mr. F. Elvy, Eastbourne; Dr. R. Eager, Bristol; Dr. W. Ewart, London. **F** Dr. P. J. Freyer, London; Messrs. Fassett and Johnson, London; Mr. T. K. Freeman, London; Mr. C. Franks, North Collingham; Dr. N. R. Finsen, Copenhagen; Mr. R. V. Flood, Newark; P. Flemming, M.B., London; Mr. G. H. Frost, London; Mr. A. B. Francis, Carrickfergus; Dr. V. ffrench-Mullen, Plantain Garden River, Jamaica. **G** Mr. A. Greenwood, London; Sir W. T. Gairdner, Glasgow; Mr. F. H. Gervis, London; Dr. L. G. Guthrie, London; J. W. Grant, M.B., Woburn Sands; Dr. S. J. Gee, London; Mr. T. W. H. Garstang, Knutsford. **H** Mr. B. Heckstall-Smith, London; Mr. J. J. Hanly, Mendip; Dr. T. B. Hyslop, London; Dr. R. G. Hebb, London; Heretic; Mr. C. T. Holland, Liverpool; Dr. A. B. Hill, Birmingham; Mr. C. Heath, London; Hairsplitting; Mr. F. Haydon, London; Mr. J. T. Harthill, Willenhall. **I** Infirmary. **J** Mr. H. H. Jennings, London; Dr. A. Johnston, Glasgow; Dr. J. Johnston, Bolton; R. Johnson, M.B., London; Mr. E. H. Johnston, Edinburgh. **K** L. Knuthsen, M.B., Falmouth; Mrs. Kingsley-Hunter, London; Dr. L. W. A. Keiffenheim-Trubridge, Hoo. **L** Dr. R. Livi, Rome; Mr. J. C. Lloyd, Lewes; L.S.A.; L.R.C.P.Edin.; Dr. P. Letters, Valencia Island; Mr. K. Lunn, London. **M** M.R.C.P.; Mr. F. H. May, Birmingham; Dr. T. Mitchell, Gorscinon; F. C. Madden, M.B., Carro; M.B., C.M.; Dr. H. L. McKisack, Belfast; Member B. M. A.; Dr. C. J. Morton, Walthamstow; B. G. A. Moynihan, M.B., Leeds; J. Macintyre, M.B., Glasgow; Mars; W. Mitchell, M.B., Bradford; T. H. Morris, M.B., Tylorstown; Dr. G. R. Murray, Newcastle-on-Tyne; Mr. K. B. Murray, London; Mr. F. H. Madden, London; V. Miller, M.B., Stockton; M.D.Lond.; C. Martin, M.B., Birmingham; Mr. E. Merck, London; M.B. **N** Mr. W. S. Newton, Stockport; Mr. A. Newall, Newcastle-on-Tyne; National Deposit Friendly Society, the Secretary of the, London; Nottingham Medico-Chirurgical Society, the Secretary of the, Nottingham; Mr. N. H. Nixon, London. **P** Dr. J. E. Platt, Manchester; Mr. G. Pernet, London; J. C. Potter, M.B., Spennymoor; Mr. W. M. Palmer, Royston; P. P.; W. T. Prout, M.B., Freetown, W. Africa; Puzzled; Messrs. Potter and Clarke, London; Mr. T. Partridge, Stroud; Practitioner; Mr. F. G. Parsons, London. **R** Mr. T. Robinson, Clonakilty; R. M. H.; Dr. G. D. Robinson, London; Dr. H. C. Rose, London; Mr. J. H. Ross, Bishop Stortford; Mr. A. Roche, Dublin. **S** Mr. R. C. Saunders, London; Mr. G. A. G. Simpson, London; Salop; Dr. W. K. Sibley, London; T. Stevenson, M.B., Liverpool; Dr. W. Sellers, jun., Radcliffe; Surgeon-General (Retired); Dr. H. Snow, London; W. W. Sinclair, M.B., Ipswich; Dr. J. F. J. Sykes, London; Mr. N. S. Smith, Passage West; Dr. J. B. Sanderson, Oxford; Mr. H. Sell, London; Dr. S. Sunderland, London; S.I.P.A.; S. W. W.; Dr. J. L. Smith, Belfast; J. B. Shaw, M.B., Selkirk; Messrs. Street and Co., London; Dr. A. J. Sharp, Whitby; Mr. T. D. Sewell, London; S. S. M. S. **T** Mr. W. Toogood, London; Tasmanian Eucalyptus Oil Company, London; T. S. Tuke, M.B., London; Mr. H. J. Towlson, Barrowden; Mr. O. B. Thomas, London; Mr. W. Thornthwaite, London. **V** Mr. V. C. J. Vanderstraaten, Galle, Ceylon. **W** Dr. S. West, London; Would-be I.P.S.; F. Wyatt-Smith, M.B., Reigate; Dr. B. Walker, Kirkby-Stephen; Dr. W. Whitla, Belfast; W. L.; Sir H. T. Wood, London; Dr. F. Willcocks, London; Mr. H. R. Wilson, London; Messrs. W. Watson and Co., London; Mr. W. R. Williams, Machynlleth; Dr. T. J. Wood, Bradford. **X** X. **Y** Dr. M. Young, Crewe; etc.

BOOKS, ETC., RECEIVED.

Kirkes's Handbook of Physiology. By W. D. Halliburton, M.D., F.R.S. Fifteenth Edition. London: John Murray. 1899. 14s.

The Essentials of Chemical Physiology. By W. D. Halliburton, M.D., F.R.S. Third Edition. London: Longmans, Green and Co. 1899. 5s.

Zeitschrift für diätetische und physikalische Therapie. Redigirt von E. von Leyden und A. Goldscheider. Zweiter Band, Viertes Heft. Leipzig: Georg Thieme. 1899.

On Fractures and Dislocations. By Dr. H. Helferich. Translated from the Third Edition (1897), with notes and additional illustrations by J. Hutchinson, jun., F.R.C.S. London: New Sydenham Society. 1899.

The Resources of the Sea. By W. C. McIntosh, M.D., LL.D., F.R.S. London: C. J. Clay and Sons. 1899. 15s.

Ueber den Abortus. Von Dr. O. Piering. Berlin: H. Kornfeld. 1899.

The Microscope: its History, Construction, and Application. By J. Hogg, M.R.C.S., F.R.M.S. Fifteenth Edition. London: George Routledge and Sons. 1898. 10s. 6d.

The Principles of Bacteriology. By Dr. F. Hueppe. Authorised Translation from the German by Dr. E. O. Jordan. Chicago: Open Court Publishing Company; and London: Kegan Paul, Trench, Trübner and Co. 1899. 9s.

The Gospel according to Darwin. By W. Hutchinson, A.M., M.D. Chicago: Open Court Publishing Company; and London: Kegan Paul, Trench, Trübner and Co. 1.50 dol.

Transactions of the Society of Alumni of Bellevue Hospital for 1897-98. New York: D. Appleton and Co. 1898.

Remedies for the Needless Injury to Children involved in the Present System of School Education. By C. Dukes, M.D. London: Rivington and Co. 1899. 1s.

*** In forwarding books the publishers are requested to state the selling prices.

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A whole column	1	17	6
A page	5	5	0

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THE LUMLEIAN LECTURES

ON

BRONCHITIS, PULMONARY EMPHYSEMA, AND ASTHMA.

Delivered before the Royal College of Physicians of London.

BY SAMUEL GEE, M.D.LOND.,

Fellow of the College and Physician to St. Bartholomew's Hospital.

LECTURE I.*

ON THE CAUSES AND FORMS OF BRONCHITIS.

MR. PRESIDENT AND GENTLEMEN,—The Royal College of Physicians of London has never forgotten the exhortation addressed by Harvey "to the Fellows and Members of the said College to search and study out the secrets of Nature by way of experiment." No doubt he used the word "experiment" in a wider sense than that which it bears at the present day, for in his time the terms "experiment" and "experience," originally synonymous, had not yet acquired the sharply distinguished meanings which we give to the words. My predecessors in this lectureship have usually drawn the material wherewith they have fulfilled their duty from their experience in the detection and treatment of disease, and the conditions of my life for many years past have put the necessity upon me of following in the same track to the best of my ability. How much more difficult a task this is than to compile lectures out of the unlimited data of that factitious experience which we distinguish as experiment is brought home to me when I recall the preparation of the Goulstonian Lectures which I gave in this room nearly 30 years ago. Experience cultivates a capricious soil, which too often yields a scanty harvest; the fruits of experience are those which Nature happens to afford and no more. Our hopes for the future lie in the fields of experiment where we can work under conditions of our own making and can, as it were, propose questions to Nature and compel her to answer them. Results so beneficial to mankind as those afforded by the antiseptic treatment of wounds and by the serum treatment of diphtheria make the followers of Hippocrates and Sydenham look with regret upon their methods, so slow when compared with those of experimental pathology.

DEFINITIONS.

Scattered through the Hippocratic treatises are frequent references to a doctrine that the brain resembles a gland and is the "metropolis" for separation or secretion (words which have almost the same meaning) of cold and viscid humours. When these humours have accumulated in excessive quantity the brain purges itself by discharging them upon the lower parts of the body—a process called catarrh, defluxion, or distillation of rheum, pituita, or phlegm. In the name of the pituitary body we find a survival of this doctrine. The diseases which result from defluxion of rheum have, says Plato, "many names, because the places subject to the flux are manifold." By the Hippocratic writers seven kinds of catarrh are enumerated; by the time of Celsus the number had been reduced to three. In the Salernitan verses these same three defluxions are enumerated, but the name "catarrh" is restricted to defluxion upon the lungs, catarrhus ad pulmones, pulmonary catarrh.

The change from ancient to modern doctrine is marked by a voluminous treatise in six volumes quarto, published between 1660 and 1664, and written by Schneider whose name has been given to the Schneiderian membrane. We must admire the divine leisure of the times which could allow any man to write such a book or any man to read it. This change in the doctrine of catarrh was brought about partly by the progress of anatomy and partly by Harvey's discovery which sapped the authority of the ancients.

Since Schneider's time catarrh has denoted excessive secretion of more or less altered mucus from a mucous membrane. Hence pulmonary catarrh signifies a disordered function of the pulmonary mucous membrane, the result being an excessive secretion. The corresponding lesion of structure—that is to say, inflammatory changes in the mucous membrane—is called bronchitis, a word which was invented in 1814 by Dr. Charles Badham, a Fellow of this College, and which has to a great extent superseded the old phrase of "pulmonary catarrh." It is amusing to contrast the diminutive duodecimo of Badham with the gigantic work of Schneider. The use of the word "bronchitis" marks the predominant influence of morbid anatomy. Bronchitis and pulmonary catarrh, although for the most part they denominate different aspects of the same disease, yet do not exactly tally; bronchitis is not always catarrhal; for instance, it may be attended, not by flux of mucus, but by formation of false membrane.

CAUSES.

Bronchitis is a disease of much interest for the English people, inasmuch as in our country a pulmonary catarrh is the commonest of disorders at all ages and in all ranks and conditions of life. In speaking thus of the frequency of bronchitis, it is worthy of note that this opinion is derived from clinical experience, and that bronchitis is not a condition which attracts much attention on the *post-mortem* table, where the severe forms only of the disease are recognised, or, indeed, one might almost say, can be recognised without much more minute examination of the bronchial tubes than they usually receive. When we ask why bronchitis should be so common, we are led to consider the causes of the malady. Let us begin with the simplest case possible, and seemingly the most intelligible.

A number of men are working in a room when a large carboy of fuming nitric acid is broken. They all flee. After a time a healthy young man, having tied a wet towel round his mouth, goes back into the room and opens the windows. Symptoms of bronchitis immediately appear, painful soreness down the sternum and dyspnœa, his voice remaining natural. Next day he has a harsh dry cough and abundant small mucous *râles* all over both lungs; his temperature rises to 101.4° F., his pulse to 100, and his respirations to 56 in the minute. On the third day the temperature varies between 99° and 101°, the respirations fall to 44; the signs in the chest are much the same. On the fourth day the temperature falls from 100° in the morning to the normal in the afternoon; the *râles* have almost disappeared. On the sixth day he is quite well.

Bronchitis, being an inflammation, presumes irritation of the mucous membrane, and in this case there was no reason for supposing that the irritation was originally due to anything besides the nitrous fumes, even if we admit the possibility that microbes might afterwards come to play their part upon a soil thus prepared for them. But the cause of bronchitis is seldom so simple as this.

Breathing dust has long been recognised as a cause of pulmonary catarrh; for instance, Ramazzini two centuries ago devoted several chapters of his book *De Morbis Artificum* to the diseases, chiefly pulmonary, which attend dusty trades. At the outset it seems to be necessary to distinguish between dust which is alive and inanimate dust. Taking inanimate dust first as being the less complex topic, we must again distinguish between dust which contains soluble constituents and that which does not.

Insoluble dust is in most cases of mineral nature, yet the air of a cotton mill is smoky with vegetable dust. The bronchitis resulting from dusty trades is very chronic, insidious in onset and slow in progress. Insoluble dust is supposed to act as a merely mechanical irritant to the bronchial membranes, but can we say that any sort of dust is absolutely insoluble? And when we endeavour to look more deeply into the matter other doubts arise, as usual. We suspect that the tendency to bronchitis which prevails among working men in dusty trades is often aggravated by intemperate habits in respect of alcohol and tobacco. Probably in some workmen there is an original disposition to suffer in this way, such as we see in many asthmatics, who are very sensitive to dust. Moreover, the dust of unclean and ill-ventilated rooms will be very likely to contain morbific microbes and the irritation of the air passages set up by inanimated dust will favour the operations of the many bacteria which are potent to cause bronchitis. It obviously would be very improbable that these microbes should swarm in impure air and should not be found in the upper air passages of man. And thus, as a matter of fact, our mouths, noses, and throats harbour many morbific microbes in a latent

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state; they are there awaiting a favourable opportunity for becoming active and virulent, when, to quote the Virgilian phrase of which Sydenham was so fond, *qua data porta ruunt*.

Although it is probable that inanimate dust is sometimes noxious by reason of its soluble constituents, yet it is not easy to point to many instances of this kind. The dust of ipecacuanha, which is often referred to, produces asthma rather than catarrh, but it may be that this is a distinction without real difference.

The topic of living animated dust follows in natural order. The best instance of this kind of dust is afforded by the pollen of grass, which seems to have been proved capable of causing hay fever in some susceptible persons, though that in which the irritant power of pollen inheres is not known. And the question is complicated by the fact that in a few persons the mere odour of roses and some other flowers seems enough to provoke catarrh, although, since the famous experiment of Dr. J. Noland Mackenzie, with an artificial rose, we have learned how large a part in the production of such a catarrh can be played by the power of the imagination. Moreover, the particles which convey the smell of flowers must be far too minute to be rightly called dust, and therefore we will not pursue the subject here, but only remark that hay fever affords the best evidence of that idiosyncracy which predisposes to catarrh.

The catarrh which is caused by the living dust thrown off by certain moulds and fungi is sometimes a much more serious affair. The best known of these fungi is the dry rot of deal wood—merulius lacrimans. The disease it sets up is sometimes fatal. Besides the catarrhal symptoms indicated by the epithet "lacrimans" there are signs of poisoning of the whole body. The fungus grows upon the mouth and fauces, whence we may assume that the morbific agent consists of living seeds which under favourable conditions will strike root in the human body, will increase and multiply—will become, in fact, true parasites, and will poison us with their secretions.

Grass pollen is morbific, dry rot is morbific and parasitic, but they are only accidentally so; it is not the purpose of their life to cause disease in man. But there are certain living particles called "microbes" which are essentially morbific and parasitic, which to the best of our knowledge are that and nothing else, which continue to exist by causing disease and for that sole purpose, as it seems to us—which are morbific or nothing at all, because, being merely parasitic in animals, it follows that if these animals ceased to exist the microbes also would become extinct. Some of these microbes are found almost everywhere: they pursue the steps of men and are apt to attack us at all times and places. But some microbes thrive only under certain circumstances; the best known of these causes of bronchitis are typhoid fever and influenza. In some forms of bronchitis the disease is local, and expends itself upon the mucous membrane; the catarrh is protopathic. But in typhoid fever and influenza the case is different; the catarrh is deuteropathic and secondary to infection of the whole system. These two diseases are members of the great class of specific fevers, and we are compelled by analogical reasoning to believe that other members of that class which are still more powerful causes of bronchitis are also microbic in nature—for example, measles and whooping-cough. How they cause bronchitis is a question not yet ripe for answer, meanwhile we assume that some irritant is conveyed to the mucous membrane by the blood.

We have now passed from the simplest to the most complex causes of bronchitis, so far as our knowledge will allow, and yet by far the greater number of actual cases of bronchial catarrh remain unexplained. What is the explanation of a common cold? We can hardly doubt that chill by exposure of the body has often something to do with it, but how? Let us note that colds are seldom caught, as we say, in pure air—at sea, for instance—no matter how great the exposure. Let us note also that common colds are often contagious, with an incubation period of about three days. You will remember the deeply interesting experience of the St. Kilda cold, a fact which seems to be well proven notwithstanding the incredulity of Dr. Samuel Johnson, and which seems to show that persons who are not themselves suffering from catarrh may yet convey the disease to others, and that a cold past and gone confers temporary immunity. We have heard of late that upon some of the small islands in the Torres Strait the natives, until they took to wear clothes, were exempt from coughs and colds; but it is difficult to understand how the mere fact of clothing pure and simple can have been the cause of those disorders. It would seem to be more probable that the inhabitants have been infected by their clothes or other means, and that the catarrhs have been really due to the intruding foreigner, who brought along with him his civilisation and his diseases.

The Catarrh.

Of the signs which make bronchitis manifest in the living body, the most important is the catarrh, the excessive secretion of mucus. We might expect that physicians would pay great attention to the sputa, and such has been the fact from the earliest times. A sharp distinction has been drawn, since Hippocrates at least, between transparent sputa and opaque sputa: chiefly for prognostic reasons based upon the old doctrine of the concoction of humours, opacity being the sign of maturity and a stage which the secretion must pass through before the catarrh can end in recovery. This distinction being of such prime importance in the opinion of ancient physicians, it is remarkable that they had no words in use to correspond with their ideas. "Phlegma," "blenna," "pituita," "mucus," all these words were used haphazard to signify matter constituting the sputa, whether transparent or opaque. In truth, the distinction is not of great value; however true it may be of acute coryzal secretions that the mucous discharge becomes muco-purulent on the way to recovery, we do not always mark these stages in bronchitis even when acute, while in chronic bronchitis the distinction is of small importance, either prognostic or diagnostic. How common it is to see mucous and purulent sputa in the same spitting-pot; to see purulent sputa floating or lying in thin, transparent, colourless mucus; probably the different secretions come from different parts of the bronchial tract. How common it is to observe that sputa expectorated at different times of the day are different in character, the secretion being, for example, nearly pure mucus throughout the day, but much more purulent the first thing in the morning, after sleep.

Pituitous Catarrh.

To the general rule that the distinction between crude and concocted sputa is unimportant there is one exception worthy of special note. Laennec, in his chapter upon pulmonary catarrh, has much to say concerning a form of catarrh which he calls "pituitous." He uses the word "pituita" in a sense of his own; he makes it signify colourless, transparent, stringy sputum, frothy at the top, and which when the froth has been removed resembles water stirred up with white of egg. We must all recognise the truthfulness of this description. Louis compared the sputum to gum-water, Borsieri to soapsuds. It is to be wished that the word "pituita" be used to denote this kind of sputum only, because there is no doubt that the catarrh which Laennec calls pituitous does present peculiar characters.

He remarks that pituitous catarrh is symptomatic of other pulmonary disease besides mere bronchitis, especially œdema of the lungs and miliary tuberculosis. With respect to œdema of the lungs, let us note that the albuminous or serous expectoration which occasionally ensues upon paracentesis for pleural effusion, and which depends upon acute œdema of the lungs, and which always brings danger and often death, has to the eye all the characters of pituitous flux. Testing the sputa can alone distinguish the two: serous expectoration is highly albuminous; pituita is not albuminous at all.

With respect to tubercle, let us note that not only miliary tuberculosis but also massive grey tuberculous infiltration may be attended by pituitous expectoration. A man, 35 years old, had a shivering fit on September 6th. On the 8th he felt sudden pain in the right side of his chest; he coughed, and was feverish. On the 16th he was admitted to the hospital, being the eleventh day of his disease. Consolidation of the upper part of the left lung was found, and the previous symptoms having been those which most usually attend pneumonia it was thought that the lung was hepatised. But the consolidation did not clear up as was expected; on the con-

trary, the physical signs of disease increased, and by October 10th (the end of the fifth week of illness) the breathing about the left nipple was cavernous. All this time the sputa were pituitous—a fact which seemed contrary to the notion of ulcerating tubercle; moreover, the expectoration was examined twice for tubercle bacilli, probably with insufficient care, and I am speaking of a time, seven or eight years ago, when there was less skill in this method of examination than at present; but, at any rate, tubercle bacilli were not found. Soon afterwards the pituitous sputum became mingled with muco-purulent masses; the physical signs were much more extensive; finally, all the expectoration was muco-purulent and nummular, and the man died on December 25th, after an illness of between three and four months. *Post mortem* the left lung was found to be solid with grey tubercle from apex to base; there were only two cavities, and these of small size.

Besides pulmonary œdema and tubercle there are two other diseases of the lung which are often attended by pituitous expectoration—namely, the congestion which is consequent upon a dilated heart and contracting cancer.

Pituitous catarrh is sometimes "idiopathic"—a word which we need not be afraid to use provided we attach a definite meaning to it. The original and etymological meaning of the word is its true meaning, and pituitous catarrh is idiopathic when it constitutes the whole of the disease. It is sometimes acute, sometimes chronic, and in either case is a very serious condition. The acute catarrh occurs at all ages, and often in persons perfectly healthy, who have shown no previous tendency to pulmonary disease. The secretion rapidly becomes so profuse that it puts life in jeopardy, and will sometimes even kill by suffocation in a day or two. Yet for the first few hours the attack resembles a common cold with cough, and there are no peculiar symptoms attending the earliest stage which enable us to foresee that we have to do with the beginning of so formidable a disease. It does not always kill; sometimes it runs the course of ordinary severe bronchitis and ends in recovery.

Chronic pituitous catarrh is more common. It is serious on account of its obstinacy. To Laennec's admirable description of this disease there is nothing to add unless it be to say that it does sometimes attack persons in the prime of life. A Japanese, aged 25, came over as a ship's steward to England, and immediately upon his arrival began to suffer from shortness of breath and cough—a new thing for him. After these symptoms had lasted for fourteen weeks he was admitted to the hospital. There were much dyspnœa and most abundant expectoration of pituita. Tubercle bacilli were not found. The physical signs were those of severe bronchitis. For days together he seemed about to die from suffocation, but under very careful treatment he improved until, without any obvious cause, the symptoms recurred in full severity. Another improvement was followed by another relapse, and more than four months had passed away since his admission ere he could be discharged fairly convalescent. This was on May 8th, but on June 16th he was readmitted with all his former symptoms; he went out on July 16th. On December 5th he was admitted once more, and the time of the year was probably the reason why we could not get rid of him till February 25th. He had now been a patient on and off for more than a year, and as there seemed no end to this sort of thing, the sister of the ward got up a small subscription and shipped him off to the Antipodes.

PECULIAR KIND OF BRONCHITIS.

There is a form of disease which may justly claim to be called catarrhal if we use that word in its strict etymological sense. Graves, speaking of the condition referred to, says: "When an old person reduced by some previous disease catches cold and gets in consequence a sudden and remarkable hoarseness so that he can only speak in whispers; when in addition to this he has cough, stridulous breathing, and copious muco-purulent expectoration, you may be sure that the case is a bad one and the patient in most imminent danger." He goes on to say that the disease is accompanied by considerable fever, and that he did not recollect that he had ever seen an attack of this kind that did not terminate fatally. He narrates the case of an eminent country practitioner who "had got an attack of cold followed by hoarseness, which went on for two or three days without being attended to, until one evening he suddenly became alarmingly ill. He was found to be labouring under hoarse breathing, constant laryngeal cough, prostration of strength, and enormous muco-purulent expectoration. His pulse was very rapid, he complained much of oppression of the chest, and he died on the following night, more with symptoms of exhaustion than of asphyxia." Graves tells of another similar case in which the "breath became exceedingly fœtid. The expectoration also exhibited a very remarkable change; it was greenish, ichorous, and had a most intolerable fœtor. He now began to manifest symptoms of awful prostation; his distress of respiration became intense, his eyes fixed, his extremities cold, and he expired in about forty hours from the commencement of the attack."

But this form of bronchitis sometimes occurs in old people whose health has certainly not been "reduced by some previous disease." I saw a lawyer, 74 years old, with Dr. T. Robinson. He was in good health when one April, while waiting for a train at Wimbledon, he was exposed to a chilling east wind. Next day (April 8th) he lost his voice. On the 9th his breathing became a little affected, and swallowing was very painful. His voice was not much more than a whisper. Seen by the laryngoscope the epiglottis was very red but not much swollen; the ary-epiglottic folds were not swollen; the glottis was widely open, and through it there welled up much muco-pus. On the 10th he seemed better in all respects. He expectorated much brownish muco-pus which, both in colour and smell, reminded one of the sputum of gangrene; this phlegm came up with the least possible effort, hardly amounting to cough. The laryngoscope showed that the redness of the epiglottis was less, and that there was no swelling whatever. The voice was much louder. But during the night he became worse; fever appeared for the first time, and he complained of pain in the left side. The laryngeal symptoms were gone and his voice was natural, but his breathing became very frequent, and he died at evening on the 11th. The fœtid expectoration calls for remark. Graves assumes that in his case the lung had mortified, but he gives no proof of this, and in my case the fœtor occurred within forty-eight hours from the beginning of the illness in a man previously healthy. Gangrene would hardly set in so rapidly as this. To suppose, in the absence of *post-mortem* examinations, that the smell is due to decomposition of the secretions—to the fœtid bronchitis, in short—would seem more probable.

Disease of this kind is not peculiar to the old. Some years ago I saw a boy, aged 7 years, with Dr. Bland. The patient had been seized a day or two before with laryngeal symptoms which, when I saw him, deserved the name of croup, and the dyspnœa became so urgent that tracheotomy was demanded and performed. We could see that the epiglottis was not swollen, but we could make out nothing more, for examination by the laryngoscope brought on vomiting. The dyspnœa was somewhat relieved, but the boy died a few hours after the operation with all the signs of pulmonary dyspnœa. The only part which we were permitted to examine *post mortem* was the larynx; its mucous membrane was exceedingly red, but there were no false membranes and no œdema, nor were false membranes expectorated or seen during life. The laryngitis was a part (but at first the most obtrusive part) of more widely diffused inflammation. When tracheotomy set the laryngeal symptoms aside the bronchitis became manifest. Moreover in this case there was no reason for suspecting measles. The analogy of the early laryngitis stridula of that disease will occur to your minds at once.

It is likely that the disease in question is essentially of the same nature as œdema glottidis—that is to say, a specific inflammation spreading rapidly, like erysipelas. Hippocrates uses this very word, and in several places speaks of erysipelas in the lung, but to identify the disease thus designated by him is not easy.

DYSPNŒA.

To breathing with conscious effort we give the name of dyspnœa. It arises from a peculiar sensation which is not always of the same kind. Two sensations at least can be distinguished. One is sensation of want of breath and impels to inspiration; another sensation impels to expiration. The feeling of want of breath arises within the chest and seems to involve all the thoracic organs. The feeling which

impels to expiration seems to arise from the windpipe—that is to say, a patient suffering from expiratory dyspnœa will refer this feeling to the manubrium sterni and region of the trachea. This tracheal sensation closely resembles the feeling which impels to cough, and it is the cause of that expiratory groaning which is so common during the uneasy sleep of patients suffering from bronchitis, emphysema, or heart disease. I do not refer to snoring or stertor, which are inspiratory noises. Thus, medical physiology requires two respiratory centres, one for inspiration and one for expiration.

It has been said that in bronchitis attended with laborious breathing the chief difficulty is in inspiration; that the expiratory act, on the contrary, is always accomplished with comparative ease; and that these phenomena of laborious breathing, particularly the long-drawn, exhausting, inadequate inspiration, are probably quite peculiar to obstructive bronchitis. But surely these propositions are far from being universally true. Even in slight bronchitis occurring in a man who never had bronchitis before the expiration may be much more forced than the inspiration in consequence of the provoking tracheal sensation spoken of before. In chronic bronchitis when the patient raises phlegm with difficulty, the most obvious thing about the respiratory movements in many cases is the forced expiration. If we would see inspiratory dyspnœa in its highest degree and purity, it is not to bronchitis, but to laryngitis, that we must look; to angina laryngea, not angina bronchialis. In mere bronchitis we seldom see anything like the inspiratory dyspnœa of croup.

Lividity.

Lividity is not a marked symptom of bronchitis except in the worst cases. When we see a patient whose dyspnœa amounts to orthopnœa, and whose lips are purple or almost black, we suspect at first sight disease of the heart rather than disease of the lungs. Again, if we see great lividity in a case of bronchitis, we suspect some complication—for instance, pulmonary emphysema, extensive collapse, broncho-pneumonia, scattered tubercle, or distended heart.

The phrase "suffocating catarrh" has been used in senses so varied that some persons have suggested that it should be wholly discarded. Even apoplexy and croup have borne that name. We can continue to use it only on condition that suffocating catarrh shall signify bronchitis in which the patient is in danger of being stifled by bronchial secretion thrown out more rapidly than it can be expectorated. The metaphorical phrase "paralysis of the lungs" has been applied to these cases of catarrhal infarctus. We meet with suffocating bronchitis under three conditions. First, in infants; and a main cause of their liability to suffocating catarrh is to be found in the shape of their thorax, which being almost circular on horizontal section is incapable of more than small lateral expansion. The only extraordinary enlargement which their chest can undergo is by vertical elongation, upwards by means of the accessory inspiratory muscles and downwards by excessive diaphragmatic contraction. Moreover, their ribs are often soft and rickety. Next we meet with suffocating bronchitis in adults when they are attacked by pituitous catarrh in a severe degree. And, thirdly, suffocating bronchitis is common as an exacerbation of chronic bronchitis in persons who are for the most part advanced in life.

In these cases, *post mortem*, we often find that form of pneumonia which bears no name adopted universally. Our own *Nomenclature* gives us the choice of three names. We may use the name "lobular pneumonia," in contradistinction from lobar pneumonia; or "broncho-pneumonia" in contradistinction from pleuro-pneumonia; or catarrhal pneumonia in contradistinction from what has been called "croupous pneumonia." The name of broncho-pneumonia is to be preferred. Croupous pneumonia is what Polonius would have called a very vile phrase. It is amusing to note how the Lowland Scotch word "croup" (the cognate English word is "roup"), which signifies a certain kind of noise, has come to be applied to a morbid exudation—a perversion due to foreign pathologists who could not have known the meaning of the word which they were using or abusing. And thus croup, having undergone this strange metamorphosis in the course of his travels abroad, comes back disguised to his native land and we receive him with open arms. Such are English ways.

Broncho-pneumonia is the last stage of inflammation extending downwards along the air passages into the pulmonary lobules. Catarrh implies a mucous membrane; but the bronchioli which feed the pulmonary lobules with air possess no mucous membrane; in these parts, therefore, lobular hepatisation takes the place of bronchial catarrh. The difference in the products of exudation depends more upon the situation of the disease than upon any difference in its cause. The microbes found in lobular pneumonia are the same as those found in bronchitis, although the relative frequency with which they are found is not the same in the two diseases. To the last volume of *St. Bartholomew's Hospital Reports* Dr. Horton Smith has contributed a valuable paper upon the bacteriology of acute broncho-pneumonia. He finds that the microbe most frequently present is pneumococcus, less frequently streptococcus, and still less frequently staphylococcus. He finds that the broncho-pneumonia of typhoid fever is due to these common microbes, and not to the special typhoid bacillus. But he thinks that the broncho-pneumonia of diphtheria and influenza most frequently depends upon their several proper and peculiar microbes; and yet that in a few cases the pneumonia is not specific—that is to say, none but the common pyogenic microbes are found. One very practical truth has been well established—namely, that in measles the frequency with which broncho-pneumonia occurs is dependent upon the degree of impurity in the air breathed. The main cause of death in measles is broncho-pneumonia, and the mortality in some epidemics has been as high as 50 per cent. Thus any mysterious change of type or epidemic constitution seems to be resolved, so far as concerns measles, into the condition of the air breathed by the patients. Hence the necessity for isolation, for ventilation, and for cleanliness.

The pneumonic part of broncho-pneumonia is a *post-mortem* disease or, in other words, it can seldom be detected with certainty during life. In severe progressive capillary or suffocating bronchitis which threatens the patient with death we may assume that lobular pneumonia is present, inasmuch as it is the last stage of the disease. Neither symptoms nor physical signs help us much; the patient is too ill to bear prolonged examination; nor does it matter in the least whether we detect the pneumonia or not, for our treatment is the same in both cases.

Chronic Bronchitis.

Chronic bronchitis associated with emphysema, and in all respects like the disease common in old people, is by no means very uncommon in the young, that is to say, in patients under 20 years of age. But this is the case, especially among the lower classes of the people; among the well-to-do, chronic bronchitis is uncommon in the young. When we bear in mind that with asthma it is quite the reverse—that juvenile asthma is common among the well-to-do and uncommon among the lower classes—the suspicion arises that we have to do with what is essentially the same disease assuming different forms under different conditions of life. The poor are very careless with regard to their health, and it is probable that through neglect what would otherwise be asthma becomes a chronic pulmonary catarrh.

The heart is dilated more easily in children than in adults, and thus cases of juvenile chronic bronchitis gradually pass into a state wherein the symptoms of dilated heart predominate over those of the original disease. Some years ago I examined the body of a boy, aged 13 years old, who had suffered from chronic bronchitis since 18 months of age, when he had measles and whooping-cough. He was so deeply cyanotic that the question of malformed heart arose; his fingers were much clubbed, and there was universal dropsy. The *post-mortem* examination showed emphysema of the lungs, especially of their anterior parts. The right side of the heart was much dilated and hypertrophied, but there was no valvular disease nor was there any malformation. The liver was nutmeg.

That predisposition which tends to make bronchitis chronic is often hereditary, and is often acquired. In many persons a powerful assistant cause of the chronic bronchitis is alcohol. Sydenham alludes to this fact when speaking of "peri-pneumonia notha," which no doubt for the most part consisted of febrile exacerbations of chronic bronchitis. He says that the

disease "affects those who are of virile age, or, what oftener happens, those who are older and have been too much given to spirituous liquors, especially to brandy." The evil effect of alcohol is sometimes seen in persons who cannot be justly called intemperate, and a marked diminution of the tendency to bronchitis will sometimes occur in patients who become total abstainers after having been in the habit of drinking not more than a usual quantity of wine. The swollen, deeply red, and irritated soft palate of many hard drinkers probably affords a clue to the nature of alcoholic bronchitis.

Post-mortem examination of the bodies of persons past middle life reveals the fact that their chronic bronchitis is seldom unassociated with chronic nephritis, arterio-capillary sclerosis, chronic endocarditis or pericarditis or myocarditis, and atheroma of the aorta, not to sperk of pulmonary emphysema—lesions which constitute an important part of the condition which we designate "old age."

That a tendency to chronic bronchitis and a tendency to gout concur in many patients is a frequent experience, and there can be no objection to our expressing this fact by calling the bronchitis gouty, provided the evidence of gout be sufficient. But I fear that gouty bronchitis is often talked about when the evidence of gout is small. Before the term "gouty" is predicated of any disease the reasons for the affirmation ought to be carefully examined. To define the word "gout" is not possible; the essential nature of gout we do not know. Doubtless there are satisfactory criteria or notes of gout, such as regular attacks in the hand or foot, tophi, and the discovery of uric acid in the blood. But medical men are often content with much lower probability than this when they pronounce a patient to be gouty, and I am far from saying that they are wrong. Howbeit the name of "gout" has been extended in meaning so as to include a vast number of diseases, but whether these speculations are as sound as they are ingenious, whether they are solid structures grounded on truth or no more than the phantoms of a lively imagination, I will not take upon myself to determine. Time will show. "*Medicina non ingenii humani partus est sed temporis filia.*"

Phthinoid Bronchitis.

There is a form of chronic bronchitis which bears a close resemblance to tuberculous pulmonory consumption; the disease is nothing but bronchitis, yet the symptoms are those of phthisis pulmonalis. The interest of this topic is mainly antiquarian for us, because it throws an important light upon the progress of pathology. Before the invention of auscultation the patients alluded to were necessarily believed to be suffering from pulmonary consumption, and, indeed, they were so suffering in the original sense of the phrase. For the epithet, "consumption" or "phthisis," related to the condition of the whole body, to the progressive emaciation in fact, while the word "pulmonary" indicated that the disease, whatever it was, which caused the emaciation, was seated in the lungs. This was the sense in which our eminent Fellow, Richard Morton, used the phrase in his admirable book entitled *Phthisiologia*. In the phthinoid or consumptive form of bronchitis there is an abundant expectoration of purulent sputa. The early physicians knew of no source of pus but an ulcer, and hence they inferred that the lungs were ulcerated. The first man to discover that this was not the case was that singularly accurate observer Antony de Haen; but even after he had shown that the lungs, examined *post mortem*, were to all appearance sound, free from all ulceration, and yielding not a drop of pus on section, yet matters were not much advanced for practical medicine because the diagnosis could not be made during life. And here the subject stood until the time of Laennec. Perhaps you remember that Sir Thomas Watson confessed in his lectures that he once made this mistake, and pronounced a young woman to be in the last stage of consumption who soon afterwards made a rapid and complete recovery, he having omitted to auscultate her chest. Even auscultation does not always enable us to distinguish these cases with perfect certainty, but since Robert Koch's discovery of the tubercle bacillus we have a potent auxiliary to diagnosis in the microscopic examination of the sputa.

Conclusion.

In conclusion, we will revert to the results of our search into the causes of bronchitis. We found it to be highly probable that most catarrhs are due to a specific infection, and they often depend upon contagion spreading from man to man. This doctrine has very important bearings upon medical practice. It leads us to believe that the means by which we may prevent catarrh are to be found in ventilation and cleanliness, if, indeed, ventilation be not a kind of cleanliness. Experience confirms this belief. When epidemic catarrh prevails, where do we find most of our patients? In those houses which are obviously the worst ventilated, even though they be the spacious houses of the rich. And where do our patients catch their catarrh? Either in houses of the kind which I have mentioned or in buildings where men most do congregate, especially in offices, shops, and churches. Large shops and stores, public museums and libraries, are ventilated as little as possible for fear of their contents being spoilt by smoke and dust. Many churches both in town and country are never properly aired for another reason—namely, because their architecture does not admit of it. Those "rich windows which exclude the light" do worse than this—they exclude fresh air. The revival of Gothic architecture has been, from the sanitary point of view, a great mistake. Our despised forefathers of the eighteenth century erected plain and simple buildings which could at least be well aired, well lighted, and kept warm and comfortable; nay, even the much-ridiculed churchwarden, with his brush and pail of whitewash, was a praiseworthy minister of health. Modern dwellings are no better than the churches. In the matter of domestic sanitation people have fixed their attention too exclusively upon the drainage and the water supply; light and air are not reckoned. Many of the large red-brick houses which have been built in great numbers at the West End of London and elsewhere during the last twenty-five years cannot be properly ventilated. The well of the staircase ought in every house to be a reservoir of pure air, and to have an independent supply from without. But in many houses the staircase cannot be ventilated except through the rooms, and, in fact, it never is ventilated. Nor are the rooms themselves much better off; their heavily mullioned windows are designed with small regard to the transmission of light and air. The subsidiary and merely ornamental arts, which do no more than please the eye, are studied to the neglect of that far greater art which promotes the happiness and welfare of the whole man—the art of preserving health.

THE GOULSTONIAN LECTURES

ON THE

PATHOLOGY OF THE THYROID GLAND.*

Delivered before the Royal College of Physicians of London.

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Lecture II.

[Abstract.]

Results of Loss of Thyroid Secretion in the Young.

In commencing his second lecture Dr. Murray referred to the effects the result of loss of thyroid secretion in the young, and quoted evidence to show that in young animals and children, in addition to other symptoms, there was arrest of development. If the arrest of development or destructive disease of the thyroid occurred early in life, symptoms of primary cretinism, which are the same in the sporadic as in the endemic form, soon began to appear.

As in myxœdema in the adult so in cretinism were found different degrees of severity. As the success of treatment depended so much upon an early start being made with it, he urged the importance of carefully considering the possibility of cretinism in all cases where some arrest of development was noticed early in life, they find various intermediate types between the extreme form of which he had given an example and ordinary myxœdema dependent upon the age at which

* The expenses of this research have been partly defrayed by a grant from the Scientific Grants Committee of the British Medical Association.

the disease first commenced. The older the child at the time of the onset the less marked the want of development, and the more nearly the disease resembles the adult type.

RENEWAL OF THYROID SECRETION.

Dr. Murray then stated that when the supply of the secretion was renewed, metabolism was once more completed in a normal manner, and in cretins was so markedly reawakened that general growth again progressed even after it had been arrested for ten or twenty years. Schiff and Von Eiselsberg had shown that a portion of thyroid gland successfully transplanted into the subcutaneous tissues of a dog or cat could maintain a sufficient supply of secretion to avert the acute symptoms of athyroidism, and Mr. Victor Horsley made a great step in advance when he suggested that a similar procedure should be adopted in man. The procedure had been followed in certain cases by marked improvement, but unfortunately the grafted gland appeared not to be able to maintain an independent existence for long, and the symptoms returned. The excellence of the temporary results obtained, however, had led Dr. Murray to suggest that a simpler method of maintaining the necessary supply of thyroid secretion would be the continued internal administration of the secretion itself. With this view he had prepared a glycerine extract, and such an extract was now official in the *British Pharmacopœia*. At first he had administered the extract by hypodermic injection, but it was shown independently by Howitz, E. L. Fox, and Mackenzie that it was quite efficient when given by the mouth. The administration of thyroid extracts in animals deprived of their thyroid glands rendered it possible to distinguish between the symptoms due to loss of the parathyroid to those due to the loss of the thyroid. It seemed probable that the acute nervous symptoms in the monkey, such as the fibrillary twitchings, the spastic rigidity, and perhaps also the tremors and convulsions were largely due to loss of the parathyroid, while the subcutaneous swelling, dryness of skin, loss of hair, subnormal temperature, and changes in the blood were due to loss of the thyroid secretion. That conclusion received further support from the close resemblance of the latter symptoms to those of primary myxœdema in man, which they knew to be the result of disease of the thyroid gland, there being no evidence as yet to show that the parathyroids were affected in this disease. If that be the correct explanation, it was not surprising that these particular symptoms were not influenced by the thyroid extract.

TREATMENT OF MYXŒDEMA BY THYROID EXTRACT.

In primary and secondary myxœdema in man were seen the results of loss of thyroid secretion pure and simple, and consequently they were able to remove the symptoms entirely by giving a sufficient supply of the secretion.

The main objects of the treatment were to remove the symptoms by restoring normal metabolism as rapidly as possible without risk to the patient, and when that had been accomplished so to regulate the treatment as to continue the supply of thyroid secretion in sufficient quantity to maintain the normal rate of metabolism of the tissues generally. For that purpose the treatment was divided into two stages. During the first stage the tissues were gradually brought back to a normal condition. That might, according to the severity of the symptoms, require from one to three months. As soon as the symptoms had entirely disappeared, the first stage was completed. The condition of the atrophied thyroid gland was not influenced by the treatment, so that if the artificial supply of secretion was discontinued at that or any other time of the patient's life, all the symptoms of myxœdema would gradually return, as he had found by actual experience. Thus the second stage of the treatment of necessity lasts as long as the patient lives. It is therefore necessary to make the permanent daily dose as nearly as possible equivalent to the normal amount of secretion. If the dose fell below that, slight symptoms of myxœdema would reappear, and if it was excessive a condition of thyroidism will be produced.

PREPARATIONS OF THYROID EXTRACTS.

Dr. Murray observed that in out-of-the-way places, and where expense was a consideration, the actual gland itself containing the secretion might be administered. One-eighth to one quarter of a lobe of the sheep's gland was a suitable daily dose, one quarter being equivalent to about 10 minims of liquor thyroidei; it should be minced. It may be taken in glycerine or some some similar vehicle, and may be lightly cooked on the outside by frying or boiling. As a rule, however, it was better to employ one of the preparations of the thyroid gland. The liquor thyroidei was the most convenient preparation for general use, and in his experience the most efficient and uniform in strength. Not more than a sufficient supply for a fortnight should be obtained at one time, and the patient should measure out the dose and mix with a dessertspoonful of water at the time of taking. The dry thyroid of the *Pharmacopœia* might be given as a powder, or made up into a pill or tablet. If the dried preparation became damp at all, it was liable to decompose and become unfit for use.

METHOD OF TREATMENT.

In advanced cases the first stage of the treatment must be carried out with great caution, especially if any symptoms of degeneration of the cardiac muscle, such as attacks of syncope, dyspnœa on exertion, feeble or irregular pulse, or weak heart-sounds were present. Under these circumstances the patient should be confined to bed at first, and only small doses of three to five minims of liquor thyroidei given each night. This dose, if well borne, might be gradually increased up to ten minims. If not confined to bed these patients are apt to make use of their returning vigour too soon, before the heart has had time to recover, and to adapt itself to the altered conditions brought about by the treatment.

At the present day, however, the greater number which require treatment were seen in the early stages before any cardiac symptoms developed. Such patients were able to go about, but unusual exertion should be avoided during the first stage of the treatment. The daily dose of ten minims of the extract might be given nightly, and increased at the end of a fortnight to fifteen minims if decided improvement had not already taken place. Undue acceleration of the pulse to 90 or 100, or rapid loss of weight were indications for reducing the dose.

Symptoms of gastro-intestinal catarrh were sometimes seen when a raw gland was used, but were seldom observed after a suitable preparation. When they arose the treatment should be stopped until they had passed away, and when the treatment was recommenced smaller doses should be given. When there was well-marked anæmia it was as well to give iron as well as thyroid extract, and for this purpose five grains of dried sulphate of iron in a pill two or three times daily were suitable.

The second stage of treatment began after all the symptoms of myxœdema had disappeared. During this stage, which lasted whilst the patient lived, he must continue to take a daily dose equivalent to the daily output of the gland before it became diseased. An occasional intermission of a week or so had little or no effect, but if it lasted three or four weeks the temperature fell one or two degrees, and the myxœdematous swelling of the face began again to develop. The most suitable dose during the second stage was, generally speaking, ten minims of the extract once a day, but if slight symptoms reappeared the permanent dose should be increased to twelve or fifteen minims. Though this had not been necessary in any of his own cases, in a few cases that dose had produced acceleration of the pulse, and the permanent dose had to be fixed at five or seven minims a day. In doubtful cases a dose of ten minims of thyroid extract should be given daily for three or four weeks, and if the symptoms steadily diminished it might be assumed that they were the result of thyroidal disease.

RESULTS OF THE TREATMENT OF MYXŒDEMA.

When the treatment of a well-marked case of myxœdema was carried out on the lines just indicated, very definite and interesting results were soon obtained. One of the earliest signs of improvement was in the return of the temperature to the normal level. This was illustrated by the chart shown, by which it would be seen that the temperature before treatment ranged from 95° to 96° F., whereas during the second, third, and fourth weeks of treatment it varied between 96° and 98°. As the temperature rises to normal the former sensitiveness to cold was lost, and the frequency of the pulse was increased. The most striking changes were those which took

place in the skin with its appendages and in the subcutaneous tissues. The myxœdematous swelling gradually disappeared from all parts of the body, so that the face and hands once more assumed their natural appearance, and the free movement of the limbs, which had been considerably hampered by the swelling, was regained. The reduction of the swelling was accompanied by a loss of weight, which might amount to as much as two or even four stones. The skin, which, as a result of the removal of the swelling, may for a time remain loose and wrinkled, became warm and moist owing to a renewal of the secretory activity of the sebaceous and sweat glands. Not infrequently there was some desquamation which might occur in fine scales or in large flakes from the palms of the hands and soles of the feet, as observed by Byrom Bramwell.[1] The hair follicles resumed their proper function, so that even where there had been complete baldness a good growth of hair was developed in the course of six or twelve months. Considerable changes are thus produced in the appearance of the patient.

In addition to these very obvious signs of improvement, the feeling of lassitude passed away and normal muscular strength and activity were regained. As a result of this, those who before treatment could barely walk a mile were enabled to walk long distances, climb mountains, and undertake various other forms of exercise. Mental processes became more active, the memory improved, and the hallucinations disappeared. In some cases in which actual insanity had occurred it also had been cured. If albuminuria without actual renal disease had been present it disappeared, while the amount of urine was increase. The observations of Ord and White[2] showed that the total amount of nitrogen eliminated was increased, and that the increase was almost entirely due to the increase of urea in the urine. At first the amount of urea excreted might not only equal but actually exceed the normal average quantity. The number of red corpuscles in the blood was increased. In patients who had not reached the menopause menstruation returned, and took place regularly, even where there had been amenorrhœa for several years. In fact, the myxœdema was entirely cured, though the fibrosis of the thyroid gland remained unaffected by the treatment.

Treatment of Cretinism.

Dr. Murray dwelt on the importance of carefully considering the possibility of the presence of disease or lack of development of the thyroid gland in every case of arrest or delay of development in children. In all such cases it was important to look for slight signs of cretinism. The importance of early diagnosis in such cases lay in the fact that the earlier the treatment was commenced the better prospect there was of normal development of the central nervous system. Experience had already shown that in cretinism of some years' duration rapid as the improvement in the physical condition may be, the intellectual development was much slower, so that when treatment was commenced late it was doubtful if the latter would ever advance nearly as far as when treatment was started early. If any doubt existed as to the diagnosis, it was a good plan to carry out the treatment for one or even two months. If no distinct improvement took place the want of development was not due to cretinism, for in other forms of arrested growth the treatment had comparatively little effect, though it is worthy of trial. The treatment of early cretinism should be carried out on the same lines as the treatment of myxœdema in the adult.

In the treatment of cretinism which had lasted for some years they had a much more difficult task to perform, but very good results could be obtained. Even where the disease had already lasted ten or twelve years, provided the patient was not more than 18 or 20 years old, a remarkable amount of growth could still take place. In those cases 3 to 5 minims of thyroid extract might be given at the commencement, and increased according to the progress observed. Even in cases in which the symptoms had lasted for twenty or twenty-five years some growth and marked improvement in all the symptoms took place. In cases of long duration attacks of syncope were not uncommon. In such the earlier part of the treatment was more safely accomplished by keeping the patient in bed, and giving small doses of 1 or 2 minims only at first.

Results of the Treatment of Cretinism.

When the necessary stimulus to the normal metabolism of growth was thus supplied to a cretin in the early stages of the disease the symptoms soon disappeared. The swelling gradually diminished in all parts of the body; the tongue, lips, and nose diminished in size, so that the appearance became natural; the skin became soft and moist and the temperature rose to normal. Growth, which at this early stage would only have been partially arrested, started afresh. If the treatment was continuously carried on in such a case from the earliest time at which the disease was recognisable, there seemed no reason to doubt that ultimately the child would grow up into a fully-developed, healthy adult, who, however, would, of course, at any time develop symptoms of myxœdema if his supply of the extract was discontinued. The amount of improvement which might take place in very advanced cases was well illustrated by the course of the case shown in the photograph.

In this case the symptoms had been present for some twenty-seven years before treatment was commenced. The dose was at first 1 drop a day, gradually increased, till now she takes 15 drops, equal to about 12 minims of thyroid extract daily. At the commencement of the treatment growth had been arrested apparently for many years, as she only measured 34½ inches in height. She now measures 38½ inches, having grown 4 inches in three years and a-half. The hair was much less coarse than it used to be, and the scalp was white and smooth. The swelling had



Fig. 8.—G., aged 28, June 18, 95, height 34½ inches.

greatly diminished, so that the nose, cheeks, and lips were much smaller than they were, and the whole expression was much more bright and intelligent. The mouth was kept closed, and the tongue had become normal in size and no longer protruded between the lips. The condition of the teeth did not seem to have improved, except that she could now crack nuts, which she was unable to do before. The elastic pads have disappeared from the supraclavicular regions. A most remarkable development of the mammary glands, which before treatment were entirely undeveloped, had taken place. This was all shown in a recent photograph (Fig. 9), in which it would be seen that the nipples and breasts were now very well developed. Some pubic hairs have grown, and menstruation, which had only occurred very scantily on a few occasions, was now regular and abundant. The abdomen was not so prominent, and the umbilicus was retracted. There was still well-marked lordosis.

The skin was much less dry, and perspired freely when she was walk-

ing. She was much more active, and the muscular strength had increased so that she could now walk two miles. The temperature had long been normal. She was distinctly more intelligent, the vocabulary had increased, she could recognise people and animals, and could make her wants perfectly understood. She was unable however, to frame a sentence, and used only single words, or at most two or three together. She was careful and cleanly in her habits.



Fig. 9.—G., February, 1896, height 38½ inches.

This case was a good example of the amount of improvement of which even the worst cases were capable. Greater improvement still had been obtained in cases of some years' duration which were still under 20 years of age. Thus in Dr. John Thomson's[3] case, aged 18 years and 8 months, 33½ inches in height, there was an increase in the height of 4⅝ inches in twelve months. In Dr. Byrom Bramwell's[4] case, aged 16 years and 4 months, 29½ inches high, growth was at the rate of 6½ inches in six months.

The intellectual development was always much slower than the bodily growth and general improvement in all other respects. The shorter the duration of symptoms had been at the commencement of the treatment the more rapid the improvement in the mental condition, and Dr. Murray thought it was only in cases in which the treatment was started early that they could expect normal intellectual development to take place. In cases of some duration it was important that a special education should be carried on at the same time as the treatment in order that the patient might be able to make the most of his renewed cerebral activity.

LECTURE III.

COMPENSATORY HYPERTROPHY.

THE whole question of compensation and compensatory hypertrophy of organs in disease is of such great interest and practical importance that any facts which tend to throw light on the conditions under which they are developed are of value. In health we can by specially-arranged exercises bring into operation the pathological law that any muscle contracting intermittingly against an increased resistance which it can overcome undergoes hypertrophy, and thus induce hypertrophy of the biceps or any other muscle. In some diseases our chief object is to favour and encourage compensating hypertrophy by every means in our power. In valvular disease of the heart adequate compensation in the form of "work hypertrophy" is of prime importance, the object of our treatment being to encourage and maintain its proper development, and, as long as possible, ward off the disastrous effects of its failure. All hollow muscular organs develop compensatory muscular hypertrophy, when their work is increased by some abnormal resistance to the expulsion of their contents, which can by an extra effort be overcome. Other tissues also can undergo similar changes, an example of which is given by the condition of the blood in cyanosis. It has been shown by Toeniessen, Gibson,[5] and others that in the intense cyanosis of congenital heart disease the haemoglobin is increased in amount, and the red and white corpuscles are increased in number. The haemoglobin may be increased up to 120 or 160 per cent of the normal amount, the red corpuscles up to 9,000,000, about double the normal number, and the white to 16,000 in each cubic millimetre of the blood. These changes may fairly be regarded as indicating a compensatory hypertrophy of the blood which enables it to carry more oxygen in face of the adverse conditions under which the circulation is carried on. Marie regards a similar increase in the number of the red corpuscles which occurs in those who live at high altitudes as a similar compensation.

The glandular organs of the body have also remarkable powers of development under the influence of appropriate stimuli—as, for example, the development of the mammary glands during pregnancy. Both secretory and excretory glands can undergo compensatory hypertrophy when a portion of the gland has been disabled by disease or design in such a manner as to throw an increased amount of work upon the remainder. The stimulus of working at higher pressure than normal here, as in the heart, leads to the development of a compensatory hypertrophy—such, for example, as is seen in one kidney after the removal or destruction by disease of the other.

It is important in all cases to ascertain the minute structure of organs which have thus developed a compensatory hypertrophy, for it is not necessarily a simple hyperplasia or exact reproduction of the normal structure.

In the kidney Lazarus-Barlow[6] states that there is hyperplasia of the cells and hypertrophy of the glomeruli, and quotes Eckhardt's statement that, if the hypertrophy is the result of congenital absence of one kidney, there is both hypertrophy and hyperplasia of both glomeruli and tubes: if the other kidney is destroyed or removed later in life, there is hypertrophy without hyperplasia of either glomeruli or tubes.

Owing to the special anatomical position and physiological properties of the thyroid gland it affords unusual facilities for observing some of the phenomena of compensatory hypertrophy. It is now a well-known fact, owing to the work of Horsley,[7] Halsted,[8] and Edmunds,[9] that when a portion of the gland is removed the remainder undergoes compensatory changes, in virtue of which it is enabled to supply enough secretion to prevent the appearance of the symptoms of athyroidism. The portion removed at one time may be one-half or even three-quarters of the whole gland, and Halsted has shown in the dog that successive portions, if removed on three or four separate occasions, may be excised until only one-eighth, or even one-sixteenth, of the original gland is left without symptoms of athyroidism being developed. Although these changes are accompanied by an increase in size, the hypertrophied remainder does not attain the size of the original gland, so that, weight for weight, it has to do more work than the original glandular tissue. Under these circumstances it is not so surprising that the structure of a piece of the gland which has undergone compensatory hypertrophy should differ somewhat from that of the normal gland. When sufficient hypertrophy has developed to supply as much secretion as is necessary, we do not find a simple hyperplasia of the original glandular tissue, but considerable change in the structure throughout. The alveoli, instead of being nearly circular, become irregular in outline. This change is due to the folding of the wall, which projects at different points into the lumen of the alveolus. In advanced hypertrophy the lumen may appear to be star shaped, or it may be almost obliterated by neighbouring folds of epithelium

coming into contact. The appearance in places may thus closely resemble that of a racemose gland. The epithelial cells themselves are also altered. They are considerably increased in size, the ordinary low cubical epithelial cells being converted into tall columnar cells. The result of these two changes is that in equal areas the secretory cells are greatly increased both in numbers and size in the hypertrophied, as compared with the normal, gland. The colloid lying in the gland is diminished in amount, and appears to be more watery in consistence than normal. This change in consistence cannot, however, be accompanied by any deficiency in the active ingredients of the secretion, as it is able to prevent the onset of any symptoms of athyroidism. The appearances just described are evidently those of glandular tissue working at high pressure, and just able to supply the necessary amount of secretion without storing any in reserve in the alveoli as is usual in the normal gland.

In illustration of these changes I may refer to an experiment in which I removed the whole of the left lobe and the greater part of the right from a rhesus monkey. After the operation there was slight hebetude and harshness of the voice. No other symptoms developed, although the animal was kept under observation for fourteen months, and then was killed as it had contracted general tuberculosis. A piece of glandular tissue which had developed from the small portion of the right lobe left at the operation was found weighing 0.42 gram. Fig. 10 (p. 655) shows the changes in structure which had taken place. The folding of the epithelium giving a larger secretory surface is clearly seen, and in some of the smaller alveoli near the centre the consequent irregular shape of the lumen is evident. The epithelial cells have become columnar in type, while the colloid is scanty, and seems to be watery in consistence.

The remarkable results which have been shown by Dr. Rose Bradford to follow the excision of a portion of the kidney, and which were so well described by him in his Goulstonian Lectures last year, raise the question as to whether these changes in the structure of the thyroid are due entirely to the want of that body acting as a stimulus to the compensatory growth of the gland, or whether they are in any way due to some other local or general effect of the operation itself. If the compensating growth of the one lobe takes place simply in response to a call for more secretion to make good the loss of the other lobe, no hypertrophy should take place if this want is fully supplied from other sources. This point may be tested by removing one lobe of the gland and giving thyroid secretion continuously for some time, and then removing the other lobe for examination. If no changes indicating compensatory hypertrophy are found in the second lobe, it goes far to show that the hypertrophy develops simply as the result of an insufficient amount of thyroid secretion being present in the blood.

To test this point the right lobe and parathyroid were removed from a male bonnet monkey. For the next three weeks 12 minims of thyroid extract were given in the course of each week. Then, as the animal became rather emaciated, the quantity was reduced to half this amount for the next five weeks. Slight myxœdematous symptoms then appeared, but diminished on increasing the dose to 24 minims in the week; this was continued for two and a-half weeks, when the animal died from dysentery. The left lobe was found to be pale in colour, and only weighed 0.03 gram. No parathyroid was found attached to it. Microscopical sections showed no signs of compensatory hypertrophy even in its earliest stages.

In another experiment the right lobe and parathyroid were removed, and 1 minim per diem of thyroid extract was given by the mouth for sixteen weeks, and then the left lobe and parathyroid were removed. The right lobe with the parathyroid which was removed first weighed 0.3 gram, and was found to be abnormal in structure to start with, as it resembled a hypertrophied gland in structure.

Similar appearances were found by Halsted in the thyroid gland of several healthy dogs. The occasional occurrence of such changes in apparently healthy animals is at present difficult to explain. The interesting point in this case is that after the prolonged interval of sixteen weeks, during which the extract was given, the left lobe was fonnd to be paler in colour, and weighed 0.25 gram. The microscopical structure was normal, and showed no signs of commencing compensatory hypertrophy. If this lobe was originally in the same condition as the right the treatment seems to have restored it to a normal condition, and if not it any rate showed no signs of compensating hypertrophy. As far as they go these experiments tend to show that if the proper amount of secretion is supplied after removal of one lobe compensating changes do not take place in the other.

In connection with this part of the subject I have tried the effect of prolonged administration of thyroid extract upon the healthy thyroid gland. It is well known that parenchymatous goitres often decrease in size when treated by thyroid extract. One explanation of this result is that a partial atrophy from disuse is established when the full amount of secretion is supplied from an external source. Two experiments have been made to ascertain if any atrophic changes could be induced in the healthy thyroid gland by supplying secretion ready made as it were and so doing away with the normal stimulus to secretion. The thymus atrophies after the first year of life from disuse, and the thyroid does so itself in old age, possibly for the same reason.

A small bonnet monkey was given 1 minim of thyroid extract per diem by the mouth for forty-four days, and then 3 minims for thirty-one days. The thyroid gland was then removed. It looked small and pale in colour, and with the two parathyroids weighed 0.11 gram. The microscopical appearance of the gland was normal, the epithelial cells and their nuclei being stained as usual, and the alveoli were well filled with secretion. In another similar experiment a male bonnet monkey was given 1 minim of thyroid extract for forty-four days, and 3 minims daily for forty-two days. The thyroid gland was then removed, and, with the parathyroids, weighed 0.14 gram. The nuclei were well stained, and the alveoli were well filled with secretion. There was rather more fibrous tissue in the interalveolar space than is generally seen in the normal gland, but not a sufficiently well-marked increase to amount to a pathological change. The glands were certainly pale in colour and light in weight, and appeared to have undergone some diminution in size, but no evidence of atrophic changes was found in the microscopical specimens. Possibly if larger doses had been given for a longer period, some more definite change in the structure of the gland might have been found.

Goître.

The pathology of goître is a subject of much importance, for the disease is still endemic in this country in the valleys which drain the Pennine range of hills east and west from the Border as far south as the Peak in Derbyshire. Time will not permit me to discuss the question of the origin of endemic and sporadic goître, but I wish to draw attention to the interesting effects which have followed the treatment of simple parenchymatous goitre by thyroid extract. At first sight such treatment may seem somewhat superfluous, but experience has shown, and to that of others I can add my own, that this method of treatment frequently leads to a notable diminution in the size of the goître. Adenomata, cystic adenomata, and other new growths are not influenced by the treatment, though the parenchymatous enlargement which often accompanies them may be diminished.

In the treatment of goître it is advisable to begin with 10 minims of liquor thyroidei each night; in the course of a few days, if the pulse is not accelerated beyond 90 or 100, this dose may be given twice, and at the end of a week thrice daily. If well borne, the dose may be still further increased. The treatment should be continued for three or four weeks to give it a fair trial, and longer if the goître continues to decrease in size. In several cases in which the general enlargement of the gland has been sufficient to cause dyspnœa by compressing the trachea, so that an operation had to be considered, the gland has been reduced to two thirds, or even one half, of its former size, and all the symptoms of pressure removed, and with them the necessity for an operation.

The beneficial effects of this treatment may be due to the iodine which is present in combination with a proteid in thyroid extract, for iodine has long been used with good results in the treatment of goître. We have seen that the healthy thyroid of the monkey showed some signs of diminution in size under the same treatment, and I would suggest that the decrease in size in goître may be due to part of the enlarged gland passing into a resting condition, and consequent diminution in size if there is not an actual disuse atrophy as a result of the treatment.

Exophthalmic Goître.

Exophthalmic goitre, with its many varying phrases, is a disease of great interest from several points of view. The various clinical types in which it comes before us, and the great difficulties in treatment it often presents renders a true solution of the problem of its pathology of the greatest importance.

The circulatory and nervous systems have each in turn been considered to be at fault, and it is only recently that attention has been drawn to the important part which is

played by the thyroid gland in the pathology of the disease. The central and sympathetic nervous systems have been carefully examined in a considerable number of cases; in some they have been found quite normal, in others various lesions have been described, but these have varied in different cases, and on the whole appear to be rather secondary than primary in origin. I shall not describe the various lesions which have been found, as I have already elsewhere [10] discussed their relative importance. The lesions found in the thyroid gland are far more constant in character than any yet described in the nervous system, and it is the most obviously diseased organ to be found in a case of exophthalmic goitre.

In nearly all cases of exophthalmic goitre there is a palpable enlargement of the thyroid gland. On looking through my casebooks I find notes on 70 cases of exophthalmic goitre which I have seen during the last nine years in the North of England, where the disease is not uncommon. Of these 8 were men and 62 women. All the 8 men had enlargement of the thyroid; of the 62 women all except 3 had enlarged thyroid glands. Taking both sexes together, we find that only 4.3 per cent. of these cases had no goitre. It has been shown by Maude that in some cases enlargement of the gland may be present at one time and not at another, so that even in these 3 cases, which were only seen a few times, there may have been some enlargement at some other time during the course of the disease which had escaped observation. In any case, in 95 per cent. of my cases, there was either enlargement of of the gland at the time the case was seen, or there was a distinct history of enlargement at an earlier stage.

The enlargement of the thyroid gland in exophthalmic goitre is as a rule uniform. In cases of long duration it may be irregular in shape and consistence owing to the development of fibrosis leading to the formation of irregular strands and masses of hard fibrous tissue in some parts of the gland. The veins on the surface are large and their walls are thin. In well-developed cases the goitre is very vascular, and the arteries are dilated and tortuous, indicating that there was a liberal supply of blood during life. On section the cut surface presents a uniform appearance; it is lighter in colour and exudes less colloid than a normal gland.

The microscopical appearances have been very clearly described by Greenfield,[11] Stewart and Gibson,[12] Edmunds,[13] and Abram.[14] The general appearance is that of a gland in a state of great secretory activity, and has been aptly compared by Greenfield to that of the mammary gland during lactation. The number of alveoli is not only increased by the total increase in size of the gland, but in equal areas more alveoli are seen than in the normal gland. In many places the lumen of the alveolus is irregular in outline owing to the folds of the alveolar wall covered with epithelium projecting into it, so that, even when the gland is but slightly enlarged, there is a marked increase in the amount of the secretory epithelium. The lumen of the alveolus is in consequence diminished in size, in some cases to a considerable extent. The actively secreting part of the gland is thus increased at the expense of the storage room, which is so ample in the normal gland. The epithelium which lines the alveoli and covers these folds is changed in type, for the cells, instead of being flat or cubical, are tall and columnar. There is less secretion to be seen lying in the alveoli than in health. This diminution in quantity is partly due to the decrease in the amount of storage room. In addition to this, however, the alveoli are only partially filled, an appearance which suggests that there is a more rapid removal of the secretion from the gland than in health. The colloid is also more watery in consistence and it stains less deeply than normal. Eosin does not stain it at all, and Renant considers that it resembles fœtal colloid more nearly than that found in the healthy adult.

These changes are well shown in two specimens from cases which have been under my care. The section shown in Fig. 11 (p. 655) was taken from the right lobe of the thyroid gland of a married woman, aged 32, who had suffered from attacks of palpitation for several years. There had been enlargement of the thyroid gland for a year, exophthalmos for nine months, and progressive emaciation for eight months. The pulse varied from 120 to 140. As medical treatment failed to arrest the progress of the disease, the right lobe of the gland was removed by Mr. F. Page. Unfortunately the patient died suddenly an hour after the operation. This specimen shows the general appearance of the gland under a low power, the plication of the alveolar wall, and the diminution in the amount of secretion in the alveoli. Fig. 12 and Fig. 13 (p. 655), which were also photographed by Dr. R. A. Bolam, were taken from sections prepared by my research clerk, Mr. J. Muirhead.

The specimen shown in Fig. 12 was taken from a man, aged 30, who had suffered from acute exophthalmic goitre for some four or five months. There had been goitre, great nervousness, exophthalmos with retraction of the upper eyelids and von Graefe's sign, frequent pulse, rapid respiration, emaciation, sweating, and diarrhœa. In addition he had an attack of appendicitis, followed by the formation of a small abscess, which contributed to the early fatal termination.

This specimen shows an aveolus under a high power in which the changes described are well marked. There are several deep folds in the wall, the columnar type of the epithelium is clearly seen, and only a small amount of lightly stained secretion is lying in the irregularly shaped lumen.

From the above description and illustrations it will be seen that the structure of the gland in exophthalmic goitre resembles that in compensatory hypertrophy in a remarkable manner. In both there is the increase in the secreting structures as shown by the plication of the alveolar wall, in both the epithelium is changed from a cubical into a columnar type, while the secretion stored in the alveoli is less in quantity and more watery in consistence. We know that the changes in compensatory hypertrophy are an indication of increased activity, so that it is fair to infer that the changes found in exophthalmic goitre show that hypersecretion is going on. For additional reasons which we shall now consider the most rational explanation of the complex symptoms of this disease appears to be that they are due to an excessive formation and absorption of the secretion of the thyroid gland, which may or may not be altered in composition, and to the constant presence of this excess in the blood, and to its action upon the metabolism of the tissues generally, but more especially of the nerve centres in the medulla.

According to this view exophthalmic goitre is the opposite condition to myxœdema, the former being the result of excess as the latter undoubtedly is of lack of thyroid secretion in the blood. This is supported by the strong contrast which is presented by the symptoms of the two diseases, a contrast which is nearly as marked as that between the small fibrous and atrophied gland of myxœdema and the enlarged hypertrophied gland of exophthalmic goitre. Associated with the former we have increase of weight, stolidity, subnormal temperature, dryness of the skin due to diminution of cutaneous secretion, with increase of electrical resistance and slowing of the pulse, while with the latter we find emaciation, nervousness, normal or raised temperature, moist skin due to increase of secretion, with diminished electrical resistance and acceleration of the pulse. We may conveniently express the relationship of myxœdema to exophthalmic goitre in their various degree of severity in the following diagramatic manner. If we take 100 as representing the normal amount of thyroid secretion in health, then 75 per cent. is probably about the amount of secretion formed in those cases of early thyroidal fibrosis with slight myxœdema to which I have already alluded. If half the glandular tissue is destroyed and only 50 per cent. of secretion is formed, the symptoms will be moderate. If 25 per cent. the symptoms will be well marked, and if none at all is found they will be severe. In the reverse way, in exophthalmic goitre 125 per cent. of secretion would be present in a slight case, 150 per cent. in a moderate one, 175 per cent. in a well-marked one, and 200 per cent. in a severe case.

Percentage of Thyroid Secretion in the Blood.	Degree of Severity of the Symptoms.
200	Severe exophthalmic goitre.
175	Well-marked exophthalmic goitre.
150	Moderate goitre.
125	Slight goitre.
100	Health.
75	Slight myxœdema.
50	Moderate myxœdema.
25	Well-marked myxœdema
0	Severe myxœdema.

In myxœdema these percentages are in all probability approximately correct. In exophthalmic goître, however, we have no means of ascertaining how much secretion is actually formed. It may amount to much more than double the normal quantity in a severe case, so that these percentages are purely relative, and must not be taken to indicate the actual mount of secretion present in the blood.

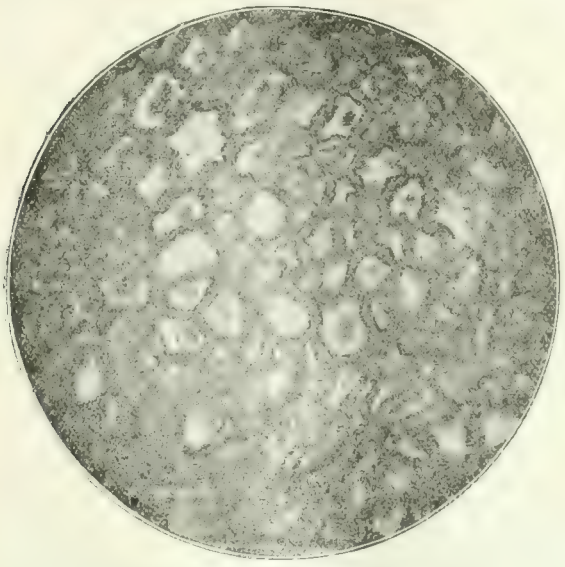


Fig. 10.—Compensatory hypertrophy of thyroid gland of monkey showing plication of alveolar wall, columnar epithelium, and scanty secretion in alveoli. Low power.

Another interesting point in the relationship between the two diseases is the repeatedly-observed fact that recovery from exophthalmic goitre may be followed by myxœdema, while, as far as I am aware, exophthalmic goître has never been observed to develop in a patient already suffering from

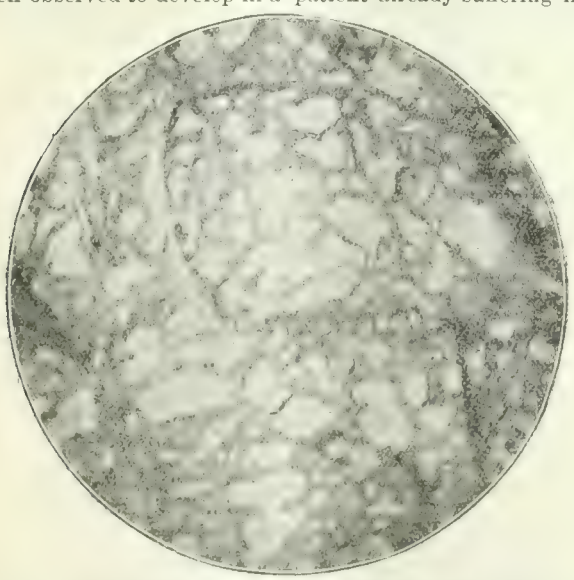


Fig. 11.—Thyroid gland in exophthalmic goître showing plication of alveolar wall and scanty secretion in alveoli. Low power.

myxœdema. In some cases the symptoms of exophthalmic goître diminish as those of myxœdema develop, in others there is an interval of good health between the disappearance of the exophthalmic goître and the onset of the myxœdema. In a case recorded by Baldwin,[17] exophthalmic goître developed in 1887 and recovery took place the following year. Two years after, in 1890, myxœdema developed which three years later was successfully dealt with by the thyroid treatment. In a similar case recorded by Joffroy and Achard, and quoted by Moebius,[18] the exophthalmic goître existed for twenty-three years and then subsided, to be followed by myxœdema.

After death the nervous system was found to be quite normal, and the thyroid gland in an advanced stage of atrophy. It thus seems evident that the development of thyroidal fibrosis in exophthalmic goître, by lessening the overactivity of the gland, leads to a subsidence of the symptoms,



Fig. 12.—Thyroid gland in exophthalmic goître showing plication of alveolar wall, columnar epithelium, and scanty secretion in alveolus. High power.

which, if the fibrosis and atrophy progress far enough, are replaced by those of myxœdema. Fig. 13 shows a section of the gland from an old-standing case of exophthalmic goître.

In this the alveoli are much diminished in number, and between them there is a large amount of young cellular fibrous

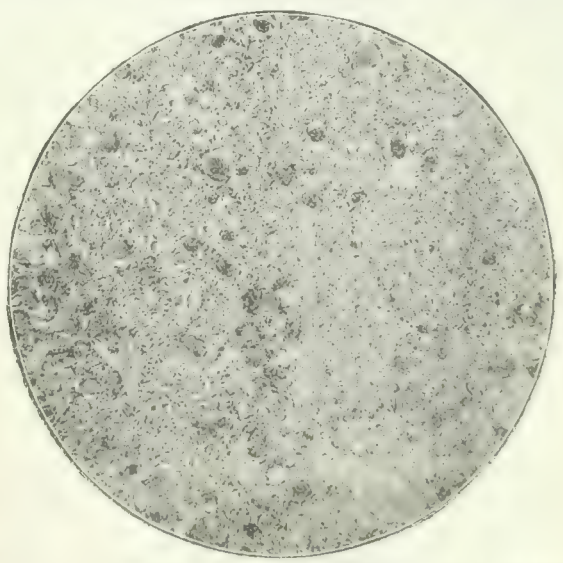


Fig. 13.—Exophthalmic goître of long duration showing few alveoli and much young cellular fibrous tissue.

tissue. No symptoms of myxœdema were present at the time this patient died, but it is evident that if the fibrosis had advanced much further symptoms of myxœdema would have developed. While these changes are taking place in the gland, the symptoms may pass from those of severe exophthalmic goître through all the stages mentioned in the table to those of severe myxœdema.

One or two cases have been recorded in which the symptoms of myxœdema are said to have coexisted with those of exophthalmic goître. The reasons for asserting the coexistence of the two diseases in these cases seem to be rather slender, and to be largely founded on the presence of an irregular brawny swelling together with the symptoms of exophthalmic goître. I have occasionally seen a firm subcutaneous swelling in some parts of the body in exophthalmic goître, but it certainly was not myxœdematous. It is important to have such cases carefully reported, so that more information may be obtained on this point. The persistence for a time of a few symptoms of exophthalmic goître in a case of long duration which was passing into myxœdema is not unlikely, for the effects of the long-continued action of an excess of secretion on the nerve centres in the medulla, may easily remain for a time even after the thyroid had begun to atrophy, just as the effects of the action of lead or the toxins of diphtheria on the nervous system persist long after they have ceased to act.

The physiological effects of thyroid secretion in large doses are of special interest in this connection. Exophthalmic goître, though rare in the lower animals, has been observed in the horse, the cow, and the dog, so that if the right cause is brought into operation there should be no great difficulty in producing the disease in one of these animals. As we are ignorant of the causes of the change in structure and activity of the thyroid gland in exophthalmic goître, attempts can only be made to reproduce the symptoms we believe to be secondary to the excessive activity of the thyroid. This can be done either by grafting an excess of thyroid gland tissue into an animal, or more certainly by feeding it with large quantities of thyroid secretion, or by injecting it beneath the skin. Ballet and Enriquez,[17] by feeding dogs with the thyroid glands of sheep, produced distinctive symptoms in 3 out of 6 cases. These symptoms were elevation of temperature, tachycardia, tremors, conjunctivitis, emaciation, and in one animal quite distinct exophthalmos.

Still more important are the results which have been observed and follow large doses of thyroid extract in man. A condition of thyroidism seems to be more easily produced in those who have recovered from myxœdema than in those who have normal thyroid glands. It may develop rapidly if large doses are given, or more slowly if smaller, but still excessive doses are given for a long period. The earliest and most common symptom is increased frequency of the pulse. The patient complains of palpitation, and the heart beats violently 100, 120, or 130 times a minute. A fine tremor of the hands is often present, and the skin is flushed and moist. If the large doses are continued for some time emaciation also takes place.

In addition to these symptoms, elevation of temperature, restlessness, loss of sleep, polyuria, albuminuria, glycosuria, partial paraplegia, sensation of heat, and diarrhœa, all of which are occasional symptoms of exophthalmic goître, have been recorded. In one remarkable case Béclère[18] observed exophthalmos and rapid respiration in addition to other symptoms among those already mentioned in a woman who had suffered from myxœdema, and had taken 92 grams of thyroid gland in eleven days.

Some remarkable toxic symptoms have been observed in some cases by Horsley and Rodocanachi,[19] Paul,[20] and other surgeons, to follow partial removal of the enlarged thyroid gland. The most common symptoms which have been observed are fever, great frequency of the pulse (amounting to 150 or even 180 beats in the minute), rapid respiration, and great restlessness. In some of the cases the termination has been fatal at the end of a few days. As far I am aware, such symptoms have not been observed after a total thyroidectomy, so that they are not a result of the operation itself. The symptoms have occurred in cases of exophthalmic or soft parenchymatous goître after removal of one lobe of the enlarged gland, and especially when it had been much handled or squeezed during the operation. In several cases a profuse flow of thyroid secretion has been observed to take place after the operation from the divided isthmus into the wound. The symptoms are similar to those in acute cases of exophthalmic goître, and in thyroidism artificially produced in the manner already described, and are evidently due to absorption from the wound of thyroid secretion poured out from the cut surface of the gland, or a large quantity of it being squeezed during the operation into the lymphatics, and so into the blood stream.

This absorption of the secretion is a source of real danger in operations for goître, and especially in cases of exophthalmic goître. If, however, the gland be handled as little as possible during the operation, the cut surface is sealed by the cautery, and a free exit is provided for any secretion which may find its way into the wound, such symptoms will in all probability but seldom arise.

It is now well known that thyroid extract has a bad effect on patients with exophthalmic goître. Under its influence the pulse becomes more frequent and the other symptoms are increased. In some instances where other treatment had been followed by a marked improvement the administration of thyroid extract has been followed by a relapse into the former condition. In my opinion it should never be given in exophthalmic goître, as it is only adding fuel to the fire.

The results of surgical treatment of exophthalmic goître, undertaken with the object of reducing the amount of secreting tissue by removal of one lobe, or of inducing atrophy by ligature of some of the arteries which supply the gland, are of great interest, Unfortunately the operation itself, though sound in principle, is at present by no means free from risk. The steady improvement, however, which has resulted in many cases in which it has been successfully performed affords still further evidence that the symptoms of exophthalmic goître are due to the over-activity of the thyroid gland.

It is a fact of considerable interest that along with the enlargement of the thyroid gland in exophthalmic goître other ductless glands may be increased in size. The thymus gland is very often enlarged; in all the cases recently examined at St. Thomas's Hospital Dr. H. Mackenzie[21] has found the thymus persistent and enlarged, the microscopical structure being normal. Exophthalmic goître and acromegaly are sometimes found to occur together. I have recorded two examples of this and collected records of three others.[22] In acromegaly the pituitary gland is enlarged, and the enlargement seems to be analogous to that of the thyroid in exophthalmic goître, so that we have the remarkable fact that all these three ductless glands may be simultaneously enlarged. We know no explanation of this, but it suggests that possibly some common factor may be the cause of the enlargement. That some association exists between the thyroid and pituitary glands is further shown by the enlargement which takes place in the latter when the former is removed or disabled by disease.

These facts all indicate that in the treatment of exophthalmic goître attention should be directed to the thyroid gland. Time will not permit me to discuss the question of operative treatment, but there can be little doubt that removal of part of the enlarged gland is a rational method of treatment, and when the risks of the operation are diminished it should be more frequently employed in severe cases in which medical treatment has failed to do good. Of medical treatment much has been written. In my own cases inunction of red iodide of mercury ointment over the goître and belladonna given in large doses internally, so as to check the hypersecretion of the gland, have proved most serviceable. If the palpitation is excessive, convallaria has proved more useful than any other member of the same group of drugs. If there is great nervousness the bromides have done good. In only one case have I seen decidedly good effects from taking thymus. In this case 3 tablets of dried thymus were taken each day for nine months, for the last six and a-half of which the red iodide of mercury was used as well. As a result of this treatment the pulse-rate, which varied from 132 and 148, fell to 84, the thyroid gland, which had been considerably enlarged, returned to its normal size, the tremor became much less, and the exophthalmos was diminished.

In conclusion, Mr. President and gentlemen, allow me to thank you for the kind help you have given me by your attention in my endeavour to place before you some of the facts which help to explain the function of the thyroid gland and the practical uses to which such knowledge can be put in the treatment of disease, and I trust that the wishes of the founder of this lectureship have thus been carried out in the spirit, if not in the actual letter, of his bequest.

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THE ARRIS AND GALE LECTURES ON THE ANATOMY AND SURGERY OF THE PERITONEAL FOSSÆ.

Delivered at the Royal College of Surgeons of England,

By B. G. A. MOYNIHAN, M.S.Lond., F.R.C.S.Eng.,
Assistant Surgeon, Leeds General Infirmary, etc.

LECTURE III.—THE INTERSIGMOID FOSSA: INTERSIGMOID HERNIA: HERNIA INTO THE FORAMEN OF WINSLOW.

The Intersigmoid Fossa.

The first mention of this fossa is made by Hensing in the year 1742 in a Giessen dissertation. No subsequent reference to it is found until 1843. In this year Roser speaks of having seen the fossa very clearly defined on two occasions. In 1857 Engel describes a canal having a length of 3 cm. in infants, extending along the inner border of the left psoas muscle to the level of the bifurcation of the aorta, and in exceptional cases as far up as the pancreas. Treitz in 1857, Gruber in 1859, and Treves in his Hunterian Lectures, give good descriptions of the fossa. The latter author says: "The perfect fossa was met with in 52 per cent. of all the subjects. But if distinct funnel-shaped depression be added to the examples of the true fossa, then the percentage reaches 65. Jonnesco in 1890, and Brösike in 1892, gives accurate accounts of the fossa.

On drawing the sigmoid or omega loop upwards, the left or underlayer of the sigmoid meso-colon is exposed. On this surface can be seen the entrance to the intersigmoid fossa at the line of insertion of the meso-colon (Fig. 20). The fossa

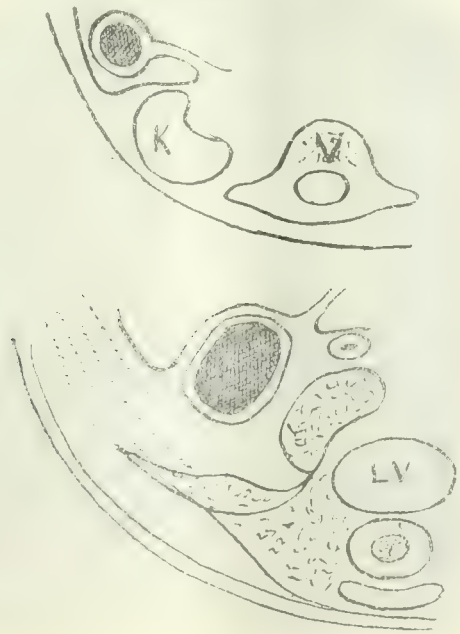


Fig. 20.—Formation of the intersigmoid fossa.

is present in rather over 70 per cent. of bodies examined. Its frequency depends, however, chiefly upon the ages of the subjects. In the fœtus of later months and in infants it is invariable. Its frequency becomes less with increasing years. As Treitz showed many years ago, in the aged there are never lacking signs of adhesion, crimping and thickening in the



Fig. 21.—The intersigmoid fossa.

sigmoid meso-colon. Processes of this kind tend to obliterate the fossa, so that in subjects over 50 years of age the pouch is not infrequently wanting. The opening of the fossa is situated in the line of attachment of the sigmoid meso-colon at a point which is near the inner margin of the psoas. It lies over the common iliac artery close to, or in front of, its bifurcation.

The orifice is generally round or oval, and is bounded in front by a fairly well-defined sharp edge of peritoneum. In this edge, or very close to it, may be seen the sigmoid vessels. This orifice leads to the intersigmoid fossa, which lies behind the sigmoid mesocolon and in front of the parietal peritoneum. The posterior wall of the fossa is adherent to the common iliac artery, and through the transparent wall can be seen the ureter as it crosses the vessel. The apex of the fossa extends upwards for a distance that varies very considerably. Sometimes there is merely a dimple representing the fossa; in other cases the depth may be 2 or 3 inches, or even more. I have on several occasions seen the fossa extend beyond the middle of the kidney, and this is usually the case in the fœtus. Engel, Brösite, and Rogie describe the pouch as extending as far up as the body of the pancreas. Most frequently the fossa in the adult is of the shape and size of an abbreviated glove finger for an average middle finger.

Genesis of the Fossa.

Several explanations have been suggested by Treitz, Luschka, Waldeyer, Treves, and others which I believe to be incorrect. It was first shown by Toldt that the disappearance of the mesentery of the descending colon was due to a process of "physiological adhesion" taking place between the left (or posterior) layer of the mesocolon and the parietal peritoneum (Fig. 20). This agglutination begins above, close to the splenic flexure, and spreads gradually downwards. Over the kidney, owing to the projection of this organ, the fusion is earlier and more complete. Along the inner edge of the kidney is a groove, and here, therefore, the opposing surfaces do not so readily come into contact, and adhesion is delayed. At the lower part of the groove union is never complete, and the gap that results is the intersigmoid fossa. On examining a fœtus of the seventh month, or a little younger, the descending mesocolon is obliterated. On pulling, even gently, on the colon, however, it will be found to strip up quite readily from the parietal peritoneum, until the primitive mesocolon is reproduced.

Hernia into the Intersigmoid Fossa.

Treitz refers to two cases of intersigmoid hernia, one recorded by De Haen, and the other by Lawrence. The description and figures given by De Haen negative his case unconditionally. Lawrence in the fifth edition of his work says that hernia may occur in the mesentery of the sigmoid, but gives no case. A case which has been generally accepted is

recorded by Jomini. I have elsewhere[1] analysed this case, which is probably one of gross congenital abnormality, with secondary adhesion processes. It cannot be allowed as a hernia of this class.

The only two authentic cases, so far as I am aware, are recorded—the first by Mr. F. S. Eve, and the second by Mr. McAdam Eccles. Mr. Eve's case was described and figured in the British Medical Journal of June, 1885, and I must refer the reader to this article for full particulars. In that case the most likely explanation of the history seems to me to be this. There had been originally a common mesentery for the jejunum, ileum, cæcum, and ascending colon. The splenic flexure and the descending colon became fixed in the usual manner by adhesion of the left or posterior layer of the original descending mesocolon to the parietal peritoneum of the posterior abdominal wall. As a result of peritoneal adhesion, most probably pathological, the cæcum and ascending colon had adhered to the descending colon, and the sigmoid and the united gut had been dragged over to the right, laying bare and rendering patent the orifice of the intersigmoid fossa.

Mr. McAdam Eccles's case occurred in 1895. I am indebted to him for a reprint of his account in the *St. Bartholomew's Hospital Reports*. The symptoms were those of acute intestinal obstruction. On opening the abdomen "a tightly constructing edge, which afterwards proved to be the margin of the aperture of the intersigmoid fossa," was revealed. A loop of gut 4 inches in length was nipped in the fossa, and about half an inch of it was gangrenous. The loop was removed and the ends stitched by Maunsell's method. The patient died of exhaustion. At the *post-mortem* examination there were signs of "some general peritonitis, most marked in the region of the sigmoid flexure, which was itself thrown over to the right side of the body."

These two cases illustrate as well as possible two quite opposite conditions. In the one there was congenital abnormality, gross in extent, and peritoneal adhesion, probably pathological and extrauterine, and in the other a peritoneal cavity in all respects normal.

Hernia into the Foramen of Winslow.

This form of hernia is very uncommon. I have been able to find only 8 cases recorded, 4 very imperfectly by Rokitansky, Treitz, Moir, and Novello, and 4 more fully by Blandin, Majoli, Elliot-Square, and Treves. After reading carefully the reports of these cases, it seems to me almost certain that in order to permit of the occurrence of this form of hernia, there must be some extreme congenital abnormality. In the carefully-recounted cases this has been observed. Thus in Treitz's case there was "a common mesentery for the intestine from the duodenum to the rectum." In the cases recorded by Elliot-Square and Treves there was an absence of the secondary fusion process between the ascending colon and the posterior abdominal wall. The causes leading to the formation of this form of hernia are probably:

1. A common mesentery for the whole intestine. Rogie has collected 53 examples of this, and he has not included all the cases.
2. Absence of the secondary fusion of the ascending colon to the posterior abdominal wall.
3. Abnormally large size of the foramen of Winslow.
4. Abnormal length of mesentery, and, consequently, undue mobility of the intestine.

In the absence of one or other of these abnormalities, the occurrence of the hernia may be considered almost a physical impossibility.

Symptoms.

On analysing the series of cases, it seems that a hernia into the foramen of Winslow on becoming strangulated presents a fairly well-defined group of symptoms. These are:

1. *Pain.*—This is generally epigastric. Square speaks of 'pain over the ensiform cartilage and immediately below it"; Treves, of "pain like cramp at and above the umbilicus"; Majoli, of "a painful rounded tumour" in the epigastrium.
2. *Tumour.*—An epigastric tumour has usually been observed. Thus, Majoli says, "a persistent bulging of the anterior abdominal wall in the epigastric region" was present. Treves speaks of "a conspicuous bulging of the anterior abdominal wall in the epigastric and hypochondriac regions." Square says "the umbilicus was somewhat prominent."
3. *Percussion.*—A tumour when present is dull on light percussion, but deep percussion sounds a more resonant note.

It is interesting to note that there are no recorded symptoms of pressure on the hepatic artery, portal vein, or bile duct.

Reference.
[1] *On Retroperitoneal Hernia.* London: Baillière, Tindall, and Cox. 1899.

THE THERAPEUTICS OF HEAT AND LIGHT AND ELECTRIC HEAT AND LIGHT BATHS.

By H. LEWIS JONES, M.D., F.R.C.P.,
Medical Officer in Charge of the Electrical Department, St. Bartholomew's Hospital.

With the house-to-house distribution of electric currents from central supply stations the application of the current from the mains to purposes other than the lighting of rooms will gradually become more general. Especially does the use of the current as a source of heat recommend itself on the score of convenience and ease of application, and a number of appliances for adapting electric heating to medical practice have lately been contrived. In some of these appliances incandescent lamps are used as the thermal generators, and certain special advantages have been claimed for them on the ground that in an incandescent lamp the heat emitted is from a source at a very high temperature, and is radiated rather than conducted, and that the light which is also given out by the lamps may have a beneficial effect. Thus Winternitz[1] has a paper on this subject with the title of Electric Light Baths, and with figures of some of the apparatus he uses. These consist of wooden boxes or cabinets arranged for the reception of a patient's body or limbs and fitted within with incandescent electric lamps and reflectors. In them the patient can be subjected to the light (and the heat) given out by the lamps. The diseases in which the treatment is said to have been found useful are rheumatism, asthma, anæmia, neurasthenia, and obesity.

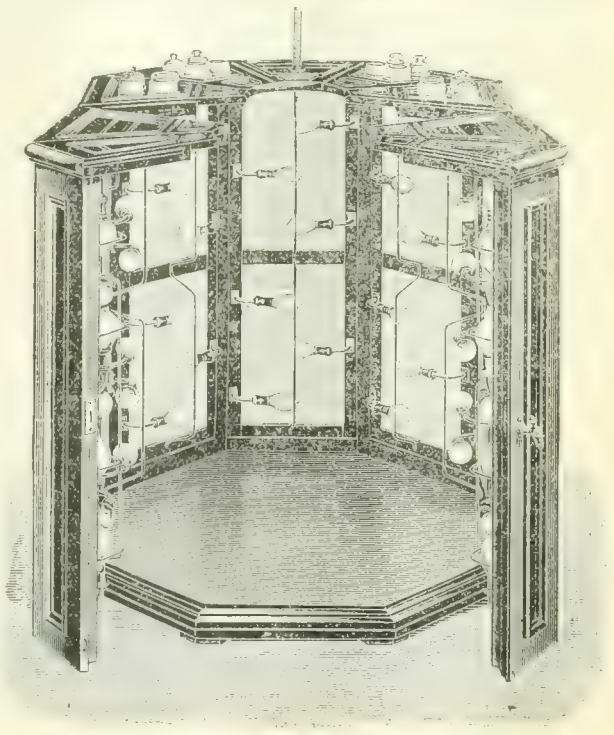


Fig. 1.—Electric light bath of Winternitz.

Winternitz states that the patients perspire profusely while in the cabinets, and the rapidity with which the perspiration sets in is specially insisted on by him. He says that after five minutes' exposure to the electric lamps profuse perspiration begins, although the temperature of the air in the cabinets is not more than 81° F.

Kellogg, of Battle Creek, U.S.A., made experiments with the same kind of apparatus in 1894, and arrived at the same results. He seems to have recognised that the effects noticed were mainly due to radiant heat, and compares the action of radiant heat from a source at a high temperature with that of the heat of lower grade which is employed in the hot room of a Turkish bath. Thus, he says the degree of perspiration obtained with an air temperature of 85° F. in the electric cabinet was equal to that produced in a Turkish bath at 106° F.

This comparison must, however, be imperfect in the absence of data as to the degree of humidity of the atmosphere surrounding the patients in the two cases. The atmosphere inside a small closed box is entirely unlike that of the hot room of a Turkish bath, which is properly ventilated and supplied with volumes of hot dry air. In spite of this objection, one may agree with the views of Kellogg and of Winternitz that the use of incandescent lamps as described does present certain advantages, namely, that the radiant heat penetrates the tissues more deeply, that the effect is more stimulant, and that perspiration is more quickly induced, also that the comparative coolness of the air about the patient is an advantage. It is uncertain whether the light emitted by the lamps plays an important part or not. Under the name of the "Dowsing radiant heat bath" an apparatus of a similar kind has lately been introduced in this country by a limited company, and establishments for the treatment of patients have been set up in London and in several provincial towns. The conditions which seem specially suited for treatment by radiant heat are just those which are relieved by the application of heat in other ways, such as rheumatic and gouty affections of the joints or muscles, sprains, myalgias, and other painful states. It does not appear at present that radiant heat has any special therapeutic properties which cannot be had from the older methods of applying warmth.

There is another contrivance for the production of heat electrically which is sometimes useful medically, and that is the electrotherm, which was noticed in the British Medical Journal for November 9th, 1895.

It consists of sheets of asbestos cloth interwoven with a fine wire, and enclosed in a cover forming a flexible pad about 14 inches square. When attached to a wall plug the current passes through the wire and warms it, the heat being regulated by a switch. For all conditions which can be relieved by the local application of heat it is admirable, and many such conditions will at once suggest themselves to the practitioner. In the relief of sciatica or lumbago I have found it useful. The electrotherm, with certain minor improvements, promises to be a useful domestic appliance as a foot warmer, or for any of the conditions now met by means of poultices, hot bottles, and the like. Its predominant merit consists in the fact that the turning of a switch is all that is needed to make it ready, and, when made ready, it goes on at full efficiency until switched off again. The defect of the electrotherm as at present made lies in the weakness of the fine wire with which it is fitted. This wire tends to become oxidised and brittle from the alternate heatings and coolings which it undergoes, and in time it breaks. If platinum wire were substituted for the german silver alloy now employed it would increase the first cost, but would give a durability which it lacks at present.

Another electrically-warmed appliance is the "Greville electrothermic generator."

It is heated by electricity. The heat is generated by electricity passing through wires, and not through lamps as in the radiant heat apparatus of Dowsing.

When their fragility is not an obstacle, incandescent lamps afford at once the cheapest and the most efficient of thermal generators. Messrs. Arnold and Sons are now working out with me the details of an electrically-heated operating table in which incandescent lamps supply the heat.

The body of the table has the form of an air chamber of metal, which may be divided into separate sections for convenience. Six or eight sixteen-candle power lamps enclosed in this chamber will rapidly raise an operating table to the required temperature, and half that number will then maintain the temperature at a proper level when the rest have been switched off. Wherever electric light circuits exist, this mode of warming an operating table would present decided advantages.

Some work has also been done upon the therapeutic effect of the light from arc lamps. For obtaining effects genuinely due to light as distinguished from radiant heat, the arc lamp should present great advantages by reason of the great intensity of its light, and of its richness in the more refrangible rays. The workmen in electric welding establishments, and in other places where they are brought into close proximity with arc lights, are apt to suffer severely from effects which very closely resemble those of sunburn, as experienced by mountaineers after exposure to the glare from sunlit snow. From investigations which have been made by several observers, it appears certain that these effects are really due to light and not to heat. It does not seem unreasonable to believe that good results might follow a systematic course of treatment by the light of the electric arc; and especial advantages might be expected from it in anæmia, because anæmia so commonly occurs in people who are more or less deprived of light.

Dr. Margaret Cleaves[2] has lately written upon the therapeutic action of arc lamps:

She describes a cabinet for the reception of the patient with two arc lamps arranged outside so as to shine into the cabinet through glass windows which may be open or closed. The patient is nude, wears dark spectacles, and reclines on a couch between the lamps. She has observed an increase in the hæmoglobin and the red blood corpuscles after two weeks' treatment. Her chief attention seems to have been given to cases with chronic pulmonary complaints, such as phthisis, asthma, and bronchitis, in which she obtained results which seemed to show an immediate beneficial action from the electric light. In a case of psoriasis and one of eczematous ulcer the effect was prompt and good. She also quotes from Koslovski,[3] La Touche, and Below. The former had his attention drawn to the subject from statements as to good effects noticed by workmen in electric welding works, and had obtained cures in 25 out of 38 cases, mostly neuralgia, sciatica, lumbago, and the like.

More extended observations are called for, and it is not unlikely that in time the arc lamp may take a place in therapeutics, particularly in the gloom and darkness of big cities.

Several independent writers have noted that the arc lamp, either by its light or by the emission of ozone or other vapours, has a very decided disinfecting or deodorising action upon noxious smells. Thus an arc lamp set up in a dark basement near offensive closets and latrines served to dissipate all bad odour completely from the place in which it was hung.

References.

1 *Aertzliche Polytechnik*, October, 1898. 2 *New York Medical Journal*, January 28th, February 4th, 1899. 3 *Revue Internationale d'Electrothérapie*, April, May, 1896, and March, 1898.

THE JOINTS OF MAMMALS CONTRASTED WITH THOSE OF MAN.*

By F. G. PARSONS, F.R.C.S.,

Lecturer on Comparative Anatomy and Elementary Biology, and Demonstrator of Anatomy at St. Thomas's Hospital Medical School, London.

Lecture I.

In this lecture the temporo-maxillary joint, the clavicular articulations and the shoulder-joint were dealt with. In the temporo-maxillary the importance of the external lateral ligament was drawn attention to, and it was shown that the interarticular fibro-cartilage was absent in certain of the lower mammals. The varieties of the joint in the different orders of the Mammalia were explained. In the sterno-clavicular joint the presence and meaning of the meniscus were discussed, as well as the various modifications by which the clavicle is attached to the coracoid and acromial processes. In the shoulder-joint reasons were brought forward for believing that the middle gleno-humeral ligament is more or less well represented throughout the Mammalia, while the superior and inferior are peculiar to man. The coraco-humeral ligament is peculiar to the Primates.

Lecture II.

The elbow, wrist, and hip-joints were dealt with in the second lecture. In the elbow the contrast between the arrangement of bones and ligaments in animals which use their fore limbs for support and those which use them for other purposes was drawn attention to. The utility of the orbicular and the oblique humero-radial ligament in various orders was described. In the wrist-joint the arrangements were seen to be very varied. Sometimes a septum dividing the joint into radial and ulnar compartments was found; sometimes a triangular fibro-cartilage was present, though more often it was absent or merged in the lower part of the interosseous membrane; its uses and significance were discussed in some detail. In the hip the various thickenings of the capsule were shown to be characteristic of the Primates. The ligamentum teres was followed throughout the mammalian class, and its various modifications studied with a

* Abstract of three lectures delivered before the Royal College of Surgeons of England.

view to deciding its meaning. Several extracapsular connections of it were especially interesting.

Lecture III.

This lecture was devoted to the consideration of the knee and ankle-joints. In the former the low attachment of the internal lateral ligament was shown to favour rotation, and in the bat's knee, which is a perfect hinge, this ligament is attached just below the joint surface. The semilunar cartilages were traced through the mammalian class, and in a generalised knee it was seen that the external one is attached posteriorly to the femur. In the lower Primates the external semilunar cartilage was shown to be circular, while in the bat both of them are suppressed. The variations of the ligamentum mucosum were detailed, and its power of dividing the knee into two or three separate cavities pointed out. In the ankle the anterior fasciculus of the external lateral ligament was noticed to be practically a human characteristic, while the serial homology between the middle fasciculus and the dorsal ligament of the carpus was traced. The modifications of the ligaments in the ruminant ankle to ensure stability were demonstrated, and it was shown that the marsupials possess a semilunar fibro-cartilage between the fibula and the astragalus, and that this is probably derived from the external lateral ligament.

These lectures will be published later in the *Journal of Anatomy and Physiology*.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CINNAMON IN INFLUENZA.

The newspapers give us a dismal daily death-roll from influenza. My experience during the past five years leads me to believe that no patient, if promptly and systematically treated, need be on the sick list, even after a most severe attack, for more than five or six days at the very outside. The theory on which that treatment is based limits of space preclude me from at present discussing.

The drug I employ is cinnamon, either in a strong decoction or in tabloid form. I order half an ounce of decoction of cinnamon, or two tabloids, every half hour for two hours; then the same dose to be continued every hour till the temperature falls to normal. After the temperature has become normal the same dose to be taken four times a day for four days; the patient not to leave the house for twenty-four hours after the temperature has become normal; the treatment must be commenced within twenty-four hours from the onset of the attack of influenza.

In February, 1892, I commenced treating influenza in the manner above described, and all the cases so treated were out and about in two or three days. It so happened that every case was seen within a few hours from the onset of the attack. In the end of 1892 and spring of 1893 I treated a second batch of cases, for the most part without any good results.

Carefully reviewing my results, I began to perceive that they seemed to stand in some direct relation to the period of the disease at which the treatment had been commenced. So I determined to take twenty-four hours from the onset of the disease as a time limit, and to treat no cases with cinnamon where this time limit was overpast. Since the spring of 1894 I have invariably observed this time limit and have treated a large number of cases, and in every case so treated within twenty-four hours from the onset the patient has returned to his place in society within five days from the commencement of treatment, and in no case have I been embarrassed by complications of any kind. Recently I have attended a young lady for influenza, who was treated with cinnamon, though she was rather over the time limit, and she did not go downstairs till the seventh day from the commencement of treatment, but as she is within three weeks of her first confinement I do not consider that she has done badly. In those cases where the treatment has been commenced within four or five hours from the onset of the attack I have found patients usually able to return to their duties within forty eight hours.

The decoction is prepared by slowly boiling a pound of cinnamon *in vacuo* with a sufficiency of water till the fluid is reduced to a pint and a quarter, and can at present be obtained from Messrs. Woolley and Sons, Victoria Bridge, Manchester, or from Mr. Horsey, Chichester Street, Upper Westbourne Terrace, W. Messrs. Burroughs and Wellcome have also prepared a tabloid of cinnamon, two tabloids being equivalent to half an ounce of the decoction, and, as far as my experience at present goes, the tabloid seems to be quite as efficacious as the decoction.

My work during the past five years is summed up in the above bald statement. Should what I have said induce others to make a trial of my method of treating influenza, I trust they will do me the justice to follow the rules of practice that I have ventured to lay down.

Joseph Carne Ross, M.D.Edin.,
Physician to Ancoats Hospital.
Manchester.

OBSTINATE HICCOUGH.

I am glad to learn the effect of nitroglycerine in these troublesome cases as related by Mr. R. W. S. Christmas, and will give it a trial at the next opportunity.

In 1892 I had under my care a man with catarrhal jaundice whose persistent hiccough resisted treatment which extended almost through the gamut of the *Pharmacopœia*. Even inhalation of chloroform only checked it when anæsthesia was complete, the spasm of the diaphragm returning unabated at the same time as the conjunctival reflex, and the patient finally died of exhaustion after a week of extreme suffering.

Last month Mrs. R., aged 60, during a severe attack of facial erysipelas commenced a hiccough so violent that the sound penetrated to all parts of the house, and as it persisted in spite of all ordinary remedies (including subcutaneous injections of morphine and atropine, and blisters over the epigastrium and phrenic nerves), and quite prevented sleep, I was forced to give a very gloomy prognosis. On the morning of the fourth day, finding the pulse almost imperceptible, I administered by the mouth half a drachm of pure ether in a little water as a cardiac stimulant, and was delighted to find the hiccough diminish almost immediately: two similar doses in the next two hours cured it completely, and she made an excellent recovery. Both nitroglycerine and ether are classed as antispasmodics, but that their effect is not due to their depressant action on the respiratory centres is apparent from the failure of the bromides, chloral, and other similar drugs to diminish the spasm. May not the singultus, then, be Nature's demand on the vasomotor centre for an increased visceral circulation? If this is the case we err by the administration of nervo-muscular sedatives, and should refrain from giving morphine.

Stamford G. Felce, M.D.
Cricklewood.

DISPLACED LEFT MIDDLE TURBINATE WHICH OBSTRUCTED THE NASAL PASSAGE FOR TEN YEARS.

The patient, aged 29, consulted me in February, 1898, for persistent obstruction of the left nostril. He attributed his malady to blows on the nose received when playing football in boyhood.

In 1888 a surgeon removed some polypi from the left nostril with forceps. The operation was exceedingly painful, and the bleeding was profuse and protracted. His condition was not materially improved by this procedure. Subsequently another surgeon removed several polypi with the snare, and applied the electric cautery to the parts, affording some relief.

I found the obstruction of the left nasal passage to be almost complete. The anterior end of the lower turbinated body was readily seen, but no trace of the middle turbinate was visible, whilst over and about its position anteriorly the external wall was covered by a sessile myxomatous-looking growth. Further back this tissue was pedunculated, and presented the appearance of the simple mucous polypus. By post-rhinoscopic examination no polypi were observed, but what seemed to be the posterior end of the middle turbinate appeared to be much hypertrophied. Concluding that the

anterior end of this body had been wrenched off at the first operation, I proceeded to remove the polypoidal tissue within reach by means of the cold snare.

At the patient's next visit, on looking into the passage I observed a grey mass deep in the fossa, extending from the floor upwards and backwards. It felt dense to the probe, which could be passed on either side of it, and firmly fixed in the position, being partly embedded in the lower turbinal tissue, from which it could be readily distinguished, however, by its pale grey colour. I endeavoured to pass the snare round it from below, but without success; and accordingly I divided it with a pair of nasal scissors, when the snare was readily passed upwards and backwards. Both portions were then easily removed, and it was obvious that at some time the turbinate had been all but completely detached. By its removal the passage was at once rendered patent, and the remaining myxomatous tissue was treated in the usual way. No polypi could be seen in the right nasal passage, but there was a moderate degree of chronic hypertrophic rhinitis.

The parts which had been removed when placed in position measured 4 cm. by 1 cm. at the broadest point, and weighed 1.3 gram. The size and outline are fairly represented in the accompanying sketch. The internal surface was slightly



Outline drawing of specimen.

convex, whilst the external was somewhat concave. Except for being rather pale it appeared to be little altered from what might be met with in a recently-removed specimen, and there was no trace of myxomatous thickening of the mucous tissues.

This case is instructive as showing the mischief that may result from the blind use of forceps in the removal of nasal polypi.

Robert Fullerton, M.D.,
Surgeon to the Outdoor Department for Diseases of Throat and Nose, Glasgow Royal Infirmary; Lecturer on Diseases of Throat and Nose, St. Mungo's College; etc.

THREATENED DEATH UNDER CHLOROFORM.

The case of death under chloroform reported by Mr. C. W. Cathcart resembles in so many points a case which I had at St. Paul's Eye and Ear Hospital, that I think the details of it will prove of sufficient interest to report.

My patient was also young, a boy, aged 7, and had been specially prepared for chloroform. The operation was for squint, and everything went on as usual until the second eye was being operated upon. He appeared to wince when the conjunctiva was pinched by the forceps, showing that he had not entirely lost sensibility. The breathing then suddenly became somewhat irregular, and the pulse could not be felt at either wrist. The face was pale but the breathing went on in an irregular fashion. The heart beat could be heard very faintly with the stethoscope. The operation was at once stopped and the head thrown over the end of the couch, the tongue pulled forward, and artificial respiration commenced. In addition, a piece of lint soaked in nitrite of amyl was held continuously over the mouth and nostrils. It was some time before a flicker of pulse was felt but it gradually became stronger. The breathing did not improve for some time, and he remained very pale. Complete recovery took place, however, and we attributed it entirely to the effect of artificial respiration combined with the nitrite of amyl.

Like Mr. Cathcart's case, this is undoubtedly one where the heart failed before the respiration, and I am certain that we owe the successful result of our case to the nitrite of amyl.

Thomas Stevenson, M.B., C.M.Edin.,
Late Assistant Surgeon, St. Paul's Eye and Ear Hospital.
Liverpool.

AN OPEN SAFETY-PIN REMOVED FROM A CHILD'S OESOPHAGUS.

On February 16th, 1899, Mrs. V. brought her baby to me, stating that it had swallowed a brass safety-pin. On passing my finger down the œsophagus I could feel the head of the pin. I seized it with a long pair of curved forceps, and attempted to extract it, but I was unable to move it. Holding the pin tightly grasped by the forceps in the right hand, I again passed my left forefinger down the gullet, and now discovered that the pin was open, and that the point was buried in its wall. I then pushed the pin down towards the stomach till I had disengaged the point. Again hooking it up I caught the point on the tip of my forefinger, and then drew out pin and finger together. I imagine that the coughing or retching excited by the pin had driven its point through the mucous membrane of the gullet.

Clifton. Reuell Atkinson, M.D. Dunelm.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ST. MARY HOSPITAL, LONDON.

TRAUMATIC ANEURYSM OF THE SCIATIC ARTERY.

(Under the care of Mr. A. Q. Silcock.)

[From notes by W. C. Woon, M.D.Lond., House-Surgeon.]

Rebecca P., aged 54, was admitted to the hospital on September 23rd, 1898, with a pulsating tumour of the right buttock.

History of Illness.—About six months previously she fell on the fender, injuring her right buttock. She felt a good deal of pain at the time in the neighbourhood of the tuber ischii; this has since been almost constant and of increasing severity; she has been unable to walk or sit with comfort, and for the last ten days to walk at all; when in bed she cannot lie on her right side. A swelling was noticed in the buttock about six weeks before admission, and this has been gradually increasing in size. She has had rheumatic fever, but no other serious illness.

Condition on Admission.—She is a well-nourished woman, obviously suffering pain. She lies on her left side with the right leg moderately flexed. The pain is chiefly referred to the right buttock, but it also extends down the back of the thigh. Pulsation is plainly visible through the clothes at some distance from the bed. The buttock is much enlarged and pulsating, the pulsation being most marked a little above the gluteal fold. The superficial veins are prominent over the swelling. A forcible throbbing is felt over a wide area, extending inwards to about 2 inches from the middle line, downwards to the gluteal fold, upwards to the level of the posterior superior iliac spine, and forwards to the posterior edge of the great trochanter. By steady compression the tumour can be diminished in size, but it quickly regains its normal dimensions on removal of the pressure. A loud systolic *bruit* is heard over the whole area of pulsation, and over its posterior part there is also a diastolic *bruit*. The tumour is very tender to the touch. There is some numbness of the toes, but no complete anæsthesia; a tendency to foot-drop, but no paralysis.

Rectal and vaginal examination revealed nothing abnormal in the pelvis, and no cardiac disease or signs of arterial degeneration were found.

Operation.—On September 30th ether was given, and an oblique incision about 8 inches in length was made over the swelling parallel with the fibres of the gluteus maximus. The muscular fibres were separated, exposing the sac. It was estimated to hold about 14 ounces of blood, its shape was fusiform, and it extended from the sciatic notch downwards behind the great trochanter to beyond the gluteal fold. It was separated from the surrounding structures without difficulty. The separation was nearly completed when the thin-walled sac ruptured, and half a pint or more of blood escaped. Mr. Silcock at once grasped the tumour with his right hand, and thereby controlled the hæmorrhage to a considerable degree; the pedicle was then clamped, and the bleeding arrested. The sac was freely opened, and its cavity stuffed with cyanide gauze. The upper end of the sac having

been dissected out, a stout silk ligature was tied around the feeding artery and the mouth of the sac. The ligature unfortunately included the great sciatic nerve, which, being firmly imbedded in the sac wall, and actually forming part of it, could not be freed. The sac was now dissected away from above downwards as far as possible, and its efferent artery ligatured; it was then cut away. The wound was irrigated with perchloride of mercury lotion, and sewn up with silk sutures, a large drainage tube being inserted. A cyanide dressing was applied and firmly bandaged. The patient lost probably about a pint of blood during the operation, and the pulse, which was not strong before, became very weak. A pint of water was injected *per rectum*, but it was mostly returned. Morphine was given to relieve the pain. She was sick several times, and the pulse remained uncountable at the wrist till 10 P.M., when another pint of water was injected. This was retained, and in an hour's time her condition had markedly improved, and the pulse could be easily counted: its rate was 130 per minute. Mr. Silcock was assisted by Mr. Collier during the operation.

On October 1st she was distinctly better; the temperature had risen from 97° to normal; the pulse was 120, and fuller.

On October 3rd the pulse was 116; all sickness had ceased. She had only slight pain. There was found anæsthesia of the limb below the knee, except along the inner side of the leg and foot; the foot was dropped and powerless, and considerable œdema was present.

On October 12th all stitches were removed. The œdema of the foot and lower part of the leg was still persisting; the foot and toes were quite powerless; on flexing the hip the knee was passively bent, but it could not be moved voluntarily. The muscles were soft and flabby.

On October 18th the patient complained of pain and formication in the sole of the foot.

On November 6th the wound had healed. The œdema of the foot was still present. The calf muscles were wasted. The inner hamstrings could be contracted and the knee actively flexed, but the biceps did not contract. The limb was kept flexed at the knee, as some pain was caused by its complete extension.

On December 13th the patient was discharged in excellent health, and able to get about on crutches. There was, however, complete motor paralysis of the foot and biceps; anæsthesia over the whole of the sole of the foot and rather more than the outer half of the dorsum, including the four outer toes, extending up the outer side of leg to just below the knee, reaching to the middle line posteriorly, and rather to the outside of the middle line anteriorly; and œdema of the dorsum of the foot, and of the leg, extending nearly to the knee.

The aneurysm was examined by Dr. Bill, curator of the museum, who reports as follows: In shape the sac is a short oval, measuring $3\frac{3}{4}$ inches by $2\frac{1}{4}$ inches. The afferent artery enters on the deep surface at the upper end of the sac. The efferent artery leaves on the deep surface about midway between the upper and lower ends; it is completely fused with the sac as far as its lower end. The great sciatic nerve is represented by one stout strand of nerve-bundles about the size of an average median nerve on the deep surface of the sac, and on the superficial surface by two thin ribbons in which the nerve bundles are much separated. They are all intimately connected with the sac.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. BRYANT, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, March 14th, 1899.

THE MORBID ANATOMY AND PATHOLOGY OF DR. BRADSHAW'S CASE OF MYELOPATHIC ALBUMOSURIA.

DRS. T. R. BRADSHAW and W. B. WARRINGTON contributed this paper. An account of the clinical features of the case was read by Dr. Bradshaw before the Royal Medical and Chirurgical Society in April, 1898, while the patient was alive. Large quantities of albumose were present in the urine for more than a year, and some months before the close indications of softening and fragility of the ribs, sternum, and vertebræ appeared. The diagnosis made was multiple myeloma, a condition which had been found at the necropsy of former cases of albumosuria, but which had never before been recognised during life. Death took place in August, 1898, and the diagnosis was confirmed by the *post-mortem* examination. The affected bones were brittle, their deeper parts being occupied by a soft round-celled mass, and the osseous tissue reduced to a mere shell. The kidneys were the seat of chronic interstitial nephritis of a moderate degree. In its clinical history and morbid anatomy this case differed materially from those of osteomalacia, but it corresponded with the description of former cases of multiple myeloma. Only six well-attested cases of albumosuria with bone disease had been published when Dr. Bradshaw read his first paper on the present case. In some of them the bone disease had been altogether overlooked during life, and in the others it had been considered to be osteomalacia. This was the first case of albumosuria in which the diagnosis of multiple myeloma had been made and confirmed at the necropsy. The authors reviewed the six previous cases, and pointed out their general similarity to the present one. They laid special stress on the importance of the remarkable reactions of the urine in these cases, and expressed their opinion that the cases of multiple myeloma with albumosuria were of an entirely different nature from those in which it did not occur. For cases of albumosuria with new formations in the marrow they adopted the term "myelopathic albumosuria."

DR. PARKES WEBER remarked that the main features of this case corresponded very closely with those of a case recently published by him in the *Journal of Pathology and Bacteriology* as one of malignant adenomatosis. In each case the patient was an old man, showing increasing kyphosis that suggested either spinal caries, malignant disease of the vertebræ, or progressive spondylitis deformans. In each case there was progressive debility with pain in the bones. In his case at the time of death, as in most of those on record, there was pneumonia, and in Dr. Bradshaw's case there had been pneumonia not long before the fatal termination. If albumosuria were present in his case it had been overlooked, but a note was made in the report that the urine contained albumen. In some of the cases recorded albumose appeared in the urine during the later stages only of the disease. In his case the lymphatic glands were also affected by the growth. Deposits of calcium phosphate were present in the kidney, but on this fact he did not wish to lay much stress, as they were in the neighbourhood of small adenomatous growths—a not uncommon association. He considered that the most probable explanation of the albumose in the urine was that it was formed by the cells of the new growth, for as Senator had pointed out it was to be found in the blood, and from the blood it was excreted by the kidneys. Why albumosuria should be absent when lymphomatous growths occurred in other situations he was unable to explain.

DR. A. T. H. WATERS, who saw Dr. Bradshaw's case during its progress, commented on the apparent rarity of the disease, but thought other cases must have escaped recognition. The question he would like to have settled beyond doubt was whether albumosuria was indicative of a specific disease—of a definite bone disease. He suggested that in all surgical bone diseases this substance should be searched for, and particularly that cases of bone disease occurring in the workhouse infirmaries should be investigated with this condition in view.

DR. BRADSHAW, in reply, stated that hitherto the essential connection between albumosuria and this particular bone disease had not been recognised in this country. That Dr. Parkes Weber had really overlooked the presence of albumosuria in his case was by no means certain for in six alone of sixteen other cases was it found; indeed, it must not be assumed that albumosuria was an invariable accompaniment of the disease. He believed that lymphomatous growths elsewhere than in the bones never caused albumosuria, and even when they occurred in the bones it might be that they were not the real cause of the albumosuria. He referred to cases that had been described by a surgeon as quite similar to his own, which had been diagnosed as senile caries. He emphasised the fact that no circumscribed tumour was found in his case; in this respect it differed from the others recorded.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Friday, March 10th, 1899.

Hydatid Cysts in Upper Lobe of Right Lung and Liver successfully Removed.

Mr. H. Betham Robinson described this case. The patient, a boy aged 6, was admitted into St. Thomas's Hospital on June 7th, 1898. For some time he had had a cough. About three years before an abdominal tumour, the size of a marble, had been first noticed. This had gradually increased without pain. On examination there was a firm rounded cystic swelling in the right hypochondriac and lumbar regions, reaching almost to the middle line and below the level of the umbilicus. There was a rounded nodular projection on its inner side just under the umbilicus. The liver dulness began at the seventh rib in the nipple line, and was continued down over the tumour. The swelling moved with respiration, and could be grasped between the hands placed in front and behind, and shifted out of the line. The urine was slightly albuminous. His chest on examination bulged at the upper part of the right side in front. The percussion note was dull down to the third rib and high in the axilla and at the apex of the lung posteriorly. Over the dull area in front the breathing was tubular and vocal resonance increased, but behind all sounds were diminished. No crepitations were elicited on coughing. There was no elevation of temperature, so the physical signs pointed to a hydatid in the lung. On June 22nd the liver hydatid was operated on by an incision in the linea semilunaris. A cyst was seen springing from the inferior surface of the liver, having the gall bladder on its upper surface and left margin. The cyst, having been pushed into the wound, was incised, and the finger was inserted and hooked the cyst well out of the abdominal wound, preventing any contamination of the peritoneum. The hydatid membrane was removed with forceps after about a pint of clear fluid had escaped. The fibrous wall was not interfered with, the cavity was washed out with 1 in 1000 perchloride of mercury solution, and the opening almost sutured up with catgut except for a hole for a gauze drain which was brought out at the abdominal wound. By packing, the abdominal and cyst wounds were kept as closely apposed as possible. The cyst was not fixed to the abdominal wall. The subsequent progress was uneventful except that the discharge became purulent on the tenth day with a slight rise of temperature. In spite of this the wound was soundly healed at the end of a month and tucked up under the liver. During this time the lung signs underwent no change, but the liver still remained pushed down. A skiagram made by Dr. Barry Blacker showed opacity in the upper lobe of the right lung, so dense as to obliterate the rib shadows. On August 15th the lung was operated on. The pectoralis major being split, an inch and a half of the second rib was resected, and the pleural layers were found to be adherent. Turning the boy on his right side to allow free exit for the fluid, and prevent possible flooding of his bronchial tubes on the collapse of the cyst, a hollow needle was introduced, and a drop of fluid appeared when the needle was about a quarter of an inch in. A free incision was made, and several ounces of hydatid fluid gushed out. The finger was introduced, and the cyst membrane removed whole with the aid of forceps. The cyst was about the size of an orange, without any daughter cysts. There was fortunately no communication of the fibrous sac with the larger tubes, for there was no marked coughing nor bloody expectoration after the incision, nor any subsequent physical signs. A large india-rubber drain was introduced. For a few days he had a high temperature, and signs of localised pneumonia, but without pleuritic effusion. After ten days his temperature was only sightly raised at night; the tube was removed, and a gauze drain substituted. At each daily dressing the boy was turned on his face to thoroughly drain the cavity, which was then insufflated with equal parts of aristol and boric acid. On September 7th (the twenty-second day) the wound was quite superficial, and the lung was resonant all over, air entering well right down to the base; respiration was in places tubular, but there were no adventitious sounds. On the 9th he got up, and on the 19th, when the wound was quite healed, the lung gave no evidence of any cavity. He went to a convalescent home on September 22nd.

Dr. Kingston Fowler asked if the boy had continued in good health. Two patients recently operated upon successfully for similar disease had both subsequently developed pulmonary tuberculosis.

Mr. Robinson, in reply, said that until two months ago, when he was last seen, the boy had remained quite well.

Pancreatic Cyst treated by Incision and Drainage.

Mr. A. E. Barker related the case of a boy, aged 14, admitted on July 12th, 1897. He had had a fall some weeks previously, striking his left side. He was rendered unconscious, and remained so for some hours, and for a fortnight after he was stated to have been delirious, also to have spit blood several times. A large swelling occupied the left side of the abdomen throughout the left hypochondriac, lumbar, and left half of the epigastric and umbilical region. There was also slight fulness in the right halves of the corresponding regions, especially the umbilical. The swelling came from beneath the left costal margin, which was distinctly bulged. The tumour was dull on percussion, and on the left this dulness was continuous with that of the spleen. The tumour moved with respiration. There was apparently a small amount of fluid in the peritoneum. Considering it to be a pancreatic cyst, he, on July 15th, 1897, opened the abdomen by a 3-inch vertical incision through the left rectus muscle close below the ribs. On opening the peritoneum the stomach was found stretched over the tumour, and the transverse colon lay below it. Between the two there was a small space through which the cyst was tapped, giving issue to 3 or 4 pints of fluid, at first clear and light coloured, but becoming slightly brown towards the end. He sutured the lips of the cyst to the edges of the wound, and left in an iodoform gauze drain. The patient did well, and left the hospital on August 15th with the wound quite healed. There had been no return of the trouble. A careful analysis by Dr. Nabarro and Dr. Sidney Martin gave the following results: The fluid was of a brownish-yellow colour, specific gravity 1010, with a sweet aromatic smell, not urinous, reaction alkaline, no sugar or bile, but a trace of peptone. On boiling it gave one-half (3 per cent.) albumen. Total solids 1.63 per cent.; ash 0.81 per cent.; total proteids 0.66 per cent. The fluid displayed marked amylolytic action, but no fat splitting or protolytic action. The paper contained a full account of the literature of the subject. Antiseptic drainage was, he was convinced, the proper treatment, not extirpation. The cysts presented in different places, but the most common variety came forward between the colon and the stomach; the contents varied much in different cases.

Mr. Alban Doran said that the paper clinched the question as to the proper surgical treatment of these cases. In reference to diagnosis, it must be remembered that a broad based cyst, if big, although fixed to bone or an internal abdominal organ, could yet be moved laterally in almost all cases if grasped from the front of the abdomen. The best treatment for these pancreatic cysts was undoubtedly incision and drainage; but it was not always possible to diagnose the case until nearly the end of the operation, and several surgeons had acknowledged that if they had known beforehand whence the cyst sprang they would not have operated upon it, so great was the risk of removal. Krönlein had successfully removed a cyst, but the patient died on the tenth day, and at the necropsy the transverse colon was found to have sloughed. Poncet, who had operated on several cases, attacked an almost sessile cyst in which he left seven clamp and pressure forceps sticking out of the wound. When one of them was removed hæmorrhage followed, and the forceps had to be hastily reapplied, though it was impossible to see to what it was applied. The patient happily recovered. Eve, of Nashville, removed a cyst attached to the tail of the pancreas, a comparatively easy situation for such removal, but the mesocolon and transverse colon were torn and had to be sewn up. That patient also recovered. The splenic artery and vein, one or both, had had to be tied in cases of removal, which was, indeed, a most risky procedure. Evidently incision with drainage, which gave such good results, was the right surgical treatment. This was shown by the author's case, by his own

(the speaker's) cases, and by three cases reported by Mr. Bilton Pollard in the BRITISH MEDICAL JOURNAL of March 11th. This was the best treatment, indeed, as shown by the collective experience of many surgeons.

The PRESIDENT concurred in the view that drainage was the best treatment. A gentleman had an enormous tumour over the pancreas, in which fluctuation could be detected. The case had been supposed to be one of malignant disease. He incised the abdomen, and went through the gastro-splenic omentum, giving exit to 9½ pints of old blood. The patient did well, but three years afterwards, when he was in Dublin, he died; and at the *post-mortem* examination it was found that the portal vein had become so entangled in the scar tissue that there was practically no circulation through the hepatic area.

Mr. ARBUTHNOT LANE had had 3 cases, 2 of which he incised from the front, 1 from the back. In one case the cyst was multilocular, being composed of three cysts. It was, however, successfully dealt with.

Mr. BARKER, in reply, said that his patient was delirious, which was a suggestive fact. Several cases of multilocular cysts had been recorded, but a successful result was the exception in operations on such cases.

REMOVAL OF A LARGE MALIGNANT FRONTAL TUMOUR WITH UNDERLYING BONE.

Mr. BATTLE gave details of this case. The patient, a married woman, aged 35, was admitted to the Royal Free Hospital on June 21st, 1898. Eight years before a small lump had been noticed in the scalp, a little to the left of the middle line behind the hair of the frontal region. Several operations had been performed for its removal, and the present tumour had been growing for two years. In some months there had been intermittent hæmorrhage from it, and her general health had greatly deteriorated. A large irregular nodular mass with overhanging edges presented in the frontal region. This measured about 3 by 4½ ins., and projected 3⅗ ins. from the level of the scalp. Vascular and foul smelling it presented a formidable aspect, whilst the removal of the dressings caused troublesome bleeding, which required steady pressure to arrest it. Firmly attached to the bone, it did not pulsate and was not accompanied with glandular enlargement. On January 27th, after the application of an elastic bandage circularly to the head to control bleeding from superficial vessels, the tumour was removed from the surface of the bone, and pads applied to arrest the bleeding which ensued from the skull where the growth had invaded it. This pressure was removed next day. On February 7th the bone affected was removed; a trephine was first applied, and from the opening thus made a circular saw worked by a hand motor was guided so as to divide the bone above and below, after which a few strokes of the chisel were sufficient to free the implicated portion. The growth had not invaded the dura mater, but presented a series of closely set elevations with flattened tops where it had completely eaten away the skull. Very little hæmorrhage (comparatively) followed the removal of this piece of bone, but one vessel in the dura mater required the pressure of a pad and a bandage to arrest the bleeding from it. She was up on February 25th. Granulations soon sprang up, and on March 2nd skin grafts after Thiersch's method were taken from the thigh and placed in the dura mater, with full success. She left hospital on March 22nd, greatly improved by her stay. There was then an irregular circle of dead tissue around the area of operation, which gradually separated during the next few months and cicatrisation took place around. The relief to the patient and the improvement in her general condition and appearance were very great. Wearing a handkerchief across the forehead and round the head she was comfortable, and there was no suspicion aroused of the underlying deformity. No attempt had been made to cover over the area left after removal of the bone by means of a plate. Mr. Battle drew attention to the various methods of removing portions of the skull now available, and Messrs. Down showed instruments adapted to this object during the course of the evening. The rarity of such cases was mentioned and the unusual character of this fungating growth, the microscopical examination of which showed it to be a spheroidal-celled carcinoma. The case was also interesting from the fact that it was necessary to apply grafts to the dura mater in order to provide for its better protection from the air. The author showed two lantern views of the general appearance of the growth before the operation.

Mr. A. E. BARKER observed that a saw worked by a motor had several drawbacks; it was difficult to direct, and apt to become clogged in the wound. If worked with a flywheel, it might give a better performance. He strongly recommended Gigli's wire saw, which gave admirable results; but instead of a loop at both ends, which rendered it difficult to introduce, he would terminate it with an end shaped like a blunt-pointed probe, so that it might be introduced in different directions without difficulty.

ERASION OF THE ANKLE-JOINT.

Mr. ARBUTHNOT LANE read notes of a case illustrating an operative procedure which gave a clear field for the complete removal of tuberculous material from this joint without offering some of the objections he had found to arise occasionally in that described in the *Transactions* of the Clinical Society, vol. xxv. In that operation he divided by means of a transverse incision all the structures around the joint except the internal lateral ligament, the tibialis posticus, and the flexor tendons of the toes. The divided tendons were carefully sutured, but in spite of this, often owing to infection of the joint previous to operation, they occasionally united imperfectly, and deformity and imperfect control of the foot resulted. Besides the transverse incision through the skin he now made vertical incisions of sufficient length to enable him to expose the several tendons for a considerable length. In the young infant he found he could expose the interior of the joint by dividing the peroneus tertius alone, as well as the external, anterior, and posterior ligaments, the other tendons being turned out of their sheaths and hooked aside. In older children he also divided the peroneus longus and high up, cutting through muscular and tendinous fibres, securing larger and more vascular areas in accurate apposition, and keeping the sutured portion at a distance from the joint, and so minimising infection of it. He took the same precaution with the peroneus tertius. By this means the objections to the other operation were practically completely avoided without diminishing its thoroughness.

MEDICAL SOCIETY OF LONDON.

Mr. EDMUND OWEN, President, in the Chair.

Monday, March 13th, 1899.

RADICAL OPERATION FOR INGUINAL HERNIA.

Mr. JOHN LANGTON traced the history and progress of the surgical treatment of inguinal hernia. Up to 1835 no attempt was made to occlude the canal, and it was not until Mr. John Wood introduced his improved operation in 1857 that any great success was attained. Mr. Langton described four methods of procedure which appeared to involve definite principles as distinct from mere modifications of detail:—(1) Reconstruction of the inguinal canal with transplantation of the vas deferens and its vessels to the upper angle of the incision so as to form a new inner ring; (2) operations in which the whole or part of the sac is utilised to form a pad or buffer within, or close to, the inner ring, so that the peritoneal fossa usually met with was converted by the boss into a convex buffer; (3) ligature of the sac close to the inner ring, its excision, and the reconstruction of the inguinal canal; (4) partial removal of the sac, its ligation and torsion, its withdrawal through the conjoined tendon, and the inner pillar of the external abdominal ring, and its retention in this situation by sutures. It was impossible to determine the exact method to be adapted until the parts were exposed and the conditions thoroughly examined, but he preferred and practised whenever possible the operation first described, with certain modifications. He used kangaroo tendon as a continuous rather than an interrupted suture, the coaptation of the canal being thereby made more complete. Drainage was rarely needed, only when hæmorrhage had been profuse or when a cavity was left after a large hernia. In males between 10 and 15 years of age, especially when omentum presented, his practice was to drag down a considerable piece, returning it into the peritoneal cavity after securely ligaturing. Rest and recumbent position for a month was a most

important element in the after-treatment. He commented upon the widely divergent results recorded by various operators in respect of suppuration. At St. Bartholomew's Hospital the proportion of suppurative cases amounted to 16.5 per cent. One of the main causes of this, he suggested, was insufficient cleansing of the skin prior to operation. The danger to life had of late been rendered practically *nil*. At St. Bartholomew's Hospital during the six years ending 1898 there were only 2 deaths in about 650 cases of reducible hernia—1 from septic pneumonia and 1 from scarlet fever. Of 48 cases of irreducible inguinal epiplocele operated 2 died, both deaths being of preventable origin. The mortality had greatly improved since 1880. Owing to the high mortality operations should not be performed on infants and in extreme old age, except for pressing reasons. During the last five months he had performed 30 operations for the cure of hernia; 27 of these had healed by first intention, while in 3 superficial suppuration occurred. The hospital records showed that operation for inguinal hernia was performed much more frequently in males than in females. As a possible explanation he mentioned that according to the tables of the City of London Truss Society out of 10,770 patients 9,900 were males and only 870 females. Moreover, there were other reasons for more frequent operations in males, entrance into public services, their laborious work and the constant risk of strangulation. The curative operation was one adapted for girls, in whom it was more simple than in males. He always advised the use for a time of a supporting instrument. Patients who applied for relief at the Truss Society owing to failure of the operation were those who had not worn any support. Of 138 cases 78 had been advised not to wear a truss, while 60 had been recommended to wear one for a limited period. In private practice he always recommended a truss. Contra-indications to the operation. (1) Age less than six; (2) the existence of organic disease; (3) when the hernia was so large that the abdominal cavity was unable to receive or retain under moderate pressure the extruded viscera; in such cases a palliative operation to retain the hernia aided by a truss might secure the patient from the chance of strangulation; (4) in very old patients; (5) with small herniæ if the tendino-muscular walls were weak and bulged for a considerable area on coughing; (6) septic peritonitis the result of strangulated hernia. Results: The author called attention to the almost insurmountable difficulties in the way of obtaining an estimate of the permanent results of the operation. Two years was the shortest period at which an opinion could be expressed. Statistics gave most conflicting results. The records of the City of London Truss Society showed that in the last six years 242 operated patients were treated for failure of the operation, from which it might be inferred that the total number of failures must be very considerable. In private practice the results were better known and were encouraging, 80 per cent. being successful, at any rate for several years.

The President said that he often operated under 6 years of age, and asked the author whether he would rigidly adhere to that limit under particular circumstances, as, for instance, in a child of 3 years of age, with careless parents, and a hernia steadily increasing in size. For suturing he preferred a material that could be used for everything, such as silk, which in his experience did very well.

Mr. Stanley Boyd insisted on the importance of leaving the peritoneum smooth and tense. He always applied torsion to the sac, but in one case the bladder was unfortunately included, with a fatal result. The next important structure was the transversalis fascia, which should be closed by a continuous suture. The muscular arch should be restored as far as possible. He used a fishing-gut stitch to close the external oblique, removing any superfluous fat. For the last two years or more he had always operated by a flap, putting three knots on the fishing-gut suture, which was a continuous one, cutting off the ends close to the knot. Since he had done this he had not had an instance of a stitch reappearing on the surface. He agreed with the author in removing a piece of omentum. He confessed to having had some cases of suppuration, and observed that there was no operation in which suppuration gave so much trouble. He thought the best plan was to give an anæsthetic, and to take out some of the external stitches, passing through the internal oblique and transversalis, and placing a tube in contact with the neck of the sac. He himself had fixed 3 years as the limit of age, that being the age at which children had acquired control over the bladder. Personally, he never recommended a patient to wear a truss unless the abdominal structures were unusually weak.

Mr. Langton said that in praising kangaroo tendon he did not wish to decry silk and fishing gut. He did not wish to lay down any hard-and-fast age limit. In his paper he had stipulated that if the child were well cared for he would not advise an operation. His experience at the Truss Society was that in most instances when a truss was applied to a child the rupture was not heard of again. He agreed that the limit of 3 years was, on the whole, not a bad one. He concurred in the importance of leaving the peritoneum tense and smooth.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

H. R. Swanzy, F.R.C.S.I., President, in the Chair.

Thursday, March 9th, 1899.

Implantation Cysts of the Iris.

Mr. Devereux Marshall recorded three cases of epithelial cysts of the iris which he had recently examined, and showed photographs in the lantern of the points of interest which each exhibited. (1) A boy, aged 12 years, whose eye was wounded eight years before. It remained quiet until three months before removal, since which time it had been painful and irritable. There was found to be a crescent-shaped scar of the cornea, to which the iris was adherent. At the bottom of the anterior chamber there was found a large cyst. On further examination the walls were found to be formed by the iris, which was split into two unequal parts; the iris itself was so atrophied that at one place the wall was composed solely of epithelium. (2) A man, aged 17, whose eye was wounded seven years ago with a piece of wood. It remained quiet until it received a severe blow two weeks before removal. A small cyst was then found at the upper and inner part of the anterior chamber. The anterior wall of this was composed of an extremely thin piece of atrophied iris lined with epithelium and adherent to Descemet's membrane. Its posterior wall was composed of the greater part of the thickness of the iris; the epithelium was laminated, and similar to that of the cornea. (3) A man, aged 29, whose eye was wounded some years before, and had recently become painful and quite blind. The eye was enucleated, and in the anterior chamber was found a small mass near the inner corneo-scleral junction. It had developed in the muscular part of the iris. The cyst was found to be lined with epithelium which had undergone great proliferation, so much so that its cavity was filled with degenerated epithelial cells which had become shed, and having no place of escape had become collected together in the interior of the cyst, thus giving rise to the dense white appearance noted during life. The epithelium in this case apparently arose from a portion of cutis which had become driven in at the time of the original accident, whereas in the other cases the epithelium of the cornea was almost certainly the cause of the cystic development. The question of cysts in general was shortly discussed, and some museum preparations of eyes illustrating the subject were shown.

Mr. Treacher Collins said these cysts varied greatly in situation; they were sometimes found in the substance of the cornea, sometimes in the anterior chamber after cataract extraction, sometimes in the iris itself, being occasionally caused by development of the root-sheath of an eyelash carried into the eye. They were also found in the vitreous, beneath the conjunctiva, and in the orbit. They might be classified as deeply pigmented and unpigmented, the former ones being due to a separation of the two uveal layers of the iris, the latter or unpigmented ones being either mesoblastic, due to dilated crypts of the iris, or due to epithelial inclusion after injury, in which cases their contents might be either clear or sebaceous, according to the source of the included epithelium.

Green Vision in a Case of Tabes Dorsalis.

Mr. Work Dodd related the case of an artist, aged 32 years. In 1886 his sight was quite good; in 1891 he had diplopia, from which he recovered. His colour vision remained good

till 1897, and he complained of defective sight shortly before being seen in July, 1898. When first seen V. was R. $\frac{6}{9}$, L. $\frac{6}{9}$. He had Argyll-Robertson pupils, optic atrophy, and contraction of his visual fields, his gait was ataxic, and he had occasional trouble in passing water. In September, 1898, V. was reduced R. $\frac{1}{60}$ L. hand movements. He then saw everything a bright emerald green; it appeared to him as if there was a green veil hung before his eyes, through which he saw everything; he occasionally saw rose-pink spots through the green veil in places. The colours increased in intensity when he was tired, especially the rose pink. He had also occasional sensations of very brilliant light.

ALBUMINURIC RETINITIS IN A CHILD.

Mr. ARNOLD LAWSON and Dr. SUTHERLAND read a further note on a case. A girl, aged 12, was exhibited before the Society last year with advanced albuminuric retinitis in both eyes, and symptoms of chronic interstitial nephritis. Two weeks after she was shown to the Society she had uræmic convulsions and absolute blindness, which lasted some days. During the next few months she had headache and vomiting, but no more uræmia. In September she was readmitted to the hospital for cardiac failure; death followed. The whole duration of the illness had been a year and three quarters. *Post mortem* both kidneys were found granular; the heart was hypertrophied, and there was a cerebral hæmorrhage into both ventricles. In the retina exudation of the usual type was found at the central region. Congenital syphilis was suggested as a cause.

Mr. HOLMES SPICER thought the suggestion of congenital syphilis as a cause was interesting. He had now under his care a female, aged about 20, who had interstitial keratitis in both eyes a few years ago, and other evidence of congenital syphilis. In the last few months she had developed very marked sclerosis of her retinal arteries, which presented the typical gold-wire appearance; she had retinal hæmorrhages, and flocculent masses of retinal exudation. Albuminuria was also present.

In reply, Mr. LAWSON said that Dr. Guthrie, who had made the *post-mortem* examination, had found this condition present in children in many cases, and he believed it to be almost always due to congenital syphilis.

STRABISMUS FIXUS.

Mr. E. DONALDSON reported a case. A female aged 46 had had convergent squint since childhood; the deviation was so great that the left cornea was almost hidden; under an anæsthetic the eye could not be drawn out, and it was impossible to reach the internal rectus to divide it. The other eye was also fixed in a strongly convergent position, but it was possible to divide the internal rectus; by separating Tenon's fascia freely from the globe the position of the eye was much improved. Snellen had published some cases all of which were congenital; the condition had been named strabismus fixus by v. Graefe, but the cause was unknown.

CARD SPECIMENS.

Mr. SYDNEY STEPHENSON: A case of Hippus.—Messrs. BRAILEY and EYRE: Case of Exophthalmic Goitre and Glaucoma.—Mr. R. W. DOYNE: A peculiar form of Choroiditis occurring in several members of a family.—Mr. J. GRIFFITH: Serous Cyst of Conjunctiva.—Messrs. LANG and A. H. THOMPSON: Two cases of Embolism of Central Artery of the Retina, with escape of Papillo-Macular Triangle.—Mr. REGINALD E. BICKERTON: Haab's Magnet.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

H. C. TWEEDY, M.D., President, in the Chair.

Friday, February 17th, 1899.

TUBERCULOSIS IN IRELAND.

DR. GRIMSHAW read a paper on the prevalence of tuberculosis in Ireland, and the measures necessary for its prevention. Having referred to previous papers read before the Academy, the observations on the subject contained in the *Manual of Public Health for Ireland*, written by Dr. Grimshaw, in conjunction with Dr. T. W. Moore, Mr. R. O'B. Furlong, and Professor Emerson Reynolds, and to the reforms in the various official reports which he had issued as Registrar-General for Ireland, and to the extensive prevalence of the disease in the United Kingdom, Dr. Grimshaw proceeded to analyse the principal statistics of mortality from tuberculosis, and especially phthisis, in Ireland, the analysis being mainly founded on a table of the deaths from tuberculosis in children under 5 years of age, and from phthisis at the various ages of active life from 15 to 45, in town and country districts. The result of this analysis showed the following remarkable results: During the three years dealt with in the table—1895, 1896, and 1897—the average annual death-rate from all causes for Ireland was 17.3 per 1,000; the rate for the town districts (that is, towns with a population of 10,000 and upwards) was 25.4, and for the rest of Ireland 15.2. For Ireland the death-rate from all tuberculous diseases, exclusive of phthisis, was 0.7 per 1,000, for country districts 0.4, for town districts 1.5, or nearly four times the latter rate. For consumption alone the rates were for Ireland 2.0, for country districts 1.7, for town districts 3.3, or nearly double the usual rate. Taking all forms of tuberculous disease the rate for Ireland was 2.7—for country districts the rate was 2.1, for town districts 4.8, or more than double. In the districts with six large towns the rates were from all causes 26.2, as compared with 15.2 in country districts; from tuberculosis other than phthisis 1.6 against 0.4, or exactly four times the rate; for phthisis 3.5 against 1.7, or slightly more than double the rate; and for all forms of tuberculosis combined 5.1 against 2.1, or considerably more than double as compared with country districts. It would be observed that by far the most important cause of death dealt with in the foregoing remarks was phthisis. This disease alone caused 11.7 per cent. of all the deaths in Ireland during the period under consideration, the percentage for the districts with towns of over 20,000 population being 13.3, for those with towns of 10,000 inhabitants and upwards 13.2, or slightly less, as compared with 11.1 per cent. for the rest of Ireland. These figures pointed to a conclusion which to many would be somewhat unexpected—namely, that the proportion of deaths from consumption to total deaths was very high even in the country districts of Ireland. If they compared the death-rate from tuberculous disease in the six great town districts of Ireland as measured by the general population, it would be found that of the forms of tuberculosis other than phthisis, Dublin and Belfast were the same, 1.8 per 1,000; Londonderry next, 1.6; Waterford, 1.2; Cork, 1.1; and Limerick, 0.7 only. In the case of phthisis Belfast led with a rate of 3.9, Cork followed with 3.8, then in order came Dublin 3.3, Waterford 3.2, Limerick 3.0, Londonderry 2.5. These figures were sufficiently serious, but when the ages at which tuberculous diseases were most fatal were considered, still more alarming results were found. The forms of tuberculosis which killed young children were tabes mesenterica, tuberculous meningitis, and forms of tubercle other than pulmonary consumption. In Ireland the death-rate of children under 5 years of age from these forms of tuberculosis was 3.5 per 1,000 living at this age-period. In the districts with towns of 10,000 and upwards the rate was 8.7 as compared with 2.0 in country districts, or more than four times the rate. In the six large towns taken collectively it rose to 9.4, in Dublin it reached 11.0, and in Belfast 10.0. In the others it was considerably below the 10,000 towns' rate, the rate for Limerick being only 3.3, or less than the average rate for Ireland. The very high proportion of deaths in Dublin and Belfast was very remarkable and very serious. In considering the deaths from tuberculosis between the ages of 15 and 45, the main working periods of life, it was found, taking Ireland as a whole, that during the whole age-period of 15 to 45 the deaths from phthisis constituted 43.5 per cent.; in the period from 15 to 35, 49.6 per cent., or nearly one-half; in that from 15 to 25—which was apparently the most fatal age period—52.8 per cent., or more than one half; from 25 to 35, 46.1 per cent.; and from 35 to 45, 29.1 per cent., compared with a total for all ages of 11.7 per cent. of the total deaths. During the age-period of 15 to 25, the percentage of deaths to total deaths reached the terrible total of 44.6 per cent. in Dublin, 55.4 per cent. in Belfast, 54 4 per cent. in Cork, 56.3 per cent. in Limerick, 52.5 per cent. in Londonderry, and no less than 58.6 per cent. in Waterford. In the next decade of life—25 to 35—the percentages fell somewhat in each case, but were still so near one half of all the deaths at that age as to excite considerable

alarm as to the ultimate result to what ought to be the most active portion of the community. Dr. Grimshaw then proceeded to point to the remedies, and mainly relied on those put forward in the report of the Tuberculosis Committee of the British Medical Association, and quoted with approval the recommendations of the last Royal Commission on Tuberculosis.

The following resolution, proposed by Dr. John W. Moore, President R.C.P.I., seconded by Dr. McWeeney, was adopted:

That the Section of State Medicine, having an accurate knowledge of the prevalence and mortality of pulmonary consumption and other forms of tuberculosis, hail with pleasure the movement to control this destructive group of infective diseases, which has been inaugurated by the British Medical Association. The Section urge upon the Council of the Royal Academy of Medicine in Ireland, as a matter of public professional duty, to co-operate in every possible way with those who are engaged in the present determined effort to cope with tuberculosis, now proved to be the deadliest scourge of the human race.

The Death-rate from Tuberculosis.

Dr. Martley read a paper on the death-rate from tuberculosis, as exemplified in the male population of England, for the five years 1891-95. After pointing out that the deaths from this cause were nearly as numerous as those from the whole group of zymotic diseases, and that they annually averaged about 240 per 100,000 living, he drew attention to the very unequal mortality at different ages, tuberculous disease being most fatal in the first few years of life, and again, though to a less degree, about 40. However, on correcting the county rates for varying age distribution, he found that there was comparatively but a slight difference, and that for all practical purposes sufficiently correct results could be obtained by using the crude rates.

The Bacteriological Aspect of Tuberculosis.

Dr. McWeeney read a paper on this subject, and demonstrated a series of illustrative microscopic preparations and photographs. An attempt was made to appreciate the importance of the *rôle* played by sputum, meat, and milk in the dissemination of tuberculosis, and the speaker recounted his own experiences of tuberculin injection as the diagnostic method applied to cows, and laid stress upon what appeared to be the relative infrequency of the disease amongst Irish dairy cattle. The practice of keeping them "on grass" for more than six months of each year might be regarded as an "open air" mode of treatment applied to the bovine race. He concluded by earnestly deprecating overzeal in the adoption of measures intended to be preventive, but which by involving irksome restriction or intolerable publicity would speedily be found to defeat their own purposes.

Distribution of Tuberculosis in Ireland.

Dr. P. Letters read a paper in which by statistical tables he sought to prove that tuberculous disease throughout Ireland—tabes mesenterica and tuberculous meningitis more so than phthisis—was regulated almost exclusively by aggregation of population. Small towns and villages bred tuberculosis largely. He controverted all theories referring the prevalence of Irish tuberculosis to meteorological or climatic causes, or to the proportionate amount of bog and barren mountain land, to surface elevation, or to geological formation. These did not operate as influential factors, or their effects could not be measured by death-rates recorded over large areas. In the counties, death-rates per million living from (1) tabes mesenterica and tuberculous meningitis combined, and (2) from phthisis, corresponded so closely with the several degrees of urbanisation as to leave no reasonable doubt of a causal relationship. This line of argument led to the conclusion that tuberculosis, as found in Ireland, was essentially a town-bred and village-bred disease, exclusively rural localities showing next to no mortality from tabes mesenterica and tuberculous meningitis, and greatly reduced death-rate from phthisis. The most tuberculous region in Ireland extended along the eastern and south-eastern seaboard, and was mapped out by the counties of Antrim, Down, Dublin, Wexford, and Waterford. The least tuberculous was found in a compact region in the north-west comprising the five contiguous counties of Donegal, Leitrim, Cavan, Fermanagh, and Longford. These two regions contained respectively a high and a low percentage of urban population. A table giving the percentage of inhabitants of towns over 500 to the total population in each of the thirty-two counties showed that, where the town-dwelling population was high, so also was tuberculosis, and *vice versâ*. Freedom from tuberculosis, or the reverse, in the smaller areas of Poor-law unions throughout the country, depended on the same general law of aggregation into town and village communities. Kerry, taken as a whole county, was statistically rather tuberculous. Divided into two regions, North Kerry including the unions of Tralee, Listowel, and Killarney, and South Kerry, the remaining unions of Dingle, Cahirciveen, and Kenmare, twenty of the Irish counties were found to be less tuberculous than North Kerry, while South Kerry was considerably freer from tuberculosis than any whole county in Ireland. This was explained by the fact that the percentage of urban population in South Kerry was only 9, while in North Kerry it was 19. The most correct test of the tuberculous character of a locality was when the mortality from tabes mesenterica and tuberculous meningitis combined bore a high rate to that from phthisis. This high proportion of juvenile to adult tuberculous mortality in Ireland invariably corresponded with a high degree of urbanisation.

ULSTER MEDICAL SOCIETY.

Joseph Nelson, M.D., President, in the Chair.

Thursday, March 2nd, 1899.

Topographical Anatomy.

Professor J. Symington and Dr. R. J. Johnstone gave a demonstration on the topographical anatomy of the thoracic and abdominal viscera, illustrated by two subjects hardened in formol, and by a large series of ordinary and stereoscopic photographs and lantern slides. The subjects were injected with a 5 per cent. solution of formol under a low pressure until the entire body was thoroughly hardened. This process occupied about a month. The extremities and the head were then removed, the trunk placed in a shallow wooden tray and fixed in position with plaster-of-paris, and by driving a number of strong silvered skewers through the body and the bottom of the tray, their projecting points being afterwards cut off. The body was then dissected so that the various parts could be easily replaced in position. The skin was reflected in one large flap from the anterior aspect of the thorax and abdomen, and thrown downwards. The abdominal cavity was opened by removing its anterior wall in three pieces, two lateral and one central. The central portion comprised the two recti muscles with their sheaths, etc. It was detached from the sternum and costal cartilages, but left united to the pubic bones. The thoracic wall was divided on each side along the mid-axillary line, and through the middle line of the sternum, and removed in two pieces. The first pair of costal cartilages and the adjacent part of the manubrium sterni were left in position. The solid organs could easily be removed in well-hardened formol subjects in such a way that they could be accurately replaced, but the hollow viscera—especially the convolutions of the jejunum and the ileum—presented more difficulty in this regard. The method adopted, which was found to work well, was to unite these intestines together by a large number of interrupted sutures. After division of the mesentery they can be taken out and put back into the abdomen *en bloc*. In the case of the heart, a series of dissections were made to expose its cavities and valves, the different pieces removed being easily fitted together again. The above method had been worked out with great care so as to allow the thoracic and abdominal organs to be removed and replaced and their relations to one another and to the surface of the body to be accurately studied. The subjects had been kept for upwards of three months, and used on various occasions for demonstration purposes without any change, except slight shrinkage of the lungs. The photographs and lantern slide shown were taken from the subjects as each stage of the dissection was completed.

Dr. McCaw, Professor Redfern, and the President made observations.

Fœtal Monsters.

Dr. R. J. Johnstone exhibited two fœtal monsters, and made some remarks upon them. One was a case of complete

hernia of the abdominal organs, the abdominal walls being merely represented by some shreddy gelatinous material which covered over the exposed viscera. The spinal column was strongly curved to the right, and a meningocele of the sacral region existed. The pubic bones were widely separated in front. The genital ducts (female) opened separately on either side of an extroverted urinary bladder. The large intestine ended blindly, but a false anus at the ileo-colic junction opened just above the bladder. The case was interesting clinically, as the placenta was adherent to the membranous anterior abdominal wall of the fœtus, which was the presenting part, and a diagnosis of placenta prævia had at first been made by the practitioner in charge, but delivery had been easily accomplished manually by a second medical man called in consultation. The second case presented anteriorly the characteristics of an anencephalic fœtus, with absence of neck and upturned face, but differed from that variety of monstrosity in possessing well-developed cerebral hemispheres and a completely ossified cranium.

SOCIETY OF ANÆSTHETISTS.

DUDLEY BUXTON, M.D., M.R.C.P., President, in the Chair.

Friday, February 17th, 1899.

PROLONGATION OF NITROUS OXIDE ANÆSTHESIA.

DR. MCCARDIE read a paper on a means of prolonging the anæsthesia of nitrous oxide gas by means of a mouth tube. His plan was a modification of the method described by Mr. COXON. Its distinctive features were: The nares were clamped, the mouth tube was only introduced into the corner of the mouth, into which a constant stream of gas was maintained. The gas was first given in the usual way, and as soon as anæsthesia was obtained the facepiece was rapidly changed and the mouth tube inserted, and the nose clamped. An assistant was required. The after-effects were those of nitrous gas.

The PRESIDENT thought that the large quantity required was a disadvantage. He had no doubt that the closing the nostrils would by itself cause prolongation of the anæsthesia, as in most people it checked the expiration of air.

Mr. WILLETT preferred the use of gas and oxygen to that of gas by itself, so that methods which prolonged the use of gas did seem to him necessary.

Mr. C. C. BRAINE pointed out that the method of giving gas and oxygen could not give a working anæsthesia of two or three minutes as could be obtained by Mr. MacCardie's method. He had used Coxon's method with success; he did not use a central prop.

Dr. FLUX described his method of giving nitrous gas by an open method inhaler. A stream of gas was allowed to flow into the open wide upper end of the inhaler during inspiration. Anæsthesia having been once obtained, it could be kept up by an occasional breath of gas within or without the inhaler. The induction took from 50 to 80 seconds, and the patient apparently passed into a natural sleep. He had used the plan for patients of ages from 7 months to 70 years, and in no case had ill-effects followed. The facepieces were made of celluloid, although in the first instance a common towel was used; a cylindrical facepiece answered best for the recumbent and a cup-shaped for the sitting posture. It was important that the gas should not escape by leaking out between the face and the facepiece; the weight of the gas prevented its escaping in an upward direction. The method avoided septic infection, as the emanations from the patient's lungs did not pass into closed bags, etc.; 7 to 8 gallons of gas were required for an adult, and 3 to 4 more would suffice for each additional minute of anæsthesia.

Mr. BELLAMY GARDNER had found when large quantities of air were present anæsthesia by nitrous oxide was impossible. He imagined, therefore, that the patient's breath must rapidly escape in Dr. Flux's method and a fairly high percentage of gas enter the lungs.

Mr. H. BALDWIN had seen and been struck by the success of Dr. Flux's method.

Mr. CARTER BRAINE, besides seeing the method in use, had taken gas by it and found it a most agreeable way of getting anæsthetised.

After remarks from Mr. TYRRELL, Mr. WILLETT, and Mr. LOW,

Dr. FLUX replied, and said the test of anæsthesia by the "open method" was absence of sense of feeling, loss of lid reflex, and usual signs of profound sleep.

NITROUS OXIDE AND OXYGEN.

Mr. BURNS related four cases of interest in which nitrous oxide and oxygen were given. In the first case the patient suffered from albuminuria, diabetes, aortic disease, and a cough, and was 53 and very fat, and an alcoholic. The operation was amputation of a finger. The second was a case of empyema in a patient of 60. In the third case a lady of 47 suffered from empyema with orthopnœa. In the fourth case—the patient a young man on whom skin-grafting was to be done—cessation of breathing occurred after anæsthesia was produced with slight cyanosis, but recovery took place after artificial respiration was done.

Mr. HILLIARD narrated a case of primary syncope under nitrous oxide and oxygen. The patient was sitting, the mixture of gases was given from Hewitt's apparatus, and the induction of anæsthesia was quite natural, except that pallor was seen. A furunculus in the auditory meatus was incised, and, as the operation was commenced, the patient fainted and breathing ceased. Full anæsthesia was present; the patient said he was subject to "feeling faint," but had not fainted before. Mr. Hilliard thought the syncope might have been caused reflexly by irritation of the articular branch of the vagus.

PAPER.

Mr. HILLIARD read notes of a case of Spasmodic Asthma following the administration of gas and air in an asthmatic subject.

LIVERPOOL MEDICAL INSTITUTION.

W. MACFIE CAMPBELL, M.D., President, in the Chair.

Thursday, March 9th, 1899.

LIVERPOOL SCHOOL OF TROPICAL DISEASES.

THE following resolution was carried unanimously:

That the members of the Liverpool Medical Institution cordially support the establishment of a school of tropical diseases in Liverpool where, owing to the exceptional opportunities for studying tropical diseases, medical men, before proceeding to the tropics or taking charge of ships, can receive systematic training, and where facilities for research will be provided.

The PRESIDENT, in proposing the resolution, congratulated Liverpool on the lead it had taken in this matter. With its manifest advantages in having a large foreign trade, such a school would soon draw pupils. Already the foreign consuls had been interested in the subject through the energy of Professor Boyce. Much credit was due to the Royal Southern Hospital, which had placed a whole flat at the disposal of the school, and further investigations would take place at the Thompson-Yates Laboratories, University College.

Dr. E. ADAM seconded.

Prof. SHERRINGTON expressed his conviction of the value of the tropical diseases school to Liverpool, and, indeed, to the whole country. The opportunities offered by the second seaport of the Empire were a sufficient guarantee of the desirability of the foundation of the school here. Years ago Professor Koch had urged the national duty that devolved on England as mistress of India to investigate malaria and cholera; yet, in comparison with the work done by Germany, Italy, and America, England had contributed little to human defences against these diseases, although the scourge specially touched her sons.

Professor BOYCE said that the establishment of the school had awakened great local enthusiasm, so much so that £1,000 had been promised in subscriptions, most of these being annual. No pains had been spared in securing the best teachers, and in thoroughly equipping the clinical laboratories, which in ten days' time would be ready, and thus would be the first in England, indeed in Europe. Close upon 300 cases of malaria alone were notified in Liverpool last year, half of the cases being treated in hospital—the Royal Southern Hospital, where the special wards were now being fitted up, having the largest share. They were in full sympathy with the movement in London, but they asked for full and independent recognition from the initiator of the whole scheme, Mr. Chamberlain, in regard to the teaching of West African

and West Indian diseases, for which they had unrivalled opportunities. Fortunately, unlike London, the medical profession in Liverpool were unanimous in wishing success to the school.

Dr. William Carter thought the subject of so much importance that a report should be sent to the public press in addition to the medical journals.

This was carried.

Traumatic Axillary Aneurysm.

Dr. Nathan Raw exhibited a patient on whom he had operated for traumatic aneurysm of the axilla, treated by free incision and ligature of axillary vein and subscapular artery, after placing a temporary ligature on the first part of the axillary artery and vein. The damage to the axilla had been caused by placing the foot in the armpit to reduce a dislocation.

Mr. Mitchell Banks expressed the pleasure it had given him to assist Dr. Raw, and congratulated him on having brought to a successful issue a dangerous, difficult, and trying case. He (Mr. Banks) had been fortunate enough to witness in 1862 the celebrated operation done on an axillary aneurysm by Professor Syme, by boldly laying the sac open and ligaturing vessels.

Compound Diastasis of Lower End of Radius.

Mr. Douglas Crawford brought forward a lad, aged 15, on whom he had operated for compound diastasis of the lower end of the right radius, with separation of the lower ulnar epiphysis. The lower end of the shaft of the radius had been driven through the skin, contusing the median nerve by a fall from a height. On the twenty-seventh day secondary hæmorrhage occurred from the ulnar artery, caused by ligature of brachial artery. On the forty-sixth day portions of the lower ends of the shafts of the radius and ulna were removed. The median nerve was still functionless, and would need freeing, suturing, or grafting.

Berlin's Operation for Entropia.

Mr. T. H. Bickerton exhibited a patient on whom he had performed Berlin's operation for entropia. The boy, aged 16¾, could never remember being able to see. He had been an inmate of a blind school for nine months. In May, 1897, the eyelids were in a state of blepharospasm, the edges of the lids completely inturned, corneæ dull grey, total absence of glistening appearance normally present, vessels freely permeating the pannus. The patient was practically blind, not being able to see his hand before him. Berlin's operation was performed May, 1897; occasionally since then a few erratic cilia had been destroyed by electrolysis. The patient left the blind asylum in October, 1898, able to see to get about without difficulty, and he could now (March, 1899) spell Ja. 16.

Mr. Richard Williams objected to all operations which still further sacrificed tissue in old contracted lids. Operations such as Van Millingen's, which aimed at eversion by adding new material to the contracted "tarsus," were in his opinion more sound. He obtained much the same object by a method of his own which he briefly described.

The Chronicity of Eczema.

Dr. Leslie Roberts, who read a paper on this subject, said that the conditions of chronicity divided naturally into those which had reference to the skin, to the individual, and to the physician. The cutaneous conditions arose out of the division of the skin into autonomous territories in which lymph and excess cell products could accumulate without necessarily disturbing the neighbouring territories. The central event in the course of eczema was overgrowth and œdema of the epithelium from adventitious stimulation. So long as the epithelium remained œdematous the perturbations outside the skin acted on the inflamed skin as continuous irritants, tending to increase the accumulation of lymph and the new formation of cells. The author passed on to consider the relation of the individual to eczema, and showed how, under certain conditions of the skin, the patient could manufacture his own eczema with his hands. In discussing the physician as one who modified the course of eczema, the author referred to the evil effects of false theories about the etiology of eczema, especially the prevalent blood-origin theory of the disease. He concluded by pointing out some of the principles which should guide us in the choice of remedies for the cure of eczema.

Dr. Barendt questioned whether disturbance of the epithelium was the central factor in the evolution of eczema. Mere scratching of the epidermis failed to produce eczema, it was essential to disturb the dermal capillary nexus. The cutaneous nervous system was profoundly altered. It was doubtful whether hæmic poisons engendered eczema, notwithstanding the general impression to the contrary. He could not connect gout and eczema etiologically. When eczema became chronic, it was essential to insist on the removal of all impediments to the production of a "normal horny layer."

Dr. G. G. Stopford Taylor inferred that the reader of the paper believed that the origin of eczema was always due to external causes. While agreeing that the majority of cases undoubtedly were, still the association of migraine, asthma, gastro-intestinal disturbance, and gout were more than accidental. He also accepted the bacterial origin of eczema, and maintained that in the treatment of all cases, suitable antiseptic treatment, with rest and protection, were necessary to prevent the disease spreading.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Sir John Batty Tuke, M.D., F.R.S., President, in the Chair.

Wednesday, March 1st, 1899.

Cases.

Dr. W. Elder showed: (1) Case of Absence of Fifth Metacarpal Bone; (2) case of Localised Skin Eruption of seventeen years' standing; (3) case of Amyotrophic Lateral Sclerosis.—Dr. Scot Skirving showed: (1) A patient with Charcot's Disease, simulating double dislocation of the hip-joint; (2) a patient with total Necrosis of Frontal Bone.—Mr. Stiles showed: (1) a case of Infantile Paralysis; (2) child of 7 months with Large Hydrencephalocele; (3) two brothers, both with Congenital Dislocation of the Hip-joint; (4) a child with Coxa Vara.

Specimens.

Mr. Stiles showed: (1) Viscera from a case of Lympho-Sarcoma of the Abdomen, which simulated abdominal tuberculosis clinically; (2) Thoracic Viscera from a child who suffered from severe dyspnœa with expiratory stridor, due to the presence of a large lymphatic gland.—Dr. Scot Skirving showed: (1) Sequestrum of entire Frontal Bone; (2) Tuberculosis of Mamma; (3) Compound Fracture of Carpus.

Peritonitis and Increased Peristalsis.

Mr. Cathcart read a paper on peritonitis as a cause of increased peristalsis in the rectum and in other parts of the intestine. Beginning with the rectum he gave an account of two cases—one of severe pelvic peritonitis, the other of gangrenous perirectal abscess—where tenesmus had been a leading symptom in the early stage. He then referred to rectal symptoms in periprostatic inflammation, and showed how the knowledge of such rectal symptoms had guided him in dealing with a case of pelvic abscess secondary to appendicitis. With regard to other parts of the intestine he drew attention to Grünbaum's experiments, and to Nothnagel, Treves, and Gee's clinical observations in support of the view that peritonitis causes an increase of peristalsis before the muscular coat of the bowel is involved. After meeting some possible objections, he concluded by indicating how a knowledge of the relation of peritonitis to increased peristalsis would be of service in diagnosis.

Mr. Cathcart's paper was discussed by Drs. Ronaldson and P. A. Young, and by Mr. Cotterill; and Mr. Cathcart replied.

Etiology of Gout.

Dr. Chalmers Watson was to have read a paper on this subject, but so much time was occupied with the exhibition of patients and specimens, that the paper was only reached at a late hour, after the attendance had become very thin. Dr. Watson therefore merely gave a rapid outline of his paper, and there was no discussion. The paper comprised the following points: (1) The question of the existence of uric acid in normal blood; (2) observations on a series of cases of examination of the blood in a number of diseased states;

(3) similar examination of the viscera; (4) comparison between the *rôle* played by uric acid in gout and leucocythæmia, with observations on the chemical pathology of the two states. His main conclusions were as follows: (1) Uric acid is not normally absent from the blood of birds, and therefore the teaching of Garrod and Luff, arising from that premiss, would appear to be erroneous; (2) from the comparative frequency of uratemia in the absence of manifestations of gout, uric acid is not the all-important factor that is commonly supposed; (3) the greater amount of uric acid in the liver than in the other two organs seems to indicate that the metabolic processes there are more conducive to uric acid formation, and therefore the part played by it in the production of gout is a more important one; this is in accordance with the view expressed from clinical experience; (4) any views as to the uric acid excretion having a definite and constant relation to the number of white corpuscles in the blood are not to be entertained; (5) in view of the conclusions arrived at by Moore as to the frequency of uratic deposits, uratosis, that condition plays a more important part in hospital practice than we are usually led to suppose.

EXHIBIT.

Mr. CATHCART showed a Clinical Research Case.

MANCHESTER MEDICAL SOCIETY.

Professor J. W. SINCLAIR, M.D., President, in the Chair.

Wednesday, March 1st, 1899.

DEATH FROM INHALATION OF POISONOUS GAS.

DR. DIXON MANN gave an account of a fatal accident that happened to two men in December, 1898, in a main sewer in Manchester, which, in addition to the ordinary contents of a sewer, conveyed the refuse from a number of chemical manufactories. This caused the sewer to have a special odour which, on the day of the accident, was very pungent, and resembled that encountered in the neighbourhood of a rubber works. Dr. Leech, who happened to pass at the time the accident occurred, described the smell as being like a mixture of coal tar and mackintosh. The toxic and other properties of a number of gases and vapours which might possibly be present in the sewer were discussed; certain indications such as the *post-mortem* appearances of the bodies, the presence of lighted candles in the sewers at the time of the accident, the fact that, although the deceased were standing in between 2 and 3 feet of water when overcome by the poisonous agent, yet the bodies showed no signs of death from drowning, together with other conditions which afforded assistance in determining the nature of the lethal agent, were severally considered. The conclusion arrived at was that death was most probably due to a sudden local evolution of sulphurretted hydrogen.

RUPTURED TUBAL PREGNANCY.

Dr. DONALD read notes of a case. The patient, who had been married twelve months, menstruated regularly till October 16th, 1898; in November and December there was a slight show. On November 26th she had an attack of pain in the epigastric region, which was thought to be due to gastric catarrh. A second attack of a similar nature, but more severe, occurred on December 6th. On December 26th she was seized with acute pain all over the abdomen. When first seen the patient was blanched and had a very weak pulse; the abdomen was distended, and there were all the signs of peritonitis. The abdomen was opened on December 27th, and the abdominal cavity was found full of blood. The left tube contained a small embryo, which had partially escaped through a rent in the wall of the tube. Fœtal movements could be distinctly seen. The tube was removed, the abdomen washed out, and the wound closed. The patient made a rapid recovery. The interesting point in the case was that the pain in the first two of the attacks was referred to the epigastric region, and was mistaken for gastric catarrh and intestinal colic. The diagnosis of the case rested entirely on the clinical history and symptoms, as nothing could be felt *per vaginam*, and the abdomen was too distended to permit of a bimanual examination.

OTHER COMMUNICATIONS.

Dr. JUDSON S. BURY made some remarks upon a case of Gangrene of the Feet in association with peripheral neuritis.—Dr. DELÉPINE discussed the causes of the position of Primary Tuberculous Lesions of the Lung.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

EDWIN LEE, M.R.C.S., President, in the Chair.

Friday, March 3rd, 1899.

APPENDICITIS.

MR. W. H. BROWN read a paper based on 32 cases; 13 cases were operated upon; 3 of these were associated with general peritonitis, and died a few hours after operation; 7 were cases of localised suppuration, and all recovered; the remaining 3 were relapsing appendicitis, and recovered after removal of the appendix; 19 cases were treated without operation, and all got well except one. This patient was a woman upon whom the author had performed ovariotomy a week before the commencement of the attack of appendicitis. At the *post-mortem* examination gangrenous appendicitis was found. Mr. Brown then discussed the different degrees of severity of the disease, and considered that in suppurative appendicitis simple incision and drainage of the abscess was the safest plan of treatment. After a second attack of recurring appendicitis he advised removal of the appendix.

A discussion followed, in which Dr. GRIFFITH, Dr. CAMPBELL, Mr. LITTLEWOOD, Mr. D. GRANGE, Dr. CHURTON, Dr. BLACK, and Mr. KNAGGS took part.

ŒDEMA OF THE LUNGS.

Dr. CHURTON read a short note upon acute œdema of the lungs. He had observed during many years that in diseases in which pulmonary œdema was the last and fatal event, the upper lobes were usually more œdematous than the lower. The lower lobes were darker and contained more blood, but yielded much less fluid on pressure. This observation had been found useful in cases of sudden and urgent dyspnœa in which acute œdema was suspected, and in which accurate investigation was very difficult. Recently, in three such cases it could be shown that the upper lobes were not dull and had no crepitations: it was thence inferred that the dyspnœa was not due to œdema, since it was improbable that œdema of the lower lobes alone could cause symptoms of orthopnœa, great pallor, sweating, semi-coma, of so great intensity and suddenness. The dyspnœa was apparently caused by temporary paralysis of the diaphragm and lower intercostal muscles; the lower chest did not move. One patient was on the point of being bled, but a history of constipation was obtained, the rectum was found to be distended by very hard masses, and on their removal, with much difficulty, all the symptoms rapidly subsided.

Drs. ALLAN, GRIFFITH, and TREVELYAN took part in the discussion. Both the last-named agreed with Dr. Churton as regarded the preponderance of the œdema in the upper lobes.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—At a meeting held on March 2nd, Dr. R. FORTESCUE FOX, President, in the chair, twenty candidates were elected by ballot.—Dr. DOUGLAS KERR (Bath) read a paper on the Treatment of Disease by Heat. He suggested that the first idea of the use of heat was probably conveyed to the mind by noting the benefit of the sun's heat; where this could not be procured, fires in sick rooms, hot baths, poultices, fomentations, hot bottles, etc., had been substituted. The temperature from these means were not high, whereas hot air could be easily borne at a temperature of 300° to 400° for lengthened periods. He sketched the use of the Turkish bath, and referred to box baths heated by lamps of various forms, and described the Tallerman, Dowsing, and Greville apparatus. The principle underlying the treatment was expressed in the fact that cold applied to the body surface stimulated, while heat facilitated, functions. He made a strong point of the use of whole body bathing in hot-air apparatus as against local appliances; gave the facts of such high temperatures which were noted in text-books; expressed the opinion that hot-air baths would prove a useful adjunct to thermal treatment, but would not give such good results when employed alone; and concluded by pointing out the peculiarity of the heat supplied by the Dowsing bath, which was luminous and radiant, and in this respect more

resembling the sun's rays.—Dr. Hedley (London) read a paper entitled the Therapeutics of Heat. He discussed the merits and demerits of recent apparatus for the application of high temperatures to the body, giving marked preference to such as supplied heat from a luminous source, inasmuch as it had been proved by experiment that as light rays were added the heat rays became more intense. He dwelt upon the *modus operandi* of heat in therapeutics, taking the instance of a simple sprain and those phases of the inflammatory process that were likely to be influenced by heat.—Dr. Whitby (Clifton) said that both dry and moist heat caused a measurable increase of the girth of the limbs and a decrease of the abdominal girth, the latter from depletion of the splanchnic vessels. The renal excretion showed evidence of increased metabolism. Evidence was adduced of the varying toxicity of sweat, and of its relation to pathological conditions—for example, epilepsy. Heat had a beneficial effect on the course of infective inflammations, and the artificial pyrexia produced by heat baths favoured the oxidation and elimination of toxins. —Dr. Luff stated that he had had excellent results from the employment of local superheated air baths in selected cases of gout, rheumatism, and rheumatoid arthritis. He emphasised the importance of keeping the air dry, and considered that the beneficial effects were mainly due to the increased local circulation, to the improvement of local metabolism, and to the anodyne effect of the superheated air.—Dr. James Myrtle (Harrogate) illustrated the clinical value of the superheated air bath by relating the history of several cases, in one of which a temperature of 392° F. had been attained.—Dr. Bowles (London) said there seemed to be some confusion in the minds of speakers in reference to radiant heat and other forms of heat. All heat was radiant, but it might be absorbed by certain substances and conducted or conveyed and again radiated to other bodies. The three forms of hot air baths which were now being considered claimed distinct and peculiar advantages. For therapeutic purposes heat had always been applied in the dark or invisible form, whether derived from combustion, electricity, or other sources. In the Dowsing bath it was claimed that the heat was radiant and produced different effects; inasmuch as it had light as well as heat it was different, but the value of the effects of this light had not been in any way gauged. In his experiments in the Alps he found that light reflected from snow acted quite differently on the human tissues to direct sunlight, and that the effects were entirely out of proportion to direct heat.—Dr. Hyde (Buxton) had used many years ago various methods of applying high temperatures as adjuncts to spa treatment. After several years' observations he discovered, especially in rheumatoid arthritis, that many of his apparent successes were not permanent. In many the pain and swelling remained reduced, but the joints afterwards became more fixed and crippled. He had concluded that too prolonged and too frequent application of the "higher thermal treatment" in many chronic joint affections was positively injurious. While agreeing that such remedies, properly used, were of value, he deprecated their excessive and incautious use.

Bradford Medico-Chirurgical Society.—At a meeting on February 21st, Dr. Berry (President) in the chair, Dr. Mitchell related a case of Recurrent Melanotic Sarcoma, which he had treated by the application of formalin.—Dr. Bronner read a paper advocating the use of Protargol as a local application in diseases of the eye and throat, in cases where silver nitrate has been usually employed. Among the advantages he enumerated were its comparative painlessness in application, and also its non-staining property.—Mr. Horrocks read notes on Gastroplication for dilated stomach. After detailing the conditions which gave rise to dilatation of the stomach, Mr. Horrocks related a case. A domestic servant, aged 35, was admitted to the infirmary in December, 1897. She weighed only 4st. 9lb. Two years before she had been seized with pain in the right side, and soon after she commenced to vomit. No blood had been seen in the vomit till shortly before admission. The stomach was found to extend downwards below the umbilicus, and to occupy the left hypochondriac region. A distinct splash could be elicited at all times, as the fulness of the stomach never disappeared. No tumour could be felt in the pyloric region. The patient was put on a limited solid diet, together with rectal alimentation, and the stomach was daily washed out. She improved somewhat in general condition, but the enlargement of the stomach remained unaltered. On March 11th a vertical incision was made above the umbilicus and the stomach exposed. It was found to be dilated, and the pylorus showed a slight circular constriction. A small transverse incision was made in the stomach near the pylorus, and the pyloric orifice explored with the finger. The opening admitted the finger readily, and a depressed ulcer was found on the posterior wall near the pylorus, which was fixed by scar tissue. The opening in the stomach was closed with continuous chromic gut sutures. The anterior wall of the stomach was folded upon itself, and fixed by two rows of continuous catgut sutures. The patient did well after the operation, and for a time the pain and sickness disappeared, but in a month the old trouble began to return, and the swelling of the dilated stomach could be easily made out to the left of the scar. It seemed probable that the stitches holding up the fold in the stomach had given way. On April 20th an incision was made to the left of the scar of the former operation, and the abdomen opened. The stomach was found dilated towards its cardiac end, the pyloric part being adherent to the abdominal wall. The dilated part was drawn forwards, and six silk sutures put vertically in and out through the muscular and peritoneal walls of the stomach. The sutures were then tightened, and a few additional Lembert stitches added to give increased security. The patient did well after the operation, and was discharged in a greatly improved condition of health. She weighed on discharge 6½ stones. She was now able to take any food without pain, and had had no attacks of vomiting. No swelling of the stomach could be felt. Mr. Horrocks remarked that the failure of the first operation was due to the use of catgut sutures which were not sufficiently lasting. He considered the method of folding the stomach vertically instead of horizontally more satisfactory.

Midland Medical Society.—At a meeting on December 7th, 1898, Dr. W. G. Lowe, President, in the chair, Mr. Frank Barnes, Mr. A. W. Forrest, Mr. T. H. Gibbs, Mr. Stuart Macdonald, and Mr. W. G. Thomas were elected members.—Dr. Stanley showed a child, aged 2 years, who had suffered from marked Pemphigus since birth. The child showed some rachitic tendency, but there was no positive evidence of syphilis. Various methods of treatment had been tried, but without result.—Dr. Stacey Wilson showed a specimen of Œsophageal Varices.—Dr. Purslow showed a Cast of the Vaginal Wall, produced by the use of a quack remedy sold in the form of soluble pessaries. Under the microscope the cast showed that the superficial layer of squamous epithelium had been removed, almost the whole lining of the vagina being represented. An analysis of the remedy made by Mr. John Barclay, showed it to consist of potash, alum, cocaine, borax, opium, slippery elm bark powder, and vaseline. —Mr. Lawson Tait showed a specimen of Pyosalpinx.—Dr. Purslow read a paper on 4 cases of Pregnancy complicated with Ovarian Tumour.—Mr. Furneaux Jordan read a paper on the Advantages and Disadvantages of Vaginal Cœliotomy.

Chelsea Clinical Society.—At a meeting on February 21st, Mr. J. Foster Palmer, President, in the chair, Dr. Herschell read a paper on Atony and Dilatation of the Stomach. Atony was an unrecognised cause of many functional gastric troubles, and it was far more important to learn the muscular state of the stomach than to make an exact analysis of its contents. He divided atony of the stomach into three degrees: (1) The stomach took longer than normal to empty itself, but there was no absolute retention of food *débris*: (2) there was occasional food retention; (3) there was constant food retention. The last two groups constituted dilatation. As to its causation he mentioned abnormal relationship between food and stomach, intrinsic weakness of the stomach walls, anatomical conformation of the stomach. The symptoms of atony of the stomach he considered were due to (*a*) local conditions, (*b*) reflex, (*c*) due to malnutrition, (*d*) due to defective absorption of water, (*e*) due to the absorption of toxins. He discussed the methods of physical exami-

nation, and illustrated the splashing sound and auscultatory percussion upon a phantom consisting of inflated rubber bags. The only certain sign of dilatation of the stomach was the finding of food residues before breakfast. He laid stress upon the necessity for a prolonged and serious course of treatment, and exhibited Turck's gyromele and his own apparatus for applying medicated hot air and the alternating needle bath to the interior of the stomach. He also discussed electricity, showing an intergastric electrode, massage, diet, and drugs. The President and Drs. Wm. Ewart, Vinrace, and Nitch-Smith took part in the discussion which followed. Dr. Herschell replied.—Mr. A. F. Penny read a paper on the Radical Cure of Hydrocele.

West London Medico-Chirurgical Society.—At a clinical meeting held on March 3rd, Dr. S. D. Clippingdale, President, in the chair, Dr. Andrew Elliot showed a case of Locomotor Ataxia in a woman. There was no definite history of syphilitic infection. The motor and sensory peculiarities of the affection were clearly demonstrated.—Mr. McAdam Eccles showed for Dr. G. P. Shuter a woman who was a survivor from the Faversham detonator explosion. She had lost her sight, had suffered amputation of the left forearm, and was bespattered very widely with fragments of the copper cylinders of the detonators which she had in her hand at the time of the explosion.—The President brought forward a young woman who exhibited a Want of Development of the Left Forearm and Hand. He did not consider it an instance of an intrauterine amputation, but thought that the condition might be accounted for by supposing that there had been a blockage of the arteries of the forearm at a certain level during the period of development. Mr. Rowland Pollock showed two brothers with Multiple Want of Development of both Hands and Feet. Their father, another brother, and a sister had similar deficiencies. Mr. McAdam Eccles also presented a man with a marked Arrest of Growth of the Right Upper Limb, and ventured the opinion that most of such cases were dependent upon some unknown influence at work upon the formative cells, and not as the result of either arterial or nervous lesions before birth. Remarks on these cases were made by Messrs. H. P. Potter, E. P. Paton, P. Abraham, F. Savery, W. C. Musson, and Vaughan Pendred. —Mr. Brindley Jones showed a young man who presented a very deep Sulcus above and behind the upper part of the manubrium sterni. This had resulted three years ago after a swelling in this region had been explored with a needle and pus withdrawn. Mr. McAdam Eccles suggested that the condition might be the result of an abscess of the region, a congenital cyst, or of some affection of a persistent thymus. Mr. E. P. Paton rather inclined to the view that it was possibly of the nature of a very low thyro-glossal duct cyst, and did not think that much good would be obtained from a plastic operation.—Dr. Andrew Elliot showed for Dr. Seymour Taylor a man who presented many of the symptoms of Myxœdema.—Mr. McAdam Eccles brought forward a case of an adult man who had a very marked Nævoid Condition of the Penis and Scrotum. This had existed since birth, but did not appear to give rise to any inconvenience.—Dr. Vaughan Pendred showed: (1) A girl, aged 19, who had had most marked symptoms of what had seemed to be Pseudo-hypertrophic Paralysis, but who had now very considerably improved; he stated that it might possibly be an instance of a congenital syphilitic condition of the muscular system of the affected parts; (2) a young woman whose Lower Jaw and Hands had begun to increase very perceptibly in size after repeated attacks of bronchial trouble; he thought that the case was probably one of commencing acromegaly. Dr. Arthur Haydon considered that in all such cases it was advisable to obtain some information as to the measurements of the pelvis, so that if necessary the changes in the bones of this region might be known for obstetric purposes.—The series of cases of deformities of the extremities were most successfully demonstrated to the members present by Dr. F. H. Low on the fluorescent screen.

Nottingham Medico-Chirurgical Society.—At a meeting held on March 1st, Mr. T. Davies Pryce, President, in the chair, a paper was read by Dr. T. W. Noble on Joint Affections in Locomotor Ataxia. He described an interesting case which had been under his care for the past two years. A woman, aged 39 years, with a history of syphilis, had been ataxic in her walking for less than a year before the onset of the swelling in her right knee. The effusion reached its maximum size in three or four days, and by the end of three weeks there was much deposit of bone salts. The bony growth had since been gradually absorbed, giving rise to an outward and upward dislocation of the tibia on the femur, the outer condyle of the femur, and the inner tuberosity of the tibia having disappeared. The morbid anatomy of the joint was described, also that of the spinal cord, and the theories of the causation of the joints being so suddenly and apparently capriciously affected were discussed. Contrasting the tabetic affection of the joint with rheumatoid arthritis, the differences were chiefly: (1) the sudden onset; (2) the comparative painlessness; (3) the size of the joint affected; (4) the affection of one joint only as a rule. The foregoing being characteristic of the tabetic joint affection.—Mr. Lawes showed a patient suffering from Ophthalmoplegia Interna. He considered that this case supported the view that the paralysis was due to an affection of the bulb.—Mr. R. C. Chicken showed: (1) A case of Compound Depressed Fracture of the Skull produced by a kick from a horse; the patient was a child, aged 6 years; he had been trephined three times in all; once, soon after the accident, and twice subsequently for paralysis which remained: when shown he was perfectly well; (2) a Small Foreign Body which had lodged in the Bronchus of a child producing intense dyspnœa and lividity, with coughing and other urgent symptoms. It remained in the bronchus for a day or two, and was then coughed up; it proved to be a piece of walnut; a curious feature of this case was that the impaction of the foreign body in the bronchus was followed by dulness over the upper part of the right lung in front.—Mr. Willis showed a Cystic Adenoma of the Thyroid which he had removed by operation from the patient he had shown at the previous meeting; the incision for the removal had been made down the anterior border of the sterno-mastoid, and when the capsule had been defined enucleation was not attended with any great difficulty.

Association of Registered Medical Women.—A meeting held on March 7th, Mrs. Stanley Boyd, M.D., Vice-President, in the chair, was devoted to pathology.—Mrs. Flemming, M.D., pathologist to the New Hospital for Women, gave a short account and classification of Diseases of the Ovaries, and showed sections illustrating the various conditions. Among the specimens shown and described were several examples of malignant disease, varieties of adenomata, fibromyomata, and cysts; also tuberculous disease and other examples of inflammatory states.

Folkestone Medical Society.—At a meeting on March 8th, Dr. T. Eastes, Vice-President, in the Chair, Dr. Dodd brought forward the question of the liability of medical men to actions for damages brought against them after signing lunacy certificates. He suggested that in all suitable cases the relatives should be asked to sign an agreement in which they covenanted to indemnify the medical man for all losses or expenses that might ensue if an action were brought against him. Even if one belonged to a medical defence society, it would much simplify matters if an agreement of this kind were signed. A memorial from the Corporate and Medical Reform Committee was, after some discussion, ordered to lie on the table. It was, resolved that steps should be taken to ascertain the number of midwifery cases in the town attended by unqualified midwives, each member being asked to put down on an unsigned slip of paper the number of cases he attended in one year. Then the whole would be added together, and the total deducted from the registered birth-rate. A resolution condemning the recent Vaccination Act, forwarded by the Liverpool Medical Institution, was adopted. The following took part in the discussions: Drs. Barrett, Chambers, Dodd, Eastes, Fitzgerald, Gilbert, Larking, Murdoch, Powell, and Sworder.

Norwich Medico-Chirurgical Society.—At an ordinary meeting on March 7th, the following resolution, forwarded for consideration by the Honorary Secretary of the Liverpool

Medical Institution, was endorsed by the Norwich Medico-Chirurgical Society:

That the members of the Liverpool Medical Institution are of opinion that the Vaccination Act, 1898, was enacted in direct opposition to the finding of the Royal Commission, and that the operation of the Act will prejudicial to the public safety, and that its amendment is urgently required.

It was also resolved to send a copy of this resolution to the members of Parliament for Norwich and the county of Norfolk.

REVIEWS.

The London Water Supply. By Arthur Shadwell, M.A., M.B.Oxon. London: Longmans, Green and Co. 1899. (Crown 8vo, pp. 282. 5s.)

This is a well-printed, gracefully-written little book, on a subject of more than ordinary interest at the present time. The book contains eleven chapters, a short preface, a chronological table, and an appendix containing extracts from the reports of the Balfour Commission and the East London Local Government Board Inquiry. Passing over the introductory chapter, which denounces all who have ever grumbled against the London water companies, we come to one of some historical interest on the origin of the eight companies who now practically monopolise the distribution of water in the metropolis. In 1582 "Peter Morrys obtained permission from the Corporation to pump water from the Thames into the City by means of water wheels placed in the first arch of London Bridge, and driven by the tide." In 1613 the New River brought water to London from springs in Hertfordshire. The greater number of the companies, however, date from the earlier part of the present century, or the two last decades of its predecessor.

The third chapter treats of the growth and improvement of the supplies, and shows how their extension at the first was by supplying the intervening houses, which gradually filled up the space between the centres of the population whose wants they were at first authorised to satisfy, and how, later, they came to serve the outer regions, until now the eight companies supply water over an area of 514½ square miles.

Expansion has been accompanied by an equal improvement in the supply; and it is only fair to say that the companies have never needed compulsion in this respect. In many instances one or other of them has taken the initiative in introducing important improvements, and when suggestions have been made from outside, or have been adopted by Parliament, they have always been promptly and energetically carried out. (P. 29).

It is pointed out that at first people were more concerned to get water laid on to their houses at all than as to its purity. They were accustomed to the tidal water of the Thames, never a pellucid stream, and even that they had to fetch. However, "having got the water, people wanted it first cheaper and then better." In the *Dolphin*, a pamphlet published in 1821, it was pointed out that

the water taken up from the river Thames, between Chelsea Hospital and London Bridge, for the use of the inhabitants of the metropolis, being charged with the contents of more than 130 common sewers, the drainage from dunghills and lay stalls, the refuse of hospitals, slaughter-houses, colour, lead, gas, and soap works, drug mills and manufactories, and with all sorts of decomposed animal and vegetable substances, rendering the said water offensive and destructive to health, ought no longer to be taken up by any of the companies from so foul a source.

A Royal Commission in 1828 found that "many of the complaints respecting the quality of the water were well founded," spoke favourably of filtration as a possible remedy, but recommended a change of intake. Within a few years all the companies concerned "had either moved their intakes higher up, or constructed subsiding reservoirs or filter beds."

The credit of playing the pioneer in filtration on a large scale is due, it seems, to the Chelsea Company. In 1852, following the report of another of the numerous Royal Commissions that have sat upon the subject, came the Metropolis Water Act.

All Thames intakes were to be moved above Teddington; all reservoirs within five miles of St. Paul's to be covered; all water for domestic use to be filtered, unless pumped from wells; no new sources to be adopted without the approval of the Board of Trade; complaints, as to quantity or quality to be the subject of investigation by the Board of Trade..... Since that time the water supply of London has been the subject of increasing surveillance and control. Numerous public inquiries have taken place, all of which have gone to confirm the action of Parliament in 1852 with regard to the sources of supply..... The general quality of the water provided by the London companies has emerged successfully from every serious investigation down to the present day.

On the same page on which the writer makes this rather strong statement, after telling us that the Commons Committee of 1867 affirmed the satisfactory character of the water supply, he goes on to say that the Duke of Richmond's Commission in 1869 pronounced in favour of the existing sources, *though they complained that filtration was not efficiently performed*. The italics, of course, are ours.

In Chapter IV the author discusses the "present supply," both as to quantity and quality, and concludes "that the London supply is actually a good and wholesome supply according to all existing criteria." After a few pages devoted to money matters, he in the next chapter compares the position of London in the matter of water supply with other towns, especially as to quantity, quality, and cost. He argues, from the low London death-rate from typhoid as compared with some of the provincial towns, that the water is above reproach. At least this is what we suppose he intends us to understand from such an antithetical sentence as the following: "But then Glasgow does not filter its water, and the typhoid death-rate is double that of London." The chapter concludes with the statement that the author is personally acquainted with the water supplies in Paris, Berlin, Vienna, and St. Petersburg; they are all inferior. He adds: "In fact, I can only find one town with a better supply all round, and that is Brighton."

The Future Supply and the Balfour Commission, and the Case of East London, occupy the two following chapters, while the Question of Public Control is treated in the eighth. The unfortunate position of the poor Londoner is next shown, and how he is "between two stools"—the companies on the one hand, who want to extend and improve their existing works, and that unspeakable, shudder-causing, huge monster the London County Council, which, since it wants itself at some time to acquire the whole undertaking, does not see the force of having to pay for improvements which it regards as in a wrong direction.

The tenth chapter—1898 and the Present Situation—scarcely exhibits the author in a judicial mood, though it contains the statement that "sensible people will await the result of the inquiry (Lord Llandaff's Commission) before making up their minds." The Suggestion, in the final chapter of this interesting little work is that the Government, rolling into one the Local Government Board and the Board of Agriculture, with a Minister of Public Health to preside over the amalgamated departments, should hand over to them the care of the water supplies of the country, should keep municipalities severely within their own bounds, and prevent their continual struggles in Parliament for fresh reservoirs and mountains new, by settling *ex cathedrâ* who is to have what. "The true solution is to make the sources of water supply, their distribution and protection, a department of Government." The book, as we have said, is an interesting one. The writer has, of course, a right to his own opinion. Most of the work, however, has so much the air of special pleading that we are glad to have the author's assurance that he has not a penny at stake. His warmth is from the strength of his conviction.

Squire's Companion to the British Pharmacopœia: comparing the Strength of its various Preparations with those of the United States and other Foreign *Pharmacopœias*, to which are added other not official Preparations, and Practical Hints on Prescribing. By Peter Squire. Seventeenth Edition. Revised by Peter Wyatt Squire, F.L.S., F.C.S. London: J. and A. Churchill. 1899. (Roy. 8vo, pp. 850. 12s. 6d.)

A new edition of this useful and much-used work of reference, so well known to prescribers and chemists, has just been issued, and will be cordially welcomed by all who are acquainted with the merits of its predecessors. The present volume is of special interest, as it embodies all the changes incorporated in the 1898 *British Pharmacopœia*, with much valuable information, comment, and criticism, suggested by actual experience of the value and effects of these changes.

The arrangement, although improved in certain minor details, is essentially the same as in former editions. Under each heading the paragraphs appear in the order of solubility, medicinal properties, dose, prescribing notes, incompatibles, official and non-official preparations, antidotes, foreign *Pharmacopœias*, description, and tests, while at the end of each article there is a more detailed account of all the chief preparations and forms in which the drug is used. Under this last heading is included a large amount of trustworthy information regarding numerous formulæ which is not readily obtainable from any other source. Numerous tables, a synopsis of materia medica, and an account of British and foreign spas, are given as in the former editions. There has been added a short account of therapeutical agents of bacterial origin by Dr. R. T. Hewlett, which deals shortly with antitoxins, tuberculin, vaccines, mallein, and nucleins.

On examining the different articles, it is evident that much care has been expended in a thorough revision, while a few of them have been almost entirely rewritten, thus bringing the whole volume thoroughly up to date. The changes made by the new *Pharmacopœia* are clearly indicated, and, when important, special attention is drawn to them. Owing to the simplicity of the arrangement and thorough indexing, reference to any subject or preparation can be made very rapidly and easily. The present edition is well calculated to maintain the deservedly high reputation of those which have preceded it.

THE BLOOD: HOW TO EXAMINE AND DIAGNOSE ITS DISEASES. By ALFRED C. COLES, M.D. London: J. and A. Churchill. 1898. (Demy 8vo, pp. 260. 10s. 6d.)

FOR years past the want of a practical book on the methods of staining and examining blood has been felt in this country. From his own observations and from a large number of scattered articles the author has produced a volume of convenient size which meets this deficiency.

The first part, on methods of examining the blood, is excellent, and contains many useful suggestions, but there does not appear to be any mention of Oliver's hæmoglobinometer, which is one of the most accurate forms of this instrument in use. The various staining methods for blood films are fully described in a practical manner. Too often in books of this class the worker is embarrassed by the number of different methods, and is given no indication as to their relative values; but the author of this volume gives his own opinions as to their respective merits. He prefers to use slides rather than coverglasses in preparing blood films. We fail to see any advantage in this, while the disadvantages are fairly obvious, the manipulation in staining, etc., being more difficult than with coverglasses. We entirely agree in his estimate of the value of hæmatoxylin for staining blood films as giving most reliable results, especially in the examination of malarial blood. An excellent account is given, with good illustrations, of the normal characters of the corpuscles. Here, as indeed throughout the book, Dr. COLES has given, in addition to his own observations, a capital review of the work of others—a point which we imagine will be appreciated by many who are not familiar with the original articles, especially those of quite recent date.

The second portion of the book is devoted to the condition of the blood in various diseases. For a work of this size this is admirably done. We notice in particular the section on the forms of leukæmia. Malaria might with advantage have been dealt with more fully. The illustrations throughout are good and sufficient. We can congratulate Dr. Coles on having written an excellent handbook on a difficult subject.

NOTES ON BOOKS.

NORTHERN UNIVERSITY THESES.

Studier öfver de histologiska forandringarna i digestionskanalen vid den perniciösa anämin och särskildt vid bothriocephalus-anämin. Akademisk afhandling af WILLIAM MÖLLER. [Researches on the Histological Alterations in the Alimentary Canal in Pernicious Anæmia, and specially in Bothriocephalus-anæmia.] (Helsingfors: J. C. Frenckell and Son. 1897. Demy 8vo, pp. 178, 2 plates.)—In this graduation thesis Dr. W. Möller discusses in four chapters the early observations on the histological changes in the digestive tract in pernicious anæmia, which he has gathered together with great assiduity from literature, the methods of histological examination used by others and by himself, and the details, clinical and pathological, of 13 cases, which he was able fully to investigate. Among these 13 cases there were 10 which belonged to the group of bothriocephalus anæmia, and 3 to that of the so-called true pernicious anæmia; and in the former the microscopic changes in the stomach and intestines were more marked than in the latter. In some cases only the small intestines were available for examination; in others also the large intestines and stomach. These changes consisted chiefly in glandular atrophy, and are well shown in the plates, and in chronic catarrh—for example, chronic gastritis. It is noteworthy that in Case XIII—that of a woman 28 years of age, in whom the anæmia was associated with the presence of the bothriocephalus latus—the structure of the small intestine and stomach was normal; but here the disease had lasted only three weeks. The thesis is a useful contribution to our knowledge of the pathological anatomy of the form of anæmia associated with tapeworms in the intestines.

Om Stenos och Obliteration af Aorta vid eller i Närheten af Ductus Botalli. [On Stenosis and Obliteration of the Aorta at or in the Neighbourhood of the Ductus Botalli.] Akademisk afhandling af EMIL WADSTEIN. (Lund: E. Malström's boktryckeri. 1897. Demy 4to, pp. 122, 3 plates and 1 woodblock.) Dr. Wadstein has done good service to the inquiry into all the morbid conditions of the aorta which depend upon congenital malformations by his laborious compilation and analysis of 113 cases (chiefly from literature) in which the aortic anomaly was probably due to the influence of the ductus arteriosus and to alterations in its normal mode of absorption. The cases were those of individuals varying in age from a few minutes to 92 years, and among them were several in which the death had been caused by aneurysmal and other conditions directly due to the anomaly in the ductus. Illustrations are given of three or four cases, including an interesting one from the pathological collection in Lund belonging to Professor Odenius; in this there was congenital stenosis of the aortic isthmus, the ductus Botalli was open, and there was a sacculated aneurysm of the aorta. The questions of clinical features, diagnosis, prognosis, and pathogenesis are exhaustively discussed; and it is noteworthy that in 15 cases death occurred suddenly, and in 13 of these it was due to rupture of the aorta, preceded in 8 instances by aneurysmal dilatation. The subject is specially interesting as showing the far-reaching effects of slight alterations in the involution of transient fœtal structures.

Om den s.k. prostatahypertrofiens behandling. Akademisk afhandling af Björn G. O. FLODERUS. (On the Treatment of So-called Hypertrophy of the Prostate. Upsala: Nya tidnings aktiebolags tryckeri, 1897. Roy. 8vo, pp. 314-204, 3 plates).—Dr. Floderus, in his graduation thesis, has presented what is little less than an exhaustive study of the subject of so-called hypertrophy of the prostate gland and the various methods of treatment that have been proposed for its cure. In the first part of the work, which extends to 314 large pages of closely printed text are discussed in order, the etiology of the condition with special reference to Harrison's hypothesis and the homologies between the state of the prostate and that of uterine fibromyomata, the pathological anatomy, the general symptomatology and treatment, and the special symptomatology and treatment, with reference more particularly to the complications in the genito-urinary organs. Then the different kinds of operative interference are fully and critically considered; the old plan of treatment by catheters, either intermittent or (more recently) by continuous aspiration according to Cathcart's method; puncture of the bladder, either by the prostate or by the rectum, perineum, subpubically or suprapubically; urethral and rectal operations, including urethral galvano-cautery or Bottini's operation and urethral prostatotomy or Mercier's operation; perineal operations such as prostatotomy and prostatectomy and lateral prostatectomy or Dittel's operation; epicystotomy and ventrifixation of the bladder; suprapubic and suprapubic-perineal prostatectomy; and the indirect vascular operations, such as Wyman's opera-

tion (circumcision of the prostate) and Bier's operation. Finally, the new methods, known as the sexual treatment of prostatic hypertrophy, are examined first on purely theoretical grounds, and then on the question of results. The second part of the book contains elaborate tables and a bibliography with several hundreds of references. The work is one worthy the study of all surgeons who wish to contrast the results of the old and the new in the operative treatment of this very troublesome complaint of advanced age.

Om dissekerande hajärtaneurismer. Akademisk afhandling af Artur Edvard Vestberg. [On Dissecting Aneurysms of the Heart.] (Stockholm: P. A. Nordtedt & Söner. 1897. Demy 8vo, pp. 128; 2 plates). Dr. Vestberg's dissertation is chiefly valuable for the complete account given in it of an interesting case of dissecting aneurysm of the heart in a woman aged 32, whose condition was diagnosed as one of aortic incompetence with aneurysm of the arch of the aorta, and perhaps mitral incompetence also. There was in addition chronic nephritis, uræmia, and bronchitis. In the plate the opening of the dissecting aneurysm just below the aortic valves is shown, and the author is at great pains to prove from anatomical considerations how it is that the periaortic space in the heart is the specially predisposed spot for the occurrence of such an aneurysm. The subject in general is also fully dealt with.

A fourth edition of *Ambulance Lectures: First Aid to the Injured* (London: H. K. Lewis. 1899. Fcap. 8vo, pp. 164. 2s.), by Mr. Samuel Osborn, F.R.C.S., Chief Surgeon to the Metropolitan Corps of the St. John Ambulance Brigade, has been published, and will be found most useful both to lecturers and students of "First Aid." It has already been translated into Chinese, French, German, Greek, Italian, Japanese, Spanish, and Hindustani—probably a unique record in the history of ambulance lectures. The latest edition is dedicated by permission to H.R.H. Princess Christian of Schleswig-Holstein, to whom so much of the popularity of the study of "immediate relief" to the injured is due. We have so lately favourably reviewed a previous edition of this book that there is no necessity to say more than that the manual just published forms a complete work deserving of the highest praise, and fulfilling in every respect the requirements made upon it.

Messrs. John Wright and Co., of Bristol, have issued a neat little pocket book (2s. 6d.), in which practitioners can enter their own private formulæ or any prescriptions of interest which may come under their notice and seem worth recording. It is probable that most men in active practice keep some such collection for use in exceptional cases. The common practice of jotting down such notes on the back of an envelope or any stray scrap of paper has many disadvantages, and a memorandum book of this description, with its accompanying posological tables as a reminder of doses, cannot fail to prove useful. It is well bound, and the cover seems calculated to stand many years of use.

REPORTS AND ANALYSES

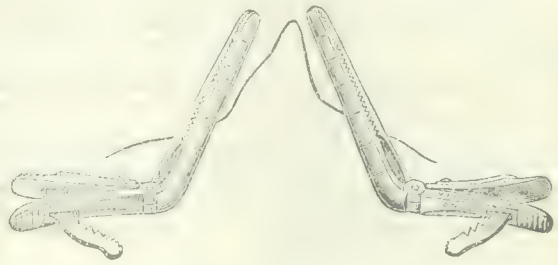
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Hare-Lip Forceps.—The forceps illustrated in the accompanying drawing have been made by Messrs. Mayer and Meltzer at the suggestion of Dr. Carline, of Lincoln. The principal feature is the scale on the blade of the forceps. The instruments are to be used in the following way: The blades are placed accurately on the proposed line of incision, the points of course meeting. The scale shows that the incision will be of equal length on either side. The sutures are now inserted, also by the assistance of the scale, and drawn out of the way; the knife is swept along the edge of each forceps, the sutures are then pulled upon and the lips of the wound drawn together; the forceps being now removed the sutures are tied. It is claimed that the coaptation will be perfect, and the hæmorrhage will have been completely controlled throughout, this latter a matter of great importance in hare-lipped children. The forceps are intended to be used in this way only in ordinary straightforward cases of hare-lip or epithelioma, but apart from the scale they may be used as the ordinary forceps for controlling hæmorrhage in lip operations,



when the shortness of the handles will be found a distin advantage over the older forms of the instrument. The necessity for passing the sutures before cutting is due to the fact that when the lip is shaved off at the edge of the forceps the latter loses its hold, and would most probably slip off before all the sutures had been inserted. In the illustration the forceps should have been depicted further on the lip, with the points meeting.

An Aseptic Pocket Case.—Messrs. Brady and Martin, Northumberland Road, Newcastle-on-Tyne, have made a small pocket case, measuring $4\frac{1}{4} \times 2 \times \frac{5}{8}$ inches and weighing $6\frac{3}{4}$ ozs. It is, therefore, of very convenient size for the pocket or bag, and is enclosed in a purse-like leathern bag. The case and all the instruments are of metal. The case is of German manufacture, the instruments are of the best Sheffield steel. On each side of the case is a rack into which the instruments fit compactly and neatly, so that each separate instrument is secure in its place. The case contains scissors, scalpels, forceps, straight and curved bistouries, probe director, scraper, and seven needles. There is a handle common to the knives, scraper, and needles. The locking of this handle is simple in its contrivance and very effective. The instruments can be readily taken to pieces and fitted together. They are all of excellent workmanship and finish. The addition of a small tube of sterilised catgut would have increased the usefulness of the case, as it is convenient for the practitioner to have everything necessary for the simpler procedures easily accessible. So far, however, as neatness, compactness, and good workmanship are concerned, the "aseptic pocket case" is all that could be desired.

Ethylate of Sodium in Capillary Tubes for the Treatment of Nævi.—Dr. E. Mansel Sympson (Surgeon to the Lincoln County Hospital) writes: One practical difficulty I have found in using ethylate of sodium for this purpose is that after the bottle has been once opened the glass stopper becomes so tightly fixed that the bottle neck has to be broken to get any more of the contents thereof. Hence some years ago the late Mr. Bowen, our hospital dispenser, and I hit upon the plan of putting the solution in capillary tubes, which makes its use very easy and economical. I have got Mr. W. S. Hill, chemist, of Lincoln, to prepare the tubes for the hospital and myself.

Heroin, Etc.

Messrs. J. F. Macfarlan and Co. (Abbey Hill Chemical Works, Edinburgh) write: The publication of notes on heroin in the medical journals suggests a brief comment from us. The introduction and advertising of well-known esters of morphine under such fanciful names, as "peronin," "dionin," and "heroin," may mislead some members of the medical profession into the belief that these are new and proprietary preparations. As a matter of fact, they are all prepared and supplied under their proper names by ourselves and other competent manufacturers. The chemistry and physiological action of the typical substitution compounds of morphine was fully investigated by Mr. Dott and Dr. Ralph Stockman.[1] Professor Stockman found that acetyl, diacetyl, and benzoyl morphine had all practically an identical action. Whence it is improbable that one of them (whether called "peronin" or "heroin") possesses a therapeutic value in excess of the others.

[1] *Proceedings R. S. C.*, 1889-90; and other communications.

THE PREVENTION OF TUBERCULOSIS.

CARDIFF.

A DEPUTATION from the Cardiff Medical Society waited upon the Health Committee of Cardiff on February 28th with a view of inducing that body to adopt measures to reduce the ravages caused by tuberculosis, commonly known as consumption. Dr. Rhys Griffiths (President), Dr. Patterson (Secretary), and Dr. Fiddian (Treasurer), addressed the Committee. Supporting the speakers were Drs. Herbert Vachell, Alfred Rees, Fred Davies, Temple Morris, Corrigan, Buchan, and Musgrave.

The Chairman (Alderman Jacobs) thanked the deputation, and proposed that they should have a series of special meetings. This course was agreed to.

In a special report Dr. Walford, the medical officer of health, said the death-rate per 1 000 from phthisis and from tabes mesenterica at all ages in Cardiff, 1879-1898, showed an increase (calculating from the average in every period of five years) respectively of 2.89 to 2.07, 2.09 to 1.32 (phthisis), and 0.18 to 0.09 (tabes mesenterica).

LEEDS.

At the meeting of the Leeds Board of Guardians on March 1st, Mr. C. A. Lister presiding, a letter was read from the Halifax Union suggesting a conference with other Yorkshire Boards of Guardians on the subject of the treatment of consumptive inmates in workhouse infirmaries. The Halifax Guardians pointed out the great danger of having such cases mixed with other patients, and the improbable hope of recovery if they were kept in the wards of the workhouse. Their medical officer had, they stated, expressed the opinion that it was desirable to place such cases where fresh air and plenty of it could be obtained. The Chairman considered that a conference on the subject was well worthy of the support of the Leeds Guardians. Mr. Woodhead concurred in this opinion, and moved a resolution expressing the willingness of the Board to join the proposed conference.

Dr. Sims Woodhead gave an address upon this subject at a conference called together by the West Riding County Council, and held in the large Examination Hall of the Yorkshire College, Leeds, on March 10th last, under the presidency of Alderman Sugden. Some 800 medical officers of health of the West Riding, veterinary surgeons, agriculturists, and others interested in the prevention of tuberculosis attended.

After a brief allusion to the lesions produced in the lungs by the tubercle bacillus, Dr. Woodhead discussed tuberculosis of the udder in the cow. Usually one or other quarter is enlarged and hard, and yet there is no tenderness or pain. A pig fed with milk to which tubercle bacilli has been added develops the same tuberculous lesions as a pig fed on milk from a tuberculous udder. A boiling temperature destroys the tubercle bacillus. Milk is the one article of diet which under ordinary circumstances is not submitted to the process of cooking. It is because so much raw milk is drunk that danger lurks in the tuberculous udder, and it is for this reason that dairy cattle should be kept under the most rigid observation.

The lecturer, while not denying the rare possibility of congenital tuberculosis, maintained that heredity can account for very few; in fact, for practically none of the cases of tuberculosis in man or animals. Reference was then made to the interesting experiments made in Copenhagen, in which Professor Bang was able to breed healthy animals from tuberculous stock by feeding them with milk free from tubercle bacilli. Tuberculosis was conveyed by meat in a comparatively small number of cases, yet it was necessary to see that meat was well cooked.

Dr. Sims Woodhead also touched upon the tuberculin test, including compensation, and he alluded to the enormous waste which occurred in attempting to feed up tuberculous cattle.

Finally, emphasis was laid upon the prevention of the spread of the tuberculous virus either from tuberculous patients or animals, special attention being given to the sputum, dust, and also to light and open windows.

A resolution, proposed by Mr. Lipscombe, seconded by Mr. W. Carter (Sheffield), and carried unanimously, contained the following:

The County Council will, in conjunction with the county boroughs and other sanitary authorities in the West Riding, take steps for promoting uniform legislation for the prevention of the sale or distribution for human consumption of tuberculous food, and especially for the establishment of the systematic inspection of the dairies, cowsheds, and slaughterhouses.

The Yorkshire Branch of the Society of the Medical Officers of Health held their first annual dinner at the Great Northern Hotel, Leeds, on March 10th, Dr. Evans (Bradford) being in the chair. Among the guests present was Dr. Sims Woodhead, who, in response to the toast of "The Guests," referred to one practical outcome of the advance of science, which showed itself in the greatly increased interest taken in such subjects as the prevention of tuberculosis. The large attendance upon the conference that afternoon provided abundant proof of this fact.

The number of medical officers who were present at the dinner was large, and augured well for the success of this social function in the future. Dr. Kaye, Medical Officer of Health to the West Riding Council and Honorary Secretary of the Yorkshire Branch, must have been very pleased with the day's work.

FOLKESTONE.

The Folkestone Medical Society has issued a useful leaflet entitled Hints on the Prevention of Consumption and Instructions to Phthisical Patients.

WORCESTER.

The medical officer of health, Dr. Mabyn Read, has, at the request of the Health Committee, presented a special report on tuberculosis. In it he points out that in the decennial period 1881-90 the registration County of Worcestershire had a lower mean annual death-rate from phthisis than any other registration county in England and Wales. The death-rate for Worcestershire was 1,217 per 1,000,000 living, and that for England and Wales was 1,724. As regards the City of Worcester, Dr. Read gives a table showing that during the period referred to phthisis and other tuberculous diseases combined caused 25 per cent. more deaths than the zymotic diseases; that it was the cause of death in 1 of every 12 persons who died; and that phthisis and the other tuberculous diseases were the cause of death in 1 of every 8 persons who died.

CREWE.

On February 28th a special meeting of the Health Committee was held to consider the question of the prevention of tuberculosis. Dr. Meredith Young, the medical officer of health, laid before the Committee a statement as to the annual mortality from phthisis and other forms of tuberculosis, from which it appeared that the former caused on the average about 35 deaths per annum and the latter about 40 deaths per annum. He also laid before the Committee a programme of preventive measures which he suggested should be carried out.

The Committee, after a lengthy discussion, resolved upon the following:

1. That the medical officer of health be empowered to offer facilities for the bacteriological examination of material from suspected cases of phthisis and other forms of tuberculosis, the result of such examination, if positive, to be considered a notification of the disease, but that no action whatever be taken on receipt of this information except at the request of the medical attendant, the patient, or his relatives.

2. That the medical officer of health be empowered to have the milk supply to the isolation hospital bacteriologically examined from time to time as often as he may deem necessary.

3. That disinfection of houses, bedding, clothing, etc., be done by the Corporation staff free of charge in all cases of tuberculosis when so requested by medical practitioners or by the relatives.

4. That the medical officer of health insert the sum of £25 in the Annual Health Department estimates, to cover the expenses in connection with the obtaining of weekly returns of sickness from all the friendly and sick societies in the borough, and that he formulate at an early date a scheme for obtaining these from the various secretaries, and submit it to the Health Committee.

5. That the medical officer of health draw up a simply-worded handbill on the prevention of tuberculosis, and have this printed and circulated to every house in the town.

6. That the town clerk and medical officer of health write to the Local Government Board asking that the new Dairies, Cowsheds, and Milkshops Regulations framed by the Council should be forwarded as early as possible, otherwise farmers and others concerned would not be able to carry out any necessary alterations at a suitable time.

7. That the Royal Agricultural Society be accorded the best thanks of the Committee for their kindness in forwarding copies of leaflets on tuberculosis in dairy stock, and that the medical officer of health circulate these to every cowkeeper within or around the district.

It may be pointed out that in proposals 1, 2, 3, and 5 recommendations made by the Tuberculosis Committee of the British Medical Association are adopted.

Private Legislation on Tuberculosis in Dairies.

The towns of Blackpool, Bootle, Darwen, Leeds, Manchester, Salford, Stockport, and Warrington, are all promoting private Bills containing clauses for the protection of their inhabitants against tuberculosis introduced by milk. The clauses in the several Bills as originally drafted differ considerably, varying from the couple of clauses in the Warrington Bill—the one requiring notification of tuberculosis, milk, or parturient fever in any cow whose milk is sent into the borough, and making the sending of the milk of any such cow penal; the other prescribing compensation to the dairyman for loss in carrying out the requirements of the Corporation—to the much larger powers contained in the seven subsections of the Darwen clause. In all, however, the power of entry to dairies sending milk into the town—whether they be situated within or without the area under the control of the Corporation—is asked for. One town (Leeds) asks for authority to "apply the tuberculin or other reasonable tests." The representatives of the towns named met in Manchester on March 10th, to confer on concerted action, in view of a motion in the House of Commons threatened by Mr. Jeffreys, directing the Committee to reject the clauses *in toto*. A deputation appointed by this conference met on Monday afternoon in London to draw up a joint memorandum on the subject for the use of members of the House. Meantime, however, a communication had been received from the Local Government Board containing suggestions arrived at after conference between that Board and the Board of Agriculture, and the deputation of the corporations was informed that Mr. Jeffreys was willing, if the principle of these suggestions were adopted, to postpone his motion till after Easter, that new clauses might be drawn up embodying these principles. The suggestions were so generally acceptable to the representatives of the towns promoting Bills, that they deputed the Manchester and Leeds representatives present to see Mr. Bryce, of the Local Government Board, get some further explanations on a few ambiguous phrases, and if this was satisfactory give the necessary assurance. Mr. Bryce, with his usually courtesy, received this deputation on Tuesday, and his explanations were so clear and satisfactory that the necessary assurance was at once given. He explained that the Board had agreed that it should be made penal to sell the milk from a cow with a tuberculous udder or showing other marked clinical symptoms of tuberculosis. They conceded the power to take samples of milk within or without the borough, in the latter case a justice's order being obtained if the dairyman refused. In the same way, with the like restrictions, an examination of the dairy might be made, but the cattle themselves were, as in Section IV of the Infectious Diseases (Prevention) Act, only to be examined in the presence of a veterinary surgeon. Isolation of cows affected as above was to be compulsory on notice to the dairyman, but it would appear that the department is opposed to the granting of powers to apply the tuberculin test. Notification of any disease of the udder resembling tuberculosis was to be made compulsory. It was also suggested that, where the notices allowed of it, a clause should be inserted allowing the Local Government Board to prescribe what amount of tubercle in a carcass should lead to its confiscation. The Local Government Board has, as is stated below, issued a circular to authorities recommending—they have no power at present to do more—that the suggestions of the last Tuberculosis Commission as to what meat should be condemned should form the basis of action on the part of meat inspectors, and reminding authorities that it is incumbent on such inspectors to consult their medical officers in cases of doubt or difficulty.

Dairies and the Tuberculin Test.

We have received from Messrs. Welford and Sons' Dairy Company, Limited, a small pamphlet, which contains the statement that among the regulations adopted for safeguarding the supply of nursery milk is the application of the tuberculin test to the milking stock, which ensures the supply being from healthy animals only. This will be the case if the milk is obtained only from animals which have not reacted when tested. We also notice that the company recognises the necessity for observing sanitary precautions with regard to the ventilation and cubic space of cowsheds. We believe that other companies are giving attention to these points also, and it is within the power of consumers to insist that these precautions should be taken.

Dairies, Cowsheds, and Milkshops Order, 1899.

The Local Government Board have issued under date February 7th, 1899, an Amending Milk Order. It consists, after introductory matter referring chiefly to the Orders of 1885 and 1886, of two articles as follows:

Article 1. This order may be cited as "The Dairies, Cowsheds, and Milkshops Order of 1899."

Article 2. Article 15 of the Order shall be altered so that for the purposes of the provisions of paragraphs (*a*) and (*b*) thereof, the expressions in the said Article which refer to disease shall include, in the case of a cow, such disease of the udder as shall be certified by a veterinary surgeon to be tuberculous; and the Order and the Amending Order, shall apply, and be construed with, the modifications necessary to give effect to this Article.

In a circular addressed to sanitary authorities enclosing the new Order, and dated March 11th, 1899, the Secretary to the Local Government Board advises authorities who have not already made regulations as to dairies and cowsheds to do so, and encloses model forms. He points out that Article 15 of the Order of 1885 provides that the milk of a diseased cow shall not be mixed with other milk, or sold as food, and that a "diseased cow" now includes an animal with tubercle of the udder.

The rest of the circular deals with meat inspection, and recommends generally the acceptance of the suggestions of the Tuberculosis Commission as to what carcasses should be condemned for that disease.

Dublin Slaughter Yards.

Dr. Charles F. Moore has addressed a letter to the *Irish Times* in which he points out that Ireland is naturally one of the most healthy countries, and quotes in support the observation of the Registrar-General, Dr. Grimshaw, C.B., "that, roughly, the eight Western counties of Ireland might (as they contain few large towns) be taken as healthy death-rate districts, the remaining districts being taken as less healthy death-rate districts. The death-rate for the former was only 14, that in the latter 19.1 per 1,000 (living) for the decade 1881-90." Dr. Moore observes that although the Royal Commission of 1879 condemned the existence of slaughter-houses in Dublin, there still exist no fewer than sixty. The abattoir which was built was placed outside the city bounds, and the Corporation cannot compel its use by the butchers. He thinks that all these centres help to propagate tuberculosis, owing to the prevalence of disease in cattle, and he suggests that all private slaughter-houses should be closed; that two new abattoirs should be constructed, one at the North Lotts, East Wall, and a second on the Pigeon House Road. The offal could at once be utilised, and prevented from affecting the drains. All the beef should be inspected.

We note that Dr. Moore promises to deal with the subject of the inspection of milch cows. We hope he will try to do something for the removal of dung yards from the city. There are at present scores of these, with thousands of cows, and their condition is very unsanitary. The Dublin Corporation is afraid to move towards the obvious remedy of abolition. Once they introduced such a clause into a Bill, but the dairymen soon made it clear that the councillors would endanger their seats by proceeding with the measure. So the clause was withdrawn. Thus it is that in this matter the dairymen rule Dublin, even in opposition to the views of the sanitary officer, Sir Charles Cameron, C.B. Meanwhile, expensive changes go on in other things at the cost of the ratepayers, and the filthy yards are allowed to exist.

The United States.

On January 25th a Bill was introduced in the Assembly at Albany which will allow cities of the first class to establish, equip, and maintain outside of their corporate limits, and, with the approval of the State Board of Health, hospitals for the regular treatment of consumptives.

The question of appropriating 150,000 dols. for the work of exterminating contagious diseases in domestic animals recently came before the Committee on Agriculture. There was some disagreement among those discussing the measure as to the efficacy and necessity of tuberculin as a diagnostic agent. Dr. Peters, Chairman of the Cattle Commission, replied vigorously to the adverse criticism. No definite conclusion has been reached in the matter.

Chicago.

Chicago is said to be the first city in the United States to build and equip a public charitable hospital for consumptives.

The Cook County Hospital for such patients is now open at Dunning. The Dunning Hospital for Consumptives was built and equipped at a cost of 75,000dols., and can accommodate 350 patients. It admits only such patients as are dependent upon the county. The structure was designed especially for the purpose, and every ward arranged to admit light and air in greatest quantity. In Chicago 2,500 people die of consumption annually.

A New Order of Nurses for Consumptives.

The Rev. Father James O. S. Huntington, Superior of the Order of the Holy Cross, a congregation of celibates of the Episcopal Church, having their mother-house at Westminster, Md., proposes the establishment of a new religious sisterhood, whose life-work would be to nurse consumptive patients.

The Detection of Tuberculous Infection in Secondhand Clothing.

At the annual meeting of the Medical Society of the State of New York, held recently, Dr. William G. Bissell, of Buffalo (*Medical News*, February 4th), read a paper on this subject. His conclusions were based upon the result of investigations carried on by him in the Health Department of Buffalo, regarding tuberculous infection. In connection with military duties his attention had been called to the fact that several members left the organisation on account of tuberculosis. At that time the uniforms and overcoats when discarded by an outgoing member were assigned to the next new recruit. According to his views, these uniforms of men who had contracted tuberculosis were capable of transmitting that disease to the next wearer. He conducted a series of experiments to prove this. Uniforms were secured, their pockets removed and labelled; they were then washed, and the resulting washings were placed in a centrifugal machine until a sediment was obtained; this sediment was diluted and injected into 16 guinea-pigs; 7 of these died of acute septic disturbances; of the 9 remaining animals, 5 recovered, but 2 of these died later of tuberculosis. The animals which contracted tuberculosis contracted it through the inoculation of material obtained from the pockets of the discarded uniforms. This proves the great danger of communicating tuberculosis by clothing worn by consumptives. Dr. H. R. Hopkins, of Buffalo, brought forward a resolution, which was carried, that the Society approve the matter of municipal control of dealers of secondhand clothing, and refer it to the Committee on Legislation.

A "Crystal Palace" Sanatorium.

Dr. A. P. Reid, of Reidvale, Middleton, Annapolis County, Nova Scotia, has designed a sanatorium which he thinks "will obviate objectionable, and secure desirable, results, and this at a cost of less than half of a modern hospital building." The following is his description of it:

It is, in fact, a "crystal palace" of iron and glass, a house within a house, or a house surrounded by verandahs, also of iron and glass, and each open to sunlight and air from all sides. The verandahs, as well as the interior of the building, can have any or all the windows either closed or opened. This ensures the most perfect ventilation in mild weather, and in the inclement season a system of very free distribution of air, taken from the outside, warmed to a temperature of 60° or 70°, and distributed in abundance to the exterior or the interior of the building at the will of the director.

This is no theory. I have a house that for four years past has been so warmed from the outside or verandah which surrounds the house, and it it leaves nothing to be desired. The temperature of the interior or main building varies but little winter or summer (as might be expected). In hot weather it is cool, and in the cold season, as it is protected by the verandah from radiation, and this being filled with an abundance of warm air distributed by very large air ducts, there is no such thing as a cold draught, even though all the doors and windows of the interior building are open, which they are the most of the time the year around. The plants flourish winter as well as summer, though there is only the thickness of a pane of glass between them and the frost (at times below zero) outside. In the daytime when the sun is shining the temperature in verandah rises sometimes to 80°.

In order that the heating shall be under perfect control, no matter what the temperature outside or the direction of the wind (a difficult thing to regulate in hospitals as now constructed), and as well to utilise the best modern methods in addition to the warm (not hot) air heaters, there are hot-water heaters that can distribute the hot water at such temperature and in such volume as may be desired to the interior or hospital building proper. This is secured, not by coils, but, owing to the construction of the building, all the columns and supports along the sides, ends, and centre are iron tubes in connection with the hot-water heaters. Coils with dust and dirt accumulation are done away with, and the heat is equally distributed in sides, ends, and centres, leaving no place for collection of dust or dirt, which are unavoidable in any system of coils, stoves, fireplaces, and such devices. The verandahs do not require hot-water heating.

The chimneys at each end pass through the water closets and bath rooms, having a ventilating flue in each stack alongside of the smoke flue so that it can be always warm—in cold weather by the waste heat of the chimney flue, and in warm weather by a stove or heater at the foot of the ventilating shaft, thus ensuring a steady draught winter or summer. There need be no cellars or basements, as they are of no use, and are expensive to construct and drain. The first, or ground story, should have concrete floors and walls, giving accommodation in the centre to the heaters, stairway and elevators, and around the walls to the apartments for house-staff, nurses and employees, dispensary, waiting rooms, offices, bacteriological laboratory, etc. The stairway and elevators extend to the roof promenade, giving access to it and to each storey. The roof can be a flat promenade surrounded by a railing and protected by an awning (to be taken down in winter) against sun and rain. At the highest point in the centre of the building, supported by the main iron columns, there should be a large water reservoir to furnish water by gravity, for all purposes, and to be kept full by a steam pump or other means. The two two upper storeys are the hospital proper. The promenade verandahs (sun baths) are for patients, and are calculated at 1,000 cubic feet for each 40 patients (wards 70 × 30 × 10 feet each storey); and if verandahs be included extending 10 feet all round outside the interior building, 2,000 cubic feet per patient.

All the walls are windows, except for 2 or 3 feet next to the floor, to be opened if desired. There need be no partitions or lath and plaster. The floor of the upper storey is the ceiling of the lower one, supported by sleepers resting on the iron framework. If desired the whole flat can be one ward or room, or each patient can have perfect privacy by adjusting hanging screens on all sides. These can reach from a few inches above the floor up to 6 feet, so that circulation of air is not impeded. By opening the windows and using a jet of compressed air every corner and every place can be quickly, easily, and perfectly cleaned out. The laundry, kitchen, etc., should be in a detached building. These details can be modified in many ways; but what I claim as the improved hospital construction is a building supported by an interior iron framework, which, being tubular, gives greatest strength for a given weight. It serves at the same time as a means of distributing water to modify the temperature, either to warm or cool the interior. Verandahs also of light iron framework surround the hospital building at a distance from its walls of 10 or more feet. All the walls of the hospital and verandahs can be windows, to be closed or opened to any desired degree, with a supply of warm pure air in winter brought in by large conduits, and especially distributed to the verandahs so that cold draughts can be avoided when so desired.

THE NEW VACCINATION ACT IN OPERATION.

W. C. B.—The new Vaccination Order does not apply to Scotland. Our correspondent should obtain a copy of the Vaccination (Scotland) Act, 1863.

Fees to Public Vaccinators.

Timothy.—The fee of 1s. is payable by Article 3 (2) of the Order, as we have several times said in answers to various correspondents, in respect of—

(1) "the number of children in the lists" on Form H.;
(2) "the number of children not included in such lists, but vaccinated by the public vaccinator himself."

By definition at the end of the Order, "the term 'child' means any person not more than 14 years of age."

The Capitation Fees.

S. B. M. asks: Can I charge the capitation allowance, Art. 3 (a) (Gen. Order 1898), on all vaccinations I have done since the commencement of the year, that have been sent me to do by the vaccination officer in Form H, irrespective of the date of birth? He has sent me lists of children born in 1894, and from that date up to the present, and I have successfully vaccinated a great many.

*** The only course open to our correspondent will be to *claim* the fee (*a*) in respect of all children vaccinated by him. Although the primary clause, Article 3 (1) (*a*) of the Order limits such payments to the case of children whose births have been registered since August 31st, 1898, and children whose births "shall not have been registered at all," the interpretation clause, Article 3 (2) is very much more inclusive, as it embraces not only the case of children whose names are placed on the official list H., but provides that payments are to be made in respect of "the number of children not included in such lists, but vaccinated by the public vaccinator himself." "The term 'child' means any person not more than 14 years of age," by definition at end of Order. The public vaccinator appears therefore to have a legal as well as a moral right to receive this fee (*a*) in all cases of successful vaccination under 14 years.

Official Vaccination by Private Practitioners.

General Practitioner writes: In order to promote efficient vaccination throughout the country it is most desirable that parents should be allowed to have their own doctor to vaccinate the children free of charge, as many poor people have strong objections to have their children vaccinated by the public vaccinator, and in the case of poor people who cannot afford to pay, it is especially desirable that general practitioners who hold vaccination certificates, and who comply with the regulations of the Local Government Board, should be paid on the same scale as public vaccinators; also that the office of public vaccinator, or sole appointments, be dispensed with.

Ubique writes: Mr. Strachey is reported as asking the President of the Local Government Board if he would take into consideration the paying of a fee to the medical attendant of the family. The old Poor-Law Board I am informed had previous experience of this. I have it on good authority that private practitioners were paid in this way, but competition was so keen between them that the children suffered from insufficient protection, and also the ratepayers cried out on account of the enormous expense.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 18th, 1899.

THE MIDWIVES BILL.

The agitation in favour of legislation to register midwives had been in existence for a good many years when the chances of the ballot in the House of Commons last year rendered it possible that the proposed legislation might be seriously considered by Parliament. The avowed object of the promoters of the Bill was to bring the practice of midwives under public control by requiring them to be registered, and by appointing a Board which should have the custody of the register, and lay down the conditions of admission to it, and the rules and regulations under which midwives should follow their calling.

The nature of the legislation desired by the Midwives Bill Committee have long been known, and the proposals have been fully considered by the British Medical Association on many occasions. The most recent proposals were referred to a Subcommittee of the Parliamentary Bills Committee, which drafted the amendments required should legislation be attempted on the lines favoured by the Midwives Bill Committee. When the Bill of 1898 was introduced, its provisions were minutely considered, first by a Committee, and then at a special plenary meeting of the General Medical Council, when the principles laid down by the British Medical Association as those which must guide any legislation on the subject were endorsed by the General Medical Council. His Grace the Duke of Devonshire, Lord President of the Council, having been approached by the promoters of the Bill of 1898, with a request that he would give facilities for its passage through Parliament, informed them that they must come to an understanding with the General Medical Council before the Government could look with favour on the proposed legislation. The Committee of the General Medical Council subsequently received a deputation from the promoters of the Bill, and presented to the November meeting of the Council a report of this interview, together with certain recommendations which were adopted by the Council. The final stage of these negotiations was reached when the Midwives Bill Committee issued a revised draft of its Bill,[1] which has since been introduced into the House of Commons and read a first time. Its chance of passing as a private Bill this session is exceedingly remote; but as the matter has been under the cognisance of the Privy Council, and as the promoters of the Bill profess to have fulfilled the conditions laid down by the Lord President, in other words, to have satisfied the requirements of the General Medical Council, the Subcommittee of the Parliamentary Bills Committee at once submitted the new measure to careful examination, and reported to the Committee that though the Bill had been modified in many material respects, further amendments were required to bring it into accord with the conditions which the British Medical Association and the General Medical Council considered should be fulfilled by any legislation which the Government could be advised to accept. This report was discussed at a special meeting of the Parliamentary Bills Committee last month, when it was adopted with certain minor alterations, and referred to the Council, which held a special meeting on March 10th for its consideration. The report was there very fully debated and eventually adopted with a few verbal alterations by an almost unanimous vote.

Owing to the fact that the number of modifications to be made in the Bill of the Midwives Bill Committee in order to introduce into it the safeguards necessary in the interests alike of the public health, of the women of the poorer classes who now resort to midwives, and of the medical profession, it was found most convenient to present the report in the form of a draft Bill.[2] This has the advantage of sketching a coherent scheme, in which the prescribed conditions are efficiently carried out, but it must not be understood to indicate that the Association desires to promote legislation, or will seek to obtain the introduction of this draft Bill into Parliament unless circumstances should arise, such as the adoption by the Government of the Bill of the Midwives Bill Committee, which would make it expedient to do so in order to educate opinion in the House of Commons.

The Bill adopted by the Council of the British Medical Association provides for: (1) The regulation and restriction of the issue of certificates in midwifery to women; (2) the regulation and restriction of the practice of midwives; (3) the legalisation of the title and practice of the midwife; (4) the restriction of the practise of midwifery for gain to such legalised midwives.

The proposed licensed midwife would have (1) to produce evidence of her claim to be licensed, (2) to take out a local licence for the district in which she practised, (3) to be subject to the rules and regulations of the Central Board, (4) to be subject to the supervision of the local authority under that Board, (5) to be allowed to practise only within the area for which she was licensed, (6) to be penalised for breach of regulations, by monetary fines and by suspension from practice, (7) to be restricted in practice to the conduct of normal cases.

The Bill proposes that a Central Board shall be established, consisting of registered medical practitioners representing the various districts of England and Wales and one registered practitioner appointed by the Privy Council. The greater part of the regulations governing the practice of the proposed midwives will be drawn up by this Central Board, which will also have power to visit and inspect any lying-in home kept by a midwife, and to require the premises to be registered.

[1] Its text was published in the British Medical Journal, January 7th, 1899, p. 46.

[2] This draft Bill was published in the British Medical Journal, February 11th, p. 350.

The objects to be aimed at are the efficient supervision and control of the practice of midwives and a higher and more uniform standard of education for them. No new powers should be entrusted to the midwife, but in the public interest it is proposed the powers the present midwife enjoys owing to the entire absence of regulation and control should be largely restricted. The main difference between the proposals of the British Medical Association and those of the Midwives Bill Committee is that in the Bill of the latter many most important points, such as those regarding restriction of practice, local supervision, privileges of licensed persons, lying-in homes, finances, etc., are dealt with in an unsatisfactory manner or not at all.[3]

THE CENTRAL HEALTH ADMINISTRATION OF LONDON.

AT a time when the whole question of the local government of London is under consideration, in consequence of the introduction into the House of Commons of the London Government Bill, attention cannot fail to be directed to the anomalous position and constitution of the Metropolitan Asylums Board. Indeed, apart from the academic or political question of the relation of such body to the central government of the County of London, the average ratepayer cannot fail to feel that a very practical question compels his consideration in view of the great increase in expenditure which the report of the Finance Committee to the last meeting of that Board has disclosed.

We gather from Mr. Acworth's statement that in a few years the annual expenditure of the Board will be a million a year. Down to 1875 the Board's rate never exceeded 1d. in the pound; last year it had reached 4½d., and it is likely soon to rise to 6d.

We should be the last to deny that much excellent work has been done by the Board in the matter of isolation and prompt removal of cases of infectious disease. The relative immunity of London from small-pox epidemics since 1886 is doubtless attributable in a large measure to the action of the Board and its efficient staff. If we have from time to time been reminded of wasteful extravagance in administration or in the execution of contracts, we have not hesitated justly to appreciate conscientious work amid trying and often unpleasant surroundings. True the provision of accommodation for cases of fever or diphtheria has on several occasions fallen short of the demand, but difficulties in the way of obtaining suitable sites for hospitals and in their construction have been pleaded, and generally accepted with only a modicum of grumbling.

Having made all these admissions and allowances we are bound to say that no reform of the sanitary administration of London can be regarded as satisfactory which leaves out of view so glaring an anomaly as the perpetuation of the Metropolitan Asylums Board.

Originally constituted for Poor-law purposes only, it has become the central agency for dealing with infectious disease in all classes. In extending its operations there has been no reform of its constitution. It has the demerit of being in part an indirectly elected body by selection from the guardians of the poor, and for the rest composed of nominees of the Local Government Board. We submit that a Board thus composed possesses the inherent capacities for extravagance and mismanagement which were the undoing of the Metropolitan Board of Works. Mr. Balfour's new Bill for London government is commended for the proposal it contains to abolish indirectly elected District Boards and to substitute directly elected municipal councils. If the urgent need of such reform is felt in regard to Holborn and Poplar and Lewisham in matters of paving, lighting, and house sanitation, is the principle of direct representation less trustworthy or sound in the matter of providing the costly machinery for preserving five millions of persons from the ravages of epidemic disease?

Not only is the Board ill-constituted and extravagant, but in the interests of simplifying and unifying the central government of London the very existence of such no Board is an anachronism and a redundancy. There is no portion of its work which could not with greater propriety and equal efficiency be discharged by bodies which did not exist when the Board was hastily called into being. The Board houses some 6,000 imbeciles: why should these not be under the same supervision as the 11,000 lunatics for whom the London County Council is responsible? The Board has a training ship for pauper boys, and schools for imbecile children: surely the London School Board would not find its energy overtaxed by taking over these educational establishments? If, indeed, we are reminded that the County Council is too overworked to stand the strain of added duties, it might perhaps be induced to hand over its industrial and reformatory schools at Mayford and Feltham to the School Board. Such transfer would perhaps facilitate the chief reform of all which we desire to put forward, not only in the interest of representative government, but in the interest of the public health of London.

We feel strongly that all central metropolitan powers in regard to public health should be in the hands of one body composed of elected representatives of the ratepayers. The central health authority for London must be one, and undivided. The London County Council is nominally the health authority for the whole of London; it makes by-laws for the whole county, appoints the medical officer and assistant medical officers of health for the whole county, and pays half the salaries of the local medical officers of health and sanitary inspectors in the county. It can act in default of any sanitary authority in the county. It licenses, registers, and inspects cowhouses, offensive businesses, dairies, and milkshops. It receives notification of infectious diseases, and can enlarge the definition of infectious disease, and its health department is in constant communication with the local sanitary authorities.

The means of prevention of infectious disease and the mode of dealing with the infectious sick are surely not less a function of the central health authority than the duties we have detailed. Moreover, there is pathological advantage as well as economy in uniting all central health duties under one head. We find that on June 12th, 1894, the Council carried a resolution affirming the desirability of such transfer of powers, and there is no reason to think that there has been any departure from such resolution, or that there would be any unwillingness to assume duties which fall to the central health authority in other muni-

[3] An analysis of the main differences will be found in more detail in a tabular statement printed at p. 690.

cipalities. If the Government are seriously bent on simplifying and reforming the chaos of sanitary administration in London, they will be well advised to insert clauses in Mr. Balfour's Bill which shall provide for the painless extinction of a Board which has survived its utility, and for the division of its powers among representative bodies better qualified to discharge them efficiently and economically.

"SERMONS IN STONES."

Reference was made a week ago to the new buildings of the Middlesex Hospital, but they are worth more than a passing mention. Indeed, a very pleasant discourse might be written on new buildings, considering what great difficulties are involved in their design, and what especial character they should have, to be in harmony, not in unison, with the buildings to which they are added. And certainly, to see new buildings at their best, and at their worst, the right place is Oxford—where the last thirty years have made many curious changes. There is the Museum, Mr. Ruskin's teaching translated into architecture, the stones of Venice without their colour; there is Keble College, where every brick is a sort of direct challenge to the passer-by, saying plainly that if he does not admire that particular pattern he is a Philistine; and there are Mr. Graham Jackson's works in the Jacobean style, and the exquisite new buildings of Magdalen, and the embarrassing new Town Hall; and a host of other surprising structures, all new, and some as good as the old. Mostly these Oxford buildings are too grand for their business; they look as if they had been designed for inmates more subtle than undergraduates; they would serve to be inhabited by Rossetti's pictures.

But a hospital, when it builds, is content with the doctrine of Plato, that the beneficial is the beautiful. Its outer walls, so they look clean, need not be carved; the money must be spent on perfecting the inner life of the building. The new school buildings of the Middlesex Hospital, which were formally opened this week by a *conversazione* which was very largely attended, are in perfect accord with the Platonic rule; outside, they are free of all fidgety ornament, and pleasant enough to look at, and nothing more; inside, they are so well arranged and so well equipped with every possible advantage that no student of the hospital can fail, save by his own fault, to do good work in them. Chemistry, pathology, anatomy, and physiology have each their own set of class rooms on a separate floor; and every room is amply lighted, and so warmed and ventilated and well ordered that a maximum of work may be done with a maximum of health and comfort. For in all such extensions of hospital life the health of the workers must be safeguarded. The danger now is, of course, nothing to what it was a hundred years ago, or even fifty. We have said good-bye for ever to that state of things described in 1794 by Jesse Foot, in his spiteful account of Hunter: "Within these last ten years, five lecturers in anatomy are still fresh upon my memory who have fallen the victims of putrid *myasma* in the prime of life:" but it is still too easy for a student to knock-up over his work in anatomy and pathology, and it is just the best men who are most likely to suffer. Therefore care must be taken of them in these days of many examinations, and everything in the buildings of a hospital school must be healthy, convenient, and fairly comfortable; neither time nor strength nor health ought to be wasted.

Moreover, the influence of new buildings goes deeper than this, right down to the bed-rock of the character of a school. It is difficult for students to do their best, if their surroundings are sordid, or makeshift, or poverty-stricken; men cannot be diligent until they are comfortable—unless they are of a more philosophic habit of mind than is natural to students. And this is true, in face of the fact that our fathers before us did splendid work, some of them, in small unwholesome rooms, so rough and so ill-furnished that the student of our own days would be almost helpless in them. Is he therefore deficient in character and in strength of purpose, because he does not rough it as they did? Not a bit of it! He gets through as much work, or more, and of a higher quality; and he could not get through it, unless things were put ready for him.

Finally, his environment has yet another hold on him; it appeals not only to his intellect but to his heart. The honour of his hospital is before his eyes, visible in its buildings; he is a citizen of no mean city; he feels the *genius loci*, the love of the place—he is proud to belong to it. Unhappily for him, this only makes the shock worse, the day he leaves his beloved hospital, turns his back on the beautiful place, stands shivering on the brink of practice. But he takes with him the vision of the ordered life of a great school, having a scientific standard hardly to be attained in the things of practice.

Therefore, the difference between the new buildings of a university and the new buildings of a hospital school is not so very great after all. Sermons in stones, every one of them: the same inside life of work and friendship and great plans for the future; the same cold shock waiting outside alike for the undergraduate and for the student, equally unpleasant for each of them. And a wise man will just make the best of his time, wherever he is, while he is there; will give himself without reserve to the place, honour it, put himself wholly under the good influence of its outward and visible greatness; then carry the memory and the fame of it, and the standard it gave him, into the world.

THE CROONIAN LECTURE.

The Croonian Lecture of the Royal Society was delivered by Professor J. Burdon Sanderson on March 16th. This is the second occasion on which Professor Sanderson has delivered this lecture, the first being in 1867. The earlier lecture had dealt with graphic records affording evidence of the mechanical relations between the movements of the heart and those of respiration in the higher animals. The lecture of this year was on the relation of motion in animals and plants to the electrical phenomena which are associated with it, and the researches upon which it was founded have also been conducted by means of a graphic method but one of much greater delicacy. They were made by means of the capillary electrometer, the excursions of the meniscus of the mercury column being registered on a moving, sensitive photographic plate. The method has been applied to (1) the measurement of intervals of time between electrical changes which succeed each other with great rapidity, and (2) the obtaining an estimate of their relative intensities. The properties which made it so invaluable for these purposes were (1)

that it responded to the action of a current promptly, beginning when the current was closed, and indicating every change in its strength or direction without measurable loss of time; (2) that *ceteris paribus*, the rate of ascent was proportional to the electromotive force of the current which produced it; and (3) that the instrument could be graduated, and its graduation verified by comparison with instruments of greater precision, and thus used for the measurement of differences of potential of longer duration. Professor Sanderson discussed the application of the method to the study of the electrical changes in skeletal muscle and in the heart, and showed that an analogous electrical change took place in the leaves of the dionœa when irritated. In bringing his lecture to an end Professor Sanderson drew the following conclusions from his study of the phenomena in question: In striated muscle the primary effect of every excitation is a process of oxidation having its seat at the excited part. It may be surmised that this consists of two stages—namely, liberation of previously intramolecular oxygen, and actual oxidation. In a single element of muscular structure the duration of this process, when induced by an instantaneous stimulus, must be exceedingly short and corresponds with that of the excitatory variation; but in the whole organ may last until the development of tension has reached its maximum. Further, the electrical phenomena of reflex action afford no support to the doctrine that the natural contraction of muscle is discontinuous, nor does it appear that this is essential to efficiency. Finally, the phenomena known as the "muscle current" and the "demarcation current" are manifestations of processes which have their seat at the surface of contact between electrode and living muscle.

CONSUMPTIVE PASSENGERS ON OCEAN STEAMERS.

Ocean voyages and dry climates have long been sought by consumptives as affording some prospect of cure for their disease, but a new obstacle will be thrown in the path of consumptive travellers in the future if some of the views expressed in an article entitled Consumptive Passengers for South Africa, in *South Africa* of March 4th, obtain general acceptance at the hands of the lay press and the ocean-going public. Wide interest has been aroused in the question of the prevention of consumption, and much latent zeal, sometimes in unexpected quarters, has been discovered. Unless zeal in the cause be accompanied by wisdom and discretion, the consumptive will come to be regarded as something rather worse than a leper, and but little less dangerous to those with whom he may come in contact than a patient suffering from small-pox or the plague. Thus a medical correspondent in a recent issue of *South Africa* writes: "Many thousands of lives have been sacrificed, and will continue to be, till proper precautions are taken to secure thorough isolation for each individual case of phthisis—an isolation as perfect and complete as that now accorded to the most virulent form of infectious disease." This truly alarming assertion is accompanied in the columns of the same journal by the opinions of "A Weakly Scotsman" who, apparently determined to hold no manner of converse with the devil, recommends the establishment of a line of hospital ships to convey consumptives to the Cape, "where they would be entertained at a receiving home until well enough to move out in search of work." The suggestion of a ship for consumptives running in conjunction with a sanatorium in South Africa, in connection with which all arrangements might be made for the accommodation and medical supervision of the patient both on the voyage and in South Africa, is one well worth consideration in the interest of the consumptive himself; but to maintain that not to adopt some such scheme is necessarily to jeopardise the health of the ocean voyager implies a false conception of the true character of tuberculosis. The term "infectious" had in the prebacteriological age of pathology a connotation which it no longer bears, but the old meaning still lingers in the lay, occasionally perhaps even in the professional, mind. The breath and the surrounding atmosphere of a consumptive do not necessarily convey infection; under proper precautions, as is abundantly shown by the statistics with reference to attendants in the consumption hospitals, they do not convey it at all. To describe the true nature of tuberculosis "communicable" is undoubtedly a better adjective than "infectious," and for this reason it is used in preference to "infectious" by several American writers. Proper disposal of the excreta and a careful sterilisation and eventual destruction of the sputa of consumptives are conditions essential to public safety, whether on sea or land, and we see no reason why they should not be readily obtained on board the ocean steamer, which is always provided with a medical officer, whose duty it is to see that rational precautions in the interests of public safety are taken. A consumptive should undoubtedly be provided with a cabin to himself, and at the end of the voyage some disinfecting process for such a cabin should be added to the rigorous routine cleaning of the ship. A code of rules dealing with the treatment of consumptive passengers might advantageously be drafted by competent authorities and used by steamship companies for the guidance of their medical officers. Provided such a code, drafted on the lines indicated, were enforced, there would be no need, in the interests of public safety, either for "perfect and complete isolation" or for "hospital ships."

WOMEN IN LEARNED SOCIETIES.

The Ophthalmological Society of the United Kingdom has followed the example set by the British Medical Association in 1892. At its meeting last week it resolved to admit women to its membership. This liberal policy cannot but have the best results. Women have now the same legal status in the profession of medicine as men, and it is just and wise that the right hand of fellowship should be held out to them. It is desirable in the interests of the profession at large that they should be brought under those good influences—intellectual, moral, and social—which a well-organised Society exercises over its members, and it is not less to be desired in the interests of the individual ladies that they may have every opportunity of making themselves acquainted with the observations and the opinions of the most active workers in the various departments, and of experiencing that useful stimulus to good work and high purpose fostered by learned Societies, which have never failed to set up a high standard of professional attainment and professional honour.

THE ORGANISATION OF SECONDARY EDUCATION.

The Duke of Devonshire introduced into the House of Lords on Tuesday last the Education Bill, which was read a first time in the last session of Parliament. The advantage of this method of action is seen in the searching criticism to which, during the Christmas holidays, the Bill was subjected. It says a good deal for it that, judging from the Duke's speech, little should have been found in it for alteration. The principal note of the speech is caution. The Duke is not in a hurry, but intends to proceed gradually, and to make one point sure before he advances to the next. He does not therefore intend to make any arrangements for local authorities until the central department shall have been put in thorough working order, and shall be ready to help and advise the local Committees which will then be instituted. The central authority will take over a certain part of the work of the Charity Commission, and will probably absorb altogether the Science and Art Department. Some fortunate vacancies in these departments have rendered this task easier. It will have a Parliamentary secretary, and will be responsibly repre-

sented, like the Board of Trade. The Consultative Committee will be a permanent Council, and will be to the extent of two-thirds representative of the universities and other teaching bodies. Inspection will, except for schools administered under the Endowed Schools Commissioners' scheme, which are mostly grammar schools, be optional, not compulsory. University inspection is evidently going to be recognised as adequate, and it is probably the best form that could at present be found. The Duke professes, on behalf of the proposed Council, extreme unwillingness to interfere with the freedom and individuality of schools. The teaching profession are evidently satisfied with and desirous of the Bill, and the public can therefore feel sure that there are no concealed drawbacks to a measure which is evidently to its advantage.

THE SERUM OF SOBRIETY.

If anyone wished to embody the most striking feature of the therapeutic "movement" of the day in a classic formula, he would—if he cared to use the licence of the "higher criticism" and give the words a meaning undreamed of by the author—find one in Ovid's phrase, *Sero medicina paratur*. In our battles against disease we conquer in the sign of Serum. Such virtue has this elixir that by means of it—if we are to believe the prophets of the New Medicine—we can make ourselves "immune" against the invisible foes which go up and down the world seeking whom they may devour—including, it may be presumed, the "microbe of death" not long ago run to ground in a Transatlantic laboratory. But this is not all. Serum, it appears, if the right "brand" be used, will also "immunise" us against moral disease. For instance, if we wish to render ourselves proof against inebriety, so that even after taking the pledge we shall feel no temptation to subdue our inordinate sense of our own virtue by a corrective dram, we need only submit to a few injections of a serum prepared by Dr. Evelyn, of San Francisco. This serum is extracted from a horse previously made suitable for the purpose by a course of alcohol. The noble animal has from two to fifteen pints of whisky administered to him daily for three months. At the end of that time a serum can generally be obtained which, inoculated into the most confirmed toper, at once leads him to ask for a "blue ribbon." The serum is preventive as well as curative; we are told that a child immunised with it is protected against drunkenness for the rest of his days. Thus may the virtue of temperance inoculate our old stock and Dr. Dawson Burns find his occupation gone. Dr. Evelyn calls his precious serum "equisine." We venture to suggest that he might next turn his attention to the treatment of folly. He could doubtless extract an appropriate serum from an animal nearly related to the horse. There is a large field for the therapeutic use of "asinine" at the present day, and the ingenious American physician might begin with the patients who have been through a course of his "equisine."

THE MEDICAL HERO OF SANTIAGO.

General Leonard Wood, the hero of Santiago, began his career as a member of the medical profession, and the work of sanitary regeneration which he has begun in Cuba has doubtless been inspired and directed by his medical training. Governor Roosevelt has contributed to the *Outlook* an interesting sketch of his early career. General Wood, he says, was a Cape Cod boy, and to this day there are few amusements which he enjoys more than for himself to sail a small boat off the New England Coast, especially in rough weather. He went through the Harvard Medical School in 1881-2, and began to practise in Boston, but his was one of those natures which, especially when young, fret for adventure. A year after leaving college he joined the army as a contract surgeon, and almost immediately began his service under General Miles in the south-western territories. These were then harried by the terrible Apaches; and the army was entering on the final campaigns for the overthrow of Geronimo and his fellow renegades. No one who has not lived in the West can appreciate the incredible fatigue and hardship attendant upon the campaigns. There was not much fighting, but what there was was of an exceedingly dangerous type; and the severity of the marches through the waterless mountains of Arizona, New Mexico, and the northern regions of Old Mexico (whither the Apache bands finally retreated), was such that only men of iron could stand them. But the young contract doctor, tall, broad-chested, with his light yellow hair and blue eyes, soon showed the stuff of which he was made. Hardly any of the whites, either soldiers or frontiersmen, could last with him, and the friendly Indian trailers themselves could not wear him down. In such campaigns it soon became essential to push forward the one actually fitted for command, whatever his accidental position may be; and Wood, though only a contract surgeon, finished his career against the Apaches by serving as commanding officer of certain of the detachments sent out to perform peculiarly arduous and dangerous duty; and he did his work so well, and showed such conspicuous gallantry, that he won the most coveted of military distinctions—the medal of honour. Wood never called upon others to do anything that he himself did not do. They ran no risk that he did not run; they endured no hardship which he did not endure—intolerable fatigue, intolerable thirst, never-satisfied hunger, and the strain of unending watchfulness against the most cruel and dangerous of foes—through all this Wood led his men until the final hour of signal success. When he ended the campaigns he had won the high regard of his superior officers not merely for courage and endurance, but for judgment and entire trustworthiness. Of General Wood's brilliant services in Cuba this is not the place to speak; they are writ large in the recent history of his country.

PROFESSIONAL SECRECY.

In his Memorandum on the Obligation of Medical Practitioners with Regard to Professional Secrecy, prepared by direction of the General Medical Council, Mr. Muir Mackenzie adverts to the distinction which exists between the medical and the legal professions with regard to "privileged communications." Complaints are sometimes made to the effect that whereas the privacy of the solicitor's office is jealously guarded by the law, the medical practitioner, under pain of a commital for contempt of court, may be compelled to disclose the most sacred confidences of the consulting room. It is a general rule in civil as well as in criminal cases that the plaintiff or defendant may obtain what is called discovery of the facts, figures, and documents upon which his opponent intends to rely for the purposes of his suit. There are only four grounds upon which such discovery can be resisted as of right: (1) that the matter sought to be disclosed is criminatory or penal, (2) that it is within the doctrine of "legal professional privilege," (3) that it discloses the parties' evidence, (4) that it is injurious to the public interest. Sir George Jessel, in a well-known case, said: "The object and meaning of the rule is this—that as, by reason of the complexity and difficulty of our law, litigation can only be properly conducted by professional men, it is absolutely necessary that a man in order to prosecute his rights or to defend himself from an improper claim, should have recourse to the assistance of professional lawyers; and it being so absolutely necessary, it is equally necessary, to use a vulgar phrase, that he should be able to make a clean breast of it to the gentleman whom he consults with a view to the prosecution of his claim, or the

substantiating his defence against the claim of others: that he should be able to place unrestricted and unbounded confidence in the professional agent, and that the communications he so makes to him should be kept secret, unless with his consent (for it is his privilege and not that of the confidential agent) that he should be enabled properly to conduct his litigation. That is the meaning of the rule." But the law of this country does not apply this very rational principle to medical confidences. For instance, a confidential report to an insurance company by its medical adviser as to the state of health of a party whose life is proposed to be insured is not entitled to protection; nor is the report made by the medical officer of a railway company as to the injuries sustained by a passenger on the line, unless, upon the principle above referred to, such report has been obtained by the company with a view to impending litigation, when it is placed in the same category with a case stated for the opinion of counsel. It is interesting to notice that in America a limited degree of protection is extended to members of the medical profession. By the New York Civil Code "a licensed physician or surgeon cannot, without the consent of his patient, be examined in a civil action as to any information acquired in attending the patient which was necessary to enable him to prescribe for the patient." A somewhat similar statute exists in Missouri.

THE LONDON COUNTY COUNCIL AND CREMATORIA.

AT the last meeting of the London County Council the Parliamentary Committee reported on the question of legislation for facilitating the provision of crematoria by local authorities. It appears that by private Acts of Parliament powers to establish and maintain crematoria have been obtained by Cardiff, Leamington, Hull, Leicester, and Burnley. The need for such provision is not less urgent in the case of London. Some 130,000 interments take place annually within the County of London in some 640 acres of burial ground. At this rate most of the available space will in a few years be exhausted. Cremation, though as yet unrecognised by the general law of the land is in the opinion of competent judges more sanitary than burial, and can be surrounded by safeguards not less efficient from the legal point of view. Private effort at reform in disposal of the dead has been encouraged by the Cremation Society of which Sir Henry Thompson is the able President, but cremations at their cemetery at Woking do not average one a day. The Home Office has reported in favour of local authorities seeking parliamentary powers to promote cremation rather than leaving the matter to be dealt with by private companies. The London County Council has accordingly decided to seek powers in the next session of Parliament to enable the Council and local authorities under the Metropolitan Burial Acts to provide places for cremation.

NURSING IN IRISH WORKHOUSES.

WE have not hesitated to comment adversely on some occasions the action of the Irish Local Government Board. But we are bound to say that in the matter of the nursing in workhouse hospitals they have made a notable and praiseworthy effort to eradicate the mischief of many years' neglect. What the nursing and general management of hospitals were on the occasion of our Commissioner's visit was fully set out in the reports published in the BRITISH MEDICAL JOURNAL. In January last the Board issued a circular declaring the conditions on which the guardians could apply for recoupment out of the Local Taxation (Ireland) account for one-half of the salary of a nurse, and they defined the term "trained nurse" to mean "any person who has resided for not less than two years in a clinical or other hospital recognised by the Local Government Board, and who, after examination, has obtained from such hospital a certificate of proficiency in nursing." The Board further declared that they would not accept the certificate of any hospital "except a clinical hospital recognised by the medical examining bodies in Ireland, England, or Scotland unless the non-clinical hospital has at least 150 beds for medical and surgical cases and unless due provision is also made for giving the probationer nurses a course of training in the nursing of infectious diseases. In addition, the hospital should have a staff of at least one resident and two visiting physicians and a trained head nurse. Such arrangements should likewise be made, including the giving of lectures and the holding of examinations, as shall satisfy the Local Government Board that sufficient opportunities are afforded to the persons undergoing instruction to become fully trained, experienced, and certificated nurses." We regret to notice in the Dublin papers that an attempt is being made to obstruct the carrying out of this most proper scheme. The claim made is that nurses should be accepted from the county and workhouse hospitals. But the contention that women who attend the sick in such institutions are to be regarded as "trained nurses" in the sense in which that phrase is now understood is untenable. Moreover, the assertions as to the difficulties of teaching nurses in large hospitals where there are many students shows want of knowledge of modern methods in these institutions. We are very sorry to note this opposition. It is to be hoped that the Local Government Board will stick to their guns, and take care that the nursing of the poor shall in future be under the direction of women about whose training there is no doubt.

POISONING BY CARBOLIC ACID.

IT is now more than two years since a letter was received from the Privy Council stating that the question of placing restrictions upon the sale of carbolic acid was under the consideration of the Privy Council with a view to legislation on the subject. From the reply given by Mr. Jesse Collings to Dr. Farquharson in the House of Commons on March 13th it appears that the Privy Council has at length prepared a Bill for the purpose. Mr. Collings, however, was unable to give any promise that the Bill would be introduced this session. The lamentable mistake which caused the death of Dr. A. K. H. Boyd is a further proof of the necessity for including carbolic acid in the poison schedule, as the supply of the article would then be subject to the regulations and require observance of other precautions besides the mere "poison" label, which is not actually necessary in the sale of carbolic acid under existing conditions. The adoption of regulations as to the keeping, dispensing, and selling of poisons can only be partially effectual in preventing accident so long as carbolic acid and many other dangerous or deadly drugs remain unscheduled as poisons. We trust therefore that the Council of the Pharmaceutical Society, which is empowered to take the initiative in this matter for the protection of the public, will not fail to discharge that important duty and press its recommendations upon the Privy Council for approval in accordance with the provisions of the Pharmacy Act 1868.

MYELOPATHIC ALBUMOSURIA.

THE paper read by Dr. T. R. Bradshaw and Dr. W. B. Warrington at the last meeting of the Royal Medical and Chirurgical Society, will serve to draw attention to a morbid condition which is little known in this country. Last April Dr. Bradshaw reported to the society the case of a man who was the subject of a special form of albumosuria that had only once been observed in this country before, and was described by Bence Jones in a paper read before the Royal Society in 1847. Dr. Bradshaw expressed his conviction that the patient was suffering from a peculiar cellular infiltration of the bones of the thorax, and the subsequent *post-mortem* examination confirmed the diagnosis, although the connection between albumo-

suria and this kind of bone disease had been recognised *post mortem* on four or five occasions. This is, it is said, the first time that the diagnosis has been made during life, and verified by examination after death. The authors of the paper have designated the condition "myelopathic albumosuria," a term which seems to embody the principal points of the pathology of the disease, as far as they are at present known. It is highly probable that it will be found that the disease is not so rare as might appear from the want of records, and that cases have hitherto been mistaken for caries or albuminuria according as the urinary or bone symptoms have been the more conspicuous. One of the speakers in the discussion referred to the probability that cases may be found in the surgical wards of our hospitals and infirmaries, but for their recognition it may be necessary to carry out a more exact analysis of the urine than is customary in the routine examination for albumen.

THE LIVERPOOL SCHOOL OF TROPICAL DISEASES.

At a meeting of the Foreign Consuls Association held in the Liverpool Chamber of Commerce last week, Professor Boyce delivered an address setting out the objects and intentions of the Liverpool School of Tropical Diseases. He pointed out that the main objects were to train medical men proceeding to the tropics, or taking charge of ships, to give short courses to missionaries, to train nurses, and to encourage research both in the laboratories of the school and by sending expeditions to the tropics. After some discussion, the following resolution, moved by Mr. A. L. Jones and seconded by the Norwegian Consul, was adopted:

That this meeting of Consuls expresses its appreciation of the great importance of the work undertaken by the Liverpool School of Tropical Diseases, and suggests that each Consul bring the matter to the notice of his Government, and also of the medical profession and others interested, in such a way as may be best according to his judgment.

We understand that it has been arranged formally to inaugurate the new school on April 22nd, and that it is hoped that the Colonial Office will recognise the school as giving training of the same kind as that to be given at the London School of Tropical Medicine. It is also hoped that medical men coming to Europe, especially from South American countries, may take advantage of the facilities to be provided at Liverpool. Some of the South American Governments give financial assistance to native medical men desiring to complete their medical education by studying in Europe, and it is hoped that one of the results of the sympathy shown by the Consuls in Liverpool to the scheme will be that the Liverpool School of Tropical Medicine will be added to the list of those places where such visitors may spend part of their time.

INFLUENZA AND DIPHTHERIA IN LONDON.

The decline in the mortality from influenza in London during the first week of the current month has not been maintained. The deaths directly attributed to this disease, which had been 74, 113, and 97 in the three preceding weeks, rose again to 100 during the week ending March 11th. The increase in the mortality was most marked among elderly people, no fewer than 56 of the 100 influenza deaths recorded last week being of persons aged upwards of 60 years. In proportion to population influenza is much more fatal in South London than in any other part of the metropolis, and is especially prevalent in Battersea, Wandsworth, and Greenwich. Although the mortality from diphtheria in London last week showed a decline, the notifications were increased in number. The deaths referred to diphtheria in the metropolis, which had been 40, 29, and 48 in the three preceding weeks, declined to 36 during the week ending March 11th. Of these 36 fatal cases, 4 were of persons belonging to Poplar, 3 to Islington, and 3 to Camberwell sanitary areas. The notifications of diphtheria in London, which had been 199 and 207 in the two preceding weeks, further rose to 229 last week. The increase in the prevalence of the disease was almost entirely confined to North London, the numbers of new cases in West, Central, East, and South London, differing but slightly from those recorded in the preceding week. The marked increase in the prevalence of diphtheria in North London was mainly due to an outbreak in Islington, where 14 new cases were notified, against 3 in the preceding week. In St. Pancras the 12 new cases showed a further increase upon the numbers recorded in recent weeks. There was also a marked increase in the number of new cases notified in Fulham, Bethnal Green, and Camberwell: in the last-mentioned sanitary area no fewer than 26 new cases were recorded last week, against 15 and 10 in the two preceding weeks. There were 1,303 diphtheria patients in the Metropolitan Asylums Hospitals on Saturday last, March 11th; 131 new cases were admitted last week, against 149 and 142 in the two preceding weeks.

HOSPITALS AND CERTIFICATES UNDER THE WORKMEN'S COMPENSATION ACT.

There is a good deal of complaint of the improper competition of hospitals with private practitioners which in some respects is no doubt well founded; it is therefore the more important to stop at the beginning a new departure which threatens to deprive private practitioners of a considerable share of the fees payable under the Workmen's Compensation Act. We are informed that several hospitals are prepared to authorise their house-surgeons to give such certificates on payment of a fee varying from 5s. to 10s. 6d., the money in some cases to be kept by the house-surgeon, in others to go directly into the coffers of the hospital; but in either case it must ultimately benefit the hospital funds as such an allowance is equivalent *pro tanto* to an increase in the house-surgeon's salary, and, in the case of the successors of the present incumbents, will no doubt be taken into account. It must also come out of the pockets of the profession, who are thereby deprived of a perfectly legitimate source of income. We are glad to learn that some other hospitals, recognising that these certificates are paid by the employers, refuse to grant anything more than the ordinary free club and sick certificates, and refer these applicants to outside practitioners. We strongly recommend this course to the support of those members of the profession who are on the honorary staffs of hospitals and have the power to prevent this new form of hospital abuse. It is to be regretted that the Birkenhead Medical Society should apparently have given its sanction to the policy we are condemning, but it is, of course, possible that there may be some explanation, not apparent to those unacquainted with local conditions, of their resolution upon this subject already published.[1]

THE PROPOSED AMENDMENT OF THE MEDICAL ACTS.

From the summary which we gave last week of the interim report of the President of the General Medical Council on the replies received from the universities and other medical and surgical bodies relative to the clauses amending the Medical Acts, which have already been commented on in the British Medical Journal, it will be seen that the proposed measure has met with scanty favour. Only three out of the ten bodies who have replied go so far as to express approval of the objects sought to be attained by the Bill, and even their approval is considerably qualified, whilst the other bodies content themselves with stating objections. Six of the bodies consulted have as yet expressed no opinion, and it is hardly probable in view of the replies which have been received that their silence can be construed as entirely favourable. Generally speaking,

[1] British Medical Journal, March 4th, p. 537.

it may be said that the chief ground of the objections raised is that the proposed Bill encroaches unduly upon the privileges and jurisdiction of the various licensing bodies, and it may at once be admitted that in the existing state of things this is a very natural and reasonable objection, and one which seems to have been overlooked when the clauses were drafted. It will, no doubt, be possible to amend the clauses so as to conciliate the authorities, whose approval the Government requires as a condition precedent to giving their support to the Bill, and the Executive Committee has already resolved that the clauses should be remitted to the Council's draftsman to consider the objections and suggested amendments. As has already been pointed out in the JOURNAL, we consider that unless the clauses are so amended as to have the effect of prohibiting under penalties a medical man whose name has been erased from the *Register*, either temporarily or permanently, from carrying on his profession during the period of erasure, the most efficacious method of punishment is omitted. As, however, the Council does not appear to see its way at present to adopt this means of discipline, we trust that it will be found possible to redraft the clauses, which are, at any rate, a step in the right direction, so as to meet the wishes of the licensing authorities. It is a somewhat curious comment on the provisions of the first clause to find in the Minutes of the Council a list of upwards of thirty persons whose names have been restored to the *Register*, from which they had previously been erased.

EDINBURGH ROYAL MEDICAL SOCIETY.

THE annual dinner of the Edinburgh Royal Medical Society took place in the University Union on March 10th. The Senior President of the Society, Dr. R. F. McNair Scott, occupied the chair, while the other Presidents, Drs. C. M. Cooper, P. T. Herring, and G. F. B. Simpson, acted as croupiers. The guest of the evening was Sir William Overend Priestley, M.P. for the Universities of Edinburgh and St. Andrews, and amongst others present were Brigadier-General Macdonald, C.B.; Dr. Andrew, President of the Royal College of Physicians; Professor Chiene, President of the Royal College of Surgeons; Professor Simpson, Professor Sir William Gairdner, Glasgow; and the Rev. Professor Taylor, Dean of the Faculty of Divinity. After the loyal and patriotic toasts the Senior President gave the toast of the evening, "The Guest, Sir William Overend Priestley, M.P., a most distinguished pupil of the Edinburgh Medical School, an able representative of his constituents in the House of Commons, and a benefactor to the University of Edinburgh." Sir William, in reply, said he was at one with the Society in his affection for the University of Edinburgh. He owed everything to Edinburgh University and Edinburgh herself. He owed his education to the University of Edinburgh, his wife to Edinburgh, and the crowning happiness of his life came from the University of Edinburgh when he was made her representative in Parliament. He recalled the great changes that had come over the University since he was a student in regard to new buildings and facilities for study; but he could not avoid thinking that he had had the inestimable privilege of studying at a time when there was in the University a galaxy of Professors such as had never previously been equalled, and which perhaps would never again be equalled—Alison, Sir Robert Christison, James Syme, Sir James Young Simpson, Hughes Bennett, Goodsir, Sir William Hamilton, Professor Aytoun, Christopher North, Professors Gregory and Pillans. The teaching of Edinburgh University was a model for all other universities in the world. The University of London was but a stepmother to her graduates; the University of Edinburgh was an Alma Mater. He dwelt on the nobility of the medical profession, which satisfied all the aspirations of an honourable man. He wished men would regard their profession from its higher aspects, and look upon the public good as the first and all-important end. He said this because in the late discussion of some public questions the professional aspect instead of the public good had been put uppermost. If they kept the public good before them, professional good was sure to follow as a natural corollary. Dr. C. M. Cooper proposed "The Scottish Universities," and Sir William T. Gairdner replied. He agreed with all Sir William Priestley had said. He would only add that there were giants, but tremendously combative giants, in the professoriate of those days. He spoke of the great changes that had taken place in the system of medical teaching since his student days. Sir William Priestley proposed the toast of "The Royal Medical Society," and the Chairman replied; Dr. Herring gave "The Medical Corporations," and the Presidents of the two Royal Colleges replied; Dr. G. F. B. Simpson gave "The Royal Infirmary," and Professor A. R. Simpson replied.

THE LIVERPOOL LOCK HOSPITAL.

THE announcement has been made that the Committee of the Liverpool Royal Infirmary are about to close the wards of the Lock Hospital, an institution which, except for an interval of three years while the new infirmary was building, has received patients since the year 1834. Lock cases were previously treated in the ordinary wards of the infirmary, but at that time the demand for beds had become so great that the Committee decided to spend £2,000 in providing special wards for venereal diseases, with the result that the present Lock Hospital was built. The decision to close the hospital has been come to in consequence of insufficiency of funds to maintain it, and it has been decided to substitute for it an out-patient department to be conducted by the surgeon to the Lock Hospital. It is quite possible that the maintenance of beds for venereal diseases in a building separate from the main building of the infirmary entails a certain amount of unnecessary expense but there seems to be no reason why these cases should not be admitted into the infirmary itself. If, as is doubtless the case, the wards are already fully occupied there is plenty of room available for the construction of another ward. That this class of case should be refused aid in hospitals is contrary to the true spirit of medical charity, is a cruel injustice to many sufferers, and tends to perpetuate serious disease throughout the community. Venereal diseases are not excluded from the general hospitals of London, Edinburgh, and Dublin, and there is no obvious reason why the large hospitals in the provinces should follow a different system.

SIR DOUGLAS GALTON.

SIR DOUGLAS GALTON, K.C.B., who died on March 10th after a short illness, continued, though he had reached his 78th year, to take an interest in the sanitary matters which had so long engaged his attention up to within a few days of his death. Indeed, he had attended two meetings at the Sanitary Institute, of which he was Chairman of Council and Treasurer, on the very day his last illness began, although at the time in considerable pain. Sir Douglas Galton entered the Royal Engineers in 1840, and was at first largely concerned in railway work under the Board of Trade. His attention appears first to have been turned to sanitary matters owing to his appointment as a member of the Commission which visited the barracks and military hospitals of Great Britain and Ireland and the stations on the Mediterranean after the Crimean war, which had aroused public interest in questions affecting the health of the soldier. He designed the Herbert Hospital, Woolwich, and was known as the inventor of appliances for ventilating and heating public institutions and private houses. His last public appointment was that of Director of Public Works and Buildings in the office of Her Majesty's Board of Works. This he resigned in 1875 and since that date he had mainly occupied himself in

sanitary engineering questions. He took an active interest in the foundation of the Parkes Museum, and after the amalgamation of that institution with the Sanitary Institute he continued to be a constant attendant at the meetings of its Council, over which he had presided for several terms.

PLAGUE AND THE MECCA PILGRIMAGE.

Something approaching alarm must be aroused by the news as to the outbreak of plague at Jeddah, the port of Mecca, on the Red Sea, and the behaviour of the authorities there. Attempts at enforcing quarantine regulations at Jeddah met with direct opposition by the pilgrims and residents; the troops, it is said, sided with the pilgrims when attempts were made at isolation. An outbreak of plague at Jeddah or Mecca will too probably be followed by the establishment of the disease in Egypt, Syria, and Turkey. With the shores of the Suez Canal infected the infection of Europe is a contingency quite within the range of possibilities, and one of the chief stepping stones in the path of infection is by way of the Mahommedan pilgrimages to Mecca. Any laxity in the sanitary regulations at Jeddah can but hasten the inroad. We observe in India also that the presence of plague is being taken as a matter of course, and that the stringent rules of segregation and isolation are giving place to social conveniences. We have no fear, however, of the Indian authorities losing their hold on the outbreak of plague; but in an uncivilised country, such as Hedjaz, with what authority there is set at defiance, and the possibility of spreading the disease unlimited, we cannot but feel concern.

THE QUARRELS OF ANTIVIVISECTORS.

The New England Antivivisection Society, of whose domestic troubles we had recently occasion to speak, is about to give the world another object lesson of the manner in which "zoöphilism" promotes peace and brotherly love among its adherents. An action is being brought by the treasurer of the Society to prevent the former president from disposing of its funds. From our point of view the funds of such bodies could hardly be better expended than in carrying on an internecine war among themselves. But however amusing these lovers' quarrels may be to outsiders, one wonders what the subscribers think of the money given by them for the protection of animals being used by those to whom they have entrusted it to fight each other.

MARTYRS OF SCIENCE.

Dr. Angelo Knorr, *Privat-docent* in the Veterinary School of Munich, died on February 22nd, from acute glanders, contracted in the course of an experimental research on mallein. Before going to Munich, Dr. Knorr had been senior assistant in the Berlin Institute for Infectious Diseases, and he was afterwards assistant in the corresponding institute at Marburg. He was a young worker of the highest promise, and had done good work in regard to tetanus infection. This death recalls some other tragic occurrences of the same kind which have taken place in recent years. Helman, the Russian investigator who discovered mallein, himself fell a victim to accidental inoculation of the glanders virus. Some time afterwards another Russian, Protopopow, died of glanders contracted in a French laboratory. An Austrian physician, Dr. Koffmann-Wellenhof, died of the same disease, contracted in the Institute of Hygiene at Vienna. On January 17th of the present year Dr. Giuseppe Bosso, of the University of Turin, died of infection contracted in the course of cultivations of tubercle bacilli made in his laboratory. Not long before Dr. Lola, assistant in the maternity department of the Czech University Hospital of Prague, died of tetanus caused by an experimental inoculation made on himself. Some fourteen or fifteen years ago a medical student of Lima proved that "verruga Peruana" is an infectious disease by inoculating himself with it, an act of scientific devotion which cost him his life. Only this week we have to record that Major J. F. Evans, of the Indian Medical Service, has died of plague contracted while conducting a *post-mortem* examination. There are doubtless others who have fallen on the same glorious battlefield, but *caremt vate sacro*. Besides those who have died, there are many who have only escaped with their lives after long and painful illness. Professor Kourloff contracted anthrax in a laboratory at Munich, and was saved only by vigorous surgery. Dr. Nicolas supplied, in his own person, the first example of tetanus produced in man by inoculation of the pure toxin of the bacillus of Nicolaïer. John Hunter inoculated himself with a loathsome disease, and a London physician now living incurred the same penalty in the cause of science. Morton nearly killed himself with sulphuric ether, and Simpson more than once risked his life in experimenting with unknown anæsthetics. Let these facts—and with a little trouble the record could be made much longer—be remembered when antivivisectors taunt investigators with not daring to make experiments on themselves.

EAST COAST SUNSHINE.

Appended to the annual report of the medical officer for Felixstowe (Dr. C. G. Havell) are some meteorological notes for 1898, which are of interest as illustrating the type of climate to be found at many East Coast seaside places. The most striking fact is the very large amount of bright sunshine recorded. Unfortunately, the record does not include the first two months of the year. In the 10 months there were only 42 days in which no sunshine was noted. The highest amount recorded in any month was in August, when there were 262 hours, an average of 8.2 hours a day. In April there were 201.75 hours of bright sunshine, an average of 6.7 a day, while even in March there were 159.1 hours of bright sunshine, an average of 5.3 hours a day. But another table shows that the mean of the minimum temperatures for each day in April was 40.3° F., and for March 33.5° F., while extremes of 31° F. and 27° F. were noted in these months respectively; in fact, on two days in March the lowest temperature of the 10 months was noted. Again, the record of the force of the wind showed that not once in the 10 months was a calm noted, the nearest approach being a light or moderate breeze. The place where the observations are taken is much exposed, but the moral which the medical officer of health draws appears to be sound, and is applicable to other places on the East Coast besides Felixstowe, namely, that no opportunity should be lost of planting trees and providing wind shelters, since nothing is so detestable to strong and weak alike as incessant wind. These meteorological observations illustrate both the strong and the weak points of the climatic conditions on many parts of the East Coast, and especially perhaps in Suffolk and Norfolk. The large amount of spring sunshine, which is a great attraction and a great advantage to patients suffering from many forms of chronic disease, can only be enjoyed without risk when care is taken to guard against the low temperatures and winds which prevail, especially during this season of the year. Yet it seems to be the great ambition of the seaside places to build piers so as to tempt visitors into exposing themselves to the east or polar wind. Many sites for sanatoria, which could be rendered ideal if properly protected, exist in the district we have indicated.

GONORRHŒA, SEPTICÆMIA, AND HEART DISEASE.

Not very long ago it was taught that gonorrhœa was a serious local disease in the male but relatively trifling in the female. Then it was found that women often suffered from grave local complications. General infection is fortunately rare in either sex but it may occur. Drs. Thayer and Lazear have published an important monograph on Gonorrhœal Septicæmia and Ulcerative Endo-

carditis in the January Number of the New York *Journal of Experimental Medicine*. It contains much original work and a well-prepared table of 32 cases. The authors conclude that an acute gonorrhœal urethritis may be the starting point of a grave general septicæmia, with all its possible complications. The infection may be mixed or secondary, due to the entrance into the circulation of organisms other than the gonococcus, or they may be purely gonococcal. Endocarditis, an occasional complication of gonorrhœa, may be quite transient, or may result in a chronic valvular lesion, or may pursue a rapidly fatal course with the symptoms of acute ulcerative endocarditis. The complication is generally due to the direct action of the gonococcus, but may be traceable to a secondary or mixed infection. The same applies to gonorrhœal pericarditis, a rarer complication than endocarditis. Grave myocardial changes, necroses, purulent infiltration, embolic abscesses are common in the severe gonococcal septicæmias. In instances of this special form of blood poisoning the diagnosis may in some cases be made during life by cultures taken from the circulating blood according to proper methods. There is reason, when we remember the evidence already referred to about chronic valvular lesions, to suspect that cardiac disease may be more often a result of gonorrhœa than is usually supposed.

FAMILY PROCLIVITIES.

Dr. John Thomson, in a note on the tendency in some syphilitic families for certain organs and tissues to be specially affected, which he published in a recent issue of the *Scottish Medical and Surgical Journal*, has touched on one aspect of a very interesting subject. The well-known proclivity of certain families not only to suffer from certain diseases, but to suffer from them in a severe form, is pretty generally recognised, but the number of instances actually on record is not very great. This proclivity must be assumed to be due to a power of resistance to the infection inferior to the average. Dr. Thomson's cases illustrate apparently a diminished power of resistance of certain tissues. Thus in one of his families four out of a family of seven children affected by congenital syphilis suffered from choroidal atrophy, choroiditis, or choroido-retinitis; one of the children died at the age of 9 weeks, and the two other children who escaped were respectively the eldest and youngest of the family. In another family of four the three elder all suffered from epiphysitis, while the youngest, about a year old, has thus far escaped any manifestation of the disease. In another family of twelve, only two survived infancy, and both the survivors were deaf and had syphilitic teeth. In another family of ten, the five younger children showed no signs of syphilis, but of the other five the only two who survived infancy suffered from periostitic swelling between 10 and 12 years of age. The theory has been advanced that among the offspring of syphilitic parents the disease is apt to fall with greater severity on one sex than the other—sometimes on the boys, sometimes on the girls. Dr. Thomson does not discuss this point, but it is not impossible that his cases might support the view, for it appears that in the family which showed changes in the fundus oculi, three out of the four affected were girls, and the lesion was more severe in them than in the boy. In the family with periostitis, all the three sufferers were boys. In the next family the two surviving children, who were deaf, were both girls, and in the fourth family both the surviving children were boys. On the other hand, it is no doubt true, as Dr. Thomson observes, that the congenital syphilitic taint seems, on the whole, to have a tendency to lessen with each succeeding child. At first there is a succession of miscarriages or stillbirths; then one or two or three children are born alive but suffer from congenital syphilis, and the later born children are healthy, or at least present no manifest symptoms of the disease. This is, of course, a different point altogether, but it must be kept in view in any investigation into the question of the existence of a special liability of certain tissues to suffer more severely than others in certain families from the syphilitic virus.

PROSTATIC DISEASE CURED BY SUPRAPUBIC CYSTOTOMY.

Much has lately been written touching the cure of enlarged prostate by castration, excision of the vas deferens, and suprapubic cystotomy. The latter method is usually practised to establish a permanent drain. Tussau, of Mâcon, reports a case on which he operated over two years ago when urgent symptoms were present. The patient was 65, his prostate bulky and tender. Catheterism was difficult, the temperature 104°, the tongue dry and brown, and the general condition very grave. Tussau immediately opened the bladder above the pubes, when a quantity of fœtid urine escaped. For a month all urine was drawn off through the wound or escaped from the wound. Then the urethra was carefully catheterised. The wound, which at the end of the operation itself was left only wide enough to admit a No. 15 to 17 French catheter, was carefully closed during the second month by a plastic operation, where pins as well as silks were used to ensure apposition; the curette and thermo-cautery were likewise used to destroy granulations. At the end of the third month, according to the report in the *Lyon Médical* of February 12th, no more urine came through the scar. Since then the patient, who underwent the operation in July, 1896, has never required the catheter nor suffered from tenesmus, which previously had been most distressing. He takes care to avoid overdistension of the bladder. The prostate has completely returned to its normal proportions under the influence of the rest allowed it for several weeks after the operation.

In addition to the course of lectures to be delivered by Mr. Treves at the London Hospital as Emeritus Professor, a course will be delivered by Mr. Jonathan Hutchinson, who also is an Emeritus Professor.

Dr. Thomas Barlow has been appointed to fill the vacancy in the body of the University of London Commissioners, caused by the resignation of Sir William Roberts.

We are requested to state that the date of the extra meeting of the British Balneological and Climatological Society, at 20, Hanover Square, for the further discussion on papers by Drs. Douglas Kerr and Hedley on heat as a therapeutic agent, has been altered from Wednesday, March 22nd, to Thursday, March 23rd.

We understand that George Neil Stewart, formerly Professor of Physiology of the Western Reserve University, Cleveland, Ohio, U.S.A., and now of Wisconsin, M.A., D.Sc., M.D.Edin., D.P.H.Camb., formerly Senior Demonstrator of Physiology, Owens College, is also, or is about to become, a candidate for the Chair of Physiology in the University of Edinburgh.

The Irish University Question.—We are informed that at a general meeting of the Belfast Medical Students' Association, resolutions were passed to the effect that the present state of university education in Ireland is unsatisfactory; that the establishment of denominational universities cannot fail to be detrimental to medical education in Ireland, and that the Royal University of Ireland should be maintained, but that the various public colleges should be adequately endowed.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The London School for Tropical Diseases came under discussion in the House when the Civil Service supplementary estimates were taken. The Colonial Secretary explained that his great object was to lessen the mortality more especially in the West African colonies. He believed that preventable causes were at the bottom of the unnecessary mortality, and one cause was the want of good nursing. A private body, the Colonial Nursing Association, would undertake to remedy this defect by sending out trained European nurses. A second cause was the difficulty of finding doctors acquainted with tropical diseases, and to remedy this he proposed to form a school for the study of tropical diseases, to which all medical officers should be sent for two months before going to West African stations. The grant asked for was for the necessary buildings for the accommodation of the students. The expenses would be defrayed partly by subscriptions raised at home and in the Colonies. In selecting officers for these colonies the Colonial Secretary said he would give preference to those trained at schools like Liverpool and King's College, where instruction in tropical maladies was regularly given. On both sides of the House the scheme was heartily approved, one member, not a medical man, saying that it was the best item in the whole of the supplementary estimates.

The London Hospital Bill is a private measure which awaits Committee in the House of Lords. It proposes to give the Governors of the hospital power to acquire certain lands and expend their funds in erecting an out-patient department. The measure is necessary to enable the hospital to acquire certain freehold lands and tenements, and also a block of almshouses, for a site for the department, towards which a gift of £25,000 has been promised.

Venereal Disease in the Army was the subject of a question to the Secretary for India last week, and elicited the information that the admission-rate had fallen to 485 per 1000 in 1897, as compared with 511 in 1896. The new cantonment rules were not brought into operation until towards the close of 1897, and could not be expected to do much for that year. The results of their working have not yet been ascertained, but the results for 1898, so far as they are known, were stated to be very encouraging.

The Tuberculosis Debate, which was to have occupied Tuesday, had to give way to the exigencies of Supply. The Army Estimates, which were to have occupied Friday night (March 10th), could not be taken as they had not been entered on the printed notice paper sent to members. Under these circumstances, the House adjourned before half-past seven, and on Monday the First Lord deprived private members of Tuesday night on account of the necessity for passing the Estimates. A vigorous protest was raised against this course. Many members on both sides of the House were anxious that the subject of tuberculosis in animals and its bearings on agriculture and public health should be fully discussed before private Bills giving increased powers to local authorities to deal with these diseases were submitted for second reading. The Leader of the House could not, however, meet their wishes, and carried his point by a large majority. The victory was a barren one, however, for when Tuesday came private Bills connected with railways lasted till 7, and the absence of the Chairman of Ways and Means prevented the use of the closure, and so the Government passed no Estimates after all.

Army Nursing Sisters are required—the Under-Secretary for War told the House on Monday—to have three years' training in a civil hospital, and six months' probation in the Army Nursing Service, before final appointment. A private of the Royal Army Medical Corps receives instruction at Aldershot for five months; after that he is attached as a supernumerary to a large military hospital to learn nursing and ward work, and he remains there till efficient. The education is, moreover, systematically continued as long as he is with the colours. The Royal Army Medical Corps is responsible for all hospital duties, but all the men are available for nursing duties, and perform them in turn.

The Contamination of Oysters by Sewage has at last been promised the attention of the Government, and a Bill will be introduced shortly which will deal with the matter.

The Petroleum Bill called together a large House on Wednesday afternoon, and produced a most animated debate. There has not been for some years a Bill on which so much printer's ink has been expended. Members have for weeks past been deluged with printed matter, and the daily papers (morning and evening) have taken a most active share in giving the public information. The speakers had therefore plenty of material, and some of them spoke with remarkable knowledge and effect. There was a great deal of cross voting on the division, which ended in the rejection of the Bill by 244 to 159, and so the "deadly 73°," as it has been picturesquely called, has won the day.

The University Degrees Bill was moved immediately after the division had been taken on the Petroleum Bill, but was promptly objected to by several members, and the second reading postponed till a later day. As medical graduates of colonial and foreign universities are using their influence against it, there is not much chance of its being passed this session.

THE KANTHACK MEMORIAL FUND.

Dr. J. H. Drysdale (25, Welbeck Street, W.) requests us to publish the following list of subscriptions received up to March 14th towards this fund:

	£	s.	d.
Mrs. L. Andrews	5	5	0
James Berry, F.R.C.S.	3	3	0
Harrison Cripps, F.R.C.S.	2	2	0
H. J. May, M.B.	5	0	0
W. P. Herringham, M.D.	2	2	0
F. E. Batten, M.D.	1	1	0
E. W. Willett, F.R.C.S.	5	5	0
W. S. Church, M.D.	10	10	0
H. G. Read, M.R.C.S., L.R.C.P.	1	1	0
Sir T. Smith, Bart	10	10	0
Sir James Paget, Bart.	2	2	0
W. S. A. Griffith, M.D.	10	0	0
F. W. Andrewes, M.D.	5	5	0
D'Arcy Power, F.R.C.S.	2	2	0
H. W. P.	5	5	0
H. M. Fletcher, M.D.	10	10	0
A. E. Garrod, M.D.	5	5	0
P. Furnivall, M.D.	5	5	0
C. P. White, F.R.C.S. (Leeds)	5	5	0
W. G. Heasman, M.R.C.S., L.R.C.P.	5	5	0
C. A. Ballance, F.R.C.S.	5	5	0
G. E. G. Metcalfe, L.R.C.P.	1	1	0
H. Rundle, F.R.C.S.	2	2	0
G. Saunders, M.D., C.B.	2	2	0
D. R. P. Stephens, F.R.C.S.	1	1	0
Anonymous	10	0	0
L. Thorne Thorne, M.D.	1	1	0
R. F. Jowers, F.R.C.S.	2	2	0
C. P. Handson, M.D.	1	1	0
F. D. Bennet, M.R.C.S., L.R.C.P.	1	1	0
E. W. Roughton, F.R.C.S.	1	1	0
A. McWeir, M.D.	1	1	0
W. D. Stone, M.D., F.R.C.S.	1	1	0
G. N. Stephen, M.R.C.S.	1	1	0
Surgeon-Major-General R. W. Rice	10	10	0
H. A. Ballance, M.D., F.R.C.S.	1	1	0
L. G. Glover, M.D.	2	2	0
J. H. Ormerod, M.D.	3	3	0
Sir Felix Semon	10	10	0
W. S.	1	1	0
Mr. W. P. Digley	1	1	0
S. J. Ross, M.B.	1	1	0
H. W. Maidlow, M.D.	0	10	0
Surgeon W. J. Codrington, R.N.	1	10	0
W. G. Clark, F.R.C.S.	10	10	0
H. J. Capon, M.D.	1	1	0
H. B. Maingay, F.R.C.S.	1	1	0
H. Willoughby Gardner, M.D.	3	3	0
H. Huxley, M.R.C.S., L.R.C.P.	5	0	0
G. R. Murray, M.D.	2	2	0
H. T. Butlin, D.C.L., F.R.C.S.	10	10	0
F. de Havilland Hall, M.D.	3	3	0
J. Westlake, Q.C.	5	0	0
J. A. Hayward, M.D.	5	5	0
A. E. Wynter, M.D.	2	2	0
J. H. Lightbody, M.D.	2	2	0
G. H. R. Holden, M.D.	1	1	0
A. Kuttner, M.D. (Berlin)	1	1	0
F. P. Weber, M.D.	1	1	0
T. M. Legge, M.D.	1	1	0
T. Lauder Brunton, M.D., F.R.S.	2	2	0
G. C. Taylor, M.B.	1	1	0
W. Langdon Brown, M.B.	1	1	0
Sidney Martin, M.D., F.R.S.	3	3	0
C. Butler, M.D.	5	5	0
A. W. Blackwell, M.D.	0	10	0
Lovell Drage, M.D.	5	0	0
Hon. G. Scott	1	1	0
Captain H. A. Berryman, R.A.M.C.	1	1	0
T. G. Horder, M.B.	1	1	0
T. S. Stevenson, M.D.	1	1	0
Total	267	10	0

The United States Congress has been asked by the Bureau of Education for an appropriation of $10,000 (£2,000) "for a psychophysical laboratory, and for the collecting of sociological and abnormal or pathological data, and for necessary printing, including special reports on results of work."

The Swiss "Pharmacopœia."—The Special Committee appointed on August 1st, 1898, to prepare a new (fourth) edition of the *Pharmacopœia Helvetica* was, it appears till lately, in a state of suspended animation owing to the want of funds. This difficulty has now been got over by a vote of the Federal Assembly, and the Committee is hard at work on its responsible task.

THE MIDWIVES BILL.

The Draft Bill of the British Medical Association contrasted with the Bill of the Midwives Bill Committee.

Elsewhere in the present issue of the British Medical Journal will be found the report of the special meeting of the Council of the British Medical Association, which was held on March 10th, to consider the draft Bill of the Parliamentary Bill Committee, embodying the amendments which are necessary in the Midwives Bill of the Midwives Bill Committee. The following tabular statement of the main points of difference between the two Bills may be found useful:

Midwives Bill Committee.	British Medical Association.
Midwife undertakes for gain to attend women in childbirth.	Midwife undertakes for gain to attend women during natural labour and the lying-in period under the rules, regulations, and medical control, etc., set forth in the Act. Midwife is debarred from employing an unlicensed substitute. Restricts privileges to attendance in cases of natural labour only in accordance with rules, etc., to be laid down; prevents the assumption of the title "Licentiate in Midwifery (4 (2)); penalises the giving of certificates of stillbirth or death, or any medical certificates, and provides that fees shall not be recoverable if unlicensed deputy used.
Makes L.O.S. and L.M. certificates entitle to licence without other evidence.	Makes Board sole judge of certificate which shall entitle to licence, and requires evidence of good character in all cases.
Board to be constituted of members representing London Corporations, Midwives Institute, and Privy Council.	Board to be elected by General Medical Council and to be representative of districts, with one representative of Privy Council. Teachers and instructors of midwives may not serve on Board. Includes lying-in homes among the matters over which the Board have control, gives power of deputing inquiries to Committees, with power to act, and makes it misconduct to omit to send for medical practitioner when case not natural labour. Provides for cost of local supervision.
Local supervising authority to be County M.O.H. or other practitioner or practitioners.	Local supervising authority to be a county committee of not fewer than three registered medical practitioners not teachers or examiners of midwives. Gives local authority power to suspend from practice pending inquiry by Board.

Criticisms by the Midwives' Institute.

We are informed that the following letter is being sent to the Midwives Bill Committee from the Incorporated Midwives' Institute:

12, Buckingham Street, W.C.,
March 14th, 1899.

To the Chairman of the Midwives Bill Committee.

Sir,—The Council of the Incorporated Midwives' Institute, after a conference with their members, have requested me as their representative to lay before your Committee their views on the present Bill.

The Council of the Incorporated Midwives' Institute consider this Bill inferior to that of last year, but they are however so strongly impressed with the urgent need for legislation that they will offer no opposition to the present Bill so long as the following points are insisted on:

1. That the final decision in all cases be in the hands of the central authority. (See Clause 9, Duties of Supervising Authority; and Clause 10, Annual and Local Certificate.) They consider with regard to Clause 10 that their interests are not sufficiently safeguarded.

2. That their representation on the Central Board is retained, and that an amendment is asked for "That the nominees of the Privy Council should be two lay persons, one a woman."

3. That the certificate of the London Obstetrical Society be retained as a qualification for licence.

Your Committee will doubtless consider that those three points are some of them already dealt with in the Bill, and that the others will follow as a natural sequence. The reason the Council of the Institute have called your attention to them is because of the amendments to this Bill that have appeared in the British Medical Journal, and which will doubtless be largely supported by the medical profession.

The Council of the Incorporated Midwives' Institute consider the machinery of the new clauses to be so complicated that they will prove unworkable, and provide only a "nominal" protection to the mother, and the "pretence" of a monopoly of practice to the licensed midwife. They consider the unconscientious midwife will have every opportunity of evading the law, while the conscientious midwife is controlled at every turn, and might possibly fall a victim to local jealousy, owing to the preponderance of medical representation on the Midwives Board. A further danger is created by the uncertainty regarding the official position of the person to be appointed as local supervising authority.

I remain, Sir, your obedient servant,
Rosalind Paget,
Honorary Treasurer Midwives' Institute, and Representative on the Midwives Bill Committee.

FOOD AND DRUGS LEGISLATION.

Two Bills are now before Parliament dealing with this matter. One is backed by Mr. Kearley, Mr. Lough, Sir James Kitson, and others, and is practically the same Bill that has been introduced on several previous occasions and which honestly attempts to carry out the suggestions made by the "Select Committee of the House of Commons which sat during the sessions 1894-5-6 and, after collecting a vast body of evidence, reported in June, 1896."[1] Last session a Government Bill dealing almost entirely with dairy produce was introduced. The chief objection to it was that it was a weak bantling, hurtful chiefly from its not doing what it was intended to do, and by its very presence preventing the passage of a proper measure. This year the President of the Board of Agriculture, as was pointed out in our last issue, has introduced another Bill of the same rachitic diathesis, and by pressure of the Government majority this was read a second time on Thursday week (March 2nd, 1899). It has not yet been committed, and it is of the utmost importance that all who take an interest in seeing a wisely planned and efficient measure substituted for the present anomalous and scrappy legislation on a subject so essential to the health of the community should use every endeavour to secure that what we may conveniently call the "Select Committee's Bill," distinguishing it in that way from the Bill of the agriculturists, should be read a second time and sent by the House to the Grand Committee on Trade along with the farcical little measure of the Government.

The Government Measure.

Mr. Long's "Bill to Amend the Law relating to the Sale of Food and Drugs" modestly consists of 23 sections. It has three parts, entitled respectively Agricultural Products, Sale of Food and Drugs, and Supplemental. Of the eleven sections which make up the first part, the first deals with the marking of imported packages of adulterated or impoverished milk, butter, and cheese, and makes the Custom House the prosecuting authority, giving them power to examine samples. By the second section the power of sampling for analysis any articles where their condition affects "the general interests of agriculture in the United Kingdom" is given to officers of the Board of Agriculture. If (Section III) the Board of Agriculture are of opinion that the local authority have been in default, "and that their failure affects the general interests of agriculture," the Board's officers may be directed to act in lieu of, and at the expense of, the authority. Section IV is a fine example of how not to do it. It makes, of all people in the world, the Board of Agriculture a Board of Reference to determine what deficiency of natural ingredients, and what proportion of foreign ingredients, shall constitute adulteration. This power is limited, however, to dairy produce. There is a good deal about margarine in the four following sections, and the last of these, the eighth, makes it penal to adulterate margarine with butter to more than 10 per cent.—a fine example of "hysteron proteron." Section IX requires a milkvendor to have his name on his cart; X requires that portions of samples taken during transport in a public conveyance be forwarded to the consignor; and XI concerns the labelling of condensed and separated milks.

Part II is apparently far less important in the opinion of the promoters than Part I, and contains a few trifling enactments about notice of mixtures, non-opening of duly-labelled tins, limits of notice, provisions as to warranty and certificates of analysis, more or less harmless. This cannot safely be predicated of Section XIII, which seems to us to afford the fraudulent dealer an easy escape from all his troubles at the hands of the sanitary officer. It puts it into his power, by refusing to receive a portion of the sample which the Section compels the officer to deliver to him, to put the latter entirely out of court. It is as fine an example of muddling as can easily be met with, even in a Government measure. Section XIV prescribes maximum penalties for second and third offences, but no minimums. As the sale of dirty water instead of milk is an extremely profitable undertaking, and as the magistracy are too apt to be lenient with even hardened offenders, this is a mistake. The Bill, as already said, is a poor little bantling. That it should perish with the "innocents" at the end of the session is too good a fate for a measure which is hurtful by its very existence. Its passing would prevent the passage of a real Bill.

The "Select Committee's Bill."

This Bill, backed by Mr. Kearley, Mr. Lough, Sir James Kitson, and others, and which has on previous occasions in nearly its present form been noticed in our columns, goes a long way in the direction of removing the difficulties experienced in the satisfactory working of the existing Acts of 1875 and 1879. The Bill embraces the main provisions of these Acts and of the Margarine Act of 1887, and introduces amendments.

The definition of the term "food" is extended so as to comprise "any article intended to enter into or be used in the preparation of human

[1] Report of City Analyst and Medical Officer of Health to Leeds Sanitary Committee.

food and flavouring matters and condiments." This extension is of obvious value, and it will serve to remove the anomaly that such an article as a baking powder has been held to be beyond the scope of the 1875 Act, seeing that it was not used either as a food or as a drug. Unfortunately the Act is so worded that it might include a frying-pan.

For a second offence committed within two years of the previous one the penalty imposed by this Bill could not be less than £5, or, for a third offence committed within two years of the second, less than £20. After a second conviction a notice of the fact might be ordered by the Court to be affixed to the premises of the person convicted, and the facts might be advertised in such newspapers as the Court might order.

The Bill would make it an offence for any person, whether as owner, consignor, consignee, agent, or broker, to have an adulterated, impoverished, or altered article of food or drug in his possession, provided that he cannot show that such article was not intended for sale by retail without notice of such alteration, and the importation of adulterated articles is prohibited.

When under the Act of 1875 the defendant was able to produce a written warranty that the article was the same in nature, substance, and quality as that demanded of him by the prosecutor, and that he sold it in the same state as when he purchased it, he was discharged from the prosecution; and as all proceedings must be taken with respect of perishable articles, such as milk, within twenty-eight days, it was generally too late to proceed against the warrantor, who thus very commonly escaped punishment. This was a very obvious flaw in the Act, and the present Bill meets the difficulty in the following way: "Provided that such defendant shall not be entitled to be so discharged unless he shall give notice to the prosecutor that he intends to rely upon such defence, together with the name and address of the person giving the alleged warranty, and unless he shall summon before the Court the person upon whose warranty he so relies." If, moreover, the defendant is discharged from the prosecution, the prosecutor shall be entitled forthwith to proceed against the person giving the warranty; and where the person summoned gives notice to the prosecutor of his intention to rely upon a warranty, the prosecutor shall forthwith deliver to the person who shall have given such alleged warranty a sample of the article in respect of which the proceedings have been taken.

The provisions for dealing with samples are therefore amended to the extent that the article must be divided into four parts. One part is to be delivered to the seller or his agent, another to the analyst, and the other two parts to be retained by the officer, the fourth part being required to satisfy the above-mentioned requirements as to warranty.

An important provision is made for the taking of a minimum number of samples by a local authority, and the minimum is fixed at not less than one sample per annum for every 1,000 inhabitants.

Probably the most valuable section in the new Bill before Parliament is that which provides for the appointment of a properly-constituted Board of Reference. The powers which it is proposed that the new Board should possess include the making of rules as to procedure before such Board; the power to call for documents and to compel the attendance of witnesses before it; to make rules as to the qualification of analysts and inspectors under the Act; to determine standards of composition for foods and drugs, and of the amount and kind, if any, of foreign substances to be allowed for the preservation or flavouring of foods; the power to examine food and drugs as to composition, and to devise and recommend methods for their examination, etc. Such a Board has long been wanted to lay down, authoritatively and definitely, standards of purity in respect of certain food stuffs, and to advise as to the selection of methods of examination with the view of establishing that uniformity of procedure among public analysts which is so desirable.

There are other valuable changes in the private Bill, and these are brought about by the repeal of the existing laws, and the re-enactment of the valuable and stable portions with such modification as experience has shown to be necessary. The Government Bill would add another piece of tinkering legislation to the confused mass of clauses relating to food and drugs. The private Bill, by repealing the former Acts, simplifies the whole matter. It is, we repeat, to be desired that the two Bills be sent to a committee to redraft.

NURSING AT THE SHOREDITCH INFIRMARY.

The Infirmary Buildings.

The old but substantial buildings of Shoreditch offer many difficult problems to those who seek to adapt them to the needs of the present day. Hemmed in on all sides by the close quarters of a thickly-populated neighbourhood, with Hoxton Street in front, and the workhouse at the back extending to the Kingsland Road, both situation and buildings are as inelastic as can be imagined. The whole infirmary is certified for 515 patients; this includes epileptic, insane, and lying-in patients; they are distributed through three blocks, named respectively East, West, and Central. The Central Block, originally intended for administrative purposes, is cut up into small wards, which increase the labour of nursing. Several wards are appropriated to the chronic female patients, and besides this class, the female insane, epileptic, and imbeciles are in this block. The lying-in ward is in the East Block; it is on the ground floor near the mortuary, and there is no labour room, a most unsatisfactory arrangement. We were glad to hear that the removal of this ward is under consideration. The nursery is on the opposite side of the passage.

The wards in the East and West Blocks are oblong, of varying size, and containing from 28 beds to 8; the beds are rather close together, with the minimum of cubic space; between the beds are lockers for the patients' possessions and clothes. The new pattern of locker devised by Dr. Norton, the Medical Superintendent, is a great improvement on the old ones, many of which are still in use. New bedsteads of the Lawson Tait pattern are being introduced gradually, and "the pull," which is a great help in the nursing of heavy and helpless patients, is attached to some of them. The bath-rooms are small, close, and unsuitable; the baths are copper, sometimes burnished, sometimes used for all improper purposes in the process of cleaning, as is the wont of the pauper class. The waterclosets are small, and fitted with the modern hopper pan; there was no accommodation for ward vessels. There is a large number of infirm in this infirmary—indeed, they cause a block in the wards; and the few day rooms are not nearly sufficient to relieve them. The workhouse infirm wards and the lunacy wards were also crowded. There is a small ward for isolation treatment.

Medical Officer's Report on the Nursing.

The guardians are quite alive to the necessity of remodelling the nursing of the infirmary, and in July of last year Dr. Norton presented an exhaustive report to the Board, in which he suggested that the nursing staff should consist of sisters, staff nurses, and probationers; the sisters to have had three years' training in a recognised hospital or infirmary. One sister should be placed in charge of each floor, and in each ward there should be a staff nurse, with one or perhaps two probationers for day duty. At night a staff nurse and one probationer for a floor, working under the supervision of a night superintendent. Extra nurses to be supplied if required. Dr. Norton estimates for a staff of nurses in the proportion of one nurse to eleven patients, including seven or eight sisters. There is one suggestion with regard to the payment of the probationers that we think well worthy of adoption and of imitation elsewhere; he proposes to pay them for the first year in two sums of £5, the first payment at the end of the first six months, and the second at the end of the year, giving them uniform. He anticipates that this scheme would choke off those unsatisfactory women who sample infirmaries during a three months' stay, and depart with a quarter's wage and the uniform. The sisters are being introduced gradually, but the infirmary at present is quite understaffed, as there is the usual difficulty in procuring probationers.

There is a separate nurses' home, providing a separate room for each nurse, and two recreation rooms connected with the infirmary by a covered way. The nurses' mess room is in the infirmary, and is served from the infirmary kitchen. At present there is no trained matron.

The Training of the Probationers.

It is proposed that probationer nurses should be trained under the sisters in the wards, class instruction being given by the home sister and the medical officers; a certificate is to be granted after an examination held by an outside examiner.

In considering this scheme for training, we see nothing to criticise in the theory, and we trust that in time this infirmary may become a training school for nurses. But to prevent disappointment, we think it well to ask what value the certificate will have in the nursing market, what standard can the nurse attain to? There can be no doubt that those probationers would be at a disadvantage who seek their training where there is no trained matron, for there must be a lack of that general nursing discipline which the matron alone can maintain. The authority of the sister does not extend beyond her ward, and the influence of the home sister is bounded by walls of the nursing home; the arch is without the keystone; and, until the guardians see their way to appointing a trained matron, the probationers will compete at a serious disadvantage with their more favoured sisters. It is to be feared that the best class of probationer will not be attracted to the infirmary until she is assured that the training she will get will be an all round training, including the discipline and the ruling of her daily life, as well as the theory and practice of nursing. Anything short of this only means the heart-breaking worry of perpetual change, which, while detrimental to good

nursing, also gets the infirmary a bad name, which is difficult to live down.

We trust that the Local Government Board will soon be prepared to schedule all infirmaries whose certificate will be accepted as a guarantee of efficiency, and that the department will state the conditions which must be complied with by any infirmary claiming to be a training school for nurses.

SIXTH INTERNATIONAL OTOLOGICAL CONGRESS, 1899.

We have received from Mr. Cresswell Baber, the Honorary Secretary-General, the following additional particulars relative to this Congress, which, as already announced, is to be held in London from August 8th to 12th, under the Presidency of Dr. Urban Pritchard:

The British Organisation Committee, which numbers over seventy members from Great Britain and the Colonies, has Mr. A. E. Cumberbatch for its Treasurer and Mr. Cresswell Baber for Secretary-General. It has also appointed the following Subcommittees, namely:

1. Reception: Vice-Chairman, Mr. Field; Honorary Secretary, Mr. R. Lake.
2. Excursion: Vice-Chairman, Dr. Dundas Grant; Honorary Secretary, Mr. P. Macleod Yearsley.
3. Dinner: Vice-Chairman, Mr. Mark Hovell; Honorary Secretary, Mr. L. A. Lawrence.
4. Museum: Vice-Chairman, Mr. C. A. Ballance; Honorary Secretary, Mr. Arthur H. Cheatle.

The President-Elect is Chairman of all the Subcommittees.

The meeting will be held at the Examination Hall of the Royal College of Physicians of London and Royal College of Surgeons of England, and the following details have been arranged:

On Monday evening, August 7th, a preliminary reception will be held by the President-Elect. On August 8th, 9th, 10th, and 11th the Congress will be in session, and will be followed on Saturday, August 12th, by an excursion for members and their lady friends.

The official languages of the Congress are English, French, German, and Italian.

The subscription, to include a copy of the *Transactions*, is fixed at £1, to be paid to the Treasurer, Mr. A. E. Cumberbatch, 80, Portland Place, London, W., before the opening of the Congress.

The subject chosen for special discussion is Indications for Opening the Mastoid in Chronic Suppurative Otitis Media, which will be introduced by Professor W. Macewen, of Glasgow; Dr. H. Knapp, of New York; Dr. Luc, of Paris; and Professor Politzer, of Vienna.

A museum of specimens and instruments relating to otology, shown by members, will be held during the meeting. Communications regarding the museum should be addressed to Mr. A. H. Cheatle, 117, Harley Street, London, W.

Intending members of the Congress are requested to send in their names to the Honorary Secretary-General as soon as possible, and in any case not later than May 1st. Titles of communications, together with a short abstract, to be sent to the Honorary Secretary-General by the same date. According to the regulations of the Congress no papers shall exceed fifteen minutes in reading, therefore all long communications should be read in abstract.

THE PLAGUE.

The Mecca Pilgrimage.

We learn from a well-informed correspondent in Constantinople that the first case of plague this year at Jeddah was recognised on February 22nd. The patient was a native of the Assyr (the mountain region between the Hedjaz and the Yemen), who was living in the Yemen quarter of the town. From that date up to March 6th, 13 deaths from plague were registered by the sanitary officials at Jeddah. The three first cases all occurred in the Yemen quarter. From March 1st to 6th, these officials were silent, owing probably to the circumstance that the Constantinople Board of Health, on being informed of the occurrence of plague at Jeddah, had ordered measures to be applied to that town of a vexatious and impracticable character. Jeddah and its villages were surrounded by a sanitary cordon; the departure of pilgrims from Jeddah for Mecca, until they had performed a quarantine of ten days at a station outside Jeddah, was prohibited; pilgrims arriving at Jeddah were prevented from landing in the town, and compelled to land at a spot 10 kilometres to the north of Jeddah, where there was no landing stage. It was said that a landing stage would be built, but the approaches are dangerous owing to coral reefs. In the meanwhile, pilgrims who had already entered the town of Jeddah, and those that would arrive there before this landing stage was ready for them, were to be transferred to the lazaret, or to be retained on board ship.

On March 3rd the population of Jeddah rebelled against these measures, and an excited mob demolished the quarantine huts erected outside the town and plundered the shops of tradesmen within the town, causing a panic throughout the place. All the foreign consuls telegraphed to their Ambassadors in Constantinople to get the cordon abolished and allow freedom of intercourse between Jeddah and Mecca, and Sir N. O'Conor went at once to the Porte to urge this consular request. The Board consequently received a message from the Sultan in this sense, and abolished the cordon. Both in Jeddah and Mecca houses in which cases of plague may occur are directed to be inspected, isolated, and subsequently disinfected, the effects of persons suffering from the disease will be destroyed by fire, and general sanitary measures will be taken. A special hospital for plague-stricken patients is to be established at Jeddah. Ships arriving at any Turkish port from Jeddah will have to perform ten days' quarantine. In the meanwhile, a case of plague occurred at Mecca on March 6th in the person of a Bokhara pilgrim arrived from Jeddah.

Calcutta.

Major J. Evans, Professor of Pathology in the Calcutta Medical College, died of plague at Calcutta on March 13th. It is understood that he became inoculated with the disease whilst performing a *post-mortem* examination on a case of plague. He was appointed Surgeon on April 1st, 1886, and was promoted Surgeon-Major last year. He was called as a witness before the Special Plague Commission during its sittings in Calcutta, and was congratulated by the President on the interesting character of his evidence. By his untimely death in the discharge of duty pathology has lost a careful expositor and the Calcutta school an excellent teacher. He served with the Burmese expedition in 1887-89 (medal and clasp), and in the operations in Lushai, 1892, was with the Eastern Sonai column.

Bombay.

The number of deaths from all causes in the city of Bombay has fallen during the past week. The deaths attributable to plague, according to official records, numbered 1,064, but the actual number is probably 1,700. A decline of the epidemic of plague is confidently anticipated, and, judging from the falling off in the exodus of the natives, it may be assumed to have already begun. With the return of warm weather, the natives can now sleep out-of-doors, thereby diminishing the overcrowding of sleeping rooms.

Poona.

A recrudescence of plague, happily of no great moment as yet, has occurred in Poona. In the General Plague Hospital there were 31 cases under treatment on February 19th. At a meeting of plague volunteers in consultation with Major Reade it was resolved that a patient suffering from plague and occupying a good house might be treated in his own home; that suspicious cases were not to be removed from their homes until plague was definitely diagnosed; and that health camps should be opened free to persons desirous of occupying them.

The Special Commission.

At Ahmadnagar the evidence given went to show that plague commenced there in October, 1897, and ceased in March, 1898. The city was almost deserted, 20,000 people out of a population being removed from their homes. The number of deaths from plague, according to official returns, amounted to only 315, and owing no doubt to the exodus the death-rate for 1898 was lower than in any of the preceding five years.

The city was "disinfected," and not only plague disappeared but cholera also. Contrary to reports elsewhere there was no great mortality amongst rats in Ahmadnagar, possibly this had to do with the smallness of the death-rate and the disappearance of the disease.

LITERARY NOTES.

The *Medical Handbook of Life Assurance*, by Dr. James E. Pollock and Mr. James Chisholm, has recently been translated into the Danish and Dutch languages.

Messrs. Baillière, Tindall, and Cox have in the press a third edition of Sir William Broadbent's *Diseases of the Heart*, with additional chapters and illustrative cases; a new work by Sir Richard Thorne, on *The Administrative Control of Tuberculosis*. The same publishers will shortly issue in book form Mr. Berkeley Moynihan's Arris and Gale Lectures at the Royal College of Surgeons, on *The Anatomy and Surgery of the Peritoneal Cavity*, which have recently appeared in the British Medical Journal. Messrs. Baillière, Tindall, and Cox also announce several new editions of well known works.

M. E. Leroux, publisher to the French Ministry of Education and Fine Arts (28, Rue Bonaparte, Paris) will shortly issue a volume entitled *Rabelais, Anatomiste et Physiologiste*, by Professor Le Double of Tours. The work will contain 174 illustrations and 32 facsimiles. The author, who is himself a distinguished anatomist, endeavours to show that Rabelais, when his descriptions and particularly his similitudes are properly interpreted, was a pioneer in the field of anatomy of sufficient importance to entitle him to rank with Andreas Vesalius. His quaint comparisons of organs and structures to instruments, articles of household furniture and wearing apparel, ornaments, etc., are shown to be strikingly appropriate when placed side by side with the dissected parts as Rabelais saw them. Altogether Professor Le Double's work promises to be one of exceptional literary interest and historical value.

According to the *Medical News*, the Board of Trustees of the American Medical Association met on February 17th, at Chicago for the purpose of selecting an editor for its journal. The result of the balloting was the unanimous election of Dr. George H. Simmons, of Lincoln, Nebraska, editor of the *Western Medical Review*, secretary of the Nebraska State Medical Society and of the Western Surgical and Gynæcological Association. The salary of the editor has been increased from $4,000 (£800) to $5,000 (£1,000) per annum, but according to a resolution adopted by the Board Dr. Simmons is compelled to devote his entire time to the interests of the journal. Dr. Simmons is said to be a well-informed medical journalist, a man of great executive ability, and a good organiser.

In Mrs. Ritchie's introduction to the eleventh volume of the "Biographical Edition" of Thackeray's works, now in course of publication, she refers to an article written by Sir Henry Thompson for the first number of the *Cornhill Magazine*. It did not, however, appear in that number, but in the fourth; the manuscript having somehow been mislaid by the able editor, as is occasionally the fate of manuscripts. The history of the article is told by Sir Henry in the following letter to Mrs. Ritchie:

Before the *Cornhill* came out, your father told me that he intended to develop a new principle—that he thought that every man, whatever his profession, might be able to tell something about it which no one else could say, provided the writer could write at all; and he wanted to utilise this element. "So," said he, "I want you to describe cutting off a leg as a surgical operation, and do it so that a ship's captain at sea who had not a doctor on board, would be able to take a sailor's leg off by reading your description." Having heard in a letter from your father signed "Yours, in trouble," that the article was lost, I was very glad to learn by an envelope addressed to me with the following words, "The leg is found, W. M. T.," that the manuscript had come to light. The article finally appeared with a new title. When your father had read it, it struck him that the paper he had asked for might be somewhat painful, so he wrapped it up in something sweet for the British public to take, and called it Under Chloroform. I had brought the anæsthesia to the front for the same purpose.

The volume also contains a vigorous sketch of Thackeray by Sir Henry Thompson made about 1857, and the facsimile of a letter of congratulation written by Thackeray to Sir Henry, probably after his successful operation on the King of the Belgians. The letter runs as follows:

Palace Green, Kn., Tuesday.

My dear Thompson,—Is it true about the 100,000 francs and the Grand Cross? Hip, hip, hooray! I don't want to borrow money, and am almost as pleased as if I had received it myself.—W. M. T.

The February number of the *Medical Chronicle*, just received, contains an announcement that after the issue of the March number the Council of the Owens College will cease to be proprietors of that periodical. The *Medical Chronicle* will in future be carried on at the Owens College under the direction of the following guarantors: Mr. Stanmore Bishop, Dr. Alfred Brown, Dr. Judson S. Bury, Dr. J. R. Carver, Dr. E. G. Clegg, Dr. Coutts, Professor Delépine, Professor Dreschfeld, Dr. Fothergill, Dr. Goodfellow, Dr. J. W. Grange, Dr. A. H. Griffith, Dr. Hodgkinson, Professor T. Jones, Dr. Kelynack, Dr. Larmuth, Dr. R. E. Lord, Dr. A. W. W. Lea, Professor Leech, Professor C. R. Marshall, Dr. Milligan, Dr. Moore, Dr. Mumford, Mr. J. E. Platt, Dr. H. W. Pomfret, Dr. Reynolds, Professor Sinclair, Mr. J. W. Smith, Dr. Graham Steell, Mr. F. H. Westmacott, Dr. Wild, Dr. Williamson, Mr. A. Wilson, and Mr. G. A. Wright.

The part played by rats and insects in the dissemination of plague has recently formed the subject of a careful investigation by Dr. P. L. Simond, an abstract of whose paper was given in the British Medical Journal of December 24th, 1898, page 1906. In *La Chronique Médicale* of December 15th Dr. P. Dorveaux quotes from a curious old work entitled *L'Esperon de Discipline*, by Antoine du Saix, published in 1532, some lines which may perhaps—with a little goodwill—be taken to contain the germ of the same notion. The author is speaking of the signs of the coming of plague:

Il nous convient parler du signe unziesme,
Lequel est tel, affin qu'au propost rentre:
Quand la vermine et ce qui va du ventre,
Qui par soleil donnant sur pourriture
En lieux infectz prennent leur géniture,
Comme formiz, vipères imperfectes,
Mouches aussi de grands aisles refaictes,
Vers a monceaulx et aultres animaulx
Tant qu'aux jardrins emmy n'y a, ny maulx
Qu'ilz ne soyent faictz par taulpes et par raz:
Quand nombre grand de ce naistre verras,
Et cognoistras s'en fuyr dessoub terre,
Et le poisson dessoub l'eau à grand erre,
Puis delaisser leur habitation
Appertement, et propre mansion
En s'enfuyant comme persequuntez,
Ou de quelqu'un griefvement agitez,
Lors fault juger que l'eau est corrumpue, etc.

In short, when the air is full of insects engendered by "the sun kissing carrion," and when rats and such "small deer" come in crowds from underground, then a visitation of the plague may be looked for.

Although we may not be disposed to agree with M. Brunetière that science has become bankrupt, it may be admitted that her credit stands less high in the Exchange of thought than it did twenty-five years ago. Then enlightened persons thought they had solved the riddle of the universe by that blessed word "evolution." Now we have come to see that even this magic formula leaves one or two points unexplained. Materialism is going out of fashion, and even Mr. Herbert Spencer appears to be finding his intellectual raiment somewhat antiquated. Doubtless, however, there are still some who are content to accept Cabanis's definition of a man as "a tube open at both ends," and who find in that inspiring belief a rule of life sufficient for their purpose. To such myopic philosophers a paper on the "Spirit of the Age," read by Dr. Austin Williams, of Liverpool, at a conference of members of the Third Order of St. Francis held in that city not long ago, may be commended as a corrective of their mental vision. Dr. Williams renders unto science that which belongs to her in no grudging spirit; but he insists that she must not go beyond her proper sphere. Instruments of precision may tell us much, but there are secrets of which they can give no hint; or as Dr. Williams, suddenly waking to extasy the living lyre, sings:

Ophthalmoscopes reveal the eye
But see not sight, nor can descry
Emotions that begat the tears
Of sympathy, of joys or fears.
Transparent may the body be
Or by *x* rays through structures see:
But not the life can we behold
That vivifies; *yet is controlled*.

To *Nature* of March 2nd Italo Giglioli contributes an interesting article on Dante and the Action of Light on Plants. The best known passage in which the great poet alludes to the action of solar radiation on plants occurs in the *Purgatorio*, xxv, 77:

Guarda il calor del Sol che si fa vino
Giunto all' umor che dalla vite cola,

translated by Longfellow as follows:

Behold the Sun's heat which becometh wine,
Joined to the juice that from the vine distils.

These verses are, according to Signor Giglioli, but a powerful and poetic rendering of a passage in Cicero's *De Senectute*, a book much studied by Dante. Nevertheless, Dante's verses have a special interest in the history of vegetable physiology, for they drew attention to the importance of their meaning in two minds of such calibre as those of Galileo Galilei and Francesco Redi. Signor Giglioli thinks it not unlikely that the passage influenced Leonardo da Vinci in believing that "the sun giveth spirit and life to plants, and the soil with its moisture nourisheth them," leading him to make an experiment in which the importance of leaf function in the nourishment of plants was noted for the first time 200 years before Malpighi.

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF THE COUNCIL.

AT a special meeting of the Council called for the purpose of considering the minutes of the special meeting of the Parliamentary Bills Committee of February 3rd, 1899, relating to the Midwives Bill, etc., held in the Council Room of the Association, 429, Strand, London, W.C., on Friday, March 10th, 1899,

Present:

Dr. ROBERT SAUNDBY, LL.D., President of Council, in the chair.

Dr. CHARLES PARSONS, Treasurer.

Dr. JAMES BARR, Liverpool.
Dr. MICHAEL BEVERLEY, Norwich.
Dr. JAMES BRASSEY BRIERLEY, Old Trafford.
Mr. LANGLEY BROWNE, West Bromwich.
Mr. ANDREW CLARK, London.
Dr. H. RADCLIFFE CROCKER, London.
Brig.-Surg.-Lieut.-Col. E. F. DRAKE-BROCKMAN, London.
Mr. GEORGE EASTES, M.B., London.
Dr. W. A. ELLISTON, Ipswich.
Dr. FREELAND FERGUS, Glasgow.
Sir WALTER FOSTER, M.D., M.P., London.
Dr. JOHN H. GALTON, Upper Norwood.
Dr. J. GROVES, Carisbrooke, Isle of Wight.
Dr. HENRY HANDFORD, Nottingham.
Mr. JOHN D. HARRIES, Shrewsbury.
Mr. J. HUGHES HEMMING, Kimbolton.
Dr. HOLMAN, London.
Dr. P. SYDNEY JONES, London.
Mr. JORDAN LLOYD, Birmingham.
Dr. RODERICK MACLAREN, Carlisle.
Mr. N. C. MACNAMARA, London.
Dr. J. C. MCVAIL, Glasgow.
Mr. R. H. B. NICHOLSON, Hull.
Surg.-Gen. T. F. O'DWYER, Aldershot.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. FRANK M. POPE, Leicester.
Dr. EDWIN RAYNER, Stockport.
Mr. H. B. ROBINSON, London.
Dr. WILLIAM RUSSELL, Edinburgh.
Dr. L. W. SEDGWICK, London.
Dr. G. E. SHUTTLEWORTH, Richmond.
Mr. HENRY STEAR, Saffron Walden.
Dr. W. L. WINTERBOTHAM, Bridgwater.
Dr. S. WOODCOCK, Old Trafford.

Read letters of apology for non-attendance from the President (Sir T. Grainger Stewart), Dr. J. Ward Cousins (President-elect), Dr. Henry Barnes, Dr. P. Maury Deas, Dr. T. M. Dolan, Professor David W. Finlay, Dr. Alfred Godson, Dr. Bruce Goff, Mr. T. Vincent Jackson, Mr. T. R. Jessop, Mr. Evan Jones, Dr. John William Moore, Mr. Jones Morris, Dr. R. W. Philip, Professor G. Hare Philipson, Dr. Phillips-Conn, Dr. George E. Rennie, Dr. E. Markam Skerritt, Dr. R. Somerville, Dr. J. Roberts Thomson, Dr. A. R. Urquhart, and Mr. T. Jenner Verrall.

The General Secretary read the notice convening the meeting.

The President of Council introduced Dr. Roderick Maclaren the representative of the Border Counties Branch, who attended the Council for the first time.

The Midwives Bill was then considered in accordance with minute 547 of the Parliamentary Bills Committee, namely:

Resolved: That the Midwives Bill thus amended be adopted and referred to the Council for adoption, as that form of legislation on this subject which alone includes adequate safeguards, both for the public health and for the interests of the medical profession.

It was moved, seconded, and resolved: That this Council hereby adopt the principle of the Bill drafted by the Parliamentary Bills Committee.

The Bill was then considered clause by clause, and adopted as amended.

It was moved and seconded:

That, should a Midwifery Bill be introduced into Parliament, the Council authorises the President of Council and the Chairman of the Parliamentary Bills Committee to take such action as may be necessary to promote legislation upon the lines indicated by the Bill approved by the Parliamentary Bills Committee and as now amended.

Whereupon a rider was moved and seconded:

That the Bill, as presented by the Parliamentary Bills Committee and adjusted by the Council, be not issued excepting as preceded by the following statement, as it may be adjusted by the President of Council and the President of the Parliamentary Bills Committee:

That the Council of the British Medical Association are of opinion that the Midwives Bill promoted by the Midwives Bill Committee for the licensing of midwives would constitute a serious menace to the health of women and infants, and that the evils which this Bill is likely to create are much greater than the evils which it is intended to cure. The Council considers it impolitic that, so soon after hundreds of men with years of training at recognised medical schools and with large experience in the practice of medicine, surgery, and midwifery, have, for the greater safety of the public, and owing to their want of registrable diploma in medicine, surgery, and midwifery, been thrown out of employment as practitioners' assistants, an indefinite and probably a very large number of women should, after only three months' training, obtain a licence to practise in an important department of the medical art. At the same time the Council, recognising that legislation with regard to midwives is likely to be undertaken, feel it to be their duty to do all in their power to render such legislation as little mischievous as possible. They therefore have carefully revised the Midwives Bill with a view to its improvement, and they are of opinion that the amendments suggested in the Bill make less inadequate the safeguards both for the public health and the interests of the medical profession.

The rider was put from the Chair, and declared to be lost.

Whereupon an amendment was moved and seconded:

That inasmuch as the general meeting of the members of the Association has always protested against the registration of midwives, the President of Council is requested to call a general meeting of the Association to again consider the question.

The amendment having been put from the Chair, the same was declared to be lost, two only voting in favour of it.

The original motion was then put from the chair, and declared to be carried.

Read communication from the Lancashire and Cheshire Branch respecting the Midwives Bill:

72, Rodney Street, Liverpool, March 1st, 1899.

The President of Council of the British Medical Association.

Dear Sir,—At a meeting of the Lancashire and Cheshire Branch, held in Liverpool yesterday, the following resolution was adopted:

"That the Lancashire and Cheshire Branch of the British Medical Association considers that the Midwives Registration Bill at present before Parliament is defective in matters of control and limitation of practice, and in other respects; that these defects are met by the amendments adopted by the Parliamentary Bills Committee of the British Medical Association, and urges on the Council of the Association the advisability of submitting these amendments to the Privy Council and to the General Medical Council, should there be indications of legislation on this question going forward."

I am, dear Sir, yours very truly,

JAMES BARR.

The question from the Scottish Poor-law Medical Officers' Association, asking for a Bill to be introduced into the House of Commons on the basis of "a Bill to amend the Local Government (Scotland) Act, 1894," and petition to Lord Bal-

four of Burleigh on the subject was then considered, in accordance with resolution 550, namely:

Resolved: That Mr. Alexander Cross, M.P., be invited to introduce a Bill into the House of Commons on the basis of a "Bill to amend the Local Government (Scotland) Act, 1894," and that the petition to Lord Balfour of Burleigh be signed by the Chairman on behalf of this Committee.

Resolved: That the action of the Parliamentary Bills Committee be sanctioned and approved.

The question of a central fund for the payment of superannuation allowances to Poor-law officers was then considered, in accordance with Resolution 553, namely:

Resolved: That a Subcommittee be appointed to consider the question of the formation of a central fund for the payment of superannuation allowances to Poor-law officers, with power to confer with the Poor-law Officers' Association, and to report back to this Committee at its next meeting, consisting of Mr. Balding, Dr. Major Greenwood, Dr. Groves, and Mr. Parkinson.

Resolved: That the action of the Parliamentary Bills Committee be sanctioned and approved.

Resolved unanimously: That the best thanks of the Council be presented to Dr. Woodcock, Chairman of the Subcommittee of the Parliamentary Bills Committee, for the enormous pains and time he has bestowed upon the Midwives Bill.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 12th day of April next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

429, Strand, March 9th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

Meetings of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Oxford and District Branch.—The next meeting of this Branch will be held at the Radcliffe Infirmary on Friday, March 24th, at 3 P.M. Members wishing to read papers, etc., are requested to communicate with the Honorary Secretary as early as possible.—Wm. Collier, St. Mary's Entry, Oxford.

South-Eastern Branch: West Sussex District.—The next meeting will be held at the Infirmary, Worthing, on March 23rd, at 4 o'clock. Dr. Leeds Harrison will preside. Mr. Anthony Bowlby will read a paper on Cases of Abdominal Surgery, illustrating (*a*) Actinomycosis of the Intestine, (*b*) Acute Pancreatitis, (*c*) Unusual forms of Suppuration about the Cæcum and Appendix. Dr. Harrison and Dr. Morris will show cases of Transposition of Viscera. Members desirous of making communications, or of showing cases of interest, are requested to communicate with the Honorary Secretary, Frank Hinds, 14, The Steyne, Worthing.

South-Eastern Branch: East Kent, West Kent, and North Kent Districts.—A conjoint meeting of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on Tuesday, March 21st, at 3 P.M., Dr. T. T. Brunyate in the chair, when Mr. Victor Horsley, F.R.S., will deliver an address on the Present Condition of the Medical Practitioner and his Relation to the General Medical Council. Dinner at the Bull Hotel at 6 P.M.; charge 6s. exclusive of wines. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. The Honorary Secretary of the West Kent District would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—Ludford Cooper, St. Bartholomew's Hospital, Rochester, Hon. Sec. West Kent District; T. F. Raven, Broadstairs, Hon. Sec. East Kent District; A. Tennyson Smith, Orpington, Hon. Sec. North Kent District.

South-Eastern Branch: East Sussex District.—The next meeting of this District will be held at the Grand Hotel, Brighton, on Thursday, March 23rd, at 5.15 P.M. Dr. Waring in the chair. Agenda.—To fix the place and date of next meeting and to nominate a member of the Branch to take the chair thereat. Mr. T. Jenner Verrall: Perforated Gastric Ulcer; Operation; Recovery. Dr. Mackey: Clinical Notes on some Remedies in Skin affections. Dr. Batterham (for Mr. Ticehurst): Intussusception; Resection of Bowel; Recovery (with specimen). Mr. A. H. Dodd: Photograph and Skiagraph of a case of Suppression of Toe. Mr. W. H. Dodd: An Unrecognised Fracture of the Femur, illustrated by skiagraph. Dr. Watson Griffin will show a case of Acquired Interstitial Keratitis. Dinner at the Grand Hotel, 7.15 P.M.—J. W. Batterham, M.B., Grand Parade, St. Leonards-on-Sea, Honorary Secretary.

Yorkshire Branch.—The next meeting of the Branch will be held at the Infirmary, Leeds, on Wednesday, March 22nd, at 3.15 P.M. The following business will be transacted and papers read. The resolutions of the Council *re* amendment of the Vaccination Act will be considered. Dr. Sharp (Whitby) will propose: "That this meeting feels that the time has now come when the general practitioners of the United Kingdom are entitled to demand a much larger share of direct representation on the General Medical Council." The President (Dr. Dolan) will read a note on the Midwives Bill. Dr. F. W. Smith (Harrogate): Notes on the Treatment of Rheumatoid Arthritis by Superheated Hot Air. Mr. Littlewood (Leeds): Notes on Two Cases of Bullet Wound of the Bowel treated by Abdominal Section and Suture. Patients will be shown. Dr. Solly (Harrogate): A Case of Abdominal Injury presenting some Interesting Points. Dr. Bain (Harrogate): On the Excretion of the Alloxur Bases in Gout. Dr. Herbert Rowe (Leeds) will show an Aseptic Obstetric Case. At the last meeting of the Branch it was decided to send out circulars to all unattached members of the Association residing in Yorkshire, requesting them to join the Branch. No fewer than seventy members have responded to this appeal, and their names will be submitted to the Council of the Branch for election. Any unattached member of the Association residing in Yorkshire who wishes to join the Branch should send his name to the Secretary before Wednesday, March 22nd.—A. Bronner, M.D., 32, Manor Road, Bradford, Honorary Secretary and Treasurer.

West Somerset Branch.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Friday, April 7th, at 5 o'clock. Agenda: Communications from the General Council and from the Worcestershire and Herefordshire Branch on the vaccination question. Discussion on Constipation, introduced by the President, Mr. Routh. Notice of papers or communications should be sent to the Honorary Secretary early. There will be a dinner at 6.30 at the Railway Hotel, price, 5s., exclusive of wine. Members intending to dine are requested to communicate with the Secretary on or before April 3rd.—R. Liddon Meade-King, Honorary Secretary.

Metropolitan Counties Branch: West London District.—The next meeting of this District will be held on Thursday, March 23rd, at the Western General Dispensary, Marylebone Road, N.W. (near Edgware Road and Baker Street Stations), at 5 P.M., by kind permission of the staff. G. Crawford Thomson, M.D., V.P., in the chair. Agenda.—Dr. Gibbes: Prognosis in Aortic Regurgitation, illustrated by cases. The Staff: Clinical Cases. Tea and coffee at 4.30 P.M.—Thomas Dutton, M.D., 13, Holland Park Avenue, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A meeting of this District was held at the London Temperance Hospital on March 8th, Dr. Morton in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Surgical Treatment of Gastric Ulcer.—Mr. L. A. Bidwell read a paper on this subject. Operation might be required for (*a*) perforation; (*b*) large hæmorrhage, if repeated; (*c*) frequently recurring small hæmorrhages; (*d*) effects of adhesions or dilatation of stomach from pyloric cicatrisation. The symptoms of perforation of gastric ulcer were reviewed. The statistics of cases operated upon pointed unmistakably to the utmost importance of early operation. Mr. Bidwell then described the various steps in operations with perforations on the anterior surface, and perforations on the posterior surface of the stomach. The question of subphrenic abscess arising from leakage from a gastric ulcer was next considered. In the case of hæmorrhage from gastric ulcer, the possibility of

the erosion of the mucous membrane being only superficial was emphasised. In some cases of gastric ulcer which resisted medical treatment, he strongly advocated surgical relief, and the choice lay usually between gastro-enterostomy and pyloroplasty. With recent operations the mortality apparently does not exceed 12 to 15 per cent. (for example, 185 cases and 27 deaths). Operation might be needed to break down adhesions from gastric ulcer, pain not infrequently being the only symptom present (pain in the early morning). Cases were referred to. The paper was subsequently discussed.

Visit to Wards.—Dr. SOLTAU FENWICK showed the members round the wards of the hospital.

Votes of Thanks.—Votes of thanks were passed to the lecturer for his interesting paper, to Dr. Soltau Fenwick for his kind help, and to the hospital authorities for their hospitality.

MIDLAND BRANCH: LINCOLNSHIRE DIVISION.

A FAIRLY-ATTENDED and interesting meeting was held at the Johnson Hospital, Spalding, on March 9th, Dr. W. A. CARLINE, President, in the chair.

Communications.—The following communications were read and discussed: Dr. G. M. LOWE: Fæcal Accumulations simulating Disease. Cases were detailed simulating malignant disease, etc.—Mr. W. J. CANT: An Operation for Ptosis by Permanent Subcutaneous Wire Loop.—Dr. R. A. FARRAR: Labourers' Boots: their Pathological Effects. Their rigidity and hardening in course of wear were insisted on.—Mr. E. C. KINGDON: Some Clinical Features of Acute Glaucoma.—Mr. G. LACY BARRITT: (1) Brain Injury by a Ramrod passing through the Skull. The patient and ramrod were exhibited. (2) Acute Suppurating Appendicitis: Abdominal Section: Recovery.

JAMAICA BRANCH.

1897.

THE report of the proceedings of the Jamaica Branch, 1897, forms a closely-printed pamphlet of 32 pages, the contents of which afford abundant evidence of the vigorous vitality of the Branch. It is stated that during 1896 six general meetings were held, and the membership at the beginning of the year was 61. The office-bearers for 1897 were as follows: *President*: Dr. G. F. Da Costa. *President-elect*: Dr. E. E. Bronstorph. *Hon. Secretary and Treasurer*: Dr. G. V. Lockett. *Council*: Drs. G. C. Henderson, H. Strachan, H. E. Mansell, F. H. Saunders, J. W. Plaxton, A. R. Saunders, G. Cooke.

Medical Defence.—At a meeting on March 3rd, 1897, the subject of Medical Defence in relation to the British Medical Association was discussed, and the Secretary was directed to issue a circular inviting answers to questions relative to the scheme of the Council. At a further meeting on March 11th the answers were read. In reply to one question: Are you in favour, or not, of the Association undertaking the duties of individual and collective medical defence? there were 14 written answers in the affirmative, and 5 written answers in the negative. Of the 14 in favour of the Association undertaking the duties of medical defence, 5 were in favour of the scheme as drafted by the Special Committee appointed by the British Medical Association, with Paragraph 3 erased and Paragraph 2 altered, substituting the words "and shall include all members," for the words "and limited to those resident in Great Britain"; 6 in favour of scheme of Special Committee, 3 in favour of scheme of Council.—Dr. MANSELL proposed, and Dr. THOMSON seconded:

That this Branch is of opinion that the British Medical Association should not undertake the duties of medical defence.

—Dr. LOCKETT proposed, and Dr. MOORE seconded, an amendment:

That the Jamaica Branch of the British Medical Association—by a majority of 14 to 3, of which majority 8 are in favour of Scheme A of Council, or a modified form of the same—is in favour of the British Medical Association undertaking the duty of medical defence.

The amendment was put and lost, and the original resolution carried.—Drs. LOCKETT and MOORE protested against the action of the members who voted for a resolution which ran counter to the majority of written opinions forwarded by the members.

Scientific Work.—The scientific work done by the Branch was considerable in quantity, and of a high order in respect of quality. Among communications of special interest were the following:—Dr. G. V. LOCKETT: (1) Notes on a Case of Right Carotid Aneurysm following a Spontaneously Cured Left Carotid Aneurysm; (2) a Case of Volvulus of the Sigmoid occurring a second time in the same Patient: Operation: Recovery; (3) Remarks on a Disease in which there is a Symmetrical Trophic Lesion of the Skin of the Hands and Forearms, some Profound Change in the Mucosa of the Alimentary Canal, and Marked Cachexia.—Dr. E. E. BRONSTORPH: A Paper on Permanent Drainage in Multiple Urinary Fistulæ.—Dr. H. B. KNOX: A Report of a Case of Aortic Valvular Disease, with Loud Musical Murmur.—Dr. H. STRACHAN: A Case of Large Multilocular Cystic Ovarian Tumour, successfully Removed.—Dr. C. A. H. THOMSON: A Case of Perforating Wound of the Sclerotic caused by a Stick, with Complete Recovery of Vision.—Dr. J. A. ALLWOOD: Case of Aphasia and Facial Paralysis.

1898.

A complete report of the proceedings in 1898 has not yet reached us. The following notes refer to two meetings held in the early part of the year:

At a meeting on February 9th, 1898, the following were elected office-bearers: *President*: Dr. E. E. Bronstorph. *President-Elect*: Dr. J. F. Donovan. *Honorary Secretary and Treasurer*: Dr. G. V. Lockett. *Members of Council*: Drs. Da Costa, Maunsell, Plaxton, Clare, Henderson, F. H. Saunders, and A. R. Saunders.—The SECRETARY read a short report for the year.—The membership was stated to number 63.

Scientific Work.—Dr. G. V. LOCKETT read Notes on Two Cases Fatal after Laparotomy from Intestinal Toxæmia (?), and showed a Case of Physiological Looping of the Retinal Arteries.—At a meeting on April 27th Dr. H. CASTLE read Notes on a Case of Wound of Structures in the Carotid Sheath; and the PRESIDENT communicated Notes on a Case of Encysted Hydrocele of the Round Ligament, on which he had operated successfully.

BRITISH GUIANA BRANCH.

THE first quarterly meeting of this Branch was held at the Public Hospital, Georgetown, on January 26th, Dr. F. H. EDMONDS, President, in the chair, and fifteen members were present.

Alterations in By-law.—Dr. W. BARNES's motion in *re* alterations in By-laws 4 and 7 were carried unanimously.

Medical Ordinance of Trinidad.—The recently-passed Medical Ordinance of Trinidad was discussed, and a committee was appointed composed of the President, Drs. Gomes, Barnes, and De Freitas, to consider and report at the next meeting, or sooner, if necessary, how far it could with advantage be applied to this colony, and, if considered advisable, to approach the Government on the subject.

Statement of Accounts.—The statement of accounts, duly audited, was laid on the table.

President's Address.—The PRESIDENT delivered an address on Malaria and Pregnancy, which will be published. In the discussion which followed most of the members present took part, and the general opinion was in concurrence with that of the President, that it was better to give quinine and run the risk of producing abortion in serious cases of malarial fever in pregnant women than risk the serious consequences of withholding it.—Dr. ANDERSON proposed a vote of thanks to the President for his address, and which, on being seconded by Dr. HONIBALL, was carried by acclamation.

Specimens.—Specimens of the Filaria Ozzardi, sent by Dr. OZANNE, and a Blood Cast of the Uterus after severe Hæmorrhage, by Dr. GODFREY, were exhibited.

HONG KONG AND CHINA BRANCH.

A MEETING of this Branch was held at the Naval Yard (by kind permission of Rear-Admiral Holland, A.D.C.) on January 24th, Dr. J. C. THOMSON (President) in the chair; the following were also present: Dr. J. M. Atkinson, Surgeon Browne, R.N., Captain Bewlay, R.A.M.C., Surgeon Bradnell, R.N., Surgeon L. Dartnell, R.N., Colonel Evatt, R.A.M.C., Dr. Gibson, Dr. Harston, Staff-Surgeon Home, R.N., Dr.

Hogar, Fleet-Surgeon Johnston, R.N., Surgeon Pickthorn, R.N., Fleet-Surgeon Sibbald, R.N., Dr. Stedman, Dr. Ewan, Major Whitty, R.A.M.C., Dr. Chan, and Dr. Francis Clark, Hon. Secretary.

New Members.—Fleet-Surgeon Sibbald, Surgeon Reed, Surgeon Dartnell, and Surgeon Levinge were elected members of the Branch.

Communications.—Dr. J. M. Atkinson showed two recent specimens of Loeffler's Diphtheria Bacillus.—Dr. Stedman showed a case, with recent specimens, of Filaria Sanguinis Hominis.—Staff-Surgeon Home showed a case of Fracture of the Patella, with instruments.—Surgeon Bradnell showed a case of Fibrous Growths in connection with the Ligamentum Patellæ.—Major Whitty showed a recent specimen of Gumma of the Inner Table of the Skull.

Injury to the Knee-joint.—A paper was read by Dr. Stedman on Three Cases of Injury to the Knee-joint requiring operation, and the cases shown. The first was one of rupture of the ligamentum patellæ, ligament sutured, result good: the second was one of removal of a loose fragment of the anterior semilunar cartilage, result good; the third was one of suppuration of the knee-joint (contracted in Macao subsequent to operation there), treated by antiseptic irrigation and drainage, with the result that the limb was saved.

Vote of Thanks.—After some discussion, the meeting closed with a vote of thanks to Dr. Stedman for his paper.

SPECIAL CORRESPONDENCE.

BERLIN.

The Congress of Balneology.—Sick Nursing.

At the Congress of Balneologists which met in Berlin on March 2nd, ending on the 6th, the most noticeable address was decidedly that of its president, Professor O. Liebreich, on the Resisting Power of the Organism to Micro-organisms. Liebreich developed the idea that all therapeutic methods, however seemingly divergent, are at one in their final object, which is, to act on the cell. No one method excludes other methods, and no thoughtful physician will make use of one exclusively, but will take up this or that course of treatment judged as specially opportune, or suited to the peculiarities of the case. Dr. Brock read the yearly report, and congratulated the members on the first steps to success attained by their repeated petition for sanitary improvements in German watering places and health resorts. Prince Hohenlohe, the Imperial Chancellor, had earnestly recommended the petition to the attention of the German Federal Governments. And in Prussia something had already been done. A ministerial rescript had been sent to the provincial governors, directing them to appoint local Boards of Health (on each of which at least one medical man of the place is to sit), with power to superintend not only the public hygienic arrangements, but also the sanitary conditions of lodginghouses, hotels, etc. Now, said Dr. Brock, is the time for the doctors to put their shoulders to the wheel, to use all their energy toward getting these capital proposals put into working order and carried out efficiently.

Sick nursing as an art—as a home art—is not so generally understood and practised in Germany as in England. Perhaps this is partly due to the abundance of private clinics in all German large towns, to which patients, even of the better classes, remove when they are to undergo an operation or some special treatment, and where of course they are attended, not by the members of their families, but by professional nurses. Of late, however, since all things pertaining to hygiene have been more widely understood, sick nursing and the appliances and conveniences which alleviate suffering, have come in for their share of attention in Germany too; and so, not only the medical world, but the general public also, is looking forward with great interest to the exhibition of objects connected with sick nursing, which is to be opened in Berlin during the time of the Tuberculosis Congress, and will remain on view till June 18th. Among the Committee members are Professors von Leyden, Bernard, Fraenkel, Lassar, General Army Surgeon Schjerning, Staff-Surgeon Pannwitz, and Dr. Martin Mendelsohn, while Cultus-Minister Bosse figures as honorary president. Several of these gentlemen have been chosen to form a "special jury," to whom all the objects to be exhibited must be submitted, and who will decide on their admissibility.

ROME.

Homœopathic Pharmacies.

The Italian Superior Council of Health, at the meeting held during the last week of January, had two questions to decide in reference to homœopathic pharmacies in Italy. The questions arose in reference to a request made by a pharmacist who wished to open a homœopathic pharmacy in Milan. They are as follows: Must homœopathic pharmacies be considered as ordinary pharmacies, and are they subject to the regulations made by the sanitary law for pharmaceutical practice? Assuming that homœopathic pharmacies are subject to this law, in what way will it be necessary to provide for those already existing which do not conform to the sanitary law?

In reference to the first question the Superior Council declared that the homœopathic pharmacies must be completely assimilated to the ordinary pharmacies, inasmuch as the law does not make any distinction between them. Consequently homœopathic pharmacies are obliged to keep all the drugs prescribed in the *Pharmacopœia* approved by the Government. That they in addition to these medicines keep drugs of a homœopathic nature does not matter. What matters is that these pharmacies must serve as effectually as possible as ordinary pharmacies capable of dispensing the prescriptions of orthodox practitioners.

As to the second question the Council considered that to compel the present homœopathic pharmacies immediately to furnish all the drugs prescribed by the *Pharmacopœia* would seriously disturb the ordinary pharmaceutical practice, being exposed to a new and unexpected competition, which would be very grave considering the number of homœopathic pharmacies that exist in some parts of Italy. For these pharmacies, therefore, the Council considered it opportune to recognise a state of acquired right, by which they will be permitted to continue to exercise as at present, that is, for sale and dispensing of homœopathic drugs only.

CHICAGO.

The Death of Dr. J. B. Hamilton.—The Drainage Canal.—The Influenza Epidemic.—Hospital Appointments and Politics.

Dr. John B. Hamilton, whose death on December 24th, 1898, has already been announced in the British Medical Journal, was active in the editorship of the *Journal of the American Medical Association*. He was also Professor of the Principles of Surgery at Rush Medical College, and there is no little speculation as to who will be selected to carry on this work and occupy the vacant chair. It no doubt will be less difficult to find another superintendent of the State insane asylum at Elgin—which position was also held by Dr. Hamilton at the time of his death—for this is a purely political appointment.

It is now announced, with an assurance of certainty, that the great drainage canal, which is designed to carry away completely all the sewage of the city, will be ready in October, 1899. The work will have occupied about six years of time in the building, and will represent one of the greatest undertakings of modern times.

A return of the influenza epidemic has been affecting the population of Chicago. The incidence of the disease, which began shortly before the holidays, does not appear to be severe, as the mortality rate has thus far been chargeable with no particular increase due to this cause. The disease, however, is generally prevalent, though of mild character.

For many years there has been a competitive examination each spring for the eight internship positions at the Cook County Hospital. A stir, therefore, was recently created when it was announced that the County Board was about to change the method of examination, placing these positions in the classified Civil Service list. In this event the examinations would be under the charge of politicians, and would be open to the customary jobbery and bribe influence. Further-

more the hospital staff (attending) now having charge of the examinations makes them confident of the successful contestants, for they know they have as assistants the best posted men graduating from the various schools each year. Then, again, the abrogation of the present system, for political reasons only, was taken as a reflection upon, and a fling at, the attending staff. A very caustic war of words was precipitated as soon as the proposed change was announced, which finally resulted in a temporary backdown by the County Board. These intern positions are greatly sought after by advanced students. The institution is large, and its teaching facilities are probably unsurpassed in this country. The present method of distributing the prized positions—by a very strict and thoroughly impartial competitive examination open to all advanced students of Chicago medical schools—is, and has been, in every way satisfactory to the profession.

PHILADELPHIA.

The New Water Supply.—The University of Pennsylvania's new Laboratory.—Resignations.

THE matter of an adequate supply of pure water to the city of Philadelphia has at last come fairly and squarely before the people, and the chances are that it may be the question on which will turn the election of the next mayor. Two attempts in as many years to sell water franchises to private Corporations have met the fate they deserved, and now a third Corporation comes forward with a proposition in solution of this vexed problem. The endemic appearance of typhoid during the last two seasons has roused the people to the dangers of the further use of Schuylkill water, which, because of the tremendous growth in the last decade of the cities along its course, has now not sufficient volume to purify itself. Director Thompson, of the Department of Public Works, in his report to the Common Council, favours municipal ownership and control of the water supply, pumping machinery, and filtration plant. He recommends the use of Delaware river water, suggests filtering of the entire supply, and urges regularly increasing the facilities to meet the demands of the city's constant growth in population. The recent report of Chief Trautwine of the Water Bureau exhausts every phase of the question. He estimates that the cost of installation of mechanical filters for water used during 1,900 would be 4,605,000 dollars, and for water used and wasted about 12,509,000 dollars. This includes filtration plants, real estate, meters, and immediate requirements for extension and improvements. His final recommendation is that "300,000 dollars be appropriated for the restriction of waste, and the construction of a filtration plant for the Roxboro' district, further expenditures in this direction to be deferred until the Roxboro' plant is constructed and in operation." This is a sensible suggestion, and removes all danger of wasting a large sum of money on an uncertain experiment. Two years ago Philadelphia abandoned municipal control of its gas works much to the discomfort of the people, who will not soon get the taste of this experience out of their mouths.

Three hundred thousand dollars is now being raised by subscription from the Alumni of the University of Pennsylvania for the erection of a new pharmacologic, physiologic, and pathologic laboratory. A direct appeal has been made to the 6,000 alumni, and it is said that all of the projected sum is now in sight.

Two resignations of interest have recently been recorded. The first was that of Professor John Guiteras of the University, well known for his work in pathology. The severance of his connection with the University is due to the doctor's desire to return to Cuba, his native country. The other resignation was that of Dr. Geo. E. de Schweinitz, long time Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine. In recognition of his distinguished services to the institution, the trustees conferred on him the Emeritus professorship.

MELBOURNE.

Mesmeric Performances.—Mode of Election to Hospital Staffs.—The Finances of the Melbourne Hospital.—Plucking at the University.—The late Dr. Burke.

AT the commencement of this year a so-called professor of mesmerism gave a series of exhibitions in Melbourne of his powers in the form of public entertainments. On the strength of his wonderful gifts he travelled all over Australia. Crowds of people paid for admission to see him exercise his hypnotic powers, and *seances* were held, to which medical men were invited, to test the credibility of his asserted powers. Revelations have recently been made public, which go to show that the subtle influence which the professor was supposed to exercise was in no way necessary for the purpose of conducting his experiments. Three men have come forward who declare that they had been paid subjects of the professor for years, and that never at any period had they been in the least affected by his mesmerism. As a proof of their statements they offered to undergo all the tests applied to them on the stage without any hypnotism whatever. One of these men is a person who was believed to have been in a trance for six days at a time, and the subjects all declare that they had simply made up their minds to deceive the doctors and the public, to stand whatever tests might be applied to them. Accordingly, at the office of an evening paper, and in the presence of Dr. Neild, Lecturer in Forensic Medicine at the Melbourne University; Dr. Rennie, Demonstrator of Anatomy at the Melbourne Hospital; Dr. Molloy, Medical Superintendent of the Melbourne Hospital, and other members of the medical profession, the three late subjects of the professor of mesmerism endeavoured to prove the truth of their statements. The first test consisted in one of the men stretching himself on the floor and imparting rigidity to his limbs and body. Two chairs were then placed at a distance apart, and the man was lifted from the floor and the nape of his neck placed on the back of one chair and the heels on the back of the other. His body remained perfectly rigid and straight. One of those present then sat astride of the man, and this weight was supported for a few seconds without any apparent change in the rigidity of the body. In experiment No. 2, a needle threaded with a stout thread was thrust completely through the lobe of an ear of another subject, and the thread drawn backwards and forwards. The needle was then passed through the cheeks, and subsequently stuck deeply into the thigh. No symptom of pain was noticeable. The third man swallowed the following mixture: A heaped-up teaspoonful of salt, a similar quantity of mustard, as much cayenne pepper as could be lifted on to the upper part of the handle of a teaspoon twice; to this was added kerosene, vinegar, neatsfoot oil, and cod-liver oil in equal quantities to fill a large ale tumbler, and the whole stirred up together. After taking this mess the man resumed his conversation as if he enjoyed the drink.

The method of electing the staffs of the "Melbourne" and "Women's" Hospitals was recently discussed at a public meeting convened by the Executive Committee of the Charity Organisation Society. The object of the meeting was to consider what steps should be taken to introduce some reform in the method of election. The chairman stated that the present method was held by all to be scandalous. Doctors were compelled to canvass, and methods were adopted which were not strictly legitimate. He was not satisfied that the best men were always selected. He did not think that if the privilege of the subscribers were curtailed the subscriptions would fall off. He favoured the establishment of a public body, consisting of four men appointed by the Governor in Council, four by the medical profession of the Colony, two by the Melbourne University, and five by the Committee of the Melbourne Hospital, to elect the medical officers. The meeting was but sparsely attended, and the motion embodying the chairman's proposal was carried. Another motion, proposing that only subscribers of three years' standing, should be entitled to vote, was also carried. The object of this last resolution was to stop roll stuffing. A further suggestion that the tenure of office should be for seven years instead of four was also entertained. At this meeting Mr. Webb, who for many years had been honorary surgeon to the Melbourne Hospital, said "that at one election one candidate put a whole girls' school—little bits of things with short petticoats—on the roll, and they voted. And Chinamen! One candidate went to Adelaide, and got 130 proxies from the employees in his brother-in-law's factory. The system bred bitter hatred and hostility among the staff. The surgical staff now hardly spoke to one another. The scandal and disgrace of the

system had been scathingly commented on in Canada." It does not seem likely that in the near future the proposals for reform will be taken up seriously. For years the present system has been endured, and every four years the same outcry is heard, and nothing practical is arrived at. To obtain the co-operation of the present holders of office in any scheme of reform a demand is made of fixity of tenure for themselves. It is not unlikely that a radical change in the present method of election would cause a serious falling off of revenue to the institution concerned, and that until a charity tax is imposed on all, and the charitable institutions of the colony are removed from the fluctuations of a variable public subsidy, the administration of the two hospitals will hesitate in risking their present revenue.

The Melbourne Hospital finances are languishing, and there exists an alarming gap between income and outlay. The deficit amounts to £5,000 a year. The hospital has 292 beds, and during the year 4,918 patients pass through these beds. The out-patients number 17,750 for the same period. In 1896 the receipts amounted to £25,700, in 1897 they fell off to £19,930, in the present year it rose to £20,645. The expenditure during the same periods has been steadily increasing, being, namely, £22,511, £24,402, and £25,953 respectively. The daily average of patients has risen from 271 in 1896 to 295 in the present year. Of this year's receipts the Government gives a subsidy of £1,200, while the municipalities of the colony only contribute £324. The private subscriptions amount to £3,600, while the inmates themselves now subscribe £229. The registration fees (1s.) amount to £1,031. Of the expenditure the wages are £5,912, drugs and accessories amount to £3,024, bandages £1,830, bread £549, eggs £523, meat £1,417, milk £960, printing £230, wines and spirits £437, plumbing and repairs £710, gas £841, cab and tram fares £39. The inside staff consists of 16 sisters, 30 nurses, 25 probationers, and 12 night nurses, with 15 ward maids to assist. During the last twelve months 58 of the nursing staff have become patients themselves, and of these 32 were compelled to take to their beds for more than a fortnight. Several spent from four to six months in bed. The students who attend the hospital number 51, and contribute £267 in entrance fees and pay nothing more. But it is now proposed that they pay an annual fee of £5 5s. It has been suggested that no dressings be destroyed until specially ordered, and imposition is to be more carefully guarded against. Special orders for diets are to be made, and statutory declarations are to be made by all intending patients with regard to their financial positions. During last year over 1,000 operations were performed, and a heavy outbreak of diphtheria and measles was a severe call on the finances of the hospital. Altogether the expenditure is to be checked in every direction, and large economies are promised.

There have been so many medical students plucked in their fifth year at the University examinations—namely, 22 out of 30—that an attempt has been made by some of the examiners to explain the cause. We are told that the subjects responsible for the largest number of rejections are medicine and surgery. A member of the Council of the University declared that our students were "under-taught and over-examined." The explanation of the failures, as given by Dr. Williams, is that they are due to the abolition of certain interim examinations. Formerly there was an examination in the third year in surgery and the fourth year in medicine in those portions of the subjects which the lecturers had then gone through. The discontinuance of this arrangement has led to a laxity in the work of students. Many students attending lectures take notes, but as there is no examination they do no reading. The result is that they come into the wards unequipped with the necessary knowledge for clinical study. The recent examination was not above the average for the same year's work at English universities.

Dr. S. J. Burke, who was for many years honorary surgeon to the women's hospital, and was probably the best known and one of the most popular physicians in Melbourne, has just died. Dr. Burke arrived in the colony in 1854; previously he had seen active service in the Crimea. In 1870 he settled in North Melbourne, where his private acts of charity and his exceptional skill in his profession made his name a household word.

SHEFFIELD.

The Prevention of Tuberculosis.—Improvements and Extensions of the Hospitals.—Death of Mr. Henry J. Knight.

A Committee of the Medico-Chirurgical Society was recently formed to consider the tuberculosis question, and as a result a conference was held between this Committee and representatives of various other bodies, including representatives of the Health Committee, the Royal Infirmary Royal Hospital, the Women's and the Children's Hospitals, the two Boards of Guardians, etc. After discussion it was resolved that it was expedient to form a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. A requisition was signed asking the Lord Mayor to call a public meeting, and when this was presented on March 10th the Lord Mayor acceded to the request. The meeting will, it is expected, be held early in May, and it is hoped that one or more of those prominently engaged in the cause may be induced to visit Sheffield and put the objects of the Association before its citizens.

In recent times there has been great activity in hospital extensions in Sheffield. The Royal Infirmary asked for funds to commemorate its centenary in 1897 for the erection of an ophthalmic block, a nurses' house, and a laundry. The money was forthcoming, and all the buildings were completed, and were occupied last year. The additions raise the total number of beds available to more than 240. The ophthalmic block is reserved entirely for eye cases, contains 38 beds, and consists of two wards (male and female), and two wards for isolation and special cases. The operating theatre, supplied with every modern appliance and architecturally up to date, is a marked feature of the block. More recently, funds have been solicited for the building of a surgical operating theatre, and the extension of the out-patient's department. The Royal Hospital still requires funds to complete its new buildings commenced some years ago, but progresss is being made. It is very recently also that extensions were made at the Children's Hospital, and now the Jessop Hospital for Women has appealed for £20,000 to make extensions and alterations in the buildings. There is good hope of the money, moreover, being raised, for, with the assistance of Dr. Keeling, the Senior Surgeon, who has himself contributed £1,000 to the fund, subscribers have come forward in a manner which must be most satisfactory to the authorities of the hospital. To add to the list of hospital extensions it should be mentioned that at both the Union infirmaries enlargements have been going on. At the Eccleshall Union a new maternity department has been built, and additions are in progress at the Fir Vale Union Infirmary.

The medical profession has received a severe shock by the sudden and unexpected death of Mr. Henry J. Knight. He was the leading practitioner of Rotherham, and was widely and very deservedly respected.

BRISTOL.

The Endowment of Chairs in University College.—Hospital Sunday Fund.—The Convalescent Home.—The General Hospital.—The Royal Hospital for Sick Children.

Circulars have been issued in the city inviting those interested in education to a meeting to be held at University College, at which it will be suggested that a society should be formed to collect money to endow Chairs, or to assist the Sustentation Fund of the College. The proposal is that the society should be formed on the lines of the well-known Colston Societies, the funds of which, amounting yearly to about £3,000, are given wholly in annuities and doles. Edward Colston, whose memory these societies perpetuate, gave largely to education; in fact, the figures on the third page of the circular show he gave three times as much for that cause as to all other objects together. It is claimed by those who send out the circular that had Colston lived in the present day, when elementary education is sufficiently cared for by the State, his sympathies would have been with the higher education of the people—such education as is supplied by University College. It is a notorious fact that the fees received from students at the College are only sufficient to about half pay the salaries of the staff, and that the subscrip-

tions to the Sustentation Fund permit the Government to grant only £1,200 yearly. With such a state of affairs it certainly seems to be desirable that some effort should be made on behalf of the College, which, though it may be admirably equipped and staffed, is unable to expand owing to lack of funds. From one society—the Anchor—a donation has already been received for the College, and it is hoped that the other two—the Dolphin and Grateful—will also hand over a donation in the future from their funds, for many persons, though generously inclined, are beginning to think that the quantity of annuities and doles has reached a limit at which it might stop. University College was started after a meeting of the British Association in 1876, and it would be a fitting memorial of the very successful meeting of last year if this effort, which it is hoped will infuse new vigour into the College, were carried to a happy conclusion. The circular is signed by the Mayor, High Sheriff, the Bishop of Hereford (President of University College), Mr. Albert Fry (Chairman of University College), and the Headmaster of Clifton College.

The Committee of the Hospital Sunday Fund have issued their list of donations received, and on the whole the collection has been a decided improvement on last year. There are still a few more donations to come in, as many of the vicars of country churches in the district round preferred to hold the collection on the Sunday of their Harvest Festival. The total received was £1,491 14s. 9½d., an increase of £373 11s. 4½d. on last year. The total would have been higher had all the churches who promised their help paid their collection into the Fund; some, while using the circulars and posters, sent direct to the institutions they most favoured. This it is hoped will not happen in future years.

There is talk of a member of the Royal family coming to open the Convalescent Home when it is opened in June.

The half-yearly Board meeting of the General Hospital was held on March 13th, and the report stated that the receipts from all sources were £158 less than last year and £1,200 less than the expenditure, which was £10,658. The average number of beds occupied during the year was 166.8. Over £6,000 had been received from legacies, but two donations of large sums recently acknowledged in the local papers do not come in the 1898 accounts. Several important structural improvements had been made, and about £2,000 spent on the laundry.

The annual meeting of subscribers to the Royal Hospital for Sick Children and Women was held on March 10th, the Mayor (Mr. Herbert Ashman) presiding. The meeting was of the usual description. From the statement of accounts it appears that the institution is following the example of the majority of hospitals, and getting yearly more in debt, the total indebtedness now being £2,771 6s. 5d., and increase of £1,043 3s. 8d. on the year.

CORRESPONDENCE.

PLAGUE PRECAUTIONS AT BOMBAY.

SIR,—Having lately experienced the annoyance of the inspection of passengers as carried on by the Government after leaving Bombay, perhaps you will allow me to detail them and at the same time contrast the utter want of real protection afforded by the inspection of the Lascar crews of the P. and O. and other steamship lines.

I landed in December, and proceeded up to the North-west Provinces within forty-eight hours. No inspection was made at the station, but after we had been an hour or so in the train (we left at 9 P.M.) and had settled down for the night, I was woke by a cold clammy hand thrust in through the carriage window, with a request to allow my pulse to be felt. Four ladies in the same carriage, but in another compartment, had to submit to the same examination. We were waked up no fewer than four times during the night to undergo a similar farcical examination, and again next day were examined on the railway platform at Itarsi. I need hardly point out the absolute childishness of such a system which is still going on.

Now, *per contra*, let me state what precautions are taken to ship healthy crews in the P. and O., etc. Many of the Lascars are "signed on" the very day before sailing, and notwithstanding all the efforts of the health officers, they bring on board a quantity of soiled clothes which it is impossible to disinfect. In fact, many of the crew are taken on the very day the ships sail, and it was among some of these very men that the cases of plague appeared in the *Caledonia*. If this is not straining at a gnat and swallowing a camel, I don't know what you can call it.

I consider that arrangements should be made to have all crews complete on board for at least three days before sailing, and that all their kits should be disinfected before being allowed on board. After this no connection with the shore should be allowed.

The present system seems to me to be an absurd one, as no medical officer could possibly detect the latent germs of plague among apparently healthy men, who, perhaps, the night before embarkation slept in plague-infected houses in Bombay. —I am, etc.,

J. B. HAMILTON,
Surgeon-General, R.P.

Bombay, Feb. 14th.

LUNACY LAWS AND BORDERLAND CASES.

SIR,—With reference to Dr. Reichardt's letter of February 14th, I should like to offer a few words of protest against the intemperate use he makes of the phrase "incarceration in a lunatic asylum," a particularly odious expression, which seems to please him so much that he repeats it no less than six times, with additional remarks about "odium," "horror," and the like.

Into the subject matter of his letter I will not enter, but whatever may be the rights or wrongs of the borderland question I beg most emphatically to say that no possible good can be served by the use of words like these, which are calculated only to increase the foolish prejudice that still exists against asylums and the men who devote their lives to the care of them.

It is not fair or right that medical men, of all people, should for their own ends attempt to foster this. Trusting that you will spare me space for this remonstrance, I am, etc.,

Chiswick, March 4th. T. SEYMOUR TUKE, M.A., M.B.Oxon.

SIR,—In your report of the interview between the conjoint deputation of the British Medical and Medico-Psychological Associations and the Lord Chancellor, the spokesmen do not appear to make it quite clear what alternative they suggest for the existing judicial authority in cases of early and curable mental disease.

I do not suppose that it is intended to take away the liberty of the subject, even for a period of six months, except with the sanction and approval of some properly constituted independent authority; and what I should like to know is, where are we to look for a more convenient, unbiassed, and get-at-able authority than the present, or a more unobtrusive, simple, and private proceeding than the certification now in force?

Considering the late ebullition of feeling against confining a patient for even seven days on an urgency order, is it likely that the public will permit the liberty of a patient to be taken away on the *ipse dixit* of the physician, the relatives, or even of the patient himself?

Again, we must remember that in order to make the early treatment of incipient insanity of any service whatever, the control of the person of the patient must be as complete as it is under the present reception order; and who is there who advocates the lessening of the safeguards against this control being improperly used?

If these are the social and commercial disabilities connected with certification which Dr. Savage described, the deputation might have suggested something for their removal.

With an attack on certification *per se* I have little sympathy, because, after observing its workings intimately for nearly ten years, I am satisfied that the charges brought against it are visionary or highly coloured; but any honest attempt to make better provision for the treatment and cure of slight and temporary mental attacks outside an asylum would have my fullest sympathy, because I recognise that whatever stigma is attached to mental breakdown—and it is a cruel hardship that there should be any—is due not to certification but to residence in an asylum.

Why should not the Commissioners in Lunacy keep a register of medical men who could receive into their houses for treatment incipient cases of insanity? I say a register

should be kept, because it does not follow, if a man possesses medical diplomas, that he is always a fit person to undertake the treatment of mental disease.

I notice that the eminent specialists who spoke for the deputation made use of the gentle term "incarceration," which, according to the dictionary, is synonymous with "imprisonment." I should be curious to know whether these gentlemen, when they were connected with institutions for the insane, took the same hostile view of certification, and whether they were in the habit of describing their patients as being "incarcerated."

It seems to me that so much ability and energy might have been better spent in allaying the prejudices against certification, which after all are very fanciful; for the obnoxious process has received more publicity and notoriety through the present agitation for its modification than its natural workings have given it during the many years in which it has been resorted to.—I am, etc.,

Sunbury-on-Thames, March 14th. W. J. Handfield Haslett.

POISONING BY RHUS TOXICODENDRON.

Sir,—The case of poisoning by rhus toxicodendron, related by Dr. F. Nicholson in the British Medical Journal of March 4th, is of the greatest interest, as it would seem these cases, as far as I have been able to discover, are of great rarity in this country. This perhaps is strange considering that the plant, a most lovely creeper, is not so very uncommon amongst us. It is one of the hardy sumachs coming from North America, and is well known there to gardeners. It came into use here some years ago, and as it grows very rapidly was much used for wall spaces on large houses and for garden walls needing covering by creepers. It was a usual plant in gardeners' catalogues, but of late, owing to its troublesome qualities, is more rarely sold.

In America most serious and alarming cases of poisoning have arisen, and even cases of death have been recorded from the handling or pruning of the plants, besides lengthened illness and serious after-injury to health.

Some years ago I had some eight or ten plants, which were a most lovely sight when in leaf in the spring and summer, owing to their brilliantly delicate green tint and glossy leaves of a beautiful shape, and the mixture of all shades of gold, pale green, and brilliant reds in the autumn, for which reason they are a most desirable acquisition as a creeper. These plants were chiefly on the wall of a large garden much used by gentlemen patients. They were sent to me either by mistake for an order for ampelopsis Veitchii, or else purposely to get rid of them. I did not for some time find out their poisonous history until I learnt of it from Lord Druce, a great gardener, and one who takes interest in all trees, shrubs, etc., and from Canon Elacombe, another well-known gardener, who had been advising everyone to discard them.

During the time the plants were in existence their leaves had been constantly plucked for use in flower vases, and also for lining the fruit dishes for the table! No ill-effect, however, had been produced upon the hands or face—the places commonly attacked—of those handling them, the chief of these being a young lady; nor did those eating the fruits lying on them suffer in any way!

As soon, however, as I learned the dangerous character of the plants they were removed. I fancy our freedom from injury was due either to the fact of the leaves being plucked chiefly when fading in the autumn, when the sap was losing its power; or perhaps to the plants being young and not fully developed, and probably not having flowered, as I never remember seeing flowers on them. I thought at the time that this climate might lessen or tend to slacken the development of the poisonous qualities; but as the plant in Lincolnshire has developed them, this can hardly be the case. I fancy the injury arose in Dr. Nicholson's case owing to the plant being in flower or fruit at the time of its use, and when no doubt the poisonous qualities are more fully developed. A great deal has been written about this Rhus and its properties from time to time in the gardening papers.—I am, etc.,

Reginald Eager,
Lecturer on Medical Jurisprudence in the Bristol Medical School.
March 6th.

ARMY CONVALESCENT HOMES.

Sir,—At length the War Office has decided to establish army convalescent homes at their selected stations in England and Scotland. Under the proposed scheme the convalescent soldier is to be drafted to barracks whose situation and climate appear most fitted to hasten his recovery. So far there need be no great difficulty in securing desirable localities for the ordinary run of convalescents. But what about the exceedingly large class with health shattered by syphilis? In the British Medical Journal of February 11th Lieutenant-Colonel William Alexander advocates the Aix-la-Chapelle method of mercurial inunction, together with the use of thermal waters for the radical cure of syphilitic diseases. In this connection it would be interesting to know if Bath, or some similar watering place, has been selected to meet the requirements of such cases. The subject is worthy of serious consideration if it be true, as stated, that of the troops ordered on active service in the late operations on our Indian North-West frontier, some 10 per cent. were found inefficient as a result of syphilitic disease.—I am, etc.,

Wm. Stewart,
Stirling, Feb. 25th. Surgeon-General (Retired).

IMPROVEMENT IN *X*-RAY TECHNIQUE.

Sir,—In the British Medical Journal of March 4th, attention is very properly called to the extremely important improvement in interrupters, for which we are indebted to Dr. Wehnelt, of Charlottenburg. In your note you say that the difficulty will be to get tubes to stand the current, and already the cathodes of several tubes have been melted. Will you allow me to point out that this impression, which is very common meantime, is quite erroneous? I have been making a series of experiments lately with the new interrupter, and, briefly stated, the instrument promises to be more capable of gradation than any previous arrangement of apparatus. We can vary the results in tubes by altering the voltage to the primary by difference in the proportions in the size of the two electrodes, by the fluid in which the metals are immersed, by the distance between the two metals in the cell, etc. Not the least important of these is the intensity of the current going to the primary, which, of course, can be very easily controlled by a rheostat.

I have tried coils of different sizes, the largest giving a 28-inch spark, and judged by the results, the principles involved in each seem to be pretty much the same. Even with the largest coil one can easily vary the conditions so that the small ordinary tubes can be used with perfect safety. In other words, this interrupter is already under our control.

With regard to the difficulty of getting tubes, I cannot see that it will be any greater than in the past. Before Dr. Wehnelt's interrupter was introduced I experienced precisely the same difficulty in getting tubes with a high enough vacuum, say, for a coil giving a 30-inch spark or a large Wimshurst machine. Up to date I have not found a tube which both would not excite. Of late I have had tubes made under my own supervision, several of which are excited with difficulty even when using an 18-inch spark Apps-Newton coil with the new interrupter.

There is another remark in the same note to which I should like to call the attention of your readers, namely, "The fluorescent screen gives such an effect as is seen when a large Wimshurst machine excites a tube, but it is more brilliant." Might I be allowed to point out that the result would depend upon the size of the Wimshurst? With my present influence machine, containing 24 plates of 36 inches diameter, I have no tube which cannot be readily excited. This new interrupter is bound to create greater interest in the question as to which is the best exciter of Crookes's tubes, and some experimenters seem to have come to the conclusion that the new interrupter will settle this; but the end is not yet. I do not wish your readers to understand that I am here taking any part in this discussion. On the contrary, when the question was discussed at the Roentgen Society last session, I could not see my way to take either side, maintaining, as I still do, that each has its advantages and disadvantages, that we might as well discuss the question whether a certain amount of work should be done by a gas, oil, or steam engine. I am still of opinion that as we get to

understand more about coils and influence machines, it will be seen what one can the other will be got to do. The selection of a particular transformer, coil or static machine, will probably in the future depend upon such questions as portability, and the electoral force at the disposal of the operator—say the batteries, street mains, etc.

Lastly, the above-mentioned views do not detract in the slightest from the undoubtedly great improvement in technique, for which we are indebted to Dr. Wehnelt. On the contrary, my experiments have shown that the exposures in photographing deep-seated tissues of the body by means of the coil are greatly reduced; while the brilliancy and steadiness of the screen with this transformer surpass anything hitherto obtained in using the induction coil.—I am, etc.,

Glasgow, March 5th. J. MACINTYRE.

MEDICAL AID ASSOCIATIONS.

SIR,—In reply to a letter *re* medical aid associations, which appeared in the BRITISH MEDICAL JOURNAL of March 11th, signed by "A Member B.M.A.," might I ask if he means medical aid associations to include a doctor's private family club? If so, I quite agree with him that strong measures should be adopted to do away with these clubs. If, on the other hand, he means that only medical aid associations go in for canvassing, I think it only fair to point out that there is no more canvassing done by these associations than by canvassers of doctor's private clubs. In fact, I was in a town where I was told a medical man actually employed a coal man to supply a bag of coals to those who promised to join his club. A great many ways are no doubt employed by some medical men to get members to join their club by discreditable means such as I have mentioned above. It would be a boon to the profession if the General Medical Council possessed the power to do away with all canvassing clubs.—I am, etc.,

March 13th. A. B. C.

SIR,—"A Member B.M.A." is perfectly right when he says we are bound to take strong measures if we wish to do away with the medical aid associations. The only possible remedy that I see is for the General Medical Council to forbid entirely any medical man from working, first, for a sum of money less than that paid actually by the patient; secondly, for money collected in advance by a collector, except in the case of the recognised benefit societies—namely, Oddfellows and Foresters, etc., for men only—under pain of having his name erased from the *Medical Register*.

This would do away with the medical aid associations, the collectors for which get from 15 to 25 per cent. of what they collect, the medical men the rest. Also the still worse condition of a medical dispensary, which is run by a lay company, who pay their medical man a fixed sum, however hard he may work.

I myself am a surgeon to a very large number of medical aid patients, and I attend families, including a father, mother, and perhaps six or eight children, for 3d. a week; people over 14 years pay 1d., and under 14 years ½d., per week, and perhaps they will be three or four weeks in arrears, but I treat them all the same. Of course, people say this state of affairs is horrible, but I am powerless to help myself, as I cannot afford to throw away £150 a year, which is part of the practice I have lately purchased; and if I did what would happen? Another medical man would take it on, or else the medical aid association would advertise for a man offering him £150 a year for a start, and would easily get one, who would cut into my private practice, or else all, or nearly all, would join the dispensary here, and the company would get another man down as assistant to the first man if the first man could not do all the work.

How is this state of affairs to be altered except by the General Medical Council taking strong measures? I might also point out that medical men who take on the medical aid associations are simply tools used by the associations for insuring people. The medical aid collectors go to a house and ask the people to insure their lives by paying a penny a week, holding out as an inducement that they are allowed to pay another penny to the doctor's club, and so get their medical attendance cheap.—I am, etc.,

March 11th. MEDICAL AID SURGEON.

SIR,—Concerning the abuse carried on by agents of medical aid associations, the *modus operandi* is to approach a newly-qualified man who is "squatting," and offer to work him up a large list of members. The commission is, I am informed, £5 for every 100 members on the list. One, or at most two, men are selected, and having consented to act, their names are freely canvassed from house to house. The middle class is approached for the simple reason that the weekly payment of 5d. (2½d. for medical advice, 2½d. for life assurance) is more easily and regularly paid than would be the case among the very poor.

The evil being acknowledged, the remedy to my mind is very simple, effective, and calculated to entirely crush out of existence all such bodies as medical aid societies. Let the General Medical Council at the next sittings adopt the same course as followed with regard to unqualified aid. Let it be deemed infamous conduct to have any connection whatsoever with medical aid societies, let notice be given to terminate any standing agreements in three months, and let all general practitioners be on an equality as regards their fees. Who ever heard of a dental aid society or a veterinary aid association? The dentist and the veterinary surgeon would ridicule such a notion; how is it then that medical men can be found who are willing to accept such paltry sums?

As it seems impossible for unity to exist amongst medical men, then let our councillors decide for us that we must not disgrace their good name, and take good care that we follow their wise dictates.—I am, etc.,

March 14th. ONE WHO KNOWS.

VANISHING TUMOURS.

SIR,—In the report of my observations in the discussion at the Harveian Society on Mr. D'Arcy Power's paper, published in the BRITISH MEDICAL JOURNAL of March 11th, p. 600, I am represented as declaring that "the majority of cases of vanishing tumours in the abdominal wall were simply cases of tuberculous peritonitis." I need hardly say that "wall" is a mistake for "cavity."—I am, etc.,

Granville Place, W., March 11th. ALBAN DORAN.

THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

SIR,—The writer in the BRITISH MEDICAL JOURNAL of February 25th, who with smug satisfaction appropriates as all his own the well-worn motto "Honesty is the Best Policy," would have been well advised to leave his letter unwritten. The title "Physician and Surgeon" deceives nobody, but simply states that the practitioner is qualified to treat medical as well as surgical cases. It certainly does not attract the educated classes, who are well aware that consulting physicians do not in these days practise also as surgeons, or *vice versâ;* and for my part I do not believe it does those who sport it one atom of good; they are, in fact, too honest or too clever by half; the one title without the other would serve their purpose better.

"Honesty" insinuates that the L.S.A. is the lowest English qualification. I think this is news to a great many of us. In the *Medical Register* the Society of Apothecaries is the third on the list of bodies represented at the General Medical Council, and no less a personage than Mr. Brudenell Carter has been its representative for a dozen years past. No college or society has done more to uphold the purity or the prestige of the profession. To talk, as "Honesty" does, of its having "crept from behind the counter" is a gratuitous insult, no more appropriate than if the College of Surgeons were depicted with a barber's block surmounting the building and the pole projecting at the orthodox angle from its portico.

As I said in a former letter, the real distinctions in the medical profession have only the remotest relation to the titles obtained from the qualifying bodies. It matters not what bishop laid his consecrating hand upon our head; we are all priests alike in the Temple of Physic. No doubt as in the Church so in Medicine, there are differences arising from birth, breeding, and collateral education; but there are no "grades" at all resembling those of bishops, priests, and deacons in our profession. We are alike qualified to practise

in medicine and surgery, and the position we fill is determined by a variety of causes, of which the particular diplomas we hold are amongst the least.—I am, etc.,

February 25th. M.R.C.S.Eng., L.S.A.

Sir,—The remarks made by your correspondent, who signs himself "Honesty is the best Policy," ought certainly not to have been made over a *non de plume*. Possibly he felt too much ashamed of his own sentiments to allow his professional brethren to know who he is.

Having passed both, I can say that the examination for the L.S.A. is every whit as certain, and infinitely more practical, than that of the Conjoint Board. By what right does your correspondent call it the "lowest English qualification," or suggest that it "crept from behind the counter"? Let him remember that it was at one time the only qualification obtainable. The title is, I allow, unfortunate, as the present popular idea of "Apothecary" is not its original meaning, and there is no doubt that it is the absurd high falutin' style of remarks made by your correspondent and others of a similar turn of mind who happen to hold, as he evidently does, a more high sounding but not a bit "superior" qualification, that has led to the injustice done by confessedly ignorant judges to the late Mr. Hunter. The law of self-preservation exists as strongly with the L.S.A. as anyone else, and if he happens to be earning his living in a district where one of your "superior" qualified men finds him at least as able as himself, and who sets the report in circulation that the L.S.A. is practically little better than a druggist and ought not to be allowed to practise (and I have known it done), who shall blame him if he lets his patients know that he is a physician and surgeon. In the ordinary common sense meaning of the words he has a perfect right to do this. Your correspondent asks: "Do the public when they say they wish to consult a physician mean they want the opinion of an L.S.A.?" Certainly not if the L.S.A. is a general practitioner, nor do they want any other man acting in that capacity, whether he be M.D. or anything else. They want a specialist or a consultant, let his diploma or degree be what it may.—I am, etc.,

February 28th. M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.

OBITUARY.

WILLIAM HUGHES WILSHIRE, M.D.,

Formerly Physician to Charing Cross Hospital.

Dr. W. H. Wilshire, who died recently in his 83rd year, graduated as M.D. of the University of Edinburgh in 1836, and was appointed Joint Lecturer in Botany at Charing Cross Hospital Medical School in November, 1838. In 1841 he was appointed Joint Lecturer in Materia Medica, and in 1842 he was admitted a Licentiate of the Royal College of Physicians under the old regulations. He retained the Lectureship of Botany untill 1847, and that on Materia Medica until 1855, in which year he was appointed Joint Lecturer on Medicine. Meanwhile he had acted as Assistant-Physician and Physician to the hospital, and eventually retired in March, 1866. He was also at one time Physician to the Royal Infirmary for Diseases of Children, Waterloo Road, and was President of the Medical Society of London in 1855. He published a work on *The Principles of Botany* for the use of students in medicine; a course of lectures on Diseases of Children, in the *Medical Times*, 1847-49; and Lectures also in the *Lancet*, as well as many other contributions to this and other medical ournals.

We are indebted to Dr. T. Carter Wigg for the following appreciation of the character of Dr. Wilshire, who was but little known to the present generation:

When in 1860 I entered at Charing Cross Hospital Dr. Wilshire was one of the Assistant Physicians and Lecturer on Medicine. As a teacher he was vigorous and terse. Though he held his own opinions strongly, he was not dogmatic, but always ready to show that there might be another view, and to train his hearers to think for themselves. The subject-matter of his lectures was always carefully thought out and definite rules laid down. He was a firm believer in the scientific method in medicine, but he as strongly advised the study of the practice of the art. I remember some of his distinctions between the science and art of medicine: thus he would say, "Science speaks, art acts. Science studies the nature of poisons, the means by which and how they kill, but art flies to the stomach pump and antidotes. Science looks to essence and cause, art to facts and effects." He took great interest in diseases of the skin. For this reason other members of the staff voluntarily transferred cases to his care, and at one time he seriously contemplated devoting himself as a specialist to diseases of the skin. He spared no pains or time to explain his views of treatment and pathology, laying down very definite lines upon which the student might afterwards build the superstructure of clinical study.

Dr. Wilshire was naturally of a very artistic nature, and after his retirement he devoted much of his time to painting and art studies, but his eyesight not being strong he relinquished it years ago. He was well read both in Greek and Latin classics, and his pronunciation of Latin softly like the modern Italian will be remembered by those who knew him; he spoke German and French with ease, and of Arabic and Hebrew he had a good knowledge, having resided for some years in Algeria and Morocco. Chemistry and botany had much interest for him, and he strongly recommended the study of botany by medical men as a means of demonstrating that Nature's methods in plants and animals were alike.

As a physician he was most painstaking, striving to establish a diagnosis by the process of elimination, giving his reasons step by step. The interest he displayed in the welfare of his patients in or out of hospital was great. Indeed, no trouble or time would he spare himself to give the benefit of his help and guidance.

In manner he was somewhat reserved and abrupt, but always courteous. He was punctual and methodical in all that he did; never in a hurry, but when once a thing was done he was ready to do the next. When once the ice was broken the genuine inquirer soon realised the extent of his knowledge and his friendly readiness to help.

Austere, almost to severity, at times, none could more thoroughly enjoy a joke, even though it was against himself. Upon concluding a lecture one morning upon the advantages of botany, he concluded with the admonition to cultivate a "botanical eye," and in the afternoon's lecture finished with the advice to get a "clinical eye"; this provoked a laugh, which much annoyed him. Upon my going into the museum afterwards he insisted upon knowing why the laughter; I tried to evade the inevitable, but out it had to come. The question was, which was his clinical, and which his botanical eye? He quite enjoyed the joke—he suffered from marked divergence of one eye.

To the teaching staff of my student days my memory reverts with respect and gratitude, but to none more than to him to whose personal kindness many a time and oft have I been indebted. It is now my duty, as it is my pleasure, to recall his personality and ability as a professor, teacher, and physician, and my desire, inadequately though it be, to exalt and extol his memory.

JOHN ROSE, M.A., M.D.Aberd.,

Honorary Consulting Surgeon to the Chesterfield and North Derbyshire Hospital.

Dr. John Rose, of Dale Bank, Chesterfield, died on March 7th, at the age of 76. He was born at Perth House, Banff, N.B., in 1822. After taking the degree of M.A. at the University of Aberdeen, he studied medicine, and obtained the degree of M.D. in the same University. He then entered the Royal Navy, and was stationed for some time at Haslar Hospital. He was Surgeon on H.M.S. *Frolic* in the Mediterranean, and Staff-Surgeon on H.M.S. *Flying Fish* and H.M.S. *Nimrod*, during the China war 1857-58, and obtained the medal with two clasps. He was Staff-Surgeon to H.M.S. *Eagle* in 1859. He was author of *Letters from the Mediterranean*, *Notes on China*, and numerous articles and reports of medical and surgical cases in the medical papers. On retiring from the naval service he became Resident Surgeon to the Kidderminster Hospital, where he remained nine years, leaving that for a similar appointment at Chesterfield, which he held for twenty-three years. After his retirement from the service Dr. Rose con-

tinued to take an interest in the welfare of seamen, particularly in connection with diet, and was an early advocate of the use of condensed water, and of the issue of preserved potatoes. Some years ago it was found that he was suffering from valvular disease of the heart, and he has since lived in retirement, though maintaining his interest in medical and charitable work to the last. He died in his sleep.

A friend writes of him that he was "a man who made no enemies, whom it was a privilege to know, and whom to know was to love. Any scheme for the good of his fellow-creatures was sure of the sympathy and practical help of Dr. Rose. He was a good Churchman, a staunch teetotaller, a true friend, an honest and upright man; and his death creates a void in Chesterfield which it will be difficult to fill."

JAMES WILLIAMSON, M.D.ST.AND., L.R.C.S.EDIN., L.S.A. DR. JAMES WILLIAMSON, whose death at the age of 84 is announced, was the son of a Baptist minister of North Shields. After serving a term of apprenticeship he became a medical student at Edinburgh. Before qualifying he went for a cruise as surgeon on a Greenland whaler, which became ice bound in Davis Straits from October 5th, 1835, to February 19th, 1836; the crew were reduced to great straits and twenty-seven died of scurvy. When at last liberated only sixteen hands remained to work the ship to the Orkney Islands. After qualifying in Edinburgh he became Resident-Surgeon to the Dispensary of South Shields, and subsequently Surgeon to the Jarrow Chemical Company—an office which, with a considerable private practice, occupied all his time. In South Shields he was universally respected alike by the public and the profession. About twenty-two years ago his energy and health failed somewhat, and he retired from practice, settling down in Petherton Road, Highbury, London, where he died. In 1897 he celebrated his golden wedding. Mrs. Williamson, three daughters, and two sons—one of whom is Dr. James Mann Williamson, of Ventnor—survive to feel a loss which by care and affection they have done much to postpone.

Dr. Glover, of Highbury, writes to us as follows: "I should like, with your permission, to say a few words about my late and most esteemed master, Dr. Williamson. He was a most honourable example of the general practitioner of his day. He never ceased to take an interest in the profession and in the great revolutions of practice which his great age enabled him to witness. With traces of the old sailor in him, dating from his Arctic adventure, he was in all respects a gentleman. His tastes were classical; his practice was arduous; his prescriptions were practical: his principles were deep and religious. He was born on December 9th—Milton's birthday. Though he did not much affect poetry, he was Miltonic in his Puritanism, his religion being simple in its strong faith and in all the virtues which grow out of such faith. Though a staunch Nonconformist, he was conservative in his religious creed and in his resistance to such views as Darwin's, but on all ordinary subjects he was liberal almost to the degree of being radical. As a friend he was invaluable and unchanging, and, taken for all in all, I do not expect to meet a man more kind, more upright, or more devout."

WILLIAM STOKES GRIFFITH, M.A., M.B.CANTAB., F.R.C.S.ENG.

WE regret to record the death, at the age of 34, of Dr. Griffith, on November 17th, 1898, at Kimberley, Cape Colony. He was the son of Judge Griffith, who recently retired from the position of county court judge of the Wolverhampton Circuit, and was formerly Attorney-General for Cape Colony before responsible government was granted.

Dr. Griffith entered Trinity College, Cambridge, in 1882, and graduated with honours in Classics three years later. He received his medical training at St. Thomas's Hospital, where he later held the post House-Surgeon. In 1893 he was appointed Senior Resident Medical Officer of the Royal Free Hospital. It was whilst he held this appointment that he contracted phthisis, the disease which ultimately caused his death. After a voyage to the West Indies and a stay for some months at Falkenstein, he went to the Cape Colony early in 1895, and spent about a year in Aliwal North and in Basutoland, where he held the post of Acting Medical Officer at Quiting. In April, 1896, he went to Kimberley, and shortly afterwards he obtained the post of Senior House-Surgeon to the hospital, a post he continued to hold till the time of his death. He was also President of the Griqualand West Branch of the British Medical Association.

An original thinker, a clever and hard-working surgeon, a kindhearted and true gentleman, he gained the respect of and endeared himself to doctors, nurses, and patients in the institution to which he was attached, and to all others with whom he came in contact.

MR. RICHARD FAIRCLOTH, F.R.C.S.Eng., one of the oldest members of the profession, died recently at his house in Kensington. He was born in 1810, entered at Guy's Hospital in 1829, and was afterwards apprenticed to Dr. Robertson, of Northampton. He settled at Newmarket, and for many years became the trusted friend and adviser of all the best-known racing men of that time—Admiral Rous, Mr. George Payne, and the Duke of Rutland, the last of whom remained ever a staunch friend. Finding twenty years ago that sciatica unfitted him for hard work, and being possessed of ample means, he retired to Kensington. A courteous, quiet gentleman of the old school, he made many friends, nearly all of whom he survived.

DR. ROBERT P. HARRIS, who died at his home in Philadelphia on February 20th at the age of 75, was well known by his contributions to obstetrical and gynæcological literature. He took his doctor's degree at the University of Pennsylvania in 1844, and became a Resident Physician in the Pennsylvania Hospital. He was the American editor of Playfair's *Midwifery*, and he did much to bring into favour the operations of Cæsarean section and symphysiotomy, on the results of which he collected a large mass of statistics. Dr. Harris was a prolific writer on medical subjects, but was perhaps even better known as a student of horticulture. His delight was in the acclimatisation of vegetables from other countries, and he introduced a number of melons and cucumbers from Italy and elsewhere into the Southern States and California. At the time of his death he was Vice-President of the Pennsylvania Horticultural Society.

THE death occurred on March 4th, in his 58th year, of Mr. RICHARD WARREN PENDLETON. He was the son of the late Captain Henry Pendleton, of co. Meath. He obtained the diploma of L.R.C.S.I. in 1865, and became M.R.C.P.I. in 1881. He commenced practice in Liverpool, but illness compelled him to go to Port Augusta, South Australia, where he held the appointments of Medical Officer to the Prison and Police, and was Honorary Surgeon to the Port Augusta Hospital. Whilst in South Australia he met with a carriage accident, which seriously affected his spine and permanently impaired his health. He returned to England in 1887, and after undergoing treatment started a medical home at Brighton.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Mavrogeni Pacha, of Constantinople, First Physician-in-Ordinary to His Majesty the Sultan; Dr. Loir, some time Professor of Toxicology at Strassburg and afterwards in the Faculty of Science of Lyons, of which he was Dean: Dr. Vladimir Vasiljevic Ipjakoff, formerly Lecturer in the University of Moscow; Dr. H. M. Tarnowski, Director of the St. Petersburg Maternity Hospital, and Dr. Charles F. Taylor, of New York, one of the foremost orthopædic surgeons of the United States.

ROYAL NAVY AND ARMY MILITARY SERVICES.

THE ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1897; WITH APPENDIX, VOLUME XXXIX.

As in previous years, we have again to speak in the highest terms of this annual official report, which, notwithstanding the complicated nature of the facts to be dealt with, is always not only full, but correct in detail.

Classification.—In this volume the revised nomenclature of diseases has been used, but at the same time, certain syno-

nyms not actually forbidden are retained for inconvenience in the military statistical returns. On the whole, these army returns are little affected by the change.

Admission and Mortality Ratios.—The first broad result to be noted is that, in the United Kingdom, both the admission and mortality ratios during 1897 showed a decline compared with the previous year, and also with decennial averages. But this satisfactory result did not hold at several foreign stations, for, while Bermuda, Mauritius, Straits, Cape, Ceylon, and especially Egypt, showed declines, increases obtained at Gibraltar, Malta, West Indies, China, and India. In a strength of 198,294 of the British army, at home and abroad, there was a ratio per 1,000 in 1897 of 62.25 constantly sick, as against a decennial average of 58.57. This varied very much, from 37.95 at home, 23.77 in Canada, 26.72 in Bermuda, to 87.00 in the West Indies, 101.38 in India, and no less than 114.38 in China. Of course, ratios are affected by the total strength of troops in a command, for moderate sickness in a small body may give high ratios, compared with ratios spread over a large number, with varying conditions of healthfulness. Abroad, a ratio of from 50 to 60 per 1,000 constantly sick may be considered moderate. But the ratios of deaths do not at all correspond, in many instances, with that of admissions or constantly sick: for instance, Bermuda, in 1897, with a strength of 1,521, had 687 admissions, and 17 deaths; while China, with a strength of 1,417, had 2,973 admissions and 11 deaths. The sickness in the former place, although in the aggregate much less, was thus far more fatal than in the latter; enteric fever was frequent in Bermuda; venereal diseases chiefly swelled the enormous total in China. The sick time to each soldier, at home and abroad, in 1897 was 22.72 days; against a decennial average of 21.38, it varied from a minimum of 8.67 in Canada, 13.85 in the United Kingdom, to 37.00 in India and 41.75 in China. It may be deduced from the foregoing that, of our army at home or abroad, about 6 per cent. are on an average non-effective through sickness.

Zymotic Diseases.—Passing to more detail, at home not a single admission occurred from small-pox, but there were no fewer than 537 cases of scarlet fever, of which an epidemic at Caterham furnished 292 admissions. Ireland, and particularly Dublin, had as usual a bad pre-eminence of enteric fever, which in the latter place, notwithstanding recent sanitary measures, is still ascribed to defective drainage and polluted wrter supply. Diphtheria showed decline, but continued to appear in Aldershot, notwithstanding "progressive amelioration" in the sanitary condition of the camp. The anti-toxin treatment, it is stated, was employed with beneficial results.

Tuberculosis.—Tuberculous diseases still showed progressive decline.

Venereal Diseases.—These diseases were both under the previous year and the decennial average. Improvement was most marked in the Western, North-Eastern, and Scottish districts, the greatest prevalence being in the Dublin, Western, Belfast, and Woolwich districts.

Suicide. — The remarkable and inexplicable average of suicides was maintained, the total being 23, against a wide yearly average of 21.

Crete.—Among foreign stations it is interesting to find Crete figuring, but our partial occupation of it has been too short to give average results. Its salubrity is estimated as follows: The climate on the whole is good, though at times trying, owing to debilitating south winds in summer, and gales and heavy rains in winter; yet, even in November and December, the thermometer did not drop below 46° in the day time.

India.—In India, during 1897, both admissions and constantly sick were above the figures of the preceding year and the decennial average, and this notwithstanding that the returns do not include the European troops employed in the Frontier expeditions, by which the average strength reported on was reduced to 64,531. The admissions were higher among men in their first year of Indian service showing progressive diminution during subsequent years, a result no doubt due to the weeding out of the unfittest and survival of the fittest. Small-pox caused 24 admissions and 4 deaths. There were 5 cases of plague, 3 in Bombay and 1 each in Poona and Purandhur all recovered. Enteric fever showed an increase of 6.3 per 1,000 admissions and 2.31 deaths; it gave an aggregate total of 2,050 admissions, and a sad total of 556 deaths, and occurred in every district except Aden. Medical officers, in default of finding a cause of infection in food, water, or milk supply, ascribe the spread, not to the barracks, but to insanitary bazaars visited by the men. Cholera caused 116 admissions and 80 deaths, chiefly through an outbreak at Sitapur.

Special Reports.—Appended to the report are some very interesting special reports, among which we may mention that on Hygiene, for 1898, by Colonel Notter, R.A.M.C., embracing a review of sanitary legislation, literature, and practical work during the year; An Account of Operations and Wounds at Netley during 1897-8, by Colonel Stevenson; Surgeon-General Gore's Summary of the Operations on the North-West Frontier of India from June, 1897, to April, 1898; and a most interesting account of the Surgical History of the Tirah Expeditionary Force, 1897-8, by Lieutenant-Colonel Whitehead; also an elaborate report on the International Congress of Hygiene and Demography, by Major W. G. Macpherson, R.A.M.C.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE LATE WAR.

The official report of the Special Commission appointed by the United States Government to investigate the conduct of the War Department in the recent war with Spain, has now been issued. In regard to the general question, the Commission has come to the conclusion that "there was lacking in the general administration of the War Department during the continuance of the war with Spain that complete grasp of the situation which was essential to the highest efficiency and discipline of the army." With regard to the Medical Department in particular the findings of the Commission are as follows:

1. That at the outbreak of the war the medical department was, in men and materials, altogether unprepared to meet the necessities of the army called out.

2. That as a result of the action through a generation of contracted and contracting methods of administration, it was impossible for the department to operate largely, freely, and without undue regard to cost.

3. That in the absence of a special corps of inspectors, and the apparent infrequency of inspections by chief surgeons, and of official reports of the state of things in camps and hospitals, there was not such investigation of the sanitary conditions of the army as is the first duty imposed upon the department by the regulations.

4. That the nursing force during the months of May, June, and July, was neither ample nor efficient, reasons for which may be found in the lack of a proper volunteer hospital corps, due to the failure of Congress to authorise its establishment, and to the non-recognition in the beginning of the value of women nurses and the extent to which their services could be secured.

5. That the demand upon the resources of the department in the care of sick and wounded was very much greater than had been anticipated, and consequently, in like proportion, these demands were imperfectly met.

6. That powerless as the department was to have supplies transferred from point to point, except through the intermediation of the Quarter master's Department, it was seriously crippled in its efforts to fulfil the regulation duty of "furnishing all medical and hospital supplies."

7. That the shortcomings in administration and operation may justly be attributed, in large measure, to the hurry and confusion incident to the assembling of an army of untrained officers and men ten times larger than before, for which no preparation in advance had been or could be made because of existing rules and regulations.

8. That notwithstanding all the manifest errors, of omission rather than of commission, a vast deal of good work was done by medical officers, high and low, regular and volunteer, and there were unusually few deaths among the sick and wounded.

The Commission makes definite recommendations for the future conduct of the Medical Department, urging the necessity of a larger force of commissioned medical officers; authority to establish in time of war a proper volunteer hospital corps; the establishment of a reserve corps of selected trained women nurses; extra supplies of all sorts to be held constantly on hand; improvement in transportation; less red tape; and the authorisation of surgeons to purchase such articles of diet as may be necessary for the proper treatment of soldiers too sick to use the army ration.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Edwin Folliott, Surgeon, to the *Eclipse*, for disposal, March 16th; Bernard Ley, Surgeon, to the *Assaye*, undated; Walter H. S. Sequeira, M.B., Surgeon, to the *Lapwing*, undated; Herbert A. Julius, Surgeon, to the *Sphinx*, undated; George T. Collingwood, Staff-Surgeon, to the *Hotspur*, February 28th; Matthew J. O'Regan, Surgeon, to Bermuda Hospital, February 28th; Sidney Roach, Surgeon, to the *Alert*, February 28th; Eustace Arkwright, Surgeon, to the *Renown*, for the *Columbine*, February 28th; Oswald Rees, M.D., Surgeon, to the *Wildfire*, for Royal Marine

Depôt, Walmer, March 15th; ALAN G. EASTMENT, Surgeon, to the *Jason*' March 16th; FRANK BRADSHAW, Surgeon, to the *Howe*, March 16th; FREDERICK D. LUMLEY, Surgeon, to Haulbowline Hospital, March 16th; CHARLES W. SHARPLES, M.B., Staff-Surgeon, to the *Monarch*, for Ascension Hospital, March 13th; HUBERT HOLYOAKE, to the *Australia*, temporary, March 13th; JOHNSTON H. ACHESON, M.B., Surgeon, to the *Victory*, for disposal, March 8th; WALTER H. O. GARDE, Surgeon, to the *Victory*, for the *Research* (lent); JAMES G. WATT, Surgeon, to the *Wildfire*, for the *Triton* (lent); JOHN H. PEAD, M.B., Surgeon, to the Royal Marine Artillery, Eastney, March 27th.

Staff-Surgeon JOHN ROSE, M.D., Retired List, died at Dale Bank, Chesterfield, suddenly, on March 7th, at the age of 76. He was appointed Surgeon, May 10th, 1847, and Staff-Surgeon, May 10th, 1856. While Assistant Surgeon of the *Frolic* he served on shore during the insurrection in Cephalonia in 1849. During the cholera and fever epidemics in 1850 he was in medical charge of the *Frolic* and *Spitfire*. As Surgeon of the *Nimrod* he was at the capture of the Peiho Forts in China, in 1858, receiving the medal with clasp.

ROYAL ARMY MEDICAL CORPS.

MAJOR HENRY J. MCLAUGHLIN, from half-pay, is restored to the establishment, with precedence next below D. F. Franklin, *vice* J. R. Barefoot, deceased, February 23rd. Major McLaughlin was placed on half-pay on account of ill-health, September 2nd, 1894.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From	To
Surgeon-General W. Taylor, M.D., C.B.	War Office	India.
,, H. S. Muir, M.D.	Egypt	War Office.
Lieut.-Colonel J. A. Cleary, M.B.	Crete	Woolwich.
,, H. J. W. Barrow	Egypt	Punjab.
Major R. W. E. H Nicholson	Bengal	Waterford.
,, J. G. W. Crofts	Athlone	Madras.
,, J. Battersby	—	Bombay.
,, S. E. Duncan	Belfast	Holywood.
,, E. Davis	Madras	Devonport.
,, T. Daly	—	Netley.
,, L. P. Mumby, M.B.	Colchester	Bengal.
,, B. L. Mills, M.D.	Pembroke D'ck	Newport.
,, T. H. Corkery	Waterford	Bombay.
,, C. H. Burtchaell, M.B.	Punjab	Woolwich.
,, R. J. D. Hall	Dover	Bombay.
,, C. W. Allport, M.D.	Malta	Curragh.
Captain W. C. Poole, M.B.	Dublin	Athlone.
,, J. Girvin	Netley	Cyprus.
,, E. E. Powell	—	Aldershot.
,, E. McK. Williams	Gosport	,,
,, I. A. O. MacCarthy	Crete	Bombay.
,, C. B. Lawson, M.B.	Punjab	Dover.
,, F. A. Symons, M.B.	Madras	Devonport.
Lieutenant R. E. G. Phillips	Home District	Woolwich.
,, P. McKessack, M.B.	Crete	Portsmouth.
,, H. O. B. Browne-Mason	Woolwich	Punjab.
,, B. Watts	Aldershot	,,
,, A. B. MacCarthy, M.B.	Dover	Lydd.
,, J. S. Gallie	Edinburgh	Maryhill.
,, A. E. Thorp	Liverpool	Bengal.
,, H. Herrick	Curragh	Bombay.
,, E. J. Dobbin	Aldershot	,,
Quartermaster J. H. W. Beach	Crete	Chester.
,, J. Tandy	Egypt	Portsmouth.
,, R. Hawkey	—	Netley.

Major J. H. Nicholas, retired pay, has relinquished his medical charge at Devonport.

The newly-appointed Lieutenants are stationed as follows: H. P. W. Barron, J. E. Hodgson, A. L. Scott, M. H. G. Fell, G. H. Goddard, T. C. Lauder, M.B., J. W. H. Houghton, D. E. Curme, G. M. Goldsmith, M.B., R. H. Lloyd, D. Harvey, M.B., J. N. Sloan, M.B., H. E. Haymes, F. J. Brakenridge, G. C. Phipps, N. J. C. Rutherford, M.B., H. D. Packer, W. W. Scarlett, H. K. Palmer, A. O. B. Wroughton, and F. Ashe, at Aldershot; L. E. L. Parker, at Netley; J. G. Gill, at Canterbury; G. W. G. Jones, at Colchester; W. B. Winkfield, at Hounslow; H. S. Taylor and G. J. A. Ormsby, M.D., at Woolwich; L. Humphry, at Gosport; R. S. Rodger, M.B., at Dover; J. W. Leake, station not named.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT H. C. REID, M.B., is promoted to be Surgeon-Captain, March 11th.

INDIAN MEDICAL SERVICE.

COLONEL L. D. SPENCER, M.D., C.B., Bengal Establishment, is promoted to be Surgeon-General from October 25th. His commission as Assistant-Surgeon dates from March 31st, 1865; that of Surgeon-Colonel from October 24th, 1892. He was Principal Medical Officer with the Waziristan Expedition under Sir William Lockhart in 1894-5, was mentioned in despatches, made a Companion of the Bath, and received a medal with clasp.

The retirement from the service of Colonel W. P. WARBURTON, M.D., C.S.I., Bengal Establishment, and Lieutenant-Colonel G. F. NICHOLSON, M.D., Bengal Establishment, the announcement of which has already appeared in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen.

Surgeon-Major FRANCIS NOTTIDGE MACNAMARA, M.D., late of the Bengal Establishment, died on March 5th, aged 67. He entered the service as Assistant-Surgeon, June 18th, 1853; became Surgeon-Major, June 18th, 1873; and retired on a pension, February 14th, 1876.

MILITIA MEDICAL STAFF CORPS.

SURGEON-CAPTAIN T. W. RICHARDSON is promoted to be Surgeon-Major, March 15th. He resigns his commission from the same date, retaining his rank and uniform.

Supernumerary Surgeon-Lieutenant S. O. OLIVER is appointed Surgeon-Lieutenant within the Establishment, March 15th.

THE VOLUNTEERS.

THE undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains, dated March 15th: D. J. PENNEY, M.B., 1st Argyll and Bute Artillery; R. A. JOHNSTON, 1st Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment); A. LEITCH, M.B., 1st (Renfrewshire) Volunteer Battalion Princess Louise's Argyll and Sutherland Highlanders.

Surgeon-Lieutenant T. G. JENKINS, 1st Volunteer Battalion the Royal Welsh Fusiliers, has resigned his commission, March 15th.

Mr. JAMES R. FOULDS, M.B., is appointed Surgeon-Lieutenant in the 1st Dumbartonshire Rifles, March 15th.

MEDICO-LEGAL.

Replies in this column are limited to questions affecting the legal interests and privileges of the medical profession at large. The column is not to be used as a medium for affording legal advice in private or personal matters as to which the applicant ought to consult his own solicitor.

THE ROYAL BLUE BOOK.

THE lady whose name appeared in the Trades and Professional Section of the Royal Blue Book (see BRITISH MEDICAL JOURNAL of March 11th, p. 637), writes: I was quite unaware of my name being in the "Trades" list: it was an error of the man from whom I ordered a copy of the book. A new rule, so Kelly's clerk tells me, gives to "Trades" the privilege of such a notice on buying a Blue Book. It would not have occurred to me that medicine came under such a heading. I have seen the publishers, who at once acknowledged that it was a mistake on their part. Will you kindly notify that it is a mistake in an early issue of the BRITISH MEDICAL JOURNAL? It will certainly not recur in the May number of the Blue Book.

MEDICAL WITNESS'S FEES IN MAGISTERIAL CASES.

H.J.T. states that he was required to give evidence before the magistrates at a distance of over 8 miles from his house, for which he was paid 10s. 6d., and mileage 5s. He enquires if he is not entitled to 21s. and mileage, being the fee he received for giving evidence at assizes.

*** The fee received by our correspondent is, we regret to say, all that he is entitled to claim under the law as now existing. Efforts are being made by the British Medical Association with a view of securing a revision (on a proper remunerative basis) of the scale of fees at present allowed to medical practitioners for giving evidence in criminal cases.

AN ACTION AGAINST A MEDICAL MAN.

IN the case of Taylor *v.* Findlater the plaintiff sought to recover from the defendant, a doctor, damages for alleged negligence in his professional treatment of her. It appeared that the defendant opened an abscess and inserted a drainage tube. This drainage tube was afterwards missed, but it was supposed that the patient had lost it when she removed the bandages. The wound eventually healed, but ultimately a second operation was performed by another practitioner and a piece of indiarubber tubing removed from the arm. The defendant denied that he had been guilty of any negligence; and corroborative evidence was given by Dr. Douglas Drew and Mr. Charles Stonham, who expressed the opinion that it would not have been justifiable to slit up the sinus in order to search for the tube. The jury found a verdict for the defendant, and judgment was given accordingly. Dr. Findlater was defended by the Medical Defence Union, and the case illustrates the advantage of a medical man belonging to such an organisation.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

MEDICAL DEGREES.—At the Congregation on March 11th the following degrees were conferred:—*M.D.*: R. D. R. C. Atkins, B.A., Clare; H. Cooper Pattin, M.A., Jesus. *M.B. and B.C.*: F. J. Lidderdale, Trinity; H. M. Hart-Smith, B.A., Caius; A. C. Jordan, B.A., Sidney.

HONORARY DEGREE.—The degree of M.A. *honoris causâ* was on March 16th conferred on Dr. G. Sims Woodhead, Professor of Pathology.

ALLEN STUDENTSHIP.—Professor Macalister and Mr. F. Darwin, M.B., have been appointed electors to the valuable Allen Studentship to be awarded for original research.

UNIVERSITY OF EDINBURGH.

HONORARY DEGREES.—The Senatus Academicus of the University of Edinburgh conferred the honorary degree of LL.D. on the Right Hon. the Lord Balfour, Secretary for Scotland, Lord Rector of the University of Edinburgh, on March 14th, on the occasion of his delivering his address as Lord Rector. The Senatus has also resolved to confer the same degree at the Graduation Ceremonial on April 14th next on: The Most Hon. the Marquis of Dufferin and Ava, G.C.M.G., G.C.S.I., D.C.L.; Sir William Anson, Bart., D.C.L., Warden of All Souls College, Oxford; William Mitchell Banks, M.D., F.R.C.S.; and Major-General Andrew Wauchope, C.B., C.M.G., one of the numerous heroes of Omdurman and Khartoum.

University Court.

The Edinburgh University Court met on Monday, March 13th. Present: The Right Hon the Lord Balfour of Burleigh (in the chair), Principal Sir William Muir, the Hon. Lord Stormonth Darling, Professors Sir William Turner, Crum Brown, Laurie, and Butcher, Drs. Joseph Bell and Patrick Heron Watson, Sheriff Mackay, and Mr. J. Hope Finlay.

Lectureship on Tropical Diseases.—On a report of the Committee appointed to consider the qualifications of candidates for the Lectureship in Diseases of Tropical Climates, the Court appointed Dr. Andrew Davidson, Edinburgh, to the office for a period of three years from May 1st next.

Chair of Physiology.—The Court approved of the arrangements proposed by the Senatus, under which Dr. E. W. Carlier should carry on the work of the Chair of Physiology until the end of the current session, and also, in conjunction with the additional Examiner, the work in connection with the ensuing examinations in physiology for graduation in medicine and science.

Lectureship in Diseases of the Skin.—The Court, on the recommendation of the Senatus, resolved to institute a Lectureship in Diseases of the Skin, and appointed Dr. W. Allan Jamieson, Edinburgh, as University Lecturer on the subject. In connection therewith the Court approved of a recommendation of the Senatus that, in addition to the two courses—one of which candidates for medical degrees are required to attend—there be a further option of "a course of clinical instruction in diseases of the skin, given by a University Lecturer or by a recognised teacher at not less than twenty meetings in the wards of a recognised hospital, or in the wards of a hospital and in a dispensary, both recognised for the purpose."

Demonstrator of Surgery.—On the recommendation of the Professor, the Court appointed Dr. John Stevenson as Junior Demonstrator of Surgery for the remainder of the current year, in room of Dr. James Gray, who is to resign at the end of the current session.

Bequests.—Intimation was made of the following bequests to the University: (1) By the late Mrs. M. A. Shaw, Ventnor, of £100, to be designated the "Dr. Shaw Gift;" (2) by the late Emeritus Professor Sir John Struthers, of anatomical drawings; (3) by the late Professor Rutherford, of diagrams and microscopical specimens in the department of physiology, and of his books on physiology, histology, anatomy, etc.

The Extra-Mural School of Medicine of Edinburgh.—So far as can be ascertained there are this winter 1,217 students in attendance at the "School of Medicine of the Royal Colleges, Edinburgh," as the Extra-Academical School of Medicine is now styled. The comparable number at about the same date last year was 1,184. The clause of reservation "so far as can be ascertained" must be used, because it is not pretended that these figures represent the full muster of students in attendance at the school. It is indeed a matter for regret that when the new constitution and regulations were established in 1895 provision was not made to ascertain fully and accurately the numbers, names, and addresses of students, with their year of study, as is done on matriculation at the University. It ought not to be difficult to organise a central bureau or registration office, under the care, it might be, of Mr. R. N. Ramsay, the Secretary and Treasurer of the School, where students should at the beginning of each session set down the particulars mentioned; otherwise it would appear to be impossible from time to time to gauge the size of the school.

University of Wales.

The late Lord Herschell.—At a meeting of the Standing Executive Committee of the University of Wales, held on March 10th, the following resolution was unanimously passed:

That the Standing Executive Committee of the University of Wales desires to express its profound regret at the untimely death of the late Lord Herschell. The Committee gratefully remembers the ready and powerful support which, in his place in Parliament, Lord Herschell invariably extended to measures for the improvement of education in Wales, and in particular to the charter constituting this University. The Committee deeply honours the unwearied efforts which, in his high position as Chancellor of the University of London, Lord Herschell made to promote the prosperity of that University, and to establish it on a broader basis. In reviewing Lord Herschell's many titles to fame, as a scholar, as a lawyer, as a statesman, and as a man of affairs, the Committee recalls with pride that so illustrious a name has been borne upon the roll of honorary graduates of the University of Wales.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

Health of English Towns.

In thirty-three of the largest English towns, including London, 6,540 births and 4,853 deaths were registered during the week ending Saturday, last, March 11th. The annual rate of mortality in these towns, which had increased from 19.5 to 21.6 per 1,000 in the three preceding weeks, further rose to 22.2 last week. The rates in the several towns ranged from 13.5 in Cardiff, 13.7 in Gateshead, 16.3 in Croydon, and 16.6 in Swansea, to 28.0 in Manchester, 29.7 in Preston, 29.8 in Oldham, and 30.4 in Halifax. In the thirty-two provincial towns the mean death-rate was 22.0 per 1,000, and was slightly below the rate recorded in London, which was 22.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.9 per 1,000; in London the rate was equal to 1.8 per 1,000, while it averaged 1.9 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.3 in Manchester, 3.6 in Salford, 3.8 in West Ham, and 4.1 in Birkenhead. Measles caused a death-rate of 1.9 in Bolton, 2.6 in West Ham, and 2.8 in Manchester; scarlet fever of 1.0 in Derby and 1.2 in Salford; and whooping-cough of 1.3 in Preston, 1.6 in Hull, 2.1 in Plymouth, and 2.7 in Birkenhead. The mortality last week from "fever" showed no marked excess in any of the large towns. The 90 deaths from diphtheria in the thirty-three towns included 36 in London, 7 in Sheffield, 5 in Leicester, 5 in Leeds, 4 in Cardiff, 4 in Liverpool, and 3 each in West Ham, Portsmouth, Swansea, and Salford. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and 2 small-pox patients were under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 11th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,575 and 2,584 at the end of the two preceding weeks, had declined to 2,540 on Saturday last, the 11th inst.: 217 new cases were admitted during last week, against 202, 241, and 236 in the three preceding weeks.

Health of Scotch Towns.

During the week ending Saturday last, March 11th, 938 births and 697 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 24.1 and 25.1 per 1,000 in the two preceding weeks, declined to 22.8 last week, but slightly exceeded the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 10.2 in Perth and 16.9 in Dundee to 25.5 in Leith and 28.4 in Aberdeen. The zymotic death-rate in these towns averaged 2.2 per 1,000, the highest rates being recorded in Aberdeen and Leith. The 331 deaths registered in Glasgow included 2 from measles, 2 from scarlet fever, 11 from whooping-cough, and 3 from "fever." Eight fatal cases of whooping-cough were recorded in Edinburgh and 7 in Leith; and 7 deaths from measles occurred in Aberdeen.

Heavy Death-Rate from Whooping-Cough in Edinburgh.

At the last meeting of the Edinburgh Town Council, Baillie Pollard said the total fever mortality since the year began was 138, and he wished to add the melancholy fact that 78 of these deaths were due to whooping-cough. From the information he had he was sorry to say that this appalling mortality among children was due to a very large extent to the neglect and ignorance on the part of the parents and guardians of little children. These seemed to act as if whooping-cough were a disease that children must take, and when it got into a family one found that children were wilfully exposed to infection in order that they might take it and get through with it.

Superannuation.

Sapoo writes: Previous to my appointment as District Medical Officer in this Union I served four years in another and signed "under superannuation scheme." I informed the clerk of these guardians of the fact, but in the three quarterly cheques received there has been no deduction, though I have drawn his attention to the matter. Should I take further steps or am I quite safe?

*** When "Sapoo" says he "signed under the superannuation scheme" we assume that he accepted the provisions of the Act of 1896 and that he did not contract himself out of it. Unless he has contracted out we apprehend that he is entitled to all its benefits whether the proper deductions from salary have been made or not. If there has been any error in not making the deductions the overplus will have to be repaid to the guardians. The clerk appears to have made an oversight.

MEDICAL NEWS.

We learn from a paragraph in the *Times* that the visiting staff of the Dreadnought Seamen's Hospital, Greenwich—Drs. Curnow and Anderson, and Mr. G. R. Turner and Mr. Donald Gunn—have resigned their appointments at the hospital.

The Treasurer of St. Thomas's Hospital has received an anonymous donation of £1,000 for the endowment of a bed called the "Tom Hughes bed," in memory of Mr. Thomas Hughes, Q.C.

Presentation.—Dr. Francis C. Bryan, upon leaving Littlehampton to practise in London, has been presented by his friends and patients with a silver bowl and an address on vellum.

The annual meeting of the Asylum Workers' Association will be held at the house of the Medical Society of London (11, Chandos Street, Cavendish Square) on Monday, March 27th, at 3.30 P.M. The chair will be taken by Sir James Crichton Browne, M.D., F.R.S.

A course of lectures on diseases of tropical climates will be delivered by Dr. Manson, the Lecturer on Tropical Medicine to the School, at St. George's Hospital on Tuesday, May 15th, and every succeeding Friday and Tuesday, terminating on July 18th. The lectures will be given at 5 P.M. on each day, and the course is intended for medical men purposing to practise in the Tropics or Eastern Asia. It will be illustrated as far as possible by clinical cases and by demonstrations of parasitic organisms. The fee for the course will be 3 guineas. Further particulars can be obtained on application to the Dean of the Medical School, St. George's Hospital.

AUSTRIAN BALNEOLOGICAL CONGRESS.—The Austrian Balneological Congress will hold its first meeting in Vienna on March 28th, 29th, and 30th. Among the communications promised are the Influence of Baths, Hydropathy, and Climatotherapy on the Circulation and the Blood, by Professors Kisch and Glax; the Dangers of Infection in Health Resorts and Regulations for their Prevention, by Dr. C. Ullmann; Hydrotherapy and Climatology in Hungary, by Dr. Kuthy of Buda Pesth.

THE DROUGHT OF 1897-98.—In a paper read before the Royal Meteorological Society, at its meeting on March 15th, Mr. F. J. Brodie stated that an examination of the rainfall statistics for the British Isles for the eighteen months April, 1897, to September, 1898, showed that the rainfall over the eastern, midland, and southern counties amounted to less than 80 per cent. of the average, and in the south-eastern counties to less than 60 per cent., the smallest proportion of all being 51 per cent. in London. From an examination of the Greenwich rainfall records since 1841 it appeared evident that for length and severity combined the recent spell of dry weather was the most remarkable experienced there during that period. The effects of the extremely dry weather of 1897-98 were rendered the more marked owing to the circumstance that for several years there had existed over England, and especially over the central and southern parts, a remarkable tendency towards dry weather.

PROPOSED EPILEPTIC COLONY IN CHESHIRE.—As we have already announced, the first step has been taken towards the establishment in Cheshire of a village colony for epileptics. A committee has been collecting funds in Manchester with this object for some time past, and have obtained from the David Lewis trustees a grant of £50,000. An estate of 450 acres at Sandlebridge, near Knutsford, has been purchased for the purposes of the colony. The establishment will consist of villas, gardens, and farm buildings, grouped round the Social Hall and central administrative buildings; and picturesqueness is to be made a feature of the scheme, so that the colony will have the appearance of a real village rather than that of a scattered and straggling institution. Remembering what is being done by the Poor-law authorities of Manchester and Chorlton for pauper epileptics, we may congratulate Manchester on its benevolent enterprise in dealing with this afflicted class, whatever their social position, and wish success to the committee in obtaining the further funds to carry out the scheme in its entirety.

THE MEDICAL PROFESSION AND TEMPERANCE.—In all the stages of the modern temperance movement members of the profession of medicine have taken a conspicuous part. Yet, till comparatively recently, temperance societies have done little to enlist the educational services of medical practitioners. Among the earliest temperance associations which systematically evoked skilled medical advocacy of temperance was the National Temperance League, which for a long series of years has invited to a breakfast the members of the British Medical Association present at the annual meetings. Following up this excellent work the League last year arranged for a series of lectures in London by Professor Sims Woodhead, Dr. Gilbart Smith, Mr. Pearce Gould, and Dr. Norman Kerr. The influence of these lectures was so marked that a second series has been given at Liverpool, among the lecturers having been Professor Wm. Carter, Dr. Francis Vacher, and Dr. Kelynack. This is a line of educational work which cannot fail to have a great influence for good.

THE CREMATION SOCIETY OF ENGLAND.—Sir Henry Thompson, the President, took the chair at the annual meeting of the Cremation Society of England, which was held at Grosvenor House on March 15th. The report stated that 240 cremations had taken place at Woking during the past year, which was an increase of 67, or 40 per cent., over the previous year. At Manchester 62 bodies were cremated, at Glasgow 12, and at Liverpool, where a branch of the Society had been formed, 27. Sir Henry Thompson gave an address in which he traced the history of the Society during the twenty-five years of its existence, and with regard to the future said that the reform of the system of registration of death was the most important point of their policy. They also desired to construct a completely equipped crematorium in the near neighbourhood of London, and to induce the Local Government Board to consider whether cremation should not be imperative in all cases of death by contagious disease. Sir Henry Thompson stated that he had resolved to delegate the duty of personally investigating the information supplied in the case of every applicant to Mr. H. T. Herring, and that Dr. Sidney Martin would act as consulting officer. Sir Charles Cameron, in seconding the adoption of the report, congratulated the Society on the fact that the Home Office were recommending that clauses giving power to erect crematoria should be inserted in municipal Bills. The re-election of Sir Henry Thompson as President was proposed by the Duke of Westminster, seconded by Dr. Farquharson, M.P., and carried unanimously. A vote of thanks to the Duke of Westminster for his kindness in permitting the meeting to be held at Grosvenor House, moved by Sir Arthur Arnold, brought the proceedings to a close.

RANAGHAT MEDICAL MISSION.—In a corner of what are known as the Lower Provinces of Bengal, at a town called Ranaghat, situate about forty-five miles from Calcutta, a medical mission has been at work since 1894 which appears to be unique in many of its features. Unconnected with any of the great missionary societies, its establishment and continued progress are due to the energy and faith, as well as very largely to the pecuniary support, of a single family—that of Mr. James Monro, C.B., who will be remembered in London as having filled for a few years the office of Commissioner of the Metropolitan Police. Having previously served for more than a quarter of a century in the Bengal Civil Service, and had charge of the district in which Ranaghat is situated, both he and Mrs. Monro had become impressed with the need for medical mission work amongst the millions of Bengal natives, and knowing the district around Ranaghat well, they determined, with the assistance of their two sons, one of whom is M.B.&B.C.Camb., and the other a B.A.Camb., and their two daughters, one of whom is L.R.C.P.&S.Edin., and the other a trained nurse, to commence operations there in 1894. Since that time the attendances at their dispensaries have exceeded 190,000, of whom 80,000 have been new patients. They have been joined in their work by other qualified practitioners, both male and female, and by additional trained nurses, so that the European staff of the mission now numbers fifteen persons, and there are in addition native dispensers, male and female nurses, and hospital servants. From the fifth annual report we find that there have been 94 major and 682 minor operations performed during the year 1898; that there is a small hospital for men, and one for women; and that the estimated expense of the dispensaries alone for the current year is £1,400, most of which comes out of the pockets of the mission staff. During the year Dr. Charles Monro and his wife were invalided for some months in consequence of overwork, and had to seek rest and change in Europe; and the director in his report makes a strong appeal to friends at home to relieve the strain upon the medical staff by sending out two more qualified practitioners, one of each sex, to assist in the daily increasing work of the mission.

MEDICAL VACANCIES.

The following vacancies are announced:—

BELGRAVE HOSPITAL FOR CHILDREN.—House-Surgeon. Appointment for six months. Board and residence, provided, and allowance of £5. Applications to the Secretary, 77 and 79, Gloucester Street, S.W., by March 29th.

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum, with board and lodging. Further sum of £20 to £25 per annum is usually obtained in fees. Applications to the Chairman of the Weekly Board by March 21st.

BIRMINGHAM: GENERAL HOSPITAL.—Two Assistant House-Physicians. Appointments for six months. Residence, board, and lodging provided. Applications to the House Governor by April 1st.

BIRMINGHAM: PARISH OF.—District Medical Officer.—Salary, £400 per annum, and allowance of £50 a year towards the hire or keep of vehicle. Applications on forms provided to the Clerk, Parish Offices, Edmund Street, Birmingham, by March 25th.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence £50 per annum, with board, lodging, washing, etc. Applications to the Secretary, 15, Richmond Terrace, Blackburn, by March 25th.

BRACEBRIDGE ASYLUM, Lincolnshire.—Senior Assistant Medical Officer, unmarried, and not over 30 years of age. Salary £50 per annum, with furnished apartments, board, attendance, and washing. Applications to Mr. W. T. Page, jun., Clerk to the Visitors, Bank Street, Lincoln, by April 3rd.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Fourth Resident Medical Officer, unmarried and under 30 years of age. Salary, £30 per annum, with board, washing, and residence. Applications to the Secretary by March 29th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Board, residence, etc., provided. Applications to the Secretary by April 10th.

CHARING CROSS HOSPITAL, W.C.—Resident Medical Officer. Salary, £100 per annum, with board and residence. Applications to the Secretary by March 27th.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon. Salary, £80 per annum, with residence and maintenance. Applications to the Chairman of the Board of Management, 29, Eastgate Row North, by March 23rd.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House-Surgeon; unmarried. Salary, £100 per annum, with furnished rooms and attendance. Applications to the Secretary by March 29th.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by March 20th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Anæsthetist. Applications to the Secretary by March 20th.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL, Leicester Square.—Demonstrator in Dental Histology, Honorarium of £25 a year. Applications to the Dean by March 21st.

DERBY COUNTY ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, rising to £120, with board, lodging, and washing. Applications to Mr. B. Scott Currey, St. Michael's Churchyard, Derby, by March 22nd.

EDINBURGH UNIVERSITY.—Professor of Physiology. Applications to R. Herbert Johnston, W.S., Secretary, 66, Frederick Street, Edinburgh, by May 20th.

GLASGOW EYE INFIRMARY.—Resident Assistant House-Surgeon. Salary, £50, with apartments and board. Applications to the Secretary, 88, West Regent Street, Glasgow, by March 28th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GREAT NORTHERN HOSPITAL.—Surgeon to In-patients; must be F.R.C.S. Junior House-Surgeon. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Also Assistant Anæsthetist. Appointment for six months, but eligible for re-election. Honorarium at the rate of 10 guineas per annum. Applications to the Secretary for the first by March 15th and for the latter two by March 20th.

HOLBEACH UNION.—District Medical Officer and Public Vaccinator. Salary, £50, and usual fees. Applications to the Clerk to the Guardians by April 5th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Assistant Physician and Resident House-Physicians. Applications to the Secretary, for the former by March 22nd, and for the latter by March 20th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium £42 for twelve months, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by March 20th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months. Salary, £25, with board and lodging. Applications to the Honorary Secretary by March 31st.

LIVERPOOL NORTHERN HOSPITAL.—Resident House-Surgeon's Assistant. Appointment for six months, subject to re-election. No salary. Board and lodging provided. Applications to the Chairman by November 24th.

MANCHESTER ROYAL INFIRMARY.—Clinical Assistant at the Barnes Convalescent Hospital, Cheadle. Appointment for six months. Board and lodging provided. Applications to the Chairman of the Medical Board, Royal Infirmary, Manchester.

MONMOUTHSHIRE ASYLUM.—Third Assistant Medical Officer: under 30 years of age. Salary, £100 per annum, increasing to £150, with board, lodging, and washing. Applications to the Medical Superintendent, Abergavenny, by March 23rd.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Junior Non-resident Medical Officer. Appointment for six months. Honorarium at the rate of £45 per annum. Applications to the Secretary, 41, Fitzroy Square, W., by April 6th.

NORTH ORMESBY, MIDDLESBROUGH: THE HOSPITAL.—House-Surgeon. Non-resident; unmarried. Salary, £20 per annum. Applications to the Secretary by March 21st.

NORWICH, HEIGHAM HALL ASYLUM.—Assistant Medical Officer. Applications to the Medical Superintendent.

ROXBURGH DISTRICT ASYLUM, Melrose, N.B.—Assistant Medical Officer. Salary, £100 per annum, with furnished quarters, board, washing, and attendance. Applications to the Medical Superintendent.

ROYAL PIMLICO DISPENSARY.—Attending Medical Officer: must reside in the district. Applications to the Secretary, 104, Buckingham Palace Road, by April 3rd.

ST. JOHN'S WOOD AND PORTLAND TOWN PROVIDENT DISPENSARY, N.W.—Third Medical Officer. Applications to the Secretary, 1, Henstridge Villas, St. John's Wood, by March 24th.

ST. LEONARD, SHOREDITCH.—Second Assistant Medical Officer for the Infirmary. Appointment for six months. Salary at the rate of £70 per annum, with rations, washing, and furnished apartments. Applications on forms provided to the Clerk to the Guardians, 213, Kingsland Road, N.E., by March 27th.

ST. MARY, ISLINGTON.—District Medical Officer. Salary, £100 per annum, with usual extra fees; also Medical Officer for the School, Hornsey Road. Salary, £100 per annum. Applications, on forms provided, to the Clerk, Guardians' Offices, St. John's Road, Upper Holloway, N., by March 22nd.

MARYLEBONE INFIRMARY, W.—Clinical Assistant. Appointment for six months, Salary at the rate of £42 per annum. Personal applications to the Medical Superintendent at the Infirmary, Ladbroke Grove Road, W., any morning before March 21st.

SEAMEN'S HOSPITAL SOCIETY (DREADNOUGHT), S.E.—House-Surgeon for the Branch Hospital, Royal Victoria and Albert Docks. Salary, £50 per annum, with board and residence. Applications to the Secretary by March 20th.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to the Medical Staff of the Royal Infirmary, Sheffield, care of the Secretary, by March 22nd.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House-Surgeon. Appointment for six months. Gratuity £10. Applications to the Secretary by March 23rd.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £50 per annum, with board, apartments, washing, and attendance. Applications to the Secretary by March 21st.

TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided, and honorarium of 10 guineas. Applications endorsed "Assistant House-Surgeon" to the Honorary Secretary, Bank Buildings, Taunton.

TOTTENHAM HOSPITAL.—Resident Medical Officer. Salary, £60 per annum, with board, lodging, and washing. Applications to the Honorary Secretary.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Applications to the Secretary-Superintendent by March 22nd.

MEDICAL APPOINTMENTS.

ANDERSON, James, M.A., M.B., C.M.Edin., B.Hy.Dunelm, appointed Medical Officer and Public Vaccinator for the Seaton Delaval District of the Tynemouth Union, *vice* Robert Anderson, M.D.Edin., L.R.C.S.Eng., resigned.

ANDREWS, R. J., M.R.C.S.Eng., appointed Medical Officer of Health to the Heavitree Urban District Council.

BELLAMY, John H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Junior Assistant Medical Officer to the Union Infirmary, Fir Vale, Sheffield.

CAVE, E. J., M.D.Lond., appointed Honorary Physician to the Royal United Hospital, Bath, *vice* A. E. W. Fox, M.B., F.R.C.P.Edin., resigned.

DAY, F. H., M.B., Ch.B.Vict., appointed House-Surgeon to the Coventry and Warwickshire Hospital, *vice* H. Bankes Price, B.A.Oxf., M.R.C.S.Eng.

DUNN, W., M.B., C.M.Aberd., appointed Medical Officer for the Mildenhall District of the Mildenhall Union.

HEATH, A., M.B., appointed Medical Officer for the Fifth District of the Aylsham Union.

HOWELL, R. Edw., M.B., C.M.Edin., M.R.C.S.Eng., etc., appointed Honorary Surgeon to the North Ormesby Hospital, Middlesbrough-on-Tees.

MILLER, James, M.B., C.M.Aberd., appointed Medical Officer and Public Vaccinator for the Seghill District of the Tynemouth Union, *vice* Robert Anderson, M.D., resigned.

PAETRIDGE, Thomas, M.R.C.P.I., M.R.C.S.Eng., reappointed Medical Officer of Health for the Stroud Urban and Rural Districts.

RUTTER, F. B., M.D.Durh., B.S., F.R.C.S., appointed Medical Officer for the Workhouse and the No. 1 District of the Mere Union.

WALSH, Leslie H., M.B.Durh., appointed Honorary Assistant Physician to the Royal United Hospital, Bath, *vice* E. J. Cave, M.D.Lond.

WOODROOFE, R. P., L.R.C.S.I., L.A.H.Dub., appointed Medical Officer of Health to the Eccleshill Urban District Council.

WYLIE, D. S., M.B., Ch.B., appointed Junior Resident Medical Officer to the Manchester Children's Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture IV.)

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Harry Campbell: Disorders attended by Loss of Consciousness.

Chelsea Clinical Society, Parish Hall, Pavilion Road, Sloane Square, S.W., 8.30 P.M.—Dr. Penny: Adjourned discussion on paper read last meeting (Radical Cure of Hydrocele). Dr. Abrahams: Modern Views in Neurology. Dr. T. Vincent Dickinson: Remarks on Two Cases of Enteric Fever complicated by Rigors and Exacerbations of High Temperature. Dr. Nitch-Smith: The Use of Baths in Skin Diseases.

Royal College of Physicians of London, 5 P.M.—Dr. Samuel Gee: On the Nature of Pulmonary Emphysema (Lumleian Lecture II).

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Dr. W. P. Herringham: An account of Experiments upon the Toxicity of the Urine in search of the Cause of Uræmia (Illustrated). Dr. Radcliffe Crocker: Tumours from the Forehead. Dr. F. P. Weber: Diffuse Syphilitic Change in the Liver. Dr. Russell and Mr. Buzzard: Paramœcium Cysts in Human Liver. Dr. Norman Dalton: Two cases of Destruction of the Recurrent Laryngeal Nerve. Dr. Campbell Thomson: Melanotic Sarcoma. Card Specimens:—Dr. F. P. Weber: Lipoma of Kidney.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Risien Russell: Cerebral Tumours (Lantern Demonstration).

WEDNESDAY.

Hunterian Society, 8.30 P.M.—Mr. A. H. Tubby: Some cases illustrating the Surgery of the Stomach. Dr. R. Fortescue Fox: On some unusual Nervous Symptoms.

Evelina Hospital, S.E., 4.30 P.M.—Clinical Demonstration on Diseases of the Teeth in Children.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture V.)

THURSDAY.

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr. Morgan Dockrell: Cases of Rodent Ulcer and other Malignant Diseases of the Skin.

British Balneological and Climatological Society, 20, Hanover Square, W., 8.30 P.M.—Continuation of discussion on the Therapeutics of Heat, in which Dr. Ward Humphreys, Dr. Knowsley Sibley, Dr. Bain (Harrogate), Dr. Harry Campbell, Dr. Pelkin, Dr. Alexander Haig, Dr. Smith (Harrogate), Dr. Bowen Davies (Llandrindod Wells), the President, and others will take part.

Royal College of Physicians of London, 5 P.M.—Dr. Samuel Gee: On the Nature of Asthma. (Lumleian Lecture III.)

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

British Gynæcological Society, 8.30 P.M.—Specimens will be shown by Mr. Jessett, Dr. Bantock, Dr. Lawrie, Mr. Ryall, Dr. R. T. Smith, and Dr. Oliver. Paper by Dr. James Oliver: Adenoma Universale of the Endometrium, infiltrating the Myometrium, in a Virgin.

FRIDAY.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture VI.)

Clinical Society of London, 8.30 P.M.—The President (Mr. J. Langton): A case of Aneurysm of the Abdominal Aorta successfully treated by the Introduction of Silver Wire into the Sac. Mr. Rutherford Morison: Patients showing results of Stomach Surgery, with description of the Operations performed. Dr. Radcliffe Crocker: A case of Lymphangioma Tuberosum Multiplex. Mr. W. G. Spencer: Wound of a large Superficial Artery in which the Blood was flowing from the Trunk to the Thigh.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

ARMIT.—On March 11th, at the Lawn, St. Austell, the wife of H. W. Armit, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

BENTLEY.—On February 25th, at Royton, the wife of W. L. Bentley, L.S.A., of a son.

COX.—On March 6th, at 58, High Street, Watford, the wife of Alfred E. Cox, M.R.C.S., L.R.C.P., of a son.

GOOD.—At Devon House, Prospect, Adelaide, South Australia, on February 6th, 1899, the wife of J. Ernest Good, M.B. (née Williams, of "Donhead," Wallington, Surrey) of twin daughters.

MARRIAGES.

BROWN—POPE.—On March 9th, at St. Margaret's, Westminster, by the Rev. William Springett, D.D., Henry Reynolds Brown, M.B., C.M., of Maldon, Essex, to Helen Evelyn Pope, of Latchingdon Rectory, Essex.

PAPILLON—PATON.—On February 14th, at St. Margaret's Church, Westminster, by the Rev. W. L. Paige Cox, Vicar of Rockferry and Rural Dean of Birkenhead, assisted by the Rev. Lennox Tindall, Vicar of Ore, Hastings, brother-in-law of the bridegroom, Godfrey Keppel Papillon, of the Manor House, Kingscliffe, Northamptonshire, son of Philip O. Papillon, J.P. and D.L. of Crowhurst Park, Sussex, and Loxden Manor, Essex, to Jessie Winifred, only daughter of J. Wilson Paton, M.D., Rockferry, Cheshire.

RODD—HARDY.—On March 7th, at St. Matthew's, Nottingham, by the Venerable Archdeacon Richardson, assisted by the Rev. Canon Ferris, Surgeon Montague Louis Bouchier Rodd, R.N., H.M. Dockyard, Devonport, son of the late R. Rohinson Rodd, of East Stonehouse, Devon, to Flora Louise, daughter of the late John Hardy, of Colwick, Nottingham.

DEATHS.

DAMBRILL-DAVIES.—On February 26th, at his residence, Stonycroft Grange, Alderley Edge, W. R. Dambrill-Davies, Esq., M.R.C.S., Lieutenant-Colonel Volunteer and Army Medical Reserve.

HOWE.—On March 10th, at Bank House, Croston, Preston, Douglas Redfern, fourth and youngest son of Joseph Duncan Howe, aged 8 months.

KNIGHT.—At Rotherham, on March 12th, suddenly, Henry John, youngest son of the late Rev. Jas. Knight, M.A., late Rector of St. Paul's, Sheffield, aged 62 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily 2. *Operations.* Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M., Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M. W. Th. F., 2.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2. Surgical, daily, 1.30. Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 1.30; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; Ophthalmic, M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendance.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, 1.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9. Obstetric, W., 2; Eye, W., 2; Throat and Ear, Tu., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30. Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Th. F., 9. Skin, Tu., 1; Tu., 9.30; Dental, M. F., 9.30; W., 2. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W., 9.30. *Operations.*—Th. F., 2.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10. Obstetric, W., 2; Eye, W., 2; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 2; Tu. F., 9.30 and 7.30. *Operations.*—Daily, 2.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2. Obstetric, W., 2; o.p., M., 9; W., 1.30; Eye, Tu. F., 9. Ear and Throat, Th. F., 9. Skin, Tu., 1; Tu., 9.30; Dental, M. F., 9.30; W., 2. *Operations.*—Daily, 1.30.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 1.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—W., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, etc., M. W. F., 2; o.p., W. S., 1.30; Eye, M. Tu. W. Th. S., 9; Ear, M. Tu. W. Th. F., 9; Throat, M. Th., 2.30; Dental, Tu. F., 9; Orthopædic, M., 2.30; Dermatological, Th. F., 9. *Operations.*—M., 2; Tu., 1.30; W., 2; Th., 1.30; F., 2; S., 10.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily, exc. S., 1.30; o.p., 12; Obstetric, i.p., Tu. F., 1.45; o.p., M., Tu., 2.30); Eye, W. S., 1.30; Ear, Tu., Th., S., 1.30; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 2.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.30; o.p., 12; Eye, Obstetric, Tu., F., 1.30; o.p., M., Tu., F., 1.30; Ear, W., 1.30; Throat, Th., 1.30; Skin, S., 1.30; Dental, Th., 9; Electrotherapeutics, o.p., Tu., F., 2. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 1.30; S., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2.30; S., 2. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30. Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Th., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electrotherapeutics, o.p., Th., 2. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic, Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. W., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M., F., 1.30; Eye, M. W., 1.30; Ear, M. Th. S., 2; Throat, M., 2.30; Dental, Tu. F., 1.30. *Operations.*—M. W. F., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., S., 2; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Fo. Throat, W., 2; Dental, W. S., 9.30. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

SAPOO asks for advice in the treatment of dandruff in a healthy young woman, aged 23.

M.D. desires information as to the occurrence of desquamation after diphtheria.

M.B. asks whether puerperal eclampsia is as frequent in the purely vegetarian races as it is in the British Isles.

C. A. L. asks what the climate of Capri is like in July, August, September, and October. Could an Englishman live there during these months, and are mosquitos or other insects troublesome during this time?

ASTRINGENT INJECTIONS IN CHRONIC DYSENTERY.

INDIAN wishes to know how long he should continue the following injection for chronic dysentery: Glyc. acid. tannici, 5ss, to aq. Oij every other day. He has used it for three weeks with great benefit. Should the intervals be gradually lengthened?

THE D.P.H. EXAMINATION.

M.B.F. asks for an elementary work on meteorology and one on geology suitable to read for the D.P.H. examination.

*** It is not absolutely necessary to read any special work upon meteorology or geology for a diploma in public health as the standard works on public health deal with these subjects in their relation to public health. If, however, our correspondent wishes to consult special works he is recommended the following: *Meteorology*, by J. W. Moore (Rebman Publishing Company Limited); *Geology*, by Archibald Geikie (Macmillan and Co).

MEDICAL ADVERTISING.

S.S.M.S.—Our correspondent asks a series of questions respecting the conduct to be observed towards a medical practitioner who, ten years ago, on coming to the town in which he at present practises, advertised himself in the local newspapers, and still keeps two boards projecting out into the street announcing his hours of consultation, and especially that he gives advice and treatment in diseases of the eye.

*** 1. We cannot attempt to forecast the view the General Medical Council would take of this practitioner's conduct.

2. We think that a complaint should not be mainly based upon an offence committed ten years ago.

3. The notice board undoubtedly constitutes an advertisement, but so, for the matter of that, do brass plates, and it is for the General Medical Council to decide where the line should be drawn.

4 and 5. There seems to be great difference of opinion as to the circumstances which justify refusal to meet a duly-qualified practitioner in consultation. Some would make this the penalty for every breach of professional good manners, while others would meet anyone possessing a legal qualification. Some think that homœopaths should not be met in consultation, but the College of Physicians when appealed to lately refused to lay down such a rule. We think this particular case should be referred to the Council of the local Branch or to its Ethical Committee if one exists. Such a body would be fully informed of all the facts, and be in a position to decide in accordance with the local professional opinion needed to enforce the decision.

6. The lapse of time must undoubtedly go far to diminish the importance of the earlier offence.

7. If the practitioner avowed his regret for the past, his willingness to remove all present causes of offence, and would promise to abstain from similar actions in future, his colleagues would probably overlook the past.

ANSWERS.

JUVENIS.—A reply to a similar query will be found in the BRITISH MEDICAL JOURNAL of April 16th, 1898, p. 1055.

DR. T. PRICHARD ROBERTS of Stanleigh, St. Albans, writes to say that he will be glad to give particulars to any medical man who is thinking of using a motor tricycle for his country rounds.

A. D. P. D.—We know of no "recognised ethical rules" on the subject in question. Different medical men hold widely different views as to what should be advised in the cases mentioned; but we think all would agree that medical men should not supply the articles about which our correspondent inquires.

ALPHA.—Marion Sims, in his *Clinical Notes on Uterine Surgery* (New York, 1884, p. 394 *et seq.*) states that he made a series of experiments in artificial impregnation, and in one case "actually saw conception follow." He gives a detailed account of the procedure, with figures of the syringe used in the operation. References to several other cases are given by Gould and Pyle in *Anomalies and Curiosities of Medicine*, London, 1897, p. 43 *et seq.*

L.D.S.—The dentist who does not hold a full medical qualification should confine himself strictly to the treatment of diseased conditions of the teeth themselves, and to the direct consequences of their diseased condition, so long as these consequences are of a dental nature. When

extensive mischief does occur, the dentist who holds a full medical qualification will certainly, in justice to his patient, seek the advice of those to whom the treatment of such conditions is an everyday matter; and *a fortiori* the L.D.S. would be very wrong in undertaking the treatment, though, for the security of his patients, it is essential that he should be acquainted with possible contingencies, in order to be upon his guard against them, and in order to recognise the first signs of their occurrence.

C. D.—The proportion of medical men to population in Germany is, according to the *Reichsmedicinal-Kalender*, 4.93 per 10,000 for the whole empire. Taking Prussia alone it is 4.85, while in Bavaria it is 4.82, in Saxony 5.13, in Wurtemberg 4.09, in Baden 5.80, in Hesse 6.27, in Mecklenburg-Schwerin 4.62, in Alsace-Lorraine 4.67, in Hamburg 7.98, in Bremen 7.18, and in Lübeck 7.92. In Austria the proportion varies in the different cities and provinces. In Vienna there is 1 doctor to 691, in Baden 1 to 1,956, in Linz 1 to 1,070, in Salzburg 1 to 859, in Graz 1 to 604, in Klagenfurt 1 in 737, in Laibach 1 in 1,349, in Trieste 1 in 1,364, in Innsbruck 1 in 328, in Prague 1 in 452, in Brunn 1 in 832, in Troppau 1 in 1,024, in Lemberg 1 in 859, in Cracow 1 in 395, in Czernowitz 1 in 1,444. In Lower Austria the proportion is 1 in 1,129, in Upper Austria 1 in 4,000, in Krain 1 in 8,564, in Galicia 1 in 6,792, in the Bukowina 1 in 6,990. For the whole of France the proportion of doctors to population is 3.48 per 10,000. In the departments the proportion varies from 7.9 in that of the Seine to 1.4 in that of Morbihan. In Italy as a whole the proportion of doctors to population is 1 in 1,400; in Rome it is 1 in 500.

Prison Medical Service.

D. McC.—Application for appointments in the above should be made to Major E. G. Clayton, Secretary to the Prison Commission, Home Office, London, S.W. (*vide* Educational Number, August 27th, 1898, p. 568).

Sanatoria for the Open-air Treatment of Phthisis.

J.M.—Some particulars of these will be found in the British Medical Journal of September 3rd, 1898, p. 667; October 29th, 1898, p. 1383; November 19th, 1898, p, 1599; and January 28th, 1899, p. 247.

Chilblains.

L. M. D. writes that the correct prescription recommended by him for treatment of unbroken chilblains is as follows: R Linimenti aconiti 3iss; linimenti belladonnæ 3iss; tincturæ opii 3iij; olei amygdalæ amaræ, mv, vel olei lavandulæ mx; linimenti saponis ad 3ij. Misce. fiat linimentum de quo 3ss ad 5j ad partem dolorosam applicetur, nocte maneque.

Treatment of Lachrymal Obstruction.

F.R.C.S. writes: "M.B.," in the British Medical Journal of March 11th, asks for suggestions as to the treatment of a refractory case of lachrymal obstruction. In my experience such cases, like those of Eustachian and tympanic catarrh, originate in nasal disease, inflammatory and obstructive. This should be looked for, and, if found, be suitably treated. M.B. does not state whether his patient is wearing a style; without one he is not likely to be cured. Irrigation of the tear duct with boric acid solution, and of the nose with weak borax solution would probably be required. If there be rhinitis without nasal obstruction, an oil spray of ichthyol in sweet almond oil—a drachm to the ounce—might prove very useful.

Anæsthetist's Fees.

Anæsthetist.—It is usual for the practitioner who arranges for the operation to request the patient's friends to have a cheque ready for the anæsthetist at the time of the operation. When the surgeon makes the arrangement with the anæsthetist he usually obtains the anæsthetist's fee, but in some cases includes it in his own charges and pays when he is paid. It is usual for whoever selects the anæsthetist to hold himself responsible for his fee. Where the patient has specially engaged the anæsthetist he usually arranges fees directly. We cannot see that any invidious position can arise if the practitioner has told both the patient and the anæsthetist what fee is to be paid and then requests the patient to pay it.

Hospital Floors.

D. P. H. writes: In reply to "Infirmary" (British Medical Journal, March 11th) probably the best thing that can be done with ward floors after they have become worn and rough is to cover them with linoleum. (1) From a sanitary point of view it proves excellent; it is susceptible of a very fair polish with beeswax and turpentine or, if washed, "holds" but little water and soon dries. It is practically non-absorbing. (2) As regards accumulation of dust underneath, it will be necessary to prevent this by securing the linoleum at the sides. If the linoleum is to go right up to the walls, its edge should be glued down and secured by a strip of wood against the skirting and nailed through the linoleum to the floor. It should be remembered, however, that any crevices left, especially in such a situation below the heads of the beds, may harbour vermin. If the linoleum do not go to the wall the edge should be glued down and tacked down with fine small-headed tacks, and then protected by a bevelled slip of wood about ¾ inch in width; oak or other hard wood is best, but soft wood if properly secured lasts a very long time. (3) The length of time linoleum will wear under bedsteads depends, of course, upon the care shown by those who move the bedsteads, upon whether the bedsteads are moved with patients upon them, and upon the castors. Bedsteads for use upon linoleum should have a castor of some sort, preferably a large rubber-tired one; knobs or wooden feet will cut. The plan of having rubber feet at the bedstead foot and large rubber-tired castors at the head is a good one, the bedstead being moved with the foot lifted, which can quite easily be done by one person, even when it is occupied. The thick "cork linoleums," although they tend more effectually and for a longer time to hide the uneven surfaces of old floors, are more absorbent and mark easily, especially if bedsteads with ordinary castors are run over them. Experience leads me to believe that Staines linoleum of the very best quality pays best in the end, the ordinary brown colour should be chosen. Cheaper qualities shrink, and tear away where tacked. I have had good results with linoleum tacked down and protected by having a beading laid against the edge (as described above) but without glue or any such adhesive substance. I am not sure whether ordinary glue is best if any such substance be used. Even if projecting knots cannot be planed down before laying the linoleum—and this is a long and disheartening business, all nail heads should be carefully hammered in. Especial care should be paid to the places where traffic has been and will be most heavy. If "Infirmary," however, has labour at hand, wonderful results in the way of polishing and staining may be got with even moderately worn floors.

NOTES, LETTERS, Etc.

"Psychological Certificates."

A correspondent draws our attention to the following notice, which appears on the card of a nursing institution: "We guarantee that the whole of our staff of mental nurses holds their psychological certificates, being the only one in the kingdom." Our correspondent thinks that this should be commended to the attention of *Punch*. He also asks what a psychological certificate is.

*** We presume that the certificate granted by the Medico-Psychological Association of Great Britain and Ireland is that intended to be indicated.

Lunacy and Borderland Cases.

Dr. G. E. Mould (Finsbury Park, N.) writes: By a stupid slip of the pen I expressed the opinion in my letter in the British Medical Journal of March 11th that any person who from certain causes commits suicide ought to be put in an asylum. May I be allowed to state that I do not want either the bodies of such persons to be buried in our grounds, or to be saddled with the charge of their disembodied and elusive spirits?

Home and Foreign Sanatoria for Consumptives.

M.D. London mentions as an additional reason why home sanatoria for consumptives should be supported by British practitioners that a patient recently under his care appeared to have gained, during a residence in a foreign health resort, the impression that English physicians were incapable of diagnosing diseases of the lungs.

Influenza and Typhoid Fever.

Dr. Reginald F. Yencken (Ivydale Road, S.E.) writes: In reply to Dr. William Dobie's (Keighley) inquiry regarding influenza and typhoid fever, I have had lately three similar cases occurring in children. In one very acute case the onset was typical influenza, temperature 104.2° F. A rose-coloured spot on the abdomen appeared on the third day. The temperature fell on the fourth morning to normal, and rose to 101.4° F. in the evening, and up to 103° F. on the fifth evening; it fell to normal on the sixth morning; on the seventh evening it was 101.6° F., and was 100.0° F. for two following days. It then gradually came down, having a final rise to 100.0 F. on the fifteenth day. There were no special chest symptoms; there was slight diarrhœa for a few days. The tongue did not suggest typhoid fever; the spleen was not enlarged.

Dr. F. Otley Lovell (Adelaide Road, N.W.) writes: In the British Medical Journal of March 11th Dr. William Dobie, of Keighley, asks whether any of your readers have seen cases of influenza combined with typhoid. Recently I attended Mrs. B., aged 34, with influenza, her boy, aged 3½ years, having just died of typhoid and pneumonia at Hampstead Fever Hospital. She was well in about a week: her husband, aged 27, then developed influenza symptoms, with a very troublesome bronchial cough often seen in influenza but not in early typhoid. He also had diarrhœa, to which he said he was subject. In his case I suspected typhoid, and soon other symptoms—tympanites, etc.—made the diagnosis clear, and so he had these two diseases at the same time. In the third week his temperature declined one morning and all seemed favourable, but in a few hours intestinal hæmorrhage set in. With ice by the mouth and externally to the abdomen, brandy, and pil. plumbi c. opio this ceased and he rallied. The temperature again rose, and so remained as pneumonia (left) developed, to which he succumbed. About a week before he died his wife developed typhoid through nursing her husband and was removed to Fulham Hospital.

A Degree for Doubly-qualified Men.

Mr. H. Elliot-Blake, Surgeon and Physician (Sloane Square, S.W.) writes: The portensions and the merits for the diplomate obtaining a doctorate degree I look upon as favourable at present. The object is to heighten the position and tone of the medical profession. It would confirm better and possibly more lengthened medical education. The highest reaches of the profession would not be interfered with, and the practicability pertains in most civilised countries except our own. It has lately been shown that in competitive examination with graduates for the services the diplomate is at the top. Dr Kingston Fowler, in the British Medical Journal of December 18th, 1897, excellently indicated that for the London Conjoint Examination university graduates were inferior to the ordinary average pass standard of the diplomate—as 47.2 to 36 per cent. of failures. The British Medical Journal has often (December 14th, 1895; November 14th, 1896; June 4th, 1898) substantiated the view that licensees in Medicine are not legally annulled from calling themselves "Dr." so as to indicate their profession, and without pretence to M.D. of a particular university. In a discussion about this title in the *Morning Post* of August 23rd, 1895, I upheld this position. I have also written in support of this subject in other journals.

Judges and laymen often fail to toil to comprehend the quibbles of our varied desiguations, and as in other professions we would not spoil for a general standard description. The Hunter case showed that one who had a licence to evidently do what a physician does was not a physician. Now, if the Acts which govern our registration and qualification are to trap us into false positions, it is time to reflect and mark our detestation of this anomalous condition. The Medical Registration Act thus does not serve our purpose, nor indicate our status; it does not fail to chafe our feelings and susceptibilities, and it attacks and weakens our privileges and standing; it amounts to a tyranny which

calls for cancellation and reform. The work that led to concocting the scheme of an examining university for London was a beginning to get more than the mere licence of the colleges, but it can only be truly representative of its name when it supplies London and its students with their wants. The origin and use of the old London and college licences were, of course, to protect or give a close practice to their holders round about London. Now, competition only jeopardises the keen conservative if not idle spirit of not granting distinct degrees on equal grounds to the more favoured degreed men from lesser towns who bid boldly to crowd in on the London diplomates. Advance and progress here sticks in an *impasse*.

In view of what I have written it seems to me the just claim for redress lies in looking to the colleges, or, in default, the ancient Society of Apothecaries, to seek power to confer a doctorate degree upon its diplomates; either by a further examination and charter of their own, or through effective representation in the proposed new University of London, or to vote and actively help in recasting the Registration Acts, so as to introduce a distinct title of "M.D.," or its university level, to all on the *Register*.

OXYGEN INHALATIONS IN THE TREATMENT OF ACUTE AND CHRONIC DISEASES OF THE LUNGS.

MR. GEORGE STOKER (Hertford Street, W.) writes: For years past I have used the method described in the BRITISH MEDICAL JOURNAL, p. 559. I have never experienced the slightest difficulty in regulating the supply; and if Dr. Walker will get the simple apparatus I suggest from Mr. Fellows, 49, Hertford Street, W., I feel sure he will overcome the difficulty he has experienced. As I explained, a very slight pressure on the gas bag is sufficient. I have never known oxygen to cause swelling of the posterior nares.

THE MEDICAL SOCIETY OF LONDON.

IN the report of the anniversary dinner which we gave last week (p. 618) the name of the gentleman who so brilliantly played the finale to the *Rheingold* should have been Dr. Plimmer, the Superintendent of the Bacteriological Department at St. Mary's Hospital Medical School.

ZONA BELOW THE KNEE.

DR. CHAS. J. HILL AITKEN (Bedford) writes: "In the lower limb the distribution of zoster presents this peculiarity, that it is almost invariably confined to the buttock and thigh. Mr. Hutchinson says that it never extends below the knee" (*Fagge's Medicine*, third edition). I saw a patient a little time ago who complained of neuralgic pains in the buttock, thigh, and leg on the left side. On examination I noted tenderness over one or two points in the buttock, over one of the upper sacral spinous processes, and marked tenderness in the muscles of the thigh, especially on the inner side high up. Above the knee in the lower third of the thigh were two patches of herpetic vesicles. Two days later the patient returned. Below the knee, covering the upper third of the leg, were scattered patches of herpetic vesicles. Along the line of the internal saphenous nerve were four patches on the following levels: (1) Middle of tibia; (2) lower third of tibia; (3) in front of inner ankle; and (4) side of foot over tarsal region. Of these patches (1) and (2) showed well-marked vesicles, (3) and (4) never passed the stage of papules. Beyond the fact of position the case presented nothing of interest.

*** We may refer our correspondent to a paper by Dr. R. B. Mahon "On the Occurrence of Zona below the Knee," published in the BRITISH MEDICAL JOURNAL of November 7th, 1896, p. 1379, and to a series of cases recorded in the JOURNAL of January 2nd, 1897, pp. 14-15.

"GREEN STOOLS IN ENTERIC FEVER AND DYSENTERY."

MR. FREDK. W. HIGGINSON, F.R.C.S.I., Superintendent of Gaols, North-West Provinces, India (Retired), writes: With reference to the memorandum of Captain Buchanan, M.B., I.M.S., on the above subject, I may say that I was always inclined to welcome the appearance of "green peasoup" stools when treating cases of acute dysentery with ipecacuanha, as I found that they brought with them great relief and sense of comfort to the patient, and associated them with the action of the drug on the congested portal system.

ALCOHOL AND LONGEVITY.

THE 34th annual report of the Sceptic Life Association shows that the considerably proportionate lower rate of mortality is still kept up among abstainers. The claims by death expected during the past year, as compared with those which actually occurred, in the General Section, a percentage of 88.55; and in the Temperance Section, of 47.87. That this was no unusual experience is seen from the record of the past 15 years. During that longer period the General Expectancy pointed to 1,658 deaths, with 1,332 actual deaths; while the Abstinent Expectancy was 926, with 522 actual deaths, a percentage of 56.37 actual deaths.

THE CHOICE OF AN ANÆSTHETIC.

MR. HERBERT J. PATERSON, F.R.C.S. (London, W.), writes: In the discussion on the choice of an anæsthetic at the Society of Anæsthetists no mention was made of the use of nitrous oxide gas and oxygen in prolonged operations. In the BRITISH MEDICAL JOURNAL of January 22nd, 1898, I ventured to call attention to the suitability of this anæsthetic for many of the operations of major as well as of minor surgery. Since that time I have felt more and more convinced that this mixture ought to, and eventually will, largely supersede the use of ether and in some cases even of chloroform. So far as one can judge at present there seems to be no limit to the time during which anæsthesia may be prolonged by this means, and since writing the article above referred to I have maintained anæsthesia by means of nitrous oxide gas and oxygen for over two hours with highly satisfactory results. From the point of view of the patient this anæsthetic seems to me to be ideal, being apparently, even if prolonged, safer than either chloroform or ether, pleasant to take, not tending to cause shock or collapse, leaving no after-effects whatsoever. It is true that the difficulties of administration are greater than with other anæsthetics, the chief trouble being the uncertainty of ensuring in every case an absolutely quiet anæsthesia; but this, I believe, is a defect which will eventually be removed.

LETTERS, COMMUNICATIONS, ETC., have been received from:
A Mr. J. Anderson, Seaton, Delawal; Anæsthetist; O. J. H. Aitken, M.B., Bedford; A. J. Anderson, M.B., Ashford; A. D. P. D.; A. B. C.; Association of Registered Medical Women, the Secretary of the, London; Messrs. Arnold and Sons, London. **B** Mr. J. H. Bellamy, Sheffield; Mr. A. L. Black, Belfast; B.Sc.; E. C. Baber, M.B., Brighton; Messrs. Burroughs, Wellcome and Co., London; Mr. W. F. Brook, Swansea; Dr. F. Booth, St. Annes-on-the-Sea; Mrs. C. Byrde, Edinburgh; J. W. Batterham, M.B., St. Leonard's-on-Sea; Dr. A. Bronner, Bradford; Mr. J. P. Bush, Clifton; Messrs. Baillière, Tindall, and Cox, London; Dr. F. C. Bryan, London; Mr. T. Benson, Stanley; Mr. M. R. J. Behrendt, Scunthorpe. **C** Professor Corfield, London; Country Practitioner; C. W. Cathcart, M.B., Edinburgh; Cremation Society of England, the Secretary of the, London; Dr. T. B. Costello, Tuam; Mr. H. S. Clement, Glasgow; Mr. R. Cross, London; J. W. Crerar, M.B., Maryport; H. M. Cooper, M.B., Hampton-on-Thames; Mr. S. A. Cood, Luton; Dr. A. Cooper, London; Dr. E. W. W. Carlier, Edinburgh; J. Carroll, M.B., Glasgow. **D** R. Daniel, M.B., Sorrento; D. P. H.; J. H. Drysdale, M.B., London; Dr. A. T. Davies, London; J. Dodd, M.B., Larkhall. **E** J. Edgar, M.B., Glasgow; Mr. F. Elvy, Eastbourne. **F** P. C. Fenwick, M.B., Christchurch, New Zealand; Mr. L. FitzPatrick, Tunbridge Wells; Mr. C. M. Fegen, Croydon; Mr. T. K. Freeman, London; A. M. Fraser, M.B., Southsea; Dr. S. G. Felce, London. **G** Sir J. A. Grant, Ottawa; Messrs. C. Griffin and Co., London; Dr. A. W. George, London; Dr. S. J. Gee, London; General Practitioner; Dr. H. T. Griffiths, London; Dr. A. E. Giles, London. **H** Dr. T. Harris, Manchester; Mr. H. N. Hardy, London; Dr. F. Hinds, Worthing; Dr. F. de H. Hall, London; Mr. R. H. Harland, Falmouth; Mr. W. J. Heslop, Manchester; Dr. S. L. Haynes, Malvern; Mr. W. T. Hayward, Adelaide; Miss K. M. Hunter, London; Dr. A. B. Hill, Birmingham; Mr. A. Hendricks, London; Mr. W. E. Hempson, London; Mr. W. J. H. Haslett, Sunbury-on-Thames; G. Halley, M.B., Dundee; Mr. T. P. Hugill, London; R. E. Howell, M.B., Middlesbrough. **I** Indian. **J** Mr. H. P. Job, Newark-on-Trent; Dr. J. S. Jameson, Manningtree. **K** J. King, M.B., Leigh; L. Knuthsen, M.B. Falmouth. **L** L. D. S.; W. J. Lindsay, M.B., London; J. D. Leigh, M.B., Scarborough; D. Love, M.B., Cumbernauld; Mr. F. O. Lovell, London; Mr. C. A. Lapthorn, Littlehampton; Dr. A. E. Larking, Folkestone; Lieutenant-Colonel R.A.M.C.; Dr. W. T. Law, London. **M** J. Miller, M.B., Seghill; Dr. J. M. Mason, Otaki, New Zealand; Mr. B. F. Meadows, Hastings; Member; Dr. W. Milligan, Manchester; Miss R. E. March, Emsworth; Mr. G. E. Mould, London; M.D.; Dr. G. R. Murray, Newcastle-on-Tyne; R. S. Miller, M.B., Slough; Mr. A. J. S. Maddison, London; Mr. H. W. Manley, London; Mr. S. B. Mason, Pontypool; Dr. J. Matthews, Blundellsands; Dr. H. J. Macevoy, London; Major R.A.M.C.; D. McCall, M.B., Wakefield; M.B.A.; M.B.; Dr. R. L. Meade-King, Taunton. **N** National Deposit Friendly Society, the Secretary of the, London; Dr. J. Norton, London; Mr. H. C. Nance, Norwich; J. H. Nicoll, M.B., Glasgow. **O** Professor A. Ogston, Aberdeen; Dr. I. Owen, London; One Who Knows. **P** C. H. R. Pentreath, M.B., Parkstone; Mr. J. F. Pink, London; Dr. Probyn-Williams, London; Mr. J. C. Prince, London; Mr. L. Pendleton, Brighton; Dr. T. H. F. Pullin, Sidmouth; Mr. F. G. Parsons, London; Mr. R. B. Popham, London; Mr. G. Pernet, London; Public Vaccinator; Miss R. Paget, London; Piscator. **R** Mr. G. Roper, Beccles; Mr. T. P. Roberts, St. Albans; Rural M.O.H.; Mr. H. M. Rainsford, London; Messrs. Reynolds and Branson, Leeds; Dr. R. Row, Bombay; R. C. P. **S** St. George's Hospital, Dean of, London; Dr. L. M. Scott, London; Mr. V. E. Sutcliffe, Chesterfield; Dr. S. Sunderland, London; Dr. C. R. B. Savory, Leeds; Spes; Mr. G. Stoker, London; Mr. P. L. Schiller, London; Mr. M. Scott, London; Sapoo; Mr. J. B. Sutton, London; Dr. S. H. Snell, Grays; S. Y. **T** Mr. W. T. Thomas, Liverpool; Dr. W. B. Thorne, London; T. A. P. **U** Ubiquo. **V** Messrs. Valentine and Schwarz, Leipzig; Mr. C. W. Vickers, Paignton; V. D. **W** Mr. E. W. Wallis, London Dr. W. G. Willoughby, Eastbourne; Mr. S. M. Watt, Bristol; Mr. W. S. Watson, London; Mr. H. S. Walker, Leeds. **Y** Mr. R. F. Yeneken, London; etc.

BOOKS, ETC., RECEIVED.

Etude sur la Localisation des Corps Etrangers au Moyen des Rayons Roentgen contenant l'Exposé d'une Méthode nouvelle. Par Dr. A. Sechehaye. Basle et Geneva: George and Cie. 1899.

Mediterranean Winter Resorts. By E. A. Reynolds-Ball, F.R.G.S. Fourth Edition. London: Kegan Paul, Trench, Trübner and Co. 1899. 6s.

A Textbook of Mental Diseases. By W. Bevan Lewis, L.R.C.P., M.R.C.S. Second Edition. London: Charles Griffin and Co. 1899. 30s.

A Practical Arithmetic. By J. Jackson, F.E.I.S. Fourth Edition. London: Sampson Low, Marston, and Co. 1899. 3s.

The Treatment of Syphilis in the Public Services. By Major F. J. Lambkin, R.A.M.C. London: John Bale, Sons, and Danielsson. 1899. 1s.

Neurypnology, or the Rationale of Nervous Sleep. By J. Braid, M.R.C.S., C.M.W.S. New Edition. By A. E. Waite. London: George Redway. 1899. 10s. 6d.

A Textbook of Obstetrics. By B. C. Hirst, M.D. London: Rebman Publishing Co. 1899. 28s.

The American Yearbook of Medicine and Surgery. Under the General Editorial Charge of G. M. Gould, M.D. London: Rebman Publishing Co. 1899. 38s.

Twentieth Century Practice. Edited by T. L. Stedman, M.D. Vol. XVII. London: Sampson Low, Marston, and Co. 1899. 21s.

Les Régénérations d'Organes. Par Dr. P. Carnot. Paris: J. B. Baillière et Fils. 1899. Fr. 1.50.

Willing's Press Guide, 1899. London: James Willing, jun. 1s.

*** In forwarding books the publishers are requested to state the selling prices.

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OBSERVATIONS
ON
CREMATION
AND
ON DEATH REGISTRATION,

*Being Extracts from a Speech delivered before the General Meeting of the Cremation Society.**

By Sir HENRY THOMPSON, Bart., F.R.C.S.,
Consulting Surgeon to University College Hospital, London; President of the Cremation Society.

Foundation and Early History of the Society.

The Cremation Society of England has now been in existence for twenty-five years, having been formed in March, 1874. I believe I may say it is one of the first societies, if not the first, formed in Europe for the purpose of promoting this mode of disposing of the dead. Modern cremation was actually practised some few years before, chiefly by way of experiment, in Italy, by Gorini, Polli, and Brunetti, the last named showing at the International Exhibition of Vienna in 1873 the entire residue obtained after burning a human body in a simple furnace out of doors. The product consisted of about 5 or 6 lbs. of dry ashes, mostly fragments of calcined bone. It was as a visitor there that I first saw the results of the process, and was much struck with the small weight and bulk as well as with the whiteness and purity of the ashes. The subject had interested me before this date as one which must before long claim attention as a probable resource in an increasing population like ours; and on returning home I made some experiments in London and one in Birmingham in cremating animals—a pig and some sheep—in furnaces of different kinds, obtaining ashes similar to those seen at Vienna. I wrote an article on the subject in the *Contemporary Review* of January 1st, 1874, advocating cremation and seriously urging its superiority on sanitary grounds to any form of burial. It aroused a good deal of attention, both in this country and abroad, and led to much correspondence and discussion, and, indeed, to very strong opposition in certain quarters for the first few years.

A small number of men, distinguished in various ways, but all desiring to consider the subject further, met for the purpose at my house on January 13th. After subsequent meetings we agreed to certain rules, constituting a society with the object of ascertaining whether the practice of cremation was legal in this country, and what was the best method of performing it. This was in March; not, however, until April 29th was the Council formally chosen by a meeting of members called for the purpose.

We first took the opinions of two leading counsel and received from each a statement that cremation was not an illegal act if no nuisance were caused thereby. Early in 1875 the Council subscribed a sufficient sum to purchase a plot of freehold land, in the hope of being able before long to build a crematorium, the estimate for which and other buildings necessary was about £3,500. Soon afterwards we approached the directors of the Great Northern Cemetery, desiring to make terms with them to construct a crematorium there, as being a near and appropriate site. All preliminaries were settled to the satisfaction of both parties, but the bishop within whose jurisdiction the property lay forbade the performance of cremation there.

We at length acquired in the summer of 1876 an acre of freehold land near to the Woking Cemetery. We had originally decided to employ a "Siemens" furnace, as probably the most efficient, but being now compelled to occupy a locality distant from London, the Council decided to forego the use of a costly apparatus requiring skilled management, and to adopt the Gorini system. Accordingly we invited Professor Gorini to visit this country and superintend the erection of the new crematorium. He consented, and the plan was carried out in connection with our secretary, Mr. Eassie, himself a sanitary engineer. It was finished at the further cost of about £600 in March, 1879, and before Professor Gorini left, a horse was perfectly cremated in presence of the Council, without smoke from the chimney or offence of any kind. Meanwhile a considerable portion of all costs thus far incurred had been subscribed, chiefly by the members of the Council and their friends.

About the same time (the spring of 1879) we received an intimation from the Home Office that the process of cremation for human bodies would be prohibited. We asked for an interview (by deputation) of the President and two other members of the Council with the Home Secretary, which was granted; and, on learning his views, we found it necessary to give an assurance that no cremation should take place without leave first obtained from the Minister. The function of the Society was thus for the present limited to the diffusing of information respecting the subject among the general public. In August, 1880, the late Sir Spencer Wells made the subject a prominent one at the annual meeting of the British Medical Association, and a large proportion of the most influential members present signed a strong declaration in its favour to be sent to the Home Office. Several small works were written and circulated, while articles in various journals and lectures throughout the country made the subject popular.

In the year 1882 the Council was requested by the late Captain Hanham, Blandford, Dorset, to cremate two relatives who left him express instructions to do so. The Home Secretary refused leave, and the Society were compelled to decline. Captain Hanham at once built a small furnace on his estate and effected his object successfully. He himself, dying only a year later, was at his wish cremated there also. This, as well as the foregoing proceedings, was carried out under the supervision of Mr. J. C. Swinburne-Hanham, our present able and indefatigable honorary secretary. The Government took no notice.

In 1883 the body of a child was, contrary to the directions of the coroner, cremated in Wales by its father, an act which made him the subject of legal proceedings. The question was finally settled in 1884 by Sir James Stephen's well-known judgment, declaring cremation to be legal if no nuisance was caused thereby to others. Upon this, the Council of our Society declared themselves absolved from their promise to the Home Office, and publicly offered to use their crematorium for those who desired to adopt the method, laying down strict rules for a careful inquiry into the cause of death in the case of every applicant.

In 1884 Sir Charles Cameron, M.P. for Glasgow, brought a Bill into the House of Commons to regulate the procedure of burials as well as of cremation, etc., and was supported by Dr. Farquharson, M.P. for Aberdeen, and by Sir Lyon (afterwards Lord) Playfair—all members of the Council. It was opposed by the Government and also by the leader of the Opposition, notwithstanding which no fewer than 79 members voted for the second reading to 149 against.

In the following year (1885), on March 26th, the first cremation of a human body took place in our building at Woking. The result was completely successful in every detail. Two other cremations took place in this year, making three for the year 1885, the tenth year of the Society's existence.

It was now obviously necessary to provide a place of assembly for mourners and and others, and, if possible, also a chapel of moderate size adapted for the performance of funeral service. Hence in 1888 a special appeal was made to the public, to which the Duke of Westminster and the Duke of Bedford (the ninth Duke) each subscribed 100 guineas. At the same time arrangements were made for erecting, in close proximity to the crematorium, a suitable structure in the style of English Gothic of the thirteenth century. A smaller crematorium was also to be built on the Society's property, connected with the original one and served by the same chimney shaft, for the special use of the Duke of Bedford, at his desire and cost. About £1,500 to £1,600 (including £500 from the distinguished engineer, James Nasmyth) were received in response to the appeal. But this sum was far less than our requirements. At this crisis the Duke of Bedford most generously offered large additional donations as they were required, amounting in all to about £4,000, in order to acquire a portion of adjacent land and to complete the pro-

* A brief report of the meeting was published in the British Medical Journal of March 18th, p. 708.

posed buildings, as well as other structures necessary, in the best manner as regards durability and harmony in style.

The smaller crematorium was used for the first time on January 18th, 1891, on the occasion of the death of our much lamented friend and benefactor; and it now remains in possession of the family for a long term of years to come. I must be permitted to add that the Society, as well as the cause of cremation, owe a debt of gratitude to the Duke of Bedford which can never be forgotten. Indeed, it is impossible to exaggerate the value and importance of his interest in our work, and of his unceasing kindness in promoting it at this early period of its history.

I shall now return to the date of our first cremation in 1885, and record the number cremated for each year to the present time:

Record of Cremations performed at Woking.

Year.	Number of Bodies Burnt.
1885	3
1886	10
1887	13
1888	28
1889	46
1890	54
1891	99
1892	104
1893	101
1894	125
1895	150
1896	137
1897	173
1898	240
Total ...	1,283

Defects in the Present System of Death Registration.

Thus it will be seen that a very gradual progress marked the first seven or eight years following 1885. Moreover, it had become now a settled policy on the part of the Council not to adopt active propagandist methods and thus court opposition, but to allow the subject to become familiar by degrees to the general public. This was desirable for more than one good reason, a very important one at all events—namely, the very defective system existing in this country for ascertaining the fact that death has taken place, as well as its cause in every case, and in the registration thereof. It was then known to many, and has now been declared on the highest authority, that the system adopted at the present day for the entire United Kingdom offers large facilities for the exercise of criminal poisoning. It was the existence of this formidable defect which led to a strong conviction on the part of the Council that their primary duty was to agitate for the reform of this system. Accordingly they agreed about 1891-92 to devote their time and energy henceforth to this task.

On January 6th, 1893, the Secretary of State for the Home Department, Mr. Asquith, received a deputation, introduced by the Duke of Westminster, relative to the appointment of a "Minister of Health," and other subjects. When the subject named was disposed of it was arranged that another—namely, "defects in the present system of death registration," should be introduced by your President. I showed that of the half-million of deaths or more which occur yearly in England and Wales, the Registrar-General himself reported that in no less than 7½ per cent. of this large total the causes were unknown and unrecorded, while in Scotland the defective proportion was much larger. I adduced evidence to show the necessity for ascertaining not only the cause of death in every case if possible, but for doing so while the body was within reach, and before marked putrefactive changes occur: and that investigation was therefore required before burial as well as before cremation. And I contrasted the procedure here with the far more stringent inquiry which, in obedience to this view, had long been adopted in every case in Paris and other large Continental cities. Mr. Asquith fully recognised the importance of the matter, and promised to make inquiries respecting it. Hence during the next session of Parliament he appointed a Select Committee of the House of Commons "to inquire into the sufficiency of the existing law as to the disposal of the dead".....and especially for detecting the causes of death due to poison, violence, and criminal neglect." Sir Walter Foster, of the Local Government Board, was the President. Numerous witnesses of various experience and opinions were examined, and after a prolonged inquiry and careful consideration of the evidence, a full report and conclusions drawn therefrom were unanimously agreed to, and published as a Blue Book in the autumn of 1893.[1] The official report at the outset states that the Committee are much impressed with the serious possibilities implied in a system which permits death and burial to take place without the production of satisfactory evidence of the cause of death," and declares that "the existing procedure plays into the hands of the criminal classes." (Page 10.) Again, in considering cremation they state:

> Your Committee are of opinion that with the precautions adopted in connection with cremation, as carried out by the Cremation Society, there is little probability that cases of crime would escape detection, but inasmuch as these precautions are purely voluntary your Committee consider that in the interests of public safety such regulations should be enforced by law. (Page 22.)

Such is the very remarkable and most complete endorsement which the labours of the Cremation Society have received as the outcome of this judicial inquiry by the Government. Henceforth it can be only a question of time for the realisation of our hopes and justified demands for an efficient inquiry enforced by law in every case of death; and then the general employment of cremation may safely follow.

In August, 1894, I brought the subject of "death registration," together with that of cremation, before the annual meeting of the British Medical Association held that year at Bristol, offering an epitome of the results obtained by the above-named inquiry. After full discussion of the subject, a unanimous vote was given in favour of the suggestions made by the House of Commons Committee, and of the employment of cremation in connection therewith.

On November 14th following it fell to my lot to take part in a second deputation to Mr. Asquith, and to ask that the recommendations of the Committee should be carried out. He stated that the business really belonged to the Department of the Local Government Board, and we learned that it was already dealing with the question in the hope of a satisfactory solution. There is little doubt that had the Government of that day continued in office a Bill would soon have been introduced to organise the new procedure so much required. But political changes then impending soon after resulted in the formation of a new Government, and other questions came to the front, while the disturbed conditions of foreign relations have since presented consideration of the present among other needful social improvements. Let us hope that with a clearing horizon in regard of external politics, a time may speedily come in which the subject can be once more, and once for all, submitted to the Government of the day with an earnest demand that the recommendations of the House of Commons Committee should be embodied and enforced by an Act of Parliament.

[Sir Henry Thompson then observed that a growing feeling in favour of cremation had been gradually manifested throughout the country. He referred to the erection of crematoria at Manchester (1893), Glasgow (1894), and Liverpool (1896), and mentioned that at Hull a handsome building is now in progress for the purpose of cremation, the first in this country originated and completed by a municipal corporation. He added that the ordinary burial authorities of the country, that is, the burial boards, have no legal power to expend the rates to provide for cremation. The municipal corporations which are moving in the matter have to acquire parliamentary powers for the purpose.]

A Forecast.

I shall devote, he continued, only a few lines to a forecast of what—after 25 years of constant and observant experience of the many details of the procedure connected with cremation—appear to me the most important needs and duties of the future. During the last 14 years—namely, from the very first case of cremation at Woking in 1885, until about six or eight months ago—I have charged myself with the duty of personally investigating the information supplied in the case of every applicant, excepting only during my absence from town for an annual holiday. In these intervals I have always been replaced by my friend, Mr. Herring, who had long followed with me the system adopted. In a number of cases the evidence offered respecting the cause of death is insufficient, and further inquiry must be made or opportunity for further

examination sought. This important duty will be henceforth performed by him. But the Council has thought it desirable, with the yearly increasing demand, to retain the services also of a skilled pathologist, as a consulting officer in cases of unusual doubt or difficulty, and for the purpose of making necropsies under peculiar circumstances when required. Dr. Sidney Martin, Professor of Pathology in University College, has accepted this office, and we are happy to be able to secure the services of so high an authority when required. I may also add that I have made it a rule, whenever the circumstances permit, to avail myself of the coroner's court, and am always glad to shift the responsibility of the inquiry to the local coroner in all needful cases.

But after the most complete arrangements have been made for the management of our own institution, the first and most important object of our policy, as already explained, is the reform of the registration of the death system: and it is still the most pressing one before us.

The second is the construction at no distant period, of a new and completely-equipped crematorium, probably on the "Siemens" principle, in the near neighbourhood of London, and possibly by means of a limited liability company.

The third is the consideration by the Local Government Board of the question whether cremation, while of course remaining optional for all in every ordinary case of death, should not sooner or later become imperative in all cases of death caused by contagious disease in its worst forms, such as small-pox, scarlet fever, diphtheria, and malignant cholera at least—at all events in the chief centres of population, the cities and large towns of the United Kingdom. And for these a question might arise as to the employment of crematoria set apart for the purpose, provided with special antiseptic precautions to ensure freedom from danger to attendants or others frequenting them. This may be secured simply and easily by well-known practical arrangements; and of course with the same attention to decorum and to religious rites as at the existing crematoria. I advocated this mode of dealing with all zymotic diseases in a paper read at at a large meeting of the International Congress of Hygiene, held in London in 1891, and a resolution strongly approving the proposal was carried in a large meeting of sanitary experts and medical officers of health.

Reference.

[1] Reports on Death Certification, 1893, Eyre and Spottiswoode, London (373, 472).

THE LUMLEIAN LECTURES

ON

BRONCHITIS, PULMONARY EMPHYSEMA, AND ASTHMA.

Delivered before the Royal College of Physicians of London.

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Lecture II.

On the Nature of Pulmonary Emphysema.

In 1764 Dr. William Watson (who afterwards became a Fellow of our College and a knight) read before the Royal Society "an account of what appeared on opening the body of an asthmatic person." He described what he called an emphysematous state of the lungs," a condition which he deemed to be due to an extravasation" of air into the lungs from the "bronchia and vesicular substance," and what was no doubt vesicular emphysema of the lungs in the sense which we give to that phrase. Pulmonary emphysema has been known in one of its results—namely, the barrel-shaped chest from the time of the ancient Greeks. The lesion of the lungs themselves was first noted by Valsalva and Ruysch in the earlier part of the last century. However, Laënnec was not far from the truth when in the first edition of his great work published in 1819 he said that "emphysema of the lungs, such as he had described it, seemed to him to be a disease hitherto unknown."

It is universally agreed that the note of pulmonary emphysema is to be found in enlarged capacity of the acini and lobules of the lungs beyond what can be produced in health by the deepest inspiration. This change in the structure of the lung, the anatomical characteristic of emphysema, is pretty thoroughly known; but when we come to inquire into the process which leads to emphysema the case is very different. For we cannot know the process in the same way as we know the result; we cannot watch the lungs becoming emphysematous; we can only argue about the process. Deprived of the intuition of sense, the light of Nature, we must follow the light of reason, and beware lest it prove to be *ignis fatuus*. And unfortunately we can get no help from experimental pathology; we cannot set up progressive emphysema in the lower animals and mark its stages in the same manner as we can set up inflammation. Hence the many theories of emphysema and long discussions which, however, do no dishearten me from attempting the difficult topic once more; my only fear is lest I should weary you.

Acute Emphysema.

The emphysematous process, like all Nature's processes, may be assumed to be complex, and we shall do well to begin by endeavouring to resolve it into its simplest elements. Nature itself helps us much by offering to our consideration a form of emphysema which certainly is simpler than ordinary emphysema and which seems to consist in a mere over-distension of the lung. I allude to the acute emphysema first adequately described by Fauvel in his essay upon capillary bronchitis. You know the condition—both lungs distended with air, as if insufflated by the fullest possible inspiration, but some parts of the lung distended more than this, emphysematous, in short, and especially so in the upper lobes and their anterior portions. You know that this acute emphysema is especially met with in young children who have died from suffocating capillary bronchitis or from diphtheritic croup. Many of these children will have enjoyed the most perfect health until they are attacked by the bronchitis or croup, so that there is no question in them of any preceding disease of the lungs. The suffocating bronchitis will often prove fatal within a week from its beginning: croup will kill in a still shorter time, and there is a disease, very much less common, namely, hæmorrhage into the air passages, which may suffocate in a few minutes, acute emphysema being found *post mortem* in all cases.

Let us turn our attention to croup in the first place, inasmuch as it is often entirely free from one condition which might complicate the question, namely, collapse of the lung. For although fatal croup is usually associated with abundant puriform secretion into the small air-tubes of the lungs, yet in spite of this form of bronchitis there is sometimes no collapse at all even when the lungs have become highly emphysematous, so that collapse when present can be no more than somewhat contributory to the emphysema. In other words, the emphysema is but slightly, if at all, compensatory to any collapse. John Cheyne, in his book on the pathology of the laryngeal and bronchial mucous membrane published in 1809, frequently alludes to the emphysema and puriform catarrh of croup. For example, he says: "The lungs were so filled that they did not recede in the least when the thorax was opened: every surface which was cut poured out this puriform fluid from several points."

Setting collapse aside, the conceivable causes of acute emphysema are two, namely, dyspnœa and cough; that is to say, the movements of dyspnœa and of cough, not overlooking the fact that they usually concur. Here also the question is simpler in the case of group. In capillary bronchitis both dyspnœa and cough are great, and therefore the question of the associated emphysema is complicated. But in croup the dyspnœa is extreme, while the cough is insignificant, or even absent, so that it may be left out of consideration, and all this in cases affording a high degree of insufflation and emphysema of the lungs.

Our analysis thus leads us to infer that dyspnœa is the cause of acute emphysema. Now, the movements of dyspnœa are forced movements, inspiratory or expiratory, or both. But before proceeding further with this part of our subject let us cast a short glance upon the movements of breathing in general.

From the earliest times the diaphragm has been regarded as the essential agent of respiration—we may say of respiration, and not of inspiration only, because expiration is little

more than a result of inspiration. Galen was the first to show that most of the intercostal muscles were ordinary muscles of inspiration. Guided by the researches of Duchenne we may disregard the exceptions which Galen made, and we may say that all the intercostals act simultaneously, and are employed in ordinary quiet inspiration. They not only raise the ribs, but keep the intercostal spaces tight during the descent of the diaphragm. When the intercostal muscles are paralysed but the diaphragm is not, the upper two-thirds of the chest are motionless.

The chest may be roughly compared to a bow, inspiration to a bow when pulled upon by an archer, and expiration is little more than the elastic recoil of the bow when the archer lets go the string. But the inspiratory muscles do not altogether let go when expiration begins, they continue to act as moderators of the expiratory movements, and hence expiration is more gradual than it would be were it a mere elastic recoil. In short, the muscular contractions of expiration are persisting contractions of inspiratory muscles unless the expiration be forced, and then extraordinary muscles of expiration come into play.

Physiologists seem to be agreed that although the outward pressure of the air at the mouth during expiration is greater than the pressure inwards during inspiration, yet the forces concerned in inspiration are decidedly much greater than those of expiration. These propositions at first sight seem to be discrepant, but we are not called upon here to explain the apparent discrepancy—we will only remark that they indicate a provision in the human economy for repressing the greater powers of inspiration. Let us especially note that the elastic retraction of healthy lung is not satisfied by the deepest expiration, and that the lungs are provided with a considerable reserve of elasticity, so necessary is it to maintain sufficient deflation of the lungs, or in other words to keep them sufficiently empty of air. For if there be insufficient efflation there must be insufficient inflation

In the forced breathing of healthy persons there is the same disproportion between the powers of the antagonist movements. But physiological experiments relate to a few forced respirations studied in a healthy subject. The forced breathing of disease introduces a new set of conditions and requires that we proceed to an analysis. The extraordinary muscles of inspiration are chiefly three: the sterno-mastoids, the scaleni, and the upper third of the trapezii. These muscles can be seen contracting during inspiratory dyspnœa. Other muscles there are which assist to some degree, but to enumerate them is not necessary. These extraordinary muscles act by raising the upper part of the chest and fixing it so as to enable the ordinary muscles of inspiration to act with extraordinary power. The fixity of the clavicles and first ribs enables the intercostals to contract with their greatest power, and to elongate the chest in a direction upwards at the same time that the diaphragm elongates it downwards. Observation of the living patient shows us that forced inspiration tells chiefly upon the front part of the thorax above Harrison's furrow.

The extraordinary muscles of expiration affect quite another part of the chest. In a patient coughing violently we see the muscles of the abdominal walls, especially the recti, contracting so as to straighten and depress the front part of the chest below Harrison's furrow. The diaphragm being relaxed is necessarily driven upwards. If the largest air tubes be obstructed by mucus or by partial closure of the glottis—as in the case supposed of coughing—it is very instructive to see how forced expiration dilates exactly the same part of the chest as that which is dilated by forced inspiration. Hence in diseases attended by cough or dyspnœa the unfortunate upper and front part of the thorax has no chance—forced inspiration and forced expiration combine to keep it distended. Nature provides that the result of ordinary inspiration shall be fully countervailed by expiration; Nature provides extraordinary muscles to reduce the distension of the lower part of the chest caused by forced contraction of the diaphragm, but Nature provides no extraordinary means by which the injurious effects of forced inspiration upon the upper part of the chest can be repaired by forced expiration. On the contrary, both movements concur to the same end, or, in other words, no muscular contractions can reduce over-distension of the upper chest, and if the inherent elasticity of the lungs and rib cannot reduce it nothing can.

Before leaving this topic, let us repeat that we must be careful to distinguish between the voluntary forced breathing of a healthy person and the involuntary, instinctive, automatic forced breathing which attends dyspnœa. Voluntary excessive movements soon fatigue, but automatic breathing is not attended by a feeling of fatigue, and so the extraordinary movements of dyspnœa can be continuously kept up for hours, days, or weeks—may we not say, indeed, for months or years? Moreover, let us note that this remark applies to the movements of breathing only, but by no means to those of cough; cough must be intermitting.

We will now return to the consideration of the acute emphysema of croup. In the living patient a very few hours of dyspnœa suffice to produce a marked bulging on the front of the chest above Harrison's sulcus. After the patient's death we find that the corresponding part of lung is the seat of a high degree of emphysema. The whole lungs are insufflated or distended with air, but nowhere is the emphysema so marked as in the situation just indicated. This is the very part of the chest which is most expanded by forced inspiration, and which is expanded by forced expiration also in case of cough, but expanded, let us note, by a different mechanism in the two cases. In deep inspiration this part of the chest wall is expanded in the first instance and the expansion of lung follows, whereas in forced expiration and in cough this part of lung is expanded in the first instance and it drives the chest wall outwards. It will be hardly necessary to recall to your memory the mechanism by which cough produces emphysema here, according to the doctrine elaborated by our former distinguished President, Sir William Jenner. The glottis is closed in preparation for a cough or for any great effort. Forcible expiration follows; certain parts of lung are compressed from which air escapes, but not being able to pass the glottis it is driven into those parts of lung which are not compressed, especially the upper anterior parts so often mentioned. Expiration under these conditions can doubtless produce emphysema in certain places, but in the case of croup inspiration is by far the more potent agent, being incessant in its operation, whereas cough is only occasional, and sometimes there is no cough at all. Moreover, forced expiration cannot explain the highly insufflated state of the whole of both lungs, for the distension caused by expiration must be partial.

We are yet far from having reached a full understanding of the mechanics of acute emphysema. We have arrived at an extraordinary expansion of part of the lungs, but the essential cause of the expansion lies deeper than this. You will understand what I mean when I ask this question, Why does the expansion remain permanent? And I think that from what has gone before the answer will readily come, Because Nature has omitted to provide the thorax with muscles by means of which this acute emphysema could be prevented or overcome. The only means which Nature has provided towards this end is the elasticity of the lungs and ribs, especially of the lungs, and this means, unfortunately, is inadequate. It is vain to object that physiological experiments prove forced expiration to be more powerful than forced inspiration, because these experiments deal only with the lungs as a whole, and cannot tell us anything about the respiratory powers of different parts of the lungs, which is the very thing we want to know. Can it be thought for a moment that the expiratory power of the upper part of the chest is greater than the inspiratory? Certainly not.

The elasticity of the lungs, then, falls sadly short of what is required of it during an emergency of dyspnœa. How is this? Either the elasticity is defective absolutely or it is defective only in respect of the increased demand made upon it, and probably both conditions concur; that is to say, the elasticity is called upon to do more than usual at the very time when it is itself weakened and able to do less. In the first place, this unusual demand upon the pulmonary elastic recoil is due to the abnormal secretions in the air passages, and the expired air has to overcome the resistance of these secretions in addition to what is the only obstacle to expiration met with in health—namely, the atmospheric pressure. The elasticity has too small a reserve; it is equal to overcome the atmospheric pressure, but not much more. Inspiration, being the more important motor of the upper lung, can

draw air past the obstructing secretions, of which air expiration can expel only a portion, and thus much air comes to be imprisoned in the parts which are, or which become, emphysematous. In the second place, the elasticity of the lung is probably damaged. We have already compared normal inspiration to drawing a bow, and it does not seem a very far-fetched similitude to compare the result of an enormous number of forced inspirations to a bow which has been overdrawn, bent, and crippled. The elastic recoil of the lungs is weakened. So far as I know no careful microscopic examination of the pulmonary tissues in acute emphysema has ever been made.

And now to sum up the conclusions at which we have arrived. The feeble expiratory power of certain portions of the chest is a condition which predisposes the underlying portions of lung to suffer from acute emphysema in cases of croup. Given this predisposition, the aforesaid portions of lung become overdistended in consequence of forced inspiration or of forced expiration, or of both.

I have purposely avoided interrupting the chain of reasoning by allusion to the opinions of others, for it seems to me that the argument stands in no need of any such support, whilst as to opinions which are more or less contrary I hope you will agree with me that the limited time allotted to these lectures can be better spent than by engaging in polemics.

The acute emphysema of suffocating bronchitis will now be easily understood. This affection is referred to by Aurelian in his chapter upon peripneumonia, where he says that as the disease gets worse the chest becomes more protuberant. The causes of the emphysema are the same as in croup, but with this addition, that in peripneumonic catarrh more or less collapse of the lung is common, and tends to aggravate the distension of the rest of the lung, according to the mechanism explained by Sir W. T. Gairdner.

Chronic Emphysema.

Acute emphysema is a condition which often ends in complete recovery. Chronic emphysema, on the contrary, is a progressive disease. Although it was first adequately described by Laënnec, it had engaged the attention of physicians long before his day, not, however, as a lesion found upon the *post-mortem* table, but as a disease of the living subject. Being looked at merely from the clinical point of view, emphysema was usually called asthma; for example, Heberden, speaking of what must have been chronic bronchitis and emphysema, says: "When a constant cough has afflicted people in youth and adult life, in their old age they become asthmatic."

Laënnec tells us that there was a time when he thought emphysema to be a very rare disease, but that afterwards he became convinced that it is common enough. Virchow supplies figures intended to show that emphysema is not common. In ten years only 0.3 per cent. of all patients admitted into the Charité Hospital of Berlin were admitted on account of emphysema; in only 0.6 to 0.7 per cent. of the bodies examined *post mortem* was emphysema the chief lesion found, and in only 5.5 per cent. was there any emphysema at all. The statistics of St. Bartholomew's Hospital yield these figures: in four years (1894-1897) 9,928 patients were admitted into the medical wards; 165, or 1.66 per cent., were believed to be emphysematous; 1,363 *post-mortem* examinations were made, and emphysema was found in 154 bodies, or in 11.3 per cent. Our figures justify Laënnec's opinion; a lesion found in 11 per cent. of persons dying in the medical wards of a hospital cannot be called uncommon.

The anatomical sign of chronic emphysema consists in actual loss or atrophy of the lung tissues, yet many pathologists of the first rank have expressed a different opinion—namely, that there is a hypertrophy of lung tissue, either a hypertrophy preceding the atrophy or a local hypertrophy simultaneous with local atrophy. Laënnec himself thought it highly probable that emphysema is usually accompanied by a certain degree of hypertrophy, finding that the lung feels firmer and less flexible when pinched between the fingers. Yet he recognised the associated destruction of tissue, as, indeed, such a man could not help doing when he examined emphysematous lungs in the manner which he recommends—namely, by inflating and drying them. Laënnec's contemporary, Louis, was less sagacious: he admits no exception to his universal affirmation that emphysema implies increase or hypertrophy of lung tissue. When we ask how Louis detected the pulmonary hypertrophy we get no clear information; he seems to have done no more than adopt Laënnec's methods and to have examined the lung by pinching it and by drying it. These doctrines are not altogether incorrect, only we must express them a little more precisely. In the first place, emphysema in its earlier stages does not affect the whole lung or does not affect it equally. And next, the great and extensive atrophy of tissue cannot be gainsaid in the case of emphysema in its later stages, the lungs being examined according to Laënnec's method; they feel as he says, no longer firm and inflexible, but soft and downy, and the loss of tissue is most obvious to the eye. Induration is a better name than hypertrophy to give to the abnormal firmness and rigidity of the alveolar walls, and this induration is always very partial, and found only in the earlier stage of the disease.

The microscope has not yet disclosed any primitive tissue changes apart from mere atrophy, if such changes there be; and I need not refer to hypotheses such as that of Rainey, who deemed the primary lesion of emphysema to consist in fatty degeneration of the alveolar walls, or that of Villemin, who described a sort of granulation of the connective tissue which supports the capillary network of the lungs, for in all probability what both these anatomists saw were degenerative changes in the epithelium—changes secondary to a preceding failure of nutrition, whatever the nature or cause of that failure may be. Other pathologists have supposed a primary affection of the capillary blood vessels or of the unstriped muscular fibres or of the epithelium, but the truth is that the earliest changes are very imperfectly known.

We are thus led on to survey the great field of strife in the topic of chronic emphysema. There is rarefaction of lung and there is destruction of lung. Does one cause the other, and if so how? And this is not all; we desire to look deeper still, and we ask how the primary defect, whether it be rarefaction or destruction, is brought about—to what is it due? In other words, what is the essence of emphysema? We wish, if possible, to witness emphysema in the making, and inasmuch as morbid anatomy can show us no more than the final result, I invite you to discuss the subject with me from the clinical point of view.

First, we will inquire what means we have for discovering the existence of emphysema in the living subject, and we are met at the outset by the fact that most of these patients suffer from manifest bronchitis also. These complex cases are not suitable for our present purpose; we cannot disentangle the symptoms of the two diseases so as to be able to say this is due to emphysema and this to bronchitis, whilst as to the physical signs of emphysema there are none, excepting in advanced cases, which are always complicated with bronchitis. If we require instances of emphysema quite unattended by catarrh, such instances are not to be found. However, let us consider a case of marked progressive emphysema in which the indications of bronchitis and catarrh are the least possible. A man about middle life begins to suffer from slight shortness of breath on exertion; he is short of breath—that is to say, the patient feels that he cannot inspire so much breath as he seems to need, in a sense like that in which we say that a man is short of money. His breathlessness increases slowly and insidiously until his breath is always short, but no signs of dyspnœa, no laborious or extraordinary movements of respiration, are apparent so long as he is at rest, not until he makes some effort, such as that of talking or moving the body. In cases still worse dyspnœa persists even when the patient is at rest. The dyspnœa of emphysema, like most other kinds of permanent dyspnœa, is liable to paroxysms in which the shortness of breath becomes very distressing. These paroxysms are induced by any effort, such as hurrying, or even no more than straining at stool, raising the foot to enter a carriage, or lifting the arm to shave. A paroxysm will sometimes occur during sleep, and will suddenly awaken the patient, or will sometimes occur just as he is falling off to sleep. The mere taking of food may be enough to provoke an attack; so will any sudden change in the temperature of the air breathed, such as occurs on leaving a hot room. The paroxysm is sometimes very sudden and severe, and the patient's description of it sounds very much like that of an

attack of angina pectoris—indeed, the heart probably does participate, for I have known a pulse which was habitually about 80 fall to 60 or 70 during the paroxysm.

Now, suppose a patient suffering from progressive dyspnœa of this kind and from no other symptoms, no cough, no expectoration; and suppose we find by examining his chest that his lungs are enlarged, or, in other words, that he presents the physical signs of emphysema, we might well ask whether he were not the subject of protopathic emphysema. And some physicians say that they have met with such patients, and that therefore they believe in the occurrence of emphysema, pure and simple and uncomplicated. I cannot say that this has been my experience. I have never known this progressive dyspnœa and emphysema to be unattended by cough and expectoration.

The cough is a tickling cough (*tussis titillatoria*) brought on by a troublesome sensation referred to the larynx. A person affected in this manner and who, in the spirit of the age, diagnosticates the nature of his own disease goes to a specialist who snips off the tip of his uvula or discovers an irritable spot in the larynx, but fails to afford relief. The cough, like the dyspnœa, steals insidiously upon the patient until in the course of years he becomes liable to fits of coughing which are very severe, during which he becomes purple in the face and sometimes even suffers from giddiness—giddiness which is in any degree of intensity, from an attack so slight that the man declares that he has retained his sensibility throughout to an attack which amounts to total loss of consciousness, in which latter case the patient sinks to the ground and sometimes hurts himself in his fall, but even at its worst the coma does not last more than two or three minutes. The expectoration which attends the cough is very scanty and consists of pure mucus. Or it may be that there is no expectoration at all, or, at any rate, no exspuition.

Aretæus describes a class of persons whom he designates "pneumodes," a word which Stephanus interprets to mean *pulmonis vitio laborantes* or *pulmonarii*, and which seems to have the same meaning as the French word *poitrinaires*. Now, if it were not for one particular in Aretæus's picture of the disease we could not doubt that his "pneumodes" were cases of progressive emphysema. The disease, he says, is a kind of asthma, and there is little difference in the symptoms of the two diseases; all patients labour under shortness of breath as in asthma, but they have this as peculiar, that they cough as if about to expectorate, but their effort is vain, for they bring up nothing; or if anything is forcibly raised from the lungs it is a small, white, round substance resembling a hailstone. The thorax is broader than natural, but not altered in shape; the lungs, though free from suppurations, are filled with humours; in some cases the affection terminates in dropsy about the lungs or in anasarca. But the pneumodic disease proves fatal within a year from its onset, and this is so grave an objection to our supposing that Aretæus was referring to cases of pulmonary emphysema, that I should not have alluded to his description were it not for the peculiar sputum which he depicts, and which possesses the same characters as those of the sputum expectorated in the affection which Laënnec denominated "*catarrhe sec.*"

All physicians admit a close connection of some kind between bronchitis and emphysema—a connection in many cases so obvious as to be past all doubt, but in other cases not so. Laënnec went so far as to say that emphysema is almost always the result of intense and extensive *catarrhe sec.* All writers on emphysema mention this opinion of Laënnec's; few if any, adopt it or even discuss it, but no opinion of that remarkable man can be passed over lightly. What does he mean by dry catarrh? He himself admits that the phrase is a contradiction in terms; to find appropriate names for diseases was not a strong point of his; witness his perversion of the meaning of the word "apoplexy" in his phrase "pulmonary apoplexy." But medical writings are full of this fault, and Laënnec is no worse than many other physicians. A better name than dry catarrh would be dry bronchitis (bronchitis sicca), for the word "siccus" as applied to pulmonary diseases denotes scantiness or absence of expectoration. Stoll speaks of "pleuritis sicca" and "pleuritis humida"; Hippocrates of "dry orthopnœa," and the phrases "dry cough" and "dry asthma" are colloquial.

In the lungs of persons who died in an early stage of dry catarrh, Laënnec used to find the mucous membrane of the bronchia swollen and dull-red or violet in colour—conditions most notable in the smaller bronchia, which might be almost completely obstructed by the swelling. The extent of the swelling was not more than a few lines, the mucous membrane in the same tube above and below being natural. This local bronchitis was extensive in proportion to the duration of the disease. When the dry catarrh was universal, or even very extensive, it always ended by determining emphysema. He often found the partially obstructed tubes to be plugged by pellets of viscid mucus of the size of hemp or millet seeds, and it is these mucous pellets which make up the pearly sputa which such patients, even when they think there is little or nothing the matter with them, expectorate in small quantity every morning.

During life the dry catarrh often continues to a slight degree for many years, Laënnec goes on to say, or it may be altogether latent, the patient noticing no more than that his breath is shorter than that of other men, especially upon exertion. This dyspnœa increases gradually, and the patient becomes subject to attacks bad enough to deserve the name of asthma. The tendency to dyspnœa is accompanied by cough, which at the beginning of the disease is, like the dyspnœa, slight. The cough is attended by expectoration of what Laënnec calls pearly sputa, which closely resemble the hailstone sputa (*chalazia*) described by Aretæus and Galen. Such is a brief summary of Laennec's characterisation of his *catarrhe sec.*

Now, if we admit that a man in a state of perfect health ought not to cough or expectorate, and also that expectoration implies catarrh, it follows that at no period in the progress of emphysema is that condition unassociated with catarrh. Again, inasmuch as emphysematous patients always become in the advanced stage of their disease manifestly bronchitic or catarrhal, it is reasonable to believe that in the early stage also their cough and expectoration indicate slight bronchitis or catarrh. Lastly, the symptoms of progressive emphysema (as I have already attempted to depict them) and those of Laënnec's dry catarrh seem to relate to the same disease looked at from two different points of view.

We have now reached a position which enables us to resume our discussion of the nature of emphysema. Starting from the note of progressive emphysema—namely, the atrophy of lung tissue—the problem may be resolved into a choice between these alternatives. Is there a primary degeneration of lung tissue, rendering it apt to be permanently distended and also to be destroyed particle by particle? Or is the atrophy due to distension of the lung, and, if so, what causes the distension? In briefer language, is the atrophy primary or secondary? The easiest answer is that which assumes the atrophy to be secondary to distension. Laënnec asserts that "pulmonary emphysema is almost always developed in consequence of intense and extensive dry catarrh," and we have seen that clinical observation supports this opinion. But in speaking of the priority of catarrh we must understand it only as a priority of order and conception and not as a priority of time. Another argument in favour of Laënnec's opinion is this, that inasmuch as acute emphysema is undoubtedly dependent upon bronchial affections, it is probable by analogical reasoning that chronic emphysema likewise is so. I will not repeat Laënnec's explanation, which you all know, concerning the manner in which he supposes dry catarrh to lead to emphysema, and I will only remark that his hypothesis is not so easily set aside as some people think by pointing out that the air-current at the mouth of a healthy man is more powerful during expiration than during inspiration, for the conditions in pulmonary catarrh are obviously not the same.

Let us fix our attention upon the fact of the barrel-shaped chest in cases of emphysema. It is a chest more capacious than a healthy chest could be rendered by the deepest and most powerful inspiration. The distended chest is a sign of distended lungs, and this fact puts before us a disjunctive hypothesis: either the distended chest distends the lungs, or the distended lungs distend the chest. Now the latter hypothesis affords no explanation at all, because it leaves the distension of the lungs unexplained; and the cause of this pulmonary distension or emphysema is the very thing we are asking for. Wherefore let us consider the former hypothesis, namely, that the distension of the lungs is consequent upon

increased capacity of the thorax. In normal inspiration which fact precedes the other, dilatation of the lungs or dilatation of the chest? And by what powers can the chest be over-distended? Obviously by the inspiratory muscles, ordinary and extraordinary, and by no others. And if the chest be over-distended, what must ensue? Over-distension of the lungs, because the potential vacuum caused by extraordinarily deep inspiration is certainly not filled up in any other way.

In health the inspiratory distension of the lungs is exactly countervailed by the expiratory contraction. Why, then, in the barrel-shaped chest is this no longer the case? Obviously because the expiratory powers have been unequal to the task of restoring the chest to its natural shape and size. That is to say, the expiratory powers are no longer equal to the inspiratory. And is not this a sufficient reply to those who, relying upon spirometrical observations made upon healthy people, reject Laënnec's explanation of the mechanism of emphysema?

In emphysema, then, there is failure of expiratory power: nay, more, this is the essence of emphysema. Expiration being no longer able to rid the lungs of their exhausted air, ordinary inspiration cannot supply the necessary quantity of fresh air. And there is only one means by which the expiratory failure can be met, and that is by inspiratory movements extraordinary in power and amplitude. These extraordinary inspirations being repeated for weeks, months, and years, the chest becomes permanently over-distended, and hence the lungs become permanently over-distended, and this is emphysema.

We have no clear and certain knowledge respecting the nature of the expiratory failure. We may conceive it to be absolute or relative. Absolute—that is to say, the elastic and muscular movements of expiration are weakened; relative—that is to say, the resistance which expiration has to overcome is increased. 1. The notion of an absolute debility of expiratory movement must relate to the elasticity of the lungs only, because there is no reason for supposing the elastic or muscular movements of the chest to be primarily weakened. And thus we are led back to the question of degeneration of lung tissue, either primary or secondary to other disease—an obscure topic which we will again defer for awhile. 2. But the notion of a relative debility of expiration is that which lies at the bottom of Laënnec's doctrine, the resistance to expiration being increased by the presence of mucous plugs in the air tubes and by swelling of the mucous membrane. True, reply his critics, but these obstructions are equally great for inspiration as for expiration, and thus we are again met by the question concerning the relative powers of inspiration and expiration—a question which is answered by reiteration of the fact that Nature has provided us with very feeble means of reducing by forced expiration the distension of the chest and lungs produced by forced inspiration. The extraordinary muscles of expiration are inadequate, whilst as to the elastic tissues of the lung we may hazard the conjecture that if overstrained they do not easily recover, and it is only inspiration that can overstrain them.

Now, just to consider for a moment the question whether the over-distended chest can possibly be due to over-distended lungs. In other words, can we assume a primary over-distension of the lungs powerful enough to distend the whole thorax and to make it barrel-shaped? If so, what distends the lungs? Forced expiration is sufficient to distend certain portions of lung which are unsupported by bone or muscle, such as are the apices. But more than this is inconceivable; it is inconceivable that expiration, how forcible soever, can produce a shape of chest which is identical with that produced by forcible inspiration. Again, a favourite seat of emphysema is the undermost surface of the lung where it lies upon the diaphragm; how can coughing—an act during which the diaphragm is driven powerfully upwards—over-distend this portion of lung? Surely it is the powerful inspiratory descent of the diaphragm which produces this effect; and let us remember that the forced expiration of persons coughing, of musicians, or of horses tugging up a hill is rendered possible only by a preceding forced inspiration. In short, we cannot understand the occurrence of a primary over-distension of the lungs sufficient to distend the thorax.

Now to discuss and finally to dismiss the question of the degenerative lung changes. In the first place, it is probable that the elasticity of the lungs is injured if the tissues be much or often overstretched, and any such loss of elasticity must tend to increase emphysema by weakening expiration. In the second place, it is very reasonable to believe that the anæmia, which is the visible and undoubted result of over-distension of any portion of the lung, will cause degeneration and atrophy of the tissues thus imperfectly supplied with blood. In the third place, it is possible that there is such a lesion as primary atrophy of lung, analogous to the atrophy and perforations which we often observe in the omentum, falx cerebri, and valves of the heart. In the fourth place, it is not unlikely that the form of pulmonary emphysema in which the total size of the lung is not increased, "atrophous emphysema," is an atrophy of the second or third kind. And, lastly, there are good grounds for believing that even ordinary progressive emphysema with enlarged lungs is from its very beginning an atrophic process, even although to the mind's eye the destruction be secondary to the distension.

To end our inquiry by recapitulating the results at which we have arrived, I submit to your judgment these propositions: That pulmonary emphysema is chiefly due to forced inspirations, although forced expiration may to some small extent play its part. That the distension of the lung in so far as it is due to inspiration is secondary to distension of the chest. That the forced inspiration is rendered necessary by a feeling of dyspnœa. That the dyspnœa which occurs at the beginning of pulmonary emphysema, and which determines it, is consequent upon obstruction of the air passages. That in chronic progressive emphysema this obstruction depends upon bronchitis, either humid and attended with free secretion or dry with scanty secretion. That when once emphysema is set up, the dyspnœa and the necessity for forced inspiration are increased by the natural defect of expiratory power in the lungs and in certain parts of the chest, Nature having provided means insufficient for reducing excessive inspiratory distension to the normal, and for thus emptying the lungs of residual air. That the degeneration and atrophy of lung tissue are usually dependent upon preceding over-distension, although it is possible that pulmonary atrophy may to some extent be primary.

Allow me to conclude by appropriating the words of the most ancient of the Greek philosophical poets: "These opinions have seemed to me to resemble the truth."

Lecture III.

On the Nature of Asthma.

I propose to devote this day's lecture to a discussion of the nature of asthma. The topic you will, perhaps, consider to be almost exhausted. However, I invite you to the discussion because even if we cannot predicate all that asthma is, yet the time has come, I think, when we should finally dismiss certain opinions which have for two centuries impeded the attainment of clear notions upon the pathology of the disease.

Before proceeding to the argument it is desirable that we should come to an agreement as to the meaning of the word "asthma." It was used in a simple etymological sense until the time of our distinguished Fellow, Dr. Thomas Willis, in the middle of the seventeenth century. Asthma before his time denoted any kind of panting, gasping, pursy breathing, such as follows upon running or exertion. Hence asthma and dyspnœa were synonymous for most of the older physicians. A few, such as Celsus, signified by asthma the highest degree of dyspnœa, but this was all: asthma was never regarded as a special sort of dyspnœa. In reading the writings of the ancients we must always bear this in mind, and beware of importing into their generic use of the word the special meaning which it bears in modern times. Indeed, so far as my limited reading enables me to judge, I should say that what the ancient physicians have left us concerning asthma is of very little value. It is interesting to note that those most conservative of people, the illiterate, continue to use the word in the sense of Hippocrates and Galen.

Thomas Willis was the innovator upon the doctrine of the ancients. His opinions, in their mature form, are found in the second part of his *Rational Pharmaceutic*, published in

1675, after his death in the same year. He says, truly enough, that the ancient physicians and also most moderns up to his time had admitted only one kind of asthma, that which he calls pneumonic asthma, and which had always been deemed to be the result of the air passages of the lungs being obstructed or not open enough. It would be a more accurate expression to say that the ancients regarded all cases of asthma as pneumonic and dependent upon bronchial obstruction. From this pneumonic asthma Willis distinguishes a second kind which he calls convulsive asthma, the primary fault being in the motive organs of the lungs, to wit, in the moving fibres or muscular coats of the air vessels or in the diaphragm and muscles of the chest or in the nerves of the lungs and chest or in the origin of those nerves in the brain. There is also, he says, a mixed asthma, both pneumonic and convulsive, and inveterate asthma is usually of this kind.

You will observe that Willis's doctrine is very comprehensive, and that he vaguely anticipates all the theories of asthma which have been propounded since his day. His new notion of convulsive asthma was soon laid hold of; the term "asthma" came to be reserved for the exclusive denomination of that form of the disease which was believed to be spasmodic; and this is the sense in which the word is still used by most persons even in our own day. Willis's influence upon this question of pathology has been so great that the present lecture is to a large extent an endeavour to determine whether he were the discoverer of an important truth or the parent of a delusion. A satisfactory definition of the word "asthma" will be the end of our discussion if we succeed in attaining a clear and distinct notion of the nature of the disease, for, as Milton, writing in the spirit of both Plato and Aristotle, says: "Definition is decreed by logicians to consist only of causes constituting the essence of a thing." But meanwhile we may perhaps be able to agree upon a sort of provisional definition logically less exact. Thus, some diseases are defined accurately enough by means of what are called their anatomical characters, or the attendant lesions of structure, and some diseases are defined less accurately by their symptoms or the attendant lesion of function. Let us examine asthma from these two points of view.

First, what is the morbid anatomy of asthma? Here I must ask your attention to a very curious and remarkable fact. You may look through a large book upon asthma, an elaborate treatise deserving the repute it has gained, and you will find no chapter dealing with morbid anatomy. Yet surely some asthmatic patients die uncured, and some of their bodies are examined, and in all the bodies examined material lesions are found. What are they? Now many of these lesions are found in some bodies only, and therefore cannot have anything to do with the immediate cause of asthma. Some of these inconstant lesions are those which are apt to occur in the decline of life; and it is noteworthy that Rostan, the discoverer of softening of the brain, and who practised at the Salpêtrière in Paris, the great hospital for old and infirm women, after asking the question, Whether the asthma of old people be a nervous affection? replies as the invariable result of his *post-mortem* examinations—That the asthma of old people is a symptom of an organic lesion, and especially of atheroma of the aorta and of hypertrophy of the heart. Most physicians of our day would probably agree that Rostan's opinion is correct so far as its general principle is concerned—namely, that organic lesions in the chest are found—but he errs in his particulars by being far too exclusive; several morbid changes are much more frequently met with than those which he mentions. Again, such lesions as tuberculous affections of the lungs, phthisis (active or retrograde), and acute miliary tuberculosis, though often seen in persons who are not old, cannot be deemed essential to asthma. But signs of bronchitis and pulmonary emphysema are always found; and though no one would call them the anatomical characteristics of asthma, yet the fact that they are constant demands that they should not be passed over or dismissed with the remark that they are mere complications, an obvious begging of the question. That the bronchitis of asthma should be regarded as an accidental complication and by no means as an essential element of the disease is due to the fact that, since Willis's time there has always been a strong tendency to look upon asthma as something mysterious and its cause as supersensual. However, you will probably assent to the proposition that either bronchitis and emphysema constitute the morbid anatomy of asthma or it has no morbid anatomy. In either case we must reluctantly conclude that structural lesions cannot help us to a definition.

Secondly, definitions based upon symptoms or disordered functions observed in the patient during life are seldom satisfactory. In the case of asthma, any definition of this kind would involve so many explanations, reservations, and distinctions that it would be nothing less than a full description of the disease. I will not attempt to succeed where all nosologists have failed, and I fear that we must confess that symptomatology cannot help us to a definition.

So we will proceed to our investigation in the belief that in the case of a given patient most physicians would agree whether he were suffering from asthma or not, and that we have a pretty unanimous though an indefinable notion of the disease. Yet we must admit that the notion has been inconstant, that the extent of meaning of the word has been growing narrower and narrower. Much of what Willis called pneumonic asthma has long since ceased to be called asthma at all; much of what, by way of exclusion, was formerly deemed to be convulsive asthma is now known to be dyspnœa due to disease of the heart, blood vessels, kidneys, to poisoned blood, and other conditions which need not be enumerated. Thus there is a risk lest asthma should become a mere *caput mortuum*, a kind of dyspnœa left when all known causes of dyspnœa have been separated, ths definition of the word being purely negative, indicative of what asthma is not. But asthma is not a mere *caput mortuum*.

Inasmuch, then, as our most trustworthy guides in all the physical sciences, our senses, seem insufficient to enable us to explore the essence of asthma either in the living body or the dead, we must try to grope our way by the help of reason. And we will recur to the rival hypotheses already mentioned and will debate the question which remains much as Willis left it, namely, whether asthma is a pure affection of the nervous system or whether it is all pneumonic, due, that is to say, to gross material changes in the lungs, or whether it is a combination of the two.

I. In the first place, let us discuss the nervous, convulsive, or spasmodic hypothesis.

(1) That the air tubes possess muscular coats or moving fibres was well known to Willis. That these fibres will contract under appropriate stimulus so as to diminish the capacity of the bronchia, has been demonstrated many times by experiment, the vagus being the motor nerve. But farther than this our knowledge does not extend. From the best and latest works upon human physiology we cannot learn what the use of these fibres is, nor under what conditions they contract, nor whether they contract quickly or slowly, nor whether their contraction is momentary or enduring, yet surely we ought to be able to answer these questions before we can deduce a pathology of asthma from perverted function of these fibres. The prevailing feeling is that they help the bronchial walls to resist any unwonted pressure from within—that they oppose distension of the air tubes. But even supposing this opinion to be true we are no nearer to understanding the part which these fibres have been assumed to play in the production of asthma. We will admit that it is conceivable that their contraction may cause dyspnœa, but we must make the reservation that there is no proof of this assumption. And one thing seems to be certain—namely, that if there be such a disease as bronchial spasm, pure and simple, it must be a very rare condition, because it is inadequate to explain the catarrh which manifestly attends most, if not all, asthmatic seizures. Willis himself was far too sagacious a man not to have seen the meaning of this fact. He writes thus: "Although an asthma is sometimes simple from the beginning, namely, either merely pneumonical or convulsive, notwithstanding, after either disease hath for some time increased, for the most part it gains the other to itself, hence it may be concluded every inveterate asthma to be a mixed affection." But we have already seen good reason for doubting whether this doctrine of Willis's goes far enough. The whole subject of bronchial spasm is involved in so much obscurity that we cannot admit more than that it perhaps takes a share in the production of asthma, but is seldom, if ever, the chief or only cause. And we will dismiss this topic by adopting h words of an able physician of the last century, Robert

Whytt, "that a true nervous or spasmodic asthma, without any other fault in the lungs than uncommon delicacy or irritability of their nerves, is a disease which we seldom meet with."

(2). Let us come to the muscles of respiration. When I began to lecture on medicine at St. Bartholomew's Hospital it seemed necessary that I should expound some theory of asthma. I had been much struck by observing in bad attacks of asthma the fixed immobility of the chest in a state of the fullest possible inspiration. About the time I came across a paper by an experimental physiologist who had found that centripetal excitement of the vagus, divided below the junction of the superior laryngeal nerve, produced tetanic contraction of the diaphragm, intercostals, and other inspiratory muscles, a state of things which is necessarily accompanied by dyspnœa, and which, in this respect, resembles the asthmatic paroxysm. And so for a year or two I taught that the fit of asthma, at its beginning at least, was due to centripetal irritation of the vagus. But maturer experience soon showed me that this fixed inspiratory distension of the chest is by no means a constant attendant upon asthmatic dyspnœa, that the inspiratory movements are sometimes free and ample enough, and thus I lost all faith in the doctrine of protopathic inspiratory spasm. Moreover, what is the evidence of inspiratory spasm during the attack of asthma? No doubt the chest is in a state of inspiratory distension, dilated to its utmost capacity and fixed in this position. But it is more likely that this state of things is due not to inspiratory spasm but to expiratory debility. Air is imprisoned in the lungs, and no amount of forced expiration can empty them. In the last lecture I showed what a very partial process forced expiration is; over many portions of the lung it has no power. If the sufferer could empty his lungs he could fill them again; it is the deflation which is at fault, and the extreme inflation is due to incessant forced inspiratory efforts to make the most of what little room for fresh air can be provided by forced expiration. This fact is very well expressed in a tale told by Dean Swift of a farmer who, when dying of asthma, said: "Well, if I can get this breath once out I'll take care it shall never get in again." And thus to conclude this topic I submit that inspiratory spasm is not the cause of the asthmatic paroxysm.

(3) Again, Willis thought that convulsive asthma might sometimes proceed from irritation of the pulmonary or thoracic nerves, or of the origin of these nerves in the brain. This is one of those recondite propositions which can be neither maintained nor refuted. Contraction of the bronchial muscular fibres or of the respiratory muscles, if it play any part in the asthmatic paroxysm, may doubtless be due to irritation of appropriate nerves: but the muscular contraction itself has not been proved to occur, and this must be done before we need discuss its causes. The influence exerted by the nervous system upon secretion, nutrition, and the blood supply is well known as a general fact, but any particular application of this fact to explain the pathology of asthma is at present beyond our power. Thus, we have no evidence to show that asthma takes its origin from the nerves or brain.

II. But if asthma be not convulsive, we are thrown back upon the hypothesis of pneumonic asthma, for we have no third explanation before us. Let us review the argument in favour of pneumonic asthma. This argument is wholly analogical. There are several diseases which resemble asthma in certain respects, more or less. Perchance we understand the pathology of these diseases somewhat better than that of asthma. If so, we may inquire whether the nature of asthma can be assimilated to that of the diseases which it resembles. It is obvious that such an argument as this is far enough from deserving the name of induction, but we will be comforted by the saying of a wise man, that to us probability is the very guide of life. Let us enumerate and illustrate the diseases referred to.

1. *A Peculiar Form of Acute Bronchitis.*—"Last summer I went out of town to see a little boy, 7 or 8 years of age, whose life was very precious to his family. He was thought to be dying of inflammation of the lungs. I found him raised up in bed, supported by his nurse, and breathing with all his might. His skin was hot, his face flushed, and his chest heaved, and his nostrils quivered frightfully. There was no croupy sound. Whatever the disease was it was all within the chest. I percussed the chest; it sounded well in every part. I listened; the air entered freely, and reached every cell and vesicle of the lungs, but there was not the least perception of the natural respiratory murmur; a shrill sibilus had taken place of it altogether. Wherever you applied your ear to the chest you might fancy you heard the piping and screaming of a nestful of unfledged birds." Probably many of you will have recognised the hand of Dr. Peter Mere Latham in the somewhat rhetorical character of the description I have just read. I have set before you his description of the disease because it serves as an emphatic text and not because the affection is very uncommon; it is alluded to by many of the best authors, and I myself have seen a considerable number of cases. Latham goes on to say: "I am speaking of a disease which must be distinguished from asthma according to the usual acceptation—a disease not habitual to the individual, and of which, perhaps, he has never suffered a previous attack." But of course an asthmatic must have his first attack, to which Latham's criterion of habit cannot be applied, and unless he had told us that his patient had never before suffered from a similar attack and never had one afterwards, his argument that the disease was not asthma falls to the ground.

Latham's patient certainly suffered from acute dry pulmonary catarrh, to use the phrase of Laënnec; but in this form of disease the catarrh is not always dry; on the contrary, small mucous *râles* are sometimes heard all over the chest. I saw a girl, 4 years old, who one morning had a little cough, but was quite well in all other respects. In the afternoon she suddenly became much worse, and her state alarmed everybody. In the evening her distress, dyspnœa, and lividity were great; the upper part of the chest expanded considerably on inspiration, but there was at the same time much depression of the roof of the neck, of the epigastrium, and of the base of the chest. All over the lungs small mucous *râles* were heard. Her voice and cry were natural, so that there was no reason for suspecting laryngeal disease. Her temperature was below the normal. I was told that she had suffered from several sharp attacks of what had been called "bronchitis" and "congestion of the lungs;" that she had been subject to eczema all over the body; and that her father's father and brother had been "asthmatics" until they reached maturity. The very same night she improved much, and next day she was comparatively well; recovery was rapid.

The chief characteristics of this form of bronchitis may be thus enumerated: The rapidity with which the dyspnœa becomes extreme; the attendant fever, little or none; the whole attack seldom lasting more than two or three days; and the great tendency to recur. In the intervals most of the patients are free from pectoral symptoms, but in some cases emphysema occurs, and I have seen it well marked in a patient only 3 years old subject to this disease. Most of the children have suffered from eczema, and most of them come from families prone to asthma, bronchitis, and gout.

When we inquire into the previous history of patients who during youth have been liable to undoubted asthma, we find that in a certain number of them their disease dates from one or more attacks of this kind. And surely these attacks were asthma from the very first, although they were not deemed to be so at the time, but were called in Latham's language "acute bronchial inflammation putting on a peculiar form and affecting a peculiar course." The bronchitis does not cause the subsequent asthma, but it is asthma; the two diseases are identical in nature, and the asthma is bronchitis, although a peculiar form of bronchitis.

2. *Spasmodic Croup.*—This is an old phrase now seldom used, yet I do not know that we have a better. It is not a good phrase, because it implies a hypothesis which is probably untrue. The disease is characterised chiefly by acute dyspnœa: indeed, most of the cases described by Millar in the last century under the name of "acute asthma" were cases of spasmodic croup. Spasmodic croup is not laryngismus stridulus, for the dyspnœa of laryngismus is momentary, whereas that of spasmodic croup lasts for several hours and on and off for days. Spasmodic croup is not quite the same thing as laryngitis stridula—a disease which is characterised more by dysphonia than dyspnœa. Dr. Benjamin Rush, of Philadelphia was the first to apply the epithet "spasmodic"

to the disease—an indication probably that he as well as Millar recognised a resemblance to spasmodic asthma. I enter into these details because there still exists, as there always has existed, much confusion in the use of these names. Millar's description of the disease, published in 1769, is vitiated by the fact that he does not distinguish the different kinds of acute laryngeal disease which cause dyspnœa in children. Rush's description, published in 1789, is much more precise, perhaps because more concise. He says that "the cynanche trachealis spasmodica is known (1) by coming on suddenly, and that generally in the night; (2) by frequent and perfect intermissions of the symptoms for hours, and in some instances for days, without the least sensible discharge from the trachea; and (3) by yielding to anti-spasmodic remedies, particularly to the warm bath." Rush had examined the body of a fatal case and had found no marks of a membrane or even of mucus in the trachea; the lungs and trachea appeared to be in a sound state.

Many persons have believed in a close analogy between spasmodic croup and spasmodic asthma. Some have even gone so far as to say that "children who have been the subjects of croup or stridulous laryngitis in their earlier years are prone to suffer from true asthma in later life," but, judging from the facts of my own experience, I am disposed to think that this sequence is not common. Unfortunately the pathology of spasmodic croup is not well understood. I do not know that the glottis has ever been seen by means of a laryngoscope during the attack of dyspnœa. Could this be done, it would go a long way towards clearing up the darkness which hangs over the subject. Moreover, patients when attacked by spasmodic croup seldom die, and thus we are deprived of the information which minute *post-mortem* examination might afford. Nobody doubts that the disease implies an element of acute laryngitis, or of croup—for these two terms are almost synonymous, croup being the acute laryngitis of children. The evidence of laryngitis depends mainly upon these two facts: first, that the attack of dyspnœa is preceded for a few hours by hoarseness and croupy cough, and perhaps by other signs of catarrh of the respiratory mucous membrane; secondly, that the interval between the attacks is not free from the same symptoms. Admitting, then, that there is a fundamental ground of laryngitis, we must inquire in the next place into the cause of the dyspnœa, so sudden and so temporary, and here lies the difficulty. The epithet "spasmodic" begs the question by assuming that spasm of the glottic muscles is superadded to the laryngitis. But when we compare spasmodic croup with what is universally admitted to be a glottic spasm, that is to say, with laryngismus stridulus, the difference between the two diseases appears to be so great as to make us doubt whether the dyspnœa of croup can be spasmodic. In laryngismus the dyspnœa sets in very suddenly and lasts only a few seconds, for if it last longer the child will die. At any rate, if the croup be spasmodic we must assume that the spasm is very incomplete and that it lasts several hours—assumptions which seem improbable. It is improbable that the spasm should be always incomplete, and should never become a thorough laryngismus and thus kill the patient, whereas deaths from spasmodic croup are so uncommon that we may almost say that they do not occur. Moreover, the catarrhal swelling of the laryngeal mucous membrane would render any spasm much more likely to prove fatal, and we must never forget the small size of the glottis in children when we speak of their laryngeal diseases.

But if we give up the notion of spasm are there any other explanations which we can fall back upon? Two have been offered. One was put forward first, so far as I know, by Felix Niemeyer. He supposes that viscid mucus accumulates in the glottis while the child is asleep; that this mucus becomes dry, and so glues up the rima glottidis—an ingenious explanation, not wanting in plausibility, but which can be neither proved nor disproved. The chief argument against this hypothesis is found in the great resemblance between spasmodic croup and the peculiar form of acute bronchitis which we discussed just now. In both diseases, the same slight premonitory catarrh, the same sudden onset of alarming dyspnœa in the afternoon, the same speedy abatement of the dyspnœa, the same freedom from fatal results, and the same tendency to recur. Now, there is no reason for thinking that the bronchitic dyspnœa is due to accumulated mucus, still less to dried mucus; and hence we may well doubt whether spasmodic croup is due to these conditions. But yet, until we can bring our senses to bear directly upon the glottis, until we can see what actually takes place, we may admit that there is possibly some truth in Niemeyer's hypothesis. How often are we tempted to exclaim, with the surgeon in the old novel, "A fig for reason, I laugh at reason; give me ocular demonstration."

The other explanation seems more probable. It supposes a sudden and temporary swelling of the mucous membrane of the larynx, such as sometimes occurs in the pituitary membrane during acute coryza when one nostril becomes suddenly blocked, and not by mucus, so far as can be made out, or at least no mucus can be expelled from the affected nostril. In the case of the nose this sudden swelling can be easily understood, for anatomists tell us that the veins of the mucous membrane over the turbinate bones constitute a cavernous structure, and that the membrane in this situation is erectile. No structure of this kind has been detected in the mucous membrane of the larynx, and hence the argument from analogy is weakened in a corresponding degree. In short, the opinion that spasmodic croup is due to sudden swelling of the mucous membrane depends mainly upon reasoning by way of exclusion, there being fewer objections to this pathology than to the hypotheses of spasm or of mucous obstruction.

Leaving these dry catarrhs of the respiratory tract, let us turn our attention to certain catarrhs of a character exactly opposite, being attended by abundant secretion of mucus, for these catarrhs also have a close affinity with asthma.

3. *Paroxysmal Coryza.*—In the first place we will consider paroxysmal coryza or "paroxysmal sneezing," as it is sometimes called. And let me set before you a vivid picture of the disease drawn by a sufferer, a married lady, aged 29 years. I copy the exact words of a letter she wrote: "Severe cold in the head every morning for two or three hours after waking; continual running of the nose, sneezing, watering of the eyes; pocket-handkerchiefs are of no use, I have to use towels. Frequent fits of violent sneezing, perhaps repeated a dozen or twenty times. Continual rising of phlegm into the mouth in the morning on waking; often an accumulated mass of phlegm has to be got rid of. Loss of taste and smell and impaired voice in singing. The above symptoms have been present for five years, though they have increased of late. In addition the following have occasioned trouble during the past nine months: a wheezing in the chest, difficulty in breathing, or in taking a deep breath. At times this prevents me from lying down at night; at least I go to sleep in the usual way, but am disturbed three or four hours after by a feeling of suffocation, and am obliged to spend rest of night sitting in a chair. This feeling sometimes comes on without any warning. Last week, when returning from a dinner party, I suddenly became oppressed in breathing, and had quite to struggle for breath for ten minutes or so. Violent exercise such as running, and I think swimming, also hearty laughing, produces much the same effect, namely, a wheezing and difficulty in breathing freely. Voice in singing much fallen off. Damp weather and cold winds seem to increase the tendency." Thus far the patient's own report, to which the following facts may be added: There was a tendency in her family to asthma, eczema, and gout; she herself never had eczema, but it had appeared in several of her relatives, and also in her only child, 15 months old.

The connection between paroxysmal coryza, asthma, and eczema is remarkable. A girl, 11 years old, had suffered from frequent attacks of asthma since the age of 2 years. Moreover, she had always been liable to fits of bad sneezing with running from the eyes. This sneezing was sometimes followed by asthma, sometimes not. When a baby she had eczema. In her father's family there was a tendency to eczema and gout, but not to asthma; in her mother's family there was probably a tendency to asthma. She had a younger brother who also was asthmatic, and who suffered from eczema in infancy. The girl, the brother, and the mother were all of a dark complexion. A second girl, sister of the patient, was of a fair complexion and had shown no tendency to asthma.

A boy, 2½ years old, became eczematous at 6 months of age.

The eczema cleared off at 12 months, and then he began to suffer from asthma. And mark that his attacks of asthma began with sneezing and running from the nose, and that an evidence of the chronic nature of the coryza was afforded by the ill-developed condition of the bridge of his nose. But there was no obstruction to his breathing in the nose itself.

At the risk of wearying you let me give you a brief outline of another case which shows the connection between this recurrent coryza and spasmodic croup as well as asthma. A lady, 30 years old, was subject to spasmodic croup when a child, and had been liable to bronchitis all her life. Since the birth of her first child three years ago she had become asthmatic—that is to say, she was continually rather short of breath, but more especially soon after arising in the morning or upon any sudden effort; her breathing would sometimes become very bad, she would turn blue, and the whole attack would last two or three hours; it had occasionally recurred three or four times in the day. Moreover, for two years she had been subject to attacks of sneezing almost daily, with copious distillation from both nostrils, as bad in winter as in summer. There were no objective signs of disease in the chest, nasal fossæ, or pharynx.

It is no part of my plan to discuss the relation which exists in some cases between these paroxysmal disorders and permanent disease of the nasal and post-nasal regions. But with regard to the actual attack of coryza let us observe that it is more than a mere defluxion of mucus. The mucus membrane of the nasal fossæ is swollen, especially the cavernous tissues over the turbinate bones, which swelling may be enough to make the opposite surfaces of the mucus membranes touch, and to the tickling sensation which ensues upon this contact much of the sneezing, and much, in all probability, of the distillation are due. The fact that in some cases asthma very quickly follows coryza suggests the notion of a rapid spreading of the catarrhal affection downwards along the respiratory tract; what in the upper part is a paroxysmal coryza becomes in the lungs paroxysmal dyspnœa, or, in other words, asthma.

4. *Paroxysmal Bronchial Flux.*—Closely allied as paroxysmal coryza and asthma undoubtedly are, there is an obvious unlikeness between them in one respect—namely, in the amount of mucous secretion. But there is a peculiar form of what Laënnec calls acute pituitous catarrh of the bronchial tubes, which more exactly resembles recurrent coryza in the abundance of the flux, its short duration, and its tendency to recur.

"A woman, aged 32, corpulent and of fair complexion, had suffered for some months from an obstinate cough, when one evening she was attacked by a complaint which very much resembled the paroxysm of spasmodic asthma, except that it was much more violent than first attacks of that disease usually are, and that its remission was attended with a very copious discharge of frothy serum from the bronchial tubes, which was thrown up by a slight, though almost continual, cough." On the next morning she was much better and she soon recovered. Some months afterwards she had another attack of the same kind, and about eighteen months after the first attack she had a third, much more violent. "She was suddenly seized with dyspnœa, attended with a convulsive kind of cough, which in less than five minutes from the time of attack increased so as to produce the appearance of suffocation. Her senses forsook her, her face became livid, her extremities were cold, and the action of the heart was so much diminished that no pulsation could be felt in the wrist, and but very little in the left side. She remained in this state nearly two hours, during which time a very large quantity of frothy serum tinged a little with blood was discharged without any visible effort by the mouth and nostrils. About the end of that time some very faint and involuntary efforts to cough came on, which gradually increased, and with every effort large quantities of the frothy serum were thrown off; perhaps the whole quantity might amount to 3 or 4 pints. About three hours after the beginning of the attack the difficulty of breathing became very sensibly diminished, and her senses were observed to return." In a few hours she had recovered so as to be much the same as she was before the seizure. After a somewhat longer time she had attained the condition of a patient in the best state of health. This woman was a patient of Mr. Thomas Baynton, of Bristol, and her case is narrated in a book published by the well-known Dr. Thomas Beddoes, of the same city. You will have observed that the profuse expectoration is said to have been "serous," but this word is no doubt used in a loose sense, for Beddoes, who was a good chemist, expressly says that the fluid was ascertained by careful inquiry to be mucus, and not saliva, as he at first suspected. In my first lecture on bronchitis I spoke of acute pituitous catarrh, always a serious disease; and Baynton's case was an instance of this affection, but peculiar from its tendency to recur, and in this respect closely resembling paroxysmal coryza and asthma.

5. *Hay Fever.*—In this place I might refer to the fact that hay fever, which usually assumes the form of coryza and lachrymation, sometimes becomes an asthma. The paroxysms of hay asthma and of what we call ordinary spasmodic asthma differ in no particular. But this topic has been so fully discussed by our late distinguished President (Sir Andrew Clark), whose opinions are doubtless well known to you all, that I need not allude to them here. I will only repeat that the cause, whatever it be, of hay fever will produce ophthalmia, coryza, or asthma according to the portion of the mucous membrane which is affected.

And to sum up the argument in favour of the opinion that asthma is (in Willis's phrase) pneumonical, as distinguished from the convulsive form of the disease, the assumed bronchial obstruction being due, not to any sort of spasm, but to what he calls an afflux of humours upon the air passages. We have seen that there are five or six affections of the respiratory tract which are closely allied to asthma, and which may be said to constitute, together with asthma, a special class of diseases, characterised as follows: They set in suddenly, they speedily reach their highest point of severity, their duration is short, they are apt to recur, and in the intervals the patient is more or less free from signs of disease until the catarrh becomes chronic. The tendency to the disorders is hereditary and runs in families; many patients manifest a tendency to two or more of these complaints. If the force of these analogies be admitted, we may carry the argument farther and observe that all these diseases are catarrhal. Now, catarrh implies two conditions—namely, increased secretion and swelling of the membrane; but, as a matter of fact, neither of these conditions is constant. The defluxion or increased secretion may be absent, or at most may be very small, and this constitutes Laënnec's dry catarrh. The swelling is more constant, at least in acute catarrh; in paroxysmal coryza, which has so close an affinity with asthma, the swelling can be seen; moreover, both defluxion and swelling occur with great rapidity. The two concomitants of catarrh will explain the most important symptoms of all the disorders in question, including asthma.

If we consider the catarrhal tendency to be due to an inherent delicacy or vulnerability of the mucous membrane, a tendency usually inherited, we seem to be able to understand the reason of the fact that asthmatic persons during childhood are so often liable to eczema, which may be deemed to be indicative of a similar condition of the skin.

In the earlier part of the lecture we arrived at the conclusion that the doctrine of a spasmodic asthma is very imperfectly supported by facts, and now the argument has led us to believe that all asthma is merely a peculiar form of bronchitis, and that there is no need for any hypothesis of spasm in order to explain the phenomena of the disease. Should it be objected that bronchial spasm may possibly aggravate the effects of catarrh, we may appeal to the philosophic law of parsimony—*Entia non sunt multiplicanda præter necessitatem.* You know that this is not a new doctrine. Many years ago it was maintained very ably by Beau. Sir Andrew Clark arrived at the same conclusion by a different path—by noting how one and the same cause, hay fever, produces sometimes coryza, sometimes asthma, and sometimes both together. Which element of the catarrh, defluxion or swelling, obstructs the tubes is a question which naturally arises. The interesting observations of Lefèvre, published more than 60 years ago, upon the expectoration of peculiar mucous cylinders, which he compared to cooked vermicelli, towards the end of an asthmatic attack render it very probable that both secretion and swelling concur to obstruct the bronchia. But there remains another and much deeper question which concerns the asthmatic tendency—in

what does it consist? Why are some persons prone to asthmatic catarrh and others not? Why does the disposition run in families? What is the bond which in so many cases connects the several diatheses of asthma, eczema, and gout?

For the solution of such problems as these, and for the advancement of all medical learning, may a succession of men like Harvey and Willis never be wanting to our venerated College.

IS PETROLEUM EMULSION OF ANY NUTRITIVE VALUE?

BY ROBERT HUTCHISON, M.D., M.R.C.P.,
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THERE can be no doubt that in recent years petroleum emulsion has crept into use as a substitute for cod-liver oil in the case of patients who are unable to take the latter. Now, petroleum belongs to the paraffin series—that is to say, to a set of substances which are characterised by the great opposition which they offer to chemical change. One would not, therefore, expect on *a priori* grounds that petroleum would be capable of assimilation in the body. In order to put the matter to practical test I recently carried out some experiments on the absorption of petroleum emulsion by man, the results of which entirely confirmed the suspicions which one had entertained on chemical grounds, and lead to the conviction that petroleum is of absolutely no use at all as a substitute for cod-liver oil. It is the object of this paper to describe these experiments and the conclusions to be drawn from them.

I employed a well-known and widely advertised emulsion of exceedingly pure petroleum. It was found that 30 c.cm. of it, when mixed with charcoal and evaporated to dryness, yielded on extraction with ether 7 grams of semi-fluid petroleum; 30 c.cm. represents about 3 dessertspoonfuls, which is the usual daily dose of the emulsion in question. I next proceeded to administer this dose to a healthy man with the object of ascertaining how much petroleum one could recover from the fæces. In the first experiment the subject was placed on a constant diet containing a moderate amount of fat. The fæces were collected daily, mixed with animal charcoal, and evaporated to dryness. The product was then extracted with ether in a Soxhlet's apparatus and the extract weighed. The results are contained in the following table:

First Experiment.

	Weight of Ether Extract.
Total fæces of three days without petroleum	7.1 grams.
Total fæces of three days on 30 c.cm. petroleum emulsion per day	32.7 ,,
Difference ...	25.6 ,,

That is to say, the administration of three dessertspoonfuls of petroleum emulsion daily had increased the ether extract of three days' fæces by 25.6 grams, although the diet was exactly the same as on the three previous days. The appearance of the extract was also quite different for the two periods. That of the first three days was solid and waxy, while that of the three petroleum days was semifluid in consistence.

In order to recover petroleum free from fat the ether extract was saponified by boiling with alcoholic potash solution. The residue was diluted with water, shaken up with ether in a separation funnel, the ether evaporated, and the residue weighed. The total 32.7 grams yielded on this treatment 21.6 grams of semifluid petroleum. Now 7 grams of petroleum had been administered on each day, so that 21 grams had been given, and 21.6 were recovered. The apparent excess found was probably due to the presence of traces of soaps.

In the second experiment no attempt was made to regulate the diet. Thirty cubic centimetres of the emulsion were administered on one day, and the fæces of the three succeeding days extracted with ether, and the extract saponified as above.

Second Experiment.

	Ether Extract.
First day (no petroleum)	3.5 grams.
Second day ,, ...	4.1 ,,
Third day (30 c.cm. emulsion)	4.3 ,,
Fourth day (no petroleum)	7.6 ,,
Fifth day ,, ...	6.9 ,,

On saponification, the extract of the fourth day yielded 4.5 grams of petroleum. The extracts of the third and fifth days yielded together 2.6 grams. The total amount of petroleum recovered was thus 7.1 grams, while the amount contained in the 30 c.cm. of emulsion given was 7 grams. The results of this experiment, therefore, entirely confirm those of the first.

From these experiments it may reasonably be concluded that petroleum is not absorbed in the human intestine and I consider, therefore, that it can in no wise be regarded as a food or a substitute for cod-liver oil.

Nor do I suppose that petroleum has any remote action, say, upon the lungs. It is conceivable that if crude petroleum were employed, some of the volatile substances contained in it might enter the blood and be excreted by the mucous membrane of the air passages, but the purer the petroleum used the less chance is there of any such occurrence.

Whether petroleum may have any value as a local application in intestinal diseases must be left undecided. One can imagine that there may be conditions of the intestinal mucous membrane in which the administration of petroleum might be of value in the same way as the application of vaseline to the skin, by forming a sort of pellicle on the intestinal surface.

In one sense, also, it may be regarded as an artificial intestinal mucus, and it might in that way have some value in certain forms of constipation. It is also worth considering whether it might not be a useful vehicle for the administration of intestinal antiseptics. Carbolic acid dissolves in it, and if the petroleum prevented the absorption of the acid it would also bring the latter into intimate mixture with the intestinal contents, and act as a sort of internal "carbolic vaseline"; but that part of the subject would require special investigation by experiment. My only object at present is to point out that petroleum, even when given in the form of emulsion, is not absorbed at all, and as a consequence can have no nutritive value.

CARCINOMA OF THE TONSIL.

BY JAMES GALBRAITH CONNAL, M.B.,
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CASES of primary epithelioma of the tonsil are comparatively infrequent, but they are not so rare as was at one time supposed. The following case seems to me to have some points of interest.

Mrs. W., aged 60, consulted me in June, 1898. There was a well-defined swelling about the size of a pigeon's egg at the angle of the jaw, and extending up behind the ramus on the right side. On examining the pharynx, the right tonsil was found enlarged and its surface ulcerated; the uvula was pressed upwards and to the opposite side, and the right anterior pillar and adjoining surface of the soft palate were hyperæmic and swollen. There was no involvement of the tongue.

She gave the following history: In March a swelling at the angle of the jaw on the right side was noticed, and shortly afterwards she accidentally discovered that the right tonsil was inflamed and ulcerated. There was no difficulty in swallowing and no complaint of pain. She stated that though never a strong woman, she had suffered from no definite ailments. It may be noted that her mother died of "cancer of the breast," and a brother died of a "tumour on the right side of the chest" at 40 years of age.

As the swelling was regarded as malignant, a portion of the tonsil was removed and sent to the West of Scotland Clinical Research Laboratory, where the diagnosis of its malignancy was confirmed.

The report states: "Sections were cut vertical to the

surface by the paraffin process. The growth is carcinomatous. The sections consist of irregular solid masses of cells, of large size, and clearly epithelial in nature, embedded in a rather scanty fibrous stroma, which is well formed and carries numerous blood vessels. Beautiful karyokinetic figures are seen in considerable number in the epithelial cell masses, which may be regarded as indications of active growth. The edge of the section corresponding to the free surface is partly ulcerated, partly covered with the usual stratified squamous epithelium of the fauces."



Fig. 1.—Section showing the ulcerated surface and epithelial cell processes—fibrous stroma scanty. × 25.

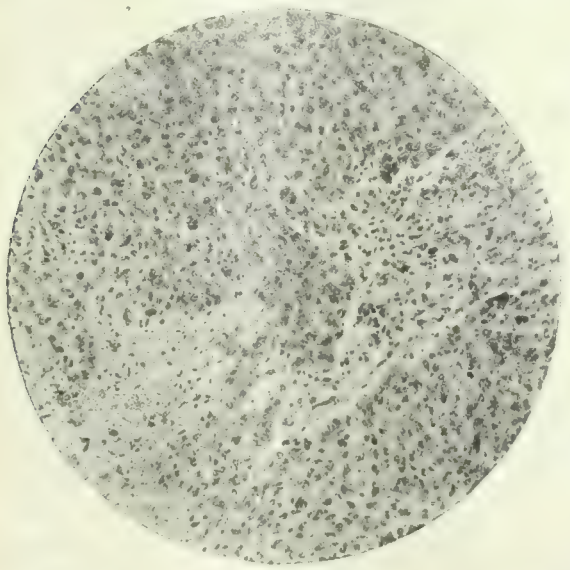


Fig. 2.—Section showing two of the cell processes and a broad band of fibrous stroma. × 150.

At first she absolutely declined all operative treatment, but as the tonsil enlarged and pressed up the soft palate it gave rise to a little difficulty in swallowing. On four different occasions portions of the tonsil have been removed, which has always afforded the patient relief.

In the diagnosis of malignant disease of the tonsil, as of the larynx, pain is one of the prominent, and as a rule one of the early, symptoms. In the present case, though there has been at times a slight difficulty in swallowing, pain has not been a characteristic symptom. About a fortnight ago she complained of acute pain shooting up to the right ear, but this only continued intermittently for a few hours, and has not since recurred.

I am indebted to Dr. J. H. Teacher for the micro-photographs.

A NOTE ON FIBRO-ADENOMA OF THE MALE BREAST.

BY R. GLASGOW PATTESON, B.A., B.CH.UNIV.DUB.,
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DEVIATIONS from what Sir James Paget has happily termed the "chronometry of disease" are always of pathological as well as of clinical interest; and every case which serves to elucidate or exemplify this phenomenon is therefore deserving of record from a twofold standpoint. Some years ago I published[1] two cases of this affection occurring in girls under the age of puberty, being up to that time the only recorded cases; but until quite recently no example of this neoplasm in the male breast had come under my observation.

J. G., aged 24, a labourer, was admitted into the Meath Hospital on October 8th, 1898, suffering from a small and painful tumour in the left breast. He stated that almost twelve months previously he had begun to feel an occasional stinging pain in this region, which he thought was due to the rubbing of his braces whilst working. He accordingly dispensed with this means of support, but found that no relief from the pain was experienced, and soon afterwards he noticed just under the nipple a small hard kernel about the size of a pea. As this had gone on slowly increasing in size and becoming more painful, he was advised to come up to town for further treatment.

Condition on Admission.—A small tumour about the size and shape of a bean could be felt lying immediately below the left nipple and areola, adherent superficially and with only limited mobility over the underlying tissues. It was painful and extremely tender to the touch, so that the rubbing of the clothes caused constant discomfort, and it was at first thought that possibly some active inflammation might have supervened on a more chronic process.

Treatment.—On this chance glycerine and belladonna were applied under hot fomentations for some days, but without affording any relief. Accordingly, on October 17th, I removed the tumour, which was deeply attached to the pectoral fascia; and in the surrounding fat a similar small but quite separate growth was found, which was also taken away. The wound healed by first intention; the sutures were removed on the fourth day, and the patient was discharged four days later.

On fresh section the little growth presented appearances identical with those found in the two previous cases—dense greyish bands of fibrous tissue, among which the remains of glandular tissue could be easily differentiated with a pocket lens. It was handed to Professor O'Sullivan, of Trinity College, who kindly examined it, and reported it to be a typical fibro-adenoma in which the arrangement of the glandular epithelium conformed mainly to a tubular type.

Mr. Roger Williams[2] gives references to several recorded cases of this affection, though no mention is made of it in Mr. Marmaduke Sheild's later work;[3] and it seems, therefore, as if its occurrence justifies one in calling the attention of surgeons once more to the condition, and urging at the same time the collection of any cases which may come under observation.

REFERENCES.

1 *Journal of Anatomy and Physiology*, vol. xxvi, July, 1892, p. 509. 2 *Diseases of the Breast*, London, 1894, p. 510. 3 *Diseases of the Breast*. London, 1898, pp. 482, 599.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

TYPHOID POISONING AND SEWER GAS.

THE following is an interesting pendant to Mr. Gifford Nash's series of cases of sewer-gas poisoning published in the BRITISH MEDICAL JOURNAL of January 28th.

In 1890 a cook was admitted into the British Hospital, Buenos Ayres, under my care, suffering from typhoid fever, and was shortly followed by the housemaid, who had temporarily assumed her duties. For weeks neither had been beyond the garden of the well-appointed house where they were employed; the water supply was not under suspicion, and the milk came from cows kept on the premises. Both

complained of a horrible smell from the scullery sink on first coming down in the morning, which smell each had stopped for the day by running a little water down the waste pipe. On examination, a leak was found in the U-tube of this waste pipe in the ground outside the scullery wall. This waste pipe emptied into a hermetically-sealed and unventilated cesspit, which also received the outflow from the well-trapped servants' watercloset. The servants some short time before had been visited by a friend suffering from diarrhœa, who had used their watercloset. I found this friend convalescent, in the German Hospital, from what had almost been a case of ambulant typhoid, and was not surprised, a few days later, to receive, also suffering from typhoid fever, the third servant who had acted as cook over the drain before it was put right. A new trap having been supplied, and the cesspit disinfected and ventilated, my series of cases of typhoid poisoning from sewer gas ended with the third.

Reigate. F. WYATT-SMITH, M.B., B.C.

VENESECTION IN CEREBRAL HÆMORRHAGE.

CEREBRAL hæmorrhage is a not infrequent accident in the most active period of life, and at present far too fatal. I have recorded in the BRITISH MEDICAL JOURNAL some years since the successful use of venesection. Freely and promptly done, this alone may often save life. It is especially in the case of energetic, full-blooded persons that the attack occurs, almost without warning. The ingravescent symptoms clearly point to increasing effusion and pressure on the brain. Hours may pass before consciousness is lost. The direct effect of a considerable blood-letting in lowering the arterial tension counts for much; but its indirect tranquillising effect on the circulation—well seen in small venesections in the case of febrile disease—is no doubt still more important. And, considering the otherwise fatal tendency of this form of cerebral hæmorrhage and the ease and safety of venesection, I think it should be always and at once resorted to.

London, W. R. FORTESCUE FOX, M.D.

VAGINAL FIXATION OF THE UTERUS.

IN May, 1898, I first saw Mrs. B., 3-para, aged 27. She complained of constant sacral pain with menorrhagia, and latterly of an almost continuous slight hæmorrhage. I found an acutely retroflexed tender uterus, incarcerated by swelling under the sacral promontory. I was unable to replace it digitally in any position of the patient. I therefore put her to bed, and placed her for a fortnight on ergot, hot douching, and glycerine plugs, with a view to reducing the congestion of the fundus. I was loth to pass a sound, in view of the possibility of conception. However, as irregular slight hæmorrhages continued, I did so, but was unable to replace the uterus by gentle manipulation. Under an anæsthetic, however, I readily replaced it with the sound, the incarceration being probably due, in large measure, to the contraction of the muscular fibres in the utero-sacral ligaments. I curetted the endometrium, in view of its probable congested condition, and I kept the cervix backwards by means of a vaginal tampon, as the uterus had a tendency to spring back to its old position.

After a suitable period in bed, I put in a Hodge pessary, and allowed the patient to get up. She now had no hæmorrhage, but painful menstruation and constant backache remained. During the next three months, I tried every conceivable shape of pessary (except the stem), but invariably found, the day after its insertion, that the fundus was sagging behind the top bar of the pessary. Although the fundus was usually jammed, it could now always be replaced by posture and digital manipulation. The patient was not a neurotic woman, and fought against her trouble; but the constant sacral pain was making her life a misery, and each month saw an exacerbation of it. The only rational method of treatment remaining seemed to be fixation of the uterus, and on my putting the matter clearly before her, the patient readily consented to a radical cure.

In August, 1898, I performed vaginal fixation, assisted by my partner, Dr. A. C. Mackenzie, by Dührssen's method of anterior colpotomy, inserting three silkworm-gut sutures. She made an uninterrupted recovery. It is now nearly six months since the operation; she is quite free from sacral pain, her periods are normal in every respect, and she looks, and is a different woman. The uterus is in a position of anteversion.

The operation of vaginal fixation is one which finds little favour either on this Continent or in America, Alexander's operation being preferred. I was always taught, however, that the latter had little to recommend it; and I certainly think that, except in skilled hands, it must be fraught with many difficulties and dangers, even if its ultimate results are good. Whereas vaginal fixation presents no great difficulty to anyone who has had opportunities of seeing much operative gynæcology.

As regards my patient, her present condition is ideal. What will happen if she becomes pregnant I cannot say. Perhaps at some future date I may be able to record the sequel. I should be glad to hear from others who have met with difficulties in labour after this operation.

EDWIN TEMPLE SMITH, M.B., M.R.C.S.Eng.

Mount Morgan, Queensland.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MONSALL FEVER HOSPITAL, MANCHESTER.

SCARLET FEVER, AND INTRACRANIAL SUPPURATION OF RHINITIC ORIGIN.

(By A. J. TONKIN, M.B., Assistant Medical Officer to the Hospital.)

THE occurrence of intracranial suppuration in scarlet fever, following disease of the middle ear, is fairly common, but the rarity of its incidence in the same disease, but following diseases of the nose, merits a description of the two following cases which have recently occurred in this hospital.

CASE I. *Clinical History.*—G. M., aged 5 years, was admitted on June 16th, 1898, suffering from an attack of scarlatina anginosa, which progressed favourably, the temperature falling to normal by the 30th, and the throat and gland symptoms clearing up entirely. On July 8th severe rhinitis appeared, and on the 12th double otitis, both continuing until death. On August 3rd the temperature began to rise irregularly until it reached 103.6° on August 12th, the day on which death occurred. Until August 5th the urine had remained normal; on that day a cloud of albumen appeared, and the urine became scanty, averaging from 2 ounces to 10 ounces daily. On August 8th the patient complained of frontal headache, which symptom continued with increasing severity until death. On the morning of August 12th the patient's head was very strongly retracted; the face was turned to the left, and there were some general convulsions. Towards evening he gradually became comatose and died.

At the necropsy an abscess about the size of a walnut was found in the substance of the left inferior frontal convolutions, limited by and involving the pia mater. The inner surface of the dura mater was perfectly smooth and bright, and the subdural space contained neither pus nor lymph. There was no osseous erosion at any point, and no pus was observed in any of the foramina. The rest of the brain, its membranes, and the calvarium were in a healthy condition. There were no lesions in any other part of the body, with the exception of slight scarlatinal nephritis.

REMARKS.—That the source of infection in this case was the nose may be judged from the position of the abscess over that cavity, which at the time contained and was discharging infective matter, and also by the fact that the rest of the calvarium and its contents, and of the body generally, were healthy, thus excluding all the usual causes of cerebral suppuration. And inasmuch as the cribriform bone and the dura mater on its outer and inner surfaces were found to be healthy, it must be inferred that the infective organisms travelled from the nasal cavity along some minute route not observable by the naked eye, such as some minute venous trunk, the perineural fibrous sheaths, or some small lymphatic vessels.

Case II. *Clinical History.*—W. H. W., aged 6½ years, was admitted on November 17th, 1898, suffering from an attack of scarlatina. He died on December 11th. The original attack progressed quite favourably. On November 22nd left otitis appeared, and continued with lessening severity until death, at which time, however, it had almost ceased to exist. Rhinitis was present from the commencement of and throughout the attack, but was never a very marked feature. On December 6th the patient began to complain of frontal headache, which symptom continued until death. On December 7th albumen appeared in the urine. During the evening of December 5th there was a sudden rise of temperature to 102.4°, which was maintained until death. Just prior to death the head was strongly retracted, the face was persistently turned to the left, the pulse was irregular, full, soft, and rapid, the pupils were equal, and there was gradually increasing coma until the fatal termination.

At the necropsy a general lepto-meningitis was discovered. The dura mater was normal, and there was no pus in the subdural space. There was greyish-yellow lymph in the sulci of the brain generally and round the nerve roots; it was in greatest amount on the inferior and superior surfaces of the frontal lobes, and least about the sphenoidal lobes. There was an excess of fluid in the ventricles. There were no osseous erosions anywhere in the calvarium. The petrous portions of the temporal bones were removed and carefully examined, and were found normal. The Schneiderian membrane was congested and swollen. No evidences of tuberculous nodules were observed about the basal meninges. The rest of the body and its organs were found in a normal condition.

Remarks.—With the exception of the disease in the nose and ear all the usual causes of lepto-meningitis may be excluded. Thus, the infection must have come either from the left ear or the nose, both of which parts contained infective matter when the meningeal symptoms set in; but the left otitis had almost ceased before the meningitis commenced, and the petrous bones were found normal on examination; if the left otitis had been the cause the disease would probably have been unilateral and the left sphenoidal lobe would have been most affected, whereas it was least. It is probable that the nose was the source of infection, as the nasal cavity contained infective matter, and the frontal lobes were affected more than any other part of the brain. In this case the channel of infection was probably similar to that in the former case, and each is an example of intracranial suppuration in scarlet fever without osseous erosion.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Charlewood Turner, M.D., Vice-President, in the Chair.

Tuesday, March 21st, 1899.

Experiments upon the Toxicity of the Urine.

Dr. W. P. Herringham gave an account of a series of experiments upon the toxicity of the urine. He recalled the fact that since disease of the kidneys had been known to be a cause of death, this effect and the general group of symptoms to which the name "uræmia" was given had been till recent years universally, and was still commonly, supposed to be due to the retention of waste products. In the last few years a second theory had sprung up which explained uræmia by the loss or perversion of an internal secretion, but the evidence for this was as yet insufficient. Yet the common belief could never point to a definite poisonous constituent of the urine. Urea, uric acid, all the known organic bodies which the urine contained, had been injected into the circulation in excessive quantities without producing the symptoms. In default of any satisfactory explanation by these means pathologists had been driven to other theories, first that of cerebral œdema championed by Traube, and, when this fell to the ground, secondly, theories which ascribed uræmia not to a constituent of the natural urine, but either to a body produced by decomposition of the retained urine within the body, such as Frerichs's ammonium carbonate, or more recently to a precursor of urea such as the salts of carbamic acid, which were put forward by Nencki and others on experimental evidence. Fresh light was thrown upon the subject by the experiments of Feltz and Ritter in France, and Astaschensky in Russia, who injected urine itself into the circulation. They ascribed the fatal effects of these injections chiefly, or even entirely, to the potash salts. Their experiments were repeated by Bouchard, of Paris, who denied the sufficiency of the potash salts on several grounds, ascribed a partial toxicity by a kind of division of labour to all the constituents of the urine, and supposed seven different poisons to exist in the urine, each productive of a special symptom. Bouchard further found the urine of sleep less toxic than that of day, and more convulsant in its effect, and was led to form a theory of sleep according to which men by day secreted a body possessed of narcotic properties which by its accumulation induced sleep, while during sleep this gave place to another substance of a convulsant nature which, by inducing muscular movements, led to waking. The speaker had been engaged during the last three years in repeating these experiments, and during the same time Beck in Germany had been similarly occupied. Their conclusions, so far as their work had overlapped, were similar. Bouchard's conclusions rested upon no chemical analysis, but upon physiological symptoms alone. He had produced not one of the bodies whose presence he asserted, and had not even observed the presence, the variation, of those bodies known to exist in the urine. For instance, while denying the sufficiency of potash salts, he gave no quantitative analysis of the amount contained in the urine. Furthermore, in many respects neither Beck nor the speaker was able to confirm his account. The urine of sleep, for instance, was not in their experience more convulsant than that of day. Thirdly, the variation of rabbits, which were the animals upon which Bouchard experimented, was so great that the differences upon which Bouchard relied were within the error of this variation. The speaker's work had been carefully to observe the symptoms induced in animals by these injections, and then to make quantitative analyses of the various constituents of the samples of urine. By this means he reached the conclusion that none of the constituents but potash varied with the toxicity of the urine, and, after making a necessary modification of the classical method of potash analysis in urine, he was able to show so close a parallel between the two that he had no doubt that potash was the only cause of the fatal result. In every instance there was sufficient, and in nearly all much more than sufficient, potash to produce death. The lesser toxicity of the urine of sleep was simply owing to a lesser excretion of potash. Diagrams showed the relation of various other urinary constituents and of potash, and also illustrated the extent of variation in rabbits, as evidenced by cases in which a pair of rabbits had been treated with the same sample of urine. The difference between the two animals was never less than 6 per cent., and ran up to 52 per cent. The symptoms of animals thus injected were myosis, drowsiness, lowering of blood pressure from cardiac failure, retardation and embarrassment of respiration, loss of body heat, and, finally, fatal convulsions. The resemblance of these to uræmia was evident, but no conclusion could be drawn thence until clinical investigations had followed up the suggestion of experiment. Since the degree of toxicity of the urine was merely an inexact way of stating its content in potash salts, injection experiments on animals could not take the place of quantitative chemical analysis. Bouchard had laid down a standard of excretion for the normal adult man, but the speaker had found that the normal varied under ordinary conditions (and still more under conditions of light diet and rest in bed) too widely to admit of any useful comparison in disease unless by a long series of observations on each patient. Isolated estimations were quite useless. Lastly, Bouchard had rested his theory of auto-intoxication largely upon the conclusions drawn from urinary toxicity. Auto-intoxication was a word of confused meaning, comprising, first, cases of perversion or loss of the internal secretion of a gland, of which the only proved instance was that of the thyroid; secondly, cases of perverted metabolism during primary or intestinal digestion with absorption of the abnormal products; and thirdly, similar processes occurring during the hepatic, or even during later, stages of assimila-

tion, both of which were purely hypothetical. Urinary toxicity being due to potash salts, could not lend support to the auto-intoxication under either of these three meanings.

The Chairman observed that in uræmia as observed clinically the case should not be regarded so much one of the absorption of urine as one in which urine was not formed; nor did he think that the injection of urine into the circulation was strictly comparable to the slow absorption of urine which took place after the blockage of a ureter. The clinical symptoms of uræmia and of urinary suppression, moreover, did not coincide.

Professor Rose Bradford could confirm the author's account of the symptoms resulting from the intravenous injection of normal urine. Bouchard had stated, amongst other things, that the urine lost toxicity in cases of uræmia; this was not correct. Both the blood (drawn by venesection) and the urine in acute uræmia were toxic upon rabbits and dogs. The speaker had not asserted that the results arising in animals from the partial removal of kidney were due to the loss of an internal secretion; what he thought was that a disturbance arose in nutrition after such experiments, but the explanation of which was still to be given. Uræmia, in its clinical sense, he did not hold to be due to the retention of any normal constituent of the urine, for the reason that no experimenter had yet succeeded in producing it. The removal of the kidneys was followed not by "uræmia," but the symptoms witnessed in suppression due to calculus, though he did not deny that such symptoms might in rare cases be combined with those of "uræmia." The most striking fact in cases of calculous suppression was that the patient retained consciousness and reason till the last. He had described a rare case of complete cortical necrosis of the kidneys in the human subject, and here there was not "uræmia" but the condition seen in calculous obstruction, Sir William Roberts's "latent uræmia." The symptoms of uræmia, the speaker thought, would probably prove due to the retention of abnormal and not normal urinary constituents.

Dr. Herringham, in reply, also held that the symptoms resulting from the injection of urine in animals were not those of proper uræmia. He hardly thought there was a hard-and-fast line between uræmia and the results of suppression. The toxicity of normal urine was due to its potash salts; but he did not hold that uræmia was due solely to a want of excretion of these.

Epithelial Tumours of the Forehead.

Dr. Radcliffe Crocker recorded the case of a female child, aged 10 years, who presented many small spherical growths on the forehead, varying in size from a hempseed to a pea; they did not appear to be actually congenital, though noticed first at an early age. Two of the largest were excised, after which the others diminished, but further tumours made their appearance. Histological examination showed a gland-like or lobular arrangement of epithelial cells having the characters of those seen in rodent ulcer; the source of the growth could be traced to the ducts of the sweat glands and to the hair follicles. Nevertheless, in clinical characters, he considered the growths as benign. There was a history of injury in the case, and this the author considered to have started the growths, which possibly arose in fœtal residual elements of the skin.

Mr. Raymond Johnson referred to two flattened plaques of new growth in different cases, one from the shoulder the other from the buttock, both of which presented the histological characters of rodent ulcer.

Diffuse Syphilitic Change in the Liver.

Dr. F. Parkes Weber showed sections from the liver of a man, aged 47, the subject of advanced tertiary syphilitic disease of the testes, etc., who died with cerebral hæmorrhage. The liver was somewhat enlarged (weight 67 ozs.), and though it showed no distinct gummata or scars resulting from gummata, presented a diffuse, more or less generalised, fibroid change. Microscopic sections showed that this change might be regarded as the result of a "pericellular" or "pericapillary" cirrhotic process, such as had been more frequently recorded in connection with congenital syphilis than with the acquired disease. What Dr. Parkes Weber specially drew attention to was a tendency in the present instance and in some analogous cases for the fibrous change to be most advanced in the central portions of the acini, and least noticeable around the portal spaces. The best preserved glandular cells were those at the periphery of the acini, precisely those which were most likely to be encroached upon in ordinary cirrhosis. The fact that the middle and inner zones of the acini were the most affected, just as they were respectively in amyloid disease (which was absent in the present case) and chronic passive congestion, suggested that the harmful process in diffuse syphilitic disease of the liver was connected rather with the minute branches of the hepatic artery than with those of the portal vein. An analogy was drawn between the change pointed out by Dr. Weber in the liver, and the change observable in those cases of cardio-sclerosis ("chronic myocarditis") in which the fibroid degeneration of the muscle fibres was chiefly manifest in the portions of the myocardium furthest removed from the arterioles which supplied the blood.

Card Specimens.

Dr. Parkes Weber: Lipoma of Kidney.—Mr. Cecil Beadles: Ruptured Heart; Hæmorrhage into the Adrenal.—Dr. H. D. Rolleston: Simple Ulceration of the Stomach.—Mr. Raymond Johnson: Rodent Ulcer from the Shoulder.

HARVEIAN SOCIETY OF LONDON.

Henry Juler, F.R.C.S., President, in the Chair.

Thursday, March 16th, 1899.

Modern Views on Gout in Relation to Treatment.

Dr. Mouillot (Harrogate) read a paper on this subject. He said gout was accompanied by the presence of uric acid in the form of quadriurate in the blood in recognisable quantity, and that it deposited in the tissues in the form of sodium biurate owing to the action of the serum salts, particularly sodium chloride. He argued that the presence of an abnormal quantity of uric acid in the blood must be due to a loss of the balance between production and excretion, and that as in gout rather less than the normal amount of uric acid was eliminated in the urine, it was necessary to assume that there was a relative inadequacy on the part of the kidneys to eliminate all the uric acid formed, whether in excessive quantity or not. Although believing that this relative inadequacy was a necessary concomitant of gouty deposit, Dr. Mouillot did not believe that the kidneys were solely at fault or that uric acid was produced, as well as excreted, by those organs. Dr. Luff's argument that if uric acid were made elsewhere it must be carried to the kidneys by the blood was doubtless a strong one, and his failure to find uric acid, even in the blood of birds, was a strong point in favour of the renal origin of uric acid, but Dr. Chalmers Watson's recent investigations, which showed that uric acid was present in the blood of birds, were opposed to Dr. Luff's negative evidence. Minkowski's experiments on geese were strongly in favour of the hepatic origin of uric acid, which origin was also strongly supported by clinical evidence. The assumption that the kidneys were sufficiently healthy to perform a synthetical process and not healthy enough to eliminate the substance formed, was not so rational as that the failure on the part of the kidneys was in the power to eliminate uric acid made elsewhere. Besides both the supposed antecedents of uric acid, urea and glycocine were made in the liver, and it was probable that their conjugation took place there also. Dr. Mouillot believed that the proximate cause of the gouty state lay in a defective metabolism of proteids due to a functional disease of the liver or intestinal glands, and that the deposit of sodium biurate was due to deficient elimination by the kidneys owing to a diseased condition, or through their action being inhibited by an impure condition of the blood. He took Sir William Roberts's view as to the deposit of sodium biurate being the cause of the articular symptoms and many of the non-articular symptoms. In the differentiation of gout from rheumatism stress was laid on the condition of the fingers, and also on the deposit so often found in the conjunctival surface of the lower eyelid. In speaking of the treatment, Dr. Mouillot argued from the action and success of colchicum that the objects aimed at should be to diminish the quantity of uric acid formed, and stimulate the intestinal glands and liver, whilst

endeavouring to remove all the uric acid formed through the excretory organs. Colchicum probably acted by its effect on the liver and intestinal glands, which increased the quantity of bile, thus removing in the form of glycocolic acid one of the antecedents of uric acid. Colchicum completely met the indications in acute gout. Chronic gout and goutiness must be treated mainly by diet and periodic visits to watering places. The main points in diet were to drink fluid freely apart from meals, and to make the meals as little complex as possible. Stimulants should never be taken except at meals on account of their effect on the liver. As to watering places, Dr. Mouillot considered that British spas were sufficient for every purpose, and that the medical man was as important as the place. He considered that Sir William Roberts's objection to spas the waters of which contained sodium salts, and his preference for indifferent waters, was unfounded. With respect to Harrogate, it was found that a full course of treatment by the waters reduced the amount of uric acid, whilst increasing that of urea, eliminated. Dr. Mouillot concluded by reading notes of the only two cases of acute gout which had occurred in his practice whilst the waters were being taken. One case was remarkable in that the patient had never tasted meat in his life, and lived entirely on milk and vegetables.

Dr. Bezly Thorne particularly wished to emphasise his conviction that granular kidney was a cause neither of gout, high tension, nor heart affection. All three he believed to be consequential expressions of a general condition of blood impurity, in the maintenance of which a chronic gastro-duodenal catarrh, bringing in its train pancreatico-hepatic obstruction and gastro-intestinal fermentative changes, was the fundamental cause. The gastro-duodenal factor might possibly have much to do with the part which the liver played in the uric acid diathesis. Dr. Thorne thought that he could not better indicate his views as to the relation which diet bore to the toxæmia, of which uric acid was one of the most easily recognised but probably by no means the most active agents, than by giving his own personal experience. Starting with the worst possible inheritance as to uric acid, some sixteen years ago he became subject to tender nodular enlargements on the bones, mainly of those of the hands and feet, as well as of the articular ends of the clavicles. Soon he had to abandon the use of the phalanges of the left hand as pleximeters in percussion on account of the periostitis which it induced. Migraines, which had recurred at rare intervals, became more and more frequent, until they disabled him two or three times a week. All this time there were evidences of biliary obstruction or inhibition, and the daily evacuation of considerable quantities of uric acid. The failure of his health culminated about thirteen years ago in two attacks of what would now be probably called appendicitis, an affection which he believed to be intimately associated with that condition of the digestive tract characteristic of the uric acid diathesis. While laid aside with the second attack he became convinced that a gastro-duodenal condition identical with that which had been denominated "mucous disease" and "cœliac disease" of young children was the causative factor of his own ill health, and he resolved to effect a revolution in diet and treatment. From the beginning he had abandoned all wine and sweets, taken almost daily a dose of saline aperient, and one of calomel once or twice a week, and for more than a year not one shred of butcher's meat had passed his lips. As soon as the subsidence of the acute symptoms allowed, he adopted a diabetic dietary, forswore saline aperients, and took to drinking about two pints of water, generally warm, at such times as would not interfere with gastric digestion, instead of vainly trying to quench thirst with draughts of effervescing mineral waters, and in about three weeks returned to a state of health which he had not known for years, and, moreover, had maintained in increasing degrees ever since. It was, he said, necessary to add that he had treated the condition of the digestive organs with preparations of bismuth and of soda, and that he had found it necessary to maintain that treatment during the greater part of the seven succeeding years in order to prevent relapse. He had now for many years treated his patients on the same lines and with scarcely varying success, and, for that reason, he was inclined to regard the embargo on sodium salts as a bugbear based on laboratory experiments rather than on clinical observation. One of the secrets of success be believed to be the enforcement of simplicity of diet, because the stomach of a gouty patient could deal effectually with a meal of animal food and succulent vegetables, but would utterly break down in the effort to digest half-a-dozen kinds of food at the same time. Monotony of diet also had its drawbacks, and occasionally he found it necessary to place an inveterately gouty patient on an exclusively milk or vegetable diet for a few days or a week, in order to give the stomach a change of digestive function.

Dr. A. P. Luff urged the importance of avoiding the use of salicylic acid or sodium salicylate in the treatment of gout, since it was not only useless, but in many cases he had found it do positive harm. He entirely supported Dr. Mouillot's statement that many gouty people drank too little, and especially he had found this to be the case with female gouty patients, in whom the total amount of daily fluid consumed would frequently average not more than 18 to 20 ozs. He thought that his investigations on the influence of alkalies on the solubility of gouty deposits had been misunderstood by many medical men. He had never advocated the abandonment of alkalies in the treatment of gout. What he had shown was that alkalies and their congeners were useless when administered with the object of dissolving gouty deposits, but he frequently employed alkalies in the treatment of gouty dyspepsia and of gouty affections of the liver.

Mr. Wm. Armstrong (Buxton) said with regard to dietary that, as a general rule, a certain amount of butcher's meat was necessary. In a considerable number of cases on a non-meat diet he had observed that although the actual amount of uric acid formed got less, the rate of excretion diminished to a still greater degree. Beef and mutton certainly stimulated the process of excretion. In nearly 100 cases dieted exclusively on minced meat and hot water, there was at first an enormous increase in the quantity of uric acid excreted, which no doubt the advocates of a non-meat dietary would say was conveyed into the system by the beef; but as the gouty troubles improved, the excretion gradually fell to normal although the food was unchanged. In giving red meat to the gouty, it was necessary to cut down as far as possible the consumption of carbohydrates and of milk, and also to insist upon the drinking of hot water one hour before each meal. Fresh vegetables were of the greatest value but they should be well cooked. A separate vegetable course at dinner was most useful. Certain gouty cases could be treated with an equal amount of success either on the lines suggested or by the dietary advocated by Dr. Alexander Haig, consisting mainly of carbohydrates, milk, and fruit, but it was of the first importance that the two classes of food should not be mixed, as in that direction lay disaster for the gouty.

In reply, Dr. Mouillot said that he was much interested in Dr. Bezly Thorne's experience. It bore out his views that the initial difficulty in gout was a digestive one, and that the gouty were unable to digest all the different classes of food at the same meal. The rigidity of the diet rules must be in proportion to the severity of the symptoms, as a sacrifice which it might be worth while making in a severe case might not be so in a mild one. He said his view was that the true cause of gout was digestive, and that the uratic deposits which were responsible for most of the symptoms were due to subsequent failure of the kidneys, either as a coincidence or caused by the toxic poisoning due to the uric acid, or perhaps other substances. He was quite sure that Mr. Armstrong's practice of calling in the aid of the skin to assist the diuretic action of the Buxton waters was sound, and would limit the number of gouty attacks whilst taking the waters. Dr. Mouillot confessed himself unable to judge of the accuracy of Dr. Chalmers Watson's work which Dr. Luff had so ably criticised, nor, if accurate, did it prove that uric acid was not made in the kidneys, but merely removed a difficulty out of the way of those who held that view.

BRITISH GYNÆCOLOGICAL SOCIETY.

H. Macnaughton Jones, M.D., President, in the Chair.

Thursday, March 9th, 1899.

Specimen.

Dr. H. Jellett (Dublin) showed a specimen of Myomatous

Uterus undergoing Carcinomatous Degeneration. It was discussed by the PRESIDENT, Dr. INGLIS PARSONS, and Mr. BOWREMAN JESSETT.

THE GERM THEORY OF DISEASE.

Dr. GRANVILLE BANTOCK read a paper on the modern doctrine of bacteriology, or the germ theory of disease, with special reference to gynæcology.

Dr. ALLAN MACFADYEN (Director of the Jenner Institute of Preventive Medicine) said the experimental research of the last ten years did not appear to exist for Dr. Bantock, nor had he brought forward one word of proof for the statements he had made. It was difficult to appreciate or to deal with such an attitude of pure negation, and he therefore felt it would be useless on his part to bring forward in connection with such a paper the remarks he had intended to make on the bacteriological questions pertaining to asepsis and antisepsis. Dr. Bantock had asked "Where did the germ theory of disease stand now?" He replied that it stood exactly where it did before Dr. Bantock commenced his attack. He would leave it to the members of the Society who were well acquainted with the elementary facts of bacteriology to make their own choice as to whom they would follow—Pasteur, Lister, and Koch, or Dr. Bantock.

Mr. GEORGE STOKER said his own position was midway between the two extreme views; on the one hand, that all micro-organisms in wounds were bad, and, on the other hand, that none were bad. He believed that some were harmful and some useful, and in the latter class he included the staphylococcus. It was a perfectly reasonable belief that certain micro-organisms under healthy conditions were good and useful, and that these same bodies under unhealthy conditions were harmful. He had made observations on over 250 cases of ulcers; and, in all, rapidity of healing was in proportion to the presence of the staphylococci.

Dr. R. T. HEWLETT (Assistant Bacteriologist, Jenner Institute) remarked that negative evidence such as Dr Bantock had adduced was of no value unless overwhelmingly supported. He had stated that as good results were obtained in ovariotomy from the use of ordinary cleanliness as with the most elaborate precautions for asepsis; but he (the speaker) would remark that the peritoneum was exceptional, and would suffer with impunity a treatment which would be tolerated by no other serous membrane. He believed that all attempts to open the knee-joint without the strictest aseptic precautions would end in disaster.

Dr. INGLIS PARSONS said Dr. Bantock's own practice and results contradicted his theory, for he took the most scrupulous care to ensure cleanliness in the nurses, instruments, and his surroundings. When no germs were present, antiseptics were not required. No comparison could be made between a modern hospital like the Samaritan and one of the older hospitals; in the latter, unless strict Listerian principles were adopted, the results were disastrous.

Mr. BOWREMAN JESSETT contended that Dr. Bantock, in his former practice of using sulphurous acid in the treatment of stitch abscesses, and in his present practice of boiling his silk ligatures practised antisepsis and asepsis. Heat was the best disinfectant they had. Would Dr. Bantock explain why he boiled his silk?

Dr. CLEMENT GODSON thought it would be disastrous if Dr. Bantock's paper had the effect of shaking the faith of midwifery practitioners in the employment of antiseptics. In an address which he had delivered to the Society when President, he had shown the marvellous change which had taken place in the City of London Lying-in Hospital since corrosive sublimate had been in use there. Last year, among 565 cases, there had not been a single case of septicæmia. It would be indeed sad to revert to a mortality of 1 in 19, which existed when he first became attached to the hospital; and he had no doubt that the change was due to the thorough way in which antiseptics were now employed.

After some remarks from Dr. MACPHERSON LAWRIE (Weymouth),

Dr. C. H. F. ROUTH referred to the historical part played by Semmelweis in the Vienna Maternity in elucidating the fact that the high mortality among the cases attended by students as compared with the low mortality among those attended by midwives was due to the fact that the students went direct from the *post-mortem* room to the lying-in wards; and he contended that this fact was a strong proof of the germ theory of disease.

After some observations from Dr. P. Z. HEBERT,

Dr. A. W. ADDINSELL (Pathologist, Chelsea Hospital for Women) said he did not think that Dr. Bantock could congratulate himself on his powers of prophecy, because the doctrine of bacteriology held the field at the present day even more triumphantly than twelve years ago, when Dr. Bantock eloquently prophesied its speedy downfall. With regard to Dr. Stoker's experiments, Dr. Addinsell contended that, assuming the facts to be as stated, the correct explanation was that in the wound treated by black wash the mercury had killed not only the staphylococci but also the granulations on which the healing depended. The other ulcer healed because the oxygen favoured the granulations and also diminished the virulence of the staphylococci. It had been proved that a much larger amount of a culture of staphylococci treated by being passed through oxygen was needed to produce ulcers in guinea-pigs than was required in the case of a culture not so treated. The absence of the gonococcus from a pus tube was no argument against the dependence of gonorrhœa on the gonococcus, for it was well known that under given conditions the gonococcus might lose its vitality. When absent from the pus it could still be found in the tissues underlying the pyogenic membrane.

Dr. H. JELLETT (Dublin) thought Dr. Bantock had overlooked two important points: the first was the difference in virulence of bacteria which were morphologically the same; the second was the immunity acquired by patients to the action of a particular form of bacteria as the result of the continued presence in the body of that bacterium. Dr. Bantock said gonococci were found in only one out of every four cases of pyosalpinx, but he (Dr. Jellett) thought that this was a very high proportion if one took into account the number of cases of sterile, of undoubtedly tuberculous, and of presumably septic pus tubes. He would ask Dr. Bantock two questions: (1) Why did he wash his hands even to the slight extent that he did? Was it a mere ritual? (2) If Dr. Bantock had operated on a really septic case, would he operate on a non-septic patient the next day, or would he wait?

The PRESIDENT could not help coming to the conclusion that Dr. Bantock had not made himself fully conversant with the researches of bacteriologists within recent years, or he would have known that the various questions which tended to make him sceptical were by them fully and thoroughly discussed, such as that of the Klebs-Loeffler bacillus in its relation to diphtheria, the presence or absence of the gonococcus, the differentiation of the bacillus typhosus; and, in fact, every question raised by him. The attitude of the British Gynæcological Society to these views should be such that its verdict would be unmistakable, and that the Society could in no way be involved by them.

Dr. BANTOCK, in reply, said he was disappointed at the course the discussion had taken, for no attempt had been made to refute a single point in his paper. All the speakers avoided these points, and while professing themselves followers of Lister showed that they had taken no notice of his latest teaching, but adhered to that of 20 years ago.

EPIDEMIOLOGICAL SOCIETY.

H. FRANKLIN PARSONS, M.D., President, in the Chair.

Friday, March 17th, 1899.

BLACKWATER FEVER OR HÆMOGLOBINURIC FEVER.

MR. W. H. CROSSE, Medical Officer to the Royal Niger Company, read a paper on blackwater fever or hæmoglobinuric fever, a disease that had of late attracted attention through its evidently increasing prevalence, not only in West and East Africa, but also in tropical regions in America, the East and West Indies, and, according to Manson and Plehn, even in the Mediterranean; most frequently attacking Europeans, though not sparing Chinamen or even natives of Africa. It should not be confused, as it had been in the past, with malarial fevers accompanied by renal hæmorrhages and hepatic complications. The increasing prevalence of this disease he would ascribe not so much to the growth of the European population as to the disturbance of the soil in the

erection of houses, warehouses, and wharves, and in the extension of coffee and other plantations. The climatic conditions requisite for its endemicity were present in their extreme or typical character in the Niger district—a vast delta of sand and mud, partly covered with jungle and mangrove swamps, intersected by a network of sluggish streams, and leaving at low tide or during the dry season wide tracts of foul mud; the land but little above the sea level, submerged in the wet season, and always with ground water close beneath the surface, was constantly liable to be washed away by the sea or by heavy rains, the rainfall averaging 125 to 150 inches per annum, and sometimes amounting to 4 to 6 inches in one day; the mean temperature 80° F., with diurnal range often less than 10° F. and the air always saturated with vapour, while a heavy mist mostly overshadowed the land. Mosquitos abounded, the air during dry weather being pervaded by the stench of decaying vegetable matter, while fresh meat and vegetables were always hard to obtain. The characteristic symptoms were (1) fever, (2) hæmoglobinuria, (3) jaundice, and (4) nausea and vomiting of bile. The fever was at first indistinguishable from that of an ordinary malarial attack, but on the second or third day a sharp rigor and rise of temperature to 103° or higher ushered in the hæmoglobinuria, which was followed by a fall of temperature towards the normal, any subsequent rise being due to complications. In fatal cases there might be subnormal temperature and collapse, or a continuous rise in spite of daily remissions. The colour of the urine, varying from light red to that of porter, was due to oxyhæmoglobin, to methæmoglobin, or to both. Albumen was always present, bile rarely, red blood cells few in number but renal tubes charged with hæmoglobin abundant; blood discs might appear later from nephritic complications. The jaundice appearing simultaneously with the hæmoglobinuria was peculiar; there was little if any bile in the urine, though much in the vomit and fæces, and itching, slow pulse, etc., were absent. Persistent vomiting of bright green fluid was an almost constant symptom of this disease, others of variable and casual occurrence being constipation followed by diarrhœa, perhaps bloody, pains in the liver, spleen, limbs, or head, numbness of the extremities and hiccough, the end in fatal cases being preceded by dyspnœa, intense thirst, suppression of urine, and coma. Europeans were rarely attacked during the first year of their residence, unless already broken down by malaria, and first attacks after three years' real tolerance of the climate were unusual. Koch's notion that hæmoglobinuria was only a form of quinine poisoning was wholly erroneous, for Mr. Crosse had never known anyone who regularly took quinine as a prophylactic to be attacked by blackwater fever, while he had seen many severe cases among such as had refused or neglected its use. Death was usually through uræmic poisoning or exhaustion, the anuria in the latter being due simply to collapse. The mortality in Nigeria was about 20 per cent. Relapses occurring within a week or so were not rare, and true recurrences or attacks after the lapse of months or years were frequent, each attack rendering a man more susceptible; subsequent attacks might be of equal or greater severity, without fresh exposure and even after leaving the country, but he had never known anyone to be attacked by hæmoglobinuric fever who had not at some former time suffered badly from malarial disease in Africa or elsewhere. This fact disposed of Sambon's notion that it was the same thing as paroxysmal hæmoglobinuria, and there remained two theories of its nature: (1) that the blackwater fever was a specific disease, and (2) that it was a complication of ordinary malarial fevers. Both Plehn, perhaps the very best observer, and the Italians who were at present investigating the question, had found plasmodia, but they were all inclined to the view that there was a plurality of plasmodia and of malarial fevers. As to the hæmoglobinuria, he would suggest that, as in the milder malarial fevers, the parasites completely transformed the hæmoglobin into pigment subsequently deposited in the tissues; or, in the more severe forms, destroying the corpuscles and liberating their contents before they could be thus acted on produced the state known as hæmoglobinæmia. Under ordinary conditions this free hæmoglobin was converted in the liver into bile pigment, the result being a bilious remittent fever, none of the pigment appearing in the urine, but under others, as a chill supervening on a chronic toxæmia and checking the elimination of the toxins, aided, perhaps, by the presence of degenerative changes in the liver, impairing its excretory functions, hæmoglobinuria was the consequence of the accumulation of blood pigment in solution: this phenomenon being, however, the only one common to paroxysmal hæmoglobinuria, chlorate of potash poisoning, and blackwater fever, though brought about by different causes in each. In treatment one must have regard to (1) the chronic malarial toxæmia, (2) the immediately exciting attack of malarial fever, and (3) the sudden loss of hæmoglobin, as after any hæmorrhage. Quinine was a parasiticide but not an antitoxin, and should be given in full doses during the attack, though it would not control the toxæmia or the hæmorrhage. The vomiting, if not also the suspension of absorption, contra-indicated administration by the mouth, and the hypodermic method practised in Italy and in America was preferable, the acid hydrochloride or hydrobromide (or the lactate or citrate) being better than the less soluble sulphate; the solution boiled and injected while still warm. The dose should be 10 grs. of the quinine every eight hours on the first and second days and every twelve hours on the third, doses of 5 grs. being continued twice daily till the end of the attack.

Dr. Manson believed in the daily dose of 5 to 10 grs. of quinine as a prophylactic, and mentioned the case of a missionary who, during a residence on the West Coast of 14 years had neglected this precaution on three occasions only, and each time had an attack of fever, from which he had otherwise enjoyed exemption. Koch had called attention to the fact that in East Africa negroes who, coming from the interior, lived with and like the Europeans, suffered to some extent, and that generally the natives were immune to the fevers of their own district but not to those of others. It should be remembered that the presence of a parasite did not prove it to be the cause of a disease, and plasmodia were often found in persons suffering from typhoid, since malaria predisposed to, though it had no connection with, enteric fever. In China he had seen many cases of severe malaria and extreme cachexia, but never complicated by blackwater. Either some other factor was required, or the plasmodia acquired different properties according as they had passed through the bodies of one or other species of mosquito. He might mention the case of a gentleman who during a febrile attack after his return home passed black urine, but the colour was shown to be produced by an enormous excretion of indican, neither hæmoglobin nor albumen being present.

Dr. Harford-Battersby enjoined caution in diagnosis, having himself observed epidemics in which the urine was almost black from bile pigments and blood, but which were not hæmoglobinuric. That in which Bishop and Mrs. Hill died, with about 50 other Europeans, was true yellow fever. The paludal fevers of Africa were far less distinctly remittent than those of other regions. Blackwater fever was certainly on the increase, but seemed invariably to follow chills, indiscretions, or exposure to excavations. Vomiting was not a constant symptom; he had not suffered thus in any of his three attacks, though he had melæna.

Mr. Craister had taken quinine daily during his five years on the Niger, and had only three very slight attacks of fever, and none of blackwater. He had not lost one of the 11 cases of hæmoglobinuric fever in which he had given quinine from the first, or saved one of the 6 or 7 in which he had not, they having been attacked while away up the river.

Dr. Washbourn, from his study of paroxysmal and experimentally-induced hæmoglobinuria, could entirely confirm Mr. Crosse's explanation of the phenomenon. At first the liver transformed the hæmoglobin into bile pigment, but when the quantity exceeded the power of the liver the excess passed out by the kidney.

Mr. Pakes referred to the Texas fever among cattle, which was attended with hæmoglobinuria, and perhaps also hæmaturia, and in which large doses of quinine were beneficial. The action of habitual small doses of quinine was not exerted on the plasmodia so long as they were enclosed within the blood disc, but when, having sporulated and burst its walls, the numerous progeny of the original plasmodium escaped, they were attacked and killed before they could invade other discs. Already seven varieties of plasmodia had been distinguished by Italian and German investigators, and if only one or two of

these had the power of inducing hæmoglobinuria, its geographical distribution, independent of the malignancy of the local malarial fevers, was easily explained.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

PATHOLOGICAL AND CLINICAL SECTION.

JORDAN LLOYD, F.R.C.S., President, in the Chair.

Friday, February 24th, 1899.

TYPHLITIS AND COLITIS WRONGLY DIAGNOSED AS INFLAMMATION OF THE VERMIFORM APPENDIX.

MR. BARLING showed a youth, aged 17, upon whom he had operated a few weeks before. Since August, 1898, the patient had suffered six attacks of abdominal pain with vomiting. The pain commenced always on the right side of the abdomen low down, and lasted from twenty-four to thirty-six hours; constipation was present during the attacks, but at other times there was occasional diarrhœa. When the boy was admitted to hospital there was a fairly well-defined indurated mass to be felt in the outer part of the right iliac fossa, its long axis being vertical, and its upper end disappeared under the margin of the ribs. The diagnosis made was recurring attacks of appendicitis. The abdomen was opened by a vertical division of the skin and aponeurosis and transverse division of the deep structures. The vermiform appendix was found perfectly healthy, free from adhesion, and without thickening. The outer half of the cæcum and the ascending colon as far as the examining finger could reach were found to be hard and densely thickened. There was no adhesion to the internal, anterior, or external surfaces of the bowel, but there was some adhesion posteriorly, and this part was stripped to determine if pus existed, but none was found. An enlarged gland was discovered in the mesentery. The wound was closed without anything further being done, and the boy made a good recovery. He had had no attacks of pain since his admission to hospital, but of course during that time he had practically been in bed. Since the operation the boy's general condition had considerably improved, and the thickening felt before the abdomen was opened had greatly diminished.

ACUTE TRANSIENT GENERAL ANASARCA.

Dr. T. STACEY WILSON read notes of this case. The anasarca exactly resembled that seen in advanced cardiac or renal disease. It commenced suddenly one morning in the feet. In twenty-four hours the legs were swollen and dropsical, but the abdomen was not, although the labia were. During the next twenty-four hours it invaded the upper part of the body and the arms, and the face became so swollen that the eyes could not be opened. By the end of the second twenty-four hours the swelling of the face and hands reached its maximum, but that of the feet and legs had already begun to subside. By the end of four days the swelling had almost entirely subsided. There was no cardiac affection, no albumen or casts in the urine, and there was no evidence whatever of the œdema being due to any inflammatory process in the skin. The œdema was accompanied by a considerable degree of renal inadequacy, as the urine for a time was very scanty and poor in urea, but the œdema did not appear, as in renal dropsy, first in the face, but appeared first in the dorsum of the feet, and reached a high degree there before invading the legs. Similarly the legs and thighs were so swollen that the patient could hardly walk because of their size and weight before the least trace of œdema appeared in the face or hands or in the lumbar or sacral region. For want of some better explanation it was supposed to be of the nature of an urticarial attack, although there was not definite history pointing to a previous attack of urticaria or to any exciting cause.

GANGRENE OF THE LUNG.

Dr. T. STACEY WILSON also read notes of a case of gangrene of the lung, in which the first symptoms—sudden pain in the chest, especially on the left side, great dyspnœa, and faintness—came on suddenly while taking active exertion. The dyspnœa and pain lasted four days, and then both were relieved by the sudden expectoration of several pints of dark brown foul-smelling material. From the patient's description this seemed to be largely altered blood. He continued to expectorate foul-smelling material for some weeks, and then gradually recovered, and was able to get about again. In a day or two the expectoration recommenced as badly as ever. He was admitted to the hospital, bringing up daily a pint or more of extremely offensive purulent expectoration. There was no evidence of any cavity that could be drained, and the patient died. Unfortunately the diagnosis could not be cleared up, as a *post-mortem* examination was refused. The history of such an attack in a previously healthy man seemed to point strongly to hæmorrhage somewhere near the root of the lung as the cause of the primary attack. The cavity which resulted was in some way prevented from healing up, and retention of pus, with putrefaction and subsequent gangrene of the lung, resulted.

PYOSALPINX OF SEVENTEEN YEARS' STANDING.

The PRESIDENT showed a left pyosalpinx of seventeen years' duration successfully removed by abdominal section from a woman aged 43, whose life had been that of a chronic invalid since her first confinement, from which time her illness dated. The tube was universally adherent within the pelvis, measured 8 inches in length and 1 in diameter, on removal was distended with much yellow pus, and its walls were nearly a quarter of an inch in thickness. The patient suffered from severe painful attacks at frequent intervals, and had passed pus from the rectum for fifteen years. She developed an abscess in the left groin two years ago, which was opened and was followed by fæcal fistula still discharging. She had been under almost constant medical attendance, but had declined operative treatment until her condition had become extreme. She made a good recovery from the operation, and was now in better health than she had been for many years past.

GUMMA OF SCLEROTIC.

Mr. J. JAMESON EVANS showed an eye removed by Mr. Lloyd Owen from a man aged 45, in January, 1897. The patient gave a history of progressive loss of sight with increasing pain in that eye of one month's duration. On admission it presented all the signs of an acute glaucoma. Tension + 2. On ophthalmoscopic examination, a sharply-defined detachment of the retina was visible over the upper and outer quadrants. The right eye showed a few spots of old choroiditis. The pain and chemosis increased after admission, and it was eventually decided to excise the eye. After its removal the orbit was found to contain a vascular mass, which was not removed. Pathological examination of the eye revealed thickened and discoloured iris, and markedly enlarged ciliary processes. The retina and choroid were detached by a brownish albuminous exudation which was most abundant just behind the ciliary processes. Here and there the retina was detached from the choroid. The choroid was thickened and infiltrated with the albuminous material. The sclerotic was implicated in a dense vascular mass, which was removed with the eye, and which extended round the posterior and inferior two-thirds of the eye, and embedded some of the tendons. At one spot in the sclerotic there was an oval homogeneous mass about one-quarter inch long. Microscopically: There was inflammation and thickening of the iris, ciliary processes were infiltrated with a loose fibrocellular deposit, replaced more posteriorly by the albuminous deposit, and a few fibrinous threads and leucocytes. The latter extended back to the equator and detached the choroid and retina. There was retinitis and most marked dilatation of vessels and round-celled infiltration of the choroid. The sclerotic was also infiltrated with round cells where it was implicated in the orbital growth, and here it had lost much of its striation. The homogeneous oval spot did not stain, but its immediate boundary stained deeply and it was surrounded by a small round-celled infiltration which was highly vascular. The subconjunctival tissue by the ciliary processes was densely infiltrated by round cells, with dilated blood vessels and some blood extravasation. The orbital growth consisted of a highly vascular round-celled infiltration which here and there showed extravasations of blood. The ciliary vessels were enlarged and their walls showed fibroid thickening which in some places almost amounted to obliteration. Three or four days after the excision of the left eye, the right eye developed glaucomatous

symptoms with detachment of retina, and other symptoms exactly similar to those in the left eye. Under iodide of potassium and mercury the symptoms abated and entirely disappeared in a month. The patient was now under treatment by Mr. Jameson Evans for choroiditis, which unfortunately had affected the macular region, otherwise there was no reason to think but that he would have perfect vision. At present, Right vision = $\frac{6}{12}$ with + 6D. Field full.

Cyst of Broad Ligament.

Dr. Purslow showed a cyst of the broad ligament which he had removed by abdominal section from an unmarried woman aged 25 years. The cyst, which had been growing for three years, contained 10 pints of fluid. It was found to be possible, by removing the ovary and tube of the affected side, to make a pedicle, and this was ligatured with interlocking silk ligatures. The interest of the specimen lay in the remarkably clear way in which the anatomical relations of such cysts to the ovary, Fallopian tube, and layers of the broad ligament could be demonstrated.

Early Lympho-sarcoma of Vermiform Appendix.

Mr. Barling showed a specimen from a man, aged 23, who was operated upon in December, 1897. For several months he had had attacks of pain in the abdomen, commencing in the umbilical region and settling in the right iliac fossa. The attacks were generally accompanied by vomiting. When admitted to hospital there was no localised tenderness in any part of the abdomen, and the vermiform appendix could not be palpated. The patient was kept under observation, as it was thought his attacks might be lead colic, as he was a painter, or that possibly the pain was caused by renal colic, but five days after he was first seen he had an attack of pain such as he had previously experienced, and he was distinctly tender over the appendix. As the patient had frequently been disabled for a few days at a time by these attacks, it was thought advisable to remove the appendix if on opening the abdomen any change could be detected in or around it. The abdomen was opened through the sheath of the rectus, and the appendix was at once found free from adhesion, but containing a well-defined lump about the size of a bean, which was thought to be firm concretion, and the part was therefore removed. On section the small mass proved to be an overgrowth of tissue, and not a concretion. It was very circumscribed, and somewhat darker in colour than the rest of the mucous membrane, and on microscopic section showed what appears to be lympho-sarcomatous structure. The patient was seen in June, 1898, and was then in good health, and had not suffered any more attacks of pain.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

F. W. Kidd, M.D., President, in the Chair.

Friday, February 10th, 1899.

The Rotunda Hospital Obstetrical Report.

Dr. More Madden, resuming the discussion on this subject, said the record was most creditable. He believed this was due to the strict asepsis practised in the hospital. Dr. Purefoy had set a good example in the use of ergot in *post-partum* hæmorrhage. Though it was an old-fashioned treatment it was most effective.

Dr. W. J. Smyly thought it was a very great gain to have done away with the plug in the treatment of abortion. In the treatment of placenta prævia the same method was used at present as during his tenure of office at the Rotunda Hospital, when there was not one death as the result of hæmorrhage from placenta prævia, though two cases had ended fatally. One of these patients had been delivered by the old method of version and immediate delivery, and had died after a short time from hæmorrhage and rupture of the cervix, and the other had died on the tenth day from pulmonary embolism. Coming to accidental hæmorrhage, he considered that the best treatment was still practised—namely, that if the patient had not strong labour pains it was a mistake to rupture the membranes, and if there was external hæmorrhage the uterus should be plugged. In London students taught at the Rotunda had been rejected at examinations for not saying that they would rupture the membranes in such cases. Even the nurses who went up for the examination of the Obstetrical Society were instructed beforehand to say, if asked what they would do in a case of accidental hæmorrhage, that they would rupture the membranes, which, he thought, would be most improper. He objected to the use of the expression "the induction of artificial abortion" in the report, as the term had a considerable amount of opprobrium attached to it, and he considered that it would be better to say that they accelerated abortion.

Dr. Macan concurred with Dr. Smyly in objecting to the expression "the induction of artificial abortion." He noticed a case of eclampsia which was stated to be absolutely free from albuminuria, and therefore not capable of being explained by the ordinary theories. There was a case of brow presentation above the brim where the forceps had been applied. He thought that the forceps was contraindicated in such a case.

The President referred to the fact that in about 50 per cent. of the cases of rise of temperature after delivery no explanation of the cause of this rise could be given. Surely they did not return to the old idea that it was due to milk fever, and that the poison was not of sufficient intensity to exhibit itself in the vaginal discharge.

Dr. Purefoy (Master of the Rotunda) in reply said that, with regard to the use of ergot in *post-partum* hæmorrhage, it was needless to say that they only used it when the placenta was absent. They employed Squibb's preparation of ergot, and he commended its use as it had given satisfactory results. One possible explanation of the fact that the mortality was greater in the intern than in the extern department was, of course, that the bad cases in the extern maternity were admitted into the hospital. The four-hour limit was only one and the least important indication in the use of the forceps. The other indications on the part of the mother and the child were also taken into account. He agreed that it was unsatisfactory not to be able to assign a cause to the cases of rise of temperature which Dr. Kidd had referred to, but the fact remained that they were unable to give a tangible cause for the elevation, as a large number were not interfered with, even to the extent of a vaginal examination.

Section of Surgery.

R. L. Swan, P.R.C.S.I., President, in the Chair.

Friday, March 3rd, 1899.

Arthrectomy for Tuberculous Knee.

Mr. John Lentaigne showed a case of arthrectomy for tuberculous disease of knee-joint eight weeks after operation. In reply to Mr. Henry Gray Croly, he said he had performed the operation for ordinary white swelling of the knee-joint. He had followed Kocher's plan of arthrectomy. The patella was first dislocated to one side, then to the other, and practically the entire synovial membrane taken out. He would perform the operation where the disease was mainly in the synovial membrane, and the bones were healthy or only slightly affected.

Diseases of the Foot.

Mr. W. I. De Courcy Wheeler read a paper on some diseases of the foot. He detailed 5 cases of complete excision of the os calcis, followed by the most satisfactory results; 1 case of excision of the os calcis and astragalus, with portions of the tibia and fibula; 13 cases of medio-tarsal operation or Chopart's operation, all showing as favourable results as the patient (exhibited at the Society) on whom he performed this operation twenty years ago; also 3 cases of complete excision of the astragalus for disease, besides others for compound dislocation. There was a brief record of 39 cases after Syme's operation, also results after Tripier's operation, which Mr. Wheeler was of opinion had as many advantages over the subastragaloid operation as Chopart's had, but had not the advantages claimed over the medio-tarsal operation, except with those who believed that in Chopart's operation the astragalus was thrown forwards against the scar, which was quite preventable in a properly-executed medio-tarsal operation, and did not occur when the plantar flap was made sufficiently long. After a record of the excisions of various bones of the foot and 6 resections of the first metatarso-

phalangeal articulation, the paper concluded by a description of metatarsalgia, Madura foot, and 2 cases of podal coma so graphically described by Professor Miller. One patient completely recovered, the second had a recurrence of the disease. There was no history of any constitutional or predisposing cause why the foot of the patient, a man about 32 years of age, should be attacked by this painful disease, except, in Miller's words, his "system was weak and miserable." His parents were both alive and remarkably healthy.

Mr. CROLY was not in favour of excision of the os calcis. A patient with tuberculous os calcis had rarely the disease confined to that spot. If the os calcis were touched at all, he approved of its entire removal. The bone could not be entirely removed by gouging, but should be removed in such a way that the incision would not be under the heel, but rather behind it. Excision of the os calcis was a good operation in case of accident. He considered Chopart's operation very good, because if the disease was confined to all the bones in front of the medio-tarsal line, a sound astragalus and os calcis were left. Podal coma required amputation of the foot. Nélaton's perforating ulcer of the foot was a rare affection, and was connected with certain forms of neuritis, and sometimes in connection with diabetic condition of urine. Perforating ulcer might be easily overlooked, and was very unfavourable for dealing with.

The discussion was continued by Mr. T. MYLES, the PRESIDENT, Dr. HENRY FITZGIBBON, Mr. CHANCE, and Sir F. CRUISE; and Mr. WHEELER, in reply, said that excision of the os calcis was favourable, because the synovial sac was limited, thus preventing rapid extension. The sooner the bone was removed the better, and he did not approve of the gouge in removal, because it was difficult to say whether one was in healthy or unhealthy tissue, and, still more, in strumous patients the use of the gouge might set up inflammatory action, which would produce more carious disease.

PERFORATING GASTRIC ULCER.

Mr. T. MYLES read a paper on perforating gastric ulcer, and mentioned a number of cases on which he had operated. Amongst the most interesting of these was that of a gentleman, aged 72, who after the reduction of an umbilical hernia, developed symptoms of perforation. The patient was under the care of Sir Francis Cruise and Dr. Moran. When Mr. Myles was called in the patient was sinking rapidly, with great pain and tenderness, persistent vomiting of black tarry matter, evidently blood, complete absence of liver dulness, tympany, etc. Operation seemed hopeless, but was undertaken in consequence of the dreadful agony the patient was suffering. The perforation was easily found, sutured, and the abdomen freely douched with hot saline. The patient made a complete recovery. Mr. Myles pointed out that the ease with which an anterior perforation was found and handled contrasted markedly with what happened when the perforation was behind and extravasation occurred into the tissue sac of peritoneum. A number of interesting cases was detailed, and some illustrated clearly the great difficulty of accurate diagnosis.

Sir F. CRUISE had learnt from the case *Nil desperandum*. The patient was almost pulseless at the commencement of the administration of the chloroform; the pulse became much better when the chloroform was changed to ether.

Mr. WHEELER preferred swabbing out the abdomen to douching. He had seen saline solution revive a patient on whom he operated for tuberculous peritonitis. It depended on the position of the perforation of the stomach whether the operation could be rapidly done or done at all.

Mr. CHANCE made some remarks, and Mr. MYLES replied.

PATHOLOGICAL SOCIETY OF MANCHESTER.

R. B. WILD, M.D., President, in the Chair.

Wednesday, March 8th, 1899.

RUPTURE OF HEART.

DR. KELYNACK, on behalf of Professor DRESCHFELD, showed a preparation from a case of cardiac rupture, with communication between the ventricular cavities.

URETERAL CALCULI.

Mr. STANMORE BISHOP showed three ureteral calculi, removed by suprapubic cystotomy. Two cases occurred in males, one in a female. The first, in a boy of 13 years, produced the usual symptoms of vesical calculus, was easily recognised by the sound, but was evidently fixed. At the time of operation, 6 years ago, an oxalate of lime calculus, the shape of a wheatsheaf, was found, the stalk being fixed in the lower end of the ureter. Perfect recovery, and report of good health last month. The second, a woman, gave a history of renal colic at intervals since the age of 13. Menstruation commenced at 15; after this pain was accentuated at the periods. Both ovaries and tubes had been removed a year previously by another surgeon, but without relief. Stone detected by recto-bimanual examination could not be felt from the vagina. Removal by suprapubic lithotomy; death by anuria. In the third case, a boy aged 7 years had complained of symptoms of vesical stone "since he was a baby," and a stone weighing 2 ounces was found and removed by suprapubic cystotomy. The patient, however, did not improve, the temperature rose, and there was still great pain. Thinking that there might be an accumulation of pus in the cavum Retzii, a rectal examination was made, and a second stone detected in the lower end of the ureter. This was removed and gave exit to pus from the kidney. Slow recovery. Mr. Stanmore Bishop discussed the symptoms produced by and the various operations proposed for ureteral stones impacted in this situation. In reply to Dr. HARRIS, Mr. Bishop pointed out that a satisfactory result from massage must be very exceptional; that in two of the cases under discussion it could not have been borne, and that in the third it would have been extremely risky.

STAINING OF SHEATH ON NERVE FIBRES.

Dr. ORR read a preliminary note of a new method of staining the myelin sheath of the nerve's fibres in the brain and spinal cord. The method consisted in the penetration with osmic acid of formalin-hardened blocks of tissue to bring out the normal fibres, and should it be desired to stain the morbid fibres, then the nervous tissue, as in Marchi's method, had to be previously hardened in pot. bichrom. 2 per cent. or in Müller's fluid. The blocks of tissue should not exceed ½ inch in thickness. The osmic acid was mixed with acetic acid in the following proportion: osmic acid, 2 per cent. 4 cm.; acetic acid, 1 per cent. 1 cm. Formalin-hardened pieces of tissue ought to remain in this solution for four to six days, Müller- or bichromate-hardened nervous tissue for ten to fourteen days. Fresh tissue placed in the above solution for forty-eight hours, then immersed in 10 per cent. formalin, demonstrated especially the fine fibres of the outermost layer of the cortex. The penetration being completed the block was then embedded in paraffin and cut. After removal of the paraffin from the sections differentiation was carried out by means of ½ per cent. pot. permang. and 1 per oxalic acid, except in bichromate-hardened tissue, the sections in this case being mounted after the paraffin had been dissolved out by xylol. Dr. Orr specially recommended the acetic-osmic acid solution on account of the certainty with which it stained the fine medullated fibres of the brain, and also on account of its superior penetrating power over Marchi's fluid in Müller-and bichromate-hardened nervous tissue.

The communication was illustrated by a series of lantern slides.

OXFORD MEDICAL SOCIETY.—At a clinical meeting on March 10th, Mr. H. P. SYMONDS, President, in the chair, Dr. RITCHIE read notes of a case of Pontine Hæmorrhage, and showed the brain, which exhibited a small hæmorrhage on the surface of the pons; on section, a very extensive hæmorrhage was found, ploughing up the whole substance of the pons. The central arteries were markedly atheromatous. The patient, a woman aged 48, had come into hospital as an out-patient to be treated for some local elephantiasis of the skin. She suddenly became helpless, and some spasmodic twitchings of the left eyelid were observed. She rapidly became comatose, and sank four hours after admission. Before death the pupils were contracted to a pin-point and the temperature rose to 105° F. There was no atheroma of the heart or large vessels corresponding to that found in the cerebral arteries, but there was some interstitial change in the kidneys, with considerable peri-

arteritis. No history of syphilis was obtained.—Dr. Turrell read notes of a case of Placenta Succenturiata. A primipara fell out of a dogcart when six months pregnant, sustaining slight injuries to the head and ankle. She was confined at full term, the labour being natural and easy; the placenta, complete, and of normal size, was readily expressed. Twenty-four hours later, the patient being in great pain, the uterus was found to be greatly distended with blood clots. These were expressed; the hæmorrhage, however, continuing, the uterus was explored, and two pieces of placental tissue, the size and shape of bananas, were removed. The patient continued very collapsed and bloodless, with a pulse of 150, and temperature 102° F. A uterine douche was given, and this was followed by a rigor. On the following day, the discharge being slightly offensive, the uterus was explored, under ether, and a few shreds were removed from the fundal region. The uterus was again douched, but this had to be stopped, as the pulse suddenly failed, and on recovery a rigor took place. These were the only rigors that occurred during the progress of the case, in each case preceded by a douche. The temperature fluctuated above normal for a fortnight, but the patient ultimately made a good recovery. Dr. Turrell drew attention to the fall which the patient had during pregnancy, as from what was known of the etiology of placenta succenturiata, it was probable that this gave rise to hæmorrhage into the placental tissue, with ensuing destruction of some of the villi. Dr. Brooks suggested that the rigors were due to absorption of perchloride of mercury, but Dr. Turrell pointed out that on the second occasion he had used an iodine douche. He regarded it as a reflex phenomenon.—The President showed two cases of Appendicitis in which he had successfully operated. In one of these cases, a girl aged 22 had had several mild recurrent attacks before admission, and there was marked tenderness at McBurney's point before operation. The appendix was slightly adherent to surrounding structures, and much elongated, passing up under, and adherent to, the under surface of the liver. It was removed by circular amputation, the peritoneal surfaces being sutured with silk. Recovery was uneventful. The second case was also one of mild recurrent appendicitis in a woman aged 23. The appendix was inflamed and adherent to surrounding tissues; it was removed in a way similar to the first case.—Dr. Duigan showed a specimen of Vesical Calculus weighing 4 oz., which was found *post mortem* in the bladder of a young man who had refused all surgical treatment.—Dr. Elsmore showed a Skiagram of a Broken Needle embedded deeply in the wrist.

Midland Medical Society.—At a meeting held on Wednesday, January 18th, Dr. W. G. Lowe, President, in the chair, the following gentlemen were elected members of the Society: Mr. J. E. A. Chatelier, Mr. J. Morgan Evans, Mr. W. Duncan Lawrie, Mr. J. McCall, and Mr J. Orton.—Dr. Stacey Wilson showed a case of Cretinism in a child, aged 3, who had improved most markedly under treatment. After taking 3 grains of thyroid extract once a day for a month the improvement in all symptoms was most marked. The child became bright and lively, and also cut two teeth in addition to the seven which he had previously had. Dr. Stacey Wilson also showed a case of Post-hemiplegic Disorder of Movement in a young woman aged 22. When 11 years of age she had an attack of right hemiplegia with aphasia. She was unconscious for five weeks, and recovery from the paralysis was very slow. At the end of twelve months there was still complete paralysis of the arm, although the other paralyses were passing off. Shortly after the return of motor power in the arm a spastic condition became superadded. For the last four or five years the hand had been firmly clenched, and the patient had been unable to open it. There had also been continuous spasmodic contractions of all the muscles of the arm with some irregular movements of extension and flexion. The muscles of the right arm were all hypertrophied. She was treated by fixation of the arm and hand on a splint. The arm was kept fixed in a manner for some weeks. As a result of this enforced quiet the morbid habit was broken, and the patient regained the use of the hand and arm. She still had irregular movements of the hand and arm when excited, but her voluntary power was rapidly increasing. The most interesting feature was the good result obtained by limiting for only a few weeks the spasmodic movements.—Mr. Barling showed a patient, aged 40, on whom he had performed gastro-jejunostomy for pyloric obstruction, causing dilatation. The patient had suffered from indigestion for the last thirty years, and during the latter part of the time he was told by his doctor that he suffered from ulcer of the stomach. During the last four years he had suffered severely from pain in the epigastrium, and in the left chest and back, with attacks of vomiting. Latterly these attacks had been unusually severe, but the vomiting had not been constant, but would occur every three or four days, when a very large amount would be brought up, and the patient would be able to recognise portions of the food taken two or three days before. At no time had he vomited blood, nor had he recognised anything in the stools indicating hæmorrhage. He had lost weight for many months slowly, but rapidly during the few weeks previous to his operation. Examination of the abdomen failed to show any tumour or thickening in any part of the stomach, but there was marked dilatation of the organ when it was distended with carbonic acid gas, the lower margin reaching then 3 inches below the umbilicus. In November, 1898, Mr. Barling opened the abdomen in the middle line, and a thickening was at once recognised at the end of the pylorus, but considerable doubt was felt as to whether this was an early growth or severe cicatrisation round a chronic ulcer. In the presence of the doubt it was felt wiser to do gastro-jejunostomy rather than a pylorectomy. An anterior gastro-jejunostomy was therefore performed with Murphy's button. The patient progressed most satisfactorily till the tenth day, when he complained of distension; the stomach was found dilated, the patient became extremely feeble, and his temperature dropped to 96°. By occasionally washing out of the stomach, limiting the diet very carefully, and constant stimulation, the stomach symptoms were relieved, and the patient, who was apparently moribund for a few hours, revived, and was discharged from the hospital on January 1st. His weight on December 22nd was 6 st. 9¾ lbs., and at the present time (January 18th) it is 8 st. 6½ lbs. His stomach symptoms and collapse on the tenth day might have been due to the drag of a distended colon, kinking the jejunum and so obstructing that part of the intestine beyond the point of anastomosis, an accident which not infrequently happened in the early days after this operation, or it might have been due to the button which had now separated, obstructing the calibre of the jejunum. The button had so far not been voided.—Mr. J. Furneaux Jordan showed a specimen of Fœtus in an amniotic sac removed from a case of tubal pregnancy. The patient was aged 34, had been married thirteen years, had two children, the younger aged 10, but no miscarriages. She menstruated regularly till August last, the last being slight in amount with occasional pain. She had not menstruated since the beginning of August, and in September had her first attack of acute pain, lasting for some hours in the left lower abdomen. She had had pain in the same region ever since, with occasional exacerbations, especially at what would have been her monthly periods. In the first few weeks of her illness she got much thinner. There was no hæmorrhage at all from the uterus. There was severe constipation, and great pain on defæcation. When first seen by Mr. Jordan at the end of November her temperature was 101.4°, and had been up in the evening for some days. Examination revealed a tense elastic swelling behind the uterus, filling up both posterior quarters of the pelvis, above the brim of which it could be felt. The uterus was pushed forward, and to the right. The swelling was acutely tender. On December 12th Mr. Jordan operated at the Women's Hospital. On the supposition that it might be a double pyosalpinx posterior colpotomy was done, but on entering Douglas's pouch the swelling appeared cystic, and it was tapped. Clear fluid came away; the abdomen was then opened, and a large left tubal pregnancy, with intraperitoneal hæmatocele was removed. A four-months fœtus in amniotic sac was in the hæmatocele, in which also the outward end of the tube was lost. The clear fluid drawn off by the vagina was amniotic fluid. The outer firm layer of the hæmatocele was universally adherent. The patient was now quite well.—Mr. Barling showed a specimen of *Cathéter à Boule*, removed from a very stout man, aged 56, who was the subject of six herniæ, of chronic eczema, and of a stricture of the urethra

for which he had been in the habit of passing an instrument himself. He presented the symptoms of stone, and, on sounding, one was detected, and as the stricture was easily dilated to take a lithotrite crushing was resorted to in preference to suprapubic lithotomy. There was no suspicion that a portion of catheter was in the bladder, but at the time of crushing the fragments appeared extremely soft. This was explained on using the evacuator, when the fragments washed out proved to be bits of catheter coated with salts. When questioned about the matter after the operation the patient acknowledged that he had broken off in his bladder a portion of catheter about an inch long some weeks before.—Dr. SUCKLING read a paper on Epilepsy.

FORFARSHIRE MEDICAL ASSOCIATION.—At a meeting on March 1st, Dr. J. MACKIE WHYTE, Vice-President, in the chair, Dr. MOWAT showed a man, aged 38, with Molluscum Fibrosum. The tumours had existed for five years, and were distributed all over the cutaneous surface of the body, with the exception of the hairy scalp, palms of the hands, and soles of the feet. (The case was described in *Scottish Medical and Surgical Journal*, vol. iii, No. 3.)—Professor KYNOCH showed two Cysts of the Ovary, removed by Posterior Colpotomy, from a patient aged 26, who had for three years complained of pelvic pain. One was a dermoid containing hair, bone, and a tooth.—Dr. EMILY THOMSON spoke of a patient, aged 28, who had pain for two years, from whom she had removed a large dermoid.—Dr. HALLEY read a paper on The Treatment of Perforating Ulcers of the Foot by Nerve Stretching, giving the notes of and the result of this treatment in 3 cases. In all the ulcers had followed callosities, and had gone on increasing; in two they were painless. In all three there was a certain amount of anæsthesia, marked sweating of the foot, or in one case feet, affected, and a varying amount of thickened epidermis. In none was there any affection of the central nervous system, or of the circulatory system. In one case there was a history of peripheral neuritis due to alcoholism. The result in all three cases was distinct improvement and disappearance of the ulcer, but only for a time. The various methods of treatment were then considered, and the results following nerve stretching reported by others were given. The opinion was expressed that if nerve stretching were performed early enough, and if the patient were kept at rest a sufficiently long time the results of this treatment might be more satisfactory, and that it ought to have at least a place in the treatment of perforating ulcers of the foot where there was no affection of the central nervous system or circulatory system. Dr. BUIST and the CHAIRMAN spoke on the paper, and Dr. HALLEY briefly replied.—Mr. GREIG read the first part of a paper on Two Years' Experience in the Surgical Out-patient Room of the Dundee Royal Infirmary. He first dealt with fractures, explaining that the number treated was limited, and confined almost entirely to the upper extremity because the majority were treated in the accident room. He gave in detail the number of fractures and the treatment he always adopted. He recommended the four-tailed bandage as against Sayre's method in the treatment of fracture of the clavicle. He then gave the number of cases of carbuncle treated, their situations, and the treatment adopted; and also of whitlow, of which the majority of his cases were in females. The number of cases of syphilis and gonorrhœa and soft sore was also given, and the treatment adopted.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 2nd, Dr. ALFRED ROBINSON, President, in the chair, Dr. KEELING showed the specimens removed, and gave details in the following cases: (1) Cystic Myoma of the Uterus successfully removed by abdominal section in an unmarried woman, the uterine wound being treated intraperitoneally; (2) Broad Ligament Cyst removed from a married woman, aged 30, sterile, married ten years; recovery excellent; (3) Dermoid Cyst and Ovary; patient single; recovery good; (4) Menstrual Fluid removed in a case of Imperforate Hymen; the patient, otherwise a healthy, well-grown girl, was 17 years of age, and had never menstruated; (5) Cancerous Uterus removed by Vaginal Hysterectomy from a married multipara, aged 42; recovery had been excellent with the serious exception that a urinary fistula had resulted, probably from the bladder having been caught by one of the forceps and in securing the broad ligament.—A discussion followed on the Operative Treatment of Fibro-myomata and Cancer of the Uterus, in which Dr. MARTIN, Mr. RICHARD FAVELL, Dr. ANDREW WALKER, Dr. SINCLAIR WHITE, Mr. PYE-SMITH, and Mr. SIDNEY BARBER took part.—Dr. CAIRNS read notes and showed the specimen of a case of Ectopic Gestation diagnosed by Dr. Andrew Walker and himself, and successfully operated on by Dr. Sinclair White.—Dr. ARTHUR HALL showed: (1) Heart with Stenosis of the Pulmonary Artery, Imperfect Ventricular Septum, and Patent Ductus Arteriosus from a boy aged 11 years who died of pneumonia; the cyanosis was not extreme except during the last few days of life; (2) Liver with Gall Stones in the Gall Bladder, an Impacted Stone in the Ductus Choledochus, several Stones in the Hepatic Bile Ducts, which were largely dilated; in the left lobe multiple abscesses secondary to well-marked Cholangitis and a large left Subphrenic Abscess apparently secondary to the suppuration in the liver; (3) Carcinoma of the Bodies of the Seventh Cervical and upper three Dorsal Vertebræ, part of a widely-distributed cancer, the primary seat of which could not be discovered; the bodies of the vertebræ had given way, and produced transverse myelitis, which was the immediate cause of death; (4) Typhoid Ulcers preserved by Kaiserling's method with Formalin and Glycerine.—Dr. GEORGE WILKINSON gave an account of a case of Subphrenic Abscess operated upon by him. The patient, a man aged 47, was admitted into the Royal Hospital very ill with a prominent, tense fluctuating swelling in the epigastric region. Hepatic abscess was diagnosed; the swelling was incised, and two pints of pus and hydatid fluid evacuated. Much pain was complained of in the left side when the patient was being lifted on to the operating table. Next day there were signs of a subphrenic collection of fluid in the left side. This was evacuated and drained after resection of a portion of the seventh rib in the anterior axillary line and sutures of the costal pleura to the diaphragm. Drainage was continued for two months, after which the cavity healed and the patient was discharged.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 8th, Dr. ROXBURGH in the chair, Dr. WALDO showed patients with: Adenoma Sebaceum; Tuberculosis of the Skin.—Dr. SHAW showed patients with: Spastic Diplegia; Anterior Poliomyelitis; two brothers with Pseudo-hypertrophic Paralysis.—Dr. MICHELL CLARKE showed patients with: Syringomyelia; Disseminated Sclerosis; Progressive Muscular Atrophy.—Dr. E. C. WILLIAMS showed a case of Hemiplegia with Choreiform Movements in a child.—Mr. MUNRO SMITH showed a patient on whom Erasion of the Knee had been performed.—Mr. C. A. MORTON showed a patient and specimen from a case of Excision of the Cæcum for Cancer.—Mr. CARWARDINE showed patients on whom Excision of the Rectum by the subperiosteal operation had been performed.—Dr. STACK showed a young child with Premature Menstruation.—Dr. F. H. EDGEWORTH read a paper on the Treatment of Simple Cases of Bronchitis.—Mr. A. W. PRICHARD read a paper on a Case of Hæmatometra.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting on March 10th, Dr. E. GWYNN, President, in the chair, Dr. A. ASHBY read a paper on the Duties of Medical Officers of Health in Relation to Small-pox in view of the Alterations in the Law of Vaccination. The hope expressed by those who had forced this "tremendous experiment" on the country for five years, that it would disarm opposition to vaccination had not been fulfilled, and in many places vaccination had been practically abolished. He did not deny that there were a few improvements in the law, but Clause 11, which imposed on the magistrate the invidious duty of deciding whether objections were "conscientious" was absurd; that being only an expression of sentiment and ignorant prejudice. Again, it seemed anomalous that a matter closely connected with the public health should be committed to the Poor Law, not to the sanitary authorities, though it would be inexpedient at the present time to effect a change that might lead to the election of these authorities being dependent on their opposition to vaccination. But medical officers of health should endeavour

to secure isolation accommodation where such had been deficient or wholly wanting; elsewhere should small-pox break out with severity previously unknown, and the accommodation that had sufficed in the past prove inadequate the people must pay in hasty, and therefore costly, provision for their neglect of the earlier and inexpensive protection of vaccination. Adults might be left to suffer for their own folly, but the infants should not be sacrificed to that of their parents, and in the absence of compulsion, organisation should be opposed to organisation, branches of the Jenner Society be established everywhere, especially where the Antivaccination League was at work, and the public educated by lectures, the distribution of literature, etc. The co-operation of men and women of all classes should be encouraged, but the medical officer of health would do well to avoid involving himself in heated newspaper controversies. Mr. Beale Collins said that in his district only 12 objectors had come forward in a population of 35,000, and vaccinations had increased since the passing of the Act. Dr. Woodforde told how the improvised accommodation required by an outbreak of 50 cases in a rural district cost £1,500. Dr. E. Groves found great difficulty in getting a site for a tent, and complained that the Local Government Board would not allow the reception of even real paupers in the workhouse infirmary. Dr. F. T. Bond felt that little could be done save during an epidemic. At Gloucester the sanitary authority was now mostly composed of antivaccinators, who, though professing to rely on isolation, had actually reduced the accommodation from 48 to 16 beds in an iron building with no road or proper arrangements. Dr. Seaton found hospital provision no less unpopular than vaccination, and the Local Government Board instead of compelling the authorities to provide it, placed obstacles in the way of such as were willing. Guildford had to fight from court to court for the erection of a hospital in one of the loneliest spots in the county, the opposition coming from a single resident at a distance of two miles. Dr. McVail considered it impossible to define sufficient accommodation, for where all were vaccinated none was wanted, and where all were unvaccinated no amount would suffice. There should be a permanent and complete administrative block, with ample space and facilities for the erection of temporary buildings to meet the requirements of the occasion. Dr. Sykes felt very strongly that the whole system of certification of vaccination as well as of the causes of all deaths needed revision. The mere fact should be reported by the friends, but the certificate describing the result of a vaccination or the cause of a death should be, as in the notification of infectious diseases, forwarded by the medical attendant to the respective authorities.

Chelsea Clinical Society.—At a meeting on March 7th, Mr. J. Foster Palmer, the President, who was in the chair, in opening the proceedings, referred to the courtesy of the Director of the Jenner Institute (Dr. Allan Macfadyen) in not only granting the use of the theatre for the purpose, but in undertaking to give a bacteriological demonstration before the society.—Dr. Macfadyen, in the course of his lecture on Enteric Fever and Diphtheria, dwelt mainly with the bacteriological aspects of these diseases. The life-history of the typhoid fever bacillus was discussed in its different phases, and cultures of the organism on various soils were shown. The spleen and urine were stated to be the most convenient sources of pure cultures of the bacillus, the search for it in the dejecta being attended with considerable difficulty. The Elsner potato-gelatine soil had not proved so successful a means of isolating the bacillus from the stools as had originally been anticipated. The means adopted for differentiating between such closely allied organisms as the typhoid and colon bacillus were explained and illustrated. The sources of infection were next dealt with, and the pathological lesions found in the disease, whether due to the primary or secondary infections, were explained. It was pointed out that the bacillus had undoubtedly pyogenic properties. Some time was devoted to the discussion of Pfeiffer's phenomenon and Gruber's reaction, and the great value of Widal's test in doubtful cases of the disease was emphasised. All these reactions were stated to be of a specific character, and for the successful employment of the Widal test a good strain of the typhoid bacillus was said to be essential. The difficulty experienced in obtaining any specific toxins from cultures of the organism had up to the present prevented the preparation of an antitoxin serum of any value for treatment; on the other hand, the antityphoid vaccines prepared might be of value as preventive agents. The salient points connected with the bacteriology of diphtheria were then referred to. The antitoxin treatment was discussed and the importance of an early bacteriological diagnosis, and the immediate use of the serum treatment, were pointed out. Through improved methods of preparation the amount of serum necessary for injection had been greatly reduced, and thereby the danger of any unpleasant sequelæ reduced to a minimum. The methods of standardising the serum were explained, and it was stated that it was an erroneous impression that the antitoxic substances had any poisonous or deleterious action on the system. The lecture concluded with a lantern demonstration and an exhibition of a number of microscopical specimens in illustration of the subject matter of the paper.—Mr. Lennox Browne said he wished to correct the impression that he was an opponent to the antitoxin treatment of diphtheria; he had early taken up the position of a critic, but was fully satisfied with the efficiency of the serum treatment.—Drs. Hamson, Flanagan, Marsh, and Vinrace also took part in the discussion.

REVIEWS.

A Manual of the Diseases of the Nervous System. By Sir W. R. Gowers, M.D., F.R.S. Third Edition. Edited by Sir W. R. Gowers and James Taylor, M.D., etc. Vol. I, Diseases of the Nerves and Spinal Cord. London: J. and A. Churchill. 1899. (Royal 8vo, pp. 708. 15s.)

The appearance of the third edition of Gowers's *Manual* needs an emphatic if a brief welcome; the work is too well known to need any long description. In its preceding editions, indeed, it is not only well known, but recognised as a classic in its own department of knowledge. Like Dr. Bevan Lewis's great work on *Mental Diseases*, which has also just appeared in a new edition, Gowers's *Manual* stands, if not unrivalled, still pre-eminent. Both these works were happy in that they appeared early enough to take a lead in their subject, and yet late enough to enter into possession of modern methods of pathological and clinical research. Dr. James Taylor, who has long been associated with Sir W. Gowers in his work, and is himself a distinguished neurologist, is a fitting partner in the farther prosecution of these investigations and in the publication of the results.

In the present edition, as the preface states, every chapter has been subjected to careful revision, and numerous additions have been made embodying the results of personal experience and the more important facts ascertained by others. We find on perusal of this first volume that the claim is well founded. The present (the third) edition contains about 75 more pages, and 14 more illustrations.

Of the letterpress the additional matter consists, in part, of chapters wholly new, in part of additions to the old. On comparing the old chapters of the second edition with those of the third, we find that the increase is fairly distributed among them all. Scarcely any important subject has failed to secure some part in the farther space allotted to the new matter collected by the authors. Of the wholly new chapters we note an important one on The General Constitutution of the Nervous System. The partial apology with which this section is introduced is needless; usefulness comes far before logic, and, come where it may, it is infinitely useful to the student in the midst of his clinical studies to have succinctly before him a view of the new light thrown upon the constitution of the nervous system by the methods of Golgi, Cajal, Kölliker, Waldeyer, and others. The new unit conception—the neuron—is clearly described, the fibrillary constitution of the axon also, and the new aspect in which the nerve cell is now regarded; nor do the authors forget to tell us how, with the disappearance of old difficulties new difficulties arise.

Another new chapter is on General Crural Neuritis. Many

practitioners, if we may speak from our own experience, have met with cases in which it was clear that sciatica, if a prominent feature, did not exist alone; and the elucidation of such complex cases will be made at once more easy and more satisfactory to the mind after reading the remarks of the authors upon them.

Other chapters are on Acute Multiple Myositis, on Herpetic Neuritis, on Sclerosis of the Cord in Certain Toxic States—as in Pernicious Anæmia—not considered in the former edition, and on a Family Form of Muscular Atrophy in Children with Spinal Cord Lesion. An Appendix on Muscle Spindles, from the competent hand of Dr. Batten, concludes the first volume. In the chapter on Herpetic Neuritis we miss any allusion to the researches of Drs. Head and James Mackenzie. The sections on Arthritic Muscular Atrophy, and on A Family Form of Muscular Atrophy, and some others, well illustrate a tendency to extreme differentiation which marks this and the preceding edition, and indeed nearly all the neurological classifications of the day. We are far from speaking of this as a fault, at any rate in the present state of our knowledge of nervous disease; no doubt before we can integrate we must analyse, and we cannot pretend that our analysis is as yet ripe for any full reconstruction. At the same time we think that we may hope that the time is approaching when more might well be done in the way of bringing kindred processes together in broader views of morbid series. Precise analysis is good for the student in leading him to attend to minute differences, and in cultivating his eye for clinical observation. On the other hand, so far has differentiation now been carried that if he is not to be disgusted by all this multiformity, we must begin to raise in his mind the hope at least of bringing many of these endless clinical varieties under larger generalisations.

It is unnecessary to dwell anew on the lucidity and concision of the style in which the book is written; these qualities in the writings of Sir W. Gowers are well known. A few small blots, however, occur here and there which, though they might pass without remark in ordinary writing, are out of place in a style generally so excellent. For instance, to speak pointedly and repeatedly of disease and of symptoms as "developments" is to set the mind of the student in the wrong direction; and, again, the astonishing word "prodromata" surprises the reader by no infrequent recurrence. But it were ungracious to dwell on such small points as these.

ROBERT BURNS AND THE MEDICAL PROFESSION. By WILLIAM FINDLAY, M.D. ("George Umber"). With 13 full-page Portraits. Pp. 160. Paisley and London: Alexander Gardner. 1898.

IN Burns's poems (except in "Death and Dr. Hornbook," a satire on a schoolmaster and grocer of Tarbolton who set up as an unqualified practitioner) there is not much allusion to medical subjects. The poet, however, had a good deal to do with members of the medical profession, among whom he had friends and patrons as well as professional advisers. In this volume Dr. WILLIAM FINDLAY has gathered a considerable mass of more or less interesting information about the doctors with whom Burns came in contact in one way or other, and also concerning those who have written about him. Among his medical intimates were Mr. John Mackenzie, of Mauchline, who introduced him to Professor Dugald Stewart. At the table of Lord Monboddo, a noted but somewhat eccentric scholar, now chiefly remembered for his theory about the human tail, Burns became acquainted with the famous Dr. James Gregory, then Professor of the Practice of Medicine at Edinburgh, and the "Great Cham" of the medical world north of the Tweed. Gregory ministered to Burns as physician, and also, it may be said, as critic. In the latter capacity he was so unsparing that the unfortunate subject of his literary vivisection wrote: "Dr. G. is a good man but he crucifies me." But Burns acknowledged that he had derived benefit from the operation, for he also wrote: "I believe in the iron justice of Dr. G., but, like the devils, I believe and tremble."

Alexander Wood ("Lang Sandy Wood"), who treated Burns in Edinburgh for a sprained knee, was a character. He had at one time a pet sheep which trotted after him through the town on his professional visits. It was Wood who recommended Burns to the Commissioners of Excise, a service for which the poet had reason to be grateful, for the supervision of exciseable liquors furnished him a more substantial livelihood than the waters of the Pierian Spring.

It is pleasant to learn that the medical profession of Scotland appreciated the national poet. Among the subscribers to the first Edinburgh edition of Burns's poems (1787) were no fewer than 55 doctors. Among these one notes with interest the names of Joseph Black, the famous chemist, Benjamin Bell, Gregory, Alexander Monro, and Dr. Moore, the author of *Zeluco*, and a considerable person in the literary world of the day, but perhaps better remembered now as the father of Sir John Moore who was killed at Corunna.

Another medical friend was Dr. Maxwell, of Dumfries, son of Maxwell of Kirkconnell, who was out in the '45, and became the historian of the rising. Maxwell, who had studied medicine in Paris during the Revolution, is said to have acted as one of the National Guard round the scaffold of Louis XVI, and to have dipped his handkerchief in the royal blood. He was near enough to hear the famous words, "*Fils de Saint Louis montez au ciel!*" addressed to the King by the Abbé Edgeworth. Burns and Maxwell were both ardent democrats, and indeed Maxwell was denounced by Burke in the House of Commons for alleged treasonable designs; but when the war broke out between Great Britain and France in 1793 they both joined a volunteer company formed in Dumfries to repel the invasion threatened by "haughty Gaul."

Considerable space is naturally devoted to Dr. James Currie, the poet's first and kindest biographer as Carlyle calls him. Currie was not only a distinguished man in his profession, a pioneer in thermometry and in the cold bath treatment of fever, but had considerable literary ability. He had a great admiration for Burns, with whom personally his acquaintance was of the slightest. The *Life* cost him an enormous amount of labour over a period of three years, but the whole of the proceeds, amounting to £1,400, were given for the benefit of the poet's family.

Dr. Findlay has collected a number of references to Burns by various medical writers, such as Moir (the "Delta" of *Blackwood*), Francis Adams, of Banchory (the translator of *Hippocrates*), Oliver Wendell Holmes, John Brown (the author of *Rab and his Friends*), and others of less note.

The book is tastefully produced, and is abundantly illustrated with portraits of all the members of the profession who have been mentioned. Dr. Findlay has taken considerable trouble in collecting his materials, but the work has evidently been a labour of love. If he has not added much to what was already known of Burns's life, or thrown any new light on the poet's character or poetry, he has produced a book full of interest to all members of the medical profession who have literary tastes.

RESEARCHES ON LEADLESS GLAZES. By WILLIAM JAMES FURNIVAL, Stone, Staffs. Published by the Author. (Demy 8vo, pp. 146. £5 5s.)

PUBLIC attention has of late been frequently directed to plumbism among potters. Anything that will tend to remove or minimise lead poisoning deserves support. Mr. FURNIVAL pleads for the replacement of the ordinary glazes at present in use, which contain lead either "raw" or "fritted," by others from which lead has been excluded. It is true that where manufacturers have carefully fritted or vitrified the lead in glazes their use has been attended by less risk to health, but their employment is not absolutely free from danger, for very often either too much lead has been used, or it is badly combined chemically, so that the glaze contains a large amount of unconverted oxide of lead, the presence of which becomes a source of danger to the dipper and his assistants. In the firing of ware the great difficulty of the potter is the occurrence of "crazing"—that is, the surface becomes uneven, cracked, etc. This happens to ware whether it has been dipped in ordinary glaze or in one from which lead has been excluded. It has yet to be shown that it occurs with greater frequency in leadless glazes. At the present time manufacturers are putting on the market white earthenware that has been dipped in leadless glaze. Cups and saucers so treated cannot be recognised by the public as different from those that have been dipped in lead glaze. Mr. Furnival is not in

favour of borax as a general substitute for lead; he shows that it requires to be used in small rather than in large proportions. It makes glass, for example, too soft. For certain colours manganese and copper can take the place of lead. It has been urged against leadless glazes that they are not durable, but Muspratt states that the glazed tiles made by the Egyptians as far back as the sixth dynasty are free from lead, and that these still retain their lustre. The ware produced by the Chinese, the Greeks, and Romans still exhibits in many instances the polish conferred upon it by having been dipped in a leadless glaze centuries ago, while ware produced in our own country only a few years since, although dipped in lead glaze, is disintegrating. So far, therefore, as durability is concerned, the stigma does not attach to leadless glazes alone. Bohemian glass and Vienna porcelain are free from lead, and there are few people who are not satisfied with the hardness, the beauty, and durability of colour in these products. Mr. Furnival has put himself to considerable expense and trouble to obtain formulæ of leadless glazes, many of which he has reproduced in his book. He complains that several manufacturers of whom he had asked the composition of their leadless glazes refused to comply with his request. Such is the competitive dread of some of our manufacturers. If inquired into it would be probably found that it was the small manufacturers who were the non-compliants. Fear too often goes with ignorance. The monograph is an embodiment of good and patient work, undertaken apparently for a benevolent purpose, the object of which, however, has been defeated by the high price of the book, which has been fixed at five guineas.

NOTES ON BOOKS.

Where Two Worlds Meet (London: Skeffington and Son. 1898. Crown 8vo, pp. 77. 2s. 6d.) consists of ten chapters on problems connected with the Bible and with the spiritual life of man, which the authoress, Miss Rosa E. Marsh, hopes that many invalids may find useful. The reflections that make up the work are all devout, and many erudite; they are scarcely didactic, but suggestive. As the writer remarks in the chapter headed "Break up your Fallow Ground:" "The narrow limits of the sick room may be likened to a conservatory, where it is possible to develop many beautiful spiritual blossoms which perhaps would not have taken root elsewhere. For in the stir of active life the attention is often distracted from their cultivation, and so if we are unable to work any more in the world we find ourselves more particularly called to this special labour." But sick folk are of all kinds; and whilst some with minds steeped in mysticism would greatly rejoice over a book of this nature, others with intellects of robuster build would, we expect, find its perusal tedious.

The small waistcoat pocket volume called the *Golden Rules of Surgical Practice*, by E. Hurry Fenwick, F.R.C.S. (Bristol: John Wright; pp. 77; 1s.) is now in its fifth edition, which is an indication that the compilation has met with success. There is nothing further to remark except to suggest that Mr. Fenwick might have extended the range of his maxims, and might perhaps in future editions make some few alterations in accordance with recent views on some points of surgical treatment.

The *Golden Rules of Gynæcology*, by S. Jervois Aarons, M.D. (32mo; pp. 63; 1s.; same publishers) consist of a long series of statements, disconnected, contradictory, and at times even misleading, the words "remember" or "never forget" appearing in large print with exasperating reiteration at the head of each alternate sentence.

The *Golden Rules of Obstetrics*, by W. E. Fothergill, M.A., B.Sc., M.D. (32mo; pp. 71; 1s.; same publishers) are practical and sensible directions, which students attending their early cases would no doubt find useful. But works of the class to which these volumes belong are of doubtful utility, and there is little to be said in their favour.

The address given by Dr. James B. Russell in acknowledging the presentation made to him by the staff of the Sanitary Department and Fever Hospitals of Glasgow on the occasion of his appointment as medical member of the Loc Government Board of Scotland has been printed in a pamphle (Glasgow: R. Anderson), with a portrait of Dr. Russell fo frontispiece. The address contains many interesting reminis cences, and very generous recognition of those who had serve under the speaker in the Sanitary Department, and conclude with an eloquent warning as to the need for continual effort not only to gain new ground, but to retain that which has been already won.

The Report of the Committee on the Antitoxin of Diphtheria has been reprinted from the *Transactions* of the Clinical Society of London, and can be obtained from Longmans, Green, and Co., price 1s. net. The body of the report, as has been already stated, is concerned mainly with analysis of statistics, and contains special sections on laryngeal diphtheria, on paralysis, on symptoms attributable to the antitoxin, and on fatal cases. Among the conclusions of the Committee is the statement that the evidence tends to show, first, that the general mortality is reduced to one-third; and, secondly, that the mortality from tracheotomy falls to one-half. There are appendices containing notes of certain cases, and a reproduction of the form of inquiry issued by the Committee.

Das Ellenbogengelenk und seine Mechanik, von J. Wilhelm Hultkrantz, Prosektor an dem Karolinischen Institut zu Stockholm (21 figures, 4 plates, pp. 151. Jena: Gustav Fischer. 1897), is a praiseworthy example of the thorough study of a limited subject—the anatomy and mechanism of the elbow-joint. In addition to man, some three score and ten of the lower animals have been laid under contribution. The result is the most complete and exhaustive work on the elbow-joint, the anatomy of its bones and ligaments, and the mechanics of the articulation that has ever been published. The descriptions are everywhere given with minute accuracy, and the observations of earlier authors are frequently and adequately referred to. In dealing with the views of others, those for example of Fawcett, on the morphology of the oblique radioulnar ligament, or of Corner on the analogies of the knee-joints and elbow-joints, the author displays a fine critical faculty, and a comprehensive mastery of even the smaller details of his subject. The subanconeus muscle is very properly described as infrequent. When present its fibres are not inserted into or lost on the capsule of the joint; they may be traced in the capsule to the olecranon process.

Sir William Mac Cormac, Bart., K.C.V.O., has issued his *Hunterian Oration*, delivered at the Royal College of Surgeons in the presence of the Prince of Wales, on February 14th, in book form (London: Smith, Elder, and Co.). The Oration was published in the British Medical Journal of February 18th, and at that time we took occasion to praise it. The Oration was indeed well worthy of being preserved as a separate publication. Moreover, several sentences which were suppressed in consequence of exigencies of time, etc., at the delivery of the Oration are here restored to their proper position. The type used for the printing is clear, there is a luxurious margin, and the linen binding is in excellent taste. Altogether the volume is a pleasant souvenir of a noteworthy occasion.

THE PREVENTION OF TUBERCULOSIS.

Dundee.

Dr. Templeman, Medical Officer of Health for Dundee, has prepared a report on tuberculosis, with special reference to Dundee which has been submitted to members of the Sanitary Committee of the Town Council. During the last decade the deaths from tuberculous diseases in Dundee had been 4,707, giving an annual death-rate of 470, equivalent to fully 14 per cent. of the total deaths registered from all causes, or 1 in every 7. During the same period the deaths of children under 5 years from tuberculous diseases averaged 95, chiefly from tabes mesenterica (31) and tuberculous meningitis (39). Dr. Templeman made an inquiry into the fatal cases of phthisis which had occurred in Dundee during the last five years, or as many of them as were available, and out of a total of 1,561 cases the occupations were classed as follows:—Mill and factory operatives 561, domestic 474, labourers 79, shop assistants 54, engineers and ironworkers 46, clerks 34, joiners and cabinet makers 30, shoemakers 23, domestic servants 18, spirit merchants 18, dressmakers 16, com-

positors 15, carters 15, painters 14, tailors 12, seamen 12, masons 11, blacksmiths 11, bootfinishers 10, bakers 10, teachers 9, hawkers 7, hairdressers 6, hacklemakers 6, fleshers 6, cabdrivers 5, commercial travellers 5, miscellaneous 54. A large proportion of those classed as "domestic" should, he says, be placed under the category of mill and factory workers, which would increase the number of mill and factory workers dying from phthisis. With regard to the kind of houses occupied by these cases 292, or 18 per cent., were in one-roomed houses; 904, or 58 per cent., in two-roomed houses; 229, or 14 per cent., in three-roomed houses; and 136, or 9 per cent., in houses of four rooms and upwards. Dr. Templeman did not advocate the inclusion of tuberculosis in the list of notifiable diseases, and no one would dream of suggesting compulsory isolation of cases of consumption, as it could not be said that such a person was necessarily a source of public danger. It could not be too strongly emphasised that a person suffering from consumption had it in his own power to be as free from danger as any healthy member of the community. From his physical conditions the life of such a man who might be the sole support of a wife and family was beset with hardship enough, but were he constantly being hunted from pillar to post by sanitary officials, his life, hard enough at the best, would become unbearable, and his chance of obtaining or of retaining employment very remote. Dr. Templeman concluded by making the following suggestions: That an attempt be made to educate the public by the issuing of placards and the distribution of handbills, explaining as simply as possible the nature of consumption and the methods to be adopted for its prevention; that a supply of leaflets be kept at the sanitary office for those suffering from this disease, giving simple directions for the protection of themselves and of the other members of their household; that those who cannot afford to purchase disinfectants be supplied with such; that the disinfection of rooms, bedding, etc., should be undertaken when requested, not only after death has occurred, but during the course of the illness; that the disinfection of houses which had been occupied by consumptives be recommended before they are again occupied; that the practice of expectorating in public places, such as tramcars, cabs, omnibuses, etc., be prohibited unless this be done into proper receptacles which should be provided, and which should be kept scrupulously clean, and that some arrangement be made by which the sputum of suspected cases be examined bacteriologically at the expense of the local authority.

PORTSMOUTH.

Dr. A. Mearns Fraser, Medical Officer of Health, has presented a report on the prevention of tuberculosis to the Drainage and Sanitary Committee of the Portsmouth Town Council. In it he states that of the 29,332 deaths which have occurred in Portsmouth during the ten years 1889-98 no fewer than 3,668 have been caused by tuberculosis; in other words, out of every 8 people who died during that period, 1 died from tuberculosis in one or other of its forms. A fact, too, having important bearings in relation to tuberculosis is that out of these 3,668 deaths, no fewer than 1,669 occurred among adults in the prime of life, between the ages of 25 to 55, that is, among the valuable and useful members of the community. In regard to the prevention of tuberculosis, the measures that may be taken for the prevention of tuberculosis by the sanitary authority are threefold: First, the securing of the co-operation of the public; secondly, the enforcement of those powers of which the sanitary authority is already possessed; thirdly, the taking of measures to obtain still further powers from Parliament to the same end. Dr. Mearns Fraser discussed each of these measures in detail. With regard to the question of notification of tuberculosis, he said he did not think that the benefits to be derived from such a measure would be in any way commensurate with the very heavy expense it would entail. He believed that nearly all the benefits of compulsory notification could be obtained by the voluntary assistance of the public and the medical profession.

SOUTH SHIELDS.

A meeting was held at South Shields on March 13th, the Mayor (Alderman Marshall) in the chair, to consider the question of the prevention of tuberculosis. Among those present were Dr. Caverhill, Drs. Robinson and Scurfield (of Sunderland), Dr. Turnbull (Medical Officer of Health, South Shields), and Drs. Legat, Gowans, Crease, Drummond, Crisp, and Macdonald.

The Mayor stated that in the county of Durham, with a population of 1,128,000, they had in the year 1897 no fewer than 19,464 deaths, and of these 2,204 were from tuberculous disease, whereas from all infectious fevers there were only 10,278 deaths. There were probably 6,000 consumptives in the county of Durham at the present time, and that fact alone should be quite sufficient to appeal to their sympathies and support. Dr. Robinson, the founder of the Society for the Prevention and Cure of Consumption in the County of Durham, said that as the result of experiment and research they found that the best plan was to have sanatoria in the country where the patient could breathe fresh pure air free from smoke and dust, and be under the supervision of a specially skilled and trained medical man. One medical man could only supervise forty patients in the way that they thought he should supervise them, so that they should, in the first place, like to start a sanatorium containing 40 beds. This would cost £8,000. Up to the present in Sunderland they had got between £1,600 and £1,700 raised.

Dr. Scurfield (Sunderland) said that about one cow out of every hundred gave milk which contained tubercle bacilli, but the danger could be eradicated by taking the precaution of boiling the milk.

Dr. Caverhill delivered a lecture on the Crusade against Consumption, which was illustrated by lantern slides of the principal sanatoria for phthisical patients in Europe.

Rev. J. T. Brown moved:

That this meeting of the inhabitants of South Shields and neighbourhood expresses its approval of the object of this Society for the Prevention and Cure of Consumption in the county of Durham, and hereby decide to form a branch of the South Shields district.

The resolution was carried unanimously.

Dr. Grant moved:

That the Mayor be President of the local branch; Messrs. W. S. Robson, M.P., and J. C. Stevenson, Vice-Presidents, and that the General Committee be formed of the members of the sanitary authority, which is the town council, members of the medical profession, clergy, and ministers.

This was agreed to.

GATESHEAD.

At the invitation of the Mayor of Gateshead, a meeting was held on March 14th for the purpose of inaugurating a local branch of the Society for the Prevention and Cure of Consumption in the County of Durham. In opening the meeting, the Mayor said from 1894 to 1898 there were 894 deaths from consumption in the borough, and urged that anything that could be done to prevent the ravages of the disease ought to be done. Dr. Robinson (Sunderland) explained the objects of the Society. Dr. Scurfield (Sunderland) also spoke on the objects of the Society. Dr. Caverhill gave an address, and it was decided to form a branch of the Society, and a committee and others were appointed.

PORTUGAL.

Dr. Manoel Antonio Moreira, jun., a member of the Portuguese Chamber of Deputies, has presented a preliminary report to the Government calling attention to the increasing prevalence of tuberculosis in Portugal. An association of ladies has been formed with the object of collecting funds for the succour of indigent sufferers from tuberculosis.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on March 16th, Sir WILLIAM MACCORMAC, Bart., K.C.V.O., President, in the chair.

REPORT OF THE LABORATORIES COMMITTEE.

This report, which was adopted by the Council, dealt chiefly with the subject of diphtheria antitoxin.

The Work on Diphtheria for the Metropolitan Asylums Board.—Since December 9th, 1898, 2,061 doses of antitoxin, each containing 2,000 units, and 5,314 doses, each containing 4,000 units for the treatment of diphtheria in the hospitals of the Metropolitan Asylums Board, have been supplied and all the demands fully met. During this period 25,378,000 units, or 278,329 units per diem, have been supplied. During the same

period 26 doses of 4,000 units each have been supplied to medical officers of health according to instructions received from the Metropolitan Asylums Board.

The Grant from the Goldsmiths Company.—Under this grant 618 doses of antitoxin, containing 1,536,000 units, have been supplied to the general and children's hospitals in London. The Committee have the pleasure to report that the Worshipful Company of Goldsmiths have made a further munificent grant of £500 for the prosecution of researches and for the continued treatment of severe cases of infective disease amongst the poor classes.

Resignation of Dr. Woodhead.—The Committee report with regret that Dr. G. Sims Woodhead, who has been director of the laboratories since their erection, has sent in his resignation on appointment to the chair of Pathology at Cambridge. The vacancy has been advertised, and the Committeee will shortly proceed to consider the applications with a view to recommending to the Royal Colleges a suitable candidate for the appointment.

Testing of Antitoxin.—The following regulations for testing antitoxic serum have been approved by the Committee—namely: (1) The serum is examined (*a*) for potency—for instance, for number of antitoxin units per c.c.; (*b*) for any excess of antiseptic; (*c*) for the presence of micro-organisms. (2) The serum may be sent to the laboratories in bulk, and may there—after being tested and bottled—be labelled with the laboratories' certifying labels. (3) When a batch has been bottled away from the laboratories the bottles shall be counted and samples selected by the laboratories' assistant who, after the serum is tested, shall provide labels to be affixed to the bottles and to the cases in which they are contained; these shall be affixed in his presence. A scale of charges has been fixed for the above work.

Midwives Bill.

A report upon the Midwives Bill, recommending certain alterations, was discussed and adopted; and it was determined to forward this to the Special Committee of the General Medical Council.

John Tomes Prize.

The Committee of the John Tomes Dental Prize was appointed by the Council. The prize (which is triennial) will be awarded at the end of the present year.

Prevention of Venereal Disease.

A letter was read from Mr. A. W. FitzRoy, forwarding, by direction of the Lord President of the Privy Council, a circular relating to an International Conference respecting the adoption of precautionary measures against syphilis and venereal diseases to be held at Brussels from September 4th to 8th, 1899, and stating that Her Majesty's Government, while not proposing to be directly represented at this Conference, are of opinion that it might be desirable that the various medical corporations of the United Kingdom should, if they think proper, take steps with a view to representation thereat. Mr. Alfred Cooper was appointed to represent the College; and it was agreed to ask Mr. Jonathan Hutchinson, sen., to be a second representative.

Congress of the Sanitary Institute.

A letter was read from Mr. E. White Wallis, Secretary of the Sanitary Institute, stating that the autumn Congress and Exhibition of the Institute would be held at Southampton on August 29th and following days, and inviting the College to appoint two delegates to attend the Congress. The Council appointed Mr. Howard Marsh and Mr. Ward Cousins as delegates.

College Centenary.

Mr. Bryant, in pursuance of his notice on February 9th, moved:

That, in view of the Centenary in 1900 of the foundation of the College by Royal Charter, a Committee be appointed to consider and report to the Council whether any, and, if so what, steps should be taken to celebrate the event.

The Committee was appointed.

The Duke of Cambridge, K.G., will preside at the annual dinner of the Sanitary Institute to be held at the Whitehall Rooms on May 2nd.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

Annual Meeting.

The annual general meeting of the above Association was held on March 18th at the Café Monico, Piccadilly Circus, London. There was a large attendance of members, including Dr. Mapother, who resigned the President's chair to Sir W. Thomson, F.R.C.S.I. (Dublin); Dr. Gilbart Smith (Chairman of Council), Dr. Phillips-Conn, Reading, and Professor Alex. Macalister, F.R.S. (Vice-Presidents); Sir William Mac Cormac, Bart. K.C.V.O., Dr. Macnaughton Jones, and Dr. Richard Fegan (Past Presidents); Dr. Jocelyn Swan (Honorary Treasurer); and the two Honorary Secretaries, Dr. J. Stewart (Clifton), and Mr. P. J. Freyer.

In the report for the year 1898-99 the Council congratulated the members on the remarkably successful twelvemonth just ended. During that period good work had been done by the Council on behalf of their brethren in Ireland holding Poor-law appointments. Owing to the strong support given by them to the Irish medical bodies in their representations at headquarters, the Local Government Board had recently promulgated new rules by which the dispensary doctors had gained: (1) Privileges as regards recovery of fees from those having no claim to free attendance; (2) the right to a month's vacation annually; and (3) the provision of a *locum tenens* in the case of illness. The Council appended to their report a table showing that in London there were at present 509 practitioners eligible for membership not yet enrolled, 1,716 in the provinces, 136 in Wales and Monmouthshire, and 811 on the active and retired lists of the navy and army. A large proportion of these, it was hoped, would be induced to join their ranks when they had brought to their notice the good work the Association had always done in educating the public—especially the governors of the large hospitals—in reference to the injustice to those practising in England with Irish diplomas, caused by the rule which prevents any but the diplomates of two favoured Colleges in London from even becoming candidates for honorary appointments in the staff.

The Council reported that notwithstanding the deaths during the past year (which included Drs. Samuel Gordon and W. A. Boyd of Dublin) and the resignations, the numbers on the roll of membership had reached a total of 758. The dinners during the year had established a record as regards the numbers present. The finances were in a prosperous condition, the balance to credit being £96 1s. 5d.

A ballot having been taken, the following officers and other members of Council for the ensuing year were declared elected, namely:

President-Elect: Inspector-General W. H. White, M.D., R.N., Honorary Surgeon to the Queen. Vice-Presidents: Dr. Richard Heath (St. Leonards), Dr. Phillips-Conn (Reading), Professor Alexander Macalister, F.R.S. (Cambridge), and Dr. E. D. Mapother. Hon. Treasurer: Dr. R. Jocelyn Swan. Hon. Auditors: Dr. Finny (Kingston), and Major Tuohy, I.M.S. Members of Council: Colonel Boileau, R.A.M.C.; Drs. W. H. Bourke, Campbell Boyd, J. Arthur Browne, M. J. Bulger, G. Roe Carter, T. Hobbs Crampton, James Donelan, T. More Madden, Mouillot (Harrogate), Mr. Robert O'Callaghan, Surgeon-General Rice, M.D., C.S.I., Drs. Russell Ryan, E. Irwin Scott (Brighton), J. H. Swanton, M. H. Taylor, J.P., Henry G. Thompson (Croydon), and W. H. White.

The question as to where the "coming-of-age" celebration should take place was referred to the Council.

A vote of thanks to the retiring officers concluded to proceedings.

The Annual Dinner.

The annual St. Patrick's Festival Dinner of the Association took place at the Café Monico, Piccadilly Circus, on March 18th, and was attended by a large company. Sir William Thomson, F.R.C.S.I., President, occupied the chair, General Sir George White, V.C., was the principal guest; and amongst others present were Sir W. Gowers, F.R.S., Sir W. MacCormac, K.C.V.O., Surgeon-General W. R. Rice, C.S.I., Sir Dennis Fitzpatrick, K.C.S.I., Inspector-General W. H. Lloyd, R.N., General Sir T. Gordon, K.C.I.E., C.B., Dr. Gilbart Smith, Chairman of the Council, and Mr. P. J. Freyer, Hon. Sec., upon whom the organisation of the banquet chiefly devolved.

The toast of "The Queen and the Royal Family" was given from the chair, and warmly received, after which "God Save the Queen." was sung, the solo being rendered by Mr. Douglas Powell.

Professor Alexander Macalister, F.R.S., proposed the toast of "Our Defenders," to which Inspector-General W. Lloyd, R.N., President-elect of the Association, and General Sir T. Gordon replied. The latter, speaking of the good effects of British rule on Eastern populations, said that those same fellaheen who, under British officers had lately conquered at Omdurman, were less than twenty years ago such poor material that a Turk with a stick could cow a large number of them. The same thing had occurred in India, China, the Straits Settlements, and Africa. The natives, under British guidance, laid aside their race hatred and religious animosities and rendered important services to the State. In effecting this change the combatant officers of the Army had been well seconded by the officers of the medical departments.

Sir William Mac Cormac, in proposing the toast of "Our Guests," said that Sir W. Gowers had done excellent work in one of the most difficult paths of medical science. Sir G. White, now Quartermaster-General of the army at home, had done exceptional service as Commander-in-Chief in India. The Indian army was constantly doing the work of an army, and its present state of efficiency was due to the infinite capacity shown by those in whose hands had been placed the supreme command. No greater acts of gallantry and of devotion to the Empire had ever been performed than those which were constantly being performed in outlying portions of the Indian Empire.

Sir George White, in responding, said that an Irishman would play double dummy with his own shadow rather than let such a festive occasion as St. Patrick's Day pass in the dull monotony of perfect peace, so plentiful were the fighting qualities of his race. The campaigns on the frontiers of India were fought more or less in obscurity, there being usually no correspondents present to blazon them forth to the world, and the stories of their many deeds of heroism only came back to this country like muffled drums. Soldiers felt a deep debt of gratitude for the progress made in surgical and medical science; and no branch of military organisation had made such progress as, or been more beneficial to the soldier than, that which dealt with the sick and wounded in war. Sir William Lockhart, in the Afridi hills, had to convey his sick and wounded a hundred miles before he could entrain them, and yet in consequence of careful attention to the principles of antiseptic surgery the number of cases that recovered was phenomenal.

The speech was received with cheers.

Sir Dennis Fitzpatrick also responded, and stated that he had had a medical training. He did not believe that on the face of the earth there existed a body of men more devoted to their duties than the officers of the medical service in India.

Mr. Bram Stoker proposed the toast of "Ourselves," and said that the members of the Association had three bonds of union. They were all professional men: they were united by memories of their young days when strife was strenuous and friendships dear; and they loved that little emerald isle to which all their memories went back wherever they might be.

The President, replying, said that they were antagonistic to that unfair law under which Irish and Scotch qualifications precluded their possessors from holding public appointments in England, and which was possibly more common in the country districts than in London. Macalister, called to Cambridge, Gerald Yeo to King's College, and others to other responsible posts, had all fully justified their selection. It was a grievance that in provincial England graduates and diplomates of Irish schools were not treated on equal terms with English graduates and diplomates; whereas English graduates had full entrance to Irish medical posts. It was a pleasure to the members of the Association to know that of twenty-four places lately filled in the Royal Army Medical Corps, 50 per cent. were obtained by men from Irish schools, who also took the first and second places on the list. Lord Iveagh had given a quarter of a million sterling to improve workmen's dwellings, and another equal sum to the Jenner Institute, which would benefit the whole human race. He certainly had not restricted his largesses to Irishmen. They wanted simple equality, and appealed to the feeling of fair play and to the consistency of Englishmen. Let them have the "open door" in England. They were just entering on the majority year of their Association, and had 760 members on the roll.

Miss Lilian Moreton, Mr. Douglas Powell, and Mr. Hulbert J. Fulkerson gave in the course of the evening some excellent Irish songs, Miss Maude Jaques played a violin solo, and Miss Mary Stewart presided at the piano.

LITERARY NOTES.

Mr. Fisher Unwin has in the press a new volume of the *Masters of Medicine* series. This is *Claude Bernard*, by Professor Michael Foster, F.R.S. Unexpected delays have arisen in regard to the other volumes, but we understand that they are all, like John Gilpin's wig, "upon the way."

Dr. Charles Neufeld, who was held in bondage by the Khalifa for more than twelve years, has written an account of his experiences. The book will be published by Messrs. Chapman and Hall.

One of the most interesting of our exchanges is the *Sei-I-Kwai Medical Journal*, which, as is stated on its title page, is "edited and published by the Sei-I-Kwai or Society for the Advancement of Medical Science in Japan." We regret, indeed, that owing to the unfortunate linguistic complications which originated at the building of the Tower of Babel, we feel in regard to the greater portion of the contents of our Tokyo contemporary like the Peri who gazed disconsolate through the gate of the paradise which she might not enter. But there are always some pages writ in a language which is in a manner English, though mostly of the American dialect; and in these there is generally something of interest to be found. With the New Year our contemporary changed the fashion of its garments, considerably to the improvement of its appearance. It also changed its editor, and it is further intimated that "the form of the English part was somewhat reformed." The following passage in the prospectus is particularly interesting:

> The editor and contributors are purely the Japanese, so we must apologise in advance that there may be some shortness in English, but our intention is to supply the real state of the medical science and medical events in Japan to the foreign professional brethren.

As regards "shortness in English," that we venture to say, is a quality so rare in a contributor as to call for something altogether different from an apology. The intention expressed by our contemporary is well fulfilled in the number (January 31st) before us. There is a very interesting article on "The Vaccination and the Calf Vaccine in Japan" by Dr. Tadahiro Noda, Superintendent of the Tokyo Vaccine Institute and a Sanitary Inspector of the Japanese Home Department. Fleet-Surgeon B. Tomatsuri contributes his personal observations on the "Americo-Espanean War," in which, by the way, he rendered services to the sick and wounded of the United States Army, for which he was thanked by the Commander-in-Chief. Among the medical events recorded is the formation of a "Society of the Diseases of the Gastro-Intestines," of which, it is stated, "some learned and popural persons who are considered to be benefit to the purposes of the society are selected to the honourable members." In spite, however, of a few eccentricities of grammar and spelling, hardly to be avoided in the circumstances of its production, the English part of the *Sei-I-Kwai Medical Journal* is a striking proof of the adaptability of the "Frenchmen of the East," who in linguistic aptitude at least are far ahead of those of the West.

Professor H. W. Middendorp of Groningen does not believe in Koch, and has written a book to let the world know the fact. From certain documents with which we have recently been favoured we learn that the title of the learned Dutchman's work is, *The Cause of Tuberculosis according to Robert Koch and his Curative Method*, and that it was published at Groningen in 1897, though the glad tidings of its appearance have only now reached us. Dr. Middendorp denies in general that tuberculosis is a parasitic disease, and in particular that the so-called Koch's bacillus is present in tubercles in any organ whatever. He holds that those microbes are found only in pulmonary cavities which communicate directly with the bronchi. He also denies that pure cultures can set up the disease; according to him, what does this is "the necrosing specifically infective substance adhering to those cultures." Finally he condemns tuberculin as a therapeutic agent. Here the professor ceases to be particularly interesting, for he shouts with the crowd.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 25TH, 1899.

THE SURGICAL COMPLICATIONS OF TYPHOID FEVER.

Not a few of the continued fevers are attended by more or less serious incidents of a surgical character. The otorrhœa of scarlet fever and measles, and the remote cerebral complications thereon dependent, the occasional laryngeal stenosis, and the frequent parotitis of typhus, have been mentioned by many generations of medical writers. But of all the fevers, typhoid is the most prolific in catastrophes of surgical origin, especially when it is remembered that under the heading of "typhoid" a certain, probably not insignificant, number of cases of typhus has been included. Keen,[1] in a recent and valuable work, points out that in 1,699 cases of fever attended by surgical complications, 1,139 case were certainly typhoid. Of 494 classed as typhus, some not rightly so, the great majority (352) were cases of parotitis; the remainder were almost entirely made up of cases of laryngeal stenosis and gangrene.

The surgical sequelæ of typhoid are almost constantly pyogenic, and assume the most diverse and often obscure forms. Since the discovery of the typhoid bacillus by Eberth in 1880, it has been shown by many observers that a certain proportion of surgical conditions arising months, or even years, after the fever may be due to this organism, which meanwhile has been lying in the body latent and quiescent. The most striking example of this kind is recorded by von Dungern. A woman, aged 46, in November, 1882, was ill with typhoid for four weeks. Several minor illnesses occurred between this date and February, 1897. In that month Kraske incised a tumour of the size of a child's head in the region of the gall bladder, and evacuated 150 c.cm. of a brownish-yellow pus, not coloured with bile. A careful examination of the pus revealed the typhoid bacillus in pure culture. Buschke has related a case in which the bacillus retained its virulence through a dormant period of eight years, and similar instances are mentioned by Bruni, Sultan, Chantemesse, and others.

The attributes of the bacillus of Eberth have been the subject of almost endless debate. There seems now to be no reason to doubt that the organism does possess pyogenic properties, for researches upon animals have shown that the injection of a pure culture of the organism obtained from a case of typhoid in man gives rise to suppuration. In man the typhoid bacillus has frequently been found in pure culture in suppurative lesions. As Keen says, "not only the number of these cases, but their wide distribution is worthy of note." The typhoid bacilli have been found in pure culture in suppurative lesions in the ribs, clavicle, radius, ulna, femur, tibia, and the bones of the fingers and toes; in the blood, heart muscle, the endocardium, and the arteries and veins of the legs; in the muscles of the neck, shoulder, abdominal wall, and legs; in the peritoneal cavity, the spleen, the liver, the bile, the kidney, the urine, and the mesenteric glands; in the brain, in the parotid gland, in the thyroid gland; in the lungs and the pleura; in the ovary; in the testicle.

The cases of mixed infection are equally numerous and widespread. The virulence of a mixed infection varies, however, within wide limits. Vincent, in mixed cultures of the bacillus of Eberth and the staphylococcus, found that the latter is remarkably inimical to the former; so much so that Eberth's bacillus rapidly disappears from a mixed culture. On the other hand, when the typhoid bacillus is cultivated with the streptococcus its virulence is intensified. An injection containing quantities of both the bacillus of typhoid and the streptococcus, which when alone were harmless, produced together the most rapid and intense reaction and death. Valliard has said that "if two animals were infected, the first with a feeble dose of the streptococcus and the second with a similar dose of the typhoid bacilli, both will be ill for a few days and then recover; but that if a third animal is infected with the same doses of the two bacilli together, death follows, with stupor, diarrhœa, and fever." The clinical features of the two infections in man are graphically described by Keen, who says: "When the infection is a mixed infection of the typhoid bacillus and other bacteria the result is a complication rather than a sequel, and the course of the disease is apt to be early in its onset, acute, and of a febrile character. When the infection is by the typhoid bacillus alone the result is a sequel rather than a complication, and the course of the disease is apt to be late in its onset, chronic, and afebrile."

The question of the identity or non-identity of Eberth's bacillus and the bacillus coli communis has now also received a final solution. Flexner remarks that "the weight of opinion among bacteriologists at this time is that the colon group of organisms can be sharply differentiated from the typhoid bacilli."

The surgical complications of typhoid fever are now known to be both frequent and dangerous. Hölscher, who wrote in 1891, analysed 2,000 fatal cases. The deaths from typhoid *per se* were 24 per cent.; 76 per cent. were due to the medical or surgical complications and sequels. The most commonly recognised of the surgical sequelæ are affections of the bones. In frequency they are second only to the laryngeal affections. The bones offer "a peculiarly inviting field" for the ravages of the typhoid bacillus. A large number of isolated cases occurring during recent years has proved that the bacillus remains latent in the bones for considerable periods, to be roused into activity by any slight traumatism, in itself trivial and unimportant. Among the rarer and only recently investi-

[1] *The Surgical Complications and Sequels of Typhoid Fever.* By W. W. Keen. London: The Rebman Publishing Co. 1893.

gated complications may be mentioned the infection of the liver and gall bladder and bile ducts. Of 74 cases of typhoid infection of the gall bladder collected by Westcott, 30 resulted in perforation. Of these 30, 4 have been operated upon, and 3 recovered. The symptoms, generally speaking, are those of perforative peritonitis, with intense pain in the gall-bladder region.

Of intestinal perforation there is little that is new to be said. It is Keen's opinion—an opinion which will no doubt be shared by all surgeons—that with early diagnosis and prompt treatment one-third of these cases should recover.

Among other affections may be mentioned parotitis, laryngitis, the formation of abscesses, joint inflammations, inflammations of the œsophagus, stomach, sexual organs, and gangrene, but there are many others. Keen, who directed attention to this subject first in 1876, has in his monograph brought our knowledge up to date. His work deserves the attentive perusal of all practitioners. It is, perhaps, the most important contribution to the literature of the "borderland" between medicine and surgery that has yet appeared from any American author.

THE MEDICAL SERVICE OF CROWN COLONIES.

THE letter which we published on March 11th, p. 632, from Dr. F. H. Edmonds, President of the British Guiana Branch of the British Medical Association, sets forth a grievance which is ever recurring in the Crown Colonies. It is the question of leave, more especially long leave. Medical officers are engaged according to the absolute requirements of the communities to be dealt with, and the question of leave is not sufficiently taken into consideration. But the time comes when, either from ill-health or the necessity for a holiday, leave must be granted, and the work of the absent man falls upon one or two of his colleagues. It must then happen that if only a sufficient number of medical men are engaged to carry on the urgent work of the colony, a severe strain is thrown upon men already in full work. The extra work in a climate such as British Guiana is a serious matter, and it ends either in the officer so situated failing to do the work or succumbing to the deleterious influences of the climate.

The Surgeon-General in charge, with the Government calling for a reduction in expenditure on the one hand, and the number of patients increasing on the other, has a difficult part to play. Increased work means more sickness amongst the medical officers under his control, and thereby more and more calls upon those who continue at duty. The annual report shows that "two Government officers were on leave from last year returned to duty during this year (1898). Fourteen went on leave during the year, while 11 returned during the year, and 3 were still absent at the end of the year." The entire medical staff numbers 42, and if out of the number 14 are on leave at a time, that is one-third of the whole, it would seem that each officer would, at that rate, be allowed a holiday about once in three years. Provided the staff on duty is maintained, so that no *heavy* extra work is entailed, it would appear that this allowance is liberal. Dr. Edmonds complains that the medical department is not treated as regards holidays in the same way as other Government departments. In this there is at all times considerable difficulty. In many Crown Colonies we are accustomed to find two departments pass, for a time, under one head, and the officers of the gaol, post-office, public works, or registrar's departments taking over each other's duties; but in the medical department no such "general post" is possible. Even urgent public works can be deferred; reforms in gaols, post-offices, etc., admit of delays, but not so illness; at all times its calls are urgent, and it is impossible to provide for medical leave on a level with other departments. The more urgent, therefore, is the duty of the Government of every Crown Colony to take the question of medical leave seriously into account, and to maintain the staff in such numbers that at least a quarter of the number can be ensured leave at a time, without laying too heavy an extra burden upon the men who are on duty.

THE SIGNIFICANCE OF HÆMORRHAGE FROM THE FALLOPIAN TUBE.

THE presence of blood free in the peritoneum and clearly traceable to the Fallopian tube is a matter of serious significance. Does it always signify interrupted tubal gestation? If so, important as the fact will be when a hæmorrhage from the tube is discovered at an operation, it must be far graver when detected *post mortem*. For medico-legal reasons it is very important that the question should be settled.

At present it is far from settled. Mr. Lawson Tait showed over ten years ago that tubal pregnancy was much more frequent than had been previously supposed. He thus supported Gallard's theory that pelvic hæmatocele was due to ectopic gestation; and Veit, following Tait, insisted that this form of hæmatocele almost necessarily implied ectopic gestation as its cause. This view is widely held, and seemed universally accepted not so very long ago. But Ruge, in reply to Veit, held that though the theory was substantially correct, nevertheless hæmatosalpinx was not always or even nearly always, the equivalent of tubal pregnancy. At the end of last year this disputed subject was very warmly discussed both in the London and the Paris Obstetrical Societies. The debate at the London Society turned on a specimen, in which a large clot depended from a Fallopian tube. No chorionic villi could be found, though both the original exhibitor of the specimen (who believed that the hæmorrhage might not have been due to tubal gestation) and the critic (who stated that it was idle to deny that the clot in question was the product of tubal pregnancy) alike examined sections of the different portions of the clot with care. All these same sections were impartially scrutinised by Mr. Shattock at the College of Surgeons, with a like negative result.

At the French Society, M. Doléris read an important paper on tubo-ovarian hæmorrhage. His views on the debated point are not negative, but positively against the current theory that tubal hæmorrhages are always due to ectopic pregnancy. He said that he knew of authentic examples of hæmatosalpinx quite independent of abnormal gestation. Clinical and operative evidence had convinced him that many cases of diseases of the appendages be-

lieved to be inflammatory and bacterial are not even inflammatory. They signify hæmorrhages of various intensity in suddenness and extent, originating not only in the tube, but also in the ovary. He stated that the clinical history shows that they appear independently of impregnation, puerperal or venereal infection, or any other cause of inflammation. At operation little or no trace of inflammation could be detected.

Doléris declared that he had frequently observed simultaneous ovarian and tubal hæmorrhage, and had recently operated upon an extreme example of this condition There was a big hæmatoma of one ovary, consisting of a collection of serum in which floated an old clot, and there were also hæmorrhages into the follicles of both ovaries. Each tube, closed and dilated, was the seat of a similar collection of blood, and the peritoneal cavity also contained serum and clot. There was no evidence of any kind that tubal pregnancy had ever existed. The lesions were very old, and subject to diminution and exacerbation, closely watched by Doléris. He further described a case in which many would have ascribed the clinical symptoms to tubal gestation, but he considered it to be certain that they were due to an apoplectic ovary, enlarged by extravasation of blood to the size of a hen's egg. The case strongly resembles another example of apoplexy of the ovary brought forward in 1890 at the Obstetrical Society of London by the same observer, who exhibited recently the doubtful case of hæmorrhage from the tube on which there was so much discussion.

Especially important is M. Doléris's observation that these tubo-ovarian hæmorrhages independent of gestation are often associated with irregularity of menstruation. It is significant that in the disputed case exhibited at the London Society menstruation had never been regular and that the ovary corresponding to the tube whence hung a large clot was much enlarged and contained several follicles full of half-decolorised clot. It seems not unreasonable to believe that a primary tubo-ovarian hæmorrhage may occur independently of impregnation, yet usually associated with disturbance of the catamenia, and that sometimes there is no appreciable hæmorrhage into the tube, so that nothing but an apoplexy of the ovary is to be seen, whilst sometimes the ovary escapes but the tube bleeds freely. This latter condition is very likely to be taken for tubal abortion. In a case of death where intraperitoneal hæmorrhage from the tube is detected, the chances that the bleeding is due to tubal pregnancy are very strong; but medico-legal authorities must not forget Doléris's researches, which prove that it may arise from other causes.

COLLIERY PRACTICE.

It will be remembered that some time ago the general medical practitioners resident in the county of Durham formed an organisation called the County of Durham Medical Union for the purpose of considering medico-ethical questions affecting the profession in the county, and of obtaining a better rate of payment under the contracts which so generally exist between workmen and medical men in the county. The Union put forward a demand that the rate of payment, which had been 6d. a fortnight, should be raised to 9d., certainly not an unreasonable demand in view of the altered conditions of the workmen which have been brought about since the original rate was fixed. In some cases we are glad to state that the reasonableness of this request was recognised, but in others it was repudiated with every appearance of indignation, and a conflict has ensued which we are told tends to become keener every day. The workmen in many collieries are offering a determined resistance, and in some instances are advertising for a doctor fully qualified to take charge of a "medical association" or "medical institution" to be established by the workmen at the several collieries. Applicants are, in the terms of the advertisements, requested to "state wages, etc." We understand that so far no medical practitioner has been found to accept the conditions proposed, although in one locality several medical practitioners did appear in response to the advertisement, but retired so soon as they fully understood the position of affairs. In a large proportion of the resisting collieries a delegate, generally a somewhat hot-headed agitator, has been appointed to meet the doctors, but discussion under such conditions has been found futile. We would impress upon any medical men who might be attracted by advertisements for any post as a colliery surgeon in the county of Durham to make inquiries, and in the first place to read the letter from Dr. Edward Jepson, which was published in the British Medical Journal of March 4th, 1899, p. 559. We are informed that unfortunately there is a want of practical unanimity amongst the medical practitioners in the county, but it is hoped that this may be overcome by a systematic organisation of local committees in the different districts. An indemnity fund has been formed, and has been well supported by the medical profession, but has, happily, not yet been called upon. The members of the profession who have taken part in this movement in the county of Durham are in hopes that other counties will co-operate with them. This would have the effect of making their task lighter, and of diminishing the difficulties which they have to face. Such action would in particular have considerable influence upon public opinion, which, to judge from letters which have appeared in the local press, is not indisposed to recognise the justice of the claims put forward on behalf of the medical practitioners. We believe that Dr. Edward Jepson, 42, Old Elvet, Durham, the President of the Durham Medical Union, would be willing to advise medical practitioners in other counties as to the steps which should be taken in organisation and the pitfalls which should be avoided in the initial stage; and that, further, any practitioner who might be desirous of obtaining further information with regard to the appointments advertised, will be answered by Messrs. Graham and Shepherd, of Sunderland, the secretaries of the Union.

THE GLANDERS COMMITTEE.

We understand that the Departmental Committee appointed by the Board of Agriculture has now concluded its examination of witnesses, and will shortly meet to consider its report. This Committee was appointed some six weeks ago to inquire into the prevalence of glanders, and to suggest any better means of dealing with that equine scourge than those at present in force. Lord Stanley, M.P., is Chairman; Major Tennant and Mr. Cope represent the Board of Agriculture; Dr. Collins represents the County Council of London; and Baillie Chisholm the Corporation of Glasgow. The veterinary profession has Mr. Malcolm as its spokesman, while the large owners of horses will probably consider their interests safe in the hands of Mr. Baxendale and Colonel Colville. These gentlemen, together with Mr. Hardy, M.P., compose the Committee. Witnesses have been examined from London, Glasgow, Birmingham, and Liverpool; the pathological side of the question has been dealt with by Professors McFadyean, McCall, and Axe, and Messrs. Hunting and Shore. Much interest naturally attaches to the use of mallein as a diagnostic, and to the question of compensation in the

case of compulsory slaughter, M. Nocard has claimed that mallein has also a curative influence, or, at any rate, that horses which "react" to a first inoculation cease to do so on subsequent testing; but the interpretation to be placed on these experiments is as yet not clear. Although the cases of glanders occurring in man are few—some dozen only have been recorded during the last six years—the horrible nature of the inoculated disease and its almost uniform fatality remind us that the interest attaching to the Committee's investigations is not exclusively for the veterinary profession.

PARLIAMENTARY INFLUENZA.

The ventilation of the House of Commons may almost be considered a matter of national importance, and from time to time scares about the quality of the air served out to our legislators agitate the public mind. The "Anxious Wife of an M.P." is seriously alarmed at the havoc worked by influenza among the occupants of the green benches, and in a letter to the *Times* accuses the "vitiated" atmosphere of St. Stephen's of being directly responsible for the virulence and spread of "this terrible plague" there. No doubt the frequently overcrowded condition of the House itself, as well as of its library and dining and smoking rooms, must encourage infection introduced from outside to do its work, but we have as yet heard no evidence which compels us to believe that the disease had attacked M.P.s in greater proportion than ordinary members of humanity. The popular notion to the contrary seems due in all probability to their greater social prominence, and to the consequent journalistic record of their occasional deviations from sound health and withdrawal from public life. This is then a direct testimony in favour of the air of the House of Commons, which we have always maintained to be, considering its source, and the many complexities of the machinery by which it is diffused, free from injurious adulteration and in no way prejudicial to health. At no period even of the longest sitting can the "stuffiness" so characteristic of every other large public building be detected, and the only criticism really deserving of serious attention is that the air is perhaps rather too hot and dry, a matter easy of removal by the experienced officials in charge of the department.

MAIDSTONE'S WARNING TO LONDON.

Last Tuesday the London County Council discussed a joint report from the Public Health and Water Committees on a reference made to them last October to report whether the causes which led to the typhoid epidemic in Maidstone had any parallel in the conditions of the London water supply. The Committee proceeded to ask that the methods of filtration carried out by the London water companies might be investigated by the Council's officers, but permission was not accorded by the companies. The Thames Conservancy appeared to be similarly indisposed to facilitate the acquisition of information by the County Council of the sources of sewage pollution which continue along the valley of the Thames. Dr. Young, one of the Council's assistant medical officers, was instructed to visit the valleys of the Lee and Thames. Dr. Young's inspections appear to have revealed a state of things which cannot be read without alarm; from more than forty places situated in the Thames Valley above the intakes of the water companies, crude or imperfectly-treated sewage was reported to be polluting the river in 1898. The report of the Local Government Board on the Maidstone epidemic demonstrated once again that water polluted with sewage at its source produced typhoid fever at its distribution. It is true the presence of the "bacillus typhosus" was not demonstrable, but this, in view of its life-history, is not surprising, and the report of the Local Government Board emphasises the necessity for "chemical and bacteriological examinations being supplemented by skilled inspections of the actual conditions—geographical, topographical, and sanitary—of the surroundings of the source of supply." The chemist, engineer, and medical officer of the Council have reported to the Joint Committee, and concur in the view that sewage-polluted water, though it may be rendered innocuous by efficient filtration, must ever be a perilous source of supply for purposes of consumption. Meanwhile, the House of Commons has rejected the proposals of the London County Council to seek a purer supply from the hills of Wales than can ever be furnished by the rivers Thames and Lee, and London is again doomed to wait for such advantages in regard to water supply as have already been accorded to Glasgow, to Birmingham, to Manchester, and Liverpool. The discussion in the Council was adjourned by the arrival of the hour of seven, but it is probable the water question for London will ere long again become acute.

KALA-AZAR.

Dr. Hayman Thornhill, Colonial Surgeon, Northern Provinces, Ceylon, writes to refute Captain Leonard Rogers's contention that kala-azar is an infectious malarial fever. Dr. Thornhill ascribes kala-azar to ankylostomiasis existing in persons infected with malaria. Captain Rogers found that ankylostomiasis was so universal in Assam, and infected others than those suffering from kala-azar to such an extent that he refuses to consider the conditions as cause and effect. Dr. Thornhill holds that Captain Rogers's opinion of direct infection by the breath, and indirect infection "after the virus has passed through the soil," is contrary to modern scientific belief. Both observers agree with Captain Giles that the best method of treatment is removal of all healthy people to a new site. The distance to which they are to be removed is, however, a matter of dispute. The cause of the check given to the disease by removal is considered to be freedom from the infected soil and surroundings; but while on the one hand Captain Rogers holds the virus to be malarial, Dr. Thornhill contends that it is freedom from impregnation by the ankylostoma larvæ. Captain Giles, who originally investigated this disease in Assam, recommended, in addition to removal, disinfection of the old site, improved water supply, and the use of special latrines at the new site. Dr. Thornhill finds fault with Captain Rogers for neglecting to recommend these steps so strongly advocated by Captain Giles.

SICKNESS AND PUNISHMENT IN THE ARMY.

The discussion which took place in the House of Commons on March 17th with regard to the death of John Lorrimer, a private in the 17th Lancers, who died while under punishment, raises several points of importance. The medical details of the case are not very clearly stated, but it would seem that the man had been suffering from diarrhœa or dysentery, and the Under Secretary of State for War is reported to have said that "the *post-mortem* examination showed that the young man died from a clot of blood which had entered the aortic ventricle of the heart." Obviously Mr. Wyndham was misreported or he misunderstood the technical terms used in the report of the *post-mortem* examination. The civilian medical practitioner who examined the man during his period of punishment, appears to have formed the opinion that he was malingering. Although this opinion was falsified by the result, it does not appear that there was any want of due care, but at worst an error of judgment. But as Mr. Wyndham himself suggested, the case raises the question whether the system followed in the army in such cases is not at fault. Dr. Clark stated in the course of the debate that the name of the practitioner in question did not appear on the *Medical Register*, but Mr. Wyndham replied that he possessed the degree of M.B. It will be a matter of surprise to most members of the medical profession to find

that the War Office, as would appear to have been the case in this instance, should have sanctioned the appointment even to temporary charge of a person who was not registered. We pointed out some time ago that the revised regulation for admission to the Royal Army Medical Corps needed further revision, with a view to reducing the conditions as to qualification to the simple provision that a candidate should be registered under the Medical Acts. The fact that Mr. Wyndham, in the course of Dr. Clark's speech, interjected the remark that "all qualified practitioners are not registered" appears to show a disposition to defend the appointment by the Government of unregistered practitioners to responsible offices. This should not be. The law has established one criterion only, and Government departments ought most undoubtedly to set an example of obedience to the law.[1] Possibly if the Director-General should see his way to modify the regulations in the manner above indicated, the mere fact of the revision would serve to impress on the War Office officials the importance of the point. The death of this young private has also again called attention to the nature of the punishments inflicted in the army, and the country will share the sense of relief with which the House of Commons received the assurance that a serious inquiry was in progress. To have to carry a shot from one cup to another round a circle or to turn a crank which does nothing beyond registering the number of its own revolutions are stupid and therefore degrading forms of punishment. The men who are subjected to them are not criminals, but they have broken some rule of discipline; they must be punished, but surely there is enough ingenuity in the War Office to devise some form of punishment less futile.

LEADLESS GLAZES.

More than a century ago serious efforts were made by manufacturers in this country to eliminate lead from pottery ware, and now, after the lapse of 100 years, the same subject is still being debated. Leadless glazes formed the theme of a lecture recently delivered at the Society of Arts by Mr. Wilton P. Rix. Pottery manufacture is almost coeval with man. It is interesting to know that the employment of lead in glazes for pottery goes back far into the recess of time. In Egyptian and Assyrian earthenware lead has been found, while the softer production of Persia and the Samian ware of the Roman period seemed to have been dipped in a leadless glaze. So much public attention has now been devoted to the matter, that it is more than likely it will not again be shelved until some solution of the problem has been arrived at. The amount of sickness in the Potteries of Staffordshire is too great, and the number of preventable deaths too large, for the Legislature to remain inactive. Mr. Rix states that the industry is fatal to 1 in 300 of the 60,000 workpeople in the Potteries. He estimates that 1 in every 8 suffers more or less from plumbism. While it is not denied that beneficial results have followed the operation of the Act of 1895, the number of fatal cases of plumbism still remains unpleasantly large. Dippers, ware cleaners, glost placers, and majolica paintresses suffer more in proportion than the other hands in the factories. We are glad to see that Mr. Rix emphasises what has been urged in the pages of the British Medical Journal, namely, that young women are more susceptible to plumbism than men, and that there is also an individual idiosyncrasy whereby while one person may be overpowered in a few weeks, another may go on following his employment for years, and apparently suffer no inconvenience. The lecture was delivered at an opportune moment, and it was more than fitting that it should have been given before the Society of Arts, for as long ago as 1794 that body offered the premium of a gold medal or £30 "to the person who should discover to the Society the cheapest, safest, and most durable composition fit for use for the purpose of glazing the ordinary kinds of earthenware without any preparation of lead and preferable to any hitherto in use." Although this offer was repeated annually for twenty-five years, it was not until 1820 that the Isis Gold Medal was awarded to Mr. J. Rose, of Coalport, Shropshire, for his porcelain glaze. No competitor, however, has as yet succeeded in satisfying the requirements of the Society. The offer still remains open. Numerous leadless glazes have been made during the last fifty years, but it is unnecessary to mention the names of the various potters or of the districts where experiments were made, for most of the efforts failed, because the glazes did not stand the fire or lost brilliancy of colouring. In looking back upon these experiments it would almost appear as if the potters had been too readily disheartened by lessons which ought to have stimulated them to fresh exertion. They appear to have found it easier to yield to the demands of the public for finely-polished and beautifully-coloured ware, which undoubtedly can more readily be obtained from a glaze containing lead than from one without it. At the present time the belief is pretty general that even these advantages can be secured by leadless glazes properly applied. It is necessary that our manufacturers should be bolder, that they should make fresh efforts to produce earthenware by newer methods, and, while success may not come immediately, yet come it will. It is impossible to visit the Potteries of Staffordshire without being struck by the lack of enterprise, comparatively speaking, and by the air of contentment exhibited, particularly by smaller manufacturers, who in their works to-day have not made any substantial advance over their forefathers. Industrial conservatism such as this can have no place in an age which recognises the various parts played by technical education, experiment, enterprise, and international competition in developing and locating the trade of the world.

BRITISH ASSOCIATION MEETING IN BRADFORD IN 1900.

The arrangements which are being made for the meeting of the British Association in Bradford in 1900, under the presidency of Sir William Turner, are in a forward state. An influential general committee has been formed under the presidency of the Mayor, and special committees have been appointed to undertake the management of the local arrangements. The local secretaries are Mr. George Maguire (Town Clerk), Mr. Ramsden Bacchus, and Mr. J. E. Fawcett. The last occasion on which the Association met in Bradford was in 1873, but since then the city has enlarged its borders and nearly doubled its population. Placed as it is in the very centre of a manufacturing district, and yet within easy reach of the Yorkshire dales and the very interesting limestone region around Settle, Bradford should attract a large number of visitors to the meeting, and there is little doubt that the citizens will, with characteristic Yorkshire hospitality, make their guests heartily welcome.

INCREASE OF INFLUENZA AND DIPHTHERIA IN LONDON.

There was a marked further increase last week in the mortality from influenza in London. The deaths directly referred to this disease, which had been 97 and 100 in the two preceding weeks, further rose to 125 during the week ending Saturday last, and exceeded the number recorded in any week since March, 1895. No fewer than 94 of these were of persons aged upwards of 40 years, including 56 of persons above 60 years of age. The increase in the num-

[1] The words of Section xxxvi of the Medical Act, 1858, are sufficiently explicit: "After the 1st day of July, 1859, no person shall hold any appointment as a physician, surgeon, or other medical officer either in the military or naval medical service.....unless he be registered under this Act."

ber of deaths from influenza in the metropolis was mainly due to the rapid spread of the disease in West London, where more than twice as many fatal cases were recorded than in any preceding week during the present epidemic, the districts suffering most severely being Paddington, Kensington, and Fulham. In South London, where influenza has hitherto been proportionately most fatal, there was an actual decline in the number of deaths referred to the disease, although it continues to be very fatally prevalent in Brixton and Wandsworth. The mortality from diphtheria in London last week showed a marked increase, 45 deaths being recorded, against 29, 48, and 36 in the three preceding weeks. Of these 45 fatal cases, 5 belonged to Camberwell, 3 to Kensington, 3 to Islington, 3 to Newington, and 3 to Lambeth sanitary areas. The notifications of diphtheria in the metropolis, which had been 207 and 229 in the two preceding weeks, were 203 during the week ending Saturday, March 18th. In West, North, East, and South London there was a slight decline in the number new cases, while in Central London they showed an increase. There was a marked decline in the prevalence of diphtheria last week in Fulham, St. Pancras, Bethnal Green, Wandsworth, and Camberwell; in the last-mentioned sanitary area the new cases fell to 10, against 26 in the preceding week. On the other hand, the number of new cases showed a further increase in Hackney and in Lambeth; in the latter sanitary area 26 new cases were notified, against 15 and 19 in the two preceding weeks. There were 1,255 diphtheria patients in the Metropolitan Asylums Hospitals on Saturday last, March 18th; 132 new cases were admitted last week, against 149, 142, and 131 in the three preceeding weeks.

MICRO-ORGANISMS IN CANCER.

In a communication recently read before the Royal Society, Mr. H. G. Plimmer records a successful attempt at the cultivation of an organism from a freshly excised carcinoma of the human breast. The author was for some time associated with Dr. Armand Ruffer in the histological investigation of malignant tumours, and with him regarded the particular bodies present in the cells of carcinoma as protozoa. Ruffer's great merit lies in his having reduced the hypothetical parasite to one special structure, presenting a central readily stained point, and an uncoloured somewhat voluminous investment: the first was regarded by Ruffer as a nucleus, the second as the body of a protozoic cell. This view received the weight of Metchnikoff's support, and to this must be mainly attributed its wide acceptance. There has always been a certain difficulty in the details of this interpretation, in that the so-called cell-body does not stain like, at least, ordinary cell protoplasm, and that, if it present any structure at all, it is a fine radial striation, ominously suggestive of an artificial cleavage in an investment of some formed material. Mr. Plimmer's growths were made in a fluid medium prepared from cancer juice (as the ordinary broth is from beef) to which were added, after careful neutralisation, 2 per cent. of glucose and 1 per cent. of tartaric acid. The organism so cultivated grew both aërobically and anaërobically, retaining virulence only under the latter condition. His results agreed with those of San Felice and Roncali, in so far as the organism cultivated is a yeast; the elements after a while become invested with a capsule so as closely to reproduce the body present in the cancer cell. It is interesting to recall the fact that Russell regarded the anomalous bodies in carcinoma as yeasts, though whilst he must certainly have seen and so included the particular body in question, he also included others of a different class, staining uniformly with fuchsin, the whole of which he named provisionally "fuchsin bodies." We have gone back to Russell's name, though not strictly speaking to Russell's bodies. With such pure cultures Mr. Plimmer has infected animals by intravenous and intraperitoneal injections, but the results are as yet inconclusive; an abundance of new foci resulted, but these are of the consecutive tissue class, and, though named "endotheliomata," the term cannot be regarded as other than provisional. The most striking experiment is that in which a pure culture was rubbed into a rabbit's cornea after the latter had been scraped. Here a certain amount of epithelial ingrowth took place, but still not enough to constitute an undeniable reproduction of the disease, seeing that various forms of irritation, whether of mucous or cutaneous surfaces, will excite a notable degree of such ingrowth apart from the formation of the malignant disease.

IRISH POOR-LAW SERVICE.

On Thursday, March 16th, a deputation waited on the Local Government Board, Ireland, for the purpose of urging reforms in connection with the Irish Poor-law service. The members of the Board were Mr. Henry Robinson, C.B., Vice-President, Mr. Stafford, Medical Commissioner, Mr. Micks, and Mr. Bagwell. The deputation consisted of the following members:—Sir Thornley Stoker, President of the Irish Medical Association; Dr. John William Moore, President of the College of Physicians; Surgeon Swan, President of the College of Surgeons; Sir William Stokes, Sir William Thomson, Dr. Truell, D.L., Ashford, County Wicklow; Dr. Donnelly, Dublin; Dr. Stanley B. Coates, Belfast; Dr. Neale, Mountmellick; Dr. Oulton, Dublin; Dr. Joseph Smyth, Naas. The matters which were urged upon the Commissioners were, (1) Superannuation, (2) that where dispensary districts are for reasons of public policy deprived of one or more electoral divisions, the medical officers of such districts shall be protected against any diminution of their present salaries; (3) that dispensary doctors should be remunerated for the cost of travelling on dispensary duty; (4) that, as in England, the dispensary red ticket should be presented before 12 o'clock in the day, except in cases of urgency. These claims were put forward with great force by various members of the deputation. The Vice-President, in reply, pointed out the difficulties which had to be overcome. But as to several of the points the Board was in sympathy, and would try to do what would be right for the public interests and the claims which had been so clearly put forward.

MYELOPATHIC ALBUMOSURIA.

The *Semaine Médicale* of March 15th contains a critical notice of this condition under the title of Albumosuria as a Sign of Primary Multiple Sarcomata of the Bones. The writer, Dr. Vladimir de Holstein, points out that Bence Jones's observation of the presence of albumose in the urine of a patient under the care of Sir Thomas Watson and Dr. Macintyre, made fifty years ago, remained for a long time an isolated fact in science; and that the true nature of the bone lesion in that case, and its connection with the appearance of albumose, have only been elucidated during recent years. The occasional appearance of traces of albumose in the urine has long been known to physicians under the name of peptonuria, and a considerable number of cases of multiple new growths affecting the bones have been recorded since von Rustigky published his case of multiple myeloma in 1873. That there might be some mutual relation between these conditions was first suggested by Kahler, in 1889, but the connection can only be considered to have been fairly established during the last two years, and the cases in which it has been proved to exist do not amount to a dozen. Two cases have recently been reported in Germany; abstracts of these are given in this week's Epitome (pars. 207 and 208). The only case that has been investigated in this country since Bence Jones's original observation is that which was described last year from the clinical side by Dr. Bradshaw, and more recently from the pathological side by Dr. Bradshaw and

Dr. Warrington, and on which we commented last week in the British Medical Journal. The bone lesion which occurs in these cases appears generally to consist in the invasion of the sternum, ribs, and vertebræ, by a cellular growth which proliferates in the cancellous tissue, and leads to absorption of the hard parts, so that the bone is reduced to a mere shell. The substance in the urine is of a very peculiar nature, and though its reactions show it to be a proteid it differs on the one hand from albumen, and on the other from the digestive albumoses known to physiologists. This form of albumosuria differs in many respects from the so-called peptonuria which has been observed in conditions attended with suppuration, especially in the fact that the albumose is found in large quantities, and for a long period. Dr. de Holstein believes that this kind of albumosuria is a constant feature in multiple myeloma, but this cannot yet be considered as established. He also raises the question whether the symptom may arise in connection with other forms of bone disease. Careful examinations of the urine of the patients in surgical wards are needed to throw light on these important points. The writer states that the occurrence of albumosuria has led to a correct diagnosis of the bone affection in Dr. Bradshaw's case, and in a case recorded by MM. Bouchstab and Chapochnikov. We may add that the same result has been reached in the practice of Dr. Reginald H. Fitz, of Boston, U.S.A.

RETIREMENT OF DR. JOHN SIBBALD.

At the close of the present month Dr. John Sibbald, Commissioner in Lunacy for Scotland, retires under the age limit, after a period of Government service of twenty-one years. Dr. Sibbald was educated at Merchiston Castle School, the University of Edinburgh, and Paris. He took the degree of M.D. in 1854. He was Medical Superintendent of the Argyll and Bute Asylum from 1862 to 1870, when he was appointed a Deputy Commissioner in Lunacy. In 1878 he became a Commissioner. He was joint editor of the *Journal of Mental Science* in 1871-72, Morison Lecturer on Insanity in 1877, was elected a Fellow of the Royal Society of Edinburgh in 1872, and a Fellow of the Royal College of Physicians in 1876, of the Council of which he has been a prominent member. The Board, of which Dr. Sibbald has been for some years the senior medical member, is expected not only to be acquainted with whatever is done throughout the country towards perfecting the arrangements for the care of the insane, but, further, to spread its knowledge, to have a clearly defined policy of its own, and to take the lead in everything which can advance the well-being of the insane. The fundamental principles of its policy may remain unchanged, but it must necessarily be subject to the modifications called for by time, circumstance, and experience. The task, therefore, taken up by Dr. Sibbald of maintaining, carrying forward, and developing the policy laid down by such distinguished predecessors as Sir James Coxe and Sir Arthur Mitchell was no light one. This task Dr. Sibbald has worthily performed. He has been unwearied in his efforts, not merely to keep in line with what may be called the best views generally accepted as to the care and treatment of the insane, but to be in advance of these general views, to examine all new ideas carefully, and to inculcate them, if they seemed good, on others. His well-balanced judgment, and mind clear and singularly untouched by the blinding influence of prejudice or preconceived opinion, made him a safe guide in such matters. Probably the most notable change with which his name will be associated in future is the new phase of asylum construction in Scotland, foreshadowed in his *Plans of Modern Asylums*. His description in this pamphlet of the village asylum at Altscherlitz in Prussian Saxony, and the conclusions which he drew from his examination of that asylum have already influenced the construction of additions to existing asylums; but they will have their full expression in the new asylum for the Edinburgh Lunacy District, which is to be erected at Bangour, Linlithgowshire. The effect of this pamphlet, which was first published in 1896, has therefore already been great, and there is every likelihood that it will yet be much greater, and that it will extend its influence beyond the limits of Scotland. Dr. Sibbald carries with him in his retirement the heartiest wishes of all with whom he has been associated. To the many concerned with the care of the insane, who have benefited by his wise counsel and sound opinion, it will be a pleasure to think that he is not beyond reach, and that he remains as active and as keenly interested as ever in the subject which is nearest his heart.

DIAMOND JUBILEE OF DR. JOHN CAMERON, OF LIVERPOOL.

A special meeting of the Liverpool Medical Institution was held on the evening of Wednesday, March 15th, for the purpose of presenting an address to Dr. John Cameron, on the occasion of his completing his sixtieth year of membership. The attendance was large, and letters of apology for inability to be present were received from Sir Seymour Haden, Sir Dyce Duckworth, Mr. Reginald Harrison, Professor D. J. Hamilton, Mr. Robert Hamilton, Dr. Waters, Mr. Puzey, Dr. T. R. Bradshaw, and others. The President, Dr. Macfie Campbell, referred to Dr. Cameron's long services to the institution, more especially as trustee, an office which he had held for fifty years, to his untiring energy, and to the admirable example he held up in his capacity of physician and consultant, and expressed the unanimous wish of the members that he might be spared for many years of health and strength. The address, which was read by Dr. Nevins, was as follows:

To John Cameron, M.D., F.R.C.P.

The members of the Liverpool Medical Institution desire to congratulate you on attaining the sixtieth year of your connection with the Society. We wish to thank you for your long services as Trustee and Councillor, and as President in 1872, when you worthily upheld the dignity of the chair and of the profession. As Physician to the Royal Southern Hospital for a long series of years you have shown enthusiastic and unwearied devotion to clinical work and to the good of the charity; and as head of the consulting branch of the profession your conduct has always been marked by a high sense of honour and courtesy to your medical brethren. We wish you many years of useful life in our midst, and we take the opportunity of this anniversary to assure you of the esteem and regard of your fellow members, to whom your career will always remain a conspicuous example of professional integrity.

Interesting and appropriate speeches were made by Dr. Nevins, who has himself attained the fifty-fifth year of his membership, by Mr. Edgar Browne, and by Dr. Permewan.

LONDON WATER SUPPLY.

Professor Corfield, in commenting on the analyses sent him of the water supplied to his district in December, points out that the oxygen required to oxidise the organic matter was for the Grand Junction Company nearly three times as much and for the Chelsea Company two and a half times as much as that required in September. He adds that this impurity of the water supplied during the winter months is no new thing, and he reminds the Local Government Board that they have addressed complaints on this account to the water companies many times before. For several years back, with the exception of 1897, there have been more cases of enteric fever a month in the parish of St. George Hanover Square during November and December than during the three preceding months. November, December, and January are not the months of greatest seasonal prevalence, and he suggests that it may be something more than a coincidence that during these very months London is supplied with a water which, according to Sir Edward Frankland's report, contains an excess of organic matter. The report just referred to stated that, "owing to heavy floods and insufficient

storage, the water sent out by all the (London) companies, except the West Middlesex, contained an excess of organic matter, which was, however, almost entirely of vegetable origin."

THE LONDON POLYCLINIC.

The Medical Graduates' College and Polyclinic will hold its opening Conversazione at the College in Chenies Street, Tottenham Court Road, on Monday, May 1st. The systematic demonstrations and lectures will probably begin on the following Wednesday (May 3rd). The Institution will, it is hoped, supply a want which has long been felt. It is intended that medical officers in the services and practitioners coming to London from India, from the Colonies, from the provinces, from America and from the Continent should find in the Polyclinic opportunities of studying the rarer forms of disease without the loss of time involved in going from hospital to hospital, and it is expected that the teachers will be able to group illustrative examples of diseases so as to make their clinical demonstrations more complete and more instructive than would otherwise be possible. It is confidently anticipated that this youngest of the medical institutions of the metropolis will have a most successful career, and we believe that under the judicious management of those who have worked with unstinted devotion to bring the scheme to realisation there is good reason to hope that these anticipations will be fulfilled. Many have taken an active part in its promotion, but the persevering efforts, self-sacrificing zeal, and generous liberality of Mr. Jonathan Hutchinson deserve special recognition.

THE CONSTRUCTIVE MURDER AMENDMENT BILL.

The appointment of Mr. Ambrose, Q.C., to a Mastership in Lunacy, and the resignation of his seat in the House of Commons in consequence thereof, has deprived the Constructive Murder Amendment Bill of the services of its introducer into Parliament. It would be extremely unfortunate if his retirement should in any way jeopardise the chance of the Bill becoming law. It is backed also by Sir Andrew Scoble, Mr. Abel Thomas, Q.C., and Mr. Yerburgh, who are all members of the legal profession, and it is sincerely to be hoped that these members will continue to press forward the Bill. Perhaps, in the present state of public opinion on the subject, it is not too much to hope that the Government may be induced to adopt the Bill as a Government measure, or at all events to afford facilities for its passing into law, more especially as it seems that the principle of the Bill was adopted or approved by the Attorney-General in the recent prosecution of the Queen *v.* Collins.

THE INVENTOR OF MATCHES.

On October 31st, 1898, in the little village of Saint Lothaire in the Jura, a monument was erected to the memory of a man of whom the medical profession has great reason to be proud, although to the majority of its members, even in France, his name is probably unknown. Charles Marc Sauria was a country doctor all his life, and practised his profession in the true spirit of its highest ideal, seeking neither wealth nor honours, but doing his duty to his patients often without hope of reward, and content to spend his life in obscure well-doing in an out-of-the-way village. Yet Sauria might easily have made an enormous fortune, for he was the original inventor of matches. He was the son of General Sauria, an officer of the First Republic, and was born in 1812 at Poligny. He was intended for a military career, but an accident which happened to him in boyhood having deprived him of the use of his limbs, he devoted himself to the study of the physical sciences. He early displayed a remarkable turn for mechanics and a marked fondness for experiments. The great discovery of his life was made almost by accident. In 1830, M. Nicolet, Professor of Chemistry in the College de L'Arc at Dôle, where Sauria was a student, showed his class that a mixture of chloride of potash and sulphur in a mortar could be exploded by a blow with the pestle. Sauria at once conceived the idea that if an inflammable substance such as phosphorus could be combined with a detonating mixture light might be produced. He made many experiments, his room becoming, as his biographer says, for the time being a volcano in miniature. Scores of tubes were smashed, explosions occurred frequently, sometimes of such violence as to shake the walls of the room, and the young philosopher often burnt himself severely. At last his perseverance was rewarded and he was able to make matches. He was too poor, however, to patent his invention and he had to spend the rest of his days in the practice of medicine. He ministered to the sufferings of the poor countryfolk at Saint Lothaire for sixty years and died on August 27th, 1895. The only public reward he ever received was the charge of a Government tobacco depôt, which his old schoolfellow, President Grévy, forced upon him in 1881. The income from this source amounted to just £60 a year. Sauria, who was a Doctor of Medicine of the Faculty of Besançon, was an agriculturist of great note in his district, and he was the author of some writings on scientific subjects and of a volume of verse entitled *Jura Pittoresque*. He was a true philosopher, who in his life exemplified as few men have done the principle of plain living and high thinking, and it may be added, noble practice.

MEDICAL PRACTITIONERS IN THE ISLE OF MAN.

In the Isle of Man Legislative Council, on March 22nd, the Medical Bill was read a second and third time, and passed. The Bill provides that only persons registered as qualified in England shall be entitled to recover charges at law; that unregistered persons may not hold public appointments, nor call themselves doctors or physicians, or use any term applying registration. A clause was introduced exempting from the operation of the Act persons who were practising before 1870.

We understand that the candidates for the office of Commissioner in Lunacy in Scotland, rendered vacant by the retirement of Dr. Sibbald, include the two Deputy Commissioners, Dr. A. R. Urquhart (Perth), Dr. Elkins (Leavesden); and Dr. Carswell (Glasgow).

Dr. T. Grigor Brodie, at present Lecturer on Physiology at St. Thomas's Hospital Medical School, has been nominated by the Laboratories Committee of the Royal Colleges of Physicians and Surgeons to be Director of the Research Laboratories on the Thames Embankment.

We are glad to be able to announce that Mr. G. Vere Benson, M.A.Cantab., M.R.C.S., L.R.C.P., has been elected by the Sussex County Council Coroner for the Lewes Division. The division is large and important and includes Hove, Eastbourne, Newhaven, Seaford, Bexhill, Crowborough, and Tunbridge Wells. We believe the office has not hitherto been held by a medical man. The newly-elected coroner, who is a barrister-at-law as well as a member of the medical profession, has for some time held the office of Deputy Coroner for West Middlesex.

The Dental Hospital of London.—The report presented to the forty-first annual meeting of the Dental Hospital of London stated that the sum of £3,000 was required during the current year to place the building fund in a satisfactory position. It is anticipated that the new buildings which are now in course of erection will contain every improvement and convenience that experience with modern science could suggest. Particulars as to the fund will be supplied by the Secretary, Mr. J. F. Pink, at the hospital, Leicester Square, W.C.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

Poor-law Administration, on which Lord Wemyss moved to appoint a Royal Commission in the Lords at the end of last week, is not yet to be so treated. The noble earl appears to have taken alarm at the movement in favour of old-age pensions and other plans for enabling the aged poor to be relieved outside the workhouse, and so he asked for a thorough inquiry into the working of the Poor Law. Two other speeches were made, but neither favoured the proposal, and Lord Harris, speaking on behalf of the Government, pointed out very forcibly that much had been done to improve workhouse life of late years, and that it was in the power of the administration to do still more without the aid of a Commission. He cited the action of the Government in respect to the Cottage Homes Bill, and hinted that the Select Committee appointed to consider that measure would have other Bills with somewhat similar objects referred to them to deal with in a generous spirit. Until this and possibly other inquiries had concluded, there was no need for another Royal Commission. This being the view of the Government, the motion was withdrawn.

The Army Estimates, which have been discussed over an unusual amount of time this session, were marked on Friday (March 17th) by some features of medical interest. A question was raised as to the death of a young lancer in his cell while undergoing punishment. It appeared that this particular soldier had been attended by a civil surgeon, and not by an army medical officer. It was stated in the debate that the practitioner was a Bachelor of Medicine, but his name could not be found in the *Register* or in the *Directory*. In any case the military authorities ought not to employ unregistered practitioners. This was the first outcome of the case, and then followed a rather sharp criticism of the action of the authorities in making the service unpopular. One member said that for the last dozen years they had "the sweepings of the medical schools" in the army; and the senior member for Trinity College, Dublin, stated that the College had till recently refused to allow students to prepare for the Army Medical Service. It was pointed out that the recent concessions had changed all this. Afterwards the old system of regimental surgeons was referred to, as an arrangement under which the surgeon would have known more of a soldier than to have allowed him to be condemned to punishment when suffering from dysentery and when within a few hours of his death. The advantages and disadvantages of the regimental system were well put by the late Secretary of State for War, and the discussion, which had lasted some three hours, then came to an end. After this the case of Veterinary Surgeon Finlayson was brought up as an instance of harsh treatment in not holding an inquiry before requiring the officer to resign. The case as regards the refusal of an opportunity to the officer to vindicate his character resembled one which excited much attention three years ago. The Under-Secretary defended the action of the War Office, and then the interest of the members travelled off to Wei-hai-Wei and the Chinese regiment.

The Food and Drugs Bill, which is mainly framed to deal with agricultural food products, will not be sent to the Grand Committee till after Easter. There will be opposition to that course, as many members would prefer to deal with the Bill in the Committee of the whole House. There are already nine pages of amendments, and there is evidence daily that the Bill is exciting a good deal of interest in the country. The use of borax as a preservative for bacon was promised Mr. Chaplin's attention in answer to a question on Monday last, and on the same day an important deputation of local authorities, on which the medical profession was well represented, urged upon the Minister for Agriculture the frauds and dangers connected with condensed and separated milk. Some members would gladly stop the importation of these articles altogether, but the deputation only wanted them labelled as bad for infants and invalids. The Government, however, do not feel justified in taking any course which might have the effect of depriving the poor of a cheap food, and so will only go so far as to prevent articles being sold under misleading or inaccurate descriptions. This is generally felt to be the strongest position that can be taken up.

The London Water Supply came under consideration in quite a crop of Bills last Tuesday. There were two East London Bills, a Metropolitan Water Companies and a West Middlesex Bill—all these passed a second reading with the support of the Government, as they all deal with methods of increasing the efficiency of the existing water companies. The great Bill of the County Council dealing with the scheme of bringing water from Wales, however, met a different fate. It was rejected on a division by 76. The Government opposed it on the ground that the Royal Commission was dealing with the subject, and that it would be unwise to sanction a great scheme like this before receiving the report of a body inquiring into the whole subject.

The Imperial Institute was the subject of a question this week as regards the portion devoted to India, and the Secretary of State said that as India had contributed very liberally to the Institute its rights in the building would be reserved for Indian objects. This is interesting, as the new University of London will, if it takes up its domicile at the Imperial Institute, require to have its own section of the buildings perfectly and inalienably reserved for the University and its work.

The Conscientious Objectors Vaccination Bill has been blocked by Mr. Logan and Mr. Ascroft, and as these members sit on opposite sides of the House it looks as if there would be little chance of the Bill slipping through this session.

The London Local Government Bill occupied the whole of Tuesday night, and the debate will be continued on Thursday and Friday, when the second reading will be taken. The main line of opposition was developed by Mr. Gladstone, who moved an amendment urging that simplification ought to be the main object of a Bill and not increasing complexity, which would make the unification of London more distant than ever.

Old-Age Pensions came before the House late on Wednesday afternoon in the shape of Mr. Holland's Bill, which gained a high place in the ballot at the beginning of the session. The hour and a half at the disposal of the members afforded time for only three speeches, and so the debate stood adjourned, and nothing was gained except the promise of the Government to refer the Bill to a Select Committee.

THE PLAGUE.

Egypt and the Pilgrimage.

The Egyptian Sanitary Department, in consequence of the outbreak of plague at Mecca, recommended during the sitting of last week that no further pilgrimage from Egypt be permitted this year. The question being one of great importance as affecting Moslem religious rights, it is difficult for the British authorities to interfere directly. The situation is further complicated by the fact that numbers of pilgrims have already started, and the Ulemas, as the interpreters of the Koran, have announced that prohibition of the pilgrimage is an unlawful act. The result has been that, after consultation with the Council of Ministers and several Moslem dignitaries, the Khedive has refused to stop the pilgrimage. It now lies with the British authorities in Egypt in conjunction with the Turkish Government to adopt what precautionary measures they can in view of serious outbreak of plague occurring at Jeddah and Mecca. No trustworthy reports have been received from Arabia, as the Turkish power in the province of Hedjaz is set at naught by the rebels, who in some instances control the routes of communication. The Porte has at length consented to adhere to the ordinances set forth by the Venice Sanitary Conference. Considering the danger to Europe and Africa of an incursion of plague through Turkish neglect, the attainment of the support of the Porte in this direction is considered a great diplomatic triumph.

Bombay.

The mortality from plague in Bombay continues to decline. Before the Plague Commission, Colonel Robertson, Resident of Mysore, and Mr. Caddell, Assistant Resident Officer, produced a number of statistics concerning plague in Mysore and Bangalore. Dr. Mullanah sent in a report of experiments made by order of the Police Commissioners of Hyderabad State, upon the effect of Haffkine's fluid on rabbits. Khan Bahadur Patel narrated the measure adopted by the Parsees to suppress plague. He did not believe plague was contagious, and had been inoculated seven times with the result that his general health was improved

CONTINENTAL CRITICISM OF ENGLISH RIFLE BULLETS.

The Convention of 1868 (St. Petersburg).

It appears likely that we in this country may shortly be called upon to come to a decision as to whether or not we are to be content to use in our wars only the same small-arm bullets that other great military Powers are employing.

The weapons with which the foot soldiers of all the civilised Powers are at present provided are a small calibre rifle, a mantled bullet to be fired from it by smokeless powder, and a sword bayonet. Some differences exist between the weapons of the different Powers, but they are so slight that they may be disregarded.

The question that presses on us to-day amounts to this—Shall a change that will render the soldier's rifle bullet more deadly and powerful be permitted or not; and, if so, under what circumstances? Hitherto, with one notable exception, no objection has been made to any Power increasing the deadly nature of its arms. The large weapons and projectiles of the artillery have been made more and more effective by modern inventors, not only without objection, but with general approval; explosive shells of greater size, longer range, and increased destroying power are fired from them; Maxim and Nordenfelt guns, mines, torpedoes, Lyddite shells of tremendous energy, etc., are sanctioned in modern warfare by the general voice of all the nations concerned; and electricity, aërial balloons, and submarine vessels have been talked of and examined into without any expression of remorse by the great military Powers of civilisation.

Even in the small arms for its infantry each State has been free to adopt, without cavil, variations in regard to its bayonet; its rifle may possess a greater range, and its bullet be propelled with increased velocity and energy, and by any explosive powder, smokeless or otherwise, as it sees fit. Those who devote themselves to sport, and have to face savage beasts, have expended their ingenuity freely in perfecting the most deadly projectiles to discharge from their hand-weapons so as to destroy more surely and easily the game which they may be hunting.

Humane individuals have written here and there in vain against the increasing deadliness of modern weapons, large and small, but their desire to arrest the increasing power of our means of offence and defence has only led to the one limitation referred to, namely, that since the St. Petersburg Conference of the Powers held in 1868, explosive bullets from small arms are not employed by civilised nations in their warfare. To many the restriction seemed to be a singular one—that while the most destructive instruments and explosives were to be sanctioned for the killing of mankind, from artillery or otherwise, save only from small arms, a missile that was permissible against a charging tiger, elephant, or buffalo, was to be forbidden against a charging human enemy, however fierce and tiger-like his onset might be. That, however, is the position in which the military Powers are placed at the present time.

The Effect of the Mantled Projectile.

The efficiency of the modern rifle with its mantled projectile has never yet been extensively tested and decided in a great war between any two of the great civilised Powers. They have been used, however, in short wars in various parts of the world—in South America, Greece, the Indian North-West Frontiers, Cuba, Madagascar, Egypt, and elsewhere; but the reports received regarding their powers have not been all to one effect. In nearly all instances where competent persons have described them, as far as they can be ascertained in warfare, they have seemed deadly enough where vital or important parts have been struck, while in non-vital parts, particularly in mere flesh and muscle wounds, the small size of the bullet, the hardness and unyielding nature of its mantle, and the rapidity of its flight, have sometimes caused the wounds inflicted by it to resemble moderately severe punctured wounds that may not seriously disable their recipient, and occasionally, even when numerous, leave him, we may say, almost as efficient for carrying on warfare as he was before he received them.

Soft-Pointed Bullets.

England especially has been forced by circumstances to lay these lessons to heart. Her soldiers have found, in fighting with active and brave barbarian foes, that the mantled bullet was sometimes a missile of doubtful efficiency, and she has consequently been led to arm her soldiers, in barbarian contests, with a bullet capable, like the former leaden projectile, of expanding when it struck, and of rendering flesh wounds as disabling as they used to be when the older weapons were used.

For this end her troops have been armed with bullets whose mantle was partly removed at the apex, so that while they retained all or nearly all the power, long range, velocity, and even all or sufficient of the penetration of the fully-mantled bullets, they were more efficient in disabling the enemy when only flesh wounds were produced.

The gain thus obtained seemed, so far as can be judged, no slight one. As an instance of its importance to ourselves it is believed by many that in our recent advance into the Soudan, and at the battle at Omdurman, had our troops been armed only with such small arms as are used by the other European Powers the issue of that campaign might have been different and even adverse to our arms. At the very least it is held that the killed and wounded in our army would have been greatly more numerous.

Hence the use of bullets partly deprived of their mantle, so as to be more effective in flesh wounds, is, it will be apprehended, one of no little importance to ourselves, liable as we are at any time to be engaged in wars with semicivilised or barbarous races who practise no humanity in their warfare and would unhesitatingly employ against us any weapons they might obtain, even the expanding bullets introduced by ourselves, or any other destructive engine with which they might be furnished. If our foes were spared in such a case it would be at the expense of our own soldiers' lives.

So much may be said on behalf of these bullets. The other side of the question must next be shown.

The Dum-dum Bullet.

Continental authorities have been directing their attention to the bullets we have been using in our wars; and Professor von Bruns, of Tübingen, as was reported in this Journal,[1] made experiments with bullets resembling the so-called Dum-dum bullet which was used in our Tirah campaign and wars on the north-west frontiers of our Indian Empire. His results were vitiated by the fact that he employed Maüser big-game bullets, showing a long point of soft lead, while the Dum-dum bullet had its leaden core barely visible at its apex; nevertheless, such as they were, his results were accepted by the Society of German Surgeons, in a meeting at which a large number of their military surgeons were present, and they concurred in von Bruns's conclusion that the German military authorities should take steps to obtain by international agreement such a modification of the St. Petersburg Convention that only such small-bore leaden bullets be employed in war as are wholly steel-mantled, or at least mantled at their tip.

The Woolwich Bullet.

Subsequently to this, in our Soudan campaign against the Khalif Abdullah and in the battle of Omdurman, a different form of bullet was served out to and employed by our troops. It possesses properties similar to the Dum-dum bullet, and is known as the "(Mark IV) C," or Woolwich bullet.

Of these projectiles, described and delineated in his pamphlet as containing an air chamber opening at their apex, and being therefore hollow-fronted or expanding bullets, von Bruns obtained a supply, through a London firm of manufacturers whose name he does not give, and instituted a series of experiments as to their effects. On these he has now reported in a pamphlet entitled *On the Effects of the Most Recent Bullets in Use in the English Army (Hollow-Fronted Bullets)*.[2]

Experiments on wood, clay, a living horse, and human cadavera, at distances of from 20 to 600 metres, are detailed in his report, and illustrated by photographs and skiagraphs. He

[1] British Medical Journal, September 17th, 1898, p. 813: Modern Small Bore Bullets.

[2] *Ueber die Wirkung der neuesten englischen Armeegeschosse (Hohlspitzengeschosse).* Von Prof Dr. v. Bruns, Tübingen 1899.

arrived at the conclusion that, in a ballistic point of view, these bullets are equal to the fully-mantled bullet, the hollow apex in no wise impeding their flight; indeed, it seems from his figures, which are, however—as he did not possess the fully-mantled English bullets—obtained not from trials but from calculations, that their velocity is even slightly greater than that of the fully-mantled bullet. He further concluded that they lose their shape more readily on striking an object than the fully-mantled, but less readily than bullets with an exposed leaden apex.

When striking at short distances they produce much more severe injuries than the fully-mantled bullet, and enormous destruction in cavities containing liquids, such as the heart and bladder, the bullet expanding and flying into pieces when it strikes such viscera. Compared with the leaden-pointed bullets they produce decidedly less severe injuries of the soft parts (flesh), but equal them in destructive power should they strike upon a bone. As compared with fully-mantled bullets their greater destroying power on soft parts exists up to 400 metres, and up to 600 metres on bone; but beyond these ranges these effects cease, and their wounds are similar to those inflicted by the fully-mantled bullet. In penetrating power they resemble the latter, save when striking any object which destroys their shape, but leaves the fully-mantled bullet unaltered, and then the greater their loss of form is, the less of course is their penetration.

Professor v. Bruns's Experiments.

But it will, perhaps, be best to give the translation of von Bruns's own words, selecting the most important passages.

"Our experiments have shown that the hollow-pointed bullet is unusually easily altered in form when fired from short ranges.....In hard and dry substances struck in the usual way, the alteration of form occurs in a regular fashion. The apex is broadened out, its cavity widened, and the mantle tears open in front; the leaden core next emerges and spreads out in front into a mushroom shape, while the posterior part of the mantle is left empty. In the greater degrees of alteration the mantle is torn from point to base by several longitudinal rents, and is at the same time folded backwards to such a degree that it is turned inside out, this going sometimes so far that the front parts of the strips of mantle turn back behind the base for a distance equal to that of the whole length of the original bullet. The leaden core is partly squirted about, and partly kneaded firmly on to the strips of the mantle.

"But the greatest degree of loss of shape of the hollow-pointed bullet occurs when it is fired into moist or fluid materials, which do not alter in any way the shape of the fully-mantled bullet. In all our experiments with moist clay or water, both mantle and core were shattered into small or very minute fragments, even when—to lessen its velocity—the bullet had previously traversed two, three, or four bags of sawdust. This violent effect is to be explained by the fact that on striking the soft or liquid material the column of air enclosed in the cavity of the bullet and the water forced into it attained so high a degree of pressure that the projectile exploded.

"The missile was often found broken across near its anterior end at a point corresponding with the bottom of its air chamber. In such cases the chamber was, as a rule, enlarged conically towards its blind end, and to such an extent that its wall was thinned out to a sharp edge. And clearly the separation of the bullet into two parts was due to the wall of the air chamber being so blown out as to burst.....

"An English fully-mantled bullet, fired from 25 metres distance, will pierce thirty-nine or forty planks of deal each 1 inch thick; the hollow-fronted bullet thirty-seven or thirty-eight. But in beech wood, on the other hand, where the former bullet retains its shape and the latter bullet loses its shape, the fully-mantled bullet at the same range penetrates for 54, the hollow-fronted only for 14 centimetres. The penetration, therefore, where much loss of shape takes place, is lessened to about a third part..... The fully-mantled bullet pierces an evenly cylindrical canal scarcely as wide as the calibre of the missile. The hollow-fronted bullet makes a track, which regularly shows at first a cylindrical and then a conical form, the cylindrical part being on an average 6, the conical 8 centimetres in length, broadening out as it goes from 8 to 36 millimetres in diameter.....

"The hollow-fronted bullet, when fired into solid substances, is less altered in shape, but if into fluids is much more altered in shape than is the leaden-fronted bullet..... In liquid and semi-liquid substances, such as water and moist clay, the hollow-fronted bullet is so completely broken up that both mantle and core are rent into fragments, some of which are of very small size; while the leaden-fronted projectile is very much broadened out, but retains its continuity, the core being shortened from 30 down to 6 millimetres in length, and the mantle torn into strips and bent backwards towards its base.

"The three forms of bullet, fully-mantled, leaden-pointed, and hollow-fronted, do not show such differences in their effects as the above when fired at short ranges against very resisting objects, such as steel plates. Here the penetration is pretty much alike in all; steel plates of 14 mm. thickness show an indentation 6 or 7 mm. deep, and on the other side a bulge, which may, if the plate be only 12 mm. thick, exhibit cracks and fissures. This result is due to the energy of the bullets, whose relative hardness is of little consequence in comparison with the iron or steel of the plate.....

"Taking up next wounds of the soft parts; they are at short ranges (25 to 50 metres) distinctly more severe if they affect the extremities than those from the fully-mantled bullet, though they do not produce the vast destruction of the leaden points. Exit and entrance wounds are always separate, the former a circular opening of 7 or 8 mm. diameter, the latter a gaping lacerated wound 30, 60, or 90 mm. long. Once or twice the skin had been rent into two to four parallel lacerations, and so was torn into several narrow strips, which were mostly divided across in addition, and so hung in shreds out of the wound. The track of the bullet is always funnel shaped, enlarging towards the exit, and admitting one or two fingers. These are much severer injuries than with fully-mantled bullets, which show, at distances under 100 metres, exit wounds of, on an average, 9, 5, or an extreme of 15 mm. diameter, and a cylindrical track in the muscles of rather more than the bullet's calibre, assuming the funnel shape only when it is very long, and then it is not wider than 25 mm. (v. Coler and Schjerning). The leaden-pointed bullet, on the other hand, often bursts open the track from entrance to exit, leaving a wound 100 to 150 mm. long.

"The bursting effect on the soft parts becomes less at 200 to 400 metres range. There the exit measured once 20 and once 50 mm., but was generally 10 to 15 mm., the track being cylindrical or faintly conical. Tangential shots produce smooth wounds with small entrance and exit apertures. At 600 metres the bursting action on the soft parts disappears, and the wounds are the same as those of the fully-mantled bullet.....

"We see, then, where the velocity is greatest, violent bursting action even in the muscles, but in viscera containing fluid the effect is one so enormous that hitherto it has hardly been paralleled..... The wall of the heart is completely torn throughout its length and breadth, the exit wound gaping for more than a handbreadth, and measuring 23 cm. by 19 cm., and its margins are much ragged and studded with small fragments of the bullet..... In the half-filled bladder of a cadaver also, a small entrance wound and lacerated exit wound 35 mm. long were produced by a shot fired 400 metres away..... This enormous action on the distended heart and the urinary bladder correspond with the results of our experiments on water and moist clay, in which the hollow-fronted bullet burst into fine fragments.

"Next, as to the wounds in bones. At short ranges—25 to 50 metres—the wounds made by hollow-fronted bullets in bones are incomparably more severe than those caused by fully-mantled bullets, and about as severe as those from leaden-pointed projectiles, and the missile is always broken up into small fragments. The extensive lacerations of the soft parts behind the bones are very prominent. While the aperture of entrance in the skin measures generally but 7 to 8 mm. the exit aperture is enormous, measuring 8 to 20 cm. in length and 6 to 15 cm. in breadth. The latter are therefore not mere exits or rents, but defects as large as the hand, with shattered and frayed margins, showing fragments of muscles and tendons hanging out of them. This destruction

of the skin is due to its being burst into two, three, four, or six longitudinal rents, with cross tears between them, so that they are partially projected outwards.....

"The injuries to the bones are not specially marked by an unusual degree of fissuring .....but the splinters are smaller and more numerous, and are hurled along the track of exit and out of its aperture.

"At 200 to 400 metres range hollow-fronted bullets likewise cause decidedly greater injuries of the bones than the fully-mantled, although the difference is somewhat less marked. But the extensive destruction of the soft parts beyond are still distinctive: the exit wounds where the shafts of the bones are struck show a length of 5 cm. to 16 cm., and a breadth of 3 cm. to 11 cm. The exit wounds are no mere burst wounds but broad defects.....The area of comminution behind the bone, of the size of a walnut, hen's egg, or a goose's egg, extends generally to the very aperture of exit.

"The splintering of the bones in shaft fractures is as extensive as at short ranges, though the fragments are less numerous, and remain in partial connection with their periosteum.....The missile is always broken up into fragments in the injuries of the shafts.....

"At a range of 600 metres hardly any of the special effects of the hollow-fronted bullets can be observed. Only where the shafts are struck and the projectile broken up, is the exit aperture in the skin sometimes found as long as 5 cm. The area of comminution may be as large as a hen's egg, but does not reach so far as the exit in the skin. We noted, however, a number of minor injuries of the bones, such as are regularly produced by the fully-mantled bullet at still longer ranges."

OBSERVATIONS ON PROFESSOR V. BRUNS'S EXPERIMENTS.

These quotations represent von Bruns's views. But we must again emphasise the fact that whenever he mentions Dum-dum or leaden-pointed bullets, or where we have done so in commenting on his paper, the words really refer only to the sporting Mauser lead-pointed bullet, a very different missile from the real Dum-dum. As was shown in this JOURNAL,[3] he has never experimented with the leaden-pointed bullet used by the British troops.

One interesting point in his paper is his mention of the recent introduction of a new model of fully-mantled bullets capped with a thimble of lead upon the apex. He does not state, and the writer does not know, where or by whom these have been manufactured, but they are presumably of German or Continental origin.

In the concluding paragraph of his present pamphlet, von Bruns speaks of his writings as having aroused a feeling of animosity in the English newspapers. We believe we can assure him that no such feeling exists, or if it does, that it is limited to a very few. We in this country, even where we cannot entirely agree with him, are, on the contrary, indebted to him for the observations and evidence he has contributed to this most interesting subject. But many of our campaigns are necessarily conducted under conditions so different from those which Germany, for example, is called upon to face, or can understand, that we must be careful lest we be led, by a false philanthropy, in such a matter to adopt suggestions that may prove most unjust and even inhumane to our own troops in their wars against desperate enemies devoid of all humanity. But we ought to say that if von Bruns in his writings will avoid such phrases as the following:[4] "It is principally the hard mantle which makes the injuries of the arms of small calibre less barbarous, actually indeed even too little barbarous for the English military authorities;" he will do something to avoid arousing the feeling of animosity on which he animadverts, and towards helping the medical profession and the public to discuss and settle the whole question in that spirit of humanity and justice which it conspicuously demands.

PROFESSOR ESMARCH'S APPEAL.

Von Bruns's observations have naturally excited much interest, and his earlier work on leaden-pointed projectiles has evoked from Professor Friedrich von Esmarch of Kiel—well known to the medical profession in our own country as one of the greatest and most magnanimous of the Continental surgeons, and one who is by no means to be suspected of unfriendliness towards England—an appeal which we give in a somewhat abbreviated translation as follows. It is addressed to the Editor of the *German Review*,[5] and dated Kiel, December 10th, 1898:

"An international Conference of Peace will shortly be summoned at the suggestion of His Majesty the Emperor of Russia. According to the concluding words of the Imperial memorial of August 24th, 1898, 'this Conference should by the blessing of God be a favourable omen for the coming century. It should unite in one powerful combination the efforts of all the States that are honestly concerned about it towards the triumph of the principle of universal peace over the elements of disturbance and disorder. It should stamp its assembling with a unanimous consecration of the principles of right and justice, on which rest the security of States and the well-being of peoples.'

"The future will show how far the noble intentions of the Russian Emperor, to which His Majesty our Most Gracious Kaiser has given his most hearty adherence, are capable of being realised. No one, of course, expects or hopes that there is any immediate prospect of wars being put an end to. The opposition of different nationalities to one another is still too great for this, as well as the supposed or actually conflicting interests of different peoples. Sooner or later we are likely to see war again, with the horrors, suffering, and misery that inevitably follow in its train.

"Meanwhile, the philanthropist must remain content to be for ever striving to diminish, as far as may be, at any rate, the barbarities of warfare ..... It is our duty as medical men to take the lead of others in entering our protest in the name of humanity when arms or projectiles are introduced into use that go beyond their necessary object of disabling a foe, and mutilate him as well. There is considerable reason to fear that this last is what will take place owing to the introduction of the new military rifles. The small-bore weapons that have now been adopted by almost all European nations possess a very high initial velocity (640 metres). Their projectile is a leaden bullet covered with a mantle of hard metal. In employing such projectiles their power of penetration is found to be very considerable. At a range of 3,000 metres they are capable of traversing three or four human bodies one after the other. But it is otherwise if the metal mantle be removed from the point. In that case the very great energy (*vis viva*) co-operates with the loss of shape of the small-bore, leaden-pointed bullet, to produce a fearful explosive effect (*Sprengwirkung*) in the hard, and especially in the soft, tissues of the body. Bullets of this kind, the so-called Dum-dum bullets ..... have been employed by the English troops in their Chitral campaign against the tribes on the Indian frontiers, and gave rise to 'truly barbarous wounds,' so that these missiles would, the English surgeon, Davis, thinks, 'most probably not be permitted in any European war.' Before they were made use of the English soldiers are believed to have found that many of their antagonists, after being pierced through by fully-mantled bullets, were still able to continue their onset. And, according to Hamilton, similar projectiles have been produced in Egypt.

"In consequence of these reports, Professor Bruns, in Tübingen, instituted a numerous series of experiments on dead bodies with the leaden-pointed bullet, and the injuries produced in this way exceeded the worst anticipations. Bruns found," and so on.

"It is perfectly evident that conservative surgery, which has in the last fifty years achieved such good results in gunshot wounds, must be quite powerless in the presence of such injuries. There would be no help for it but to amputate the limbs of such of the wounded as had not bled to death from the extensive wounds of the soft parts.

"Bruns draws attention to the fact that the energy of the leaden-pointed projectiles is all expended on the object struck, in consequence of the alteration of shape and breaking up of the bullet, that consequently their penetrating power is much inferior to that of the fully-mantled bullets," and so on.

"The employment of such missiles is, perhaps, excusable in a war with fanatical barbarians, who, ignorant of the rules of international law, give and take no quarter, and who, as lately happened in Egypt, though lying wounded and helpless

[3] BRITISH MEDICAL JOURNAL, September 17th, 1898

[4] Pamphlet, page 28.

[5] Offenes Sendschreiben, *Deutsche Revue*, January, 1899, p. 103.

on the ground, yet assailed their enemies when their backs were turned; but it would be a matter for the deepest regret were barbarous engines of destruction ever to come into use in European wars.

"It may occasionally happen that a soldier struck by a mantled bullet may nevertheless rush onwards in his charge; while, if he had been hit by a leaden-pointed bullet he would have been sure to collapse. Such instances cannot justify the substitution for a bullet designed to disable a foe, and nearly always doing it, of another which, as a rule, mutilates him. Such a procedure would be in no harmony with the traditions of this century, which has done so much more than all former centuries in the contest between humanitarian tendencies and the horrors of war.

"Once already in 1868 has an international conference meeting in St. Petersburg done honour to humanity by forbidding by international agreement the use of explosive missiles under 400 grams of weight; and this agreement has been kept inviolate by the nations concerned in it.

"Should the Peace Conference of 1899 decide by international agreement that only such small-bore leaden bullets shall be used as are provided everywhere, or at least on their points, with a mantle of hard metal, such a decision would be, we think, in entire harmony with the high motives of its august convener, and with the unanimous sympathy the Czar's ideas have met with in all the civilised world. And if the representatives of the Powers, great and small, in whose hands the matter lies, will use their influence, so that every wounded soldier shall at once have a protective dressing applied, if they will further use their influence in having the inviolability of the Red Cross deeply impressed on the heart and mind of every soldier, then the conference of 1899, though it may not result in entirely putting an end to war, will notwithstanding occupy an important place in the history of the humanitarian efforts that mankind is making."

We must all sympathise with the generous letter of Professor von Esmarch, and no one can do so more deeply and sincerely than the writer. Yet those who have to interest themselves in the evolution of this question and its true bearings must not conceal from themselves the fact that von Esmarch's appeal, so far as it refers to bullets, was evoked by von Bruns's first paper, which itself proceeded on the unproved assumption that big game Maüser bullets were the same thing as the English Dum-dum bullets, and had von Esmarch known that this was so, in all probability his appeal would not have been written, at least not yet.

Under present circumstances it will be no surprise to Englishmen that the French press should lay hold of von Bruns's publications; that *La Semaine Médicale*, for instance, should (January 18th, 1899) discuss the subject of the hollow-pointed bullet as it had previously done the Dum-dum, and draw attention to his results. Its article is a sharp criticism of the application of "two principles of philanthropy, two weights, and two measures, one applied to civilised peoples, the other to barbarian races and distant countries." The English, it says, have closed their ears to the protests raised against the Dum-dum bullet, and made use in the Soudan war of a projectile whose effects are often more murderous still, an explosive bullet called the hollow-pointed bullet, which bursts into a thousand fragments that pierce and destroy the tissues all around; and in the wars with the more or less barbarous hordes, where the combat takes place at short ranges, produces its maximum murderous effect, leaving the enemy so cut up that surgery is powerless to attenuate the gravity of its wounds. But as the criticism furnishes no new facts or practical ideas we need not further advert to it.

The Czar's Manifesto.

The proposals of the Emperor of Russia on the subject of the intended conference against armaments, which reached this country in January last, contain a paragraph that will not improbably be held to include the consideration of the bullets of newer type, its words being "to interdict the use of any kind of new weapon or explosive, or any new powder more powerful than that which is in use at present for rifles and cannon." The appeal of Professor von Esmarch, as well as the approval of the Congress of German Surgeons of the proposal of von Bruns, in his observations on leaden-pointed bullets, to the effect that the German military authorities take steps to exclude from use in war all small-bore projectiles that are not entirely, or at least at their apex, covered with a mantle of hard metal, in April of last year, are almost certain to bring the subject under the consideration of the conference.

Further Experiments Necessary.

It is much to be wished that the fullest consideration of the question should be given to the matter in our own country before any final resolution on the subject be come to, and any surgical expression of opinion will have its weight. The researches of von Coler and Schjerning, which von Bruns considers conclusive as to the comparative effects of fully-mantled bullets, are not known in this country, at least the writer of this article does not know them. But he has experimented with all the bullets in question, and though he is not at present at liberty to publish his results, and some time must elapse ere they are so complete that he can do so, he may say that he is not disposed entirely to agree with von Bruns's statements; and the published experiments of the anonymous writer signing himself D*** [6] may be now adduced as tending to cast doubt on the great difference which von Bruns has noted between the fully-mantled bullets and its partly-mantled modifications.

French Experience and Experiments.

"D***" commences by saying that the destructive power of the new small arms having been called in question, he found it desirable to ascertain whether the small-bore rifle is in reality a weapon that possesses the alleged defects. He cites the alleged failure of the fully-mantled projectiles to arrest the onset of the enemy in the French war in Dahomey, in the English Chitral campaign, and the Italian contest with King Menelik in Abyssinia, in all of which it had been stated to occur, and adds to these that many newspapers and pamphlets had maintained that the same thing had been observed in the conquest of Madagascar by the French, but that from the fighting going on in Tonkin no such adverse reports had been received. He quotes the testimony of officers as to the destructive effects of the small mantled bullet, and recalls instances where, with older forms of projectiles, soldiers have continued to fight even after the receipt of several wounds, and points out that a battle field is not the place where the real efficiency of the bullets can be best ascertained. Then follow his experiments. He found that mantled bullets, fired against moist clay, caused fusiform or spherical tracks, smaller—4 to 7 cm. broad—where the bullet does not break up, and larger—10 to 18, or even 22 or 30—where it does. He found the bullets remained unbroken at the short ranges, 140 and 189 metres, the velocity being 2,500 and 2,000 metres per second respectively: while they were broken up at 316, 464, 541, 578, 646, 678, and 768 metres range, the bullet's velocities being respectively 860, 400, 260, 200, 160, 80, and 25 metre seconds.

Experiments on horses showed that at 50 metres range the orifices of exit were at least three times the size of those of entrance; that in traversing a muscle or viscus great damage was done, the muscle being rent into small pieces, and the viscera into flaps; and that on striking bones the ball produced chiefly radiating fractures. A horse's heart, struck by a ball, showed an opening 4 cm. large; the lung was reduced to pulp along a track 8 cm. broad; a stomach wound was 10 c.m. by 12 cm., and its contents had escaped into the abdomen. One bullet striking the horse's trochanter reduced it to a pulp; and another, which struck it in the face and passed below the brain, had rent the cranium so that brain substance was found in the pharynx. A ball fired against the cranium burst it open and pulverised the brain. A ball fired at 140 metres range, with 2,500 metre-seconds velocity, entering the shoulder above the olecranon made an aperture so small as to look like one made by the point of a cautery, and so small as not to allow the escape of any liquid, but led to a muscular track where the muscles were torn, broken up, and infiltrated with blood; it then passed through and tore the heart, and finally emerged behind the opposite shoulder by an exit larger than its entrance.

In fact the lesions detailed by "D***" read like those of von Bruns in his experiments on leaden-pointed and hollow-

[6] *Les Armes de Petit Calibre et leur Puissance Meurtrière.* Par le Commandant D***. Paris: Baudoin. 1898.

pointed bullets, or even worse, as where both liver and stomach were extensively rent, and the latter opened, by the passage of the ball in their vicinity, without directly piercing either the one or the other; and they show the necessity of our obtaining fuller information from different quarters, and of weighing it well before coming to a final decision on this important question.

The Purpose of the Mantle.

It ought not to be kept out of sight that it was no humane intention or design of lessening the injuries from modern bullets that led to the mantle being used to cover them. This was added merely to prevent their stripping in the grooves of the barrel from the force and velocity with which they were propelled through it. And as the mantle and core do not form one solid piece, but are separate and possess different energies, so that on striking an object they strive to become dissociated, the effect is that in bullets whose mantle completely covers them in front the lead is forced towards the apex, and will burst it if it be thin or break upon a hard body; while in a hollow-fronted bullet striking a liquid the front pressure often tends to force the lead in the opposite direction—namely, out at the rear of the mantle; and as, further, the mantle must in all bullets be incomplete at some part, before or behind, the disintegration of bullets must tend to occur in every such bullet with such initial velocity. An international agreement such as von Bruns suggests would not have the result of rendering the new bullets as humane as the older leaden ones whose velocity was comparatively low. It may be doubted indeed if it would settle the question in any way, for so long as the core and mantle are separate and the core is the heavier, a thinning of the mantle at the apex, while meeting the requirements von Bruns would impose, would yet, if carried sufficiently far, reduce the mantle's power of resisting internal pressure, and leave the bullets equivalent to those whose apex was not mantled at all. To render all European nations equal, an international agreement as to the thickness and tenacity of the mantle, especially at the apex, would have to be come to.

The Complexity of the Questions to be Settled.

The questions concerning modern small-arm bullets are indeed of no simple nature, such as was that of explosive or non-explosive bullets in 1868. If we are to condemn the hollow-fronted and Dum-dum bullets in war, we ought logically to condemn all the modern mantled bullets of small calibre as well, and return to our former larger bores and black powder cartridges that gave a low initial velocity.

Owing to such considerations the subject is, in spite of von Bruns's researches, not yet, in the opinion of the writer, ripe for a decision, and further evidence must be awaited regarding it before it is so. And the demand that is made upon us must be made more precise. As it is at present formulated by von Bruns and homologated by the Society of German Surgeons, it stands that the bullets we use shall be declared inadmissible in any war. Does it follow that change of circumstances does not, in regard to bullets, alter the case? That what is unreasonable in contending with a civilised foe who gives quarter and cares for the lives of wounded, sick, and disabled men, is also unreasonable when dealing with those who, if successful, wage a war of annihilation, and despatch armed and unarmed, wounded, sick, men, women, and children alike, whether on the battle field or in cold blood, and whether they be overpowered in war or captured by stratagem or treachery?

These are some of the questions we ought to consider and be prepared to answer, since upon our reply to them may depend, for instance, whether it will be possible for our soldiers to avert an impending disaster that will entail their annihilation, or even, it may be, lead to English men and women falling human sacrifices to some African Ju-ju, in some African city of blood, by the use of small-arm projectiles more efficient than they would employ against a civilised nation, kindred, perhaps, to ourselves in blood.

The United States Navy Rifle, and the Injuries it Produces.

An interesting paper on the navy rifle now in use in the United States appears in the January number of the Boston Medical Society's journal,[6] from the pen of Mr. Henry G. Beyer.

The navy of the United States has recently been furnished with a new small-bore rifle and projectile of special character, and Mr. Beyer's paper deals with the effects it is capable of producing. He says:

> The United States navy rifle, M. 1895, is known as the Lee straight pull rifle, and is a rapid-fire and repeating arm rather than a magazine gun. It may be used as a single loader if the magazine be not charged, but in general it will be used as a repeater, five cartridges in a clip being entered in the magazine, and the gun not reloaded until this charge is exhausted. In case loose ammunition is furnished, the magazine may be charged with single cartridges, any number from one to five being entered. The original bullet was made of hardened lead (95 per cent. lead and 5 per cent. antimony), with a jacket of a material known as cupro-nickled steel. It was steel-plated, with an alloy of copper and nickel. The weight of the bullet was 135 grains. In March, 1897, a change was made in the bullet, bringing the weight down to 112 grains, substituting a copper jacket, tinned, in place of the steel jacket covered with an alloy of copper and nickel, thus raising the velocity from 2,460 to 2,560 feet per second, thereby, however, also increasing its liability to deformity.

The diameter of the rifle is 6 mm.

Mr. Beyer tested the effects of the rifle against plates of lead, india rubber, chrome steel, and glass; against tin cans filled with air, water, marbles, or dry plaster of paris; and against canvas bags filled with oakum tightly packed, or with oakum compressed very tightly by means of a screw jack. The range was 5 feet from the muzzle in every case save the chrome steel plate 7 mm. thick, where it was 50 yards, but he varied the muzzle velocity of the projectile by alterations of the charge of the explosive, and paper screens were hung up before and behind the objects fired at. With the full velocity the lead perforations showed exits larger than entrances, and the bullet and mantle were broken up. With 1,500 foot-seconds velocity the exit was smaller than the entrance, the mantle and bullet were broken up; with 750 foot-seconds velocity the bullet and mantle were still broken up, though the force had failed to produce perforation of the lead. In every case the lead was 3 cm. thick. The empty tins and those filled with water showed the usual well-known results, the former being merely perforated, the latter burst by hydraulic action.

The cans filled with marbles showed the marbles driven in all directions, some even perforating towards the shooter, and the tins rent from the centrifugal dispersal of the marbles like the rents of hydraulic force.

The plaster of paris arrested the flattened bullet after penetrating for 14 cm., and the top of the tin was blown off, though the tin vessel was not bulged out of shape.

Mr. Beyer speakes of the impact on the chrome steel having melted particles of the bullet, but his conclusions on this point may be perhaps doubted. At least in similar experiments of my own, where the heat generated on impact had been so great as to vastly augment the plasticity of the lead, high powers of the microscope always showed the lead particles irregular, but not fused, and Mr. Beyer had merely judged from their impressions on screens and targets. The screens in front and behind showed that particles flew off with force in both directions from the impact. The bullets were rent and altered in shape on striking the cans filled with water.

A second series of experiments by Mr. Beyer on flesh and bone yielded interesting results. A shot of full velocity at 10 feet range pulverised the brain of an ox, broke up the cranium, and rent the bullet and its mantle into pieces. But a similar wound of a young calf with 1,484 foot-seconds velocity, at 5 feet range, made a smooth track through the imperfectly ossified bones and the brain, the bullet seeming to have retained its shape.

Wounds of inflated lungs, livers, and kidneys of pigs, cows, and bullocks, caused extensive wounds of the last two with full velocity, and smaller wounds or mere tracks with 1,000 foot-seconds velocity.

A full-velocity shot at a bullock's heart, 5 feet range, tore an extensive wound of $3\frac{1}{2}$ by 2 cm., and an exit which is described as an irregular large-sized hole, exposing freely the inner cavities, carrying away part of the septum, and tearing part of the heart into shreds. A 1,163 foot-seconds velocity on a contracted calf's heart made a clean perforation of the organ.

[6] Observations on the Effects Produced by the 6-mm. Rifle and Projectile. An Experimental Study. By Henry G. Beyer. *Journal of the Boston Society of Medical Sciences.* Boston (Mass.), January, 1899, p. 117.

The inflated lungs showed clean perforations with both full and 1,000 foot-seconds velocity, only in the former the entrance track and exit were respectively 15, 15, and 20 mm., while in the latter they were smaller than the bullet. Mr. Beyer says of these experiments on crania and viscera:

The high degree of explosive effect produced by the highest-velocity bullets becomes less as the velocity decreases, and ceases altogether when the velocity has reached 1,000 feet per second. We may therefore conclude that the limit for the production of explosive effect on viscera by our bullet.....will probably be found to lie near a point corresponding to a distance of 1,000 yards from the muzzle of a gun fired with full charges of ammunition.

Mr. Beyer's further experiments on bones and joints gave similar results to the above. With full velocity and at near ranges the bullets produced injuries of much greater diameter than the bullet, the bones being broken into powder and small fragments, and the bullets disintegrated, even on passing through the thin plate of the ilium; and it was not till very low velocities—750 foot-seconds—were used that a clean perforation and undeformed bullet were obtained in wounds passing through this region, "even in flat bones in which clean perforative injuries with hard-jacketed bullets are the rule even with the highest velocities, with our bullet these are obtained only with the lowest velocities," are the words in which he sums up this section. And in concluding his paper, he says:

From the accounts of the injuries on bones, we find that the injuries produced by the highest velocities are simply terrible, and those produced by the lowest far from benign.....It may be assumed, with a fair show of reason, that such injuries as will probably be produced in the human subject by our projectile will influence the methods of treatment both in the rear of the fighting line and in the hospitals afterwards, in that they will require the treatment laid down for "near shots" (*Nahschüsse*)—that is to say, they must from the very beginning be treated as infected injuries. Owing to the further fact that the projectile often goes to pieces, portions of its copper jacket and of its lead lining the track, we may reasonably expect that amputations will have to be done more frequently, and that the percentage of mortality will be higher, no matter how well equipped the hospital nor how skilful and experienced the surgeon.

I have contended that the whole question of modern bullet wounds is far more complex and less perfectly known than the advocates of an international agreement excluding the bullets used by the English troops in India and the Soudan would have us believe. Mr. Beyer's paper strongly points in the same direction. He shows a fully-mantled bullet acting on soft parts and viscera containing liquid in the very way which these writers contend is almost peculiar to our "Dum-dum" and "(Mark 4) c" bullets. A reduction of the strength of the mantle, if pushed far enough, will render the projectile even more liable to disintegrate, or explode as it has been called, than an opening or hollow in its apex. The truth is that the tendency to breaking up of the bullet, or to its producing hydraulic destruction in liquid or semiliquid structures, is inseparable from high velocities, and all bullets so propelled will produce what are called "explosive effects," though some of them are more ready to do so than others.

ALEX. OGSTON.

INDIAN METROPOLITAN HOSPITALS.

THE medical institutions of the Presidency towns of Calcutta, Madras, and Bombay are larger, better officered and equipped, and more specialised than the urban and rural hospitals and dispensaries scattered throughout the provinces. The more important of them are affiliated with medical colleges and schools for purposes of clinical instruction. They possess the advantages of the ministry of professors, teachers, students, and nurses, and work to the highest attainable standard. The patients and diseases treated are much the same in class and kind as in provincial hospitals. The slums of great cities supply, however, less favourable material than is drawn from country towns and villages, and the reputation established by some metropolitan hospitals attracts a larger proportion of more serious cases from a wider area, especially on the surgical side. The returns of operations, therefore, present a greater number of the more rare and important procedures demanding special skill, experience, and appliances. These institutions are the subject of separate reports in the three Presidencies. The following brief notes refer to the transactions of the year 1897:

Calcutta.—The report, submitted by Surgeon-Colonel T. H. Hendley, C.I.E., embraces 15 institutions situated in Calcutta and its suburbs—8 general hospitals, 1 for eye diseases, 2 for females, 1 police hospital, and 3 dispensaries. The year was an unhealthy one, on account of the scarcity and high price of food, and numbers of destitute sick and famished persons flocked into the city. The death-rate of Calcutta was 36.1 per 1,000, which is a very high figure and seldom equalled in the past. There was a decrease in deaths from cholera, and an increase in small-pox, fever, bowel complaints and "other causes." The number of indoor patients was 28,955, and of the outdoor 260,806, being an increase of 3,308 and 2,012 as compared with 1896. The death-rate among indoor patients was 16.4 per cent., the highest in eleven years. The proportion of men, women, and children treated were 64.28, 19.67, and 16.05. There was an increase in the number of cases of small-pox treated, and the death-rate was higher. Fewer cases of cholera were admitted, but the disease was more fatal. Both dysentery and diarrhœa gave larger admission figures and a higher case mortality, and though the number of cases of malarious fever treated were fewer, the proportion of deaths was greater. These facts disclose an insalubrious year and diminished vital resistance. Surgical operations were more numerous, and include 87 amputations with 13 deaths, 13 ovariotomies with 2 deaths, 60 laparotomies with 21 deaths, 79 operations for hernia with 17 deaths, 84 liver abscesses with 20 deaths, and a goodly array of other important cases. The cost of these institutions was Rs.763,447, of which Government contribnted Rs.518,580. The invested capital amounts to Rs.592,700.

Madras.—The report, which is clear and concise, and much shorter than its predecessor, is submitted by Surgeon-General C. Sibthorpe, C.B., F.R.C.P.I. It includes 14 institutions—3 general hospitals, 3 for females only, 1 ophthalmic, 1 leper, 1 voluntary venereal, and 5 dispensaries. The year was a healthy one, the death-rate of the town being 35.5 per 1,000—under the average of previous years. There was a slight of excess of cholera and small-pox deaths, but a decline in fever, bowel complaints, and "other causes." The number of patients treated indoor was 18,908, and outdoor 198,809—an increase of 1,303 and 12,560 respectively. The death-rate among indoor patients was 6.05 per cent. of treated, a high figure which is not satisfactorily explained. The percentages of men, women, and children treated were 48, 34, and 18. The chief diseases were malarial fevers, worms, rheumatism, bowel complaints, venereal diseases, and affections of the skin, chest, ear and eye. There was a fall in the number of female venereal cases both in the special and general hospitals, which Surgeon-General Sibthorpe is unable to explain. There was an increase in the number of surgical operations, which include 50 amputations with 6 deaths, 81 hernia operations with 6 deaths, 17 ovariotomies with 2 deaths, 42 laparotomies with 14 deaths, and 21 openings of liver abscess with 11 deaths. The long list of operations done in the Government Maternity Hospital is specially noteworthy. The expenditure of all the hospitals amounted to Rs.421,226, of which Government contributed Rs.320,509; invested capital Rs.119,510. A case of plague, imported in the person of a native groom who came from Bombay to attend the Guindy races, was treated in the General Hospital. The case died and was examined *post mortem*. The resident medical officer and a *toty* who assisted him contracted the disease. The latter died. Precautions were adopted, and no further cases occurred.

Bombay.—Surgeon-Major-General G. Bainbridge, M.D., who submits the report, did not take charge till towards the close of the year, and being subsequently occupied with plague duties was unable to obtain personal knowledge of the 11 hospitals included in it. The report is therefore mainly arithmetical, and the local government does not comment on it. Of the 11 institutions 3 are general, 2 for females, 1 ophthalmic, 1 leper, 1 police, 1 school, and 2 dispensaries. The number of patients treated indoor was 15,178, and outdoor 56,564, a decline of 1,055 and 28,584 on 1896. The death-rate among indoor patients was 13.7 per cent. against 10.6 in the previous year. No explanation is given of these unfavourable results. The proportion per cent. of men, women, and children were 57, 25, and 18. The cases of cholera and small-pox treated were few, and there was a marked reduction in the number of cases of venereal diseases treated. In other respects the returns of diseases present no peculiarity. There was a striking reduction in the number of surgical operations performed, but this is explained by the elimination of trivial cases. The list, however, includes a large amount of important and successful work, including 57 amputations with 12 deaths, 28 hernia operations with 10 deaths, 2 ovariotomies with 1 death, 20 laparotomies with 11 deaths, 74 liver abscesses with 41 deaths. The total expenditure of these hospitals amounted to Rs.411,982, of which Government contributed Rs.282,067; invested capital is represented by Rs. 21,500, held by the Jehangir Nasarvanji Wadia Dispensary.

VACCINATION CERTIFICATES IN SOUTH UIST.

AT the Inverness Sheriff Court on March 15th Mr. John Lamont, Licentiate of the Royal Colleges of Physicians and Surgeons, Edinburgh, and the Faculty of Physicians and Surgeons, Glasgow, was charged before the Sheriff and a jury with having during 1897 and 1898, in the island of South Uist fabricated 16 vaccination certificates by setting forth that he had successfully vaccinated 16 children in the parish, while the fact was that he had not done so. At the end of a trial lasting eight hours the jury retired, and after the lapse of three minutes returned a verdict of "Not Guilty," which was received in court with loud and prolonged cheering. In this respect the decision must be thoroughly satisfactory to Mr. Lamont, but the proceedings themselves suggest comment in two directions.

In the first place, as regards vaccination certificates, it seems that in some sparsely populated Highland districts, what with long journeys and bad weather and insufficiency of medical men, some looseness of practice has developed. Instead of the vaccinator paying a second visit to his cases after the usual interval he may occasionally certify the

success of the operation at second hand, and as a result of information obtained from the parents, or the registrar, or the schoolmaster. No doubt in the circumstances it may sometimes be most inconvenient to make a second visit, especially at a time fixed on a week previously; and even when the appointment can be kept it may be found that some of the vaccinated children have not been brought to the house of call. Notwithstanding these difficulties, we are bound to say that such a method of granting certificates does not commend itself to us. Nothing else or less than a visit by a medical man should be looked on as a sufficient ground for certifying successful vaccination. It would be far better to delay a certificate even for a twelvemonth than to assume on hearsay evidence that the operation had been successfully performed. But it appears that Mr. Lamont was never supplied with a copy of the Vaccination Rules issued many years ago by the now defunct Board of Supervision, and it was stated in court that these regulations, which every parochial medical officer should receive, have been out of print for seven years. If Mr. Lamont was lax, the laxness does not appear to have been confined to him.

Having made our position quite clear on this point, we turn to a consideration of the manner in which Mr. Lamont was treated in the course of the proceedings taken against him. He went to the island of South Uist on appointment by the parish council in August, 1897. The island is 35 miles long by 10 miles broad, and contains a population of about 6,000. It seems that another medical man had been appointed for part of it, but after seeing the place he went away again, so that Mr. Lamont was asked to undertake temporarily all the work. In ordinary circumstances that would have been difficult enough, but at the time in question it was specially difficult as an epidemic of typhus fever was raging. In the Long Island his services during the epidemic were little short of heroic. So great was the fear of the disease that no one would go near the house in which a pauper woman had died, and Mr. Lamont had himself to prepare the body for interment. From the Local Government Board he received a testimonial which in the course of the trial was well described as equivalent to a Victoria Cross. In the Board's letter the Secretary wrote: "In connection with this most distressing case, as the result of careful deliberation I am instructed by the Board to convey to you their high appreciation of the conscientious and self-sacrificing manner in which you discharged your difficult duties at a time when, owing to the state of the parish—a most extensive one—your labours had to be undertaken practically both by day and night. ..... In the opinion of the Board your action is deserving of the highest commendation."

It was under such circumstances that Mr. Lamont got into the vaccination difficulties which resulted in the recent criminal prosecution. While, however, the Local Government Board praised his action, it seems that, to put it mildly, they did not find it their duty to extend their commendation to the parish council. Mr. Lamont had ordered a school to be closed. The parish council, it seems, took offence at this, but the Local Government Board supported his action, and the school was accordingly closed. Immediately after that a motion was made for his removal from office, and this was carried. He ceased duty in July, 1898. Then in connection with the vaccination certificates the local public prosecutor, or, as he is called in Scotland, the procurator-fiscal, applied for a warrant to search for and apprehend Mr. Lamont upon the ground that he had absconded. According to the report of Mr. Lamont's evidence in the *Inverness Courier* of March 17th, the warrant was granted by Dr. M. T. Mackenzie, who is an honorary sheriff substitute, and who, it appears in the report, was one of the witnesses for the prosecution. The warrant was sent to Glasgow, where Mr. Lamont was arrested on Saturday night and put into a cell until Monday, when he was sent to Lochmaddy. He afterwards went to London, and had at his own expense to go back to Lochmaddy again. He had to go to Inverness from Glasgow on two occasions, and had to pay his own expenses.

The acquittal, however, brings with it no solatium nor recompense for all the time and trouble and anxiety of the case, nor does it even involve payment of travelling expenses.

While we have nothing but reprobation for any laxity in the granting of vaccination certificates, it is impossible to avoid a feeling of strong indignation with regard to the extraordinary proceedings to which Mr. Lamont has been subjected.

We are sure that Mr. Lamont will have the hearty sympathy of his profession in the undeserved severity of procedure of which he has been the subject.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

429, Strand, March 9th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-WESTERN BRANCH.—The next intermediate meeting of the Branch will be held at the Public Rooms, St. Austell, on Saturday, April 15th, 1899, at 4 P.M. Notices of papers to be read, of cases, specimens, etc., for exhibition to be sent as soon as possible to the Honorary Secretary that an agenda paper may be issued. The Branch Council will meet at 3.45 P.M. Tea and coffee will be served before the meeting. The Honorary Secretary will be glad to receive at once the names of any candidates for election to the Branch.—H. W. WEBBER, M.S., 4, Woodland Terrace, Plymouth, Honorary Secretary.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Friday, April 7th, at 5 o'clock. Agenda: Communications from the General Council and from the Worcestershire and Herefordshire Branch on the vaccination question. Discussion on Constipation, introduced by the President, Mr. Routh. Notice of papers or communications should be sent to the Honorary Secretary early. There will be a dinner at 6.30 at the Railway Hotel, price 5s., exclusive of wine. Members intending to dine are requested to communicate with the Secretary on or before April 3rd.—R. LIDDON MEADE-KING, Honorary Secretary.

EDINBURGH (FIFE AND LOTHIANS), PERTHSHIRE, AND DUNDEE AND DISTRICT BRANCHES.

A COMBINED meeting of these Branches was held in the Royal Infirmary, Edinburgh, on March 17th, Dr. RORIE, Dundee, in the chair. There was a large attendance.

Demonstrations.—From 3 o'clock onwards Microscopical and Bacteriological Demonstrations were given in the surgical waiting-room by Dr. ANDREW DAVIDSON on Malarial Organ-

isms, and by Dr. G. L. GULLAND on a Series of Blood Films—normal blood, blood in chlorosis, in pernicious anæmia, in secondary anæmia from sepsis, in splenic leucocythæmia, in spleno-medullary leucocythæmia, and in lymphatic leucocythæmia.

Pathological Preparations, Casts, etc.—The following were shown:—Mr. CAIRD: (1) Malignant Stricture of Bowel, Omental Hernia, etc., preparations and drawings; (2) Roentgen Ray Photographs of Fractures; (3) Needle Case for Sterilising Needles and Sutures.—Mr. CATHCART: (1) Brain showing Multiple Embolic Abscesses; (2) Tumour of the Cerebellum; (3) Small Intestine becoming Gangrenous from detachment of the Mesentery, injury; (4) Small Intestine eight months after excision of gangrenous portion, and immediate resuture; (5) Chronic Intussusception, successfully excised through the colon; (6) Tubal Pregnancy, successfully removed after rupture; (7) Arm after amputation, showing destruction of ulnar and part of radial arteries, by progressive necrosis without hæmorrhage.—Mr. COTTERILL: Various Pathological Specimens.—Dr. R. A. FLEMING: Various Pathological Preparations.—Dr. G. A. GIBSON: (1) Specimens of Cerebellar Tumours; (2) skiagraphs, pictures, and casts of Acromegaly.—Dr. HAULTAIN: Deciduoma Malignum of Uterus.—Mr. H. H. LITTLEJOHN: (1) Hydatid Abscess of Liver; (2) Hypertrophied Heart; (3) Rupture of Heart.—Mr. MILES: Specimens illustrating (1) Abdominal Surgery; (2) Sarcoma in Bone; (3) Intracranial Hæmorrhage; (4) Hydrocele; specimens of (5) Dislocated Elbow-joint; (6) Cystic Goitre; (7) Colloid Cancer of Rectum occurring in a boy of 12; (8) Dissection of Flat Foot.—Drs. H. A. PEDDIE and DAWSON TURNER: Roentgen Ray Photographs of an interesting Fracture of Tibia in various stages of repair.—Dr. R. W. PHILIP: Collection of Bronchial Casts expectorated by patient suffering from Fibrinous Bronchitis.—Dr. AITCHISON ROBERTSON: Large Tonsillar Calculus.—Dr. T. SHENNAN: (1) Aneurysm eroding Vertebræ in a man aged 30; (2) Hæmorrhagic Nephritis with infarcts; (3) Specimen mounted by Jores's Method.—Dr. SMART: (1) Two Cystic Kidneys, in sections, from same individual; (2) Cardiac and Pyloric Ends and Lesser Curvature of Stomach contracted as result of extensive ulceration caused by the ingestion, by mistake, of spirit of salt.—Mr. HAROLD J. STILES: (1) Viscera from case of Lymphosarcoma of Abdomen; (2) Thoracic Viscera from a child who suffered from severe dyspnœa, with expiratory stridor; (3) Bones from an infant with multiple fractures, with Skiagraph by Dr. Rainy; (4) Tuberculous Hernial Sac from a child suffering from abdominal tuberculosis; (5) Dissection of Leg, showing distribution of paralysis, the result of acute anterior poliomyelitis; (6) Acquired Hydrocephalus—symptoms resembled those of cerebellar tumour; (7) Section of Head showing "Adenoids"; (8) Dissection of Head showing surface Anatomy of Brain; (9) Horizontal Sections of a Formalin-hardened and Frozen Head; (10) Temporal Bones of Child, showing surgical anatomy of Mastoid, Antrum, and Middle Ear; (11) Stomachs of Children (normal and dilated) and other Abdominal Organs hardened with formalin.—Mr. HAROLD STILES and Dr. ANDREW H. WATT (House-Surgeon): Stereoscopic Photographs of Children—Clinical and Anatomical.—Mr. HAROLD J. STILES and Dr. HARRY RAINY: Skiagraphs of Tuberculous and Syphilitic Bone Lesions.—Mr. D. WALLACE: (1) Tumour from Prostate; (2) Cerebellar Concretion; (3) Tumour of Pituitary Body.

Instruments, etc.—From 3 P.M. onwards, also in the Surgical Waiting Room, there were on view: By Mr. FRAZER: (*a*) Recent Bacteriological Apparatus; (*b*) Bacteriological Specimens; (*c*) New Pattern of Microtome; (*d*) Clinical Research Cabinet; (*e*) Apparatus for Urinary Examination.—Messrs. GARDINER and SONS: Various Instruments.—Messrs. BURROUGHS and WELLCOME: Recent Drugs.—Messrs. JOHNSON, MATTHEY, and Co.: Barium Platinocyanide Screens.—TROMMER EXTRACT OF MALT COMPANY: Various Preparations.—At 3.30 P.M. Dr. JAMES FOULIS gave a demonstration of Milk Steriliser, and made remarks on the process of sterilisation.

Clinical Congress.—At 3.45 in the large Surgical Theatre a Clinical Congress, under the presidency of Dr. RORIE (Dundee), was held, when Dr. H. S. CALDER showed a case of Scleroderma in both feet.—Dr. AFFLECK: (1) A case of Lymphatic Leucocythæmia showing all the classical signs; (2) a Case of Addison's Disease in a young man, which was being treated by suprarenal extract in tabloid form.—Mr. CAIRD: (1) Patient after removal of Goitre for Exophthalmos; (2) a young woman whose Œsophagus had been destroyed by a caustic alkali six years age, and who was now entirely fed by a valvular opening into the stomach; she masticated her food and then ejected it unto a tube which led down to the opening in the abdominal wall.—Dr. BYROM BRAMWELL: (1) A Case of Addison's Disease greatly improved by suprarenal extract, iron, and arsenic; (2) a Case of Lupus in a patient affected by Ichthyosis treated by thyroid extract, with great improvement in ten weeks; (3) a peculiar Case of Myelitis, with no affection of bladder or rectum; no suggestion of a history of syphilis, yet with improvement on the exhibition of antisyphilitic remedies.—Mr. COTTERILL showed a patient with congenital deformity of the lower lip, with an extraordinary history of labrial deformities.—Dr. JAMES CARMICHAEL showed (1) a Case of acquired Hemiplegia with Athetosis in a child. The child had had diarrhœa, measles followed shortly after, and a little latter a fit was the index of the cerebral change; (2) a Case of Aphasia in a child.—Dr. GEORGE BERRY showed a series of cases illustrating the treatment of Cataract, and urged that one should not wait for the ripeness of the cataract, but perform an iridectomy and then proceed.—Dr. GEORGE GIBSON showed a case of Acromegaly which had lasted for 16 years in a woman who was now 42 years of age. There was enlargement of the thyroid, the joints were enlarged, but there was no hypertrophy of the heart.—Dr. MACKENZIE JOHNSTON showed (1) a boy with Pachydermia Laryngis, whom he had shown at the same joint meeting two years ago; (2) a patient with Aural Exostosis in a young woman.—Mr. J. B. HODSDON showed a young man after Excision of the Astragalus.—Dr. ALEXANDER JAMES showed: (1) a case of Scleroderma in a young man; (2) a case of Friedreich's Ataxia in a man of 25 years of age.—Dr. W. ALLAN JAMIESON showed: (1) a Drawing of a case of Angio-keratoma; (2) a case of Scleroma Herpetiforme in a woman; (3) a case of Pityriasis Rosea.—Dr. H. G. LANGWILL showed a case of Locomotor Ataxy with Charcot's Disease in a man of 57, who five years ago had had an accident at sea.—Dr. MCBRIDE showed a series of cases of Ozæna treated by cupric electrolysis.—Dr. GEORGE MACKAY showed: (1) Cases of Extraction of the Lens for High Degree of Myopia; (2) case after Mules's Operation.—Mr. SHAW MACLAREN showed: (1) Patient after operation for Ruptured Gastric Ulcer; (2) patient after operation for Tuberculous Teno-synovitis; (3) patient after operation for Dislocated Patella.—Mr. MILES showed: (1) Patient after operation for Perforated Duodenal Ulcer; (2) patient after operation for Perforated Gastric Ulcers; (3) patient after operation for Multiple Traumatic Perforations of Small Intestine; (4) patient after operation for (*a*) Tuberculous Peritonitis with Obstruction, and (*b*) Tuberculous Pleurisy; (5) patient after Pistol Shot of Stomach.—Dr. SMART showed: (1) Myxœdema successfully treated by Iodothyrine; (2) two cases showing Elimination of Diabetic Sugar as controlled by dietetic treatment alone; (3) Pigmentation in a case of pseudo-Addison's disease.—Mr. ALEXIS THOMSON showed: (1) Man of 70, after Resection of Gangrenous Bowel in Strangulated Hernia; (2) case of Transplantation of Peroneus Longus Tendon into Tendo Achillis, after removal of calf muscles for Sarcoma.—Dr. NORMAN WALKER showed three cases of Tertiary Syphilis.—Mr. STILES showed: (1) Child, aged 7 years, with large Hydrencephalocele (2) Congenital Dislocations of Hip.—Dr. J. THOMSON: Infant with Pseudo-Sclerema.

Electrical Apparatus.—From 5.30 P.M. and onwards, in the Electrical Department, Dr. MILNE MURRAY gave a Demonstration of New Electrical Apparatus. He was assisted by Dr. DAWSON TURNER. Six commodious rooms are devoted to the department, being allocated as follows: (1) Central Room, for the treatment and investigation of special cases, and for the demonstration of methods; (2) A Calibrating Room, for the testing and adjustment of the various measuring and other instruments; (3) Roentgen Ray Room; (4) Dynamo and Accumulator Room, in which the secondary cells for the induction coil and those used throughout the infirmary for cautery purposes are charged; this is effected by a specially-designed motor transformer; (5) Dark Room, for development of photographic plates. (6) Static Room, equipped with a powerful Wimshurst machine, and adapted for the application

of static electricity. The various appliances and the means adopted for adjusting the 230 volts current from the main for medical purposes were explained by Dr. Milne Murray, and Dr. Dawson Turner gave a demonstration of *x*-ray screen work, and also showed his newly-devised apparatus for locating the position of foreign bodies by means of *x*-ray photography.

Sanatoria for Consumptives.—At 5.45 P.M., in the Medical Waiting Room, Dr. CAVERHILL gave an exhibition of consumptive sanatoria, with limelight illustrations.

Surgical Demonstrations.—At 5.30 P.M. and onwards, Mr. C.W. CATHCART, in the Theatre of Ward 5, gave a demonstration of Ambulant Treatment of Fractures of the Leg, and other recent surgical procedure.

Dinner.—At 6.30 P.M. there was a dinner in the Royal Hotel, at which some seventy members of the Congress were present. The Chairman was Sir JOHN BATTY TUKE, and the Croupiers Dr. CONNEL (Peebles) and Dr. JAMES CARMICHAEL (Edinburgh). Toasts: "The Queen and the Royal Family," by the CHAIRMAN; "The Navy and Army," by the CHAIRMAN, and replied to by Major BLACK for the Army and Dr. SPENCE (Burntisland) for the Navy; "The British Medical Association" was given by the CHAIRMAN, and replied to by Dr. BEATTIE (Pitlochry), President of the Perthshire Branch, and by Dr. STALKER (Dundee), President of the Dundee Branch; "The Guests" was given by Dr. JAMES RITCHIE, and replied to by Dr. BUIST (Dundee); "The Chairman" was given by Dr. RORIE (Dundee); and "The Croupiers" by Dr. SINCLAIR (Dundee). With excellent speeches, stories, and songs a pleasant evening was spent.

CORRESPONDENCE.

THE TEACHING OF PHYSIOLOGY AND HISTOLOGY.

SIR,—The lectures and exercises exhibited in the physiological department of most of our medical faculties and schools consist in considerable measure of purely anatomical subject matter. In the partition of property between "anatomist" and "physiologist" that took place with the separate establishment of physiology, the microscope fell to the almost exclusive charge of the physiologist, whose practical duties gradually came to consist, on the one hand, of microscopic anatomy and embryology, on the other hand, of physiology proper and chemical physiology.

The function of a university professor of physiology cannot properly, in my opinion, consist exclusively in elementary teaching over the whole of this wide field. His teaching is a living influence chiefly in so far as it includes the ingredient of his own recent study and thought. And the routine review of the best marshalled facts has a very slight educational scope if it has to be made so exhaustively as to exclude the possibility of original study by the professor and by his younger fellow workers.

The Scottish universities in the past have shown the way to other universities of the United Kingdom. At the present juncture, the University of Edinburgh possesses an opportunity of again showing the way in a right direction—a direction that has been already taken by practically all Continental and American universities—by recognising the natural subdivisions that exist in this unwieldy mass. The lecture programme in the department, entitled Physiology, is altogether in excess of the best powers of any single man, and can be fulfilled only by a routine application of his less excellent qualities of mind. The laboratory programme—even under the present liberal system of devolution upon university assistants—hardly supplies the slight tincture of "practical physiology" (histology, chemical physiology, physical physiology) necessary to the entire mass of medical students, and altogether ignores the very extensive requirements of the small minority of students who possess the desire to advance knowledge. The professor is, in short, overburdened by lectures, and insufficiently provided with laboratories. Fewer lectures by the professor, and more laboratory accommodation adapted to research are the obvious corrections of these two great defects; the latter has indeed already been partially realised in the laboratory of the Royal College of Physicians of Edinburgh, but will be fully met only when the University and the College have in their service an Institute of Physiology and an Institute of Pathology. The former defect and its correction imply a larger share of lectures by University assistants with a correspondingly larger share of responsibility and of emoluments, or the establishment of a Chair of Histology distinct from the Chair of Physiology.

The cleavage that has everywhere taken place between anatomy and physiology has proceeded further in Continental universities than with us. Microscopic anatomy has gone to the anatomist, or has belonged to a separate professor, while the microscope has continued to be one of the many instruments used for his special ends by the physiologist and by the pathologist and by the clinical student. And the effective sphere both of physiology and of histology has been broadened by their formal separation.

Under the combined system, where microscopic anatomy has been treated as the special property of the Professor of Physiology, either the anatomical or the physiological interest is liable to unduly predominate in a department according as the bias of the director is in one direction or the other, or else the average of both sides falls somewhere below its proper optimum, where the attention of the professor is fairly distributed over the elements of both fields. The custom formerly prevalent in many schools of presenting a course of pure morphological histology under the misleading title of practical physiology was an extreme expression of this undue predominance in one direction. My own case during the earlier years of my teaching, when I gradually became more and more engrossed by the manifold problems of physiology proper, has been to my knowledge an instance in the opposite direction, and finally led me to ask for the establishment of a separate Lectureship on Histology at the medical school to which I am attached.

The natural lines and ramifications of physiology as regards the medical faculty are most properly expressed by its Scottish title "The Institutes of Medicine." Physiology is the *ratio rerum*, and deals with all rational principle pertaining to any and every department of medicine, whether such department be called pathology or pharmacology or psychology or obstetrics. For the attention of a Professor of Physiology to be by prescription very largely engrossed by histology is a diversion of energy from its more proper lines of action. The adequate treatment of physiology and histology requires one man with two different minds, or two men each with a mind of his own.

It may be said that this is a separatist argument, applying equally aptly to (say) physiological chemistry or to any other specific portion of physiology. I cannot admit this as a valid objection. The great extensions of the practical and experimental foundations of physiological doctrine that have taken place during the last fifty years have resulted in a conglomerate "physiology" in which the dominant didactics are morphological rather than functional. The natural ramifications of physiological logic are crossed, twisted, and arrested by the natural faults and fissures inherent to such a conglomerate. All its constituent interests suffer, most of all that rare and indefinite interest which should be their vivifying ingredient, as it is the vivifying ingredient of all the arts of medicine and surgery.

The first step in a right direction is the subdivision of the professorship into those of physiology and histology. The second step will be the separate establishment of the professorship of chemical physiology. Opportunity to take the first step has arisen at the University of Edinburgh. A similar and even clearer opportunity may shortly arise in a real University of London; and some of us wanderers in that great academic wilderness hope that Edinburgh may help to show the right way.

March 21st. AUGUSTUS D. WALLER.

ARMY CONVALESCENT HOMES.

SIR,—In the BRITISH MEDICAL JOURNAL of March 18th Surgeon-General Stewart has struck the keynote I wished to sound in my letters of January 21st and February 11th, which appear to have been misunderstood.

In the *Army Medical Report* for 1897 just published there is a description of the treatment of syphilitic affections as carried out at Aix-la-Chapelle, where officers are advised to

go, but no reference is made to the soldier. The consensus of opinion in Europe is, I think, agreed about the treatment of the disease under consideration; the difficulty is chiefly the detail connected therewith.

In my various communications I have pointed out that distant journeyings are unnecessary, and that the treatment can be carried out anywhere with success, even during a winter in Scotland at an elevation of 800 feet above sea level.[1] These matters were brought to the notice of the then Director-General of the Army Medical Department, from whom I received a letter of thanks, but action in the matter was not then possible.

Recent experience has shown how advisable it would be for the military authorities to have a location where this treatment could be carried out successfully; and, as I before suggested, if a convalescent home could be established at one of the thermal springs in England it would prove a national benefit. I believe the springs at Bath are not available for the purpose, but as there are other similar springs in the district extending over a considerable area, it might be found possible to establish a suitable convalescent home for infected soldiers returning from foreign service. The artificial heating of the Harrogate waters might also serve as an excellent model should thermal springs not be available.—I am, etc.,

WM. ALEXANDER,
Portobello, N.B., March 21st. Lieutenant-Colonel, A.M.S.

MEDICAL AID ASSOCIATIONS.

SIR,—Will you allow me space to make a few remarks in answer to the very pregnant letters of "A. B. C." and "Medical Aid Surgeon?" My idea is that every form of club in which canvassing, collecting, or touting takes place should be included in the term "Medical Aid Association." To my mind, the private family club run by medical men is, from a professional point of view, more objectionable than the trading companies.

It will be within the recollection of your readers that some seven years since the question of medical aid associations was inquired into by a Committee of the General Medical Council. It will also be remembered that Dr. Leslie Phillips wrote many able articles relating to the same subject, and that it was mainly due to his persistent efforts that the General Medical Council were induced to make an official inquiry. I would, however, like to point out that the principal part of the inquiries of Dr. Phillips and the investigations of the Council referred more particularly to these medical aid associations which are under the control and management of friendly societies. Now, however objectionable these particular medical aid associations are to the profession at large, yet I venture to assert that they are not nearly so lowering to the dignity of the profession as these medical aid associations which are controlled by purely commercial companies, and which are, as a general rule, conducted in connection with industrial life insurance. From what I have gathered I understand that the main objection to the former was the "sweating" of the medical officers in order that the friendly societies might reap a profit. Unless I am labouring under a mistake, it was not contended that these combinations of friendly societies employed canvassers or "touts" to make a house-to-house visitation. To bring this subject in a practical way before the governing body of the profession I would make the following suggestions:

1. That all practitioners who have knowledge of the evils connected either with medical aid associations or family clubs should draw up a statement and forward it to Dr. Glover.

2. That members of the British Medical Association should take opportunities of bringing the subject before the Branches.

3. That members should ask the Council of the British Medical Association to make a declaration that members of the profession who hold such appointments as indicated should not be considered eligible for membership of the Association.

4. That consulting surgeons and physicians should be requested to agree not to meet "medical aid" men in consultation.—I am, etc.,

March 18th. A MEMBER, B.M.A.

[1] BRITISH MEDICAL JOURNAL, February 11th, 1893.

A CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW OFFICERS.

SIR,—There can, I think, be little doubt that in urging the authorities to establish a Central Superannuation Fund unanimity among those concerned would carry weight. The Poor-law Medical Officers' Association have passed a favourable resolution, as have also the Wycombe and Newton Abbot Boards of Guardians, a committee of the latter recommending the Board to petition the Local Government Board on the subject, pointing out that under the present Act, the working was unfair both to the guardians and the officials and that a copy of the petition should be sent to every Board of Guardians in the kingdom. There are probably many Boards who already hold the same opinions on the subject, but among the officials of the Poor-law Officers' Association there appears to be an idea that if a central fund were established "the security of the rates" would be lost, and that a considerable addition would be made to the percentage deduction from salaries.

I have also heard it stated, that when the present Superannuation Act was under consideration the establishment of a central fund was mooted, but that an objection was raised on the ground of the probable expense of working it. It is reasonable to suppose that the objectionable features of the present working of the Act were not foreseen, and that the fact of their existence is sufficient to make a reconsideration of the subject indispensable.

In order to relieve the Local Government Board, a Committee of Management might be appointed on which Boards of Guardians, Poor-law officers, and the Government might be represented; the subscriptions might also be collected by the county councils, and possibly after a time the county councils might take the whole management of such portion of the fund as their respective counties were interested in. Should the amount of the subscriptions prove excessive and lead to an undue accumulation of the fund, it should be in the power of the Committee to remit the subscriptions for a time or reduce them permanently.

One of the conditions of the Act, as far as medical officers are concerned, is impossible, as they cannot put in forty years' service by the time they are 60 years of age. Possibly the funds might allow every official who so wished to retire at 60 years of age after thirty years of service; this is one of the points that a Committee of Management might take into consideration after a time, and advise the Local Government Board respecting it.

I would point out that the suggestion on page 544 of the BRITISH MEDICAL JOURNAL of March 4th, to the effect that "an extension of this to officers or servants" who have served in different unions "would seem to suggest a means of overcoming the difficulty," would exclude officers who served their whole time in one union.

I enclose a letter from an official in which some of the foregoing points are touched upon.—I am, etc.,

March 5th. W. L.

Parish Offices,
Edmund Street, Birmingham,
February 11th, 1899.

DEAR SIR,

I am duly in receipt of your favour of February 7th. Adverting thereto, would you not rather have your notice of motion on the agenda of the National Association meeting, to be held at Birmingham in May next, or would you rather it come before our local Association again first? There are one or two what I consider defects in your proposals. First, the Local Government Board in any amendment of the Act would take good care that the deductions were amplified to such an extent that there would be no possible chance of a deficit; if the latter were to be the case under a Central Fund, how could it be apportioned amongst the various unions throughout the country, and who would be saddled with the expense of same? Then, again, in case of excessive accumulations, would it not be preferable to reduce the contributions rather than they should cease altogether? The former commends itself to my judgment. With regard to Poor-law officers being represented in the management, I fear this would further add to the expenses, but in case of a Central Fund this might be desirable. However, it appears to me that many of the difficulties would be overcome by vesting full power with each county council to collect, manage, and disburse the funds contributed in its own area, by which method any deficit could be easily apportioned amongst the unions comprised in the county. It is a complex question, and not much minimised by considering details, but one which should receive much thought and attention from those who have the time and capacity to bestow upon it. There is little doubt the subject will have to be dealt with ultimately, and we can do little harm in preparing our data to work upon..... ...
Believe me, yours faithfully,

W. R. WHITE,
Hon. Sec. Birmingham and District Poor-law Officers' Association.

DOCTORS AND DISTRICT NURSES.

SIR,—In reference to your remarks on this subject, I beg to say that I also know of a district where the Committee have allowed their nurse to become to all intents and purposes an unqualified medical practitioner. Finding, however, that the local medical men have been obliged to ignore the nurse, seeing that they themselves were ignored, the Committee have decided to amend the rules so that the nurse should work with, and not in the place of, the doctor. The following are some of the points which I felt it my duty to put before them:

1. There is a vast difference between ignorant people employing a midwife and an educated Committee allowing their nurse to attend confinements without a doctor, both from the doctor's and from the coroner's point of view.

2. If the nurse is to attend ordinary or maternity cases without a doctor, the provision made for the poor in medical matters is interfered with, and the whole essence of club practice is destroyed.

3. The Committee that allows this sort of thing is misleading the people, and, in addition to creating discontent, is doing away with that condition of thrift which it is the wish of the State should be fostered by every possible means.

4. It is not fair for a Committee to go round and persuade people to have the nurse, and then, if anything goes wrong, to expect a medical man to step in and get them out of a difficulty by taking over all responsibility.

5. A Committee which sanctions the employment of a district nurse in the place of a doctor is undermining that moral responsibility of parents towards their children and themselves which it is the aim of friendly societies to encourge, and which is so essential to the welfare of society at large.

March 8th. COUNTRY PRACTITIONER.

POISONING BY RHUS TOXICODENDRON.

SIR,—In connection with the cases of rhus poisoning recently recorded in the BRITISH MEDICAL JOURNAL, perhaps you will allow me to refer those interested to the following more or less convenient sources of information:

J. C. White's *Dermatitis Venenata*, 1887 (the American journals frequently contain reports on cases); Morrow's *Drug Eruptions* (Syd. Soc. Ed.); Albert Billet on Dermatitis from Varnish Sumach in Annamite Soldiers (extracted *Brit. Journ. Dermat.*, November 18th, 1896, p. 456); McCartney (The *China Medical Missionary Journal*, vol. viii, No. 2, June 1894); also Mathews in the September number; Nicholson of Kew Royal Gardens has known several cases. Schonberg (*Philad. Polyclinic*, October 16th, 1897) says there is no specific, but certain remedies relieve the itching and burning, and subdue the inflammation. He places such remedies in the following order: (1) Saturated solution of boric acid: (2) fluid extract of grindelia robusta (℥j to aq. ℥iv); (3) aqueous solution of sodium hyposulphite (℥j to ℥j); (4) Labarraque's solution (25 to 50 per cent.); (5) black wash diluted a-half with lime water; (6) bromine, ♏x-xv to ℥j ol. olivarum.—I am, etc.,

March 17th. PHYSICIAN.

HOSPITALS AND CERTIFICATES UNDER THE WORKMEN'S COMPENSATION ACT.

SIR,—In the BRITISH MEDICAL JOURNAL of March 18th, under the above heading, you have an editorial on this subject, and you say that it is to be regretted that the Birkenhead Medical Society have passed a resolution calling upon the Hospital Committees to allow the house surgeons to charge for such certificates, and that the fee should be not less than a guinea; you suggest that perhaps local conditions may offer some explanation for this resolution. As the proposer of the resolution I have to say that no local conditions are required to explain the action of the Society. The point which you seem to have missed is this: The majority of the claimants under the Act naturally enough pass right from the accident into the hospitals, and it is the house-surgeon, and house-surgeon only, who can give the certificate and information required.

Now, the insurance people and the employers have in some cases argued that the "paid servants" of the hospitals ought to give this information for nothing, and others have tried to squeeze down the fee to 2s. 6d.

It is surely plain that if the house-surgeons refuse to give the information unless paid a guinea there is no fear of the insurance people going to the house-surgeon over the head of the private practitioner in such cases as drift soon from the hospital to the family adviser.

A similar line of action was taken by the Liverpool Medical Institution after an inquiry by a specially appointed Committee. My action in the matter was the outcome of very scurvy treatment by an insurance company, who returned my bill for a guinea, saying there must be some mistake, as the usual charge was 2s. 6d.—I am, etc.,

Tranmere, March 20th. H. LAIRD PEARSON.

*** Our correspondent is mistaken in thinking that "the house-surgeon, and the house-surgeon only, can give the certificate and the information required." In proof of this we can assure him that in larger centres than Birkenhead, and in larger hospitals than the Birkenhead Hospital, such certificates are not given by the resident staff, and the fees are not diverted from the pockets of the medical practitioners of the town and district.

RAILWAY MEDICAL OFFICERS' UNION.

SIR,—It has been suggested that we should have a "union of medical officers to the various railway companies," and that, as I happen to hold appointments to the Great Central and Great Northern, I should ask, through the BRITISH MEDICAL JOURNAL, for those holding such appointments to at once send me their names and addresses, as well as their ideas and suggestions, with a view to calling a meeting at some convenient place at an early date.—I am, etc.,

G. H. BROADBENT.

8, Ardwick Green, Manchester, March 22nd.

A CASE OF DEATH UNDER CHLOROFORM.

SIR,—The unfortunate fatality under chloroform reported by Mr. Cathcart in your issue of February 25th presents features of considerable interest. The completeness of the record of the case leaves no doubt as to the accuracy of the symptoms described, which tally to a remarkable extent with those present in certain cases already reported and in some others to which I have drawn attention.[1]

The cause of death was clearly primary failure of the circulation and not primary respiratory paralysis. The salient point in cases of this class is that the respirations are free and full at a period when the circulation is almost absent. It is quite conceivable that this free respiration might mislead those administrators who rely solely upon "watching the respirations" during the exhibition of chloroform, that is, "watching" in the sense of being satisfied with the mere presence of free respiratory movements. This however certainly did not happen in this instance.

A patient satisfactorily under the influence of chloroform should breathe quietly much as during natural sleep. Any modification of the respiratory movements, apart from mechanical obstruction, must arise from one of two causes: either from some change in the blood supply of the respiratory centre or from some reflex interference with that centre. The occurrence of any alteration in the rhythm of the respiratory movements should therefore at once be checked by observations on the condition of the circulation, if the better plan of observing both be not adopted throughout the administration.

In the case reported the respirations were modified by both these causes. The dilatation of the sphincter ani originated an abortive expulsive effort, represented by the laryngeal spasm and irregularity in the respiration. During this time the circulation was no doubt becoming feeble, and quickly reached a degree when the respiratory centre became affected by the anæmia. Anæmia of the respiratory centre originates increased respiratory efforts and hence the "free respirations," which as the centre became more enfeebled degenerated into mere gasps.

Judging from the well-known effect of chloroform upon the vasomotor centre, the failure of the circulation in this case no doubt began in a paralysis of the vasomotor centre. This accounts for the return of colour to the face which is recorded

[1] BRITISH MEDICAL JOURNAL, 1884, vol. ii, p. 871. Mechanism of Death from Chloroform, *Lancet*, 1894 and 1897. A Case of Death from Chloroform, *Lancet*, 1898, vol. ii.

as occurring when the patient's head was lowered. The chief effect of the existence of normal arterial tone is to counteract the influence of gravity upon the blood. Vasomotor paralysis converts the blood vessels into inert tubes, in which the blood is free to flow in response to gravity, and so the facility with which the blood flows to dependent parts is an index of the extent of the loss of arterial tone. This explains how, in this case, the pallor of the face when the patient was recumbent gave place to improvement in the colour when the head was dependent, which improvement persisted until the blood ceased to be aërated, when it gave place to lividity.

In these cases the lesion is, in the first instance, a failure of the circulation, indicated by pallor of the face, dilated pupils, and feeble pulse. Could the pulse be accurately observed it would give the first warning of danger. The deep respirations or respiratory movements, more free than normal, are a late sign, and when they pass into inco-ordinate respiratory efforts they indicate that the patient is *in articulo mortis*. It does not seem to be sufficiently appreciated that deep respirations, with pallor and dilated pupils, denote serious failure of the circulation.

If the head is dependent, as in Trendelenburg's position or in operations for post-nasal adenoids, the pallor of the face, for reasons above-mentioned, will not be marked, and there may be present a deceptive hue of health.—I am, etc.,

Alexander Wilson,
Senior Administrator of Anæsthetics, Royal Infirmary,
February 27th. Manchester.

Sir,—The case reported in the British Medical Journal of February 25th, by Mr. Cathcart, is, I think, a typical illustration of one of the ways in which patients die whilst under the influence of chloroform.

An explanation sometimes given of death in such a case as this is that it is due to over-dosage—that the patient after "wincing" takes deep inspirations, and so inhales a large quantity of chloroform vapour. I do not think this theory is required to explain such accidents.

Mr. Cathcart is convinced that the heart failed before the respiration. Having seen the same kind of symptoms (fortunately in a less severe form), I have no doubt that they are cases of primary cardiac failure of reflex origin. Rectal operations seem to be the worst for producing such reflex troubles. A patient may appear to be under the anæsthetic: for example, there is no corneal reflex, pupils contracted, breathing stertorous, and muscles relaxed. Many surgeons would say that directly this condition is induced the patient is ready for operation. For ordinary operations this is correct, but for a rectal case, where the sphincter has to be stretched, it is not quite sufficient. Should the sphincter be stretched as soon as this anæsthetic condition is reached, one is likely to see just the same kind of symptoms as occurred in this fatal case. The pupils immediately dilate, the breathing becomes jerky and crowing, there is pallor of the face, and a weak pulse. These symptoms may be of any degree.

Under such circumstances, the pupil phenomena require special consideration. If the syncope, thus reflexly produced, be very profound, the pupil, which dilated at the moment of the operative procedure, remains inactive for some little time, because of the collapsed condition of the patient. This state of dilatation of the pupil is often interpreted as being due to an overdose of chloroform, when as a matter of fact had more been given, and the patient got more thoroughly under, such reflex dilatation of the pupil would most likely not have occurred.

There are two ways of checking these untoward reflex phenomena connected with rectal surgery. The first is to get the patient into a profound degree of anæsthesia, but this method has unfortunately an element of danger of its own. The second, although not mentioned in books, is, I believe, a safer one, especially for those who have not had much experience of anæsthetics. The patient, having been got into the ordinary surgical anæsthesia, is kept in this condition for at least ten minutes before any operative measures are commenced. By that time the sphincter can be stretched without causing those dangerous reflex symptoms which might have been produced in the earliest stage of the anæsthesia.

These remarks apply only to chloroform; with ether I have never seen any such reflex cardiac trouble.—I am, etc.,

John Freeman,
Bristol, Feb. 28th. Anæsthetist to the Bristol General Hospital.

THE VISION OF SCHOOL CHILDREN.

Sir,—I have to thank Dr. Menzies for his note which appears in the British Medical Journal of February 25th.

He states that 43 children out of 398, or 10.8 per cent., ought to have glasses, and that other 56 would be slightly benefited, that is, a total of 99, or 24.8 per cent. This proposal is of such a revolutionary character that evidence of the most undeniable kind ought to be produced in order to justify its adoption, and Dr. Menzies's paper does not contain such evidence.

He, along with the other ophthalmic surgeons whom he quotes, makes the error of adopting an arbitrary standard, and calling it the normal for children's eyes, whereas his own tables show that Nature has no such fixed standard. Her normal is variety.

He quotes three classes of defects as requiring the use of spectacles. Strabismus is a deformity which, no doubt, parents will try to have remedied in many cases; but with regard to the other two classes, (1) Markedly defective vision hindering the education of the children; and (2) headaches due to eye strain in cases of hypermetropia, I would submit that the system of education ought to made to suit the eyes instead of the eyes being compelled to accommodate themselves to one uniform plan of education.

The communication in the Journal of February 18th from Dr. A. Ogier Ward is noteworthy, inasmuch as it does not contain one reference to glasses from beginning to end.

In conclusion, I may state that I have no figures to give as to the evil of using glasses with growing eyes, as this would require a life study, and I have only recently been taking an interest in the question.—I am, etc.,

Cumbernauld, March 10th. D. Love, M.B.

IMPROVEMENT IN X-RAY TECHNIQUE.

Sir,—In reference to the Wehnelt current interrupter, in 1874 I used a similar interrupter on a coil with fifty Groves's cells. The idea was not even then new, for although my experiment was due to accidental short-circuiting of electrodes during electrolytic experiments, which led to my final application of the so-called interrupter as a resistance to current, and then as a rapid make-and-break, I found that some of the old masters of electrics had evidently used it before.

Since November, 1896, I have always endeavoured, in using a Jackson tube, to condition the tube by heating behind the cathode when connected with coil, so that the make-and-break of coil shows infinitesimal sparking and works with such rapid vibrations that a musical note is produced, the pitch varying as the position of the flame heating the tube is altered. Shadowgraphs can then be obtained of the human trunk from 35 seconds upwards, and the results on English fluorescent screens are almost perfect. This has all been mentioned in my lectures at the Royal Artillery Institute, etc., the first being the end of October, 1896.—I am, etc.,

Blackheath, March 21st. William Webster.

CINNAMON IN INFLUENZA.

Sir,—In your last issue you publish an interesting letter on the above subject from the pen of Dr. Carne Ross. The value of the treatment referred to, I myself, in the Journal of March 16th, 1895, endeavoured to impress upon your readers.

My experience of the antiseptic use of the drug dates from the year 1886, when I was in Ceylon, and there learned of the immunity enjoyed by persons working in cinnamon gardens from severe attacks of malaria, and this led me to try the oil as a remedy wherever an internal antiseptic seemed indicated.

I found it useful in gastro-enteritis, recurrent boils, and I believe I have seen a beneficial effect in typhoid; but I was anything but prepared to find the extraordinary influence it seemed to exert when I began to use it in cases of influenza in, I believe, the 1891 epidemic.

My friend Dr. H. A. Stonham was kind enough to employ my treatment in his large parochial practice and the remarkable results obtained he detailed to you in a letter published also in March, 1895.

Now that Dr. Carne Ross has come forward with all his authority, perhaps you will excuse me reminding you of the

above facts, in the hope that our joint weight may suffice to procure for our treatment a general trial. I am, etc.,

London, March 21st. CHARLES GRAHAM GRANT.

OBITUARY.

DEPUTY-INSPECTOR-GENERAL JOSEPH JEE, C.B., V.C.,

Honorary Surgeon to the Queen.

THIS distinguished officer died at his residence, Queniborough Hall, Leicester, on March 17th, aged 81. He was the son of the late Mr. Christopher Preston Jee, of Hartshill, Warwick. He studied in London, and became M.R.C.S. in 1841. He entered the army as Assistant Surgeon in the 1st Royal Dragoons in 1842, and in 1854 became Surgeon of the 78th Highlanders. With this distinguished corps he served in Persia in 1857, at the battle of Khooshab and bombardment of Mohammera, for which he received the medal and clasp.

When the mutiny broke out, the Persian force was hurried to India to take part in its suppression. With his regiment Jee was engaged in Havelock's column at the relief of the Residency of Lucknow, and the subsequent defence, and with Outram's force at Alumbagh, including a great number of engagements, and the final capture of Lucknow. Afterwards he served in the Rohilkhund campaign and capture of Bareilly, for which services he received the medal with two clasps, the decoration of C.B. and the Victoria Cross, and a year's service. Throughout these operations he displayed great devotion and gallantry, and was awarded the Victoria Cross under the following circumstances:

For most conspicuous gallantry and important services on the entry of Major-General Havelock's relieving force into Lucknow on September 25th, 1857, in having during action (when the 78th Highlanders, then in possession of the Char Bagh, captured two 9-pounders at the point of the bayonet) by great exertion and devoted exposure, attended to the large number of men wounded in the charge, whom he succeeded in getting removed on cots, and on the backs of their comrades, until he had collected the dhooly bearers who had fled.

Subsequently, on the same day, in endeavouring to reach the Residency with the wounded men, Surgeon Jee became besieged with an overwhelming force in the Mote-Mahal, where he remained during the whole night and following morning; voluntarily and repeatedly exposing himself to a heavy fire in proceeding to dress the wounded men who fell while serving a 24-pounder in a most exposed position. He eventually succeeded in taking many of the wounded, through a cross fire of ordnance and musketry, safely into the Residency by the river bank, although repeatedly warned not to make the perilous attempt.

From the foregoing official statement of services it will be seen that no man ever deserved the Victoria Cross more than this gallant "non-combatant." He retired as Surgeon-Major, with the honorary rank of Deputy-Inspector-General in 1868.

Mr. Jee was known to his friends as a most honourable man; a complete Englishman in his love of sport, and one of the most deadly shots at pigeon matches at Hurlingham. He was one of the few remaining links with the army medical service of the past. He was made an Honorary Surgeon to the Queen only a few weeks ago.

HENRY JOHN BUTLER, L.R.C.P.LOND., M.R.C.S.ENG.

THE death took place on March 10th of Dr. Henry J. Butler, of Bradford, Yorks, at the early age of 35 years. The cause of death was blood poisoning following the prick of a safety pin, sustained whilst dressing a case of empyema. From the point of local infection the disease rapidly became general, and death ended the illness after ten days of great suffering.

Dr. Butler was a native of Bradford, and was educated at the St. James's Church School and Bradford Grammar School. After a successful student's career at the Leeds School of Medicine, he filled the post of House-Physician at the General Infirmary, Leeds. Twelve years ago he commenced practice in Bowling, Bradford, and quickly built up for himself a reputation as a conscientious and skilful member of his profession. He was very popular with his patients and deeply respected by his fellow practitioners. He was a member of the Committee of the Bradford and District Medico-Ethical Society, and took great interest in its affairs. It was only on the evening before his fatal misadventure that he read a paper before the Society upon the question of hospital abuse. A special meeting of the same Society, which was called for March 10th, met and adjourned as a sign of respect to his memory, after passing a vote of sympathy to Mrs. Butler in her sad loss.

The funeral was attended by between thirty and forty of the medical men of the city, as well as by several of the clergy and ministers of the district. The peculiarly sad circumstances surrounding Dr. Butler's death caused a deep impression in the minds of all who knew his genial character, and large numbers of the general public paid their last respects to his memory upon the day of his funeral. He left a widow and three children.

THE LATE DR. WILLSHIRE.

SIR SAMUEL WILKS, Bart., has sent us the following additional note on Dr. Willshire, of whom a short obituary notice was published last week:

In the very appreciative notice of Dr. Willshire (not Wilshire) by Dr. Wigg there is only a slight allusion to the art studies which occupied the best hours of the latter half of his life. I was the colleague of Dr. Willshire at the Infirmary for Women and Children and also at the Surrey Dispensary, and I then conceived the very highest opinion of his knowledge of medicine and his general culture. He was especially interested in the diseases of children, and wrote some excellent papers thereon in the *Quarterly Medico-Chirurgical Review* and other journals. Indeed, he had commenced a special practice among children before the Ormond Street Hospital was thought of; his consulting rooms being in Cecil Street. But his mind was ever upon art, and he was soon known as a connoisseur in old engravings. His opinion was so much valued that I believe he was offered a post in the British Museum. This he declined, but he assisted in the production of several catalogues. If any further biography of Dr. Willshire is contemplated I have no doubt that much information might be obtained from Mr. Colvin or from other authorities at the British Museum.

Mr. Balmanno Squire writes: Permit me to add my testimony to the high merits of the late Dr. W. H. Willshire. As with some others, his longevity has impaired the greater interest that would otherwise have been taken in your obituary notice of him. But he was a very exceptional man. Thirty-five years or more ago when I was endeavouring to learn what I could of skin diseases by attending the skin clinics of London I was brought into close contact with Dr. Willshire, who then conducted an informal skin clinic at Charing Cross Hospital. Willshire with greatly inferior opportunities was like Sir William Jenner, a most accomplished clinical teacher. Of one, as of the other, it may be said that to have been much in contact with him was an ennobling influence; either the one or the other was an excellent object lesson as to what sort of man a physician should be. A want of one of the more commonplace but in the battle of life most essential of qualities alone prevented Willshire from rising to the highest rank amongst physicians. He needed only complete self-confidence in his demeanour. He had the gratification of knowing shortly before his death that the department which he founded at his hospital had been raised to a leading position amongst the clinics of London.

WE record with regret the death of Dr. MATTHEW CORRI HALTON at his residence, Barnsley, Yorkshire, on March 7th. Matthew Corri Halton was born at Mullingar, Ireland, in 1843, and had consequently nearly completed his 56th year. He belonged to a family of musicians, and his father was for over fifty years organist to the Catholic Cathedral, Mullingar. He received his medical training at the Ledwich School of Medicine, Dublin, and in Meath Hospital. He went to Barnsley in 1868 as assistant to Dr. Blackburn, and in five years had so won the respect of the inhabitants, that on his withdrawal in 1873 they presented him with an address, a case of surgical instruments, a gold watch, and a purse containing £50. He returned to Ireland, and obtained the diploma of L.R.C.P.I. in 1874, and shortly afterwards went again to Barnsley, where he started in practice, which shortly became extensive. He joined the Barnsley Rifle Volunteers, of which he eventually became Honorary Surgeon. He was an ardent Home Ruler, was for nine years President of Barnsley Radical Club, and his services as a speaker were in great requisition at Liberal demonstrations. He was also a member of the Town Council of the Borough since 1888, and was Mayor from November, 1892, to November, 1894. In 1893 the

great miners' strike occurred, with a huge amount of concomitant distress and local excitement, which added much to the Mayor's anxiety and responsibility; but he steered a wise and conciliatory course through the trouble, and when he retired received cordial thanks for his services. He was soon afterwards chosen as an Alderman of the Borough, and appointed J.P. for the West Riding, and afterwards for Barnsley. He was a consistent Roman Catholic, but very tolerant of the religious views of his neighbours, and on good terms with ministers and members of all denominations. He was Surgeon to the West Riding Constabulary and the Barnsley Post Office officials; and Medical Inspector on behalf of the Yorkshire Coal Owners under the Workmen's Compensation Act. Dr. Halton's death was due to influenza complicated by pneumonia. He leaves a widow, two sons, and a daughter. The funeral took place on March 10th amidst signs on every side of deep regret and respect.

Dr. Samuel Leonard Crane, C.M.G., late of Trinidad and Jamaica, who died recently at the age of 68, was born in 1830, his father being James Noble Crane of Nova Scotia. Dr. Crane obtained the M.D. degree of Pennsylvania in 1850, and in that same year entered the Civil Service as Assistant Surgeon to the hospital ship *Tenedos*. He became M.R.C.S.Eng. in 1855, and was Surgeon-Superintendent to the Commissioners of Emigration from 1855 to 1871. He was appointed Surgeon-General of Trinidad in 1871, Medical Officer of Health 1872, a J.P. 1884, a member of the Legislative Council of that Colony in 1893, Superintendent Medical Officer of Jamaica in the same year, a post which he retained until his retirement in 1897. He was appointed a member of the Legislative Council of Jamaica in 1894, having been already created C.M.G. in 1888. He married in 1887 the daughter of Mr. William Crane, Speaker of the House of Assembly, New Brunswick, but was left a widower in 1892.

Mr. H. J. Knight, of Rotherham, Yorkshire, died there under very sad circumstances on Sunday, March 12th. He was the youngest son of the late Rev. James Knight, who for thirty-six years was vicar of St. Paul's, Sheffield. His training for the medical profession was begun at the Sheffield Medical School and completed at St. Bartholomew's Hospital, London. He became M.R.C.S. and L.S.A. in 1858, and was appointed House-Surgeon to the Sheffield Infirmary, filling that position from 1858 to 1863. In 1864 he went to Rotherham and commenced to practise there. The practice was highly successful, and he was joined in partnership by Mr. W. A. Garrard in 1876, and later by his son (Dr. H. E. Knight). Mr. Knight was for years churchwarden of Rotherham. He was passionately fond of good music, and for several years President of the local orchestral society. He was appointed a magistrate in 1893, and was for years a member of the Council of the Yorkshire Branch of the British Medical Association. He contributed reports of cases to the British Medical Journal, amongst them being two cases of poisoning, one by bichromate of potassium (1885) and another by sicherheit explosive (1889). He was genial, and uniformly beloved and respected, and his sudden death caused a painful shock to his patients and friends in Rotherham, and elicited a spontaneous expression of sympathy for his widow and family. In 1865 he married Miss Barton, of Easingwold, and that lady and four sons survive him. At an inquest held by the Deputy Coroner, Mr. B. Bagshawe, on the following Tuesday, it was proved that Mr. Knight had died from prussic acid administered by himself. He was found at 1 P.M. on Sunday, lying unconscious on the floor of the consulting room, and breathing stertorously. The stomach pump and various remedies were applied, but without avail; consciousness was never regained, and death resulted at about 2.30 P.M. Mr. Knight had been subject to fits of despondency, and had expressed the belief that he had ceased to be possessed of professional skill. The verdict was one of "suicide during a state of temporary insanity." The funeral was attended by a large concourse of friends and neighbours.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries and the Colonies who have recently died are Dr. Bouchard, Professor of Anatomy in the Medical Faculty of Bordeaux, author of *Les Nouveaux Eléments d'Anatomie Descriptive et d'Embryologie: Précis d'Anatomie et de Dissection; Nouveaux Eléments de Pathologie Externe*, and other valuable contributions to medical literature; Dr. Julius Samelsohn, a well-known ophthalmologist of Cologne, aged 57; and Dr. John A. Mullin, of Ontario, one of the leading physicians of Canada, a past President of the Canadian Medical Association, aged 64.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

USE OF PHOSPHORUS IN THE MANUFACTURE OF LUCIFER MATCHES.*

The Report of the Home Office Committee.

In June of last year, owing to the attention which had been called to the matter in Parliament, the Home Secretary invited three experts to make an inquiry into the effect of work in lucifer match factories on the health of the workpeople. That inquiry is now completed. The reports, which bear the signatures of Professor Thorpe, Principal Chemist of the Government Laboratory; Professor T. Oliver, Physician to the Royal Infirmary, Newcastle-upon-Tyne; and Dr. George Cunningham, Senior Dental Surgeon to the London Hospital, form a bulky Blue Book of 236 pages. We question whether in this or any other country there has ever been given to the public such an accumulation of knowledge and experience as is to be found within this Government publication. The Home Secretary is now in possession of an amount of scientific and trustworthy information in regard to the matchmaking industry, both at home and abroad, which cannot fail to be of the greatest assistance to him in framing regulations which, when loyally carried out, will remove from the trade the stigma that has so long lain upon it.

Chemical Investigations.

To Professor T. E. Thorpe, whose name has so long been known in connection with all that relates to phosphorus, was entrusted the duty of making the chemical investigation, and of carrying out in the laboratory such experiments as might help to a solution of certain unsettled problems relating to the effects of phosphorus upon health. He tells us that eight-tenths of the "fume" arising from phosphorus consist of the oxides of phosphorus, and that although this substance is prone to become oxidised it does so only when oxygen is operating in the presence of moisture. Phosphorus does not ignite in dry oxygen. The glow of white phosphorus is due to oxidation, and this can be checked by the vapours of certain hydrocarbons, for example, oil of turpentine, eucalyptus, and other essential oils. Experiments were carried out in the Government Chemical Laboratory with the view of ascertaining what effects might be produced upon teeth by the action of (1) phosphorus fumes and of (2) phosphoric acid. In the one experiment Dr. Thorpe found that teeth lost 0.37 per cent. of their weight, and in the other that 8.9 per cent. of the weight was lost. The fume of phosphorus when dissolved in the saliva is, therefore, capable of exerting a marked solvent action upon the teeth. Dr. Thorpe visited every match-works at home and several on the Continent. He contrasts our own factories with those abroad, and concludes in favour of the latter. His report is embellished by drawings showing how machinery may with advantage replace hand labour, and how ventilation of the various departments in match factories may be improved.

The Nature and Prevention of Phosphorus Necrosis.

Dr. Oliver deals with the medical aspects of the question generally, with the causes of phosphorus necrosis, and with the means that ought to be adopted for the removal of danger. From one of the appendices we learn that he had already reported upon the French match industry, but in the present report he enters into details concerning the lucifer industry both at home and abroad. Attention is drawn by him to the

* Reports to the Secretary of State for the Home Department on the Use of Phosphorus in the Manufacture of Lucifer Matches. Published by Messrs. Eyre and Spottiswoode. Price 4s. 11d.

existence of a constitutional state in French matchmakers called *phosphorisme*, characterised by anæmia or cachexia, dyspepsia and albuminuria. *Phosphorisme* is more frequently observed on the Continent than here. Years ago it was taught that pregnant women employed as matchmakers were prone to miscarry, but the report concludes that there is no evidence for this statement. A short time ago Dr. Garman's name was unpleasantly before the public on account of certain cases of phosphorus necrosis at Messrs. Bryant and May's, but no one can read these reports without being struck by the assistance which he has given to the various members of this special inquiry. During the twenty-five years that he has acted as medical officer to the Fairfield Works he has had through his hands 51 cases of phosphorus necrosis, 9 of which ended fatally. Of his patients 83 per cent. recovered. While it is generally admitted that "phossy jaw" occurs mostly in those who have worked several years in a match factory, yet it is the younger workers who succumb to the disease. One of Dr. Garman's patients was only 19 years of age. The writer of the medical part of the report is of opinion that in the absence of decayed teeth phosphorus necrosis is not likely to arise. A few months ago Professor Stockman drew attention in the pages of the BRITISH MEDICAL JOURNAL to phosphorus necrosis and its dependence upon the action of the tubercle bacillus. Dr. Oliver does not accept this opinion. He does not admit that the process is tuberculous. The microorganisms which were found in the pus obtained from necrosing jawbones of matchmakers were such as ordinarily excite suppuration—streptococci and staphylococci. It is to the operation of such micro-organisms penetrating carious teeth in individuals whose health has been previously debilitated by exposure to the fumes of phosphorus that the disease of the bone may be due. Although it is only in the maxillæ of matchmakers, particularly the dippers and boxers, that necrosis occurs there is yet developed in some a peculiar fragility of other bones. At Grammont in Belgium Dr. Brocoorens in twenty-five years met with 30 cases of spontaneous fracture of the long bones. This accident is not unknown in our own country. Dr. Oliver visited matchworks in France, Belgium, and Silesia, as well as at home, and as the result of his experience he concludes that the time has not yet come to recommend the total abolition of white phosphorus, for matches can be and are manufactured from this substance without risk to health, and that phosphorus necrosis is an accident which by the exercise of caution and rigid attention to sanitary details can be eliminated from the industry.

Seeing that the prevention of phosphorus necrosis is largely a matter of dentistry, we turn with interest to the report of Dr. Cunningham. His contribution forms nearly one half of the volume. The portion dealing with the causation of necrosis is particularly valuable. Considerable stress is properly laid upon the relation of carious teeth and phossy jaw. As a dentist he finds himself unable to support the theory that "phossy jaw" is a tuberculous disease, nor does he consider that matchmakers are more prone to tuberculous phthisis than are operatives in other factories. Dr. Cunningham is not a believer in the existence to any extent, in this country at any rate, of *phosphorisme*. Neither he nor Dr. Stewart detected it. From American statistics it is not met with once in 1,000 workpeople. Since the bacterial causation of phosphorus necrosis commends itself to Dr. Cunningham. He makes several important recommendations in regard to dental examination of the workpeople and to the employment of mouth washes, the principal ingredient of which should be an antiseptic—such, for example, as carbolic acid.

THE REGULATION OF THE MANUFACTURE.

The reports of the three experts has been admirably summarised by Dr. Whitelegge, the Chief Inspector of Factories, in a preface in which we are reminded that the inquiry was the outcome of the concealment of certain cases of phosphorus necrosis. Each country in Europe has had at one time or another to face this question of the danger to health in lucifer match works. Years ago Denmark took the initiative of totally prohibiting the use of white phosphorus and since then "phossy jaw" has been unknown in the country. Switzerland is deliberating as to whether she shall follow the example that has been set her. Russia has tried to solve the problem by imposing a tax upon the ordinary phosphorus matches in the hope that thereby the use of "safeties" may be encouraged, and France within the last few months has sought to supplant the harmful match by one made from the harmless sesquisulphide of phosphorus. In one of the appendices in the reports the question of the "*sans phosphore*" match is fully dealt with, but the opinion expressed in regard to it is that the match is still on its trial and has not as yet passed beyond the experimental stage. It is clear from the reports that the regulations of the Home Office at present in force are not sufficient and will have to be materially modified if matchmaking is to be become a safe industry. Continental manufacturers are in many places far ahead of British in the adaptability of their buildings to this particular industry, in methods of manufacture, and the greater care exhibited in the selection of the workpeople, who come in many instances from a better class than they do in this country. It is not recommended by the three gentlemen who have signed the report that the use of white phosphorus should be entirely prohibited. Its use should be limited and wherever possible machinery should replace hand labour. Personal cleanliness is insisted upon, and it is pointed out that repeated medical and dental examination of the workpeople is not only advisable but necessary.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,694 births and 5,099 deaths were registered during the week ending Saturday, last, March 18th. The annual rate of mortality in these towns, which had increased from 19.5 to 22.2 per 1,000 in the four preceding weeks, further rose to 23.3 last week. The rates in the several towns ranged from 12.7 in Derby, 16.4 in Portsmouth, 16.5 in Hull, and 16.6 in Leicester, to 28.0 in Oldham, 28.8 in Liverpool, 31.5 in Salford, and 31.9 in Manchester. In the thirty-two provincial towns the mean death-rate was 22.8 per 1,000, and was 1.3 below the rate recorded in London, which was 24.1 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.9 per 1,000; in London the rate was equal to 2.0 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.1 in Salford, 3.5 in Wolverhampton and in Blackburn, and 4.4 in Preston. Measles caused a death-rate of 1.2 in Leeds, 1.4 in Salford, 1.9 in Manchester, and 2.1 in West Ham; scarlet fever of 1.0 in Oldham; whooping-cough of 1.1 in Hull, 1.3 in Bradford, 2.3 in Birkenhead, and 3.1 in Preston; and "fever" of 1.2 in Wolverhampton. The 88 deaths from diphtheria in the thirty-three towns included 45 in London, 7 in Sheffield, 5 in Liverpool, 4 in Leicester, and 3 in Swansea. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and only 1 small-pox patient was under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 18th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,584 and 2,540 at the end of the two preceding weeks, had further declined to 2,437 on Saturday last: 224 new cases were admitted during the week, against 241, 236, and 217 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS

DURING the week ending Saturday last, March 18th, 925 births and 640 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 25.1 and 22.8 per 1,000 in the two preceding weeks, further declined to 21.0 last week, and was 2.3 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 17.5 in Leith and 18.4 in Edinburgh to 21.9 in Glasgow and 27.3 in Aberdeen. The zymotic death-rate in these towns averaged 2.9 per 1,000, the highest rates being recorded in Leith and Aberdeen. The 309 deaths registered in Glasgow included 18 from measles, 3 from scarlet fever, 4 from diphtheria, 10 from whooping-cough, 4 from "fever," and 7 from diarrhœa. Nine fatal cases of whooping-cough and 2 of "fever" were recorded in Edinburgh, and 12 deaths were referred to measles in Aberdeen.

LONDON WATER BILLS.

LONDON Government and London Water Supply had their innings in the House of Commons on Tuesday. It is in the latter subject we are naturally more especially interested. Five Bills dealing with this subject were on the list. Four of them were promoted by London companies, and were all four read a second time. The fifth was the Bill of the London County Council to secure a supplementary water supply from Wales. It was, with the assistance of the President of the Local Government Board, ignominiously rejected. The smaller Bills which go forward to the Committee stage are two of them promoted by the East London Company. One of these proposes the expenditure of another million and a-half for impounding the waters of the Lee, storage of 5,000 million gallons being provided. The other was the East London (Temporary Supply) Bill, enabling the company to draw water in certain emergencies from the Thames. The "Metropolitan Water Companies" Bill is also of the stopgap kind, and contains clauses which, Mr. Chaplin explained, could not be introduced into the Government measure already introduced. The West Middlesex Water Bill anticipates certain powers which were to be conceded when further storage reservoirs had been completed. All pleas to send these four Bills to one Committee, along with the County Council Bill, were ignored, and they were all four read a second time. The latter was rejected on the ostensible ground that the Water Commission have not yet completed their report. Meantime the Welsh gathering grounds remain unsecured.

LORD HERSCHELL AND THE JENNER SOCIETY.

At a recent meeting of the Jenner Society, held at Gloucester, it was unanimously resolved to send to Lady Herschell the following expression of appreciation of the great service rendered to his country by the late Lord Herschell as President of the Royal Commission on Vaccination:

The President and members of the Jenner Society, whilst uniting in the general expression of deep regret for the death of the late Lord Herschell, and of warm appreciation of the great services he in so many ways rendered to his country, desire especially to record their sense of the singular ability, the perfect impartiality, and the untiring patience with which, as President of the Royal Commission on Vaccination, he for seven years conducted an important and difficult inquiry, with the firm determination, as he himself subsequently said, "to follow boldly the facts which experience disclosed, whithersoever these might lead," and with the earnest desire, when the truth had been established, to so apply it as might be most beneficial to the public health.

The resolution is signed by the President, the Earl of Ducie, Lord Lieutenant of Gloucestershire; the Chairman of the Executive Committee, Dean Spence, D.D.; Mr. G. E. Lloyd Baker, High Sheriff of Gloucestershire: and Dr. Bond, the Honorary Secretary.

THE L.S.A. AND POOR-LAW APPOINTMENTS.

M.B.A. asks whether one holding the L.S.A. qualification can be appointed Poor-law medical officer and public vaccinator, if another holding a double qualification is resident in the district.

*** The holder of the L.S.A., if obtained since the coming into force of the Medical Act, 1886, and if on the *Medical Register*, is clearly qualified for the appointment in question, notwithstanding that another medical man possessing a double qualification resides in the district.

VACANT POOR LAW DISTRICT APPOINTMENT.

A. B. writes saying that a medical man in his neighbourhood has just resigned his appointment of Poor-law district medical officer, which he has held for many years. The practitioner who is succeeding him in practice is applying for the appointment. The vacancy is now advertised in a local paper only. "A. B." wishes to know whether he will be in any way committing a breach of strict medical etiquette by applying for the appointment. He says he intends to give notice to the practitioner of his intention before the election.

*** There is considerable difference of opinion on this question. If the appointment is advertised as vacant, it is, of course, open to any one to apply for it, but if the former holder is retiring from practice and has disposed of his interest in it, either to a junior partner or to any-one else, it is sometimes considered that his successor in the practice has so strong a claim for the appointments connected with it as to make it bad taste for a near neighbour to become an opponent at the election.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: John W. Craig, Surgeon, to the *Vivid*, for disposal, March 14th: Richard D. White, Fleet-Surgeon, to the *Hibernia*, for Malta Yard, March 13th; Howard J. McC. Todd, Fleet-Surgeon, to the *Ramillies*, March 13th; William S. Lightfoot, Staff-Surgeon, to the *Illustrious*, March 13th; John McElwee, Surgeon, to the *Cambridge*, March 27th: Cornelius Bradley, M.D., Staff-Surgeon, to the *Colossus*, temporarily, March 28th; Frederick J. A. Dalton, Surgeon, to Plymouth Hospital, April 6th ames H. Fergusson, Surgeon, to the *Victory*, for disposal, March 21st.

ROYAL ARMY MEDICAL CORPS.

Captain Henry A. Berryman is placed on temporary half-pay on account of ill-health, March 23rd. He entered the service as Surgeon-Lieutenant, January 30th, 1893, and was made Surgeon-Captain, January 30th, 1896.

The Christian names of Lieutenant Scott are Alec Lauriston, and not as stated in the *Gazette* of February 21st.

Brigade-Surgeon William West Quinton, M.B., was recently found dead in a field near his house at King's Teignton, Devon. He entered the service as Assistant-Surgeon, April 14th, 1863; became Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. He went on retired pay, with the honorary rank of Brigade-Surgeon, August 27th, 1884.

Surgeon-Major-General William Marshall Webb died recently at the age of 65. His commissions were thus dated: Assistant-Surgeon, March 24th, 1854; Surgeon, January 15th, 1864; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 27th, 1879; Deputy-Surgeon-General, July 5th, 1881: Surgeon-Major-General, December 31st, 1887. He was placed on retired pay, July 6th, 1892. He served with the 10th Regiment throughout the Crimean campaign (1854-55), and was present at the battles of Alma and of Inkerman, and also at the siege of Sebastopol, being rewarded with the medal and three clasps and the Turkish medal.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant Charles E. R. Bucknill, 2nd Volunteer Battalion the East Lancashire Regiment, to be Surgeon-Lieutenant, March 22nd.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel W. H. Thornhill, M.D., Madras Establishment, has retired from the service, from April 8th. He was appointed Assistant Surgeon, October 1st, 1877, and became Surgeon-Lieutenant-Colonel, October 1st, 1897. He was in the Afghan war in 1879-80 (medal), and with the Burmese expedition in 1886-88 (medal with clasp).

Lieutenant-Colonel G. F. Bevan, Madras Establishment, has been appointed to officiate as Principal Medical Officer Rangoon District and Southern Shan States Command.

Major John Fenton Evans, Bengal Establishment, Professor of Pathology in the Calcutta Medical College, died on March 13th, aged 40, from the plague, believed to have been contracted while engaged in a *post-mortem* examination of a plague patient. He joined the department as Surgeon, April 1st, 1886, and became Surgeon-Major twelve years later. He was with the Burmese expedition in 1887-89 (medal with clasp), and in the operations in Lushai in 1892 with the Eastern Sonai Column.

THE VOLUNTEERS.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the respective corps specified, dated March 22nd; Robert B. Purves, M.B., 1st Edinburgh (City) Artillery; Joshua L. Kerr, M.D., 2nd (the Weald of Kent) Volunteer Battalion the Buffs (East Kent Regiment); William J. Stephens, 5th (the Hay Tor) Volunteer Battalion the Devonshire Regiment; John Orr, M.B., 1st Volunteer Battalion the Manchester Regiment.

The following officers have resigned their commissions from March 22nd: Surgeon-Lieutenant J. F. Sturrock, M.B., 1st Forfarshire Artillery; Surgeon-Captain W. J. Sprott, M.D., 1st Nottinghamshire (Robin Hood) Rifles; Surgeon-Captain E. A. Hughes, 1st London Rifles.

VOLUNTEER MEDICAL STAFF CORPS.

Surgeon-Lieutenant W. Gill, the Manchester Companies, has resigned his commission, March 22nd.

Surgeon-Lieutenant A. Phillips, the Manchester Companies, is promoted to be Surgeon-Captain, March 22nd.

THE MEDICAL SERVICE OF THE UNITED STATES ARMY.

With the report of General Miles, Commander-in-Chief, on the condition of the United States forces during the late war, also appears a report by the Surgeon-General of the Army on the same subject. In these reports there is no attempt to gloss over or conceal the deplorably inefficient condition of the suddenly assembled forces; but a frank avowal is made of the shortcomings, which might have been disastrous had the enemy to be met been more formidable. The Surgeon-General states that the number of medical officers allowed in the army, namely 102, is "inadequate even in times of peace;" and it was consequently necessary to employ a staff of 650 "contract surgeons" by forced selection in a hurried call for their services. Medical men inexperienced in military matters were assigned responsible positions and afterwards unfairly charged with incapacity. The demand for trained nurses likewise far exceeded the very limited supply from the trained hospital corps, nor was it possible to get suitable hands from regiments or from outside sources.

There were abundant medical supplies, but it was out of the question to obtain adequate or timely transports for them. The prevalence of so much sickness is frankly ascribed to imperfect sanitation, together with want of experience in the medical officers in charge, rather than to badly chosen sites for camps.

Among the troops themselves it is stated a leading factor in the development of disease was the reduction of the age limit in recruits from 21 to 18 years; pronounced to have been "a fatal misjudgment." Another mistake was the formation of camps near large cities, which led to drunkenness and dissipation.

There is here an object lesson, not alone to the Americans but to ourselves. The former have discovered that no amount of raw material to draw upon constitutes real military strength: that an improvised army is a broken reed; that, like all other effective organisations, the military machine to be efficient in war must be perfected in peace; that a mere mob of "men with muskets," without sufficient officers and non-commissioned officers, and supply services, is not an army in the modern sense.

The moral we would especially draw for our own War Office may be embodied in the question: Is it certain we have a sufficient and efficient medical service for two army corps hastily assembled? Are our military authorities relying on a non-existent medical reserve or on "contract surgeons" from which to improvise a scratch medical service? If the latter is the case, which we greatly fear (because Lord Wolseley has, so far as we know, never indicated from what source he is prepared to organise an efficient medical service for the two army corps which, he stated, could be called into being before ships were ready for them), then we are deliberately courting the disasters which recently befel the American forces. These be matters which the country and Parliament cannot afford to let slide.

ARMY BOOTMAKING.

Some interesting experiments have lately been carried out in Berlin: 1,200 shoemakers drawn from each of the eighteen army corps, with the exception of the two Bavarian corps, were ordered to Berlin. A certain number of officers and under officers were also summoned to supervise this drill of the shoemakers, as well as 40 locksmiths, who were to be in readiness in case of necessity to repair any damages to the machines. Two of these were worked night and day, the one from 2 A.M. to 2 P.M., the other from 2 P.M. to 2 A.M. The 1,200 shoemakers were able to complete each day 2,500 pairs of boots for cavalry and infantry. For the ten days during which the work was carried on the men were paid at the rate of 6s. 5d. a day.

INDIAN MILITARY COOKING.

The latest scheme to combat the uncleanliness that is found in barrack-room cookhouses in India is to regularly enlist native cooks and subject them to strict military discipline, with power to fine or punish them if necessary. Captain Iremonger of the 2nd Durham Light Infantry is the author of a small book, *The Indian Cookhouse*, in which the scheme is proposed. This officer has devoted special attention to the subject, a very

important one, on which he writes. The arrangements regarding native cooks are, as we have often stated, not satisfactory, but if the experiments to make British soldiers do all their cooking, already made on a small scale with such beneficial results to health, be extended largely in India, there will be no need for enlisting native cooks at all. The experiments to which allusion is made have been noted in past issues of the BRITISH MEDICAL JOURNAL.

PROMOTION TESTS IN THE ARMY MEDICAL SERVICE.

In an article in a recent issue of the *Times of India* the following passage occurs: "At present medical officers once they have left Netley have to pass no such tests" (for instance, examination tests, by passing which the combatant ranks of Captain, Major, and Commanding Officer are attained). Our contemporary appears to have been unaware that the Army Medical Regulations of 1896 show in Appendix No. 1 "regulations for the examination of Surgeon-Captains before promotion to Surgeon-Major." The examination for Lieutenant-Colonels (Brigade-Surgeons) rank was abolished some time ago.

MEDICO-LEGAL.

Replies in this column are limited to questions affecting the legal interests and privileges of the medical profession at large. The column is not to be used as a medium for affording legal advice in private or personal matters as to which the applicant ought to consult his own solicitor.

THE ROYAL BLUE BOOK.

MR. CHARLES F. MARTELLI (10, Staple Inn, London) writes: Referring to a note of the BRITISH MEDICAL JOURNAL of March 11th under the above heading, I beg to inform you that my client, the physician therein referred to other than the lady (for whom I am not concerned), for the first time learnt that he had been given an unsolicited advertisement in the Blue Book, on having his attention called to your editorial note, and being told that he was one of the two professional persons alluded to.

This gentleman's name was inserted in the Trades and Professional Section of the Blue Book absolutely without his authority or knowledge. Immediately on its being pointed out to him he instructed me to address a communication to the proprietors of the Blue Book, the purport of which will be apparent to you from the reply received from Messrs. Kelly's, a copy of which I append hereto.

From that copy I omit only the name of my client, who does not desire a second advertisement.

(COPY.)

"Kelly's Directories, Ltd.

"*Post Office Directory* Office, 182, 183, 184, High Holborn,

"London, March 15th, 1899.

"To C. F. Martelli, Esq., Solicitor.

"SIR,—We have given instructions that no further copies of the Blue Book with the matter at page 1,438 of which your client complains left in are to be sold here.

"We are also taking immediate steps to have the matter complained of eliminated from every book which may be in the hands of booksellers.

"We can only express our regret that any mistake should have been made in the matter, and your client may rely upon it not being in any way repeated in the forthcoming edition of the Blue Book.

"We are, Sir, yours obediently,

"KELLY'S DIRECTORIES, LIMITED

"(J. R. Kelly, Managing Director)."

SALARY OF ASSISTANT DURING ILLNESS.

A CORRESPONDENT writes as follows: I am assistant to a medical man, with whom I have a mere verbal arrangement to stay with him, living indoors, all found, for the winter months. Unfortunately I have been laid up for the last month with influenza and pneumonia, and shall not in all probability be able to resume work for some time yet. I wish to know what is the usual custom with regard to salary during illness and convalescence. My employer also called in two nurses to look after me. I suppose I myself must settle their account.

*** We are not aware that questions of this nature are governed by any special custom, and in the absence of such custom the matter is regulated by ordinary legal principles. We are therefore of opinion that our correspondent is entitled to receive his salary during the period of disablement, but must himself pay for the nursing.

UNQUALIFIED DISPENSING.

A CORRESPONDENT states that he is visiting medical officer (non-resident) to a convalescent hospital under the management of a Sisterhood. The dispensing of the medicines that he orders for the patients is done by a Sister, who is not legally qualified as a dispenser but who has received instruction at one or other of the establishments of the Sisterhood. Our correspondent wishes to be informed if he would be held responsible should any mistake occur in the dispensing.

*** We consider that a grave moral responsibility would attach to our correspondent, should a mistake occur, for knowingly allowing his prescriptions to be made up by an unqualified person, and we should recommend him to take steps to procure the appointment of a proper dispenser.

THE Association of German Railway Surgeons will hold its annual meeting this year at Nuremberg on September 12th.

UNIVERSITIES AND COLLEGES.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, March, 1899.—The following candidates passed in:

Surgery.—C. J. Coleman, Cambridge and Birmingham; A. G. C. Davies (Section I), Guy's Hospital; E. L. Gowlland (Sections I and II), St. Mary's Hospital; H. W. Hues, Birmingham; W. A. H. B. Smith, King's College Hospital.

Medicine.—H. S. A. Davies (Section I), Michigan; H. H. J. Edwards (Section I, St. Thomas's Hospital; F. Golding Bird, Guy's Hospital; V. S. Partridge (Section I), Charing Cross Hospital; R. C. Robertson, Charing Cross Hospital; W. P. Williamson, McGill.

Forensic Medicine.—H. S. A. Davies, Michigan; H. H. J. Edwards, St. Thomas's Hospital; P. J. Fitzgerald, Dublin; V. S. Partridge, Charing Cross Hospital; R. C. Robertson, Charing Cross Hospital; H. Whittaker, Cambridge; W. P. Williamson, McGill.

Midwifery.—W. P. Allen, Birmingham; J. T. Crowe, St. Mary's Hospital; H. H. J. Edwards, St. Thomas's Hospital; W. M. Hocken, Liverpool; H. L. Laidman, Manchester; C. C. Morgan, St. Bartholomew's Hospital; F. C. Torbitt, Manchester; W. P. Williamson, McGill; T. Young, St. Bartholomew's Hospital.

The diploma of the Society was granted to W. A. H. B. Smith and H. W. Hues.

CONJOINT BOARD IN IRELAND.

PRELIMINARY EXAMINATION.—Candidates have passed this examination as undernoted:

Honours Division (in order of merit).—A. J. Conroy,* B. A. C. Neville, E. Purcell, J. Quicke.

Pass Division (alphabetically).—H. I. Anderson, Miss G. W. Clarke, W. P. Cussen, L. L. Davys, T. J. Fenning, J. D. Flood, J. M. Galway Foley, E. P. Harding, J. C. Heelan, S. G. Howle, P. M. Keane, E. Kemp, M. Kennedy, W. F. B. Loughnan, D. de C. O'Grady, F. A. C. Salmon, J. Smith, S. M. Smyth, A. M. Walsh, J. W. M. Winckworth.

*Scored 90 per cent. on the entire examination.

INDIA AND THE COLONIES.

JAMAICA

ANNUAL REPORT OF THE SUPERINTENDING MEDICAL OFFICER.—From the annual report of Dr. Mosse, the Superintending Medical Officer of Jamaica, for the year ending March, 1898, we learn that, notwithstanding the outbreak of yellow fever during the year, the general health of the island did not compare unfavourably with previous years. There was no unusual prevalence of disease except under the head of fevers. The mortality statistics of Kingston show an increase for the year, and reached 30.0 per 1,000. This high figure was due partly to the occurrence of yellow fever, but also largely to the want of attention to simple hygienic principles amongst the poorer classes; and overcrowding, imperfect ventilation, unwholesome and insufficient food, and general neglect are responsible for a large amount of avoidable disease and death. In his remarks on the epidemic of yellow fever in Kingston in 1897, Dr. Mosse contends that the disease is not directly communicable from the sick to the healthy. During the last decade sporadic cases have been admitted to the general wards of the Public Hospital, and though there have been as many as 14 cases at one time in the wards of a severe type, yet no instance of infection extending from them to anyone connected with the institution has occurred. He holds that aërial convection and not direct infection explains the spread of the disease. The other most prevalent diseases on the island are enteric fever (39 deaths), malarial fever (73 deaths), and dysentery (66 deaths). The high mortality from phthisis, 150 deaths—a rate of 2.76 per 1,000 living—is due mainly to the insanitary conditions generally, and to the apparent absence of any systematic attempt to prevent the spread of tuberculosis. The mortality-rate among children was also very high, 26.22 and 36.4 per cent. of the total number of deaths registered occurred respectfully in infants under 1 year, and in children under 5 years of age. The high percentage (63.2) of illegitimate births to the total number registered in Kingston contributes in some measure to the high rate of infant mortality. The general prevalence of syphilis all over the island is again referred to, and the reintroduction of the Contagious Diseases Acts is urged as the only remedy for checking the spread of the disease. At the Public Hospital at Kingston 3,359 in-patients were treated during the year, with a mortality of 0.02 per cent. The average number of beds occupied was 200, and the expenditure about £8,324. From the report of the Victoria Jubilee Lying-In Hospital it appeared that 444 patients were admitted; 78 only were married women. Ten deaths occurred, 8 being due to puerperal convulsions. The report of the Lunatic Asylum shows an increase in the number of patients, and the general health of the inmates was not so good, several having died from dysentery and diarrhœa, and 2 from yellow fever. At the Leper's Home, on the contrary, the general health was much better, and the death-rate much lower than in former years. There were 145 cases under treatment, and of them 13 died.

A PROVISIONAL Committee, under the presidency of Dr. Théophile Roussel, Senator, Member of the French Institute and of the Academy of Medicine, has been formed for the purpose of organising an International Congress of Public Assistance and Private Benevolence, to be held in Paris in 1900.

INFLUENZA IN MEXICO.—During the months of January and February a very severe epidemic of influenza prevailed in Mexico. More than 35,000 persons have been attacked, and there have been many deaths, particularly among the poorer classes of the population.

MEDICAL NEWS.

Dr. Ronald Daniel recently organised an amateur performance at the Tasso Theatre, Sorrento, in aid of the Sorrento Hospital, and, with the help of many English visitors, was able to hand over a handsome sum to the charity.

Cerebro-Spinal Fever at Omdurman.—Private communications allude to an outbreak of cerebro-spinal fever at Omdurman. The symptoms were somewhat vague at first, but generally consist of pain in the head and back of the neck, with high fever, and retraction of the head. *Post-mortem* examinations have shown acute inflammation of the membranes of the brain and spinal cord. Cases of recovery usually have paralysis of one or more limbs. Up to the early part of February about fifty men had been attacked. The mortality, it is stated, closely approaches 50 per cent.

A further illustration of the need for passing into law of the Bill approved by the Council of the British Medical Association at its last meeting, to give Poor-law medical officers in Scotland the right to appeal to the Local Government Board of Scotland in case of dismissal by parish councils, is afforded by a motion brought forward at a recent meeting of the Medical Committee of the new amalgamated Glasgow Parish. We are informed that on that occasion a motion was made to dismiss the whole of the medical staff, sixteen in number, and advertise the appointments as vacant. We are glad to learn that when the proposal came before the parish council as a whole this extraordinary proposal was rejected by 25 votes to 5.

Edinburgh City Nurses' "At Home."—The Town Council of Edinburgh gave their annual "at home" to the nurses of the City Hospital for Infectious Diseases on March 15th in the music hall and adjacent assembly rooms. The company, to the number of between 500 and 600, was received by Bailie Kinloch Anderson, in the absence abroad of the Lord Provost Mitchell Thoms, the Convener of the Public Health Committee (Bailie Pollard), and several other members of the city corporation. Nurses from over twenty hospitals or nursing institutions in the city and district were present. Dancing, music, cinematographic exhibitions, etc., made the evening from 7.30 till midnight very pleasant and enjoyable. The nurses appeared in their respective uniforms.

Medico-Psychological Association.—The spring meeting of the Northern and Midland Division will be held at the County Asylum, Hatton, near Warwick, on Wednesday, April 12th, 1899. A discussion on "The Nursing Staff in Public Asylums" will be opened by Dr. Macphail, of Derby Borough Asylum. A paper will be read by Dr. Wilcox, Senior Assistant Medical Officer, Hatton Asylum, Warwick, on "Some Cases of Insanity treated by Various Animal Extracts." In order to enable members to see something of Shakespeare's birthplace, it is proposed to have a slip coach attached to the 12.20 train from Snow Hill Station (G.W.Railway), Birmingham, which will go through to Stratford-on-Avon. After spending two hours at Stratford, means will be provided for conveying members to Hatton Asylum in time for the meeting at 4 P.M. Dr. Miller kindly invites members to dine with him at the asylum at 6.30 P.M.

Dinner to Dr. John Wyllie.—The members of Professor Fraser's clinic at Edinburgh entertained Dr. J. Wyllie at dinner on March 16th, when Mr. Arthur Preston presided over a company of between seventy or eighty. Mr. T. Grainger Stewart and Mr. Ramsey Munro acted as croupiers; Dr. Slight and Dr. Gilmour, the resident physicians, were also present as guests. In proposing "The Health of Dr. Wyllie," the Chairman said that at the time when Professor Fraser announced that Dr. Wyllie would discharge his duties he was known to the present generation of medical students only by reputation. They now knew how well earned was that reputation. Personal contact with Dr. Wyllie had endeared him to all who had the fortune to be members of his clinic. Dr. Wyllie, in replying, expressed the pleasure it had been to him to be once again among medical students, whom he delighted to teach and have around him. Professor Fraser's health was proposed by Mr. Bashford. Mr. Munro proposed "The Ward, its Residents, and Nurses," Dr. Slight, Dr. Gilmour, and Mr. Stewart replied. "The Health of the Chairman" was proposed by Dr. Wyllie. Members of the company provided singing and music, and a most enjoyable evening was spent.

The Climatological Laboratory of the University of Mexico.—During the past two years the University of New Mexico has been carrying on a scientific investigation of the climatology of the Mexican plateau, especially with respect to its beneficial effects in cases of tuberculosis and analogous diseases. Statistical information has been collected and special studies in the variation in vital capacity among students in the University and the public schools of the territory have been carried on. The biological and bacteriological departments, under the special direction of President Herrick and Professor Weinzirl, have taken up the study of air and water and the conditions of sepsis, etc. It has been hoped to extend this investigation to include the physical and chemical characteristics of the climate, and also a study of the blood changes due to altitude, with special reference to the virulence and curtailment of the diseases in question. Not long ago Mrs. Walter C. Hadley made to the University a proposal to give the sum of $10,000, to be used towards the erection of a building to contain the laboratories for these and allied researches. The gift is made conditional upon the authorities raising a further sum of $5,000 for the completion of the building and a similar sum for equipment. The Regents have agreed to establish the chair necessary to continue and prosecute the research, and have undertaken to do their best to obtain the supplemental moneys required by the terms of Mrs. Hadley's donation.

MEDICAL VACANCIES.

The following vacancies are announced :—

BELGRAVE HOSPITAL FOR CHILDREN.—House-Surgeon. Appointment for six months. Board and residence provided, and allowance of £5. Applications to the Secretary, 77 and 79, Gloucester Street, S.W., by March 29th.

BIRMINGHAM: GENERAL HOSPITAL.—Two Assistant House-Physicians. Appointments for six months. Residence, board, and lodging provided. Applications to the House Governor by April 1st.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Ophthalmic Surgeon. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by April 5th.

BRACEBRIDGE ASYLUM, Lincolnshire.—Senior Assistant Medical Officer, unmarried, and not over 30 years of age. Salary £50 per annum, with furnished apartments, board, attendance, and washing. Applications to Mr. W. T. Page, jun., Clerk to the Visitors, Bank Street, Lincoln, by April 3rd.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Fourth Resident Medical Officer, unmarried and under 30 years of age. Salary, £30 per annum, with board, washing and residence. Applications to the Secretary by March 29th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Board, residence, etc., provided. Applications to the Secretary by April 10th.

CHARING CROSS HOSPITAL, W.C.—Resident Medical Officer. Salary, £100 per annum with board and residence. Applications to the Secretary by March 27th.

CHELTENHAM GENERAL HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £40 per annum, with board and lodging. Applications to the Honorary Secretary by April 8th.

CHESTER COUNTY ASYLUM.—Junior Assistant Medical Officer, unmarried, and not more than 30 years of age. Salary, £120 per annum, rising to £150; also Pathologist. Salary, £150 per annum. Board, lodging, and washing provided in each case. Applications to Dr. Lawrence, County Asylum, Chester, by April 13th.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House-Surgeon; unmarried. Salary, £100 per annum, with furnished rooms and attendance. Applications to the Secretary by March 29th.

DERBY COUNTY ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, rising to £120, with board, lodging, and washing. Applications to Mr. B. Scott Currey, St. Michael's Churchyard, Derby, by March 30th.

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL, E.—Medical Officer for the Casualty Department. Appointment for six months but renewable. Salary at the rate of £100 per annum. Applications to the Secretary by April 15th.

FOLKESTONE: VICTORIA HOSPITAL.—House-Surgeon. Salary, £30 per annum, rising to £100, with board, residence, and washing. Applications to the Secretary by April 8th.

GLASGOW EYE INFIRMARY.—Resident Assistant House-Surgeon. Salary, £50, with apartments and board. Applications to the Secretary, 88, West Regent Street, Glasgow, by March 28th.

HOLBEACH UNION.—District Medical Officer and Public Vaccinator. Salary, £50, and usual fees. Applications to the Clerk to the Guardians by April 5th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Resident House-Physicians. Applications to the Secretary by March 29th.

HOSPITAL FOR WOMEN, Soho-square, W.—Assistant Physician. Applications to the Secretary by April 6th.

ISLE OF MAN LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100, with laundry and board. Applications to Dr. Richardson, Lunatic Asylum, Isle of Man.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for twelve months subject to re-election. Honorarium, £42. Board, residence, and washing provided. Applications to the Secretary, 34, Friar Lane, Leicester, by April 10th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months. Salary, £25, with board and lodging. Applications to the Honorary Secretary by March 31st.

LONDON TEMPERANCE HOSPITAL, Hamstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Residence, board, and washing provided, and honorarium of £5 5s. Applications to the Secretary by March 28th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Junior Non-resident Medical Officer. Appointment for six months. Honorarium at the rate of £45 per annum. Applications to the Secretary, 41, Fitzroy Square, W., by April 6th.

NORTH RIDING ASYLUM, Clifton, York.—Junior Assistant Medical Officer. Salary, £110 per annum rising to £150, with board, lodging, washing, and attendance. Applications to the Medical Superintendent.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Honorary Anæsthetist. Applications to the Secretary by April 3rd.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 a year, with board and residence. Applications to the Secretary by April 8th.

ROXBURGH DISTRICT ASYLUM, Melrose, N.B.—Assistant Medical Officer. Salary, £100 per annum, with furnished quarters, board, washing, and attendance. Applications to the Medical Superintendent.

ROYAL EYE HOSPITAL, Southwark, S.E.—Assistant Surgeon. Applications to the Secretary by April 4th.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—Surgeon to In-patients and assistant Surgeon to Out-patients. Must be F.R.C.S.Eng. Applications to the Secretary by March 30th.

ROYAL PIMLICO DISPENSARY.—Attending Medical Officer: must reside in the district. Applications to the Secretary, 104, Buckingham Palace Road, by April 3rd.

ST. LEONARD, SHOREDITCH.—Second Assistant Medical Officer for the Infirmary. Appointment for six months. Salary at the rate of £70 per annum, with rations, washing, and furnished apartments. Applications on forms provided to the Clerk to the Guardians, 213, Kingsland Road, N.E., by March 27th.

ST. PANCRAS WORKHOUSE.—Assistant Medical Officer. Salary, £120 for the first year and £135 for the second. Residential allowances (for a single man), and paid substitute during annual leave. Applications, on forms provided, to be sent to the Clerk to the Guardians, Vestry Hall, Pancras Road, N.W., before March 28th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer. Salary to commence £100 per annum, with board, lodging, and washing. Applications to Dr. Finch, the Asylum, Salisbury.

STOCKPORT INFIRMARY.—Assistant House- and Visiting Surgeon. Salary, £70 per annum; also a Junior Assistant House-Surgeon. Salary, £2 per mensem. Board, washing, and residence provided in each case. Applications to the Secretary by April 3rd.

STOKE-UPON-TRENT UNION.—Resident Medical Officer of the Workhouse. Salary, £100 for the first year, £110 for the second, and £130 for the third, with board, washing, and furnished apartments. Applications to the Clerk to the Guardians by April 7th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Resident Obstetric Assistant. Board and lodging provided. Applications to the Secretary by March 29th.

MEDICAL APPOINTMENTS.

ARKWRIGHT, J. A., M.D.Camb., B.C., appointed Medical Officer for the Halesowen District of the Stourbridge Union.

BROWNE, B.S., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer and Public Vaccinator of the Workhouse and Alcester District of the Alcester Union.

BURT, W. C., M.R.C.S., L.R.C.P., appointed Medical Officer of the Torrington Union Workhouse.

CAVE, Edward J., M.D.Lond., M.R.C.P.Lond., appointed Physician to the Royal United Hospital, Bath, *vice* Dr. Fox, appointed Consulting Physician.

COLES, A. C., M.D., appointed Medical Officer of Health to the Winton Urban District Council.

DEJERSEY, E. F. L., M.B., Ch.B.Glasg., L.R.C.P. & S.E., L.F.P.S.G., appointed House-Surgeon to the Mcrpeth Dispensary.

DUN, Robert Craig, M.B., C.M., B.Sc.Edin., M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Surgeon to the Liverpool Infirmary for Children.

FULLERTON, Robert, M.D.Edin., appointed Honorary Consulting Surgeon on Diseases of the Throat, Ear, and Nose at the Greenock Infirmary.

HECTOR, C. Menro, M.D.Edin., appointed Demonstrator of Bacteriology, the University College, Sheffield.

HOBDER, Thomas J., M.B.Lond., M.R.C.P., appointed Casualty Physician to St. Bartholomew's Hospital.

MACKENZIE, D. J., M.D.Aberd., reappointed Medical Officer of Health to the Glossop Dale Rural District Council.

MUSSON, A. W., B.A.Camb., M.B., B.C., appointed Medical Officer for the Workhouse of the Clitheroe Union.

POTTER, B. E., L.R.C.P.Lond., M.R.C.S.Eng., appointed Resident Medical Officer to the St. George Hanover Square Dispensary.

ROBERTS, E. B., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Hawarden District of the Hawarden Union.

THOMAS, J. Tubb, L.R.C.P., L.R.C.S., D.P.H., appointed Medical Officer of Health for the County of Wiltshire.

WRIGHTMAN, E. J., M.B., C.M.Edin., appointed Resident Medical Officer of Walton Workhouse of the West Derby Union.

WHITFIELD, Arthur, M.D.Lond., M.R.C.P., appointed Assistant Physician in charge of the Skin Department of King's College Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Dr. R. Maguire: Death from Functional Nervous Disease. Dr. H. L. Barnard: Certain Points in the Pathology of the Pericardium.

Royal Institute of Public Health, 8.30 P.M.—Mr. W. J. Dibdin: On Sewage Disposal.

TUESDAY.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. Reginald Harrison: Two cases where Multiple Calculi were removed from Large Narrow-necked Sacculi connected with the Male Urinary Bladder.—Dr. C. T. Williams and Dr. H. Horrocks: On the Treatment of Pulmonary Tuberculosis by Anti-tuberculous Serum.

WEDNESDAY.

Evelina Hospital, S.E., 4.30 P.M.—Mr. W. Edmunds: Clinical Demonstration on Surgical Cases. Post-Graduate Course.

THURSDAY.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

HARPER.—On March 18th, at 25, Rosary Gardens, South Kensington, S.W., the wife of James Harper, M.D., of a son.

D'ABREU.—On March 21st, at Rugby House, Holyhead Road, Handsworth, the wife of John F. D'Abreu, L.R.C.P., etc. of a daughter.

MARRIAGE.

HOWDEN—SCOTT.—On March 15th, Benwell Parish Church, Newcastle-on-Tyne, by the Very Rev. the Dean of Durham, D.D., assisted by the Rev. John Robertson, M.A., Robert Howden, M.A., M.B., Professor of Anatomy in the University of Durham, to Gertrude Mary, daughter of the late Alderman John O. Scott, J.P., and Mrs. Scott, of The Cottage, Benwell, Newcastle-upon-Tyne. At home, 24, Burdon Terrace, Newcastle-upon-Tyne, April 12th, 13th, and 14th.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Tu., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, 1.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 2.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.* Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M., F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F., 2; Skin, Tu., 9; Laryng., Th. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9: Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1: Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Tu., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30: Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu., F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

J. S. asks for advice with regard to the climate of Brighton in its relation to dyspepsia. Is it good or bad, and, if the latter, what is the factor?

M.D. wishes to hear of a small book dealing with the subject of medical partnerships.

SMALL-POX HOSPITALS.

M.O.H. asks for any information in reference to any injunction that may have been obtained by private individuals or otherwise in the case of the erection of small-pox hospitals by local authorities, and with special reference to the danger of aërial infection or the alleged damage to adjoining property.

ANSWERS.

MUSSELS.—We advise our correspondent to request that his name should be removed from the advertisements of the Lodge.

DR. J. C. REEVE.—We have received from various correspondents a number of similar letters. Nothing is known as to the personality of the writer.

C. E. P.—We regret that, in view of the very numerous demands on our space, the suggestion which our correspondent makes is found to be impracticable.

G. H.—We do not see that there could be any objection to a dispenser who is duly registered as a dentist performing dental operations in the surgery of the medical man who employs him as a dispenser.

GLADIATOR.—Particulars as to medical practice in Canada will be found in the BRITISH MEDICAL JOURNAL of August 27th, 1898, p. 570. A *Medical and Surgical Directory* of the United States and Canada is published annually by Messrs. J. B. Flint and Co., of New York.

OCULENS.—(1) The vulcanised pad should be sewn inside the patient's boot beneath the instep, and should be bevelled to fit the foot at that spot. (2) The case is a difficult one, and the patient should be advised to consult an aural surgeon.

CAPT. I.M.S.—Some few years ago someone started the idea that the haircurlers mentioned injured the sight, and as a result surgeons both at the hospitals and in private were asked by everyone what substitute could be found. So far as we are aware, however, there is no foundation for the suggestion.

G. H. B.—We consider that the practice of giving courses of ambulance lectures without fee is open to many objections, and that it is far better to make a stated charge, which might be fixed in relation to the fee usually made by the St. John Ambulance Association for similar lectures.

ANXIOUS INQUIRER.—Various methods of embalming were described in the BRITISH MEDICAL JOURNAL of May 28th, 1898, p. 1403. In the *Edinburgh Medical Journal* of September, 1890 (vol. XXXVI. p. 297), the late Sir John Struthers described a method of embalming for which he claimed the advantages of efficiency, simplicity, and cheapness.

FALCON.—At present a medical man holding British qualifications is allowed to practise in Italy, but only among his own countrymen. An attempt is being made by a section of the Italian profession to make the possession of an Italian licence compulsory on foreigners as a condition of medical practice of any kind in Italy.

M.B.—There is nothing unprofessional or contrary to any rule of ethics in attending patients on a fair contract system. It would be impossible to say what would be a reasonable charge unless all the circumstances of the particular patient were known, and our correspondent would be better able to arrange this for himself. The basis on which it should be assessed would be the wage earnings of the patient, or as suggested, the wages earned by the entire family.

R.C.P.—Presuming that a "livery" patient requires the action of sulphated alkaline waters, Carlsbad would be the best health resort, and its hotels open in the middle of April. The waters are accessible earlier, but the accommodation before the middle of April is limited. Aix-la-Chapelle, with its sulphur and saline waters, exercises a good influence in liver affections, though it is principally used for syphilis. It is open all the year round, and with its pleasant promenades and drives, might suit R. C. P.'s purposes. Few foreign health resorts open before May.

SANATORIA FOR THE OPEN-AIR TREATMENT OF PHTHISIS.

W. D. and E. W. J. will find particulars in the BRITISH MEDICAL JOURNAL of January 28th, 1899, p. 247, and February 4th, 1899, p. 324.

F. V.—Some information will be found in the BRITISH MEDICAL JOURNAL of September 3rd, 1898, p. 667; October 29th, 1898, p. 1383; November 19th, 1898, p. 1599; January 28th, 1899, p. 247; and February 4th, 1899, p. 324.

BOOKS ON STAMMERING.

Q.—Our correspondent might consult either of the following pamphlets: *Stammering: Its Nature and Treatment*, by Emil Behnke, London: Fisher Unwin, 1893, 1s. *Stammering, Stuttering, and other Speech Affections*, by W. Abbotts, M.D., etc. (London: Savoy Press, 1898, 1s.) The more scientific account of the matter is to be found in the chapter on the Treatment of Stammering in the large book on *Disorders of Speech*, by John Wyllie, M.D. (Edinburgh: Oliver and Boyd, 1895, 18s.)

THE COCKADE.

V. D.—In the BRITISH MEDICAL JOURNAL of January 12th, 1895, p. 113, Mr. G. Ambrose Lee (Bluemantle), of Herald's College, stated that the opinion given by that College is that the privilege appertains and is confined to the naval and military services, including the militia, yeomanry, and volunteers, but that every officer, whatever his rank, as long as he holds Her Majesty's commission, has a right to mount, in the person of his servant, a cockade. The reply evidently alludes to the military cockade only. The civil cockade may be worn by all magistrates placed on the Commission of the Peace by the Lord Chancellor. It is an open question at present whether those who are magistrates by virtue of their being chairmen of district councils, and thus magistrates by Act of Parliament, are entitled to use the cockade during their term of office.

MORTALITY OF CHILDBED.

J.D.L.—We may refer our correspondent to a paper on Pregnancy to Relation to Life Assurance contributed to the Section of Medicine at the annual meeting of the British Medical Association at Edinburgh, by Dr. John Playfair and Mr. T. Wallace. The paper, together with a discussion on it, will be found in the BRITISH MEDICAL JOURNAL of September 17th 1898, pages 766-769. The mortality of 25,308 cases of labour attended by the Guy's Hospital Lying-in Charity was recorded by Dr. Horrocks as 3.4 per 1,000 for the ten years, 1875 to 1885. Statistics of the death-rate for primiparæ are difficult to obtain.

THE TREATMENT OF DANDRUFF.

C. B. writes: In answer to "Sapoo," the following method might prove effectual if it has not been already tried: (1) Disinfect the scalp thoroughly with 1 in 2,000 mercury perchloride for, say, three days. (2) Then use sulphur, which is so useful in all sebaceous affections, and combine with it an antiseptic, as: ℞ Sulph. precip. gr. xv; acid. carbol. mxv; vaseline 5j. and add some scent if desired, such as oil of lavender or bergamot. When this has been used for a week or two the scent usually disappears and the condition of the hair is improved. (3) All brushes, combs, hat-linings, etc., should receive antiseptic treatment. (4) Washing with the perchloride and the use of the ointment should be repeated from time to time, say once a week.

CANVASSING.

M.D. writes: A firm of surgeons in this locality hold an appointment of medical officers to the Manchester and London Assurance Company. The canvassers of this company proceed from house to house to obtain members. I hear the premium is from 2½d. a week, of which their doctor gets 1s. a quarter. This might not be so reprehensible in the slums, but surely there is no excuse for anything of the kind in a residential district.

F. W. D. McG. writes: Why does not the British Medical Council do something with reference to the medical aid and canvassing, so as to strengthen the hands of the General Medical Council to get them to put a stop to this constant sweating of the profession?

⁂ Our correspondents refer to a subject which has engaged the attention of the Council of the Association. The Council has expressed itself decidedly against those medical aid associations which canvass, and is prepared to consider specific complaints properly supported by evidence against any member of the Association who employs canvassers for patients, or is an officer of a medical association which does so. The Council has endeavoured to organise throughout the Association ethical committees to take cognisance of such breaches of professional good conduct. There is no reason to doubt the intention of the Council to back up the action of such ethical committees in endeavouring to enforce upon members of the Association conformity with the rules laid down; but the Council is not the body in which complaints of this sort should be initiated, and it is not the business of the Council to seek for evidence and to be at once the prosecutor and judge of the conduct of members. The Council has done its best to provide the machinery, and will when called upon play its part, but it remains for members to do their share towards bringing offenders to book.

NOTES, LETTERS, Etc.

REICHARDT FUND.

DR. G. H. SAVAGE (3, Henrietta Street, Cavendish Square, W.) writes to acknowledge the following further subscriptions to this fund:

	£	s.	d.
F. Niel Gandin	2	2	0
O. W. Berry	1	1	0

ERRATUM.—In the list of subscriptions to the Kanthack Memorial Fund published last weeks, the name of Dr. McCook Weir appeared as Dr. McWeir.

THE LORD CHANCELLOR'S LOGIC.

T.A.P. writes: The Lord Chancellor is reported in your columns to have said in his reply to the deputation on incipient insanity: "If people disobeyed the law, that seemed to him to be a reason for making the law more stringent. The law of larceny would not be abolished because, notwithstanding all laws against larceny, people still stole. Such a line of legislation could not be followed." This is surely a line of argument more plausible than logical. A failure to comply with the requirements of the lunacy law is compared with a disregard of the law of larceny. In breaking the larceny law a man breaks a fundamental moral law. In breaking the lunacy law a man commits an offence which the law itself has created, and in which the moral sense is not violated. The plea that disregard for the law of larceny should be a reason not for relaxing or modifying the law but for making it more stringent, is valid simply because the law of the land is in that case one which enforces an elementary moral obligation. The lunacy law, on the other hand, lays down a particular method of procedure, not right or wrong in itself, but carrying with it certain inconveniences which lead people to evade it. This evasion naturally suggests the desirability of modifying that method, which is thus proved to be an inefficient means of securing the end of law. The plea that such evasion of the lunacy law is a ground for greater stringency can only be valid when it is proved that the requirements of the lunacy law are of a nature as essentially moral as the command-

ment, "Thou shalt not steal." This the Lord Chancellor's argument assumes.

But if this high ground is to be taken with regard to the lunacy law, why not also with regard to the vaccination law? This law, too, was evaded by a section of the public. The Government of which the Lord Chancellor is a member did not consider that a reason for making it more stringent, but for making numerous modifications and concessions, including a so-called "conscience clause." One is tempted to ask (*en passant*) why a conscience clause should not be inserted in the larceny law?

The real reason why one principle is applied to the lunacy law and its opposite to the vaccination law is to be found in the Lord Chancellor's words: "He could not agree with anything that would tend to diminish the safeguards of the liberty of the subject." The liberty of the subject is the fetish of British legislators. For fear of touching it incipient lunatics may be allowed to go stark mad. Equally, for fear of seeming to touch it, the fads of antivaccinationists must be respected and our magistrates empowered to grant licences to contract and spread small-pox.

INHALATION OF FORMALIN: THE TREATMENT OF TUBERCULOSIS.

MR. J. LARDNER GREEN (Salisbury) writes: I have read with great interest Dr. Murrell's report on the Action of Volatile Substances on the Growth of the Bacillus Tuberculosis and in the Treatment of Phthisis. It is very satisfactory to know that the pursuit of this subject has been so thoroughly followed up, as I have for some years past investigated this line of treatment, and published in the BRITISH MEDICAL JOURNAL of November, 1896, my short memorandum on Inhalation of Formalin in Catarrh and other Diseases of the Respiratory Tract. There I allege that the most rational treatment of phthisis is that of giving a germicidal inhalation of formalin—that is, a 40 per cent. aqueous solution of formaldehyde gas, a few drops of which were sprinkled in a Jeffery's respirator; by this a reduction of the bacillus in the sputum is observed, and in early cases a great improvement and often a recovery results.

From direct personal experience I strongly recommended a trial of formalin, adding of course every subsidiary aid—for example, tonic medicine, careful dieting, and every attention to hygienic surroundings should not be omitted.

INCENDIARY MICROBES.

THE cause of the so-called spontaneous outbreaks of fire in stacks remained for ages a sealed mystery. It has remained for the bacteriologist to unravel the cause of these conflagrations. M. Jean de Leverdo, in an article on the subject in *La Nature*, recalls the fact that such combustions, as is well known to farmers, occur most frequently in stacks of insufficiently dried materials. In the presence of moisture the bacteria present in the fodder grow with marvellous rapidity. This growth is accompanied by the generation of heat. At the same time fermentation processes are set up, which transform the material into carbonaceous matter, porous and very light. But the chemical processes are also attended by the liberation of heat, consequently a temperature may be reached which has been estimated at 300°. Owing to the insufficiency of oxygen in the middle of a stack the material consumes without flame, but should a sudden access of oxygen be permitted, oxidation proceeds with greatly accelerated rapidity, the temperature rapidly increases, and the supply of oxygen being sufficient, the whole superheated, highly-combustible mass suddenly bursts into flame. M. de Leverdo states that in order to guard against such a result M. Benesch, an Austrian agriculturist, has invented a long iron prong, with which small quantities of the material in the centre of the stack can be brought to the surface and then examined, and at the same time the temperature of the interior be roughly estimated by touching the prong after leaving it in the centre of the mass for ten minutes.

DERMATITIS CAUSED BY RHUS TOXICODENDRON.

MR. LOUIS E. STEVENSON, M.B., B.C., Cantab. (Temple Sowerby, Penrith) writes: With regard to this interesting case related by Dr. Frank Nicholson in the BRITISH MEDICAL JOURNAL of March 4th, 1899, the following facts may be interesting. The shrub in question belongs to the sumach tribe which is widely spread over the temperate and hotter regions of the globe, but is not represented in Great Britain. The rhus toxicodendron, or poison oak, is a native of North America, and was introduced into this country in A.D. 1640. Like its relation, the rhus vernix, it is poisonous to some people, though in a less degree. Kalm relates that of two sisters one could manage the tree without being affected by its venom, whilst the other felt its exhalations as soon as she came within a yard of it; it had no effect upon him, although he had made many experiments on himself. On one occasion the juice was squirted into his eye without causing any inconvenience; but in another person whose hand he covered over with a thickish layer of the juice, the skin a few hours afterwards became as a piece of tanned leather and peeled off subsequently in scales. The rhus vernix, as I indicated before, is very poisonous to certain individuals, producing severe dermatitis, followed in some instances by pustulation.

PHOSPHATURIA.

DR. ALEX. W. STIRLING, M.D.Edin., D.P.H.Lond. (Atlanta, Georgia) writes: Your correspondent on the subject of Tessier's "phosphatic diabetes," Dr. Owen Snow (BRITISH MEDICAL JOURNAL, February 18th), is, I think, mistaken in concluding that there was any increase in the phosphatic excretion from his patient simply because earthy phosphates were deposited in the urine, and without a quantitative analysis. I have had some correspondence with you on this subject before, when I remarked that in some persons a vegetable diet or alkaline drugs will soon produce this condition, the deposit in my opinion taking place in the kidney, because it not infrequently happens that pyriform gravel may be observed as part of it, probably small casts from the calyces. But then there is by no means of necessity an increase above the normal in the actual quantity of phosphatic excretion; in fact, I am convinced from frequent examination that this is the exception. The deposit means simply that, for some reason frequently associated with dyspepsia, at the time of its formation the renal secretion was too deficient in acidity to keep the phosphates in solution.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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REMARKS
ON SOME MODERN MEDICAL ASPECTS OF LIFE ASSURANCE.*

By Sir PETER EADE, M.D., F.R.C.P.,
Consulting Physician to the Norfolk and Norwich Hospital.

In these changing times of medical knowledge and medical opinions, and with the more exact power of differentiation of many classes and forms of disease which we now possess, it could not be but that the bearing of these later views upon proposals for life insurance on the part of invalid lives should be such as to require very careful and frequently revised consideration at the hands of medical examiners and referees. I have thought that a short paper devoted to a notice of some of the most salient points in this connection might be acceptable to the members of this Society. As is probably known to most of its members, Mr. Robinson and myself are directors of the Norwich Union Life Assurance Society, and in that capacity the duty has been assigned to us of considering in their medical aspects the various proposals, with medical reports attached, for insurance of lives which are offered to the Society. As such referees our experience has now become very large, and when I state that during the last ten years alone more than 27,000 such proposals have passed through our hands you will readily understand that any opinions we may have formed as the result of this experience rest upon a sufficiently wide basis.

It would, of course, be impossible here to mention more than a very few of the medical points which are gradually forcing themselves upon the attention of the insurance world, and especially upon those who have to examine lives proposing for insurance, or to express their opinion upon their value. I would only remark that so great, and even still increasing, is the practice of life insurance, that it is now as much a necessity for every medical man of whatever grade or wherever located to understand the latest bearings of this branch of professional practice, as it is to keep himself fully acquainted with other modern developments of medical knowledge. The chief subjects in connection with medical examinations for life assurance that I shall touch on are

1. Tuberculosis.
2. Pneumonia and pleurisy.
3. Diseases of the heart.
4. Albuminuria.
5. Glycosuria.
6. Heredity and longevity.
7. Physical development and physique.
8. Intemperate habits.

Tuberculous Diseases.

The recent researches into the communicability of tuberculosis, and its usual propagation from person to person instead of by hereditary influences, have necessarily called the attention of the insurance world as well as of the general public to the hope, indeed the probability, that before long a further marked diminution may be expected in the very heavy mortality which arises from this disease, and which, indeed, has made it one of the terrors of life offices.

Sir Richard Thorne has recently stated that a comparison of the statistics of the years 1851-60 with those of 1890-95 showed that deaths from all forms of tuberculous disease had during that period undergone a diminution amounting for all ages to over 36 per cent., and for pulmonary consumption to over 40 per cent. From this latter about 40,000 persons appear now to die annually in England and Wales. The actual proportion of deaths from this disease varies considerably in different localities, but on the average about 1 death in every 10 is due to phthisis.[1]

Sir W. Broadbent, in a recent lecture at Huddersfield, quoted the returns of that borough for 1897, which showed that of the total deaths occurring in that town (of about 100,000) in that year, no fewer than 222, or 1 in 7.5 of those who died were due to tuberculous disease. Many of these doubtless were in the younger portion of the population, in whom this class of disease appears to be rather on the increase than otherwise. But such figures show how enormously rife tuberculosis still is, and that we must yet wait awhile before any great modification of our views as to insurable risks connected with it can safely be made.

Our great hopes for the future, as we all know, with regard to it lie in the more intelligent appreciation of its nature and chief modes of diffusion; and consequent upon this, in its prevention by improved hygiene by securing that our milk and meat shall be free from specific contamination, and by proper management of expectorated or other discharges by which the infective bacilli are conveyed from person to person.[2] We will at least hope for some further, even if slight, diminution in our mortality records from the curing or respiting of persons already diseased, through the modern treatment of the consumptives by open air, sunshine, and the best hygienic conditions.

Now that the ready communicability of phthisis by the dust of dried sputum is known, many cases of its occurrence in several members of an apparently healthy family, one after the other, or in husband or wife consecutively, are fully explained. There would seem to be a well-grounded expectation that by acting upon this knowledge many lives will be spared, and therefore the total mortality of adults from this disease be sensibly lessened.

In considering the question of heredity in phthisis, we are glad to recognise the sharp distinction that can now be drawn between the old doctrine that tubercle bacilli are transmitted from parent to child, and the new one that the heredity consists only in the tissues of some bodies being so constituted as to form an unusually suitable soil for the bacillus to grow in. For clearly, if the germs of the disease can be kept away, these specially structured individuals will have a much greater chance of survival, even if they be somewhat more delicately-constituted than their neighbours. In this way, again, the tuberculous mortality may be distinctly lessened.

Of course we must for the present act very cautiously. The great hoped-for changes are as yet only in the future. And with regard to the table of insurance rates, it must not be forgotten that the usually accepted expectation of life at the various ages is deduced from the experience of healthy lives, under what is called the Hm. table, and not of diseased ones. And it is probable that comparatively few of those actually consumptive or belonging to the so-called predisposed families would be included in this category. The duty of medical examiners must, therefore, still be to continue in their reports to lay great stress upon the presence of or evidence of special liability to tuberculous disease; and the duty of insurance offices, which have to safeguard the interests of the general body of their insurers, will still be either to reject such doubtful lives or only to accept them with a due and often very heavy rating-up equivalent to the apparent risk involved.

I may mention in passing that the deaths in our own city of about 110,000 persons for 1897 were 2,062, of which number 238 deaths were due to tuberculous disease, or about 1 in 8.5 deaths, and from pulmonary phthisis alone 155, or about 1 in 13.5 deaths.

Pneumonia and Pleurisy.

Perhaps the principal point in connection with these diseases worthy of mention here is the ascertained fact that they both, where not tuberculous, are usually connected with and probably solely caused by the presence of a parasitic micrococcus. In the former the pneumococcus seems to be the disease-producing germ; and in the latter the staphylococcus or streptococcus. And it is right hopefully to note in connection with the common and fatal form of pneumonia so prevalent in Italy and some other Southern countries that Professor Pane has recently not only shown the constant presence of this bacterial germ, but has also brought evidence to show the probability that he has produced a serum that is capable of proving an antidote to this deadly disease. If so, we may fairly hope that we may soon in a similar or analogous way be able to reduce the large mortality which occurs in our own country from inflammation of the lungs—a disease which, as we all know, not infrequently occurs, even here, in an epidemic form.

One other insurance point which I may mention as observed is in connection with pleurisy, and that is the frequency with which previous attacks of pleurisy, usually denominated as "slight," are mentioned in the reports sent to us of those

* A paper read before the Norwich Medico-Chirurgical Society

whose histories show some tuberculous family proclivities. Naturally we regard these previous pleural illnesses, even when restricted to one side of the chest, with some suspicion; but especially so when the pleurisy has affected both sides, and we remember the accepted doctrine that double pleurisy with effusion is in so very large a proportion of cases due to the presence of the tubercle bacillus.

In reference to this point, I would quote Dr. de Havilland Hall, who in his book on *Life Assurance*, recently published, says: "Pleurisy, again, is very commonly of tuberculous origin, and carefully collected statistics have shown that within five years after the occurrence of what was apparently a simple attack of pleurisy, nearly half the patients were dead of phthisis."

Diseases of the Heart.

We are gradually arriving at a better knowledge of diseases of the heart, and are becoming more and more able to differentiate their varying influences for harm upon the individual, and so to appreciate more exactly the depreciation of the value of life which they respectively cause.

It is not so very long ago that, in our daily practice, the discovery of an organic valvular murmur in the precordial region was considered to be the signal for a most serious immediate prognosis, and to require the most exact and precautionary mode of living to avert the probability at any time of sudden death; but in later years we have come to recognise that these murmurs have to be weighed by the light of their cardiac and general effects, as well as by their duration and situation; and so by degrees we have come to see that in life assurance examinations and reports it is necessary and right to take a more discriminating view of this class of ailments, and in many cases to express the opinion that a life thus diseased is not necessarily to be summarily rejected as wholly uninsurable, but that often the insuring office may fairly arrange terms; and these better than were formerly thought to be possible. Of course this improved estimation requires a most careful and exact medical diagnosis. It also implies a careful interpretation of the lesion present, and a note of the cardiac and systemic effects (if any) which it may have produced.

I think I shall not be wrong in saying that the profession is largely indebted to the late Sir Andrew Clark for arousing attention to the improved prognosis in many cases of organic heart disease, which is possible and justifiable. We all know how diligently this question has been since examined and studied by other physicians and pathologists, especially by Dr. Pye-Smith, Sir W. Broadbent, and Sir Dyce Duckworth, whilst I venture to think that Dr. Gibson, of Edinburgh, has treated this subject in a no less learned and practical way.

The general view of the relative importance of these organic valvular troubles appears now to be that the lesion allowing of aortic regurgitation is the most serious; that that producing aortic obstruction is much less so; but that at the mitral orifice obstruction is of more importance than disease allowing of regurgitation. Any opinion founded on these general views must, of course, be checked by the effects already actually produced upon the cardiac muscle itself or upon the other various organs of the body.

I feel quite justified in thus dwelling upon this subject, for in the numerous proposals in which some lesion of the heart is reported, it is no very rare thing for the medical examiner simply to state that a valvular murmur is audible at the apex or base, but to give little or no further information as to any secondary effect it may have produced in the way of hypertrophy or dilatation of the heart walls, or as to its probable past duration or future influence.

The due estimation of cases where *congenital heart disease* is present must also not be forgotten. Examples of this condition are by no means rare in which the patient has upon the whole led a comfortable life, subject only to occasional attacks of cardiac distress upon any special exertion or excitement, and in which life is prolonged to a good middle age. I do not recall, however, any case of this kind in which real old age has been reached, and every such an one is therefore only insurable at an early age, and with a most careful estimation of the whole condition. Such cases seem to be peculiarly suitable for "endowment" insurances.

It follows from what has now been said, that we have arrived at a stage of knowledge on the subject of heart diseases in which we are bound to give a more discriminating prognosis, and must avoid the error of refusing every case of organic heart affection without reference to rates of premium or time for which an insurance is desired.

Renal Disease.

The two most important renal diseases with which life offices have to deal, and which, indeed, are almost always before them, are albuminuria, and diabetes or glycosuric conditions. Both subjects are large, full of unsettled views and changing opinions. But I have only time to refer to them in the briefest manner, and solely with reference to the bearing of modern knowledge upon their insurance aspects.

1. *Albumen in the Urine.*—In the first place there is no doubt that this is always a pathological condition. Perfectly normal urine contains none; and although the seriousness of its presence varies infinitely with the circumstances in which it occurs, yet I think all will agree with the dictum of the late Sir George Johnson that it is always "a danger signal." In earlier times it was supposed always to indicate organic kidney disease, and to be the special sign of "Bright's disease." But later knowledge has taught us how varying are the conditions under which it occurs, and in how many of these it is comparatively harmless and temporary. For example, the observations of Dr. Dukes and others have taught us how frequently albumen may be present in the urine of the young and adolescent, even to the extent of some 20 per cent. or more of the boys of a large public school (there chiefly in the form of what is called "functional albuminuria"): and how it may often be induced temporarily by slight chills, by strong exertion, and even by unsuitable or excessive feeding. Its exceedingly frequent occurrence in many acute diseases or specific fevers is also well known; and we are familiar with the fact that in these cases it commonly passes away in convalescence, along with the other symptoms of these disorders.

But in adults, especially those who have arrived at middle age, the occurrence of albuminuria must—from an insurance point of view—be always regarded as a serious symptom, and one requiring the most careful consideration. As in the young, its presence may be due to a passing attack of pneumonia, influenza, diphtheria, or other acute disease, or to some of those temporary causes already alluded to; and in these cases a postponement of the proposal for a sufficient time may probably show a complete restoration to health. But in many other cases the probability of its presence being due to permanent and organic causes is so great as to render an insurance upon the life, at any reasonable rate, quite incompatible with security to the office. Free habits of living, a chronic gouty condition of the kidneys, lardaceous or tuberculous disease of these organs, the presence of a renal calculus, heart disease, advanced diabetes, and many other organic affections may produce the symptoms, and the discovery of their existence necessarily makes the life ineligible. In all cases of albuminuria, it is unnecessary to say, the use of the microscope is helpful or essential to an exact diagnosis of its cause. Especially is this so in those cases of sedentary or studious young men, in whom it is often found in combination with oxaluria, and where a hopeful prognosis may usually be given, and the life even be accepted at ordinary rates after the recovery which may confidently be hoped for.

2. *Diabetes* is another condition which, like the symptoms of albuminuria, we have of late years been able to regard in a modified manner. Recent researches have shown that a condition of intermittent glycosuria often exists which requires to be discriminated from ordinary confirmed diabetes, seeing that the subjects of it, although always to be regarded as diseased lives, are yet often acceptable for insurance at properly-estimated rates of premium. The form of diabetes, too, which so frequently occurs in stout people at or past middle life, seems to be one which permits of a comparatively favourable estimation. The close relation which has been established between the formation of fat and sugar is very distinct, and it has often appeared as if the system laid on fat as long as possible, and then at a later period excreted the excess of hydrocarbon in the form of sugar. In any case, it is now established that a stout person of 45 or 50 who begins to pass sugar in the urine and is otherwise healthy, may very probably live at least ten or fifteen years, or possibly a little

more, and may therefore be insurable on an endowment policy for shortened periods. Nevertheless, such a life can, of course, never be regarded as a normal one, and must always be judged by the special circumstances of the case, aided by a consideration of the ordinary family longevity or proclivities. It is quite remarkable how often medical examiners report to us the presence of a small quantity of sugar in the urine of persons in whom it was quite unsuspected. In many of these it appears to be a temporary or passing phenomenon, and to have no direct significance. But with our present limited knowledge of its meaning, and the risk of its being a sign of incipient true diabetes, we are bound to err, if at all, on the side of caution, and to postpone acceptance of the life for a sufficient time to establish the certainty of its being a mere passing occurrence. When I was a student, I remember one of our eminent teachers, when speaking of a case of diabetes, saying: "Study this case well, for one case of diabetes is exactly like another, and when you have mastered the facts of this one, you know the disease thoroughly and once for all." How different is such a statement from the present state of our knowledge, which tells us that few pathological conditions are more variable and uncertain in their origin and causation than that of the abnormal excretion of sugar in the urine!

Heredity and Longevity.

The influence of hereditary tendencies and the bearing of the longevity of parents and grandparents upon the probable duration of life in a proposed insurer, is a subject which has quite recently attracted a good deal of attention. A few months ago Dr. Weber brought this matter prominently before the profession, and at the late meeting of the British Medical Association at Edinburgh it was fully discussed. I think I may say that the experience gained at the Norwich Union Life Office fully confirms and harmonises with the views there expressed. This experience tells us that the bearing of the duration of life of the parents upon the probable longevity of the children is a very direct and important one.

Of course, in estimating the vitality or probable longevity of the members of any particular family, we must always consider the age of the parents at the time of proposal; for it is manifest that even where grandparents or great grandparents may be proved always to have died at an earlier age than the average, yet the proposer's parents (and all their children) may be alive, if they at the time have only reached middle life, and yet after a very few years both the parents and an undue proportion of their children may have died off from pure inherited feebleness of constitution and defective general vitality. This knowledge justifies the question now found in many proposal papers as to the age of grandparents or collateral relatives, although its value is somewhat diminished by the vagueness of the knowledge which often exists on this point.

On the question of the average longevity of the British population at the present day, statistics show that this has distinctly increased, and that the expectation of life at birth is greater by some two or three years than in the earlier part of this century. This is in itself very satisfactory, but from an insurance point of view is not quite so helpful as at first sight appears. For, on further examination, the figures show that this prolongation of life is largely in some of the earlier periods, and not an equal increase at all ages. In fact, the calculations show that at some higher ages the average duration of life is actually somewhat shortened. So that in the case of an adult past middle age, the office expectation of life may be somewhat lessened rather than the contrary. On the other hand, in the case of young lives, there will clearly be hope of increased longevity, although this gain will largely be more to industrial and Friendly Society offices than to such as our own, seeing that much of the saving of life has occurred through the better care of childhood and protection of our vast industrial population.

The subject of hereditary longevity or otherwise is of special importance to those offices which, like the Norwich Union, transact business in foreign countries, in some of which the average duration of life is considerably greater than in others, and in some of which also a large and undue proportion of the adults appear to die off not later than 60 or 65, from some of the diseases peculiar to or endemic in the country.

Quite recently the following statement, quoted from the *Bulletin Général de Thérapeutique* was published by our medical journals: "The average duration of life amongst the chief nations of Europe is as follows, the figures being based upon the bills of mortality for the decade 1881—1890:

Sweden and Norway	50 years.
England	45 years and three months.
Belgium	44 years and eleven months.
Switzerland	44 years and four months.
France	43 years and six months.
Austria	39 years and eight months.
Prussia and Italy	39 years.
Bavaria	36 years.
Spain...	32 years and four months."

The Norwich Union Office transacts a limited amount of business in some of these countries, and our general impression with regard to the respective value of the lives coincides to a very considerable extent with the above figures.

It is satisfactory to find that attention is now being strongly directed to the elucidation of the nature and parasitic relations of the malarial diseases which are so common and so fatal in some of the southern countries of Europe. A great deal of work in this direction has been done by British observers, and more recently by some Italian scientists. Professor Koch, with the assistance of the eminent Dr. Baccelli, the Minister of Public Instruction in Italy, has during the past season been engaged in the study of this subject. He "has satisfied himself that in all essentials Italian and tropical malaria are identical."[3] "He has also been able to indicate properties hitherto unnoticed in the pathogenic germ of malaria as found external to man—properties possessing a distinct prophylactic value towards limiting the diffusion of the malady, if not arresting it at its point of origin." Here, therefore, as in most cases, knowledge is power; and it may fairly be hoped that still more certain knowledge as to the nature and preventability of malarial disease may do much in the future to limit its ravages, and so to add to the value of life in the countries in which it is at present so fatally prevalent.

Physical Development and Physique.

As bearing upon the subject of probable length of life, attention may for a moment be called to some recent statements in a letter to the *Times*, signed "M.D.," as to the physical condition of a number of boys examined on their entrance at one of our great public schools. For it is manifest that the more perfect the development and constitution of the youthful individual the greater is the probability of a vigorous and long sustained life; whilst under contrary conditions the probabilities will certainly lie in the opposite direction. It is stated by "M.D." that of 100 boys so examined no fewer than 63 were the subjects in some degree of some physical defect, such as lateral curvature of the spine, pigeon breast, bow leg, flat foot, hernia, or the like, whilst 20 of them were suffering from some form of defective sight and 22 from albuminuria. Such a statement is a strong argument in favour of the present system of regulated recreative and muscular exercises and of suitable athletic training. It is satisfactory to believe that the effect of these is to a large extent to overcome these adolescent defects, and to produce an adult male population far more healthy and normally developed than such statistics would lead us to expect and fear.

Height and Weight.

The tables published as to the proper proportion between these two give a very fair approximation to what is a general standard; but our large experience rather tends to show that at present the average weight for average height there given is rather above what is commonly met with in practice, and the same applies to chest measurements. Dr. de Havilland Hall says: "A margin of 15 per cent. in either direction is admissible under ordinary circumstances. Some authorities allow 20 per cent., but the mortality of the light weights from tuberculosis and other wasting diseases is so great that applicants for assurance who are more than 15 per cent. under weight should only be accepted after a most careful and rigorous examination." With this we shall all fully agree, but with due regard to the experience above mentioned.

Intemperate Habits.

The question of what are called the "habits" of the proposer is too frequently a source of anxiety and watchful

doubt, and I fear there is not much ground at present for relaxation of the usual strict inquiries on this point. In spite of temperance societies and of efforts to educate the public mind, a far too large habitual consumption of fermented liquors, and especially of the strong whisky spirit, still goes on. This constitutes a continual menace to the acceptors of life risks. How great may well be roughly estimated from the favourable reports of those offices which have formed a separate department for abstaining insurers.

Probably more of the disputed cases in the event of early death are in some way connected with concealment of intemperate habits than with all other causes put together. We all know that excess of alcohol destroys the moral sense, and so prepares the mind of an intemperate proposer to make statements which are not justified by actual facts. As medical examiners we are bound to ascertain pretty closely and report the daily habitual consumption of these alcoholic drinks, always remembering that it is not an occasional actual intoxication that produces the greatest deterioration of life, but that frequent taking of alcohol during the day, in whatever form disguised, which is now so common. The sure result is disease or degeneration of the nervous tissues or other organs, and the shortening of the life-expectation proper to the special age, and on which the normal premiums are based.

CONCLUSION.

As we all know, several excellent and most reliable works upon life assurance have been published during the last half-century, notably by Drs. Brinton, Sieveking, S. Thompson, and (quite recently) de Havilland Hall. These are all of great value, and are at present our guides and counsellors in considering the various points, the sum of which regulates our opinions and valuations of the lives submitted for examination.

Somewhat modified views of many insurance risks are already acted on by all the best offices. But in the present times facts of to-day may require tomorrow to be reconsidered by the light of fresh knowledge, and I think I have brought before our Society enough to show that no finality has yet been arrived at in this department of medical science, but that, on the contrary, we shall ere long still further modify many of our views as to the value of diseased lives; and that still increased and more thorough knowledge of many diseased conditions will elevate the practice of insurance of invalid or defective lives into something more like exact science than has hitherto been at all possible or practicable.

Still, at present the only safe way for offices to which invalid risks are offered, is to proceed slowly and cautiously. The security of these offices, and with them the interests of their insurers, are closely bound up in a proper and sufficient estimation of the risks incurred. But, even so, I would repeat that there seems to be good reason to hope before long for at least a more modified view as to the absolute or comparative non-insurability of many of the lives now customarily rejected on account of present morbid conditions or proclivities.

I have thus been able to touch upon only a few of the great medical problems which await the future consideration of doctors, actuaries, and all others engaged in the great business and science of life assurance. Any changes which can be made must necessarily be most carefully thought out, and most discriminatingly acted upon. My purpose to-day will have been answered if I have succeeded in directing your attention, however imperfectly, to some of the great issues with which hereafter we, in our several vocations and localisations, shall necessarily have to deal, and the consideration of which is being continually forced upon our attention.

NOTES AND REFERENCE.

[1] See further and similar statistics given at the meeting at Marlborough House on December 20th, 1898, since this paper was written, in the BRITISH MEDICAL JOURNAL, December 24th, 1898. [2] But it would appear to be not yet proven that these are the only sources of infection. Dr. Manfredi has recently shown the existence of tubercle bacilli in the dust of some of the streets in Naples. [3] *Lancet*, October 8th, 1898.

MEDICAL MAGISTRATE.—The Lord Chancellor has added the name of Dr. West Symes, Senior Surgeon to the Royal Halifax Infirmary, to the Commission of the Peace for the County Borough of Halifax.

A CASE OF TYPHOID FEVER WITHOUT ANY LESION OF THE INTESTINE,

WHICH GAVE THE WIDAL REACTION DURING LIFE, AND FROM WHICH THE BACILLUS TYPHI ABDOMINALIS WAS OBTAINED BY CULTURE FROM THE ENLARGED MESENTERIC GLANDS FOUND AT THE NECROPSY.

BY J. H. BRYANT, M.D., M.R.C.P.,
Assistant Physician and Demonstrator of Pathology to Guy's Hospital.

I PUBLISH this important case, and give a brief review of the few similar cases which have been reported on account of their rarity, as an important vindication of the great value of a positive Widal reaction in the diagnosis of typhoid fever and to show the necessity of making careful bacteriological examinations at all necropsies in which the slightest doubt arises as to the nature of the disease which has caused the patient's death. Necropsies in this country, in the majority of instances, are performed in a most perfunctory manner, a macroscopical examination only of the viscera often being considered sufficient. In this way many points of interest are lost, many erroneous conclusions are deduced, and many opportunities of advancing our knowledge of the causes and nature of disease by research are missed.

With our present imperfect knowledge of the pathological changes produced in the body by the action of micro-organisms, I maintain that a systematic bacteriological examination of the diseased structures should be made in all cases. If cultures had not been taken from the enlarged mesenteric glands in the case reported below, the cause of death would have been assigned in all probability to the broncho-pneumonia, and the diagnostic value of the serum reaction as an indication of typhoid fever would have been depreciated. I am indebted to Dr. Hale White for permission to publish the clinical notes of the case.

Male, aged 1 year and 9 months, was admitted on September 20th, 1898, for diarrhœa and vomiting. The mother stated that previously he had always been healthy. For the first nine months she fed him from the breast, since then on cow's milk, bread and butter, mutton broth, vegetables, and occasionally boiled fish. For some time previous to admission the child was always very thirsty, and in consequence was given a large quantity of milk. In July wasting was first noticed.

Family History.—Father healthy, mother healthy but delicate before marriage; she has had six children and a miscarriage at three months. The six children were all full term. One died of convulsions, aged 7 weeks; another of pneumonia when 7 months old. One sister, aged 7 years, was admitted into Miriam Ward on September 6th, and a brother, aged 5, into Stephen Ward on September 23rd, both suffering from a similar disease to that of the patient.

Present Illness.—Two weeks previous to admission diarrhœa and vomiting came on. A doctor was called in, and the symptoms were relieved by medicine. On Sunday, September 17th, the mother stated that the child appeared to be quite well; on the 18th diarrhœa and vomiting again commenced, but this time the symptoms did not yield to treatment. On the 19th, as the child was worse, he was brought to the hospital and admitted.

Condition on Admission.—Temperature 103.8°, pulse 136, respiration 48. He was very anæmic and wasted, and was noticed to be lying on his side with his legs and head flexed on the trunk. The abdomen was slightly distended and a little rigid. The edge of the spleen could be felt 2 inches below the costal margin. The edge of the liver could also be felt just below the costal margin in the right nipple line. The areas of liver and splenic dulness were increased downwards.

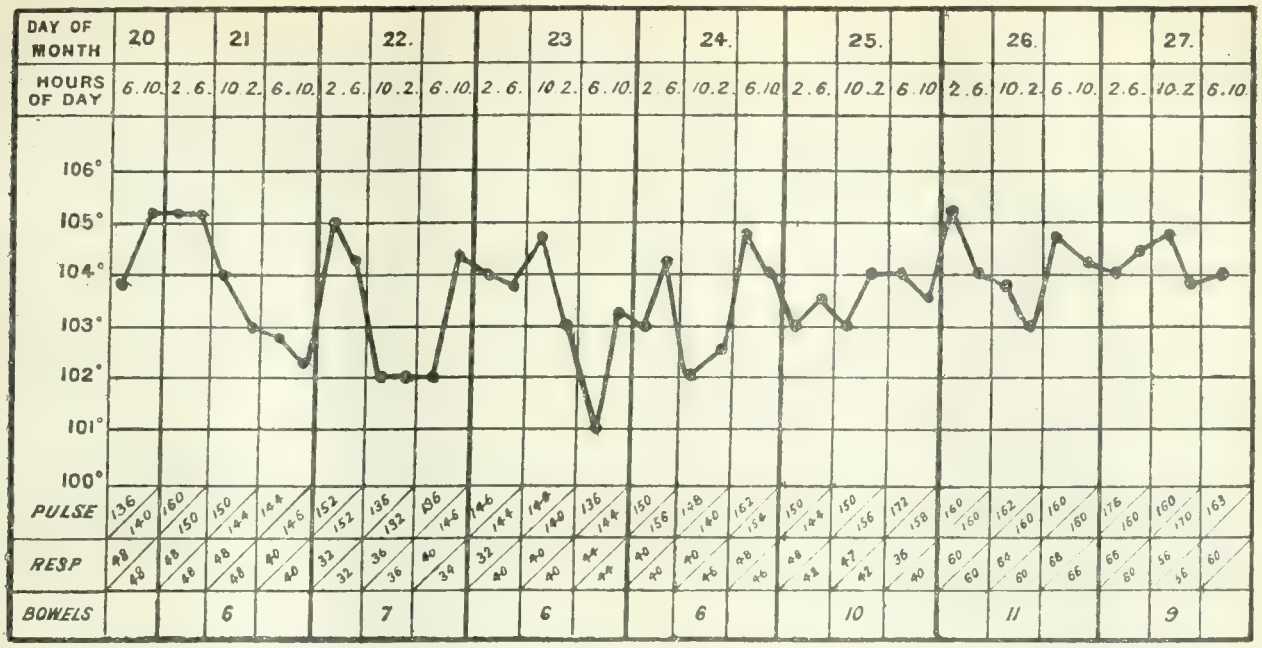
Respiratory System.—A small patch of impaired resonance was found at the right base behind, just below the angle of the scapula. *Râles* and rhonchi were heard all over the chest behind on the right side; over the area of impaired resonance the *râles* were slightly consonating in character. The heart sounds were normal.

October 20th to 24th. The head still remained flexed on the chest. The child was drowsy. *Râles* and rhonchi were still heard over the back. The highest temperature was at 2 A.M. and 6 A.M. on October 21st, when it reached 105.2°, the pulse-rate being 150 to 160, and the respiration-rate 48. The bowels were opened six times on the 21st, seven times on the 22nd, six times on the 23rd and 24th, and ten times on the 25th.

On October 26th the child was a good deal worse, the diarrhœa was very bad, the bowels were opened eleven times, the motions being of a greenish colour and of watery consistence. The temperature again reached 105.2°, the pulse-rate being 160, and the respiration-rate 60.

On October 27th the child was much worse, the bowels were opened nine times, and he was sick all day, being unable to keep anything at all down. The abdomen was very distended. The highest temperature was 104.8° at 10 A.M., the pulse being 150, and the respirations 56. Dr. Washbourn examined the patient and diagnosed typhoid fever. A specimen of blood was subsequently obtained from the patient, and it gave the Widal test, a very smart reaction being obtained both with 5 per cent. and 50 per cent. serum in two minutes. In the evening he became worse, and died at 8 P.M.

Necropsy.—Eighteen hours after death rigor mortis was well marked. There were no signs of decomposition. The body was thin and emaciated. The brain was not examined. There was recent pleurisy over the right



ower lobe and considerable subpleural ecchymosis over the posterior surface of the left upper, and upper part of the left lower, lobes. Projecting from the posterior and outer surfaces of both lungs were numerous yellowish-looking nodules of consolidation, surrounded by hæmorrhagic rings, and varying in size from $\frac{1}{2}$ to $\frac{3}{4}$ inch in diameter. On section they were seen to be early patches of septic broncho-pneumonia; it was expected on cutting into them to find that they were small pyæmic abscesses; they had not, however, broken down.

The heart weighed $1\frac{1}{2}$ oz., and appeared to be normal. The arteries, mouth, pharynx, œsophagus, and stomach were normal in appearance. The ileum also appeared to be normal. There was no ulceration, and the Peyer's patches were not swollen or discoloured. Nowhere in the intestine could any sign of recent typhoid ulceration be found, and there was not any appearance suggesting a healing or healed typhoid ulcer. The peritoneum was normal. The liver weighed 16 ozs., and had a normal appearance. The gall bladder and pancreas were normal. The mesenteric glands were much enlarged, and felt very soft; on section they presented a pinkish-grey colour, and appeared to be in a condition of acute inflammation; there was no sign of suppuration or caseation in any of them. The suprarenal capsules were normal. The kidneys weighed 3 ozs.; they were pale. The spleen was a little enlarged.

Bacteriological Examination.

Cultivations were made from a mass of the enlarged mesenteric glands, a broth tube and agar slant being inoculated from the centre of one of the glands, all possible precautions being taken to prevent any accidental contamination. The broth was kept in an incubator at a temperature of 37° C. In 24 hours it became quite cloudy and turbid. Motile bacilli with rounded ends, the majority being two or three times as long as broad, were found, also a few short oval forms and some very long threads.

On *agar*, after 24 hours at 37° C., a profuse whitish semitransparent growth appeared. A good deal of growth was noticed also in the condensed fluid in the bottom of the tube. Microscopically bacilli were seen similar to those from the broth culture, and they were found to be very motile. They stained readily with methylene blue, but did not retain the stain when treated by Gram's method.

Litmus milk was inoculated from the broth and agar cultures. In 24 hours it had changed to a lilac colour; in 48 hours it had changed to a pink colour and had slightly coagulated.

Gelatine plates were prepared from the broth culture. In 24 hours there was no visible growth; in 48 hours small indistinct colonies were just visible but were difficult to distinguish.

In 72 hours: Plate 1. A large number of small translucent greyish or bluish-white colonies were seen. Plate 2. Fewer but larger colonies similar in colour seen. Plate 3. Still fewer but larger colonies, similar in appearance with rather irregular borders; no liquefaction of the gelatine in any of the plates; no other colonies seen.

An agar culture was made from some of the bluish-white colonies; these colonies examined microscopically showed bacilli similar in character and form to those above described. After 24 hours at 37° C. the agar showed on its surface a profuse growth of raised greyish-white colonies.

A gelatine stab was made from the agar culture, and after 24 hours at 20° C. a few white colonies were seen on the surface of the stab and along the upper part of it. No gas and no liquefaction of the gelatine took place in 24 hours or subsequently.

A gelatine shake was also made. A slight clouding of the gelatine from the growth of innumerable small colonies was found after 24 hours. At the end of 48 hours the gelatine was very cloudy throughout and the colonies were more visible. No liquefaction and no formation of gas took place.

A broth culture was made from the plates. After 24 hours at 37° C. it was cloudy. It did not give an indol reaction. Motile bacilli similar to those described above were found.

A glycerine agar culture at the end of 24 hours at 37° C. showed considerable growth of raised white colonies, and at the end of 48 hours the growth had increased.

Litmus milk was inoculated from the agar culture. In 24 hours a slight change in colour was noticed; in 48 hours a lilac colour was produced. No coagulation occurred, and after several days the lilac colour still remained.

Potato inoculated from the agar culture after 24 hours at 37° C. showed a line of moisture along the inoculation streak. A coverglass preparation stained with methylene blue showed bacilli similar to those described above.

Gelatine and Glycocholate of Soda.—After 24 hours at 20° C. a slight colourless shiny growth was visible. Examined on the fourth day showed a slight increase in the growth, which was still colourless and transparent-looking. Coverglass preparations stained with methylene blue showed long threads and numeroua shorter bacilli with rounded ends and some smaller oval bacilli.

A broth culture was grown anaërobically at 37° C., and at the end of 24 hours the broth was cloudy; there was no gas formation. Microscopically very motile bacilli were found, some with rounded ends two or three times as long as broad, some oval, some long threads, some arranged longitudinally in pairs, and some showed vacuolation in the centre. A drop of 5 per cent. serum from a case of typhoid fever was added to a hanging drop obtained from this broth culture and marked clumping of the bacilli was produced in a few minutes.

Another broth culture was taken from the above, and in 24 hours the broth became cloudy. A hanging drop showed motile bacilli. Two of the hanging drops were treated with 50 per cent. and 5 per cent. serum respectively obtained from an immunised rabbit. The 50 per cent. caused clumping of the bacilli in about 5 minutes, and the 5 per cent. in about 10 to 15 minutes.

A culture of typhoid bacilli was treated in a similar manner with some serum obtained from the same sources, and in a very short time clumping occurred both with the 50 per cent. and with the 5 per cent.

Remarks.

It will be seen from the above account of the case that on the afternoon preceding death Dr. Washbourn diagnosed the patient to be suffering from typhoid fever. The diagnosis was made partly from a consideration of the clinical features, namely, the continuous character of the pyrexia, the diarrhœa, distended abdomen, and enlargement of the spleen, and partly from the fact that his brother, who was lying in Stephen Ward, was similarly affected, and because his blood had given the Widal reaction. A specimen of blood was obtained from the patient after Dr. Washbourn's visit, and the serum which separated gave a very smart reaction, and it was so characteristic that Mr. Pakes, the Demonstrator of Bacteriology to the hospital, expressed a very decided opinion that the patient was suffering from typhoid fever. It was thought

that the illness had commenced about fourteen days previous to admission, so that death was considered to have taken place about the end of the third week from the onset.

Nothing unusual was anticipated before the necropsy took place. It was expected that the usual typical ulceration of the Peyer's patches of the lower part of the ileum would be found, and great surprise was expressed when no swelling, discoloration, ulceration, or other abnormalities whatsoever could be detected in the Peyer's patches, solitary glands, or mucous membrane of any part of the intestine. I thought at first an erroneous diagnosis had been made, and suggested that the symptoms might have been accounted for by the broncho-pneumonia which was found, although the character of the pyrexia was against this view. After finding the enlarged mesenteric glands, I suggested that, after all, it was most probably an anomalous case of typhoid fever without any lesion of the intestinal mucous membrane. Cultures from the enlarged mesenteric glands yielded an almost pure culture of the bacillus typhi abdominalis. The slight clotting of the milk inoculated from the first broth culture taken directly from the glands was probably due to a slight contamination with the bacillus coli communis. It will be noticed that coagulation did not take place until after forty-eight hours and then it was only slight. I could not find any colonies of the bacillus coli communis on the gelatine plates, although I looked and carefully examined for them, so that if present originally the number must have been insignificant. The bacillus obtained from the gelatine plates gave the characteristic positive and negative reactions of the bacillus typhi abdominalis—namely, did not produce gas in any media, did not cause milk to clot, did not produce indol, did not produce acid, did not liquefy gelatine, and further these bacilli obtained from a recent culture and treated with both 50 per cent. and 5 per cent. serum from a typhoid patient, and also from an immunised rabbit, clumped together in a manner characteristic of the bacillus typhi abdominalis.

The occurrence of typhoid fever without the characteristic intestinal lesions has been recognised for some time, and the chief credit for drawing attention to the importance of this condition is due to Osler. In the last edition of his *Principles and Practice of Medicine* he writes, "The wide existence of the typhoid bacilli has been repeatedly shown in cases which had the clinical feature of the disease, but without lesions in the small intestine. Typhoid fever is no more primarily intestinal than is small-pox primarily a cutaneous disease." He divides cases of typhoid fever into four groups:

1. Ordinary typhoid fever with marked enteric lesions.
2. Typhoid septicæmia, a general infection with the bacilli without special local manifestations.
3. Typhoid fever with localisations other than enteric—for example, lesions of the lungs, spleen, kidneys, and cerebrospinal meninges may exist with very slight or without intestinal lesions.
4. Mixed infections.

Brunschwig (1870), Litten, Moore, Church, Coupland, Phillips, and Goodall have recorded cases of typhoid fever without intestinal lesions, but as the diagnosis of these cases rested chiefly on the clinical evidence and the conclusions were not verified by bacteriological examinations, they are of little scientific value. Some of these cases were reported before the discovery of the bacillus typhi abdominalis, and it is therefore interesting to note that the possibility of such anomalous forms of typhoid fever was noticed so long ago. In future, as Chiari points out, the diagnosis of such cases must rest on the presence of the serum reaction and the demonstration of the bacilli.

Banti in 1887 described a case. The patient was a woman, aged 51. During life the usual clinical features of typhoid fever were noticed. Death took place on the twenty-eighth day of the disease. At the necropsy no lesion of the intestine was found, but the spleen and mesenteric glands were swollen. A bacillus morphologically resembling the bacillus typhi abdominalis was found in microscopical examination of sections of the spleen and mesenteric glands, but the bacillus was not identified by its cultural reactions, so that the evidence of the micro-organism being the bacillus typhi abdominalis is not convincing. This is the first case of the kind in which the bacillus typhi abdominalis is alleged to have been found.

Thue in 1889 described a case in which during life the fever was of a recurrent type, and the spleen was found to be considerably enlarged. At the necropsy slight swelling only of Peyer's patches were found. The bacillus typhi abdominalis is stated to have been obtained from the spleen and kidneys, but is not sufficiently identified as such.

Vaillard in 1890 reported the case of a young soldier who died after an illness of three days' duration. The chief symptoms were headache, epistaxis, pyrexia, constipation retraction of the neck, and coma. At the necropsy congestion of the lungs and meninges was found, but there was no intestinal lesion. The bacillus typhi abdominalis was obtained by culture from the spleen, lungs, and spinal cord; streptococci were also obtained from the spleen and meninges.

Karlinski in 1891 recorded three cases which occurred in an epidemic of typhoid fever. The characteristic symptoms of the disease were present during life, and after death no intestinal lesion was discovered; the spleen and mesenteric glands, however, were found to be enlarged. He states that he obtained the bacillus typhi abdominalis in cultivations from the spleen in all these cases. His evidence in favour of the micro-organism being the bacillus typhi abdominalis is not conclusive, however, on account of the insufficient technique of his bacteriological examination.

Guarnieri in 1892 described a case of typhoid fever which during life presented the characteristic symptoms of the disease. No intestinal lesion, however, was found at the necropsy, but the bacillus typhi abdominalis was obtained by culture from the biliary passages, liver, and spleen.

Du Cazal in 1893 recorded the case of a man aged 21, who died on about the twentieth day of the illness, and who during life presented the classical symptoms of typhoid fever—headache, epistaxis, continued fever, rose-red spots, and albuminuria. At the necropsy no lesion of any part of the intestine was found, the mesenteric glands were slightly enlarged, and the spleen was enlarged and weighed 420 grams; double pneumonia was also found. The bacillus typhi abdominalis was obtained in cultures made from the spleen and lungs.

Vincent, in 1893, described the case of a man, aged 35, who died about the twelfth day after the onset of a severe illness characterised by pyrexia, diarrhœa, purpura, and coma. At the necropsy the Peyer's patches were found to be normal; the mucous membrane of the intestine, however, was congested. The spleen weighed 230 grams; the mesenteric glands were not enlarged; bilateral pulmonary congestion was found. The bacillus typhi abdominalis and streptococci were obtained from the spleen, liver, kidneys, and heart.

Du Cazal, in 1894, recorded a case in which during life the ordinary clinical features of the disease were present. No lesion of the intestine or mesenteric glands was found at the necropsy. The bacillus typhi abdominalis was obtained in cultures from the spleen.

Osler mentions a case. The patient was a man, aged 60, who was admitted into hospital under his care. He had been ill for about two months, and on admission was found to be suffering from shortness of breath, and presented signs of pneumonia affecting the lower lobe of the right lung. Death took place twenty-four hours after admission. A diagnosis of senile pneumonia was made during life. At the necropsy the lower lobe of the right lung showed fresh pneumonia passing on to a condition of gangrene. There was no intestinal lesion. The organs were submitted to a bacteriological examination by Flexner, and pure cultures of the bacillus typhi abdominalis were obtained from the lungs, spleen, kidneys and liver.

Beatty, in 1897, reported the case of a man, aged 34, who died on the sixth day of the illness. Death was preceded by jaundice, hæmaturia, and coma. The spleen and mesenteric glands were found to be enlarged, but the intestines were found to be quite healthy. The bacillus typhi abdominalis was obtained by culture from the spleen.

Cheadle, in 1897, recorded a case. The patient was a boy, aged 3 years. During life the characteristic symptoms of typhoid fever were present. A brother and sister of the patient were also under observation, suffering from typhoid fever. On the twenty-first day of the disease a positive Widal reaction was obtained. On the twenty-sixth day of the disease typhoid bacilli were separated from the urine by Parietti's method. He died in the fourth week after the commencement of his illness. At the *post-mortem* examination no ulceration of the intestine was visible, and Peyer's patches appeared to be normal. The spleen was normal in size and appearance. The mesenteric glands were enlarged. The bacillus typhi abdominalis was obtained in cultures made from the spleen.

Nicholls and Keenan, in January, 1898, recorded a very carefully-investigated case. The patient was a man, aged 25. The most important symptoms and signs were headache, loss of appetite, general weakness, pyrexia, distended abdomen, rose-red spots on the abdomen, enlarged spleen and constipation. Cultures were taken from the blood during life, but were sterile. The blood gave the typical serum reaction. Death took place in the sixth or eighth week of the disease. At the necropsy no evidence of ulceration or healed ulceration was found in any part of the intestine. The spleen (375 grams) and mesenteric glands were enlarged and broncho-pneumonia was found. Bacilli, resembling in form the bacillus typhi abdominalis, were found in sections of the spleen, mesenteric glands, and Peyer's patches. Cultures from the spleen gave pure growth resembling the bacillus typhi abdominalis. The bacillus typhi abdominalis was also obtained from the liver. The bacillus tested with typhoid serum gave the typical Widal reaction. They give in their paper, a careful review of the subject, an attempt to explain the reason of the absence of the characteristic intestinal lesions, and draw particular attention also to an important paper by Sanarelli on the experimental production of typhoid fever.

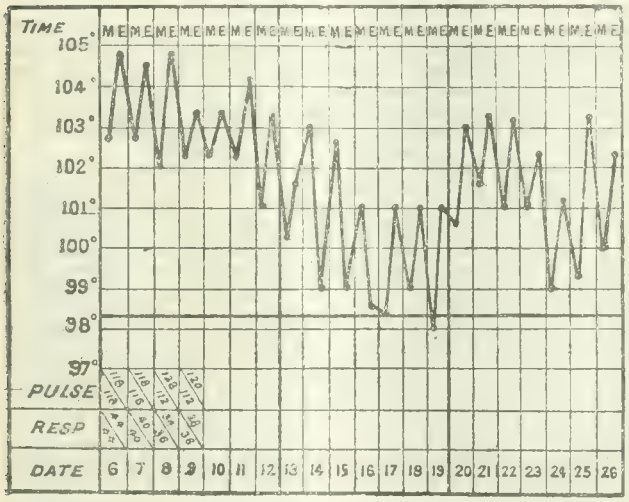
An analysis of the 15 cases shows that this form of typhoid fever without intestinal lesions may affect patients at ages varying from 1¾ to 60 years; 11 of the cases during life presented the characteristic symptoms and signs of typhoid fever, in 1 case the fever was of a recurrent type and the spleen was considerably enlarged, in 1 case purpura was a prominent symptom, in 1 case dyspnœa and signs of pneumonia were found and a diagnosis of pneumonia was made during life, and in 1 case jaundice and hæmaturia were noted. Death took place on the sixth, tenth, twelfth, twentieth day up to the sixth or eighth week from the commencement of symptoms. Enlargement of the spleen was noted in 8 of the cases, enlargement of the mesenteric glands in 9, pneumonia and pulmonary congestion in 5, and con-

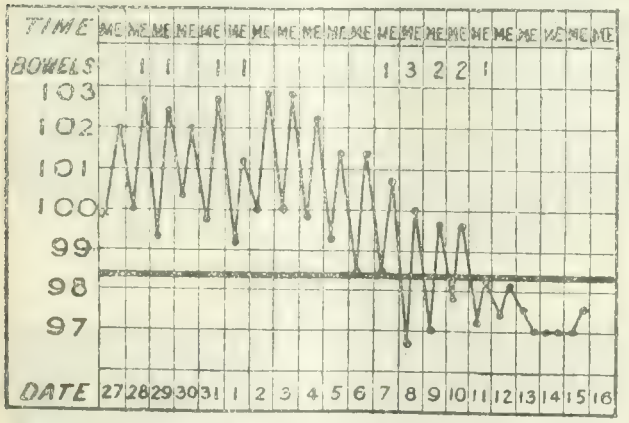
gestion of the meninges in 1. The bacillus typhi abdominalis was obtained from the spleen in 14 of the cases, from the liver in 4, from the kidneys in 3, from the lungs in 3, from the mesenteric glands in 2, from the heart in 1, from the biliary passages in 1, and from the spinal cord in 1.

The above analysis serves to show the possible widespread distribution of the bacillus typhi abdominalis. The fact also that in such a large proportion of these cases the symptoms during life are looked upon as being typical of typhoid fever, indicates that in whatever organ the chief nidus of the growth of the bacillus may be, the resulting toxins will produce the characteristic clinical features of the disease. It is also interesting to note in connection with this last-mentioned point the excessive diarrhœa (*vide* Chart p. 777) which occurred in my case, which again shows, as has often been pointed out, that the diarrhœa has no direct relation, and is in no way dependent on the extent or severity of the ulceration which is usually found.

As an appendix, I add, with the kind permission of Dr. Pye-Smith and Dr. Hale White, the reports and temperature charts of the brother and sister, both of whom were in Guy's Hospital at the same time suffering from typhoid fever.

L.M.W., aged 7 years. Under the care of Dr. Pye-Smith, admitted on October 6th, 1898, for drowsiness and pyrexia. She has had measles, and when a baby had "snuffles," and was much wasted. Some years ago she had a discharge from both ears, which lasted for some months. She has had "cataract" in both eyes. According to the mother she has always been delicate. In May and June last she was in Martha Ward on account of a fractured thigh.





The patient appeared to be quite well on Friday, September 30th, 1898; nothing definite was noticed on the following day, but on Sunday she was drowsy and lying about the house. She had no cough, was not sick, although complaining of nausea. On Monday, October 3rd, she "moped about" and her mother gave her some castor oil. On Tuesday, October 4th, she was in a similar drowsy condition; on the 5th she was brought to the hospital, and was then treated with some sulphate of magnesia medicine. On the 6th she was again brought to the hospital, and was then admitted. She had had epigastric pain and also slight diarrhœa. According to the mother's account the motions were thin and dark.

Condition on Admission.—The pulse was 118, regular, full, and compressible; respirations 40; and the temperature 102.8°. No typhoid spots were visible. The abdomen was full and resonant all over. The spleen could not be felt. The tongue was furred except the middle, tip, and edges, which were red.

October 7th. The patient was sponged two or three times on account of the temperature rising above 105°. The bowels were opened after the administration of a glycerine enema; there was nothing abnormal noted about the fæces. Typhoid fever was suggested as the probable diagnosis.

October 9th. A rather bright red typhoid spot was seen about 3 inches above the umbilicus.

October 10th. No more spots seen; rhonchi heard over the chest.

October 12th. Bowels opened after an enema glycerini.

October 14th. The temperature dropped to 99° in the morning, but again went up to 101.8° later in the day.

October 17th. The spleen was felt.

October 20th. The patient was less apathetic.

October 21st. Bowels well opened.

October 25th. Temperature went up to 103.4.°

October 28th. Spots were again noticed. The temperature went up to 102°. During the last few days she passed a large quantity of urine, and a good deal of it was passed into her bed.

November 4th. The temperature still remained above normal. She was very apathetic.

November 5th. Urine passed more frequently into the bed.

November 7th. The bowels had not been opened for five days.

November 8th. A glycerine enema was administered with very little result; it caused a good deal of straining. A rectal examination was made, and a good deal of hard fæces was found in the rectum. An enema olei olivæ was ordered, and it was to be followed by an enema saponis if necessary.

November 10th. Patient very thin and anæmic; no spots; spleen not enlarged; no bronchitis. A specimen of blood was taken, and the serum gave a smart Widal reaction.

November 13th. The temperature had been normal for three days, and she no longer passed urine into the bed.

November 15th. In the evening her temperature was 96° and her pulse 48: she was very cold and collapsed. Stimulants (brandy, strychnine, ammonia, digitalis, and caffeine) were administered, and her condition improved.

November 18th. Condition improved.

November 21st. Pulse 43, digitalis mixture omitted

November 24th. She was much better.

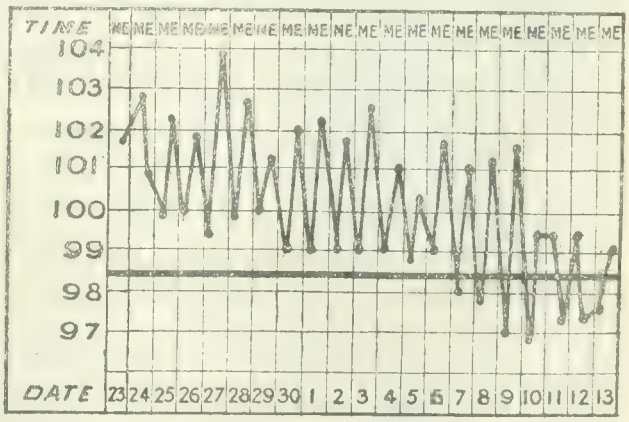
December 2nd. Steady improvement noticed. The brandy was omitted. Since November 11th the temperature had not been above 98.6° until December 1st, when it was 99.2°; this was accounted for by constipation.

December 10th. She was sent to a convalescent home.

A. W., aged 5. Under the care of Dr. Hale White. Admitted September 23rd, 1898, for "pain in the throat and stomach." He had previously suffered from measles and whooping-cough, and every winter he got attacks of bronchitis. About three weeks previous to his admission he was noticed to have lost his appetite and to have become weak and to be suffering from a dry cough; two weeks later he complained of sore throat and abdominal pain. He was unable to swallow solid food, and he coughed and vomited a brownish substance with very foul odour.

On September 19th this vomiting was very persistent, occurring about every hour and a-half.

Condition on Admission.—Apathetic. Pulse 112, regular, and compressible; respirations 28; temperature 101.8°. Tongue furred. Abdomen full; pain in the umbilical region, but not much tenderness. Spleen felt to be enlarged. No typhoid spots found. No abnormal respiratory sounds heard.



October 27th. *A specimen of blood was taken, and the serum which separated gave the Widal reaction.*

September 30th. Patient had no pain. No spots found.

October 3rd. Patient was dull and sleepy. The spleen could still be felt below the costal margin. The abdomen was a little distended, but there was no tenderness.

October 10th. The bowels were opened after an enema.

October 14th. Bowels again opened by means of an enema. Temperature did not rise above 98°.

October 18th. Bowels again opened by means of an enema. Farinaceous diet ordered.

October 25th. His temperature was 99.4° in the morning.

October 31st. He got up for the first time after tea.
November 8th. He was quite convalescent.
November 10th. He was sent to a convalescent home.

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THE PATHOLOGY OF GAS POISONING, ILLUSTRATED BY FIVE RECENT CASES.

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THE following cases of poisoning by lighting gas occurred in Belfast in October, 1898, and January, 1899. I was asked by the coroner to examine the bodies, and in each case an exact determination was made of the percentage to which the hæmoglobin of the blood was saturated with carbonic oxide, the details of which are here recorded. As far as I am aware, no similar determinations have hitherto been made in cases of gas poisoning.

The lighting gas supplied in Belfast is a mixture of coal gas with about 40 per cent. of carburetted water gas. This mixture contains about 16 per cent of carbonic oxide, whereas the coal gas contains only about 6 per cent. Water gas is now being extensively used in this country, and the serious extent to which its admixture with coal gas increases the risks to the public has just been reported on by a Home Office Departmental Committee.

On October 4th, 1898, S. H., a young woman, went to bed at 8.30 P.M., and was found dead at 6 next morning. The room occupied was of about 330 cubic feet capacity. It had no chimney. The ventilation by door and window was relatively small, as they were close fitting. The gas was found turned half on when the deceased was discovered.

Post-mortem Appearances.—A large amount of froth was observed about the mouth and nose. The lips were pink in tint. There was a distinct pink colour in the skin of the dependent parts. The left hand was extended. The right hand was flexed. *Post-mortem* rigidity was well marked.

Internal Appearances.—No pleuritic or pericardial fluid. Right heart collapsed; left heart moderately rigid. The cavities of the heart were nearly empty of blood. A few drops of blood were allowed to fall into a vessel of water, and at once showed the characteristic pink tint of carboxyhæmoglobin. The lungs were slightly congested, but there was no œdema. The larynx and trachea were congested, and had a very pink appearance on the mucous surface. Some frothy mucus was in the bronchi. Emphysema very slight. The stomach contained half-digested food. The intestines had a diffused scarlet tint. The kidneys and liver were congested, but otherwise normal. The meninges of the brain were markedly congested. There was complete absence of any lesion to which death could be ascribed except the saturation of the blood with carbonic oxide.

Samples of the blood were taken in sealed tubes, and examined by the carmine method as soon as I had reached the laboratory. It was found to be 83 per cent. saturated with carbonic oxide. The conclusion was therefore perfectly clear that the patient had died from poisoning with carbonic oxide.

On January 4th, 1899, two fatal cases of gas poisoning occurred. A maidservant and two children had gone to bed in an attic room about 11 o'clock at night, and were discovered next morning shortly before 10 o'clock. The cubic capacity of the room was about 1,000 feet. There was a window, but no fireplace in the room. The floor and walls were imperfect in construction, and ventilation was probably fairly good. One child was discovered alive, and Dr. McHarry, by artificial respiration and other means, succeeded in restoring it. The other child and the maidservant were dead.

Post-mortem Examination of M.A. (Maidservant).—The lips and conjunctivæ were pale. There was froth at the mouth and nose. There was a bluish-pink lividity on the dependent surfaces. *Post-mortem* rigidity was well marked. The body was scarcely cold twenty-four hours after its discovery. The muscles were red on incision. About 8 ounces of pink serous fluid was found in the left pleural cavity, and about 6 ounces in the right. About 2 ounces of a similar fluid was found in the pericardial sac. The lungs were pink in colour, and in both there was subpleural emphysema. There was a large amount of frothy mucus in the bronchi. The larynx and trachea were injected and pink in colour. There was no œdema or congestion of the lungs. The stomach and intestines were pale pink in colour. The stomach contained fluid food and its internal surface was pale. The œsophagus and spleen were blue. The liver and kidneys were redder than normal on their cut surface. The meninges of the brain were congested and bluish-red in colour, but otherwise normal. The brain substance was normal.

Samples of the blood were taken from the right auricle, and on examination by the carmine method were found to be 76.6 per cent. saturated with carbonic oxide.

Post-mortem Examination of M. C., aged 4 Years.—The appearances were similar to those of the case just described. There were some punctiform hæmorrhages on the surfaces of both lungs, but no subpleural emphysema. There was, however, some vesicular emphysema in both lungs; otherwise the two cases were practically identical in their appearances.

The blood was examined by the carmine method, and was found in this case to be 69.5 per cent. saturated with carbonic oxide. The conclusion was, therefore, that in these two cases also death was due to carbon monoxide poisoning.

A point of interest in connection with these cases was that a young man who slept in an apartment, separated by a lath and plaster wall alone from that in which the escape of gas had occurred, also suffered from the effects of the gas. He was able to move about when he was discovered, and walked without assistance into the ambulance, which conveyed him to the Royal Hospital. Twenty-four hours later he had not completely recovered, and had no recollection of the occurrence, or of being brought to the hospital. It is probable, however, that the exertion he was allowed to make had a considerable effect in aggravating his condition.

On January 10th two cases of gas poisoning occurred. One of these was a woman aged 72, who had retired to bed about 11 P.M., and was found head at 8.45 next morning. The other was a young child sleeping in the same room, who was breathing when discovered, and was still alive when Dr. Tomb arrived. I am indebted to him for the following notes of the clinical condition of the case, and of the treatment he administered: "The child when I arrived was lying motionless and unconscious. The breathing was laboured, and there was froth exuding from the mouth. It had a cyanotic appearance, and the pulse was quick and thready. It was to all appearance in a dying condition. I wrapped the child in blankets, allowed free access of air to the room, and applied artificial respiration by Sylvester's method. I found a difficulty in this because when the arms were extended the muscles were thrown into a rigid condition from spasm. I administered coffee *per rectum*, and injected ether hypodermically, as the heart seemed to be in a weak, paralysed condition. The child remained motionless, but could be made to cry out when flapped with a wet towel. About three hours after I first saw it there occurred a fit of vomiting, when it died. There had been no sign of improvement during this time." I was requested by the coroner to obtain for analysis samples of blood from the bodies. There was no further *post-mortem* examination.

The blood when examined showed in the case of the woman the distinct pink colour of carboxyhæmoglobin. It was found by the carmine method to be 57 per cent. saturated. The blood of the child, on the other hand, showed merely a recognisable trace of the pink colour and was not more than 5 per cent. saturated. As she had been exposed to at least as poisonous an atmosphere as the woman, there is no doubt her blood must have had at one time approximately the same saturation. The carbonic oxide had, however, disappeared from the blood presumably from the artificial respiration applied by Dr. Tomb.

The saturation in the cases was therefore as follows:

No. 1.— 83 per cent.
No. 2.— 76.6 per cent.
No. 3.— 69.5 per cent.
No. 4.— 57 per cent.
No. 5.— 5 per cent.

This series of cases affords an opportunity for raising some important questions in regard to the pathology and treatment of poisoning by coal gas. As is generally believed, and as was proved experimentally in an investigation which I recently carried out at the request of the Water Gas Committee,[1] the poisonous effect of gas is due to the carbonic oxide and not to the other ingredients present, although there is no doubt that other poisonous bodies are present. The chief of these is probably benzene vapour; the quantity of this, however, which would be present in the atmosphere from accidental leakage would be harmless. Carbonic oxide

is poisonous because of its affinity for hæmoglobin, taking the place which oxygen occupies in the normal process of aëration of the blood. This affinity of carbonic oxide for hæmoglobin is almost exactly 300 times as great as that of oxygen. A sample of blood in a flask exposed to air containing 0.07 per cent. carbonic oxide, and shaken well up so as to absorb the gases until the hæmoglobin is completely saturated, will, when examined, be found 50 per cent. saturated with oxygen and 50 per cent. saturated with carbonic oxide. Similarly, if we breathe air containing 0.06 to 0.07 per cent. carbonic oxide, the hæmoglobin becomes equally saturated with oxygen and carbonic oxide. Speaking generally, the larger the percentage of carbonic oxide present in the air the higher the resulting saturation with this gas. The limit for the circulating blood is reached when its hæmoglobin is so highly saturated with carbonic oxide as to be unable to carry sufficient oxygen to support life. The first case in the series had reached the highest limit which has been observed (83 per cent.). The patient in this case had survived until only 17 per cent. of the total oxygen-carrying power of the hæmoglobin was left unoccupied by the carbonic oxide. The other percentage in the cases is distinctly lower. The same variation in saturation, however, is observed in the blood of coal miners who have died from the carbonic oxide resulting from an explosion in the pit.[2]

Since the most important point in such cases is the saturation of the hæmoglobin by the carbonic oxide, it may be well to refer to the method by which it is estimated. The carmine method was first described by Haldane.[3] The colour of a dilute solution of blood in the normal condition is yellow, but if carbonic oxide be combined with the hæmoglobin it is pink. The intensity of the pink colour in a given sample depends on the relative proportions of carboxyhæmoglobin and oxyhæmoglobin present. It is possible by adding a dilute solution of carmine to normal blood to give it the pink colour of the blood containing carbonic oxide, and if the carmine solution be added from a burette we can measure the amount needed to give a pink of the same intensity as that due to any given saturation with carbonic oxide.

As regards the pathology of the condition, two facts of importance must be kept in view. The first is the effect of the saturation of the hæmoglobin with carbonic oxide is equivalent to that of depriving a person of oxygen by decreasing the amount in the air breathed. The patient poisoned by gas actually suffers from a form of suffocation. When a person exposed to carbonic oxide is found while still breathing and placed in normal air the carbonic oxide is gradually eliminated from the blood so that after some hours it has completely disappeared. The eliminating force is the affinity of the oxygen for the hæmoglobin. This gradually displaces the carbonic oxide, and the higher the percentage of oxygen the quicker the elimination. The case of the child No. 5 is of importance because it is the first on record in which it was proved that in three hours practically the whole of the carbonic oxide had been eliminated from the blood. In any case, when urgent symptoms of suffocation are present, pure oxygen should be administered, or if this cannot be procured, artificial respiration should be performed. It is desirable that the patient should remain as short a time as possible under the influence of the carbonic oxide, and for this reason oxygen should be administered even when the sole advantage would be a hastening of the recovery.

To the second fact—the after-effect on the patient of being nearly suffocated—I wish to call special attention, since it forms the real problem with which a physician has to deal. The more important elements of the after-effect are as follows:

1. A most important effect which the deprivation of oxygen has on animals is a fall in the body temperature. This is especially true of very small animals, such as mice: it is probably also true of man. The patient, if cold, should be warmed as rapidly as possible by the ordinary means, applied externally and internally. It has been noted by Haldane that after an explosion in a coal mine the men are often observed to become unconscious or even to die suddenly when they reach the outside air. The comparative coldness of the fresh air is in all probability an important factor in producing this sudden effect. Again cases are recorded in which the temperature has risen before death, suggesting that the nerve tissues concerned in regulating the body heat have been seriously damaged by the deprivation of oxygen. In this condition of the nervous system the effect of cold air may be greatly exaggerated.

2. When the blood is over 30 per cent. saturated with carbonic oxide even slight muscular exercise such as walking produces violent headache, and if the saturation be a little higher the exercise unless extremely moderate causes the person to become giddy and unable to proceed. In the record of the cases Nos. 2 and 3 I mentioned that a young man in the next room had suffered from the effects of the gas, but that at first he was able to walk about and yet did not recover for over twenty-four hours. The probability is that he aggravated his condition by the exertions he made. When the blood is highly saturated with carbonic oxide treatment should include complete rest. Any exertion causes a drain on the available oxygen, and when this is much reduced the smallest additional drain is probably very serious. A most valuable account of the effects of exertion on those poisoned by carbonic oxide will be found in the Blue Book on the Snaefell Mining Disaster. An abstract of this report was given in the British Medical Journal of July 2nd, 1898.

3. An increased excitability of the nervous system is seen in the convulsions or tetanic spasms which occur. Effects of this nature have been obtained by the partial suffocation of animals, and it is not infrequently the case that patients die from damage to the nervous system hours, or it may be days, after they have been removed from the gas. On this question interesting notes will be found in Dr. Shaw Lyttle's Appendix to Haldane's Report on Colliery Explosions, 1896.

4. The heart is frequently affected. Dr. Tomb remarks that the great source of difficulty in the case he treated (No. 5) was the condition of the heart.

5. More remote effects still have to be noted. Dr. J. R. Davison, of Belfast, described a case of gas poisoning in which the patient died after four days from pneumonia. This patient never completely recovered consciousness. Part of the general damage which the suffocation had caused was a lowering of the normal resistance to the pneumococcus.[4]

The fact on which all the symptoms depend is the deprivation of oxygen. The mechanism of the circulation and various nerve centres are affected because they continue in activity, during the period of suffocation, at approximately the normal rate, while the available oxygen has been reduced to a minimum. This doubtless causes in the living tissues profound pathological changes. The nature of these changes is unknown apart from their functional manifestations.

References.

[1] Report of the Committee, 1899, Appendix 7. [2] *Vide* Haldane's Report on the Causes of Death in Colliery Explosions, 1896. [3] *Journal of Physiology*, vol. xviii, p. 430. [4] Report of Carlisle meeting of British Medical Association, 1896.

THE NEUTRALISING POWER OF CALMETTE'S ANTIVENOMOUS SERUM: ITS VALUE IN THE TREATMENT OF SNAKEBITE.

BY

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It will perhaps be well to state at the outset that it is not our intention in this paper to enter into the controversy as to the nature of the antagonism between snake venom and antivenomous serum, but to confine ourselves to detailing the experiments which we have performed under Professor Wright's direction with a view to determining what is the amount of venom which a given quantity of serum is capable of neutralising. We propose further to consider the question of the application of our results to the practical therapeutics of snakebite. The method[1] which M. Calmette recommends for estimating the antitoxic power of his serum is briefly stated as follows: The dose of venom which will kill a rabbit of 2 kilos. weight in from 15 to 20 minutes, when injected into the marginal vein of the ear, is determined; then the minimum amount of serum which will prevent death when

injected intravenously five minutes before this dose is ascertained; this is done by experimenting with varying quantities of serum. If 1 c.cm. is able to accomplish this, M. Calmette says that the serum contains 2,000 immunity units per c.cm., or 20,000 per 10 c.cm.

The objection which may be taken to this method is that there is no direct estimation of the amount of venom which a given quantity of serum will neutralise, inasmuch as no account is taken of the fact that the untreated animal is capable of surviving the injection of a certain quantity of venom.

Let us consider this point still further. Martin[2] of Melbourne, in some observations (to be more fully referred to later on) with the poison of the Australian tiger snake (hoplocephalus curtus) used in his earlier experiments only a single fatal dose of venom in estimating the curative value of Calmette's serum. However, in a later publication[3] he recognised that this method was fallacious, inasmuch as if the amount of serum injected is able to neutralise even a mere fraction of the single lethal dose the animal will survive, even though the larger part of the venom remains unneutralised. He therefore recommends the employment of at least ten lethal doses.

This method of employing as a test dose a large multiple of the minimum fatal dose is employed also in estimating the value of other antitoxic serums. In the case, for instance, of diphtheria antitoxin, the test dose which is employed by Behring consists of ten lethal doses, while the test dose which is now employed by Ehrlich consists of 100 lethal doses. We may, therefore, take it as generally recognised that some known multiple of the lethal dose must always be employed in standardising any antitoxin.

When this multiple is a small one, in order to arrive at as accurate an estimation as possible of the neutralising power of the antitoxin, it is necessary to deduct from the amount of toxin which has been injected the maximum dose of toxin under which the animal can survive. An illustration will perhaps make this more obvious: Supposing we have found that 0.3 mgrm. of a particular toxin is the maximum non-lethal dose for an animal, and supposing we have found that 0.35 mgrm. is the minimum lethal dose, and supposing further that 1 c.cm. of a particular serum is the smallest quantity which will prevent death, when the test dose, consisting of 3.5 mgrm. (ten lethal doses) is used, we are then, bearing in mind that the animal is capable of surviving the injection of 0.3 mgrm., only justified in saying that 1 c.cm. of serum is capable of neutralising at least 3.5 − 0.3 mgrm. = 3.2 mgrm., but we are not entitled to infer that the 1 c.cm. of serum is capable of neutralising the total amount which has been injected.

Professor Fraser,[4] of Edinburgh, has furnished us with an example which illustrates the necessity of attending to this point. Working with cobra venom and a serum which he had himself prepared, he found that the minimum lethal dose of the venom was 0.000245 gram per kilo. of rabbit; from this we are justified in inferring that a rabbit would be able to survive the injection of at least 0.0002 gram per kilo. He then estimated the minimum amount of serum which would prevent death when mixed *in vitro* with different multiples of the lethal dose. Leaving out for reasons previously stated the experiments in which very small multiples of a lethal dose were employed, we may tabulate his results as follows:

1.	4 lethal doses	required	1.2 c.cm.
2.	5	,,	,,	1.5 c.cm.
3.	8	,,	,,	2.5 c.cm.
4.	10	,,	,,	3.4 c.cm.

If we in each case deduct the amount of venom, namely, 0.0002 gram, which may be injected without fatal results, an easy calculation will enable us to arrive at the result that 1 c.cm. of the serum has in the successive experiments neutralised at least 0.00065 gram, 0.00068 gram, 0.0007 gram, and 0.00066 gram.

When the test dose of toxin consists of a high multiple of the lethal dose, as for instance in the case of Ehrlich's method of estimating the strength of diphtheria antitoxin, the test dose consists of 100 lethal doses, the deduction which has to be made for possibly non-neutralised toxin may for all practical purposes be omitted. For in such a case the certainly neutralised toxin obviously stands in the relation of 99 to 1 to the possibly non-neutralised toxin. From experiments which we have made with a mixture of cobra and viperine venom (Series I of protocols), as used by M. Calmette to standardise his serum, we have ascertained that the amount of venom which kills a rabbit in about twenty minutes, when injected into the marginal vein of the ear, is about three times the lethal dose. We have seen that this is the amount which M. Calmette recommends to test the curative power of his serum. It is therefore obvious from what we have said above that the amount of serum required to prevent death will in this case be that amount which is capable of neutralising something over two lethal doses of venom. Hence in estimating the amount of venom which the serum has neutralised we have to deduct from the three lethal doses which are employed by Calmette the quantity of venom which constitutes the maximum non-lethal dose.

Keeping these points in view, we may now pass on to see what values have been obtained for Calmette's serum by other observers, by M. Calmette, and by ourselves. In Martin's first experiments[2] with the poison of hoplocephalus curtus he found that 1 c.cm. of Calmette's serum was able to counteract 0.0001 gram of a previously heated venom.[5] In these experiments the serum was injected into the jugular vein one hour previously to the injection of the poison which was given hypodermically in the flank. But, inasmuch as in this series only one lethal dose was used as a test dose, and inasmuch as experiments with one lethal dose are subject to the fallacies which have been explained above, it will be obvious that we cannot attribute any value to this set of test experiments.

In later experiments[6] Martin and Cherry, working this time with eight lethal doses of the same poison, have found that 1.5 c.cm. of serum, when mixed *in vitro* with the poison, is able to counteract this test dose; they have also shown that for rabbits the minimum lethal dose of this venom, when deprived of one of its constituents by heat, is 0.000025 gram per kilo., animals being able to survive a dose of 0.00002 gram. We can, therefore, say that 1.5 c.cm. is able to neutralise at least 0.00018 gram, namely, that 1 c.cm. can neutralise at least 0.00012 gram. In the same series of experiments they have found that 1 c.cm. fails to neutralise the eight lethal doses, so that in this case we can say that 1 c.cm. fails to neutralise 0.00018 gram. From this it is obvious that 1 c.cm. of Calmette's serum neutralises something between 0.00012 gram and 0.00018 gram of the venom of this particular snake.

M. Calmette states that the serum which he is issuing from the Institute at Lille possesses 20,000 immunity units per 10 c.cm. by his notation, or, in other words, that 1 c.cm. injected intravenously in a 2 kilo. rabbit five minutes before the venom is able to counteract a dose which would kill a control rabbit in from fifteen to twenty minutes. In our experiments (Series I of protocols) we have shown that the lethal dose of the mixed venom with which we worked, and which M. Calmette himself uses to control his serum, is 0.00035 gram per kilo., 0.00025 gram per kilo. being the maximum non-lethal dose. We have shown also that the dose which kills a 2 kilo rabbit in about twenty minutes is equal to three lethal doses, namely, 0.002 gram. It is therefore obvious that 1 c.cm. of a serum which contains 20,000 of Calmette's immunity units per 10 c.cm. would have to neutralise at least 0.002 (that is, three lethal doses for a 2 kilo. rabbit) − 0 0005 (that is, the maximum non-lethal dose for a 2 kilo. rabbit) = 0.0015 gram of venom to prevent the death of the animal. This then expressed in weight of snake venom is the neutralising power which M. Calmette attributes to his serum.

The series of experiments which we have now to present, and which are detailed in the protocols, were made with a direct view of controlling the statement of M. Calmette. They were made with a mixed colubrine and viperine venom, which was supplied to us by M. Calmette. We take this opportunity of thanking M. Calmette for his kindness in giving us this, as well as an ample supply of his antivenomous serum.

We may preface the protocols of our experiments by giving a short account of the methods employed and the general results obtained.

A solution of the dried venom of strength 1 per cent. was made in sterile water. This was heated to 73° C., and was kept at that temperature for half an hour in order to precipitate the coagulable proteid. This was done with a view of

testing the antidotal power of the serum upon a venom, which is in every respect identical with the venom which is employed by M. Calmette in immunising his horses. It was then filtered to separate out this substance. Rabbits were the animals used, and all injections were made into the marginal vein of the ear.

Series I was undertaken to determine the minimum lethal dose. A certain lethal dose was found to be 0.00035 gram per kilo., and the maximum non-lethal dose was found to be 0.00025 gram per kilo; 0.0003 gram per kilo. was on one occasion lethal, on another occasion not so.

In the second series, six times the minimum lethal dose—namely, 0.002 gram per kilo, a quantity which killed the control animal in three minutes—was used. This amount was mixed *in vitro* with varying amounts of serum. The mixture was allowed to stand at the laboratory temperature (about 18° C.) for half an hour. It was then injected, as in the previous series, into the marginal vein of the ear. By referring to this series in the protocols, it will be seen that 1 c.cm. of serum failed to counteract the six lethal doses, while 1.25 c.cm. accomplished this object. We have therefore arrived at the result that 1 c.cm. of serum fails to neutralise 0.002 gram —0.00025 gram=0.00175 gram, while 1.25 c.cm. is able to neutralise this amount at least—namely, that 1 c.cm. can neutralise at least 0.0014 gram, while it fails to neutralise 0.00175 gram.

In Series III experiments were made to ascertain what was the neutralising power of the serum when injected five minutes before the venom. The same quantity of venom was used as in the last series. Practically the same results were obtained in this case as when the mixture was made *in vitro*. For purposes of our inquiries into the therapeutical value of the serum we shall take it that 1 c.cm. is able to neutralise 0.0015 gram of this mixed venom. This result, which we have obtained in our experiments, exactly confirms Calmette. When we try to reconcile this result with that of Martin and Cherry, working with the poison of hoplocephalus curtus, it is only necessary to point out that we are using as our test venom a venom identical in all points with the venom employed in immunising, whereas Martin and Cherry were using quite another venom, and one which, judging from the lethal dose, was ten times more deadly.

We shall now pass on to see what practical bearing this has on the treatment of snakebite. To do this we shall best serve our purpose by considering the specific case of a bite from a cobra. M. Calmette[7] has shown that for the rabbit the minimum fatal dose of dried cobra venom is on an average 0.00025 gram per kilo. We may say, therefore, that 0.0002 gram is a quantity which a kilo. of rabbit can just endure without succumbing to its effects. Now we have seen that 1 c.cm. of serum is able to neutralise 0.0015 gram of a venom, the fatal dose of which is 0.00035 gram per kilo. We are, therefore, even assuming that cobra venom is a third more deadly than the venom we employed, justified in calculating that 1 c.cm. of serum is able to neutralise about 0.001 gram of cobra poison.

M. Calmette[8] has further shown that a good-sized cobra injects at each bite a quantity of venom which in the dried state amounts to from 0.03 to 0.045 gram. Now if man were equally susceptible weight for weight as the rabbit (man is, in all probability, much less susceptible), the maximum non-lethal dose for a 60 kilo. man would obviously be 0.012 gram. If we take 0.04 gram as an average amount of venom injected, it is obvious that the minimum amount of serum which would have to be administered in order to save life would be the quantum which would suffice to neutralise 0.04—0.012 gram = 0.028 gram. We have assumed that 1 c.cm. of serum is able to neutralise 0.001 gram of dried cobra venom. It would therefore follow upon this assumption that 28 c.cm. of serum would have to be administered. The following facts, however, go to prove that man enjoys a higher degree of insusceptibility than the rabbit, and that, in consequence, a less quantity than 28 c.cm. would have to be administered.

1. Calmette[9] has proved that it takes twice the amount of venom to kill 500 grams of rabbit that it does to kill 500 grams of guinea-pig; also that the quantity which would kill 12 kilos. of rabbit in three hours takes twelve hours to kill a dog of 7 kilos. The same law holds good as regards the monkey and the ass. It seems therefore to follow that the larger the animal the more venom is required to kill weight for weight.

2. Fayrer, in his statistics on the percentage of deaths following bites of the Indian venomous snakes, states that only 25 to 35 per cent. of those bitten die, and that the average time in which death occurs is from 6 to 12 hours. Now, if man were as susceptible as the rabbit the fatal dose for a 60 kilo. man would be 0.038 gram of cobra venom. No cobra ever gives less than 0.019 gram at each bite,[5] the average as we have seen being 0.03 to 0.045 gram. It follows that if man were equally susceptible every untreated case of cobra bite would prove fatal, instead of only 25 to 35 per cent. of the total number. We may therefore conclude that man is not as susceptible as the rabbit, weight for weight.

Fraser[10] estimates that the lethal dose for a man of 60 kilos. is 0.0317 gram. That this is probably fairly correct is evident from the data which have been given above. If so, we may take 0.03 gram as the maximum non-lethal dose for an average man. Working on these assumptions, and taking in this case the maximum amount which a cobra can inject, namely, 0.045 gram, we can calculate that the amount of serum required to secure survival of bitten persons would be the amount which is able to neutralise 0.045 — 0.03 gram. = 0.015 gram. We have assumed that 1 c.cm. can neutralise 0.001 gram of cobra venom; we should therefore require for this amount 15 c.cm. of serum.

Objection will probably be taken to this conclusion, inasmuch as it is founded on experiments in which the serum has been mixed *in vitro* with the venom, or has been injected into the blood stream before the venom. A moment's consideration, however, will show that if we treat a case of snakebite by an intravenous injection of antivenomous serum, soon after the inoculation, we are practically repeating in man the experiments which we have detailed in Series III of protocols. Leaving out of consideration the cases in which death takes place very rapidly after inoculation (in these the poison is probably injected directly into a vessel), we may consider what happens in the commoner type of case in which death does not take place till some hours after the bite. During this interval the poison is being absorbed gradually. That this is not an extremely rapid process is evident from the experiments by which M. Calmette[11] has demonstrated the therapeutical value of the alkaline hypochlorites. An animal inoculated hypodermically with a dose of venom, which would kill the control in less than two hours, can be saved by injecting, up to half an hour afterwards, a solution of the hypochlorite of calcium all round the site of inoculation. If the injection of the hypochlorite is given intravenously instead of round the site of inoculation, the animal dies. Here there is, therefore, no doubt that the hypochlorite acts by destroying locally the poison which has not yet been absorbed, and that the amount which has been absorbed in the half-hour is not sufficient to kill the animal.

If, then, we introduce over 15 c.cm. of antivenomous serum into the blood before the lapse of such period of time as may be required for the absorption of the full lethal dose of venom, we may obviously expect to achieve the result we have in view, and to save our patient. It is evident, then, that we have in Calmette's serum a remedy which, if employed in the dose and manner stated above, should prove efficacious in all cases of bites from cobras and other poisonous snakes.

PROTOCOLS.

I.—*Experiments to determine the Minimum Lethal Dose of Venom.*

Animal.	Weight in Grams.	Amount of Venom per kilo. of Body Weight in Grams.	Result.
Rabbit 1 ...	1450	0.002000	Died in 3 minutes.
Rabbit 2 ...	1000	0.001000	Died in 21 minutes.
Rabbit 3 ...	1220	0.000500	Died in 45 minutes.
Rabbit 4 ...	1115	0.000350	Died in 55 minutes.
Rabbit 5 ...	2345	0.000300	Found dead 40 hours afterwards.
Rabbit 7 ...	1070	0.000300	Very ill for 2 days; lost 40 grams weight.
Rabbit 6 ...	980	0.000250	Very ill for 2 days; lost 80 grams weight.
Rabbit 8 ...	1070	0.000200	Ill for 2 days; lost 15 grams weight.
Rabbit 9 ...	2045	0.000125	No symptoms.

The poison used was a mixture of colubrine and viperine venom. In the first instance a 1 per cent. solution in sterile water was made. This solution was heated to 73° C., and kept at that temperature for half an hour[5]; it was then filtered. When necessary a tenfold dilution of the original solution was used. The weights refer to the original dried venom. All injections were made into the marginal vein of the ear. It appears from this that 0.00035 gram per kilo. is a certain lethal dose; that 0.00030 gram per kilo. is a doubtful lethal dose, while 0.00025 gram per kilo. is a dose which a rabbit can survive under, a maximum non-lethal dose.

II.—*Experiments to ascertain the amount of Venom which 1 c.cm. of Calmette's Serum is capable of Neutralising, the Venom and Serum being mixed in vitro.*

In this series six lethal doses, namely, 0.002 gram per kilo., were mixed with varying amounts of serum. The mixture was allowed to stand at the laboratory temperature (18° C.) for half an hour, and was then injected into the marginal vein of the ear. The venom was the same solution as was used in Series I. In calculating the amount of venom which the serum had been able to neutralise, or had failed to neutralise, the maximum non-lethal dose, namely, 0.00025 gram per kilo. was deducted in all cases.

Animal.	Weight in Grams.	Amount of Venom per kilo. of Body Weight in Grams.	Amount of Serum per kilo. of Body Weight in c.cm.	Result.
Rabbit 1 ...	1280	0.002	1.50	No symptoms.
Rabbit 2 ...	1705	0.002	1.25	No symptoms.
Rabbit 3 ...	1980	0.002	1.25	No symptoms.
Rabbit 4 ...	1977	0.002	1.00	Found dead four hours afterwards.

From the above series we conclude that 1 c.cm. of serum fails to neutralise 0.002 — 0.00025 gram = 0.00175 gram, while 1.25 c.cm. can neutralise this amount at least, namely, that 1 c.cm. is able to neutralise 0.0014 gram at least.

III.—Experiments to ascertain the amount of Venom which 1 c.cm. of Serum is capable of Neutralising, the Serum being Injected five minutes before the Venom.

Six lethal doses of venom were used as before. Injections were made into the marginal veins of the ears.

Animal.	Weight in Grams.	Amount of Venom per kilo. of Body Weight in Grams.	Amount of Serum per kilo of Body Weight in c.cm.	Result.
Rabbit 1 ...	1150	0.002	2.00	No symptoms.
Rabbit 2 ...	1290	0.002	1.50	Ill for 2 days; lost 16 grams weight.
Rabbit 3 ...	1050	0.002	1.25	Very ill for 2 days; lost 40 grams weight.
Rabbit 4 ...	1700	0.002	1.25	Very ill for 2 days; lost 85 grams weight.
Rabbit 5 ...	1400	0.002	1.00	Died in 60 minutes.
Rabbit 6 ...	2490	0.002	0.50	Died in 25 minutes.

The results obtained from this series are practically the same as from Series II. It will be noticed that the rabbits Nos. 2, 3, and 4 showed marked symptoms and were ill for some time, while the rabbits in Series II which received corresponding amounts of venom and serum, mixed and kept for half an hour *in vitro*, showed no symptoms. This, perhaps, may be explained by the fact pointed out by Martin and Cherry[6] that, owing to the large molecular size and complexity of these substances, a certain interval of time must elapse before any chemical reaction is complete between them. During this interval an amount of venom sufficient to give rise to some symptoms of poisoning may pass into the central nervous system.

NOTE AND REFERENCES.

[1] *Ann. de l'Inst. Pasteur*, 1897, p. 225. [2] *Intercolonial Medical Journal of Australasia*, August 20th, 1897. [3] *Ibid.*, April 20th, 1898. [4] BRITISH MEDICAL JOURNAL, 1895, p. 1310; and 1896, p. 957. [5] The venom is heated to coagulate a coagulable proteid, which is then filtered out. It is the non-coagulable residue which Calmette uses to immunise his horses. The coagulable proteid has been proved to destroy the blood corpuscles, and to produce intravascular clotting if it reaches the circulation rapidly. The non-coagulable proteid affects principally the central nervous system. [6] BRITISH MEDICAL JOURNAL, 1898, p. 1120. [7] Calmette, *Le Venin des Serpents*, p. 25. [8] *Loc. cit.*, p. 18. [9] *Loc. cit.*, p. 26. [10] BRITISH MEDICAL JOURNAL, 1896, p. 957. [11] Calmette, *Le Venin des Serpents*, p. 36.

A CASE OF GENERAL PARALYSIS OF THE INSANE IN A CHILD,

IN WHICH A GALL STONE WAS FOUND AFTER DEATH.

BY

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and

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ALTHOUGH a considerable number of cases of juvenile general paralysis have now been reported,[2] it seems worth while to put another on record, as there is still much to be learned about both the diagnosis and the pathology of the disease. The occurrence of a gall stone in a young girl is also a matter of sufficient rarity to merit description.

The patient (I. T.) referred to in the following notes was between 10½ and 11 years of age when she was first recognised as having symptoms of mental disease; and she died at the end of her 17th year.

Family History.—The parents are strong, sober, and apparently healthy people; they are not at all nervous, and both come of unusually healthy and long-lived families. They have had seven children, of whom the patient is the second. The first, third, fifth, and sixth children, who are all alive, have shown distinct signs of congenital syphilis. The fourth child died, when 9 weeks of age, of bronchitis; the seventh is still an infant, and has had no specific symptoms. There have been no miscarriages.

Previous Health.—The mother has no recollection of the patient's having suffered from snuffles or a rash in infancy; but as she made the same statement with regard to a younger child whom I attended for weeks with these symptoms present, her memory is evidently not to be trusted to. When 4½ years old the patient developed a squint, which was operated on nine months later. About the same time she began to suffer from severe and frequent headaches. When 9½ years of age she was brought to the Sick Children's Hospital on account of her headaches, which were especially severe at night. She was found to have extensive patches of choroidal atrophy in both eyes. Her headaches were greatly relieved by iodide of potash. At this time she seemed in other respects a healthy, well-nourished, and intelligent child. She had had no serious illness of any kind, and had never suffered from jaundice nor from any severe dyspeptic disturbances.

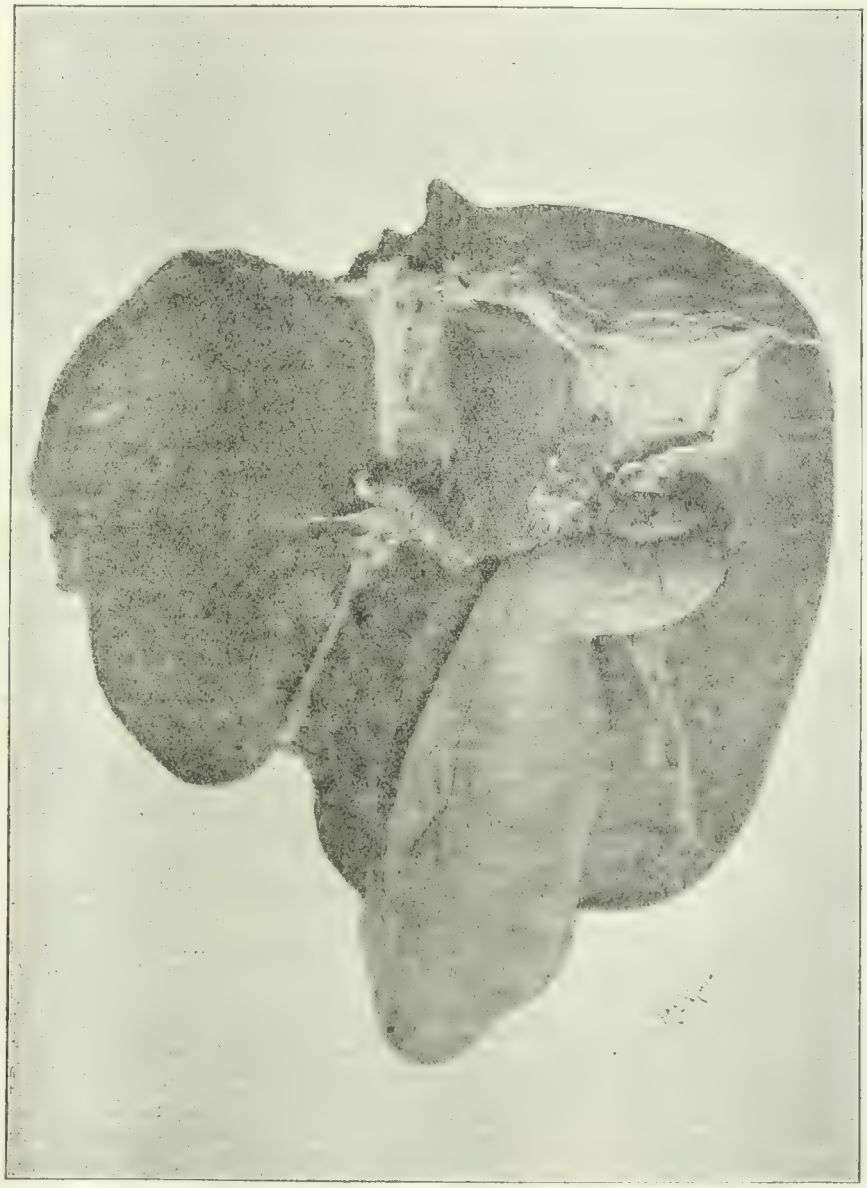
Present Illness.—When she was between 10½ and 11 years of age it was observed that she was not improving in her school work, and seemed to be getting stupid and irritable at home. No further change was noted in her mental condition until she was about 12, when fits set in, and she became steadily less intelligent. Her speech was characteristically affected by the time she was 12½ years of age, and her knee-jerks were greatly exaggerated when she was 13 years of age. When about 14 years of age she had several distinct hallucinations. Between 11 and 14 years of age she became unnaturally fat, but afterwards she steadily emaciated. The fits continued at varying intervals during her whole life. Six months before her death she had an attack of subacute periostitis over the right tibia, which was greatly relieved by iodide of potash. She died in a state of extreme debility of mind and body, aged 16 years and 11 months (May 3rd, 1898).

The main clinical features of the case may be summarised as follows:

Appearance, Growth, Etc.—When first seen, the child was well-nourished and of fairly normal size and appearance. Her cranium was well-formed, but the palate was high and saddle-shaped. The upper central incisors were slightly pegged, but they were not typically deformed, and although there was some flattening of the bridge of the nose, and a slight lack of development of the upper jaws, such as is met with in congenital syphilis, there were no facial appearances which could be regarded as pathognomonic of that disease. The main indications of specific disease were the choroidal patches, which were present in both eyes from the beginning of the illness, and the subacute periostitis of the right tibia, which set in shortly before death. Between her eleventh and fourteenth year the child grew very fat, so that she developed a

marked double chin, and her abdomen was prominent and globular. After 14 years she gradually lost flesh, and during the last six months of her life she was extremely emaciated, and suffered from bedsores. After the mental symptoms began she grew very little in stature, so that at 15 she did not look more than 12 years old. Her mammæ remained quite undeveloped, and she never menstruated. During life no abnormality was discovered in the abdominal or thoracic organs.

Sensory and Reflex Functions.—As already mentioned, the child had suffered from severe headache from the time she was 5 years old, and recurrent headache was a prominent feature throughout the whole illness. It was complained of at the onset of the fits and after they passed off, as well as frequently during the intervals. During the last year of her life she sometimes complained of severe abdominal pain. No other disturbance of sensation was discovered. For two years before she died she suffered much from incontinence of urine and fæces. The pupils reacted very imperfectly both to light and accommodation, and, after the mental symptoms began, they were for a long time distinctly irregular in contour; the left was constantly the larger. No change was observed in the superficial reflexes, and facial irritability, although frequently examined for, was never found. The knee-jerks were increased from the onset of the mental symptoms, and became more so during the last few years. No ankle clonus was obtained until within a year of her death.



Under surface of liver showing distended gall bladder; × indicates the position of the gall stone.

Motor Symptoms.—The tongue was tremulous when protruded after the first fit, and it became gradually more so towards the end. There was no distinct tremor of the hands at first, but they soon became so unsteady that she could not knit nor button her boots. Her writing, although it got rapidly very irregular, was never very characteristic. At the time the fits began she walked very clumsily as if her joints were stiff, and keeping her feet far apart. Her movements became gradually less active, and, when 13½ years old, she could no longer go downstairs without help. At 15 years she could still stand and walk alone, but she was unable to rise if laid down on the floor, and could not get into bed without assistance. When 16½ she could no longer stand alone and had to be carried about. Her speech was quite characteristically slurred when she was 12½ years old, and it got slowly worse. Before her death it was difficult to understand anything she said.

Convulsive Seizures.—The first fit occurred at the beginning of her 13th year. She seemed to feel dazed, bent her head and body backward until she would have fallen had she not been supported, and cried "My head, my head," before she became unconscious. During the seizure the right forearm was extremely pronated, and it was weak for some days after. The other limbs seemed not to be affected. For some days after this attack she spoke very indistinctly, and complained of headache.

There was an interval of between ten and twelve weeks between each of the first five seizures. The attacks resembled one another in character, but there was more movement in some than in others. Later they were less frequent, but rather more severe in their symptoms. When she was about 15 years old the attacks became more frequent, but they were only occasionally severe in character. Most of them consisted merely in short periods of unconsciousness, in which she fell backwards if not supported. The seizures rather increased in severity during the last six months of her life, and one side (sometimes the right and sometimes the left) was often noticed to be weak for some days after one of them. On one occasion a temporary squint was seen, and on another there was twitching of one upper eyelid.

Mental Symptoms.—When 10 years old the patient was thought by her parents and teachers to be of ordinary mental capacity. At school she was in the Third Standard, along with girls of her own age, and at home she was very docile, amiable, and helpful. Towards the end of her 11th year she was noticed to be getting gradually stupid, both in her school-work and at home. When she was 11½ she was still able,

however, to take the younger children out to play, and to sweep the floor and otherwise help in household work. A year later she was quite unable to do any work except to go a simple errand. At this time, if allowed, she spent all her day playing with beads, talking to herself at the same time, and she got so absorbed in this occupation that she would get up with the daylight to begin it, and seemed to grudge the time for her meals. She was also very irritable with the younger children, and would beat them if they touched her beads. Her memory for certain things was long retained. At 12½ she could still repeat those parts of the multiplication table that she had learned, although she was quite unable to do very simple sums. At 13 she still remembered hymns which she had been taught long before, but her mental powers rapidly deteriorated after this time. Within a few days of her death she seemed to recognise old friends, although she appeared to take little notice of surrounding things. When about 13 years of age she would constantly imagine that there was someone at the house door, when there was not, and would run to open it. She also insisted that some of her beads had got inside her pillow, and wanted to have it cut open to find them. When between 13 and 14 years of age she had various hallucinations. She often said she saw an elephant at one corner of her bed, and sometimes she pointed to what she thought were men in an empty room..... As the disease progressed the hallucinations became less distinct, but when between 14 and 16 she used to talk for hours to the pictures on the walls as if they were people.

The Course of the Disease was a steadily downward one. There was always an aggravation of the symptoms for some time after each fit or set of fits, and a slight degree of improvement was sometimes noticed at first, if a long period were passed without any seizures. On the whole, however, there was never any real improvement.

Pathological Report.

External Appearances.—Extreme emaciation; lower limbs rigidly flexed from permanent contracture of muscles; large bedsore over left trochanter, two smaller ones over right ilio-sacral joint; mammæ quite undeveloped; pubic hair scanty.

Head.

Scalp not unduly adherent; calvarium irregularly thickened and condensed; dura mater thickened, and adherent at intervals to cranium. No trace of any subdural membrane formation; sinuses healthy. Excess of cerebrospinal fluid (over 3 ounces) at base of brain and in widened sulci of vertex. Pia arachnoid showed great venous engorgement, and was opaque and milky-looking from general chronic thickening. Tips of temporo-sphenoidal lobes were adherent to dura mater, and there were adhesions between frontal lobes in the median fissure. The pia mater was everywhere adherent to the brain, and could not be stripped off without laceration of superficial cortex.

Brain.—The cerebral convolutions were greatly atrophied, being small, narrow, and separated by dilated sulci. Atrophic changes were general, but most marked in frontal and parietal regions of each side. On section the cortical grey matter was found to be extremely atrophied, its layers indistinct, and its consistence tougher than normal. The white matter showed irregular patches of congestion and increased toughness. The basal ganglia were also congested. The lateral ventricles were somewhat dilated, and their ependyma showed fine scattered granulations; more numerous and more prominent granulations were present in the fourth ventricle. The choroid plexus showed no obvious change.

Microscopic sections of the cortex from various regions showed changes characteristic of general paralysis in the nerve cells, in the neuroglia, and in the vessels. The nerve cells were greatly diminished in number, the majority having completely disappeared. Those still persisting were for the most part small, atrophied, and degenerating. The neuroglia showed very extensive proliferative overgrowth (*a*) in the outermost layer of the cortex, producing a dense superficial felting; (*b*) in the white matter, especially at its junction with the grey; (*c*) throughout the whole extent of the grey matter, a less common site, so that numerous proliferated neuroglia cells with hypertrophied branching processes occupied the place of the atrophied nerve cells. The medium-sized intracerebral vessels showed aggregations of leucocytes in the perivascular spaces, and the smaller vessels and capillaries marked hyaline thickening of their walls. The cerebellum showed similar but less marked changes.

Spinal Cord.—The spinal dura was thickened, and adherent to the pia mater from the first cervical to the fifth dorsal, and again over the seventh and tenth dorsal segments. The pia generally was thickened.

Thorax.—Thymus persisted as a thin flattened mass extending down to third costo-chondral articulation; heart and pericardium healthy; lungs congested with scattered patches of recent broncho-pneumonia.

Abdomen.

The *gall bladder* (see figure, p. 785) was greatly distended with clear watery fluid. It formed an elongated, sausage-shaped tumour, measuring fully 5 inches in length and about 2 inches in transverse diameter. Its lower extremity projected 2 inches beyond the anterior free margin of the liver, and reached about an inch below the umbilicus, immediately to the right of the middle line. The cystic duct was dilated and tortuous, and towards its hepatic extremity a single gall stone was firmly impacted. This stone had a smooth surface and an ovoid outline: it measured ½ by ⅝ by 1⅜ inch in its various diameters. The central part consisted of a bilirubin chalk stone, around which subsequent deposits of calcium phosphate had occurred. Traces of cholesterin were present both in the original nucleus and in the later deposits.[3]

The *liver* showed scattered patches of perihepatitis over its surface. Its anterior margin was greatly thinned and atrophied over the enlarged gall bladder. Microscopic examination revealed a slight, diffuse intercellular cirrhosis, with denser, irregular bands of fibrous tissue passing in from the thickened capsule. Fatty degeneration and infiltration of liver cells also present.

The *spleen* showed marked perisplenitis with adhesions and thickening of capsule. Small dense fibroma on its surface.

The stomach, intestines, pancreas, kidneys, and adrenals showed no important lesion.

Pelvis.—Uterus infantile, measuring less than 1¼ inch from fundus to os externum. Ovaries fairly large, but on microscopic examination were found to consist almost entirely of ovarian stroma, only degenerated and undeveloped follicles could be found; a few small cysts were also present.

Notes.

[1] Dr. Thomson is responsible for the clinical, and Dr. Welsh for the pathological notes. [2] Dr. Charles Thiry in a recent thesis (Nancy, 1898) summarises 69 cases in patients under 20 years of age. [3] We are indebted to Dr. T. H. Milroy, Lecturer on Physiological Chemistry in the University of Edinburgh, for his kindness in examining the composition of the biliary calculus, and to Dr. Ford Robertson, Pathologist to the Scottish Asylums, for valuable advice.

ORGANO-THERAPY IN EXOPHTHALMIC GOITRE.

By HENTON WHITE, M.D.Durh., F.R.C.S.Ed.,
Birmingham.

The idea of administering gland extracts was first suggested to the writer by observing, *post mortem*, thymus glands of considerable size in two fatal cases of Graves's disease under the care of Dr. Foxwell at the Queen's Hospital, Birmingham.

It was desired to ascertain whether the enlargement of the thymus was an effort on the part of Nature to counteract the effect of excessive thyroid secretion, or whether it participated in producing the fatal results.

Case I.—Mrs. B., aged 35, was first seen on January 25th, 1896, having marked proptosis, a soft and enlarged thyroid, and considerable tremor. She was easily excited. Her pulse was 120, and she complained much of palpitation. Until March 7th she was treated with digitalis, strychnine, and arsenic, without real improvement. On March 7th the administration of suprarenal extract was commenced. She took four tabloids a day till June 6th, when her pulse was 128, and she had not in any way improved. On June 6th the suprarenal extract was discontinued, and one tabloid of thymus extract was given three or four times a day. On July 4th she said she felt much better as regards palpitation; her neuralgia, from which she suffered while taking suprarenal extract, had gone, and the tremor was scarcely noticeable. The pulse-rate and exophthalmos were, however, not improved.

Case II.—Miss S., aged 38, was first seen on August 13th, 1895, when she presented the usual signs of Graves's disease with a pulse of 140. She was treated until November 12th, 1895, with digitalis, iron, and

strychnine, but without improvement. From November 12th to June 2nd, 1896, she was given suprarenal extract in quantities varying from 2 to 4 tabloids a day. Her heart, which on November 12th, 1895, was found to be somewhat dilated, had decreased in size, but her pulse was over 200, and the tremor and palpitation were no better, but the proptosis was slightly less. On June 2nd, 1896, she began to take thymus extract in doses of one tabloid three or four times a day. On July 31st the palpitation and tremor were much less, but the pulse was about 150. She was much less emotional, and felt "much better."

Case III.—Mrs. M., aged 28, had, when first seen, palpitation, emotional mobility, tremor, and a pulse of 128, but no exophthalmos or enlargement of the thyroid. For four weeks she was treated with digitalis, iron, and nux vomica, but with no improvement. For the next eight weeks she took a thymus tabloid three times a day. Gradually the palpitation, tremor, nervous excitement, and pulse-rate lessened, and at the end of that time she appeared quite well, and had a pulse of 92. This case was thought to be an early case of Graves's disease, and, if it were so, the thymus extract certainly seemed to prevent its development.

From the above cases it may be concluded that neither thymus nor suprarenal extract is a perfect antidote to the thyroid secretion, nor, indeed, is it to be expected that a product of one gland should counteract the product of another. The thymus extract seemed to relieve the nervous symptoms of the disease, and this is interesting from a consideration of the fact that the thymus is most active at that period of life when brain development is most rapid.

As regards suprarenal extract, the chief effect in the second case seemed to be on the heart and vascular system, on which it had a digitalis-like action without lessening the frequency of the heart beats, and also, it may be remarked, after digitalis itself had failed to lessen the area of cardiac dulness.

It seems, however, to have no sedative action on the nervous system. It is unlikely that any drug or combination of drugs will be found completely to neutralise the physiological effects of thyroid extract, and it is to the thyroid itself that we must look for a remedy, just as strychnine and methyl-strychnine or toxins and antitoxins respectively neutralise one another, so we may hope to find in the gland itself, or in healthy individuals subjected to thyroid feeding, some substance that may prove effective in counteracting excessive thyroidism.

We know that when a proteid molecule is split up and a toxin given off something remains which, if it could be recombined with the toxin, would reproduce the harmless proteid molecule from which the toxin was formed.

Our first aim is to discover the nature of the proteid molecule, and then the method of its decomposition with the causes which determine it. As this reaction occurs in normal thyroids, and it is by excess only that it becomes pathological, the problem should not remain unsolved.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

FIBROMA OF BASE OF SKULL REMOVED THROUGH THE CHEEK.[1]

Fibroma of base of the skull is not of common occurrence, and the behaviour and direction of growth of the tumour in this case make the latter of sufficient interest to warrant publication.

J. M., a youth aged 17, was first seen in April, 1898. About a year previously he had complained of persistent headache. Two months later this left him, and he then first noticed some swelling in the left cheek, which continued to increase in size, but more rapidly during the last five months. The left side of the face was fuller than the right, and immediately below the malar bone there was a rounded movable tumour about the size of half a small orange. The malar was pushed slightly forwards and upwards, and the tumour appeared to be attached to its cranial surface. There had been no deafness or dysphagia. A few days later a probe was placed in the parotid duct, and through a curved incision in the cheek, lying within the hair-growing region, the duct was isolated, the anterior fibres of the masseter cut through, and the fore part of the tumour exposed. Its true nature then became apparent. Attempts were made to twist it off its pedicle; this was done after considerable difficulty by seizing it as deeply as possible on either side with clamp forceps. This difficulty was found



Fig. 1.—A, the process which extended into the temporal fossa foreshortened.

to be due to the existence of a large process ¾ inch in length, extending from the main part of the tumour into the temporal fossa, and beneath the temporal muscle. There was little or no hæmorrhage. The broad patch of bone from which it had been torn lay at a depth of 4 inches from the lower border of the malar. The site of origin, as far as could be ascertained, was the basilar process immediately in front of the left condyle. Instead of pushing its way into the pharynx and forming the usual naso-pharyngeal tumour, it had grown forward to the left of the pharynx into the zygomatic fossa, pushing the pterygoid process inwards and the coronoid outwards, and, making its way between the pterygoid muscles, presented in the cheek below the malar arch. Its greatest dimensions were 4½ ins. by 2½ ins. The divided fibres of the masseter were then drawn together by buried sutures, the skin flap turned down and sutured, a small drain being left in for forty-eight hours. The wound healed by primary union, and the patient returned to work on the eighth day. At first there was some loss of power in the muscles of the left angle of the mouth, but this is now scarcely noticeable. The microscope showed the tumour to consist of pure fibrous tissue.

To avoid disfigurement from scar, and possibly injury to the parotid duct, removal through the mouth was contemplated. For considerations of asepsis, apart from the difficulties often arising from hæmorrhage in such cases, though absent here, it was fortunately abandoned.

Swansea. W. F. Brook.

[1] Read at a meeting of the South Wales and Monmouthshire Branch, February 28th, 1899.

ACUTE EPIDEMIC DYSENTERY.

The second officer of a steamship came to me on August 18th, 1898, suffering from a mild attack of dysentery. He had been at Porthleven, Cornwall, for two days after a voyage to the Black Sea, during which his health had been quite good. He completely recovered from the attack in a fortnight.

On August 3rd, when he was nearly well, his wife, who had been nursing him, began to pass mucus and blood every half-hour. She was unable to sleep, and afraid to eat, as every

movement brought on severe colicky pain, and every attempt to eat produced tenesmus. Her temperature rose at times to 101°, and her stools numbered from twenty to thirty in the twenty-four hours. By the end of a fortnight, however, she was convalescent. There were two children, one aged 5, who remained in the house the whole time, but lived and slept in a separate room, and saw his parents only occasionally during their illness; the other, aged 14 months, was removed by his grandmother.

On September 1st, however, the elder of the two developed the disease; for the first day or two he went to stool at least once an hour, and had little if any sleep. An obstinate diarrhœa retarded convalescence for weeks, but he eventually made an excellent recovery.

After September 14th the younger child spent the daytime at his mother's house. On September 16th he was attacked in a similar way; he rapidly became exhausted, and died on September 19th.

On September 18th I found the mother in great pain, her right knee-joint being acutely inflamed; her temperature was 102°. At this time her dysenteric symptoms had subsided, and she was taking a light diet. In a few days her left knee, right elbow, left ankle, and several phalangeal joints were inflamed. The joint affection in its course closely resembled a gonorrhœal rheumatism.

On September 30th the grandmother, who had been nursing the others, had a precisely similar illness, and the dysentery subsided; some of her joints were affected.

The infection was doubtless contracted in the first case during the voyage, and was communicated from case to case, as disinfection was necessarily imperfect and isolation impossible.

Porthleven, Cornwall. EDWIN HENRY, F.R.C.S.

THE OCCURRENCE OF BLACKWATER FEVER IN ASSAM.

AT the last meeting of the British Medical Association, in the Section of Tropical Diseases, blackwater fever was prominently brought forward. I wish to record the following case, which I believe to have been undoubtedly of that nature:

A. J., tea planter, born in this country, aged 30, had lived in malarious districts for ten years, and had been subject to fever. The last four years he had lived in the Darjeeling Terai, a locality only two well known for malaria. I obtained the following history from him. On May 17th, 1898, he was about, feeling quite well. After a game of tennis in the evening he felt "off colour;" he had some dinner, and went to bed. Shortly afterwards he experienced the worst rigor he ever had. When this passed off he took 10 gr. of quinine, and began to pass a large quantity of urine, which to his surprise was porter-coloured. A fellow planter showed me two chamber vessels full of porter-coloured urine, remarking, "He has passed quarts of urine like this." I saw my patient on May 18th, at 6.30 P.M. The pulse was 120, and regular; the temperature was 102.6°. The conjunctivæ and skin were of light saffron colour. The spleen was enlarged, as was the liver, which was tender. The bowels had acted well, but he had nausea. I gave a large simple enema, and shortly after injected 20 gr. of quinine into the bowel; this was rejected, and repeated, but with a like result. The patient retained 5-gr. doses of quinine in solution at 10 P.M. and at midnight, but rejected doses given at 2 A.M. and 4 A.M. During the night he was somewhat restless, but not markedly so. He passed a good deal of porter-coloured urine and three tarry motions. He vomited all nourishment. As I was a long way from help and drugs, I decided to move my patient to the hills, 4,000 feet above sea level, and started on the 17-mile drive at 5.30 A.M. on May 19th. In the daylight I noticed at once that he was much weaker, and that the saffron colour of the conjunctiva and skin had greatly increased. The cool morning air seemed to revive him, and I considered that he had stood the journey remarkably well. I again tried quinine, giving 10 gr. in a little iced milk, but this was rejected. Our destination was reached after a four-hour journey by train at noon.

On our arrival the pulse was 140 and the temperature 103°. The conjunctivæ and skin were of a bright yellow colour. I gave a 3-drop dose of tincture of aconite every ten minutes, until I had given 30 drops, which brought the temperature down to 101°. I injected 6 gr. of quinine hydrobromate hypodermically. Shortly afterwards the temperature was 100°, and the pulse 145. He passed a natural stool, and the urine was clear. The condition of the patient rapidly grew worse, at 6.30 he was unconscious, and at 9 P.M. he died, having regained consciousness for only a few moments half an hour before his death.

The patient was a married man, somewhat stout but strictly temperate. He had not been in the habit of taking quinine daily. A planter six years previously in the same bungalow had two similar attacks in one year and recovered. I have made very careful inquiries from the planters in the Terai as to whether this blackwater fever occurs among the coolies on the tea estates, and I have always received the same reply, "I have never heard or seen any cases." Cases of this kind occasionally occur among the planters, and it is difficult to understand the immunity of the coolies from this particular disease, as signs of malarial poisoning—that is, enlarged spleen, anæmia, etc.—are very common, as also deaths from high fever.

An old resident of this district informs me that blackwater fever has never to their knowledge occurred in the hills—that is, above an elevation of 1,200 feet above the sea. There must be some definite parasite at work which can disintegrate the blood corpuscles so as to set free the hæmoglobin with such terrible rapidity. I do not for a moment believe quinine can give rise to blackwater fever, as I have never experienced any ill results from quinine; on the other hand, I have seen disastrous results from withholding it. I think the researches of Surgeon-Major Ross will lead to the use of smaller doses of quinine, but those given on a more scientific basis than at present. This can only be brought about when the intracorporeal life-history of the plasmodium malariæ is better known.

ARTHUR DUMVILLE HUMPHREY, M.R.C.S.Eng.,
Kurseong, Bengal. L.R.C.P.Lond.

THE PREVALENCE OF BLACKWATER FEVER IN ASSAM AND THE DUARS.

"I HAVE had an awfully busy time this year with blackwater fever, one case after another, all through the rains.....It is 'pucca' suicide staying here, as you may get it suddenly, and never sit up again."

So writes a surgeon from the Duars in a letter before me. I have sent an account of 11 cases of this disease occurring in this Cachar district to the *Journal of Tropical Medicine*, and I have since seen another case, giving for eighteen months a total of 7 deaths.

Dr. Roe and the late Dr. Weatherly met with several cases. Yet in the BRITISH MEDICAL JOURNAL of September 24th, 1898, Colonel Crombie writes: Blackwater fever is "practically unknown in India."

In my paper referred to I drew attention to the fact that of the last 7 cases, 6 were either medical men or persons living in the same house with medical men. Yesterday, when reading for the first time the *Medical Annual* for 1898, I was surprised to read under the heading Malarial Hæmaturia that "Karamiteas of Athens reported 7 cases due to quinine, one being a child, the others men, and curiously enough 6 of the individuals were medical men."

My last case was of the same social standing as the majority of my former patients. He was a Brahmin, head clerk on a tea estate. I found him dead on my arrival. He had been treated by a quack with "abi," the red powder commonly thrown on one another by Hindus during the Holi puja, which is, I believe, harmless. For the last three days of his illness he had taken no quinine, and at no time had he taken more than 5 gr. in the twenty-four hours.

Cachar, E. Bengal. ARTHUR POWELL, B.A., M.Ch.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.

CASE OF STRANGULATED INGUINAL HERNIA IN A BOY 2½ YEARS OLD: OPERATION: RECOVERY.

(Under the care of Mr. D'ARCY POWER, F.R.C.S., Surgeon Victoria Hospital for Children; Assistant Surgeon to St. Bartholomew's Hospital.)

[Notes by Mr. A. CHILCOTT PARSONS, House-Surgeon.]

History.—A boy, aged 2½ years, was brought to the hospital on the morning of January 16th with an irreducible tumour in the right groin. For three weeks previous the mother had noticed a "lump" there, but he had complained of abdominal

pain for some months. On January 15th the child had much pain in the groin. Both parents thought the "lump" was larger than it had ever been before, and on this occasion it did not "go back." During the twenty-four hours previous to admission, however, the patient refused all food, and vomited incessantly throughout the night. The bowels were opened naturally on January 15th, and the vomiting stopped at 8 o'clock on the 16th.

On Admission.—The child lay in bed with the right leg rawn up, and had an anxious expression. There was a smooth oval swelling fn the right groin about the size of a plover's egg. It was fairly tense, and allowed of some lateral displacement. There was no impulse on coughing, and the umour could not be reduced. It was tender on palpation, but the skin over it was normal, and there was no abnormal condition of the external genitals.

Operation.—Chloroform was administered at 2 P.M. on the day of admission, and attempts were again made at reduction. Taxis failing, Mr. Power cut down on to the swelling, and found it was an inguinal hernia. The contents proved to be small intestine only, and the sac was nipped at the ring. The constriction was a fairly tight one, but the bowel beyond was only slightly congested. The constriction was relieved by gently insinuating the point of an aneurysm needle along the inguinal canal between the gut and the external abdominal ring. When this was done, and the anterior wall of the canal was gently lifted up, it was easy to return the gut into the abdominal cavity without any division of the constriction. The sac was ligatured as high up as possible; the free ends of the ligature were then threaded on curved needles and passed through the muscular structures of the abdominal wall, one on either side of the ring, and tied. Three deep sutures were also used, completely closing the ring, and finally the skin incision was sewn up with continuous catgut. The wound did well, and by the tenth day there was firm union.

Remarks by Mr. Power.—The interest of this case lies in the complete history from the first protrusion of a piece of small intestine which became irreducible, then congested, and finally caused the ordinary symptoms of a strangulated hernia. The differences between the tissues of a child and an adult are also well defined: first, by the comparatively slight amount of congestion of the bowel which had followed upon its constriction; and secondly by the fact that the greater extensibility of the tissues allowed the inguinal canal to be dilated until the bowel could be returned without any division at the point of constriction.

NORTH-EASTERN HOSPITAL FOR CHILDREN, HACKNEY.

COIN IN THE ŒSOPHAGUS REMOVED BY THE AID OF THE FLUORESCENT SCREEN.

(Under the care of Mr. A. B. Roxburgh, Surgeon to the Hospital.)

[For the following report we are indebted to Mr. C. G. Burton, M.R.C.S., L.R.C.P., Resident Medical Officer.]

History.—A girl, aged 5 years, was admitted on January 2nd with the following history: On Boxing Day, December 26th, 1898, she had swallowed a halfpenny, which stuck in her throat. She was taken immediately to a doctor, but he was unable to move it. She was very sick at the time and during the rest of the day. On admission the child was quite comfortable; there was no dyspnœa. She took milk in very small sips, swallowed with difficulty, and complained of slight pain. She had had no solid food since the accident. She was immediately examined in the Roentgen apparatus room, and by means of the fluorescent screen a coin the size of a penny could be seen lying in the upper part of the œsophagus. The radiograph was then taken on Paget's xxx plate; exposure four minutes, tube 3 inches from neck. By the use of the screen the upper edge of the coin was seen to be lying more anteriorly than the lower border.

Operation.—Mr. A. B. Roxburgh was then sent for, and the child taken to the Roentgen room. The *x*-ray tube was arranged under a bed board which projected from the end of the table. The child was anæsthetised, and the head fully extended over the edge of the table. The room was then darkened, and the screen held over the neck. Coin easily visible. Mr. Roxburgh then passed a metal coin-catcher, which was plainly seen to pass behind the coin and the hook plainly seen below; this was raised gently, and the hook caught the lower edge of the coin, which was easily drawn up into the pharynx and picked up. The operation lasted only a few seconds. The child was able to swallow solid food a few hours after the operation, and on January 6th was discharged quite well.

Remarks.—The interest of the case was the ease with which the operation was performed by working with the fluorescent screen. It was seen exactly where the metal coin-catcher was being passed, and when the hook was under the edge of the coin, and that it was quite safe in pulling rather sharply at that precise moment.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. Bryant, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, March 28th, 1899.

Multiple Calculi removed from Narrow-necked Sacculi connected with Male Bladder.

Mr. Reginald Harrison gave the following particulars of these cases: Case I.—J. R., aged 56, came under observation in August, 1892, with symptoms of vesical calculus. A small stone was detected on sounding and crushed, but as this was not sufficient to account for the symptoms present a median perineal cystotomy was proceeded with, and thirty-four stones, weighing over 11 drachms, were withdrawn from a sac to the left of the prostate. The interval between the bottom of the sac and the rectum was very small. A drainage tube was fixed in the sac. The patient left the surgical home twenty-four days later. A perineal fistula persisted. In 1894 a suprapubic cystotomy was performed, and the bladder and sac were drained by that route. As this did not appear to have any appreciable effect upon the sinus the suprapubic wound was allowed to close. He died in 1896 with the fistula still open. Case II.—A man, aged 50, first seen in July, 1897. In 1897 several small friable calculi were removed from the bladder by the lithotrite and wash bottle. About this time it was first observed that the bladder had a large sac in it, which could be independently catheterised. In April, 1898, the patient suffered suddenly and acutely from cystitis, and on May 4th suprapubic cystotomy was performed. The lateral lobes of the prostate were found much enlarged, and to the right and a little below the corresponding ureter was the opening into a sac, just admitting the index finger. The sac was full of foul, purulent urine, and contained several stones. The latter were removed, and the pouch was washed out and a drainage tube fixed into it as well as into the bladder. In three weeks he was out of bed and doing well. Towards the end of June, 1898, he had several rigors and high temperatures in spite of careful irrigation of the bladder, so the wound was reopened, and the pouch washed out and again examined, with the view of draining the latter through the perineum. This had to be abandoned by reason of the relation of the sa to large vessels which could be distinctly felt by the finge and the original mode of drainage was reverted to. The enlarged prostatic lobes were also removed. His present condition (1899) is reported as being much improved. The author remarked that the difficulty in dealing with these two cases arose not in the removal of the stones, but in providing for the drainage and subsequent obliteration of the sacs in which the calculi were contained. He proceeded to discuss the advisability of draining some of these sacs after their exploration by suprapubic cystotomy from the perineum, and in support of this proposition referred to two other cases which seemed to favour this. The nature of the calculi removed was also referred to, and it was suggested that they were probably indigenous to the part in which they were found.

Mr. Bruce Clarke said he had had several similar cases which he hoped to put shortly into paper form. He thought it very difficult to distinguish the nature of the sac either by naked-eye or microscopic examination, partly on account of ulceration that had matted the parts together. The

absence of mucous membrane usually found facilitated healing, and was hence a good thing. As to treatment, having made the diagnosis differentiating from prostatic enlargement, he advocated suprapubic cystotomy, and then applying the principles of drainage. But this was not always easy. He referred to a case in which a saccule ruptured into the peritoneum, and to another case in which he invaginated the sac into the bladder, leaving the forceps on for some days by which this was performed; this led to obliteration of the sac. In some cases drainage by the perineum would doubtless be preferable.

Mr. Bryant remarked that these cases were difficult of diagnosis, but he differed from the previous speaker in thinking that the bladder should always be attacked superficially, as drainage was more effective by the perineum. He referred to 3 cases where sacculi had been suspected and their presence afterwards verified; these were all attacked through the perineum. He removed in one case a very large number of calculi, and the patient got perfectly well, the cyst having been efficiently drained. This and two other similar cases had been previously unsuccessfully lithotrised. In another case, having crushed a stone, he was unable to wash out the *débris*, and this he attributed to the presence of a sacculus. As to the site of the formation of these stones, all calculi from a sacculus had characteristic features, which were unlike those of the vesical and renal calculi; but he thought they probably came from the bladder and fell into the sac, where they were covered by the particular concretion.

Mr. Harrison replied.

The Treatment of Pulmonary Tuberculosis by Anti-Tuberculous Serum.

Dr. C. Theodore Williams and Dr. Herbert Horrocks, who read this paper, after reviewing the various investigations into the serumtherapy of tuberculosis made in France, Germany, Hungary, Italy, and the United States by Richet, Héricourt, Bouchard, Daremberg, Bernheim, Babes, Maragliano, Paquin, Trudeau, and others, gave an account of their own experiments carried out on 9 patients at the Brompton Hospital. The antituberculous serum was procured at the Jenner Institute of Preventive Medicine by inoculating a horse—an animal generally considered to be immune to tubercle—with increasing doses of tuberculin until no reaction followed, the maximum dose being 500 c.cm., which was given on two occasions. Twenty-one days after the last inoculation 1 litre of blood was drawn from the left jugular vein, the clot removed, and the serum mixed with a weak solution of carbolic acid (for preservative purposes), and transferred to sterilised bottles. Afterwards this was injected hypodermically with all antiseptic precautions into the selected patients. The cases first chosen were either those (1) of acute lung tuberculosis, or (2) of chronic lung tuberculosis where acute disease had supervened. Five patients were submitted to the treatment, the doses commencing with 1 c.cm. and gradually being increased to 10 c.cm., the object being to bring the system under the influence of the serum as soon as feasible. The treatment was carried on for periods of from fifteen days to three months, and the number of injections administered was from fifteen to twenty-five. The immediate result was rise of temperature and of pulse, slight urticarial or erythematous rashes, and enlargement of the axillary glands. The effect on the lungs was increase in the amount of expectoration, diminution in the lung tissue contained therein, except in one case, where it increased, diminution of septic organisms in two cases, and their disappearance in two cases; in one case these were altogether absent. With the exception of one case there was no reduction in the number of tubercle bacilli. The general condition of the patients deteriorated, and one died from a fresh eruption of tubercle and its attendant pleurisy some time after the termination of the injections. Two of the patients gained a few pounds in weight, but the physical signs at the close of the treatment showed that tuberculisation and excavation had gone on unchecked by the serum injections. The urticarial rashes were apparently due to the amount of carbolic acid added to preserve the serum, as, on the quantity being reduced, these rashes no longer appeared. The authors then determined to try (1) serum taken at longer intervals after the horse's inoculation with tuberculin; (2) to employ smaller doses, beginning with 1 c.cm. and never exceeding 5 c.cm.; and (3) to use it in cases of incipient and limited tuberculosis, as well as in cases of limited excavation. The serum was now taken seventy-two days after inoculation, and tried in two cases of limited unilateral tuberculosis, and also in two of excavation limited to one lung, and the results proved a marked contrast to those of the previous experiments. The treatment was carried out for longer periods, owing to its being better borne than in the first group, and from thirty-two to fifty injections were given in doses varying from 1 c.cm. to 5 c.cm. The injections in no case gave rise to any local swelling or irritation or rash, either of urticarial or erythematous type, but in all the patients the axillary glands became enlarged during the treatment. The temperature sometimes rose after the injections in one case; in the other three cases the records were invariably normal or subnormal. Pulse-rate and respiration-rate were not materially affected. All four patients gained weight, the two excavation cases most, one 12½ lbs. and one a stone; the tuberculisation cases 5½ and 6 lbs. respectively. All increased in strength and vigour, and were able to return to their work, except one patient, in whose case a lighter occupation was substituted for a comparatively trying one. Cough and expectoration diminished in all, and in one case altogether ceased. Physical signs showed limitation of the area of disease in the lungs in the consolidation cases, and in the two excavation cases quiescence of the cavity in one and complete contraction in the other. With regard to the sputum contents, in three cases the tubercle bacilli greatly diminished in number, and at times disappeared altogether, but at the close of the treatment there were still some to be detected. In one case they did not diminish at all, though the patient improved generally. The other organisms—diplococci, staphylococci, and streptococci—disappeared in the two cavity cases, and in the consolidation cases they were noted throughout, though in diminished numbers. In one excavation case two injections of streptococcic serum were made with no special effect on the pyrexia or general condition, but it was found that the septic organisms disappeared from the sputum. The authors concluded that in order to produce an antituberculous serum capable of controlling the evolution of tuberculosis in the human body, a considerable interval must elapse between the inoculation and the date of the withdrawal of the serum, for when taken a few weeks after inoculation its effects closely resembled those of Koch's first tuberculin. These experiments encouraged a further trial of the milder form of antituberculous serum in early cases of lung tuberculosis, or where the lesion was limited, but where the disease was so overwhelming, as in acute pulmonary tuberculosis, or the lung surface was largely invaded by fresh tubercle, no probable advantage was likely to be derived from its use

Dr. R. L. Bowles said that in regard to the milder preparation being more efficacious than the stronger he had had a similar experience with the weaker tuberculin of Koch as compared with the stronger.

Dr. Theodore Williams, in reply, said that although the consensus of opinion was adverse to the utility of Koch's tuberculin, yet it seemed to do good in some cases. It seemed first to light up the latent tuberculous process, and then to cause a breaking down of the lung tissue, and in every case he had treated with Koch's tuberculin he had found broken-down lung tissue. After the appearance of the cavity the condition of some patients certainly improved somewhat, but the mass of cases were worse for the treatment.

The Royal Institution.—Among the courses of lectures to be given after Easter at the Royal Institution are three lectures on Zebras and Zebra Hybrids, by Professor J. Cossar Ewart; two lectures on Electric Eddy-Currents (The Tyndall Lectures), by Professor Silvanus P. Thompson; three lectures on the Atmosphere, by Professor Dewar; and two lectures on Water Weeds, by Professor L. C. Miall. The Friday evening meetings will be resumed on April 14th, when a discourse will be delivered by Professor A. W. Rücker on Earth Currents and Electric Traction. Succeeding lectures will probably be given by Dr. F. W. Mott, Professor C. A. Carus Wilson, Dr. W. J. Russell, Professor T. Preston, the Bishop of Bristol, Sir William Martin Conway, and Mr. H. G. Wells.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Friday, March 24th, 1899.

Aneurysm of Abdominal Aorta Successfully Treated by Introduction of Silver Wire into the Sac.

The President related this case. The patient was a woman who had had an abdominal swelling since the birth of a child three months before. She had lost two stone in weight in twelve months. On admission there was a pulsating tumour in the epigastrium 3½ inches in diameter, which was movable laterally, but not vertically, and there was a loud systolic murmur over it. In April, 1898, as the swelling was increasing and the pain very severe, an exploratory laparotomy was performed, and the tumour was found to be an aneurysm of the upper part of the abdominal aorta. A trocar was introduced into the sac, and not much blood issued from the cannula when the trocar was withdrawn. As there was some difficulty in introducing salmon gut into the sac, silver wire was used, and 5 feet were introduced without difficulty. The puncture was secured with a silk ligature. There was some vomiting and a good deal of restlessness after the operation. A month later the tumour was carefully examined, and it was found that consolidation was occurring. As a result of the manipulation, however, there was return of the vomiting, severe rigor, and collapse. These symptoms yielded to treatment, and the after-progress was uneventful. She had been seen from time to time, and there was at the present time a hard mass in the middle line much smaller than before the operation, and the thrill and *bruit* had disappeared. Her health was excellent. There were only a few successful cases on record.

Dr. J. G. Glover proposed a vote of thanks to the President for this almost unique case.

Dr. Kingston Fowler asked for information respecting the result of the operation in other cases of the kind.

The President, in reply, said that the first case was by Mr. Stevenson, and was published in the *Lancet* of 1895. The patient, a soldier, died twenty-seven hours after the operation. The second case (by Loreta) and the third case recovered. The fourth case was under Mr. Henry Morris, who could only pass one foot of wire. The patient died some days afterwards. The fifth case, treated by Lange, also died. In a similar case treated by Sir James Paget, who used compression by the abdominal tourniquet, the parts superficial to the aneurysm were pulpified, and the patient died of septicæmia on the sixth day.

Operations for Pyloric Obstruction.

Mr. Rutherford Morison (Newcastle-on-Tyne) brought forward a series of cases illustrating the result of operations for pyloric obstruction. The patients were shown, and sections from the growths removed were exhibited by the lantern. (1) A case of recovery after pyloroplasty for stricture of the pylorus. The patient was a woman who was operated on in October, 1894, the case being published in the *Lancet* in April, 1895. At the time of operation she was fed entirely by the rectum. She was now in perfect health, and could eat anything. He made an incision an inch and a quarter from the pylorus, passed a guide through it, made an incision through all the coats into the pylorus, and then sutured the incision so that the line of union was transverse to the incision. Mr. Morison had performed this operation nineteen times, and all had recovered. Relapses did not occur. (2) A woman, aged 40, who had had severe pain after food for six months, and vomiting and emaciation for two months. There was a tumour the size of an orange which could be felt near the umbilicus, and which proved to be a scirrhous mass. Pylorectomy was performed in October, 1897. She could now eat anything, was in good health, weighed a stone and a half more than before the operation, and there was no evidence of recurrence. (3) A man, aged 48, who had had severe pain after food and emaciation for some time. There was a growth of encephaloid cancer reaching nearly up to the pylorus, which was excised with the growth. He was now in good health, and had gained 19 lbs. in the six months after the operation. (4) A woman, aged 41, who had had pain and vomiting for a year. There was great dilatation of the stomach, due to an adenocarcinomatous growth, the size of a walnut, in the pylorus. She had gained two stone since the operation in September, 1898. (5) A man, aged 38, who had rapidly emaciated, and suffered from pain and vomiting for ten weeks. There was an extensive colloid carcinoma involving the pyloric half of the stomach, which was removed, and the cardiac end joined to the duodenum by a modification of Billroth's method. A chain of glands was affected, and had to be removed. The patient was now in excellent health, and there was no sign of recurrence. (6) A man, aged 41, on whom he had performed pylorectomy for a small scirrhous mass six weeks ago. The man was now quite well, and had gained more than a stone in weight. The operation was in Mr. Morison's opinion safer than gastro-enterostomy, and should be performed whenever the tumour was movable, size of the tumour not being an important consideration.

The President thanked Mr. Morison heartily for exhibiting these cases, and bringing his highly successful results to the notice of the Society.

Mr. Charters Symonds congratulated Mr. Morison on his remarkable results. He had, in one instance, tried the method of pyloroplasty described by the author, with success; and having to operate on the patient subsequently for another trouble, he found that no adhesions had occurred. In one case of pylorectomy he had found difficulty in joining the stomach and duodenum, and had finally to employ a Murphy's button. The result was good, the patient being able to return to his work. He thought more highly of gastro-enterostomy than Mr. Morison did, having performed the operation twenty times, and having seen nothing but good follow it. Where the growth could not be removed in consequence of its size, or from any other cause, gastro-enterostomy was evidently the operation to be performed.

Mr. W. G. Spencer also congratulated Mr. Morison on his splendid results. The involvement of the lymphatic glands had certainly been slight, considering the size of the tumours. He considered the end-to-end approximation of stomach and duodenum was better than the method employed in Germany of closing the cut ends of both organs, and making a lateral opening between the two. He thought the operation of splitting the duodenum was a great advance on former methods of performing the operation, whilst the doubling over of the triangular flap of stomach to strengthen the line of union was very good. He would certainly adopt it. He had performed pyloroplasty successfully, but preferred to pass his sutures only through the peritoneal and muscular coats, using a Lembert suture of fine silk, and an ordinary round sewing needle. He questioned the advisability of transfixing all the layers of the gastric wall, as Mr. Morison had advised for his first suture. Also, why did Mr. Morison use catgut rather than fine silk, seeing that catgut was so quickly absorbed? Why, also, did he prefer a curved needle, which was apt to tear the tissues? As to gastro-enterostomy, he thought it of great service where excision was impracticable. He had had one case which after one year was in good health.

Mr. Morison, in reply, quite agreed that gastro-enterostomy was a good operation where nothing else could be done. But it was a dangerous operation in cases of large dilatation of the stomach. He had employed the tongue-shaped flap of stomach for strengthening the line of union in one case only. The first suture was temporary only; the catgut was digested by the stomach and thus removed. Much time was saved by passing this suture through all the coats at once. The round needle which he used had no sharp edge at all; the only sharp part about it was its point. It was made for him by Messrs. Down Brothers.

Lymphangioma Tuberosum Multiplex.

Dr. Radcliffe Crocker described a case, and showed drawings. The patient was a female, who had first noticed the lesions at the age of 18. There was a large number of small smooth papular elevations on the skin over the upper part of the chest. They were most abundant under the clavicles, and without any definite arrangement, although there was a tendency for them to follow lines from the shoulders to the sternum. They were confined to the upper part of the chest with the exception of a few outlying papules on the neck and in the axillæ. Some of them were yellowish or brownish, but

some of them were the same colour as the surrounding skin. There was milium between the spots and on some of them. Microscopically they had a cystic structure with some glandular elements. The patient was in robust health, and there was no inconvenience from the spots beyond their preventing her from wearing low dresses. The condition was a rare one, only 10 cases having been recorded.

MEDICAL SOCIETY OF LONDON.

EDMUND OWEN, F.R.C.S., President, in the Chair.

Monday, March 27th, 1899.

DEATH FROM FUNCTIONAL NERVOUS DISEASE.

DR. ROBERT MAGUIRE read a paper upon deaths from functional nervous disease, which he maintained were due to exhaustion of grey nerve matter. In death from senile decay, the condition in which there was the most equal deterioration of the somatic powers, there was nevertheless usually a predominance of failure of one particular system, generally that of the heart, since this organ had no chance of rest. But the system at fault was the highest nervous system. He described four cases bearing upon this point which occurred under his own observation. Dr. Maguire believed that this served to explain the sense of impending death, which, of no importance in the young and those suffering from very acute disease, was of a serious omen in the old and those who had more prolonged illnesses. Similarly, patients in an Eastern nation would die if they made up their minds to die, while those of Western nations, even though neurotic, had more reserve vitality, and their morbid fears were of less moment. Dr. Maguire said that hints on the physiology of the subject might be obtained from a paper by Dr. Waller, on the Sense of Effort, published in *Brain*.

Dr. SANSOM agreed with the author's general proposition, and pointed out incidentally that while, as shown at the Sudden Death Laboratory at Vienna, fatty degeneration of the heart was present in only 3 out of 860 sudden deaths, it was a very popular explanation of sudden death in this country.

Dr. TUKE pointed out certain points of resemblance between the cases related by the author and the early stages of general paralysis of the insane. There was the same tendency to lapse into and remain in a state of unconsciousness.

Dr. RICHARDS did not believe that in cases such as those described by the author, which were of some duration, death could be due to exhaustion of the grey matter without some microscopical evidence thereof being discoverable at the necropsy.

Dr. MAGUIRE, in reply, observed that general paralysis was not a general disease at all but merely a collection of symptoms. As in one of his cases recovery had taken place after three months' unconsciousness, it must be supposed that no organic change had taken place in the cortex.

CERTAIN POINTS IN THE PATHOLOGY OF THE PERICARDIUM.

Mr. HAROLD L. BARNARD read a paper on this subject. The researches of Leonard Hill and the speaker had shown that the heart could not carry on the circulation of man in the erect position. The return of blood from the legs and abdomen to the heart was affected by the contraction of skeletal muscles. The muscles of the limbs forcibly emptied their veins into the right heart at each contraction during walking or running. The contractions of the muscular sphere which enclosed the abdominal viscera were a part of the respiratory movements. During rest and sleep the enlargement of the thorax during inspiration was enough to suck the blood from the abdomen into the right heart. During vigorous efforts, in addition to this suction action, the abdominal walls contracting simultaneously at each inspiration forced the blood from the capacious abdominal veins into the heart. When the muscles of the limbs and the abdomen contracted together as much as a pint or two of blood might be suddenly forced into the right heart. This sudden plethora would hopelessly stretch and dilate the thin wall of the right heart were it not supported by the tough fibrous pericardium as the leather case supported the football or the outer cover supported the inner tube of a Dunlop tyre. Experiments were shown to demonstrate this point, and it was stated that the pericardium limited by about one half the capacity of a heart in diastole. The pulmonary circulation was largely due to the respiratory movements. The contraction of the abdominal muscles and the enlargement of the thorax during inspiration transferred blood from the abdominal veins to the lungs. The following expiration tended to pass it from the lungs through the left heart into the arteries. The hepatic circulation was produced by the squeezing of the portal vein during inspiration. Points of pathological interest were to be found in all parts of this venous circulation. When the muscles of the legs failed to perform their vascular functions varicose veins and œdema of the feet followed, as was exemplified in cases of Pott's fracture and flat foot. Many neurasthenic troubles were traced to a lax and feebly acting abdominal wall in a person with naturally low blood pressure. The blood leaked into a capacious portal system, and was not rapidly returned to the heart. The ill-filled heart was unable to maintain a constant blood supply to the brain. Abdominal massage followed by exercises and belts were recommended for such cases. When the pericardium softened in pericarditis, coughing or even moderate exercise would not only fill the heart with blood, but stretch the pericardium supporting it. It seemed probable that a pericardium so dilated did not recontract to its former dimensions. The right heart being unsupported would always become dilated and its valves incompetent with even moderate efforts. Speaking of pericarditis with effusion, Mr. Barnard believed that he had demonstrated by experiments on animals that one type of the terrible dyspnœa met with in that disorder was preservative, for the violent muscular spasms were directed to forcing blood through the compressed heart. He thought this form of dyspnœa was the imperative call for releasing the effusion, of course by the open method.

In reply to Mr. WALLIS, Mr. BARNARD pointed out that when the deep veins were not assisted by muscular action to carry forward their contents the venous circulation fell to the superficial veins, which consequently tended to become varicose.

BRITISH GYNÆCOLOGICAL SOCIETY.

H. MACNAUGHTON JONES, M.D., President, in the Chair.

Thursday, March 23rd, 1899.

SPECIMENS.

THE following specimens were shown:—Mr. C. RYALL: Three specimens of Uterine Myoma removed by Abdominal Hysterectomy.—Dr. WINSON RAMSAY (Bournemouth): (1) Two Uteri removed by Vaginal Hysterectomy; (2) Uterus removed by Panhysterectomy; (3) Specimen of Tubal Abortion; (4) Modified Broad Ligament Needle.—Dr. JAMES OLIVER: Photograph of Fibroid of Ovary with extensive localised extravasation of blood under the capsule of the tumour.—In the discussion on these specimens the PRESIDENT and Drs. F. A. PURCELL, HEYWOOD SMITH, HERBERT SNOW, R. HODGSON, ARTHUR GILES, RYALL, and RAMSAY took part.

ADENOMA OF ENDOMETRIUM.

Dr. JAMES OLIVER read a paper on a case of adenoma universale of the endometrium in which panhysterectomy by the abdominal route had been performed. A photograph of the interior of the uterus was exhibited which showed myriads of more or less pedunculated growths varying in size from that of a pea to a walnut springing from the mucous membrane of the cervix as well as the body of the uterus. The patient, who was aged 34, was a virgin, and the symptoms which were referable to the disease had existed ten or twelve years. Dr. Oliver did not consider that the disease should be termed as it had hitherto been "adenoma malignum." He drew attention to the fact that the lining membrane of the cornua uteri in horned ruminants showed upheavals which resembled closely the more or less polypoid growths which characterised adenoma universale in the human female, and he suggested that this disease might be due to a reversion of type.

The PRESIDENT gathered from Dr. Oliver that his view was that the adenoma in this case was not malignant; and also that the curetting had made matters worse. If this were the case it was an argument in favour of early hysterectomy rather than of repeated curetting. He had himself had a case

of adenoma which he curetted; this was followed by a malignant condition of the uterus, which in the end killed the patient. Yet he thought most surgeons in dealing with such a case would proceed to curette the uterus rather than at once to perform hysterectomy.

Dr. Herbert Snow protested against the word "adenoma," which was used in many senses, and consequently led to confusion. His view of the case would be that the patient had an endometritis, which, on curetting, became a true malignant disease. He would like to ask whether the later stages were accompanied by any of the signs of malignant disease.

Dr. P. Z. Hebert took objection to the suggestion of reversion in this case. In order to show any probability that such a condition was a reversion to type, it would be necessary to show not only that horned ruminants presented such characteristics, but also that the ancestors common to both man and the horned ruminants presented the same characteristics before the divergence of the common stock into two distinct species took place, and this would be a rather difficult task. Characters which might have developed after that period in one or other of these species could not be reverted to by the other. The comparison was also imperfect, inasmuch as in one case they had a pathological and in the other a physiological condition.

Dr. Oliver, in reply, said that at the outset he did not attempt more than the removal of the polypi. Examination showed them to be adenomatous; but the patient remained well for two years after. She never had any pain. The watery discharge occurred only after the curetting, and was due to the operation, which removed the surface of the glandular tissue. A watery discharge by itself was no evidence of malignant disease.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Anatomy and Physiology.

D. J. Coffey, M.B., President, in the Chair.

Friday, February 3rd, 1899.

Effects of Sodium Chloride on the Secretion of Urine.

Professor W. H. Thompson read a communication dealing with the effects of minute quantities of sodium chloride on the secretion of urine. Solutions of sodium chloride (0.65 and 0.9 per cent. strength) were injected into the external saphenous vein of dogs in quantities varying from 30 c.cm. to 50 c.cm. Urine was collected from both ureters by means of cannulæ. The animals were given a hypodermic injection of morphine, and were anæsthetised with a mixture of chloroform and ether (1 to 2) during the operative procedures. Urine was collected for definite periods of time before and after the injection of salt solution. The results showed: (1) A marked increase in the amount of urine secreted, which reached its maximum in the second hour after the injection, but had not wholly subsided even at the end of four hours. This increase far exceeded the amount of fluid injected. After making allowance for this quantity, the average of ten experiments showed an augmentation of over 300 per cent. One experiment showed no increase, and one was not available in calculating this average. (2) Both the total nitrogen and the urea also suffered an increase, though the urine secreted was more dilute. This augmentation reached its maximum in the hour immediately following the injection. These effects were found not to be due to a dilution of the blood or hydræmic plethora caused by the injection, nor could they be ascribed to any supposed necessity for getting rid of the sodium chloride injected. In many cases the actual output of chlorides was diminished. No adequate cause had, so far, been found to account for the diuresis.

In reply to Dr. R. Travers Smith, Professor Thompson said that in the bladder urine he found a certain output of chlorides, and in the first hour, when the dog was on the table, he found that the output was much the same as in the bladder. After that there was a steady diminution, which seemed remarkable.

The Sensory Distribution of the Seventh Cranial Nerve in Man.

The Secretary read (for Professor Dixon, of Cardiff) an abstract of a paper upon this subject, and exhibited a series of lantern slides illustrating the chief points in the communication. Professor Dixon's conclusions were: (1) That the facial nerve in man was in a condition comparable with what was found in lower vertebrates, resembling in its distribution what had been called a typical branchial nerve; (2) that the facial possessed two sensory branches—namely, the chorda tympani and the great superficial petrosal nerve; the chorda tympani was certainly a nerve of taste, and the proved function of the corresponding nerve in lower vertebrates seemed to justify the assumption that the great superficial petrosal also was a nerve of taste; (3) that the fibres to which the term "chorda tympani" had been applied by physiologists did not form the chief part of that nerve; they did not represent the prespiracular nerve of lower vertebrates, nor the corresponding nerve in man, which appeared early, and passed into the developing tongue. The author based these views upon embryological and comparative investigations.

The communication was discussed by the President, Professor Symington, and Dr. A. R. Parsons.

The Acromion.

Professor Symington exhibited four specimens of separate acromion process, which he had dissected, and discussed the question whether such cases were to be regarded as non-union of the epiphysis or ununited fractures, favouring the former view. He also showed sections of the pelves of two adult male subjects, which differed considerably from one another both in the thickness of the pelvic floor and the height of the pelvic viscera and peritoneum.

Dr. Edward H. Taylor and Professor W. H. Thompson made remarks; and Professor Symington replied.

Anæsthetics and Urinary Secretion.

In a preliminary communication on this subject, Professor W. H. Thompson stated that: (1) A mixture of ether and chloroform (2 to 1) did not cause an increased diuresis. This was the anæsthetic used in his sodium chloride research. Six experiments were performed on dogs. (2) A.C.E. mixture on the contrary did, in most cases, markedly increase the amount of urine. In one case suppression was caused. This dog proved to have albuminuria. (3) Ether also produced an increase of urine, as did chloroform likewise, but with this latter anæsthetic only one experiment had so far been carried out. (4) Little or no effect was produced by the various anæsthetics on the total output of nitrogen and of urea, even in cases where marked diuresis was caused. (5) The after-effect on the output of chlorides showed a marked diminution. What the immediate effect was had not so far been definitely decided. (6) In 8 experiments (with different anæsthetics) the urine was examined for carbohydrates with chloride of phenyl, hydrazin, and sodium acetate. All but one gave crystals. Some of these were undoubtedly glucosazone, others glycuronic acid, while in one case it was probable the crystals were those of galactosazone. In all cases the dogs were injected with a solution of morphine.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Vincent Jackson, F.R.C.S.Edin., President, in the Chair.

Thursday, March 9th, 1899.

Coloboma and Malformation of Auricle.

Mr. J. Jameson Evans showed a boy, aged 13, with double coloboma. The right retina was functionally active all over, but the left presented a quadrant corresponding to the coloboma which was not active. There was left-sided hemiatrophy of the face and the left eye was slightly small than the right. The right ear was absent, being only represented by a small nodule behind the ramus of the jaw in the position of the tragus, and another larger nodule at the base of the mastoid process, both containing fibro-cartilage. Immediately behind the anterior nodule there was a small opening representing the external auditory meatus, which extended inwards for about three-quarters of an inch, and secreted ceruminous matter. He could only hear on contact on that side.

LARGE GALL STONE.

Dr. STEPHEN showed a gall stone the size of a small walnut which had recently been passed by a woman. There had been repeated attacks of hepatic colic accompanied by jaundice, these had been treated with opium. In the last attack there was no jaundice, and it was treated by chloral hydrate, 18 grains every two hours. The attack lasted from February 23rd to March 1st, when it suddenly ceased. Dr. Stephen believed that the stone had passed into the duodenum through the common bile duct, and that the chloral had produced great relaxation of this.

COMPOUND FRACTURE OF SKULL.

The PRESIDENT exhibited a piece of the squamous portion of the left temporal bone measuring 2 inches by 1¼ inch, which had been detached and driven into the brain by a kick from a horse. On examination a few hours after the injury, the patient was found to be conscious, and there was a transverse wound about an inch and a-half above the left ear of about three inches in extent. On examining this with the finger, a considerable aperture was detected in the cranial vault, and there was a leakage of brain matter. The piece of bone shown had, as it were, speared the cerebrum, and was lying free in its substance. This was removed under an anæsthetic. The patient had made an excellent recovery, but the power of speech was affected to the extent that in conversation a word every now and then was dropped, and no effort could recover it unless assisted.

WRENCH FOR CLUBFOOT.

Mr. WILLIAM THOMAS exhibited a wrench he had devised for the treatment of clubfoot. He drew attention to the value of wrenching, although he did not think in severe cases it was so efficient as tarsectomy, or even Phelps's operation. He claimed for his instrument that the power could be applied much more directly than with the ordinary wrench, and found that the absence of the india-rubber coating was an advantage as there seemed to be less bruising of the skin without it.

TRAUMATIC CLUBFOOT.

Mr. WILLIAM THOMAS showed a patient on whom he had successfully performed the operation of tarsectomy for severe talipes equino-varus, the result of injury to the external popliteal nerve. Full notes of the case were read.

LOCAL CONDITIONS AND MALIGNANT DISEASE.

Dr. E. N. NASON read an interim report of the Committee appointed to consider the question of the influence of local conditions in the production of malignant disease. (See p. 812.)

PAPERS.

Dr. T. STACEY WILSON read a paper on the Treatment of Enteric Fever, as illustrated by the analysis of nearly 100 consecutive cases with 5 deaths. — Mr. LEEDHAM-GREEN read a paper on the Treatment of Tuberculous Testis.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

JAMES MURPHY, M.D., President, in the Chair.

Thursday, March 9th, 1899.

PSEUDO-HYPERTROPHIC PARALYSIS.

DR. WM. ROBINSON showed a boy, aged 11 years, who for the past six years had complained of pain and swelling of the great toes, and nine months ago had great difficulty in walking up stairs. At present the pseudo-hypertrophy was limited to calf muscles and infraspinati; quadriceps, glutei, deltoids, and chest muscles being wasted.

EXCISION OF THE UPPER JAW.

Dr. MACDONALD brought forward a man, aged 44, eight months after total excision of the upper jaw for antral carcinoma. Two months previous to operation the patient had two teeth extracted, and when seen later a fungoid growth was presenting through the sockets. Although the orbital plate had been removed, there was no dropping of the eyeball and very slight deformity.

UNREDUCED FRACTURE AND DISLOCATION OF ELBOW.

Dr. JAMES DRUMMOND showed a man, aged 50, who had twenty years previously fallen down a ship's hold; some weeks later he was admitted into a hospital in Philadelphia, where several pieces of bone were sequestrated. Two years later he was able to resume work, and now presented a most remarkable deformity, but had a very useful elbow with fair range of movement.

VARICOSE ANEURYSM OF FEMORAL ARTERY.

Mr. PAGE brought forward a patient, aged 26, four months after extirpation of a varicose aneurysm of the femoral artery in Hunter's canal, a portion of both artery and vein being removed. The case had been reported at the December meeting of the Society.

GALL STONES.

Mr. PAGE showed a woman upon whom he had recently operated for gall stones. Several stones were removed from a contracted gall bladder, and one large stone impacted in the cystic duct could be removed only after extending the gall bladder incision along the cystic duct to the site of the stone. The gall bladder was completely sutured, and the abdominal wound closed without drainage.

REMOVAL OF MALIGNANT GROWTH IN NECK, TOGETHER WITH PNEUMOGASTRIC NERVE.

Mr. PAGE showed a man who two years previously had his tongue removed for epithelioma, and nineteen months later returned with recurrence in the neck glands. At the operation for their removal a portion of the pneumogastric nerve was also removed without bad effect.

SARCOMA OF MENINGES.

Mr. PAGE showed a man, aged 57, who three years ago received a severe blow on the top of the head, resulting apparently in fractured base. Nine months previously a soft point was discovered over the vertex into which he could put his finger. A swelling had gradually appeared under the scalp without signs of intracranial pressure. A fortnight previously an exploratory incision revealed a very vascular and soft growth apparently springing from the meninges, and presenting through a distinct orifice in the cranial vault.

MUSICAL HEART MURMURS.

Dr. DAVID DRUMMOND exhibited three patients with musical heart murmurs. In discussing their time in the cardiac cycle, he said that, contrary to general statement, his experience went to show that such murmurs were far more frequently regurgitant than direct. In reviewing their pathological import, they indicated good compensation, and as compensation failed, the musical character of these murmurs disappeared.

ANEURYSM OF AORTA COMMUNICATING WITH SUPERIOR VENA CAVA.

Dr. DAVID DRUMMOND showed a specimen of this kind. The patient had been shown at a previous meeting as suffering from the above condition, and the specimen exhibited proved the correctness of the diagnosis.

SPECIMENS.

The following specimens were also exhibited: Dr. J. V. W. RUTHERFORD: Uterine Fibroid with broad ligament cyst. Dr. COTTEW MOORE: Card specimen showing Congenital Pigmentation of Retina.

LIVERPOOL MEDICAL INSTITUTION.

PATHOLOGICAL AND MICROSCOPICAL SECTION.

F. T. PAUL, F.R.C.S., in the Chair.

Thursday, March 16th, 1899.

BRONCHIOLECTASIS.

DR. R. BUCHANAN read a paper on bronchiolectasis, based on a case occurring in a boy aged 5½, who died after several weeks' illness from an affection of the lungs, believed during life to be tuberculosis. *Post mortem* no tubercle was found in any organ. The lungs had a honey-combed appearance, being riddled with small holes averaging $\frac{1}{16}$ inch in diameter. Dr. Buchanan then described minutely the pathology of his specimen, and gave a summary of the cases that had been described by other observers. His case seemed to show that the cavities were not true dilatations of bronchioles, but

rather vomicæ due to breaking down of broncho-pneumonic foci and their enlargement by ulceration. He also suggested that cases of this sort which were not fatal might form the connecting link between catarrhal pneumonia of childhood and the bronchiectasis of later life, or the non-tuberculous forms of fibroid lung. He suggested the term "ulcerative bronchopneumonia" as preferable to "bronchiolectasis." The paper was well illustrated by microscopic specimens and lantern slides.

Dr. Barr argued that such cases were pyæmic, the cavities being originally embolic abscesses, and not primarily within the air tubes. He described a case which he considered similar to Dr. Buchanan's, and which was purely pyæmic, complicating a wound of the leg.

Dr. Warrington also discussed the paper; and Dr. Buchanan replied.

Multiple Rodent Ulcer.

Mr. Paul read a note on multiple rodent ulcer. He described three cases in which more than one tumour was present. In the first two cases the primary disease was situated on the nose and forehead respectively, and in each had existed for nearly twenty years before secondary infection occurred. In both the secondary growth was in the submaxillary region, in the nose case on both sides, in the forehead case on one side only. In the third case which he described there were three primary growths, one on the nose, one over the right external angular process, and one over the right mastoid. Microscopic examination, however, showed that the first only was a typical rodent, the second a beautifully distinct tubular adenoid carcinoma, while the third was a squamous-celled carcinoma. The note was illustrated by microscopic specimens and micro-photographic lantern transparencies.

Specimens.

Mr. W. T. Allen showed an exceedingly marked specimen of Fatty Degeneration of the Kidney.—Mr. C. G. Lee showed: (1) An Eye, the subject of Calcareous (or Osseous) Degeneration of the Choroid; it was removed from a gentleman aged 44 on account of trouble in the other eye, and had been quite blind for forty years following a wound with a penknife; Mr. Lee thought that this and another case he had published some years ago supported the view that sympathetic ophthalmitis might arise from ciliary irritation alone without the aid of micro-organisms; he thought the case argued strongly against evisceration with implantation of glass globe; (2) an Eye, removed from a child, exhibiting Suppurative Choroiditis.—Mr. Douglas Crawford showed (1) a Cyst removed from the Anterior Vaginal Wall of a woman aged 27; (2) an Extrauterine Gestation, which had ruptured into the broad ligament. It was nineteen years since the woman was last confined, since which until this there had been no pregnancy. Besides the presence of the tumour there were few symptoms. At the operation a large mass of clot was evacuated. The fœtus, which was 3 to 4 months, was much macerated. No placenta or cord could be found.—Dr. Alexander showed a Hydrocephalic Brain.—Dr. G. G. Stopford Taylor showed a Squamous-celled Melanotic Carcinoma originating in a mole. The pigment was chiefly contained within the epithelial cells.—Mr. Hawkins-Ambler showed (1) the Appendages from a case of Pyosalpinx; (2) a microscopic specimen of a Simple Papilloma removed from the Labium Minus of a child aged 6.- Dr. J. Wiglesworth showed (1) a specimen of Stenosis of the Ileum caused by the healing of a tuberculous ulcer; it was obtained from the body of a woman aged 44; the constriction would only admit the tip of the little finger, and was situated a foot and a half above the ileo-cæcal valve; below the stricture were several other tuberculous ulcers; the lungs were also affected; (2) a Kidney with two perfectly distinct Ureters.—Dr. W. B. Bennett showed an excellent specimen of "Madura Foot," well exhibiting the intercommunicating cysts and sinuses filled with dark granular material.—Dr. Warrington showed some microscopic specimens and drawings of a case of Caries of the Spinal Column, in which the cord above the lesion showed some marked and interesting ascending degenerations.—The specimens were discussed by Drs. and Messrs. Paul, George Hamilton, Robert Hamilton, Bickerton, Bennett, Lee, and Wiglesworth.

North of England Obstetrical and Gynæcological Society.—At a meeting held at Sheffield on March 17th, Dr. Donald, President, in the chair, Dr. Keeling showed the following specimens: (1) Large Cystic Myoma of the Uterus removed by abdominal section; (2) Dermoid Cysts of both Ovaries; (3) Tubo-ovarian Cyst, an Ovarian Hydrocele.—Dr. Favell related a case of Cancer of the Cervix associated with three months pregnancy. The uterus and its contents were successfully removed by vaginal hysterectomy.—The President reported a case in which he had performed Vaginal Hysterectomy for *post-partum* hæmorrhage. The patient, a primipara, was observed during pregnancy to have an extremely thin and flabby uterine wall. Labour came on spontaneously, accompanied, however, by extreme inertia. Delivery was effected by forceps. Profuse and intractable *post-partum* hæmorrhage ensued, continuing in spite of all the usual methods of treatment, including gauze plugging of the uterine cavity. The patient when seen by the President was apparently moribund. It was decided to perform vaginal hysterectomy as a forlorn hope. The operation was easily carried out with clamps and did not occupy more than ten minutes. The patient temporarily improved, but died an hour later. The President was of opinion that if the operation had been done a few minutes earlier the patient's life would have been saved.—Dr. Walls, resuming the discussion (adjourned from the last meeting) on the Treatment of Severe Cases of Accidental Hæmorrhage, advised that in these cases the membranes should not be ruptured until the os uteri was fully dilated or dilatable. He was in favour of plugging the vagina, especially if used in conjunction with de Ribes's bag. After delivery by forceps or version the great danger to the patient was from the almost inevitable *post-partum* hæmorrhage. If the usual methods of treatment, such as ergotin, kneading with compression, and gauze packing failed, he advised that vaginal extirpation of the uterus should be carried out. The operation could be rapidly performed with clamps, and he believed that in this way a certain number of cases could be saved.—Dr. Glynn Whittle, in an experience of 10,000 labours, had met with 16 cases of severe accidental hæmorrhage. All the infants died, with one exception, but 15 of the mothers recovered. He had never used hydrostatic dilators, but preferred to plug the cervix and vagina firmly. He followed this by manual dilatation of the cervix and rapid delivery by forceps or version. The *post-partum* hæmorrhage, often severe, was in his experience always checked by the use of a hot uterine douche. He was not in favour of Porro's operation or vaginal extirpation in such cases, believing that if a woman could survive these procedures, she would certainly be saved by a vigorous application of the above principles of treatment.—Dr. Martin considered that the very severe cases of accidental hæmorrhage, as described in the paper, must be of great rarity, as in his long experience he had not met with any. He believed, however, that in such cases vaginal hysterectomy was justifiable and necessary if all other measures failed to check the *post-partum* bleeding.—Dr. Lea suggested that in cases of severe internal bleeding into the cavity of the uterus, with the os undilated, and considerable uterine inertia, *accouchement forcé* would be indicated by means of deep incisions into the cervix, and rapid extraction of the child.—Remarks were also made by Dr. Briggs, Dr. Keeling, and the President; and Dr. Walls replied.

Midland Medical Society.—At a meeting on February 8th, Dr. W. G. Lowe, President, in the chair, Mr. Jordan Lloyd showed the Pelvic Genitalia removed *post mortem* from a woman, aged 36, who had died of acute general pulmonary tubercle. She had never menstruated, but had always had fair health, although somewhat delicate in childhood. The cervix uteri was normal in structure and 1¼ inch long. The body of the uterus was small, about 1½ inch long. Its cavity was obliterated and contained old cretaceous tuberculous deposit. Each Fallopian tube was blocked by a cretaceous nodule the size of a pea within an inch of the fundus uteri. Up to the points of blockage the tubes were of normal thickness, but beyond this they were atrophied to about 2 mm. in diameter. The fimbriæ of the right tube were open, and those of the left closed by old peritoneal adhesions. The ovaries were normal in size and structure, and contained Graafian ves-

icles. Many of the mesentery glands were full of ancient tubercle, which had evidently been laid down many years before. The vagina was normal. The absence of menstruation was clearly due to the obliteration of the uterine cavity and the plugging of the Fallopian tubes as above described. There was no other tubercle in the abdominal or pelvic cavities. Mr. Jordan Lloyd also showed a Left Kidney removed successfully by lumbar nephrectomy from a woman, aged 20, who had suffered since childhood from periodical attacks of lumbar pain with diminished urine and the appearance of a tumour in the lumbar region—the symptoms disappearing with polyuria and the disappearance of the tumour. It was intended to transplant the ureter to a new attachment to the renal pelvis, but at the time of the operation there were practical difficulties in the way of carrying out this procedure satisfactorily. The kidney was therefore removed. The stalk of the kidney was first clamped by Doyen's forceps, and the vessels and ureters tied separately. The forceps were then removed. The patient made an easy recovery.—Mr. CHRISTOPHER MARTIN showed an Improved Form of Steriliser. It consisted of two chambers, the lower chamber being used for boiling instruments in soda solution whilst the upper chamber was for steaming dressings, towels, gauze swabs, etc. The lower chamber was large enough to hold an ordinary pair of midwifery forceps. The steam was conducted from the lower to the upper chamber by a pipe which delivered it near the top of the latter. Near the floor of the upper chamber three small holes were made to permit the escape of steam. By this arrangement the current of steam in the upper chamber took place from above downwards. He had also had a strong brown canvas case made, into which the upper chamber could be packed. It then formed a convenient and perfectly aseptic method of carrying instruments, dressings, swabs, etc., from the surgeon's house to the patient's. Mr. Martin also showed an acetylene lamp for surgical operations. It was essentially an acetylene bicycle lamp to which a convenient handle had been applied, and to which he had had fitted a reflector which could give either a horizontal or a vertical beam of light. The whole was packed into a neat leather case. It gave a brilliant light, was inexpensive (compared with electrical lamps), and was very portable. Its only drawback was the somewhat objectionable smell which all acetylene lamps give off. Both the steriliser and the acetylene lamp had been made for him by Mr. Ash, Edmund Street, Birmingham.—Mr. J. FURNEAUX JORDAN read a paper on The Advantages and Disadvantages of Vaginal Cœliotomy.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting of the Society on March 15th, Mr. T. DAVIES PRYCE, President, in the chair, Mr. TRESSIDER showed a patient from whom he had removed the Lower 6 inches of the Rectum by a modification of Kraske's method, dividing the sacrum transversely at the level of the third piece, and removing the lower portion of it and the coccyx.—Mr. A. R. ANDERSON showed a patient after operation for a Perforated Gastric Ulcer. The operation was done about six hours after perforation, and recovery was uneventful. The ulcer was situated on the posterior wall, near the lesser curvature and close to the œsophageal opening. It was of a size admitting the index finger tip. The peritoneum was soiled with some milky fluid which must have reached the general cavity through the foramen of Winslow, as the ulcer had perforated into the lesser sac of the peritoneum, and was reached after tearing through the small omentum, and sutured.—A discussion on Gastric Ulcer, with special reference to the Diagnosis of Perforation, was opened by Mr. R. C. CHICKEN, Mr. A. R. ANDERSON, and Dr. NOBLE. Mr. CHICKEN said that regarding the ulcer itself and the diagnosis of it, the three cardinal symptoms were: (1) Pain, (2) vomiting, and (3) tenderness, although one of these might be absent. In his opinion, vomiting of blood was nearly always present. In respect of the diagnosis of perforation the chief points were: (1) Previous history, with a history of vomiting blood, and especially if of the "coffee-ground" variety, (2) sudden onset, and (3) general abdominal pain. Mr. A. R. ANDERSON spoke chiefly in relation to treatment, and described 2 cases. In the first, an operation was done for perforation, and all went well for a time; but subsequently a subphrenic abscess developed, which ultimately proved fatal. There had been great soiling of the peritoneum in this case with solid material, and the probable cause of the abscess was the lodgment of a portion of this on the upper surface of the liver. The abscess was situated posteriorly at the position of the reflection of the peritoneum on to the diaphragm. Mr. Anderson insisted on the great importance of cleansing this situation as a routine practice in such cases, and remarked that it was often neglected. He considered that it was due to its having been insufficiently done in this case that the result was as described. A second case was related in which a small, round, deep, conical ulcer was excised before closing the perforation. The result was completely successful, and in such cases Mr. Anderson advocated excision rather than simply closing the perforation. Referring to the operative treatment of non-perforated ulcers, he remarked on the encouraging results which had been reported by writers, chiefly Continental. He considered that in some cases it was the right treatment to adopt. Dr. NOBLE confined his remarks to the diagnosis of perforation, and considered that the following were the signs of chief importance: (1) sudden pain, (2) immobility of abdominal walls, (3) rapid distension, (4) resonance replacing liver dulness, (5) friction sounds to be heard with the stethoscope and indicative of commencing peritonitis, (6) previous history of vomiting, bearing in mind that in 50 per cent. there was no history of hæmatemesis obtainable, (7) the pulse, and to this condition he attached very great importance. The PRESIDENT related a case in which there was no reasonable doubt but that a perforation had occurred in a gastric ulcer. Operation was proposed, but the patient declined and recovered. Similar cases were related by Dr. HUNTER and Dr. GIDDINGS. The discussion was continued by Messrs. TRESSIDER, BLURTON, MUTCH, and BOLTON.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—At a meeting on March 22nd, Dr. H. RADCLIFFE CROCKER in the chair, Dr. T. D. SAVILL showed a case for diagnosis, a female with an eruption which he believed to be Lichen Ruber Planus. A well-marked bulla was noticed at one spot. She had been taking arsenic.—Dr. J. H. STOWERS showed a case of Sclerodermia in a young woman. There were symmetrical morphœa patches on both shoulders, on both arms, and on the front of both thighs. In the discussion it was authoritatively stated that up to the present no structural nerve changes had been observed in these cases, either in the central or any other part of the cord or in the peripheral nerves.—Dr. A. EDDOWES showed a case of generalised Lichen Ruber Planus in a boy, aged 6 years.—Dr. ABRAHAM showed (1) two cases of Dermatitis Herpetiformis in men; one patient was about 70 years old; (2) two members of one family, a boy and a girl, with Erythema of the Extremities. In the girl both legs and both feet were affected; (?) Bazin's legs. In the boy the nose was the only part affected.—Dr. TRAVERS SMITH showed a case of (?) Lupus Erythematosus in a girl, aged 23. One cheek, both ears, and fingers were affected. The cases were discussed by the PRESIDENT, Dr. STOWERS, Dr. EDDOWES, Dr. GALLOWAY, Dr. PHILLIPS CONN, Dr. TRAVERS SMITH, Dr. RUFENACHT WALTERS, Dr. SAVILL, and by others.

REVIEWS.

VACCINATION: ITS NATURAL HISTORY AND PATHOLOGY. By S. MONCKTON COPEMAN, M.A., M.D.Cantab., M.R.C.P.Lond. London: Macmillan and Co. 1899. (Demy 8vo, pp. 268. 6s.)

THIS reprint of the Milroy Lectures of 1898 is a valuable addition to the literature of vaccination. Its publication contemporaneously with the commencement of the systematic use of Government calf lymph is specially opportune, and every public vaccinator ought to possess himself of a copy in order that he may become acquainted in some detail with the investigations which led up to the introduction of the new system. The essence of Dr. COPEMAN'S researches is most appropriately indicated in a plate which forms the frontispiece of the volume, and which consists of two figures: "Fig. 1—Photograph of agar plate prepared with vaccine

material immediately after glycerination." "Fig. 2—Photograph of similar agar plate prepared with vaccine material four weeks after glycerination." Fig. 1 shows colonies of microbes thickly dotted over the plate, while in this respect Fig. 2 is an entire blank. It is not mixture with glycerine which produces the desired effect, but storage in glycerine.

As regards the influence of glycerine on the tubercle bacillus, Dr. Copeman writes that "the fact that the growth of the tubercle bacillus is encouraged in a nutritive medium containing about 6 per cent. of glycerine in no way militates against our experience as to the germicidal value of this substance when used in a strength of from 40 to 50 per cent." He also records the results of experiments upon this bacillus in glycerinated calf lymph, to an emulsion of which "was added a large quantity of growth from a culture of tubercle bacilli recently isolated and of full activity." The result of different series of experiments was that "it has been found impossible to recover this micro-organism after exposure for a month to the action of glycerine present to the extent of about 40 per cent., either in sterile beef broth or in fresh vaccine material," although "control tubes inoculated with the growth of tubercle employed in the whole series of experiments and incubated at 37° C. all exhibited a copious growth in a month, and subcultures from them were all in turn successful." As to erysipelas, the conclusion is that its streptococcus "in the event of its having been originally present in the lymph material is rapidly killed out by the germicidal action of the glycerine." Syphilis, of course, is not to be thought of with calf lymph in use, as the calf is not subject to the disease.

In summing up the advantages of the system, Dr. Copeman's first point is that "great increase in quantity can be obtained without any consequent deterioration in quality, the percentage of insertion success following on its use being equal to that obtained with perfectly active fresh lymph." This having been satisfactorily proved, the next point to be demonstrated ought to be that the duration of protection is as great with the new lymph as with the old, and when once Dr. Copeman establishes this he will have removed the last possible criticism which can be suggested by the keenest scrutiny of the new method. This important matter is not dealt with in the present volume.

Questions of priority with regard to scientific research are apt to bulk beyond their true value in the estimation of those who are primarily concerned, and it is quite possible for an investigator to show so much anxiety in this direction as to weaken rather than strengthen his own position. It may be noted, however, that Dr. Copeman in 1891 wrote that "a certain amount of heat, when applied to lymph in sealed capillary tubes, inhibits the growth of these aërobic bacteria, while a still higher temperature kills them," and that "a simpler method of obtaining the desired result, however, is found in the admixture of the lymph with a certain proportion of 50 per cent. glycerine in distilled and sterilised water prior to storage in capillary tubes, which also should have previously been sterilised by heat;" and that "the glycerine appears to inhibit the growth of these aërobic bacteria, which.....I have termed 'extraneous,' signifying by that term that their presence is not in any way essential—indeed, probably rather the reverse, to the successful action of the vaccine lymph....." To mix glycerine and calf lymph is one thing, to experiment with the mixture in order to achieve a specific and important purpose not previously thought of in such a connection is another and a very different thing.

In his next edition Dr. Copeman ought to reconsider his use of the term "series" applied to his own experimentation described at pp. 58-60, as contrasted with the term "a single experiment" used with regard to the work of another investigator at p. 54. He might also revise that extraordinary sentence which begins at the foot of p. 43, not merely for correction of the *lapsus pennæ* "confidentially," but for interpretation of its whole sequence and meaning. It seems almost a pity that Dr. Copeman thought it necessary to write his introductory chapter. To deal satisfactorily with some parts of the history of small-pox and its prevention by inoculative methods would require more space than he could conveniently devote to it in the Milroy Lectures, nor does he appear nearly so well equipped for the task as for the very interesting and valuable experimental research, the recording of which was the main and special purpose of the lectures.

George Harley, F.R.S.: the Life of a London Physician. Written by his daughter, Mrs. Alec Tweedie. London: The Scientific Press, Limited. 1899. (Crown 8vo, pp. 372. 16s.)

Mrs. Alec Tweedie, who is already favourably known by several brightly written works of travel, has succeeded in making a very readable book of the life of her father, the late Dr. George Harley. It is concerned with the scientific work of Dr. Harley only incidentally; and though this was his life-work, yet he managed to see a good deal of the world at one time or another, knew a good many interesting people, and passed in his earlier days through a number of more or less curious experiences, and at least one very exciting adventure. This is well told in the volume before us, and the history of his unsuccessful attempt to join Omar Pasha's army during the Crimean War, and of the unsuccessful attempt of the Austrians to shoot him as a spy, reads like a chapter from a novel of adventure. Even after a failure in his health had imposed on Dr. Harley disabilities which would have led many men to stand aside altogether, he did not lose his abounding energy; and those who knew him only in these later years can readily believe that when in the full stream of health and youth his love of work and love of adventure must have made him a conspicuous figure in any society into which he may have been thrown. He was fortunate in being blessed as a young man with enough of this world's goods to give his inclinations full scope, and had contracted the habit in later days of jotting down reminiscences of various episodes as they arose in his memory. Thus Mrs. Tweedie has had a good deal of material to work upon; she has made very good use of it, and has produced a book well worth reading.

The Care of the Sick at Home and in the Hospital. A Handbook for Families and for Nurses. By Dr. Th. Billroth, Professor of Surgery in Vienna, etc. Translated by special authority of the Author by J. Bentall Endean. Fifth Edition, revised and enlarged. London: Sampson Low, Marston, and Co., Limited. (Crown 8vo, pp. 363, 2s. 6d.)

The original of this work has had a wide circulation in Germany, and is too well known to need any special commendation from us at this time of day. It has the qualities, characteristic of all Billroth's writing, of strict scientific accuracy combined and, if we may say so, tempered with practical common sense; and the teaching is conveyed in the vigorous and lucid style which makes him one of the most readable of medical authors. Mr. J. Bentall Endean's translation has already been favourably noticed more than once in the British Medical Journal, and the fact that it is now in its fifth edition sufficiently proves that it has found a large sphere of usefulness. We can only repeat here that the book in its English dress is one of the best manuals for nurses. It is all the better adapted to the purpose for which it is intended in that it is strictly a manual for nurses and for those who have charge of the sick under medical supervision. It is not a kind of essence of medicine and surgery specially peptonised to suit the intellectual digestion of persons who have learnt by rote the names of a few bones and blood vessels, but who have no knowledge of pathology, and therefore no grasp of the principles of the healing art. The book, if carefully studied, will help a woman to become an efficient nurse without giving her the half knowledge that would make her a particularly dangerous kind of unqualified practitioner.

Les Traitements Actuels du Tabes. [The Present Methods of Treating Tabes Dorsalis.] Par Dr. Jean Leclerc. Paris: J. B. Baillière et Fils. 1899. (Roy. 8vo, pp. 215; 135 figures. Fr. 6.)

In this book are collated the various therapeutic measures that are new or have comparatively recently been in vogue for the treatment of a disease the essential pathology of which is not yet definitely known. The author holds that as the morbid process cannot itself be controlled, effort should be

made to ameliorate the symptoms, and at the same time to improve the general health of the patient by any and every means. He discusses in the first place the antisyphilitic treatment of tabes, and expresses approval of it, although, as he states, several eminent neurologists believe it to be positively harmful. While allowing that syphilis may be a potent etiological factor in, perhaps, two-thirds of the cases of locomotor ataxia, yet the treatment of the posterior sclerosis of the advanced disease with antisyphilitic remedies does not hold out much hope. Dr. LECLERC advises that the general plan of treatment should be modified to correspond with the supposed cause in any individual case, such as lead, alcohol, tobacco, ergot, or chronic malaria. He would, moreover, have efforts made to relieve the neurasthenia accompanying the main disease, so as to enable the patient to lead an active life in spite of his disability. Reference is made to the administration of nitrate of silver, chloride of gold (but not chloride of aluminium), ergot, analgesics for the lightning pains, oxalate of cerium, strangely enough, for the gastric crises, and to the employment of counter-irritation and electricity.

But the only therapeutic measures recommended with any degree of enthusiasm are those which may be called the mechanical methods of treatment: that of Frenkel, in which the muscles are re-educated by the practice of systematic movements (to which reference was recently made in the BRITISH MEDICAL JOURNAL); that of "suspension;" and a third, which he particularly recommends, that of "elongation," whereby the spine being strongly flexed by appropriate apparatus, there is, it is presumed, some separation of the dorsal portions of the vertebræ. Cases are quoted, with charts showing the improvement in the symptoms during, if not due to, the course of treatment, extending over months; an improvement including the disappearance of gastric crises, diminution in the defects of sensibility, and relief of lightning pains. We had thought that the method of "suspension" was finally discredited; and this idea, however much mistaken, makes us receive the results of the method of "elongation" with caution. The book is but little more than a compilation, and does not, so far as we have observed, add anything of material value to our knowledge of the treatment of tabes.

DIE CHIRURGISCHE BEHANDLUNG VON HIRNKRANKHEITEN [The Surgical Treatment of Brain Diseases]. Von ERNST VON BERGMANN. Dritte, neu bearbeitete Auflage. Berlin: August Hirschwald. 1899. (Roy. 8vo, pp. 606, 31 figures. M.15.)

THIS is the third edition of Professor VON BERGMANN'S well-known work on the surgery of the brain. There has been no extensive alteration in the letterpress of the book, but every chapter bears evidence of careful revision, and the whole has been brought well up to date.

During the last few years there are, it would seem, no startling advances in cerebral surgery to be recorded. There has been no repetition of the thrill of keen delight, largely anticipatory in character, with which the first successful achievements were greeted. Rather has the time been spent in the careful verification of observations already made, in the closer analysis of the complex symptoms, and in the amplification and multiplication of experience. Research in the laboratory and in the *post-mortem* room had carried our knowledge far. So far as operative intervention was concerned the mere manipulative details could hardly be surpassed. The time then had come for pondering over the lessons of the operating theatre. A necessary period for reflection was needed. We have been, and still are, taking stock, so to speak, of our accumulated experience. To many operating surgeons it has seemed that the high promise of brain surgery has been, in no small degree, disappointing. Brain abscess has been diagnosed in not a few cases by careful and judicious surgeons, and exploration has proved futile. Too often the sorely tried epileptic has, after a brief period of freedom, returned to his periodic attacks. Some tumours, when correctly diagnosed and accurately located, have proved to be beyond the reach of the boldest surgeon's knife. A note of disappointment, of despondency has been sounded.

A close study of this most admirable work of Professor Bergmann's is a wholesome and timely reminder that though cerebral surgery has perhaps not done all that was expected, it has yet achieved much. The note is here rather one of triumph and congratulation. The whole range of the surgery of the brain is amply reviewed. The subjects of encephalocele and hydrocephalus in all its varieties are first discussed. In the section on microcephaly the fact that the idiocy associated with the physical defect may be unconnected with it, is judiciously enforced. The forms of microcephaly are two—one in which the idiocy is very probably due to the pathological change in the cranial bones, and the other in which it is independent of it. In the former only can any advantage from operation be expected or obtained. The varied forms of brain tumour and their treatment are described, including actinomycosis. In the treatment of epilepsy the author's experience has been that of the many. Operations in traumatic epilepsy, especially when some local irritant is discovered and efficiently dealt with, have given the most fortunate results. The subject of brain abscess is exhaustively and clearly dealt with. A rather too brief account of sinus thrombosis and lepto-meningitis purulenta brings the volume to a close.

The illustrations might with advantage be more numerous and on a more elaborate scale. How helpful they may be Macewen showed some years ago. The absence of a complete index is a serious drawback to the ready use of the book. This volume is still the most authoritative and exhaustive exposition of the subject in existence. The writer is the highest Continental authority on the surgery of this region, and the book is capable of adding even to his reputation.

NOTES ON BOOKS.

The Cry of the Children.....in the XXth Century, or the Antivaccinationists, by Mrs. BRAY, is a simple little story forecasting what may be expected to befall an antivaccinationist and his family when small-pox comes to their community in the twentieth century. The authoress has entered fully into the spirit of the quotations from Mrs. Barrett Browning and from the Bible with which she begins and ends, "But the child's sob in the silence curses deeper than the strong man in his wrath," and "In Rama there was a voice heard, lamentation, and weeping, and great mourning, Rachel weeping for her children, and would not be comforted, because they are not." The tale is told with much natural power and feeling, and the little tract should be most useful in counteracting the evil influences of antivaccination cheap literature. We can heartily recommend it as suitable for general distribution. Copies can be obtained from the Sanitary Publishing Company, Limited, 5, Fetter Lane, E.C., at 1d. each, 9d. per dozen, or 6s. per 100.

The fact that the collection of sketches entitled *Zig-Zag Ramblings of a Naturalist*, by R. T. MANSON, L.R.C.P., M.R.C.S. (Darlington: W. Dresser and Sons. 1898. Demy 8vo, pp. 220; 10 illustrations. 4s. 6d.), which originally appeared in the *Darlington and Stockton Times*, has already entered upon a second edition, proves that it has attained a certain degree of popularity. The book contains useful hints to dwellers in Darlington, who seek to combine the useful and the pleasant in their walks, as well as numerous appropriate illustrations of the localities under consideration. We are glad to notice that in several cases the author refers his readers to works in the Darlington Public Library, and the usefulness of the book for reference purposes is further enhanced by the addition of an index and lists of the fauna and flora of the district. The book itself comprises a large amount of solid information, particularly on geology, but the manner in which it is set forth might have been more attractive. As separate newspaper articles drawing attention to various points of beauty and interest in the surroundings of Darlington, these ramblings served an excellent purpose, but as a book without a definite scheme of arrangement they might be termed an olla podrida of all the natural sciences.

THE German Gynæcological Society will hold its eighth congress this year in Berlin from May 24th to 27th under the presidency of Professor Olshausen. The subjects proposed for discussion are: (1) The Treatment of Myoma; (2) Puerperal Fever.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

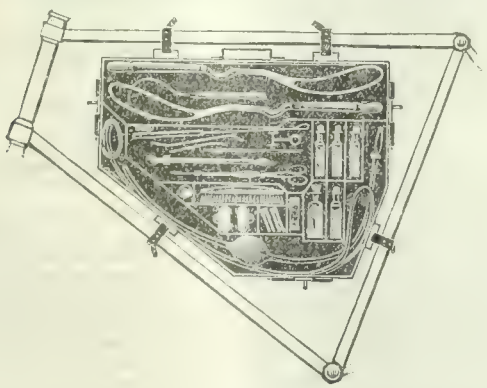
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Artificial Masticator.—Carrier's artificial masticator, for which Messrs. Maw, Son, and Thompson are the agents in the United Kingdom, will be found a very serviceable and convenient masticator. It acts very effectually in triturating solid material and can be readily used for such purpose. It is intended specially for children and elderly people, and has the advantage of being smaller and less conspicuous than most forms of artificial masticator. Its construction is simple and it does not seem likely to get out of order; it is said to keep itself sharpened. It can easily be cleansed and, if it be found necessary, be taken to pieces for this purpose. If kept clean it ought not to affect the flavour of food, and when not in use may be placed in a small neat bag, which is supplied with it, and can be carried in the pocket.

A Support for Flat Foot.—Mr. Jenner, of Bournemouth, has submitted to us a spring inner-sole and sock which merit attention. The spring inner-sole consists of a steel T-piece, the horizontal limb of which is fixed in the long axis of the boot beneath the instep, and the vertical piece is curved upwards so as to follow the outline of the inner border of the foot at the summit of the arch. Fitting into the boot is a suitably-shaped sock. The chief value of this arrangement consists in the firm support afforded to the sock by the metal T-piece fixed as above described.

An Aseptic Obstetric Case.—Messrs. Reynolds and Branson, Limited, of Leeds, have, at the suggestion of Mr. Herbert Rowe, M.R.C.S., of Leeds, made an obstetric case of block tin unlined, so that it may be easily cleaned. The instruments, etc., are held in position by metal partitions and clips. It can be adapted to any desired form, but the pattern shown contains five bottles and fourteen instruments, including full-sized forceps and a transfusion apparatus, and can be carried on a bicycle.



LITERARY NOTES.

As we have received several inquiries on the subject, we may mention that it is in contemplation to include a life of Edward Jenner, the discoverer of vaccination, in the "Masters of Medicine" series.

A correspondent has written to inquire where Dr. H. Cameron Gillies's paper on Gaelic Names of Diseases and of Diseased States, which was referred to in this column in the British Medical Journal of February 25th can be procured. The paper appeared in the *Caledonian Medical Journal* of July, 1897, and January and April, 1898. The reprint can be obtained from the publisher of the journal in question, Alex. Macdougall 68, Mitchell Street, Glasgow, "price 1s. nett."

A striking illustration of the limitation of fame—even when it may fairly be considered to be world-wide—is afforded in a recent number of the *Gazette Médicale de Paris*, where reference is made to a writer variously styled "Dr. Weis Mitchell" and "Dr. Weis Michel," who is described as the author of a novel of which the title is given as *Hugh Wynne*. One might have thought that our contemporary would have met with the name of Dr. Weir Mitchell in medical literature, if his newer fame as a novelist had not reached "ez fur away as Paris is." But perhaps the mutilation of the distinguished neurologist's name is to be taken as an unconscious compliment to the versatility of his genius, for without positive knowledge of the fact it must seem improbable that the same man should have won for himself such a reputation as that of Dr. Weir Mitchell in literature as well as in science.

Dr. Edward O. Otis of Boston has reprinted from the *Boston Medical and Surgical Journal* interesting sketches of the career of Auenbrugger and Laënnec, the discoverers of auscultation and percussion. Leopold Auenbrugger was a man of charitable and unselfish disposition. He was an Austrian by birth, and practised in Vienna, where he was in great favour with the Empress Maria Theresa. He was a skilled musician, and was the author of a comic opera entitled *The Chimney Sweep*, which so pleased the Empress that she asked him to write another. Less obedient than Shakespeare was to his queenly "Vestal thronéd in the West," Auenbrugger declined, saying that he had something better to do than writing comedies. He published his method of percussion in 1761 when he was 39 years of age, and he was ennobled by Kaiser Josef in 1784, "in consideration of his useful services rendered to the public through his ability and excellent skill in medicine." He passed away, full of years and honours, in 1808. So little was his great discovery known abroad that Corvisart, Napoleon's physician, who translated his work into French, might easily, had he been of a less upright character, have appropriated it. Laënnec, the discoverer of auscultation, was a pupil of Corvisart. Born in Brittany in 1781, he took his degree in 1804. One day while traversing the courtyard of the Louvre, he saw some children amusing themselves by applying their ears to one end of a long beam, while a companion struck the other lightly with his hand. This set him thinking, and a few days afterwards being consulted by a young woman who had symptoms of heart disease, and not wishing to apply his ear directly to her chest, the scene in the Louvre recurred to him. Immediately he took a sheet of paper, rolled it up lightly, and applied one end to the girl's chest and the other to his ear. He found that by means of this simple device he heard the heart sounds much more distinctly; and the discovery of mediate auscultation was made. Laënnec died of phthisis, to the study of which he had given the greater part of his professional life, in 1826.

All whose lot brings them acquainted with that extremely capricious imp, the "printer's devil," have to make themselves familiar with the cabalistic signs by which the corrections required in his handiwork are indicated. Again, this being a free country, individualism naturally shows itself sometimes in the matter of spelling. We do not speak here of what may be called violations of rudimentary orthographical decency; these, though too common in the manuscripts of medical writers, seldom attain the dignity of print. But there are many words, such as "analyse," "sympathize," etc., as to which the law is uncertain in regard to the sibilant, conflicting decisions being given by authorities. Then there are variants of the same word, as for instance, "insure" and "ensure," which most people insist on treating as interchangeable or on spelling in one way. The right use of the indefinite article occasionally presents difficulties even to those who are strictly orthodox in the matter of the aspirate. Hyphens, capital letters, and punctuation may also be stones of stumbling even to persons who are by no means illiterate. All these points are dealt with in a lucid and scholarly fashion in a booklet, entitled *Rules for Compositors and Readers Employed at the Clarendon Press, Oxford*, compiled by Mr. Horace Hart, M.A., Printer to the University of Oxford. The spellings have been revised by Dr. J. A. H. Murray and Mr. Henry Bradley, the editors of the *New English Dictionary*, and the rules may, we think, be accepted as definitive, at any rate till such time as reformers have agreed upon some consistent form of orthographic practice.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

Sir Samuel Wilks's Valedictory Address.

The statutory meeting of the College for the election of a President and an Extraordinary Comitia for other business was held on Monday, March 27th; Sir Samuel Wilks, Bart., M.D., F.R.S., President, in the Chair.

The President delivered his annual address. He mentioned that the number of Fellows had slightly increased, while that of the Members was a little less, and recalled how Sir H. Weber had presented the College with £100, which was to be put aside as an endowment fund for the College, an example which he exhorted other Fellows of the College to follow. He mentioned the honours and Court appointments that had been gazetted in the past year, and reviewed the annual lectures given before the College. He alluded to the changes that had taken place in the medical department of the army, and commented on the united action and cordiality of feeling exhibited between the two sister Colleges on this and other occasions. In connection with the new Vaccination Bill, it seemed wise before making any further representations to wait until the Act had been in force for a year, as facts and statistics as to the effect of the Act would then be forthcoming, upon which representations to the Government might, if necessary, be founded. He touched on the importance of the communications from the General Medical Council, discussed at the last Comitia, in which it was suggested that the disciplinary powers of the College over its diplomates should to some extent be weakened. He traced the history of the regulations of the College and insisted that they were a heritage to be carefully preserved. Sir Samuel Wilks then read obituary notices of deceased Fellows, seven in number. The list included Sir W. Jenner, Bart., Dr. W. Munk, Dr. C. J. Hare, Professor A. A. Kanthack, Dr. T. Cole, Dr. H. Stevens, and Dr. C. J. Arkle. In conclusion he cordially thanked the College, and especially the Registrar, for the kindness and help extended to him during the past three years, and in announcing his intention of not offering himself again for election to the Presidency begged Fellows not to pay him the compliment of voting for him.

Sir A. B. Garrod proposed a vote of thanks to Sir Samuel Wilks, which was carried by acclamation.

Election of President.

The ballot for the election of President was then taken. The votes were as follows: Dr. W. S. Church, 60; Sir W. H. Broadbent, Bart., 56; Sir R. Douglas Powell, Bart., 8; Dr. W. H. Dickinson, 8; Dr. J. Hughlings Jackson, 3; Dr. Pavy, 3; Sir Dyce Duckworth, 2; Sir E. Sieveking, 1; Sir W. O. Priestley, 1; Dr. J. Pollock, 1; Dr. T. Barlow, 1.

As no Fellow had obtained a two-thirds majority a second ballot was taken between the two highest, with the result that Dr. W. S. Church received 77 votes and Sir W. H. Broadbent 67 votes. The announcement was received with applause. During the counting of the votes the electric light went out, and except for a lamp the library was left in darkness.

Dr. W. S. Church, having been robed and presented with the caduceus by the Senior Censor (Dr. Cheadle), thanked the College for the high honour of its Presidency.

The College seal was then set to an agreement between the College and the four daughters of the late Sir R. Quain for exchanging some articles of plate, in the possession of the College, for a portrait of their father by the late Sir J. E. Millais, and to three bound copies of the College List, 1899, for the Registrars of the General Medical Council.

Mr. Charles Alfred Cripps, Q.C., was elected a standing counsel in the place of Mr. T. T. Bucknill, Q.C., appointed one of Her Majesty's Judges.

A letter from the Lord President of the Council was read asking the College to recommend a representative to attend a congress on the prevention of tuberculosis as an endemic disease, to be held at Berlin on May 27th of this year. Dr. Pye-Smith was recommended. Another letter from the Lord President of the Council enclosing a prospectus of an international conference on the subject of the prevention of venereal disease, to be held in Brussels on September 4th, 1899, inviting the College to send representatives, was read. The College approved the sending of representatives, but their selection was postponed.

A communication from the Charity Commissioners detailing the final scheme for the management and maintenance of the Chelsea Physic Garden was read. This Dr. Allchin discussed, pointing out that nothing could be done to alter the decision of the Charity Commissioners. The Registrar was directed to confer with Dr. Allchin and draw up a letter to the Charity Commissioners.

Drs. W. H. Corfield and G. V. Poore were appointed to act as delegates at the annual Sanitary Congress at Southampton on August 29th.

The President presented a photogravure of the portrait of the late Dr. James Andrew by Mr. John Collier, and Sir Dyce Duckworth a photogravure of a portrait, by the same painter, of the late Dr. Munk.

One Member resigned his membership. After letters of thanks had been read from the Colonial Office, Sir W. Turner on behalf of the General Medical Council, and Mr. E. Munk, a report from the Midwives Bill Committee was read, but its consideration was adjourned to the next Comitia. The quarterly return by the examiners of the results of the January examination having been adopted, the Comitia dissolved.

PARLIAMENTARY BILLS COMMITTEE.

A meeting of the Parliamentary Bills Committee of the British Medical Association, called for the purpose of considering the Medical Acts Amendment Bill, was held on March 24th, Dr. S. Woodcock in the chair. Among those present were:

Dr. C. Parsons, Dover (Treasurer).

Mr. D. B. Balding, Royston.
Dr. R. L. Bowles, London.
Dr. T. R. Bradshaw, Liverpool.
Mr. Geo. Brown, London.
Dr. W. A. Carline, Lincoln.
Brigade-Surgeon-Lieutenant-Col. E. F. Drake-Brockman, London.
Dr. R. Esler, London.
Dr. Major Greenwood, London.
Dr. Holman, London.
Mr. Victor Horsley, F.R.S., London.
Mr. Evan Jones, Aberdare.
Surgeon-General T. F. O'Dwyer, Aldershot.
Dr. A. Brown Ritchie, Hulme.
Dr. James Ritchie, Edinburgh.
Mr. C. R. Straton, Wilton.
Dr. Dawson Williams, London.

Mr. Victor Horsley read a letter from Dr. Farquharson, M.P., regretting his inability to be present, owing to urgent business in the House of Commons.

On the motion of Mr. Horsley, Dr. Woodcock took the chair.

Letters of apology for non-attendance were read from:

Dr. R. W. Batten, Mr. A. Godson, Dr. Bruce Goff, Dr. A. J. Harrison, Mr. J. H. Hemming, Dr. C. W. Marriott, Dr. J. W. Moore, Dr. James Murphy, Inspector-General A. Turnbull, Dr. A. R. Urquhart.

The Chairman said that the meeting had been called to consider the draft Bill of the Medical Acts Subcommittee. The Bill had been brought up to the Committee at its meeting on July 5th, 1898, but owing to the necessity of giving immediate attention to the Midwives Bill, this Bill had not been further considered. The Bill presented embodied three principles: (1) The direct election of the medical representatives of the Universities and Corporations on the General Medical Council by the medical graduates or the members of the body corporate; (2) the establishment of a one-portal system; (3) that no person should practise medicine, surgery, or midwifery habitually and for gain in the United Kingdom, unless registered on the *Medical Register*, with a cumulative penalty for so doing.

The adoption of the principles as embodied in the Bill was then moved by the Chairman, seconded by Dr. Major Greenwood, and carried *nem. con.*

The Committee then went through the Bill clause by clause, and various emendations were approved.

The Bill was then, on the motion of Mr. Victor Horsley, seconded by Dr. Brown Ritchie, adopted in its amended form, and directed to be transmitted to the Council.

Compulsory Revaccination in Portugal.—The officia *Diario do Governo* of Lisbon of March 6th contains the text of a new law making vaccination and revaccination compulsory in Portugal. In the opening paragraph it is stated that "the Government will guarantee the purity and source of vaccine and will decree the statutory precautions necessary for the vigorous carrying out of the law."

MEDICAL NOTES ON MONTENEGRO.

BY

Oscar L. Levy, M.D., L.R.C.P., M.R.C.S., and J. C. F. Naumann, M.D., L.R.C.P., M.R.C.S.

There are in the world not a few forgotten corners. Such is Montenegro, a country, however, full of interest to the archæologist, the ethnologist, and the linguist. To mention only two or three particulars: For the first there is the old Roman ruin of Dioclea, while to the province of ethnology and philology pertains the fact that the people of Montenegro, while belonging to the Southern Slavs, yet differ from them in many points, as do the Albanians. Then, for the student of folklore, there are their strange Christmas customs and the songs of the Montenegrin bards, who to the accompaniment of their "Guslas" celebrate the achievements of their compatriots in their wars against the Turks. For the geographer and explorer there are the untrodden wastes of the Black Mountains — deserts which as yet Cook's and Stange's tourist parties have not invaded. At present, however, we wish to confine our remarks to matters of special interest to the medical profession.

In Cettinje, the capital, there is a small hospital, built as have been many other public edifices in the country, with Russian money. We saw in this hospital a splendid outfit, presented very lately by the Russian Government, consisting of excellent surgical instruments, dressings, and ambulance tents; these were sent at the same time as the famous 30,000 rifles. The hospital stands in the north-east of the small town, close to the great limestone wall, which surrounds the dreary punchbowl-like hollow of Cettinje on all sides. It consists of two separate buildings; the larger one contains about 20 beds, while the smaller contains the operation room. To Dr. Theodor Perazié, formerly a military surgeon in the Austrian service, its amiable head-physician, we are indebted for some of the following facts:

From the geographical, and consequently from the medical, point of view, the country must be divided into two different parts of unequal size. The first is very much the larger, and contains all the mountainous districts; the second and smaller includes the fertile plains of Montenegro, the valleys of the Tsherniza, Rieka, and Zeta-Moracza rivers. All these rivers flow into the lake of Skutari, which is situated on the border between Montenegro and Albania, in a tract of country very swampy in its upper part. Geologists point out that formerly the lake extended much further, but that it has fallen considerably, leaving the swamps behind it. Malaria is of course rife here, and we saw several typical cases of this disease, with enormous spleens. The rigour and humidity of the climate of the mountainous parts of the country, the western Montenegro as well as the eastern Berda, is entirely different from the south-Italian climate in the plains, and this accounts for the frequent occurrence of rheumatism, both articular and muscular. Conjunctivitis and other eye troubles are very frequent. Their cause becomes very well known to the traveller obliged to stay for even a single night in one of their houses. These houses are, according to our ideas, very imperfect; they have no chimney, except the Prince's palace, a fire is kept always burning, and coffee prepared on the bare ground, the smoke finding an exit from the room through the windows, which afford abundant ventilation, for they never shut properly. When the much-dreaded Bora wind sweeps down the country the draught enters through the windows, and through the walls also, for the limestone blocks of which they are made are put together without mortar.

Throughout the country consumption is common, a fact which is surprising in a mountainous district. Dr. Perazié performs many resections for tuberculosis, but amputations are never allowed, a prejudice we met with all over the near East, alike among Jews, Christians, and Mohammedans. Dr. Perazié was justly proud of two successful cases of cataract operation in old men, who gratefully kissed the hem of his coat when we passed through the ward. One of them was brought down from the mountains by his wife, who dragged him after her with a cord. Their march down to the capital took a fortnight. The little hospital at Cettinje is the last place of resort for Montenegrin patients.



Fig. 1.—The middle figure represents a boy, aged 5 years, of unusual growth; the other figures are those of an adult and of a child of ordinary development.

The men of the Tsernagora are well built, seldom stout, and mostly over 6 feet high (Fig. 1). We had never seen such broad-chested people, except some Circassians whom we met with in the Caucasus last year. It is easily to be understood that their wounds heal very readily. It was said by surgeons during the late war with Turkey that a man who did not die before he got to the hospital has nineteen chances in twenty of getting well. Plenty of people go about bearing in them bullets received in war and in peace, or what is called peace here; for the Montenegrin clans still have their blood feuds among themselves, as well as with the neighbouring Albanian tribes of Turkey. Everybody, from the prince down to the post-office clerk and schoolmaster, carries a pistol, and these weapons sometimes go off of their own accord. We saw in the hospital a Montenegrin thus shot in the thigh, and an Albanian with a bullet in his left pleural cavity. The semicivilised mountaineers, like those of Kurdestan, the Libanon, the Khyber Passes, shun of course trade and agriculture, and think the occupation of a warrior the only one suitable to a gentleman. All their work they leave to the women, who can be seen all over the country carrying heavy loads. They have a proverb amongst them, that a good woman is worth two oxen, which may remind us of Homer's words:

ἀνέρι δὲ νικηθέντι γυναῖκ' ἐς μέσσον ἔωκεν,
πολλὰ δ' ἐπίστατο ἔργα, τίον δέ ἑ τέσσαρα βοῦν.

For him, who fell
A damsel, in their midst display'd, well skilled
In divers arts, and priced at oxen four.
(*Iliad*, lib. xxiii, 704.)

But the women are very small; in fact they look real pygmies compared with the men, a fact deserving the attention of the anthropologist. Although they are pretty when young, they soon show the advance of age. Childbirth,

according to good authority, is always easy; the forceps has never been used in the country. The woman is delivered standing, the legs apart, and leaning over a chair or another piece of furniture. The cord is usually not cut before the placenta is expelled, and is then severed very near the placenta, three knots being made on the side of the child. The cord is thus preserved in its whole length until it separates. The women go to work the day after delivery, either from pride or necessity. A fortnight after birth the children are baptised according to the Greek Orthodox rite. They are wholly dipped in a great basin of water. This is probably the only bath they take during life. Skin diseases therefore abound, more especially those caused by external parasites, vegetable (herpes tonsurans, favus), and animal (pediculi, scabies). The latter they cure by a popular remedy, which consists in smearing some of the tobacco juice out of their long Turkish pipes, the tshibouks, over the affected part. Rather more romantic is the cure of ear troubles; the horn of an ox is put over the bad ear, and then the "doctor" sucks out the air through the perforated end till he and the patient hear a distinct noise.

Syphilis is not uncommon amongst them. It has been imported by returning emigrants, for many Montenegrins go to Stamboul as well as to the West, where they become, as an old Turk once said of the Ottoman young men sent to Europe to be educated, not civilised but syphilised.

As in other mountainous countries, people of the same valley intermarry frequently, and cretinism is found in Montenegro to some extent. The accompanying photograph (Fig. 2) shows a case. Goitre is common only in one eastern valley, called the Wassojevitch district.

For medical and sanitary purposes, the country is divided into seven districts: (1) Cettinje, (2) Niksitch, (3) Podgoritza, (4) Andrievitza-Kolachine, (5) Dulcigno, (6) Antivari, (7) Rieka. There are three medical men in Cettinje, including our courteous friend and the military surgeon; one is at Niksitch, and one at Podgoritza. They have all studied in Russia. At each of the other districts is a medical practitioner, who has similarly pursued his studies, but possesses no diploma, with the exception of Rieka, where the medical practitioner is also a chemist. It consequently did not surprise us to be consulted wherever we went.

In Cettinje we we at once sent for to attend a famous Montenegrin "Woivoda," Peko Pawlowitch, who had directed the Herzegovina insurrection against Turkey, and had vanquished the enemy in several battles. He was alluded to by correspondents in the last war as the terrible Peko, because he once took his meal in the midst of fifty Turkish heads, which he had cut off and which he had placed on sticks. (This custom is still a feature of Montenegrin warfare).

We found lying in bed a fine old man of 83, of noble and courteous manners, who shook our hands heartily—the very picture of E. About's *Roi des Montagnes*. He had been in bed for five years, suffering from headache, and was totally paralysed and blind. The cause of the blindness was cataract; the left eye had been operated upon, but without success, the cornea showing a deep, cloudy scar.

During our ride through the country, which we left by way of the passes of Duga, where many a good Turk and Montenegrin has seen his last day, many came to ask our advice, from Ministers of State down to shepherds, and sometimes quite a swarm of people accompanied us, wishing to be examined at our next halting place. When we had arrived there, and the people had said that we were doctors, the host, who generally was the head of the clan, would put his hands to his mouth in form of a trumpet, and sing out the news in long-drawn tones, asking all the sick to come up. This vocal telegraph of the Montenegrins is more effective than the ordinary, and in case of war the whole country can thus be roused up in a few hours.



[Fig. 2.—Cretinous idiot, aged 40 years, and boy.

GERMAN UNIVERSITIES.—Recent statistics state that the number of students attending the universities in Germany is now 32,241, an increase of 1,311 on last year. Berlin heads the list of twenty-one universities with 4,882 students, and is followed by Munich with 4,028, Leipzig 3,174, Bonn 1,975, Halle 1,604, Breslau 1,587, Freiburg 1,545, Heidelberg 1,384, Tübingen 1,377, Würzburg 1,312, Göttingen 1,216, Marburg 1,115, Erlangen 1,070, Strassburg 1,040, Greifswald 864, Kiel 838, Jena 755, Königsberg 733, Giessen 733, Münster 537, and Rostock 462. In addition to these regular students, there are 5,445 students who have not matriculated, but who are entitled to attend the lectures in the various faculties. The number of medical students has risen from 8,633 to 8,692. The most expensive universities in Germany are those of Heidelberg and Bonn; the least expensive is Erlangen; but the average sum required for the support of a student at a German University is much less than it is in England. Including board, lodging, books, and college expenses, a German student, if he is fairly economical, can make a good appearance for less than £100 a year.

DR. W. W. IRELAND has reprinted from the *Proceedings of the Society of Antiquaries of Scotland*, of which learned body he is a Fellow, some notes on the Scottish De Quencys of Fawside and Leuchars. The Quencys came from Normandy with Duke William, and the name is on the roll of Battle Abbey. A scion of the family found his way to Scotland in the time of King Malcolm IV, who made him a grant of land. After the time of Robert the Bruce, however, the name is no more heard of in Scotland. The family passed away without leaving a trace. None of the English De Quincys seemed to have gained rank in after-days, but there was Dr. Quincy who was eminent in the profession of medicine, and Thomas De Quincey who, besides his literary fame has a special interest for doctors as the most celebrated, if not the largest, of opium-eaters. His *Confessions*, with their highly imaginative descriptions of opium dreams, have probably been the means of introducing many to the "artificial paradise" which he paints in such glowing colours.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 1st, 1899.

MEDICAL LEGISLATION IN THE ISLE OF MAN.

Medical legislation seems to be in the air just at present. Not only has the Parliamentary Bills Committee of this Association been engaged in the preparation of a draft Bill to amend the law, but a measure has been introduced into the Legislature of the Isle of Man, which has apparently been without any such statute hitherto.

This Bill is drawn somewhat closely upon the lines of the Medical Act of 1858, though in terms it is not actually identical. In brief, its salient points are: that a practitioner shall be entitled to practise so long as he continues to be upon the *Register*, but inasmuch as no penalty is attached to his practising when he is not thereby entitled, in this respect little practical improvement is made upon the Act of 1858. The clauses inserted as to the holding of appointments, and the recovery of fees are similar. The one and only clause which imposes a penalty is better than the similar clause in the Medical Act, 1858, as the mischievous words "wilfully and falsely" are omitted, and it runs: "Any person who shall pretend to be, or take or use the name or title of a physician, doctor of medicine, etc., or any name, title, or addition, or description implying that he is registered, or that he is recognised by law, etc., shall, upon summary conviction, pay a sum not exceeding £20," and prosecutions are to be undertaken in the name of and by a chief constable, superintendent, or inspector of police.

Hence, although the drafters of the Bill have to this extent profited by experience, and have avoided one of the most patent defects in the wording of the Medical Acts of 1858 and 1886, it will be seen that they have in no respect gone beyond them, and the prohibition is in essence still only as to the use of titles; for the clause which says that those only are entitled to practise who are upon the *Register* would be difficult to enforce in the absence of a penalty. This, however, might be met by the addition of some such words as "or who shall infringe any of the provisions of this Act" to the penalty clause.

The measure which has been sent up by the Parliamentary Bills Committee of the Council of the Association would provide for the election of the representatives of licensing bodies on the General Medical Council by the medical graduates, or the members of the body corporate, would establish a one-portal system, and would prohibit practice by persons not on the *Register*. With the first two of these subjects the Manxmen have no very direct concern, but it is a pity that no attempt is made to deal efficiently with the last and most important.

The Legislative Assembly consists of only twenty-four persons, so that it should be an easy matter to render intelligible the objects of the Bill to each and every member, while the Upper House or Council, before which the Bill has been read, consists of ten highly educated officials, who also would be readily amenable to reason, and we can hardly doubt that the Queen in Council (which practically means the Privy Council) would give the necessary assent to a really efficacious measure.

As we have before pointed out in these pages, the old law of England dealt with the question of practice; the the abandonment of this position and the substitution of defence of title was a new feature in the Act of 1858. This experiment has not proved a success, whilst the Apothecaries Act and certain other unrepealed statutes still keep alive the old principle.

It is absolutely necessary, in order to make any progress in the matter of medical legislation, that the profession should present a united front. Yet a correspondent tells us that in the Isle of Man there is much apathy and no unanimity—a state of things which we regret to have to say is by no means confined to that island. The status of the profession can never be satisfactory so long as the laity contemplates with indifference, almost with approval, the exercise of its functions by the illiterate quack, and holds that its painfully acquired knowledge and skill may be harmlessly dispensed with in the case of the pretender to innate genius.

The medical men scattered all over the country have an immense power for good would they but exercise it. Not only are their votes and their power of influencing votes of importance—we are very far from wishing to see them turned into political propagandists—but the confidential and oftentimes closely friendly relations in which they stand to their patients bring them into touch with almost every one of those who influence and give effect to public opinion, so that they may be sure of a willing and appreciative hearing. Nor need they fear that their efforts will be misunderstood as actuated by selfish motives, for everything that works for the improvement of the medical profession works equally, nay much more, for the good of the public, and for the diminution of that needless suffering and worse than fruitless expenditure which is brought about by incompetence.

We would urge upon those who practise in the Isle of Man one and all to seize this opportunity of procuring a satisfactory enactment, and so become pioneers in the good work that it is hoped may be accomplished elsewhere ere long.

THE LOCAL INCIDENCE OF CANCER.

In another column appear two valuable contributions on this subject. The first of these is an interim report of the Committee appointed by the Birmingham and Midland Counties Branch of the British Medical Association to investigate the influence of locality on the prevalence of malignant disease in some of the western counties of England; the second, by Dr. E. Lloyd Jones, deals with the topographical distribution of cancer in Cambridge,

based on its death records for nineteen years. Both of these contributions, although very considerable details are given, are of the nature of preliminary communications. The Committee above mentioned ask permission to continue their investigations for another year; and the inquiry of Dr. Lloyd Jones involves so many details that he is compelled to content himself with stating the conclusions to which he has been drawn.

We have on former occasions shown the great difficulties with which the problem is beset, indicating that coincidence is a factor which must be held in remembrance; and that correction must necessarily be made for varying age and sex distribution of the population, if sound conclusions are to be reached. Hence we sincerely hope that the Committee of the Birmingham and Midland Counties Branch and Dr. Lloyd Jones will each publish, so far as they can, exact tabular statements giving the age and sex of the populations which they have investigated, and of the deaths from cancer which have occurred among these populations. In doing so, it is indispensable that corrections should be made for deaths from cancer occurring in workhouse infirmaries, or in general or special hospitals, so that this source of error may be avoided.

The conclusions stated in the two contributions, if confirmed by the methods just indicated, are of great importance. The Committee of the Birmingham and Midland Counties Branch think there is a very large balance of opinion in favour of the conclusions that there are endemic centres of cancer, and that these are most frequently ill-drained, low-lying, or flat districts, or districts bordering on streams. They regard it as almost certain that there is a direct connection between the presence of subsoil water within a certain distance of the surface and the prevalence of malignant disease.

Dr. Lloyd Jones's conclusions are somewhat similar. Elevated sites, he states, are less liable to the inroads of cancer than low-lying districts. On the contrary, proximity to a river is not always attended by a greater death-rate from cancer. He regards the proximity to trees, especially large ones, as connected in some way with the prevalence of cancer; while parts of the town most free from cancer are singularly devoid of trees or vegetation. This conclusion, if confirmed, is of great importance. In the meantime, we venture to point out the likelihood that houses in their own grounds, and partially surrounded by trees, are just those houses which are occupied by persons of a higher social status and a higher average age than those houses bereft of this beautifying environment. We sincerely hope that the laborious investigations to which we have drawn attention will be continued and extended, so that the problems indicated above may be solved.

PORT SANITARY WORK IN LONDON.

In spite of all that we hear of the enterprise of the foreigner, and in spite of the serious forebodings with which we are all looking forward to the Budget, the fact seems to be that the trade of the Port of London does not show any very serious falling off. On the contrary, it appears from the half-yearly report of Dr. Collingridge, the medical officer of health for the Port of London, that 16,127 vessels were inspected during the half-year ending December 31st, 1898, a larger number than in any previous half-year since the authority was formed in 1872; 5.7 per cent. of these vessels required cleansing, a proportion somewhat above the average. The circumstance is not to be explained, however, by the assumption that vessels are less carefully kept; rather the reason is that it is becoming possible to impose a higher standard of cleanliness.

As an instance of the direction in which much real good has been effected, mention is made of the sheathing with non-conducting material of bare iron over-bunks. Dr. Collingridge, in a previous report, drew attention to the fact that the existence of bare iron overhead, which led to deposition of moisture, produced a damping of bunks, bedding, and clothing, which was a nuisance injurious to health. He is now able to state that the opposition on the part of owners to remedying this state of things is gradually dying out.

Emphasis is again laid upon the necessity for submitting plans of all sanitary arrangements and questions involving air space, ventilation, heating, warming, lighting, drainage and removal of refuse to the Port Sanitary Authority before any vessel is built.

During the period dealt with in the report, 510 vessels were medically inspected at Gravesend. This involved the medical examination of 3,056 passengers and 8,144 persons forming the crews of such vessels; 58 cases of infectious disease were dealt with by the officers of the authority, these comprised 3 cases of plague, 2 of small-pox, 12 of scarlet fever, 25 of enteric fever, 3 of diphtheria, and 13 of other infectious diseases (measles and erysipelas).

The existence of plague in India still constitutes a real danger to this country, and one that calls for the exercise of the greatest care in the medical inspection of all vessels from infected ports. The report sets forth in some detail the measures taken at our "first line of defence" to guard against the introduction of the disease. From the information given in respect to the s.s. *Carthage* of Greenock, on board which vessel two cases of plague occurred after leaving Bombay, it appears that on her arrival at Gravesend the remaining sufferer was landed at the Port Hospital, and the disinfection of all parts of the ship, bedding, and clothing was of the most thorough nature; the passengers and crew were medically inspected, and all water tanks were emptied and cleaned out. During the stay of the vessel in port the Asiatic crew remained on board and were medically examined daily, and all rats caught in the ship were killed and cremated.

Two inspectors have been appointed for the sole work of inspecting articles of food imported into the Port of London. Some idea of the growth and present dimensions of the meat import trade in London may be gathered from the statement that the total imports of mutton into London from all ports has increased from 400 carcasses in 1880 to nearly 4½ millions of carcasses in 1898.

That these special inspectors will be fully occupied in performing a very important work is demonstrated by the very large amount of food which was condemned and destroyed as unfit for human consumption during the six months dealt with in this report. The articles, as set out in Appendix J of the report, constitute a really formidable list occupying some nine pages.

At the conclusion of his report Dr. Collingridge again

draws attention to the unfavourable conditions of canal boat life for women and children. The close herding of adults and children in these boats must certainly make it difficult, if not impossible, to observe the ordinary decencies of life, and it is almost impracticable to provide education for the children.

THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

As will be seen by a report published in another column, Dr. W. S. Church has been elected President of the Royal College of Physicians of London in succession to Sir Samuel Wilks, Bart., who, after serving for three years, expressed his wish not again to be elected to the office. Dr. Church, who is Senior Physician to St. Bartholomew's Hospital, was educated at Harrow (where he was captain of the eleven) and Oxford. He took the degree of M.B. in 1864, and proceeded M.D. in 1868. For some time he held the post of Lee's Reader in Anatomy at Christ Church, Oxford, and at the present time is the representative of the University on the General Medical Council. Dr. Church became a Fellow of the Royal College of Physicians in 1870, was Censor in 1890-91, Harveian Orator in 1895, and Senior Censor in 1896. Dr. Church has not been a voluminous writer, but he was for many years editor of the *St. Bartholomew's Hospital Reports*, to the pages of which he has been a frequent contributor, and wrote for Allbutt's *System of Medicine* the article on Rheumatism, a subject to which he has long given special attention. He is recognised by all who have been brought into contact with him as one eminently qualified by ability, temperament, and character for the important position to which he has now been elected. Not since 1871 has a graduate of Oxford been President of the College of Physicians. In that year Sir James Alderson gave place to Sir George Burrows, a graduate of Cambridge. In 1876, when Sir Risdon Bennett was elected, the long tradition which had appropriated the office of President to the graduates of one or other of the older English universities was broken through. Sir Risdon Bennett was himself a graduate of Edinburgh, and of the four Presidents since his time three—Sir William Jenner, Sir Russell Reynolds, and Sir Samuel Wilks—have been graduates of the University of London, and one, Sir Andrew Clark, of Aberdeen. Dr. Church's election makes the balance between Oxford and Cambridge exactly even. He is the thirty-fourth President that Oxford has given to the College since the time of Linacre, the first President (1518), who was himself a graduate of Oxford. The first Cambridge graduate who was President of the College was, with the doubtful exception of Dr. John Fryar, the famous Dr. John Caius, who held the office from 1555 to 1561, from 1562 to 1564, and in 1571. Three Presidents have held the degree of M.D. both from Oxford and Cambridge; one was a graduate of Cordova, Dr. Henry Atkins (1616-1618, and 1624), and one of Padua, Dr. Simeon Fox (1634-1641). The office has seldom been held for more than five years, though Sir Hans Sloane was President for sixteen years, and Sir Henry Halford for twenty-four.

GLYCERINATED CALF LYMPH.

We understand that Sir William Priestley, M.P., has been in communication with Mr. Chaplin as to the desirability of the Local Goverment Board supplying glycerinated calf lymph from the Government establishment to private practitioners, as well as to public vaccinators. Mr. Chaplin has, we are informed, had the suggestion under his consideration both before the passing of the recent Vaccination Act and since, and there is a desire on his part to carry the suggestion into effect so soon as it can be done without risk of failure. The Board received a grant from the Treasury which enabled it to commence in February last to issue capillary tubes of lymph at the rate of one thousand a day, which it was anticipated would, in the absence of any epidemic of small-pox, be all that would be required. The demand, however, has exceeded expectations, and at times between two and three thousand tubes a day have been issued. During the second half of January and the month of February the average number issued rose from fourteen to nearly seventeen hundred a a day. This has rendered it necessary to increase the staff at the laboratories, at the calf station, and in the offices distributing the lymph. Arrangements have also had to be made for the additional supply of calves, and a further grant has been obtained from the Treasury for this purpose. There is reason to believe that the demand from public vaccinators will still further grow, and it is therefore felt that the Board is not at present in a position to undertake at once to supply the twenty thousand private practitioners in England and Wales. The existing establishments of the Board do not enable it to do more than is now being done, but we understand that Mr. Chaplin has under consideration the question whether it will not be necessary very shortly to give up the present establishments, and to obtain premises including laboratories, calf stables, quarantine stations for calves, and residences for staff. This would necessitate the erection of a building probably a little way out of London, and to carry out this scheme some time will, of course, be required, and a very strong case will have to be shown before the Treasury can be expected to sanction the necessary grant.

EDINBURGH ROYAL INFIRMARY.

The managers of the Edinburgh Royal Infirmary would appear to have entered on a policy of retrogression. It is stated that they have all but decided to deprive the resident physicians and surgeons of a sitting room each, and to establish instead a common sitting room. This is in order to provide four more bedrooms for new residents, necessary in consequence of extension. The proposal is a most unwise one, and cannot tend to the best interests of a great hospital. It simply means that private study will become all but an impossibility. A resident in a hospital ought to be given ample opportunities for careful study of the various cases which the young physician or surgeon is called upon to treat. How shall a resident physician "read up" the literature of acromegaly if his brother resident-surgeon be entertaining some of his fair friends to afternoon tea in the same room, or if another resident is amusing himself, as he has a right to do, by playing some of the airs of *Falka* or *La Poupeé?* He may if he choose go to his own bedroom, where there is no fire, or where he does not wish for a fire. Further, it is proposed to be ordained that this common sitting-room shall be locked at midnight; so that, if as often happens, the resident feels it his duty to sit up till two, three, or four o'clock in the morning to tide a patient over the critical hours of the night, he may not sit in the common room, he may not make a cup of tea or coffee to help himself through the night; he can only sit in his cold and cheerless bedroom, where he cannot even smoke—for few men care to smoke in their bedrooms. Of course he might retire to the wards to which he is accredited, and get the night nurse to give him the comforts from which he is locked out, and so bring his nurse and himself to loggerheads with the lady superintendents. Nothing could be more foolish than this application of red tape or barrack room regulation and restriction under such circumstances. We should commend to the managers of the Edinburgh Royal Infirmary and to their medical superintendent a study of the articles in *Quain's Dictionary of Medicine* on Hospital Construction and Administration by no less an authority than the late Sir Douglas Galton, R.E., K.C.B., F.R.S. In particular three sentences in

the latter article are worth their serious perusal and reflection:

Officers' Quarters.—Apartments for the resident physician and surgeon, matron, nurses, and servants should not, if practicable, be placed under the same roof with the sick. All the rooms should be light and airy. The resident physicians and surgeons should have each a bedroom and sitting-room, with proper convenience adjacent, and a dining-room for joint use.

It is satisfactory to note that at a meeting of the staff of the hospital held on Monday last, March 27th, a request was sent in to the managers that they should delay coming to a final decision on this important question till the staff had had an opportunity to express their opinion. We understand also that a deputation from the present residents was to meet the managers on the same day in order to give expression to their opinion. They will, it is hoped, point out that the best graduates of the year will not take residentships under such conditions as are now proposed. Difficulties are being made as to space, etc., but these are mere trifling details to a great and wealthy corporation like the Edinburgh Royal Infirmary, where we still hope wiser and broader and more enlightened counsel will prevail.

A CURIOUS PROCEEDING.

DR. FLINN, Local Government Board Inspector, has just held an inquiry into some strange proceedings in connection with the election of a dispensary medical officer at Dundrum, near Dublin. The election took place on February 21st, and Dr. Mackay was elected by a majority of 1. It appears, therefore, that there would have been a tie under certain conditions. On the evening of February 20th Mr. Francis V. Westby received the following telegram: "Killballyowen House on fire. Come by night train." He accordingly left by train, and as his country residence was in the far west he did not reach it for many hours, only to find that the house was not on fire. He did not get back for the election. The telegram was not signed, nor was any address given. It was found that the telegram was despatched from a small office in Dublin, and the lady clerks having been brought to Dundrum by a detective, they identified a gentleman as the person who handed in the message. He proved to be Mr. Hartz, one of the county coroners and a member of the Dispensary Committee. Dr. Mackay swore that he had no knowledge whatever of the transaction. He thought Mr. Westby would have voted for him. The Local Government Board will make their decision known in due course. It transpired that further legal proceedings are pending.

HOSPITAL ABUSE AND PAYING WARDS.

AT the annual meeting of the Hospitals Association last week Sir Henry Burdett delivered a vigorous address on the advantages of paying wards. He urged that any hospital without a paying ward was open to abuse. No hospital could, he contended, be complete unless provision was made for all classes of the community. He maintained that the system in existence in this country ought to be so modified that every person should be able to have hospital care and treatment with the privilege of paying for it if able to do so. He estimated that at the present time £50,000 a year was derived from patients' payments, or about 2 per cent. of the income of all the hospitals in the country. If hospitals had paying wards they could be so arranged that the medical man who had a case there would enter without having anything to do with the administration, or the management of the work going on in the free portions of the hospital. The municipalisation of hospitals would, he thought, destroy all the life and spirit of the voluntary hospitals, which depended upon individuals who devoted their lives to looking after the sick, and who took a pride in their institutions. If that impetus and competition were taken away the life of the hospital and its advantages would be destroyed. He believed that if the system of having paying wards in each hospital were adopted hospital abuse would be stopped, and he believed that with a few safeguards the whole of the medical profession could be induced to welcome such a change. Where there was free relief there could be free medical service, but where there was paid relief provision must be made for the payment of medical services, and the plan had worked admirably in the case of the cottage hospitals. Sir Henry Burdett also expressed very sanguine views as to the future of the Prince of Wales's Hospital Fund for London. He believed that through the League of Mercy the time was at hand when it would be possible to say to the hospitals in London, "You are financed; you have sufficient money to go on with your work; now look and see whether you cannot meet the needs of every class of the community."

THE INCUBATION PERIOD OF TYPHOID FEVER.

MR. F. E. ATKINSON has issued a very interesting and complete report on the limited outbreak of typhoid fever at Kildwick. It contains a complete table of cases and two valuable plans. On a previous occasion we described the more important features of the outbreak and showed how clearly the disease had been traced to a single water supply, contaminated by a sewage of a particular house, and how a single imported case of typhoid fever having occurred in that house, the disease at once made its appearance in the hamlet supplied by the infected water. Of the 48 cases, all but 4 either lived in houses supplied directly with this water or, owing to attendance at a school supplied with the water, had opportunities of drinking it. Of these 4, one was a stone breaker recently working in the neighbourhood of the infected supply; another was a man who attended a cattle club dinner in the infected area and confined his potations to water—the only one, it is said, at the dinner who did so. The two others were members of families in which cases traceable directly to the water had already occurred. It will be remembered that a coloured liquid, put down the w.c. at the Hall, showed itself within a few minutes in the tank supplying the hamlet, and in the drinking trough at the school. The tenant of the Hall had returned home ill on December 6th, having had a rigor two days earlier. His medical man at home first saw him on December 10th, and, although only pneumonia was at first diagnosed, at once had the motions thoroughly disinfected with a strong solution of carbolic acid. This disinfecting process was continued for half a day before they were allowed to enter the drains. On December 24th the case was reported as typhoid fever. The first of the Kildwick cases was reported on January 12th, and two others in the same house on January 16th. The approximate date of attack in all three cases, and in another in a neighbouring house reported also on January 16th, is given in Table A as January 4th. As the first patient died on January 15th, his illness, if this date is correct, must have been unusually short for typhoid. Assuming that all four cases began on January 4th, and that the disinfection was efficient from December 10th, the period from the infection of the water supply to the first symptoms in the earlier cases could not be more than twenty-nine days nor less than twenty-five. This is long for an incubation period, but part of this time might have been occupied in producing an effective culture of the bacillus in the old stone drains running from the Hall to the canal. The nearest rain gauge, that at the Silsden reservoir of the Bradford Corporation, showed a rainfall of 0.26 inch and 0.30 inch on December 2nd and 3rd, and of 0.16 inch, 0.22 inch, and 0.18 inch on December 5th, 6th, and 8th, after which there was very little rain till December 26th, on which day the gauge registered 0.80 inch. It was 0.30 next day, and 0.41 and 0.29 on December 29th and 31st, and 0.42 on January 1st. From December 26th to January 4th is a period of eleven days,

not at all an improbable incubation period. It might well be that the bacilli multiplying in the flat-bottomed drain had been raised by the heavy rains to the level of the pipes carrying the subsoil water to the tank. Other interesting problems relating to the incubation period of the disease are suggested on perusal of the report. The school was opened on January 9th and closed again on January 20th. Three children from Farnhill who attended this school were attacked, one on January 19th and two on January 20th. Unless they had other access to the infected water, it would seem as if the maximum period available for incubation was eleven days for the two, ten for the one. On the other hand, the man who attended the club dinner on January 2nd is supposed to have been attacked on January 20th, a period of eighteen days; while the illness of the stonebreaker who worked in Kildwick up to January 11th did not commence till February 1st, or twenty-one days later. A child at "Junction," if he imbibed the polluted water the day the school reopened, might have had an incubation of twenty-four days, but if he abstained till the last day the school was open the period would be only thirteen days; while another from Farnwick had a period between fourteen and three days, and another also from Farnwick could hardly have had more than eight days. Whether the same school was used on Sunday is not stated. Of fourteen houses supplied by the Kildwick water cases occurred in ten, and of the fifty-four occupants of these ten twenty-eight were attacked.

THE HEALTH OF THE POPE.

The Correspondent of the British Medical Journal in Rome writes: Notwithstanding the alarming reports which have lately appeared in some of the English and foreign newspapers, I am able to state, on the authority of Professor Mazzoni, that the health of the Pope is now (March 24th) very satisfactory. The wound has been quite healed for some days, and Leo XIII has resumed his ordinary duties and occupations. The Holy Father naturally still feels a little weak owing to the loss of blood and the effects of the operation; but I learn from other sources also that His Holiness is very cheerful, that his mind is as clear as ever it has been, and that he has lately seen many persons besides those whom he has to see in an official capacity.

A HUNDRED YEAR CLUB.

Edinburgh used to boast a "Six Foot Club;" New York, we believe, is privileged in the possession of a Fat Men's Club; bald men, red-headed men, squint-eyed men, and others rejoicing in some distinctive beauty or blemish have banded themselves together for mutual admiration or support against an unsympathetic world. But a club of centenarians is, as far as we know, what our Transatlantic relatives call "a new departure." There are obvious difficulties in the formation of such a body, which may perhaps account for its not having been attempted before. But all difficulties yield to American enterprise, and the establishment of a "Hundred Year Club" in New York is announced. The new club held its preliminary meeting on March 7th. It is not definitely stated that only centenarians are eligible, though this condition of membership seems to be clearly implied by the name of the club. But the object of the club is not merely to afford a neutral ground where centenarians may meet and count their remaining teeth and compare their infirmities; it is to study the means of still further prolonging their Struldbrug existence. At any rate, this is what we gather from the prospectus, in which it is stated that the aims of the club are: (1) To collect and maintain a library to contain everything of value written on the subject; (2) to concentrate the experience of mature analytical minds, particularly those who have attained excessive longevity, and learn the lessons therefrom; (3) to secure the essence of scientific knowledge in plain language, that the wonderful progress being made in this direction may be utilised by the people. The "concentration" of the "experience of mature analytical minds" which "have attained excessive longevity" does not sound a very attractive conversational programme for a club smoking room. The experience of one such mind, concentrated even on an audience of vigorous men, is often sufficient to leave them in a condition of collapse. But perhaps the club is an ingenious device for collecting centenarians together in a place where they will be harmless and can freely concentrate the experience of their mature analytical minds on each other. Or is the "Hundred Year Club" after all only a society for the study of longevity? On second thoughts we incline to believe that it is "only this and nothing more"—to use the classic phrase of a certain raven which probably occurs to us here from the association of that interesting fowl with length of years. But is longevity in these days of progress and expansion to be limited by one poor century of life?

SOME EXTRA RATINGS OF HEALTHY LIVES.

The question of "rating up" healthy lives is always a difficult one. Men in the enjoyment of good health naturally resent having to pay an additional premium, so that if they are rated up at one office, the chances are that they decline to accept the policy, and try their luck at another. It is therefore desirable, both in the interest of applicants for assurance and of the offices, that a general agreement on the subject should be arrived at by the chief medical officers. It cannot be too strongly insisted upon that, though in individual cases there may be a conflict of interest between the applicant and the office, in the long run the interest of the assured and of the companies is identical. Hence any arrangement by which uniformity of action is secured will be of general benefit. We publish in another column a paper by Sir Peter Eade, which touches on this question, and the discussion which took place after the reading of Dr. Heron's paper on Some Extra Ratings of Healthy Lives, will also do much to promote unanimity among the responsible officers of assurance companies. The first point raised by Dr. Heron was the question of habits. It is so universally accepted by assurance medical officers that a suspicion of excess in alcohol should lead to the rejection of the application that the point received very little attention from the subsequent speakers. The same holds good of the use of opium and other narcotics; the difficulty, however, is to detect indulgence in these drugs. Dr. Vivian Poore's recognition of punctures in the arm of an applicant for assurance is an example of the necessity of stripping the candidate, and of being on the look-out for any casual indications. As might have been expected, tobacco did not come in for much blame; Dr. Hingston Fox, however, was of opinion that its excessive use sometimes leads to inebriety. On the question of vaccination there was no difference of opinion. The conscientious objector will not receive much sympathy if he applies for assurance. The paper elicited valuable information on the risks inseparable from a seafaring life, from naval and military employment, and from residence in the tropics. We would suggest that a discussion confined to tropical risks would be most useful, as the practice of different offices varies greatly. The opening up of the interior of Africa has brought soldiers and civilians into contact with climatic dangers as great as those encountered on the West Coast of Africa—"the white man's grave"—and as yet the offices have not come to any kind of agreement as to the treatment they propose to extend to the assured going to these new districts. There is a large amount of worldly wisdom in Dr. Heron's remark: "The too fat man, who wishes to assure his life to the best advantage to himself, should select for his

purpose an office of good standing which has stout men among its directors." We are all of us too apt to allow our judgments to be biassed by our own preconceived views and opinions. The question which excited the greatest interest was that of a family history of tuberculosis. The recognition of the part played by the tubercle bacillus should certainly lead to a reconsideration on a large scale of the theories as to the liability of persons having a family history of tuberculosis, but it is thought that at present sufficient evidence has not been adduced to justify assurance offices in altering to any considerable extent the practice that has prevailed of rating up lives with a family history of consumption.

NURSING IN IRISH WORKHOUSES.

WE have received from Dr. Edward Thompson, of Omagh, Co. Tyrone, a long letter in reply to a paragraph which appeared under the above heading in the BRITISH MEDICAL JOURNAL of March 18th. In reference to our statement that the Local Government Board had "defined the term 'trained nurse' to mean any person who has resided for not less than two years in a clinical or other hospital recognised by the Local Government Board," he says: "The Board never made this statement; there is no mention in their circular of the words underlined, *or other hospital*. The quotation is therefore incorrect. If the words 'or other hospital' had been included, the opposition to the circular would never have arisen." To this we can only reply that in the circular of the Board dated January 12th, 1899, from which our quotation was made, the words "or other hospital" do occur in the connection given in the JOURNAL. The quotation is absolutely correct as we gave it. Since the receipt of Dr. Thompson's letter further inquiries have been made as to the existence of any other circular on the subject of "trained nurses," and we are assured on the highest authority that the circular to which we referred was the only one issued, and that it was accurately quoted by us. Dr. Thompson, therefore, appears to be under some misapprehension. We have not said anything about the Tyrone Infirmary or its work. We accept his statement that the nurses of that institution are "welcome visitors in the houses of the Duke of Abercorn and other county gentlemen;" but all this has nothing to do with the question under consideration. The Local Government Board have adopted the scheme which is in operation in Scotland. We note that Dr. Moorhead, of Cootehill, who has done so much in the direction of workhouse hospital reform, approves of the standard of the Local Government Board. Dr. Davidson, of Ballymena, holds the same view, and says: "Most fair-minded medical officers who have had experience in this matter must admit that the majority of county infirmaries have not the same facilities for training nurses that are afforded by large hospitals with a resident medical staff and trained lady superintendents. Personally, my experience of nurses trained in county infirmaries has been anything but satisfactory."

THE CHELSEA PHYSIC GARDEN.

WE have alluded on two previous occasions[1] to the negotiations which have been in progress some time to save the Physic Garden at Chelsea from the hands of the builder. It is now announced that these efforts have been crowned with success, and that the garden has been handed over to the trustees of the London Parochial Charities, who have agreed to contribute the sum of £800 yearly to its maintenance. Under the new scheme the garden is to be administered exclusively for the promotion of the study of botany, with especial reference to the requirements of general education, scientific instruction and research in botany, including vegetable physiology and instruction in technical pharmacology, as far as the culture of medicinal plants is concerned. The practical management of the garden will be vested in a Committee formed of representatives nominated by the Trustees of the London Parochial Charities, the Treasury, the Lord President of the Council, the Technical Education Board, the Royal Society, the Royal College of Physicians, the Society of Apothecaries, the Pharmaceutical Society, the London County Council, and the Senate of the University of London. Earl Cadogan and his successors, as representing Sir Hans Sloane, who conveyed the garden to the Apothecaries' Company in trust for the encouragement of botany, is also a member of the Committee. The garden, which comprises nearly four acres facing the Embankment, was founded about 1673 by the Apothecaries' Company, and held by them on lease until 1722, when it was conveyed to them by Sir Hans Sloane on the trusts already mentioned, with a proviso that if the conditions were not fulfilled the land should be held by his heirs in trust for the Royal Society or College of Physicians to carry on the garden for the same purpose. The Society of Apothecaries have recently found difficulty in keeping the garden in a proper state of efficiency, and neither the Royal Society nor the College of Physicians were prepared to undertake the trust on the condition of providing funds for its maintenance. The only course then appeared to be to sell the garden and apply the purchase money on a *cy-près* object, but happily the trustees of the London Parochial Charities have come to the rescue and saved the garden.

[1] BRITISH MEDICAL JOURNAL, vol. ii, 1898, p. 1833, and vol. i, 1899, p. 231.

THE ALIMENTARY CANAL AND HUMAN DECAY.

THAT the alimentary canal is supplied by a system of nerves which regulate its functions has been known, or rather inferred from anatomical discoveries concerning the great sympathetic "system" which date a century back. The more recent and exact knowledge concerning the neurons of this region, which we owe to the discoveries of Golgi and his followers, has attached renewed attention to this bowel-regulating nervous mechanism. Sir James Grant, who is Consulting Physician to the General Hospital at Ottawa (Canada), in a paper published in the *Montreal Medical Journal* (November, 1898), draws attention to certain bearings of this question in regard to this "internal sewage" system of the alimentary canal. For example, accepting the doctrine of the "amœboid" mobility of certain neurons, as first observed by Wiedersheim in leptodara hyalina, he thinks it possible that "altered relationship of the neurons" by changes of amœboid nature in their arms or protoplasmic processes, with a consequent "retarded distribution of nerve power," may become closely associated with the development of the familiar hysterical paralytic condition, so transitory in character, of the alimentary canal. He believes this point of view may lead to the discovery of facts of practical value, especially in combination with the study of vasomotor innervation of the viscera. Again, reverting to the question of autotoxis, he observes that long prior to disease of toxic origin we may have indications of toxic function disturbance, and nowhere more so than in the intestinal canal. Irregularities of the digestive process are of more frequent occurrence than is generally supposed, and the effects of accumulation or non-elimination of the toxic substances thereby produced have a power for evil on the nervous system, which thus may become chronically poisoned, dulled, and enfeebled in function, while at the same time the blood gets charged with toxins to a serious extent, as shown by the anæmic and characteristic physiognomy of neglected cases. Sir James advocates the use of static electricity applied by means of Hodgkinson's electro-neurotone to the abdominal walls. Cases of constitutional debility, arising from the chronic toxæmias above indicated, were observed and followed during such treatment. There is a reference to the observations of Müller and

Manicatide,[1] who found in the central nervous system of seven children who had died of gastro-intestinal disease, and who were under 3 months of age, characteristic degenerations of cells and nuclei. The important fact announced in 1880 by Naumann, that various aromatic bodies such as indol, phenol, cresol, are produced within the bowel by the action of putrefactive and an aërobic bacteria on proteids, and the discovery of an abnormal excess of indican in the urine during perityphlitis (Salkowski) serve to show, at least in part, the nature of some of these poisons. The alimentary canal, however, may soon get tolerant to such noxious agents. It is "remarkable," says this writer, "how its mucous lining accommodates itself to the high living of the present age." The indications for treatment are said to be lassitude and indisposition for either physical or mental exertion without any other assignable cause, in association with digestive irregularities. The treatment to be pursued is to consist, in addition to ordinary tonics and aperients, of the application of the above electricity to the abdomen and spinal column alternately, for ten minutes at a time at intervals of about two days, and to be continued for from three to four weeks, which is the usual time the nerve centres are said to take "to recover their tone." All this, of course, sounds very feasible, though not quite convincing. Four cases are given (ages 28, 58, 63, and 78). All of these had suffered from flatulence and constipation, often markedly, with loss of appetite, nausea, cardiac disturbance, lassitude, and a tendency to excess of uric acid in the urine. All improved decidedly under the neurotone (electric) treatment. Though the records of these cases do not quite bear out Sir James Grant's contention *re* the neurons, they are suggestive and deserving of mention. Definite experimental work in this direcion is much needed.

IRRESPONSIBLE COUNSELLORS.

Able editors—outside the sacred pale of medical journalism—are favoured with suggestions by self-constituted counsellors to such a degree that they are sometimes tempted to say in their haste that all men who write to the papers are fools. This, of course, would be a very unjust judgment, which we in particular would strongly reprobate. We do not even agree with Christopher North that "an unpaid contributor is *ex vi termini* an ass." But we admit that the irresponsible adviser is often a thorn in the flesh, and we confess it has occasionally occurred even to us to suspect that when a man can get no hearing for his views on things in general elsewhere, he feels an irresistible impulse to discharge them on the nearest editor. Yet the lot of that long-suffering individual is happy compared with that of more exalted persons. When a sovereign is ill he at once becomes the target at which the busybodies, inventors, quacks, and "cranks" of all nations shoot their infallible specifics, patent foods, and dainty devices of various kinds. This benevolence is doubtless prompted by the enthusiasm of humanity, which is apt to become hyperpyrexial in the case of crowned humanity. But even the commoner humanity of the soldier may be sufficiently stimulant of philanthropic sentiment in the breast of the inventor to induce him to urge the Government to compel their servants to use his invention. In the *Boston Medical and Surgical Journal* of March 16th, Dr. Edward L. Munson, of the Surgeon-General's Office, Washington, utters a mild complaint as to the large increase in the general correspondence of that office caused by the war with Spain. In the course of a few months the office received, answered, and filed 626 communications, of which 186 related to yellow fever, 77 to typhoid fever, 87 to malaria, and 58 to dysentery, the rest having reference to various other affections. Practically all these letters suggested methods of treatment for disease (the adoption of which the writers frequently desired should be made compulsory on army surgeons), or else indicated the possession by the writers of secret methods or formulæ guaranteed infallible for one or many affections, which they were willing to impart to the Government for a consideration, varying from a railroad pass to the sum of 50,000dols. (£10,000), and from an appointment as nurse or physician to a life pension. The polite refusal of the Surgeon-General to purchase these secrets was sometimes followed by complaints to the President of the United States or the Secretary for War that the Medical Department was criminally negligent of its duty to the soldiers under its care. Correspondents of this class, says Dr. Munson drily, invariably spelt fever "feaver," and were sublimely regardless of any pathological differences between malaria, typhoid, yellow, and other fevers. It is noteworthy that the offers of remedies for yellow fever mostly came from the northern and north-western parts of the United States, where yellow fever has never prevailed, and from Germany, Austria, and Russia, where it is unknown. It is significant that none came from the Southern States, where the disease is a too familiar scourge. One inventor offered by means of his "instruments" to reveal the germ of yellow fever, as to which he volunteered the suggestion that if smaller than "the smallest known microci, then it will very likely prove to be one of the ever living Atoms which manufactures the poisonous substance of a '*gass*' that produces the disease." In regard to typhoid fever one ingenious individual urged the employment of onion poultices to the soles of the feet as never failing to abort the disease; while another laid stress on the fact that a diet of well-browned peanuts would prevent small-pox. The free use of garlic was confidently recommended as a preventive of all diseases. A doctor urged that nose-breathing should be made compulsory on all soldiers, who would thus avoid the inhalation of microbes. "Medication of the feet" was recommended as a preventive of malaria, a suggestion which gives a new point to the doctrine of Mulvaney's doctor about the soldier's feet. A Brooklyn physician wrote to say that in his forty years of medical experience he had met with nothing more certain than the curative effect of bean water upon punctured wounds. Specimens are given of the letters in which these suggestions were conveyed. The grammar and spelling of many of them show a disposition to revolt against the conventional laws which so oppressively restrict the freedom of the individual in such matters. Among the boldest of these rebels are members of the learned profession of medicine.

[1] *Deut. med. Woch.*, March 3rd, 1898.

THE PECULIAR PEOPLE.

Major Rasch last week in the House of Commons asked the Home Secretary whether he would consider the advisability of remitting the remaining portion of the sentence of four months' imprisonment (passed about three months ago) on Senior—one of the "Peculiar People"—for neglecting to provide medical treatment for his child. The answer given by Mr. Collings was that the case had received careful attention, but no sufficient ground had been shown for a remission of any part of the sentence. It will be remembered that this case was the third or fourth of its kind, in which death had been caused or accelerated by wilful (that is, deliberate) abstention, on the part of parents from supplying infants under their care with medical aid. In the earlier cases the judges, respecting the sincerity of the parents, though warning them of the folly and criminality of their conduct, were content with giving them a solemn caution, and then discharging them on their own recognisances to come up for judgment when called upon. But at last it was felt that something more must be done if the law was not to be systematically ignored, and manslaughter committed with impunity by the "Peculiar People" and anyone else who might have

"conscientious objections" to accepting human aid for their children in time of sickness. To set at rest any possible doubt as to the law, and so lay the foundation of firmer treatment of such law-breaking, Mr. Justice Wills, who tried Senior at the Old Bailey, "stated a case" for the Court for the Consideration of Crown Cases Reserved. The unanimous judgment of the Court, delivered by the Lord Chief Justice maintained Mr. Justice Wills's interpretation of the law—which, indeed, was hardly open to doubt—and a sentence of four months' imprisonment was, after the fullest and most deliberate consideration of the law and the facts, passed upon Senior for the offence of manslaughter. Under these circumstances it would require very strong grounds to justify the interference of the Home Secretary with the sentence of the judge. The Lord Chief Justice laid stress rightly upon the obvious necessity for drawing the line somewhere, and the difficulty of defining where it should be drawn if once the legal limits were overstepped. The gravity of the offence consisted in the systematic defiance of a law which the public as well as the medical profession believe to be a salutary and a reasonable law for the protection of the life and health of those who cannot protect themselves, and in whose life and health the State has an interest, and towards whom the State has an imperative duty to perform.

THE CHAIR OF PATHOLOGY IN GLASGOW UNIVERSITY.

THE applications for this vacancy have now been presented, and it is understood that the following gentlemen are candidates for the Chair: Dr. Robert W. Buchanan, Glasgow; Professor Sheridan Delépine, Manchester; Dr. Lindsay Steven, Glasgow; Professor Muir, Dundee; Dr. William Russell, Edinburgh; Dr. J. Lorrain Smith, Belfast; Dr. Charles Workman, Glasgow. The Curators will proceed to make the appointment at once, in view of the approach of the summer session.

PROPOSED UNIVERSITY OF BIRMINGHAM.

THE Endowment Fund for the proposed University of Birmingham continues to receive very satisfactory additions. At the town's meeting last July donations were reported amounting to upwards of £95,000. At the present time the total stands at about £136,000, and when it is remembered that this latter sum has been contributed in about 650 separate donations, it will be seen that a very large number of well-to-do people in Birmingham and the immediate district have not yet signified their intention to contribute. Included in the total of £136,000 are donations amounting in the aggregate to upwards of £30,000 from limited liability companies. The Jewellers' and Silversmiths' Association have already promised sums amounting to between £3,000 and £4,000, and members of the medical profession have given generously. Recently a meeting was held, at which Mr. Chamberlain met the representatives of a number of large manufacturing concerns, and it was unanimously agreed to support the project. The result, so far, has been an addition of £10,000 from half a dozen of the firms represented at the meeting. In a communication recently received from Mr. Chamberlain, he stated that a gentleman who wished to remain anonymous, and who was not in any way connected with Birmingham, wished to show the great interest he felt in the proposal to establish a university in the city, and desired to contribute a sum of £25,000, on condition that the local Committee raised the Endowment Fund to the sum of £225,000 during the next six or twelve months, thus bringing the grand total up to a quarter of a million, the sum asked for by Mr. Chamberlain at the public meeting last July. A meeting of the Canvassing Committee was held a few days since, when it was decided to spare no efforts in raising the necessary sum (about £90,000) to secure the generous contribution above mentioned. It is proposed to apply for a Royal Charter incorporating the University at an early date.

DR. WILLIAM OSLER will deliver the Cavendish Lecture before the West London Medico-Chirurgical Society on June 13th.

WE regret to have to announce the death, on March 25th, of Dr. Heinrich Port, Physician to the German Hospital, at the age of 56.

WE are asked to state that the Library of the Royal Medical and Chirurgical Society will be closed from Friday, March 31st, to Monday, April 3rd, both days inclusive.

THIS year's Congress of German Surgeons will be held in Berlin during Easter week, from the 5th to the 8th of April. Professor E. Hahn, head surgeon of the Friedrichshain Hospital (Berlin) will preside.

THE Liverpool School of Tropical Diseases will be inaugurated on April 22nd, when a dinner will be given by Mr. Alfred L. Jones and the Committee of the School, at the Adelphi Hotel, Liverpool.

WE understand that the Queen, on the recommendation of Lord Balfour of Burleigh, the Secretary of State for Scotland, has appointed Dr. John Macpherson Commissioner in Lunacy in room of Dr. Sibbald, retired. Dr. Macpherson has been Medical Superintendent of the Stirling District Asylum for some years, and has greatly improved and extended that institution. In the earlier part of his professional career Dr. Macpherson served in the Inverness Infirmary and the Royal Edinburgh Asylum. He has written various articles on insanity and allied subjects, and is Lecturer on Mental Diseases in the Edinburgh School of Medicine.

WE are requested to state that two general meetings of the Chelsea Clinical Society will be held (by kind permission of the Director) in the Jenner Institute of Preventive Medicine, Chelsea Gardens, S.W., on Tuesday, April 18th, and Tuesday, April 25th, at 8.30 P.M., for a discussion of recent investigations as to the Etiology, Prevention, and Treatment of Tuberculosis. On April 18th the subject will be dealt with from the bacteriological and pathological point of view by Professor Sims Woodhead, Professor Sidney Martin, and Professor Watson Cheyne. On April 25th the meeting will be devoted to the discussion of treatment which Dr. Theodore Williams will discuss from the preventive and climatic; Dr. J. Edward Squire from the general preventive; and Drs. R. Maguire and S. H. Habershon from a general, point of view. Dr. F. R. Walters will speak on sanatoria. The meetings are open to all members of the medical profession.

MR. SAXON SNELL, F.R.I.B.A., has been appointed the architect to design the proposed rearrangement and extension of Charing Cross Hospital.

AT the meeting of the Zoological Society of London on April 18th, Staff-Surgeon P. W. Bassett-Smith, R.N., will read a paper entitled A Systematic Description of Parasitic Copepoda found on Fishes, with an Enumeration of the known Species.

IS FEMALE INEBRIETY INCREASING?—A metropolitan magistrate, Mr. Curtis Bennett, recently stated that when he became a London stipendiary—fourteen years ago—half the charges in which drunkenness was involved were against men. Now, in Marylebone, and he believed at the other metropolitan police courts, three-fourths of the charges of drunkenness were against women.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

Fees to Medical Witnesses was the subject of a question by Dr. Farquharson, who asked the Secretary of State for the Home Department whether his attention had been directed to the inadequate scale of fees for medical witnesses in courts of law; and whether he would consider its revision with the view of more adequately remunerating medical men, who are compelled to give evidence, for their loss of time and expense incurred.—Mr. Jesse Collings, who replied, said: This matter has received the most careful consideration, but the Secretary of State has not seen his way to take any steps in the direction suggested.

The London Government Bill passed its second reading early on Saturday morning by a majority of 127. This was an unexpectedly large majority, but the opposition to the Bill was based rather on suspected dangers in the measure than any obvious and clear defects. All through the debate the dislike expressed to the Bill was plainly founded on fears that the disturbance of local bodies in London, and the creation of great municipalities, might after all lead to greater conflicts of interest and confusion than a less ambitious modification of the existing authorities. It is only in Committee that the actual effects of the Bill will be made plain, and in that stage of its progress there is sure to be prolonged and serious opposition to some of its clauses. It will be a matter of importance, too, for all the officers (especially the health service) of the present local authorities to consider how they will be affected. The creation of municipalities will in some instances lead to an amalgamation of offices and the creation of more valuable and more important appointments. The Committee stage has been put down for Monday, April 10th, but will not be taken on that day, and most probably not till the next week. There are already four instructions down to be discussed before the Committee stage is begun, and one of these proposes to transfer to the new authorities the powers and duties of the guardians of the poor.

The Food and Drugs Bill has been at last referred to the Grand Committee on Trade, but only after a strong protest had been made in favour of discussing the Bill in Committee of the whole House. It was contended that adulteration should not be regarded only as a trade question and connected with competition, but rather as a criminal matter connected with fraud on the consumer. The Government, however, would not give way, and so the Bill will go upstairs in the third week in April.

Sewage Disposal is from time to time the subject of questions in the House, and last week a point was raised in connection with the sewage works at Epping. There seems to be delay there from a difficulty in acquiring land, and a new scheme is under consideration. The Sewage Commission has not yet reported, but it is to be hoped that some interim report may soon be made, especially in connection with the experiments on the bacteriological treatment of sewage.

The Peculiar People do not seem to be regarded with any special favour at the Home Office. Major Rasch asked for the consideration of a sentence of four months' imprisonment for neglect to provide medical treatment for a child, but the Under-Secretary said no sufficient ground had been shown for remission of the sentence, which was awarded for manslaughter.

The Infectious Disease (Notification) Act (1889) Extension Bill is the full title of Sir F. S. Powell's measure, which was lucky enough to get read a second time on Monday night. The Committee has been fixed for Friday, April 14th, and there is now a chance of making notification general all over the kingdom.

Phosphorus and Lead Poisoning, which have been the subject of valuable reports recently, were brought up by a question in the House this week, and the Home Secretary promised to make a statement after the holidays as to the action the Government will take with a view of preventing the particular diseases arising from the use of these minerals. It was suggested by Mr. Tennant that the Government should in future direct all the Departments of State to purchase china and earthenware coated with leadless glaze.

The Pharmacy Act, 1868, Amendment Bill, which is in charge of the Lord Chancellor in the House of Lords, aims at amending the law so that a company may only carry on the business of a chemist and druggist on condition that a duly qualified and registered manager or assistant is employed. This would place a company in the same position as the executors or trustees of a deceased druggist. In other respects the Bill would subject the company to the same pains and penalties as individuals for offences under the Act of 1868.

The Vaccination of Very Young Children was raised before the adjournment by a question of Mr. Channing, but the President of the Local Government Board was able to tell the House that the operation had been performed in all cases at the request of the parents, and that the cases of eczema which occurred in a child vaccinated when only 2 days old did not come on till much later. The attention of the guardians and the vaccinator in these cases, he added, would be called to the provisions of the Act of last year in reference to the vaccination of young children.

The Civil Service Estimates are to be the first business on Monday, April 10th, after the Easter recess. Before the Estimates can be considered, the motion to get the Speaker out of the chair will be made as usual the occasion of debates on certain grievances. The question of slavery in Zanzibar is likely to be raised first, and afterwards elementary education in rural districts. Taxation and the Vaccination Order of last October promise to occupy the rest of the sitting.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Alessandro Cantieri, Professor of Clinical Medicine in the Faculty of Medicine of Siena, aged 78; Dr. Albert Crickx, *Agrégé* Professor in the Medical Faculty of Brussels, as the result of blood poisoning contracted in the performance of a surgical operation, aged 34; Dr. Oscar Bulhoes, Professor of Clinical Surgery in the Medical Faculty of Rio de Janeiro; Dr. Thomas, sometime professor in the Medical School of Rheims, and a former member of the Chamber of Deputies; Dr. E. P. Hurd, sometime professor in the College of Physicians and Surgeons, Boston, U.S.A., aged 60; Dr. Gibert, of Havre, a correspondent of the Paris Academy of Medicine, first President-General of the Medical Syndicates of France; and Dr. Max Durand-Fardel, President of the French Société d'Hydrologie, author of *Traité des Maladies Chroniques et des Maladies des Vieillards; Traité des Eaux Minérales*, and other works.

Medico-Psychological Association.—The spring meeting of the South-Eastern Division will be held at the Kent County Asylum, Chartham Down, near Canterbury, on Wednesday, April 5th. The following papers will be read:—Mr. Allan Maclean: The Lunacy Laws and the Inspection of Establishments for the Insane in England and Wales. Dr. Ernest White: Epilepsy associated with Insanity. Dr. FitzGerald invites the members of the division to lunch at 1 P.M., and the dinner will be at the County Hotel, Canterbury, at 6 P.M.

The accommodation in certified inebriate reformatories will have to be extended for the care of intoxicated children if many towns can present such a spectacle as was recently exhibited before the Newport magistrates. A publican was fined, and among his customers were a boy of 16, two boys of 15, and a girl of 14. The girl had whisky and also port wine. There were other juvenile tipplers. It was stated that the girl had gone home drunk three times since November 5th.

THE INFLUENCE OF LOCALITY ON THE PREVALENCE OF CANCER.

Interim Report of the Committee appointed by the Birmingham and Midland Counties Branch of the British Medical Association to Investigate the Influence of Locality on the Prevalence of Malignant Disease in the Counties of Warwick, Stafford, Salop, and Worcester.

THIS Committee, which consists of Dr. R. M. Simon (Chairman), Dr. T. Law Webb, Dr. Thomas Wilson, Dr. Douglas Stanley, and Dr. E. N. Nason (Honorary Secretary) was appointed at a meeting of the Branch before which a paper on this subject had been read.[1] The meeting, after an interesting discussion, considered that the questions raised were of sufficient importance to warrant further investigation upon the lines suggested in this paper, but upon a wider basis. With this object in view a resolution, proposed by Mr. Lawson Tait, and seconded by Dr. Simon, was unanimously adopted, appointing a Committee of five. The Committee has met four times, and has collected a large amount of evidence from the counties of Warwick, Stafford, Salop, and Worcester.

The questions to be investigated have been approached in an absolutely impartial spirit, and the Committee has not concerned itself with any theories as to the ultimate nature of any "local influence" which may be present, but has spent its time in collecting facts which may prove or disprove the existence of such influence.

Returns have, so far, been received from nearly fifty registration areas in the counties above mentioned, and promises of returns from many others. These registration areas have, for the most part, been subdivided into parishes, or groups of parishes, and the returns from them extend, with one or two exceptions, over a period of ten years.

The total population of the districts from which returns have been received amounts to somewhat over 600,000, and the total number of cases of malignant disease recorded to about 3,500. The Committee has also obtained returns from some of the larger hospitals.

The plan adopted in the various registration areas has been to obtain returns of cases by the help of some medical man resident in the district who was sufficiently interested in the inquiry to give the necessary time, and who knew the physical characteristics of the district from which he supplied returns. These returns have been obtained from the registers through the courtesy of the various superintendent registrars, to whom the Committee tender their thanks. In many cases the returns have been accompanied by very valuable reports which have been of the greatest assistance to the Committee.

It is not intended, nor, indeed would it be possible, in this report, which as many of the promised returns have not yet come in must necessarily be incomplete, to deal with all the different districts included in the scope of the present investigation, or with more than a few of the many points of interest which have been noted. It may, however, be interesting to the Branch to hear some few particulars of the work done by the Committee as showing the kind of facts which have been collected and which have an important bearing upon the questions which the Committee is investigating. The following extracts from some of the reports which have been received will also serve as a guide to those whose reports have not yet been sent in.

The percentage death-rates for malignant disease for ten years vary greatly in the various districts and parishes between the low rates[2] of 0.3 to 0.35 in some to the high rates of 0.75 to 1.5 in others. In some portions of these latter districts the rates are higher still, as noted by Drs. Rubra and Roland, to whose reports reference will be made later on.

The M—— registration area has a cancer death-rate much above the average, which is found on analysis to be due chiefly to a group of parishes, M——, H——, G. P——, and L. P——. The rates in these parishes are respectively 1.77, 1.74, 1.3, and 1.98. It is found that the mortality in the adjoining district of C—— drops to 0.68, and in the parish of C—— itself to 0.51. In the opposite direction a steady decrease is also found passing through B——, F——, and A——, with percentages of 0.8 to 0.7 to the large district of F—s—ll, with the low percentage of 0.34. Dr. Wall, in his report of the M—— district, says, speaking more especially of the subdistrict of H——, "Some parts of it are very marshy and low-lying." C—— on the contrary, lies on the steep slope of a hill. The F—s—ll district again is on higher and drier ground. Dr. Orton, in his report, says with regard to this district, "The river Sowe is the only stream in this district, and flows through the scattered district of S——. The subsoil here is a thin layer of clay overlying sand and sandrock, both very porous."

Dr. Rubra has forwarded a very full and interesting report of the T——h and F——y districts, from which report the following extracts are of special interest. "I find nearly one-third of the deaths in the township of T——. occurred in a small area a little more than a quarter of a mile in length.[3] I have personally taken a census of this area, which is not thickly populated. There are 517 inhabitants, practically all the houses being occupied. This gives a percentage mortality of 1.9, or nearly four times that of the rest of the T—— district. With regard to its physical conditions, the River Tame, which is highly polluted with sewage matter from the Birmingham district, flows a sluggish black stream in close proximity, some of the houses being on its banks. As.....a little further from the river a boring proves that the ground water rises to the level of the river, it is only fair to suppose that the polluted stream percolates throughout the area. I need scarcely say that the subsoil which is mostly clay and gravel is very damp, ground fogs are prevalent and floods not unknown..... The majority of the inhabitants of this area are poor people existing in mouldy old cottages, the floors and walls of which are generally damp. The water supply is however excellent, being pumped from deep wells two miles away."

Dr. Martin makes an analysis of 50 cases occurring in B——, in which he points out some very remarkable grouping of cases. Thus in X. Road there were four deaths occurring respectively at Nos. 3, 4, 6, and 22. At the back of X. Road runs Y. Street, where 3 cases occurred, 2 of which were in houses whose backs adjoined the above-mentioned numbers in X. Road. "These houses," Dr. Martin states in his report, "are near those in Z. Street (where 2 other cases had occurred), are all very damp, and are built upon a clay bed, they are some of the oldest houses in B——; opposite them is a big ditch nearly always containing water, and behind this is the churchyard on a level 2 or 3 feet above them." Of the Y. Street houses he says: "All these houses are damp, and always have water in their cellars." In conclusion he says: "The cancer houses occur in groups; nearly all are built on clay; all but one are damp. Part of B—— is built on sandy soil, and although houses here are very dirty, and inmates poor, they are almost free from cancer." The total cancer mortality for B—— is much below the average, being only 0.3, which fact lends additional weight to these observations.

With regard to the town of W—— a street analysis made out by Dr. Martin shows again some remarkable grouping of cases. It is noticed that in no fewer than six instances have more than one death from malignant disease occurred in the same house during the ten years, and in one instance three deaths. In frequent instances, too, it is found that the cases occur in close proximity. Thus the cases in T. Street were at Nos. 11, 13, 17; in M. Street at Nos. 37 and 39, H. Lane at Nos. 15, 17, 19, and 37, W. Villas 3 and 4, etc., etc. Dr. Martin sums up thus: "The geology of W—— is interesting. The town is built partly on a sand bed, partly on a clay bed of varying thickness overlying a bed of limestone. This clay has in many cases been thrown out into mounds to get at the limestone; houses have been built upon these clay banks and, speaking generally, these are the houses where cancer occurs. They are all damp, some very much so; they are among the oldest houses in W——. The new houses are almost entirely free. Parts of the town built on the sand beds are free although in most of these positions the poorest of the inhabitants live crowded together under anything but sanitary conditions. The sand and clay beds are in places sharply defined, a "cancer area" on the clay bed being likewise sharply defined from an area almost free from cancer contiguous to it on a sand bed.

[1] The Influence of Locality on the Prevalence of Malignant Disease. By E. N. Nason, M.D., BRITISH MEDICAL JOURNAL, March 12th, 1898.

[2] The average mortality for malignant disease in England Wales for decade 1881-1890 was 0.58 per cent.

[3] The names of the streets are omitted for obvious reasons.

The percentage cancer mortality for the L—— district for ten years is 0.62. Dr. F. M. Rowland remarks that E——, Ch——, and C—— are the districts with the highest mortality, namely, 1.87, 1.5, and 1.52 respectively. The two former are very low-lying, and practically on the water subject to floods. The small village of C——, on the other hand, is hilly and high above sea level. It has, however, a stream which, though rapid, some two years ago fell under suspicion of pollution which was supposed to be the cause of the loss of some cattle.

The percentage for the neighbouring district of R—— is 0.71, and for the town of R—— 0.77, and the town of A—— 0.79. From interesting reports on the physical conditions of these districts, kindly supplied by Dr. Hubbard and Mr. W. E. Rogers, we find that A—— lies between the rivers Trent and Tame, and is very flat and low. Water can be reached anywhere at from 4 to 5 feet down. The soil is a black sandy peat. The town of R—— lies low, and is skirted on one side by the Trent; the meadows close to the river are generally flooded after heavy rains. The soil is a loose-washed gravel, with line of saturation 12 to 14 feet below surface.

The rate for the C—— urban district is 0.35, just half that of the contiguous district of R——. Dr. J. N. Phillips's excellent report gives the geological character of the district as "generally a gravelly subsoil of the new red sandstone formation with a mixture here and there of clay beds. The surface consists of a series of undulations, sloping gradually down from Castle Ring, which is 800 feet above sea level. The surface formation, together with the gravelly subsoil, renders it peculiarly adapted for the efficient filtration of surface waters."

Dr. Murray, in an interesting report of the T—— Union, says: "The parishes which have the highest rate of mortality from malignant disease are, with one exception, those which lie in the Teme Valley and on the south bank. The subsoil, I believe, is gravel. The river receives untreated the sewage of L—— and T——, and all the valley is very liable to ground fogs almost nightly.....The parishes which are free, as a rule, lie on higher ground."

It is not possible to give extracts from all the reports received, but the above have been selected as being good instances, and as being specially interesting. It has not been forgotten by the Committee that in order to insure complete accuracy in the statistics relied upon, correction should be made for both age and sex incidence. With regard to the latter, it does not appear that in any case dealt with so far the figures would have to be materially altered in consequence. With regard to the former, however, such corrections would probably raise the proportionate cancer death-rate in most of the centres of industry and lower it in country districts, but it would scarcely affect the figures when two contiguous country districts were compared.

As far as this investigation has at present gone there seems to be a very large balance of opinion in favour of the following conclusions:

1. Districts in which malignant disease occurs with a frequency much above the average often lie side by side with other districts in which it rarely occurs.

2. The districts in which malignant disease occurs with the greatest frequency are usually ill drained, low-lying or flat, or border on streams; while those districts where it is less common are usually higher, drier, and more open, with the possibility of more rapid drainage of surface waters.

That certain physical conditions influence the prevalence of malignant disease is suggested by the figures published in the supplement to the Fifty-fifth Annual Report of the Registrar-General, Part I. Here it is seen that the cancer death-rate (uncorrected for age or sex), which averages in the decade 1881-1890 0.58 per 1,000 per annum, rises in the case of Cambridgeshire to 0.78, and in that of Huntingdon to 0.91, and falls in the cases of Durham, Staffordshire, Lancashire, Derbyshire, and Monmouth to from 0.44 to 0.48. This variation was also noticed in the same counties in the two previous decennia.

Dr. Tatham remarks in his excellent comments on these returns, "An examination of the uncorrected cancer-rates in the separate registration districts within and around the counties of Huntingdon and Cambridgeshire shows a fairly well-defined area in which cancer would appear to be exceptionally prevalent. This area consists of the districts of Stamford, Bourn, Spalding and Holbeach in Lincolnshire; Oundle and Peterborough in Northamptonshire; and the entire counties of Huntingdon and Cambridge, with the exception of the registration districts of Caxton, Linton, and Newmarket." A glance at the map will show that this particular area is a low-lying piece of land through which slowly meander the various rivers and streams which terminate in the Wash.

Mr. Alfred Haviland in a paper published in 1879 says: "The mortality.....is highest in those districts which skirt the rivers of our country which are seasonally flooded..... Throughout England and Wales there does not exist an important river subject to seasonal floodings that does not flow through high mortality districts." He adds that all those districts where cancer does not thrive "are characterised by being high and dry, and geologically composed of non-retentive soils, permeable soils and subsoils in fact."

Dr. W. H. Symons published in the December number of *Public Health* a careful and interesting paper on Cancer in Relation to the Dwelling. After tabulating the cases of malignant disease occurring in the city of Bath for a number of years he comes to the following conclusions: "In Bath there are no cancer houses, and I find no evidence that locality has any influence upon the prevalence of malignant disease. The cause of cancer appears, as far as this investigation affords information, to be generally personal or intrinsic." But it is unnecessary to point out that the problem in Bath, with its "large nomadic senile population," is a far more complex one than is the case in country districts or in towns with a more "fixed" population. This characteristic, while helping to explain the high cancer mortality of Bath, must also greatly increase the difficulty of drawing any correct conclusions from the results of an inquiry into the local incidence of cancer.

Whether the character of the immediate subsoil apart from its humidity, or perhaps the stagnation or contamination of the water which it contains, has any influence on the prevalence of cancer, seems at present very doubtful. Some returns point very strongly to a greater prevalence on clay soils, others again suggest a greater frequency on sand. In this connection it should not be forgotten that a shallow sand bed overlying impervious clay, a not uncommon condition, may be even more damp and waterlogged than where the subsoil is entirely clay. Again if the clay is only a thin layer and overlies sand, sandstone, or other porous material; then a much drier condition of subsoil obtains than where the reverse is the case. It also seems more than doubtful if the variations in cancer mortality are in any way dependent on the quality of the water used for drinking purposes, or on overcrowding *per se*. What, however, seems almost certain, is that there is a direct connection between the presence of subsoil water within a certain distance of the surface and the prevalence of malignant disease.

It is hoped that the returns for the four counties will be sufficiently complete by next autumn to enable the Committee to present to the Branch a full report dealing, as far as possible, with each district. The Committee should then be able to add some valuable information to what is already known on this subject, of the importance of which there can be little doubt.

The Committee wish to take this opportunity of thanking all those who have been good enough to aid in the work by supplying reports and returns, and without whose assistance the work of course could not have been even attempted.

In conclusion, the Committee asks permission to continue its investigations for another year with the approval and sanction of the Branch.

THE TOPOGRAPHICAL DISTRIBUTION OF CANCER.

By E. Lloyd Jones, M.D.,
Cambridge.

During the last decade numerous observers have pointed out that cancer[1] has its predilection for certain districts and certain sites, and yet their observations—laborious and painstaking

[1] For the purposes of the present paper I find it convenient to include under the term cancer all malignant neoplasms.

as they often were—have been by no means generally accepted, nor have they perhaps received so much attention as they deserve.

This reluctance to accept the conclusions of these investigators—(most conspicuous among them are Haviland, Pfeiffer, Fiessinger, and Noël)—is doubtless attributable in part to the fact that their observations are not entirely consistent between themselves; hence the hypotheses of the topographical distribution of cancer have fallen into neglect. Further, the acceptance of such a supposition seems to imply a readiness to place cancer among the infective processes, and there is in many minds a great reluctance to appear to accept or to favour a surmise which has, as yet, hardly one fact in its favour.

In the present research I have, first of all, sought to determine in what manner cancer is distributed in the borough of Cambridge and in the surrounding country, in the hope both of showing whether the results obtained by previous workers are supported by the facts of its distribution in this district, and also of clearing away some of the difficulties which delay the general acceptance of their proposals.

Briefly, the following are the points upon which, in each case, several of the most trustworthy authors are agreed:

1. That cancer picks out certain districts, and that there are areas of immunity and cancerous areas (Shattock, Noël, Guelliot, Behla).
2. That immune areas may lie close beside cancerous areas (Pfeiffer, Noël).
3. That malignant disease is most common along the banks of rivers or streams (Pfeiffer, Haviland, Fiessinger, Noël, Nason, Blake).
4. That elevated districts or plateaux are more free from cancer, while low-lying districts carry more liability to its inroads (Pfeiffer, Noël, Haviland, Fiessinger, Nason).
5. That isolated "cancer houses" or groups of such houses occur in certain districts (Pfeiffer, Fiessinger, D'Arcy Power, Scott, Chapman, Noël, Ogle, Guelliot).
6. That cancer houses often occur near to woods (Fiessinger, Noël), orchards (Fiessinger), or forests of firs (Noël).
7. That persons living upon flooded and clay districts and retentive soils are especially liable to its ravages (Haviland, Butlin).
8. That limestone districts are comparatively free from cancer (Haviland), but do not confer absolute immunity (Butlin).
9. That cancer may be disseminated by means of water (Fiessinger, Noël, Haviland, etc.); that it depends upon the presence of decaying animal or vegetable matter or sewage (Haviland, Noël).
10. Lastly, the suggestion is thrown out by three observers that insects may play a part in the dissemination of malignant disease (Morau, Fiessinger, Noël). Of these three the first is the only one who adduces anything like proof of his assertion.

Apparent exceptions to these arguments are not lacking. Butlin has pointed out some of them, and others have also found that cancer occurs in situations where apparently those observers would not expect it. For instance, in some cases cancer districts occur at relatively high altitudes (Butlin), the two banks of the same river show differing aptitudes for its occurrence (Butlin); some consider cancer more frequent in towns (Finkelnburg), others in the country (Noël, etc.). Again, most authors speak of "cancer houses," but Symons states that in Bath there are no cancer houses, and that he finds no evidence that locality has any influence upon the prevalence of malignant disease. Although most observers agree with Haviland that limestone and chalky districts are comparatively free from cancer, Blake speaks of its "frequent occurrence in chalk valleys and districts containing periodical springs and rivulets."

In spite of these differences of opinion there is, on the whole, a remarkable unanimity regarding the appearance of malignant disease in certain houses, districts, soils, or rocks, and under certain conditions of moisture, of elevation above the sea level, of the neighbourhood of woods. The discrepancies arise, I believe, from the fact that the several areas have not been sufficiently thoroughly investigated. This, I believe, because in this district, at any rate, the exceptional cases become less puzzling, when the history of the illnesses and the peculiarities of the district are taken into account.

In the present investigation I have made a record of all the cases of cancer occurring in the borough during 19 years. The method adopted consisted in copying out, first of all, the death-certificates, dividing the names into classes:

1. Persons who died in their own house, divisible into two classes:
   (*a*) Taken ill in their own houses; and (*b*) who were taken ill elsewhere.
2. Persons who died in Addenbrooke's Hospital, but who came from the outlying country districts.
3. Persons who died in Addenbrooke's Hospital, but who were taken ill in the town.
4. Persons who died in the workhouse, divisible into
   (*a*) Natives; and (*b*) immigrants
5. Persons of classes (1), (3), and (4*b*), who had removed from one part of the town to another after the onset of the disease.

By duly regarding these distinctions a list was, with some trouble, compiled of all the houses in which persons have been taken ill with cancer during the 19 years. Any error due to the pulling down or rebuilding of houses I have met by finding out the date when each house (over 5,000 of them), in the parts of the borough concerned, was built. All houses which had not been standing for the whole of the 19 years, whether affected by cancer or not, were neglected: and thus I gained a map showing upwards of 5,000 houses, standing and inhabited for 19 years, and showing the number of cases of cancer in each. Another possible source of error lay in the difficulty of ascertaining exactly the "age of the population" in the different parts of the town. Although I have no exact information, yet this point has not been overlooked, and I believe that differences in the age of the populations in different districts will not account for the differences in the number of cases of cancer. In streets quite similar in character I find wide differences in the extent to which the inhabitants are attacked by cancer.

Further, I have begun to investigate the cases of cancer which have occurred between this town and the loftier ground above Royston. The same method was adopted, the investigation of each case proved often a long task, but from my point of view a very remunerative one.

Having obtained the list of houses in which persons had been taken ill with cancer, I proceeded to visit the houses and to mark each one on an ordnance map—scale of 10 feet to a mile—showing the affected and the non-affected houses in red and black respectively. This map of the borough showed at once that certain districts were fairly free from cancer, while other regions were far more extensively affected. The areas most affected of all showed 1 case in every 2 to 5 houses; the most healthy areas, from this point of view, showed only 1 case (or no case) in every 60 houses. The figures obtained were as follows:

Total number of houses concerned	5,685
Unaffected houses	5,247
Affected houses	438

Showing a mean of 1 affected house to every 11.9 unaffected houses.

Multiple cases in the same house divisible into:
(1) Double cases, 7.
(2) Triple cases, 3.

Space forbids me to enter into details, so I must at present content myself with stating the conclusions to which I have been drawn, which are as follows:

1. That some parts of the town are comparatively free from cancer; while other parts, often contiguous to the former, suffer severely.

Thus, on the neighbouring sheets of the Ordnance Survey, the relation of which to each other is shown in the diagram on p. 815, the number of affected houses increases in proportion to the unaffected as one passes from west to east, until it suddenly diminishes in Sheet xlvii, 2, 5. On Sheet xlvii, 3, 7, the ratios of houses affected to the unaffected are 31, 10, and 2 in the three quarter sheets marked. The Quarter-sheet xlvii, 3, 7, L. 2, however, only contains 13 squalid, filthy hovels, shut in by high walls and without proper ventilation; and if we may rely on such scanty data the mortality among those 13 houses has been greater than in any other part of the town.

2. That elevated sites are, other conditions being the same, less liable to the inroads of cancer than low-lying districts.

But although, generally speaking, elevation confers some degree of immunity, it is but one of other factors which play a part in producing the net result; and residence at a considerably elevated site, as Butlin has already pointed out, does not confer immunity. The reasons for this and the other influences at work must be considered in the latter part of this paper.

3. That underlying chalk occurred sometimes in parts of the town and neighbouring country most free from cancer.

4. That proximity to the river is not always attended by a greater death-rate from cancer; though damp situations are more apt as a rule to harbour cancer than dry ones.

In Sheet xlvii, 2, 12 (R. 2), showing houses bordering on the river, with large trees close to windward, cancer is very common (1 in 5); in Sheet xlvii, 2, 2, showing a part of the town also on the river bank, cancer is much less common.

5. That proximity to trees, especially large ones, is con-

| XL.14.2.2. | | |

THE PREVENTION OF TUBERCULOSIS.

PORTSMOUTH.

A MEETING convened by the Mayor (Alderman T. Scott Foster) was held in the Town Hall, Portsmouth, on March 21st with a view to taking steps to form a local branch of the Association for the Prevention and Cure of Consumption and other Forms of Tuberculosis. The medical men of the borough and district responded very well to the summons, and Dr. Fraser, medical officer of health, headed a list which comprised very nearly all the leading practitioners of the neighbourhood. The Mayor presided, and was supported by the Bishop of Portsmouth, Dr. J. Ward Cousins, Sir William Pink, and many others. The Chairman, after reading numerous letters of apology for non-attendance from sympathisers with the movement, said that he had called that meeting in response to a requisition presented to him by the medical men of Portsmouth. With reference to the question of a sanatorium, he was afraid that was a matter which, at present at any rate, was beyond accomplishment. At the same time, it was a question which might well be considered in the future; and, seeing those sanatoria were springing up all over the country, the time would certainly come when they, in common with other municipal bodies, would have to supply a sanatorium for those who could not afford to pay the present charges at such establishments, which charges ranged from 4 to 8 guineas a week. He had no doubt that in many places those sanatoria would be commercially successful, but, so far as they were concerned, they would at present have to confine their attention to progress in the direction he had indicated, that of providing information and teaching the people how to act. In conclusion, the Mayor paid a high tribute of praise to Dr. Fraser for the report he had laid before the Council.

Dr. Ward Cousins said the medical profession in Portsmouth were taking up the question of tuberculosis and its prevention and treatment, not because they thought Portsmouth was particularly distinguished for having a large amount of tuberculous disease amongst its inhabitants, but because they considered that the mortality all over the country was much larger than it ought to be with the means they had at hand for combating it. Dr. Cousins went on to deal in some detail with the change in treatment that had followed Dr. Koch's discoveries of the bacillus in 1882. The disease could be cured in its earlier stages, and there were special means now by which they could detect its presence. It was not necessary to send a patient to the end of the world, or even to the South of France, for a germ-free atmosphere, for they had it here in England; and why should not Southsea and its neighbourhood develop a reputation for a germ-free atmosphere?

Dr. Watson said it seemed to him that the cure of tuberculosis was a very important matter, but the prevention of the disease was even more important. If they insisted that well-fed men should live in well-drained, well-aired, and well-lighted houses it struck him there would be little need for a sanatorium at Southsea, or anywhere else. It was a pity their Town Council did not pay more attention to the wretched houses in the town, and the provision of open spaces. There were houses in Southsea which were simply a disgrace to the town. He would do all in his power to support the Society.

Dr. Gaston said there was no reason why tuberculosis should not, like typhus, become almost extinct. The faith they were promulgating was not so much the policy of the open door, but that of the open window, but it was one thing to recommend such a policy and another to get it carried out. In a number of cases they found that the windows in houses in Portsmouth were not made to open. He was sorry that the question of the provision of a sanatorium was relegated to the future, and he was afraid that Dr. Fraser, in his report, had been weighed down by the important question of £ s. d. He himself should not be satisfied until a sanatorium was provided for the poor people of Portsmouth, for the health of the people was the supreme law.

The Rev. C. G. Lang, Vicar of Portsea, moved:

That in the opinion of this meeting a Portsmouth branch should be formed of the National Association for the Prevention and Cure of Consumption and other Forms of Tuberculosis.

The ratepayers ought not only to insist upon the Town Council putting the town in order, but be ready to assist the Town Council in carrying out necessary sanitary reforms.

Sir William Pink in seconding the resolution said it was quite possible that in future, in combination, with other towns their united efforts would lead to the erection of a sanatorium in the neighbourhood of Portsmouth. Dr. Knott supported the resolution. The resolution was carried, and a large number of names were taken of persons willing to become members of the new branch.

LEICESTER.

A largely attended and representative meeting of town and county residents was held at Leicester on March 22nd, under the presidency of the Marquis of Granby, for the purpose of forming a local branch of the National Association for the Prevention of Consumption. The Mayor (Alderman G. Clifton) took the chair at the opening of the meeting, the Marquis finding himself unable to be present until half an hour later. Among those supporting the Chairman was the Bishop of Peterborough, and Drs. Astley, Clarke, C. Crossley, Marriott, Neale, Bremner, Monk, Pratt, Sevestre, Franklin, Pope, Williams, Davies, and Moore.

The Mayor, in opening the meeting, pointed out that it had been convened at the request of a number of Leicester medical men, and it gave him great pleasure to see such a large and representative gathering.

Dr. Isambard Owen, Physician to St. George's Hospital, delivered an address in which he said the very name of the Association he represented was a striking testimony to the advance which there had been during recent years in their knowledge of the nature of the disease. Of tuberculous diseases there died in 1896 (and that year was an exceptionally favourable year) 396 persons in Leicester, 672 persons in the entire county, and a total of 58,301 throughout England and Wales, one person in every nine of all who died that year. Existing scientific knowledge justified him in saying, with almost absolute confidence, that every one of these deaths was preventable by human means. Dr. Owen enumerated some simple precautions which, if carefully observed, would prevent consumptive patients from becoming a source of danger to the community. He pointed out the necessity of creating a sound public opinion upon this point. Desirable as was the destruction of infected cattle for the elimination of the disease from the stock, there seemed no doubt that a very large measure of protection would be afforded if they could ensure a regular inspection of dairy cattle by competent experts, and the exclusion from dairy use of such as showed evidence of tubercle of the udder or of advanced tuberculous disease elsewhere. That the price of the locally-certified milk would for a time be thereby enhanced was, of course, inevitable; but customers would remember that in clearing dairies of unsafe stock the greatest expense was at the outset; the consequent maintenance of the purity of the milk would be a steadily decreasing item, and the decrease in the enhanced cost of the product would become the more speedy the sooner private custom rallied to the "safe" supplies. With an unimpeachable certificate to be obtained, a substantial start, and such an agency as that of the medical profession enlisted on its side, it was likely that without legislation or penalties the trade in pure milk would succeed in driving the unsafe altogether out of the market. Pending the general defensive measures he had mentioned, much could at once be done to protect the susceptible and to relieve the sufferings of those already attacked. Their Association aimed at procuring the establishment of sanatoria, either by municipal or voluntary agency, such institutions to be properly built and situated and under proper supervision.

Mr. Cope moved that a branch of the National Association be formed for Leicester and Leicestershire, and in support of the motion said they were all anxious to do what they could for the prevention of diseases, and still more so when one happened to be connected, as he was, with the sanitary authority, which had in the past done much, and, thanks to the present movement, would in the future do very much more to lessen their death-rates. Their duty was to teach the public, and to bring home to the sanitary inspector, the agriculturist, the dairyman, and others the vital importance of the question. He was glad to hear Dr. Owen say that

there was no special need for legislation on the subject, and they had the necessary powers in their own hands.

The Mayor, in seconding the motion, said he hoped that they would have united action on the matter both in town and county. He had been informed that 100 gallons of milk containing bacterial germs were sent into the county daily.

The Marquis of Granby, in supporting the motion, considered that co-operation on the part of the public would be more effective than any drastic legislation on the question.

The Bishop of Peterborough moved the election of an influential body of ladies and gentlemen to form the Council of the Association, the list of names including the Duke of Rutland as President, the Marquis of Granby, the Bishop of Peterborough, the High Sheriff, the Mayor of Leicester, the Chairman of the County Council, and the local members of Parliament as Vice-Presidents.

Alderman Wood seconded the motion, which was unanimously agreed to.

The proceedings terminated with a vote of thanks to Lord Granby for presiding and to Dr. Owen for his address. It was announced during the meeting that 1,243 members were now included in the parent Society and that 25 branches were already formed or in the course of formation.

Nottingham.

At a meeting of the Nottingham Medico-Chirurgical Society held on March 15th, Mr. J. Pryce Davies, President, in the chair, and 27 members being present, the following resolution, proposed by Dr. Giddings and seconded by Dr. Geraty, was carried unanimously:

That in the opinion of this Society the National Society for the Prevention of Phthisis and other Tuberculous Diseases is worthy of support, and that the formation of a local branch would be advantageous.

Exeter.

A useful leaflet, entitled *Advice on the Prevention of Consumption* has just been issued for circulation among the people by the Health Department of Exeter of which Dr. John Woodman is the Medical Officer of Health, and Drs. Edward A. Brash, George T. Clapp, John Mackeith, the Assistant Medical Officers.

Cheshire County County Council and Tuberculosis.

The Cheshire County Council recently appointed a Committee to deal practically with the question of tuberculosis and cattle. The importance of this problem to Cheshire farmers is at once evident from the fact that the number of cows per 1,000 acres is higher in Cheshire (with 195 cows to every 1,000 acres) than in any other county. The experiments were made with herds at the Council's institute at Worleston, and at the agricultural school at Holmes Chapel. Mr. Laithwood, the chief veterinary inspector for Cheshire, conducted the tests. In the Worleston herd of 54, 14 reacted and 3 gave doubtful results. In the Holmes Chapel herd of 17, 3 were found to be tuberculous and 1 doubtful. Of those classified as doubtful, 1 had had just calved, 2 were about to do so, and the other had a high temperature before injection. In each herd was a valuable shorthorn pedigree bull, both of which reacted. Ten of the animals which reacted were slaughtered at the Manchester abattoir, Mr. Laithwood and two other veterinary inspectors being present. A sample of milk from each cow was previously sent to Professor Delépine for examination—only one of the cows of the Worleston herd had been found to have an indurated udder. All classes of animals were represented in the 10 selected for slaughter. Every animal was found to be affected with tuberculosis, chiefly of the glands, lungs, and liver, and in the majority of the cases the inspectors certified the carcasses as otherwise very good. All the carcasses were declared fit for human consumption, and were placed on the market, where they fetched an aggregate of £97 7s. They had been previously valued at £149 18s. 6d., such valuation being their worth to the farmer as milking cattle or dairy stock. Thus the total loss was £52 11s. 6d. The main loss was on the cows that had recently calved. Had these not been used for milking purposes, but fed up for slaughter, so great a loss need not have been incurred. The other cows that reacted to the test had been isolated from the rest of the herd, and further experiments were being conducted to ascertain the possibility of curing the disease.

ANALYSIS OF THE EVIDENCE GIVEN BEFORE THE PLAGUE COMMISSION.

(From our Correspondent.)

I.—The Origin of the Plague.

The brief abstracts of the evidence given before the Plague Commission in India, which have been reproduced in our columns mainly from the excellent telegrams published in the *Times*, have been sufficient to reveal very wide differences of opinion among the witnesses on most of the important issues which have to be decided, but they have necessarily been too condensed to allow of a judgment as to the direction in which the balance of the evidence on different points tends. A review of the evidence more fully reported in our Indian contemporaries will be of interest now that the recording of evidence is very nearly completed, and it is proposed to analyse the published reports of the proceedings under the more important headings into which the subject can be conveniently subdivided.

Bombay.

The first subject that the Commission was instructed to inquire into was that of the outbreak of the epidemic in Bombay, but if we may judge by the scantiness and indefiniteness of the evidence which has been published on this very important point, the members will have some difficulty in coming to a satisfactory conclusion with regard to it. Two main suggestions have been put forward: first, that the disease was imported into Bombay from without either from Hong Kong or China, while it has been also mentioned that it might possibly have come from the Persian Gulf, as the disease is said to be endemic in that region. There is, however, very little direct evidence on this point. The other theory is that the infection was carried to Bombay from the Kamaon hills, where the disease is believed to be endemic in a mild form, breaking out every now and then in a very fatal but localised epidemic.

It has been pointed out that Mandvi, the part of Bombay in which the disease first appeared, was in a very insanitary condition, well fitted to furnish a hotbed for the growth of the disease germ when once it had been introduced from without. Further, this part not only had very large granaries, but also emporiums for Chinese tea, crackers, silk, etc., the trade in which articles leads to direct communication between Hong Kong and Bombay. It was stated by one witness that dead rats were found in these warehouses just before the plague broke out. This is the most definite statement that we have met with on this point. It should also be mentioned that one witness suggested that the disease might have been imported into Bombay by sick rats brought in ships from Hong Kong.

The other theory was first propounded by the Commissioner of Police, who stated that in May, June, and July of 1896 a large number of ascetics came to Bombay from Kamaon in the Himalayas, and lived in a temple in Mandvi, and that in December a number of cases were discovered in the temple where these people had previously lived. During their stay, moreover, the mortality was very high, and he believed that the plague broke out in Bombay in July, and not in September. On the other hand, the private practitioner who saw the first case was very positive that the disease could not have been present in Mandvi before September, while Kamaon is over a thousand miles by rail and road from Bombay, a distance over which it is difficult to imagine the disease to be carried, except perhaps in clothes, without any intermediate places being first affected. Moreover, it has yet to be proved that the "mahamari" of the Kamaon hills is etiologically identical with true plague, but arrangements have been made for the next outbreak of this interesting disease to be bacteriologically examined. It should also be mentioned that the Sanitary Commissioner of the North-West Provinces has recorded that "mahamari" has been known to spread down into the country at the foot of the Kamaon hills in an epidemic form, but not further than that.

On the whole, it seems to be more probable that plague was imported into Bombay from the East, most likely from Hong Kong, the infection being very possibly conveyed with some merchandise, such as clothes or silks.

It was thought at first that grain in which rats might have

died of plague was an important way in which the disease was spread, but the careful experiments of Mr. Hankin proved that even when the germs of the disease were placed among grain they disappeared in a few days.

Calcutta.

The history of the outbreak of plague in Calcutta may also be conveniently considered here. In the early part of 1897 some cases of enlarged glands with slight fever occurred, which were considered by the then medical officer of health, Dr. Simpson, to be mild cases of plague, but this view was not generally adopted, and the disease was not officially recognised as being present in this city until April, 1898, while the majority of witnesses thought that the earlier cases were not true plague. The exact way in which it was introduced, in spite of railway and port instructions, is involved in as much doubt as that of the original outbreak in Bombay. It has been suggested, on the one hand, that the infection may have been introduced in clothes, while another witness stated that rats affected with the disease were found, which appeared to have come from ships lying at the jetties, and in this connection it was of interest to note that the first case of plague occurred quite close to these jetties.

But what is most remarkable is that the disease never got a firm hold of the city, and the general mortality was not increased to any marked degree; while the affection had so far died out that the port was described as being free from the disease in October. However, it has just been once more declared to be infected, a few new cases having appeared. Why Calcutta should have got off so lightly so far is very difficult to explain, and no satisfactory theory was propounded by any of the witnesses. By some it was attributed to the undoubted fact that much has been done towards cleaning up the city since the disease first appeared in Bombay, another witness stated that it might be due to the authorities obtaining earlier information of the cases which occurred, while a third thought that Bombay suffered more, owing to its soil being more saturated with accumulations from defective drains. Various indefinite theories, such as that the soil in Calcutta is unsuited to the germ of the disease, have been started, while it has also been stated that in previous epidemics of plague many years ago this city also escaped very lightly. Possibly, the present recrudescence of the disease may prove all these views to be wrong, as this epidemic has already falsified so many other theories which concern it, so it is useless to speculate further on the subject.

THE PLAGUE.

THE OUTBREAK AT JEDDAH.

FROM a report dated March 22nd, 1899, by Dr. Cozzonis Effendi, Sanitary Inspector at Jeddah, which we have received through a correspondent in Constantinople, we learn that on March 18th, 12,143 pilgrims disembarked at Jeddah, and 10,858 proceeded from Jeddah to Mecca after being carefully inspected. There were left 1,270 pilgrims in the lazarette, but amongst these no cases occurred, and the health of the pilgrims was good. According, however, to official despatches from the Hedjaz, it would appear that on the following day (March 19th) a recrudescence of plague occurred at Jeddah, where four deaths were reported from the disease on the 20th, and three new cases on March 21st.

At a meeting held at Jeddah, composed of leading residents and physicians under the presidency of the Kaimakam, in order to regulate the pilgrim traffic between that port and Mecca, the following resolutions were adopted:

(1) No pilgrim shall stay longer than twenty-four hours in Jeddah. (2) All sick pilgrims in that port shall be placed under medical treatment. (3) The town shall be divided into several districts, to each of which a physician shall be appointed. (4) Special nurses shall be provided for female patients suffering from plague. (5) The moukhtars shall immediately report all cases of plague occurring in their respective districts, so as to isolate the dwellings in which they occur. (6) All contaminated buildings shall be guarded by a sanitary cordon for a period of forty days, and the inhabitants of neighbouring houses shall be inoculated. (7) A hospital shall be built as quickly as possible for the treatment of cases of plague. (8) The dead from the disease shall be interred in graves 6 feet deep in separate burial grounds.

Dr. Cozzonis telegraphs that measures have been taken for the prompt execution of the resolutions above mentioned. All these resolutions seem commendable except the first. Twenty-four hours seems a very short time to come to a conclusion as to possible infection by plague, and if two or three even reach Mecca with plague upon them, a wholesale infection may be looked for. It is doubtful whether a grave 6 feet deep in the sandy soil of the Hedjaz can be regarded as sufficient. Of the two centres where plague has appeared in Jeddah both are rigidly guarded by a sanitary cordon, and every measure possible is being taken to check the spread of the disease. At Kamaran, one of the centres of infection, no fresh cases are reported.

The reported cases for the week ending March 20th were as follows: On March 14th, 2 deaths; 15th, 0 death; 16th, 1 death; 17th, 0 death; 18th, 0 death; 19th, 2 deaths; 20th, 4 deaths—a total of 9 deaths for the week. When to these are added the 19 deaths reported between February 23rd and March 14th, and the 8 deaths which occurred on March 21st, a grand total of 36 deaths is reached for the four weeks ending March 21st. These numbers cannot be said to point to a serious outbreak, but how soon it may reach alarming proportions it is impossible to say; for although the Turkish authorities, under the able guidance of Dr. Cozzonis, are working with vigour, the conditions of the place and circumstances are such that even the best organised sanitary authority might fail in a similar position.

HONG KONG.

During the first week of March, 5 deaths from plague had occurred in Hong Kong, and during the second week 6 cases and 5 deaths were reported. This month marks the fifth year during which plague has prevailed in Hong Kong, truly an alarming state of things for any city which may have the misfortune to become infected with the disease.

ORANGE FREE STATE.

Owing to the plague scare in South Africa, Chinese coolies, Arabs, and other Asiatic persons of colour are prohibited from entering the Orange Free State without having previously obtained the written consent of the Government Secretary.

THE JACKSONIAN PRIZE.

A RETROSPECT.

THE history of the foundation of the Jacksonian Prize of the Royal College of Surgeons of England is rather a curious one. Yet it is very short and very simple. Just before the close of the last century the well-known surgeon Mr. Cline had an apprentice whose name does not seem to have been passed down to posterity. This ardent young man judiciously fell deeply in love with the daughter of a wealthy shipbroker at Wapping. The course of true love in this instance ran smoothly, that is to say, his suit was accepted, and he married her, or perhaps she married him. He then took her father's name, which was Jackson, and immediately afterwards relinquished the idea of becoming a surgeon. The dowry of his wife appears to have been of such goodly proportions that he determined to devote himself to a life of pleasure. He sought social position by joining the Tower Hamlets Militia, in which he obtained the rank of Colonel, and doubtless in order to perpetuate the memory of his student days he presented the College of Surgeons with the sum of £200 to found a prize to be called by the name he had assumed. The end of Colonel Jackson's life was melancholy, though under the circumstances perhaps not remarkable. A few years after his marriage—the exact date we have been unable to ascertain—he died insolvent. Thus the only portion of his fortune which failed to contribute to his downfall was the sum which he confided to the care of the Royal College of Surgeons, by which his name has ever since been perpetuated. Perhaps this is the most noteworthy instance on record in which so small a prize has been productive of such excellent results. The annual value of the prize is between £10 and £12, and yet among those who have competed for and won it are included many whose names are closely associated with the progress of British surgery. Thus it is possible that had Colonel Jackson conceived for a moment the large measure of reflected glory which his prize was likely to gain for him he might have given a larger sum than £200.

The prize was founded in the year 1800, one of the conditions being that it should be open to competition only to the Fellows and Members of the College. The perusal of the list of those who have been successful in obtaining it, and of the subjects of the various "dissertations," as they are called in

the College *Calendar*, brings to light some interesting features.

In the first place, it is evident that the new prize had a bad start. No Member—there were no Fellows then—was tempted to compete in 1801, the year in which it was first offered. The subject was Diseases of the Joints, particularly of the Knee, and the Best Mode of Treating Them. For this "no dissertation was received." Again, in the following year, no essay reached the required standard; the subject was On Gunshot Wounds and the Best Mode of Treating Them, and we learn that there was "no award." In the next year, however, the same subject having again been offered for competition, a gentleman named Thomas Chevalier was successful, and thus became the first Jacksonian Prize essayist. Besides gaining this distinction Chevalier secured another record, for after publishing his essay, dedicating it to the King, and bringing out a third edition of it in 1806, the work obtained for him the appointment of Surgeon-Extraordinary to the Prince of Wales and the present of a diamond ring from the Czar of Russia. Chevalier was 39 years of age when he received the honours above-mentioned, but he had previously proved himself to be a man of mark. Later on, in 1821, he delivered the Hunterian Oration, and in 1823, as Professor of Anatomy and Physiology, gave an excellent course of lectures at the College. He was a great linguist, and intellectually a many-sided man. His last publication was *Remarks on Suicide*, in which he laid down that the act of suicide was the outcome of insanity, and that "suicide during insanity" was the verdict which should be returned in all cases of the kind. He died suddenly on June 9th, 1824.

Between 1801 and 1897 the list shows that upon thirty different occasions no one took the trouble to compete, and during the same period, upon nineteen occasions, the essays were not of sufficient merit to win the prize. The last year in which there was "no award" was 1877, when the subject was The Disease of the Lymphatic System, known as Hodgkin's Disease, or Lymphadenoma; and, curiously enough, three years previously, the competition was a failure for an essay on that well-worn subject, Tracheotomy, with special reference to the causes of death after the operation, and the rules for rendering the operation more generally successful. It is rather remarkable that in 1874 no one should have been enthusiastic enough to have written an essay thereon worthy of the prize.

Evidently in the early days remarks upon treatment were considered to be the main thing to elicit from the essayists, as will be gathered from the following list of subjects for the first nine years. The italics, needless to say, are ours. (1801) On the Diseases of Joints, particularly of the knee, and *the best mode of treatment*. (1802) On Gunshot Wounds, and *the best mode of treating them*. (1803) Gunshot wounds, and *the best mode of treating them*. (1803) Diseases of the Urethra, and *the best mode of treatment*. (1804) Aneurysm, and *the best mode of treatment*. (1804) On Herniæ, particularly femoral hernia, and *the best mode of treatment*. (1805) Injuries of the Head from External Violence. (1806) The Diseases of the Joints, particularly of the hip and knee, and *the best mode of treatment*. (1806) Hernia, and *the best mode of treatment*. (1807) Diseases of the Eye and its Appendages, with *the treatment of them*. (1808) On Cancer, and *its treatment*. (1809) Fractures of the Bones of the Trunk, and *the treatment of them*. The reiteration of the phrase, "best mode of treatment" suggests that useful information upon the subject was greatly needed.

The year 1816 was an unfortunate one for the prize. Two subjects were then offered for competition, Scrofula and Syphilis. For the former no essay was received, and for the latter there was "no award." However, a gentleman named Eusebius Arthur Lloyd, concerning whose career we have no other information, succeeded two years later in carrying off the prize for an essay on Scrofula; and it was not until 1856, or thirty-eight years later, that essays were again invited upon the subject of syphilis. The prize was then obtained by the late Mr. Victor de Méric, whose name is still worthily remembered as an authority on venereal disease.

In the year 1818, and again in 1822, the trustees of the fund were lavish in their arrangements, for upon each occasion no fewer than three different subjects were offered for competition. In the earlier year two out of the three essays were successful, but for the third, on Diseases of the Skin, there does not appear to have been any competitor. There was evidently some difficulty about this subject, for it was soon offered for the second time, but it was again left severely alone. At length, after figuring for a third time in the list, someone took compassion on it, the successful essayist being Mr. Samuel Plumbe in the year 1822, the record year in which there were three essays and three prizes. Doubtless the trustees were grateful to Mr. Plumbe for his exertions in enabling them to get rid of a troublesome subject. No record, however, appears to exist of anything else that he may have achieved. As to the doubling and trebling of the prizes, it is difficult to understand under what arrangement this could be effected. Frequently up to the year 1868 two subjects were offered for competition. Since then, however, despite the "No awards" and "No dissertations received," the list contains only a single essay for each year. It may be that in earlier days there was a larger sum accruing from the fund than is now the case, for, besides the prizes, occasionally honoraria were given to unsuccessful competitors whose essays were worthy of honourable mention. The last occasion upon which an honorarium was given was in the year 1864, but there is nothing to show of what it consisted.

Further scrutiny of the list of Jacksonian prizemen and the subjects offered for competition reveals several interesting and noteworthy facts. First, the list shows that a record was established by Mr. George Calvert which still remains unbroken. He was one of the successful candidates in the year 1822 with an essay on Diseases of the Rectum. With praiseworthy industry he set to work and produced another essay—namely, that on Fungus Hæmatodes, which gained the prize in 1823. With energy still undiminished, he competed in the following year, 1824, and for a third time consecutively he was successful, his essay being on Tic Douloureux. Thus, to borrow a well-known phrase in cricket, he performed the "hat trick." The wide diversity of the subjects upon which this gentleman expended his thought and time—and that successfully—is more than remarkable. In these days such a feat would be absolutely impossible. George Calvert's career was brilliant, but sadly short. He was born in 1795, and died, aged 30, in 1825, the year after, that is, the third occasion upon which he gained the Jacksonian Prize. In 1824 he published an expanded form of his successful essay on Fungus Hæmatodes, and this was described by the *Medico-Chirurgical Review* as the best account of the subject in the English language.

Upon three or four occasions the prize has been won twice by the same competitor. Two instances may here be mentioned. The late Sir Rutherford Alcock was successful in 1839 with an essay on The Nature, Symptoms, and Treatment of Concussion of the Brain, and of the Other Forms of Cerebral Injury from External Violence, and again in 1841, with an essay on Injuries of the Thorax, and Operations on its Parietes. It is not needful to refer further here to the distinguished position subsequently attained by the late Sir Rutherford Alcock. In 1852 Sir Henry Thompson was successful with his essay on The Pathology and Treatment of Stricture of the Urethra, as well as in 1860 with an essay on The Healthy and Morbid Anatomy of the Prostate Gland. Therefore from this, it will be gathered, that as long ago as forty-six years, or nearly half a century, Sir Henry Thompson established for himself a reputation in connection with a speciality which he still adorns.

While upon the subject of the successful essayists—according to the *Calendar* of the College it should be Dissertationists—it may be pointed out that some interest is to be derived from a perusal of the names which occur in connection therewith. Besides those already mentioned we meet with the following names: in 1806 Mr. (afterwards Sir) William Lawrence won the prize for an essay on Hernia and the Best Mode of Treatment. Then in 1812 the prizeman was a Mr. William Goodlad, whose essay was Diseases of the Vessels and Glands of the Absorbent System. The name is not a familiar one, but it is eminently suggestive of excellent qualities. The late Edward Stanley, of St. Bartholomew's Hospital, won the prize in 1815 with an essay on Diseases of Bone. Other well known prize winners are John Blizard Curling, surgeon to the London Hospital in 1834 on Tetanus; John Birkett, surgeon to Guy's Hospital, in 1848 on Diseases of the Mammary Gland, Male

and Female, and the Treatment Thereof; John Wood, surgeon to King's College Hospital, in 1861, on the Radical Cure of Inguinal Hernia; Morell Mackenzie, in 1863, on the Pathology and Treatment of Diseases of the Larynx; William Adams, in 1864, on Club Foot; Christopher Heath, in 1867, on the Injuries and Diseases of the Jaws. To add further to the list here is not needed, for the names of the more recent prizemen will probably be generally known.

A few words may now be said concerning the titles of the various subjects. Some of these are decidedly curious, and others have the suspicion of mediævalism about them. The most curious title is that for the year 1810. It reads, baldly and concisely—The Bite of a Rabid Animal—nothing more. Everything else is left to the imagination. The result of the competition was that a gentleman named John Smith Soden won the prize, and another gentleman received an honorarium for his attempt in the same direction. A similar subject was offered in the year 1857, but hydrophobia and cow-pox were excluded, and there was then "no award." Again Hydrophobia was the subject of the prize for 1893, but "no dissertation was received." Nothing daunted, however, the trustees offered it again, and it formed the subject for competition for the year 1898.

In 1851 essays were invited on the subject of The Causes, Diagnosis, and Treatment of Obstructions of the Intestines within the Abdomen. The phrase "intestines within the abdomen" reads somewhat curiously in the present day. It suggests that these important parts of our anatomy were accustomed to be found elsewhere than in their usual locality. No doubt the intention was to exclude from the subject cases of external hernia. Probably then, the title should have been The Causes, Diagnosis, and Treatment of Intestinal Obstruction.

In some respects the subjects for the different years mark epochs in the progress of medical and surgical knowledge. For example, in 1858, just at the period of the successful revival of ovariotomy, the subject was on the Pathology and Treatment of Diseases of the Ovary. Curiously enough, however, no one entered for the competition, for "no dissertation was received." Such a want of response evidently displeased the trustees, and they let the matter alone for eight years. Then in 1866 Mr. John Clay, of Birmingham, won the prize for his essay on Ovariotomy; Pathology and Diagnosis of Cases suitable for this Operation, with the best Method of Performing it, and the Results of Recorded Cases. Again, in 1855, during the Crimean war it was natural, perhaps, that the subject should be Gunshot Wounds and their Treatment. But all the Fellows and Members who would be likely to know anything concerning it were still attending the wounded at the seat of war, and presumably had no time to indulge in "dissertations;" consequently it seems also quite natural to read that "no dissertation was received." However, it was evident that the trustees considered the subject a very proper one under the circumstances, and it was offered again in 1857. But the prize was won by Mr. Alfred Poland, surgeon to Guy's Hospital, whose experience, we believe, had been gained in civil practice. Since 1857, despite our many little wars, the subject of gunshot wounds has not again been offered for competition, although the list shows that upon four previous occasion it had been chosen to fill a gap. The late Mr. Alfred Poland, before gaining the Jacksonian Prize for his essay on gunshot wounds, had previously distinguished himself in another College competition. In 1846 the Triennial Prize was offered for an essay on The Origin, Connection, and Distribution of the Nerves of the Human Eye and its Appendages, illustrated by Comparative Dissections of the Eye in other Vertebrate Animals. The prize was won by the well-known anatomist, the late Henry Gray; and Mr. Poland was awarded an honorarium for an essay on the same subject. Mr. Poland, as the BRITISH MEDICAL JOURNAL said of him in an obituary notice, "was a man of singular ability and industry, who acquired a reputation by his exertions as a teacher, and as a hospital surgeon far exceeding in popularity that worldly success which is commonly thought to be associated with an active professional life."

While the trustees have undeniably had many successes with the subjects of the essays, it must nevertheless be conceded that they have had some conspicuous failures.

In this latter connection it is curious to note that despite various efforts they have never succeeded in obtaining a satisfactory essay from a Fellow or Member whenever the subject has been one relating to hæmorrhage. In 1836 essays were invited on Hæmorrhage, Spontaneous and Accidental, with Treatment. There was "no award." In 1840 the same subject was offered again; this time there was no dissertationist. This disappointing result so impressed the trustees that they left the matter alone for thirty years. Then in 1870 the subject of the prize was Hæmorrhagic Diathesis and Spontaneous and Accidental Hæmorrhage. However, the result was that for the second time there was no dissertationist. Perhaps it was thought that a change in the title would have the desired effect, for in 1871 the following subject was offered, The Treatment of Wounds after Operations, including the Arrest of Hæmorrhage Primary and Secondary. This title ought to have proved attractive, but it did not, for there was "no award." So, after all this melancholy experience, the trustees have ceased to ask the Fellows and Members of the College to say what they know about hæmorrhage in a Jacksonian Dissertation.

Another failure may be mentioned. In 1877 the subject offered was The Disease of the Lymphatic System known as Hodgkin's Disease, or Lymphadenoma, but there was "no award;" consequently the subject was offered again two years later. However, the only result upon this occasion was "no dissertation received," the explanation probably being that the unsuccessful dissertationist of the previous occasion had presumably in the interim found some other occupation more congenial. It is worthy of note that another subject about which a failure is to be recorded is that of aneurysm. Upon no fewer than four different occasions an essay upon an aneurysmal subject has been offered. The only success in this regard was achieved by a gentleman named William Chandler in 1804, for an Essay on Aneurysm and the Best Mode of Treatment. Since "the best mode of treatment" days referred to above, no Fellow or Member has ever been induced to say what he knows about aneurysm.

There remains only one more remark to add concerning these essays, and that is with reference to the fate which befalls those which have been successful in winning the prize. What becomes of them? Here it is impossible to avoid striking a melancholy chord. The end provided for them is undistinguished. After having been discussed, criticised, thoroughly read, pondered over, and their virtues recognised by professional judges of high standing, steps are at once taken to inter them decently in some out-of-the-way corner of the College Library. In the form in which they have been presented, that is to say, generally in manuscript, they are first despatched to a bookbinder, who, acting the part of a literary undertaker, follows out his instructions as to providing them with a binding suitable for their burial. Then they are returned to the Library, and soon afterwards without any ostentation a quiet resting place is found for them in that vast literary cemetery, the only mark of favour granted being the registration of their grave in the Library Catalogue. Thus they pass out of mortal ken after a very brief though brilliant career. Such is the usual fate of the Jacksonian Prize Essays. Happily, however, there are exceptions to this rule. Sometimes the authors take compassion upon their prize offspring, and confer upon them the honour and glory of publication. Thus rescued from an inglorious fate, the opportunity is afforded to a few essays to shed the light of the valuable knowledge contained in them upon an expectant profession. To the profession a perusal of them cannot fail to be profitable, while for the authors their publication may gain both praise and reputation. But what of Colonel Jackson? To his name they add a reflected glory, and at the same time successive original workers are stimulated to compete for the honour of winning his prize.

MR. KIPLING'S PHYSICIANS.—At a recent meeting of the Council of the University of the City of New York a resolution was adopted extending the congratulations of the Council to the Dean of the Faculty of Medicine, Dr. E. G. Janeway, and his associate in the Faculty, Dr. Theodore Dunham, "upon the success which has attended their efforts to save to the cause of letters and of mankind the life of Rudyard Kipling."

NOVA ET VETERA.

DR. KYMER AND THE UNIVERSITY OF OXFORD.

It is difficult even for those who know something of history to realise the deplorable conditions of life in England during the fifteenth century, when the shadow of the Black Death had scarcely passed away from Europe, when the Wars of the Roses were devastating an almost depopulated England, and when religious controversy and democratic unrest threatened to sap the little vitality still left in our institutions. Mr. Anstey's edition of the *Epistolæ Academicæ Oxon. (Registrum F.)*, recently published by the Oxford Historical Society, gives us glimpses of the University at this most miserable time—glimpses which appeal to the medical reader who loves his books, for they show how the first University library was founded by the help of one who was a physician as well as a priest.

The Colleges at Oxford were only beginning their career in the fifteenth century, and the University was still a mere collection of private schools. The students were boys who remained until they were about 20, maintained indeed by remittances from home, but often separated from their families for so long a time that the University was in truth their Alma Mater. Many students left the University as soon as they had taken their M.A. degree, but many more remained to study in the superior faculties of Divinity, Common and Civil Law, and Medicine. These were the students who felt the pinch of poverty, for they were poor even as the University was poor, and they depended for their sustenance on teaching. All the teaching was oral; there were neither grammars nor dictionaries. The master might have a book or part of a book, but he usually copied it for himself. There were, no doubt, many like Chaucer's clerk who would

> Lefere have at his beddes hed
> Twenty bookes clad in blak or red,
> Of Aristotle and his philosophie,
> Than robes rich, or fedele, or gay sautrie,

but such a wish could only be the wildest dream, for it is doubtful whether the whole University could have mustered so glorious a number, and Mr. Anstey's edition of the *Epistolæ* shows that if he had obtained them they would either have been stolen or borrowed. The first University Library seems to have been part of a bequest by Bishop Thomas Cobham, of Worcester, about 1367, though as early as 1345 Philip of Bury left a part of his famous library to Durham College, whose site is now occupied by Trinity College; and it was here that Gilbert Kymer was educated.

We know nothing of the early history of this very remarkable man. He was a Master of Arts, a Bachelor of Law, and a Doctor of Physic before 1420. He was a Proctor of the University in 1412-1413, and in the same year he was Principal of Hart Hall. In 1420, whilst he was still a layman, he was presented to the living of Lutterworth, in Leicestershire, and on May 23rd, 1423, he was sworn before the Lord Mayor of London to execute the office of Rector of Medicines with Thomas Morstede and John Harwe, two of the King's military surgeons, as supervisors of surgery. In the following year he was again sworn before the Lord Mayor for the same office, with Master John Sumbreshede and Master Thomas Southwell as his assistants, and thus for a short time there existed during the fifteenth century in London a conjoint faculty of medicine and surgery like those which have been formed lately in England and Scotland. The bond between the two branches of the profession was soon dissolved, but Mr. Anstey prints a letter which makes it probable that a separate guild of physicians existed in London in the year 1427. Dr. Kymer became Dean of Wimbourne Minster and Treasurer of Salisbury, yet he was not ordained a subdeacon until February 28th, 1427-8. From 1431 to 1433, and again from 1446 to 1453, he was Chancellor of the University of Oxford, and in this position he was begging for money and materials to complete the remarkable building known to us as the Divinity School. His letters issued by the University were sent as widely as those of a modern hospital secretary, though, being in manuscript, they were varied to suit the person addressed with such skilful and finely graded compliments that it is possible to guess their destination even when no names are mentioned. Assistance is asked from the King, from the Bishops, from executors who had to administer trusts for charitable purposes, from the owners of woods and quarries, to give in kind if they would not give in money; and there is even a letter to the Master of St. Thomas's Hospital, in which the University "confidently begs that you will intercede for us with the wealthy citizens of London, that they may assist us in building the new schools, and that you will advise our Chancellor how to cast his net on the right side of the ship when he appeals to them for assistance."

But the energy of Dr. Kymer did not cease here. He appears for a long time to have held the office of physician to the household of Humphry, Duke of Gloucester, and from 1439-1446 Duke Humphry, presumably at his instigation, made presents of books to the University; presents which were of such service that the House of Congregation wrote in 1445: "By your magnificent donation, from having been well-nigh without books, this University has become richer than any others in these treasures..... Hither flock from every land men of industry, unwearied, and of most acute intellect. We wish you could see with what greediness and thirst for knowledge the troops of students hang over your books, and hear how they encourage and stimulate each other." For such donations the University expressed its gratitude in a manner characteristic of the age. It passed a statute, one clause of which runs: "Having no other means of rewarding the donor than by a spiritual recompense, we have appointed by statute that every year during his life on the feast of SS. Simon and Jude, or as near thereto as may be, mass '*de Trinitate*' or '*de Beatissima Virgine Maria*,' with special collects naming the Duke and Duchess, shall be said for their prosperity; and, that at every mass said by the Chaplain of the University, the name of the Duke shall be mentioned along with other benefactors." This, of course, has been discontinued, but everyone who has attended a University sermon knows that "the bidding prayer" still remembers Duke Humphry as the first benefactor. The statute proceeds, "And on occasion of every sermon of whatsoever kind at St. Mary's Church, the preacher shall expressly and by name pray for the said Duke; and after his departure from this world, within ten days of that event, the University shall celebrate his "obit," and every year on the anniversary of his death, or as nearly as may be, mass, with the collect, "*Omnipotens sempiterne Deus, miserere famulo tuo Humfrido et famule tue Alianore*" for the repose of his soul and that of his consort (after her death), and for the souls of all the faithful departed shall be solemnly said for ever." It is interesting to notice that it is for Eleanor of Cobham who had done penance for her witchcraft that prayers are here made.

Duke Humphry's presents were augmented by similar gifts from the library of the Duke of Gloucester, obtained through the influence of Dr. John Somerset, whom Mr. Anstey very acutely suggests to be the same person as John Summershede mentioned above as Dr. Kymer's assistant in the conjoint faculty of medicine and surgery. He appears to have been a person of some importance, since the University addresses a letter to him as "*Clarissimo ac spectatissimo viro et doctori famosissimo, magistro Johanni Somersett, fautori et amatori nostro precipuo.*" Yet it was not above suspecting him of embezzling some of the books, though he succeeded in partially clearing his character in 1452 when it is said that "your gift of books proves your zeal for learning, and the beautiful silken vestments embroidered with gold, now presented by you are an offering such as an only son might make to his mother. Be not offended that we call you a son, though the gravity of your character and the number of your years be rather those of a father."

These bequests, together with the few books originally belonging to Bishop Thomas Cobham, of Worcester, which through a chequered existence had been kept in a chest or chained to a bench in the chantry over the House of Congregation in St. Mary's Church, formed the nucleus of a University Library of sufficient importance to have a local habitation. It increased rapidly in size, and a librarian was appointed in 1513, but it was sold and destroyed by the King's Commissioners in 1550. For thirteen years the library lay desolate, until it was at length refounded *sumptibus et curis* Thomae Bodley.

Dr. Kymer became Dean of Salisbury in 1449, but his enhanced dignity in the Church does not seem to have lessened

the esteem in which he was held by his medical brethren, for he was summoned to Windsor in June, 1455, to attend Henry VI in the attack of imbecility which followed shortly after the first battle of St. Albans. This is the last event in the life of Dr. Kymer of which we have any knowledge at present, except the fact that he died in 1463.

ECHOES OF THE INDIAN FAMINE.

CENTRAL PROVINCES.

IT was in the Central Provinces that the greatest pressure of the recent famine lay, and the *Annual Sanitary Report for 1896*, compiled by Surgeon-Colonel G. Hutcheson, M.D., gives a clear account of a period remarkable for defective rainfall, deficient crops, high prices, great want of food (amounting in some places to actual famine), low birth-rate, high death-rate, and severe prevalence of endemic and epidemic disease. The rains of 1895 ceased too soon, and were followed by a long period of drought, which caused the ruin of the spring crops. The monsoon rains of 1896 set in at the usual time, and were copious, but again ceased abruptly in September, causing destruction of the autumn crops. The scarcity, which lasted till 1897 was well on, was of a severe type—"the most terrible calamity which has afflicted the Central Provinces since British rule began"—and demanded extensive and energetic relief measures. The provincial birth-rate was 31.72, and "the maximum falling off corresponds with the area of maximum harvest failures and consequent distress." This is also true conversely of the death-rate, which amounted to 49.31 per 1,000 for the province, the famine districts showing rates of 72, 73, and 88. Malarious fevers carried off 29.55 per 1,000 of the population. There was increased production of the poison, owing to abrupt cessation of a heavy rainfall, and diminished resistance due to the famine. The death-rate from cholera was 5.58. The disease was universal, and its excess was attributed to the drought, which led to great diminution and fouling of water sources. The condition of the people rendered them an easy prey to the scourge. Fairs, and pilgrims, and starving wanderers helped to disseminate the disease. Purification of wells with permanganate of potash was tried in many places, and appears, on the whole, to have given satisfactory results. Bowel complaints were, as might be expected, unusually rife and fatal.

Sanitary work was much impeded by the deviation of administrative and executive energy to famine relief, but some of the relief works were undertaken for sanitary purposes. The history of the famine is completed in the concise and excellent report for 1897 submitted by Surgeon-Colonel G. Hutcheson, M.D. It gives a clear view of the effects of the scarcity, the most striking being a greatly depressed birth-rate and greatly exalted death-rate; the former was 26.83 and the latter 69.34 per 1,000 against normal rates of 41 and 31. They were the lowest and highest rates in any province of the Indian Empire in 1897. In every district with one exception the death-rate exceeded the birth-rate, and there was in consequence a decrease of 229,815 in the population of the province, about 2½ per cent.; cholera, fever, and bowel complaints were the chief causes of mortality. Deaths from small-pox were below the average, and it is stated "that there was no evidence to indicate that the fever prevailing in the Central Provinces was of a contagious, relapsing, or typhus type." It has been observed that previous famines have been followed by extensive prevalence of malarious fever of serious type when heavy monsoon rain has followed prolonged drought, as in the present instance. No doubt the depressed vitality of the people has contributed to aggravate the severity and mortality of the usual seasonal fever. The trying circumstances of the year threw a great burden of responsibility and work on the civil and sanitary executive. At one time 691,890 persons were receiving aid from Government, and relief works were organised on a large scale. Elaborate precautions were also adopted to prevent the importation of plague from Bombay, which were successful.

BENGAL.

The year 1896 was remarkable in Bengal also for drought, and deficient and abnormally-distributed rainfall. These conditions gave rise to failure of crops, resulting in scarcity o food, and a rise in the price of food stuffs. During the year 1897, which was meteorologically normal, the effect of the preceding year lasted until September, when, under favourable conditions a plentiful harvest began to be reaped. There was famine in fifteen districts and scarcity in four out of the forty-six into which the province is divided. A severe earthquake occurred on July 12th, causing disturbance of drainage levels over a large area, much disaster to buildings and considerable disturbance of social life; and a cyclone on October 24th in the Chittagong Division gave rise to great mortality, direct and indirect. The province was exempt from plague, but elaborate precautions were adopted at great cost to exclude it. The prevailing scarcity and impaired vitality of the people gave rise to a depression in the birth-rate, which was 36.94 per mille against 38.03 in 1896. The death-rate, on the other hand, was less—32.94 against 34.14. The dryness of the soil is held to have resulted in a diminution of fever mortality, which ordinarily in Bengal accounts for nearly three-fourths of the deaths. Cholera prevailed severely in some parts of the province, and played havoc among the famine stricken. The disease also raged in places which had been swept by the cyclone. Evidence is recorded in favour of treating wells with potassium permanganate. A large number of preventive inoculations were done, but details are wanting as to the effect of these. Small-pox was in slight excess and so were bowel complaints. Fever deaths were fewer than in 1896 but above the average. These were more numerous in rural areas, while deaths from cholera, small-pox, and bowel complaints were in excess in towns. The circumstances of the year were not conducive to expenditure on large sanitary undertakings, but money was freely expended on current cleansing—about 20¾ lakhs in municipalities and 21 lakhs in urban and rural areas. Over 11½ lakhs were contributed by private individuals for special sanitary improvements. The Sanitary Board held two meetings, and the sanitary engineer for the province gave much useful advice and aid to local ladies as regards questions of drainage, water supply, etc. The report, which is an excellent one, has been drawn up by Major H. J. Dyson, F.R.C.S., Sanitary Comissioner for Bengal.

NORTH-WESTERN PROVINCES AND OUDE.

The famine in the North-Western Provinces and Oude was more acute than in Bengal, and the risk of importation of plague more urgent. These circumstances imparted quite an exceptional character to the sanitary administration of 1897. Both dangers—famine and plague—were fought strenuously and successfully under the masterly guidance of Sir Antony MacDonnell, the Lieutenant-Governor, ably aided by Surgeon-Lieutenant-Colonel S. J. Thomson, C.I.E., the Sanitary Commissioner, and his subordinates in co-operation with the civil officers of the affected portion of the province. Famine existed in 19 and scarcity in 18 of the 48 districts, and on an average about one million persons were in receipt of relief from January to September. The year was fortunately one of diminished cholera prevalence, but small-pox prevailed somewhat severely in the hot months. Bowel complaints were in excess, and the copious rains of autumn were followed by malaria, which told severely on an impoverished population. The birth-rate was depressed, being 31.10 per 1,000 against 37.42 in the preceeding quinquennium, and the death-rate 40.46 against 32.63. There was consequently a decrease of 438,645 in the population of the province. The death-rate from malarial fever amounted to 31.21 per 1,000. Plague broke out at Hardwar and in the adjoining town of Kankhal, causing 43 deaths. It was undoubtedly imported by pilgrims from infected places, but the prompt and strenuous measures adopted prevented its increase and spread. Great efforts were made to improve the sanitary state of towns, special health officers being appointed to the more important, and large cleansing establishments being organised. The result is that these places have been more thoroughly sanitated than ever they were. The history of sanitary effort in these provinces in 1897 as related in Lieutenant-Colonel Thomson's report is extremely creditable to all concerned.

MADRAS.

Sanitary arrangements are very advanced in the Presidency, which is by no means "benighted" in matters affecting the

public health and medical relief. The Sanitary Board is the supreme authority under Government, and has been entrusted with important functions of sanction and control, and invested with substantial powers of authorising approved works. During the year 1897, it scrutinised plans and estimates of 185 sanitary works submitted by municipalities and Local Fund Boards, the value of the projects amounting to nearly 12 lakhs of rupees. The sanitary engineer and his staff aid the Board with advice founded on inspections and skilled examinations regarding these projects, and, further, advise local bodies respecting the maintenance of works already completed. The amount of work done, undertaken, and projected under these arrangements is very considerable, and both economy and uniformity are served by them. The Sanitary Commissioner works in harmony with the Board and in co-operation with the engineer, and concerns himself with vital statistics and the conditions affecting health and life, whether climatic, social, epidemiological, or sanitary. The year 1897, according to Dr. W. G. King's report, was, as elsewhere in India, a trying one. There had been a failure of the north-east monsoon in 1896; the south-west monsoon of 1897 was copious but late, and there was again a deficiency in the north-east monsoon. Scarcity of food resulted, and this, together with apprehensions of greater scarcity, forced the price of food up to a high level. The consequences were diminished birth-rate, increased death-rate, larger infantile death-rate, and higher mortality at both extremes of life. Registration is by no means perfect in Madras, but the birth-rate fell from 29.9 to 28.7 per mille and the death-rate rose from 20.6 to 25.4. The famine districts showed exceptionally low and high figures respectively. Cholera, small-pox, and bowel complaints were in marked excess, and were favoured by the impoverishment of the people. Relief measures had to be resorted to in some districts. Precautions were adopted against plague, and although three cases were imported and two persons were in addition infected by a *post-mortem* examination, the disease did not spread in any part of the Presidency.

Burmah.

The registration of births and deaths is still very defective in this province. It is confined to Lower Burmah with the exception of Mandalay and three other municipal towns in Upper Burmah. It is proposed to extend the registration of deaths to the more civilised and populous areas of the latter. The birth-rate and death-rate of 1897 were 31.82 and 26.26 per mille respectively. It is curious to find an enhanced death-rate commented on with satisfaction—as an evidence of improved registration. As an index of the actual salubrity of the province the figure is manifestly worthless. The rains of Upper Burmah were in 1896 defective, and some degree of famine, necessitating the establishment of relief works, was the consequence. Cholera prevailed severely, especially in deltaic districts. Small-pox was also very prevalent. The disease was spread by the practice of inoculation, which still lingers in Burmah. Of the deaths, 19 per cent. occurred among infants under 1 year of age, and 46 per cent. among children between 1 and 12 years. Malarial fevers are severe and deadly in Burmah. The sale of small packets of quinine through the agency of the post offices is being pushed. Over 21½ lakhs of rupees were expended on sanitary works. Local bodies spent about one-third of their income on "measures directly or indirectly connected with sanitation." A sanitary engineer has been appointed for the purpose of examining and advising upon sanitary projects. "The operations of the Sanitary Board were confined to scrutinising the preliminary survey maps prepared for municipal towns." The sanitary report for 1897 has been submitted by Surgeon-Colonel D. Sinclair, M.B.

THE NEW VACCINATION ACT IN OPERATION.

Official Vaccination by Private Practitioners.

A Public Vaccinator writes: In reply to a letter from "General Practitioner," published in the British Medical Journal of March 18th, I should like to say that my experience, extending over nearly twenty-five years as a public vaccinator, in respect of private practitioners vaccinating, is quite the opposite to his recommendations. Personally I get more trouble in my capacity through the meddlesome interference of men who know very little about the subject than I do from the objectors to the operation. It is no uncommon thing for me to send out half a dozen notices under Form I, and on visiting them to find the parents have already been primed by the over-officious private practitioner to object to my services, as he had already arranged to do one mark or had actually done it, or had for some flimsy excuse signed the postponement notice. This sort of thing lowers vaccination in the estimation of the public. I am often asked, "How is it you make four marks, when if I take the child to Dr. So-and-So he will only do one?" Any amount of argument from me about efficiency, Local Government orders, etc., are met by, "Oh, I know nothing about that: if Dr. So-and-So thinks one mark enough, you ought to do the same." I am therefore heavily handicapped in the proper performance of my duty. Then "General Practitioner" seems to forget that the post of public vaccinator is an appointment as much as certifying factory surgeon, medical officer of health, etc., and that it means bread and cheese to the man appointed; and if the private practitioner goes behind his back and inefficiently vaccinates, he robs the properly appointed man of his legitimate fees; and surely the private practitioner need not feel jealous—for I am sure it is only jealousy—that the public vaccinator will so popularise himself at the expense of the ordinary medical man by his visit, for I can tell him that among certain classes the public vaccinator is as much hated as the bum bailiff. The Local Government Board wisely look to one man to do the vaccination in a district properly, and they supervise his work very keenly, knowing full well that which is everybody's business is nobody's business.

Public or Private?

R. writes: Under the new vaccination rules I am in a difficulty to know which, if any, of my vaccination cases are to be charged for as private patients. Formerly, I assumed that those who requested my attendance at their homes expected to pay, but now all are entitled to this attendance. Are the cases, therefore, all to be charged for as public vaccination; and, if not, should they be reported in my vaccination list? I hesitate to ask the parents in doubtful cases at the time.

*** Probably the safest rule would be to put the name of all cases vaccinated under Local Government Board regulations in the register, unless the parents specially request that the vaccination be a private transaction.

INDIA AND THE COLONIES.

India.

Enteric at Quetta.—An alarming mortality from enteric seems to have occurred at Quetta, in Baluchistan, as it is stated that no fewer than 74 British soldiers of the Quetta garrison died of enteric fever during the six months ending December 31st, 1898. The average annual strength of troops at Quetta is about 2,315.

British Guiana.

The report of Dr. Palmer Ross, the Surgeon-General of British Guiana, for the year 1897-98 shows a saving in expenditure in the various branches of the medical service. Two medical officers, Drs. Young and Hill, retired on pension during the year, and the vacancies thus caused are not to be filled up, as the medical districts on the Essequibo Coast have been rearranged, thus effecting a saving of nearly £1,500 per annum. There are now 42 officers in the service. They visit the villages in their districts once a week, and furnish a report to the Surgeon-General on the number of patients treated, visits paid, etc. In consequence of the high infant mortality a sum of £100 was voted for the purpose of placing eight certified nurse-midwives in villages and rural districts where there are no such persons. These are paid 5 dollars a month, and are allowed private practice as well, but their duties are limited to simple cases of midwifery. At the public hospitals 15,086 in-patients and 56,413 out-patients were treated, an increase of 11,725 on the previous year. The daily cost of each patient in these hospitals varies from 20.5 cents at Georgetown to 69.9 at Bartica. At the lunatic asylum the daily cost of each patient was 16.1 cents, being higher than the last year, and at the leper asylum 14.8 cents, being lower than last year. The general health of the colony was fairly satisfactory. Malarial fever, intestinal and pulmonary diseases prevailed to the usual extent, but no case of yellow fever or small-pox occurred. The large increase of hospital patients was due to an epidemic of influenza which prevailed during the latter half of the year, and as usual increased the death-rate from pulmonary diseases chiefly among the aged. The number of successful vaccinations was 1,394 as compared with 984 last year, but the fee payable to public vaccinators for each case was reduced from 2s. to 1s. While there has been a reduction in the number of medical officers, and therefore an increase in the work allotted to each, there does not appear to be any increase in their salaries and the annual leave granted must be curtailed. While economy in administration is very desirable, efficiency is still more so, and this can only be obtained by an adequate staff of medical officers, properly paid, and granted sufficient leave of absence to recruit their health.

A hospital for coloured patients has, according to the *New York Medical Record*, recently been established in St. Louis, in which both physicians and nurses are of the negro race. The hospital has at present accommodation for fifteen patients only, but it is hoped that the number of beds may soon be materially increased.

Professional Secrecy.—At a recent meeting the Conference of Advocates of the Paris Court of Appeal discussed the following question: Does the publication in a book by a medical man of observations made upon a person treated in a hospital constitute the offence of violation of professional secrecy defined by Article 378 of the Penal Code? The Conference decided this question in the affirmative.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

429, Strand, March 9th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-WESTERN BRANCH.—The next intermediate meeting of the Branch will be held at the Public Rooms, St. Austell, on Saturday, April 15th, 1899, at 4 P.M. Notices of papers to be read, of cases, specimens, etc., for exhibition to be sent as soon as possible to the Honorary Secretary that an agenda paper may be issued. The Branch Council will meet at 3.45 P.M. Tea and coffee will be served before the meeting. The Honorary Secretary will be glad to receive at once the names of any candidates for election to the Branch.—H. W. WEBBER, M.S., 4, Woodland Terrace, Plymouth, Honorary Secretary.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Friday, April 7th, at 5 o'clock. Agenda: Communications from the General Council and from the Worcestershire and Herefordshire Branch on the vaccination question. Discussion on Constipation, introduced by the President, Mr. Routh. Notice of papers or communications should be sent to the Honorary Secretary early. There will be a dinner at 6.30 at the Railway Hotel, price 5s., exclusive of wine. Members intending to dine are requested to communicate with the Secretary on or before April 3rd.—R. LIDDON MEADE-KING, Honorary Secretary.

NORTH WALES BRANCH.—The spring intermediate meeting of this Branch will be held at Colwyn Bay in the second week of April. Members having papers to read, cases to communicate, or specimens to show, will kindly intimate on or before April 3rd. As there are a number of practitioners anxious to join the Branch, members are requested to apply at once for the necessary nomination forms so that their names may appear on the agenda for election, and it is desirable that all who intend to join to participate in the (jubilee) annual meeting should be admitted at this meeting.—W. JONES-MORRIS (Is-y-coed, Portmadoc), H. JONES ROBERTS (Gwyddfor, Pen-y-groes), Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of this District will be held at the Meath Home, Godalming, on Thursday, April 13th, at 3.30 P.M., Dr. Minchin of Godalming in the chair. Agenda: (1) Minutes of the Guildford meeting; (2) to decide where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat; (3) election of Honorary Secretary. The following papers, etc., will be read:—Dr. Buzzard: The Differential Diagnosis of Insular Sclerosis from Hysteria. Mr. McAdam Eccles: The Treatment of Inguinal Hernia in Children. Mr. S. G. Sloman will show a New Splint for the Treatment of Compound Fractures.—ALEX. HOPE WALKER, The Common, Cranleigh, Honorary Secretary.

BORDER COUNTIES BRANCH.—The spring meeting of this Branch will be held at St. Boswells on the afternoon of Friday, April 21st. Members intending to read papers, etc., will kindly communicate as soon as possible with W. F. FARQUHARSON, Garlands Carlisle, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.

THE winter general meeting, which had been deferred on account of the unusual amount of illness in the district in the earlier part of the year, was held on March 24th in the Victoria Infirmary, Glasgow. There was a large attendance of members.

Secretary's Report.—The Secretary, Dr. NICOLL, reported a continuance of the progressive growth of the Branch which had marked the past three years, amounting to a net increase of over 100 members during that period.

Midwives Bill.—The meeting received and considered a report from its representative members of Council, Drs. Goff and Fergus, on the Scottish Poor-law medical officers' position in view of the amendment of the Local Government Act, and a report on the Midwives Bill. With reference to the latter, the meeting, by a very large majority, adopted the following motion, moved and seconded by Drs. D. C. McVAIL (Glasgow) and GRAHAM (Paisley):

That this meeting is of opinion that the Midwives Bill at present before Parliament would, if passed into law, be injurious to the interests of women who require obstetric assistance, and the Branch wishes to petition the House of Commons against the Bill, and directs the President and Secretaries to communicate with the members of Parliament for Glasgow and the West of Scotland, requesting them to oppose and vote against the Bill.

This motion was carried against an amendment—moved by Dr. MUNRO KERR, and seconded by Dr. SAM. SLOAN—in favour of remitting the consideration of the Bill to a special meeting of the Branch convened for the purpose.

Clinical Demonstration.—Subsequently the meeting was treated to an interesting demonstration of medical and surgical cases by the staff of the infirmary.

Election of Officers.—The following office-bearers were elected for the ensuing year: *President:* Dr. Frew (Kilmarnock). *President-elect:* Dr. D. C. McVail. *Vice-Presidents:* Dr. Freeland Fergus and Dr. W. A. McLachlan (Dumbarton). *Representatives on the Council of the British Medical Association:* Dr. Bruce Goff and Dr. Freeland Fergus. *Honorary Secretaries:* Dr. Jas. H. Nicoll and Dr. T. W. Jenkins.

Dinner.—In the evening the members dined in the St. Enoch Station Hotel, Glasgow, Dr. Frew (Kilmarnock) the President, occupying the chair, and a large company being present.

BRITISH MEDICAL ASSOCIATION.

SIXTY-SEVENTH ANNUAL MEETING.

THE sixty-seventh annual meeting of the British Medical Association will be held at Portsmouth on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1899.

President: Sir THOMAS GRAINGER STEWART, M.D., LL.D., F.R.S.E., Professor of Practice of Medicine and Clinical Medicine in the University of Edinburgh, Physician in Ordinary to Her Majesty the Queen for Scotland, Edinburgh.

President-Elect: JOHN WARD COUSINS, M.D., F.R.C.S., Senior Surgeon, Royal Portsmouth Hospital.

President of the Council: ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Physician to the General Hospital, Birmingham.

Treasurer: CHARLES PARSONS, M.D., Dover.

An Address in Medicine will be delivered by Sir RICHARD DOUGLAS POWELL, Bart., M.D., F.R.C.P., Physician Extraordinary to Her Majesty the Queen, Physician to Middlesex Hospital.

An Address in Surgery will be delivered by Professor ALEXANDER OGSTON, M.D., Surgeon in Ordinary to Her Majesty the Queen in Scotland, Regius Professor of Surgery in the University of Aberdeen.

The scientific business of the meeting will be conducted in twelve Sections, as follows, namely:

A. Medicine.

President: John Mitchell Bruce, M.D. *Vice-Presidents:* Edward James Wallace, M.D.; Robert William Burnet, M.D. *Honorary Secretaries:* William Sykes, M.D., Bury Place, Gosport; Humphry Davy Rolleston, M.D., 112, Harley Street, W.

B. Surgery.

President: Henry Trentham Butlin, F.R.C.S. *Vice-Presidents:* Deputy-Inspector-General Richard Samuel Purnell Griffiths, R.N.; Alfred Lloyd Owen, M.D. *Honorary Secretaries:* Henry Rundle, F.R.C.S., 13, Clarence Parade, Southsea; D'Arcy Power, F.R.C.S., 10A, Chandos Street, Cavendish Square, W.

C. Obstetrics and Gynæcology.

President: George Granville Bantock, M.D. *Vice-Presidents:* John Robert Kealy, M.D.; John Wm. Taylor, F.R.C.S. *Honorary Secretaries:* Charles Plumley Childe, F.R.C.S., Cranleigh, Kent Road, Southsea; Ernest Wilmer Phillips, M.R.C.S., Victoria Crescent, Victoria Road North, Southsea; Walter Wm. Hunt Tate, M.D., 57, Queen Anne Street, W.

D. State Medicine.

President: George Wilson, M.D. *Vice-Presidents:* Surgeon-General Charles MacDonagh Cuffe, C.B.; Joseph Groves, M.B. *Honorary Secretaries:* Henry Richard Kenwood, M.B., Granville House, Alexandra Villas, Finsbury Park, N.; A. Mearns Fraser, M.B., Epworth, St. Edwards Road, Southsea.

E. Psychology.

President: David Nicolson, C.B., M.D. *Vice-Presidents:* Samuel Rutherford McPhail, M.D.; Peter William Macdonald, M.D. *Honorary Secretaries:* James Neil, M.D., Warneford Asylum, Oxford; Bonner Harris Mumby, M.D., Medical Superintendent, Boro' Asylum, Portsmouth.

F. Anatomy and Physiology.

President: John James Charles, M.D. *Vice-Presidents:* Aurelius Victor Maybury, M.D.; Andrew Francis Dixon, M.B. *Honorary Secretaries:* Edwin John Norris, M.R.C.S., May Villa, Cottage Grove, Southsea; Wm. Joseph Essery, M.B., Netley Lodge, South Parade, Southsea; Marcus Seymour Pembrey, M.D., Charing Cross Hospital, W.C.

G. Pathology.

President: Joseph Frank Payne, M.D. *Vice-Presidents:* Frederick John Driver, M.D.; Otto Jackson Kauffmann, M.D. *Honorary Secretaries:* Edmund Fauriel Trevelyan, M.D., 40, Park Square, Leeds; William Carling, M.B., 11, Rosebery Terrace, Highland Road, Southsea.

H. Ophthalmology.

President: Simeon Snell, F.R.C.S.Edin. *Vice-Presidents:* Lysander Maybury, M.D.; Edward Treacher Collins, F.R.C.S. *Honorary Secretaries:* Arthur Vernon Ford, M.R.C.S., South View Lodge, Kent Road, Southsea; Arnold Lawson, F.R.C.S., 12, Harley Street, W.

I. Diseases of Children.

President: Edmund Owen, F.R.C.S. *Vice-Presidents:* James Green, M.R.C.S.; Dawson Williams, M.D. *Honorary Secretaries:* Alfred Herbert Tubby, M.S.Lond., 25, Weymouth Street, Portland Place; George Augustus Tullis, M.D., 20, Clarence Parade, Southsea.

J. Pharmacology and Therapeutics.

President: John Buckley Bradbury, M.D. *Vice-Presidents:* C. H. Watts Parkinson, M.R.C.S.; Samuel Goss, M.R.C.S. *Honorary Secretaries:* John Edward Harry Kelso, M.B., 67, Elm Grove, Southsea; William Tusting Cocking, M.D., 277, Glossop Road, Sheffield.

K.—Laryngology and Otology.

President: E. Cresswell Baber, M.B. *Vice-Presidents:* Josiah George Blackman, M.D.; Patrick Watson Williams, M.D. *Honorary Secretaries:* Herbert Tilley, M.D., 101, Harley Street, W.; Lyster Cole-Baker, M.D., Bayfield, Kent Road, Southsea; Thomas Arthur Munro Forde, M.R.C.S., 21, Clarence Parade, Southsea.

L.—Tropical Diseases.

President: George Thin, M.D. *Vice-Presidents:* Colonel Kenneth McLeod, M.D.; James Watson, M.D. *Honorary Secretaries:* Fleet-Surgeon John Tyndall, R.N., Tresco, St. Ronan's Road, Southsea; John Robert Stevenson Robertson, M.B., 5, Western Parade, Southsea.

Programme of Proceedings.

Tuesday, August 1st, 1899.

9.30 A.M.—Meeting of 1898-99 Council.
11.0 A.M.—Church Service; Sermon by the Right Reverend the Lord Bishop of Winchester, at St. Mary's Portsea.
2 P.M.—First General Meeting. Report of Council. Reports of Committees; and other business.
8.30 P.M.—Adjourned General Meeting from 2 P.M. President's Address.

Wednesday, August 2nd, 1899.

9.30 A.M.—Meeting of 1899-1900 Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Second General Meeting. Address in Medicine by Sir Richard Douglas Powell, Bart., M.D.

Thursday, August 3rd, 1899.

9.30 A.M.—Meeting of Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Third General Meeting. Address in Surgery by Professor Alexander Ogston, M.D.
7 P.M.—Public Dinner of the Association.

Friday, August 4th, 1899.

10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Concluding General Meeting.

Saturday, August 5th, 1899.

Excursions.

Honorary Local Secretaries.

C. C. Claremont, M.D., 57, Elm Grove, Southsea.
C. P. Ruel, M.R.C.S., L.R.C.P., Cromwell House, Kent Road, Southsea.

ANNUAL MUSEUM.

The Annual Museum in connection with the sixty-seventh meeting of the British Medical Association will be arranged in the following Sections:

Section A.—Food and drugs, including prepared foods, chemical and pharmaceutical preparations, etc.

Section B.—Instruments comprising medical and surgical instruments and appliances, electrical instruments, microscopes, etc.

Section C.—Books, including diagrams, charts, etc.

Section D.—Sanitary Appliances and Ambulances.

A fine and well-lighted hall will this year be utilised for the purposes of the Museum. This room is 150 feet in length, and 60 feet in width, and is in close proximity to the Reception Room.

Exhibitors (other than members of the medical profession) will be charged for table, floor and wall space as follows: In Sections A, B, and C, from 2s. 6d. per square foot, depending on the position of the table; tables 3 feet and 3 feet 6 inches wide being provided. In Section D, 6d. per square foot for floor space (all fittings to be provided by the exhibitor). Wall space (where available) will be charged for advertisements at 6d. per square foot. Section D will be held in the Swan Street Board School, a short distance from the Drill Hall.

Advertisements in Museum Catalogue.—A catalogue will be printed, and 2,000 distributed gratis to members of the Association. Prepaid advertisements, to be sent before June 20th, will be inserted. Further particulars will be sent on application.

The plans of the hall and forms of applications for space will be ready early in May.

Regulations.

1. All communications on general matters connected with the Museum, and all applications for space, should be addressed to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth, before June 1st. N.B.—No space will be allotted before that date.

2. A brief description of each exhibit for insertion in the Museum Catalogue must be in the hands of the Secretary before June 20th.

3. Space will as far as possible be allotted in the order of application, and in proportion to the amount applied for, the Committee reserving power to give preference to *bonâ fide* in-

ventions and improvements not previously exhibited, and also to refuse any exhibit they may consider unsuitable.

4. In the event of more space being applied for than is actually available, the allotment will be made at the discretion of the Committee.

5. The Committee reserve to themselves the power to utilise any of the floor space set apart for Section D (if it is not all required for sanitary exhibits) for the erection of additional tables, or for any other purpose they may think fit.

6. All exhibits should be addressed to the Secretaries of the Museum, British Medical Association, Drill Hall, Grigg Street, Portsmouth, with the name of the Section for which they are intended, with the exception of those for Section D, which should be addressed The Board School, Swan Street, Portsmouth. Packages should not be addressed to a firm's representative at the Museum.

7. All exhibits must be delivered between July 27th and July 29th, and each package must bear a card showing the name and address of the exhibitor.

8. All exhibits must be placed in the allotted space by 2 P.M. on July 31st.

9. No signs or placards will be allowed in the hall which may interfere with neighbouring exhibits. No exhibit or placard on the central tables must reach higher than 2 feet 6 inches from the table. The arrangement of signs, placards, exhibits, etc., will in every case be subjected to the approval of the Committee.

10. Intimation of the space allotted to each exhibitor will be sent as promptly as possible after June 1st, marked upon a plan. On receipt of cheque for the cost of such space, a card for the admission of the exhibit will be sent.

11. All cheques to be made payable to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth.

12. No exhibits will be received except on the understanding that the above regulations are strictly complied with.

H. RUNDLE, F.R.C.S., *Chairman*,
13, Clarence Parade, Portsmouth.
R. EMMETT, M.R.C.S., L.R.C.P.,
83, Kingston Road, Portsmouth.
JAMES MCGREGOR, L.R.C.P. & S.Edin.,
9, St. Mary's Crescent, Portsmouth.

PATHOLOGICAL MUSEUM.

Specimens of interest for exhibition in the Museum should be forwarded, addressed to the Secretary of the Pathological Museum, British Medical Association, Boys' School, Seaman's and Marines' Orphan Home, Portsmouth, during the last week in July; and a brief description of each exhibit for insertion in the Museum catalogue must be in the hands of the Secretary by June 20th. Intending exhibitors are requested to communicate with the Secretary of the Pathological Museum, Staff-Surgeon L. Lloyd Thomas, R.N., Royal Naval Depôt, Portsmouth. All specimens must be mounted ready for exhibition.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Sanatoria for Consumption.—Instruction for Consumptives.

THE Committee of the Hospital for Consumption and Diseases of the Chest have decided to rebuild their institution in Mount Pleasant on a small scale and to construct a fairly large sanatorium in the country. The building in Liverpool will consist of an out-patient department and wards containing twenty beds, while the sanatorium will be capable of accommodating fifty inmates. This decision of the Committee is entirely in harmony with the views of the majority of the medical profession in Liverpool and with the recommendation contained in the recent report of the Medical Institution, which was to the effect that the provision for the treatment of tuberculosis within the city should be kept within the smallest possible limits. The proposed site for the sanatorium in West Kirby has been abandoned on the recommendation of Sir William Broadbent, and it is proposed to apply to Government for permission to erect a sanatorium on the Crown Lands of Delamere Forest. The West Derby Board of Guardians have decided to erect a sanatorium with twenty-five beds as soon as a suitable site can be obtained.

The concise instructions for the guidance of consumptives which were drawn up by the Special Committee of the Medical Institution have been extensively circulated by the Medical Officer of Health and their importance has been emphasised by the daily press.

LEEDS.

Tetanus Treated by Intracerebral Injection.—A Conference on the Tuberculosis Question.—The Annual Dinner and Clinical Meeting of the Leeds and West Riding Medico-Chirurgical Society.—The Medical Students' Debating Society.

A CASE of tetanus was recently treated in the Leeds General Infirmary by the intracerebral injection of tetanus antitoxic serum. A man, aged 33, received a penetrating wound in the sole of the foot from a rusty nail five days before the first symptoms of tetanus developed; 15 c.cm. of serum was injected subcutaneously immediately on his admission on the second day of the disease. When he was seen a few hours later there was trismus, retraction of the head, rapid pulse, irregular breathing, together with some blueness of the face. As the case appeared hopeless from the rapid development of very acute symptoms, it was decided to try the new method of administering the serum. Some thirty-six hours after the onset of the disease a large trephine opening was made in the middle line of the skull, and about two inches above the root of the nose, and 15 c.cm. of the serum was injected into the brain, the needle of the syringe being passed in deeply, so that the first part of the fluid might escape into the lateral ventricle. A further 15 c.cm. was injected in the same way on the other side. A partial amputation of the foot was performed at the same time, so as to remove the actively suppurating wound and neighbouring tissues. The patient recovered well from the double operation and was then able to open his mouth to the extent of half an inch, but he died eighteen hours later. Tetanus is not so very uncommonly admitted into the Infirmary, but the acute cases are almost without exception uniformly fatal notwithstanding serum treatment, free removal of the local lesion, etc. Serum from London, Paris, and Bologna has been employed, but in all cases with the same discouraging results. Behring's more recent and concentrated serum has not been tried here, as the reports of it in the German medical journals are far from satisfactory. We are still obviously almost if not wholly powerless in the presence of really acute tetanus.

A conference was called on March 24th by the Lord Mayor (Colonel T. W. Harding) to consider what steps, if any, should be taken for the treament of tuberculosis in and about Leeds. An influential meeting assembled, including representatives of the medical charities and of other public bodies. A Committee was appointed to make inquiries as to the best way of establishing wards or a special institution for the treatment of poor people suffering from tuberculosis, especially phthisis. Among the letters of regret at inability to attend was one from Professor Clifford Allbutt of Cambridge, who expressed much sympathy with the objects of the meeting.

The annual dinner of the Leeds and West Riding Medico-Chirurgical Society was held at Powolny's Rooms on March 15th. The evening was in every sense a very successful one, although the attendance was not quite as good as usual, owing, no doubt, to the prevalence of illness, especially of influenza, in Leeds and the neighbourhood. The same Society held its annual clinical meeting on March 24th, when some 80 cases—medical, surgical, and ophthalmic, and including some of very unusual interest—were shown in the large out-patient department of the infirmary.

The annual competition for the prize for extempore speaking, instituted by the late Mr. Nicol, took place in the Medical Students' Debating Society on March 21st. The subjects were selected by the students, written down on separate slips of paper, and then drawn for by the competitors. Five minutes' preparation was allowed to each speaker. Three members of the staff acted as judges. Thirteen students competed for the prize, and some of the speaking was very excellent. The prize was ultimately awarded to Mr. Keeling, the second and third places being taken by Messrs. Collinson and Martin respectively.

BRISTOL.

County Medical Officers of Health.—The Eye Hospital.

The report of the medical officer of health on the replies to a circular sent out by him to the large towns on the advisability to securing the appointment of county medical officers, show how strongly sanitary authorities of towns are alive to the importance of some control over the districts round them. The circular was in the form of three questions: (1) Was it desirable to appoint county medical officers? (2) What means, if any, should be taken to bring pressure on the county councils to make such an appointment? (3) Whether it is desirable to petition Parliament to amend the local Government Act to make the appointment of medical officers of health for the county compulsory. The replies were nearly all in favour of such appointments being made. Liverpool, Wolverhampton, Newcastle-on-Tyne, Cardiff, and Sheffield replied that the post was in existence and duly filled, and some others answered that they would co-operate with the Bristol sanitary authorities in helping forward any means that might be proposed to compel the county councils to appoint. The towns that approved of the scheme were Birmingham, Salford, Plymouth, Portsmouth, Manchester, Norwich, and West Ham. Oldham expressed no views.

The annual meeting of the subscribers to the Eye Hospital was held on March 22nd, the High Sheriff presiding in place of the Duke of Beaufort, who was indisposed. The report stated that there had been 421 patients admitted into the institution during the year, and 4,861 persons attended as out-patients. The expenditure exceeded the income by £228. An interesting fact was mentioned in the report, namely, that the cost per patient per day for food was 10d., that being ½d. less than last year.

CORRESPONDENCE.

HOSPITALS AND CERTIFICATES UNDER THE WORKMEN'S COMPENSATION ACT.

Sir,—It seems very desirable to attain some uniformity of procedure among hospitals as to whether their residents should fill up certificates under the Workmen's Compensation Act, and charge a fee for so doing, or whether the certificate should be filled up by a practitioner outside the hospital, who would usually be the medical officer of the club to which the claimant belonged.

Now it goes without saying that somebody must be paid for filling up these lengthy certificates, often consisting of more than a dozen questions, together with full details of the injury, and that the attempt to obtain them at hospitals without paying a fee, where at the present time such a large amount of gratuitous work is performed by the residents in signing weekly club certificates, merits strong condemnation. On certain of the certificates it says that the surgeon who first attends to the case should be the person to fill them up, but perhaps this point can be waived and the patient's own medical attendant perform this function, as you state in an editorial note in the British Medical Journal for March 25th, p. 762.

At a meeting of the Board of Management of the Norfolk and Norwich Hospital a few months ago it was resolved, on the recommendation of the honorary staff, that, as a provisional arrangement, the hospital residents should be responsible for the certificates under the new Act, should charge a fee of 10s. 6d. for filling them in, and should retain the same for themselves.

Now it is undeniable that the house-surgeon, having attended the patient at his accident and during convalescence, is the person best qualified to fill in an accurate certificate, and that, without consultation with him, a certificate signed by a doctor outside the hospital would possess no claim to scientific accuracy. It would be possible for the club doctor to fill it up in certain cases which do not need a detailed description, for example, a fractured clavicle or a dislocated shoulder, after only a moment's conversation with the hospital resident; but I think it is really stretching professional courtesy too far to expect the house-surgeon to give without reward a detailed account of, say, a severe wound of the forearm, with division of tendons and nerves, to a brother practitioner who has had none of the trouble of the treatment of the accident nor its subsequent care. That is the reason why I would maintain that these certificates should, in the great majority of the cases, be left to the house-surgeon, who has had all the work of the case in his hands, and whose opportunities for any extra remuneration in connection with his hospital duties are rare.

There is one question I should like to ask. Is it the usual custom throughout the country for the employer or the insurance company rather than the injured workman to pay for these certificates? In the British Medical Journal of March 18th, p. 685, you state that the employers pay the fee. Is this universal? If the workmen in any district have to pay for the certificates out of their own pockets, I think a guinea is too high a fee to charge.—I am, etc.,

Hamilton A. Ballance, M.S.Lond., F.R.C.S.Eng.,
Assistant Surgeon Norfolk and Norwich Hospital.

Norwich, March 26th.

HUNTER v. CLARE: AN APPEAL.

Sir,—Permit me, through your columns, to appeal to the profession for subscriptions to the fund for the assistance of the widow of the late Mr. Kingsley Hunter, L.S.A., of Gamlingay. Her pathetic letter caused me to enter into communication with her, in order to get her sanction for this letter. She informs me that the whole of their capital was expended in the purchase of the practice at Gamlingay, which was utterly ruined by the shameful prosecution of her husband, and she is left penniless and will soon be homeless.

I sincerely hope that a practical expression of the sympathy which I am sure most of my professional brethren must have for her, will be the outcome of this appeal.

The names of the gentlemen forming the Hunter Fund Committee are Dr. Major Greenwood, 243, Hackney Road, N.E.; George Jackson, Esq., 10, Portland Villas, Plymouth; Surgeon-Captain R. R. Sleman, 8, Portman Street, W.; M. Cursham Corner, Esq., 113, Mile End Road, E.; Joseph Smith, Esq., 15, Bath Road, Bedford Park, W.; Rivers Willson, Esq., 42, Wellington Square, Oxford, Treasurer and (*pro tem.*) Honorary Secretary.

Cheques should be made payable to the Hunter Fund, and may be sent either to Gillett's Bank, Oxford, or to

Oxford, March 28th. Rivers Willson.

The following donations are acknowledged with thanks:

	£	s.	d.
M. Cursham Corner, Esq., 113, Mile End Road, E....	1	1	0
Major Greenwood, Esq., M.D., 243, Hackney Road, N.E.	1	1	0
D. B. Balding, Esq., J.P., Royston	0	5	0
A. Arthur Hill, Esq., Hall House, Tunstall ...	1	1	0
T. E. Lloyd, Esq., Woodstock, Abergavenny ...	1	1	0
"M."	1	1	0
	5	10	0

MEDICAL AID SOCIETIES AND DOCTOR'S CLUBS.

Sir,—In connection with the above question, letters on which are at present appearing in the British Medical Journal, I should like to say that a few weeks ago I was approached by an insurance agent to know if I would like to start a doctor's club in connection with his office. The agent was to go round "touting" for patients for me, for which I was to be paid at the rate of a penny a week for adults and a halfpenny a week for juveniles, less 20 per cent., the agent's commission. Confinements were extra—a guinea for the first and 15s. for subsequent ones. The agent said he could soon work up a nice little club for me, and of course he and his family would be patients. At that time they were patients of a neighbouring medical man, with whom they contracted for the year for 18s. He informed me that two other medical men living in the same road as myself already had clubs in connection with this insurance office. Needless to say I declined this offer.

I quite agree with the correspondents who have already written on this subject that such clubs ought not to be allowed to exist. Doctors who allow agents to "tout" for patients ought to be held by the General Medical Council as guilty of infamous professional conduct.—I am, etc.,

March 26th. W.

A NOTE ON FIBROMA-ADENOMA OF THE MALE BREAST.

SIR,—I am extremely sorry that in a note on "Fibro-adenoma of the Breast," published in your last issue, I did a grave injustice to Mr. Marmaduke Sheild's very excellent book on "Diseases of the Breast." My attention has been called to the fact that these tumours in the male are referred to on page 489, and I regret exceedingly that a hasty reference to the index led to this unintentional oversight.—I am, etc.,

Dublin, March 25th. R. GLASGOW PATTESON.

SIR,—To the example of fibro-adenoma of the male breast reported by Mr. Patteson in your issue of March 25th, p. 725, and the cases by Monro, Paget, Velpeau, Röder, Le Dentu, Pavona, Cruveilhier, etc., cited in my work on *Diseases of the Breast*, the following instances of the same affection may also be added.

Rothmann has described two cases, in each of which the tumour attained the size of a large walnut, the ages of the patients being 20 and 50 years respectively.

Jacobson has met with a similar case in a man of 53. From the left breast of a miller's assistant, aged 57, Péraire removed a circumscribed tumour, the size of a horse chestnut, which contained many small cysts. Histologically it was a cystic fibro-adenoma. At the age of 18 he first noticed a pea-sized lump under the nipple, whence the tumour removed gradually developed.

Keetley has met with a somewhat similar case. At the age of 22 his patient first noticed a mammary tumour the size of a hazel nut, which remained quiescent for eleven years, and then increased so rapidly that in a year's time it attained the size of a hen's egg.

Considering the great variability in the degree of obsolescence of the male mamma, and that in certain exceptional cases it is so well developed as to suffice for lactation, we need not be surprised to find that every variety of neoplastic disease met with in the female breast may have its counterpart in the male breast.—I am, etc.,

Clifton, March 27th. W. ROGER WILLIAMS.

TO KEEP MOSQUITOS ALIVE.

SIR,—Dr. Bancroft, of Burpengary, Brisbane, Australia, who is at present experimenting with mosquitos and blood parasites, in a recent letter informs me that mosquitos can be kept alive after feeding once on human blood, by suspending in the vessel in which the insects are confined a fresh ripe banana. The banana should have the skin partially removed, and be renewed every fourth or fifth day. In this way the insects can be kept alive for upwards of six weeks. This is a fact which the many observers now at work on the mosquito-malaria theory will be glad to know of.—I am, etc.,

Queen Anne Street W., March 27th. PATRICK MANSON.

ERYTHROL TETRANITRATE.

SIR,—An accident, by which a chemist lost his life, happened at a tabloid factory at Dartford on December 15th, 1897. He was engaged in mixing tetranitrate of erythrol with finely powdered lactose in a mortar when an explosion occurred.

Again, at the end of 1898, an accident was caused by tetranitrate of erythrol being inadvertently thrown into a fire, and one person was injured.

Tetranitrate of erythrol is possessed of explosive properties and is highly sensitive, more so, indeed, to percussion than dynamite or gun-cotton. As it has lately come into some use in the place of nitroglycerine as a remedy for angina pectoris, I should be glad if you would draw special attention in the BRITISH MEDICAL JOURNAL to the dangers attending the handling of this drug.—I am, etc.,

A. FORD, Colonel,
H.M. Chief Inspector of Explosives.

Home Office, Whitehall, S.W., March 24th.

THE AMERICAN LOSSES IN THE WAR.—According to an official statement issued at Washington on March 10th, the total number of deaths in the United States Army reported to the Adjutant-General's Office between May 1st, 1898, and February 28th, 1899, was: Killed in action, 329; died of wounds, 25; died of disease, 5,277, making a total of 5,731 deaths.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

FLEET-SURGEON JOHN B. B. TRIGGS, M.B., has been placed on the retired list at his own request, March 22nd. He was appointed Surgeon, September 29th, 1877; Staff Surgeon, September 29th, 1899; and Fleet Surgeon, January 10th, 1899. He was in medical charge of the *Active* during the Zulu war in 1879 (medal). He was also awarded a medal and diploma from the Venezuelan Red Cross Society in recognition of services to the wounded in the neighbourhood of La Guayra in October, 1892, during the revolution in that year.

ROYAL ARMY MEDICAL CORPS.

COLONEL RICHARD P. FERGUSON is placed on retired pay, March 13th. His commissions are thus dated: Assistant Surgeon, March 31st, 1862; Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; Brigade-Surgeon, April 13th, 1887; and Surgeon-Colonel, September 6th, 1892. During the campaign of 1864-65 in Bhootan he had medical charge of the Royal Artillery, and was present at the capture of Bala and Buxar Dovars (medal with clasp); he was in the Afgnan war in 1878-79 with the 2nd Division Peshawur Valley Field Force (medal); and in the Egyptian war of 1882 (medal and Khedive's bronze star). He was Principal Medical Officer at Woolwich, where he will be succeeded by Colonel J. A. Clery, R.A.M.C.

Lieutenant-Colonel J. A. CLERY, M.B., is promoted to be Colonel, *vice* R. P. Ferguson, March 13th. Colonel Clery entered the service as Assistant-Surgeon, April 1st, 1871; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; was granted the rank of Lieutenant-Colonel, April 1st, 1891, and was made Brigade-Surgeon-Lieutenant-Colonel March 10th, 1895. During the Nile Expedition in 1884-5 he had charge of the Abu Dom Field Hospital, receiving a medal with clasp and the Khedive's bronze star. He was also in the Soudan under Lord Kitchener in 1898, and was mentioned in despatches for his services in the operations resulting in the capture of Gedaref, for which he is entitled to the British medal and the Khedive's medal with clasp.

Major ROBERT F. ADAMS, M.B., retires from the service with a gratuity, March 29th. His commission as Surgeon dates from February 5th, 1881; that of Surgeon-Major twelve years therefrom.

Captain W. G. BEYTS is seconded for service on the staff, November 4th, 1898, his appointment being that of Surgeon to the Commander-in-Chief in India, Sir William Lockhart.

The Christian names of Captain BRAY, seconded for service with the Egyptian army from February 14th, are HUBERT ALARIC, and not as stated in the *Gazette* of February 24th.

Lieutenant JOSEPH MCARDLE, M.B., is seconded for service with the Egyptian army, January 21st.

MEDICO-LEGAL.

INQUESTS.

ABSUM mentions two cases of death occurring in his practice in which, after reporting them to the coroner, no further communication was made to him. The first was that of a child who died from suffocation from being overlaid whilst in bed with the parents. A similar accident had occurred in the same family before, but the coroner, a solicitor, decided that an inquest was not necessary, and no inquiry was held. The other case was that of a child who died after being run over by a cart in the street. The same coroner did hold an inquest in this case, but called no medical evidence, and with his jury arrived at some cause of death, and a verdict. Our correspondent wishes to know if this is the usual way in which coroners fulfil the duties of their office.

*** From similar reports we have from time to time received, it is evident that the practice of coroners varies in different districts, and that such cases as that given above usually occur where legal coroners preside. As a rule, no inquest can be considered satisfactory or complete in the absence of medical evidence. When a coroner omits to hold an inquest required by law, the circumstances can be reported to the Lord Chancellor, who will investigate the facts, and, if there has been a dereliction of duty, he will admonish the coroner accordingly.

FEES TO MEDICAL WITNESSES.

R. W. C. states that he was subpœnaed to give evidence at the local court of the town where he resides, in a criminal case and was kept in court from 11 A.M. till 5 P.M., for which he was paid 10s. 6d. He wishes to know whether he must accept this fee or whether he has any claim for compensation for his loss of fees and wasted day consequent upon his attendance in court.

*** The fee mentioned by our correspondent is all that he is entitled to claim if, as we presume from his letter, his evidence was given at the local police-court or Quarter Sessions. It has been judicially decided that no claim can be made in respect of loss of fees, etc. Our correspondent is, no doubt, aware that the British Medical Association is endeavouring to obtain a revision of the present scale of fees to medical witnesses, but as will be seen from the reply of Mr. Jesse Collings to Dr. Farquharson, printed at page 811, the Home Office is at present obdurate.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

DIPLOMA IN PUBLIC HEALTH.—The examination for this Diploma will begin on April 4th, and continue till April 13th.

DEGREES.—At the Congregation on March 16th, F. P. Cayley, B.A., of

Trinity, was admitted to the degree of M.B., and W. Eardley, M.A., of St. John's, and W. K. Wills, M.A., of St. John's, to the degrees of M.B. and B.C.

Council of the Senate.—Dr. Kirkpatrick was on March 17th elected a member of the Council, in the room of Dr. Armitage Robinson, resigned.

Examinations for Degrees.—Parts I and II of the Third Examination for the degree of M.B. and B.C. will commence on Tuesday, April 25th. The examination for the degree of M.C. will commence on Friday, April 28th. Notice must be given through the Prælectors of the respective Colleges on or before Saturday, April 8th.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,211 births and 5,061 deaths were registered during the week ending Saturday, last, March 25th. The annual rate of mortality in these towns, which had increased from 19.5 to 23.3 per 1,000 in the five preceding weeks, declined to 23.1 last week. The rates in the several towns ranged from 13.2 in Cardiff, 16.1 in Huddersfield, 17.4 in West Ham, and 18.0 in Bristol, to 28.0 in Salford, 29.4 in Wolverhampton, 32.9 in Oldham, and 33.4 in Manchester. In the thirty-two provincial towns the mean death-rate was 23.1 per 1,000, and was slightly below the rate recorded in London, which was 23.2 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the rate was equal to 2.1 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.5 in Swansea and in Manchester, 2.6 in Plymouth and in Salford, 3.4 in Derby, and 3.6 in West Ham. Measles caused a death-rate of 1.2 in Salford, 1.7 in Manchester, and 2.3 in West Ham; scarlet fever of 2.0 in Derby; whooping-cough of 1.3 in Preston, 1.4 in Cardiff, 1.8 in Birkenhead, and 2.1 in Plymouth; and "fever" of 1.8 in Wolverhampton. The 81 deaths from diphtheria in the thirty-three towns included 37 in London, 8 in Sheffield, 7 in Leeds, 6 in Leicester, and 3 in Portsmouth. No fatal case of small-pox was registered last week, either in London or in any of the thirty-two large provincial towns; and only 1 small-pox patient was under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 25th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,584 to 2,437 at the end of the three preceding weeks, had further fallen to 2,355 on Saturday last: 177 new cases were admitted last week, against 236, 217, and 224 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, March 25th, 913 births and 666 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 25.1 to 21.0 per 1,000 in the three preceding weeks, rose again to 21.8 last week, but was 1.3 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 13.5 in Paisley and 16.6 in Dundee to 24.8 in Aberdeen and 27.3 in Greenock. The zymotic death-rate in these towns averaged 2.2 per 1,000, the highest rates being recorded in Leith and Aberdeen. The 334 deaths registered in Glasgow included 7 from measles, 2 from scarlet fever, 0 from whooping-cough, and 2 from "fever." Six fatal cases of measles and 4 of whooping-cough were recorded in Edinburgh.

TYPHUS FEVER IN SOUTHWARK.

Dr. Waldo, Medical Officer of Health for St. George Southwark, has forwarded a report on a case of typhus fever, notified to him in February last. A case occurred in the parish in October, 1898, and the father of the patient conveyed the infection to a house in Bermondsey. Several cases occurred there, and from one of these the second case notified in Southwark was infected.

CONDENSED SEPARATED MILK.

A deputation, representing many local sanitary authorities in England, waited upon Mr. Long, President of the Board of Agriculture, last week, to urge the necessity of some amendment of the Food and Drugs Act with regard to the sale of condensed milk. It was shown that a very large percentage of the infant mortality among the poor was due to the use of cheap condensed milks, which contained really only separated milk, nearly all the fat having been removed. Dr. Stocker, Medical Officer of Health for Willesden, stated that the infant mortality in Willesden last year was 40 per cent., and this, in his opinion, was due to the use of separated condensed milk, this kind of milk being absolutely useless as a food for infants.

Mr. Long, in reply, admitted the force of the arguments used, and the great importance of the subject as touching the healthy development of the young portion of the community. He considered the suggestion that they should insist, by enactment, upon the labels on the tins stating exactly what was contained in them, to be the safest for the public and Government. The other suggestion, that the people should in some way or other be informed that the milk had not certain properties or was not suitable for infants, was hardly practical, as the Government could not be expected to undertake to protect the public against themselves. He expressed the hope that the Government Bill would go before a Standing Committee, when an opportunity would be afforded for offering any practical suggestion on the subject.

In the report of the British Medical Journal Commission on Condensed Milk (Vol. ii, 1895, p. 230) the composition of 17 brands of condensed milk was investigated. In 14 of these the milk was only separated milk, and contained on an average only 0.72 per cent. of fats. Since these inferior brands can necessarily be sold at a much cheaper rate, they are more largely used by the poor. It seems that the only way to prevent the sale of such interior articles of food for infants would be to prohibit, under penalty, the application of the word "milk" to any preparation of condensed milk which was proved to be only separated milk, or to contain an insufficient percentage of fat. So long as these preparations are all called "milk" they will be used by the poor and ignorant, who know no difference as to the value of the food for infants between true milk and separated milk.

"PUERPERAL FEVER."

The following notice has been issued to all medical practitioners in Bristol by Dr. Davies, medical officer of health. It will in future be attached to all books of notification forms issued, and will, it is hoped, be a help in deciding the meaning of the term "puerperal fever":

Puerperal Fever.

A Committee of the Royal College of Physicians of London has recently endorsed the view that the expression "puerperal fever" should be taken to include "septicæmia, pyæmia, septic peritonitis, septic metritis, and other acute septic inflammations in the pelvis occurring as the direct result of childbirth."

The Council of the Obstetrical Society of London suggests the following inclusive definition of the term "puerperal fever": that is, "septicæmia and pyæmia, including peritonitis, and all cases of acute pelvic inflammation occurring in connection with childbirth."

MEDICAL NEWS.

Mr. J. C. Wordie, Oriental Club, London, has, through Dr. Hunter Mackenzie, given a third donation of £100 to the Eye, Ear, and Throat Infirmary, Edinburgh.

A course of lectures on Earth, Air, Water, and Insects in Relation to Disease will be given by Dr. E. Symes Thompson, Gresham Professor of Medicine, at Gresham College, Basinghall Street, E.C., on April 11th, 12th, 13th, and 14th, at 6 P.M.

The Royal National Pension Fund for Nurses.—The report for the last year shows a steady increase in the amount of business done, a proof that the usefulness of the fund is recognised by the nurses. The Pension Fund is a bank for their savings, and as there are no shareholders or directors to draw from the profits, the whole of the accumulations less the working expenses are for the benefit of the policy-holders. One very useful feature of the fund is the sick pay; we have always felt that a nurse stands in real need of assistance when, through devotion to her work, she is incapacitated from earning. The Benevolent Fund has done very good work during the past year.

Leprosy in the United States.—By an Act passed by the Senate and House of Representatives of the United States of America in Congress assembled on March 2nd, it is provided that the Supervising Surgeon-General of the Marine Hospital Service, under the direction of the Secretary of the Treasury, shall appoint a Commission of medical officers of the Marine Hospital Service to investigate the origin and prevalence of leprosy in the United States and to report upon what legislation is necessary for the prevention of the spread of the disease; the expenses of the investigation, not exceeding the sum of 5,000dols., to be paid from the fund for preventing the spread of epidemic diseases.

The Preparation of Cocoa Seeds.—A very unsavoury statement is made by an anonymous writer in the *Ceylon Native Opinion* of Colombo. He professes to disclose the secret by which cocoa seeds intended for exportation acquire their beautiful red colour. He states that they are dried in the sun after being soaked in the contents of a spittoon into which natives, after chewing the areca or betel nut, expectorate. The process is said to be carried out chiefly in a certain street in Pettah. It is regarded as a trade secret, and visitors are not encouraged. In the absence of direct evidence we are inclined to discredit the statement. The story seems to be unlikely, especially having regard to the fact that the kernel of the cocoa seed has a reddish-brown colour.

Lead Poisoning in the Potteries.—The report of Professor T. E. Thorpe, Principal of the Government Laboratory, and Professor Thomas Oliver, Physician to the Royal Infirmary, Newcastle-on-Tyne, on the Employment of Compounds of Lead in the Manufacture of Pottery, their Influence upon the Health of the Workpeople, with Suggestions as to the Means which might be Adopted to Counteract their Evil Effects, was issued on March 28th. It is an important document, well worthy of serious study. The most important conclusion is that by far the greater amount of all kinds of table,

domestic, and sanitary ware can be glazed without the use of lead in any form. It has been demonstrated without the slightest doubt that the ware so made is in no respects inferior to that coated with lead glaze. There seems no reason therefore why in the manufacture of this class of goods the operative should still continue to be exposed to the evils which the use of lead glaze entails. With regard to certain other branches of the pottery industry in which it would be difficult to dispense with the use of lead compounds, Professors Thorpe and Oliver conclude that "there is no reason why in these cases the lead so employed should not be in the form of a fritted double silicate. Such a compound, if properly made, is but slightly attacked by even strong hydrochloric, acetic, or lactic acid. There can be little doubt that, if lead must be used, the employment of such a compound silicate, if its use could be ensured, would greatly diminish the evil of lead poisoning." They consider that the belief that young persons and women between the ages of 17 and 30 are specially susceptible to the influence of lead is well grounded, and consequently in the interests of the women themselves, and to avoid the disasters which plumbism entails upon the progeny through the mother, it is urged that women should no longer be employed in the dipping-house where lead is used, and as ware-cleaners after dippers in lead glaze. The Home Secretary has issued a circular to all manufacturers of earthenware and pottery, in which it is pointed out that: "In the light of the present report it appears clear that still further safeguards of a most important kind are within reach, and that it will be necessary to add to the rules provisions to restrict and control the use of lead."

MEDICAL VACANCIES.

The following vacancies are announced :—

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon. Appointments for six months. No salary; but residence, board, and washing provided. Applications to the House Governor by April 29th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Ophthalmic Surgeon. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by April 5th.

BRACEBRIDGE ASYLUM, Lincolnshire.—Senior Assistant Medical Officer, unmarried, and not over 30 years of age. Salary £50 per annum, with furnished apartments, board, attendance, and washing. Applications to Mr. W. T. Page, jun., Clerk to the Visitors, Bank Street, Lincoln, by April 3rd.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Board, residence, etc., provided. Applications to the Secretary by April 10th.

CHARING CROSS HOSPITAL.—Bacteriologist to the Hospital and Lecturer on Bacteriology at the Medical School. Applications to the Secretary by April 10th.

CHELTENHAM GENERAL HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £40 per annum, with board and lodging. Applications to the Honorary Secretary by April 8th.

CHESTER COUNTY ASYLUM.—Junior Assistant Medical Officer, unmarried, and not more than 30 years of age. Salary, £120 per annum, rising to £150; also Pathologist. Salary, £150 per annum. Board, lodging, and washing provided in each case. Applications to Dr. Lawrence, County Asylum, Chester, by April 12th.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL, Leicester Square.—Demonstrator on Dental Surgery. Honorarium, £25 a year. Applications to the Dean by April 10th.

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL, E.—Medical Officer for the Casualty Department. Appointment for six months but renewable. Salary at the rate of £100 per annum. Applications to the Secretary, by April 15th.

FOLKESTONE: VICTORIA HOSPITAL.—House-Surgeon. Salary, £80 per annum, rising to £160, with board, residence, and washing. Applications to the Secretary by April 8th.

HOLBEACH UNION.—District Medical Officer and Public Vaccinator. Salary, £50, and usual fees. Applications to the Clerk to the Guardians by April 5th.

HOSPITAL FOR WOMEN, Soho Square, W.—Assistant Physician. Applications to the Secretary by April 6th.

IPSWICH: EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House-Surgeon, unmarried. Salary, £60 per annum, with board, lodging, and washing. Applications to the Secretary by April 4th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for twelve months subject to re-election. Honorarium, £42. Board, residence, and washing provided. Applications to the Secretary, 24, Friar Lane, Leicester, by April 10th.

LONDON COUNTY ASYLUM, Claybury, Woodfordbridge, Essex.—Junior Assistant Medical Officer, between 23 and 30 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications on forms provided to be sent to the Asylums Committee Office, 6, Waterloo Place, S.W., by April 19th.

LONDON HOSPITAL MEDICAL COLLEGE.—Assistant Demonstrator of Anatomy. Salary, £90 per annum. Applications to the Warden by April 10th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Junior Non-resident Medical Officer. Appointment for six months. Honorarium at the rate of £45 per annum. Applications to the Secretary, 41, Fitzroy Square, W., by April 6th.

NORTHAMPTON GENERAL INFIRMARY.—Assistant to the House-Surgeon. Appointment for six months. Board, lodging, and washing provided, and honorarium of £25. Applications to the Secretary by April 14th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Honorary Anæsthetist. Applications to the Secretary by April 3rd.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 a year, with board and residence. Applications to the Secretary by April 8th.

ROYAL EYE HOSPITAL, Southwark, S.E.—Assistant Surgeon. Applications to the Secretary by April 4th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board, lodging, and washing. Applications to the Secretary by April 11th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields.—Clinical or Junior Assistants. Applications to the Secretary.

ROYAL PIMLICO DISPENSARY.—Attending Medical Officer: must reside in the district. Applications to the Secretary, 104, Buckingham Palace Road, by April 3rd.

ST. GEORGE'S HOSPITAL, S.W.—Physician or Surgeon for Diseases of the Skin. Applications to the Secretary by April 8th.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to the "Medical Staff of the Royal Infirmary, Sheffield," care of the Secretary, by April 19th.

SHREWSBURY: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary to commence at £120 per annum, rising £10 yearly to £140 (and £8 in lieu of beer, etc.), with board, lodging, and washing. Applications to the Medical Superintendent by April 12th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by April 12th.

STOCKPORT INFIRMARY.—Assistant House- and Visiting-Surgeon. Salary, £70 per annum; also a Junior Assistant House-Surgeon. Salary, £2 per mensem. Board, washing, and residence provided in each case. Applications to the Secretary by April 3rd.

STOKE-UPON-TRENT UNION.—Resident Medical Officer of the Workhouse. Salary, £100 for the first year, £110 for the second, and £120 for the third, with board, washing, and furnished apartments. Applications to the Clerk to the Guardians by April 7th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary-Superintendent by May 3rd.

MEDICAL APPOINTMENTS.

ADAMS, J. D., M.D.St.And., M.R.C.S.Eng., reappointed Medical Officer of Health to the Yeovil Rural District Council.

CARGILL, L. Vernon, F.R.C.S.Eng., appointed Assistant Ophthalmic Surgeon to King's College Hospital.

CORFIELD, H. O., M.D.Edin., appointed Medical Officer for the Second District of the Bedminster Union, *vice* J. W. White, L.R.C.P.I., M.R.C.S.Eng., resigned.

GORDON, J. E., M.B.C.S., L.R.C.P., appointed Medical Officer for the Fifth District of the Salisbury Union.

JONES, E. Lloyd, M.D.Camb., appointed Assistant Physician to Addenbrooke's Hospital, Cambridge, *vice* L. Humphry, M.A., M.D.Camb.

JONES, F. F., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Second District of the Bath Union, *vice* H. C. Hopkins, M.R.C.S., resigned.

LANGSTON, J. J., L.R.C.P.I., L.M., L.S.A., appointed Medical Officer for the Sixth District of the Parish of St. Mary, Lambeth.

MALINS, Herbert, B.A.Oxon., M.B. & C.M.Edin., appointed Second Assistant Medical Officer to the St. Marylebone Infirmary, *vice* A. Nuthall, F.R.C.S.Eng., resigned.

MOORHEAD, R. L., M.B.Edin., appointed Medical Officer for the First District and the Workhouse of the Bridge Union, *vice* C. H. Schön, M.R.C.S., L.R.C.P.

NORMAN, F., M.D.Brux, M.R.C.S., L.R.C.P., appointed Medical Officer for the Eighth District of the Parish of St. Mary, Lambeth.

RIGBY, Hugh Mallinson, M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., appointed Surgical Registrar to the London Hospital.

ROBINSON, B., M.R.C.S., L.R.C.P., appointed Medical Officer for the Rocester District of the Uttoxeter Union.

TOTHILL, F. C., M.B., C.M.Edin., appointed Medical Officer of Health to the Staines Urban District, *vice* A. Curtis, M.R.C.S., resigned.

DIARY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Mr. Raymond Johnson: Congenital Cyst at the back of the Tongue.—Drs. Still and Poynton: Rheumatic Nodules.—Mr. D'Arcy Power: Cystic Disease of the Breast in a boy aged 2 years 6 months.—Messrs. T. W. P. and J. Lawrence: Hypertrophy of the Pituitary Body.—Dr. Rolleston: Tumour of Antrum.—Dr. Still: Biliary Calculi in Children.—Drs. Russell and Buzzard: Paramœcial Cysts in the Liver.—Mr. T. W. P. Lawrence: Atrophy of the Pancreas in Diabetes.

WEDNESDAY.

Obstetrical Society of London, 8 P.M.—Specimens will be shown by Drs. Amand Routh, Lea, McKerron, and others. Papers: Drs. W. S. A. Griffith and T. W. Eden: Notes of a case of Puerperal Eclampsia, with a description of a five weeks ovum removed in a subsequent pregnancy.—Dr. Lewers: A case of Persistent Mento-Posterior Position of the Face in which the child was delivered alive by the axis-traction forceps.

THURSDAY.

Harveian Society of London, 8.30 P.M.—Clinical Evening.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

FRIDAY.

West London Medico-Chirurgical Society, West London Hospital, W., 8.30 P.M.—Dr. S. T. Pruen: The Open-air Treatment of Tuberculosis.—Mr. H. J. Paterson: The Use of Gas in General Surgery.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, 8.45 P.M.—Discussion on Tuberculosis, with Special Reference to Treatment. The Discussion will be opened by Dr. George Heron, after which short papers will be read by Dr. Morgan Dockrell: Tuberculosis of the Skin; Mr. Ernest Clarke: Tuberculosis of the Eye; Mr. Mayo Collier: Tuberculosis of the Nose and Throat.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

AUSTIN-ROBINSON.—February 16th, at Durban, Natal, Dr. Lilian, wife of Dr. F. Austin-Robinson, of a son (stillborn).

GREENWOOD.—On Monday, March 27th, at Garbett House, Accrington, the wife of Alan Y. Greenwood, M.B., of a daughter.

MARRIAGE.

COOPER—WELCH.—On March 22nd, at the Parish Church, Timperley, by the Rev. Dr. Atkinson and the Rev. S. Wilkinson, Percy R. Cooper, M.B., F.R.C.S., eldest son of Shelley Cooper, Glenthorn, Bowdon, to Mabel, youngest daughter of John Welch, Cloverley, Timperley. At home, May 16th, 17th, 18th, and 19th.

DEATH.

SCOTT.—At Dunedin, New Zealand, on February 10th, Helen, wife of John Halliday Scott, M.D., Professor of Anatomy in the University of Otago.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30: Skin, M. Th., 1.45; Dental, M., 9: Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30: Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1: Skin, Tu., 1: Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30: Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Tu., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Laryngx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45 o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1: Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30: Tu. W. F., 2: Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Tu., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu., F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9: Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday on Wednesday. Telegrams can be received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

Original articles and letters *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the Editor of the British Medical Journal is *Aitiology, London.* The telegraphic address of the Manager of the British Medical Journal is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

J. M. asks whether any one is making "shelters" for sale for the open-air treatment of consumption at home?

G. B. R. desires to hear of an institution where a female patient, aged suffering from persistent and severe neurasthenia, would be received for a small monthly fee, and undergo massage treatment.

Rusticus asks: What is the best mode of treatment of very old indurated sinuses of the thigh, running deep, and not connected with bone? They are in the upper half, and have been thoroughly scraped out under ether, and the usual stimulant lotions, etc., applied for over two months.

C. E. S. F. asks to be recommended a home for a deaf and dumb boy, aged 8, son of a mason, who could only make a small weekly payment.

*** The father should apply to the school authorities of his district, who are bound to supply suitable education for his son, and ought to make such arrangements for boarding him as may be necessary.

W. C. R. asks to be recommended the most suitable books for a general practitioner on (1) diseases of the eye, giving a description of the method of testing for glasses; (2) skin diseases (atlas with descriptive text).

*** (1) There are so many standard textbooks on diseases of the eye that it is difficult to select any in particular, but among the more useful for the requirements of a general practitioner we should be inclined to recommend Swanzy's *Handbook*, in which will be found a very complete treatise on Eye Diseases, without being wearisome by containing too much detail; Lang's book on *The Methodical Examination of the Eye* gives an excellent account of retinoscopy and the tests used in refraction. (2) *Diseases of the Skin, their Description, Pathology, Diagnosis, and Treatment, with special reference to the Skin Eruptions of Children*, by H. Radcliffe Crocker (London: Lewis, 1893, with 92 illustrations, 21s.) is recommended; the same author's *Atlas*, with text, is very good, but it is expensive (Edinburgh: Young Pentland). We may also refer our correspondent to a review of Mracek's *Atlas der Haut-Krankheiten*, published in the Journal of January 28th, 1899, p. 217. A translation is announced by the Rebman Publishing Co. as in preparation.

Results of Operation for Fistula in Ano.

R.A.M.C. asks: (1) Does the sphincter ani ever regain its full tonicity after it has been divided in cases of fistula in ano? (2) In what proportion of cases does permanent weakness of the sphincter remain after it has been divided? (3) Is bicycling in moderation permissible or possible in cases of "blind external fistula"?

ANSWERS.

W. F.—Imbecile children are admitted from any part of the British dominions (as elected cases or on small payment) to the Earlswood Asylum. Further particulars can be obtained from the Secretary, Mr. Howard, 36, King William Street, London Bridge, E.C.

R. S. M. writes: In your Correspondence column of the British Medical Journal of March 25th, M.D. wishes to hear of a small book dealing with the subject of medical partnerships. He will find what he requires in the book recently issued entitled, *Medical Partnerships—Transfers and Assistantships*, by William Barnard, M.A., and G. Bertram Stocker, Manager Director of the Scholastic, Clerical, and Medical Association, published by Stevens and Sons, 119, Chancery Lane, London.

R. H. N.—Calcium carbide is composed of calcium and carbon in the proportion of five parts by weight of calcium to three of carbon, its chemical formula being CaC_2. It may also be called calcium acetylide, for it has the composition of acetylene, in which all the hydrogen has been displaced by an equivalent quantity of the element calcium. Thus it is related to acetylene very much in the same way that calcium sulphate is related to sulphuric acid. Calcium carbide is prepared by heating an intimate mixture of twelve parts of quicklime and seven parts of vegetable charcoal in an electric furnace.

Undergrad.—We are informed that the following books are used extensively by students preparing for the Intermediate Examination for the London M.B.:—Physiology: *Textbook of Physiology*, by Professor Michael Foster (London: Macmillan and Co. 1898. 40s.); *Elements of Histology*, by E. Klein, M.D., F.R.S., and J. S. Edkins, M.A. (London: Cassell and Co. 1889. 12s. 6d.); *Essentials of Histology*, by E. A. Schäfer, F.R.S., Fourth edition (London: Longmans, Green and Co. 1894. 7s. 6d.); *Essentials of Chemical Physiology*, by W. D. Halliburton, F.R.S., Third edition (London: Longmans, Green and Co. 1899. 5s.). Anatomy: Gray's *Anatomy*, by T. P. Pick, Fourteenth edition (London: Longmans, Green and Co. 1897. 36s.), or *Treatise on Human Anatomy*, edited by H. Morris (London: J. and A. Churchill. 36s.). Dissection: *Manual of Practical Anatomy*, by D. J. Cunningham, M.D., Second edition (Edinburgh and London: Young J. Pentland. 1896. 25s.). Organic Chemistry: *Organic Chemistry*, by W. H. Perkin and F. S. Kipping (London: W. and R. Chambers. 1895. 6s. 6d.). Materia Medica: *British Pharmacopœia, 1898* (London: Spottiswoode and Co. 10s. 6d.); *Materia Medica and Therapeutics*, by J. Mitchell Bruce, M.D. (London: Cassell and Co. 1893. 7s. 6d.), or *Materia Medica, Pharmacy, Pharmacology, and Therapeutics* by W. H. White, M.D., Third edition (London: J. and A. Churchill. 1899. 7s 6d.).

A CASE OF TUBERCULOUS MENINGITIS.

R. M. J. writes: As I have recently lost a son from a second attack of tuberculous meningitis, a brief record of the case may be of interest to your readers, and I should also like to elicit their opinion upon the treatment of this most fatal disease. H. M. J., aged 18 on January, 1898, with good family history, commenced to lose flesh at the beginning of that year, and also became somewhat irritable in his temper. No great importance was attached to these symptoms, as they were attributed to two severe attacks of influenza which he had suffered in the previous year, and also to his growing too fast and to the hot weather. No symptoms of tuberculosis showed themselves either in the lungs, bowels, or any other part of the body until the last week in August, when he was seized with the first attack of the disease, which so closely resembled influenza that I believed it to be so until the second attack convinced me of my error. This first attack proved to be a very mild one, the brain symptoms passing off in a few days, but it was followed by great weakness and a persistently high temperature—100 to 101° F.—for three weeks. After this period his temperature became normal, and he became stronger and returned to his office work in the city, at which he remained a month, when he was seized by a second and typical attack of tuberculous meningitis, which proved fatal on the first of this month, being a period of exactly five weeks from its commencement. During the first stage he was extremely sensitive to both light and sound (the ophthalmoscope showing inflammation of both retinæ), and complained of severe headache and backache, stating that he felt his brain was being crushed against the top of his skull. The temperature ranged between 100° and 101.5° F. The above symptoms continued with more or less severity for three weeks, when he suddenly collapsed and became unconscious, and he was not expected to live more than a few hours. He, however, rallied from this condition in about twelve hours, when it was found that he was completely paralysed and almost speechless. He recovered power in the right side, and in a few days it commenced also to return slowly in the left side, but he ultimately succumbed on December 1st, 1898, exactly a fortnight from the day he collapsed and became unconscious. With regard to treatment, the almost constant application of the ice-cap was highly beneficial and I believe the means of prolonging his life, but medicines such as mercury perchloride and potassium iodide appeared only to aggravate the disease and destroy the appetite. As the sudden collapse and paralysis in this case were evidently due not so much to the inflammatory mischief going on in the brain as to the great and injurious pressure to which it was subjected by the effusion of fluid, surely in these days of advanced brain surgery some attempt should be made to relieve this condition by tapping the skull with a very fine boring instrument with a hole through its centre, so as to give the brain a chance of making a better fight against this hopeless disease.

We have seen occasionally remarkable results following the mere opening of the abdominal cavity, including even the cure of tuberculous peritonitis, so it is fair to infer that tapping the skull might be followed by similar benefit apart from the relief derived from the removal of pressure. The day also may probably come when tuberculous meningitis will be successfully treated by the actual injection of a perfected antituberele serum into the cavity of the skull itself, so as to better enable it to cope with bacilli therein contained by coming into direct contact with them.

As the family history is exceptionally good, the only way in which I can account for my son's illness is that he was accustomed to drink unboiled milk when lunching in the city almost daily. Does the tuberculin test aggravate the disease, or is there any other reason why it should not be used to diagnose these suspicious and obscure cases when the only symptom is simply a loss of flesh? Had I been able to detect the invasion of the tubercle bacillus at an early period, I have every reason to believe that his life might have been saved, as I should have instantly withdrawn him from office work in the city and adopted the open-air treatment, or sent him to the Cape.

NOTES, LETTERS, Etc.

ERRATUM.—In the list of officers elected at the annual meeting of the Irish Medical Schools' and Graduates' Association the name of the President-elect should have been Inspector-General W. H. Lloyd, R.N., M.D., and not "White," as printed last week.

ROBERT BURNS AND THE MEDICAL PROFESSION.

HISTORICUS writes: In the review of Dr. Findlay's work it is stated that the poet's friend, Dr. Maxwell, was near enough to the scaffold of Louis XVI "to hear the famous words, *Fils de Saint Louis, montez au ciel!* addressed to the King by the Abbé Edgeworth." This was impossible. As Duruy states in his *History of France*, "the fine speech ascribed to the Abbé Edgeworth was invented on the very day of the execution by Charles His, the journalist. This is shown in *The Diplomatic Memoirs of Lord Holland*, who interrogated the Abbé himself about the subject."

RUPTURE OF THE CORD.

DR. O'CONNOR (Oswestry) reports the following case: In attending a multipara in labour, forceps were applied owing to delay in the second stage. The child was born slightly asphyxiated, but was easily revived. It was then noticed that the cord was divided about 1 inch from the umbilicus; there was no hæmorrhage from the fœtal end.

*** There can be little doubt that this was a case of rupture of the cord during delivery. The accident is generally due to shortness, either absolute or relative, of the cord, which gives way under the tension exerted upon it as the body of the child is delivered. There is usually no bleeding in these cases, owing, probably, to retraction of the elastic and muscular coats of the umbilical vessels.

COINCIDENCES IN MIDWIFERY PRACTICE.

DR. B. BROOKS POPHAM (Camden Road, N.W.) writes: In the BRITISH MEDICAL JOURNAL of March 11th Dr. Purdy relates his attendance on two cases of labour, resulting in each instance in the birth of a child with spina bifida. This reminds me of a somewhat similar coincidence in my own practice a few years ago, namely, the consecutive births of two anencephalic fœtuses, and although I cannot claim that the labours were on the same day, they were, however, within a very limited period of each other. On reference to my casebook I find the first fœtus presented very much the appearance of one of the "Hindu gods" rather than the toad-like look usual in these cases, the head sunk between the shoulders and extended, the eyes prominent and looking upwards, the ears large and standing out almost at a right angle to the side of the head. Both specimens had a form of talipes, and on dissection the absent cranial bones were found to be those developed from membrane, whilst those from cartilage were present in each instance. I should be pleased to know the frequency of this variety of fœtal monstrosity.

HEAT AND LIGHT.

DR. W. S. HEDLEY (Mansfield Street, W.) writes: Several communications have lately appeared in the BRITISH MEDICAL JOURNAL bearing on the curative uses of heat and light. Having for some years past systematically employed both of these agents, I venture to advert to some points upon which my views become more definite as my experience increases. I think: (1) For the efficient application of heat it is necessary to have an apparatus (adaptable to the whole body or to any part of it) which will furnish an easily regulated temperature up to 350° F.; (2) ordinarily the more generalised the application of the heat the more effective the treatment; (3) the source of the heat ought to be a luminous one; it is long since Tyndall proved that as the light rays are added the heat rays become more intense; (4) it is probable that light absorbed by the body is partly transformed into heat—that is, the shorter wave lengths of light become "degraded" into the longer wave lengths of heat; (5) it is certain that light (independently of heat) localised on a part will often relieve pain, and generalised over the body will improve nutrition. But for these purposes it does not enter into my mind to rely on the incandescent lamp. I find that a suitable arrangement of two or more powerful arc lamps is necessary to secure the result.

LETTERS, COMMUNICATIONS, ETC., have been received from:
A Dr. D. Arthur, London. **B** Dr. F. T. Bond, Gloucester; T. H. Butler, M.B., Port Elizabeth, S.A.; Mr. J. W. Blandford, Stockton-on-Tees; Dr. T. W. Blake, Bournemouth; Messrs. Burroughs, Wellcome, and Co., London; Dr. H. A. Ballance, Norwich; Mr. W. M. Beaumont, Bath. **C** Dr. J. M. Clarke, Clifton; Miss A. Church, M.D., Calcutta; W. W. Cheyne, M.B., London; C. E. S. F.; C. F. W.; Mr. A. G. Cribb, Orange, N.S.W.; Mr. S. Chamberlain, London; Mr. W. G. Cook, Glasgow. **D** H. H. C. Dent, M.B., Birmingham; Messrs. Davy, Hindson, Yates, and Hicks, London; D. S. Davies, M.B., Bristol. **E** C. N. Elliott, M.B., Oundle; Ex-Club Surgeon. **F** Mr. W. T. Freeman, Reading; Mr. C. E. S. Flemming, Freshford; Dr. P. J. Freyer, London; Free Passage for Wives; Colonel A. Ford, London. **G** T. E. Gordon, M.B., Dublin; Dr. A. E. Giles, London; Mr. W. L. Goodridge, Windsor; G. B. R.; J. A. Graham, M.B., Paisley. **H** Dr. J. P. Henry, London; Dr. W. Hind, Stoke-on-Trent; Mr. J. A. Hedges, Leighton-Buzzard; Mr. L. H. D. Hale, Southsea; Dr. V. Harley, London; W. Hardman, M.B., Blackpool; F. D. Harris, M.B., St. Helens. **I** Inquirer. **J** Mr. F. Jenner, Boscombe; Dr. E. Jepson, Durham; J. C. C.; R. Johnson, M.B., London; Mr. H. J. Johnson, London; Dr. E. L. Jones, Cambridge. **L** Mr. J. A. Lorimer, Farnham; Dr. R. Livi, Rome; T. H. Littlejohn, M.B., Scarborough; Dr. A. W. W. Lea, Manchester. **M** Mr. J. H. Montague, London; Mr. K. B Murray, London; Messrs. Maw, Son, and Thompson, London; M. C. T.; Dr. J. Matthews, Blundellsands; Medical Publishing Company, London; Member B. M. A.; Mr. R. Macartney, Cinderford; Dr. G. H. Mackenzie, Edinburgh. **N** Nottingham Medico-Chirurgical Society, Secretary of, Nottingham; N. M. T.; F. A. Nyulasy, M.B., Melbourne; Mr. G. W. Niven, Greenock; J. H. Nicoll, M.B., Glasgow. **P** Mr. E. Pocklington, London; R. G. Patteson, M.B., Dublin. **Q** Q. M. **R** Rusticus; Royal National Pension Fund for Nurses, Secretary of, London; H. M. Rigby, M.B., London; R. A. M. C.; W. C. Rigby, M.B., Adlington; R. S. M. **S** Dr. A. W. Stirling, Atlanta, U.S.A.; Dr. R. H. Steen, Chichester; Mr. A. S. Snell, London; R. H. Strong, M.B., Melbourne. **T** Dr. G. Thin, London; E. C. Thompson, M.B., Omagh; Mr. W. T. Thomas, Liverpool; Dr. H. W. M. Tims, London; Mr. E. R. Thomas, Chatham. **W** Messrs. Whittaker and Co., London; W. F.; Messrs. Waltham Bros., London; E. W. White, M.B., Dartford; Dr. J. Woodman, Exeter; Dr. T. A. Wood, Douglas, I. of M.; Mr. R. C. Worsley, Ramsgate; Mr. A. H. Walker, Cranleigh; Mr. H. H. Woods, Barton-on-Sea; Mr. W. R. Williams, Clifton. **Z** Zephyr; etc.

BOOKS, ETC., RECEIVED.

The Rôle of Heredity in Internal Pathology. By Dr. N. Kabanoff. Moscow. 1899.
Practical Sanitation. By G. Reid, M.D., D.P.H. Fifth edition. London: Charles Griffin and Co. 1899. 6s.
Le Rachitisme, sa Pathogénie. Par Dr. A. Delcourt. Brussels: H. Lamertin. 1899.
The Medical Annual and Practitioner's Index. 1899. Bristol: John Wright and Co. 7s. 6d.
Le Pronostic des Tumeurs basé sur la Recherche du Glycogène. Par Dr. A. Brault. Paris: Masson et Cie. 1899. Fr. 1.25.

*** In forwarding books the publishers are requested to state the selling prices.

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REMARKS
ON THE
OPEN-AIR CURE OR HYGIENIC TREATMENT OF CONSUMPTION.

By C. THEODORE WILLIAMS, M.D., F.R.C.P.,
Consulting-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

There is no doubt that the introduction of the so called "open-air" treatment of consumption into English practice has conferred, and probably will confer, great benefits on phthisical patients, and it is not improbable that, in spite of our changeable climate, it will be given a fair trial, especially as English people as a rule have no insuperable objection to fresh air.

For a long series of years it has been advocated by many, including myself,[1] and with certain modifications is capable of being applied to even severe and highly-pyrexial cases. Its general principles are:

1. As much exposure to fresh air as possible.
2. An abundant dietary, limited only by the assimilative powers of the patient.
3. Freedom from all excitement, with repose of mind as well as of body.
4. Exercise regulated to the strength and requirements of the patient.
5. Careful medical supervision of every detail of the invalid's daily life.

A recent winter visit to several of the German sanatoria enabled me to judge of how far these principles are put into practice at the various establishments.

There are two systems in vogue in Germany:

1. The Dettweiler system, a modification of Brehmer's original one carried out at Goerbersdorf, but not insisting on the same amount of exercise, the patients passing most of their day in the well-known *Liegehallen* or shelters, where they are always under the full influence of the air. Falkenstein, Hohenhonnef, Dr. Turban's Sanatorium at Davos, St. Blasien, and others are carried out on these lines. In most of them there is a certain amount of social intercourse, and some attention is paid to the wants of the mind as well as to those of the body.

2. The Nordrach system, or that practised by Dr. Otto Walther at Nordrach, and recently described by Dr. Mander Smyth and others in these pages. It is claimed for Dr. Walther that he follows more in the original steps of Brehmer, and prescribes a large amount of exercise, chiefly walking. He does not approve of *Liegehallen*, which he christens "Quarrelling Halls," and maintains that if the patient is lying down, his or her own bedroom is the best place, and that all possible excitement should be avoided by complete solitude being enforced during the hours passed there.

Exposure to Fresh Air.

In the large sanatoria this is carried out fairly well as far as the *Liegehallen* are concerned, where seven to nine hours daily are spent during the winter, and even more in summer; but the windows of the sitting-rooms and dining-rooms and even of the bedrooms are not always open as professed, partly because of stormy weather and partly from the unconquerable objection of Germans, who form the bulk of the patients, to fresh air in rooms, however well they endure it in the *Liegehalle*.

Of the *Liegehallen*, some of the best arranged are at Hohenhonnef, being roomy, of good height and depth, and placed for the most part out of all chance of draught or exposure to wind. There are different kinds for winter and summer, according to the amount of sunshine or shade required, and the extensive and beautiful grounds of Dr. Meissen's establishment lend themselves to good sites for these shelters on the wooded hills or in secluded dales.

The rotatory shelters of Falkenstein are very convenient, as always securing protection whichever way the wind blows. English patients take readily to these shelters, and are to be seen at Bournemouth lying out in all kinds of weather by day, and in some cases sleeping also out of doors, in preference to inside houses.

It is sometimes urged that climate is of secondary importance in the treatment of consumption, and that, provided the proper principles of open-air treatment are carried out, any climate, and especially our own, will answer all purposes. But this is not so, for surely the great objects of the open-air treatment—namely, exposure of the patient to light and sunshine—can be best enforced where these elements abound, and not in a region where for months they are scarce.

It must be quite obvious to everybody that the climate, for instance, of Egypt offers more advantages for open-air life that that of Great Britain. If there is anything in Drs. Ransome and Delépine's researches on the influence of sunlight and air on the tubercle bacillus, it is to the effect that sunny climates are inimical to the parasite. It is generally found that the completeness with which medical directions are executed depends on the facility and ease of their execution, and it is far more probable that complete exposure to the atmosphere will be effected more cheerfully where nothing but pleasure and comfort is derived from it than where it is only carried out with the aid of persevering effort, but with more or less discomfort.

For years I have had this system carried out on the Riviera with great benefit, and in mountain stations it augments the great good to be reaped from the altitude. Nevertheless, it is a great blessing that the open-air treatment can be practised efficiently in this country also, as its advantages can be gained by all classes of the community, from the highest to the lowest.

An Abundant Dietary.

There is very little doubt that large—and in many cases compulsory or induced—feeding is beneficial, but the question arises whether this would be possible without continued exposure to fresh air, though some physicians maintain that similar feeding can be practised in any hospital ward. Those who have witnessed the heaped-up plates of meat and vegetables disappear, as it were by command, at Nordrach, down the gullets of patients who would hardly be expected to swallow half the amount, and who do not apparently suffer from dyspepsia therefrom, cannot help feeling that the digestive powers of consumptive patients are not so weak after all, and the assimilation of such quantities of food is proved by the enormous gains of weight. At the Brompton Hospital the gain of weight is very large, but gains of 3st. or 4st. are not common. Dr. Walther reports that he has known a gain of 100lbs. in one patient.

The practice as regards meals varies at different sanatoria. Some provide five meals a day, that is to say they supply two intermediate meals, one between breakfast and early dinner, and the other between dinner and supper; but others, like Nordrach, have three meals only, and discourage all intermediate feeding. The food is generally excellent, the meat tender and well cooked, with plenty of vegetables, the bread good, and the milk—of which three to six glasses seem to be taken every day—is supplied from cows kept in the establishment or in well-inspected dairies. The tendency is towards a plainly-cooked English dietary rather than a richly-sauced German one.

Freedom from Excitement and Complete Repose of Mind.

Most of the German sanatoria lay great stress on the importance of this, and forbid the various forms of amusement so common in health stations, especially in those in the High Alps. Naturally in pyrexial cases and in cases of advanced tuberculosis, and where there is great bodily and mental exhaustion, complete repose, and even detention in bed, is desirable. But there is a large class, perhaps the majority of consumptives, who are given to brood over their malady, and to whom distraction in the form of mild excitement and amusement is most beneficial. If their bodily condition allow of it, social intercourse, music, and even games do good by diverting their minds from their own symptoms, and teaching them to take an interest in their surroundings. The only objectionable part is the custom of patients at sanatoria and in hotels of discussing their symptoms; but this ought to be strictly forbidden, and only the doctor and nurse should receive such confidences. The system of solitary confinement

to the bedroom, except at meals and during walks, does not seem to be desirable in any but severe cases, and tends to over-reading and excessive subjective and melancholy reflexion. It seems to me that in winter evenings the interval between dinner, or supper, and bedtime can be profitably spent in listening to music, in playing games, or taking part in conversation on the topics of the day.

Exercise Regulated according to the Patient's Strength.

This, to my mind, was the most important part of Brehmer's original system, and has been on the whole well carried out at the high altitude stations. No sanatorium deserves the name which is not provided with a series of well-graded paths—on the side of a hill is best—with abundant resting places, and the amount of walking taken daily by consumptives ought to be regulated by the medical attendant as definitely as the doses of medicine he prescribes. By degrees even weakly patients gain heart and lung power, and by increasing the use of their muscles are able to walk five and ten miles at a stretch. One of Dr. Walther's patients told me that whereas during a winter at Cannes he never could go beyond the hotel garden, he now walked five, and sometimes ten, miles at Nordrach. We must not forget, however, that the Schatz Alp at Davos has long been a first-rate pulmonary gymnasium for consumptives. The authorities of the German sanatoria do not appear to recognise other forms of outdoor exercise than walking, and herein they commit a grievous error, especially with English patients, for though walking is an admirable exercise it is somewhat fatiguing and monotonous, and it is often advisable in the case of consumptives to bring into action a variety of muscles such as those employed in skating, riding, cycling, and in sundry games such as lawn tennis and golf.

Our Teutonic friends are not so keen after games as we are, and often I have watched them at Davos pursuing their daily grinds in a disconsolate, half-hearted manner, and sometimes gravitating to the *café*, while the British consumptive at St. Moritz and Davos is stretching his legs on the rink or trudging after the ball in golf, or making up a set at lawn tennis. It may be objected that such sports exhaust the phthisical patient, and that there is a risk of hæmorrhage or pyrexia. To which I could reply that they are, of course, only to be allowed by medical order in appropriate cases, and physicians such as Dr. Holland of St. Moritz, Dr. Ruedi of Arosa, and Drs. Huggard and Buol of Davos, are accustomed to fix well-defined limits; but in the large class of early cases, where the lesions are limited and unaccompanied by pyrexia and hæmorrhage, I have witnessed their good results in hundreds of patients, whose muscles have developed, whose thoraces have expanded, and in whom the healthy portions of the lungs have hypertrophied under their judicious use; their burnt-brown complexions presenting a strong contrast to those of some of the patients I saw this winter at the German sanatoria. Therefore while in severe cases open air with recumbent attitude ought to be the rule; where the tuberculous lesions are quiescent, and the constitutional forces are good, exercises of various kinds are highly desirable, and produce a healthy tone of body and mind.

Supervision of every Detail of the Patient's Daily Life.

This is undoubtedly one of the secrets of Dr. Walther's success at Nordrach, for that physician includes in his duties much that here would be relegated to nurses, and his presence at all the meals—at which he helps the patients himself, and insists on their finishing their rations—is certainly conducive to the execution of his orders.

Dr. Walther is a man of great determination, but he is also very painstaking and considerate. While he is firmly convinced of the imperative necessity of a patient's carrying out certain measures, he does his best to adapt these to individual infirmities. The question of the necessity of this frequent supervision in all cases depends on the patient. While to some acute or severe cases it is of great advantage, we must all know plenty of early or even chronic ones to whom visits three times a day from the doctor are quite superfluous, and who, if instructions be clearly given, do not require to be seen as often as once a day.

Some think at the present time that the only satisfactory way to treat consumptives is in a sanatorium or hospital, and that the correct treatment of tuberculosis is incompatible with life in hotels, pensions, or private families. Undoubtedly there are many and great advantages in sanatoria, but I can testify that excellent results can also be attained in hotels and pensions, and in family life. Such success, however, depends largely on the character and perseverance of the medical attendant, and the extent to which his orders are carried out. Anyone who remembers the *régime* of Dr. Ruedi carried out formerly at Davos, and the thorough manner in which every patient was kept in hand, with the universal dread of his displeasure if any order was disobeyed, will see at once the effective treatment of consumption is possible even when the patients are scattered about among hotels and pensions. But the doctor must lay down strict rules, and be stern and uncompromising in enforcing them.



Helbrun Working Class Sanatorium.

A Working-class Sanatorium.

In conclusion, I will say a few words about an admirable sanatorium for consumptives in Westphalia, which, by the advice of Dr. Meisser, I lately visited, and which might well serve as a model for some of the sanatoria about to be built in this country.

It is the Volksheilstaette Helbrun, about five kilometres from Luedensheid, a small town in Westphalia, and is an institution founded for the benefit of the working classes by the neighbouring Commune of Altena (Altena Communalkreis), the money being advanced by one of the large German industrial insurance societies (Alters und Invaliditaets-Versicherung) at 3 per cent., and 1¼ per cent. being set aside as a sinking fund. Dr. Winkhaus, who accompanied us from Luedensheid, told me that the sanatorium was opened last August, and is capable of containing 100 patients, but at present holds about 70, all men. It stands on the southern slope of a wooded hill, well protected from north and east, facing south, with a fine view over the Homer range of hills. To the south the land falls gradually towards a little stream and lakes. The grounds, which are wooded with fir, oak, and beech, extend over 43 hectares, and are laid out in walks for the patients, so that shade is always attainable, and the largest *Liegehalle*, holding 50 couches for patients, is situated in the grounds.

The building itself is of brick, five-storeyed, the basement being devoted to storerooms, baths, and machinery, the first storey to sitting rooms, and the second and third to wards, with attics for servants. The accompanying photograph gives

a general idea of the sanatorium, with the *Liegehallen* and the medical director's house. The spacious dining hall and the kitchens occupy a second building in rear of the first, and connected by a covered bridge. The doctor's house adjoins.

The *Liegehallen* stretch out on either side of the main building, and in these the patients lie for at least seven hours a day, with the feet encased in felt boots, and covered, in cold weather, with as many as six blankets, so that they always keep warm. The building is heated by steam pipes, and ventilation is carried on partly by an extraction system, but chiefly by open windows, which are practically never closed. They open partly by louvres and partly by door casements. The sputum is received into various glass and china spittoons, some placed not on the floor or table, but suspended from the walls at a height (about 4 feet) convenient for expectoration. It is emptied into a special receptacle, which passes directly into the principal sewer.

The drainage, like that of Hohenhonnef, is into a series of siphon cesspools one above the other, and thence into the valley below; and the water supply comes from a stream above the sanatorium, and is excellent.

The wards are 4½ metres in height and with ample cubic and floor space, and they contain from two to six patients each. The internal fittings of the sanatorium are somewhat rough, and there is a lack of the comforts visible at the Brompton Hospital.

The patients are douched every day after breakfast, and other baths and massage are employed. They walk out four times a day in all weathers, commencing with half an hour at a time, and afterwards extending their walks to two hours, but they change their clothes if wet, and the rest of their time is spent, when not at meals, in the *Liegehallen*.

The meals are five in number, at 7.30 A.M., 10, 12.30, 3.30, and 7 P.M., and the dietary, good and varied, embraces meat twice a day, much bread, leguminous food and vegetables, with two litres of milk at least. Some of the patients eat more than 1lb. of meat at a sitting. Large gains of weight are registered, in one case 79lbs.!

Dr. Stauffer, the highly intelligent medical director of the sanatorium, told me that only first stage or tuberculisation cases of one or both lungs are admitted, and that cavity cases are as a rule rejected, and sent back to their own homes, and this must be borne in mind when the statistics come to be published. The patients did not present anything startling in appearance; they seemed fairly well, but there was a great deal of coughing and expectoration. According to Dr. Stauffer the average stay is three months, and the payment per head per day is 3½ marks, which is either paid by the patient himself or by the commune to which he belongs. For the small wards, holding one or two beds each, a higher rate—5 marks—is charged. The hospital, with the land surrounding it, cost about £20,000, a large sum in Germany, but which shows that our neighbours are in earnest in carrying out a good work, though they are rather late in commencing it, for, be it remembered, that in the matter of consumption hospitals, London had four of these institutions thirty years before Berlin had one.

REFERENCE.

[1] *Lancet*, November, 1894; BRITISH MEDICAL JOURNAL, May 21st, 1898.

A "NON-COMBATANT" IN ACTION.—According to the *Boston Medical and Surgical Journal*, Assistant-Surgeon John W. Bransford, of the United States Navy, was advanced three numbers by the last Congress for the heroism displayed by him in the naval battle of Santiago. Surgeon Bransford was attached to the converted yacht *Gloucester*, which destroyed the Spanish torpedo boat destroyers, and having no wounded to demand his care he took charge of one of the rapid-fire guns with marked effect, his conduct eliciting the official praise of his commanding officer. Dr. Bransford had served eighteen years as an assistant-surgeon in the navy, but had afterwards resigned and was in civil practice when the war broke out. He promptly offered his services, and was given a volunteer commission. A Bill to appoint him as assistant-surgeon in the navy and place him on the retired list passed the Senate, but failed to receive action by the House during the more pressing matters which occupied the latter part of its session.

THE ETIOLOGY AND PREVENTION OF TUBERCULOSIS.*

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THE study of a disease known to be bacterial in origin resolves itself into a study of the life-history and habits of its causal agent—a task by no means so easy as at first sight it appears to be, for this study includes many collateral questions; and preventive measures involve, if they are to prove effectual, precautions varying according as the organism is purely parasitic, able to live and flourish only upon the living animal body, or is a facultative saprophyte, alternating its life in the body by one upon dead organic material, thence to be reintroduced to the body for a part cycle of its existence. The normal resistance of the body to this or that infection varies, too, enormously; and the mode of growth of the bacillus in relation to the body determines whether the disease is an acute, highly communicable, but transient attack, as with the specific fevers, or a less acute, less rapidly spread, and more lingering affection, as with tubercle and leprosy. The tendency of tubercle to spore formation also apparently plays no unimportant part in determining its persistence.

Nor must we forget that associated causes, at first sight of secondary consequence, may play an enormously important part in determining the extension of a disease purely bacterial in origin. Overcrowding, deficient ventilation, lack of cleanliness, malnutrition, dampness of site and dwellings, unhygienic conditions of life at home and of work in the workshop; indeed "poverty" in general, as involving these factors in its connotation, assists indirectly, but none the less effectually, in promoting the survival and transmission of the disease, and especially of its pulmonary forms. In this form of disease, too, hereditary malformation of the breathing apparatus, with deficient lung expansion and consequent insufficient air change and oxygenation, promotes and encourages the implantation of disease. Similarly, tissue injury following certain of the specific fevers predisposes strongly to infection with tubercle.

A point not to be disregarded is the susceptibility of the lower animals to any particular form of infection. Thus in dealing with measles, with enteric fever, or with cholera the problem is simplified by the fact that animals are apparently not susceptible, at least under natural conditions, so that our preventive outlook embraces solely the considerations connected with the transmission from man to man; in the case of measles directly through aërial transmission, in the other cases mainly through specifically contaminated water, but still in direct continuation from the first case, usually after a longer or shorter saprophytic existence out of the body in contaminated soil.

In two diseases at least—small-pox and diphtheria—their existence in greatly attenuated form in certain animals, the cow and the horse, has, so far from introducing an element of danger, pointed to quite exceptional means of prophylaxis and of cure; but in certain other diseases—as, for example, plague and tuberculosis—we are confronted with a marked tendency in certain animals to suffer, in common with the human race, from identical epidemic or endemic manifestations of a particular disease.

No more significant index of the increased difficulty of prevention arising from this fact can be imagined than the oft-repeated and constant history of the epidemic invasion of rats which precedes or accompanies, and no doubt precipitates, a general invasion of plague—a relation so constant that the endemic persistence of this disease over certain parts of Asia appears to be causally connected with the geographical distribution of a particular sub-family of rats (the Nesokia).[1]

Now, tuberculosis is not only one of the most widely-spread of human diseases, but there is probably no other disease which affects the domestic animals so widely, and amongst susceptible domestic animals cattle are most prone to the disease, not only the lungs and pleuræ but often the abdo-

* Read at a meeting of the Bath and Bristol Branch of the British Medical Association, January 25th, 1899.

minal organs being peculiarly liable to affection, and the udders participating sooner or later in a marked proportion of cases. The returns from Leipzig in 1895 show that 33.2 per cent. of all cattle over one year old slaughtered were tuberculous, and amongst the cows no less than 43.5 per cent.[2] Pigs also are very commonly affected, and many other animals, but sheep and goats are infrequently attacked.

Here, then, the problem is involved by the necessity not only for consideration of the methods of transmission of the pulmonary forms of tuberculosis, in which personal transmission more or less direct plays the important part, but also of the abdominal forms of the disease, which, there is reason to believe, are very commonly produced, though perhaps not always, by the ingestion of imperfectly-cooked food stuffs derived from infected animals.

Cornet's classical experiments[3] with dust from places inhabited by tuberculous patients, examined by the very delicate test of inoculation into susceptible animals, a far more reliable method owing to the sporulating habit of tubercle than a mere examination for the bacillus, demonstrated that while the exaggerated idea of infection universally present in the streets and houses of cities must be negatived, yet that a very large number of places where phthisical patients live and congregate do contain material in the form of dust capable of communicating tubercle by infection. In effect, then, while the danger of contracting tubercle in streets or ordinary rooms is remote, there is a real and positive danger in regard to the actual habitations of phthisical patients. This method of transmission by dried tuberculous sputum distributed in spore form by dust may not be the only way, but it is becoming more and more certainly recognised as one of the most important methods of infection.

Payne asks us,[4] in considering the tubercle bacillus as a parasite, to regard it as adopting what we may term a selective method of continuing its species in accordance with the general laws of parasitism, establishing itself in a particular part of the body specially suitable to its growth, and discharging thence its offspring in millions in the lung excretions (20 millions in twenty-four hours according to Bollinger), a chain of processes admirably calculated to facilitate the passage of the species from one host to another. "It is self-evident that these processes are not intentional in any sense in which that word can be used, any more than the processes by which the tapeworm's egg upon discharge finds its way into water with which it enters the body of the next host in its cycle of existence; but they may be regarded as the result of an inherited habit by which in its evolution through countless generations this bacillus has been able to assert and establish its continuous existence as a parasitic species. Thus the airborne contagia of small-pox and scarlet fever are determined to surfaces whence they may pass to the air again, the contagia of enteric fever and cholera pass out from the bowels into soil and water, each into the medium best facilitating its continuance as a parasitic species." The negative condition is, he points out, fulfilled by the organism of a true soil disease, such as malaria, which is not known to pass out of the body by any channel, and is, accordingly, not communicable from man to man. Note also the constant determination of the tubercle bacillus to the lung, by whatever channel it gains entrance, excepting, perhaps, tuberculous skin affections, in which frequently, though not always, it remains localised.

It is not necessary to suppose that tubercle has always been a parasite of man. We may indeed imagine a race of nomads, little sheltered, but living in search of food chiefly in the open, to whom tubercle was unknown; until the aggregation into small or large communities, with the inevitable resultant overcrowding in habitations, and the establishment of more sedentary occupations, gave the necessary encouragement to an organism able to live and multiply favourably at the body temperature and in the body tissues, to select an appropriate site for its output, and so in course of time to firmly establish its continuance as a parasite. "The fact of 'overcrowding' is ancient; in cold countries it has always been the custom for men, as well as social animals, to huddle together for the sake of warmth. It is only latter-day ideas which make this a sanitary crime, while ventilation is distinctly a modern virtue."

But, however this may be, consumption of the lungs may be traced with certainty in the writings of every period as far back as the earliest attempts of the ancient world to deal with medicine according to a method, and it has held at all times and among all civilised peoples a foremost place among the national diseases,[5] retaining, however, a distinctive habit of attacking the sedentary, the confined, and the overcrowded, and exempting in great part both animals and men whose life is in the open.

Phthisis is communicable from Person to Person, but apparently not directly so: the Sputum is highly infectious, and possibly the chief means of spread.—Inoculation experiments have abundantly proved that the tuberculous sputum does contain the infectious material of the disease, and that tubercle may with great certainty be communicated by this means. We have seen that the sputum is the chief means by which infection leaves the body, and carelessness may readily cause its distribution about living or work rooms. Is it also the chief means by which pulmonary phthisis is acquired? It is not easy to experimentally produce phthisis by inhalation. Tappeiner, however, succeeded in infecting all his experimental animals shut up in a chamber into which large quantities of tuberculous sputum were discharged in the form of spray, and his servant, a robust man in perfect health, who by way of bravado and in the face of serious warning persisted in entering the inhalation chamber, acquired an acute tuberculosis which proved fatal in fourteen weeks.[6] Though these conditions would not occur in real life, and though the power for contagion of the tubercle bacillus is far less intense, and the human body in general far more resistant to this infection than in the case of the acute specific fevers, such as scarlet fever or small-pox, yet we must remember that the opportunities of infection in tubercle, if less urgent, are far more prolonged; and a patient continues to expectorate over a period of some two to three years a contagion amply virulent, which under conditions of carelessness must continue to be spread about, to dry and diffuse into the air, and to be breathed and rebreathed day after day for many months or years.

The Relation of the Dwelling to the Spread of Tuberculous Disease.—The infection of tuberculous disease is frequently found to attach to houses, and by residence in such houses human beings may become infected. It is an important question how long the infection will persist in its saprophytic form outside the body, and the opinion has been given that usually it would not be long enough to infect a fresh tenant. We must not forget, however, the significant experiments of Delépine,[7] who showed that the tubercle bacillus is capable of growing even on vegetable matter, kept in suitable conditions of moisture and not much exposed to sunlight. He has also watched colonies of this bacillus grow slowly in glycerinated media for months, without loss of virulence, at the temperature of an ordinary room both in winter and summer. These experiments give an added importance to the observed fact that special prevalence of tuberculous disease attaches to particular dwellings, and even to special streets and localities, and give a part answer to the question whether the disease clings to particular houses, or to houses having the same sanitary defects, defects especially of bad ventilation, of overcrowding, whether in house or workshop, defects especially leading to the rebreathing of expired air, or involving the presence of darkness, dampness, and dirt; for in these circumstances not only is the general health apt to deteriorate and predispose to infection, but infection itself, direct or indirect, is apt in all communicable diseases to be intensified, and its conveyance to be much facilitated by overcrowding.

Ransome[8] has drawn attention to many striking instances of whole families living in the same house being carried off in succession by the disease; and the Collective Investigation Record gives examples in which the return home of a previously healthy member of a family after contracting phthisis has been followed, within from two to six years, by the infection and death of the majority of the members of each family. In such instances family predisposition might be alleged as a determining factor. Parallel instances are, however, recorded in which this factor is absent, and the most notable of these is the case of the Catholic Nursing Institutions detailed by Cornet, relating to the history of these orders over a period of twenty-five years, and in regard to thirty-eight convents, and

a yearly average of over 4,000 persons. Amongst these it was found that whereas the death-rate of the general public from tuberculosis is from $\frac{1}{7}$ to $\frac{1}{8}$ of all deaths, in the nursing institutions nearly $\frac{2}{3}$ of the deaths, or 62.8 per cent., are due to tubercle alone. The inmates are composed of persons whose health has to be certified on admission as excellent, yet, after the first year, the number of deaths amongst them rapidly attained a maximum, and continued high for the next few years.

A similar significant history is given by Dr. Kempf, of Louisville, U.S.,[9] of the introduction of phthisis into a convent, with the result that within four months nine sisters, regarded as exceptionally healthy, became consumptive, and four died in the course of the year.

Dr. Niven investigated 3,001 deaths occurring in eleven years at Oldham, and found that in 302 instances 2 or more cases occurred in the same house. Now, on the mathematical chances of a second case in the same house, independently of infection, only 68 houses should have been thus attacked, whereas 274 were actually invaded twice; and whereas only 7.6 houses should have been invaded thrice, 24 were thus affected.

Payne quotes from Engelmann[10] a remarkable instance in which a particular flat in a house remained free for eight years from any tuberculous infection, then followed one year's tenancy by a person already tuberculous. After this, in a period of twelve years, at least 12 cases of tuberculous disease were traced to this source. During this period the house was never vacant, tenant succeeding tenant closely, and during the whole period it was never painted or cleaned.

The facts as to infection of the dwelling are amply corroborated by what has been observed in the case of inoculation experiments on rabbits, which led at one time to the belief that tubercle could be produced in animals by the inoculation of inflammatory non-tuberculous material. Thus Cohnheim succeeded in producing tubercle by this kind of inoculation of rabbits in the Pathological Institute at Berlin; but, on removing to Würzburg, this was no longer possible. The explanation was that the cages for rabbits at Berlin had become permanently infected with tubercle, and to this was due the specific infection of the rabbits.

Amongst the instances of multiple cases occurring in members of the same family, the concurrence of the disease in husband and wife is often observed, but does not appear to require any special theory of direct communication. As we have seen, tubercle may and does spread, when introduced, in associated communities, under circumstances where family predisposition can have no influence, and where the degree of association is general rather than intimate; and the difficulties in the way of admitting direct infection appear to be so great that these instances may also readily fall under those due to house infection.

Hereditary Transmission: Direct Inheritance.—It is evident that if tuberculous disease can be transmitted directly from parent to offspring, as can syphilis, the existence of a large proportion of cases can be readily accounted for, independently of infection. That the bacillus may occasionally be thus transmitted to calves was demonstrated to the recent Royal Commission[11] by Professor Bang, but it is found in a very limited number of cases; and although Hillier[12] and Demme found tubercle in newly-born or very young infants, the observed cases are so rare that we must consider this method of propagation as purely exceptional. An extreme view is that of Baumgarten, which assumes that the bacillus, congenitally transmitted, may remain latent in the human body in an inactive condition until the period of adolescence or later, the inhibitory power of the growing tissues preventing its earlier manifestation. There does not appear to be any valid proof advanced to support this suggestion; and when, in order to explain transmission of tuberculous disease from parent to grandchildren, or amongst collateral relatives whose parents are not tuberculous, we are asked to assume a yet subtler degree of latency, the argument, in the absence of proof, becomes so strained that it cannot in any way claim to displace the acknowledged and sufficient explanation of transmission by contagion.

Meat and Milk: Infection from Food.—The Royal Commission on Tuberculosis,[13] reporting in 1898, make the following comment upon the statistical evidence supplied by Dr. Tatham, Superintendent of Statistics in the General Register Office.

"We note with satisfaction that death from tuberculous disease, in all its forms and at all ages, has steadily fallen from 3,483 per million during 1851-60 to 2,122 during 1891-95—a diminution of 39.1 per cent.; and also that at every age period for which statistics are available there has likewise been a decrease, sometimes of a very substantial character. Further, taking the age period 15 to 45 years as the period of life when meat forms a very prominent article of food..... we find that the diminution of death from tuberculous disease has ranged from 52.8 per cent. at the age period 15 to 20 years, to 30.8 per cent. at the age period 35 to 45 years..... We must recall the fact that during this age period phthisis is the form of registered death which altogether overwhelms all other forms of fatal tuberculous affections."

Phthisis in these returns may be taken to mean pulmonary phthisis, and not that form of the affection due to infection through the digestive tract.

For the age period 0 to 5 years, the reduction in death from tuberculous disease in all forms has corresponded to a reduction of 27.9 per cent., but little more than half that recorded at the age periods 15 to 20 years and 20 to 25 years; and when we come to examine that form of tuberculous disease, namely, tabes mesenterica, which is believed to be mainly due to infection received by the digestive tract, we find that at the age period 0 to 5 years, when milk forms so important an article of diet, the rate of death has shown first increase, then decrease; but this decrease showed for the two periods 1851-60 and 1891-95 a diminution of only 3.0 per cent. Making allowance for errors in diagnosis, the rate of mortality from tabes mesenterica must be taken as more than any other to represent tuberculosis in infancy, and it is notable that this disease has not materially diminished, while pulmonary phthisis has so largely decreased, and over a period of time corresponding with a large increase in the general consumption of milk.

The Commission find that while "any person who takes tuberculous matter into the body as food incurs risk of acquiring tuberculous disease," yet that there has been a tendency in some minds to exaggerate the extent of the risk arising from meat. The effect of ordinary cooking[14] appears to be this, that while it may be quite sufficient to sterilise the surface, and even the substance for a short distance from the surface of a joint, it cannot be relied upon to sterilise tuberculous material included in the centre of rolls of meat, especially when these are more than 3 lbs. or 4 lbs. in weight.

Both Royal Commissions attached far greater weight to the question of the milk supply.[15] The Commission of 1895 declared that there was no doubt that the largest part of the tuberculosis which man obtains through his food is by means of milk containing tuberculous matter, and the later Commission of 1898 agrees that the danger from the ingestion of milk is far greater than that from meat.

"In Great Britain and Ireland meat, as a rule, is cooked before it is eaten to an extent which goes largely to destroy infective matter. Milk, on the other hand, is largely consumed in a raw state, especially by children, and there exists a general distate for cooked milk as a beverage. Among most Continental nations the practice is to some extent the opposite of this, and large quantities of meat, especially in the various forms of sausages, are consumed absolutely raw, while the greater proportion of the milk is cooked before consumption."

The conclusion seems inevitable from the facts presented to the Commission that there is considerable danger to the consumer of meat and milk, and especially in regard to milk. To avoid this danger thorough cooking of all meat consumed, and the boiling of milk, even for one minute, or its "sterilisation" at 80° to 92° C. (176° to 198° F.) for half an hour, are sufficient, and if this could be universally secured it would suffice.[16] But this is attacking the mischief at the wrong end, and the recommendations of the Royal Commission are very pertinently directed to the question of eliminating bovine tuberculosis, and so of preventing all danger of its dissemination by meat or milk. Their recommendations comprise suggestions for securing the general establishment and use of public slaughterhouses, together with full facilities for inspection of all carcasses, the proper qualification of meat inspectors, guidance as to conditions requiring condemnation

and control over foreign dead meat. With regard to milk their recommendations suggest notification of all udder diseases in cows, extension of legal powers with regard to the exclusion of tuberculous cows from a district, and the taking and examination of samples; rigid attention to the proper construction of cowsheds and their sanitary condition; and, most important of all, certain powers of control by a district in which any milk is sold or consumed over its sources of supply in an outside district. With regard to the elimination of bovine tuberculosis, the recommendations urge the general application of the tuberculin test, and the creating of facilities for its application.

The important preventive measures included under these heads are so obviously to be applied only by a local authority under special legislative enactments that I will not take up the time of this meeting in discussing them.

Preventive Measures: Notification.—The public mind seems to be now prepared for definite methods of prevention such as would have been resented a few years ago. It must be remembered that the General Notification Act, dealing with the acute communicable diseases, was not passed until 1889, and even then it raised in many quarters a storm of opposition, as likely to cause friction between the medical attendant, the patient, and the public authority. Now, it is an accepted axiom that these diseases, at any rate, are capable of efficient control only in proportion to the fulness and accuracy of the knowledge afforded by notification as to their distribution, and that friction of any sort need seldom, if ever, arise.

And here arises the further question: Is the notification of tuberculous disease necessary or advisable? Sir Richard Thorne, in his recent "Harben Lectures," has declared that the inclusion of tuberculosis among the notifiable diseases would be impracticable, and would tend to defeat the end in view. His chief point consists in the contrast between the highly communicable specific fevers, rendering the patient physically incapacitated and in need of isolation for a short period only, and the lingering illness of tuberculosis, frequently not incapacitating the patient from his ordinary avocation, not highly communicable, except and almost exclusively by the sputa, to which alone restrictions need be applied, and therefore not calling for any absolute isolation.

Dr. Niven, of Manchester,[17] and others have for some years consistently advocated the notification of phthisis, and the arguments in favour of this have recently been very succinctly summarised by Dr. Wheatley:

"Preventive measures should aim at minimising the danger to the community from the majority of adult consumptives, who not only cannot afford to pay for treatment in sanatoria, but have to continue at work to support themselves and others, and should be allowed to do so without in any way restricting their liberty. The very great danger of spread from person to person cannot properly be grappled with except by notification. The National Association for the Prevention of Consumption has for one of its objects the propagation of knowledge with regard to tuberculosis. Those who have had experience of the distribution of knowledge of this kind know how difficult it is to inculcate it into the minds of those whom it will most benefit. If notification were adopted, the necessary information could be given direct to those most in need of it. It will be found, too, that it is not sufficient to spread knowledge, but it is necessary amongst the more ignorant classes to insist that the principles are acted upon."

Another point is that "Notification, if combined with a careful bacteriological examination of the sputum, which could be arranged for with the Public Health Laboratory, should lead to an earlier diagnosis of the disease, an important matter in regard to the curability of many cases in the early stages. The difficulty in making phthisis notifiable at present is due to the fact that it can only be done by adding it to the list of diseases mentioned in the Infectious Diseases (Notification) Act. This would give to the local authority various powers of enforcing isolation, and of direct interference, which are altogether undesirable."

Indeed, I would prefer to speak rather of "registration" of cases of phthisis than of notification, either voluntarily, so as to secure the co-operation when desired by the medical attendant, rather than the interference of the public authority; or under special legislative powers quite unconnected with those of general notification, and involving only those special measures and precautions necessary in this particular disease—first, in regard to the patient, and, secondly, in regard to the infected habitation, more especially upon removal or death. Legislation will, I should add, be necessary in order that such notification or registration may be paid for.

Sir Richard Thorne, in criticising the New York experiment of notification, prognosticates that the results will be of small value, except as regards the very poor, and chiefly as a source of statistical information. But surely the very poor are especially those to whom helpful, but not aggressive, interference will prove of the most value, and some knowledge of their frequent migrations will be of the utmost service, so that necessary measures of cleansing and disinfection may be secured.

So much in the tendency to spread depends upon the condition of the dwelling that it may be urged that general house-to-house inspection would bring about all necessary improvement. Doubtless much of the observed improvement in the past has been due to the improvement of general sanitary conditions; but while on the one hand it is difficult to promise that, in a city of this size, say, the 60,000 houses shall be adequately inspected once yearly, it is of far greater importance to deal with, at once and effectually, those known to be potential centres of infection.

Sir Richard Thorne has stated his belief that notification would interfere with a man earning his livelihood; but this need not be feared, as the precautionary measures would be chiefly directed to his house and his home life; while any instructions issued for workshops and workplaces should be in the form of general instructions with regard to chronic coughs and expectoration, and would refer to all persons employed rather than to individuals. The Local Government Board appears at present to be unable to dissociate the registration of tuberculous disease from the Notification Act of 1889, with the drastic provisions of the allied Acts as to isolation—provisions which, we are all agreed, are both inapplicable and inadvisable.

A considerable amount of tentative work has already been attempted in dealing with pulmonary phthisis by many health authorities, but has been somewhat barren of result. Now that the question has been raised under happier auspices, and in such manner that the public may take the initiative in protecting itself, rather than be driven to take precautionary measures at the instigation of the medical profession—a distinction of no little practical and political importance—we may hope for better success.

So long ago as 1891, many towns in England, and Bristol among others, issued concise directions, generally based upon those in use in New York, for preventing the spread of consumption, and for some years these were widely circulated. Manchester adopted a system of periodical disinfection of houses voluntarily notified from public institutions, but this gradually fell into desuetude; and I have personally found applications for disinfection very few and far between. France, Belgium, and the United States were well in advance of England in starting practical preventive work; and New York, which also gave us the lead in the application of bacteriological examination to diphtheria, not only adopted voluntary notification of tuberculosis in 1893, but has extended and improved its system during the past year. Brighton has recently started a voluntary notification system, and is able to secure some effectual disinfection.

Personally I feel that a voluntary system of notification or registration of tuberculosis, on a basis involving only assistance rendered by the public authority on application of the medical attendant, would prove essentially beneficial in cases where only occasional or no medical attendance could be secured; especially in watching and preventing danger from the frequent change of residence of phthisical patients. In seaside places and health resorts this question is one which affects everyone who can afford money or time to take a summer holiday.

The recent formation of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, the objects and methods of which are clearly explained in the leaflets issued by the Association, has given considerable

impetus to the consideration of methods for dealing with the spread of these diseases. Some of the objects of the Association are hardly within the sphere of action of this Association as a purely medical body; but it would seem to be most fitting that this Branch of the Association should express its sympathy with, and take an active part in promoting the welfare of the National Association, and in the formation of a local branch. The details of action to be taken by the Branch, either independently as medical practitioners, or with the co-operation of the public health authority, and the best methods of furthering the objects of the National Association, will require such detailed consideration that it will, I think, be necessary to depute their consideration to a special committee.

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HYSTERECTOMY AS A CONSERVATIVE OPERATION.

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The title of this paper is sufficient to excite anxiety in the minds of physicians practising midwifery. There need be no alarm; its object is not to advocate hysterectomy, but to demonstrate the effect which a reliable observation often exercises on the theory and practice of surgery. It is very remarkable that the health of a woman during the sexual period of life suffers less from the loss of her uterus (when it becomes necessary to carry out such a dreadful measure) than after the complete removal of the ovaries. This fact is producing extraordinary modifications in the treatment of diseases of the uterus, Fallopian tubes, and ovaries.

The Uterus a Hollow Muscle.

The uterus is structurally a muscle of the unstriped variety, containing, as is usual with this kind of muscle, a central space lined with mucous membrane; in this instance, it has peculiar characters, and is known as the endometrium. The hollow muscles are distinguished from the solid voluntary species by the fact that they act independently of the will, and undergo more or less rhythmic changes commonly known as dilatation and contraction, but in physiologic terms are expressed as diastole and systole. These movements are concurrent with the presence of fluids or solids within the cavities of these muscles. Thus in the œsophagus it is food or drink; in the heart and spleen, blood; in the ureter or bladder, urine, and so on. The duration of the cycle differs in all; in the heart the beat happens many times (70) each minute; in the ureter a few (5) times to the minute, whereas the bladder requires three or more hours; in the rectum as a rule the cycle lasts a day, whilst in the uterus it occupies three-fourths of a year with a long interval for rest.

In nearly all cases the contraction (systole) may be abnormally excited, and when accentuated produces pain of a peculiar character called colic. In the case of the heart, such intensification of the systole usually terminates in death. The uterus is singular among hollow muscles not only in the excessive length of its cycle or beat, but also in the fact that its epithelium is shed with great regularity once a month (menstruation) save when it is occupied by its long dyastole, that is during pregnancy.

The Uterus the Organ of Menstruation.

We have positive knowledge that the menstrual organ is the endometrium, and that menstruation is governed in some obscure way by the ovary. The total weight of two healthy ovaries is about 12 grams, but so completely is menstruation under the domination of this tissue that a piece of ovary weighing 1 gram will, if it contain ovarian follicles and ova, maintain menstruation regularly.

The ovarian influence is not confined to the control of menstruation, but has some effect on what is known as the vasomotor functions. Certainly when the ovarian control is suddenly removed during the sexual period of life, those singular disturbances, "the flushes," annoy the patient. That this flushing is not due simply to arrest of menstruation is absolutely demonstrated by the fact that complete extirpation of the uterus arrests menstruation as thoroughly as complete removal of both ovaries, yet "conservative" hysterectomy—that is, removal of the uterus with preservation of at least one ovary—is not, so far as my observations go, followed by this disagreeable vasomotor disturbance.

It is of great importance to realise that, in order to abolish the ovarian influence over menstruation, complete removal of the ovaries is imperative. Any casual observer studying the periodical medical literature of the last ten years would imagine that quite a crowd of cases could be assembled to prove that menstruation continued after double oöphorectomy. A critical examination decides that they cannot be accepted as evidence. In the first place, the reporters offer no indication that they satisfied themselves that the patients really menstruated. In 1891 I performed double oöphorectomy in a woman aged 31, for what proved to be a gravid Fallopian tube. Six months later she assured me that she regularly menstruated. After I carefully re-examined the ovaries and satisfied myself they were completely removed, I readmitted her into the hospital. She had some internal piles, which occasionally bled; these I removed, and five years later the patient reported that she had not menstruated since.

A close examination and analysis of clinical reports also shows that continued menstruation after oöphorectomy occurs under two distinct conditions: (1) where oöphorectomy has been performed for inflammatory lesions of the tubes and ovaries; (2) where the operation has been carried out to anticipate the menopause in patients with uterine myomata.

It is instructive to find that where double ovariotomy has been performed for ovarian tumours above the size of a turkey's egg, and where the mesometrium has been well stretched, complete removal is certain. In this class post-operative amenorrhœa is complete, whereas in individuals with big, swollen, adherent uterine appendages, it is by no means easy to be quite sure that fragments of ovary are not overlooked.

A case which well illustrates this occurred in a single woman, 25 years of age, who submitted to oöphorectomy by a surgeon in 1894. During convalescence she was annoyed to find menstruation still regular, profuse, and painful. She applied to me for relief, but I refused to interfere; at last her importunity was such that I admitted her into the hospital, and satisfied myself that she really menstruated, then after consultation with my colleagues I operated upon her, and found the stump of one of the ovarian pedicles surmounted by a rounded body full of small cysts, and presenting a well-formed corpus luteum and a ligature (Fig. 1).



Fig. 1.—Stump of Fallopian tube and fragment of ovary with corpus luteum, left after a supposed complete double oöphorectomy.

A study of such cases makes it clear that gynæcologists have often been more conservative in regard to the ovaries than they imagined. Persistent menstruation after attempted double oöphorectomy is rarely of serious importance when it is carried out for the relief of chronic infective lesions; but even in these conditions I have on a few occasions been obliged subsequently to remove the uterus. When oöphorectomy is performed with the intention of producing amenorrhœa in women with uterine myomata, persistence of the periodic bleeding makes the proceeding abortive. Persistent monthly bleeding after oöphorectomy for uterine myoma is often due to incomplete removal of the ovaries. These glands are sometimes sessile on the tumour, or they may be so elongated as to resemble cords, and it is then by no means easy to distinguish between the true tissue of the ovary and its ligament. Inability to completely remove both ovaries in many examples of uterine myomata is recognised by all surgeons with experience of this operation. A more frequent cause of recurrent bleeding in these cases is due to a submucous myoma. Many records have been published in which, after complete double oöphorectomy for very large uterine myomata, great and dangerous losses of blood have continued. The uterine cavity has been artificially dilated and a submucous myoma extracted with immediate and permanent arrest of the bleeding. This is so well established that there is no necessity to adduce cases as testimony to its truth.

It is an axiom in experimental physiology that if a function persists after extirpation of an organ, it is certain that the function is independent of that particular organ. Menstruation is uninfluenced by complete removal of both Fallopian tubes. Of this I have satisfied myself on five occasions, and it persists after removal of the neck of the uterus.

When a function is abolished by extirpation of a particular organ, it is by no means certain that the function is governed by the organ extirpated. Thus the surest method of completely arresting menstruation is to thoroughly extirpate the body and fundus of the uterus, yet we know definitely that the controlling organ is the ovary. The channel by which the ovary influences menstruation is by no means obvious. Thus on three occasions in which I have found it necessary to remove a very large myoma of the fundus uteri, a portion of the uterine cavity has been left in the stump; one ovary has also been retained. Thus the fragments of the genital organs left consisted of a portion of the uterine cavity adjacent to the cervix and one ovary. The tissue connection between the uterine stump and the ovary have been completely divided, yet the patients have menstruated regularly, but not profusely.

Conservative Hysterectomy in Hæmatometra.

When it is necessary to abolish menstruation the most certain way of affecting it is to extirpate the uterus. The occasional necessity of such a severe proceeding occurs in the condition of hæmatometra due to congenital atresia of some part of the cervical canal. This defect causes no inconvenience until the advent of puberty, then cryptomenorrhœa results, and the retained blood leads to great distension of the uterus. This is treated usually by incision through the vagina and evacuation of the retained and altered blood; such proceedings have in the past been followed by unsatisfactory results. In many instances death has been caused by sepsis; in the majority of those that recovered convalescence has been slow, and a fair proportion of patients have been obliged to report themselves periodically, in order that the patency of the artificial aperture may be maintained. Even then the condition becomes so uncomfortable that double oöphorectomy has been carried out to meet the difficulty. This answered for a time, but eventually supravaginal hysterectomy became a necessity (Fenton).

In 1898 a woman, 38 years of age, came under my care with a pelvic swelling, which furnished the clinical signs of a uterine tumour; she had never menstruated, but periodically suffered great pain in the pelvis, and was often kept in bed with frequently-recurring attacks of peritonitis. The history and signs indicated that the swelling was a hæmatometra with atresia near the middle of the cervical canal. The patient wished to marry, but was very desirous to be made well. After a very deliberate consultation I decided to remove the uterus. This was carried out, and at the operation the intestines, omentum, uterus, and tubes were found to be blended by adhesions, the distended blood-containing tubes and uterus, with the upper half of its cervix and left ovary, were removed through an abdominal incision, and the patient made an excellent recovery. On examining the uterus, the cervical canal was completely obliterated for the space of 1 cm.

There is no good reason for preserving the uterus in such a case, because there is no instance on record in which a woman unfortunate enough to have hæmatometra due to atresia of her cervix, and having run the gauntlet of casualties attendant on surgical attempts to establish and maintain a free escape for the menstrual fluid, has ever successfully conceived. Such a uterus is not only useless for procreation, but it is a source of anxiety, much suffering, and grave danger. Its extirpation at the outset is a conservative act.

The great success of this case induced me to repeat it in a woman, aged 22, who had severe and increasing dysmenorrhœa associated with a malformation in the upper segment of the vagina. The vagina ended in a pouch 3 cm. deep, and in its summit there was a narrow circular aperture which would admit a slender probe; from this opening mucus oozed. Rectal examination revealed a body of the size and shape of the uterus. The great pain the woman suffered and the interference repeated periodical rests entailed in regard to her work, induced her doctor to ask me to remove the uterus. After very careful consideration I removed the uterus by cœliotomy, and preserved the ovaries. The cervix and upper parts of the vagina formed a common reservoir containing blood-stained tenacious mucus. Recovery was uneventful; and it will be with deep interest that the future course of the case will be watched. Here one operation has restored the girl to health, whereas repeated minor gynæcological meddling would have done her no bodily good, but would have had a depressing moral effect.

Fibrosis of the Uterus.

The uterus, apart from its liability to myomata, sarcomata, carcinomata, and infective granulomata, like other hollow muscles, is prone to certain derangements in consequence of its peculiar function of housing the embryo, and the extraordinary changes dependent on menstruation; moreover the last-mentioned phenomenon may be, and often is, largely influenced by abnormal condition of the uterus.

Among these there is one to which sufficient attention has not been given; its leading features are these: The subjects are usually mothers between 35 and 45 years, complaining of menorrhagia, which in some cases lasts from fourteen to eighteen days, and at times is so profuse as to nearly bleed them to death. When the uterine canal is dilated artificially the cervix tears rather than stretches, and the endometrium is quite smooth, but the walls of the uterus are hard and resisting, and the curette makes a harsh grating sound in passing over it.

Curetting arrests the bleeding for a few months. In the first case of this kind which seriously attracted my attention, the patient had been curetted by obstetric physicians seven times. After very careful consideration, I proposed removal of the uterus, but at a consultation with very competent advisers, complete oöphorectomy was recommended and carried out. The menorrhagia continued unabated, and two years later it became absolutely necessary to perform vaginal hysterectomy. Convalescence was slow, but in the end a complete return to permanent good health and vigour was the consequence. Two other examples have come under my care in which long-continued drug treatment, varied with annual and bi-annual curettings, had failed in the hands of physicians; in each I removed the uterus by the vaginal route with success and permanent good consequences.

In these three cases the uterus was larger than normal, with thick tough walls; on section the arteries stand out, prominently exposing their thickened coats; microscopically it is seen that the muscle tissue is replaced by an abnormal growth of fibrous tissue. Judging from the history of these cases, I take the view that these fibrotic changes are secondary to infective chronic metritis, and are analogous to that curious fibroid change (syphilitic) which occurs in the muscle

tissue of the heart, and which entails consequences so serious as sudden death.

Conservative Hysterectomy and Uterine Myomata.

The history of attempts to relieve women of troublesome and dangerous myomata has an interest even surpassing that of ovariotomy: indeed the removal of a myomatous uterus ranks in some circumstances among the greatest enterprises of modern surgery.

A review of the records of such efforts is sufficient to show that with the crude and clumsy instruments and the dirty methods which surrounded surgical operations in preanæsthetic and preantiseptic periods, it was often necessary to attempt the removal of "fibroids," as they were then called, from the womb, notwithstanding the appalling consequences which such interference frequently entailed.

The page in the history of surgery which displays the results of vaginal enucleation of "fibroids" is dark indeed. The introduction of anæsthetics mended matters in so far as the patients were spared operation agony, but the results were almost as dismal. When the value of antisepsis and asepsis was recognised the improvement was wonderful, and the extraction of myomata stalked and sessile became very successful; and now that rapid dilatation with aseptic metal dilators has superseded the dangerous sponge tents, it has come about that the removal of submucous myomata with a diameter not exceeding 5 to 6 cm. is one of the safest and commonest operations performed on the uterus. When myomata greatly exceed these dimensions, though they are often sources of great danger, they do not admit of summary treatment by the vagina, and with the hope of dealing successfully with such tumours much ingenuity has been exercised in prescribing drugs, rest, warm spring, mud baths, and the employment of faith and electricity, sometimes separately, occasionally combined.

The success which followed the intraperitoneal (ligature) method of treating the pedicle of ovarian tumours had very woeful consequences when applied to the uterus; three methods of operating were the outcome of this sad failure: (1) Abdominal enucleation, (2) the clamp, *serre-nœud*, and elastic ligature; (3) oöphorectomy with the hope of anticipating the menopause.

The *serre-nœud* and oöphorectomy have, in the absence of better methods, been extensively and often satisfactorily employed. *Serre-nœud* and clamp, on account of their inconvenience and clumsiness, but more especially from their inapplicability in those cases where hysterectomy is most necessary, have been abandoned by the best and most experienced operators in favour of the intraperitoneal method, in which, as Baer satisfactorily demonstrated, it is not necessary to ligature the tissues of the neck of the uterus, but simply to secure the ovarian and the uterine vessels. This simple fact has revolutionised hysterectomy, and reduced the operation mortality to an incredulous point. In my own practice I soon found that I could perform hysterectomy with almost as few risks as attend ovariotomy, and as I had long been dissatisfied with the remote results of oöphorectomy, I was delighted to find infinitely greater good follow hysterectomy than oöphorectomy in the treatment of those uterine myomata which demanded surgery, therefore I began to abandon the removal of ovaries in these cases, and the reasons are fully set forth in my small monograph on *The Treatment of Uterine Myomata*, published just a year ago.

This is by no means all. Some years ago I began to appreciate the fact that ovaries exercised other functions than supplying eggs, and I began deliberately in selected cases to reverse the method, and removed the myomatous uterus instead of the ovaries.

I am well aware that many operators have removed the uterus and left the ovaries many times from operative convenience, but in my series of cases communicated to the Obstetrical Society, London, November, 1897, the method was deliberately carried out whenever practicable on purely conservative grounds, and with the object of abolishing oöphorectomy in the treatment of myomata, and clearly in the view that the loss of the uterus is less material to a woman's well-being than the sacrifice of her ovaries, and it matters not whether the uterus be removed through the vagina or by cœliotomy. The results of this method are good, and it is being rapidly adopted.

It appears to many, and it certainly appears to me, that the ideal method of treating myomata is enucleation with preservation, not only of the ovaries, but also of the uterus. This is worth consideration, and favourable as I am to enucleation whenever it can be safely carried out, I must point out that preservation of the uterus cannot always be regarded with favour.

The operative disadvantages of abdominal enucleation of myomata compared with hysterectomy are many. It is usually a long operation, and is accompanied by greater loss of blood, and entails a deeper degree and a longer duration of shock. When the edges of the capsule are carefully sutured and the wound closed, the risk to life from immediate bleeding is very great, and this fact alone has brought enucleation into disfavour. Although I have performed the operation many times without a death, yet the risks of enucleation are so much greater than hysterectomy that I reserve the method for exceptional cases.

In the method whereby the edges of the capsule are secured to the parietal incision the danger of hæmorrhage is lessened, but the period of convalescence is doubled, and a sinus often persists in the abdominal wall. The mortality of this mode of operating is high.

It is also important to remember that one, two, or many myomata may be successfully enucleated and one or more smaller tumours remain undetected, which may subsequently grow and necessitate hysterectomy. The number of nodules in a uterus is sometimes astonishing; for example, the uterus shown in section in Fig. 2 contained 102 myomata, varying in diameter from 1 to 20 cm.

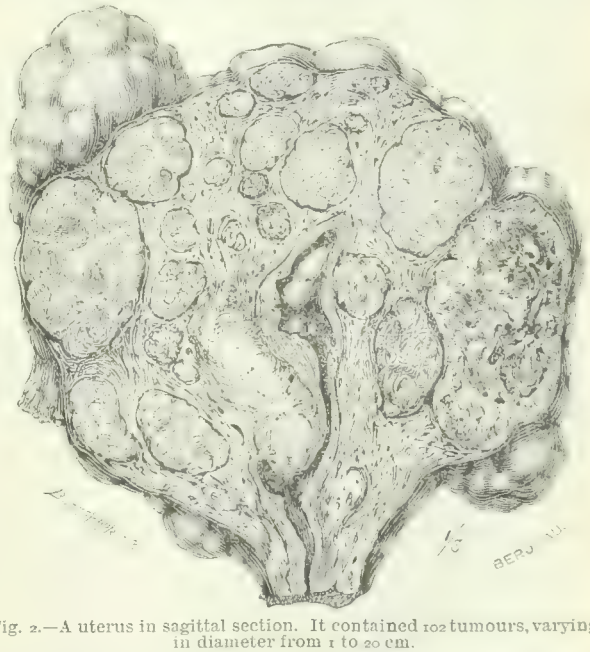


Fig. 2.—A uterus in sagittal section. It contained 102 tumours, varying in diameter from 1 to 20 cm.

The one great advantage claimed for enucleation is that it spares the uterus. Before this is proved to be an advantage we really need some clearly-proved cases in which women who have had submucous myomata enucleated have subsequently conceived. At present I have been unable to find such a record.

Abdominal myomectomy is a very good operation. I have performed it successfully many times without a death. It has on several occasions been performed on the gravid uterus without disturbing pregnancy. I have had the satisfaction of removing such a tumour during the puerperium, and two years later the patient reconceived and became the happy mother of a girl.

Looking at the matter broadly, it is the rule that when the uterus of a parous woman begins to grow myomata she usually

ceases to conceive. It is too true that myomatous uteri do become gravid, but in many cases it places the life of the woman in the gravest peril.

It is clearly established that myomata arise in the uterus during the sexual period of life. The subjoined table of 100 consecutive cases, in which I operated and the nature of the tumours was clearly established, shows the age-distribution:

Under 30	5
30 to 39	42
40 to 49	44
50 to 60	9
Total	100

Of this number, 36 were single women and 64 married; of the latter, 17 were mothers; one of the women had a family of eight children. It is also important to remember that in 96 of the patients menstruation was unabated at the date of operation, indicating that the ovaries were functional and therefore worth preserving.

In all cases in which I have performed conservative hysterectomy, that is, removal of the uterus with preservation of one or both ovaries, these glands are always very carefully examined to ensure that they are, as far as can be determined in the course of the operation, free from disease. Tubal distension is at once a bar to the method. Often an ovary is occupied by a cyst, and not infrequently is converted into a dermoid; this at once determines which ovary should be preserved. All who have performed oöphorectomy know well that one ovary usually has a longer pedicle than its fellow; this allows it to be more easily manipulated, and renders more convenient for removal. Hence, if both ovaries are healthy, and the operation is facilitated by its removal, I do not hesitate to take it away; thus the patient does not incur any additional risks by indiscreet attempts to save both glands.

It is no part of my plan to-night to discuss the treatment of uterine myomata. On this subject the most diverse opinions may be and are entertained, but what I do wish to emphasise is the great importance of bearing in mind when advising operative interference, in those cases which demand the skill and care of the surgeon, the great influence of the ovaries. A woman suffers no remote inconvenience from the loss of her womb, and the principles of conservative surgery are more truly observed by sacrificing it in preference to removing both ovaries.

CONCLUSIONS.

A careful consideration of all the facts makes it clear that the uterus can only be considered as a receptacle or reservoir wherein oösperms may develop. It is secondary, and certainly subservient, to the ovaries. It is not a vital organ, and its removal entails two physiologic sequelæ in women during the sexual period of life, namely, amenorrhœa and sterility.

It is necessary to discuss the uterus in this way because of the notion or superstition that there is something which distinguishes the uterus from other viscera, and that its removal is followed by mental aberration and other serious nervous disturbances. All this is now known to be mythical, but a careful consideration of the physiology of the ovary in the light of increased knowledge, mainly the outcome of surgical enterprise, leads us to a better appreciation of ovarian dominance, and its tyrannical influence over the life and well-being of women.

REMARKS UPON THE OPERATIVE TREATMENT OF DISTENDED SMALL INTESTINE IN ACUTE OBSTRUCTION AND IN ACUTE PERITONITIS,

WITH ILLUSTRATIVE CASES.

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MANY as are the points which have to be considered in the operative treatment of acute intestinal obstruction, those connected with the distended gut are, in importance, secondary only to the removal of the exciting cause. To remove the cause, and yet to neglect the over-distended and loaded intestine, is frequently to lose a life that might have been saved.

What the circumstances are that finally cause paralysis of the bowel, or what the degree of this paralysis beyond which recovery is not possible, one cannot say. A primary factor in the production of bowel distension, not dependent upon peritonitis, is the damming back of the contents. This, however, if an early factor, can hardly be considered the most important, because, sooner or later, relief of the engorgement may be brought about by vomiting.

It is more than likely that muscular exhaustion and fæcal poisoning so derange the function of the intestinal walls that they eventually are unable to resist the distending influences of gas and intestinal secretion. The higher up the bowel the seat of obstruction, the sooner the proximal segment distends and loses its power to recontract. This is what might reasonably be expected, because the efforts on the part of the muscular parietes to overcome the obstruction and drive on the contents are practically continuous, and lose that intermittency and opportunity of rest to some extent afforded when the obstruction is nearer or actually in the large bowel. That there is probably some toxic influence paralysing possibly both the muscle of the bowel wall and its local nerve supply is supported by the unquestionable evidence of general toxæmia met with in some cases. It has occurred in my own practice to lose a patient in whom operation had relieved all obstructive symptoms, and whose general conditions suggested nothing but that of fæcal toxæmia. What the poison produced within the intestinal canal may be is not known, but from the quantity of gas generated in many cases as well as the excessive secretion, it seems in the highest degree probable that certain abnormal fermentative and chemical changes do take place.

It is probable, moreover, that the blood vessels and the elastic tissue in the intestinal walls also suffer. The former dilate and produce the familiar livid appearance of the bowel wall, while the latter loses its power of recoil after it has been stretched beyond a certain limit.

It is evident from these considerations that if any value is to be attached to them, all operative measures for the relief of obstruction involving distension of the small gut must have in view:

1. The prevention of any increase in the distension of the bowel.
2. The removal, as completely as possible, of the intestinal contents.

There is no doubt that the bowel when within the abdomen is to a considerable extent supported by the abdominal parietes, and its distension thereby limited; and that its limits are the sooner reached the lower the seat of the obstruction. For example, if the obstruction be at the cæcal end of the ileum, there is a long extent of the bowel to be dilated and the coils as they distend support each other and limit the dilatation. When, on the other hand, the obstruction is nearest the upper end of the jejunum there is less limiting resistance offered by the lower collapsed coils, and so more room is afforded for the distension of the proximal segment. The marked effect produced by this intra-abdominal pressure I observed in some of my earlier cases, when it was my custom immediately on opening the abdominal cavity to exventrate the distended coils and allow them to lie in a specially shaped hot-water receiver while I sought for the cause of obstruction. I was impressed with the increased size which the exposed and unsupported coils rapidly assumed. The question then arose, in view of the evils connected with additional distension, whether it would not be wiser to reverse the order of procedure and empty the bowels before attempting to find the cause of the obstruction. This course I now always pursue as, I believe, with the best results. After opening the abdominal cavity, the distended coil that presents is at once withdrawn sufficiently to admit of an incision being made in its long axis, so as to allow the contents to escape without risk of contaminating the peritoneal cavity. As they flow out and the bowel wall collapses a greater extent of gut is withdrawn. This part of the operation is taken charge of by assistants, while the operator is left free to seek for the obstruction.

If, as has been stated, there is truth in the assumption that the bowel contains products capable of producing a condition of toxæmia, then we may reasonably suppose that the risks of

general infection are diminished in proportion to the amount of the poison we are able to remove. Acting on this belief, I am now in the habit of squeezing out the contents through the "evacuatory incision." Before or after the relief of the obstruction, as the case may require, the bowel is passed between the finger and thumb, the assistant meanwhile so securing the "evacuatory incision," that when pressure is exercised on the proximal segment the intestinal contents cannot pass on into the distal but must escape through the opening, and *vice versâ* preventing the passage of the contents into the proximal segment when the distal is squeezed. When the bowel is much distended, and especially if there is any very great length involved, this squeezing out of the contents may have to be repeated several times, the bowel being taken up at different points and squeezed onwards or outwards. In such cases it is sometimes advantageous to make more than one "evacuatory incision" in order to lessen the time by shortening the extent of the canal through which its contents have to be squeezed. This stage of the operation is completed by closing the "evacuatory incision" with a continuous Lembert suture, and carefully cleansing the parts before returning the gut into the abdominal cavity.

The amount of handling of the intestines required in order to effect an approximately complete evacuation of their contents is necessarily considerable, but, contrary I believe to what would be expected and is usually supposed, the effect is beneficial rather than otherwise. I have not had a case where, so far as I can judge, it has not been so. If the bowel has not lost all its power of contraction, the squeezing seems to act as a stimulant to the muscular coat, and at the same time the vessels are to some extent relieved of their engorgement. It is a good sign if the bowel wrinkles after being emptied, as it indicates some contractile power on the part of the muscular coat; and it need hardly be pointed out that it is a still better sign if the bowel tends to evacuate its contents after the incision has been made independently of any squeezing.

In cases of peritonitis where the cause of bowel distension is paralysis of the muscular coat from inflammation of its serous covering, much good seems to follow the insertion of a solution of magnesium sulphate through the "evacuatory incision" just prior to its closure. After the contents have been thoroughly squeezed out, about an ounce of sulphate of magnesia in solution is injected through the "evacuatory incision." In cases which recover, this treatment brings about an early and copious evacuation of the bowels.

The following cases are given to illustrate the above remarks:

Case I. *Acute Peritonitis from Perforation of the Appendix: Appendicectomy: Enterotomy: Recovery.*—Mr. B., aged 28, a patient of Dr. Robert Forrest, with whom I saw him in consultation, was recovering from his third attack of appendicitis. There existed some tenderness and fulness about the right iliac fossa, but beyond a slight sense of discomfort in this region, he had no other symptoms of moment although he remained in bed. On the fifth day after I saw him, there was a marked exacerbation of his symptoms, ending in the course of some hours in very evident indications of acute peritonitis. Operation was at once decided upon, and the following method adopted. A curvilinear incision was made in the right inguinal region. The cæcum was found so adherent to the parietes that, on attempting to separate the parts, it was opened and fluid fæces escaped. The opening was clamped with forceps while the operation was proceeded with. There was much matting of the parts about the cæcum, and some purulent fluid escaped from among the coils of intestine. The appendix was sought for and found among much matted tissue, which made its removal difficult. The abdomen was then opened in the middle line, and the intestines rapidly turned out into a hot-water tin. They were all much distended and injected, and coated with plaques of lymph. The upper coils were the most distended, and very livid in appearance. The pelvic and general peritoneal cavity was freely flushed with hot normal saline solution. The lower part of the ileum was then incised, and the contents of the bowel allowed to flow out. Gas and fluid escaped freely at first, but then ceased, so that it was necessary to squeeze out the contents of the distended coils by passing them between the finger and thumb. This was repeated about three times, commencing as high up as possible, and passing the whole way down to the opening. By this means the intestines were reduced to an almost collapsed condition, and after stitching up the opening were easily returned within the abdomen. A few plaques of fibrin were peeled off, but they were mostly too adherent to be detached. The clamped orifice in the cæcum was stitched up, and both abdominal incisions completely closed. The operation lasted about two hours. He made an uninterrupted and complete recovery, and has since become a champion tennis player.

Case II. *Acute Intestinal Obstruction from Kinking of the Ileum due to Adhesions: Enterotomy: Laparotomy: Temporary Recovery.*—D. McG., aged 72 years, was admitted to the Victoria Infirmary on January 6th, 1899. Nine days prior to admission he was seized with cramps in his abdomen, followed three days later by vomiting and hiccough. When seen on admission he complained greatly of pain in the umbilical region, and possessed features peculiarly characteristic of a man suffering from acute abdominal disease. His pulse, however, was in every respect good, and his temperature normal. He had passed neither fæces nor flatus; and while his symptoms were typically those of obstruction, no indication could be got of its probable nature. With the assistance of Drs. Alexander Maclennan, James McHaffie, and John MacDonald, an exploratory incision was made in the right iliac region; distended small intestine presented, and the large bowel was discovered contracted. A median incision was then made, when distended coils of small bowel escaped. The presenting loop was drawn out and incised, when a quantity of fluid material escaped. This incised loop was taken charge of by an assistant, who gradually emptied more coils of the bowel. Meanwhile a search was made for the cause of the obstruction, and a loop of ileum was discovered bent, and closely bound down by dense adhesions to the posterior wall of the bladder. The depth and strength of these adhesions rendered it advisable to make a "lateral approximation" rather than spend time over an attempt to detach the bowel. This was accordingly done, a few inches above the "kink," by the aid of a Murphy button. Attention was now directed to the remainder of the distended gut, much fæcal matter was squeezed out of the "evacuatory incision," but as such a great length of the intestine was involved another "evacuatory incision" was made higher up, and this part of the bowel emptied. After the completion of the operation, which had lasted an hour, the patient's abdomen was thoroughly washed out. He rallied well from the operation. On the evening of the following day a copious water enema was given, which caused a slight evacuation and the escape of flatus. His pulse was excellent and temperature normal; there was no vomiting, but he had occasional hiccough. On the subsequent days the bowels moved freely, and quantities of flatus were passed. His recovery seemed likely, but on the sixth day he began to show signs of failing, and died on the seventh day, apparently from causes dependent on his advanced age.

Case III. *Acute Diffuse Suppurative Peritonitis: Laparotomy: Enterotomy: Recovery* (Abstract of report by Dr. C. Fleming.)—Mrs. M., aged 31 years was admitted to the Victoria Infirmary, on October 5th, 1897. She had given birth to a child six weeks previously, and had not since been free from abdominal discomfort. Twenty-five hours before admission she was seized with abdominal pain, accompanied by vomiting and purging. When first seen, shortly after admission, her face was pinched and anxious-looking, pulse small and rapid—150 per minute—temperature 103° F. The abdominal pain was very severe. The abdomen was distended and tympanitic, and tender on manipulation. The urine contained abundant albumen. Believing the case to be one of perforation, the patient was removed to the theatre, and an exploratory incision made above the umbilicus. On opening the peritoneal cavity turbid fluid immediately escaped containing flakes of lymph. It had no fæcal odour. The incision was now carried downwards about 4 inches, and a large quantity of purulent fluid welled up and out from the pelvic cavity. A search was made for any possible perforation, but none was found. The small intestines were much distended and congested. An "evacuatory incision" was made into a loop, and a quantity of fæcal matter was forcibly and continuously expelled without any digital manipulation. Before closing the "evacuatory incision" one ounce of magnesium sulphate in solution was injected into the bowel. The peritoneal cavity was freely flushed with hot normal saline solution, and after the insertion of a drainage tube into the pelvic cavity, the greater part of the abdominal incision was stitched up. Improvement in her condition was in no sense marked until early in the morning of the second day, when flatus was passed, and the bowels moved naturally. From that period onwards she made an almost uninterrupted recovery.

Case IV. *Acute Intestinal Obstruction from Volvulus (?) of the Small Intestine: Laparotomy: Enterotomy: Recovery.* (Abstract of report taken by Dr. Charles Fleming).—Mrs. B., aged 38 years, was admitted to the Victoria Infirmary, under the care of Mr Maylard, on March 7th, 1898. She was suffering from symptoms of acute intestinal obstruction of two days' duration. Her symptoms commenced with violent pain in the epigastrium and left hypochondrium, accompanied by vomiting. The pain subsided, but vomiting continued. Her bowels had not moved since the onset of her illness. On admission the abdomen was found somewhat distended. Palpation did not cause pain, and revealed nothing. Her pulse was 100, fairly strong, and her temperature 100.4° F. The abdomen was opened by a median incision when some clear serous fluid escaped. The small intestines which presented were distended and injected. The coils were rapidly turned out into a hot tin and search made for the obstructing agent. Nothing, however, was found, and the appearance of the parts suggested the probability that there had been a twist of a long loop of the jejunum on its mesenteric axis. An "evacuating incision" was then made into the lower part of the distended section, and as only a small quantity of gas and fæces escaped, the gut was passed through between the fingers and the thumb, and its contents squeezed out. The orifice was made use of for the injection of about 3 drachms of a watery solution of sulphate of magnesia. As the coils of intestine were returned into the abdominal cavity they were douched with hot normal saline solution. The operation lasted about three-quarters of an hour. The patient rallied well and made a rapid and uninterrupted recovery.

ON THE REMOVAL OF A NÆVOID TUMOUR OF THE INTESTINE.

By JAMES H. NICOLL, M.B.,
Assistant-Surgeon to the Glasgow Western Infirmary; etc.

The following case of acute intestinal obstruction was successfully treated by the removal of a nævoid tumour of the intestine, with a double intussusception, involving over 5 feet of the bowel:

History and Symptoms.—Miss A., aged 23, was seen, in consultation with Drs. MacLennan and Middleton, on the morning of September 28th, 1898. Her symptoms, which had set in suddenly twenty-four hours previously,

were acute abdominal pain, hiccough, eructations, persistent vomiting, and absolute constipation. A fortnight previously she had had a similar but slighter attack, and during the fortnight she had had pain in the epigastrium, coming on shortly after meals, and lasting for about an hour.

Physical Examination.—The patient appeared somewhat exhausted; her pulse was 90, and her temperature 100.6°. The abdomen was distended, the right side and lower part being tympanitic, and the left side dull, resistant, and tender. Dr. Middleton, who made a rectal examination, believed he detected free fluid in the pouch of Douglas.

Operation.—The abdomen having been opened in the middle line a quantity of clear brownish fluid escaped, and the intussusception (shown in the plates) was found. It formed a tense sausage-shaped mass, about 1 foot in length, and of a deep slatey-blue colour. All attempts to reduce it proving futile, I punctured it, and evacuated several drachms of fæculent mucus. Reduction being still impossible, I incised the outer tube, passed two fingers into the interior, and again attempted reduction; and again failed. I then incised the second tube, and from the aperture escaped coils of small intestine. (See Fig. 1.)

Next the entire intussusception was excised, and the divided intestine was united by Czerny-Lembert suture. The abdominal cavity was drained by gauze tampon for forty-eight hours.

After-History.—The patient was fed at first with teaspoonfuls of milk, but after two days the quantity was increased, and farinaceous food gradually added. She made an uninterrupted recovery, and was removed home three weeks after the operation, and is now, after six months, going about in perfect health.

Specimen.—The three accompanying illustrations show the

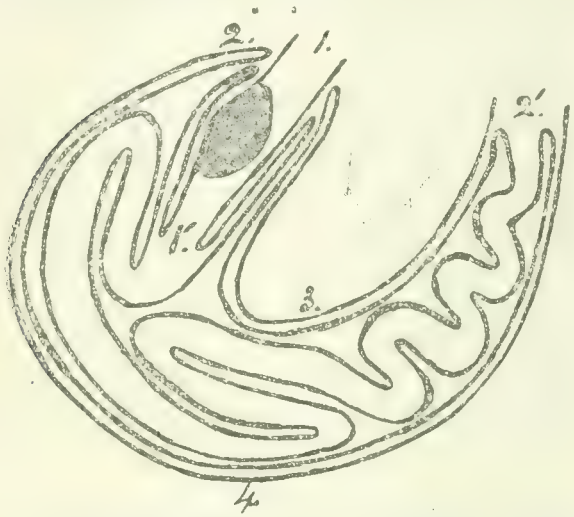


Fig. 1.—Diagrammatic representation of the tumour enclosed in a short intussusception which is in turn engulfed in a second intussusception containing many coils of intestine. 1—1', nævoid tumour enclosed in short intussusception. 2—2' second intussusception containing the first and many coils of intestine. 3, mesenteric border of intestine. 4, free border of intestine.

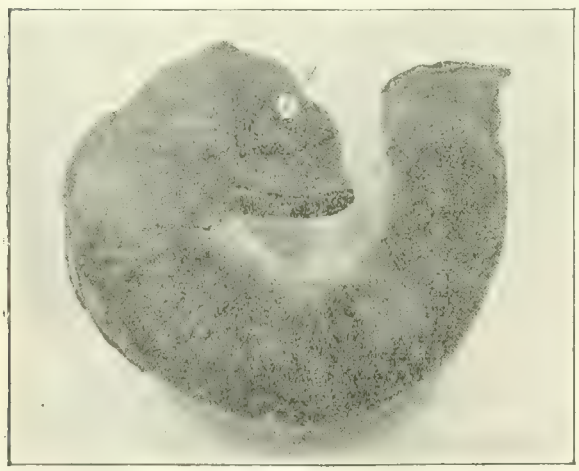


Fig. 2.—External view of intussusception. x, white disc of paper placed on centre of tumour, which has been pulled from its previous site (see Fig. 1) out through the upper end of the sheath.

structures causing the obstruction and removed at the operation.[1]

The tumour (as reported on by Dr. R. M. Buchanan, of the Glasgow and West of Scotland Clinical Research Laboratory) consists of "large thin-walled spaces filled with coagulated blood," and is typically nævoid. It contains two small phleboliths, each of the size of a split pea. Its size is that of a pigeon's egg. One of its surfaces is covered with peritoneum, the other, the internal, with villous mucous membrane. The sheath or external tube of the intussusception measures 16 inches in length. The total length of bowel involved is over 5 feet.

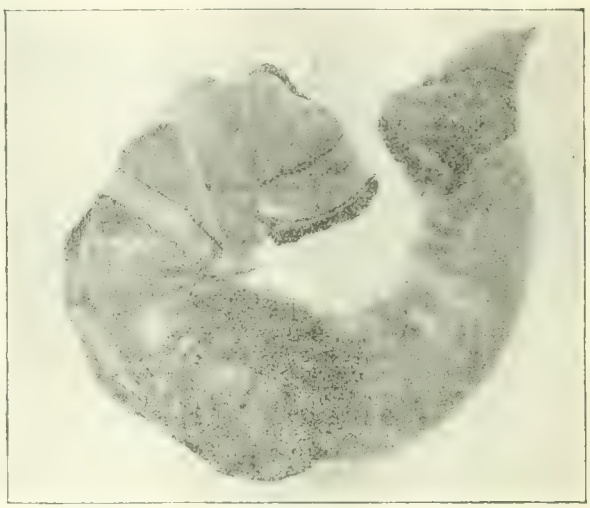


Fig. 3.—Intussusception partially dissected. Protruding through the window which has been cut in the sheath are some of the coils of the redundant intussusceptum (see Fig. 1). x, the nævoid tumour, which has been bisected. The phleboliths are not seen. Figs. 2 and 3 are photographs by Dr. Teacher, of the Hunterian Museum, Glasgow.

REMARKS.

1. It will be evident from the illustrations that the relations of the parts of the specimen cannot be reconciled with the views commonly held as to the production and increase in size of an intussusception, according to which the tumour ought to have occupied the lower end of the intussusception near 2'.

2. The impossibility of reduction was, as the illustrations demonstrate, due to the tumour acting like the cork of a bottle that has been accidentally pushed down through its narrow neck. It was only after the bulk of the tumour had been reduced by the hæmorrhage that it could be pulled out of the neck of the sheath.

3. There was nothing in the appearance of the intussusception to indicate that in the narrow neck of the sheath were crowded the numerous vessels belonging to 5 feet of mesentery; hence the first cut with the scissors in dividing it gave rise to somewhat smart bleeding; and the closely-arranged mesenteric vessels had to be picked up and secured *seriatim*.

4. Escape of the intestinal contents into the peritoneal cavity during the resection was prevented by Drs. Kay and and MacLennan clamping the divided ends between finger and thumb.

While fully admitting the advantage in the gain of speed offered by the Murphy and other buttons, and recognising that in cases severely collapsed or in the hands of an inexperienced operator that advantage must outweigh the obvious disadvantages of the apparatus, I believe that in the majority of cases the slightly longer time necessary to unite the intestinal ends by simple suture will be well spent.

The methods I have made use of are the Czerny-Lembert, largely continuous, and a method which I described to the Glasgow Medico-Chirurgical Society in January, 1896. This method is, I believe peculiarly suited to cases presenting much congestive thickening of the intestinal coats with large

accumulations of intestinal contents above the lesion. A ring of mucous membrane is removed from the distal end, into which the proximal (with or without removal or roughening of its peritoneal coat) is passed, and there secured by suture, either looped or continuous, the whole procedure being accomplished without the aid of any mechanical support.

The principle of the method would seem to be good, for it appears to have suggested itself to at least four independent workers, who have carried it out with variations in details. Robinson of Toledo (by means of a rubber bobbin, experimentally, in the dog), published in the *Annals of Surgery*, 1891; Harris, of Chicago (making temporary use of needles for fixation until the suturing is completed), published in the *Chicago Medical Recorder*, 1892; myself, *Glasgow Medical Journal* and *Transactions of Glasgow Medico-Chirurgical Society*, 1896; and Skelly, of Pekin, U.S.A., *Annals of Surgery*, 1898; Skelly and myself making use of no mechanical aid whatever in addition to the sutures.

In cases other than those I have indicated I believe it is in no sense superior to, and in some respects not so good as, the continuous Czerny-Lembert suture which I employed in the case here detailed.

Note.

[1] The specimens were shown at a meeting of the Glasgow Medico-Chirurgical Society.

A METHOD FOR THE REDUCTION OF DISLOCATIONS OF THE HIP.

By CHARLES A. STURROCK, M.A., M.B., F.R.C.S.Edin.,
Dunfermline.

Having experienced considerable difficulty in reducing the first case of dislocation of the hip-joint with which I had to deal, it occurred to me that reduction might more easily be effected if one could accurately control the movements of the head of the femur, and at the same time employ traction on the femur.

The following method fulfils those conditions, and having proved it successful in two cases, I venture to make a note of it, more especially for the benefit of country practitioners like myself, whose experience of dislocations of the hip must necessarily be limited, and who not infrequently lack any—much less skilled—assistance.

The patient being laid upon his back on the floor, is put under the influence of an anæsthetic. The surgeon, as shown in the illustrations, kneels upon his left knee when



Fig. 1.—Adduction and rotation in.

the left hip is dislocated, and on the left side of the patient. The patient's thigh is then carefully flexed to a right angle, and while this is being done the leg is also flexed to a right angle, and laid with the most prominent part of the calf on the right knee of the surgeon. The ankle is then firmly grasped with the left hand, and the condyles of the femur with the right. The thigh is then abducted for thyroid dislocations, adducted for dorsal and public, and rotated in for all, by drawing the foot away from the middle line and keeping the knee steady. Traction is now made by steadily depressing the ankle, the surgeon using his knee as the fulcrum; the patient's leg makes a most powerful lever, and the pelvis can be easily raised off the ground if necessary, the weight of the body acting as counter-traction; then finally the thigh is rotated out, and while this is being done the head of the femur slips into the acetabulum.



Fig. 2.—Traction.

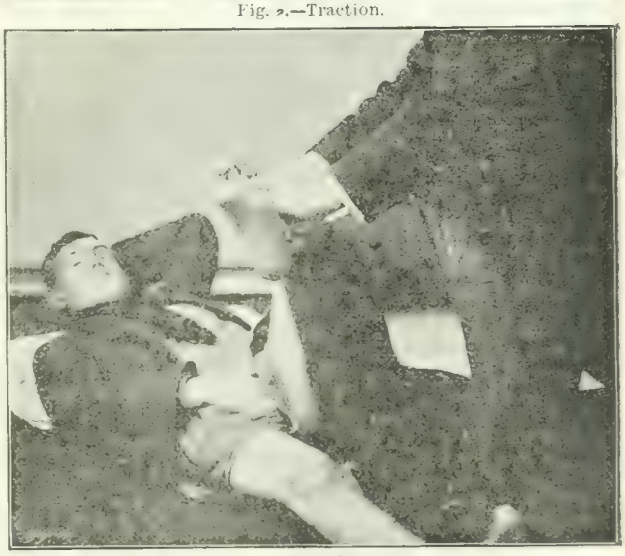


Fig. 3.—Rotation out.

I reduced my first case by this method more than two years ago, the patient being a man aged 62, and the dislocation being a dorsal one. The operation lasted only a few seconds, and the patient regained perfect use of the limb very rapidly.

The second case I reduced some weeks ago at the request of a colleague who had unsuccessfully attempted to reduce the dislocation; the dislocation was a thyroid one when I saw it, and I succeeded in reducing it even more rapidly than my first case.

I have no doubt that those rare dislocations in which the ilio-femoral ligament is ruptured might be reduced by this method, but of these dislocations I have no practical experience.

I do not claim any originality for this method; it is merely the old method slightly altered.

THE MODERN DOCTRINE OF BACTERIOLOGY, OR THE GERM THEORY OF DISEASE.

By GEO. GRANVILLE BANTOCK, M.D., F.R.C.S.E.
Consulting Surgeon, Samaritan Free Hospital.

[The following is an abstract of a paper read before the British Gynæcological Society on March 9th. The discussion which followed the paper was published in the British Medical Journal of March 25th, page 730.]

After a few preliminary remarks, Dr. Bantock said: I am quite aware that my views will probably be regarded by a majority of those present as very heterodox; but that does not deter me from giving expression to them, notwithstanding the belief that they are only too far in advance of those held by my contemporaries for immediate acceptance. Before proceeding further it will be well to define what I understand to be the modern doctrine of bacteriology. It is this, namely, that in the majority of—or, as some extremists would seem to hold, all—acute diseases the condition is due to the influence of a specific so-called pathogenic micro-organism. This is the doctrine that I proceed to combat by propounding the very opposite doctrine—that the presence of these various micro-organisms is the result, and not the cause, of disease; in other words, that the bacilli are found in association with the disease because of the disease, or that the disease furnishes the conditions necessary for the presence of the special micro-organism.

You may have overlooked or forgotten a very important fact told us by Dr. Newman. He told us that in the examination of the vaginal discharge of a healthy woman, obtained for him by one of his colleagues, he found a great variety of organisms, and amongst them the staphylococcus pyogenes and streptococcus pyogenes. In the abstract published in the *Journal* of this Society, he tells us that "more than thirty different species of micro-organism have been isolated from the female genital tract, or from discharges." This is confirmed by numerous observers. Of the most recent publications that I have seen, I refer to that of Dobbin, appearing in the *American Journal of Obstetrics* for August last, and of Dr. Whittridge Williams, who tells us that in the vaginal discharge of pregnant women "pyogenic bacteria were found in the vulvar secretion in nineteen cases (76 per cent.)," and within the vulva in 48 per cent. Among those enumerated by Dobbin we find, in addition to the two just mentioned, the bacillus coli communis, the bacillus of tetanus, Klebs-Loeffler bacillus of diphtheria, and the bacillus typhosus. Dr. Newman adds that "the most frequently present is the staphylococcus pyogenes aureus, which is the commonest of the group of suppurative bacteria." Here we have the doctrine plainly indicated—namely, that the staphylococcus pyogenes and the streptococcus pyogenes are, as the name implies, the cause of suppuration. A strange part of this doctrine is this—namely, that the vagina is said to be the habitat of a bacillus—Döderlein's—which "is inimical to the presence or prolonged existence of so-called pathogenic bacilli"—like the good fairy in the pantomime defeating the machinations of the wicked fairy.

I presume you are all acquainted with the fact that Dr. George Stoker had been treating chronic ulcerative conditions, with the most gratifying results, by means of oxygen gas. Now it happened that in the early days of his work he had under his care a woman who had been bedridden for many years with a large ulcer involving the whole of the instep of each foot. These ulcers were almost precisely alike in form and extent, and it was suggested to him that one should be treated with corrosive sublimate and the other with oxygen gas, for the purpose of comparison. In a very short time it was easy to perceive a difference between these two ulcers; for while in the former the surface was certainly cleaner than at the beginning of the experiment, yet it presented an ashy-grey appearance, and exhibited very little sign of healing, the latter presented a healthy granulating surface with a good margin already healed over. A gentleman from the Clinical Research Association now appeared upon the scene, and took some of the discharge from each with the view of obtaining a culture. This was the astounding result, namely, that the first was—to use the current language—sterile, while the latter (oxygen case) gave a copious crop of bacteria, and what, think you, was the organism which stood out most prominently? It was this very staphylococcus pyogenes, which, with the streptococcus pyogenes, we are told, is the prime cause of suppuration. From that time Dr. Stoker took up the study of bacteriology as applied to this part of the subject, and at the annual meeting of the British Medical Association in this city in 1895 he gave an account of his work. As reported in the Journal, one of the important points to which he called attention was thus expressed: "(3) The bacteriological aspect of one case was surprising, and rather upset one's preconceived ideas." Dr. Stoker found that whenever the healing process appeared to falter, either under a diminished or an insufficient supply of oxygen, this was an indication for an increase, or for inoculation from a more healthy sore; and his observations led him to the conclusion that in proportion as the staphylococci were numerous and well developed, so the healing process progressed. What, then, is the natural, common-sense conclusion from this? It is this, that the staphylococcus pyogenes, which, as its name implies, has hitherto been regarded as the prime cause of suppuration, and therefore of the destructive process, must henceforth be regarded as, to say the least, doing no harm, and, it may be, as playing a beneficent *rôle* in the economy of Nature, and, in non-technical language, may be looked upon as playing the part of a scavenger.

[Having pointed out that in the three diseases of which we probably know more than of any others—namely, variola, vaccinia, and syphilis, no one has ever discovered a bacillus to whose influence the disease could be attributed, Dr. Bantock turned to the case of diphtheria.] You all know the modern doctrine—namely, that it is due to the influence of a specific bacillus—Loeffler's. But, I ask, How does it happen that cases of true diphtheria are met with in which this bacillus cannot be found? And how does it happen that this bacillus can be found in the throat of a subject weeks, even months, after all trace of the disease has disappeared? This doctrine has suffered much discredit of late from the fact that this bacillus of Loeffler is frequently present in some exanthemata, and also in healthy persons. A still "more striking example is afforded in cases of tonsillotomy, wherein upon the incised surface a greyish membrane is formed in which the bacilli abound, without constitutional disturbance or any sign of diphtheria." I anticipate the argument that, if you allow some of the discharge from the throat of a subject of this disease to gain access to that of a presumably healthy individual, you may, but not necessarily, produce the disease in him. And you may point to a number of cases in which medical men, in the fulfilment of what they conceived to be their duty, have sacrificed their lives in the heroic attempt to succour their patients—as, for instance, in the course of the operation of tracheotomy. But the answer to this is the very valid one that you do not convey the bacillus only. You also convey the fluid with which they are bathed, in which I contend they live, and which, in my opinion, constitutes the real essence of the disease. Many observers of eminence and authority in this field concur in denying the connection of the Loeffler bacillus with diphtheria as cause and effect. I am bound to accept as matter of fact the statements made as to the association, even in a majority of cases, of the Loeffler bacillus with diphtheria—for they are not questioned—but to reverse the proposition and say that their presence is the result of the disease appears to me to be the more sound reasoning.

It will probably be regarded as the rankest heresy when I express any doubt as to, much more a decided opinion against, the influence of the gonococcus as the prime agent in the production of gonorrhœa. Numerous observations are on record of cases of gonorrhœa without gonococci, and *vice versâ*. Dr. Newman tells us that "it is now well known that the gonococci diminish in number as the disease becomes chronic." That is to say, that as the disease becomes less acute the amount of the poison—the food on which they live—diminishes in quantity, and the gonococci are less numerous.

I am also aware that I am a heretic as to the importance of gonorrhœa in the production of pelvic inflammations, but I claim Dr. Newman as at least a tacit supporter; for has he not these words without adverse comment? "It is said that gonococci are present in one of every four cases of pyo-

salpinx." Surely that is a very small proportion on which to establish the proposition that gonorrhœa is answerable for the majority of cases of pyosalpinx. On the contrary, it supports my contention that it is only a factor in the minority of cases. As an example of the difficulties into which a rigid application of the doctrine leads one, I may refer to Dr. Robinson's paper on Vulvitis in Children, read at the Obstetrical Society of London, in which he stated that bacteriological observations revealed the presence of an organism indistinguishable from the gonococcus in cases of vulvitis in children, in as many as seventy-six present.

[After further illustrating his contention from facts connected with the origin and spread of typhoid fever, Dr. Bantock proceeded:]

You are doubtless aware that it is generally admitted by bacteriologists that the skin of the hands, and indeed all parts of the body, though not all equally, teem with a bacillus to which the name "staphylococcus albus" has been given; that this bacillus is supposed to be possessed of pathogenic properties, and that elaborate processes have been invented for the purpose of destroying it. I refer especially to that described by Howard Kelly as perhaps the most elaborate. You are probably also aware that no process hitherto invented has yet succeeded in getting rid of these micro-organisms, so deeply are they situated. Hence the skin itself, including the hands of the operator and that part of the patient involved in the operation, is said to be in a septic condition requiring more or less elaborate treatment. I might refer to innumerable observations by different workers in this field; but one will be sufficient for my purpose, and I take a paper published by Mr. Lockwood (British Medical Journal, September 17th, 1898), entitled, Further Report upon Aseptic and Septic Surgical Cases. In that report Mr. Lockwood tells us that with regard to his hands, "the skin was aseptic thirty-five times and septic six. ..... Once it was some variety of staphylococcus albus." Just before he "had operated upon a case of ruptured perineum in which there was a vaginal discharge." One would like to know what became of that case, in which we may assume there must have been an abundance of micro-organisms—such as the staphylococcus and streptococcus (pyogenes), which so abound at the vulvar opening whenever there is any discharge. With regard to the patient's skin, he says: "The skin of the scrotum is exceedingly difficult to disinfect, and, with the exception of the scalp, has a higher proportion of sepsis than any other." "Nevertheless, the scrotal wounds have done exceedingly well." "Since 1894 I have done twenty-five, and none of them suppurated. *Thus the sepsis of the scrotal skin has evidently a very small influence upon the repair of scrotal wounds.*" What an extraordinary comment!

Now let us see what is the meaning of this word "sepsis." It is as follows, as given in Funk's *Standard Dictionary of the English Language:* "(1) Poisonous putrefaction causing noxious effects on the vital properties. (2) Infection from a putrescent virus containing microscopic organisms, as sepsis from putrid matter or bacteria in a festering wound." The equivalent, then, of this in plain English is "poisonous" or "poisoned." I give Mr. Lockwood his choice of these definitions. Does he contend that the skin of a healthy subject in any part of the body is in a condition which answers to either of these definitions? But this is the natural condition of the skin. How absurd, then, does it not all seem! How much more rational and logical the view that these organisms are there for a specific and beneficent purpose. How is it that he has not perceived the force of his own conclusion in the words I have already emphasised and now repeat? *Thus the sepsis*—equivalent, as we have just seen, to the poisonous or poisoned condition—"*of the scrotal skin has evidently a very small influence upon the repair of scrotal wounds.*"

Kopinski, having concluded a series of bacteriological investigations on animals, has arrived at certain definite conclusions, as follows:

The performance of operations, whether aseptically or antiseptically, assures no absolute sterility of wounds, and it is difficult to say which of the two methods, in this respect, is the better. Antiseptic means in operations on healthy tissues must be given up, as they do not approach an attainable degree of sterility so nearly as asepticism does. In healing by first intention, both saprophytes and pathogenic micro-organisms are retained in the wound. In a wound healed by first intention, both staphylococcus aureus and albus were met with. Skin cocci frequently found their way into wounds, and, as a matter of fact, the skin showed itself to be a chief hindrance to sterility, as its microbes were deep seated, and on this account were only removed with difficulty.

Hence it follows that sepsis, according to Mr. Lockwood's phraseology, or the presence of the staphylococcus pyogenes aureus itself has evidently a very small or no influence upon the repair of wounds, and surgery has not ceased to be a possible art.

Probably it will not be news to you that I adopt none of the elaborate precautions of Dr. Howard Kelly, or the less complicated method described by Mr. Lockwood, beyond the simple washing of my hands previous to operation, and of my instruments after. While I am content with making my hands as clean as an ordinary washing with soap and water will make them, thus removing Lister's "grosser forms of septic mischief," I fear Mr. Lockwood will think they must be horribly septic. Yet with this simple precaution I stitch up a recent rupture of the perineum, it may be some hours after its occurrence, merely taking the additional precaution of wiping off any lochial discharge from the raw surface with a sponge and then placing another in the vagina to keep back the discharge, and I have never had a failure. I make a fresh wound in a ruptured perineum, stitch it up and obtain union by first intention. If I happen to pull a stitch too tight, the tissues become strangulated, their vitality is lowered, and I may get some suppuration in the track of the suture, but so uniform have been my final results that I have never had a case break down. In a case in which the whole perineum and vulva were in a state of extreme irritation from the relaxed or irritable state of the bowels—due to the exposure of the mucous membrane of the rectum—and without any precaution beyond wiping the surface with a warm wet sponge, I secured union by first intention, the diarrhœa ceasing from the moment of the completion of the operation. I dissect out vulvo-vaginal glands, obliterating the cavity in stages. I remove growths from the vulva, stitching up the wounds, and have never failed to obtain union by first intention. I sew up a bilacerated cervix, and have yet to record a failure. I have excised a considerable number of breasts, and the one in which I have failed to obtain union by first intention was the first and only one I did under the carbolic spray. So uniformly favourable have been my results since that case that I have come to regard it as one of the most simple operations in surgery. Moreover, in one case in which it was impossible to bring the flaps together I left the wound freely exposed to the air, with the result that the healing process went on as well as, if not better than, under the most approved dressing, and, aided by two or three skin grafts, the wound healed over completely. This in a public hospital. I have removed sebaceous cysts from the scalp—which, according to Mr. Lockwood, most abounds in septic micro-organisms—without any trouble resulting. I have, either by accident or of set purpose, opened the small intestine, the rectum, urinary bladder, and vagina in abdominal operations, in which the bacillus coli must, for a short time at least, have had free access to the peritoneal surface, without any harm. And if I obtain these good results by the adoption of simple cleanliness, in the common, every-day acceptation of the term—and such arrangements as any well-ordered private house can afford—where is the necessity for all those elaborate precautions which we hear of in the case of private and even public "installations" as they are called; for instance, "the floor of encaustic tiles, well-laid parquet thoroughly saturated with wax and highly polished, cement or highly-glazed linoleum," all angles of walls rounded off, the walls and even the shelves and doors covered with a hard, smooth cement, coated with some kind of enamel, such as Flicoteaux's "lacquered paint"; the sterilising of instruments and dressings, the spraying of the room for an hour or two before the time of operation, and so forth—precautions and preparations so eloquently satirised by Mr. Treves in *The Ritual of an Abdominal Operation?*

But does the observance of this elaborate "ritual" yield any better results than the observance of simple cleanliness? I aver that it does not. The operations I have named may be regarded as test operations; for are we not told that the orifices of the mucous passages especially swarm with bacteria—the bacillus coli, for instance—and that vaginal dis-

charges contain the staphylococcus and streptococcus pyogenes in abundance? And how are you going to carry out these elaborate precautions in a private house—the home of the patient—where cases do so well? I often wonder how the men who hold these views ever dare to operate on a cleft palate or hare lip, seeing that the mouth contains a greater variety of bacteria than any other part of the body, from the most innocuous to the most virulent, so-called.

There was a time when the bacillus coli was regarded as a most virulent microbe; and when, if the intestine by an unlucky chance got wounded in the course of an abdominal operation and the patient died, the death was attributed to the baneful action of this organism. But the late Professor Kanthack showed that this organism is a natural inhabitant of the digestive tract, and that its absence or reduction in number must be regarded as a departure from perfect health.

Thus it has come about, from the observations of Dr. Stoker, that the staphylococcus pyogenes can no longer be regarded as the prime cause of suppuration, but rather as a beneficent organism: from the investigations of the late Professor Kanthack, that the bacillus coli must be relegated to the same category; and from the observations of a host of investigators, that the staphylococcus pyogenes—and even the streptococcus—is found in conditions consistent with at least apparent health. Need I refer again to the case of the mouth, which in the recesses between the teeth, or in the cavity of a hollow tooth, furnishes, under favourable conditions for their development, abundant evidence of the presence of all these so-called pathogenic organisms?

But it has been affirmed that Nature has provided a wonderful mode of escape from the ravages of these noxious organisms, and has provided us with an arrangement for their destruction. I refer to the doctrine of phagocytosis of Metchnikoff, to which Sir Joseph Lister (as he then was) pinned his faith less than three years ago. I never could accept this comforting doctrine. I take credit to myself for my unbelief, for the theory is now almost universally discredited.

[Dr. Bantock then quoted Professor Buchner, who having at first been a staunch supporter of Metchnikoff's theory, characterised it as "a fable." This was also the view of the late Professor Kanthack.

Dr. Bantock next referred to recent investigations on plague and tuberculosis, as supporting his argument. He then went on:—]

It is perhaps necessary to remind the younger generation, who may not have studied the question from the beginning, that the antiseptic system was founded on the hypothesis that germs floating in the atmosphere fell into wounds, there developed into their respective bacteria, and produced all the evil effects that sometimes followed surgical operations. I cannot but think that the address of the inventor of the system, delivered before the International Medical Congress at Berlin, has not been read so extensively as it deserved to be, and therefore it is that I feel obliged to direct your attention to it, at the same time commending it to you for perusal. He says:

> By means of the phagocyte theory of Metchnikoff—which I have already shown you is now universally discredited—we can account for what would otherwise have seemed to me incomprehensible—the use, without evil consequences, of silk ligatures, which have not been subjected to any antiseptic preparation.....Dr. Bantock, whose remarkable series of successful ovariotomies may seem to justify his practice, does not, I believe, prepare his ligatures antiseptically. The success achieved by Bantock and Tait, without, it is said, the use of antiseptic means, proves a stumbling-block to some minds." (No doubt, so long as they hold to the germ theory.) "I can see that while the measures" (comprehended under the term cleanliness) "to which I have referred are, so far as they go, highly valuable, it must be in itself a very desirable thing to avoid the direct application to the peritoneum of strong and irritating antiseptic solutions." (This latter is in itself a strong justification of my abandonment of carbolic acid. He continues): "As regards the spray, I feel ashamed that I should have ever recommended it for the purpose of destroying the microbes in the air. If we watch the formation of the spray and observe how its narrow initial cone expands as it advances with fresh portions of air continually drawn into its vortex, we see that many of the microbes in it, having only just come under its influence, cannot possibly have been deprived of their vitality. Yet there was a time when I assumed that such was the case, and trusting the spray implicitly, as an atmosphere free from living organisms, omitted various precautions which I had before supposed to be essential." He then describes how, in a case of operation for empyema, "the air passed freely in and out of the pleural cavity" in a cloud of spray, and he arrives at the conclusion that "it is physically impossible that the microbes in such air can have been in any way whatever affected by their momentary presence in the air." "If then," he continues, "no harm resulted from the admission day after day of abundant atmospheric organisms to mingle unaltered with the serum in the pleural cavity, it seems to follow logically that the floating particles of the air may be disregarded in our surgical work, and if so we may dispense with antiseptic washing and irrigation, provided always that we can trust ourselves and our assistants to avoid the introduction into the wound of septic defilement from other than atmospheric sources." What these sources are we learn from his address at Liverpool, on September 16th, 1896, six years later: "Hence I was led to conclude that it was the grosser forms of septic mischief, rather than microbes in the attenuated condition in which they existed in the atmosphere, that we had to dread in surgical practice."

Here let me pause for a moment to give expression to my admiration of the character of the man who can confess his error with such candour and honesty, and exhibit such a state of open-mindedness, seeing that such a confession of error must detract from the credence we should otherwise give to his later views. Would that his disciples were likeminded! Nowhere do I find that Lister holds to the doctrine of Mr. Lockwood.

To proceed: What, then, are the "grosser forms of septic mischief?" "If," in the words of the late Dr. Campbell Black, "they are what is vulgarly called 'dirt,' then we are all agreed that to remove dirt (not, however, by killing it), and to keep wounds clean is perfectly scientific and proper treatment." What is this but the doctrine of "cleanliness," which I have advocated for so many years? Thus you will see that it only requires that Lord Lister should take one step more to fall into line with me. For while he has given up the theory of atmospheric germs, he admits that we may dispense with antiseptic washing and irrigation, and has virtually come to accept the principle of cleanliness—one of the two principles in the enunciation of which I played no unimportant part, and which are now generally accepted in the case of ovariotomy.

But, said Lister, in his Liverpool address: "The secretions of bacteria" possess "poisonous qualities of astonishing intensity." Where is the evidence of secretion? Do they possess a secreting organ? Is there an example in Nature of an organism, however low or high, living in, not to say upon, its own secretion?

I claim, then, to have shown that the poisons of variola, vaccinia, and syphilis are not and cannot be the product of a bacillus; that Loeffler's bacillus is not a constant, and therefore cannot be the essential, element for the production of an attack of diphtheria; that the essential element in the case of gonorrhœa is not the gonococcus; that the essential element in the case of typhoid fever is not the bacillus typhosus; that this bacillus cannot live but a few hours in ordinary sewage; that not a single specimen of this bacillus has ever been discovered in sewer air, and hence that typhoid fever cannot be attributed to it, because of its contained germs; that, in the cases of the epidemics at Maidstone and King's Lynn, there exists no proof of the contamination of the water by typhoidal matter, as indicated by the presence of the bacillus typhosus; that there is no evidence worthy of the name that tuberculosis is due to the ravages of the tubercle bacillus; that the comma bacillus cannot be regarded as the essential element in the production of an attack of cholera, and that the same can be said of the plague and its special bacillus; that the so-called pathogenic micro-organisms are constantly found under conditions consistent with perfect health, and that in more than one notable instance they not only appear to, but actually do, exert a beneficent influence.

All these things—which are facts, not opinions, capable of demonstration and proof—go to show that the modern doctrine of bacteriology is a gigantic mistake; that we are already at the parting of the ways, and that it is safe to predict that, ere long, it will come to be recognised that these various bacilli play a beneficent *rôle* in the economy of Nature.

EDINBURGH UNIVERSITY ANGLING CLUB.—An angling club in connection with the University of Edinburgh has just been formed with the following office-bearers: *President:* Dr. Heppburn. *Vice-President:* Mr. W. S. Nicholson. *Honorary Secretary:* Mr. M. F. Anderson. *Honorary Treasurer:* Mr. J. T. P. Heatley. *Committee:* Messrs. D. A. Callender, A. B. Flett, H. G. Lewer, J. B. Mason, J. G. M'Bride, and G. C. J. Robertson.

CASE OF PHTHISIS TREATED BY THE OPEN-AIR METHOD.

By W. T. LAW, M.D.,
London.

Mr. W., aged 32, whom I saw on August 19th, 1883, gave a history of acute lung illness dating from about March of that year. Since that date he had suffered from progressive emaciation, cough, expectoration, evening pyrexia frequently of 102°, and night sweats. There had been no diarrhœa or hæmoptysis. His family and personal history were unimportant.

On examination I found his pulse 120 and his temperature 101°. The left lung showed signs of extensive and progressive disease. Gurgling sounds and other signs of a cavity were present in the upper lobe at its antero-lateral part, marked dulness back and front extended over more than the upper half of the left chest, and moist *râles* showed that extensive breaking down was in progress. Feeble bronchial breathing existed at the base. On the right side beyond a raised pitch in the subclavicular percussion note and a slightly "blowing" respiration, I found nothing abnormal. Cough was very troublesome and muco-purulent expectoration profuse. The urine was slightly alkaline, but it did not contain albumen or sugar. The heart and abdominal organs appeared normal and the digestive system in fair order.

The house occupied by the patient was situated in its own grounds, in an elevated locality about a mile and a half from the town and sea, and having a southern aspect. A verandah entirely surrounded the house on a level with the first floor and opening thereon was the patient's bedroom. Upon this balcony, shaded from the direct rays of the sun, reclining on a comfortable couch, he was directed to spend the entire day, moving round the house to avoid wind or dust as occasion required. His bedroom was stripped of all superfluous hangings, curtains, and carpet, and was thoroughly cleansed by damp cloths impregnated with Sanitas, while all dusting and sweeping were forbidden. The window was kept open night and day. During the continuance of pyrexia absolute rest was insisted on, and all excitement forbidden. He was, fortunately, able to take the large amouut of nourishment that was pressed upon him, but he required very little medicinal treatment. I noted on September 29th following that the temperature had fallen to 99° for the previous 7 evenings, that the pulse was 76, and that there had been only one slight night sweat during the same period. He was sleeping fairly well and felt much better with the exception of some dyspepsia.

The cough was less troublesome and the sputum was diminished in amount. There was a decided diminution in the number of moist *râles* in the left lung below the vomica. A few days after this, slight hæmoptysis occurred, and the temperature for three or four evenings reached 100°, but he again began to improve, and the pyrexia disappeared. He was then allowed to take exercise in the grounds in gradually increasing amount. A month later he had considerably increased in strength; he was able to walk moderately well, and had a very fair appetite. He was not weighed, but had manifestly gained considerably in flesh. The area of dulness extended down to the third rib in front, with dry cavernous respirations. Below this the absence of resonance was certainly less marked, as was also the case below the scapular spine. Crepitus was still evident, mingled with dry creaking towards the axilla. After this he went to Mentone, and I saw nothing more of him till July, 1885, when he reported himself much improved in every respect. He had regained his normal weight, and was able to walk several miles without difficulty. Cough and expectoration had practically ceased, and he no longer regarded himself as an invalid. The vomica at the left apex appeared to have diminished to the extent perhaps of half its former area; some retraction of the lung had taken place, uncovering the heart; impaired percussive resonance existed to the third cartilage in front and slightly below the scapular spine posteriorly, where feeble cavernous breathing was audible. A little crepitus on full inspiration could be detected below the excavation and in the axilla, but the signs were plainly those of a lung in process of healing. Owing to circumstances, I had no further opportunity of examining the patient, but I afterwards heard that he was still progressing favourably.

It is supposed by many that the modern plan of treating phthisis by exposure to the open air is a novelty, but it is at least forty years old, for it was practised by Brehmer at Goerbersdorf in 1859, while, about 1874, Dettweiler established his well-known sanatorium in the Taunus Mountains. Broadbent also, many years ago, tried the method at St. Mary's and published his results. His plan, which he termed "hyperventilation," consisted in keeping patients in bed in an upper ward, lying between an open window and an open door continuously in a current of air. The case I have recorded occurred nearly sixteen years ago, so that even in England the treatment is not quite new, while it was "made in Germany" forty years since.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A USEFUL MANŒUVRE IN SOME CASES OF RUPTURED URETHRA.

The difficulty of the perineal operation for traumatic rupture of the urethra consists in finding the proximal end of the ruptured urethra, and any means by which this difficulty may be lessened is worthy of consideration.

The manœuvre practised in the following case I have used on the living subject in two cases previously.

M.K., aged 18, was admitted to the General Hospital, Singapore, on December 7th, 1896, with a history of having fallen astride of a wooden rail. He complained of being unable to pass water; his bladder was distended to within 1 inch of the umbilicus, and blood was escaping in drops from his meatus. There was very little pain, and his temperature was 99.2°. At 11 P.M. his bladder was tapped above the pubes, and an elastic catheter was tied in through the wound. On December 9th, under chloroform, perineal section was done, but the proximal end of the urethra was not found.

I saw him in consultation on December 13th; no further attempt at completing the perineal operation had been made; the wound was still open, and the urine was coming away by the suprapubic catheter. Under chloroform I withdrew the catheter from the suprapubic opening, and passed in one rather smaller, mounted on a slightly curved stilette. The end of the catheter was passed down the anterior wall of the bladder, and, by means of a finger in the rectum, was easily guided into the vesical end of the urethra. The stilette was then withdrawn, and the catheter passed on, easily felt and helped on a little by the finger in the rectum, until the end appeared in the wound and showed the proximal end of the ruptured urethra. A large catheter was then passed through the penis and into the bladder, guided into the proximal urethra by the suprapubic catheter, which was then withdrawn altogether. The large catheter was tied in. Recovery took place in the usual way. The catheter was left in for some days, then withdrawn, and passed daily for a time without difficulty. The patient was discharged cured on January 15th, 1897.

I regretted that I did not suture the wound in the urethra. If this were done the urethra ought, I think, to unite with the least possible chance of a bad stricture eventuating. At the end of a week or ten days a cautious attempt to pass a catheter may be made, and, if successful, the suprapubic catheter may be withdrawn, and the patient left, a catheter being used as occasion may require.

Max. F. Simon, M.D.,
Singapore. Principal Civil Medical Officer, Straits Settlements.

POISONING BY THE APPLICATION OF BELLADONNA PLASTER.

The recent prosecutions for the sale of belladonna plasters of uncertain strength were, in my opinion, well deserved, as I think the following cases will prove.

A few weeks ago a man came to me complaining of pain in the side. I prescribed, among other things, a belladonna

plaster. This was applied in the morning, and the patient then went to business. Late in the afternoon I was sent for, and found him suffering from acute belladonna poisoning. He was in a somewhat lethargic condition, and a good deal collapsed. There was great indistinctness of vision, the pupils were widely dilated, and he complained of great thirst. Before my arrival he had been somewhat violent. After removal of the plaster and the administration of liquor strychninæ the symptoms began to subside, but it was several days before he recovered.

A few weeks previously a fellow practitioner had a similar case, and on making inquiries we found that both plasters had been obtained from the same chemist, and that both were made according to the *British Pharmacopœia* of 1885.

Both patients had been in the habit of wearing belladonna plasters, and had always purchased them at the same place, so that the symptoms could not have been due to idiosyncrasy.

Grays, Essex. OLIVER SMITHSON, M.R.C.S.

PLACENTA DIMIDIATA WITH BIFURCATION OF THE CORD.

As the textbooks describe the above condition as rare, I think the following case is worth recording. I was recently called to a case of labour, which progressed in a perfectly normal and satisfactory manner until after the birth of the child; I then had some difficulty in expressing the placenta, which, however, with a little patience I succeeded in delivering, and found to be a double one with a single cord. The two halves were exactly equal in size and dimensions, circular in shape, and measured 6½ inches in diameter, their circumferences being united for about 1 inch. The cords were separate for about 8 inches from their insertion, when they became fused, forming a single cord of unusual thickness. There was a fair amount of hæmorrhage, which, however, quickly stopped with the use of ergot, and the uterus became firmly contracted.

ERNEST J. BEARDS, M.R.C.S.Eng., L.R.C.P.Lond.
Wolverhampton.

CASE OF ANENCEPHALIC FŒTUS.

ON February 5th, I was called to attend Mrs. R. in her fourth confinement. She is of medium height, and is a well-made, healthy-looking woman. Her previous confinements had not been attended with any abnormality or difficulty, and the children were healthy. Labour on this occasion, according to her statement, had come on at the eighth month. When sent for she was well advanced in the second stage, and on examination I found what appeared to be a large clot protruding from the vulva, but not associated with any hæmorrhage. After a short time this clot-like mass was followed by the face and lower part of a fœtal head, to which it was seen to be attached. Extension and external rotation of the head with expulsion of the body of the fœtus then ensued as in an ordinary case, the uterine contractions throughout being feeble, and the intervals long.

The child, a stillborn female, measured in length 15 inches, the general development corresponding to 7½ months. On inspection the fœtal head shows entire absence of the cranial vault. The head looks as if the skull cap had been removed for a *post-mortem* examination except posteriorly, where a broad red tract extends down the back of the fœtus for a distance of 5 inches, in the centre of which the spinal cord lies exposed, showing its entire length terminating in the cauda equina. The vertebral laminæ and spines being absent as well as the skin corresponding to these regions. The edges of the raw surface are lined with hair in the upper part. The face is flattened antero-posteriorly, and the chin passes directly into the skin of the chest without any trace of a neck. The ears are folded and imperfectly developed externally.

During pregnancy the mother states that the fœtal movements were not so perceptible as with former children, and that latterly they had ceased. She had not received any injury or shock. The placenta was small but otherwise normal. The case is interesting as an example of a condition perhaps rarely met with in general practice, although similar specimens of this abnormality are to be seen in pathological museums. My thanks are due to Dr. Haldane for permission to publish these notes.

Bridge of Allan. WILFRID GLEGG, M.D.Edin.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

QUEEN'S HOSPITAL, BIRMINGHAM.

ASPHYXIA FROM PRESSURE OF AN ABSCESS UNDER THE CHIN WHILST UNDER THE INFLUENCE OF NITROUS OXIDE.

(By HOWARD H. C. DENT, M.B., M.R.C.S., L.R.C.P., House-Surgeon to the Hospital.)

A BOY, aged 12, came to the Queen's Hospital, Birmingham, on March 18th, with a large swelling between the chin and the hyoid bone containing pus. He was very ill, and evidently suffering from septic poisoning; the lower jaw was almost immovable, the mouth being slightly open. He had been ill ten days, and had not complained of difficulty in breathing.

Nitrous oxide gas was administered in the recumbent position. He went under more quickly than usual, his breathing not being so full as is generally the case.

The face-piece was removed, and an incision made in the middle line over the swelling; this had only gone through the skin when the respiration became embarrassed, and air ceased to enter the chest, although the movements of the thorax continued; at the same time he had a spasm of the jaw and slight convulsive movements of the limbs. The tongue was with difficulty pulled forwards, owing to the spasm of the jaw and the enormous amount of inflammatory thickening about its root. Artificial respiration was at once commenced, but no air entered the chest, although the tongue was drawn well out of the mouth. Tracheotomy was performed and respiration kept up for one hour, air entering freely through the wound. Ether was injected under the skin and directly into the heart. No signs of recovery were shown.

On opening the trachea a small quantity (20 minims) of pus was forced through the wound, and it was thought that the abscess had burst into the windpipe and caused suffocative spasm.

At the *post-mortem* examination an abscess the size of a small orange was found excavating the body of the tongue and resting on the top of the larynx. There was some pus in the trachea, but no communication with the abscess could be found. The other organs were healthy. The usual signs of asphyxia were present.

REMARKS.—Death appears to have been due to pressure of the abscess on the glottis acting either directly, or by causing spasm of the "sphincter laryngis." This pressure would be increased by (1) the recumbent position, (2) the extension of the head necessary to open the abscess, (3) the pressure of the knife.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. PAYNE, M.D., President, in the Chair.

Tuesday, April 4th, 1899.

CONGENITAL CYST AT THE BACK OF THE TONGUE.

MR. RAYMOND JOHNSON exhibited a specimen, which was obtained from a child on whom tracheotomy was performed for the dyspnœa due to the pressure of the cyst upon the epiglottis; the cyst was diagnosed by means of the finger. Death took place a week after the operation. The cyst itself lay in the mid-line immediately behind the circumvallate papillæ; microscopically it was lined with flattened epithelium. Dr. Martin Schmidt had found that certain lingual cysts deeply seated in the posterior part of the tongue arose in glandular appendages connected with the lingual duct rather than in the duct itself, and they were, like the ducts of such appendages, at times furnished with ciliated epithelium. The speaker, on the whole, thought that the cyst exhibited arose in the duct.

Mr. S. G. SHATTOCK had seen similar cysts in the œsophagus, and thought that the origin of lingual cysts in the mucous

glands had to be first excluded before the lingual duct could be assumed as their source.

Rheumatic Nodules.

Drs. G. F. Still and F. Poynton drew attention to the early structure of these lesions, which, like Dr. Barlow and others, they held to be of the same nature as those of the endocardium. In the recent stage they were of a yellowish-pink colour; they occurred in groups, individuals of which might be too small to be palpable during life. The particular nodule examined was one of three weeks' duration, and was associated with endocarditis; its centre was constituted by a homogeneous substance staining pale blue with carbol-thionin in the same way that fibrinous exudation in general did; beyond this the structure was cellular, and still further outwards fibrous. The central material they did not regard as a degeneration product, but an exudate. This view harmonised with the rapid appearance and disappearance of such nodules; they might arise within twenty-four hours, and disappear after three days.

Dr. W. S. Colman could confirm these statements from the examination of a nodule at the elbow, which was only of 48 hours age.

Dr. H. D. Rolleston raised the question whether the swellings of erythema nodosum, commonly regarded as rheumatic, might not be of the same nature.

Dr. A. Garrod agreed with the authors as to the structure of rheumatic nodules. As to erythema nodosum, it was associated, not with cardiac affection, but with articular, so that he did not think the lesions could be arranged under a single group.

The President remarked upon the considerable numbers of such nodules, the size of which seemed to diminish after death. He did not think them very closely analogous with the cardiac lesions; assuming that they were, the nature of the irritant still required investigation. The lesions of erythema nodosum differed from the subcutaneous nodules of rheumatism in that they were in the skin; they were often associated with a mild arthritis, but he did not regard it as at all proved that the latter was rheumatic, that was, of the same nature as the arthritis of acute rheumatism.

Dr. J. W. Washbourn had been unable, after the examination of many records, to find a connection between erythema nodosum and acute rheumatism. He regarded the cardiac, articular, and subcutaneous lesions of acute rheumatism as due to the distribution of the same virus. In some cases of influenza subcutaneous and periosteal nodules might be met with, which might be assumed as due to the influenza bacillus.

Cystic Disease of the Breast in a Boy aged 3 years.

Mr. D'Arcy Power showed this specimen. The breast measured 2½ inches in chief diameter, the skin and nipple being normal. The fat lying superficial to the breast was healthy, but in the deeper part were many thin-walled cysts, the largest of them 1½ inch in longer diameter; the deep surface of this cyst lay upon the pectoral fascia. All the cysts contained a clear yellow fluid. The patient had always enjoyed good health, but 18 months ago his mother noticed that the left breast was fuller than the right and it had since been slowly increasing in size. The swelling was not painful nor had there been any discharge from the nipple. On examination a soft round tumour about the size of half a tangerine orange could be felt in the left breast. It appeared to be cystic and was adherent to the skin. The nipple was normal, there was no dimpling of the skin over the tumour, no definite edge could be felt and it was not tender on palpation. The axillary glands were not enlarged. The tumour was removed by an elliptical incision made so obliquely across the tumour as to include the nipple and extending to the anterior border of the axilla. The tumour was then dissected away down to and including the pectoral fascia. The author thought that the tumour should be regarded as a cystic lymphangioma occurring in the connective tissue lying in the retromammary connective tissue, and that it was comparable with the congenital cystic tumours or hygromata found in other parts of the body in children. In answer to Mr. Shattock, he had not found evidence of a cystic mastitis.

Hypertrophy of the Pituitary Body without Acromegaly.

Messrs. T. W. P. and John Lawrence recounted the case of a man, aged 52, who for six years had suffered from dimness of sight (contraction of visual field), affection of speech, and ataxia, but without any signs of acromegaly. After death the pituitary was found enlarged (3½ cm. from before back), and the optic commissure thinned and stretched; it was somewhat bilobed, but without infiltration. Histologically, the structure might be classed as hypertrophic, the picture consisting of delicate trabeculæ of connective tissue, the spaces between which were filled with polygonal cells. There was nothing like a posterior lobe, and no colloid.

Vacuolated Carcinoma of the Antrum.

Dr. H. D. Rolleston exhibited a superior maxilla containing soft growth that had invaded the bony walls. The symptoms were of fifteen months' duration. Microscopically the growth was divided into lobules by delicate connective tissue septa. The lobules were composed of a mesh-work of trabeculæ enclosing spaces. The trabeculæ consisted of round cells, and had no connective tissue basis. The spaces contained homogeneous material, presumably derived from the cells of the growth. The growth could be seen invading and absorbing the bony walls of the antrum. Ziegler figured a similar tumour, and referred to one in the lachrymal gland having the structure of "cylindroma carcinomatodes." Thoma figured a similar growth as hyaline degeneration of a round-celled carcinoma of the mucous membrane of the antrum. The name "vacuolated carcinoma" was suggested as applicable to the form of growth.

Mr. C. F. Beadles had examined two similar tumours from the antrum, and was under the impression that carcinoma in this situation was regularly of this structure.

Biliary Calculi in Children.

Dr. G. F. Still, after noticing the rarity of the above, gave details of three cases in which a necropsy had been performed; these he had come across within six months at the Great Ormond Street Hospital for Children. In the first, a child aged 9 months, there were vomiting, clay-coloured stools, no jaundice, and no colic. After death (which occurred from other causes) there were found eleven small black, friable calculi of pigment, three of which were impacted in the common bile duct. The second case was that of a girl, aged 8 months, who died with tuberculous meningitis. There was no jaundice or abdominal pain. There were three minute calculi of pigment in the gall bladder. In the third case, a boy, there were abdominal pain and vomiting, but no jaundice; the calculi were of the same kind. The author had seen what he considered a fourth case during life, where there were recurrences of vomiting, abdominal pain, and jaundice. Altogether he had been able to collect 20 published cases, of which 10 were in infants. In some, calculi had been found in the fæces, in others at the necropsy. In many colic and jaundice had been observed during life; the usual cause of infantile colic nevertheless was renal. The biliary calculi might be formed during intrauterine life, and the speaker thought that the viscosity of the bile in infancy, which led to a secondary stagnation, was probably connected with the formation of such concretions.

Dr. A. Garrod inquired whether Dr. Still had examined the ducts in his cases, as it was probable that the calculi were formed in these, and passed thence to the gall bladder; in adults such pigment calculi occurred chiefly in the ducts.

Dr. Still, in reply, said he had examined the ducts in one of the three cases with a negative result; in most of the other recorded cases the concretions had been absent from the ducts.

Lesions of the Adrenals in the Insane.

Mr. C. F. Beadles had observed a case of extensive hæmorrhage into one of the adrenals in a woman, aged 47; no other lesions were found. The patient died collapsed. In the necropsy records of Colney Hatch Asylum he had discovered four examples of extensive hæmorrhage into one or both adrenals. These organs were not rarely the seats of atrophy or inflammatory processes in the insane but without the occurrence of symptoms. The number of cases of Addison's disease

amongst the insane was very small, and the same was true of malignant disease of the adrenals.

Card Specimen.

Mr. C. F. Beadles: Sarcoma of the Pancreas.

LIVERPOOL MEDICAL INSTITUTION.

W. Macfie Campbell, M.D., President, in the Chair.

Thursday, March 23rd, 1899.

Operative Treatment of Diseases of Jaw.

Mr. Mitchell Banks showed three cases on which he had operated for diseases of the jaws. (1) A middle-aged woman, who had suffered for three years from an epulis connected with an upper left molar tooth. This began to grow rapidly, and involved nearly the whole of the left side of the hard palate. It was removed along with the alveolar process, an incision being made through the cheek. The cavity left had been fitted with plate and teeth; her speech and mastication were now perfect. (2) A middle-aged man, with a twelve years' history of growth in the hard palate. Until a year ago the tumour had remained small, but as it showed signs of increase three attempts at local removal had been made in the country, which all failed. The operations appeared to irritate the growth, which now grew with alarming rapidity. It was considered that the growth was taking on malignant action, and that a very free removal was indicated. The upper lip was split and the teeth removed from the upper jaw, and the whole hard palate and alveolus removed. In the course of a year the gigantic apertures that remained after this sweeping proceeding had contracted, and a plate with teeth were fitted which rendered his speech and mastication perfect. (3) A young man, aged 18, who for nine years had bony ankylosis of lower jaw. The right condyle was removed and the left condyle and coronoid process were chiselled through. He now had perfect movement.

Acute Leukæmia.

Dr. Macleod Ross read notes of a rapidly fatal case of acute spleno-medullary leukæmia. M. S., primipara, aged 27, a fine, well-built woman, had been confined five weeks previously. Symptoms then developed. No malarial influences, no hæmorrhagic diathesis. The case progressed rapidly without any particular complication except persistent diarrhœa, and terminated fatally from asthenia ninety-seven hours after being first seen and twenty-five days after the first symptoms. The main points of interest in the case were (1) the very acute character, (2) the case of the spleno-medullary and not of the lymphatic variety, while most acute cases were of this type; (3) the leucocytes were distinctly in excess of the red corpuscles, the latter varying very much in shape and size; (4) absence of hæmorrhages, except some suspected retinal extravasations a few hours before death; (5) the fact that vomiting occurred only once; (6) the absence of any marked rise of temperature; (7) the astounding rapidity with which emaciation occurred in four days, in spite of the satisfactory amount of nourishment taken, sufficing to reduce a really well-nourished woman to a condition of almost "skin and bone."

Suppurative Peritonitis.

Mr. R. W. Murray read notes of a case of suppurative peritonitis following appendicitis, in which the abdomen was opened and thoroughly cleaned out, with recovery of the patient. The discussion on the treatment of suppurative peritonitis was adjourned.

Lymphosarcoma.

Dr. Abram reported two cases of lymphosarcoma, and showed lantern slides and microscopic specimens illustrating their clinical and anatomical features. He drew attention to the conflicting views in vogue concerning lymphadenoma and lymphosarcoma, some considering them essentially the same and others essentially different. He agreed rather with the latter view, and considered the specific inflammatory origin of the disease indubitable, although the specific agent had not yet been found. He suggested that in all cases of general glandular enlargement careful examination of the blood ought to be made, both microscopically and bacteriologically, and that excision of a gland should be practised for inoculation experiments. This course was adopted in his cases, and led to the diagnosis of lymphosarcoma, which was borne out by the rapid course of both cases, death occurring in one in nine months and in the other in four months.

Leucodermia Colli.

Dr. Barendt showed a case of leucodermia colli in a servant girl, aged 20, who had acquired syphilis six months previously. He drew attention to the duration of this syphilide, and the importance of examining the neck in all cases where the nature of an eruption elsewhere suggested syphilis. It was one of the vestiges of syphilis, and its presence could easily be ascertained without disturbing the patient's equanimity.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Clinical Meeting.

Edwin Lee, M.R.C.S., President, in the Chair.

Friday, March 24th, 1899.

Cases and Specimens.

Dr. Churton showed (1) a boy, aged 8, whose sight had begun to fail on October 2nd, 1898; on the 14th he was quite blind; 20th, left hand and leg weak; 22nd, could not stand; 26th, admitted into Leeds Infirmary. Well-nourished, very intelligent; anosmia; pupils dilated, no light reflex, double optic neuritis; left hemiparesis; no headache, no vomiting. Family susceptible to tuberculous infection. Supposed tuberculous mass about chiasma and right crus. Treatment: iodoform gr.j, ext. gentian gr.ij, in a pill every four hours; ordinary diet. Improvement began in a few days. December 2nd, could count fingers and walk a few steps. Could now read and could stand on left foot alone; grasp normal. (2) A case of suspected Foreign Body in the Left Bronchus, with skiagraph; (3) a woman, aged 36, a sorter of foreign rags, with Splenomegaly in the first stage. Spleen much enlarged, ascites, œdema of feet; health otherwise fairly good; anæmia not marked. Patient showed the importance of treatment by rest, etc., commonly observed in these cases.—Dr. Barrs showed: (1) A case of Malignant Disease of the Liver; (2) Obstructive Jaundice with an Abdominal Tumour; (3) Ataxic Paraplegia, and a series of lantern slides of interesting clinical cases under his care.—Dr. Chadwick showed: (1) Two cases in first and second stage of Pseudo-Hypertrophic Paralysis, with photographs from a case at present in the third stage; (2) Tuberculous Disease of Skin under treatment with Beiersdorf salicylic acid and creosote plasters; (3) Lead Paralysis with increased knee jerks; (4) Painless Enlargement of Liver (diagnosis?); (5) Simple Pemphigus (congenital with absence of nails; (6) Malignant Growth.—Dr. Trevelyan showed: (1) Hemiatrophy of the Tongue in a lad aged 15; difficulty in articulation, first noticed 2½ years ago, was the most prominent symptom; last June the lad saw that the left side of the tongue was shrunken: in the absence of other possible causes the atrophy was looked upon as due to a peripheral neuritis of the hypoglossal nerve; the palate and larynx were healthy; (2) Myxœdema in a man aged 50, who had been under treatment for some years, and whose weight had been systematically recorded; there was no obvious sign of myxœdema at present, but a couple of months ago the thyroid treatment had been suspended for several weeks, when the symptoms began to return and the patient put on nearly a stone in weight; (3) Ataxic Paraplegia in a man aged 32; there was marked inco-ordination, exaggerated knee-jerks, ankle clonus, but no pains, no loss of the light reflex, no vesical disturbance, and no impairment of sensation; (4) to contrast with the last case, Locomotor Ataxia in a man, aged 44, with a previous history of syphilis.—Dr. Trevelyan and Mr. Dewhirst showed a series of 6 cases of cardiac valvular disease in children ranging in age from 5 to 16 years. There was a definite history of acute rheumatism in 3 cases and of indefinite rheumatic pains in a fourth case. The cardiac lesion appeared to follow upon scarlet fever in the case of a boy aged 12. In a lad aged 14 without previous

rheumatism there was a loud systolic murmer of a maximum intensity in the pulmonary region, together with a systolic thrill suggesting pulmonary stenosis. One child, aged 9, presenting signs of mitral stenosis developed a loud diastolic murmur, while under observation, but without other evidence of aortic disease. In only one of the cases were there any marked cardiac symptoms, and in three there were hardly any symptoms which could be referred directly to the heart.—Mr. West (Morley) showed two cases of Congenital Biplegia and Hemiplegia occurring in a brother aged 8 and a sister aged 5 respectively. There was no evidence of congenital syphilis. Birth had been difficult but not instrumental. A considerable degree of microcephaly was present in the girl.—Mr. Ward showed two cases of Enucleation of the Prostate. In both there had been complete retention of urine. Suprapubic cystotomy was performed, the prostate capsule opened on each side by means of a Loewenberg's forceps, and each lateral lobe shelled out with the forefinger. Each cavity was packed with iodoform gauze, and the whole bladder then filled with gauze to retain the plugs *in situ*. In one case the right lobe weighed 1 oz., the left rather more than half an ounce. In the other each lobe was quite twice as large as the larger of these, but they were not weighed. Both patients were entirely relieved, micturition being easy and natural. In one case (a man of 56) the whole of the urine passed *per urethram*, in fourteen days after the operation.—Mr. Littlewood showed the following cases: (1) Gastric Dilatations due to adhesions about outer portion of first part of duodenum; recovery; (2) Pyloric Stenosis; great dilatation of stomach; pyloroplasty; recovery; (3) Splenectomy for malignant disease; (4) Calculus removed from common bile duct, recovery; (5) two cases of Contraction of all the Flexor Muscles of Forearm treated by operation; (6) Transverse Fracture of Patella treated by Barker's method; (7) Cancer of Breast of seven years' duration; (8) removal of half the tongue, half the lower jaw, and several lymphatic glands about the right side of lower jaw in one mass, for Squamous Epithelioma; (9) Chronic Tuberculous Disease of the Wrist treated by scraping and iodoform injections.—Mr. W. H. Brown showed: (1) Six cases of Osteotomy, one being for vicious union following simple fracture of the femur; (2) a patient who as a result of being run over had both legs amputated, one through the knee-joint, the other through the middle of the calf; (3) a case of Intussusception in a child aged 3 years; laparotomy; (4) a case of Fractured Patella treated with a back splint followed by plastic bandage: firm bony union resulted; (5) a case of Compound Depressed Fracture of the Skull; the bone was fractured in the left parietal region; skull trephined and the bone elevated; the patient was unconscious for some weeks, and then found to be paralysed on the right side; eventually the arm and leg recovered; (6) a Plastic Operation to correct deformity following extensive burns in the neck.—Dr. Bronner showed: (1) A case of Traumatic Symblepharon of both Eyelids treated by hot fomentations; (2) three cases of Mastoid Disease after operation; (3) a case of Nystagmus and Convergent Strabismus treated by advancement of the external recti muscles.—Dr. S. Lodge showed three cases of Removal of the Lens for High Myopia.—Mr. Knaggs showed: (1) A case of Pyonephrosis treated by nephrotomy; the patient also had albuminuric retinitis; (2) a case of Removal of the Lens for High Myopia; and (3) a patient who had sustained a severe Compound Fracture of the Left Leg and Fracture of the Right Femur. Some of the nerves apparently were implicated in the callus around the femur.—Mr. V. Hartley (for Mr. Nunneley) showed: (1) A case of Retinitis, with series of charts illustrating the gradual recovery of fields of vision; (2) a case of High Myopia with Choroiditis and several recent Hæmorrhages; (3) three cases of Mules's Operation.—Mr. H. S. Walker showed: (1) Subsiding Optic Neuritis due to Plumbism of twelve months' duration; (2) a Congenital Coloboma of Iris and Choroid up to and including the Macula, affecting both eyes; (3) a Congenital Cyst of the Orbit with Anophthalmos; (4) Congenital Absence of External Auditory Meatus with Deformed Pinna. The patient heard a watch placed over the mastoid; (5) an advanced case of Retinitis Pigmentosa in a child aged 10 with very contracted field of vision. There was no history of similar disease in other members of the family.

CLINICAL SOCIETY OF MANCHESTER.

A. Hill Griffith, M.D., President, in the Chair.

Tuesday, March 21st, 1899.

Aseptic versus Antiseptic Surgery.

Mr. T. R. Jessop (Leeds) opened a discussion on this subject. After referring to the bad results of wound treatment in preantiseptic days, he traced the origin and growth of Listerism, and called attention to the evil effects which sometimes followed the excessive use of antiseptics. It came to be recognised after a time that once asepticism was reached antiseptics became not only useless but harmful, and upon this principle aseptic surgery was founded. Aseptic surgery might be said to differ from antiseptic surgery in that it dispensed with the use of unnecessary antiseptics. In his own practice he relied upon the use of heat for the sterilisation of instruments and dressings, and upon soap and water, with the use of the nail brush and turpentine, for the disinfection of the skin. Afterwards the part was flushed with sterilised water, and the latter was used throughout the operation. In concluding, Mr. Jessop formulated the following propositions: (1) Septic infection was the most universal and the most potent influence in the prevention of the healing of wounds; (2) a state of complete asepsis should be the supreme aim in all operations; (3) when an aseptic condition had been brought about, the further application of antiseptics was useless, and might be harmful; (4) attention should be directed to the rendering aseptic of the patient's skin, the instruments, ligatures, sutures, and dressings, and the surgeon's, assistants', and nurses' heads, arms, and dress; (5) an operation wound, clean, and not infected by sinuses or other causes, would heal best when washed only with water sterilised by boiling; (6) the germs contained in the atmosphere of a clean operating theatre were ordinarily so attenuated as to call for no special provisions.

Mr. G. A. Wright, Mr. E. T. Milner, Mr. Stanmore Bishop, Dr. Braddon, Mr. Westmorland, Dr. Wahltuch, Dr. Thomas Harris, Dr. T. A. Helme, Dr. S. Buckley, and Dr. Fothergill took part in the discussion which followed.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.

R. Fortescue Fox, M.D., President, in the Chair.

Thursday, March 23rd, 1899.

The Therapeutic Effects of Heat.

The adjourned discussion on the papers by Dr. Douglas Kerr (Bath) on the Treatment of Disease by Heat, and by Dr. Hedley (London) on the Therapeutics of Heat, was resumed by Dr. Harry Campbell, who referred to the importance of keeping the sick room warm. It was important to ascertain whether the effect of conducted and radiant heat were the same. Regarding the influence of external temperature on metabolism, man behaved like the cold-blooded animal directly his heat-regulating mechanisms failed to maintain the normal temperature—heat quickening, cold retarding it; otherwise their effects were the reverse of this; these facts had important therapeutic applications.

Dr. Knowsley Sibley (London) said he had made a special study of the therapeutics of high temperatures for some years, and had used more than one of the systems referred to by previous speakers. He first gave an epitome of the numerous diseases he had found benefited or cured by the treatment, and then referred to a few cases which had not improved. He also spoke of the effect of luminous radiant heat, and mentioned some of the more important experiments which had been made on plant life, and argued by analogy that many of these were true for the use of light heat rays for therapeutic purposes, which he believed opened a large field for future research; he agreed with other speakers that the addition of luminous to heat rays had special advantages for the treatment of disease.

Dr. Haig was glad to see that Drs. Hedley and Whitby had noted the effects of heat in increasing the excretion of uric acid, for every treatment known to do good in arthritis promoted such excretion, and everything that prevented such excretion did harm. He also agreed with Dr. Douglas Kerr

that the whole body should be treated to the bath even for local disease; for it was the effect on the whole body that lowered the blood pressure, and promoted the excretion of uric acid, these being the chief directions in which heat did good.

Dr. BAIN confined his remarks to the physiological action of hot baths and dry air at high temperatures. He found after a Turkish bath the excretion of urea in the urine was diminished, and the uric acid was unaffected. The diminution in the urea was due to a certain amount being eliminated in the perspiration, and, as this had not yet been estimated, it was unwise to assert that hot baths increased the excretion of urea. The Aix douche increased the output of uric acid, but this was obviously due to the vigorous massage which was an essential feature of the bath. Nearly all the varieties of hot baths lowered both the maximum and mean arterial blood pressure. He had applied a box of superheated air of 300° F. to the right hind leg of a dog, and had found the blood pressure tracing showed an initial rise in blood pressure with a subsequent fall. At the same time both femoral veins were exposed and thermometers inserted (the dog being under an anæsthetic). After the lapse of half an hour, the blood coming from the limb in the superheated box was 4.8° F. higher than in other parts of the body. Dr. Bain drew attention to the initial rise in blood pressure, as he considered a word of caution was necessary in submitting patients with diseased arteries to this method of treatment.

Dr. LÉON BLANC (Aix-les-Bains) confirmed the opinion of Dr. Haig. In cardiac disease he had used for more than twenty-five years, without accident, only tepid douche massage at 95° F. during ten minutes, believing that great heat was not advisable. In gouty people he thought the true attack of gout came on only when the kidneys did not act. If very hot baths or dry hot exposure were given the patient had a profuse perspiration, the kidneys did not act so well, and by the poisoning action of the retained uric acid an attack of gout arose, so that he advised hot vapour baths (called Bertholet at Aix) at 108° F. only, for the local joints affected to relieve the pain, and never hot baths for general treatment, but only the tepid douche massage from 92° F. to 98° F.

Dr. EWART would be the last to deny the advantages of the use of intense heat to be gained in suitable cases, but he felt considerable diffidence as to its general employment in gout and gouty affections with their dangerous cardio-vascular and renal factors. On the general question of the treatment of arthritis by high temperatures some reservations had been expressed by Dr. Hyde and Dr. Harry Campbell, and with them he heartily concurred. The opposite method, the treatment by cold, namely, by the application of ice, was capable of yielding results no less remarkable as a local treatment in a definite class of cases, and particularly in some forms of rheumatoid arthritis, and as a general treatment in a much larger group. A case of painful rheumatoid hip disease in which the approved medication and the hot-air bath were followed by aggravation had suggested to him the method of ice massage, that was, gently rubbing the surface with a block of ice. This gave immediate relief, and under its systematic use the patient lost his pain, and rapidly improved. He had also good results from this local treatment in other cases of arthritis and in painful affections, including the pleuritic pain in acute pneumonia. On the other hand, Dr. J. Beverley Kinnear, of New York, had cured cases of chronic arthritis by the other method, that of a central application of cold by means of the spinal icebag, and he had found the same method beneficial in a variety of conditions. Whilst recognising the beneficial results often produced by intense heat locally applied, Dr. Ewart questioned whether its general effects were equally desirable, and he was inclined to doubt whether the high expectations which had been raised were likely to be entirely fulfilled.

Dr. ALEXANDER MORISON said he would restrict himself to his experience of the use of heat in the treatment of cardiac failure. In the general application of warmth in these cases he regulated the degree used by the condition of the patient and the effect to be obtained, namely, whether heat was to relieve the heart by removing peripheral obstruction, or to stimulate it to more energetic action. In the former case the temperatures he employed were higher than in the latter. As in the case of generally applied warmth in balneological practice, so in that of the local application of heat and cold to the præcordia, head or spine, the choice of this one or of the other agent he regulated by the cardiac force and general temperature of the patient.

Dr. HEINEMANN (Nauheim) said all heat was radiant heat, no forms of heat differed from each other in that respect, but the Dowsing process introduced some elements besides heat. If it were admitted that heat remained heat, and that light was degenerated into heat, certainly the chemical rays gave effects which were not attributable to the effects of heat, therefore an entirely different element was introduced. With regard to the use of the baths at Nauheim he got better results by the use of the higher temperatures; he found that cardiac cases do not did so well in temperatures of 31.5° R. to 32.5° R., as in baths at 33.5° R. to 35° R. to commence with.

Dr. HEDLEY, in replying to Dr. CAMPBELL, thought that in addition to the heat rays all the rays of the visible spectrum could be made useful for the purposes in question—they only required control. As the light rays were added the heat rays became more intense, and he also thought it probable, although wanting experimental proof, that some of the light was "degraded" into the longer wave lengths of heat on contact with the body. At any rate, whatever the explanation, it was found that a given temperature *plus* light produced diaphoresis more freely than obscure heat of the same temperature. This was an important matter in practice, because he could not help thinking that in certain feeble patients the rise in general temperature produced by high degrees of heat applied externally was sometimes the reverse of beneficial. He desired to add that having for some time past used arc lamps and incandescent "heat lamps" and every form of obscure heat, there were certainly some rheumatoid cases far advanced of old standing that resisted all treatment of the kind.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—At a meeting held on March 13th, Dr. W. J. FLEMING, President, in the chair, Dr. JOHN M. COWAN, on behalf of Dr. SCOBIE, narrated a case of Acute Infective Endocarditis, in which there was preceding rheumatism. Dr. Cowan also, in the absence of Dr. SAMSON GEMMELL, read notes of a case of Infective Endocarditis, in which the most careful pathological examination failed to discover a primary focus of infection.—Dr. JAMES CARSLAW reported a case of Infective Endocarditis in which the illness began with typical acute apical pneumonia, which was followed by an indefinite condition of pyæmia and death four weeks after the onset of acute illness. The *post-mortem* examination revealed grey hepatisation of upper lobe of right lung, acute endocarditis of mitral valve, with rupture of the papillary muscle affected, and numerous infarctions in the spleen and kidneys. Microscopic specimens were shown illustrating the condition of the heart and kidneys and the presence of micro-organisms in the tissues in these three cases.—Professor RALPH STOCKMAN presented an important communication on the Action of Arsenic on the Bone Marrow and on the Blood. He described a series of experiments he had been making on the effect of arsenic, the result of which was to demonstrate that arsenic, at least in healthy animals, caused a striking increase in the blood and blood vessels, in the bone marrow, and corresponding atrophy of the fat. Microscopic specimens and diagrams were shown to illustrate this.—Dr. A. R. FERGUSON showed microscopic specimens of the Bacillus of Bubonic Plague.

CHELSEA CLINICAL SOCIETY.—At a meeting on March 21st, Mr. J. FOSTER PALMER, President, in the chair, Mr. A. F. PENNY read a paper on the Radical Cure of Hydrocele, and showed a case in which he had performed excision of the tunica vaginalis two years previously for old-standing hydrocele, no recurrence taking place. He contrasted the injection method with those of excision and incision, and expressed the opinion that the latter mode of treatment was more in accord with modern surgical principles. The PRESIDENT, Drs. MORTIMER, VINCENT DICKINSON, and NITCH-SMITH took part in the subsequent discussion.—Dr. T. VINCENT DICKINSON read a paper on Enteric Fever complicated by rigors and exacerbations of high temperature. He showed charts of two cases, in one of which severe rigors recurred at

varying intervals until the sixth week; in the other convalescence had been established for three weeks, when rigors and exacerbations of temperature first commenced, and occurred at intervals of from four to seven days for five weeks, the temperature in the attacks ranging from 102° to 106° F. In neither of these cases could any cause be assigned for the phenomena. They were in no way caused by constipation, and there had not been any indiscretion in diet. Dr. Dickinson then referred briefly as to the causation of these attacks, and thought they might be explained by the supposition of saprophytic absorption from the bowels acting on the thermogenic centres, and which always showed a marked impressionability at the decline of enteric fever of long duration. A discussion followed, in which the President, Drs. Penny, Mortimer, and Nitch-Smith took part. Dr. Dickinson replied.—Dr. B. Abrahams read a paper on Modern Views in Neurology, after which a lengthy discussion took place.

Ipswich Clinical Society.—At a meeting on March 9th, Mr. S. O. Eades, who was in the chair, read a paper on Difficult Cases of Face Presentation, with note of two recent cases, one in the mento-lævo-anterior position, in which delivery was easy, and one in the mento-dextro-posterior position, which presented great difficulty, calling eventually for craniotomy. —Dr. Hoyland showed a lad who had a Congenital Cyst-like Growth (probably a dermoid cyst) as large as an orange, situated over the middle of the sternum.—Mr. Fryer showed a man with a Cystic Tumour growing from the Soft Palate.—Dr. Brown read notes of a case in which there was almost complete Suppression of Urine. Dr. Brown also showed a specimen from a case of Intestinal Obstruction, in which the patient died after the constricting band had been divided. He emphasised the importance of early diagnosis.—Mr. Pridmore showed a specimen of a Blighted Ovum. The specimen showed hæmorrhage into the placental tissue, forming bosses on its surface; the funis was twisted, and a fœtus about an inch in length was present.—Mr. Sinclair read notes of a fatal case of Plastic Orbital Cellulitis.

Midland Medical Society.—At a meeting on February 15th, Dr. W. G. Lowe (President), in the chair, Mr. Christopher Martin showed a Pregnant Myomatous Uterus removed by panhysterectomy in September, 1898, from a married woman, aged 40, a patient of Dr. Hurd, of Coventry. She had been married twelve years, but had never before been pregnant. The uterus was six months pregnant, and was also the seat of a huge, rapidly-growing multinodular myoma, which was cystic in parts, and filled the whole abdomen. She suffered from great pain and severe pressure symptoms. The hymen was found to be diaphragmatic and imperforate, except for a minute aperture which barely admitted a fine probe. She was admitted into the Hospital for Women, and on August 22nd Mr. Martin dissected away the hymen, closing the raw surface with a fine catgut suture. As her sufferings were severe, and as it seemed extremely improbable that she could be safely delivered of a living child, he performed panhysterectomy on September 2nd. After removal the uterus weighed 14lbs. The patient made an uninterrupted recovery, got up on the fifteenth day after the operation, and returned home on September 23rd, exactly three weeks after the operation.—Mr. Frederick Edge showed a Kidney, which he had removed by abdominal nephrectomy for a large cystic sarcoma. The patient made a good recovery. Mr. Edge also showed a Kidney which he had removed through a lumbar incision for Pyonephrosis and Perinephritic Abscesses. During the operation the peritoneal cavity was torn into, and some of the pus (which was recent and very foul) escaped into it. The peritoneum was energetically washed out and drained with iodoform gauze. Death, however, took place thirty-six hours later from a combination of shock and septic infection.—Dr. Stuart Macdonald showed a specimen of Primary Thrombosis of the Superior Longitudinal Sinus, removed from a child a few weeks old who died recently at the General Hospital from marasmus. The patient was admitted under the care of Mr. Haslam, suffering from spina bifida, which had ruptured and become septic. The child had one slight convulsive attack, and died with gradually-increasing coma. The thrombosis was apparently a primary marasmic condition, and not in any way connected with the spinal disease.—Mr. Haslam read notes of a case in which he had operated successfully for an Intussusception of five days' duration in a child aged 9½ months. The onset of the disease was sudden, but the condition of the child when seen at the beginning of the fifth day was extremely good. There was then no vomiting or abdominal distension, and though nothing could be detected by manipulation, this caused some pain. There was a history of vomiting, constipation, the passage of a small quantity of blood from the rectum on two occasions, and after admission some flatus and a little loose fæculent matter. The rectum was empty. Under an anæsthetic a tumour was easily felt in the region of the hepatic flexure of the colon. The abdomen was opened through the right rectus, and on attempting to bring the tumour to the surface the intussusception was reduced. It was of the ileo-cæcal variety.—Mr. Heaton read a paper on Acute Intussusception: its Progress and Treatment.

REVIEWS.

The Radical Cure of Hernia, Hydrocele, and Varicocele. By Charles Barrett Lockwood, F.R.C.S., Assistant-Surgeon and Lecturer upon Surgical and Descriptive Anatomy, St. Bartholomew's Hospital; Surgeon to the Great Northern Central Hospital, London. Edinburgh and London: Young J. Pentland. 1898. (Demy 8vo, pp. 279, Figs. 23. 4s. 6d.)

This small book of Mr. Lockwood's embodies a considerable amount of practical work, and of keen and thoughtful observation. It is a continuation and expansion of the views expounded in the Hunterian Lectures some ten years ago.

Congenital hernia is first discussed. The part played in the production of such herniæ by the abdominal wall; the abdominal contents; the mesentery and its attachments, its prolapse, simple and compound, and its length, is carefully analysed and plainly set forth. The same is done for acquired hernia, and it is here that we first meet with the statement, afterwards repeated and amplified, that "curative operations upon acquired hernia are to be avoided."

In describing the plan of operation adopted by the author a full description of the methods for ensuring asepsis is given, and a very useful form of dressing for single and for double hernia is figured. The importance of the valve-like, sphincteric action of the inguinal canal is emphasised, and the fact that for the due and efficient working of this valve the inguinal canal must be empty is made clear. It is pointed out that during straining the front and back walls of the canal are "forcibly brought together, and at the same moment the arciform fibres of the internal oblique and transversalis shorten and descend upon the spermatic cord, press it down upon Poupart's ligament, and so obliterate the gap which would otherwise remain betwixt them and that structure." The operation done for the radical cure may be thus briefly epitomised. The sac after separation is pulled down, cut across, twisted gently once or twice, transfixed with a blunt hernia needle, and tied with silk by a Staffordshire knot. The stump of the sac is then transplanted so as to lie underneath the arciform fibres of the internal oblique and transversalis, and well away from the inguinal canal. One or more sutures are passed through Poupart's ligament below, beneath the cord and through the arciform fibres above. When the sutures are tied the arciform fibres descend into their original position and the gap is obliterated. This operation has for its object the restoration of the canal as nearly as possible to its normal condition.

From this it will be seen that Mr. Lockwood's attitude towards hernia is somewhat different from that of the majority of surgeons. He only operates upon cases of congenital hernia, and attempts—and it would seem very successfully—to bring about a return of the inguinal canal to the normal. The greater number of surgeons do not so carefully select their cases. A large proportion of cases would by them be considered as suitable for operation, and the operations done for the radical cure would necessarily embody a principle entirely different. What the principle is would vary according as Kocher's, Bassini's, or Macewen's operations

were adopted. But with all there is not an attempt to bring into play the sphincteric action of the inguinal valve. The aim is rather to build up and strengthen by one means or another a spot which is considered weak. For the cases Mr. Lockwood selects it would be impossible to conceive an operation theoretically more satisfactory than his. For acquired cases, especially when of moderate size, the operation would not, of course, be practicable. For these the operations of the surgeons already named would be preferable. The importance of a thorough investigation of the inguinal canal and of the contents of the sac cannot be overestimated. Such conditions as inguinal varicocele, lipoma of the cord, adherent tags of omentum near the internal ring are doubtless frequently overlooked, and are thereby the inevitable causes of a recurrence of the hernia.

In the radical cure of a femoral hernia the sac is treated as before. To close the ring, "Hey's ligament is sutured to Cooper's ligament." Cooper's ligament is accurately described as "a very strong band of fibrous tissue which runs along the linea ileo-pectinea. Its inner end is attached to the back of the spine and body of the pubes, being closely connected with Gimbernat's ligament; its outer end is lost upon the brim of the pelvis at the pectineal eminence."

Of hydrocele and of varicocele there is less that is new to be said. The usual method of excision is adopted for the former, and for the latter an operation differing but little in essentials from that of Bennett is advised.

The matter of the book is beyond reproach, and from the intensely practical nature of its contents is almost beyond criticism. There is little or nothing of hearsay. Every fact is attested by personal observation, and verified by a large and fruitful experience. Mr. Lockwood fully upholds his reputation as one of the most thoughtful, exact, and scientific surgeons of the day. Of the manner of the book we cannot speak so enthusiastically, for the style is harsh. In his preface Mr. Lockwood remarks "Should this endeavour meet with approval, it is my intention to continue with other abdominal operations." The verdict upon this work is not open to question. Whatever Mr. Lockwood writes every thinking surgeon is compelled to read.

Heredity; or, what Living Things Owe to their Ancestors and what they do not. By Richard John Anderson, M.A., M.D., Professor of Natural History, Queen's College, Galway. Galway: Matthew Clayton. 1898. (12mo, pp. 146, 16 pp. diagrams. 1s. 2d.)

In this little book, issued at a very popular price, the author has reproduced the substance of "the somewhat elaborate text of three lectures," which had for their object the elucidation of the laws of heredity. It is intended to meet the requirements of the ordinary reader, though one or two of the sections are more scientific in tone, and contain many original pen and ink diagrams, illustrating the forms of crystals, the structure and functions of plant life, and those of the successive developments of the animal kingdom.

There is much highly-compressed information in this small but ambitious volume. We have, indeed, a rapid sketch of the whole realm of Nature so comprehensive as to be almost bewildering; and we miss any very distinct and definite statement of that which is set out in the title as the main thesis of the work. Variations are considered at some length in connection with the problem of heredity, and many interesting instances are adduced and commented on. "The tendency to vary," we are told, "is antagonistic to the tendency to inherit ..... but a variety may be in reality hereditary though it may not seem to be." "A power within an animal may consciously or unconsciously give rise to variations." Some varieties "may be the result of altered nutrition of central nerve cells or nerve paths"; and so the mental characteristics of some families become fixed, though their mode of manifestation may vary in successive generations. Thus "the man of genius may have inherited the qualities of an ancestor who was an artistic tradesman or a highly-skilled artisan."

In the section on Heredity and Disease we find some remarkable statements. We are told, for instance, of a doctor who had chicken-pox when 7 years old, and a resulting scar on the temple was reproduced congenitally in his little son. "The criminal taint," we are told, "is the result of a morbid introspective habit," but we venture to doubt whether it is the habit of criminals to indulge in introspection. Extraordinary geniuses like Shakespeare seem often to come like comets or meteors, "without anything to form them"; but there is no doubt that such a thing as hereditary talent does exist, as is exemplified in families like the Cecils, Cavendishes, and Argyles, where the *res angusta domi* is not present to favour reversion to the mediocre average.

Professor Anderson has evidently bestowed much labour on the marshalling of his facts; and, were he less cramped for room, they would make a more effective array. Misprints are fairly frequent.

A Manual of Modern Surgery. By John Chalmers Da Costa, M.D., Clinical Professor of Surgery, Jefferson Medical College, Philadelphia, Surgeon to the Philadelphia Hospital, etc. Second edition. London: Henry Kimpton. 1898 (Demy 8vo, pp. 911. 386 illustrations. 21s.)

In the preface Dr. Da Costa states that his purpose was to make a book that would stand midway between the textbook and the compend. Considerable success has attended the publication of the volume; but it is difficult to fathom the reason. A work purporting to occupy the position intended for this should be up-to-date in all respects. Its information on all points should be modern and strictly accurate, and the illustrations should be a help to the letterpress. All these essentials are in greater or less measure absent. To give merely a few examples. The classification of aneurysms is unnecessarily complex and not wholly correct. On page 400 the only statement made under the heading "separation of the upper epiphysis of the tibia" is "there is only one recorded case (Pick)." Leaving apart the question as to the advisability or propriety of mentioning such an injury without describing it, care should at least have been taken to make the statement accurate. There are something like two dozen recorded cases. On page 520 it is stated that "Dupuytren's contraction is a contraction of the palmar fascia, of its digital prolongations, and of the fibres joining the fascia and the skin." This is, of course, partly true. But the impression conveyed by the description is erroneous. In the section on the operative treatment of flat-foot Gleich's operation is mentioned alone, in preference to, and to the exclusion of Ogston's, Hare's, and Stokes's. On page 712 occurs this statement, "Congenital or encysted hernia is a hernia into an unclosed vaginal process," and again, "In infantile hernia the vaginal process is occluded above, and not below, and the septum of occlusion is pushed down by the hernia." Now "congenital" and "encysted" are not, when applied to hernia, synonymous terms. In infantile hernia the vaginal process may be occluded above, or it may be occluded below, or it may be both, or it may be neither. But whatever it is, the septum of occlusion is never pushed down under any circumstances; if it were the hernia would not be infantile. And again, "Properitoneal hernia is a sac between the peritoneum and the transversalis fascia." A hernia is not a sac, and in properitoneal hernia the sac may be in the position stated, or it may not. The description is insufficient. These are only a few inaccuracies selected at random.

Finally, the illustrations are unsatisfactory, in some places hopelessly bad. Fig. 246 is perhaps the worst in the volume, but it has serious rivals. As a work on surgery the book is therefore unsatisfactory. As a sample of the publisher's art it is worthy of all commendation.

General Nursing. By Eva C. E. Lückes, Matron of the London Hospital. London: Kegan Paul, Trench, Trübner and Co. 1898. (Cr. 8vo, pp. 345. 5s.)

The long experience which Miss Lückes has had in the training of nurses has enabled her to compile a series of lectures which bristle with information for the nurse who is already qualified, as also for the probationer who is picking her way along the toilsome path of the learner. The object which the writer has set before herself in addressing these two classes in one volume has led to a certain confusion both in manner

and in matter; in some instances most minute instructions are given as for the unlearned, and in others useful matter is omitted as though the readers were fully conversant with the details of the subject. This is very evident in the section on the antiseptic treatment of wounds, where an opportunity has been lost of teaching both probationers and nurses the theory of the treatment. We also question the good taste shown in placing in permanent form moral exhortations on manners and conduct, which have their place in the *vivâ voce* lecture to the class, but which can hardly be acceptable to all and sundry. There is much of a practical nature in the volume which every nurse will find useful, especially when the lapse of time makes her rusty. In certain respects the book might be improved. For instance, the nurse is told if left in charge of a tracheotomy patient without the dilators being at hand to use the dressing forceps; but this is a contingency which should never occur. The paragraph on diphtherial paralysis might be enlarged with advantage; this complication is so formidable, and the onset so insidious, that the nurse requires to be stimulated to keep a careful watch on her patient during convalescence. We would suggest when another edition of this useful work is called for the addition of a table of contents, chapter headings, and a fuller index, thus making it a more handy book for ready reference.

Formes Cliniques et Traitement des Myélites Syphilitiques. [The Clinical Varieties and Treatment of Syphilitic Myelitis.] Par Gilles de la Tourette. Paris: J. B. Baillière et Fils. 1898. (Crown 8vo, pp. 90. Fr. 1.50.)

This small monograph is valuable chiefly because it directs attention to some difficulties in the pathology of disease of the spinal cord, which it may be hoped will shortly cease to exist. It must be admitted that the author uses the term "syphilitic myelitis" in a decidedly comprehensive fashion, inasmuch as he includes under the same heading with "myelitis proper" not only those cord changes depending on the mechanical pressure of gummata in the spinal canal, but those which result from what he terms "syphilitic Pott's disease," changes which, as it seems to us, are no more appropriately ascribed to a syphilitic myelitis than those associated with tuberculous disease of the spine might be ascribed to a tuberculous myelitis. Many at least of the more acute cases of "myelitis properly so called" are considered by the author to be due to a more or less rapid thrombosis of the spinal arteries brought about by syphilitic disease of the arterial walls, but it is questionable if the term "myelitis" is one whit more suitably applied to these vascular changes than "cerebritis" to the changes in the way of white softening that result from thrombosis of the cerebral vessels. The more deliberate cases of paraplegia occurring in syphilitic subjects are attributed by the author to a slow arterial and venous sclerosis. There is an important chapter, in our estimation the most valuable portion of the book, devoted to the cord changes that occur in hereditary syphilis. There is nothing especially noteworthy in the sections dealing with the treatment of "syphilitic myelitis"; it is described as essentially consisting in the administration of iodide of potassium and of mercury either by the mouth or by inunction, or if a rapid effect is needed, by subcutaneous injection. We have failed to find any reference to the general treatment of the acute cases in their earliest stage. Numerous, perhaps too numerous, clinical cases are recorded in support of the author's tenets. There is no index.

The book will probably appeal less to those who seek for information than to those who are in a position to weigh suggestions on the subject of which it treats.

System of Diseases of the Eye. By American and European authors. Edited by William F. Norris, A.M., M.D., and Charles A. Oliver, A.M., M.D., of Philadelphia. Vol. iii. London and Philadelphia: J. B. Lippincott Company. 1898. (Demy 8vo, pp. 976, 186 illustrations. 21s.)

The third volume of this excellent system resembles its predecessors in size and appearance. It is devoted to the clinical side of ophthalmology, and the following well-known authors are responsible for its articles: C. S. Bull, G. C. Harlan, S. Theobald, S. M. Burnett, E. Gruening, R. L. Randolph, and H. Knapp, all of America; W. A. Brailey, S. Stephenson, A. Hill Griffith, and Priestley Smith, of England; J. Schnabel, J. Schöbl, and J. Deyl, of Austria. For some reason not stated, diseases of the cornea and lens are omitted, but each subject touched upon is handled by authors who are already known as authorities in the various departments of ophthalmic science.

With regard to tumours of the orbit, Dr. Bull considers that when the tumour is not encapsuled surgical interference is almost always followed by recurrence, and that repeated operations undoubtedly shorten the patient's life. No mention is made of endotheliomata of the orbit.

The chapter on Diseases of the Eyelid is rather fragmentary, and it is somewhat surprising to find the application of caustics, such as nitric, chromic, and chloracetic acids, advocated in the treatment of epitheliomata, as well as the scraping of them with a sharp spoon or scalpel.

Tumours of the Choroid are ably discussed by Dr. Hill Griffith. He considers that as metastasis almost invariably occurs during the first two years after the removal of an eye for choroidal sarcoma, we may fix a three years' limit, after which time the patient may be considered cured. This can hardly be taken as the opinion of all observers, though working on this principle he finds from his experience that 50 per cent. of cases may be looked upon as cured.

The anatomy of posterior staphyloma and its relation to myopia is described and discussed by Professor Schnabel, but it must be confessed that his conclusions are much at variance with ideas usually accepted.

Mr. Priestley Smith's article on Glaucoma is well up to date, and is written in his usual lucid style. Space will not allow of a further detailed description of this excellent volume, but it may safely be recommended as the most modern and serviceable treatise on the subjects included in its pages.

NOTES ON BOOKS.

A Synopsis of Surgery, by R. F. Tobin, F.R.C.S.I., Surgeon to St. Vincent's Hospital, Dublin (London: J. and A. Churchill. Dublin: Fannin and Co., and W. McGee. 1898. Crown 8vo, pp. 298. Interleaved. 6s. 6d.) is intended to be used in association with a full and comprehensive treatise of surgery. The teaching is sound and modern, clearly expressed, and well arranged. Whilst presenting these pages as a synopsis of his own lectures and an epitome of his teaching, the author insists on the importance of studying larger systematic works on surgery and surgical pathology. In a work of this character, in which compression is regarded as the essential quality, a long preliminary address on Surgery as a Profession seems to be not only unnecessary but out of place.

Dr. Edward Blake's book *On the Study of the Hand for Indications of Local and General Disease* (London: Henry J. Glaisher; John Bale, Sons, and Danielsson. Crown 8vo, p. 53; 11 illustrations. 2s. 6d.) may be regarded as a curiosity of medical literature, and as an example of specialism carried almost to the boundary of the absurd. It presents nothing new, and what the author has collected from various sources is not well arranged or expressed. The volume is somewhat deceptive, for of over fifty pages fifteen are taken up by a bibliography and an index, and eighteen are quite blank.

As we have already on two occasions during the course o its publication in parts noticed Dr. Martin Chotzen's Atlas of Syphilis and of Skin Diseases resembling Syphilis (*Atlas der Syphilis und syphilisähnlichen Hautkrankheiten*. Hamburg und Leipzig: L. Voss. Demy 4to; 6 plates with letterpress. M. 3 each part), it is only necessary to state that it is now complete and that the twelve parts can be obtained in a single volume of convenient size. As in the earlier, so also in the later numbers, the various plates are not all of equal merit. Some show fairly well what they are intended to represent, whilst others are more or less unsatisfactory. Still the *Atlas* as a whole will probably be found helpful by those whose opportunities for seeing the diseases in question are restricted, but

pictures, of course, however good they may be, can never really take the place of the living subject.

The pamphlet by Dr. Walter Collan, of Helsingfors, on gonorrhœal inflammation of the seminal vesicles (*Ueber Spermatocystitis Gonorrhoica*. Hamburg and Leipzig: L. Voss. Demy 8vo, pp. 78, 2 plates. M. 3.50) is largely a summary of the writings of others, but he gives also notes of 15 cases of more or less chronic gonorrhœa observed by him among the patients of Professor Finger in Vienna, as well as of the changes found, *post mortem* in the seminal vesicles of a patient who had died from pneumonia. The fifteen cases had all been for some time under treatment and had shown signs of posterior urethritis, but gonococci could no longer be found in the anterior urethra. Dr. Collan examined with the microscope the contents of the seminal vesicles obtained by means of Feleki's "prostatamasseur," with certain precautions to prevent admixture with the secretions of the prostate and urethra. Six of the patients had previously suffered from epididymitis, and of these the contents of the seminal vesicles showed gonococci in the one case only, whilst of the remaining 9 (uncomplicated) cases gonococci were found in 8. One would have liked to know exactly how these cases were treated and the result of the treatment, but on these points no information is given. The author states that he has not seen any case of acute suppuration of the vesicles. There is a copious bibliography at the end of the work which will be useful to those who are interested in the subject.

Mr. John H. Morgan has reprinted for private circulation his Lettsomian Lectures on the *Affections of the Urinary Apparatus in Children* (Demy 8vo, pp. 66). These, which form a part of the last volume of the *Transactions* of the Medical Society, were printed in the British Medical Journal at the time of their delivery, and present the results not only of long personal experience in both general surgery and the surgical diseases of children, but also of a patient study of much scattered observation and record, including the large amount of clinical and pathological information collected by the Registrars of the Ormond Street Hospital. The first lecture, which deals mainly with abnormalities and congenital defects of the kidney, adds but little to our present knowledge of these conditions; but the remaining two lectures, on the other hand, in which the author discusses matters of more practical import, are both instructive and suggestive, and we can especially allude in support of this assertion to the able review of the modern surgical treatment of vesical calculi in young patients. Mr. Morgan is to be congratulated on the able manner in which he discharged his duties as Lettsomian Lecturer.

The fifth edition of *Notes on Surgery for Nurses*, by Dr. Joseph Bell, of Edinburgh (Edinburgh: Oliver and Boyd. 1899. Cr. 8vo, pp. 194; 2s. 6d.) has been thoroughly revised, and will no doubt be as much appreciated by those for whom it is intended as its predecessors. Its aim appears chiefly to be to give as much medical and surgical information to a nurse as will enable a fairly intelligent woman to understand the why and the wherefore of all that is being done for her patient. This, besides giving her more interest in her work, will naturally enable her to nurse her patient more skilfully. The book is very readable, and the various duties that a nurse is called upon to perform are interspersed with matters of a more technical and scientific character; the language is so plain as to be understood by almost any reader, certainly by any trained nurse. A chapter is devoted to the surgical nursing of children, which anyone who has to nurse a child will do well to study carefully. The general advice given in the last chapter, as the author states "in answer to many requests," cannot fail to be appreciated, coming as it does from one who has been so long intimately associated with the training of nurses, and with their employment both in hospital and private practice. The appendix is quite new, and is devoted to the relation of the trained nurse to the profession and to the public.

We have received a copy of a little work on elementary *Home Hygiene* (16mo, pp. 222, 66 illustrations, 1s.), issued under the auspices of the St. John Ambulance Association, and corresponding to their textbooks on *First Aid* and *Home Nursing*. The author is Dr. J. F. Sykes, M.O.H. St. Pancras, who has succeeded in making the subject interesting and clear to anyone of ordinary intelligence. The book is divided into ten chapters, each of which corresponds to the subjects dealt with in the ten lectures given to candidates for the Association's Home Hygiene certificate. They will find it of great help, and it will also be useful to every householder, for it describes how to proceed in the selection of a dwelling-house, the arrangement of the water supply and drainage, how to test and purify water, and gives useful details about food and clothing. The last chapter is devoted to the prevention of infectious disease, including the subject of animal and vegetable parasites.

LIST OF AUTHORS AND OTHERS WHO HAVE PRESENTED BOOKS TO THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Fortieth List.

Presented by the AUTHORS.

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Report of an Investigation of Rivers and Deepground Waters of Ohio. 1898.

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Transactions of the Third Dermatological Congress, London. 1896.

Presented by the UNDER-SECRETARY OF STATE FOR FOREIGN AFFAIRS.

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Tillmans, H. Principles of Surgery and Surgical Pathology. 1898.
Tobin. Synopsis of Surgery. 1898.
Twentieth Century Practice. Vols. 14 and 15. 1898.
And other volumes.

BOOKS NEEDED TO COMPLETE SERIES.

The Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1 to 7.
American Dermatological Association Transactions. Vols. 5, 7, 8, and 11.
American Journal of the Medical Sciences. New series, vols. 4, 5, 1842-43; vols. 14, 15, 1847-48: vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-65; vol. 59; or any parts of these vols.
American Journal of Ophthalmology. Vols. 1-9.
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Applications for duplicates from medical societies forming libraries may be addressed to the Librarian, 429, Strand.

Influenza in London.—There was a slight further decline last week in the mortality from influenza in London. The fatal cases of this disease, which had been 100, 125, and 108 in the three preceding weeks, further fell to 102 during the week ending Saturday last, April 1st. Of these 102 deaths, only 28 were of persons under 40 years of age, while 48, or nearly one-half, were of persons aged upwards of 60 years. The fatal prevalence of influenza showed an increase last week in West and in North London, while in South London it showed a decline. The increase in West and North London was due to the spread of the disease in Kensington, Chelsea, Marylebone, and Hackney. There was also an increase in the fatal prevalence of influenza in Poplar and in Wandsworth; while, on the other hand, the number of deaths directly attributed to this disease showed a marked decline in Lambeth and in Battersea.

SECRET COMMISSIONS.

We mentioned in the British Medical Journal of March 11th, page 612, that the report of the Special Committee on Secret Commissions of the London Chamber of Commerce contained a statement to the effect that the Committee concluded from the evidence before them that secret commissions in various forms are prevalent in almost all trades and professions to a great extent. Further on in the report the Committee suggest that all professions and trade bodies, such as those representing the medical, legal, artistic, and other professions and trades, should make an emphatic declaration on the subject of secret commissions by inserting into their by-laws a stipulation that any member guilty of the pernicious practice would be expelled the Society.

It will be seen that the medical profession is included in the implied condemnation without any qualification, but so far as appears from the appendix containing excerpts from statements made by, and letters received from members of the Chamber and others in response to the public invitation of the London Chamber of Commerce to supply information on the subject, the inclusion of the medical profession depends upon two statements. One of these, made by a pharmaceutical chemist, was that "secret commissions are given by chemists to medical men on their prescriptions supplied to patients, in some cases amounting to from 25 to 50 per cent. on the price charged by the dispensing chemist."

With regard to pharmaceutical chemists we cannot ascertain that any such practice exists, nor so far as we can learn is there any floating gossip that such commissions are given.

Two gentlemen in large general practice have, indeed, informed us, that they had both many years ago been offered cheques by neighbouring undertakers. One correspondent states that he was offered a cheque by the undertaker for a recommendation to the relatives of a visitor to London who had died away from home. Our correspondent resented it as an insult, and during a long career has not had a similar experience. Our other correspondent writes that he would have been able to state that he had no knowledge whatever of secret commissions being offered to members of the medical profession, but that many years ago—not long after commencing practice—a firm of undertakers sent him a cheque for £70 odd! This was returned, and the offer has not been repeated.

The other statement upon which the London Chamber of Commerce appears to rely is made by "an optician, jeweller, and silversmith," who said that it was "an open secret that hospital doctors received commissions from makers of surgical instruments."

It is obvious that the charge as to surgical instruments cannot apply to those properly so called which are used by surgeons for their operations. For such instruments the surgeons are themselves the customers of the makers. It is no doubt meant to apply to surgical appliances supplied to patients on the order of the surgeon. Practically such appliances are either orthopædic instruments or spectacles.

As the statement quoted is made by a person who combines the trade of an optician with that of a jeweller, it seems probable that he was referring to surgeons whose practice is concerned with diseases of the eye. We have therefore made inquiries of leading ophthalmic surgeons. One of these writes to us as follows:

I have no knowledge of commissions being offered by opticians, instrument makers, or chemists to ophthalmic surgeons; I mean money commissions.

Many opticians have almost refused to charge me for things supplied for myself, or have insisted on deducting a very large discount, and when this has happened I have generally avoided further personal dealings with such a firm.

Many years ago, when I was beginning practice, a firm of opticians to whom I had sent a good many patients sent me a small present of game at several successive Christmas times, and finally begged leave to be allowed to send a magic lantern (or conjuror?) entertainment for the "children" (he did not know that I had none). I remember being annoyed by the pheasants, but accepting them with some misgivings; the magic lantern I declined, and soon afterwards ceased recommending people to this firm.

I can easily imagine that had their advances been met with alacrity on my side, something objectionable might have come to pass.

I should say that some of the opticians are very anxious to obtain a sort of understanding that all patients shall be sent to them, and to supply one with prescription forms for spectacles printed on the back of their business cards. I have always refused to use such forms, and have never let anyone suppose that I would send specially to him.

Incidentally it may, however, be said that there are real practical advantages to the patient in being sent to an optician who knows the usual wishes and prescriptions of a particular surgeon, and such a plan of course saves the surgeon trouble. It has been chiefly the wish to keep clear of possible supposed business relations with any of the supplying firms that has hindered me from always employing the same.

I have sometimes thought, from what I have heard others say, that my experience has been more favourable than that of some others; but suspicion and rumour are so easily aroused that very great care will, it seems to me, be needful to verify before accepting any reports of a kind adverse to the honourable conduct of our profession,

Another ophthalmic surgeon writes:

I have reason to believe that some opticians do offer, and some ophthalmic surgeons do receive, secret commissions. In my earlier days the offer of secret commissions was made to me by more than one optician, and when I declined such offer I was told it was common.

Another ophthalmic surgeon writes:

I do not believe in the existence of such a practice. Perhaps it would be too much to expect that among the ranks of surgeons there have not been one or two who have taken commissions from tradesmen; in fact, one has heard rumours of it, but I have never heard of any case depending on evidence worthy of belief. If such a thing had ever been done by one man it would be quite enough to give rise to the charge now made in general terms; but I am quite sure that it is not a practice now among ophthalmic surgeons. There is a minor form of commission giving which requires a good deal of firmness to put down—I mean the readiness of opticians to supply optical material to surgeons without charge; it is almost impossible to get some opticians to send in a bill for instruments, etc., supplied, some of them stating that they "never charge the profession." Any man who wishes to preserve his independence will not and does not permit this.

With regard to the matter of orthopædic appliances we have already printed the opinion of one surgeon of large experience, who told us that he had never known the suggestion even of an offer of commission. Another surgeon has written to us as follows:

I have been at work in hospitals for thirty years, on the staff of one for twenty-three years, for a long time surgeon to the Surgical Aid Society, and especially interested always in a department of surgery which has kept me in constant relations with instrument and appliance makers, and I have never seen or heard of a single instance in which commission, in any form, was offered or asked for or given or accepted either on the part of any surgeon or any instrument maker.

Our correspondent adds a criticism of the manner in which the general question was treated by the *Times* in a leading article.

For example (he writes) it states "for different reasons, none of them dishonourable, it is difficult to obtain evidence regularly verified, or capable of such exact verification as could be effected were specific instances given with name and dates." My experience—general experience—shows that the reason of the difficulty is usually a very dishonourable one, namely, that the allegations usually come from people who put forward mere suspicions as so many known facts. When there is a real case no difficulty is experienced, by persons willing to take the trouble and give the time, in proving it.

Three other surgeons, whose practice must certainly have placed them in frequent relation with makers of orthopædic instruments, state that they have no knowledge of the existence of any such practice as that of the granting of commissions by surgical instrument makers.

At the same time we must confess that verbal communications made to us by some surgeons disclose an uneasy feeling that the practice of giving commissions may exist in connection with the supply of orthopædic instruments. They have not been able to give direct evidence of this, and we can only observe that, if the practice does exist, the instrument makers must show a singular discretion in making their offers, as otherwise some of the correspondents with whom we have communicated would certainly have known of the existence of the practice, and would not, we believe, have hesitated to state the fact. The only alternative would seem to be that the request for the commission is made by the surgeon, and as to this we have received a letter from a surgical instrument maker in London, who has addressed a communication to the London Chamber of Commerce, stating that having had a large and varied experience in the supply of surgical instruments to large general hospitals, extending over a period of about 25 years, he could assert absolutely that such a thing is quite unknown to him; he adds that were he to approach any of the staff of those hospitals to which he is appointed with any such suggestions he feels sure that his future would be most seriously prejudiced.

If, then, commissions are given by the makers of orthopædic instruments to any of the surgeons who order them, it is clear that the utmost secrecy is observed, a secrecy so complete that other surgeons engaged in the same line of practice have never met with evidence of the existence of such a custom, and have never themselves been offered a commission. This, as we have said, argues a very singular discretion on the part of the makers of these instruments, so singular, indeed, as to be almost incredible.

With regard to opticians the case is not quite so clear, and it would appear that the makers of optical instruments do try to establish special relations with ophthalmic surgeons; and it is, of course, possible that in some instances their efforts are successful.

The London Chamber of Commerce suggests that all professional and trade bodies should make an emphatic declaration on the subject of secret commissions, and, having regard to the importance of the body by which the charge has been put forward, and to the fact that such a charge is of a peculiarly serious nature in so far as it affects the medical profession, since it strikes at the root of the confidence which the patient should feel in the unbiassed judgment of his medical adviser, it seems particularly desirable that such a declaration should be made by the Ophthalmological Society of the United Kingdom, and we would venture to commend the suggestion to the Council of that Society.

The general allegation put forward—on grounds which appear to be exceedingly slender—is, perhaps, one of which the Council of the British Medical Association, as representing the great body of the profession in the United Kingdom, might properly take notice.

As to the feeling in the profession upon the subject there can, we apprehend, be no sort of doubt. It is one of unqualified condemnation of the receipt of such commissions. The extreme secrecy which must be observed—if secret commissions are, indeed, given—shows that those who receive them must be perfectly aware of the state of professional opinion. We do not think that the accusation should be allowed to go unchallenged or be disregarded from a feeling of injured dignity. It has been made by one of the most important of the commercial bodies in the country. The medical profession is specifically included in the report of this body; the accusation has been scattered broadcast through the press of the United Kingdom, and the matter is certain to be referred to in the House of Lords when Lord Russell of Killowen brings in his Bill.

NOTIFICATION OF INFECTIOUS DISEASES.

THE following is the text of the Bill which was read a second time in the House of Commons on March 27th. The Bill is backed by Sir Francis Powell, Mr. Hobhouse, Dr. Farquharson, and Mr. Knowles.

A Bill to Extend the Infectious Disease (Notification) Act, 1889, to Districts in which it has not been Adopted.

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Extension of 52 and 53 Vict., c. 72.*—(1) The Infectious Disease (Notification) Act, 1889, shall after the commencement of this Act extend to and take effect in every urban, rural, and port sanitary district, as defined for the purposes of that Act, in England or Wales, whether that Act has or has not been adopted therein before the commencement of this Act.

(2) In any such district in which the Infectious Disease (Notification) Act, 1889, has not been adopted before the commencement of this Act, that Act shall for the purposes of Section XIV thereof (which relates to the operation of local Acts) be treated as having been put in force on the commencement of this Act.

2. *Short Title, Repeal, and Commencement.*—(1) This Act may be cited as the Infectious Disease (Notification) Extension Act, 1899, and the Infectious Disease (Notification) Act, 1889, and this Act may be cited together as the Infectious Disease (Notification) Acts, 1889 and 1899.

(2) The enactments specified in the schedule to this Act are hereby repealed, as regards England and Wales, to the extent mentioned in the third column of that schedule.

(3) This Act shall come into operation upon the first day of January one thousand nine hundred.

SCHEDULE.

ENACTMENTS REPEALED.

Session and Chapter.	Short Title.	Extent of Repeal.
52 & 53 Vict, c. 72	... The Infectious Disease (Notification) Act, 1889	In Section II the words "after the adoption thereof." Section V

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 8TH, 1899.

MEDICAL PRACTICE BY COMPANIES.

A Bill the object of which is to prohibit the profession or business of physician, surgeon, dentist, or midwife being carried on by a company was introduced by the Lord Chancellor into the House of Lords just before the Easter holidays.

Although the history of the matter has already been mentioned on several occasions, it may be worth while briefly to recapitulate the steps which have resulted in inducing the Government to take this matter in hand. During the May session of the General Medical Council Mr. Tichborne, the representative of the Apothecaries' Hall of Ireland, called attention to an Irish drug company, which avowed in its memorandum of association that it would *inter alia* carry on the business of physicians and surgeons; no qualified persons were amongst its original shareholders. It was pointed out in the course of the discussion which ensued that this was no new thing, nor was it an isolated instance, certain people having discovered that by incorporation and registration as a limited liability company they could completely avoid the consequences which would be incurred by an individual who contravened those Acts which require a personal qualification for the pursuit of certain callings. It was stated further that a number of companies had been formed with the object and the result of successfully evading such Acts. This immunity arose, at least partially, from a technical legal interpretation of the word "person," which had been held not to apply to a company.

An attempt to provide a remedy had been made some two years previously by a Joint Committee, upon which the British Medical Association, the Medical Defence Union, the British Dental Association, the Royal College of Veterinary Surgeons, and the Pharmaceutical Society had been represented, and it happened that two members of the General Medical Council (Mr. Victor Horsley and Mr. Tomes) had served upon this Committee, and were therefore well acquainted with the facts. The General Medical Council appointed the President and these two gentlemen as a Committee to endeavour to procure some amendment of the law, and the present Bill is the direct outcome of the efforts of that Committee.

At the time of the earlier attempt there was a prospect of an important Companies Act Amendment Bill coming forward; a Departmental Committee of the Board of Trade was sitting, and both this Committee and the Board of Trade itself were approached, but with only a small measure of success, for these bodies held that their proposed Bill was primarily a financial measure. Whilst more or less sympathetic, they were not willing to burden their Bill with clauses bearing upon another aspect of company law. The late Lord Herschell was, however, induced to set down an amendment, which there was good reason to suppose the Board of Trade would not have opposed; but the Bill passed into the hands of Select Committees from which it has never since emerged.

At this point the Committee of the General Medical Council took the matter up, and whilst by no means oblivious of the interests of their former fellow workers, recognised that their only status was with regard to the Medical Acts and the Dentists Acts, for the administration of which the General Medical Council is responsible. They commenced upon the old lines, and sought an interview with the President of the Board of Trade in the hope that they might get a clause inserted in the coming Companies Act Amendment Bill. But they found that the opinion that the desired clause would not find an appropriate home in that Bill still prevailed.

The Lord Chancellor was then approached, and with much greater success. He at once recognised the existence of the anomaly, and the necessity for its remedy, so fully that he took the opportunity of a Pharmacy Bill being then before the House of Lords to insert a clause with generally similar objects into that Bill. This, however, for reasons which need not be entered into here, was not proceeded with. The Committee made a brief report to the General Medical Council at its November meeting, and on that occasion Mr. Tichborne was added to the Committee.

As will be seen, the Lord Chancellor has preferred to bring forward a short separate Bill instead of inserting clauses into a Companies Act; and his Bill, which is printed at page 874, will be hailed by the profession with satisfaction. Nothing could be shorter, simpler, or—so far as can be foreseen—more efficacious; the Bill does not concern itself with questions of title, etc., but simply forbids companies to carry on practice, as being in the nature of things unfit to do so.

As a Government Bill, introduced with the weight of authority of the Lord Chancellor, it is pretty certain to pass the House of Lords, but it is very possible that a certain section of the members of the House of Commons, to whom *Caveat emptor* is a sacred formula, may offer opposition. Members of the medical profession, however, can use their influence to secure support for the Bill in the Commons with great effect, for the best of arguments is rendered yet more convincing to the mind of a member of Parliament when it is presented to him by a constituent.

The arguments which have been laid before the Government, and which appear to have influenced them, are, briefly these. That an abuse exists and calls for remedy was proved by the submission of a large number of instances of offending companies. It was further pointed out that such companies really have no legitimate reason for existence, for, as was emphasised by the position assumed by the Board of Trade and by its Departmental Committee, the incorporation and

registration of limited liability companies have primarily a financial object. These formalities are designed to protect the shareholders' capital. In the conduct of medical or dental practice there is no risking of capital in trading operations, and therefore no need of limited liability. In fact, there cannot be said to be any function for capital at all. Accordingly nearly all these companies are of the "one-man" type, and have a purely nominal subscribed capital of ridiculously small amount, so that it is obvious that their incorporation had some object quite other than financial security.

Then, too, personal qualification and personal responsibility are of the very essence of the relation between practitioner and patient. It is quite obvious that a company cannot pass examinations and obtain a qualification. Nor can it be endowed with a proper personal responsibility, for the emoluments would go, not to the practitioner attending, nor, should he chance to have partners, to his firm, but to an intangible corporate body composed wholly or in part of unqualified persons, and the mere paid agent would be virtually irresponsible, as would also his corporate employers. It may be added that experience has shown that it is practically impossible to secure a conviction either against a company or its employees for infringement of Medical Acts.

It seems probable, in view of the recent decision in the case of Hunter v. Clare, that the Bill would be strengthened by the insertion of such words as "medical practitioner," and there would probably be no difficulty in securing their insertion. But the Bill as it stands is a good one, and we may gratefully accept the gifts the gods provide for us, hoping at the same time that it may be an earnest of better things in the future than the half-hearted medical legislation of the last half-century. It may be added that the Lord Chancellor's Bill is simpler and more decided in the line which it takes than was the late Lord Herschell's amendment to the Companies Act Amendment Bill, for that endeavoured to deal with the questions of medicine, dentistry, and pharmacy in a single clause, so that the failure to obtain the insertion of a clause in the Companies Bill has in the long run been absolutely beneficial. Indeed, the strength of the present Bill is largely due to the fact that the Lord Chancellor recognised that, although there were points of close similarity, there were differences and difficulties in the case of pharmacy, arising from trade operations, which did not exist in the case of medicine and dentistry. Hence, a Pharmacy Act Amendment Bill, which we print on another page, was introduced at the same time as the Medical Bill. In a general way its objects are similar, but, instead of a prohibition of practice companies would be allowed to carry on the business of pharmacy so long only as it is conducted *bonâ fide* by a registered pharmaceutical chemist or chemist and druggist.

We are advised that the Lord Chancellor's Medical Bill is not intended to interfere with friendly societies legitimately constituted, nor will it have any such effect.

Dr. A. PATTON, who has for over twenty-five years been medical superintendent of Farnham House Private Asylum, Finglas, Dublin, one of the oldest of its class, has been obliged by advancing years to retire. He is succeeded by Dr. W. R. Dawson, who has for some years been connected with the asylum, and was formerly assistant at Morningside.

THE EQUALISATION OF NOTIFICATION.

THE object of the Infectious Diseases (Notification) Extension Bill, which passed the second reading on March 27th, and will, it is expected, reach the Committee stage on April 14th, is to extend the provisions of the Notification Act of 1889 to all sanitary authorities. It will be remembered that this Act provided in the second section that it should extend (*a*) to every London district, and (*b*) to any urban, rural, or port sanitary district *after adoption*. The present Bill proposed to repeal the words we have placed in italics, and the whole of Section v, which prescribes the method of adopting the Act by authorities outside London. This repeal, however, as will be seen on reference to Section II, Subsection (2), in the Bill, which is printed at page 860, applies only to England and Wales. In like manner the enacting clause (1, (1)) provides that the Act of 1889 "shall after the commencement of this Act" (January, 1900) "extend to and take effect in every urban, rural, and port sanitary district . . . in England and Wales." Then follow the words, "whether that Act has or has not been adopted therein before the commencement of this Act."

Now there are three classes of districts which up to the present time have not adopted the 1889 Act: (1) There are a small number of districts whose rulers do not want to do so; (2) there are a probably slightly larger number of authorities who are hesitating, but refrain from rousing a possible storm by proposing to adopt the Act—who find the lines of least resistance in inactivity; (3) there are between 30 and 40 urban districts which had similar powers under private Acts and have preferred to continue as they were.

It would seem that it is for the benefit of this last class, containing as it does some very large centres of population, that the second subsection of Section 1 has been framed. The subsection, it will be seen, provides that, for the purposes of Section XIV of the original Act, that Act shall be considered as coming into force in any district which had not previously adopted it at the commencement of the extending Act. Section XIV of the 1889 Act runs as follows: "Where this Act is put in force in any district in which there is a local Act for the like purpose as this Act, the enactments of such local Act, so far as they relate to that purpose, shall cease to be in operation." All sanitary authorities in England and Wales will therefore, if this Bill becomes law, possess the powers, and only the powers, as to notification conferred by the original Act of 1889. They will all have the same powers of adding, under the same restrictions, other diseases to the list of those compulsorily notifiable. The fees payable under similar conditions will be the same throughout the kingdom. It may be objected that this uniformity is brought about in a somewhat roundabout manner. A direct clause repealing all sections of local Acts dealing with notification might have been as short and far less puzzling to the non-legal mind. Another difficulty to the lay mind presents itself as to the consequences of the repeal of Section v of the Act of 1889. That Section lays down the several steps to be taken by an authority about to adopt the Act by resolution. It prescribes the length of the notice that must be sent to members of the authority, requires the publication of the resolution, when passed, in a certain manner, and so on.

Naturally if adoption by resolution ceases, the principal object of the clause ceases also, and there seems good reason for its repeal. Unfortunately, by Section VII of the Act of 1889, the extension of the definition of the words "infectious disease" to illnesses other than those mentioned in Section VI is made dependent upon a resolution of the District Council called in the manner prescribed in the section it is now proposed to repeal. Does the power of extending the list of infectious diseases lapse when it has to be done in a manner set forth in a clause of an Act which has ceased to exist? No doubt some easy way out of this difficulty can be found, but the matter should be faced before the Bill becomes law.

Some will perhaps regret that in legislating on the subject of notification, the opportunity is not taken of amending, in certain other respects, the Act of 1889. As to the exact nature of such amendments, there would probably be some little diversity of opinion, and a contested Bill would stand little chance of becoming law. As to the present Bill—apart from the natural desire for larger legislation and matters of drafting such as we have alluded to—there will be but two opinions, one hostile, the other friendly. The majority of the medical profession will hold the latter. Notification has now been on its trial for nearly a quarter of a century. The dread it excited when it was first mooted has largely disappeared.

That it always and everywhere works smoothly and without friction would be too much to assert. We publish occasionally criticisms and grumblings; but after all, thanks largely to the mutual courtesy and the common desire for the greater good of the patients under our care—the two governing principles of medical etiquette—these slight unpleasantnesses are not only, as a rule, temporary and soon forgotten, but they are really few compared with the hundreds upon hundreds of thousands of instances where they are never dreamt of. If the Bill became law, the chief extensions will be in rural and small urban districts. If both those who receive and those who send the certificates will credit one another with the same honest intentions they possess themselves, we have no fear that the extension of the Act of 1889 will do anything but good. One direction in which good may be immediately expected is in the greater protection in future to the milk supply of large towns.

THE LONDON COUNTY COUNCIL AND THE LONDON GOVERNMENT BILL.

The London County Council, undaunted by the fact that the second reading of the London Government Bill passed the House of Commons by a majority of more than two to one, at its last meeting before the recess proceeded, in a sitting of nearly twelve hours' duration, to formulate its objections to the measure which Mr. Balfour has described as the "principal Bill of the session." It is very much to be regretted alike that party politics should be imported into the County Council, and that the functions of the County Council should be made the subject of political warfare. Sanitary administration is of the very essence of good government in a large town population, and must concern every medical man, and especially that growing army of sanitary officials who are daily doing battle with the causes of preventable diseases, and who are primarily responsible for dealing promptly and effectually with epidemic outbreaks.

The great Municipal Reform Act of 1835, which started our provincial municipalities on their beneficent crusade in the interests of public health, took its origin in, and derived its mainspring from, the hygienic shortcomings disclosed by the inquiries of the Poor-law Commission. No one, therefore, who takes an intelligent interest in sanitary questions can fail to watch closely the progress of a Bill which claims by its title to aim at "making better provision for the local government" of the greatest city the world has ever known.

The Government Bill does not find favour with those who claim to be "progressive" in the matter of London government; but the debates in the House of Commons and in the County Council alike prove that the real bone of contention between the two parties is the question whether the predominance of the central governing body of London will be diminished or impaired by the establishment of some twenty or thirty municipalities more or less independent of the central governing body.

From the point of view of the public health it is impossible not to be impressed with the necessity and advantage of a strong central administration for an area like London, in which some four and a-quarter millions of human beings are crowded with varying density upon 119 square miles of land. Main drainage, water supply, provision against epidemic disease, and similar duties laugh at the artificial outlines of parochial administration, and any change which would diminish the moderate amount of central control now exercised would be disastrous. We are none the less conscious of the urgent need of attracting to local administrative bodies entrusted with the control of such functions as cannot be centrally discharged, the best local talent which each district can produce.

That this has not been uniformly the case in the past is notorious, and had better men served the local vestries we should not have been called upon to witness, as we have done only too frequently, the petty bullyings to which medical officers have been submitted by ignorant and often interested representatives of local bumbledom.

A week or two ago we called attention to a reform which lies ready to hand if the Government would but listen to amendments of their Bill, which are intended benevolently in the interests of the betterment of London government. We refer to the abolition of the Metropolitan Asylums Board, and the transfer of its functions to other more representative and more modern authorities. We note that Sir Henry Campbell-Bannerman in the House of Commons made a suggestion in this direction to Mr. Balfour, who is in charge of the Bill, and in the early hours of the morning of the all night sitting a similar view, propounded to the London County Council by Dr. Collins, was adopted by an overwhelming majority of that body. We hope to hear more of this in the Committee stage of the London Government Bill, which bids fair to be of prolonged duration. Unfortunately the attitude of uncompromising opposition which has now been assumed by the County Council may have the effect of stiffening the back of the Government and hardening its heart to resist every suggestion fathered

by the Progressives. For our own part we believe that the case for the Bill would be very greatly strengthened by the acceptance of clauses providing for the transference of the powers of the Asylums Board. Such a change is the logical consequence of the establishment of the Council. The formation of the Board was due to the fact that at that time there was no central authority for London to which the work could be assigned. If the County Council had then existed the duties would without doubt have been allotted to it, and sooner or later this transference must take place. It is difficult to conceive any more appropriate moment than the present when Parliament is discussing a Bill which defines the duties of the several local authorities of London, and in certain directions lightens the administrative responsibilities of the County Council.

The Medical Officer of the County of London has made a report to the Council on the way in which the Bill in its various provisions will affect the health department of the County Council. He expresses the opinion that the proposed withdrawal of the Council's sanction to loans by the local bodies may act detrimentally by removing that survey of the whole of London's needs in sanitary matters, and that control of expenditure for such purposes which have operated beneficially in the past. With regard to the registration of dairymen and the administration of common lodging houses which are to be transferred to the local bodies, it is urged that from the bearing of such powers upon the propagation of epidemic diseases the Council could more appropriately continue to exercise them. The very different degrees of activity which the vestries in the past have exhibited in their administration of the Sale of Food and Drugs Act does not, it is thought, augur well for the transfer of powers, now exercised centrally, to the hands of the new mayors, aldermen, and councillors. It may be that the dignity of such titular distinctions will attract more zealous and energetic citizens to enter ranks which have hitherto been recruited too uniformly from the less worthy elements of local life in London. We can only hope that the sanguine expectation formed may be fulfilled. The result of the experiment will be watched not without some apprehension, but the policy of devolution is that to which both political parties in this country are more or less pledged. No other indeed appears to be consistent unless we are prepared to accept the orthodox Russian view as expressed by Pobyedonostseff, Procurator of the Holy Synod, that "the representative principle is accompanied by an abasement of political ideas and the vulgarisation of opinions in the mass of the electors," and that a benevolent despotism is the only good form of government.

THE NEW LUNACY BILL.

The Lunacy Bill to amend the existing Lunacy Acts, which has been introduced in the House of Lords by the Lord Chancellor and printed, is a bulky document of thirty-two clauses and two schedules, occupying in all sixteen pages. The main provisions are identical with those of last year's Bill in regard to the shortening of the duration of the urgency order to four days, assured pensions at the rate of one-sixtieth of the value of the salary, the grant of allowances or gratuities in the case of injuries, etc. The principal new feature is a clause (No. 24) providing for the temporary care of incipient lunatics for a period not exceeding six months. This clause, it is satisfactory to observe, follows very closely the suggestions of the Conjoint Committee of the British Medical and Medico-Psychological Associations. We propose to refer to the provisions of the Bill more at length on a future occasion.

THE SECONDARY EDUCATION BILL.

The Bill now printed is brief, and contains nine clauses only. Clause 1 establishes a Board of Education "charged with the superintendence of matters relating to education in England and Wales." Clause 2 enacts that the Board shall take the place of the Education Department, including the department of science and art, and that the Queen in Council shall transfer to it any powers of the Charity Commissioners which relate to education. The Commissioners retain the power to decide whether any given endowment is to be applied to educational purposes or not, but, once so allotted, the spending of it may be allotted to the Board of Education. By Clause 3 the Board is given power, *after taking the advice of the Consultative Committee*, to inspect any school supplying secondary education, *which desires to be so inspected*, both in its teaching and in its sanitary provisions. Such inspection may be either direct by the Board or by a university. Clause 4 establishes a Consultative Committee, two-thirds of which is to represent universities and other "bodies interested in education," which will include County Councils and School Boards. Its duties are first to frame regulations for a register of teachers, and, secondly, to advise the Board when asked. Clauses 5 to 8 are merely formal. Clause 9 exempts Scotland and Ireland, and concludes with two sentences which will try the gravity of Parliament. "This Act shall come into operation on the first day of April one thousand nine hundred. This Act may be cited as the Board of Education Act, 1899." It is to be hoped that it will not be called by irreverent persons the All Fools Bill.

THE JENNER SOCIETY.

The annual report recently issued by the Executive Committee of the Jenner Society gives an interesting account of the work done during the year 1898. A large part of it consisted in meeting the assertions of the antivaccinists in the lay press and exposing their fallacies. As is well known, certain of these agitators are in the habit of addressing letters containing the usual misstatements not so much to the great daily papers as to the weekly papers published in various country towns. Statements made with the utmost confidence in such sheets are apt to escape the attention of those best able to expose their fallacies, and the systematic work done by the Jenner Society in following up this mischievous propaganda is extremely useful. Further, as we can bear witness from our own experience, the Society, through its energetic honorary secretary, Dr. Francis Bond, is ever ready to afford information, assistance, or advice to medical men and others in various parts of the country, who are prepared to take up the cudgels against the antivaccinists. The publications of the Society, a list of which was printed in the British Medical Journal not long ago, are carefully prepared and well up to date, and are, therefore, very convenient for reference by medical men who may find themselves engaged in local controversies with antivaccinist organisations. A considerable part of the report is devoted to an account of the events which led up to the passage of the Vaccination Act of last year. While regretting that the Act as finally passed is in many respects very unsatisfactory, the opinion is expressed that it will be wiser under present circumstances not to make "fruitless efforts for the repeal of the Act, in their resistance to which the Government would receive the undivided support of the Opposition," but, "to use the time during which the Act may continue

to run for the education of public opinion on the subject, and especially for the enlightenment of that portion of the community out of which conscientious objectors are manufactured by the propaganda of the Antivaccination League." The report further states that "the experience of the last twelve months shows that the work of the Society is only beginning, and that it has before it a great educational task, which cannot be disregarded except at the cost of grave mischief to the whole country." Unfortunately the Society, though its expenditure is modest, is seriously hampered by the want of funds, and would indeed have been unable to carry on at all but for the two grants of £100 each which were made by the Council of the British Medical Association in 1897 and 1898, and for which the Society has expressed its cordial thanks. The Earl of Ducie and the Dean of Gloucester, by whom the report is signed, further state that it will be necessary to appoint an assistant secretary, as Dr. Bond, whose services as honorary secretary are warmly acknowledged, is no longer able to cope with the work, which has increased, and may be expected to go on increasing as the Society becomes more widely known. An appeal is made for new members of the Society. Membership is constituted by an annual subscription of not less than 5s. a year, life membership by a donation of £5 in a lump sum. Further information can be obtained from the Honorary Secretary, Dr. Francis Bond, Gloucester.

THE DESTINY OF CASEBOOKS.

A singular story is published in a recent issue of *Truth*. Our contemporary states, that twenty-one manuscript volumes of notes of cases treated by the late Dr. Alfred Meadows at the Hospital for Women in Soho Square were sold in a "lot" with some other things, and the lot fetched 3s. 6d. A gentleman present thought it an improper thing that records of this kind should be offered for sale in a public auction room, and took the trouble of visiting the hospital and remonstrating with the authorities; but he could not persuade them to share his views. Our contemporary approves his action, on the ground that, "setting aside all sentimental considerations, there are necessarily many facts in such books which would afford an opening for the most iniquitous practices if they got into unscrupulous hands." We agree that it is unseemly that books full of private records, whether of hospital patients or others, should be exposed for public sale. The confidences of patients, whether in hospital or in private, should be respected. Casebooks should remain the property either of the hospital or the individual making the notes; and if their preservation is inconvenient, they should be destroyed. Hospital managers should see that the notes of cases are either kept in safe custody or destroyed. We have used the word "unseemly," and we think it is here the proper one, for after all the matter is in this case one of seemliness. Carelessness as to the casebooks of this hospital if known would do harm rather by making a few patients uneasy than by any real probability of the consequences our contemporary fears. The terms used in such records are highly technical; most medical men who keep casebooks largely use abbreviations; many of the confidential communications made by patients such as they would dread to see published are not medically important and would not be entered in casebooks at all; and patients of the class seeking hospital advice often change their abodes. The blackmailer would have difficulty in discovering anything that would repay his search, and if he found something that he thought worth following up he would have difficulty in finding the patient, not to mention unforeseen results when the patient was found. The books of a women's hospital would be less worth investigating than those of almost any other; for an illicit pregnancy is almost the only lever for a blackmailer in such patients and that is a thing that can hardly be concealed. It is conceivable that a book full of histories of the other sex in which inquiries as to syphilis had been regularly made might be very dangerous to the peace of the patients if used by an unscrupulous person. Those who take such notes of private patients are well aware of this. The unscrupulous person searching hospital casebooks might not find his knowledge so profitable as he hoped, and might, as we have hinted, find unexpected consequences, but he nevertheless might be troublesome. Therefore we repeat it is the bounden duty of those who manage hospitals to see that notes of cases are either kept in safe custody or destroyed.

THE ASSASSIN OF THE EMPRESS OF AUSTRIA.

Some months ago, soon after the conviction of Luccheni, the assassin of the Empress of Austria, it was very positively stated that his imprisonment was aggravated by many barbarous circumstances. In particular it was alleged that he was confined in an underground dungeon to which no ray of daylight could enter. The convict is confined in the Prison de l'Evêché, at Geneva, and a valued correspondent in Geneva who visited the prison on March 29th, and saw Luccheni, informs us that the circumstances under which he found him were in fact as follows: "Luccheni occupies the cell No. 94, a room of 24 cubic metres, lighted by a full size window, looking to the south-east, and letting in considerable sunshine; the room is decently furnished, is kept perfectly clean, and is provided with an electric bell. The man had plenty of good books, and looked perfectly healthy, well fed, and quite happy. He is allowed twice a day an hour's walk in the prison yard, of course quite alone, as he is *au secret* for the first six months. Besides the room already mentioned Luccheni has a good-sized bedroom with a smaller window, a clean and comfortable bed, a close stool, etc. The bedroom is a trifle smaller than the sitting-room, looking also to the south-east. He is neatly clad. The rooms have nothing of a 'dungeon' about them, being two storeys above ground, and perfectly dry and airy." If a murderer is to be imprisoned at all, it is difficult to see how he could be better treated.

ADVANCE AUSTRALIA!

There appears to be considerable risk that in regard to legislative measures for the prevention of tuberculosis we may fall behind other branches of the Anglo-Saxon family. Our cousins in New York, long reproached for regarding and treating the world at large as a spittoon, have been the first to give expression to the scientific faith of their day, and have both promulgated regulations with regard to expectoration, and constituted phthisis and other forms of tuberculosis notifiable diseases. The legislators of South Australia are, doubtless, like other colonists, busy men. They have no time to beat about the bush. A spade they style a spade, or, at least, a modified shovel. New York may have got the start of South Australia in the matter of tuberculosis, but to compensate for this the Health Act of 1898 ("assented to January 4th, 1899"), "enacted by the Governor, with the advice and consent of the Parliament of South Australia," contains some clauses which the Americans will have to recognise as "one better." We in the old country are apt to be conservative and sometimes smile at the zeal of younger branches of the Empire. But we must not forget that Australia taught us the wisdom of the ballot at elections, and we submit that the following provisions of the Public Health Act referred to are worthy of record and consideration at our hands: "Every medical practitioner attending on or consulted by any person suffering from pulmonary tuberculosis shall, so soon as the fact becomes known to him, report the same to the Local Board of the district in which the person resides." If the case has been previously reported it is provided that a second notification shall not be necessary. The fee for the certificate is fixed

at 2s. 6d. Disinfection is provided for at the discretion of the medical attendant or the officer of health. Inspection of both cattle and meat is provided for, and the destruction of tuberculous cattle; compensation only to be paid where the diagnosis proves at fault. Milk from tuberculous cows in any stage of the disease may not be sold unless boiled for 10 minutes, and notification to that effect made to the Local Board. If the regulations with reference to cattle be really practicable, we must assume that tuberculosis is a rare disease in South Australia; but if they be carried out, together with the precautions for prevention among men, the "horrible shadow" should, ere long, be banished from South Australia.

A PROPOSED MEMORIAL TO SIR THOMAS BROWNE.

IT is proposed to erect a memorial statue of Sir Thomas Browne in Norwich, where the author of the *Religio Medici* practised as a physician for forty-six years. Sir Thomas, who died in 1682, lies buried with his wife Dorothy in the Church of St. Peter's Mancroft, and it has been suggested that the statue should be erected in the Haymarket, near the site of the house in which he resided for so many years. The house is now in use as a bank. According to the *Daily News*, whilst a grave was being excavated in the chancel of St. Peter's some years ago, a coffin was broken open, which proved to be that of Sir Thomas Browne, the skeleton being in good preservation, and the hair of the beard very profuse. Upwards of £200 has already been subscribed towards the movement, among the donors being the Master of the Rolls, Sir Peter Eade, M.D. (who has placed a mural tablet on the house in which Sir Thomas lived), Sir Frederic Bateman, M.D., Sir Francis G. M. Boileau, Bart., Sir C. R. Gilman, Mr. Samuel Hoare, M.P., and Mr. F. S. Stevenson, M.P. It is estimated that the statue will cost from £800 to £1,200. Sir Peter Eade is Chairman of the Committee, among the members of which are Dr. Robert Barnes, Sir F. Bateman, Dr. Beverley, and Mr. Cadge.

A FATAL MALADY PREVALENT AMONG DOGS.

PROFESSOR PENBERTHY[1] has described a fatal affection which for some months past has been prevalent in dogs in various parts of Great Britain. The most notable outbreaks noticed in this article are those occurring at Bristol, Clifton, Hull, and Hastings. In the same issue two other writers describe the disease as occurring in London and Nottingham, and we learn that Yarmouth, Margate, and Brighton are experiencing similar visitations. Professor Penberthy, as a result of *post-mortem* examinations, states that there can be no doubt that the malady is the same in the various parts of the kingdom mentioned, and refers to reports of what is probably the same affection occurring on the Continent. Veterinary literature is said to contain no reference to such an affection, and it would appear that it is at least new to the experience of English veterinarians who have expressed themselves on the subject. Dogs of both sexes, of all breeds, varieties, and ages have been affected, but it appears that adults are more commonly affected, and that the susceptibility increases with age. The main symptoms are such as to have suggested in most of the earlier cases some acute irritant poisoning, and this view has usually obtained at first; indeed in some instances the police authorities have caused special inquiries to be made with reference to wholesale poisoning. Loss of appetite, dulness, prostration, stiffness, disinclination to move, and expression of pain on forced movement, violent vomiting and intense thirst are almost constantly observed. Constipation usually exists; sometimes blood is discharged with the fæces. All the visible mucous membranes are congested, the gums becoming pulpy, and gangrene of the buccal membrane and underlying structures, particularly at the apex of the tongue, frequently occurs. The body temperature varies considerably in different cases; in some it remains normal, in others it is subnormal, and in others it rises two or three degrees. The average duration of illness is from six to ten days, but many cases have succumbed within three days after the first symptoms were observed. The mortality is very high; Professor Penberthy estimates it at 50 or 60 per cent. After the affection has existed in a neighbourhood for some time the proportion of recoveries becomes greater. Besides the changes in the mouth *post-mortem* examination reveals intense inflammation of the mucous membrane of the stomach, and sometimes of portions of the small intestine. The liver is usually in a state of biliary congestion; no other gross lesions are referred to. Microscopic examination of a fresh spleen, after staining by ordinary methods, failed to yield evidence of the presence of bacteria. Though the opinion is expressed that the malady is of a contagious nature, Professor Penberthy has failed to convey the disease to healthy dogs by feeding with food smeared with scrapings from the stomach of an affected animal, and remarks that in its manner of occurrence it resembles influenza of the human subject more than any other affection to which it can be compared.

[1] *Veterinary Record*, March 18th.

EDINBURGH ROYAL INFIRMARY.

IT is pleasing to be able to report that better counsels have in the end prevailed with the Board of Management of the Royal Infirmary of Edinburgh in regard to the housing of the resident physicians and surgeons. At the weekly meeting of the managers, on Monday last, April 3rd, it was resolved that a bedroom and sitting room should be given to 7 of the residents and one room fitted up as both bedroom and sitting room to the remaining 8 residents, selecting for the latter the larger rooms. It was added, this was a merely temporary arrangement, for the managers are looking out for, and considering how they can best provide, more accommodation. The necessity for this temporary plan has arisen from the fact that quarters had to be found for 4 new residents, 2 of whom are for duty in the wards set apart for the clinical instruction of women medical students. The managers are to be congratulated on having abandoned an impracticable scheme. It may now be suggested that the rule as to locking the dining-room at midnight should be rescinded. We have already pointed out one aspect in which the rule is a hardship and an injustice. But there are others. Thus the resident in charge of Ward VI (the ward for alcoholic and poisoning cases) may on a Saturday night be compelled to be in the ward till the small hours of Sunday, or even throughout the greater part of the night. Why may he not after such a night have a cup of hot tea, of coffee, or of beef-tea? Again, there is the case of the resident surgeon on duty on Saturday. How often does the stream of cut heads and street accidents stop just before midnight, so that the tired official may get some refreshment before he is locked out from it? This midnight closing rule must be based on a want of acquaintance of what the duties of a residence in a great hospital mean. Why this dog-in-the-manger treatment of the residents? They are for the most part the picked graduates of their year. They should be treated as gentlemen, and not as though they were a set of troublesome boys. They are, as a rule, a set of very hard-working officials. In many cases their future position is determined by the work they do as residents. Certainly they sometimes have a little frolic, and a little harmless horseplay; are they the worse, the less efficient, or the less kindly residents thereby? Was it not the author of *Rab*, Dr. John Brown, who said that doctors had to pay

out so much energy in their absolutely necessary work that they had no energy to spare on emotion? Was the late William Rutherford a less efficient resident because he established that historic institution, now alas relegated to the past, the K. C.? Was the late Sir John Struthers a less competent resident because he put a "dummy" in his brother resident's bed one night? Instead of being weighed down by an incubus of restrictions, rules, and regulations, it would be more in the best interests of the Royal Infirmary if the residents were a little more humanly treated. There might, for instance, be a carpet on the floor of their dining-room. The term "mess-room," and others suggestive of the barracks, might with advantage be discarded. There might be better and more comfortable furniture in the dining-room; the table linen might be better and cleaner and more frequently changed; an occasional plant or some cut flowers might appear on the dinner table; there might be greater variety of food, and it might be put upon the table in a more attractive way. All these things are individually small, but they mean much in the total. Why should not the medical superintendent dine with the residents—at least occasionally? Or why should not some of the managers occasionally dine with them? The Convener of the Public Health Committee of the Edinburgh Town Council lunches or dines with the nurses and the residents of the City Hospital from time to time. The plan is an excellent one, and we shall hope soon to hear that, as he has just been put on the Board of the Infirmary, he will go and dine with the residents, and also with the nurses, of that institution. Finally, might it not be well that the residents should have their laundry work done at the cost of the hospital? They receive no salary, as the residents in some hospitals do, and they might surely have this small additional privilege.

PAINFUL TRUTH.

The question whether truth is always good has been discussed recently in the columns of our contemporary *Literature*, and as an instance of truth not being a good the case of a man suffering from a mortal disease was quoted, and it was asserted to be the duty and the custom of the medical profession not to tell the truth in such a case. One of the disputants who held the opposite view was Dr. James Gairdner, and to his support came his brother, Sir William, in a very interesting letter. We believe that few will seriously dispute Sir William Gairdner's opinion that when a doctor believes absolutely, or knows positively, that there is no hope, it is his duty to state his opinion clearly to the patient himself, or to those of his friends who are responsible. The patient himself may be unable to receive the statement, as in the last stage of typhoid fever; or, if he is a child, may not be the proper person to whom it should be made; or his friends may feel, from their more intimate knowledge of his character, that the knowledge may be useless, or even at the time harmful. In such cases the friends, and not the patient, should be told the opinion formed, but that it should be stated to him or to them admits of no doubt. When this has not been done the doctor has been generally, and we think justly, blamed. In another class of cases the opinion may be unfavourable yet not hopeless. In these our duty is just the same. The danger ought to be clearly pointed out, though at the same time we insist upon the grounds for hope. Men are not babies, and we have no right to treat them as such. Most prefer certainty to suspense; all have a right to that for which they pay us—our opinion. It not infrequently happens that one whose previous life has commanded little respect may, when his back is to the wall, look death in the face bravely. Who are we to deny him his chance to bear himself like a man? Can it be different when we think that death will come after long pain? No, for the principle remains the same. Happily, we can never be sure that great pain will occur, for even gastric cancer is sometimes almost painless. It cannot therefore be our duty to enlarge upon the coming suffering, and we can nearly always promise some relief. And is there not here, too, another side? Life is little, but noble life is very much; and in such endurance of pain as we see every day there is a heroism, a perfection of spirit, as great as in glorious deeds. Few have the chance to risk their life for another, but to those of us who live long enough suffering will probably give an opportunity which is even greater.

THE METRIC SYSTEM.

A rather amusing controversy has broken out in the *Times* on that well-worn subject, the merits and demerits of the metric system. It is amusing, partly owing to the vehemence of the controversialists, and partly owing to the manner in which certain writers have revealed how they have only now discovered—apparently between the publication of one letter and the inditing of the next—that the contemned duodecimal system presents certain practical advantages. The mere fact that the system is in such general use would make this highly probable *a priori*, for it must have obvious advantages, otherwise mankind would not so generally have set aside the decimal system suggested to him by his ten fingers which are used for counting by all savage races. As a matter of fact, anyone who will take the trouble to look into the subject must see that for many practical purposes, for small transactions and for the mental arithmetic which they involve, the duodecimal system is far more convenient. This is appreciated alike by the market woman and the stockjobber; 12 is divisible without remainder by 2, 3, 4, 6, and gives a convenient fraction when divided by 8, whereas 10 is divisible without remainder by 5 and 2 only, though it gives a convenient fraction with 4. For all calculations on paper the decimal system is far more convenient and speedy than the duodecimal. But the main argument in favour of its adoption in the United Kingdom is that the metric has already been adopted in every other country in Europe. Our adherence to our own system is said to impede commercial transactions; it certainly causes much inconvenience in scientific work. The inconvenience is, indeed, so generally recognised that the metric system is now used in almost all scientific textbooks, and by most scientific writers. The sooner this becomes universal the better. While it may be admitted that the metric system is not an ideal system, yet it has been proved to work well in practice; on the whole it saves a great deal of time, and the existence of the two systems side by side in international scientific literature causes confusion, and involves much useless labour in conversion.

FOURTEEN MONTHS WITHOUT A STOMACH.

In September, 1897, Dr. Schlatter, of Zurich, removed the entire stomach from a woman aged 56, for carcinoma of that organ. The patient died on October 29th, 1898, one year and nearly two months after the operation. A complete after-history of the case with a drawing of the abdominal organs removed after death, prepared by Dr. Edmund Wendt, of New York, appeared in the *Medical Record*, March 18th. After the operation the patient gained weight and strength till about June, 1898, when she lost weight, being unable to obtain suitable nourishment. After a short stay in hospital during August she gained weight again. Then, in September there was pain after taking solid food, a tumour was detected early in October, symptoms of dissemination rapidly appeared, and the patient died of exhaustion. There were cancerous growths in the mesenteric, retroperitoneal, bronchial, and supraclavicular glands, and the pulmonary pleura was infected. The termination of the œsophagus was but little dilated, and the dilatation was mainly due to re-

cent carcinomatous deposit. The end of the duodenum still formed a *cul de sac* representing the point where it had been separated from the pyiorus. The efferent and afferent portions of the jejunum which had been made to anastomose with the œsophagus were neither atrophied nor hypertrophied. These remarkable appearances showed that not only had the patient's life been prolonged by the excision of her stomach, but also that her death was not due to inanition from insufficient nutrition, but to the multiple malignant metastases. Up to the last week of her life, Dr. Wendt observes, she had been able to go about out of doors, until the appearance of cachectic symptoms rapidly caused death.

A PRECURSOR OF PASTEUR.

The medical men of the Gironde Department propose to erect a monument to Dr. Jean Hameau, of La Teste, who was born in 1779 and died in 1851. Hameau, who was a country general practitioner, is acknowledged to have discovered and applied the principles of the microbic theory forty years before Pasteur. The claim made on his behalf was publicly admitted by Professor Grancher at the unveiling of a statue of Pasteur. The Committee includes the names of members of the Institute of France and of the Academy of Medicine and of most of the professors of the medical faculty, and the hospital physicians and surgeons of Bordeaux. The Treasurer of the fund is Dr. Hirigoyen, 10, Rue d'Enghien, Bordeaux.

THE LOCALISATION OF INTRACRANIAL TUMOURS.

The current number of *Brain* contains the report of the discussion at the Neurological Society of London on the Accurate Localisation of Intracranial Tumours, excluding those occurring in the recognised motor portions of the brain, the motor cortex and tract, pons and medulla. It is interesting as being a reflex of the current state of knowledge and opinion on this subject, and also from the fact that the material of two large general hospitals—Guy's and St. Thomas's—as well as of the special hospital at Queen Square for a number of years past, was used as a basis for discussion on this particular occasion. Notwithstanding all that has been done, the difficulties of arriving at an accurate localisation of intracranial tumours are still very great. In the human subject many factors are at work which may complicate the clinical picture, and incline the observer to a wrong diagnosis. This discussion has emphasised this fact, and has served the purpose of showing how much more accurate knowledge and careful observation are required before it will be possible to accurately localise intracranial growths in the so-called silent areas. For example, the situation of the headache in frontal and cerebellar tumours seems to vary so much in different cases that this alone appears quite unreliable as a means of localising a tumour in either of those situations. But in the presence of other symptoms pointing to a cerebellar tumour, headache referred to one side of the frontal region may assist in localising the tumour to the opposite cerebellar lobe. On this point there seems to be general agreement. With regard to optic neuritis, if it be intense, bilateral, and of rapid development, it more often points to a tumour in the posterior fossa than elsewhere; and if unilateral, or more intense on one side than on the other, the increased intensity is usually, but not always, on the side of the lesion. Hemiplegia can, of course, only be produced in this class of case by extension of the growth from a silent region to the motor cortex or tract, or by pressure, so that a tumour of one frontal lobe may produce a hemiplegia on the opposite side by direct involvement of the motor tract, or on the same side by pressure on the opposite hemisphere. This is illustrated by two cases mentioned by Dr. Sharkey. In one case a tumour of the right frontal lobe was associated with left hemiplegia, and in another, a tumour of the same frontal lobe had caused a right hemiplegia; so that the localising value even of hemiplegia is subject to reservations. Mental symptoms may occur with tumour in any situation, but they appear to be particularly associated with growths in the frontal lobes and in the corpus callosum. Most of the speakers refer to the mental condition associated with frontal tumours as one of mental dulness, stupidity, loss of memory, hallucinations of sight with occasional maniacal outbreaks, and involuntary micturition due to the mental dulness. In lesions of the corpus callosum the mental condition is one of increasing stupidity, passing into stupor, and profound coma which may continue for several months. No new light is thrown upon the diagnosis of tumours in other situations, but the record of cases is useful as a basis for further inquiry on points suggested by the discussion.

THE DISEASES OF THE PHILIPPINES.

The Johns Hopkins University has sent Dr. Simon Flexner, Professor of Pathological Anatomy, and Resident Pathologist of the Johns Hopkins Hospital, to Manila, in order that he may make a clinical and pathological study of diseases prevalent in the tropics. Two medical students—Messrs. Joseph M. Flint, of Chicago, and Frederick P. Gay, of Boston—go as assistants. The party take with them the best modern instruments and appliances for the proposed investigation. It may be added that Dr. Flexner has just been appointed to the Chair of Pathology in the University of Pennsylvania, vacant by the resignation of Dr. John Guiteras, who has gone to Cuba to take part in the sanitary regeneration of that island. Professor Flexner will enter on his new duties on September 1st.

THE INTERNATIONAL CONGRESS ON TUBERCULOSIS.

The promise of the success of the International Tuberculosis Congress to be held in Berlin from May 24th to 27th (Whitsun week) is already so great as to be a source of some embarrassment to the Organising Committee. So many papers have been offered that notice has been given that no one must exceed ten minutes in delivery, and that none will be read until after the introductory papers or "reports" in each of the five sections have been taken. Notice of the intention to read a paper must be given on or before May 1st to the Organising Committee of the Congress, Wilhelmplatz 2, Berlin, W., and the notification must be accompanied by an abstract.

The first *conversazione* of the Royal Society will be held at Burlington House on Wednesday, May 3rd, at 9 P.M.

The Earl of Kimberley, K.G., who has been a member of the Senate of the London University since 1859, has been appointed by the Queen-Chancellor of the University in the place of the late Lord Herschell.

The will, with three codicils, of Sir William Jenner, Bart., M.D., has been proved at the Principal Probate Registry. The gross estate was sworn at £385,083 18s. 5d. Sir William Jenner bequeathed £10,000 to the Royal College of Physicians of London, and subject to legacies to nieces and other relations, friends, and servants, left the remainder of his property to his widow and family.

We are requested by the Honorary Secretary of the Jenner Society, Dr. Bond (Gloucester), to ask those who may be practising in localities in which the agitation against vaccination may be acute, either in the form of newspaper correspondence or of impending lectures or debates, to be good enough to communicate with him. If newspapers are sent with reports the article to which it is desired to call attention should be marked.

LIFE INSURANCE AND VACCINATION.

Whilst everyone can by vaccination and revaccination of himself and his family protect himself and them from small-pox, though not from the inconvenience and loss resulting from its outbreak amongst unprotected domestics or workpeople, there are certain risks against which personal protection cannot avail. Nowadays every prudent man who is not also a millionaire makes it a rule to insure his life, and a constantly-increasing number of persons, especially among the artisan class, are members of sick benefit societies. The power of an insurance office to pay a good bonus and of a benefit society to maintain its rates of sick pay obviously varies, other things being equal, with the respective death-rates and sickness-rates. If vaccination is to be grossly neglected in this country, sooner or later the price in the shape of small-pox attack and small-pox death will have to be paid, and life insurance societies and sick clubs will suffer in proportion to the want of vaccination and revaccination in their membership, whilst the vaccinated members will have to pay the money penalties involved in diminution of funds and bonuses.

In view of these considerations we have instituted an inquiry into the practice of life insurance offices doing business in this country with regard to proposals for the insurance of unvaccinated lives. The following letter was sent out by us to companies or societies having offices in London:

Sir,—In view of the increasing neglect of vaccination, and of the results in the way of small-pox which may be expected to follow, I am desirous to ascertain the practice of the life offices doing business in the United Kingdom with regard to proposals for the insurance of the lives of persons who have not been vaccinated. I shall, therefore, be much obliged if you will be good enough to reply to the following queries:

1. What question is asked in your proposal forms regarding vaccination, or revaccination, or both?

2. If a proposer replies that he has never been vaccinated or had small-pox, what follows with regard to the proposal? For example,
   Is it rejected? or
   Is any, and if so what, addition made to the premium? or
   Is death from small-pox excluded from the agreement?

3. Is any difference made between proposers according as they have been:
   (*a*) Primarily vaccinated in infancy?
   (*b*) Revaccinated, or primarily vaccinated at a later age than infancy?

4. Is any, and if so what, evidence required of the truth of the replies to questions regarding vaccination?

It is proposed to publish more or less fully in the British Medical Journal the results of this inquiry.

I am, Sir,
Your obedient Servant,

To 69 of the 87 offices communicated with we are indebted for detailed replies. From the following 18 we have received no acknowledgment:

Absolute Life Assurance Company.
Abstainers and General Insurance Company.
British Empire Mutual Life Assurance Company.
British Natural Premium Provident Association.
British Workman's and General Assurance Company.
General Reversionary Society.
Guardian Fire and Life Assurance Company.
London, Edinburgh, and Glasgow Assurance Company.
Mutual Life Assurance Society.
Mutual Reserve Fund Life Association (New York).
National (of Ireland).
National Guardian Assurance Company.
Pelican Life Insurance Company.
Royal Exchange Assurance Corporation.
Scottish Accident Life and Fidelity Insurance Company.
Sun Life Assurance Company of India.
Victoria Mutual Assurance Society.
Yorkshire Fire and Life Insurance Company.

With regard to the practice of these offices therefore we are unable to say anything.

The remaining 69 offices may, as regards their replies to question 2 of our letter of inquiry, concerning unvaccinated lives, be grouped into eight classes as follows: I. Proposals from unvaccinated persons not accepted by 13 offices. II. Death from small-pox of unvaccinated persons excluded from contract by 11 offices. III. Premiums alone or surrender value alone paid on death from small-pox of unvaccinated persons by 5 offices. IV. Extra premiums charged to unvaccinated persons by 19 offices. V. Years added to the age of unvaccinated persons by 8 offices. VI. Proposals from unvaccinated persons discouraged by one office. VII. Proposals from unvaccinated persons dealt with on their individual merits by 5 offices. VIII. No difference made between vaccinated and unvaccinated persons by 7 offices.

Between the individual offices in each of these eight classes there is some difference of detail.

Class I.—Proposals from Unvaccinated Persons not Accepted.

The offices in this class, with the gist of their replies regarding unvaccinated lives, are as follows:

1. *The Metropolitan Life Assurance Society.*—"The life would be rejected."

2. *The Scottish Amicable Life Assurance Society.*—"..... the proposal is accepted subject to vaccination being effected. If this condition is not agreed to we do not accept the case."

3. *The University Life Assurance Society.*—"We should require an unvaccinated person to be vaccinated before accepting his life for assurance."

4. *The Atlas Assurance Company.*—"..... we should decline to proceed with the case until we heard from him that he had been successfully vaccinated."

5. *The Provident Clerks' Mutual Life Assurance Association.*—"We have pressed for vaccination, and where it has been objected to the proposal has been allowed to drop."

6. *The Alliance Assurance Company.*—"If the answers to the questions are in the negative we require the life to undergo vaccination."

7. *The Clergy Mutual Assurance Society.*—"No proposal has ever been received from a person who had not either been vaccinated or had small-pox. In such a case the Society's physician would recommend the Board of Directors to defer the proposal until the person had been vaccinated, and in the event of his refusing to be vaccinated to decline the proposal."

8. *The Colonial Mutual Life Assurance Society.*—"..... heretofore, in the event of an unvaccinated subject offering himself for assurance (a very rare occurrence), it has been our practice to postpone consideration of the case until such time as he can show that he has been successfully vaccinated."

9. *The Eagle Insurance Company.*—"In the very few cases ..... it has been our practice to require evidence of successful vaccination prior to acceptance."

10. *The Marine and General Mutual Life Assurance Society.*—"In the event of a proposer not having been vaccinated, or having had small-pox, he is usually postponed for vaccination. Should he object the case falls through."

11. *The Patriotic Assurance Company (Dublin).*—"..... in Ireland vaccination is so universal that we have ceased to put any query," but "in view of recent legislation this practice will probably be modified, certainly as regards England;" and "In one or two cases where our medical officer reported that vaccination had not taken place, the cases were postponed until that was done."

12. *The North British Mercantile Insurance Office.*—"..... the proposal is as a rule deferred until after successful vaccination."

13. *The Universal Life Assurance Society.*—"We have not had a case, but the directors would probably reject the proposal."

Most of the above replies are quite explicit, though a few of them (for example, that of the North British and Mercantile) suggest the possibility of exceptions being made. The Clergy Mutual and the Universal have never had a case, so they cannot speak more definitely. It is satisfactory that the Patriotic Assurance Company is likely to resume asking questions as to vaccination, and it would be well to do so even in Ireland.

Class II.—Death from Small-pox excluded from the Contract.

The offices in this class, with the gist of their replies, are as follows:

1. *The Imperial Life Insurance Company.*—"..... we in the first instance ask him to submit to vaccination; if he be unwilling we adopt one of the following courses: (1) To decline the proposal, or (2) to accept it conditionally upon the policy bearing an endorsement making the assurance null and void if death result from small-pox or its sequelæ.

2. *The Legal and General Life Assurance Office.*—"..... we

should either make vaccination a condition or exclude small-pox from the agreement."

3. *The Mutual Provident Alliance.*—"The policy is endorsed, 'Should death occur through small-pox, no claim will be admitted.'"

4. *The Equitable Life Assurance Society of the United States.*—"..... we ..... add a clause on the policy to the effect that death from small-pox is not a risk provided for."

5. *The National Mutual Life Assurance Office.*—"..... a clause exempting the Society from liability should death occur from small-pox is inserted in the policy. If the proposer refuses to accept such a condition, the proposal would not be accepted."

6. *The London and Lancashire Life Assurance Company.*—"..... we should only issue a policy subject to a condition that in the event of his dying at any time from or through the effects of small-pox the policy would be void."

7. *The Economic Life Assurance Society.*—"If a proposer has not been vaccinated or had small-pox it has hitherto been usual for us to give him the option of paying an increased premium, or of accepting a policy with an endorsement thereon that in the event of his death from small-pox or its after-effects, our liability is limited to the amount of the surrender value of the policy at the date of death. Since the passing of the recent Vaccination Act it is impossible for us to estimate how far the extra risk will in future be increased, and we have, therefore, decided only to issue policies in such cases with the endorsement excluding risk from small-pox.

8. *The City of Glasgow Life Assurance Company.*—"..... an attempt is made to get proposer to undergo vaccination, but if he refuses, the risk is only undertaken subject to the condition that the policy will be void in the event of death occurring from small-pox or any illness consequent thereon."

9. *The Star Life Assurance Society.*—"..... we decline to accept the case unless on the following conditions: That the Society would not be liable in the case of death from small-pox or any disease consequent thereon, or that the proposer pays an additional premium of 5s. per cent.

10. *The Provident Association of London: The Provident Free Home Assurance Company.*—"Death from small-pox excluded from the agreement," but when the assurance "is for a comparatively small sum the question would hardly be raised ....."

11. *The Law Union and Crown Insurance Company.*—"..... our rule is to defer the case until vaccination has been submitted to, or as an alternative to issue a policy with an endorsement rendering the assurance void if death occurs from small-pox," but "on one or two occasions we have made special exceptions to this rule."

Class III.—Premiums Alone, or Surrender Value Alone, Paid on Death from Small-pox.

The offices in this class, with the gist of their replies, are as follows:

1. *The General Life Assurance Company.*—"..... the practice ..... has hitherto been to decline the risk unless a condition is inserted in the policy that only the premiums shall be returned in the event of the death of the person insured by small-pox.

2. *The United Kingdom Temperance and General Provident Institution.*—"The proposer is accepted subject to the proviso that if he die of small-pox the sum assured will not become payable, but the premium paid will be returned."

3. *The English and Scottish Law Life Assurance Association.*—"..... we should not refuse to issue a policy, but should introduce into it a condition providing that the sum assured should not be payable in the event of the life assured dying from small-pox, but the surrender value only."

4. *The Northern Assurance Company.*—"..... we proceed with the case only on the understanding that the policy, if granted, will be subject to the condition that in event of death by small-pox only the ordinary surrender value of the policy will be paid instead of the sum assured."

5. *The Sun Life Assurance Company of Canada.*—"Where applicants reply that they have never been vaccinated or had small-pox, our rule is to endorse on the policy the following clause: 'Notwithstanding anything herein contained, it is distinctly agreed that if the life assured under this policy shall die of small-pox, then the Company shall not be liable to the beneficaries under this policy for any amount in excess of the sum of the premiums paid hereon, and compound interest on the same at the rate of 6 per cent. per annum; provided always that this clause will be and become null and void whenever the Company shall be furnished with a satisfactory medical certificate that the life assured has been successfully vaccinated since the issue of this policy; and provided further that under no circumstances shall the amount payable under this policy exceed the sum assured by said policy, and the profits declared thereon.' In countries or sections where vaccination is not almost universal (as for instance the province of Quebec, the tropics, China, etc.), we enforce this rule strictly; but in countries where vaccination is customary, and non-vaccination rare (as in the English-speaking parts of Canada and Great Britain), we are willing to waive this clause. Our line of argument is that a non-vaccinated person in a well-vaccinated community is not likely to be much exposed to contagion, and is therefore comparatively safe, or at least would require such a small extra that we can afford to ignore it; while, on the other hand, the same person living in a community largely non-vaccinated would be so much exposed that a clause protecting the Company is necessary."

(To be continued.)

THE AMENDMENT OF THE MEDICAL ACTS.

I.

The Prevention of Unqualified Practice.

As will have been observed from the report published in the British Medical Journal of April 1st (p. 800) the Parliamentary Bills Committee, at a special meeting on March 24th, considered and adopted with certain amendments a draft Bill to amend the Medical Acts. This draft Bill was transmitted to the Council, and it was anticipated that the Council will send it to the Branches of the Association for their comments and opinions. We hope shortly to be in a position to print the text of the draft Bill, which, as already stated, embodies three main principles:

1. The direct election of the medical representatives of the Universities and Corporations on the General Medical Council by the medical graduates or the members of the body corporate.

2. The establishment of a one-portal system.

3. That no person should practise medicine, surgery, or midwifery habitually and for gain in the United Kingdom, unless registered on the *Medical Register*, with a cumulative penalty for so doing.

Meanwhile it will be of assistance in the discussion of the Bill to direct attention to some of the grounds which make it plain that an amendment of the provisions of existing Acts with regard to practice by other than registered medical practitioners, the third principle embodied in the draft Bill is of practical importance to the public and to the medical profession.

In the first place we are reluctantly compelled to refer to a controversy which we would willingly have allowed to be forgotten, but the true interpretation of the provisions to which we have referred must be of such vital importance in the discussion of the draft Bill that it is necessary to recur to the address delivered by Mr. Victor Horsley to the Manchester Medico-Ethical Association on December 16th, 1898, and published in the Journal of December 24th. Mr. Horsley devoted some time to a criticism of an article on the Medical Acts and the Medical Profession, which was published in the Journal of November 26th, 1898, p. 1643. That article, which was written by a lawyer, brought out the fact that the right to practise had been recognised and protected by certain old Acts of Parliament, but expressed the opinion that this protection was not afforded by the Medical Acts (1858, 1886). In a letter published in the Journal of January 7th, Mr. Horsley reiterated his views, and laid quite undue stress upon the circumstance that the article in question was not signed by the writer's name.

However, as the matter was felt to be of great importance, it was thought well to state a case and obtain a signed legal opinion. The following is the case submitted to Mr. R. B. Haldane, Q.C., M.P., and Mr. W. O. Hodges, barristers-at-law, together with their Opinion:

Case.

The documents submitted were:

1. The True Interpretation to be placed upon the Medical Acts, by Victor Horsley, F.R.S., etc. (extra supplement to the *Clinical Journal*, February 9th, 1898).
2. An article entitled The Medical Acts and the Medical Profession (from a Legal Correspondent), published in the British Medical Journal of November 26th, 1898.
3. Those parts of Mr. Victor Horsley's address delivered to the Manchester Medico-Ethical Association on December 16th, 1898, and published in the British Medical Journal on December 24th, 1898, which had reference to "The Right to Practise" and "The Amendment of the Medical Acts" (pp. 1885, 1886, 1887).
4. A letter entitled "The Medical Acts and the Medical Profession," published in the British Medical Journal of December 31st, 1898, p. 1855, and signed "The Writer of the Article."
5. The letters of Mr. Victor Horsley and Dr. Holman published in the British Medical Journal of January 7th, 1899, p. 54, under the same title.

Counsel are requested to peruse the foregoing and to advise:—

1. Whether or not the Medical Acts 1858 and 1886 can be construed as suggested by Mr. Victor Horsley?

2. What legal proceedings would lie to enforce that construction against persons practising medicine or surgery—
   (*a*) Without possessing any qualification?
   (*b*) Possessing a qualification but not being registered on the *Medical Register*?

3. Generally?

Opinion.

The question on which we are asked to advise is whether registration under the Medical Acts is a condition precedent to the right of (1) a person possessing a qualification or diploma, and (2) of a person possessing no qualification or diploma to practise medicine, surgery, and midwifery.

We have no doubt that registration is not a condition precedent to such right in either case.

The statutes relating to the matter under consideration are 21 and 22 Vic., c. 90, and 49 and 50 Vic., c. 48.

In neither statute is there any section which says that registration is a condition precedent to the right to practise.

Section VI of 49 and 50 Vic., c. 48, is an enabling section, and confers the privilege on the registered practitioner to practise in the United Kingdom and in any other part of Her Majesty's dominions, and to recover charges, expenses, and fees in respect of such practice.

Sections XXXII, XXXIV, and XXXVI of 21 and 22 Vic., c. 90, are disabling sections, and directed towards the unregistered person.

Section XXXII provides that none but registered persons shall be entitled to recover any charges in any court of law.

If it had been intended to prevent any unregistered person from practising, that section would have been wholly unnecessary.

Section XXXIV provides that a Poor-law medical officer shall not be disqualified to hold such office by reason of his not being registered, unless he shall have failed to be registered within six months from the passing of the Act.

Section XXXVI provides that no person shall hold any appointment as physician, surgeon, or other medical officer .....in any hospital, infirmary, dispensary, or lying-in hospital not supported wholly by voluntary contributions..... unless he be registered under the Act.

This clearly indicates, to our minds, that an unregistered person could hold such appointments if the places mentioned were wholly supported by voluntary contributions.

Section XL of 21 and 22 Vic., c. 90, being a penal section, must be construed strictly, and in our opinion does not apply to a person merely because he is unregistered; in order that he may be convicted he must wilfully and falsely pretend to be registered, and if he makes no pretence at all or pretends to be what he really is—that is, unregistered, he cannot be convicted (Carpenter *v.* Hamilton, 37, *L.T.*, N.S. 157).

It will be observed that we have confined our opinion to the Medical Acts of 1858 and 1886, which form the subject matter upon which we are asked to advise, and have not dealt with the point which is suggested by the case of Davies *v.* Makuna, *L.R.* 29 C.D. 596, as to whether the two classes of persons mentioned might not be dealt with under the Apothecaries Act (55 Geo. III, c. 194).

R. B. Haldane.
W. Oliver Hodges.

Royal Courts of Justice, January 17th, 1899.

It will be observed that this opinion is very free from doubt or hesitation, and that it confirms the correctness of the view expressed in the article of November 26th. If it had merely been an academic question, as between Mr. Horsley and a contributor to this Journal, it would not, probably, have been thought necessary to obtain this opinion, because we venture to think that our readers do not need to be told that unsigned articles are not admitted to the Journal without careful consideration, and that they will have been ready to believe that particular care would be taken to prevent the members of the Association from being misled on a legal question upon which, of course, owing to the absence of legal training, they are imperfectly qualified to form an independent opinion. The question, however, as we have said, is one of considerable practical importance, for in going to Parliament with an amending Bill it is essential that we should be fully informed as to the nature and efficiency of the laws which already exist. In a subsequent article we propose to recall and discuss some recent examples of the working of the Medical Acts in relation to practice by unqualified persons.

LEAD POISONING IN THE POTTERIES.

Scope of the Inquiry.

In the British Medical Journal of April 1st we alluded briefly to the Report on Lead Poisoning in the Potteries, by Professor T. E. Thorpe, Principal Chemist, Government Laboratory, and Professor Thomas Oliver, M.D., Physician, Royal Infirmary, Newcastle-on-Tyne. The inquiry is so important as to warrant a more extended review of the subject. Although the investigation began in May, 1898, it was not until February, 1899, that the report was completed. Part of this delay may have been due to the number of interesting experiments that were carried on in the Government Chemical Laboratory. The Home Secretary invited Drs. Thorpe and Oliver to ascertain how far plumbism might be diminished or removed by substituting for the ordinary "white" or "raw" lead some less soluble compound of lead—for example, a silicate; how far substitutes, harmless or less dangerous, lent themselves to pottery manufacture, and the possibility of suggesting remedies that would counteract the evil effects of lead compounds in use. The inquiry, therefore, was very largely of a chemical nature, and is an instance of a desire on the part of the Home Office to call in scientific assistance to help an industry.

The Dangerous Processes.

Although lead poisoning has long been known in the Potteries, there have apparently been few efforts made to diminish it by substituting other methods of production. The dangerous processes in pottery manufacture are the dipping, glost placing, cleaning, majolica painting, and ground laying. The beautiful glaze and the colouring of china have hitherto been mostly obtained by the use of carbonate of lead. In many factories no attempts have been made to ascertain how far the lead in glaze might be either reduced or abolished altogether without affecting the durability of the ware. The ingredients in the dipping tub are too often brought together by a rule of thumb, with the result, as Drs. Thorpe and Oliver show, of a reckless use and a great waste of lead carbonate. Few employers, if any, will deny that the higher the percentage of raw lead in a glaze the greater is the danger to the workers, and yet these experts tell us that they frequently found glazes containing upwards of 40 per cent. of lead.

"Fritted" Lead.

Several pottery owners have used "fritted" lead—that is, lead fused into a kind of glass, a silicate, which is ground down and mixed with water. This silicate of lead is admitted to be safer than the carbonate on account of its greater insolubility; but it is not quite insoluble even in dilute acids. It often contains a quantity of unconverted oxide of lead, and as a consequence plumbism is known to have followed its use. In the report it is stated that when it has been administered direct to animals it has caused death, and lead has been found in the liver. It is clear, therefore, that monosilicate of lead does not confer upon the worker absolute immunity from

plumbism. If lead is to be used at all, clearly the fritting of the metal in the form of a monosilicate is not enough. No one expects all potters to be chemists, and it is just in the chemical constitution of their glazes that potters may derive assistance from this report.

A formula is given for a glaze in which the lead is fritted, not, however, as a monosilicate but as a double silicate of lead, the advantage claimed for it being that in this form the compound is still more insoluble. In fact, it is only slightly soluble in strong hydrochloric acid. Of course it must be admitted that experiments carried out in a chemical laboratory are not on all fours with those that go on within the living body. The chemical experiment, however, may be taken fairly to represent what takes place within the human system, and, since the double silicate is much less soluble, this is a strong argument in favour of its use. Doubtless pottery owners will be reluctant to give up what they have found to answer their purpose so well; but since plumbism has not been unknown after using the rather soluble monosilicate, it is reasonable to suppose that lead poisoning would be further diminished by using the very insoluble double silicate, and for that reason this recommendation of the experts deserves to be supported, especially, too, when they tell us that it would not add to the cost of production—an important fact in an industry not too prosperous at the present time.

Leadless Glazes.

We come to deal with other kinds of glazes. Is there no reliable substitute for lead? With the practical potter the fear has hitherto been of his ware "crazing," that is, becoming cracked or uneven on the surface, or of the colouring not enduring. He has absolute faith in what leaded glazes can accomplish. Customs die hard, and to have long cherished beliefs rudely shaken is sure to raise resentment. It remains, therefore, to be seen how far employers will fall in with the recommendations of the experts, who unhesitatingly state that in ordinary white and cream-coloured ware there should be little difficulty in getting just as good results from leadless glazes as from leaded. They point out that sanitary ware and many of the articles used for electrical fittings, etc., could be equally well dipped in a leadless glaze, and an appeal is made to the various Government departments to set an example to the public by demanding ware free from lead. Experience will show whether such ware is capable of withstanding exposure to all weathers. Although the question of leadless glazes has been much before the public lately their use is no novelty. In certain kinds of Egyptian and Persian ware, in the Samian ware of the Roman period, and in that of China and Greece, no lead was used. The experts state that among manufacturers there is to-day a greater tendency to acknowledge the possibility of obtaining results from leadless glazes than could have been got a few years ago. This is strong testimony in favour of their extended trial. Such ware is now in the market, and is procurable. It is too soon to express an absolute opinion as to whether this leadless glazed ware will fulfil all requirements, but since such a fault as "crazing" occurs also with lead glazed ware, this dread need not deter the employer, and time alone will show whether such ware can stand sea voyages. The report states that for seven-tenths of the total output leadless glazes can be used.

Suggested Rules and Regulations.

Each pottery owner jealously guards as a trade secret the ingredients of his own glaze. Too much, we think, is made of this fact, as an argument against departing from its use. One thing is perfectly clear, and that is, that the day of heavy percentages of raw lead in glazes is doomed, and it may be hoped that there will be a disappearance of a corresponding amount of illness in the workers. For certain kinds of pottery lead may still have to be used, and thus there will continue a risk of plumbism. Of the 50,000 to 60,000 people employed in the Potteries, it is estimated that 4,700 work in the lead. During three years (1896-98) it is stated that 1,085 people suffered from plumbism. In 1898 of the total male workers 4.9 per cent. suffered, while the percentage in females rose to 12.4, a circumstance which shows that in the Potteries, as in other industries in which lead is used, females suffer unduly compared to males. This fact has not escaped the attention of the writers of the report. It is admittedly one of the difficulties of the situation. In one Belgian pottery it appears that when a young woman who has worked in the factory gets married she ceases to find employment in the pottery. No such hard-and-fast rule is recommended by Drs. Thorpe and Oliver, but they are of opinion that young persons and women should be excluded as dippers, dippers' assistants, ware cleaners after dippers, and glost placers in factories where lead glaze is used: and that the adult male dippers, dippers' assistants, ware cleaners, and glost placers should be subjected to systematic medical inspection.

If the recommendations are adopted, what will be the effect upon the trade?

Immediately upon its publication, a copy of the report was sent by the Home Secretary to every manufacturer, with a note indicating that the Government was in earnest, and asking to be informed what steps each manufacturer was going to take, or was proposing to take, in regard to dispensing with raw lead altogether, substituting leadless materials, or restricting the use of lead to the insoluble double silicate. The industry is now upon its trial. We believe that if the recommendations are put into force, the trade, instead of suffering, will be reinfused with vigour, and that capital, business enterprise, and science will give a fresh impetus to an important industry, whereby new methods of production will be evolved. Thus, while the inquiry was largely undertaken to secure better health for the workers, it will assist in lifting the manufacturer to a higher level, and the Potteries, instead of being ruined, as some imagine, will be saved, and the scourge of lead poisoning materially diminished.

ANALYSIS OF THE EVIDENCE GIVEN BEFORE THE PLAGUE COMMISSION.

(From our Correspondent.)

II.—The Spread of the Plague.

The factor in the spread of plague which has been brought forward as most important by different witnesses is infection through human agency, through grain, through clothes, and through rats.

Human Intercourse.

The spread of the disease through the movements of infected people is certainly the most common and important of these, and the one least open to question. In numerous cases the evidence was clear that the first case in various places had come just from an infected area, but in several instances there was a remarkable interval, amounting to two to ten weeks after the introduction of the first case before others occurred. The first spread of the disease from Bombay to Poona, and many other places in the Bombay Presidency, was undoubtedly due to the exodus of a very large proportion of the inhabitants from the infected city on the outbreak of the disease, and before the railway inspections were fully organised. Again, in the case of Bangalore the first case was in a man who had come from Hubli, but the next case did not occur for over a month, when the disease was probably reintroduced, as it began in a different quarter. In several other instances the first few people to be attacked were railway employees, showing how the disease may travel in spite of railway inspections. This was the case in the second group that occurred in Bangalore, while other places in Southern India are said to have become infected in the same way. In Hyderabad, again, the first three or four cases were imported by railway from Bombay, and similar evidence as to the spread of the disease by human agency from village to village is on record. The villages appear to become first infected usually by the exodus from large towns on their first being attacked. For instance, out of the 84,000 inhabitants of Bangalore, no fewer than 25,000 left the place, and it was recorded that the people of the villages of that part of the country made efforts to prevent infected people from the town coming into their villages, showing they were fully alive to the danger. In the case of Rajputana the disease is said to have been introduced by grain dealers from Poona who had returned to their homes, but in this case the infection was also through human agency, as they do not appear to have brought any grain back with them. In the case of Ahmedabad, again, of the first 3 cases 1 had come from Bombay, while the other two were employed

on the railway. In the district near Satara it is recorded that the spread of plague in the villages was invariably connected with the movements of persons from infected to non-infected villages, and that every outbreak was due to importation. There was no recrudescence. Another witness stated that in Calcutta he had been able to trace the spread of the disease from street to street by human agency.

The influence of overcrowding in aggravating the incidence of the disease is also well brought out in the evidence. In Bombay, Karachi, Calcutta, Bangalore, and other places it is recorded that the disease was worse in the most densely populated parts of the towns. The importance, then, of human agency in the spread of the disease is undoubted, and must always be carefully considered before other ways are recognised as being important factors in the extension of the disease.

Grain.

Infected grain was at first thought to be an important factor in the spread of the disease in Bombay, because the disease first appeared in the district in which all the largest granaries of the city were located, and this theory was supported by the very large mortality which undoubtedly occurred among rats living in these storehouses. The connection of these animals with the disease will be considered presently, but with regard to the possibility of infection through grain the experiments of Mr. Hankin must first be mentioned. He added the plague bacillus to grain under conditions which might be expected to be favourable to its preservation and growth, yet within a few days after he was unable to find any living organisms in this artificially infected grain. Moreover, the ultimate death-rate of the population in the area containing the large granaries was much less than in any other parts of Bombay, and further experience has lead to very grave doubt being thrown on the likelihood of the disease being spread through the instrumentality of grain.

Clothes.

A good deal of evidence has been given tending to show that infection may be carried a long way in clothes. Some thought that Calcutta was infected in this way, while in Sirohi State in Rajputana the disease is said to have been carried a long distance in clothes. Again in Kotri the recrudescence of the disease on the advent of the cold weather was attributed to winter clothing being brought out, some of which there was reason to suppose had been in contact with plague cases in the first epidemic. In Damaun soiled clothes were said to be a means of spreading the disease. In this connection it is of interest to note that although in Bombay and also in the great heat of the Punjab the disease decreased markedly during the hot-weather months, yet there were marked exceptions to this rule; for instance, in the case of Sukkur the disease was at its greatest height at a time when the temperature in the shade was 115° F. Moreover, the decrease during these months in Bombay is probably connected, in some degree at least, with the fact that at this time 350,000 of the inhabitants sleep in the open air. One observer stated that he had found plague bacilli in clothes which had been subjected to disinfection in a steam steriliser. It seems, then, to be certain that clothes play an important part in the spread of the disease, while it is very likely that recrudescences of the epidemic may, at least in some cases, be due to the infection having been preserved for some considerable time in clothes and other infected articles. That the germs may live for some weeks at least outside the body is certain, for instances have been recorded in which persons who have returned to or even only visited previously-infected houses several weeks after they have been evacuated have contracted the disease, in some of which cases they had taken clothes out of the houses. It is then quite possible that recrudescence of the disease may be brought about through infection remaining latent for considerable periods in clothes, etc.

Rats.

The exact connection of rats with the disease is a more difficult question, and one with regard to which most divergent views have been expressed. That rats do die in large numbers during the prevalence of plague is certain, and it also appears to be the case that the death of rats may in some cases, but by no means always, precede the epidemic outbreak of the disease, although probably a few undetected cases have occurred before the death of the rats. It is also a fact that in various places the plague organisms have been found in rats that have died under these circumstances. On the other hand, the exact connection between the death of the rats and the occurrence and spread of plague is by no means so clear. Several witnesses have stated that the spread of the disease from one part of a town to another has been preceded by a migration of rats in the same direction. In Calcutta there was a heavy mortality among rats in March and April of 1898, and plague was officially notified as being present in the latter month. In Karachi the disease is said to have spread rapidly in the second outbreak owing to the people evacuating the place and causing the rats to spread through the town. One person is said to have become infected through handling a rat. In Karachi, too, many rats were seen before the epidemic began, and storehouses were severely attacked. The collector of the Naira district said that dead rats were found in every village of that part a fortnight before the first case of plague was detected, and that fleas also swarmed in the streets and houses during the epidemic. In Damaun, on the other hand, dead rats were only found after the first case of plague had occurred. In Calcutta rats were also found to be suffering from plague, and buboes in rats have also been recorded. In Bombay over 50,000 rats were destroyed without any apparent good effect, and it has been pointed out that while during the first outbreak of the disease in that city a very large number of rats died, whereas during the second exacerbation of the disease dead rats were decidedly scarce, yet the plague mortality in the two epidemics was very nearly equal. Moreover, a table showing the mortality from this disease in rat districts and non-rat districts shows that the total mortality in the former was very much less than that in the latter. Once more, during the Bombay epidemics there were numerous vessels in the docks which are situated close to the great rat-infested granaries, and interchange occurred between those animals on shore and those on the ships, yet the crews of those ships remained unaffected during both epidemics.

Lastly, it has been shown by Mr. Hankin that when rats are serially inoculated with plague bacilli the disease dies out after three or four passages, which makes it difficult to understand how these animals could contribute much to the spread of the disease.

In seems, then, that while rats suffer from plague, and the death of unusually large numbers of these animals is an important sign of a place having become infected with this disease—all the more important as it may occur very early, before the few cases that have occurred have attracted the attention of the authorities—yet they do not play an important part in the actual spread of the disease, which may be very severe without any marked increased mortality among these rodents.

Meteorological Conditions.

One other point in the etiology of plague should be mentioned—namely, that charts were submitted to the Commission showing that the curve of the mortality of this disease ran parallel to that illustrating the seasonal evaporation from the ground as calculated from the temperature, the dew point, and the difference in temperature in the ground and the air.

THE PLAGUE.

The Number of Plague Seizures in India.

Statistics gathered from the outbreak of plague in India in 1896, to February 1st, 1899, show the numbers attacked between these periods. In Bombay city, during 1896, there were 2,507 seizures; in 1897 they amounted to 11,963, and in 1898 (and January, 1899), 21,711, making a grand total of 36,381. It will be observed that with succeeding years the numbers increased. The only district which exceeded Bombay city was that of Dharwar, where 36,459 seizures were reported during the same period. The numbers in other towns and districts were as follows: Satara, 20,000; Belgaum, 23,000; Kolhapore State, 13,000; Poona, 9,397; while other States and Districts in the Bombay Presidency show 50,000 cases. In other parts of India the number of seizures have been as follows: Karachi City, 6,608; Sind Districts, 2,000; Jullunder (Punjab), 2,591; Hoshiarpore, 937; Saharanpur (North-West Provinces), 275; Wardha District (Central Provinces), 163; Madras Districts, 1,000; Hyderabad State, 5,000; Sirohi State (Rajputana), 117; Mysore State, 9,000 (Bangalore City and Cantonment accounting for 7,167 of the number). Of this total, which in round numbers may be taken at 225,000, at least 200,000 have died according to the official returns.

Some interesting experiments concerning the infection of the soil by the

plague bacillus at a depth of 1,400 feet in the Kolar goldfields are reported. The experiments go to show that "with strict sanitary measures below ground and free ventilation, the chance of mines becoming infected is small."

MEDICAL PRACTICE BY COMPANIES.

THE following is the text of the Bill drafted by the Lord Chancellor, and on March 24th, 1899, ordered by the House of Lords to be printed to prohibit medical practice by companies.

COMPANIES (MEDICAL PROFESSION).

[62 Vict.] [H. L.]

A Bill intituled an Act to Prohibit the Profession or Business of a Physician, Dentist, or Midwife being carried on by a Company.

A.D. 1899.

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled, and by the authority of the same as follows:

1. *Companies not to act as Doctors, etc.*—It shall be unlawful for a company under the Companies Acts, 1862 to 1898, to carry on the profession or business of a physician, surgeon, dentist, or midwife, and if any company contravenes this enactment it shall be liable on summary conviction to a fine not exceeding five pounds for every day during which the contravention happens.

2. *Short Title.*—This Act may be cited as the Companies (Medical Profession) Act, 1899.

THE PHARMACY ACT AMENDMENT BILL.

A BILL has been drafted by the Lord Chancellor, to prohibit a company from carrying on the business of a pharmaceutical chemist or chemist and druggist unless a qualified person be employed is appended for comparison. The text is given below though it has no direct bearing on medical practice.

Memorandum.

Under Sections 1 and XV of the Pharmacy Act, 1868 (31 and 32 Vict., c. 121), there are penalties on persons acting as chemists or druggists without being registered.

It has been decided that the word "person" in Section XV of the Act of 1868 does not include a corporation, and that, consequently, penalties for contravention of that section cannot be recovered from a company (Pharmaceutical Society *v.* London and Provincial Association [1880], 5 App. Cas. 857). It is obvious that a company cannot pass the examinations required to qualify for registration as a chemist or druggist.

The object of this Bill is to allow a company to carry on the business of a chemist or druggist on the condition that they employ a duly qualified manager or assistant, that is to say, to place a company in the same position as the executors or trustees of a deceased druggist, and to provide that, subject to this provision, anything which would be an offence under Section XV of the Pharmacy Act, 1868, if committed by an individual, shall be an offence if committed by a company.

A Bill intituled an Act to Amend the Pharmacy Act, 1868.

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Application of Pharmacy Act to Company.*—A company may carry on the business and use the description of a pharmaceutical chemist or chemist and druggist if and so long only as the business is *bonâ fide* conducted by a manager or assistant being a duly registered pharmaceutical chemist or chemist and druggist, as the case may require, but, subject to this provision, anything which would be an offence under Section XV of the Pharmacy Act, 1868, if committed by an individual, shall be an offence if committed by a company.

Short Title.—This Act may be cited as the Pharmacy Act, 1899.

THE NEW VACCINATION ACT IN OPERATION.

PUBLIC OR PRIVATE?

S. (PUBLIC VACCINATOR) writes: Your correspondent "R" can surely ask his patients if they wish to pay for vaccination in case there is any doubt about it. There are in my district men who vaccinate in one or two places, and I have often been asked to do the same. Until vaccination is taken out of the hands of private practitioners altogether, we must expect to find it half done. Private practitioners cannot be expected to run the risk of losing their patients and their petty fees for the operation. When private vaccination is abolished there will be no "one-or-two-places" vaccination, and we shall not hear much of "insusceptibility." I have been vaccinating for over twenty-five years and never yet saw an insusceptible case.

GLYCERINATED CALF LYMPH.

M. (PUBLIC VACCINATOR) writes: If the Local Government Board ever decides to supply glycerinated calf lymph from the Government establishment to private practitioners, it would surely be equitable if it were done with the stipulation that the private practitioner should conform to the conditions imposed upon public vaccinators, namely, that they shall make four "marks." I entirely agree with the remarks of "A Public Vaccinator." His experience has been mine.

THE CAPITATION FEES.

DR. RICHARD MACARTNEY (Public Vaccinator, No. 4 District, Westbury-on-Severn Union) writes: Knowing that the opinion of Mr. M. F. Carter, Solicitor, Clerk to the Westbury-on-Severn Board of Guardians, an exceedingly able lawyer, was opposed to that expressed by the BRITISH MEDICAL JOURNAL on the question of the fees payable to public vaccinators under Article 3 (1) (*a*), I, through him, raised the question with the Local Government Board, and by his kindness and courtesy I am now able to transmit to you a copy of the reply of the Local Government Board, which is, as you will observe distinctly opposite to that expressed in the BRITISH MEDICAL JOURNAL, and supports the view held by Mr. Carter. That the question was fairly put to the Local Government Board is evident by the enclosed copy of Mr. Carter's letter of inquiry.

COPY.

Westbury-on-Severn Union.

Newnham, Gloucestershire,
March 20th, 1899.

MY LORDS AND GENTLEMEN,

Vaccination Order 1898.

The Public Vaccinators for the several districts of this Union contend that they are entitled to the fee under Article 3 (1) (*a*) of the Vaccination Order 1898 in respect of all children vaccinated by them who are under the age of 14 years. They base their claim upon an opinion expressed on page 678 of the BRITISH MEDICAL JOURNAL of March 18th, 1899.

As the time for the Public Vaccinators to render their accounts is drawing near, and as the accounts will include the fees above mentioned, I shall be obliged by your views upon the matter at an early date.

I am, my Lords and Gentlemen,
Your obedient servant,
M. F. CARTER,
Clerk.

Local Government Board,
Whitehall, S.W.

COPY.

38,906 M 1899.

Local Government Board,
Whitehall, S.W.,
March 23rd, 1899.

SIR,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 20th instant, and, in reply, to state that a public vaccinator will not be entitled to a birth fee under Article 3 (1) (*a*) of the Vaccination Order, 1898, in respect of children whose births were registered before the 31st of August last.

I am, Sir, your obedient servant,
JOHN LITHIBY,
Assistant Secretary

To M. F. Carter, Esq., Clerk to the Guardians
of the Westbury-on-Severn Union.

*** The reply of the Local Government Board to the question asked by the Clerk to the Guardians of the Westbury-on-Severn Union can scarcely be said to be unambiguous. Passing over the use of the term "birth fee," which we are afraid has given many Boards of Guardians the mistaken idea that the public vaccinator gets a payment for every birth in his district, it is only right to say that no claim has been made that Article 3 (1) (*a*) provides for the payment of a fee in the case of children whose birth was registered before August 31st, 1898, but it is maintained that Article 3 (2) may, and should be, interpreted with Article (3) (1) (*a*), so as to include all persons under 14 years of age, not in the lists sent by the vaccination officer to the public vaccinator, but vaccinated by the latter himself.

PUBLIC VACCINATOR'S FEES.

F. V. E.—The public vaccinator can claim the 1s. fee in respect of every child whose name appears in the lists sent him by the vaccination officer, even though in his visit he finds that the child is dead, or has been already vaccinated by another medical man. It is to be observed that the vaccination officer excludes from the lists all children in respect of whom valid certificates are in force, whether of successful vaccination, exemption, postponement, insusceptibility, small-pox, or death.

VACCINATION IN A TUBERCULOUS FAMILY.

F. H. L.—The existence of active tuberculous lesions in the various members of a family such as is mentioned would probably be held to justify a public vaccinator in postponing the vaccination under Section 1 (4) of the Act of 1898, in which case he would be required to notify his action to the medical officer of health of the district in which the child lives. It would certainly be better to adopt this course than to attempt coercion in the face of such unstable conditions.

FORM C.

DR. R. F. TOMLIN (Wood Green, N.) desires to draw attention of the profession to Form C of the vaccination paper given to parents, etc., at the registration of birth. The Local Government Board, he writes, refuse private practitioners to fill it up. This is unjust. Surely a private practitioner is as capable of diagnosing "condition of house" and to have a knowledge of disease being rife in the neighbourhood as the public vaccinator is. He thinks it preposterous that if he have a private patient in an insanitary dwelling he must wait for the public vaccinator to grant postponement. If a public official is needed, it surely should be the M.O.H. Dr. Tomlin concludes by suggesting that a petition should be drawn up for presentation to the Local Government Board.

CONTRACT MEDICAL PRACTICE.

Friendly Societies' Medical Alliance.

The twentieth annual conference of representatives of friendly societies' medical associations was held at the Royal Assembly Rooms, Leamington, under the chairmanship of Alderman T. S. Harvey, President of the Council. About sixty delegates from all parts of the country were present.

The President, in the course of his address, said that the alliance provided a register of members of the medical profession willing and qualified to become medical officers, and he would remark that, in his opinion, if they offered fair and adequate salaries—and he would not be a party to offering anything less—there would be no lack of medical officers willing to accept office. It was a cause of regret to read that in some towns there still existed hostility on the part of members of the medical profession to the objects and aims of the friendly societies' medical associations. He unhesitatingly affirmed that the difficulties and troubles that had arisen from time to time in various parts of the country between their association and the medical profession had not been of their seeking. A section of the medical profession had appealed to the General Medical Council to strike off the *Register* the names of all medical men serving such associations as guilty of "unprofessional conduct." He need not say that if the General Medical Council had listened to that agitation, and taken that extreme and foolish step, their associations would have been placed in a very difficult position even if they had continued to exist at all. He was convinced, however, that the difficulty would have been merely temporary; for the country would not have tolerated so arbitrary and high-handed a proceeding on the part of the General Medical Council. Happily, at the moment when the relations between the medical profession and the medical associations were most strained, Mr. Brabook, the Chief Registrar of Friendly Societies, used his great influence to act as mediator with the medical profession. The medical profession would have to concede the right of friendly societies combining for medical aid, apart from their social position. As members of friendly societies they had always resisted any claim put forward by the medical profession to impose any wage or other limit to membership of such associations. All honour to those friendly society members who by their industry had improved their social and financial position. He most emphatically said they ought not to be compelled to relinquish all the benefits attaching to many years of membership.

Councillor Fell said that the difficulty with the medical profession was a very important one, and the members of the medical associations would have to meet it by fighting them. A resolution was passed in support of the proposed appointment of a Conciliation Board to deal with the difficulties arising in connection with the medical profession.

The subject of securing the assistance of trained nurses to help medical officers was also discussed. The general feeling was that if the aid of trained nurses could be secured, it would further the objects of the Association. No resolution was passed, but various delegates spoke of the assistance which district nurses had given.

LITERARY NOTES.

Messrs. Baillière, Tindall, and Cox will shortly publish a volume entitled *The Administrative Control of Tuberculosis*, by Sir William Broadbent, Bart., and Dr. John Broadbent.

Among recent literary announcements is that of the appearance of *Odd Issues*, a collection of short stories by Dr. S. Squire Sprigge. Dr. Sprigge, whose *Life of Thomas Wakley* was reviewed in the British Medical Journal not long ago, is the Subeditor of the *Lancet*. The book is published by Mr. Smithers.

Dr. H. Cameron Gillies writes to say that the reprint of his paper on *Gaelic Disease Names*, which was recently referred to in this column, may now be obtained from Mr. David Nutt, 270, Strand.

The April number of the *Practitioner* is entirely devoted to cancer, which is dealt with from every side by writers who have given special attention to the subject. Dr. Newsholme handles the statistics of cancer; Professor Roswell Park, of New York, gives the results of a further inquiry into the frequency and nature of the disease. Mr. Alfred Haviland brings his researches on the medical geography of cancer in England and Wales up to date, confirming his previous well-known conclusions as to its favourite "fields;" Mr. D'Arcy Power contributes some new facts as to the local distribution of cancer and cancer houses. An article of special importance is one by Mr. Plimmer on the Etiology and Histology of Cancer, which is illustrated with a number of beautifully-executed coloured plates showing the organism which he is inclined to look upon as the cause of the disease, and which he has been able to isolate, cultivate, and inoculate in animals with results which he regards as likely to lead to the solution of the problem of the origin of cancer. Professor McFadyean records his experience as to the occurrence of cancer in the lower animals. Mr. Watson Cheyne contributes an important paper entitled What can Surgery do to Relieve Sufferers from Cancer in Various Parts of the Body? Dr. William B. Coley discusses the treatment of inoperable cancer with special reference to the use of the mixed toxins of erysipelas and bacillus prodigiosus. A "Medico-literary Causerie" on cancer quacks brings a particularly interesting and valuable number to a close.

The view that leprosy may originate in the nose, recently alluded to in the British Medical Journal, appears to have been known to Pliny. In Fracastor's *De Contagionibus et Contagiosis Morbis, et eorum Curatione*, Libri III (Dr. Meunier's French edition, 1893, p. 183), the following interesting quotation from Pliny's Book XXVI occurs in the chapter on Elephantiasis:

Diximus elephantiasim ante Pompeii magni ætatem non accidisse in Italia, et ipsam a facie sæpius incipientem *in nare primo*, veluti lenticula, mox invalescentem per totum corpus maculosa et variis coloribus et inæquali cute, alibi crassa, alibi tenui, dura, seu scabie aspera., ad postremum vero augescentem intumescentibus digitis in pedibus manibusque. Ægypto peculiare hoc malum, et, quum in Reges incidisset, populis funebre, quippe in balneis solia sanguine temperabant ad medicandum eam.

"Who does not see," adds Fracastor, "from this description that it does not refer to the French disease, but to what is usually called leprosy, which develops without pain and begins by the nares, as Paul, Avicenna, and more recent authors declare?" Further, "that it was a familiar disease in Egypt, and, as Galen states, was alleviated by human blood."

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 12th day of April next, at 2 o'clock in the afternoon.

The following Committees will also meet:

Tuesday, April 11th, 1899.—2.0 P.M., Premises and Library Committee.—2.30 P.M., Trust Funds Committee.—3.0 P.M., General Practitioners and Ethical Committee.—4.0 P.M., Food and Drugs Subcommittee.—4.30 P.M., Medical Officers of Health Superannuation Subcommittee.—5.0 P.M., Parliamentary Bills Committee. *Wednesday, April 12th, 1899.*—10 A.M., Journal and Finance Committee.

Francis Fowke, *General Secretary.*

429, Strand, April 6th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

Meetings of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH. The spring meeting of this Branch will be held at St. Boswells on the afternoon of Friday, April 21st. Members intending to read papers, etc., will kindly communicate as soon as possible with W. F. FARQUHARSON, Garlands, Carlisle, Honorary Secretary.

SOUTH EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting will be held at Tunbridge Wells, on Thursday, May 11th, at 5 o'clock. Notice of communications should be sent before the end of April to the Honorary Secretary, J. W. BATTERHAM, M.B., Bank House, Grand Parade, St. Leonards.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting of this District will be held at the Meath Home, Godalming, on Thursday, April 13th, at 3.30 P.M., Dr. Minchin of Godalming in the chair. Agenda: (1) Minutes of the Guildford meeting; (2) to decide where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat; (3) election of Honorary Secretary. The following papers, etc., will be read:—Dr. Buzzard: The Differential Diagnosis of Insular Sclerosis from Hysteria. Mr. McAdam Eccles: The Treatment of Inguinal Hernia in Children. Mr. S. G. Sloman will show a New Splint for the Treatment of Compound Fractures.—ALEX. HOPE WALKER, The Common, Cranleigh, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The next intermediate meeting of the Branch will be held at the Public Rooms, St. Austell, on Saturday, April 15th, 1899, at 4 P.M. Notices of papers to be read, of cases, specimens, etc., for exhibition to be sent as soon as possible to the Honorary Secretary that an agenda paper may be issued. The Branch Council will meet at 3.45 P.M. Tea and coffee will be served before the meeting. The Honorary Secretary will be glad to receive at once the names of any candidates for election to the Branch.—H. W. WEBBER, M.S., 4, Woodland Terrace, Plymouth, Honorary Secretary.

NORTH WALES BRANCH.—The spring intermediate meeting of this Branch will be held at Colwyn Bay in the second week of April. As there are a number of practitioners anxious to join the Branch, members are requested to apply at once for the necessary nomination forms so that their names may appear on the agenda for election, and it is desirable that all who intend to join to participate in the (jubilee) annual meeting should be admitted at this meeting.—W. JONES-MORRIS (Is-y-coed, Portmadoc), H. JONES ROBERTS (Gwyddfor, Pen-y-groes), Honorary Secretaries.

BATH AND BRISTOL BRANCH.

THE fifth ordinary meeting of the session was held at University College, Bristol, Dr. L. A. WEATHERLY, President, in the chair, when 47 members were present.

Uterine Neuroses.—Dr. A. E. AUST LAWRENCE read a paper on uterine neuroses. He laid stress on the importance of the production of general symptoms by local disease. When local disease had been excluded, common-sense moral treatment was often more important than strictly medical treatment. In such cases examination of the pelvic organs was not to be undertaken as a routine measure. He alluded to persistent vomiting as a symptom of one form of endometritis, and cured by treating the uterus. There was a form of intestinal distension which occurred in pregnancy, when it might necessitate the induction of abortion, and was also a prominent symptom in cases of false pregnancy. He considered that this intestinal distension was a reflex neurosis, and said he had never met with it as a consequence of backward pressure upon the rectum by the uterus. He narrated cases of severe cardiac disturbance, asthma, and long-continued headache which had been cured by the correction of uterine displacements.—An interesting discussion followed, in which Drs. CRADDOCK, W. SWAYNE, SHINGLETON SMITH, NEWNHAM, EWENS, EDGEWORTH, STACK, MICHELL CLARKE, and the PRESIDENT took part.

Mediterranean Fever.—Dr. E. MARKHAM SKERRITT read the account of a case of Mediterranean fever under his care. The patient was a midshipman, aged 19, and the illness was attributed to his ship being anchored opposite an open sewer at Athens. The temperature chart was shown, which somewhat resembled that of a case of malaria, but the fever periods were longer. There was a weak, rapid pulse, and anæmia developed, profuse sweats, muscular tremors, subsultus tendinum, prostration, and evidence of neuritis. The patient made a complete recovery, very large doses of quinine being administered with good effect. Dr. Skerritt made some observations on the general features of the disease.—Dr. SYMES showed a culture tube and microscopic specimens of the characteristic micro-organisms of the disease, and pointed out its importance in diagnosis, and that it gave a "clumping" reaction.—Dr. MICHELL CLARKE narrated a case, also in a midshipman, in which there was pronounced dilatation of the heart in addition to the other symptoms. The patient recovered perfectly after a protracted illness.

Wiring of the Patella.—Mr. A. W. PRICHARD showed a patient in whom both patellæ had been wired for fracture, with very good results. He gave the history of another case in which the patellæ were fractured at an interval of a year, and in which wiring was successful, and of a third in which wiring cured a patient who had been unsuccessfully treated by other methods. He discussed the various modes of treatment, and considered wiring the best, provided the patient was moderately young, his general health good, and the operation was perfectly aseptic and was not undertaken too soon after the accident. He showed lantern slides of skiagraphs of his cases.—Mr. PAUL BUSH also showed skiagraphs of a case wired by him, and explained his method of using a double wire.—Mr. HARSANT expressed himself in favour of wiring the patella under the conditions laid down by Mr. Prichard. Of the other methods, he thought the results of treatment by bringing fragments together by strapping were sometimes admirable, sometimes very bad. He did not approve of Barker's or Mayo Robson's methods of treatment, but spoke favourably of the so-called Dutch method. The risks of wiring were very slight under present conditions of antiseptic surgery; one wire was sufficient.

Hæmorrhagic Pancreatitis.—Dr. LACY FIRTH showed the specimens from a case of hæmorrhagic pancreatitis. The patient was admitted in a state of collapse, with an uncountable pulse, and a history of having passed shortly before a black offensive motion. In contrast with the feeble heart's action, the patient's voice was strong, and he was able to move easily. He died 1½ hour later, and *post mortem* the heart was dilated and flabby; there were areas of fat necrosis in the peritoneum, and the pancreas was chocolate-coloured, except its head, which was bright red, like a large blood clot, and continuous with sanguineous effusion into the neighbouring tissues. The difficulties of diagnosis were gone into, and Dr. Firth alluded to another case in which operation had been done because the symptoms present were those of intestinal obstruction.—Mr. T. M. CARTER said he saw the patient two or three hours previously; he was then in a condition of extreme collapse, but with remarkable mental alertness. The symptoms suggested intestinal obstruction.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of this District was held at Brighton on March 23rd.

Communications.—The following cases were shown: By Dr. MACKEY: (1) A little girl on whom Abdominal Section was performed in September, 1898. Extensive tuberculous deposit was discovered. The wound was closed, and patient is now in good health. (2) A case of Eczema in the Flexure of Elbows, reached on one side by *x* rays, on the other by the usual applications.—By Mr. MARSH: An elderly man with Congenital Tumour (probably dermoid) at the root of nose.—By Dr. GRIFFIN: A case of (?) Acquired Interstitial Keratitis.—Mr. JENNER VERRALL read notes of a case of Perforated Gastric Ulcer successfully treated by abdominal section and suture of ulcer.—Dr. BATTERHAM (for Mr. TICEHURST): A case in which Resection of Bowel had been performed with success for relief of intussusception of a week's standing. Murphy's button had been employed. The patient was a woman, aged 20. The cause of intussusception a benign polypoid growth. The parts removed were exhibited.—Mr. A. H. DODD showed skiagraphs from a case of Suppression of a Toe; only four metatarsal bones were present.—Mr. W. H. DODD showed skiagraphs of a badly-united Fracture of Lower Third of Femur.—Dr. MACKEY read clinical notes illustrating the use in skin diseases of Picric Acid, Ichthyol, Loretin, Styrax, Resorcin, X Rays.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

A MEETING of this District was held at the Worthing Infirmary on March 23rd; Dr. LEEDS HARRISON in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Next Meeting.—It was decided to hold the next meeting at Littlehampton.

Surgical Affections of Abdominal Viscera.—Mr. ANTHONY BOWLBY read a paper illustrating various surgical affections

of the abdominal viscera. The first case was that of a lady in whom acute pancreatitis simulated intestinal obstruction, the diagnosis only being made by an exploratory laparotomy. A case of actinomycosis of the large intestine, with abscess and fæcal fistula was recorded, and specimens of actinomycosis in animals and in men were exhibited. The third case was that of a young woman in whom tuberculous disease of the cæcum causing a fæcal fistula had been treated by excision of the cæcum and subsequent anastomosis of the ileum with the colon. Other cases of suppuration in connection with the appendix or the cæcum were also read.

Transposition of Viscera.—Dr. Harrison showed a case of transposition of the viscera in a man, the heart beating below the right nipple and the liver dulness being on the left. The condition was accidentally discovered by his companions when he was a boy. They were learning a song of which the words were "Place your hand on my left breast, my panting heart can find no rest;" they followed the instruction of the song and discovered in the patient that his heart beat on the right side.

Specimen.—The Secretary showed for Mr. Nodes a specimen of Aneurysm of the Splenic Artery which had ruptured immediately after labour, causing sudden death in a woman aged 33. There had been no indications of the disease and the labour had not been difficult. The Secretary also showed a Tumour of the Scalp in a man of 75. It was of the size of a walnut and composed of enlarged veins in fibrous tissue, and had been in its present condition for 40 years.

SOUTH-EASTERN BRANCH: EAST KENT, WEST KENT, AND NORTH KENT DISTRICTS.

A conjoint meeting of these Districts was held on March 21st at St. Bartholomew's Hospital, Rochester, Dr. T. T. Brunyate in the chair. Thirty-four members were present.

Representatives of Districts on Council.—It was unanimously resolved that Messrs. Verrall, Galton, and Tyson be nominated as representatives of the Districts on the Council.

The General Medical Council and Direct Representation.—Mr. Victor Horsley then delivered an address, which was followed by an animated discussion, on the Present Condition of the Medical Practitioner and his relation to the General Medical Council.—On the motion of Dr. Vincent Bell, seconded by Mr. Frank Sturges, the following resolution was carried *nem. con.*:

That this meeting urges the direct representatives on the Council, and the Council as a whole, to oppose any measures that will legalise the certification of unregistered persons.

—On the proposition of Dr. Hoar, seconded by Mr. Whitehead Reid, the following resolution was also carried *nem. con.*:

That this meeting of the joint Kent Districts is of opinion that the General Medical Council will not be properly constituted until its direct representation is largely increased.

Dinner.—In the evening 16 members dined, under the presidency of Dr. Brunyate, at the Bull Hotel.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.

A meeting was held at the Western General Dispensary (by kind permission of the staff) on March 23rd, G. Crawford Thomson, M.D., Vice-President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Communications.—Dr. C. Cuthbert Gibbes read a paper on Prognosis in Aortic Regurgitation, illustrated by a number of typical clinical cases, one of which was especially interesting, as the patient had been passed as a first-class life. Many members expressed their opinion that the opportunity of examining such clinical cases enabled the general practitioner to keep up his knowledge of heart cases, and also complimented the West London District for arranging meetings particularly of use to the majority of members in the district.—Dr. G. L. Johnson gave an interesting account of a Short Appendix attached to the Iris of the Hirlax and Other Animals, which served the purpose of a veil or screen to the pupil, enabling the animals to look one full in the face when the sun was shining full in their eyes. Dr. Johnson explained his idea of the structure of this appendix, and showed a number of photographs of animals in which it was clearly visible. Dr. Johnson also told the meeting that he hoped to get some of these little animals over from the Cape, when he would make a further communication on the subject.

Votes of Thanks.—Hearty votes of thanks were passed to Drs. Gibbes and Johnson for their communications, and to Dr. Winslow and the staff for their kindness in allowing the meeting to be held at the Dispensary.—Dr. Winslow briefly thanked the members for their hearty vote of thanks, and said he took a sincere interest in the work of the West London District, and hoped they might welcome the members again another year.—Dr. Dutton proposed a vote of thanks to the Vice-President, which was heartily endorsed.

Tea.—The staff kindly provided afternoon tea.

SPECIAL CORRESPONDENCE.

PARIS.

Influenza in Paris.—An Action for Damages caused by X Rays.—The Teaching of Colonial Medicine.—Medical Providence.—

The influenza epidemic is so severe in Paris, that in the university world classes and lectures are interfered with.

An action has recently been brought in a Paris law court for damages caused by the *x* rays. Mme. Mockert suffered from an affection of the hip-joint. Her medical attendant recommended an operation; the patient disliked the idea. In order to ascertain that it was necessary, an examination with the *x* rays was made by a specialist. The first sitting lasted forty minutes, the second forty-five, the third an hour and a quarter. The result was negative. After the second sitting the skin of the region radiographed was red and mottled. A few days subsequently there was a sore place which was followed by a scab. The suffering was so intense that it was feared that the patient would go out of her mind. Gangrene seemed to be threatening. Mme. Mockert was taken to the seaside. Five medical men attended her at a cost of £136 15s. Mme. Mockert and her husband sued the radiographer for £200 damages. Counsel for the defence read a letter from Dr. Bardet, head of the Laboratory of the Pitié Hospital, wherein he states that if any responsibility is attached to the use of Roentgen rays they cannot be utilised. The susceptibility of patients to the influence of the *x* rays varies like their susceptibility to that of drugs. The Court has decreed that a medical commission be appointed to decide as to the duration of the examination considered safe. Judgment is postponed.

The Marseilles Municipal Council has voted the sum of £400 for the creation of five chairs of colonial medicine attached to the Marseilles School of Medicine. The Council has endorsed the propositions of the Mayor which granted the necessary sums of money for transferring from Aix to Marseilles the Faculties of Law and Arts; also for turning the Marseilles School of Medicine into a Medical Faculty. The Council, at a more recent sitting, has given sites on which the new Faculties are to be built.

The general assembly of the mutual medical association known as the Association Laguey was held a few days ago. Every year the members increase, likewise the capital in reserve. Nevertheless, large sums of money are every year expended to relieve members struck down by sickness. In 1898 there were 2,405 days of illness to be provided for which incurred an expenditure of £938. The reserve fund was enriched by the sum of £1,374. The total reserve capital amounts to £10,988 12s. In a few months the Society will *fête* the acquisition of £12,000. On December 31st, 1898, the members numbered 426.

ABERDEEN.

Proposed House-to-House Collection for Medical Charities.—The Anthropological Museum.

As regards the proposals which have been made for a house-to-house collection in aid of the medical charities in the city, a letter has been sent by the Infirmary Board, after very full

consideration, to the Hospital Saturday Committee. While warmly appreciating the generous efforts of the committee for the help of the charities of the city, the Board refer to the intimate connection which has existed for more than a hundred years between the churches and the infirmary, to the fact that the directors have sent appeals to the churches to use their influence in securing lists of subscribers among their congregations, and the further fact that deputations have been sent by the Board to confer with the various church authorities regarding the position of the hospital funds. The Board is therefore of opinion that a house-to-house collection such as the Hospital Saturday Committee suggest might be found to overlap, and in that way act prejudicially towards the collections raised by the various church organisations. It is sincerely to be hoped that the measures taken by the Infirmary Board may have a practical result on the amount received from church collections which hitherto has been far from adequate.

Arrangements are in progress at the University for the equipment of an anthropological museum. The professor of anatomy has received from Sir William Macgregor, Governor of Lagos, late Lieutenant-Governor of New Guinea, the generous offer of specimens from his collection; and Colonel Allardyce, of Culquoich, has kindly made a gift to the University of an interesting collection relating chiefly to the islands of Fiji. With these specimens as a nucleus, it may be confidently expected that the interest of other old Aberdonians in such a scheme will speedily furnish a really useful museum.

SHEFFIELD.

Gifts to University College.—General Practitioners and Consultants.—The Infectious Hospitals.

THE Medical Department of University College has been fortunate just recently in gifts of money for equipment. By the generosity of a private citizen, a well-known medical practitioner, a short time ago £200 was given for providing apparatus for the Bacteriological Department. The same generous donor has now made a further gift of £100, as well as £50 for providing additional microscopical apparatus in the Pathological Department. The Favell Laboratory of Physiology, which was recently fitted up by the friends of the late Mr. M. F. Favell, has also received an anonymous gift of an additional £150, which was required to purchase necessary apparatus. The medical department has also received a legacy of £100 by the will of the late Mr. Wilkinson, chemist.

The excellent good feeling existing between the general practitioners of the surrounding districts and the consultants of Sheffield was evidenced by a number of the former entertaining several of the consultants at a dinner recently. The number of the hosts, as well as guests, was diminished somewhat by the professional exigencies of the prevailing sickness. A most agreeable evening was spent, and expression was given on either side to the harmony and cordial good feeling which existed between the branches of the profession as represented by the hosts and guests on that occasion.

Dr. Alexander Anderson, the Medical Superintendent of the Infectious Hospitals, has issued his report for 1898. The total number of cases treated was 1,352, scarlet fever heading the list with 912, and enteric fever coming next with 369. The experience of the year again abundantly testified to the utter inadequacy of the hospitals to cope with the two common infectious diseases endemic in the city. Though scarlet fever was not unduly prevalent during the year, and though the wards were considerably overcrowded, many cases had to be refused admission, and the percentage of cases admitted to the total number notified fell from 64 in 1897 to 61 in 1898. The lack of accommodation was still more evident as regards enteric fever, the percentage of admissions falling from 52 to 40. That many more cases could have been isolated if the accommodation had been sufficient is shown by the fact that during August, when all cases could be received, 86 per cent. of scarlet and 78 per cent. of enteric fever cases were admitted. No attempt whatever was made to isolate diphtheria, only 17 out of 332 cases notified being admitted. Owing to the prevalence of diphtheria in the city several cases occurred amongst patients convalescing from scarlet fever, and as these had to be separately isolated, the accommodation at Lodge Moor was still further limited. Considerable progress has, however, been made during the year towards providing the increased accommodation which is needed. The sanction of the Local Government Board has been obtained for the erection of administrative buildings and isolation wards at Lodge Moor. These buildings, which have been urgently required for many years, will greatly facilitate the administration of the hospital, besides allowing of an immediate increase in the accommodation. A scheme for the erection of six permanent pavilions, each of one storey, has also received the confirmation of the Council. When these are erected the two hospitals will contain 340 beds, which, though not actually sufficient, will be a great step in advance. No cases of small-pox occurred during the year. As there is no reason, however, to believe that this immunity will continue, it is desirable that the erection of a small-pox hospital on the site already purchased should at once be proceeded with.

CORRESPONDENCE.

THE TEACHING OF PHYSIOLOGY AND HISTOLOGY.

SIR,—The letter from Dr. Waller in the BRITISH MEDICAL JOURNAL of March 25th voices a conviction which is, I believe, widely felt by teachers of physiology in this country. The need for charging separate teachers with instruction in physiology and histology in every university, and, indeed, in every well-equipped medical school, is becoming yearly stronger and is already urgent. I particularly disclaim reference in this question to any one school in particular rather than to any other, but I do wish to endorse the views put forward by Dr. Waller on the general thesis.

His letter trenchantly outlines the main position. No single individual can fitly, in my judgment, teach two such extensive and rapidly-growing branches of natural knowledge as animal physiology and animal histology. For the exposition of a science to really reach its hearers the presentment of it must be living and authoritative. The ability to make such a presentment can only be obtained from practical acquaintance with the inquiries into its problems.

Of the three subjects of physiology, histology, and human anatomy required equally from the medical student in this earlier curriculum, physiology and histology are eminently progressive; discovery and consequent extension continually goes forward in the respective field of each. Any conscientious teacher entrusted with the whole range of physiology proper has no light task to keep abreast of his theme in all its width of chemical, physical, and psychological inquiry. The teacher of histology has similarly an influx of new facts and rapidly-changing technique to take account of. Considering the teacher merely in his *rôle* of lecturer, instructive lectures of a kind have undoubtedly been given by men of ability, the whole of whose knowledge of the lecture subject was secondhand, but it is more than doubtful whether the real life of any science can be felt, still less communicated, by one who has not himself learnt it by direct inquiry from Nature. Hence doubtless the store the teacher has empirically come to set upon practical lessons and instruction by "*maitres de conférences.*" It is demonstrably impossible for any one teacher to pursue adequately and simultaneously in the laboratory, that is really, two rapidly-growing studies so extensive as physiology and histology. How then can he be expected in the lecture theatre to teach them with success? The argument is strong enough in respect to instruction of students from whom little is expected. It is stronger still regarding students required to do somewhat better, and to work through courses called "advanced."

A further aspect of the whole question regards the need of the teacher to those wishful to attempt original investigation. This country begins to recognise wisdom and profit in the Continental view that a university is a centre not only for the distribution of knowledge but for the production of it. From this aspect also independent institutes for physiology and histology, as they exist in so many foreign universities, are eminently desirable here.—I am, etc.,

C. S. SHERRINGTON, M.D., F.R.S., etc.

Liverpool, March 30th.

THE *CAUSA CAUSANS* OF TYPHUS FEVER.

Sir,—I have unfortunately got a little behind in the reading of my Journal, and therefore have to apologise for going back a month to refer to Dr. Poore's most interesting Milroy Lectures. He says: "It is wholesome for us to remember that the greatest sanitary achievement of our time has been the practical disappearance of typhus fever," a conclusion with which I am delighted, for it has been my habit to refer to this illustration of the wrong-doing of most writers on such subjects, and particularly those on what is known as the "germ theory of disease."

I have just perused a letter from a gentleman at a great distance who has asked me to supply him with references to my "my well-known writings against the germ theory." I am indignant, because all I have ever said against the germ theory is that it is not a theory, but a fact. That certain communicable diseases have a "*materies morbi*" by which they are transmitted has been known since the fourth century. Now we have identified—or at least we believe we have—a considerable number of them. But that does not alter the fact, nor does it create a theory: it merely provides another piece of exact information of considerable interest and importance. But does it produce a *causa causans?* Most certainly not. Dr. Poore says: "Of the *causa causans* of typhus fever we know nothing." Here he means the bacillus, and so far as I know he is right in his statement; but that the bacillus is more than an agent I deny, that it is a *causa causans* I cannot admit.

I was born in Edinburgh in 1845, at a time when it was known as "the fever-stricken city," and its vast educational establishments were threatened with ruin on account of the "fivver," as typhus was known by the inhabitants. As a student I had a close personal acquaintance with it, and if I had been asked then as to its *causa causans* I should have replied, "Living in the West Port, St. Mary's Wynd, or the Meat Market Close." The experienced officers of the old infirmary could guess with fair accuracy the particular place of the origin of each case by the severity of its symptoms. As a clerk in the old fever ward No. VI I never did my day's duty without coming away with a splitting headache, which was cured by a spin round Arthur's Seat. In 1861 eight of us were laid down with the plague, and if my memory serves me rightly, only two of us got up; I know the death-roll was a heavy one, so the disease has ever since interested me. The disease has been banished, though no germ has been found; in fact it was banished before the days of germ hunting. The germ—in those days we called it "the infection"—was taken for granted; the *causa causans*, overpopulation, was discovered by Sir Henry Littlejohn, and by his indefatigable labours, backed by the power of an intelligent municipality, the plague was banished.

What I want to persuade my professional brethren who are not professional bacteriologists is this—that the germ may be taken for granted. If he is found out and identified, so much the better; he is an interesting personality, but no more. The real matter of importance for the practitioner is the soil on which the germ may light; see Matthew xiii, 3—8 and the next verse, which is, "Who hath ears to hear, let him hear."—I am, etc.,

Birmingham, April 5th. Lawson Tait.

THE IRISH MEDICAL ASSOCIATION.

Sir,—It has been arranged that the annual meeting of the Irish Medical Association shall be held, for this year, in Cork, and it appears to be in contemplation that, at least in each alternate succeeding year, the annual general meeting shall be similarly held in Belfast, Galway, and other provincial centres. It is known to the Association in Dublin and Cork, and probably elsewhere, that I am strongly opposed to this new departure, and, as I feel that my action in the matter may be misinterpreted by the members of the Association in a sense unfavourable to me, I beg your permission to give my reasons. Before doing so I desire to say that, so far from wishing to throw cold water on any effort of my provincial brethren to organise among themselves for their own protection and for the good of the profession and the public, I heartily welcome their zeal, and am ready to co-operate with them and to urge the Association to do so. That I have always been anxious to encourage them in taking the reins of the Association into their own hands, and in availing themselves of a predominant influence in its work, is testified by the fact that it was I who in May, 1890, designed the new constitution of the Association which transferred the ruling power to elected councillors, two-thirds of whom are provincialists, and it has always been a source of regret and disappointment to me that they have to a great extent failed to avail themselves of the powers thus conferred on them. I therefore warmly advocate the holding of a general meeting once each year in each provincial centre which expresses its willingness to receive the Association, and make arrangements to do honour to the guests, and I do not think the influence of the Association or its funds could be applied to a better use than assisting such an enterprise; yet I am totally averse from the proposition that Cork, Belfast, or any other city shall withdraw from Dublin the annual general meeting heretofore held on the first Monday in June in Dublin, and I shall give my reasons.

First, I object emphatically to a breach of the custom which has governed the Association for sixty-one years. The first Monday in June was, for excellent reasons, selected, at the foundation of the Society in 1839, by Carmichael, Kingsley, Benson, Jacob, and others of its founders; and as there is not another professional organisation in the kingdom which can boast of such a tradition, I should like to maintain it, even if the specified date were inconvenient. Secondly, the date named was fixed because on it a gathering of the professional clans took place, and still takes place, in Dublin to assist in the elections at the College of Surgeons, and in the annual general meeting of the Royal Medical Benevolent Fund Society. If the day is appropriated for a provincial meeting, the simple result will be that the practitioners interested in these functions will be absent from such meeting, including the majority of the metropolitan men. Thirdly, it has always been the custom of the Association to remind the heads of departments, members of Parliament, and other distinguished persons, as well as the Dublin press, of the existence of the organisation by holding a public dinner, to which these high functionaries were invited, either officially by the Association or by members as their guests, and I maintain that the custom was very necessary to the well-being of the organisation. Needless to say that if the annual meeting in Dublin is abolished, the Association will be "lost to sight, to memory dear" as far as these potential influences are concerned.

For these reasons I urge that the provincialists should be content with a well-organised public meeting at any other time of the year, to which meeting the parent Association should send delegates and contribute money, but that it should not interfere with the time-honoured annual general meeting, from which, as I assert, we have gained substantial consolidation in the past. From the last report of the Association I find that Dublin contributes nearly thrice as many members as any county in Ireland, very many of them being men who lend their names and their money without any personal interest whatever in the work of the Association. Are we going to discourage that interest by taking away the one annual chance which is afforded to them to acquaint themselves with our work?—I am, etc.,

Archibald Hamilton Jacob, M.D., F.R.C.S.I.,
April 5th. Ex-President and Councillor, Irish Medical Association.

THE ASSISTANT'S CERTIFICATE OF THE SOCIETY OF APOTHECARIES.

Sir,—I am directed by the Society of Apothecaries to request you to publish in the British Medical Journal the enclosed statement, the original of which is in my possession.—I am, etc.,

James R. Upton,
March 30th. Clerk of the Society of Apothecaries of London.

"The Dewsbury and District Chemists' Association desires to express its sincere regret that a statement should have appeared in a letter written on behalf of the Association, and addressed to the Clerk of the Privy Council, to the effect that the Association considered the assistant's certificate of the Apothecaries Company was not a sufficient legal qualification. This statement the Association desires to withdraw unreservedly, and the Association hereby apologises to the Society

of Apothecaries for its insertion in the letter referred to. The Association wishes to disclaim any intention of impugning the legality of the certificate in question."

NURSING IN IRISH WORKHOUSES.

SIR,—I have observed the paragraph in the BRITISH MEDICAL JOURNAL referring to the nursing circular of the Irish Local Government Board. It concludes with a reference to the opinion of Drs. Davidson and Moorhead, who stated in a letter to the *Irish Times* that the nurses of county infirmaries are unsatisfactory. I challenge both gentlemen to state when and where they have employed infirmary nurses, and I ask them to give any substantial reason for the opinion they have thus expressed. I have had a good deal of experience of nurses trained in large hospitals, and I have not always found them satisfactory. As far as I can find out from my friends among the infirmary surgeons, neither Drs. Davidson nor Moorhead have for years employed infirmary nurses. If this is the case, it seems strange than an adverse opinion should be expressed on such very insufficient evidence.—I am, etc.,

Omagh, April 2nd. EDWARD THOMPSON, F.R.C.S.

MEDICAL AID ASSOCIATIONS.

SIR,—"A Member B.M.A.'s" first two suggestions in his last letter are worth consideration, but his last two are absurd.

A man cannot consider the honour of being a member of the British Medical Association stand before his bread and cheese, and there will always be found specialists who will not ask the question, Are you a surgeon to any medical aid society?

As regards private family clubs, in my experience no touting or canvassing is carried on. If people want to belong to one, and I am satisfied they cannot afford to pay 2s. 6d. a visit, I admit them.

I cannot see why "A Member B.M.A." should at all stand up for medical institutes which are under the control of friendly societies. Although they have no house-to-house visitation, they put up notices about the town every quarter, stating their terms and that it is time to pay. In my mind the great objection to medical institutes is that they admit at the rate of 4s. per annum people who can well afford to pay 2s. 6d., 3s. 6d., or even 5s. a visit. By this I am not raising objections to the men who have no doubt joined in their young days, and have since become men of means, but I object to the women and children of these men being admitted.—I am, etc.,

March 28th. MEDICAL AID SURGEON.

THE TITLE OF PHYSICIAN.

SIR,—With reference to diplomates of the Colleges and their right to be styled "physician," I had occasion to look at my diploma granted by the College of Physicians of Ireland; the wording ends: "and do hereby certify that he is a *Physician* and Licentiate in Medicine of said College." I presume they had a legal right to grant me that title, and I shall call myself a "physician."—I am, etc.,

Clown, near Chesterfield, April 2nd. J. A. MAGEE.

IS PETROLEUM EMULSION OF ANY NUTRITIVE VALUE?

SIR,—I have read with much interest Dr. Robert Hutchison's valuable contribution to the BRITISH MEDICAL JOURNAL, and I should like to give my own experience in the use of petroleum emulsion. It is this: Many patients consumptive or subject to other wasting diseases appear to tolerate its use when cod liver oil cannot be tolerated. Instead of setting the stomach in revolt, as the latter will often do, it appears to soothe the mucous membrane, and produces a more natural tone and power of assimilation. It probably checks noxious chemical fermentation, and the absorption of such noxious fermented residue of digestion into the blood. At all events, it is clear that petroleum does not irritate the nerves supplying the mucous membrane of the stomach, but doubtless cleanses away foul mucus, and leaves the digestive organs in a more healthy condition to perform their functions naturally. The whole mucous tract appears to improve, and where there has been constipation a natural peristaltic action of the intestines follows its use. Nutrition is improved, therefore the condition of the lungs improves when weakened and diseased, in consequence only of this better power to assimilate nourishing food, and not from any *nutritive property* of the petroleum. It is evidently a great gain, as Dr. Hutchison's able experiments show, that none of the petroleum is absorbed, but is wholly eliminated through the usual channels, doing its cleansing and purifying work on its way.—I am, etc.,

THOS. WM. BLAKE, M.D.St. And., M.R.C.S.Eng.

Bournemouth, March 25th.

HUNTER v. CLARE: AN APPEAL.

SIR,—The sympathetic appeal of Mr. Rivers Willson *re* the widow of the late Mr. Kingsley Hunter, published in the BRITISH MEDICAL JOURNAL, April 1st, should be addressed to those members of the Council who instituted the proceedings. I enclose a small subscription, however, as every little helps.—I am, etc.,

April 1st. GENERAL PRACTITIONER.

*** The cheque enclosed has been forwarded to Mr. Rivers Willson, 42, Wellington Square, Oxford, to whom subscriptions to the fund should be sent. A second list is published at page 887.

CANCER HOUSES.

SIR,—Will you permit me to make a few remarks upon the two very valuable papers which appeared in the BRITISH MEDICAL JOURNAL of April 1st on the Influence of Locality upon the Prevalence of Cancer and the Topographical Distribution of Cancer?

The existence or non-existence of "cancer houses" in any particular town or district is an easy mathematical problem when the facts have once been determined. The general influence of locality upon the prevalence of cancer is a wider question, and one which can only be settled after the expenditure of much time and money. The work appears to have been admirably begun by the gentlemen contributing the papers referred to, but it is of course necessary to remember that annual death-rates among small populations are absolutely untrustworthy and meaningless. This is so even when dealing with deaths from all causes, when the average rate is 18.7 per 1,000 annually, as for 1891-5, it must be more obviously so when considering deaths from a special disease, such as cancer, which gave for the same period a recorded average rate of 0.764 per 1,000 living, not "percentage."

Dr. Lloyd Jones gives some most useful figures as regards house incidence; if we could get similar returns for other towns and districts we should probably soon get at the truth, but only those who have undertaken such work singlehanded can appreciate the immense amount of time it means. The figures which Dr. Jones gives show clearly enough that in Cambridge, as in Bath, there are no "cancer houses." He tells us that in nineteen years there were, among 5,685 houses, 438 houses which were affected with cancer, but of these there were only 7 houses with double cases, and 3 with triple cases. By superficial inspection of these figures it is at once evident there can be no active infection or liability to cancer connected with the house.

By the usual methods of calculating probabilities we should have had 15 or 16 houses with 2 deaths, and no house with 3 deaths. Therefore, but for 3 deaths in nineteen years, in a population of about 35,000, the multiple deaths from cancer would have been below what we should expect to occur by chance. I do not know if Dr. Lloyd Jones considered "cases" as distinct from deaths, but the same reasons hold good.

In my paper, Cancer in Relation to the Dwelling,[1] I considered 1,319 deaths from cancer occurring during thirty-two years among 8,507 houses. I tried to compare the incidence of deaths from cancer with those of deaths from tuberculosis and deaths from all causes in other districts. My work was very incomplete. I have quite an open mind on the general question, but made a positive statement as regards "cancer houses" in Bath.

The following table will show something of the difference found between the incidence of tuberculosis and cancer. The term "tuberculosis" is here used in its widest sense, and in these preliminary figures I have included deaths from "marasmus," but the principal cause of death in houses with many deaths

[1] *Public Health*, December, 1898.

was "phthisis pulmonalis." I have considered phthisis separately, and hope to publish full particulars at a later date. Cancer is also used in its registration meaning to include sarcoma and other malignant growths, afterwards in dealing with houses each neoplasm should be studied separately.

Deaths from Tuberculosis and Cancer.

	Bath 32 years, 1866-1897, among a population of about 52,000 living in about 8,500 houses.				Cambridge. 19 years. 5,685 houses.	
	Tuberculosis.		Cancer.		Cancer.	
	Registered.	Calculated.	Registered.	Calculated.	Registered.	Calculated.
Houses with 1 Death.	1,813	—	1111	—	428	—
2	473	188	95	70	7	15.3
3	112	12	6	2.8	3	0.34
4	47	0.6	—	0.09	—	—
5	12	0.02	—	—	—	—
6	7	—	—	—	—	—
7	2	—	—	—	—	—
8	1	—	—	—	—	—

These figures help to prove the infectivity of tuberculosis, if such proof were wanted, but having regard to the long-standing belief in family predisposition they would not be considered sufficient evidence if we had no other facts, and the influence of the dwelling might be denied; but where we do not get multiple deaths beyond the probable number I think we may exclude the house altogether. It may be illogical, but it seems easier to prove the negative by exclusion than to prove the positive when only some of the causes are known.—I am, etc.,

W. H. Symons,
April 3rd. Medical Officer of Health, City and County of Bath.

A CASE OF DEATH UNDER CHLOROFORM.

Sir,—In reference to the recent correspondence in the British Medical Journal[1] under this heading, may I ask why if failure of the circulation is due to the action of chloroform on the vasomotor centre that failure takes place *after* the chloroform is withdrawn?

In reference to Mr. Cathcart's case we are told,[2] "after this no more chloroform was given," and then the disquieting symptoms were noticed.

Now Dr. R. Kirk has shown[3] that the lungs of animals are emptied of chloroform vapour in 10 to 20 seconds after it is discontinued, and that it is then when the blood is getting free from chloroform that circulatory disturbances may arise.

The explanation I have given[4] is that the heart fails during the rise of blood pressure which occurs as the chloroform passes off; and this alone covers all the recorded facts of the case; hence also the good effects of nitrite of amyl, as in Mr. Stevenson's case.[5]

I have also pointed out that pain, as of an operation, continued during partial anæsthesia, would still further raise the blood pressure, and help to overpower the heart.—I am, etc.,

Brook Street, W., April 1st. Alexander Haig.

DIPLOMAS AND DEGREES FOR OPTICIANS.

Sir,—Your remarks regarding the advertising of the so-called diploma F.S.M.C. are very praiseworthy and certainly correct. It is misleading to the public, as well as injurious to the medical practitioner, to say nothing of the unfairness to the optician's fellow tradesmen; and, as you remark, "That if the provision is enforced in its integrity, will go far towards removing the apprehensions which have arisen," permit me to inform you that the provision is not enforced, as the advertisement [enclosed] will prove, although Mr. Thornthwaite, in his letter, states: "In order to still further protect the public and the medical profession, those students who are entitled to receive certificates shall sign a legal agreement in which they bind themselves not to advertise their diploma in any way which would lead the public to infer medical qualifications." He also states: "These restrictive covenants have not been 'revised,' as your article suggests;" probably they have never been "revised," but have they ever been "enforced"? Mr. Thornthwaite also states that the diploma is only lent to the holder, and can be recalled if the rules of the Company are disregarded. Then why should this man's diploma not be recalled if Mr. Thornthwaite's statements are true? I know a certain medical man, who is also an oculist, who is a considerable loser by this misleading advertisement, and I can positively prove that the public here are grossly imposed upon, inasmuch as they mistake the letters F.S.M.C. (Lond.) for a medical qualification; yet Mr. Thornthwaite states that the Spectacle Makers' Company have appointed a Committee to control the advertising of their students. I would like to ask Mr. Thornthwaite what his Committee are doing to permit the rules of the Company to be disregarded in this flagrant manner?—I am, etc.,

March 27th. Enquirer.

[1] British Medical Journal, 1899, vol. i, p. 762.
[2] British Medical Journal, 1899, vol. i, p. 468.
[3] *Lancet*, 1893, vol. ii, p. 429.
[4] *Lancet*, February, 1895.
[5] British Medical Journal, 1899, i, p. 661.

OBITUARY.

WILLIAM SQUIRE, M.D., F.R.C.P.

It is with much regret that we have to record the death of Dr. William Squire, which took place at his residence, Danescombe, Ealing, on April 2nd.

Dr. Squire was born in 1826, and came of an old Bedfordshire family. On completing his medical education at University College, he went into practice in Orchard Street, where he remained until ten years ago, when he went to reside at Ealing, and removed his consulting rooms to Harley Street. It was during Squire's studentship that Liston performed in 1846 his first capital operation under ether, and Squire was concerned with his uncle, the late Mr. Peter Squire, in conducting some of the experimental work previous to Liston's demonstration in the operating theatre of the value of Morton's discovery.

To many of Dr. Squire's friends—and, indeed, to many in the profession who did not know him personally—he will be remembered as one of the small group of men who years ago devoted themselves to the study of epidemiology. The subject had always interested him, and in the midst of a busy life he contrived to find time for the observations and for the record of facts which were of especial value at a time when observers were comparatively few. How soon does infection begin? how long does it last? were questions which Dr. Squire had set himself to answer, and which were the opening sentences of a paper he contributed twenty-six years ago to the Epidemiological Society. The paper was based upon numerous carefully observed cases extending over many years, and supplied material which was not before available to the profession. The value of Dr. Squire's work was not limited to the information which he himself supplied; it set others thinking and recording, and indeed he himself contributed an admirable supplement to his first paper some two years later. It is not too much to say that our public health administrators owe him a debt of gratitude for providing material which has served over and over again to guide them in their practice.

Dr. Squire's study of epidemic disease led him to bring before the Epidemiological Society, to which indeed he was Secretary for some five years, other papers of interest. The calamitous outbreak of measles in Fiji in 1875, and the destruction by small-pox of an unvaccinated group of Esquimaux who visited Europe in 1880 were subjects that he dealt with in short and pithy papers. In all of his many contributions to works on medicine he kept in the forefront the subject of epidemiology, and his conclusions were in the main based upon his own observations, and, therefore, have a value far beyond those of writers who only generalise on the observations of others.

Dr. Squire published a collection of his essays in a small volume, *Collected Essays in Preventive Medicine* (1887); but his

best known writings are perhaps his articles on Croup and Diphtheria, *Reynolds's System of Medicine*, and on the Exanthemata, on Incubation, and on Measles, Rubella, Scarlet Fever, and Whooping-cough in *Quain's Dictionary of Medicine*. He gave much attention to the diseases of children, and published essays on *Infantile Temperature in Health and Disease*, on *Temperature Variations in the Diseases of Children*, and on the *Paralyses of Childhood*.

In past years he was a very regular attendant at most of the medical societies and at the meetings of this Association. His remarks in debate were always characterised by sound common sense, and showed a complete mastery of the subject he was discussing. For many years he was Physician to the St. George's Dispensary and to the North London Hospital for Disease of the Chest.

He was, too, a geologist and naturalist, and in very truth read "sermons in stones, and good in everything," which Nature had to show him, and it was a source of real delight to him, as it was to those who were fortunate enough to be his companions, to botanise in some country lane or woodland. An ardent student of Shakespeare, among his most cherished possessions were some early editions of the great writer's works.

Notwithstanding his enforced retirement owing to ill-health, Dr. Squire kept himself well abreast of medical progress, and to the last maintained a keen interest in that profession which he had served so well. He was of a most genial, kindly disposition, and many will mourn the loss of a warm friend, as his children do that of a most loving and tender father.

HEINRICH PORT, M.D.ERLANGEN, F.R.C.P.LOND.,

Physician to the German Hospital.

DR. HEINRICH PORT, who died on March 25th, was born at Nuremberg in Bavaria in 1843, and was the son of the Rev. Christoph Port, Pastor of the beautiful church of St. Lorenz at Nuremberg. He studied at Erlangen, Tübingen, Bonn, and Würzburg, took the degree of M.D. at Erlangen in 1866, and came to London in 1868 as Resident Medical Officer to the German Hospital at Dalston. He retained this post till 1872, but served in 1870-71 in the Franco-German war on the medical staff of the Bavarian army. For these services Dr. Port received the Bavarian Military Order of Merit, the highest distinction bestowed on non-combatant officers. In November, 1872, he was elected Hon. Physician at the German Hospital, an appointment which he held up to his death. Dr. Port became a Member of the College of Physicians in 1873, and a Fellow in 1886. He was a Fellow of the Royal Medical and Chirurgical, Medical and Hunterian Societies, and a Member of the Pathological and Clinical Societies, to which he made occasional contributions. He was also a Member of the British Medical Association and of the Metropolitan Counties Branch. For many years he acted as one of the Examining Physicians to the National Hospital for Consumption at Ventnor.

Dr. Port did not write much, principally because he was always engaged with practical work, but partly also on account of great modesty, thinking that others were better fitted than himself to give communications on those subjects to the knowledge of which he might have made valuable additions. He wrote, however, amongst other papers a good article on Multiple Sarcomata of the Skin, and translated into English the climato-therapeutic portion of von Ziemssen's *Handbook of General Therapeutics*.

Dr. Port was a very accomplished physician. He devoted much of his time to his duties at the German Hospital, where his loss will be severely felt. He was most conscientious, humane, and sympathetic to his patients, poor as well as rich; a thorough gentleman in character and a warm friend. He had been a strong man and had lived a healthful life; but about fifteen months ago obscure symptoms began to manifest themselves, which at first were regarded as effects of a doubtful attack of influenza. He suffered from pyrexia, nocturnal perspiration, great muscular weakness, unnatural sleepiness and emaciation, and with the exception of a transitory improvement during and after a holiday in Switzerland these symptoms gradually increased in intensity, and proved to be due to the development of malignant disease. Secondary tumours in the brain led a few days before death to left-sided convulsions and hemiplegia, followed by a semicomatose condition, from which he never rallied. Death came as a deliverer from sufferings, which would have been more than probable if he had lived longer.

MR. J. T. O'CONNELL HYNES of Nottingham died on Saturday, March 25th, after a few days' illness, at the age of 57. He had not been in robust health for some time, and only returned from a visit to Ireland on March 21st. The same night he was attacked with influenza followed by pneumonia. Mr. Hynes was born at Beeston, now almost a suburb of Nottingham, where his father, a medical man, was then in practice. He was educated at the Nottingham High School, and at Queen's College, Cork. He took the L.F.P.S.Glas. in 1871 and the L.S.A.Lond. in 1872. For a short time he acted as House-Surgeon to the Halifax Infirmary. So long ago as 1872 Mr. Hynes became Health Officer and Public Vaccinator to the No. 1 District of the Nottingham Union, an appointment which he continued to hold, together with a large private practice, until his death. In relation to matters outside his profession, Mr. Hynes displayed a particularly warm interest in volunteer work. He was for over thirty-nine years connected with the Robin Hoods, having joined the battalion in 1859. In 1872 he received his commission as Assistant Surgeon, and became Surgeon-Lieutenant-Colonel in 1895. By reason of his long service he was one of the first among the officers to receive the Volunteer Decoration. For many years he took a prominent part in the shooting competitions in connection with the battalion, and frequently attended the meetings of the National Rifle Association at Wimbledon. He was buried with full military honours on March 28th. Mr. Hynes was twice married, and leaves a widow, and one son by his first marriage.

WIDESPREAD regret has been caused at the sudden decease of Mr. JOHN BENSON, one of the most highly respected of the senior practitioners of Sheffield. He received his medical education at the Sheffield School of Medicine and Guy's Hospital, and obtained the diplomas of M.R.C.S. and L.S.A. in 1855. He was for a time Demonstrator of Anatomy in the Sheffield Medical School. During the many years he had been in practice in Sheffield he had acted always in accordance with the best traditions of the profession. He was a man of singularly upright character and was highly respected. On April 3rd he was attending to his professional duties and whilst engaged at the bedside of a patient was seized with fatal syncope. Of his children one son was associated with him and another is in practice in an outlying district.

MR. THOMAS ALLEN REED, the well-known shorthand writer, who died on March 29th, at the age of 73, for many years acted as stenographer to the Council of the British Medical Association, and reported the proceedings of the general meetings of the Association. He was a man of considerable force of character, of quiet, reserved courteous manner, and in every detail of his work extremely painstaking. Mr. Reed had been regarded for many years as the most eminent living shorthand writer. His skill was great; he had occupied for nearly half a century a foremost position among English reporters, and had given special attention to technical reporting, which caused his personal services to be in much request. He was, perhaps, the only reporter who had been specially sent on several occasions to the other side of the earth, having gone two or three times to India to report the proceedings of the National Congress, and having also, with assistants, reported the proceedings there of the Opium Commission, while his son is now engaged in the same work for the Plague Commission. Mr. Reed took part with the late Sir Isaac Pitman in the early popularising of the system of shorthand which has practically superseded all others. He remained throughout the dominant influence amongst those who practised it, and no time or labour seemed too great for him to devote to its interests. But he was also a man of considerable culture, well informed, and a pleasant writer. He was familiar with French and German, and published an adaptation of phonography to the French language.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Henry P. Quincy, for twenty years teacher of histology in the Harvard Medical School, aged 60; Dr. Pierre Bernard, Professor in the Medical Faculty of the Catholic University of Lille; Dr. W. W. van Arsdale, Surgeon to the Mount Sinai Hospital, New York, and author of numerous contributions to surgical literature; and Dr. Ludwig Wiszulewski, a well-known specialist in diseases of women and children at Cracow, aged 49.

ROYAL NAVY AND ARMY MILITARY SERVICES.

THE CHADWICK TRUST.

The trustees have, on the nomination of the Medical Director-General of the Navy, awarded the Chadwick naval prize of £100 and a gold medal to Surgeon O. W. Andrews, M.B., R.N., in consideration of his excellent work at the Royal Naval Hospital at Haslar in connection with sanitary science.

ROYAL NAVY MEDICAL SERVICE.

Staff-Surgeon Herbert E. Marsh has been promoted to be Fleet-Surgeon, March 3rd. He was appointed Surgeon, March 31st, 1875, and Staff Surgeon twelve years after. He served with the Royal Marine Battalion at Suakin during the campaign in the Eastern Soudan in 1884-5, receiving the medal with clasp and the Khedive's bronze star.

ARMY MEDICAL SERVICE.

Surgeon-General W. S. M. Price, now serving in Bengal, is appointed to officiate as Principal Medical Officer Bombay Command from February 8th.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel J. J. Greene, M.B., retires on retired pay, April 5th. He was appointed Surgeon, March 31st, 1874; Surgeon-Major, March 31st, 1886; and Surgeon-Lieutenant-Colonel, March 31st, 1894. He served in the Afghan war in 1878-80 (medal); with the Nile Expedition in 1884-5 (medal with clasp, and Khedive's bronze star); and with the Soudan Frontier Field Force in 1885-6.

Captain William S. Boles, M.B., and Alfred L. F. Bate are promoted to be Majors, April 5th. The former dates as Surgeon-Captain from August 1st, 1835; the latter from July 28th, 1886.

Lieutenant-Colonel W. J. Charlton, who is serving in th Punjab Command, is appointed to officiate on the Administrative Medical Staff of the Indian Army, with the temporary rank of Colonel, from February 11th.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel E. Palmer, in medical charge of the 6th Bengal Lancers, is appointed Principal Medical Officer Tochi Force, *vice* Lieutenant-Colonel J. T. B. Bookey, granted leave out of India.

Surgeon-Major George Charles Wallich, M.D., Retired List Her Majesty's Indian Army, died on March 31st, in his 84th year. He entered the service in 1838, and served in the Sutlej campaign in 1842, and in the Punjab campaign in 1847, receiving a medal for each. He was also engaged during the Southal rebellion in 1855-6, and retired from the service in 1858.

COLONIAL NAVAL MEDICAL SERVICE.

Mr. Harry Paynter Sloggett, M.R.C.S.Eng., L.M.R.C.P.I., has been appointed a Surgeon on the unattached list of the Victoria Naval Brigade.

MEDICO-LEGAL.

"FRADULENT OR FELONIOUS."

The advertisements of "Madame Frain" have been for long notorious, and attention has been called to them and their obvious meaning in these columns on several occasions. At an inquest held before Dr. Wynn Westcott, Coroner for the North-East Division of London, at the Hackney Coroner's Court recently, some evidence was given which throws an interesting light upon the manner in which this business is conducted. The person as to whose death the inquiry was held was a young married woman, who, according to the evidence of Dr. Leslie Durno, of Stoke Newington, died of syncope due to hæmorrhage consequent on abortion, how set up it was impossible to say. According to the evidence as reported in the *Daily News*, Mr. James Fox, of "Madame Frain's" Establishment, 1A, Hackney Road, stated that the business carried on at that address was that of a herbalist. Madame Frain had no connection with the business, and had not had for some time past. He knew nothing about the case.

Ada Cross, manageress of a department at "Madame Frain's," said that she remembered the deceased coming into the shop and asking for some medicine. She was given the usual form to fill in to the effect that she was not *enceinte*, and as she was unable to do so she was not served.

The Coroner: Be very careful, please, how you answer. Are you positive she was not served?

Witness: Yes; I am certain she was not.

The Coroner: Is this one of the bottles used for "Madame Frain's" mixture?

Witness: Yes; it is either one of our bottles or one of a similar shape

The Coroner: It is curious the deceased told her friends she had bought two bottles at your shop.

Witness: She could have purchased it at a chemist's. We supply a number of shops.

Philip Peron, the manager of "Madame Frain's," said that the medicine supplied by his firm was perfectly harmless.

The jury returned a verdict to the effect that "The deceased's death was due to syncope, the result of hæmorrhage consequent on abortion, for which no cause has been proved; and the jurors having heard the evidence as to the manner and conduct of the business called that of 'Madame Frain,' are of opinion that the business is either fraudulent or felonious."

HOSPITAL AND DISPENSARY MANAGEMENT.

ASSOCIATION OF ASYLUM WORKERS.

This Association, inaugurated in 1895 under the presidency of the late Sir B. W. Richardson, held its annual meeting on March 27th, Sir J. Crichton-Browne in the chair. The report for 1898 (presented by Dr. G. E. Shuttleworth, hon. sec.) showed steady progress both in numerical membership and in financial condition. The former had increased during 1898 from 2,534 to 2,890; and the aggregate receipts (including £76 7s. 6d. from the Home of Rest Fund) amounted to £254 7s. 9d. During the year lunacy legislation affecting superannuation allowances had been carefully watched in the interest of asylum workers; the training of attendants and nurses (in connection with the examinations of the Medico-Psychological Association, had been advocated. Sojourn at the seaside and other health resorts had been freely provided for ten members needing such change for the restoration of health; the *Asylum News* had been supplied monthly to each member of the Association; and an employment bureau had been successfully in operation.

Sir J. Crichton-Browne, in moving the adoption of the report, spoke of the advantages to be gained by this confederation of those engaged in asylum work (acting, of course, under medical control) in elevating the status and aspirations of attendants and nurses, and referred to the prospects of assured pensions, which he trusted they might secure under impending lunacy legislation, considering that asylum workers were quite as much entitled to them at the hands of county authorities as were police officers, whose duties were not one whit more trying or more wearing. He was of opinion that training on hospital lines would be of advantage to all nurses and attendants, and the more expert they became in their calling the greater the benefit that would accrue to the patients. Hence the necessity of securing and retaining the services of well-qualified persons, and this could only be done by treating them liberally and making the conditions of asylum life as agreeable as was practicable.

Miss Honnor Morten seconded the adoption of the report, and referred to the excellent arrangements for systematic nursing at the West Sussex Asylum.

Dr. Needham, Commissioner in Lunacy, in supporting the motion, referred to the sympathy felt by himself and his colleagues with every effort to improve the condition and prospects of asylum workers, and to their cordial approval of the objects of the Asylum Workers' Association.

The reappointment of officers was moved by Drs. Campbell, Chambers, Seymour Tuke, and G. E. Mould; and amongst other speakers were Drs. Elkins, Rawes, Haslett, and Outterson Wood.

EDINBURGH ROYAL INFIRMARY.

At the last two meetings of the Board of Management of the Royal Infirmary of Edinburgh the following Resident Physicians were appointed for the period of six months from April 1st: A. Dingwall-Fordyce, M.B., C.M., to Professor Sir Thomas Grainger Stewart's wards; Andrew Gilmour, M.B., C.M., to Professor T. R. Fraser's wards; H. E. Gibbs, M.B., C.M., to Professor Greenfield's wards; John Henry Rhodes, M.B., C.M., to Professor Simpson's wards; Fred. W. Price, M.B., C.M., to Dr. Affleck's wards; James Burnet, M.B., C.M., to Dr. Smart's wards; Alex. Goodall, M.B., C.M., to Dr. James's wards; John M. Bowie, M.B., C.M., to Dr. Byrom Bramwell's wards; E. M. Lithgow, M.B., C.M., to Dr. George Gibson's wards. The following Resident Surgeons were appointed for the same period: R. F. McNair Scott, M.B., C.M. (Professor Chiene); A. M. McIntosh, M.B., C.M. (Dr. McLaren); Leonard J. M. Deas, M.B., C.M. (Dr. MacGillivray); J. D. Fraser, M.B., C.M. (Mr. Cotterill); W. Hope Fowler, M.B., C.M. (Mr. C. Cathcart); Geo. L. Chiene, M.B., C.M. (Professor Annandale). Non-Resident House-Physicians: W. Macrae Taylor, M.B., C.M., to Dr. J. Halliday Croom. Non-Resident House-Surgeons: C. Mowbray Pearson, M.B., C.M., to Dr. George Mackay; E. G. Firench, M.B., C.M., to Mr. Caird; William Finlay, M.B., C.M., to Dr. P. M'Bride; Charles Chilton, M.B., C.M., to Mr. Berry. Clinical Assistants: Charles Forsyth, M.B., C.M., to Professor Greenfield; W. Morrison Milne, M.B., C.M., to Dr. Alexander Bruce (at Ward 6); A. Hill Buchan, M.B., C.M., to Dr. Alexander Bruce (at medical waiting room); A. H. Macpherson, M.B., C.M., to Dr. R. W. Philip (at observation ward); John M'Gibbon, M.B., C.M., to Dr. William Russell; Thomas Paul Gray, M.B., C.M., to Dr. Murdoch Brown; J. D. Lithgow, M.B., C.M., to Dr. G. Lovell Gulland; John Malcolm, M.B., C.M., to Dr. R. F. C. Leith; T. Warren Colthurst, M.B., C.M., to Dr. P. H. Maclaren; G. L. K. Finlay, M.B., C.M., to Dr. George Mackay; T. J. Thomson, M.B., C.M., to Dr. W. Allan Jamieson; and Robert Cumming, M.B., C.M., to Dr. P. M'Bride; F. Mayes Willcox, M.B., C.M., has been appointed Clinical Assistant to Dr. Dr. R. W. Philip at the medical waiting room; J. Wilson M'Intosh, M.B., Ch.B., has been appointed Clinical Assistant to Dr. R. Milne Murray at the medical electrical department; and James A. Shoolbred, M.B., C.M., has been appointed Resident Medical Officer at the Convalescent House, Corstorphine—all for six months as from April 1st.

A hospital for sick children has recently been built at Athens. The new institution is under the patronage of Her Royal Highness the Princess Sophia, the wife of the Crown Prince of Greece.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

CLOSE OF THE WINTER SESSION.—The medical classes in the University and Extra-Academical School were closed on Friday, March 24th, and will resume for the summer session on Tuesday, May 2nd.

FIRST PROFESSIONAL EXAMINATION FOR THE DEGREES OF M.B., CH.B.—The following candidates have passed this examination in the subjects undernoted:—

Botany.—G. C. Anderson, F. L. Atkinson, C. M. Begg, J. Bentley, J. C. G. Carmichael, E. E. Cassaday, T. P. Caverhill, W. A. Cowan, H. Curwen, F. H. Dickson, F. C. Drew, R. H. Fothergill, E. G. Fraenkl, A. J. Gardner, E. I. Hall, C. H. Houghton, C. A. Lawrence, A. W. B. Loudon, J. A. Mathers, I. O. Maunsell, S. A. Moore, B.A., H. Porter, D. E. C. Pottinger, E. M. Reece, D. Sandler, J. B. Shields, B. M. S. Sodhi, A. W. K. Straton, Amelia Sutcliffe, L. Turiansky, R. M. Walker, W. R. S. Watkins, and J. H. D. Webster.

Chemistry.—R. T. G. Aickin, D. Allison, J. A. Anderson, W. W. Anderson, G. W. Armstrong, C. A. Bennet, R. Blair, W. F. Brayne, B.A., F. S. Brennan, J. Brennan, E. C. Brown, L. G. Bruce, A. Buchanan, C. W. Burrows, W. C. Burton, H. Caird, R. A. Chambers, K. S. Clark, H. S. Coghill, E. L. Colby, A. F. R. Conder, J. H. Connolly, A. B. Cox, C. H. Craig, C. S. Crichton, D. H. Croom, F. D. Crosthwaite, R. Crothers, W. H. Cusack, A. Dangerfield, H. S. Davidson, J. Davidson, D. E. Derry, A. C. Devereux, J. M. Dewar, T. S. Dick-Cleland, F. H. Dickson, J. R. Dobbin, F. C. Drew, A. M. Dryden, C. E. Dumanoire, J. F. Duncan, A. M. Ebden, E. L. Eyles, G. J. Farie, J. Findlay, H. N. Fletcher, J. Fortune, L. Fourie, A. N. Fraser, H. S. Gaskell, L. Gavin, A. C. Geddes, C. R. Gibson, F. H. Gibson, J. D. Giles, A. Gillespie, E. G. Girdwood, D. P. Goil, A. S. Gordon, A. Gray, M. A. Gurney, T. M. Guthrie, J. Halley, L. C. V. Hardwicke, D. G. Harries, C. R. F. Hartley, R. L. Henderson, I. Hill, A. E. Hodgson, A. F. Hughes, G. S. Husband, J. H. Jones, J. H. Kay, J. W. Keay, I. C. Keir, J. M. Kirkness, L. A. H. Lack, V. Laugmore, F. E. Larkins, J. Lauder, C. A. Lawrence, S. W. S. Leary, J. M. Lovatt, H. MacCormac, J. R. M'Gregor, G. S. Mackay, W. Maclaren, J. B. M'Neill, I. M. MacRae, J. M'Turk, P. W. Mason, A. G. M. Middleton, G. H. S. Milln, C. R. P. Mitchell, S. A. Moore, B.A., A. B. Morgan, W. C. Morton, M.A., E. Muir, P. H. Mules, C. H. Muller, H. L. Munro, D. M. Newton, W. H. Nutt, C. F. A. Oberlander, T. Peebles, W. D. Pierce, W. S. Pillans, J. A. Pottinger, A. F. Rabagliati, W. Readman, G. Ritchie, E. A. Robertson, W. H. Robertson, W. S. Robertson, W. S. I. Robertson, Amy Robinson, L. C. Robinson, S. M. Ross, J. A. Roux, F. G. Saleeby, W. Sanderson, D. J. Scott, D. G. Addison Scott, G. H. Skinner, J. H. Smith, S. W. Smith, E. M. Snowball, Baba M. S. Sodhi, A. B. Spence, Amelia Sutcliffe, E. J. Taylor, T. T. Thomson, Louis Turiansky, E. A. Turpin, Caroline Twigge, R. Veitch, H. R. Vickers, W. R. S. Watkins, G. J. Wentzel, D. H. Wessels, F. A. Wille, G. H. Winch, A. C. T. Woodward, W. D. Wright, and G. W. Young.

Physics.—D. Allison, J. A. Anderson, G. W. Armstrong, C. M. Begg, W. F. Brayne, E. C. Brown, C. W. Burrows, W. C. Burton, H. Caird, R. A. Chambers, K. S. Clark, H. S. Coghill, F. L. Colby, G. M. Coughtrey, C. H. Craig, C. S. Crichton, A. Dangerfield, H. S. Davidson, J. Davidson, D. E. Derry, J. R. Dobbin, C. B. Drew, F. C. Drew, A. M. Bryden, C. E. Dumanoire, J. F. Duncan, A. M. Ebden, G. J. Farie, J. Findlay, F. S. B. Fletcher, H. N. Fletcher, J. Fortune, A. N. Fraser, H. S. Gaskell, A. C. Geddes, J. D. Giles, E. G. Girdwood, D. P. Goil, W. L. M. Goldie, E. S. Grubb, M. A. Gurney, P. Hallam, L. C. V. Hardwicke, R. L. Henderson, Isabella Hill, A. E. Hodgson, A. C. Hooper, A. F. Hughes, G. S. Husband, J. W. Keay, J. M. Kirkness, F. E. Larkins, J. M. Lovett, G. S. Mackay, J. B. M'Neill, I. M. MacRae, P. W. Mason, A. G. M. Middleton, G. H. S. Milln, O. M. Mirylees, W. C. Morton, M.A., P. H. Mules, D. M. Newton, G. O. Norrie, T. Peebles, W. S. Pillans, Julia Pringle, E. A. Robertson, W. J. D. Robertson, W. S. Robertson, Amy Robinson, Sheila M. Ross, F. G. Saleeby, W. Sanderson, D. G. A. Scott, W. M. Selby, F. W. S. Shepherd, G. H. Skinner, G. D. Sloan, E. M. Snowball, A. B. Spence, Effie Stuart, E. A. Turpin, Caroline Twigge, R. Veitch, R. M. Walker, J. H. D. Webster, J. S. B. Weir, R. M. M. White, and A. C. T. Woodward.

Zoology.—R. T. G. Aickin, W. W. Anderson, W. J. Basson, C. M. Begg, L. H. I. Bell, J. Brennan, R. Buchanan, R. H. Carlisle, J. C. G. Carmichael, T. P. Caverhill, M. C. Cowper, A. B. Cox, R. W. Craig, D. H. Croom, F. D. Crosthwaite, R. Crothers, W. B. A. K. Cullen, W. H. Cusack, W. H. Davison, J. N. Dewar, T. S. Dick-Cleland, F. C. Drew, J. F. Duncan, E. L. Eyles, J. Findlay, N. C. Forsyth, L. Fourie, E. G. Fraenkl, L. Gavin, F. H. Gibson, E. G. Girdwood, D. P. Goil, W. L. M. Goldie, A. S. Gordon, A. Gray, E. S. Grubb, J. Halley, G. Harrison, C. R. F. Hartley, R. L. Henderson, J. O. Heyns, Isabella Hill, J. Hunter, J. H. Kay, I. C. Keir, L. A. H. Lack, W. S. Laidlaw, R. H. S. Langeveldt, J. P. Lauder, J. Lauder, C. Lochrane, H. MacCormac, J. S. Macdonald, J. R. M'Gregor, W. E. Marshall, J. A. Mathers, I. O. Maunsell, C. E. F. von Mengershausen, C. R. P. Mitchell, H. Morison, E. G. Morton, E. Muir, P. H. Mules, C. H. Muller, H. L. Munro, C. F. A. Oberlander, D. D. Paton, J. A. Pottinger, W. R. Reid, G. Ritchie, J. A. Roux, D. J. Scott, W. M. Selby, J. A. Small, J. H. Smith, B. M. S. Sodhi, N. Sturrock, Amelia Sutcliffe, E. J. Taylor, G. P. du Toit, L. Turiansky, W. R. S. Watkins, P. E. R. Weatherdon, D. C. Welsh, G. J. Wentzel, D. H. Wessels, F. A. Wille, G. H. Winch, H. S. Winterbotham, W. D. Wright, and G. W. Young.

UNIVERSITY OF GLASGOW.

FIRST PROFESSIONAL EXAMINATION FOR THE DEGREES OF M.B. AND CH.B.—The following have passed this examination in the subjects indicated (B., Botany; Z., Zoology; P., Physics; C., Chemistry);

R. Adam (Z., C.), J. R. S. Anderson (B., Z., C.), G. Beattie (Z., C.), A. G. Bissett (C.), J. S. M. Bogie (Z.), W. T. Bolton (Z., C.), R. G. Bradford (Z.), J. C. Bringan (P.), T. Brodie (B.), J. Brown (B., Z.), C. H. Browning (Z., C.), R. Bruce (C.), R. H. Campbell (Z.), T. M. Campbell, M.A. (Z.), A. A. Carruthers (B., Z.), R. P. Cartwright (B. C.), A. Connal (Z.), T. G. Copestake (B., Z., P.), J. C. Crawford (Z., C.), J. Cross (B., Z.), W. B. Cunningham (Z., C.), H. C. Davies (B., Z., P., C.), M. I. Dick (P., C.), D. Dickie (Z., C.), D. G. Dykes (Z., C.), J. Eadie (Z., C.), J. Ferguson (B., C.), C. C. Finlator (Z., C.), W. M. Gilmour (Z.), G. Gordon (C.), A. Greig (Z., C.) J. Hanson, M.A. (Z., C.); S. H. Harris (B.), W. Harvey (Z., C.), J. M. Huey (B., P.), J. G. Hume (B., Z., C.), A. Hunter (B., Z.), J. T. Kelly (B., C.), J. M. Kelly (Z., C.), J. Kerr (Z., C.), R. Laurie (B., C.), A. Leggat (P.), R. T. Leiper (Z., C.), R. Makins (B., P.), P. Millar (Z., C.), W. A. Milne (P.), A. J. Mitchell (Z., P.), D. R. Mitchell (Z., C.), S. Mort (Z., C.), J. B. Morton (Z., C.), G. Muir (Z.), G. D. Muir (Z.), A. H. Munro (Z.), J. B. M'Cabe (C.), J. D. M'Culloch (Z., C.), J. G. M'Cutcheon (Z.), D. D. F. Macintyre (Z., C.), C. G. Mackay (Z.), J. M. M'Kellar (P., C.), J. C. M'Kenzie (C.), A. S. M'Millan (Z.), N. T. M'Murdo (Z.), N. S. MacNaughton (B., Z.), J. R. M'Vail (C.), J. A. Macvea (Z., P.), A. A. M'Whan (B.), D. Penman (B., P.), W. M. Rae (B., P.), G. Raeburn (Z., C.), W. Rankin (B., Z., P., C.), G. Richmond (B. Z., P., C.), P. H. Robertson (Z., C.), W. Robertson (Blackwood) (B., P., C.), C. Ross (Z.), J. Russell (P.), R. C. J. Schlomka (B., P.), W. G. Shand (Z., C.), J. M. Smith (Z., C.), J. A. Somerville (B., P.), W. G. Stevenson (B., Z.), J. B. Stevenson (Z., C.), W. D. H. Stevenson (Z., C.), N. B. Stewart (Z.), A. W. Sutherland (Z., P.), J. W. Sutherland (Z., C.), P. L. Sutherland (Z., C.), J. A. Thom (B.), J. Walker, M.A. (Z., P.), G. Wallace (C.), A. M. Watson (Z.), W. N. W. Watson (Z.), A. B. Watt (C.), R. Tait Wells (B., C.), J. F. Weston (B.), J. Wilson (Z., C.), E. Wright (Z., C.), H. Young (Z., P.), J. Young (Mount Vernon) (Z., C.).

Women.—J. Auld (P., C.), A. M'C. Black (P., C.), A. W. Cameron (P., C.), M. C. Cameron (C.) J. G. Duncan (P., C.), J. K. F. Gilmour (C.), M. Hardy (P., C.), A. P. Martin (P., C.), E. J. Miller (P., C.), I. D. Mitchell (P.), J. H. M'Ilroy, M.A. (Z., C.), A. W. Maclean (C.), E. J. M. Pryce (C.), M. H. Smart (B., P.), J. M. Stewart (P.), E. T. Talbert (B., C.), J. G. Wadlell (B.).

SECOND PROFESSIONAL EXAMINATION FOR THE DEGREES OF M.B. AND CH.B.—The following have passed this examination in the subjects indicated (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics):—

J. Anderson (A.); T. Anderson (A. P.); W. Archibald (P.); R. W. Auld (A. P.); J. S. Barr (A., P.); A. Birch (A.); W. M. Brown (A. P., M.); P. T. Cairns (A.); S. J. Cameron (A., P.); J. J. Y. Campbell (M.); R. D. Campbell (A. P.); E. S. Chapman (A.); G. H. Clark (P.); J. B. W. Cook (A. P.); J. Craig (A., M.); A. Currie (A., P.); D. B. Davidson (A., P.); J. Davidson, M.A. (M.); F. L. Dickson (A.); R. N. Dunlop (A., P.); W. W. Farrar (A., P.); G. Ferguson (A. P.); D. J. Fletcher (A.); D. G. S. Gartshore (A.); J. Gemmell (P.); J. R. Gilmour (P.); W. Girvan (A., P.); J. D. Gourlay (M.); A. Gow (A., P.); J. Gracie (M.); A. P. Granger (A., M.); J. Gregor (A., P.); G. P. Harlan (A., P.); L. C. B. Head (A., P.); F. J. Henry (A., P.); C. M. Hope (M.); D. W. Hunter (A., P., M.); M. Hunter (A., P.); W. J. Isbister (A., P.); P. Jones (P.); W. B. Kerr (A., P.); D. R. Kilpatrick (A., P.); A. King (P., M.); J. D. Laidlaw (M.); J. Lambie (M.); J. F. Lambie (A. P.); A. Leitch (M.); F. J. Lochrane (A., P., M.); D. Longwill (M.); E. Magoveney (A., P., M.); W. A. Masson (A., P.); W. A. Mills (A., M.); W. A. Milne (A., P., M.); A. R. Moir (A., P.); A. Howie-Muir (A., P.); W. J. M'Feat (M.); W. F. M'Glashan (A., P.); T. M'Laren (M.); G. W. M'Millan (P.); J. M'Pherstn, M.A. (M.); R. Orr (A.); R. Paterson (M.); J. Paton (A., P.); J. N. Prentice (A., P.); R. Ramsey (A., P.); T. H. Rankin (M.); A. Reid (P.); W. Robertson, Kilmarnock (A., P.); T. R. Rodger (A. P.); W. G. Rodger (A. P.); N. C. Rogers (A.); A. T. Ross (A.); C. J. Ross, B.A. (A., P., M.); E. H. Ross (M.); A. J. Smith (P.); J. Smith (P.); D. Spence (M.); D. Steel (A., P.); A. Stewart (A.); J. Stewart, M.A. (P.); R. R. Swan (P.); R. B. Thom (A.); D. Walker (M.); G. S. Wallace (A. P.); P. M. Waugh (M.); R. G. White (A. P.); M. W. Williams (A.); D. A. Wilson (A.); J. Wilson (M.); W. W. Wilson (M.); R. Wylie (A.); W. R. Wylie (A., P., M.).

Women.—M. Adams (A., P., M.); D. A. M. Clark, B.Sc. (M.); H. M. Gordon (A.); C. S. Howden (M.); J. T. Miller (M.); A. Moorhouse (A. P.); M. J. Pirret (A., P., M.); M. E. Potter (M.); M. M. Ritchie (M.); M. A. T. Ritchings (A.); A. B. Sloan (P., M.); E. M. Sloan (P., M.); E. H. Smith (M.); H. F. Young (A., P.).

THIRD PROFESSIONAL EXAMINATION FOR THE DEGREES OF M.B. AND CH.B.—The following have passed this examination in the subjects indicated (P., Pathology; M., Medical Jurisprudence and Public Health):—

M. Aikman, M.A. (P.), G. Arthur (P., M.), G. Barbour (P., M.), J. O. Barclay (P., M.), T. T. Bathgate (P.), A. Binning (P.), H. E. Brown (P., M.), W. H. Brown (P.), J. P. Brownlie (P.), W. A. Burns (P., M.), T. Carruthers, M.A. (P., M.), E. P. Cathcart (P.), J. T. Clark (P., M.), R. Clark (P.), C. P. G. Crichton (P., M.), D. C. Douglas Cuthbert, M.A. (P., M.); A. W. Davidson (P., M.), D. C. Douglas (M.), J. Downie (P.), L. Findlay (P.), A. Fraser, M.A. (P.), M. W. Fraser (P., M.), G. Garrey (P., M.), E. Gillespie (P., M.), H. Goodman, M.A. (P., M.); C. A. Gourlay, M.A. (P.); C. H. Gunson (P.), A. W. Harrington (P., M.), J. M. Henry (P.), I. M. Huey (P., M.), N. M. Leys (P., M.), J. D. Lickley (P.), D. M. Livingston (P.), J. Lockhart (P., M.), A. Logan (P.), D. D. Logan (P., M.), R. Lunan (P., M.), J. Mains (P.), A. Mair (P.), R. M. Marshall (P.), A. Martin, M.A., B.Sc. (P.); J. Millar, M.A. (P., M.), N. M. Miller (P., M.), P. Moir (P., M.), D. Morrison (M.), A. Munro (P.), A. G. M'Kendrick (M.), G. S. M'Kinnon (P.), J. Mackinnon (P.), A. R. Maclurkin (P., M.), B. M'Phee (P., M.), D. M. MacRae, M.A. (P., M.), T. Neill (P., M.), W. B. I. Pollock (P.), P. M. Reid (P.), J. D. Richmond (P., M.), D. Russell (P.), J. Scott, M.A. (M.), E. W. Sharp (P., M.), J. Shearer (P., M.), D. A. Simon (P.), J. Streathearn (P., M.), R. Taylor (P., M.), J. C. Turnbull (P.), G. White (P.), A. Wilson (M.), T. W. Wilson (P., M.), H. P. Wright (P.), J. Young (P.).

Women.—A. Boyes (P. M.), G. J. Campbell (P., M.), L. S. Greig (P.), M. F. Liston (P., M.), J. M. F. Marshall (P., M.), K. M. Myhre (P.), C. C. W. Smith (P., M.).

SECOND PROFESSIONAL EXAMINATION FOR THE DEGREES OF B.M. AND C.M.—The following have passed this examination:

R. Cumming, B.D., G. W. Milne, A. M'D. Nevin.

THIRD PROFESSIONAL EXAMINATION (REGIONAL ANATOMY AND MATERIA MEDICA) FOR THE DEGREES OF B.M. AND C.M.—The following have passed this Examination:

T. Holmes, J. D. Wilson.

VICTORIA UNIVERSITY.

SECOND M.B. EXAMINATION.—The following candidates have satisfied the Examiners in the subjects indicated:

Anatomy and Physiology.—J. Acomb, Yorks.; F. H. S. Ashworth, Owens; H. Bates, Univ.; J. L. Beddoes, Univ.; H. M. Birkett, Yorks.; J. W. H. Brown, Yorks.; F. Bullough, Owens; W. H. Canter, Yorks.; J. B. Cook, Owens; J. F. Corson, Owens; J. M. Cort, Owens; E. N. Cunliffe, Owens; T. Eastham, Owens; J. E. Floyd, Owens; J. A. C. Forsyth, Yorks.; H. E. Fox, Owens; G. W. Gelderd, Univ.; D. G. Gellatly, Owens; V. J. Glover, Univ.; P. H. Green, Owens; J. W. Greenwood, Owens; F. Griffiths, Univ.; W. S. Holmes, Owens; W. L. MacCormac, Yorks.; C. Mackay, Owens; C. T. Matthews, Yorks.; J. S. W. Nuttall, Univ.; T. F. Pugh, Univ.; A. Richmond, Owens; E. Saville, Yorks.; F. R. Sawdon, Owens; G. H. Shaw, Owens; R. Smailes, Yorks; *H. G. Tansley, Owens; H. C. Waterhouse, Owens; A. Wharton, Owens; B. M. Wilson, Owens; F. P. Wilson, Univ.; J. G. Woolham, Owens.

Materia Medica and Pharmacy.—C. W. S. Boggs, Yorks.; S. B. Brentnall, Owens; J. C. Caley, Yorks.; A. C. Clarke, Owens; A. M. Deane, Yorks.; J. A. C. Forsyth, Yorks.; P. T. Harding, Owens; J. L. Hawkes, Univ.; F. W. Hayes, Yorks.; G. R. Heath, Owens; M. Hooper, Owens; S. B. Mehta, Owens; J. B. O'Donoghue, Yorks.; M. B. Potts, Yorks.; S. W. Swindells, Owens; M. G. L. Walker, Yorks.; F. W. B. Young, Yorks.

* University Scholarship.

FINAL M.B. EXAMINATION.—The following candidates have satisfied the Examiners:

Part I.—A. G. S. Broughton, Yorks.; T. L. Fennell, Owens; R. F Ferris, Owens; A. E. Finney, Owens; E. F. Hill, Owens; A. E. Horsfall, Yorks.; C. E. Horsfall, Yorks.; S. K. Hutton, Owens; F. W. Johnson, Yorks.; L. R. Lempriere, Owens; B. C. Middleton Owens; W. H. Morrison, Yorks.; R. V. A. Mosley, Yorks.; R. S. Nichol, Owens; W. P. Noall, Owens; H. W. Russell, Owens; G. M. Sharpe, Yorks.

Part II.—J. W. Aldred, Owens; T. T. Bark, Univ.; †J. Craig, Owens; J. T. Grierson, Univ.; T. W. Hart, Owens; J. E. Healey, Owens; W. S. Henderson, Univ.; J. E. W. McFall, Univ.; T. O'Neill, Owens; J. A. Reed, Yorks; G. Renshaw, Owens; †W. H. Richardson, Owens; †O. H. Woodcock, Owens.

DEGREE CEREMONY.—The following candidates were presented on Wednesday, March 29th.

Bachelors of Medicine and of Surgery.—J. W. Aldred, Owens; T. T. Bark, University; †J. Craig, Owens; J. T. Grierson, University; T. W. Hart, Owens; J. E. Healey, Owens; W. S. Henderson, University; J. E. W. McFall, University; T. O'Neill, Owens; J. A. Reed, Yorks; G. Renshaw, Owens; †W. H. Richardson, Owens; †O. H. Woodcock, Owens.

† Second-class honours.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the Second Examination of the Board in the subjects indicated:

Anatomy and Physiology.—A. Gregory, Yorkshire College, Leeds; M. J. Rowlands, D. H. Evans, and T. Howell, University College, Cardiff; A. H. Norris and F. Forrest, Owens College, Manchester; J. Welsh, H. Pierpoint, University College, Liverpool; J. G. Higgins and J. L. Stephenson, St. Mungo's College, Glasgow; J. H. Reiord and J. A. D. Radcliffe, Queen's College, Belfast; W. C. Bower, Medical College and University, Madras; A. E. Henton, Edinburgh University and St. Mary's Hospital; L. W. Huclin, St. Mary's Hospital; C. C. Drabble, Firth College, Sheffield; J. E. Adams and M. W. E. Widegren, St. Thomas's Hospital; A. Ashmore, Yorkshire College, Leeds; J. M. Pooley, J. L. Martin, and J. H. Wells, St. Mary's Hospital; T. W. Scott and E. G. Allport, Melbourne University; S. Child, Cambridge University and Guy's Hospital; O. C. H. L. Moll, Durham University, Guy's Hospital, and Mr. Cooke's School of Anatomy and Physiology; J. Braithwaite, G. W. C. Hollist, and H. Tipping, Guy's Hospital; C. Burrows, W. M. Strong, and R. D. Brown, Cambridge University and St. Thomas's Hospital; H. M. Churchill, London Hospital; C. R. H. Ball, Cambridge University and St. Bartholomew's Hospital; G. S. Ewen, St. Bartholomew's Hospital; J. Turle, University College, London; M. R. C. MacWatters, King's College, London; L. F. Lovell-Keays, G. C. Cross, Middlesex Hospital; H. R. P. Baker, St. George's Hospital; E. C. Whitehead, Westminster Hospital; R. E. H. Leach, T. Gibson, H. W. Sexton, and T. Jays, St. Thomas's Hospital; R. C. Lawry, P. P. Cole, W. W. C. Jones, N. N. A. Houghton, S. L. Pallant, and C. H. Bubb, Guy's Hospital; H. A. Cutler, Cambridge University and Guy's Hospital; J. Corbin, St. Bartholomew's Hospital; F. P. Connor, Calcutta and St. Bartholomew's Hospital; G. F. Gill, Otago University and St. Bartholomew's Hospital; H. B. W. Smith, London Hospital; P. G. Reilly, London Hospital and Mr. Cooke's School of Anatomy and Physiology; R. H. B. E. Hughes G. I. Evans, and F. H. Smith, St. Mary's Hospital; T. M. Neatby, L. C. Hunt, and S. P. Mummery, St. George's Hospital; W. B. Blandy, E. Bayley, and F. M. Boclet, Charing Cross Hospital; J. A. Drake, King's College, London; J. P. Ellerington and H. R. FitzNattle, University College London.

Anatomy only.—R. A. Pitter, Yorkshire College, Leeds; R. W. Hil', Owens College, Manchester.

Physiology only.—J. M. S. Duncan, London Hospital; J. P. E. Henery, St. George's Hospital.

Forty-three gentlemen were referred in both subjects, 1 in Anatomy only, and 1 in Physiology only.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,570 births and 5,050 deaths were registered during the week ending Saturday last, April 1st. The annual rate of mortality in these towns, which had been 23.3 and 23.1 per 1,000 in the two preceding weeks, was again 23.1 last week. The rates in the several towns ranged from 13.2 in Cardiff, 17.1 in Croydon, 17.5 in West Ham, and 18.8 in Leicester, to 28.6 in Liverpool, 28.8 in Birmingham, 30.4 in Oldham, and 31.8 in Manchester. In the thirty-two provincial towns the mean death-rate was 23.8 per 1,000, and was 1.8 above the rate recorded in London, which was 22.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the rate was equal to 1.7 per 1,000, while it averaged 1.9 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.8 in Oldham, 3.2 in Burnley, 3.6 in Birkenhead, and 5.5 in Swansea. Measles caused a death-rate of 2.3 in Bolton and 2.4 in Manchester; and whooping-cough of 1.3 in Hull, 1.6 in Plymouth, 2.3 in Birkenhead, and 2.8 in Burnley. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 68 deaths from diphtheria in the thirty-three towns included 31 in London, 10 in Swansea, 4 in Sheffield, 3 in Birmingham, and 3 in Liverpool. No fatal case of small-pox was registered last week in any of the thirty-three large towns, and only 1 small-pox patient was under treatment in the Metropolitan Asylums Hospitals on Saturday last, April 1st. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,584 to 2,355 at the end of the four preceding weeks, had further fallen to 2,312 on Saturday last, April 1st; 167 new cases were admitted during the week against 217, 224, and 177 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 1st, 984 births and 711 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.0 and 21.8 per 1,000 in the two preceding weeks, further rose to 23.3 last week, and was 0.2 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.9 in Paisley and 22.2 in Dundee to 28.1 in Aberdeen and 29.9 in Greenock. The zymotic death-rate in these towns averaged 3.2 per 1,000, the highest rates being recorded in Leith and Aberdeen. The 319 deaths registered in Glasgow included 13 from measles, 2 from scarlet fever, 10 from whooping-cough, 4 from "fever," and 20 from diarrhœa. Twelve fatal cases of whooping-cough, 3 of measles, and 2 of scarlet fever were recorded in Edinburgh, and 9 of measles in Aberdeen.

MEDICAL NEWS.

A CASE of typhus fever was notified from Weston Street, Bermondsey, on March 25th. The patient was a woman, aged 24.

THE spring meeting of the South-Western Division of the Medico-Psychological Association will be held at the Grand Pump Room Hotel, Bath, on April 18th, at 2.45 P.M. Communications will be read on Hallucinations of the Olfactory Sense, the Incidence of Alcoholism to Insanity, and on Cases of Major Operations on the Insane.

THE Friday evening meetings of the Royal Institution will be resumed on April 14th, when Professor Rücker, F.R.S., will lecture on Earth Currents and Electric Traction. On the following Friday, April 21st, Dr. F. W. Mott, F.R.S., will give a lecture on the Structure of the Brain in Relation to its Functions.

A GENERAL abstract of marriages, births, and deaths registered in England in 1898 has just been issued as a Parliamentary paper. The estimated population of England in the middle of last year was 31,397,078; the marriages numbered 254,955; the births 922,873, and the deaths 552,040. Of the children born 468,780 were males and 454,093 females; and of the deaths 284,154 were those of males and 267,886 females. The population of London is now estimated at just over four and a half millions.

PRESENTATIONS.—Dr. W. S. Young of Garliestown, Wigtownshire, has been presented with seventeen volumes of scientific and general literature by the members of the Ambulance and Home Nursing Class which he has conducted. Dr. F. Turtle of Woodford, on resigning the office of Medical Officer to the Loyal St. George Lodge of Oddfellows, was presented with an ebony walking stick with ivory handle, and bearing a silver band suitably inscribed, together with an address on vellum in a gold frame.

ON March 25th, in the theatre of the Belfast Royal Hospital, an address and a very valuable collection of instruments was presented to Dr. Alex. Montgomery, the senior house-surgeon, on the occasion of his resignation. The presentation was given by all the students attending the hospital, and was not confined to those who had been resident with Dr. Montgomery and the members of his clinical class.

MEDICAL VACANCIES.

The following vacancies are announced :—

BATH: EASTERN DISPENSARY.—Resident Medical Practitioner. Salary, £100 per annum, with furnished apartments, coals, gas, and domestic attendance. Applications to Colonel F. V. Eyre, Honorary Secretary, Rockville, Lansdown, Bath, by April 22nd.

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary £75 per annum, with board and lodging. Further £20 or £25 usually obtained in fees. Applications to the Chairman of the Weekly Board, by April 11th.

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon. Appointments for six months. No salary: but residence, board, and washing provided. Applications to the House Governor by April 20th.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Appointment for six months, subject to re-election. Salary at the rate of £42 per annum, with board, lodging, and washing. Applications to the Secretary at the Hospital, Edmund Street, Birmingham, by April 18th.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence at £60 per annum, with board, washing, lodgings, etc. Applications to the Secretary, 15, Richmond Terrace, Blackburn, by April 22nd.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Board, residence, etc., provided. Applications to the Secretary by April 10th.

CHARING CROSS HOSPITAL.—Bacteriologist to the Hospital and Lecturer on Bacteriology at the Medical School. Applications to the Secretary by April 10th.

CHESTER COUNTY ASYLUM.—Junior Assistant Medical Officer, unmarried, and not more than 30 years of age. Salary, £120 per annum, rising to £150; also Pathologist. Salary, £150 per annum. Board, lodging, and washing provided in each case. Applications to Dr. Lawrence, County Asylum, Chester, by April 12th.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon; unmarried. Salary, £140 per annum with rooms. Applications to the Secretaries, 80, Bondgate, Darlington, by April 20th.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL, Leicester Square.—Demonstrator on Dental Surgery. Honorarium, £25 a year. Applications to the Dean by April 19th.

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL, E.—Medical Officer for the Casualty Department. Appointment for six months but renewable. Salary at the rate of £100 per annum. Applications to the Secretary, by April 15th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—Assistant Anæsthetist. Appointment for six months. Salary at the rate of 10 guineas per annum; and Surgeon to Out-patients, must be F.R.C.S.Eng. Applications to the Secretary by April 17th.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY.—Vacancy on Honorary Medical Staff. Applications to the Secretary, 13, Kilburn Park Road, by April 22nd.

KNIGHTON UNION.—Medical Officer and Public Vaccinator for the Llanbister Union. Must reside in the district. Salary, £80 per annum, with usual medical fees, and fees for vaccination. Applications to the Clerk by April 19th.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—House Surgeon (non-resident). Appointment for twelve months. Salary, £90 per annum. Applications to the Secretary of the Faculty by April 19th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for twelve months subject to re-election. Honorarium, £42. Board, residence, and washing provided. Applications to the Secretary, 24, Friar Lane, Leicester, by April 10th.

LONDON COUNTY ASYLUM, Claybury, Woodfordbridge, Essex.—Junior Assistant Medical Officer, between 23 and 30 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications on forms provided to be sent to the Asylums Committee Office, 6, Waterloo Place, S.W., by April 19th.

LONDON HOSPITAL MEDICAL COLLEGE.—Assistant Demonstrator of Anatomy. Salary, £90 per annum. Applications to the Warden by April 10th.

NORTHAMPTON GENERAL INFIRMARY.—Assistant to the House-Surgeon. Appointment for six months. Board, lodging, and washing provided, and honorarium of £25. Applications to the Secretary by April 14th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer. Appointment for four months. Salary at the rate of £60 per annum, with board and residence. Applications to the Secretary by April 10th.

ROTHERHAM HOSPITAL AND DISPENSARY.—House-Surgeon and Assistant House-Surgeon. Salary 100 guineas and £30 per annum respectively, with rooms, commons, and washing provided in each case. Applications to the Secretary.

ROXBURGH DISTRICT ASYLUM, Melrose, N.B.—Assistant Medical Officer. Salary, £100 per annum, with furnished quarters, board, washing, and attendance. Applications to the Medical Superintendent.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Appointment for six months. No salary, but board, etc., provided. Applications to the Secretary by April 15th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board, lodging, and washing. Applications to the Secretary by April 11th.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior and Junior Resident House-Surgeons. Appointment for former for one year, at a salary of £80 per annum: and for latter for six months at the rate of £50, subject to re-election. Board and lodging provided in each case. Applications to the Secretary, by April 14th.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to the "Medical Staff of the Royal Infirmary, Sheffield," care of the Secretary, by April 19th.

SHREWSBURY: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary to commence at £120 per annum, rising £10 yearly to £140 (and £8 in lieu of beer, etc.), with board, lodging, and washing. Applications to the Medical Superintendent by April 12th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by April 12th.

STOCKPORT INFIRMARY.—Assistant House- and Visiting-Surgeon. Salary £70 per annum, with board, washing, and residence; also a Junior Assistant House-Surgeon. Salary £2 per mensem, with board, washing, and residence. Applications to the Secretary by April 18th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Physician: must be F. or M.R.C.P.Lond. Applications to the Secretary-Superintendent by May 3rd.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Resident Obstetric Assistant. Appointment for six months. Board and lodging provided in the Hospital. Applications to the Secretary.

MEDICAL APPOINTMENTS.

ANDERSON, A. J., M.B., C.M., appointed Medical Officer of the Staines Union Workhouse.

ARNOLD, E. G. E., M.R.C.S.Eng. L.R.C.P.Lond., appointed Senior Assistant Medical Officer of the Toxteth Park Workhouse.

BACK, A. H., M.A.Camb., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Acle District of the Blofield Union.

BARRETT, E., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Maxey District of the Peterborough Union.

BEALE, Peyton T. B., F.R.C.S.Eng., appointed Surgeon to In-patients at the Great Northern Central Hospital.

BROWNLEE, John, M.A., M.D.Glasg., D.P.H.Camb., appointed Medical Officer of Health for the island of Guernsey.

BUTTERY, G. B., L.R.C.P.Edin., L.F.P.S.Glasg., appointed Medical Officer of Health for the Oldbury Urban District.

CHRISTIE, B. R. Craig, M.B., C.M.Edin., appointed a Resident House-Physician to the Glasgow Royal Infirmary.

DAWSON, W. R., M.D.etc.Dubl., M.R.C.P.I., to be Medical Superintendent, Farnham House Asylum, Finglas, Dublin.

DUNBAR, A., M.B., C.M.Edin., appointed Medical Officer for the Acomb District of the Great Ouseburn Union.

HORN, Arthur Edwin, B.Sc.Lond., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer to the Chelsea Infirmary.

HOSEGOOD, S., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Swinton and Chirton Districts of the Barton-upon-Irwell Union.

KELYNACK, T. N., M.D.Vict., M.R.C.P.Lond., reappointed Pathological Registrar to the Manchester Royal Infirmary: and appointed Honorary Pathologist to the Manchester Clinical Hospital for Women and Children.

LIVERSIDGE, William, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., appointed Senior House-Surgeon at the Blackburn and East Lancashire Infirmary, in the place of Robert Y. Aitken, M.D.Glasg., resigned.

MCLEAN, John F., M.R.C.S., L.R.C.P., appointed Surgeon-Superintendent of the British Hospital, Constantinople, *vice* J. Pattison, resigned.

PARRY, W. H., M.B. C.M.Glasg., appointed Medical Officer for the Workhouse and the Bettws-y-Coed and Trefriw District of the Llanrwst Union.

RUTTER, F. B., M.D Durh., F.R.C.S.Eng., appointed Medical Officer of the Workhouse and the First District of the Mere Union.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Clinical Meeting. Dr. G. E. Herman: Case of Recurrent Cancer of Breast cured by Oophorectomy and Thyroid Extract.—Dr F. R. Walters and Mr. L. A. Bidwell: Case of Lupus Erythematosus.—Cases will also be shown by Dr. Calvert, Mr. Battle, and others.

Odontological Society of Great Britain, 40, Leicester Square, W.C., 8 P.M.—Discussion of Dr. William Hunter's paper on the Relation of Dental Diseases to General Diseases; and papers by Mr. C. S. Tomes and Mr. C. B. Keetley.

TUESDAY.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. G. H. Makins: On Prevesical Hernia, with the Relation of a Case in which Subacute Strangulation occurred.—Dr. Arthur G. Phear: The Clinical Examination of the Hæmic Leucocytes.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 P.M.—Demonstration of Cases, etc.

Sanitary Institute, 8 P.M.—Discussion on Practical Hygiene Teaching in Elementary Schools, to be opened by Miss Alice Ravenhill.

Hunterian Society, 8.30 P.M.—Clinical Evening.—Cases will be shown by Dr. Herman, Dr. F. J. Smith, Dr. David Ross, and other Fellows.

THURSDAY.

British Gynæcological Society, 8.30 P.M.—Discussion on the Abdominal Causes of Death after Coeliotomy, to be introduced by Dr. W. J. Smyly, of Dublin.

FRIDAY.

Incorporated Society of Medical Officers of Health, High Holborn, W.C., 8 P.M.—Dr. Alfred Hill: Antiseptics in Food.

Clinical Society of London, 8.30 P.M.—Mr. W. G. Spencer: Wound of a large Superficial Inguinal Artery in which the Blood was flowing from the Trunk to the thigh.—Dr. Rolleston and Dr. C. Ogle: Syphilitic Stenosis of the Bronchi.—Mr. Clement Lucas: Two Cases of Ununited Fracture of the Humerus, caused by the interposition of the Muscular Spiral Nerve between the Fragments.—Dr. S. West: The Skin Affections in Renal Disease.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

ARMSON.—On March 31st, at the Moat, Yoxall, Staffordshire, the wife of Frank G. Armson, M.R.C.S., L.S.A., of a daughter.

GREENLEES.—At the Residency, Grahamstown, South Africa, on March 10th, the wife of T. Duncan Greenlees, M.B.Edin., F.R.S.E., J.P., of a son.

PEARSON.—At Bridge House, Knottingley, Yorkshire, on Friday, March 31st, the wife of John Barnes Pearson, M.B., C.M., of a daughter.

SORTAIN.—March 24th, at 59, Old Steyne, Brighton, the wife of E. Lyddon Sortain, M.B. Cambridge, of a son.

STEED.—On April 4th, at Byford House, Hereford, the wife of John Steed, M.D., of a daughter.

MARRIAGES.

PEDLEY—WOLSEY.—On March 1st, at Denmark Place Baptist Church, by the Rev. W. R. Skerry, Samuel Edward Pedley, M.R.C.S., L.R.C.P., L.D.S., of Camberwell, to Ada Elizabeth, daughter of James Wolsey, of Shelford Lodge, Camberwell.

WHYTE—GRAY.—At the Parish Church, Dalkeith, on March 30th, by the Rev. Andrew Gray, D.D., father of the bride, assisted by the Very Rev. W. H. Gray, D.D., uncle of the bride, and the Rev. W. H. Gray, B.D., minister of Aberdour, brother of the bride, James Curtis Whyte, M.D., The Elms, Eskbank, to Mary, only daughter of Dr. Gray, minister of Dalkeith. At home, May 3rd, 4th, 5th.

DEATHS.

DUNCAN.—On April 5th, at 8, Henrietta Street, Covent Garden, James Andrew Duncan, M.B.Lond., in his 80th year.

JACKSON.—On March 28th, at 9, Evelyn Terrace, Brighton, the residence of her youngest son, Frances daughter of the late James Swettenham, of Wirksworth, and widow of the late Henry Jackson, surgeon, of Sheffield, aged 93. No flowers.

WARD.—On February 25th, 1899, John Edmund Ward, of Surf Avenue, Coney I., New York (M.R.C.S., L.S.A.Eng.), youngest son of the late Joseph Ward, of Epsom, Surrey, surgeon.

WALKER.—At 7, Manor Place, Edinburgh, on March 28th, Christian Harriet Normand, younger daughter of Norman Walker, M.D., aged 3 years and 6 months.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9: Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 2.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Laryux, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1: Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30: Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday on Wednesday. Telegrams can be received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C. London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

Original Articles and Letters *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, London.* The telegraphic address of the MANAGER of the British Medical Journal is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

A. W. S. asks whether there is any means by which a patient can be prepared for such operations as tonsillotomy with the view of preventing hæmorrhage. Would chloride of calcium be of any use? and, if so, how long would it be necessary to give it? in what amount? and how is it best administered?

H.G.B. wishes to find within distance of London a home for a lady, aged 48, who has had hystero-epilepsy, and has occasional attacks of mild delusional mania, but is very gentle and tractable at all other times. She has lived for 15 years with a nurse. She cannot afford more than £2 2s. per week.

ANSWERS.

A.—We think under the circumstances as narrated by our correspondent he is justified in taking over the case.

N. M. T. might consult *The Young Doctor's Future: or, What Shall be my Practice?* by E. Diver, M.D. (London: Smith, Elder and Co. 1885. 4s. 6d.)

L.R.C.P.—We may refer our correspondent to the letter on erythrol tetranitrate in a compressed form which was published in the British Medical Journal of January 7th, 1899, p. 57.

Mr. Legge Paulley (Pulham Market, Harleston, Norfolk) writes: In answer to "J. M.," Wm. Roope, carpenter, of this village, has made an "open-air shelter" for a patient of mine which answers admirably; he will be pleased to make others. My patient has increased 35 lbs. in weight during the six months she has used it.

Major I.M.S. writes: In reply to the query by "Indian," in the British Medical Journal of March 18th, as to how long he should continue the astringent injection of glycerinum acidi tannici for chronic dysentery, I would suggest that he should keep it up for at least two months, and if it did not irritate use it every second day as before. He cannot be too careful with such a dangerous malady as chronic dysentery, and should spare no time, trouble or expense to get rid of it.

M.J.M.—(1) The information as to duties of medical inspectors of the Local Government Board, Ireland, may, perhaps, be had from the Secretary to the Local Government Board. (2) There are no special qualifications laid down. It is an advantage to have acted as temporary inspector, learning in this way the duties and the general character of the work. (3) The applications are sent to the Chief Secretary, who is President of the Board, accompanied by testimonials.

Treatment of Old Sinus.

Mr. T. S. Ellis (Gloucester) writes: "Rusticus" might pass into the sinus, as far as possible, a strip of sublimate gauze previously dipped in chloroform, and leave it for twenty-four hours.

Grants to Public Vaccinators.

Q.M.—The published records of moneys paid to public vaccinators in recent years under the head of awards for meritorious vaccination show that the percentages of these officers receiving grants have been 69, 67, 70, 72, and 73 in the five years ending with 1897, and an average of 71 per cent. for the quinquennia.

Influenza and Typhoid Fever.

Dr. W. Gray (West Hartlepool) writes: In reply to the letter of Dr. Dobie, of Keighley, in the British Medical Journal of March 11th, let me say that I have seen cases similar to what he describes, and have recorded a typical example in a small work on *Influenza: with Special Reference to some Peculiar Symptoms,* which was published by Mr. H. K. Lewis for me in 1897.

NOTES, LETTERS, Etc.

The Hunter Fund.

Mr. Rivers Willson (Treasurer) (42, Wellington Square, Oxford) writes to acknowledge the following additional subscriptions received on behalf of this fund in response to his letter published in the British Medical Journal of April 1st, 1899, p. 827:

	£	s.	d.
Amount acknowledged March 28th, 1899	5	10	0
W. Domett-Stone, M.D., 19, Oxford Terrace, W. ...	1	1	0
Edward Gibbs Smith, The Parade, Walton-on-Naze ...	0	10	6
Samuel Clewin Griffith, M.D. (retired)	1	1	0
D. M. King, M.D., Roseneath, Hounslow	1	1	0
R. A. Fryer, M.B., 91, New North Road, N.	0	10	6
Richard Holton, Hednesford, Staffs	1	0	0
Dryden Stead, 95, Newtownards Road, Belfast... ...	0	13	6
G. K. P.	1	1	0
Arthur G. B. Lory, Chudleigh, South Devon	0	10	0
Charles Turner Standring, Broadway, Worcestershire	0	5	0
Total	£13	0	6

Dr. A. G. Bateman, Secretary of the Medical Defence Union, has joined the Hunter Fund Committee

THE FULLERIAN ENDOWMENTS.

MR. BALMANNO SQUIRE (Weymouth Street, W.) writes: Your account of the origin of the Jacksonian Prize leads me to suppose that the true story of another great endowment of science may be of interest to your readers. Most of them, doubtless, are familiar with the Fullerian Professorships of the Royal Institution in Albemarle Street, since these professorships have been held at various times by some of the most distinguished men in our profession. The late Sir William Gull was Fullerian Professor of Physiology; the late Dr. Bence Jones, of St. George's Hospital, was Fullerian Professor of Chemistry; Professor Tyndall succeeded Professor Faraday as Fullerian Professor of Natural Philosophy. The Fullerian endowment of science at this Institution was on the whole a very munificent one.

One day, while inspecting the marble busts of notabilities ranged round the entrance hall there, I could not help expressing aloud my disappointment on viewing the marble portrait of Mr. Fuller. I said that his countenance did not seem at all to me that of a scientific man; on the contrary, he seemed to me a sleepy sort of fellow. My remarks were addressed to Mr. Smith, whom I had known as an official of the place for the past fifty years, and who knew everybody and all about everybody who had belonged to the Institution during that period. "Oh, no, Sir, not *that*," replied Smith. "Mr. Fuller was not a sleepy gentleman. Perhaps you have never heard how it was he came to found the lectureships here?" I suggested "great interest in science." No, it was not that. Mr. Fuller was a gentleman who suffered dreadfully from insomnia. One day, meeting a friend in Albemarle Street, who inquired politely after his health, Fuller told him he hadn't slept a wink for a week, and was getting quite worn out. His friend, who was a little overdue, stopped his story by suggesting he should come in with him to a lecture—at the Royal Institution—just about to begin and very interesting, where he would be able to forget all his troubles; at all events for an hour. So Fuller went in. The lecture had not proceeded far when the friend became aware that Fuller had a fit of musical inspiration (I use the phrase in its medical sense), and in plain words was audibly asleep; a condition in which he remained until the tramp of the departing audience and some nudges from his friend awoke him. When he was quite awake, the friend slily asked him how he liked the lecture. "Capital! Excellent! Enjoyed it very much," said Fuller. His friend replied, "There's another on to-morrow. Come to that. Meet you at the door. It's on the same subject." Fuller gratefully accepted, and again slept deliciously. As soon as he had thoroughly regained consciousness he took out a ticket for the remainder of the course, and subsequently attended the rest of the course with the greatest possible benefit to himself. Shortly after this he became a Member of the Institution and the most punctual of its disciples. Fuller was a wealthy man and his gratitude was boundless. Nothing had done him any good until that lucky day when Providence directed his footsteps into Albemarle Street. Inquiry led him to know that there were hosts of people afflicted with insomnia as dreadfully and as hopelessly as he had been, and he richly endowed the institution with professorship after professorship "for the benefit of his fellow sufferers."

It is, perhaps, by the irony of fate that one of the most famous of the Fullerian professors became a martyr to insomnia, but it must be allowed that he grievously betrayed his trust. It was impossible for anyone to fall asleep while Professor Tyndall was lecturing.

THE JACKSONIAN PRIZE.

MR. F. A. HUMPHRY, F.R.C.S. (Brighton) writes: The writer of the above article in the BRITISH MEDICAL JOURNAL of April 1st, happily for himself, has the advantage of many of us in point of years, and his personal memory cannot carry him back for something less than fifty years. I was then House Surgeon to the late Sir Wm. Lawrence at St. Bartholomew's, the other two surgeons being Mr. Stanley and Mr. Eusebius Arthur Lloyd. Mr. Lloyd was not distinguished as an author or as an operating surgeon. But he was considered as the best "physician" among the surgeons, and as a consequence, perhaps, his operations were quite as successful, even more so, than his more distinguished colleagues.

I remember scrofula was rather a favourite subject with him, but I don't know that he advanced our knowledge on treatment of the disease. These few lines concerning an old surgeon "concerning whose career we have no other information."

DR. WILLIAM CURLING (Ramsgate) writes: In the article "The Jacksonian Prize" I notice that my late uncle is printed John Blizard Curling, it should have been Thomas Blizard Curling.

A MEDICAL HANDBILL.

A CORRESPONDENT has sent us a Welsh handbill issued by a medical graduate of a Scottish University in which he advertises himself to the workmen of a neighbouring colliery: We regret that we are receiving so many evidences of a disposition on the part of medical practitioners to resort to the crudest advertisements in order to gain practice, and we trust that members of the British Medical Association will give no countenance to this regrettable departure from the right path.

A LARGE CHILD.

J. MIDDLETON (Stow, N.B.) writes: In reply to inquiry under heading "A Large Child," I may state that on September 27th, 1898, I delivered a primipara, aged 30, with forceps, of a male child which weighed 13 lbs. 15¾ oz. and measured 22 inches.

BLACKWATER FEVER.

DR. C. F. HARFORD-BATTERSBY (Livingstone College, Stratford, E.) writes: I fear it might be inferred from the report of my remarks at the Epidemiological Society in the BRITISH MEDICAL JOURNAL of March 25th, p. 731, that I had been present at Lagos at the time of the epidemic which resulted in the death of Bishop and Mrs. Hill and other missionaries, and that I had diagnosed it as yellow fever. As this is not the case I hope you will permit me to offer an explanation. I was referring to the great importance of a correct diagnosis in cases of blackwater fever, and pointed out that there were other kinds of fever in which black urine was found. In particular I referred to the epidemic at Lagos, which, from information I received at the time, seemed to me to be quite distinct from the ordinary blackwater fever, and to belong far more to the class of fever of which yellow fever is a type. I do not think that it was yellow fever, nor do I think that yellow fever has been known at all in West Africa in recent years; but the occurrence from time to time of epidemics such as this makes it all the more important that a thorough investigation should be made of the whole subject of blackwater fever.

THE AUTOMOBILE AS AN AID IN SKIAGRAPHY.

THE automobile appears to be likely to find a place in medical practice beyond its applicability for purposes of locomotion. The New York *Medical Record* announces a further use. In taking *x*-ray pictures at the patient's house, says our contemporary, it is no longer necessary in large cities to transport large electric batteries from the office. New York medical practitioners call up an automobile over the telephone, and as it stands at the door, attach to its storage battery wires leading to the sick room, and the skiagraph is taken without further trouble.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A A. W. S.; Mr. T. A. Alexander, Watton; Another Public Vaccinator; Mr. A. H. Allen, Sheffield; Assistant; Dr. R. Y. Aitken, Blackburn. **B** Dr. J. W. Ballantyne, Edinburgh; Dr. A. Bronner, Bradford; T. A. Buck, M.B., Ryde, I.W.; Dr. G. G. Bantock, London; Mr. J. F. Briscoe, Alton; J. M. Barbour, M.B., London; Dr. E. C. Bury, Wisbech; Mr. P. D. Barker, Colchester. **C** Dr. W. H. Calvert, Melrose; Dr. V. K. Chesnut, Washington, U.S.A.; Mr. J. Chronnell, Hindley; Dr. A. E. Cooper, London; Mr. W. Curling, Ramsgate; Dr. J. M. Clarke, Clifton; B. R. C. Christie, M.B., Edinburgh; C. W. **D** Mr. F. Deane, Barbados, W.I.; Messrs. J. Defries and Sons, London; Dr. T. Dutton, London; Dr. W. R. Dawson, Finglas. **E** Enquirer; Mr. F. Elvy, Eastbourne; Mr. T. S. Ellis, Gloucester; W. McA. Eccles, M.B., London. **F** Dr. W. F. Farquharson, Carlisle; Mr. C. E. S. Flemming, Freshford; Dr. G. H. Foy, Dublin; F. V. E.; Mr. H. E. Friend, London; Dr. R. T. Ferguson, Anstruther. **G** Mr. G. Goodman, Brigg; Mr. W. L. T. Goodridge, Windsor; Mr. H. Greenway, Plymouth; General Practitioner; Dr. W. Gray, W. Hartlepool; J. F. Gemmell, M.B., Lancaster; Dr. W. F. Gibb, Paisley; Dr. J. Galloway, London; Dr. H. E. Gillies, London. **H** Dr. C. F. Harford-Battersby, London; Dr. A. Haig, London; H. G. B.; Mr. W. D. Hartley, Cape Town; Dr. F. Hinds, Worthing. **J** Dr. J. Johnston, Bolton. **K** Dr. R. L. Knaggs, Leeds; Mr. T. J. Kelly, Enniscorthy; Dr. T. N. Kelynack, Manchester. **L** Mr. F. H. Lane, Burford; Mr. E. M. Little, London; L.R.C.P. **M** Mr. M. J. McCartan, Newry; M. B. Assoc.; Medical Aid Surgeon; Y. H. Mills, M.B., Haverfordwest; Mr. J. A. Magee, Clown; Medicus; Mr. J. H. Mummery, London; Mr. R. H. Manning, London; J. S. McKendrick, M.B., Glasgow; C. Martin, M.B., Birmingham; A. Montgomery, M.B., Belfast; Dr. P. W. MacDonald, Dorchester. **N** J. H. Nicoll, M.B., Glasgow. **O** J. E. O'Connor, M.B., Lowestoft; One in Bonds; F. J. J. Orton, M.B., Birmingham. **P** Dr. J. E. Platt, Manchester; P. V.; Mrs. C. Pound, Odiham; Mr. L. Paulley, Harleston; Mr. H. Pugh, London. **Q** Q. M. **R** Dr. F. W. F. Ross, London; Dr. H. Roberts, Billesdon; Mr. A. Roche, Dublin. **S** Mr. J. H. Staniland, London; Mr. H. B. T. Symons, Sorrento; Dr. C. S. Sherrington, Liverpool; Dr. P. A. Simpson, Glasgow; Dr. E. M. Sympson, Lincoln; Dr. W. H. Symons, Bath; Mr. R. J. Sprakeling, Bootle; Mr. J. B. Smith, Belfast; W. W. Sinclair, M.B., Ipswich; A. J. B. Squire, M.B., London; J. Spurway, M.B., Tring. **T** E. C. Thompson, M.B., Omagh; Mr. F. Turtle, Woodford; Mr. M. Templeton, Garliestown; Mr. W. T. Thomas, Liverpool. **U** Uncertain. **V** Mr. W. J. Von Winckler, George Town, British Guiana. **W** Mr. A. Wiglesworth, Liverpool; Dr. R. Willson, Oxford; Dr. T. A. Wood, Douglas, Isle of Man; Dr. H. W. Webber, Plymouth; Dr. O. Withers, Sale; Dr. A. H. Watkins, Kimberley, S.A.; Mr. H. S. Walker, Leeds; Dr. A. Whitfield, London; Mr. E. W. Wallis, London; Dr. J. T. Wilson, Hamilton. **Y** Mr. L. T. Young, Falmouth; Dr. M. Young, Crewe.

BOOKS, ETC., RECEIVED.

Les Voies Centrales de la Sensibilité Générale (Etude Anatomo-Clinique). Par Dr. E. Long. Paris: G. Steinheil. 1899.

Rabelais, Anatomiste et Physiologiste. Par Dr. A. F. Le Double. Paris: E. Leroux. 1899.

The Report of the Department of Pathological Chemistry of University College, London. Vol. ii. Edited by V. Harley, M.D., M.R.C.P., and F. W. Goodbody, M.D.

The Students' Practical Materia Medica. By G. H. Giffen, L.R.C.P. and S.E. Second edition. Edinburgh: E. and S. Livingstone. 1899. 2s.

Textbook of the Embryology of Invertebrates. By E. Korschelt and Dr. K. Heider. Translated from the German by Matilda Bernard. Revised and edited by M. F. Woodward. Vol. ii. London: Swan Sonnenschein and Co. 1899. 12s.

Professor Hieronimus. Translated from the Danish of Amalie Skram. By Alice Stronach and G. B. Jacobi. London and New York: John Lane. 1899.

Jahresbericht ueber die Fortschritte auf dem Gebiete der Chirurgie. Redigirt und Herausgegeben von Professor Hildebrand. III Jahrgang. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1898.

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ON ANTENATAL THERAPEUTICS.

Being the Concluding Lecture of a Series of Six on Antenatal Pathology and Teratology delivered in the University of Edinburgh in February and March, 1899.

By J. W. BALLANTYNE, M.D., F.R.C.P.E., F.R.S.E.,
Lecturer on Midwifery and Diseases of Women, Medical College for Women, Edinburgh; Examiner in Midwifery in the University of Aberdeen; Honorary Fellow of the Glasgow Obstetrical and Gynæcological Society.

The medical profession stands upon the threshold of antenatal therapeutics. It has been standing there so long that even the unbiassed onlooker must have begun to wonder when it intended to enter in, whether indeed it did not mean to turn away again from the open portal. Not but that there has been some entering in, of a retiring kind, unobtrusive, stealthy, passing unobserved by the spectator who is growing weary of watching. High time is it that an estimate be formed of the probabilities and possibilities of antenatal therapeutics. Even if the possibilities turn out to be small, vanishing almost, it will yet be better to know than to remain ignorant. *Omne ignotum pro magnifico* will not serve as a cloak; for the unbiassed onlooker (already referred to) is hardly prepared to admit the existence of an *omne, notum* or *ignotum*. It is, of course, everywhere admitted that much may be done after labour, even in labour, to cure or at least to ameliorate morbid states arising during antenatal life: but this is not usually regarded as antenatal therapeutics in the strict sense of the term. It may be claimed, however, that it is an integral part of the subject, and I look upon the claim as one that must be yielded. In this way the field is greatly widened: and the subject at once becomes one of great practical importance. Even in that part which deals with the treatment of the embryo and fœtus still *in utero* (and which is regarded by many as constituting the whole of antenatal therapeutics) it will be found that advances have been made and victories won. The subject is not so hopeless, although neglected, as is generally supposed.

Causes of Antenatal Morbid States.

In the preceding lectures I have endeavoured to give a survey—very incomplete, it must be admitted—of the field of research designated antenatal pathology. I have insisted that it is probable that in the antenatal period of life the same causes are at work as in the postnatal epoch: that in other words, the agencies which produce pathogenic and toxic effects when acting upon infantile and adult organisms lead to pathogenic and toxic effects when acting upon the fœtus, and to teratologic results when acting upon the embryo and germ. I have also pointed out that the phenomena of antenatal pathology are not of one kind only, but are many—sterility, single and double monstrosities, abortions, stillbirths, and mortinatality, twinning, fœtal diseases, many tumours, congenital debility, and tendencies dissolving heredity and leading to the later development of tubercle, rheumatism, and a great number of neuropathic disorders—these and not monstrosities and fœtal diseases only are the protean phenomena of antenatal pathology.

There is good reason to believe that the morbid causes also are not one but many, and that all the toxic and pathogenic agents whose action in postnatal life is known may act before birth upon the developing organism. In this way the poisons, such as alcohol, lead, morphine, nicotine, and the rest, and the microbes and their toxins, such as those of tubercle and the exanthemata, and to some extent traumatism, enter into the arena of antenatal etiology, and have to be taken into account in the investigation of every instance of antenatal pathology. So far as has been discovered one and the same morbid cause may produce in one instance a fœtal disease, in another an embryonic monstrosity, and in another a tendency to the breaking of normal heredity in the development of a proneness to certain maladies of body and mind in later life. Yet, again, this same cause may produce sterility, embryonic or fœtal death, possibly twinning, and certainly abortion and premature labour. In syphilis and tubercle and alcoholism are to be found three morbid causes which may produce the protean effects which have been enumerated. Further, similar effects may be produced by different causes, the results depending apparently not so much upon the nature of the morbid agent as upon the time of its action and the condition of the organism acted upon. It is probable that if it were possible to reduce these morbid actions to their ultimate factor, it would be found to be the common one of interference with nutrition, and therefore chemical in its nature. It is also probable that the *modus operandi* of the morbid causes must be looked on as an arrestment of normal processes. Even in the cases of excessive formation as exemplified in the double terata, the cause may still be regarded as acting by means of an arrest of normal processes, the processes, namely, which prevent polyspermy and parthenogenesis. It is necessary to keep all these views in mind in any attempt at a systematic exposition of the possibilities and probabilities of antenatal therapeutics.

The Antenatal Death Roll.

In many respects the field of research, which has been designated antenatal pathology, resembles a battlefield, rather perhaps a whole campaign. It is indeed a field thickly strewn with the dead, the dying, the wounded, the maimed. No estimate has ever been formed of the loss of life which takes place immediately after birth as the direct result of birth, during birth from the traumatism of labour, in the fœtal period, in the embryonic epoch, and during germinal life. Mortality tables tell something of the frequency of death during the first months of life, obstetricians know something of the many times that they have to deal with premature labours, stillbirths, and abortions: but I doubt whether the most pessimistic has an adequate conception of the loss of life in the earlier periods of antenatal existence. Even if we neglect all deaths occurring before the third month of intrauterine life, the result is nevertheless appalling. But, it may be asked, Has this life that is lost any great economic value? With a population going up by leaps and bounds, does it very much matter whether so many fœtuses and embryos perish before they look upon the light? From the standpoint of the strict and rigid utilitarian, perhaps not, if the population be going up by leaps and bounds. But, if not, what then? The social economists of a country whose population is stationary or receding are likely to give a different answer to this question. Besides, it is not only antenatal death that has to be taken into account; we have to think of the antenatally wounded, crippled, and diseased. It may, I think, be safely taken for granted that there is the need for antenatal therapeutics.

The Possibilities of Antenatal Therapeutics.

To revert to the comparison instituted between antenatal life and a campaign, it will be evident that the individual may require medical treatment after the battle, during the campaign, or before the war. For the wounded from the battle the Army Medical Department provides the ambulance corps, the field hospital, and the base hospital; but it does more, it endeavours to keep the troops healthy and in a healthy environment during the campaign, and by means of a good water supply and suitable food sends them into the fight fit to bear the strain to which they will assuredly be subjected. Yet more, before the campaign is begun the medical inspection of recruits is the subject of great care, and only such are selected as give promise of strong and healthy development: and when selected these are still further trained until they become almost perfect fighting machines. Like all comparisons, this one may be pushed too far; but it may be said generally that the postnatal treatment of morbid states arising during birth, or before birth, corresponds to the field and base hospitals, being mainly reparative and palliative; that intranatal therapeutics and the treatment of the fœtus and embryo may be likened to the care of the soldier during the battle and in the whole campaign, being mainly preventive; and that germinal therapeutics resembles in its possibilities the work of the recruiting sergeant and the drill instructor being mainly selective and preparatory. The watchwords, then, in both cases, must be repair, prevent, prepare, and select with care.

Postnatal Treatment of Antenatal and Intranatal Morbid States.

It may be thought to be almost a work of supererogation to

enter into details regarding what may be done after the birth of the infant to remedy the ills with which it comes burdened into its extrauterine existence, but it is doubtful whether the medical profession realises how much may be done and is done in this direction. Few indeed are the malformations which are compatible with the life of the individual that have not now come under the sway of the surgeon, and there are several instances in which his skill has made anomalies that were formerly regarded as certainly lethal no longer so. Less immediate and less striking beneficial results have followed the ministrations of the physician and obstetrician, but here also noteworthy advances have to be reported.

As has been said, it is in the domain of surgery that the postnatal treatment of antenatal morbid states has secured its most noteworthy triumphs. Club foot, cleft palate, hare-lip, phimosis, imperforate hymen and anus, congenital dislocation of hip, shoulder, and knee, torticollis, spina bifida, congenital fistulæ, cysts, and tumours of various regions, umbilical and other herniæ, extroversion of the bladder, atresia of urethra, vulva, or vagina, epispadias, hypospadias, non-descent of the testicle, vulvar anus, supernumerary digits, syndactyly, congenital absence of tibia, fibula, and radius, and many other conditions quite as markedly antenatal in origin, are every day taxing the ingenuity of the surgeon. In the repair of some of these deformities surgery has been quite successful; in others, such as ectopia vesicæ, congenital dislocations, and absence of fibula or radius, only a moderate degree of success has been registered. Even in the latter, however, there has been progress; attempts to close the bladder in extroversion of that organ have been abandoned for the implantation of the ureters into the rectum, and that in its turn seems likely to give way before the implantation of them into the dorsum penis; the so-called bloodless methods of reducing congenital dislocation of the hip appear to be gaining ground as compared with the various cutting operations, and so also with other deformities and their treatment. Further, it cannot be doubted that new triumphs await the orthopædic surgeon in the dealing with such conditions as meningocele, encephalocele, parasitic or attached fœtuses and united twins. Scarcely any serious attempts have yet been made to correct the internal malformations, and the reparative surgery of congenital diaphragmatic hernia, of kidney in the pelvis, of intestinal and œsophageal atresia, and the like has to be elaborated.

The results obtained by the physician in his treatment of antenatal morbid states, although less brilliant than those of the surgeon, have yet been sufficiently good to encourage further efforts. It is unnecessary to do more than refer to the beneficial effects of medicinal treatment of the manifestations of congenital syphilis, and the value of thyroid feeding in cretinism is well known. It must, however, be confessed that little success has as yet attended the medical treatment of the congenital skin diseases, and ichthyosis, tylosis, sclerema, hypertrichosis, hypotrichosis, nævus neuroticus, and congenital elephantiasis must still be looked upon as nearly intractable. The ordinary form of jaundice of the newborn yields readily to treatment of the simplest kind, but the grave form does not yield at all. Umbilical hæmorrhage usually requires surgical interference, and that of a very active kind, to control it; congenital heart disease handicaps the individual for life, and congenital dropsical states are rarely amenable to the drugs of the physician.

On the other hand, wonderful results have been obtained in the branch of medical practice that deals with congenital defects and diseases of the nervous system. Witness the effect of medically regulated educational training upon the congenitally blind, and deaf and dumb, and idiotic. The combination of medical supervision with educative methods has almost made the blind to see, the deaf to ear, the dumb to speak, and the idiot to understand. This is no random statement, for everyone knows what the congenitally blind, deaf, or dumb can accomplish, notwithstanding his infirmity. With regard to idiocy, the following sentence contains a report of the results of twenty years' work in its alleviation[1]: Of patients discharged after full treatment, 10 per cent. are self-supporting, whilst another 10 per cent. would be so if they had obtained suitable situations, and about 20 per cent. were reported as useful to their friends at home.

In one direction, however, the treatment of idiocy has not been altogether encouraging. I refer to craniectomy for its microcephalic form. The operation is not uncommonly followed by evident and immediate improvement, which continues up to a certain point, and then all that has been gained is too often steadily lost. Blanc[2] is probably right when he says that in primitive microcephaly the arrest in brain development has occurred before the fourth month of intrauterine life, and that, therefore, the division of the cranial vault does not reach the root of the mischief; it is not the cranium but the brain that is at fault. In the cases that are developed later the operation is more hopeful. In this relation it may not be out of place to refer to the treatment of cranial depressions in the newborn by trephining. Sometimes the natural resiliency of the bones restores the normal form of the head, and obviates symptoms; but this good result does not always follow. In a case of which Dr. D. D. Jennings[3] (New York) kindly sent me the notes, the use of forceps had produced a distinct depression of the left frontal bone; pneumatic suction was first tried, and, that failing, the trephine was employed and the bone elevated. The child made an uneventful recovery. It seems to me that this mode of treating congenital depressions and fractures of the cranium might be extended with advantage.

Part of the post-natal treatment of ante-natal morbid states falls into the hands of the obstetrician. He it is who has to deal with apnœa neonatorum, and it will be well if he give heed to the causes of this morbid state, for it is very certain that all instances of still-birth are not due to one cause, and are not therefore all amenable to the same treatment. The obstetrician ought to scrutinise each case, endeavour to ascertain the special cause, and treat accordingly. I fully believe that the Schultze swinging in asphyxiated infants is not invariably the best thing for them. It also falls within the province of obstetrics to examine the newborn for fractures, dislocations, and imperforations, and to remedy them as far as may be. I need not refer to, for everyone knows the value of, the incubator and the wet nurse.

INTRANATAL THERAPEUTICS.

Intranatal treatment, under which I include the management of the infant during labour both in the uterus and in the vagina, is entirely in the hands of the obstetrician. It is mainly preventive in character. In discussing the intranatal factor in neonatal pathology I pointed out some of the risks run by the infant on his way through the birth canals. There is, for instance, the danger of septic or gonorrhœal or syphilitic infection affecting the eyes or mouth or lungs; this danger may be almost entirely averted by the prophylactic vaginal douche during labour, and by the cleansing of not only the eyes but also the nose and mouth of the child immediately after birth. Prophylactic douching in labour for the sake of the infant is a procedure the full value of which has not, I think, been fully appreciated as yet. Again, the obstetrician has it in his power to prevent tetanus neonatorum by the application of surgical cleanliness to the dressing of the umbilical cord, and by the same means it may be confidently anticipated that erysipelas neonatorum and omphalitis with defective closure of the umbilical ring will be banished from practice. The rational treatment of the physiological flow of milk from the breasts of the newborn will prevent many of the cases of mammary abscess due to the mistaken notion in midwives' minds of the necessity of "breaking the breast strings." The almost complete banishment of ergot until after the infant is born has already doubtless saved many infantile lives, and the rapid delivery of the second twin is, I believe, a step in the right direction.

Further, every improvement in obstetrical instruments and manipulations is beneficial to the fœtus. The better the forceps and the more correctly it is applied in the right cases the greater will be the infant's chance of being born alive and free from intracranial hæmorrhages and facial paralysis; and the more thorough the obstetrician's knowledge of the safe methods of delivery in contracted brims, in face cases, and in head-last labours the better it will be for the child. It may be suggested further that in cases of fluid accumulations in the fœtus, such as hydrocephalus, ascites, and distended bladder, diagnosed in labour, it may be well to aspirate instead of widely incising the affected region of the infant;

the tapping of the spinal canal in breech cases with hydrocephalus ought to be kept in mind.

It will not be out of place if I here strongly insist upon the necessity for the registration of stillbirths that exists in our country. Registration, if it were obligatory, would necessitate necropsy, and necropsy would do much to familiarise the medical practitioner with the appearances of stillborn infants, and would be of enormous value in elucidating the causes of intrauterine and intranatal death. Tidy[4] says:

> So notorious is it that a large number of these deaths could be averted, that some legislation is urgently needed, requiring that stillborns, whose bodies weigh say not less than 2 lbs. (the average weight about the sixth and seventh months, and at which age children are viable), should not be buried without registration and a medical examination.

Although it may not be well to insist upon it by law, it would also be most beneficial to our treatment of antenatal states if fœtuses of less than six months were also submitted to *post-mortem* investigation by the medical man in whose practice they occurred.

Antenatal Treatment: Intrauterine.

Many misconceptions have gathered round the subject of the treatment of the infant still *in utero*; and while some have greatly exaggerated the possibilities, others have greatly minimised them. From some of the statements that have been made by enthusiastic antenatal therapeutists, it might be imagined that drugs could be passed directly into the unborn infant as one pours a liquid from one bottle into another. On the other hand, it would seem as if those who are sceptical regarding antenatal treatment had come to believe that the fœtal economy was absolutely separate from and independent of the maternal. Now, as is so often the case, the truth lies somewhere between these two extremes.

It is possible to bring medicinal and hygienic influences to bear upon the embryo and fœtus while still *in utero*, but it is absolutely necessary that these shall act first upon the mother; antenatal treatment is primarily maternal; it must be so. A very superficial study of the physiology of fœtal existence serves to convince the investigator that the only certain way to reach the fœtus is through the placenta, for it cannot be regarded as proven that the amniotic route, as it may be called, is open. Now it has been already pointed out that the mechanism of transmission of medicinal substances through the placenta is as yet imperfectly known, and it is not even certainly known which minerals pass through into the fœtus and which do not. The knowledge that we possess, although small, is nevertheless valuable, and can be turned to practical account. If there is one thing that is certain about antenatal therapeutics, it is the beneficial effect upon the unborn infant of the administration of mercury to the mother suffering from syphilis. It might at first sight be regarded as almost certain that it would be found that mercury passed freely into the fœtal economy. Experiment, however, has shown that mercury is apparently transmitted not at all through the placenta but is entirely stored up in its substance. How, then, can the beneficial result be accounted for? Simply by bearing in mind that the placenta is the most vital and also the most vulnerable organ that the fœtus possesses, and that if it can be kept healthy the rest of the fœtal structures will also benefit. The mercury, therefore, cannot be located in a better position than just in the placenta. Hitherto the treatment of the syphilitic fœtus has been simply an incident in the general treatment of the syphilitic mother; but E. Fournier[5] has recently advocated the administration of mercury to the mother who is apparently free from syphilis not for her own sake, but in order to influence the fœtus in her uterus, the victim of syphilis of paternal origin. This is a step in the right direction, and might be well imitated in cases of tuberculosis, malaria, and lead poisoning in the father. It may be suggested that the giving of quinine to the mother of a malaria-stricken fœtus will lead to abortion. It is, of course, true that this result is possible, but in cases in which mother and fœtus have suffered from ague quinine has not proved dangerous, and it might at any rate be tried in the fœtal malaria of paternal origin.

Besides mercury and iodide of potassium and quinine, potassium chlorate has been found of benefit in cases in which there has been a tendency to the recurrence of abortion and premature labour. It is spoken highly of by Sir James and Professor A. R. Simpson[6] and by Mr. Lawson Tait. My experience of it is confined to a case in which a woman had on at least two occasions given birth to dropsical fœtuses, and in whom the regular ingestion of the drug along with iron during the whole of her next pregnancy apparently enabled her to carry her infant to the full term, but did not prevent it being again dropsical. I also administered it twice to a patient who had aborted more than once, with the result—possibly a coincidence—that on each occasion when she was taking the chlorate she not only carried a living child to the full term but to fully a month beyond it.

The pregnant woman should be protected as far as possible from the risk of infectious maladies, both for her own sake and for the sake of her unborn infant. It has been shown that not only may a pregnant woman suffering from small-pox, scarlet fever, measles, erysipelas, and the like, transmit the same disease, although not necessarily the same form[7] of it to her infant *in utero*, but she herself may escape infection through previously-acquired immunity or idiosyncracy, and yet the fœtus in her womb may be infected, and be afterwards born with the traces or the effects of the malady upon him. It must, therefore, be laid down as a fact that it is dangerous for the infant *in utero* for his mother to nurse a brother or sister in an attack of measles or scarlet fever. In the case of a pregnant woman suffering from any disease, infectious or not, the better the treatment she receives the better it will be both for her and for her infant. Further, if it be true that infectious maladies affecting the mother in the earliest period of gestation may produce not diseases but deformities, as well as death, of the embryo, then the need for carrying all the precautions that I have referred to into the first months of pregnancy is self-evident.

There are certain trades which must be regarded as dangerous both for the pregnant woman and her unborn infant. She ought not to be allowed to run the risk of lead or copper poisoning, and, since abortion is very common among the workers in tobacco factories, working in them also must be looked upon as dangerous. The same remark applies to working in match factories. The danger of these things is recognised as far as the woman is concerned, but I am not sure that it is sufficiently so as regards the fœtus. It is hardly necessary for me to refer to the pernicious effects of excess of alcohol taken by the pregnant woman upon her infant. If there is one thing more than another that experimental fœtal pathology and teratogeny has shown, it is the evil effects of the alcohols and essences. Their effects are not, however, stereotyped, and it cannot be said that the child of a drunken woman is of necessity a drunkard; but it can usually be traced that he is an individual of weak power of resistance along one line or another—it may be along the line of inability to resist the temptation of alcohol—or to one form of disease or another. This weakness may have shown itself in the embryonic period in the development of structural anomalies or in the fœtal or postnatal epochs in the proneness to the attacks of microbes or in forms of mental and nervous instability, including, it may be, the tendency to take alcohol or morphine or cocaine or absinthe in excess. Certain diseases are ascribed to alcoholic and other forms of excess; perhaps it is more correct to regard the taking of these things in excess and the diseases as equally the signs of weakened powers of resistance, which may in their turn have been induced by alcoholic or other excess during the mother's pregnancy. It is in every sense a vicious circle that is induced, but in the round are many maladies and morbid tendencies and not one predisposition only.

Puericulture.

A good deal has been written lately regarding this, and there can be no doubt that the better the hygienic conditions that exist during pregnancy the better developed and healthy will be the offspring. It has, however, been shown that the stronger infants of the women who rest during the last three months of pregnancy as compared with those of mothers who have to work up to the very day of delivery are probably largely due to the fact that in them labour comes on at the full term and not prematurely. As to maternal impressions during pregnancy, it need only be said that it is inadvisable for the mother to be subjected to unpleasant emotions, just

as it is well for her to have the *mens sana in corpore sano;* but she ought not to be allowed to brood over disgusting or terrifying sights in the belief that scientific medicine regards it as in the least likely that her unborn infant will bear upon him the simulacra of such.

In concluding this part of the treatment of antenatal morbid states, I must refer, but of necessity briefly, to the induction of premature labour. As is well known, it is permissible, under certain circumstances, to induce labour before the full time to save the mother from the risks of Cæsarean section and embryulcia, and to give a chance of a living infant being born through a very contracted pelvis. Now one of the saddest experiences in obstetric practice is the death during delivery of an infant whose only fault is his large size and splendid development. When this occurs not once but several times, and when each successive pregnancy has for the infant the termination of *vita janua mortis*, it is perfectly justifiable to induce labour[8] at an earlier period, in the hope that then the fœtal head may be less fully ossified and better able to bear compression without permanent and fatal effects.

From all that has been said, it will be evident, therefore, that intrauterine prevention and cure are founded upon a knowledge of fœtal and embryonic physiology and of the causes of diseases and deformities and monstrosities. The whole subject is much hampered by the difficulty of diagnosis; but it must always be borne in mind that the diagnosis to be of much use would have to be made long before the sixth month of pregnancy. The most valuable guides we possess are the knowlege of the state of health of the parents and the fact that fœtal morbid states have a tendency to repeat themselves in the same patient. All this simply emphasises the conclusion already formulated that antenatal intrauterine treatment must be mainly preventive.

ANTENATAL TREATMENT: INTRAGLANDULAR.

Therapeutics in the earliest period of germinal life, when the future organism is represented by two specialised cells, a sperm and an egg cell, must of necessity be both paternal and maternal, and it must almost equally of necessity be mainly preparatory and selective.

There is not perhaps at the present day so much need as there was in the middle of the last century for the unborn babes[9] to make their formal petition to the Censors of the Royal College of Physicians against the cruel mauling to which they were subjected by "hooks, pincers, and other bloody instruments," but there is assuredly some cause for an intrauterine protest against the lighthearted and foolhardy way in which all sorts of individuals rush into the most onerous and most responsible of contracts which men and women are capable of concluding in this world.

A PETITION FROM THE UNBORN.

I can well imagine the unborn infants demanding their rights in some such way as the following: We, the unborn, do here humbly set forth our right to be well born. We do not demand that we shall be born of wealthy parents, for we know from the sad experience of others once unborn like ourselves that millions of money without an hour's complete health to enjoy it is gall and bitterness. Neither do we ask that we shall be born of a titled stock; we prefer good blood to the much vaunted blue blood with a notorious deficiency in white corpuscles. We do not petition for parents with a hereditary history free from all blots and blemishes, for we know that such are not to be had; it will suffice us if we are provided with four long-lived grandparents, and with a father and mother who, in the words of one of the post-natal poets, have "self-reverence, self-knowledge, self-control; these three alone lead life to sovereign power." We ask to be protected from the fathers who in the very spring time of their lives, when they ought to have been sowing health and strength, were sowing disease and death, "wild oats" they called them, with a miserable attempt at self-deception. We object to springing from body cells weakened by abuse and toxic and pathogenic agencies. We wish publicly to express our abhorrence for fathers like the one to whom our friend, M. Fournier, refers, who, after his wife had thrice aborted and once given birth to a hydrocephalic fœtus, all of them the stigmata of his syphilitic taint, came whining a tardy repentance:

Ah, docteur, si j'avais su. Si j'avais réfléchi à ce qui m'arrive aujourd'hui, si l'on m'avait prévenu de cela, je ne me serais certes pas marié. La perspective de ce qui peut arriver à mon enfant et à sa mère est pour moi un tourment de tous les instants. Je n'en dors plus. Cette pensée empoisonne ma vie.

From such fathers we pray that we may be spared, for well we know that their whining repentance means little, and that when we grow up with the signs upon our bodies and in our minds of a parent's fall, they will not look upon us with pity, but with loathing, even as we also look upon them. Neither do we wish to have anything to do with the mother—we blush for her—who doses herself and us with noxious oxytocic drugs at the second and third month of pregnancy in order that she may be saved from what she regards as the irritating interference and exasperating suffering of child-bearing. Such conduct makes our pulses throb with righteous indignation from the foramen ovale to the very tips of our chorionic villi. We confess that we are absolutely unable to understand the attitude of a mother who will do such a thing "avec le cœur léger," and who will on another occasion shed floods of tears and become hysterical with grief over the dead body of a month-old baby, or, *horribile dictu*, of a favourite dog. Some of us hope to be mothers ourselves some day, and we trust we shall not be so illogical, not to say wicked, as to act in such a manner. We do not prefer to have as parents individuals who are tuberculous or predisposed to tuberculosis, who are congenitally deformed, or who belong to a stock in which cancer and insanity have been frequent incidents; but we do not absolutely refuse to admit their rights to paternity and maternity so long as they are themselves clean-living and right-thinking folk, for we have a great belief in the tendency of the germ-plasm to return to right physiological paths if it only get a fair chance. We think that much of the evil that is done to the germ in one generation may be undone in the next, but of course with great difficulty, for *facilis descensus averni, sed revocare gradum hic labor hoc opus est.* We do not particularly object to having first cousins as parents when they both have a clean bill of health, but we do not wish to be the public demonstration of the intensification of morbid processes which will result if they have not. Finally, we formulate our claim and state our right to be engendered by self-respecting individuals, to be conceived in soberness, and to be developed under healthy conditions of intrauterine life.

I do not think that these claims of the unborn can be regarded as excessive. In them are stated many facts and phenomena of intrauterine and intraglandular existence which ought to be widely known, and the lessons of which are obvious. At the same time I think that all attempts to regulate marriage by law in the way that has been so often suggested of having a sort of bureau of inspection of candidates for matrimony must be regarded as premature at least, if not founded actually on a wrong principle. At present it must be confessed that public opinion judges of the suitability or unsuitability of a proposed marriage very much by the amount of money the young couple will have to live upon. It would be better if a basis of health were to take the place of a basis of wealth in the public mind. The young contracting parties often say they are marrying for love, and that is right enough so long as love is not spelt l u s t, but with them also it is to be feared that physical and mental and moral health does not take the high place it ought to do in determining the union.

A writer[10] in one of the most advanced of American periodicals said that he believes—

> That in a future purer and brighter day the race will look back upon the long night of triumphant animalism, with its generations of passion, with much the same feelings of loathing and disgust with which we view the cannibal.

This may be so, but I think that the writer expects too great and too immediate results from the experiment which he suggests in the following passage:

> If 100 young men and women in this land, realising the solemn import of this question, enter the marriage relation attracted by pure love, untainted by base or sordid considerations, and recognising the great moral responsibility they assume to the society of to-morrow, no less than the sacred obligation they owe to the unborn, we should have from these true, pure, and ideal unions children who would, I believe, inaugurate an ethical reformation that would awaken the moral energies of civilisation and lead to a higher and truer order of life.

This may be brought about ultimately; but in the meantime, and before it can be hoped that it may be accomplished, it is necessary that a healthy public opinion on what constitutes a good marriage be built up, and in the building up of this opinion the profession is expected to act as a guide and

leader. What, for instance, has the profession to teach the public on the question of marriages of consanguinity? This matter has been rendered most uncertain by the confusion which has been introduced through the mixing up of two very different states—namely, the marriage of near kin or incest and marriage of consanguinity or of cousins. In the former case there can be no doubt of the evil effects, and every breeder of domestic animals will support this assertion; but the marriage of cousins is a different matter. It has been stated that such marriages result in sterility, abortions, congenital deaf-dumbness, idiocy, retinitis pigmentosa, albinism, and such malformations as polydactyly and ectrodactyly. Now, it does not seem that consanguinity *ipso facto*—that is, without the existence of traces of pre-existing degeneracy in the contracting parties—increases the risk of these diseases and anomalies. Féré goes further, and says that in good families it is to be sought for, not avoided; but the medical man will be well advised if he refrain from proffering such advice unasked.

Another question that the profession must be prepared to answer is, To what extent may marriage into a good stock correct the tendency to degeneration existing in a bad stock? The case of the marriages of the imperial house of Russia has been cited by Dr. Ireland.[11] Perhaps the safest view to take of such unions is that the good risk to lose more than the bad risk to gain (Féré).

The consideration of what constitutes a good marriage cannot be concluded without a reference to the spectre of morbid heredity, so obtrusively prominent in modern literature of the Ibsen-Zola present-day novelist type. There are some—they constitute the minority, I think—who treat this matter lightly. For them the question has no terrors; every man has his chance.

> Years roll'd on years successive glide,
> Since first the world began.
> And on the tide of time still floats,
> Secure, the bark of man.

But there are others, and their number in these days is great, to whom morbid heredity is a spectre that will not be laid. It looks at them out of their children's eyes, they see it in the flush upon a daughter's cheek, they hear it in the night shriek of their rachitic offspring. All day long it stalks through the house, and in the still hours of darkness the rustle of its garments (cerements are they not?) is to be heard. An unreasoning terror seizes them, and they say like one of old time: "Fear came upon me, and trembling, which made all my bones to shake. Then a spirit passed before my face, the hair of my flesh stood up; it stood still, but I could not discern the form thereof; an image was before mine eyes, there was silence." They are paralysed, are these fearful ones, and a gloomy fatalism overpowers them. They are for ever talking of the relentless anger of outraged Nature; they constantly speak of the visitation of the sins of the fathers upon the children, and they generally mean that the sins of their father are being visited upon them, and rarely that they fear that their own sins will be visited upon their children.

To all such I preach the gospel of hope. I do not require them to take the message on trust, but I simply ask them to look around with eyes that observe. I call upon them to stop focussing their gaze upon the dark places in the picture, and to give a little attention to the bright ones. There is not an all-pervading gloom, there are flashes of light here and there already, and they grow more numerous with the looking. Those who are so fearful of morbid heredity begin to realise that the most hereditary thing in the world is the normal, not the abnormal; that health is transmitted as well as disease; that even where the past history of the family is bad, the clean livers have handed something to their children that is better than what was handed on to them.

Note and References.

[1] Shuttleworth in Hack Tuke's *Dictionary of Psychological Medicine*, ii, p. 675, 1892. [2] *Loire Méd.*, December 15th, 1898. [3] *Trans. Edin. Obstet. Soc.*, xix, p. 105, 1894. [4] *Legal Medicine*, ii, p. 253, 1883. [5] *Semaine Méd.*, xviii, p. 481, 1898. [6] *Trans. Amer. Gyn. Soc.*, xiii, 1888. [7] For example, intracranial hæmorrhage in the fœtus in cases of typhoid fever in the mother, as reported by Osler, *Teratologia*, ii, p. 13, 1895. [8] Author, *Internat. Clinics*, 6 s., vol. iv, p. 262, 1897. [9] A. R. Simpson, History of Embryulcia, British Medical Journal, December 13th, 1884. [10] B. O. Flower in the *Arena*. [11] *The Blot on the Brain*.

A SYSTEMATIC BACTERIOLOGICAL EXAMINATION OF THE FAUCES IN SCARLET FEVER AS A MEANS OF PREVENTING POST-SCARLATINAL DIPHTHERIA.

BY

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In hospitals for infectious diseases patients convalescing from scarlet fever are not infrequently attacked with diphtheria. The cause of this has been the subject of considerable discussion; but a prevalent theory is to attribute it to the introduction into the scarlet fever wards of unrecognised cases of diphtheria. If this view be correct, it follows that post-scarlatinal diphtheria could be prevented by the early recognition and isolation of such cases. The great difficulty encountered is that the clinical diagnosis of diphtheria is often impossible, especially in patients who are in the acute stage of scarlet fever.

The only other method available for the recognition of the disease is the detection of diphtheria bacilli in the fauces by bacteriological examination. It has, however, been urged that diphtheria bacilli are so frequently present in the throats of scarlet fever patients as to render the isolation of such cases impracticable. F. Ranke[1] found diphtheria bacilli present in the throats of 53.7 per cent. of scarlet fever patients in Munich. Goodall[2] made a bacteriological examination of 87 cases of scarlet fever admitted into the Eastern Fever Hospital. The examination was made immediately after admission. In 6 diphtheria bacilli of the long variety were found, and in 13 bacilli of the short variety. The cases with bacilli were mild, and would not have been recognised clinically as diphtheria. One of the cases with the long variety of bacillus subsequently developed post-scarlatinal diphtheria, and so did 4 other cases in whom no bacilli were found on admission. Sverensen[3] examined 1,547 scarlet fever patients on admission into the fever hospital at Copenhagen, and found diphtheria bacilli in 2.5 per cent. Beggs[4] found diphtheria bacilli in the throats of 51 out of 140 cases of scarlet fever examined, but the examination was made at various periods after the admission of these patients. Moreover, post-scarlatinal diphtheria was at the time prevalent in the wards, and 14 out of the 51 cases exhibited clinical evidence of the disease. The difference in the results obtained by these observers may, perhaps, be partially explained by the inclusion by some and the exclusion by others of Hoffman's bacillus.

In consequence of an outbreak of post-scarlatinal diphtheria in the London Fever Hospital during the winter of 1895-96, which necessitated the closing and disinfection of some of the wards, it was decided in March, 1896, to examine bacteriologically the throats of all scarlet fever patients then in the hospital, and of all new cases on admission; of the former, those in whose throats diphtheria bacilli were found were isolated.

Our present communication is a record of the examination in this way of all cases of scarlet fever admitted under our care since the above date, our object being to determine, first, the frequency of the occurrence of diphtheria bacilli in the throats of scarlet fever patients; and, secondly, the possibility of preventing post-scarlatinal diphtheria by the isolation of those cases in whose throats these bacilli are found. The cultivations were made upon Loeffler's blood serum, and were examined microscopically on the following day.

Bacilli of the diphtheria family may conveniently be divided into three groups:

1. The Klebs-Loeffler, or true diphtheria bacillus.
2. Bacilli resembling the above in morphological and cultural characters, but non-pathogenic to guinea-pigs.
3. Hoffman's bacillus.

We have discarded the term "pseudo-diphtheria bacillus" because it has been used in different senses by different authors. The distinction between the first and second groups depends mainly on the question of pathogenicity. This test was applied only to the bacilli of cases already in the wards in March, 1896, but it was not found practicable to continue

the method. In the present record we have, therefore, coupled together these two groups under the single heading of "bacilli morphologically resembling the Klebs-Loeffler bacillus."

Hoffman's bacillus from a 24-hours old serum culture appears as a short pyramidal organism arranged in pairs, with the bases in apposition, the pairs being often grouped in parallel rows of two or more. Its protoplasm stains uniformly with methylene blue. This bacillus exhibits no pathogenic effect on the ordinary laboratory animals. It can usually be distinguished from members of the first and second groups by microscopical examination.

During the period from March, 1896, to December, 1898, inclusive, 666 cases of scarlet fever were admitted under our care. We have divided them into three classes:

A. Cases in whose throats bacilli morphologically resembling the bacillus diphtheriæ were present on admission. These only amounted to 8, or 1.2 per cent.

B. Cases in whose throats Hoffman's bacillus was found on admission. These numbered 21, or 3.2 per cent.

C. Cases in whose throats neither bacillus was found on admission, the organisms present being other bacilli, various cocci, torulæ, etc.

Class A.—Cases of Scarlet Fever in whose throats bacilli morphologically resembling the bacillus diphtheriæ were found on admission.

No.	Name.	Sex.	Age.		
1	M. S.	F	17	Admission in desquamation period. Throat normal. Transient albuminuria. No sequelæ.	Isolated; 9 days later no bacilli.
2	G. C.	F	22	Admission in acute stage. Moderate attack. Thin exudation in front of the right tonsil; this by the next day had the appearance of diphtherial membrane. Treated with antitoxin. Rapid recovery. No albumen. No sequelæ.	Isolated: 3 weeks later no bacilli.
	E. G.	F	9	Admission in desquamation period. Throat nearly well. A week later she developed rhinorrhœa and had diphtheria bacilli in the nose. Transient albuminuria. Slight ciliary paralysis followed. Her mother was admitted at the same time with diphtheria, and her sister with scarlet fever. The latter developed rhinorrhœa with diphtheria bacilli in the nose, but not in the throat.	Isolated; 3 weeks later no bacilli.
	E. H.	F	5	Admission in desquamation period. Throat nearly well. Slight rhinorrhœa with diphtheria bacilli in nose. No albumen. No sequelæ.	Isolated; 6 weeks later no bacilli.
4	R. F.	M	3	Admission in acute stage. Mild attack. No ulceration or exudation in fauces. No rhinorrhœa. No albumen. No sequelæ.	*Kept separate; 5 weeks later no bacilli.
6	H. I.	F	3	Admission in desquamation period. Throat nearly well. No rhinorrhœa. No albumen. Afterwards developed rhinorrhœa.	*Kept separate: 5 weeks later no bacilli.
7	N. H.	M	5	Admission in acute stage. Mild attack. Some follicular exudation in tonsils. No albumen. No sequelæ.	*Kept separate; 3 weeks later no bacilli.
	H. C.	F	19	Admission in acute stage. Mild attack. No ulceration or exudation. No rhinorrhœa. No albumen. No sequelæ.	*Kept separate; 3 weeks later no bacilli.

* These patients remain in the ward, but are kept in bed until free from bacilli. During this time their drinking vessels, spoons, and forks are marked and washed separately from those of others.

In only one of these cases, No. 2, was there reason to suspect the presence of diphtheria from the clinical appearance of the throat, and even here the exudation was less suggestive of this disease than is often the case in pure scarlet fever. In Case 3, though the only evidence of diphtheria on admission was obtained from the bacteriological examination, slight paralysis ensued, and in this case there was distinct evidence of exposure to the double infection. The other cases exhibited no clinical evidence of diphtheria either on admission or subsequently. Half of these cases were admitted during the acute stage, and half after it had passed; all made a good recovery.

CLASS B.—*Cases of Scarlet Fever in whose throats Hoffman's bacillus was found on admission.*

There were 21 cases in this class. They exhibited no features of special interest, the attacks being of variable severity, but the majority of a mild type. Except that the follicular tonsillar secretion so frequently present in scarlet fever occurred in about the usual proportion of these cases, none of them showed on admission or subsequently developed clinical evidence of diphtheria. Though they were not isolated in any way they did not appear to convey diphtheria to others. They all made a good recovery.

In considering the above results three points of interest appear:

1. Bacilli resembling the diphtheria bacillus in morphology were found on admission in the throats of only 1.2 per cent. of our cases.

2. Only a minority of these cases presented clinical evidence of diphtheria.

3. The presence of Hoffman's bacillus in the fauces did not appear to play any part in the causation of diphtheria.

We will now pass to the consideration of the second question which we propounded—namely, how far it is possible to prevent post-scarlatinal diphtheria by the method adopted. For this purpose we will tabulate the annual admissions into the London Fever Hospital of cases of scarlet fever and also of diphtheria during the last six years, showing the incidence of post-scarlatinal diphtheria in each period. A larger number of cases appear in this table than we have hitherto mentioned. This is due to the inclusion in it of Dr. Sidney Phillips's cases, which were in the same wards, and were isolated in the same way as ours when showing suspicious cultivations. We are indebted to the kindness of Dr. Sidney Phillips for permission to refer to and include his cases. We add, for comparison with our figures, similar data abstracted from the reports of the Metropolitan Asylums Board:

The London Fever Hospital.

Year.	Scarlet Fever Admissions.	Diphtheria Admissions.	Post-scarlatinal Diphtheria.
1893	764	5	4 = 0.52 per cent.
1894	294	25	1 = 0.34 ,,
1895	516	52	14 = 2.71 ,,
1896	637	65*	3 = 0.47 ,,
1897	431	45	1 = 0.23 ,,
1898	325	40	0 = 0 —

* All admitted after the month of March.

The Metropolitan Asylums Board.

Year.	Scarlet Fever Admissions.	Diphtheria Admissions.	Post-scarlatinal Diphtheria.
1893	14,548	2,848	204 = 1.40 per cent.
1894	11,598	3,666	220 = 1.90 ,,
1895	11,271	3,635	408 = 3.62 ,,
1896	15,176	4,508	705 = 4.64 ,,
1897	15,241	5,673	796 = 5.22 ,,
1898	Statistics not yet published	—	—

It will be observed from these two tables that the percentage of post-scarlatinal diphtheria at the London Fever Hospital has been uniformly lower than that at the hospitals of the Asylums Board. The cause of this, probably dependent upon differences in the average social status and age of the patients, is beyond our present inquiry. In both tables, however, a conspicuous increase in the percentage of post-scarlatinal diphtheria appears in 1895. Whereas, however, in the Asylums Board hospitals this percentage continues to increase in 1896 and 1897, in the London Fever Hospital table it suddenly falls in 1896, and continues to diminish, until in 1898 no case occurs. This difference is rendered more conspicuous

when it is pointed out that of the 3 cases in 1896 2 occurred before the month of March, when our record commences.

Since that date but 2 cases of post-scarlatinal diphtheria have occurred among 1,332 scarlet fever patients admitted, in spite of the admission of 150 cases of diphtheria. Of these 2 cases 1 was isolated on account of rhinorrhœa accompanied by the presence of diphtheria bacilli in the nose. In an adjoining room was a case of diphtheria with scarlet fever. It is possible that the mild attack of faucial diphtheria which supervened six weeks after admission was contracted from this source. On the other hand, the throat may have been infected from the nose. For the second case no cause could be assigned. In neither of them were bacilli found on admission. Both made good recovery.

The first of these two patients was included in a series of 51 cases of post-scarlatinal rhinitis described by Todd,[4] his observations covering a part of the period included in our report. The leading characteristics of this complaint were as follows: It attacked children only, causing external rhinitis with slight watery discharge. It caused no constitutional disturbances. It was definitely contagious, spreading as rhinitis from child to child, but it did not give rise to faucial or laryngeal diphtheria. A bacillus was isolated by Todd from the noses of these patients, which by all available tests, including that of pathogenicity, was the true diphtheria bacillus, yet he failed in nearly every case to discover any such bacillus in their throats. Were these cases of nasal diphtheria? If so, why did they give rise to rhinitis only and not to faucial diphtheria, and why did not the disease spread beyond the nose? Whatever the explanation, the fact remains that post-scarlatinal faucial diphtheria did not arise. Nevertheless it appears to us that such cases of rhinitis might be the starting-point of faucial diphtheria, and that in future they will require careful supervision.

General Conclusions.

We believe that post-scarlatinal diphtheria is due to the introduction of unrecognised cases of diphtheria into the scarlet fever wards, and that this can only be obviated by systematic bacteriological examinations of all cases on admission, and by separation of those in whose throats diphtheria bacilli are found. If Hoffman's bacillus, which we believe to have no direct causal connection with diphtheria, be excluded, the number of such cases, though probably greater among patients more liable to double infection than ours, should not be beyond the isolation resources of most fever hospitals; moreover, absolute isolation does not appear to be essential. At any rate, we consider that the method deserves trial on a larger scale.

Further, we think that some supervision of cases of rhinitis with diphtheria bacilli in the nose should be practised, such as keeping them in bed while the discharge continues: for though these cases do not appear to have given rise at the London Fever Hospital to faucial or laryngeal diphtheria, yet such an occurrence is quite possible.

References.

[1] *Münch. med. Woch.*, Bd. 42, 1896. [2] *Epidem. Soc. Trans.*, 1896. [3] *Zeit. f. Hyg. und Infections-Krankheiten*, Band xxix, Hft. 2, 1898. [4] *Met. Asylums Board's Report*, 1895. [5] *Lancet*, May 25th, 1898.

A CASE OF ACUTE TETANUS TREATED BY INTRACEREBRAL INJECTIONS OF ANTITOXIN: RECOVERY.

By WILLIAM F. GIBB, M.D., C.M.,
Surgeon to the Paisley Infirmary.

The following case of acute tetanus was treated with intracerebral injections of antitetanic serum. The patient made a good recovery.

On February 8th, 1899, M. C., a lad of 13, while employed at a steam mangle received an injury to his right hand. The four fingers up to the metacarpo-phalangeal joints were severely crushed and burned by passing between the heated rollers of the mangle. The hand, which was found to be rather dirty, was dressed at the Paisley Infirmary Dispensary on the day of the accident and the two following days with boric acid compresses.

He was admitted on February 11th into the Paisley Infirmary under the care of Dr. H. C. Donald. The fingers had a yellowish-white appearance; they were not painful, and they were devoid of sensibility. He seemed a healthy, well-nourished lad, with no evidence of constitutional disturbance save slight rise of temperature (99.6° F.).

February 14th. The fingers were still painless, and seemed to be quite dead. The line of separation was well marked. There was some superficial purulent discharge. Temperature 99° F. The general condition was good.

February 18th. Amputation of the four fingers at the metacarpo-phalangeal joints was performed, the heads of the metacarpals being also removed. A drainage tube was passed transversely within the flaps. By evening the temperature was 99.6° F., and there was great pain in the hand.

February 19th.—The hand was still painful, swollen, and red. Two stitches were removed, allowing a drachm of pus to escape. The evening temperature was 101.4°. He was sleepless.

February 20th. The remaining stitches were removed. There was much suppuration. The evening temperature was 100.6°.

February 22nd. The back of the hand presented an erysipelatous blush, reaching halfway up to the wrist. There was severe pain shooting up the arm, preventing sleep. The evening temperature was 99.4° F. He was not so strong as when admitted, but was taking food well. On the 24th he came under the writer's care owing to the absence of Dr. Donald.

February 25th (seventeenth day after the accident). There was constant and severe pain in the hand, and frequently acute shooting pains extending to the shoulder. On the previous night he several times started up, and suddenly threw himself back in bed. This morning there was marked stiffness of the lower jaw, and he was unable to separate the teeth more than half an inch. There was no dysphagia. There was slight retraction of the head and opisthotonos, which disappeared during sleep. The whole of the right upper extremity was perfectly rigid, with the forearm semiflexed. This condition was unaltered during sleep, and it may here be added persisted long after the other symptoms. While awake the eyes remained half closed, and the angles of the mouth drawn downwards and outwards. The breathing was rapid (40) and shallow; the pulse was regular, and of good tension, its rate was 100 to 120. He took food well. The evening temperature was 97°. Chloral was given in doses of 10 grains every four hours.

February 26th. There was no improvement, and he had been excited and noisy during the night. At 2 P.M., 10 c.cm. of antitetanic serum (from the Pasteur Institute) were injected under the skin of the abdomen. At 6 P.M., under chloroform, 8 c.cm. serum were injected into each frontal lobe, 4 c.cm. from the middle line, and 4 c.cm. above the supraorbital ridge, corresponding closely to the frontal eminence; each injection occupied 10 minutes. For the operation a dental drill and an ordinary antitoxin syringe were used: the wound was closed by collodion without suture. In addition 14 c.cm. were given hypodermically. While on his way to the operating table, the patient had a severe spasm, affecting the neck, back, and lower limbs. At 9 P.M. he was noisy, and tried to get out of bed. At 10.30 P.M. 10 c.cm. of the serum were given hypodermically.

February 27th. He had had a restless night. The head was slightly retracted, and the jaw rigid. Respiration was shallow (44), and mainly abdominal. At 7.30 P.M. 10 c.cm. were injected hypodermically.

February 28th. He had had a quiet night, but seemed no better. He could only separate his teeth a quarter of an inch. He was troubled with mucous collecting in the mouth and throat. He swallowed milk well. There was severe spasm of the neck and back. The pulse was feeble (112), and the respirations 48. The stump was healing slowly.

March 1st. He had a good night, but there was no improvement of the tetanic symptoms; the jaw was almost fixed. The thoracic walls were quite rigid, and the respiration was purely abdominal, with a rate of 52 to 60. The pulse was soft and feeble (112). He took liquids freely. At 9.30 P.M. 10 c.cm. serum were injected into each frontal lobe.

March 2nd. He was restless and noisy for half the night, and no better in the morning. At 7 P.M. 20 c.cm. serum were given hypodermically. Temperature 100°.

March 3rd. The spasms were rather less severe, but the boy was drowsy and weak. The pulse was 116 and feeble; respirations 68. There were frequent attacks of choking, from tough mucus accumulating in the pharynx and larynx. There was no difficulty in swallowing milk. He was given 20 c.cm. of serum hypodermically. The midday temperature was 103.2° F.

March 4th. He rested well last night. The jaw was somewhat relaxed but the head continued retracted. He slept almost constantly. The respirations were 68 and the pulse 120; the midday temperature was 103.6°; there was incontinence of urine and fæces. At 7 P.M. a hypodermic injection of 20 c.cm. serum was given.

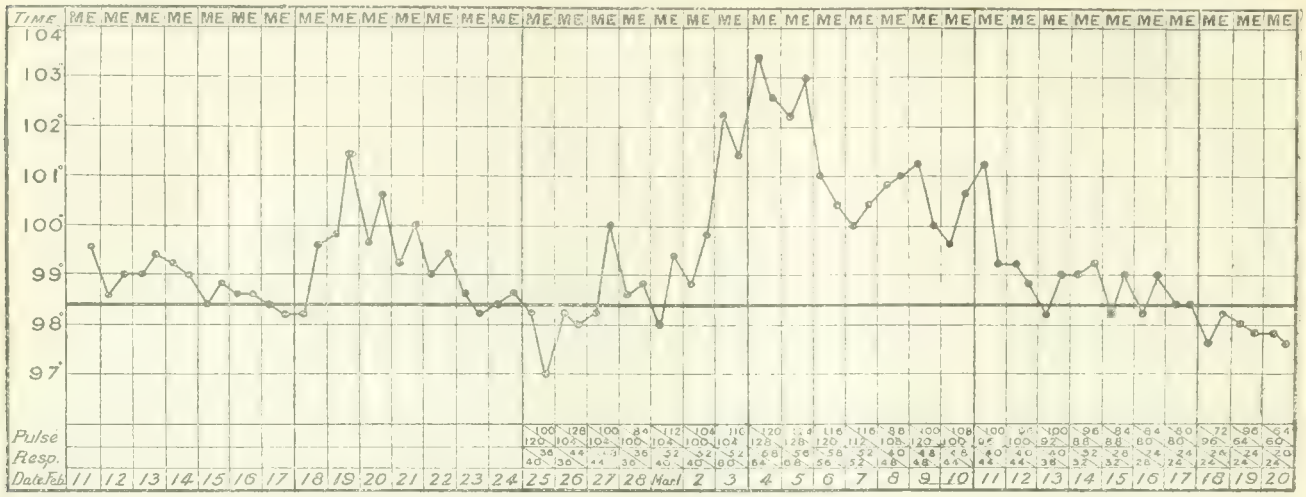
March 5th. There was severe spasm of the jaw, neck, and back. At 2 P.M. he received 15 c.cm. of serum by intracerebral injection. Shortly after he was extremely weak but rallied towards evening. The administration of chloral was stopped at 2 P.M. At 4 P.M. the temperature was 103.2°, the pulse 128, and the respirations 68.

March 6th. He was restless, excited, and noisy last night; he tried frequently to throw himself out of bed. Chloral was resumed at 1 A.M. in the same doses. At 10 A.M. he was much quieter. The left pupil was widely dilated, and responded sluggishly to light; the right pupil was moderately dilated and responded promptly. He was quite unconscious, and could not be roused by speaking loudly, but by pinching he could be half wakened. While sleeping the lower jaw could be moved passively, but tended to become rigid. Apart from this and the rigidity of the right arm there was no spasm. At 4 A.M. the temperature was 101.8° F., the pulse 124, and the respirations 60.

March 7th. He was still unconscious, and could not be perfectly roused. The pulse was 116, and stronger; the respirations were 52, and the noon temperature 99.8°. By the afternoon he became conscious, and even intelligent.

March 8th. He was obviously improving. The temperature was 100.8° F., the pulse 112, and the respiration (which was entirely abdominal) 48; the pupils were equal. At 6 P.M. a single intracerebral injection was made into the right frontal lobe.

March 11th. He was much distressed by hawking up tough mucus, which he expelled with great difficulty on account of spasm of the masseters. The chest continued rigid, so that breathing was still chiefly abdominal. The respiration-rate was 40, the pulse-rate was 96—it was of good tension;



the temperature was 101.4°. Some dry *râles* were heard over the front and back of the chest. At noon he had the last injection of 10 c.cm., which was given into the right frontal lobe.

March 15th. All tetanic phenomena had subsided.

April 2nd. The patient was quite convalescent but still extremely thin, weak, and anæmic. He was able to sit up but was not allowed out of bed. There remained some stiffness of the wrist and a small healing ulcer. The intellectual condition was perfectly satisfactory.

REMARKS.

The treatment of tetanus, as it is at present understood, would appear to aim at the following objects: (1) Maintenance of the patient's strength; (2) controlling, as far as possible, the painful spasms, by chloral; (3) restraining the development of the toxin in the blood by hypodermic injections of antitoxin; and (4) preventing the toxin from affecting the nerve cells in the higher centres by intracerebral injections of antitoxin. In cases where the presence of bacilli is still suspected, local operation may be necessary. In the case recorded it was presumed that they had been removed by the amputation a week before the first symptom of tetanus occurred.

It is important to bear in mind that immediate improvement is not to be looked for after intracerebral injection. In the case reported by Professor Semple[1] improvement was delayed for a week, and in the present case for nine days. On March 1st and 2nd the patient's condition appeared well-nigh hopeless. The unusually large intracerebral doses of serum were given on account of the intense severity of the symptoms; it is possible, however, that smaller doses might have sufficed. The quantities given were 71 c.cm. by intracerebral, and 104 c.cm. by hypodermic, injection of serum of ordinary strength. Apart from a scarlatiniform rash over the abdomen, lasting three days, the injections produced no ill-effect. There was no sepsis.

To the house surgeons, Drs. Holmes and Watson, thanks are due for their close attention to the case, and for the careful notes they have taken.

REFERENCE.

1 BRITISH MEDICAL JOURNAL, January 7th, 1899.

CURE OF MORPHINE, CHLORAL, AND COCAINE HABITS BY SODIUM BROMIDE.

BY NEIL MACLEOD, M.D.,
Shanghai.

IN the BRITISH MEDICAL JOURNAL of July 10th, 1897, two pronounced cases of morphine habit were recorded as cured by treatment with bromide of sodium administered, so far as I am aware, in a novel way. Further trial of the treatment there described has met with equally satisfactory results in cases of morphine, chloral, and cocaine habits, and an improved method in the use of the bromide has been adopted, so that large doses of the different drugs were cut off within three days without suffering, and the length of the treatment somewhat curtailed. The cases are recorded in the order of their occurrence.

CASE III.—A Chinaman, aged 32, was educated in America, where he contracted the chloral habit. This habit had lasted four years when his parents brought him to me for treatment. They described him as crazy at times, wandering away from home improperly clad and in all weathers, bemoaned his loss of several lucrative posts in consequence of the habit, and expressed their willingness to submit him to any treatment which would afford a prospect of removing the craving for chloral. The patient himself, a broken-down looking subject, desired relief, but acknowledged that no reliance could be placed on his promises of assistance towards that end. Circumstances prevented his remaining in the hospital, and I hesitated to undertake the treatment without European nurses in a Chinese house, but his parents, to whom I explained that he might injure himself when the effect of the bromide was passing off, and that careful nursing would be required, undertook all responsibility, and guaranteed that he would never be left alone. As I feared, the mother, who was responsible for the bromide administration, did not give it in the doses and at the times ordered, but I was enabled to determine with certainty that 33 drachms were given between November 9th and the 13th, during and after which time no other drug was given. He slept continuously from the 13th to the 21st, taking about 2 pints of milk daily. During this time no communication with him was possible. Until December 1st there were the same feeble motor, mental, and emotional manifestations as described in the first paper, recovery being slower and delusions of fear more marked. When he recovered his power of locomotion, notwithstanding repeated warnings that he was to be watched carefully in reference to stairs, windows, and verandah, there being delusions of persecutions at times, on December 10th he succeeded in getting through a window and fell from the first floor, fracturing the left tibia and fibula. He was removed to hospital, and the leg was put up in a plaster splint. He returned home on December 30th, quite recovered from the effect of the bromide and without any return of the chloral craving. He has remained free from it for a year, and for some time has been occupying a responsible, well-paid post.

No reliance could be placed on his statements as to the dosage of chloral in twenty-four hours, as he continued to drink from a chloral draught when under its influence. It was obtained from a Chinese source. Comparing this with the two previously recorded cases, I suspected that the slow development of the bromide sleep was due to the method of administration. This suspicion was confirmed in the next three cases, where the drug was pushed more boldly, with the result expected, and further justified in two other cases to be later referred to, in which the bromide sleep was produced in the treatment of other abnormal states. As will be seen, it was possible for the morphine to be withdrawn more rapidly than in the first two cases.

CASE IV was one of the morphine habit, in a lady aged 48, whose medical attendant furnished me with the following remarkable history:

Family History.—Father died, aged 70, of cerebral hæmorrhage. Mother living, aged about 70, subject to migraine. (1) Brother, paroxysmal oinomania, suicide. (2) Brother, alcoholic. (3) Brother, paroxysmal oinomania. (4) Brother, alcoholic. (5) Brother, good health, sound nervous system. (1) Sister died, aged about 40, of pulmonary tuberculosis after many years suffering from hysterical disorders, anorexia, etc. (2) Sister died, aged about 35, of morbis cordis, consequent on rheumatism; sound nervous system. (3) Sister living, in good health, was laid up for two years with a knee-joint affection, probably hysterical. The patient herself is the eldest of the family. History of alcoholism in previous generations and collaterals.

Early History.—Shortly after the onset of menstruation she suffered from hysterical œdema of the breasts. She has all her life been subject to periodic illness from neuralgia, in various sites, most often gastric. About twenty years ago was laid up for many months after an injury to the knee, the long duration of which was probably dependent on neurosis.

First married in 1875, and lived in Japan till her husband's death in 1884. She never became pregnant during that time. About 1880 she suffered from hysterical œdema of the feet, which she has had in slight degree occasionally since then. She became a nurse in 1885, suffering only from migraine at each menstruation. Morphine had to be given in 1890 for severe trigeminal neuralgia with and without facial cramp, or for gastric pain and vomiting, requiring larger than medicinal doses in 1893, in which year she became pregnant, and severe vomiting set in, requiring morphine in increasing doses, up to 4 and 5 gr., before confinement, and continued till April, when it was discontinued, with the aid of bromide, and only given during the next two years during menstruation. "In the second month of pregnancy she became insane, the insanity taking the form of morbid jealousy and of intense dissatisfaction with all her surroundings. In the autumn of 1894 paroxysmal oinomania became a serious trouble. An irresistible craving for alcohol would seize the patient. The gratification of this craving would give rise not to drunkenness, but to *mania a potu*, transitory acute mania, lasting perhaps twelve hours. In one of these attacks she thrust her hand through a window, in another she threw a lighted lamp at her medical attendant. This tendency to alcoholic excess was not entirely new, and earlier in the year she had tried to shoot herself in an outburst of excitement probably due to alcohol. In 1895 she put herself through the 'Keeley' treatment for drink habit, with apparently complete success, for she has been quite free from the craving from that date." In August, 1896, severe facial cramp set in, continued through 1897, becoming gradually replaced by uncontrollable retching, independent of the presence of food in the stomach, and worse at the menstrual periods, requiring increasing doses of morphine. In the autumn of this year regular menstruation ceased. From January 1st to October 6th, 1898, the average daily dose of morphine, as ascertained from the entries in a diary, was 12.6 gr.—the maximum 22 gr. and the minimum 6 gr.—injected.

I saw the patient for the first time on admission to hospital on October 7th, 1898, 12. gr. of morphine having been already injected that day. Between 4 and 8 P.M. 6 drachms of bromide were given. Ordinary diet ordered.

October 8th (eleventh day). Slept all night; 6 gr. morphine injected in two doses; 9 drachms bromide given between 9.30 A.M. and 10 P.M.; awake all day.

October 9th (third day). A good night; 2 gr. morphine injected; 1 oz. of bromide between 9 A.M. and 10.30 P.M. From this date no drug of any kind was given except an aperient pill occasionally. Milk only ordered.

October 10th (fourth day). Slept all night through an alarm of fire causing disturbance in the hospital. Stupid; speech thick; cannot stand without assistance. Asked for morphine at 10 A.M., but the request immediately forgotten and never renewed.

From this date till October 15th (ninth day) she slept continuously except when roused for food or for evacuation of bladder or bowel, but even then could not be described as awake. She would put out the tongue at command, could not speak, or but a few words indistinctly, and was completely helpless. Regular suggestions of evacuating the bladder and bowel were made by placing the patient on the commode. During this time she moved on three or four occasions as if to get out of bed, and with support under the arms would walk a few steps aimlessly.

October 15th (ninth day). Muttering indistinctly. She recognises and names me.

October 16th (tenth day). Speech more distinct; scared; somewhat noisy in the evening; easily controlled.

October 17th (eleventh day). Slept all night; tongue, hitherto coated, now clean; wrist-drop, cannot hold a book, cannot read; speech distinct enough to reveal delusions.

October 19th (thirteenth day). Sitting in a chair; full of delusions; easily controlled; walking unsteadily; memory past and present dislocated; sleep irregular and sometimes delayed but good and sufficient; delusions continue, gradually becoming fewer until October 28th (twenty-second day), after which date they ceased.

On November 7th menstruation reappeared with an attack of migraine, tolerably severe, and preventing her from taking any food all day.

On November 10th she informed me that she had been longer without morphine than at any time since February, 1890.

December 2nd. Two other attacks of migraine and one of trigeminal neuralgia have passed without use of or desire for morphine. There has been a gain in weight, and the patient returns to Japan declaring herself better in health than for years, there being a very manifest improvement in her general appearance, and no inclination to retch or vomit with migraine.

December 9th. A letter from her husband reports her walking about the streets with her daughter for the first time in the latter's lifetime.

Case v, seen in consultation with Dr. Milles, one of cocaine and morphine habit of several years' standing, in a highly nervous, excitable man, of whose sanity there was considerable doubt. I recommended proceedings similar to those adopted in Case iv, which produced after three days four or five days of continuous sleep, no drug of any kind being given after the third day. Sleep was followed by the stages described in the other cases, recovery of locomotion, speech, and memory being more rapid, no craving for morphine or cocaine being manifested, although its absence was noticed by the patient, contrasting markedly with his first day in the hospital, when his demands for morphine were urgent enough. Four weeks after leaving the hospital there had been no relapse.

Case vi.—A medical man, aged 37, wrote to me on November 30th, 1898: "I first got addicted to the habit in 1889 after the Burmese war, during which I got an attack of dysentery, for which another surgeon gave me morphine injections, and kept it up till 1891, when I took leave home and placed myself in a home. In two months I had quite given up the habit, and kept from it till last May, when owing to trouble, worry, and depression I again started. I nearly succeeded in recovering again in August, when I took a trip in a sailing ship, and was at sea forty days. My supply ran out in fifteen days, and I had none for the remaining twenty-five days, but I resumed it when I landed. During the first half of last month I daily took as much as 30 gr. of morphine with 15 to 20 gr. of cocaine. The last ten days I have come down to 5 gr. daily.....I came up here from Hong Kong.....I know if I continue as I am now doing that a few months will finish me, and I would submit to any means you could suggest.....One thing I cannot bear, the sudden and total deprivation, and I nearly committed suicide at Hong Kong because —— who I placed myself under tried that plan." Family and personal history other than that referred to in the above quotations good, with the appearance of an enfeebled, excitable man. He was admitted to hospital on December 1st, 1898, having himself injected 6½ gr. of morphine on that day. Syringes and supplies given up. There being some diarrhœa, milk only was ordered. The stools from this day were natural; 1 ounce of bromide was given in 2-drachm doses before bedtime.

December 2nd (second day). Slept all night a dreamless sleep; 2½ gr. of morphine injected seemed to satisfy him. In discussing the risks of the treatment with him, I pointed out that I could not say it was free from risk, but that so far in the 7 cases I had dealt with I had not had reason for anxiety, adding curiously enough that the intercurrence of, say, a pneumonia would be dangerous. Prepared for all risks, he drafted and executed a will that evening; 10 drachms of bromide taken before bedtime.

December 3rd (third day). Part of the night restless; ¾ gr. morphine given. Slept nearly the whole day; the eyes were observed to be flushed. After bedtime the nurse, not understanding that the bromide was then to be suspended, continued it in drachm doses through the night at intervals for restlessness.

December 4th (fourth day). Awake at morning visit and afraid he would not have enough morphine. Injected a grain and ordered the bromide to be stopped—36 drachms having been given. He slept quietly all day, but became restless at 10 P.M., remaining so till 2 A.M., when he slept.

December 5th (fifth day). Could be roused and took his milk. Coughing through the day and spitting over the bedclothes. Slept all day.

December 6th (sixth day). A quiet night till daylight, when there was very rapid breathing, embarrassed if lying on the back or right side, eased if lying on the left. 9 A.M. Temperature 102.8°; pulse 96, good; respirations 88, shallow and regular. As examined lying on the left side, no dulness, but numerous moist sounds audible behind. Noon. Temperature 105.2°, pulse 100, respirations 96; dulness at right base was made out at 3 P.M., and extended at 9 P.M. right up to the apex behind (lying on the left side).

December 7th (seventh day). Died at 8.45 A.M.

Post-mortem examination revealed consolidation of right lower lobe, the tissue sinking in water; a similar though less advanced condition at the left base; 15 to 16 ounces of bloody fluid in the right pleural cavity, and a few ounces of similar fluid in the left; numerous old, more or less stretched, adhesions over the anterior, lateral, and basal surfaces of both lungs.

In this case more bromide was given than necessary, I think, during the the third night, the nurse not understanding that the bromide was not to be given after bedtime. The recent journey from the warm South into our cold weather, the enfeebled health consequent on the habits, and the bromide may have acted as predisposing causes to the acute lung ailment. The respiratory centres showed no sign of depression from the bromide, their response to the pneumonic poison producing respiratory movements as rapid as one sees in infants. Its action in repressing cough was manifest, and probably when the flushing and restlessness at night were present, had there been no bromide, the cough would have attracted attention. Had he not had bromide, he would have had morphine, which cannot be said to be without danger in pneumonia.

The results in these cases, though few, were so marked and constant that they seem to me to promise fulfilment of the following claims for the method of treatment: (1) The withdrawal within three days of even large doses of the drug causing the habit; (2) the certainty that this will cause no suffering; (3) the patient cannot deceive those dealing with him in the matter of secret administration, nor can he enlist after the third day the aid of attendants; (4) any physician with the aid of vigilant nurses can deal with the case in any hospital or private house, no special institution is needed; (5) there is no risk of substituting another drug habit, and the craving will be lost whether the patient desires it or not.

Whilst nothing has been observed in these cases, which pointed to disturbance of vascular, respiratory, or alimentary systems to a degree causing anxiety, they are too few to determine that the treatment is without risk. Intercurrent maladies in the course of treatment may be dangerous, but here we have to choose between the apparently temporary risk of the bromide, and that from the more prolonged use of the morphine or other drug. With regard to ultimate recovery of locomotion, memory, etc., so far, each case has been quite satisfactory in that respect, with the one exception of a blank representing the period under bromide. When memory before treatment, as in Case iv, has been defective, and also the power of concentration of attention and prolongation of that effort, these have markedly improved. As a psychological experiment, the rapid retrogressive changes in the functions during the first few days, the vegetative intermediate state and the slow evolutionary progression of recovery are full of interest.

The treatment is directed against the morphine or other habit, in which the craving for the drug is so strongly reinforced by the slightest demand for the relief of pain, sleeplessness, etc., that it appears impossible to resist it. The treatment removes this craving, and if the disorder is functional, the bromide rest, the changed dietary, the cutting off of all ordinary surroundings more completely than is possible by other means, may not be without beneficial effect on the pain, etc. For those in whom other treatment has failed, and for all who are willing to submit to this method, it offers what appears to be a certainty of deliverance from the craving without suffering, which is more than can be said of any other method of treatment of which I am aware. By the time the patient has become capable of making the drug which has caused the habit the object of thought, it has actually become disassociated from his comfort, and the new relationship a matter for astonishment.

That this use of the bromide may prove beneficial in other maladies is suggested by two other cases. In one of these, a lady 48 years old, suffering from an attack of acute mania occurring in a Japanese hotel in the interior of Japan, where the sounds from the other inmates, drove the patient frantic. Without forcible restraint, a two days' journey by hammock and boat would have been impossible. In the bromide sleep all irritation from light and sound ceased, but, as no assistance could be had in nursing the patient through such an illness on the spot, in this sleep she was carried twenty miles in a hammock swung on two chair poles, lay asleep on the deck of a small steamer for several hours, spent a night in another Japanese hotel, was put on board a steamer, carried 500 miles, and placed in her own bed in her own house, where she awoke two or three days later none the worse for the journey. She passed through stages similar to those already described, and, when the effect of the bromide passed off, there was not a trace of mental disturbance, and she is still well over a year later. The part played by the bromide in securing sleep and rest amid such surroundings, and the aid to transportation were sufficient in my opinion to justify its use. How far its effects had to do with the rapid recovery from the acute mental ailment is difficult to estimate. The profound bromide sleep was a great contrast to the excitement of mania, and secured a prolonged condition of complete mental rest where it was much needed. The circumstances under which the illness broke out demanded stringent measures.

The second case was one of uncontrollable vomiting, a feature in neurasthenia, the subject of which was a lady doctor, sent to me by her brother, also a doctor, from the interior of China. As the vomiting seemed to me to be of undoubted nervous origin I suggested a trial of the bromide. Given by the rectum it caused such irritation, that it could not be retained, irritation not confined to bromide, as was found later. Given by the mouth it took longer to produce its effects because of its frequent rejection. The stomach, however, seemed more tolerant of the drug than of other things, and after five or six days sleep set in, but not so profound as in the other cases described, with cessation of the vomiting habit. When recovery from the bromide was taking place the vomiting again manifested itself but much less than before treatment, and to an extent not causing any anxiety. I regretted not having pushed the drug effect to a greater degree, but not being certain of the amount retained, and as its effect appeared greatest sometimes two or three days after the last dose, I was afraid to continue it in this case. She is now, three months later and after a trip to Japan, apparently quite well.

It is noteworthy that the loss of alcoholic craving in the second case was pointed out by the astonished patient himself. It may not be out of place here to add a sketch of the method of treatment, with some reference to the immediate results of the drug. Having taken the weight of the patient and ascertained that there is nothing to contra-indicate this treatment in the way of organic disease, the sodium bromide may be given in two doses of 2 drachms, in solution every two hours for the first two days, and 1 drachm during the third day. None is given after bedtime on the third day. Three ounces of the drug in all will probably suffice, but more may be given to induce deep sleep that may continue for five or six days and nights, during which time milk alone should be given. Every night and morning during this time, the patient should be placed on the commode for bladder and bowel evacuation, or oftener if there be any sign of soiling the bed linen. For a week or ten days after this sleep, the speech, which is at first indistinct, locomotion, which is of the feeblest or impossible, and the great confusion of ideas will all be seen gradually to improve, the mental condition, however, most slowly. Delusions, at first numerous, will lessen; memory will improve; sleep may then be irregular, but further treatment is undesirable. Solid food should be given as soon as it can be taken, and the bowels regulated, and after locomotion is recovered it is well to encourage the taking of exercise. The muscles may be observed to become tender, but this will pass off. Morphine may be given the first day in the habitual dose, halved the second, and none or but a small dose the third. Chloral may be cut off at once if there is a good sleep the first night. Cocaine may be dealt with like morphine. A case may appear well in three weeks, but at least other three weeks, and if possible longer, should be insisted on, as if for convalescence after a severe illness. An even, warm temperature of the room should be maintained. Warm night clothing for protection on getting out of bed or throwing off the blankets should be provided, and a nurse should be on duty day and night for at least the first three weeks.

OBSERVATIONS ON OXYURIS VERMICULARIS IN CHILDREN.

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The presence of threadworms in the intestine is so common a trouble in childhood, and so often difficult to cure, that I venture to put on record the following observations which may be of interest in so far as they have a practical bearing on symptomatology and treatment. In 200 necropsies, as far as possible consecutive, on children under the age of 12 years at the Hospital for Sick Children, Great Ormond Street, the intestine was carefully examined for the presence of threadworms, and these were found to be present in 38 cases, that is, in 19 per cent. When, however, only children over the age of 2 years were included, the percentage was much higher; in a series of 100 necropsies on children between the ages of 2 and 12 years, threadworms were found in 32 cases, that is, in 32 per cent.

The point, however, on which I wish to lay special stress is not the frequency of threadworms, which is familiar enough, but their situation. It is often stated that the threadworm inhabits chiefly the rectum and lower part of the colon and occasionally the cæcum, but the fact that the vermiform appendix is a favourite habitat of the threadworm has received but little attention.

In no fewer than 25 out of the 38 cases in which the oxyuris vermicularis was present the worm was found in the appendix vermiformis; in other words the threadworm was found in the appendix in two-thirds of the cases.

Moreover, the appendix is in some cases the only part in which the threadworm is found; in 6 of the 38 cases mentioned no threadworms were found either in the cæcum or elsewhere in the large intestine, but in each of these 6 cases threadworms were found in the appendix, and sometimes at its extreme tip.

The number of threadworms in the appendix is sometimes very large: thus in one case described below, 111 were present here; and it is noteworthy that these large numbers may be found in the appendix, when only very few or none are present in the large intestine.

A further point, which may be of significance, is the immature character of the worms found in the vermiform appendix. In some cases only one or two of the worms found here were full grown, the rest were extremely minute, measuring 1.5 to 3 mm. in length, and requiring the use of a lens for accurate counting. These minute worms had already acquired the characteristic differences of sex, from which it could be determined that many, probably the majority, were immature females, though some certainly were males. It has been stated by Blanchard[1] that the embryo when first hatched measures in the case of the female 1.7 to 1.97 mm., and in the

male 1.1 to 1.8 mm., whereas the full-grown female measures 9 to 12 mm., and the male 3 to 5 mm. in length. Many therefore of the minute threadworms found in the vermiform appendix must have been hatched quite recently.

This observation seems to throw considerable doubt upon the view held by Leuckart and others, and now current in the textbooks, that the oxyuris vermicularis never multiplies in the intestine; it is absolutely necessary, they say, that the ova should be passed and reintroduced into the mouth, and so into the stomach, in order that they may be hatched; in other words, every single threadworm passed from the bowel has been introduced as an ovum from without into the alimentary tract.

Were such a view correct, it would be difficult to understand why threadworms are so rarely found in the small intestine. The embryo is said to go through the earliest stages of growth here after being hatched in the stomach, and by the time it comes to the large intestine it has reached, or almost reached, maturity. If this be so, then considering the enormous number of threadworms which are passed by some children for months or even years, and how variable must be the rate of passage of each of these worms through the small intestine, one would surely expect that the young threadworms would frequently be found at necropsies still in the small intestine, whereas, as a matter of fact, this very rarely happens. I have found young threadworms once as high as 45 inches above the ileo-cæcal valve, and two or three times I have seen mature worms either just above the valve or in the last few inches of the ileum, but such a finding has been very exceptional in my experience.

Further, this hypothesis does not explain the immaturity in some cases of almost all the threadworms found in the appendix, for even supposing that owing to the variability of rate of transit through the small intestine the degree of maturity varies in those that have reached the large intestine, it is nevertheless hardly conceivable that a large number of very immature threadworms, hardly larger than those just hatched, should happen to congregate in the vermiform appendix, whilst the great majority of those in the cæcum are almost or quite full grown.

The presence, therefore, of numerous very young threadworms in the vermiform appendix, associated with only a few full-grown ones, seems to show that at least in some cases, the vermiform appendix serves as a breeding place for the oxyuris vermicularis. It might be added that although there is experimental evidence to prove that the swallowing of the ova is followed after a few weeks by the appearance of threadworms in the fæces, the proof that every threadworm that is passed from the bowel has been introduced in this way is yet to seek. According to the accepted view we are asked to believe that a child who for months, and sometimes years, passes scores of threadworms daily in its stools, has introduced into its mouth as an ovum every single one of these worms. To support this theory it is necessary to suppose either that the ova are so widely distributed from the fæces that they are reintroduced in various articles of food, or else that they are introduced by the fingers directly from the anus. Both these sources are supposed to contribute to the supply.

But if the ova were distributed in such enormous numbers that one child could swallow hundreds, or possibly thousands, of them in articles of food, it would be difficult to see how any person in an infected house could possibly escape being infected also. It happens, indeed, not very rarely that more than one child in a family is suffering from threadworms; but this does not happen with sufficient constancy to justify the assumption that such a source is the usual, or even a common one.

If, again, the fingers be the source, then considering the number and persistency of threadworms in the fæces, one can only suppose that the number of ova on the fingers should also be very large and easily demonstrable. With the object of investigating this point, I selected five children who were passing large numbers of threadworms, and gave orders to the mother that the hands were to be left unwashed after the night's rest. The dirt on the finger ends and under the nails of all the fingers was then scraped off and examined microscopically, in three of the cases on two occasions, in two of them once.

The result of the examination was that one solitary ovum was found in the dirt under the nail of one child out of the five. Further investigation would, of course, be necessary before one could make any definite statement on this point, but this observation, so far as it goes, seems to show that the dirt on the fingers is extremely unlikely to supply ova in sufficient numbers and with sufficient constancy to keep up the continual discharge of enormous numbers of threadworms from the bowel. In the one ovum found under the nail a fully-formed embryo in the tadpole stage was present, and one cannot doubt that if this had been swallowed—and it is to be remembered that even when the ova do happen to be present on the fingers it is by no means a certainty that they will be swallowed—the embryo would in due time have become a mature threadworm in the intestine.

That a certain number, possibly even a large number, of threadworms are introduced as ova into the mouth from one or other of the sources mentioned is not improbable, but the observations which are here recorded suggest, I think, that the oxyuris vermicularis also multiplies in the intestine, and that the appendix vermiformis is in some cases its breeding ground.

On this view the extreme obstinacy of those cases in which, in spite of all treatment, threadworms are discharged in the fæces for months or years, becomes at once intelligible. The difficulty of dislodging threadworms from the tip of the appendix where they are not uncommonly found, is sufficiently obvious; and one can well imagine that a few female worms maturing here would keep up a continual supply of young threadworms, many of which would gradually find their way out into the cæcum, and so pass down with the fæces.

So many of the ailments of childhood have been attributed to "worms," some with good reason and some with none, that one hesitates to add another to the list. I wish, however, to draw attention to a condition which might almost have been foretold in the light of the previous observations on the presence of large numbers of threadworms in the vermiform appendix.

A boy, aged 6, was admitted into the Hospital for Sick Children under the care of Dr. Lees for acute rheumatism and pericarditis. Four weeks before death he complained of pain in the right iliac fossa. Pericarditis and probably pleurisy being present, the boy was questioned carefully as to the situation of the pain in view of the possibility of the pain being from diaphragmatic pleurisy, and being described, as so often happens with children, with no strict accuracy. The boy, however, who was very intelligent, persisted in localising the pain definitely in the right iliac fossa. This part was therefore particularly examined, but no abnormal resistance and no tenderness could be detected. The pain passed off without further evidence of appendicitis.

Post mortem acute pericarditis and pleurisy were present. The whole of the colon was minutely examined with the naked eye, and the mucus in the cæcum scraped off with a knife and examined microscopically, but only in the latter situation were two threadworms present. The vermiform appendix appeared thicker than normal, as if swollen, and this was due to actual thickening of its wall, not to distension of its lumen. The mucus here also was examined microscopically. In the proximal inch not a single threadworm was found, but in the remaining 2½ inches at the distal end no fewer than 111 threadworms were counted, nearly all of which were very small ones, many of them measuring scarcely one-sixteenth of an inch (about 1.5 mm.), while some of the mature worms present contained large numbers of ova.

This case may, I think, be taken as evidence that pain in the right iliac fossa may be associated with a catarrhal condition of the appendix as a result of threadworms.

The discovery of this association seemed to throw some light on another case which was of very uncertain nature.

A boy, aged nearly 6 years, was admitted to the Hospital for Sick Children, under the care of Dr. Lees, for abdominal pain and vomiting. The pains in the abdomen had been present several months; the vomiting had only been present four days. The bowels were regular. The child did not look particularly ill. He complained of some pain in the right iliac fossa; the abdomen was quite lax. In the right iliac fossa there was some vague thickening the nature of which was uncertain; it was thought to be due either to inflammatory adhesions or to enlarged glands, but the child allowed free palpation here, and the presence of any tenderness was doubtful; the hip was extended freely; the temperature was 100.2°. I thought at the time that the case was one of appendicitis, but was puzzled by the extreme mildness of the symptoms. These disappeared in a few days, and the boy was discharged apparently well. Unfortunately no inquiry was made at that time as to the presence of threadworms in the stools. Within the next few months the boy was found to be passing large numbers of threadworms continually, and one or two round worms also, and on inquiry there was reason to believe that he had been suffering from worms before his stay in the hospital. Frequent vomiting, night terrors, and fits occurred, and the relation of these symptoms to the passage of threadworms was very striking. The mother, an intelligent observer, herself noticed that each time the threadworms diminished as the result of treatment, the symptoms diminished, and the boy was better in every way, only to relapse again as the threadworms re-

appeared. The threadworms persisted in spite of all treatment for two years.

It seems probable that in this case, as in the preceding, the symptoms may have been due to the presence of threadworms in the appendix, which would also account for the obstinacy of the case, if the view I have suggested be correct. That pain in the right iliac fossa was due to threadworms in the appendix has seemed possible in other cases, but it can only rarely happen that actual evidence can be obtained as in the first case mentioned. There was, however, ample evidence in the series of 200 cases examined *post mortem* that the presence of threadworms may cause swelling and thickening of the vermiform appendix, especially when the worms are present there in large numbers. Such a condition was found several times, and, indeed, it was sometimes possible to predict the presence of threadworms in the appendix before opening it from its swollen appearance. The following cases may serve as typical instances:

W. M., aged 2½ years; empyema, suppurative pericarditis, and commencing peritonitis. The vermiform appendix had a markedly swollen and thickened appearance: the rest of the intestine appeared quite normal. The appendix was found to contain 29 threadworms, nearly all of these being in the distal inch; of this number, only 5 were full-grown females containing ova; the rest were very minute, measuring from about 3 mm. upwards; many of them were females, but some were males. Only 4 threadworms, all full-grown, were found in the large intestine; no young ones were seen with the naked eye, nor in portion of the mucus examined with the microscope. One full-grown female was found 4 inches above the ileo-cæcal valve.

J. L., aged 3½ years; tuberculous meningitis. The vermiform appendix had the typical swollen appearance suggesting at once the presence of threadworms; it was therefore examined carefully. In the distal ½ inch, close to the tip, 26 were found; in the rest of the appendix 33, or 43 including 10 at the mouth of the appendix—that is, 69 in all. Most of those in the appendix were very young females. The mucus of the lower part of the ileum near the ileo-cæcal valve was examined microscopically, but showed no ova and no embryos. There were numerous threadworms in the colon and rectum.

A. A., aged 4 years; spinal caries, tuberculosis. The vermiform appendix was much swollen—"nearly as thick as one's little finger." The appearance suggested the presence of threadworms. The mucus from the appendix was examined with a low power of the microscope, and showed 43 threadworms, chiefly very minute young females. There were many threadworms in the cæcum but only a few in the rest of the colon.

The above observations suggest some practical points with regard to treatment. The idea that the rectum is the chief habitat of the threadworm is erroneous and misleading; it is here that the worm, perhaps, most often causes symptoms—namely, itching and worry, but it is not here that the worm is most commonly found. It is most often present in the cæcum, and, as I have shown, in two-thirds of the cases it is present also in the vermiform appendix; moreover, in some cases it is found in the small intestine.

Any injection therefore which is only large enough to reach the top of the rectum or the lower part of the colon is not likely to do much good. Some have even gone so far as to say that injections are useless, on the ground that it is not possible to reach the cæcum by this means. Such a statement is no doubt perfectly true if the injection consist of only 3 to 4 ounces of fluid. With such a quantity no part higher than the descending colon is likely to be reached. But with larger quantities—12 to 18 ounces or more—it is quite possible to fill not only the cæcum, as is apparent in the treatment of intussusception by injection, but also the vermiform appendix, if one may judge from *post-mortem* experiments in which I have repeatedly demonstrated this. Injections, therefore, are of the greatest importance, but it is essential that large quantities of the fluid should be used—a child of 6 to 12 years will often tolerate as much as 16 to 20 ounces—and experience has shown that large injections of salt and water or of infusion of quassia are often effective.

Treatment by injection alone, however, often fails, and this is easily intelligible, for the large intestine varies so much in length, and therefore in capacity, in children of about the same age, that it is practically impossible to know what amount of fluid is required in any given case. Thus, in one child, aged 15 months, the large intestine was 28 inches long, in another, aged 15 months, it was 34 inches, while in another, aged 23 months, it was 44½ inches long, and similar differences were found in older children.

Moreover, as the above observations have shown, threadworms may be present, though not very commonly, in the small intestine; and the chance of reaching these by any injection is very slight, even when they are situated, as is usually the case, only just above the ileo-cæcal valve. In the *post-mortem* experiments alluded to it was found that occasionally the fluid did pass up into the small intestine, but it is obvious that the conditions after death are so different from those during life that any conclusions drawn therefrom must be of very doubtful value. There is, however, some evidence that this occasionally happens during life, and in one case where an enema of olive oil followed by a large enema of soap and water, was given as an aperient to a boy, aged 4½ years, twenty-four hours before death, I found the oil as high up as 6 inches above the ileo-cæcal valve. This, however, is probably quite exceptional, and for practical purposes one may say that the small intestine cannot be reached by injections.

It is necessary, therefore, to give drugs by the mouth also, and no drug has proved more effectual in my experience than santonin. At the same time the prevention of any possible conveyance of ova to the mouth must be attempted, for, as shown above, this is probably one mode of keeping up the supply of worms, and the cutting short of finger nails, and the prevention by mechanical restraint if necessary of scratching the anus, are no unimportant adjuncts to treatment.

The conclusions to which the above observations would seem to point, are:

1. That the appendix vermiformis is a common habitat of oxyuris vermicularis in childhood.
2. That the generally accepted view that every single ovum of oxyuris vermicularis must be swallowed before it can be hatched, is at least open to doubt, and there is a strong probability that the appendix vermiformis serves in some cases as a breeding place for threadworms.
3. That the presence of threadworms in the appendix may cause a catarrhal condition therein, as shown *post mortem* by a swollen appearance, due to thickening of its wall.
4. That this swollen condition of the appendix due to threadworms is associated in some cases with pain in the right iliac fossa which may simulate ordinary appendicitis.
5. That in the treatment of threadworms large injections must be used, and in view of the difficulty of dislodging the worms from the appendix, and their possible presence in the small intestine, the injections should be combined with the administration of drugs by the mouth.

REFERENCE.
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NEUROTIC ULCERS OF THE MOUTH

(STOMATITIS NEUROTICA CHRONICA).

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IN 1894, Jacobi of New York published in the *Transactions of the Association of American Physicians* a paper on the above subject, in which he described three cases that had come under his notice. He collected all the cases he could find in literature, namely those reported by Kaposi, Kopp, Flatau, and Mandelstamm, and came to the conclusion "that such cases must be very rare."

The cases I am about to describe I have met with during the last few years—two in private, and one in hospital practice, all being women. The patients were rather more of the hysteroid or neurotic than the insane type, as those described by Jacobi, two of whose cases were men. I am also inclined to believe that the disease is much commoner than he supposes, but that it is frequently overlooked. Such cases are often classed as simple catarrhal or dyspeptic ulcers, whereas I consider they are the direct result of a trophoneurosis, of which dyspepsia in some form or other may be, and often is, another expresion.

CASE I.—The first case is that of a widow, aged 74, who has had good general health. There is no known mental disease in the family. She had ten children before she was 35, and several miscarriages. Three children died from diphtheria, a fourth (13) from tuberculous peritonitis, and another at 53 from carcinoma of the kidney. The other children are living and well. She has lived an extremely active life.

The first ulcer came on the gums in 1875 during great domestic trouble, and it lasted a few weeks. During a visit the country the ulcer healed up. Six months later she came back to London, and the ulcers soon returned. At this time she had a perfect set of teeth. The ulcers usually came between the teeth, and there was great difficulty in applying local applications to them.

During 1880 there were numerous ulcers on the tongue, gums, and buccal mucous membrane.

During 1882 she had all her teeth extracted, but the ulcers continued as severe and as distressing as before.

In 1883 the patient had an attack of eczema, after which she went to the Pyrenees, but the ulcers continued.

In 1884 the mouth remained in the same state of ulceration, and during the months of September and October she was yachting a good deal, but without any improvement.

During the whole of 1885 she had ulcers.

In 1886 she was free from ulcers from February to the middle of March; after this the disease was very severe, and continued so during the next four years. She was practically never free from ulceration.

In 1890, during October, November, and December, during a visit to Scotland, the mouth was almost well.

In 1891 the ulcers continued and caused great pain, though the patient was yachting a good deal. She was at Malta for three months, but continued in great misery till December, 1893.

In January, 1894, she was free for a time while in London. During February, March, and April the ulcers were moderate, but after this she suffered tortures while yachting and while at Braemar from May till November.

In October, 1894, she broke her leg while in Scotland, and during November and December she was free from ulcers. After this she went to Cannes and Grasse, and was away for eight months, during this time the mouth improved considerably.

In 1895, the ulcers were severe, though they were less painful during the winter months.

In March, 1896, an improvement again took place.

In 1897 ulcers were present during April, May, and September.

In 1898 the patient had bad ulcers during January, May, July, and September.

Thus it is seen that often for many weeks the patient's existence was made almost unbearable from ulcers which gave rise to the most excruciating pain; the tongue and often the lips were much inflamed and swollen, so that any movement either for speech or mastication was almost intolerable. Though naturally very active, she was often compelled for days together to shut herself up and see no one. The mucous membrane of the mouth and lips was very glossy, thin, and of a bluish tint, and covered with cicatrices from old ulcers. The tongue was usually covered with a thick brown fur. There were no distinct dyspeptic symptoms.

Case II.—The second case is that of a single woman, aged 50, whose father died from the exhaustion of neuralgia, following herpes zoster: her mother died from carcinoma of the rectum. One sister died, at 45, from carcinoma, and another about the same age from tuberculous disease. The patient had pleurisy and bronchitis when eight years old, and has always been thin, pale, and rather delicate. She has a faint systolic mitral murmur, but there is no enlargement of the heart or anything unusual in its action. She suffers from constipation and dyspeptic symptoms. The urine is of low specific gravity, but otherwise normal. She suffers from headaches, hot and cold sensations, perspirations, flushings, and various pains. Recently the patient had an attack of erythema multiforme. She has had several attacks of hystero-mania (climacteric), lasting usually only a few days, occasionally two or three weeks, and gets perfectly well again. At the present time she presents all the signs of climacteric hysteria, and is very easily upset.

She has suffered from ulcers of the mouth at intervals almost as long as she can remember. She formerly suffered a great deal from conjunctivitis, and since this has been better the mouth has been worse. At times she is very irritable, and this is always accompanied or followed by a bad mouth. The attacks usually coincide with domestic worries. She develops a series of usually small but very painful greyish ulcers; sometimes only one, but more frequently two, three, or more at a time, or immediately following one another, on the sides of the tongue, or frequently beneath the tongue, either at the tip or sides; occasionally on the buccal mucous membrane, pharynx, palate, or mucosa of the lips; usually accompanied by more or less stomatitis, with general swelling of the organ, which is considerably coated with a thick pale fur, and associated with salivation and offensive breath, and slight enlargement of the submaxillary glands. This condition lasts from a few days to two or three weeks, and then for a few days or even weeks she is free from discomfort. A few years ago she generally had an outbreak of ulcers about the catamenial periods, and when these ceased or became irregular, hysterical symptoms accompanied by ulcers occurred at these times. On one occasion she lost the use of one arm for some hours.

When the mouth is very bad and the attack is a severe one, all movements of the tongue, either for speech, mastication, or deglutition, are extremely painful, and the patient frequently for days goes without taking proper nourishment.

It not infrequently happens that when the mouth is ulcerated there is also some irritation of the conjunctiva, usually on one side, and very occasionally there has been slight superficial ulceration of the external genitalia, apparently commencing as a folliculitis.

Case III.—The third case is that of a widow, aged 64, whose father died at 70, and mother at 24 from consumption. The catamenia ceased about 53. It is stated that she had inflammation of the kidneys five years ago, and was in bed three weeks. She has had thirteen children, and a great deal of trouble during the last few years, and has had to work hard with the needle for her living. Three years ago (1896) she felt a small pimple at the tip of her tongue, which soon became an ulcer. She has had sores on the tip and sides of her tongue and gum at intervals ever since. The whole tongue is evenly coated with a thickish, grey fur. Three years ago she had several teeth out, but the ulcers were not improved. The gums and buccal mucosa are smooth, and rather glossy in appearance. She frequently complains of a burning sensation in different parts of the tongue, even when no obvious ulceration is present.

Pathology.

This disease has usually been described as of the nature of pemphigus, although its distribution is sometimes suggestive of herpes. It, however, differs from pemphigus in its persistence through many years. Pemphigus may recur several times at intervals of a few weeks or months, but during the intervals it ceases altogether. With the onset of pemphigus there is usually a rise of temperature, but I have not observed this in my cases. An actual vesicle or bleb is not by any means common in this disease, but it generally commences as a crack or streak, or from the beginning as a small superficial bright red ulcer. Occasionally in the tongue it begins in an inflammatory localised thickening just beneath the mucous membrane, which rapidly breaks down and forms an ulcer, usually with a slough in the centre and considerable inflammatory redness around. It sometimes happens that the ulceration is preceded for a day or two by a heaping up of the epithelium, often forming a pale, gelatinous-looking ridge fitting in the spaces between the teeth. At other times the ulcers are preceded by small gelatinous-looking bodies about the size of millet seeds, and occasionally by small vesicles; accompanying the ulcers is usually a considerable desquamating catarrh of the surface of the tongue. There is usually a good deal of burning sensation and great distress, accompanied by profuse salivation, and, if the ulcer is very indolent, with œdema of the parts around. If the lesion is situated in the mucous membrane of the lips, these may become so swollen as to hardly permit of the mouth being opened and the tongue protruded. I consider these ulcers are produced by a distinct trophoneurosis, and that they are quite different from the common catarrhal or dyspeptic ulcer.

Etiology.

Mental trouble appears to be the cause of the ulcers in these subjects.

The first case was a woman who managed a large household, and maintained a very prominent position in society on a very limited income, which was an incessant cause of great anxiety to her. The ulceration commenced at a time of unusual mental strain, and continued through many years; in fact, during the whole period that the anxiety continued. Of recent years her position has been rather less embarrassing, and concurrently the ulceration has been less severe.

In the second case the patient's attacks almost always correspond with some more or less trivial worry, but one which affects her out of all proportion to its importance.

In the third case, trouble connected with money matters appears to have been the cause of the complaint.

Treatment.

No medicinal treatment appears to give any very obvious result; possibly some nerve tonics may do good indirectly, and local applications may relieve the distress and pain for the time, and assist in the more rapid healing of the sores. Better results have been obtained from painting the ulcers with tincture of iodine than the application of nitrate of silver. Many cases accompanied by severe pain are greatly relieved by cocaine and borax, carbolic or peroxide of hydrogen mouth washes. I believe in giving opium, especially at night, in moderate doses.

There is no doubt that the only curative treatment is complete removal from home and its accompanying worries, and it appears that mountain air is preferable. No good has been derived from sea voyages; in fact, the condition during them is sometimes worse.

Removal of the teeth has no beneficial effect except that the seat of the ulceration is more easily reached by local application.

Literature.

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The Council of the Medical Faculty of Bucharest has expressed its approval of a scheme for the establishment of a new institute of bacteriology and experimental medicine in that city. It is proposed to place Dr. Cantacuzino, at present assistant in the Institut Pasteur of Paris, at the head of the new institute.

THE RESISTANCE OF RATS TO DIPHTHERIA TOXIN.

By LOUIS COBBETT, M.A., M.B.CANTAB., F.R.C.S.ENG.
(From the Pathological Laboratory, Cambridge.)

I.—It is well known that rats and mice will tolerate large doses of diphtheria toxin. Roux and Yersin in 1888[1] injected 2.0 c.cm. of a toxin (of which 0.15 c.cm. sufficed to kill a guinea-pig of 350 grams) into a rat, and the same quantity into a mouse, and these animals remained well and no necrosis occurred at the seat of inoculation; and they state[2] that rats and mice may receive without harm quantities of diphtheria toxin which would kill a dog of moderate size.

With the diphtheria toxins of those days it was impossible to kill a rat without injecting enormous quantities, in volume almost equal to that of the animal itself, but they are now so much increased in strength that a few cubic centimetres are fatal to these animals.

I do not know that anyone has actually *measured* the power of these naturally immune animals to resist the toxin, if not the following experimental determination of the relative susceptibility of the rat and the guinea-pig may be of interest.

The filtrate of an eleven-day culture of B. diphtheriæ in 2 per cent. bouillon (Spronck) was obtained, and its minimal fatal dose for guinea-pigs and rats determined.

Note.—Since the two series of experiments were not quite simultaneous, it should be added that the filtrate was some two months old at the time the experiments were made, and had therefore reached a fairly stable condition.[3] Experimental confirmation of this belief is afforded by the fact that on September 28th and October 19th the same dose (0.01 c.cm.) proved fatal to guinea-pigs of nearly the same weight within the same space of time, namely, four days. The guinea-pigs and rats used were young animals, the former weighing from 250 to 280, the latter 75 to 110 grams.

TABLE I.—*Determination of the Minimal Fatal Dose of Filtrate No. 1.*

Date.	Weight of Guinea-pig in Grams.	Filtrate in c.cm.	Result.
September 28th ...	280	0.0100	† 4th day.
October 19th ...	[illegible]	0.0100	† 4th day.
,, 4th	250	0.0095	† 7th day.
,, 4th	250	0.0090	† 4th day.
,, 4th	250	0.0085	† 2nd day.
,, 7th	250	0.0080	† 3rd day.
September 28th ...	280	0.0075	† 9th day.

Date.	Weight of Rat in Grams.	Filtrate in c.cm.	Result.
October 26th ...	110	5.0	† 5th day.
November 3rd ...	100	3.0	Small swelling, hair fell out, no necrosis, lived.
October 25th ...	100	2.0	Nil, lived.
,, 15th ...	78	1.0	Nil, lived.

Remarks as to size of swelling, shedding of hair, presence, or absence of necrosis refer to the seat of inoculation.
† = Death of the animal.

From these experiments it appears that to kill a white or black and white rat of 100 grams weight by subcutaneous injection of the filtrate of a culture of B. diphtheriæ, it is necessary to use about 600 or 700 times as much as would kill a guinea-pig of 250 grams weight. Or—to express it in terms similar to those used by Knorr when speaking of the relative susceptibility of various kinds of animals to tetanus toxin—it takes between 1,500 and 1,750 times as much diphtheria toxin to kill unit weight of rat as it does to kill an equal quantity of guinea-pig. Thus it may be said that the susceptibility of the guinea-pig to this poison is from 1,500 to 1,750 times as great as that of the rat.

A second series of observations was made with another filtrate,[4] and this time the minimal fatal doses for the guinea-pig and for the rat were determined simultaneously.

TABLE II.—*Determination of the Minimal Fatal Dose of Filtrate No. 2.*

Date.	Weight of Guinea-pig in Grams.	Filtrate in c.cm.	Result.
November 3rd	230	0.00900	† 2nd day.
,, 3rd	230	0.00800	† 4th day.
,, 10th	220	0.00750	† 2nd day.
,, 3rd	230	0.00700	† 5th day.
,, 10th	220	0.00650	† 2nd day.
,, 15th	280	0.00600	† 8th day.
,, 15th	245	0.00550	† 4th day.
,, 15th	280	0.00500	† 8th day.
,, 25th	240	0.00475	† 7th day
,, 25th	240	0.00450	Large swelling, necrosis, lived.
,, 25th	230	0.00425	,, ,, ,,

Date.	Weight of Rat in Grams.	Filtrate in c.cm.	Result.
November 18th	75	4.00	† 5th day.
,, 15th	105	3.75	† 6th day.
,, 25th	112	3.65	† 4th day.
,, 25th	95	3.60	Small swelling, no necrosis, lived.
,, 25th	104	3.55	† 5th day.
,, 10th	100	3.50	Small swelling, no necrosis, lived.
,, 29th	115	3.45	Small swelling, no necrosis, lived.

† Death of the animal.

From these experiments it appears that to kill a guinea-pig of 250 grams it takes about 0.005 c.cm. of the filtrate, while 3.55 is necessary to kill a rat of 100 grams weight. Now, 0.005 : 3.55 = 1 : 710, therefore it takes 710 times as much filtrate to kill a rat of 100 grams as to kill a guinea-pig of 250 grams, or 1,775 ($= 2\frac{1}{2} \times 710$) as much filtrate to kill unit weight of rat—if the expression may be allowed—as it does to kill unit weight of guinea-pig. Thus both series of experiments concur in showing that the susceptibility of the rat to diphtheria toxin is only $\frac{1}{1500}$ to $\frac{1}{1750}$ as great as that of the guinea-pig.

It is worth noting that the enormous doses of toxin which may be injected into the rat without causing death produce but little local disturbance in that animal. In guinea-pigs doses which are very much smaller than the minimal fatal cause widespread œdema, and often necrosis of large areas of skin; and I have found that if these animals be protected by an antecedent or simultaneous injection into the peritoneal cavity of a unit of antitoxin, the subcutaneous injection of considerable quantities of toxin may produce gangrene of a large portion of the skin covering the abdominal and thoracic walls, without causing any apparent disturbance of general health or loss of weight. In the rat, on the other hand, the immensely larger doses which approximate to the minimal fatal quantity for that animal, cause either no apparent local lesion, or at most a small swelling, followed by the falling out of a little hair, necrosis I have never seen in these animals. I have seen the injection of a quantity of filtrate, which would have sufficed to kill several hundred guinea-pigs, produce in the rat no discoverable lesion and no loss of weight. The resistance of the rat to diphtheria toxin therefore differs from that of the guinea-pig protected by antitoxin in that the tissues are far better able to resist the local action of quantities of poison which are but little smaller than that which would have caused death.

II.—The comparative insusceptibility of these animals is not due to any antitoxic action of their blood serum, for the latter fails to protect guinea-pigs in doses of 1.0 c.cm. against quantities of filtrate which are but little larger than the minimal fatal; and this is the case both when the serum is mixed with the toxin before injection, and when it is injected into one part of the body and the toxin into another several hours later.

Table III.—*To Determine whether the Serum of Rats has any Power of Protecting more Susceptible Animals against Diphtheria Toxin.*

—	Date.	Weight of Guinea-pig in grams.	Diphtheria filtrate in c.cm.	Rat's serum.	Result.
Serum of white rat mixed with the toxin before injection.	Oct. 18th.	300	0.30	1.0	† In 2 days.
	,, ,,	290	0.03	1.0	† In 2 days.
	,, 19th.	260	0.01	1.0	† In 2 days.
Serum of white rat subcutaneous, toxin 20 hours later in another place.	Oct. 18th.	275	0.024	1.0	† In 24 hours.
	,, ,,	280	0.010	1.0	† In 3 days.
Serum of brown rat mixed with the toxin.	Oct. 25th.	235	0.001	2.25	† In 3 days.

For control experiments with this toxin (No. 1) alone, see Table I.
† = Death of the animal.

The filtrate used in this experiment was the same as used in the first series of experiments made to compare the susceptibility of the rat and guinea-pig. The smallest quantity fatal within four days to a guinea-pig of about 250 grams was 0.008 c.cm. When mixed with 1.0 c.cm. of rat's serum and injected, or when injected eighteen hours after 1.0 c.cm. of rat's serum, 0.01 c.cm. of this filtrate (= 1¼ minimal fatal dose) proved fatal to guinea-pigs in less time that did the same dose of the filtrate alone. Thus it may be that the serum even shortened life. The serum alone, however, seemed to have at least no marked toxic action, for no *immediate* ill-effects (as is usually the case when one animal's serum which is toxic for another is injected into the latter) followed the injections.

The serum used in all cases but one was obtained from white rats; in the exceptional instance 2.25 c.cm. of the serum of a brown (wild) rat was mixed with 0.01 c.cm of the filtrate and injected into a guinea-pig of 235 grams, with the result that no immediate ill-effect was observed, and the animal died in three days.

The comparative insusceptibility of the rat to diphtheria toxin is, therefore, like that of the fowl to tetanus toxin, not due to an antitoxic action of its blood serum.[5] And in these respects it differs from the acquired immunity of animals which have been immunised to these poisons.

Conclusions.

1. The white or black and white rat of 100 grams weight is only relatively insusceptible to the action of the products of the diphtheria bacillus, and succumbs to the subcutaneous injection of filtered cultures, in quantities which are, weight for weight, from 1,500 to 1,800 times as great as those which suffice to kill guinea-pigs of 250 grams.

2. Its tissues are but little affected locally by the injection of large quantities of filtrate, and have not been observed to suffer necrosis.

3. The serum of these refractory animals, in doses of 1.0 c.cm., does not protect guinea-pigs against quantities of filtrate which are little greater than the minimal fatal.

Notes and References.

[1] *Annales de l'Institut Pasteur*, vol. ii, p. 661. [2] *Ibid*, vol. iii, p. 278. [3] This filtrate contained 119.4 equivalents of protoxoid and syntoxoid, 56 units of toxin, and 24.6 equivalents of epitoxoid in the quantity (0.45 c.cm.) which was exactly neutralised by 1 unit of standard serum; compare Ehrlich, Die Wertbemessung des Diphtherieheilserums, *Klinisches Jahrbuch*, Jena, 1897. [4] This filtrate contained 97.5 equivalents of protoxoid and syntoxoid, 70 units of toxin, and 32.5 equivalents of epitoxoid in the quantity (0.45 c.cm.), which was exactly neutralised by 1 unit of standard serum. [5] Kuprianow found that rat's serum did not protect guinea-pigs against living cultures of B. diphtheriæ; *Centralb. f. Bakt. u. Parasit.*, Bd. xvi, p. 415.

Two municipal institutes for the gratuitous examination and treatment of cases of diphtheria have recently been established in Moscow.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

IPECACUANHA IN DYSENTERY.

In the British Medical Journal of February 4th Dr. Day of the Niger Protectorate compares his results obtained with magnesium sulphate and with ipecacuanha in the treatment of dysentery. He concludes that magnesium is much the superior drug. I think that some grave objections can be raised against this deduction from his cases.

1. He gave the ipecacuanha in the form of tablets. Is he quite sure that these tablets were thoroughly broken up in the intestinal tract? Ready-made pills, tablets, and the multitude of similar preparations have many drawbacks, and not the least of these is their tendency to get hard. It is no uncommon thing to find a case of malarial fever which seems to resist quinine, the patient declaring that he is taking large doses daily, but on inquiry one finds that the quinine is in the pilular form. Such pills, if got from home, are usually like little bullets in consistence, and it is little wonder that the disordered stomach is unable to disintegrate them; hence they are passed only partially dissolved, doing little good and leading one to a fallacious conclusion. Might not the same apply to the tablets of ipecacuanha given by Dr. Day?

2. He gave ipecacuanha *sine emetine*. Is ipecacuanha any use without its emetine? Emetine is said to be the active principle of the ipecacuanha root, and it is perhaps exactly this emetine which is the antagonist to the *materies morbi* of dysentery. At any rate it is well known that vomiting is not readily caused by ipecacuanha when it is given for dysentery.

3. He gave two 5-grain tablets every two hours. This dose is too small to do justice to the drug. Nothing less than 40 grains should be given as the first dose. Quinine in malarial fever shows the great advantage of a single large dose over several small doses. It seems to require a thorough saturation of the system, so to speak, to destroy the morbid factor at work. There is little fear of emesis occurring if the ipecacuanha is properly given. Amongst the thousands of coolies on tea gardens dysentery is constantly present, and the plan I always adopt is this:

1. Apply a large mustard blister over the stomach.
2. Give 20 minims of tincture of opium.
3. Ten minutes afterwards give 40 gr. pulv. ipecac. in four 10-grain pills freshly made up.
4. The horizontal position to be kept for two hours.
5. No food nor drink to be allowed within that time. This treatment to be repeated in eight hours if no improvement has taken place; if there has then a smaller dose with the same precautions.

The result will almost invariably justify the name—radix antidysenterica.

South Sylhet, India. A. B. Dalgetty, M.B., C.M.

CHLOROFORM PARALYSING THE RESPIRATORY CENTRE BEFORE THE HEART.

The following case is a good illustration of the Edinburgh teaching as regards the action of chloroform in causing paralysis of the respiratory centre before cardiac paralysis occurs:

A Chinese coolie, aged 51, had for the last fifteen years suffered from intractable supraorbital neuralgia. After finding treatment by sedatives ineffectual, we decided to resect the supraorbital nerve. The operation could not be performed at his own residence, so we arranged to do it in our surgery. The patient was emaciated, but the heart was quite sound, and there was no evidence of any organic disease. He was placed on his back, and chloroform was administered on a piece of lint. He took the anæsthetic well, and there was no struggling or excitement. The corneal reflex had just disappeared, and the skin incision was being made, when he suddenly stopped breathing, and his lips became livid. The pupils were not markedly dilated. The radial pulse could still be felt, but the heart sounds were feeble and the cardiac impulse weak.

Artificial respiration was at once begun, and a hypodermic injection of ether given. The air could be heard freely entering and leaving the lungs with each movement of the arms,

but no attempt at voluntary respiration was made. During this time it was noticed that the radial pulse could only be felt once for every three beats of the heart. After performing artificial respiration for fifteen to twenty minutes, we found the circulation improving, but it was only after the tongue had been forcibly pulled out that he drew a deep breath; he then went on breathing steadily. The operation was finished without more chloroform. The anæsthetic used was Duncan and Flockhart's pure chloroform, and the quantity given up to the cessation of respiration was 3 drachms, a considerable quantity of which must have been lost by evaporation.

The case is one in which it was quite evident that the respiratory centre ceased to act while the heart continued to beat.

Apart from laboratory views as to the *modus operandi* of the chloroform, we, as practitioners cannot afford to lose sight of the fact that frequently the respiration fails before the heart ceases to beat.

LIM BOON KENG, M.B., C.M.Edin.
Singapore. T. HILL JAMIESON, M.B., C.M.Edin.

THREATENED DEATH UNDER CHLOROFORM.

THE case of threatened death under chloroform related by Mr. Thomas Stevenson, of Liverpool, in the BRITISH MEDICAL JOURNAL of March 18th, page 661, is a counterpart of a case I had not long ago. A young man, aged 25, a heavy cigarette smoker (a fact told me only after the operation), was given chloroform for removal of teeth. The stage of complete anæsthesia was arrived at before operation was commenced. All usual precautions were taken, and for about 7 minutes, or thereby, all went well; respiration was satisfactory, and pulse good. Suddenly, and without any interruption of breathing, the face became pale and livid, and the pulse stopped.

Ether was administered hypodermically; the head was lowered, and artificial respiration was begun. In a short time a wave of colour swept over the patient's face, the pulse at the wrist resumed beating. Artificial respiration was not continued and the patient gradually recovered.

In spite of the weight of testimony in favour of the belief that the respiratory centre becomes paralysed first, I can only emphatically say that, like Mr. C. W. Cathcart's case and that of Mr. Stevenson, the heart in this case showed signs of failing, as evidenced by loss of radial pulse, while the respiration was still quiet and regular, though somewhat shallow.

Edinburgh. R. J. ERSKINE YOUNG, M.D., C.M.Edin.

VENESECTION IN CEREBRAL HÆMORRHAGE.

WITH reference to a memorandum of Dr. Fortescue Fox in the BRITISH MEDICAL JOURNAL of March 25th, in which he states that venesection if freely and promptly done alone may save life, I had occasion to be present at a football match two weeks ago; among the spectators near me was a man apparently about 40 and probably about 13 st., thick-necked, plethoric, and, in fact, a "typical apoplectic." Without warning, he suddenly raised his hands to his head and exclaimed to his companion, "Oh, ma head," and then fell into a state of collapse. We carried him into the pavilion where I examined his pulse at both wrists and briefly stated the gravity of the case to his companion, who was his brother-in-law.

I opened the median basilic vein and allowed a large quantity of blood to escape, after which we bound him up with the aid of several handkerchiefs. He was shortly afterwards taken home in a cab, where he was seen by his medical attendant. I have since heard from that gentleman that he is progressing as favourably as can be expected.

Although venesection will not remove the effused blood in cases of cerebral hæmorrhage, it may sometimes be usefully employed to prevent further escape when the heart is acting too forcibly.

Glasgow. WM. GLADSTONE COOK, L.R.C.P., L.R.C.S.Edin.

A CASE OF ACUTE GASTRO-DUODENITIS.

SOME three weeks ago I was called to see a lady who had developed a rash, supposed to be scarlet fever, as she had been exposed to infection and laid up with a sore throat. After keeping her under observation for a day I decided that the rash was the result of digestive derangement, and obtained a history of the patient having taken two glasses of cold water when very hot after a long bicycle ride two days previously. The third day after the appearance of the rash she complained of great pain in the epigastric region, which was worse after food. Intense vomiting set in and she was only able to retain small quantities of iced fluids. On the fourth day there was well-marked jaundice. With the aid of counter-irritants and gastric sedatives she made a fairly quick recovery.

I think this case worth recording, as it shows how intense gastro-duodenitis may be set up by drinking large draughts of cold water when heated, and gives a clue to the causation of some cases of idiopathic peritonitis.—I am, etc.,

H. HUNTER WOODS, M.R.C.S.Lond., D.P.H.Camb.
Barton-on-Sea, Hants.

IMPERFORATE ANUS: OPERATION: RECOVERY.

ON March 3rd I delivered Mrs. G. of a male child. No anus was to be found, nor even a dimple in its normal position.

The infant was chloroformed, and I made an incision an inch in length from the tip of the coccyx forwards, and after dissecting through fat and muscular fibres the little finger entered the areolar tissue filling the lower part of the pelvis. On dilating the wound with forceps a round cord, feeling like empty bowel, was found lying in the hollow of the sacrum, which could be rolled under the tip of the finger. Above this, at the extreme length of the finger from the surface, was felt something bulging downwards at each inspiration, which was evidently the upper part of the rectum. The lower portion was separated by the finger and director, dragged down to the wound, and notched with scissors; a director passed into the opening returned with some meconium. The opening was then enlarged, and its edges sutured to the skin, this part of the operation being rendered difficult by the flow of meconium. (The infant had been dosed with castor oil by the nurse.) A large rubber tube was tied in for several days, and as there was some tendency to contraction of the anus when it was removed, a bone enema-nozzle was supplied, and directed to be inserted for an hour daily. The child now has an efficient anus, which gives no trouble.

The chief difficulties arose from the smallness of the parts and the depth at which the finger had to work in order to reach and bring down the bowel. The curve of the sacrum appears to be the best guide, in order to avoid wounding the bladder.

R. CARMICHAEL WORSLEY, M.R.C.S., L.R.C.P.,
Honorary Surgeon to the Ramsgate and St. Lawrence Royal Dispensary.

HYPODERMIC MEDICATION IN SKIN DISEASE.

THE following method of treatment for certain forms of skin diseases is one for which I believe I can claim originality, and its success in suitable cases is constant. The method is tattooing, and it is more specially applicable to those forms of skin diseases which depend for their cause on the presence of the vegetable parasites. The mode of operation is as follows:

The parts are thoroughly soaked for twenty-four hours with a compress of 1 in 30 carbolic acid, and the affected parts are then tattooed in the ordinary way with two or three fine needles fixed in a handle, the needles from time to time being dipped into a solution of acid. carbol. (1 in 30). The part should be tattooed for at least one-eighth of an inch outside the affected area, and it is not necessary for the tattooing to be done deeply. The handle holding the needles should be grasped firmly by the right hand, the extremity resting on the inner side of the joint of the left thumb, and in this way, as in ordinary tattooing, great precision and delicacy can be given to the movement of the needles.

For localised patches of ringworm, etc., this method of treatment proves eminently successful. I have not as yet tried the treatment for skin diseases depending upon constitutional conditions, but I see no reason why the result of tattooing some of the chronic localised rashes of syphilis with liq. hydrarg. perchlor. should not prove successful. As may

be readily understood, this method of treatment is more specially applicable to chronic and *localised* affections of the skin.

Chapeltown, Leeds. C. Butler Savory, M.D., M.Ch.Edin.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE ADELAIDE HOSPITAL, DUBLIN.

NOTES OF A CASE OF "VANISHING TUMOUR" OF THE ABDOMEN.

(By T. E. Gordon, M.B., F.R.C.S.I., Surgeon to the Hospital.)

The patient, a man, aged 40, was admitted under my care in the Adelaide Hospital in May, 1898. I had treated him for secondary syphilis four years previously. On May 19th I performed a radical cure for an irreducible, right-sided, inguinal hernia. I excised a very large mass of omentum and ligatured its broad base, which appeared to be quite healthy, with rather thick interlocking catgut sutures. The course of the case after operation was all that could be wished. The temperature never reached even 99°, and the appearance of the scar now is sufficient evidence that there was no sepsis.

On June 7th he left the hospital apparently well. A few days later he had slight pain in the left side, and attacks of similar pain recurred at progressively shorter intervals, until during the week before readmission he had never more than a few hours freedom. His bowels were very constipated, and he took much aperient medicine. When the bowels acted the pain became less. He felt better when lying down than when walking about. He only once vomited, and that after a dose of castor oil. The urine was high coloured, but otherwise normal.

On examining the abdomen there was found an obvious fulness of the left flank, which further investigation showed to be due to the presence of a large tumour. In front this was not perfectly defined, but it reached to within 2 inches of the umbilical line. Below it could be felt as far as the level of the anterior iliac spine. Above it passed beneath the the costal margin, and posteriorly it had a rounded margin occupying the costo-iliac space. A dull note was obtained everywhere on percussion over the tumour. It did not move with respiration, and only a very limited movement could be given to it from without.

The diagnosis was obscure; whether the tumour was splenic or renal, and whether inflammatory or sarcomatous.

The man had been in India, but had not suffered from malaria, and, with the exception of syphilis, had been in excellent health since his return home in 1882. Moreover, the tumour was not in all respects like an enlarged spleen, and it was at this time almost absolutely fixed. (Professor Scott examined the blood, and found it practically normal). Against its being connected with the kidney were the facts that the urine was normal, that the mass did not fill up the costo-iliac space after the manner of a renal tumour, and that there was no overlying line of resonance.

To help in deciding whether or not the tumour was a sarcoma, the excised omentum was examined. It contained hard nodules, sections of which were kindly prepared by Dr. Peacocke. The structure of these nodules was clearly not sarcomatous.

On the other hand, I found it difficult to believe that an inflammation could give rise to the enormous mass present without giving rise to other and more distinct evidence, and, besides this, the case, after operation, ran a typically aseptic course. I decided to wait and watch the progress of tumour and patient.

On August 15th it was found that he had lost 3 st. in weight since his illness commenced. The tumour remained about the same, excepting that it was somewhat larger in the flank. Pitting could be produced on its surface by deep pressure, that did not, however, cause pain. His appetite and general state were fairly good. There was no fever.

On October 3rd the swelling was much reduced in size; it was more mobile and was very hard, so that pitting could not be produced. The abdomen was now being massaged. He left hospital during the first week of October. On December 6th he looked and felt quite well. The tumour had almost disappeared. On pressure in the left flank below the ribs, when he took a deep breath, a tumour could be felt to descend upon the finger. A week or two later, when I showed the man to the Biological Club, no distinct trace of the tumour could be detected.

Reviewing the facts of the case, it appears most probable that the tumour was inflammatory in nature, and was in some way the result of the operation. A considerable length of somewhat coarse catgut was used to ligature the large mass of omentum, and it is quite possible that this contained some irritant—probably not of the nature of septic organisms—which was sufficient to excite an extensive and possibly aseptic inflammation. It was suggested that a hæmorrhage from the omental stump would account for the condition, but the history of the case affords no grounds for such a hypothesis.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. Bryant, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, April 11th, 1899.

On Prevesical Hernia, with the relation of a Case in which Subacute Strangulation occurred.

Mr. G. H. Makins read this paper, which was founded on the following case: H. H., aged 40, tailor, a healthy man, after getting wet through, was attacked with violent pain in the right iliac fossa, attended with retching and some rise of temperature. He was found to have a reducible right inguinal hernia that was replaced without any definite influence on the symptoms, which, however, subsided under treatment by rest in bed, poulticing, and light diet. On resuming his ordinary mode of life, three weeks later, the man was again attacked in a similar manner. The symptoms were again relieved by the same treatment, but tenderness persisted in the right iliac region. He was admitted into St. Thomas's Hospital under Dr. Hawkins, and examined under an anæsthetic, when a hard nodular tumour was discovered in the right iliac fossa, extending across the hypogastric region into the left iliac fossa. An abdominal exploration, performed eight weeks after the first attack, revealed a subperitoneal tumour, to the upper surface of which small intestine was adherent as the result of previous peritonitis. The urinary bladder was found to be displaced backwards and to the left. The tumour was stripped out of the pelvis, but a small area of peritoneum was removed with it, and a continuous stalk of great omentum needed division for the complete liberation of the tumour. This proved to be a large reniform hernial diverticulum containing adherent omentum. The sac had been removed entire, with its neck, without in any way influencing the descent of the coexisting right inguinal hernia. The patient made a rapid recovery without any untoward incident. The author quoted a similar case recorded by Parise, which he considered identical in nature with his own. Four cases of properitoneal hernia in which the internal sac projected into the vesical region were also quoted. An attempt was made to distinguish between the two "true prevesical" cases and the properitoneal, the former being regarded as herniæ into special peritoneal diverticula independent of pre-existing or subsequent inguinal herniæ, while in the latter the sac formed an integral part of the inguinal hernia. The author considered his own case to be an instance of a hernial pouch forming in the position of a direct inguinal hernia—that was, in the middle inguinal fossa, between the epigastric and obliterated hypogastric arteries; that this pouch, being opposed in its further development by the resistance of the conjoined tendon and being diverted, took an internal course in front of the bladder in the subperitoneal space; he considered, further, that the prevesical sac was in all respects independent of the coexisting acquired right inguinal hernia.

Mr. J. Hutchinson, jun., referred to a case that had come under his own observation recently which he thought might

more properly be called a paravesical than a prevesical hernia, since the sac was by the side of the bladder, not in front of it. A man who was quite healthy except for inguinal hernia, which had not been down in the scrotum for 6 weeks, without obvious cause, was seized with abdominal pain and vomiting. On passing the finger up the inguinal canal there was definite resistance. A laparotomy was performed within 24 hours after the onset of the symptoms. A ring at the right side of the bladder was found leading to a sac and strangulating the bowel. The inguinal canal was clear. The mouth of the sac was sewn up with catgut. He recovered without a bad symptom. There was no double sac leading into the inguinal canal. This was the only case that had been in the London Hospital during the last 15 years. He suggested the cause might be that in the absence of a reduction *en masse* there might be the return of a pouch of peritoneum, the parts being lax, from the inguinal canal. Also that the distended bladder contiguous to the hernia when contracting might draw a pouch of peritoneum with it into the abdominal cavity. That in cases of intestinal obstruction, with a history of previous hernia, the surgeon should not delay doing a laparotomy was the lesson he deduced from a study of the recorded cases, exploration through the inguinal canal having in them failed to discover the site of the hernia.

Mr. MACREADY said that there was this objection to the view that the present hernia was developed from the sac of an inguinal hernia, that it could not be said to possess a sac until it had traversed the abdominal wall. He thought a portion of the inguinal sac retired into the abdominal cavity. He alluded to Rokitansky's view that the sacs were congenital crypts, and he thought that the present case was more probably explained in this way.

Mr. MCADAM ECCLES said that these cases might result from reduction *en masse*, a diverticulum of peritoneum being subsequently diverted into the prevesical space. But that theory could not account for the hernia described in this paper. Moreover, in this case there was no violent taxis applied. The remaining way was that in which the "*hernie en bissac*" was developed. He referred to a case in which there was a portion of irreducible omentum in the inguinal sac that was quite healthy, and then on further exploration he found another pouch behind the os pubis containing congested omentum, but no intestine. Whatever might be the actual cause, the importance was that in the presence of any signs of strangulation exploration should at once be performed, preferably by a mesial incision.

The PRESIDENT said that Mr. Makins's case seemed unquestionably one of hernia contained in a peritoneal sac. *Hernie en bissac* was not the commonest form of a displaced hernia. The commonest was that form in which the rupture of the neck of the sac of an inguinal hernia occurred allowing of the escape of intestine. He described two cases of hernia that had occurred in his experience in front of the bladder; in one of them of the "congenital sac" form symptoms of strangulation occurred after forcible reduction of the hernia by the patient, giving a tumour in front of the bladder which extended nearly up to the umbilicus. Exploration by the inguinal canal allowed of the reduction of the hernia with a good recovery. In the second case there was an inguinal hernia; this also was treated through the inguinal canal, and the patient did well. These were both cases of rupture of the neck of an inguinal sac. The case described by Mr. Makins was not one of rupture of an inguinal sac, but was a hernia into a peritoneal pouch.

Mr. MAKINS, in reply, said that the properitoneal sacs might develop to a considerable size without any injury to the hernia, as shown by some of the femoral and the obturator herniæ. He thought Mr. Hutchinson's case was very similar to his, except that his contained omentum alone. He remarked that Rokitansky had not described his congenital sacs quite fully enough to differentiate them from exaggerated normal peritoneal pouches. He said that perhaps it would have been better to have described the pouch in his case as a diverticulum of the peritoneum rather than a diverted inguinal sac.

ATHENS MEDICAL SOCIETY.—At a recent meeting of this Society, Professor S. Manghinas was elected President, and Drs. S. Kanellis and S. Chomatianos Vice-Presidents.

MEDICAL SOCIETY OF LONDON.

G. R. TURNER, F.R.C.S., Vice-President, in the Chair.

CLINICAL EVENING.

Monday, April 10th, 1899.

CEPHALHYDROCELE.

MR. W. H. BATTLE showed an infant aged three months with a swelling on the right side of the head which was fluctuating and pulsated freely. Edges of bone could be felt around the margin of the swelling. The infant was the ninth child and forceps were used. The swelling was noticed three weeks after birth. Mr. Battle observed that the case was of interest on account of its early supervention. He was treating it merely by pressure.

RECURRENT CANCER OF BREAST CURED BY OÖPHORECTOMY AND THYROID EXTRACT.

DR. HERMAN showed a woman who had had three children and two miscarriages, the last 14 years ago. A lump was first noticed in the right breast in 1894, she being then 45 years of age. This was removed in May, 1895, at Middlesex Hospital by Mr. Lawson and proved to be carcinomatous. It recurred, and a second operation was done in October of that year. When Dr. Herman saw her in July, 1898, there was ulceration 3½ inches by 1½ inch over the scar, and she also had a lump in the left breast with enlarged glands in the left axilla. The ovaries were removed and thyroid extract given, and by October, 1898, the ulceration had completely healed, while the lump in the left breast and the enlarged glands could no longer be felt. She had gained 2¼ stone in weight. He mentioned that Mr. Stanley Boyd had collected 7 cases treated by oöphorectomy alone which, with 8 others, made 15; in only 4 of these was relief worth mentioning obtained. Mr. Boyd had also published 5 cases in which thyroid gland was given, and 4 cases had been published with thyroid and oöphorectomy in which the cancer had disappeared. It was for them to determine the effect of these two measures combined and separately. He thought that to cause the disappearance of a cancer that had already ulcerated was a much greater achievement than to remove it with the knife.

Mr. STANLEY BOYD thought that the nodules in the neighbourhood of the scar were probably malignant. He had seen the same thing in one of his cases in which the patient was free for eight months, but similar nodules formed and developed. That patient did not take thyroid satisfactorily. He discussed the value of each method, and inclined to the view that the improvement was due to the oöphorectomy, and not to the thyroid treatment, mentioning cases in support of that view. He also mentioned the well-known case of Bishop and Page, in which, operations having failed, the patient was given thyroid for twelve months without apparent effect, yet six months later the disease had entirely disappeared; also the case, reported by Mr. Gould, of a woman apparently dying of cancer, who recovered without any treatment at all. It seemed that oöphorectomy was only likely to be followed by improvement if performed before the menopause.

Mr. BATTLE agreed that the nodules were suggestive of malignancy, adding that the left breast had a hard fibrous feeling almost suggestive of a tumour. He admitted, however, that he knew of no other method of treatment which would so improve the patient's general appearance in spite of the presence of these nodules. He looked forward to learning the subsequent history.

The CHAIRMAN observed that, even if the nodules were scirrhous, the fact remained that a large carcinomatous open ulcer had completely healed, leaving behind only these doubtful nodules. Moreover, the left breast originally had a tumour measuring 3 inches across which had disappeared. Even if the amelioration only proved to be temporary, it was none the less remarkable. It was impossible absolutely to affirm the malignancy of the nodules, and, if really carcinomatous, they might ultimately disappear. He asked the author whether they had been getting smaller. In conclusion, he said that he should certainly recommend the treatment for trial, as the thyroid, if it did no good, would do no harm.

Dr. HERMAN, in reply, in reference to the nodules and the condition of the left breast, said it merely meant that the cancer had not gone away without leaving some traces behind it. The nodules had remained stationary for many

months, and clinically, at any rate, they were not cancerous. He suggested that the removal of the ovarian secretion with an excess of thyroid rendered the tissues less amenable to the hypothetical parasite of cancer. It was indisputable that the results of the combined measures were vastly more satisfactory than either employed alone.

Results of Gastrostomy by Albert's Method.

Mr. Battle showed an elderly woman who came in with symptoms of obstruction of the œsophagus, which began in October, 1898, and had gradually increased until she could swallow no solid food. Iodide of potassium and bougies having failed to relieve, he performed gastrostomy by Albert's method. The patient recovered without a bad symptom, and was soon able to feed herself by the artificial opening. He mentioned a curious fact that food when swallowed found its way out at the opening, which food introduced thereby did not. He added that this was the second case in which he had performed this operation, the result in the former case being equally successful.

Non-Union of Fractured Humerus.

The Chairman showed a sailor who had fractured his left humerus at sea four years ago; this was followed by non-union. Operation had failed to promote union. There was a history of syphilis. He cut down and wired the ends of the bone, but no union followed, although there was abundant callus. He operated a second time, and then good union resulted, and the man had resumed his occupation. Subsequently the patient again fractured the arm, and again he had wired the fragments, but there had been little attempt at repair, though the fragments were in accurate apposition. He raised the question as to what had best be done under the circumstances.

Mr. Battle asked what was the condition of the bones when first seen—whether rounded off, and whether fibrous tissue or muscle was interposed. He recalled a case of fractured humerus in a patient with a syphilitic history, in which operative measures failed in the first instance, but when repeated in conjunction with antisyphilitic treatment sound union followed.

The Chairman, in reply, said that at the first operation the bones were rather pointed, and had fibrous tissue between them. He had given mercury and iodide of potassium before and after the operation.

Pachydermatocele of Scalp.

Mr. Jaffrey showed a man with a nævoid-looking growth on the lower part of the scalp behind, which exclusively involved the skin, and was freely movable.

The Chairman observed that the growth might really be nævoid in part, and referred to a case in which the surgeon on operating discovered that it was a cavernous angioma, the patient dying from the hæmorrhage. He also recalled a case in which a similar growth of large size involved the buttocks, the patient having to lift the mass when defæcating just (as he expressed it) as a woman lifts her petticoats.

Epileptiform Convulsions following Injury to Head.

Mr. Jaffrey also showed a young man who in July last was admitted with concussion of the brain and other injuries after a fall from a ladder. Six months later he was again brought in suffering from concussion, and remained in hospital a month. He had since returned complaining that he was unable to obtain employment because when asked a question it took him from 2 to 30 seconds to get out his answer. When asked a question he raised his left hand to his mouth and appeared to be convulsed for several seconds before he could speak, not, however, losing consciousness.

The Chairman said the patient had been under his care at St. George's Hospital for the accident, and he thought the symptoms were probably due to the shock following the accidents rather than to any injury to the brain. Under bromide of potassium and rest he had much improved.

Mr. Jaffrey, in reply, agreed with the President's view as to the nature of the manifestations, adding that the accidents had been the subject of two unsuccessful attempts to obtain compensation.

HARVEIAN SOCIETY OF LONDON.

H. A. Caley, M.D., in the Chair.

Thursday, April 6th, 1899.

Clinical Evening.

Excision of Malignant Growths of Large Intestine.

Mr. W. H. Battle showed two female patients on whom he had operated for obstruction due to malignant growth of the large bowel. The first was a case of growth in the splenic flexure with the gradual onset of symptoms for a period of four weeks. She was aged 28, and as there was extreme distension, so that it was impossible to bring the growth to the surface and inadvisable to prolong the operation, a temporary colotomy was done below the left ribs. At an operation five weeks later excision of growth and artificial anus with lateral anastomosis was done. This was in September, 1898. The second was a woman aged 45, on whom operation for obstruction was done in August, 1898, and a columnar-celled carcinoma of the sigmoid flexure treated by Paul's method. Subsequent attempts to get rid of the spur were painful and tedious; ultimately a lateral anastomosis had been done, and the artificial anus closed. Both patients had a regular action of the bowels now and looked remarkably well.

In answer to Mr. Raymond Johnson, Mr. Battle said that in his experience the best results in excising portions of intestine had been obtained by completely closing the ends of the bowel and then establishing a lateral anastomosis.

Syringomyelia with Pharyngeal and Laryngeal Lesions.

Dr. Herbert Tilley showed a case of syringomyelia. The patient was a girl, aged 15, in whom there was paresis of the right half of the palate, pharynx, and right vocal cord. Other points of interest were the blunting of painful impressions and complete loss of thermal impressions all over both superior extremities and certain well-defined areas of the neck and trunk, atrophy of the small muscles of the hands—the latter being in the *main en griffe* position—moderate wasting of the flexors and extensors of the wrist, and slight nystagmic jerks of both eyes.[1] A painless but severe burn on the hand and a gruffness of the voice, with some difficulty in swallowing, first led the patient to seek advice. The pharyngeal and laryngeal conditions were much improved during the past two months, during which time the patient had been taking strychnine.

Complete Paralysis of Left Spinal Accessory Nerve.

Dr. Herbert Tilley showed a preacher, aged 55, who in October, 1897, caught cold, became hoarse, and simultaneously experienced an accumulation of and difficulty in expectorating his saliva. He continued his professional duties with some difficulty. Examination showed the left side of the palate, pharynx, and left vocal cord, the left sterno-mastoid and upper part of the left trapezius to be completely paralysed. The patient experienced no pain, giddiness, convulsions, or any other general symptoms beyond those due to the cold, and the exhibitor agreed with the Chairman that the case was probably one of pachymeningitis, involving the trunk of the spinal accessory after the cervical and spinal portions had united within the skull. There was no history of gout, syphilis, or rheumatism.

Paresis of Left Side of Palate, Pharynx, and Left Vocal Cord, and Right Side of Tongue.

Dr. Herbert Tilley showed a woman, aged 31, exhibiting these conditions. In October, 1898, she suffered for two or three weeks from very severe pain over the back of head and neck, which terminated in "fits," details of which could not be obtained. In the first she did not lose consciousness, but in a second, which came three days later, she was unconscious, and on recovery was hoarse and paralysed in the left arm and leg, with some weakness of the left side of the face. The patient was in bed for five weeks, and was fed at first by nutrient enemata and the stomach pump, because swallowing was impossible owing to fluids escaping through the nose. Her condition rapidly improved, the arm and leg recovering their power, but the throat weakness remaining.

[1] See *Proceedings* of the Laryngological Society of London, December, 1898.

When first seen by Dr. Tilley there was, in addition to the above throat lesions, slight paresis of left lower facial muscles, protrusion of the tongue to right (slight), contraction of the left pupil, and a small warty-like growth on the mucous membrane of the right arytenoid cartilage. It was difficult to conceive of any single lesion which would explain the above conditions. Dr. Tilley remarked on the rarity of laryngeal and pharyngeal lesions in syringomyelia, the slight effect on the voice of paralysis of one vocal cord, and the way in which such cases as these supported the experimental deductions of Horsley and Beevor that the spinal accessory supplies the muscles of the palate, pharynx (partial), and larynx.

SPASMODIC TORTICOLLIS.

Mr. NOBLE SMITH showed a patient, aged 21, upon whom he had operated for spasmodic torticollis by excising a piece of the spinal accessory nerve just above its entry into the sterno-mastoid muscle. This was on the right side; he had previously operated upon the left side four years ago. Both operations had been successful, and it was remarkable that on the left side (the first operation) the function of the nerve had been restored six months subsequent to its division. It had been necessary on that occasion also to divide the external branches of the second, third, and fourth cervical nerves on the right side. The patient had gradually improved in health and strength, but recently some spasms had developed in the right sterno-mastoid. He had subjected the patient to a course of special exercises and massage which had still further strengthened her, but this treatment had not relieved the spasm, so he had recently operated on the right spinal accessory. The patient had been able to be up and about six days after the operation. She was exhibited at the meeting, and it was found that the right sterno-mastoid and the upper portion of the trapezius were completely paralysed, but that the patient was in no way inconvenienced by this loss of power.

In discussing the above cases, Dr. LEONARD GUTHRIE referred to the regression of symptoms which had occurred in Dr. Tilley's case of syringomyelia. In 1896 he (Dr. Guthrie) had shown before the Society a woman, aged 28, who had nystagmus, complete analgesia, and thermo-anæsthesia, with blunted tactile sensation of the whole of the left upper extremity and left side of head, face, neck, and chest, to level of third rib. She had also paralysis of the left side of the soft palate and of the left vocal cord. The analgesia, etc., had followed immediately a violent attack of sneezing three months previously, whilst paralysis of the spinal accessory occurred immediately after an attack of coughing two months later. In the course of about a year these symptoms had to a great extent disappeared. He attributed this sudden onset of symptoms to hæmorrhage in or near a syringomyelic cavity, and their subsidence to its absorption.

The cases were also discussed by Mr. JACKSON CLARKE and the CHAIRMAN.

CALCIFICATION OF ADHERENT PERICARDIUM.

Dr. WILLIAM EWART exhibited the organs from a case of extensive calcification of an adherent pericardium, causing inveterate ascites (tapped fifty-two times), which was attributed to hepatic cirrhosis, and ineffectually treated by laparotomy and artificial production of adhesions. The patient, aged 49, died from the exhausting effects of frequent and repeated tappings and of increasing anasarca and dyspnœa. The abdomen had begun to swell five years ago, and the legs also slightly. When admitted into St. George's Hospital in July, 1896, the diagnosis of nodular cirrhosis was made on the strength of the predominance of ascites, the enlargement of the liver, the absence of albuminuria and of any apparent heart failure, the pulse being always good and strong, though at that time a sound of friction and an apical systolic murmur were heard which subsequently were not again discovered. There was no history of alcoholism, but for some years as a young girl she drank vinegar from the bottle in large quantities habitually. She had had rheumatic fever at the age of 18, and twice since. She was admitted into the hospital again and again merely for paracentesis, after which the liver could be felt below the costal margin. In August, 1897, Mr. Warrington Haward carried out the operation devised by Drummond and Morison. The patient recovered, though peritonitis was set up which was almost fatal. The relief as regards the ascites was purely temporary, and the patient continued to be tapped at intervals until too weak to leave the hospital, where she died on August 17th, 1898. The *post-mortem* examination showed that the pericardium was universally adherent to the heart, and was stiffened by a layer of calcareous salts to an extent which must have precluded the contraction of the ventricles. This carapace extended upwards as far as the auriculo-ventricular groove, but not over the auricles, which were not rigid, and their contraction may not have been much interfered with. The ventricular cavities were only slightly dilated, the membranes normal, the orifices slightly dilated. The myocardium was rather thin and soft. There was no great hypertrophy of the walls of the auricles. The liver was not cirrhotic, but slightly enlarged from chronic congestion, and its tissue soft and greasy without being fibrous. The other abdominal viscera formed together with it an adherent mass from which the abdominal walls could with difficulty be detached, occupying the upper half of the abdomen. The lower half of the abdomen presented an unusual condition. No bowel was visible except the descending colon, which came into view when the large accumulation of fluid which exclusively occupied this part of the abdomen had been emptied. Into the fluid projected from above a large spherical mass, the smooth peritoneal lining of which was continuous with that of the ascitic cavity, and almost suggested the idea of a second peritoneal sac. The spherical mass contained the bowel gathered together into a large ball. The investing membrane was of soft consistence, and was partly torn during examination. The adherent viscera, the adhesions between which entirely obliterated the upper part of the abdominal cavity, were fairly healthy. The recurrent ascites was of interest in connection with its cause, which was not cirrhosis, as suspected, but cardiac obstruction. Drummond and Morison had recorded a case in which, at the operation, the liver was found not to be cirrhosed, but the cause of the recurrent ascites was not made out, no *post-mortem* examination having been obtained. This case was similar to the one here described, for the patient survived the operation nineteen months, and was tapped 69 times.

OBSTETRICAL SOCIETY OF LONDON.

ALBAN DORAN, F.R.C.S., President, in the Chair.

Wednesday, April 5th, 1899.

PUERPERAL ECLAMPSIA.

DR. GRIFFITH and Dr. EDEN read notes of a case of puerperal eclampsia, with a description of a five weeks' ovum removed in a subsequent pregnancy. A married lady, aged 32, suffered from eclampsia at about the seventh or eight month of her third pregnancy. Labour was induced by Dr. Griffith with the intrauterine bougie, and she recovered. About eighteen months afterwards she again became pregnant, and severe symptoms ensued as early as the fifth week. Dr. Archibald Garrod reported that there was evidence in the urine of chronic nephritis, and the uterus was therefore dilated by the rapid method, and the ovum removed. The symptoms thereupon rapidly disappeared, but a trace of albumen persisted in the urine for some time. The ovum removed was in naked-eye appearances healthy, but showed certain microscopic changes which were described. It was shown that the fœtus had survived up to, or within a very short time of, the removal of the ovum; the changes described were, therefore, primary, and were probably due either to a pre-existing unhealthy condition of the endometrium, or to malnutrition following upon an unhealthy state of the maternal blood, associated with chronic nephritis.

The PRESIDENT observed that the cause of eclampsia and its treatment had been much disputed. Winkler insisted that it always arose from renal disease in the mother. Hoffmann traced it to toxæmia from carbamide of ammonium. Baron and Castaigne declared that it arose from toxic elements developed in the living fœtus, the fits often ceasing when it died. Schaller, on the other hand, seemed to have little belief in any active influence of the fœtus, denying that its kidneys ever acted before parturition. In the case of Drs. Griffith and Eden the mother had nephritis, the fœtus showed diseased tissues, so it was not certain where the

origin of the eclampsia lay, though most likely it lay in the mother. As for treatment delivery seemed usually successful. Van Rootijen and Lambinon, of Liége, bled in bad cases; but the great success of subcutaneous saline infusions in puerperal septicæmia and in sepsis after abdominal sections (Howard Kelly) seemed to indicate the correct treatment for eclampsia unrelieved after expulsion of the fœtus. Poncet and Vinay treated successfully a severe case of eclampsia by this method.

Dr. Stabb asked Dr. Griffith whether the percentage and daily amount of urea had been estimated, this being, in his opinion, much more important than the amount of albumen and subcutaneous œdema.

Dr. Amand Routh asked why Dr. Griffith had adopted the slow method of inducing premature labour by inserting a bougie instead of the more rapid and certain one of rupturing the membranes. He thought the evidence that puerperal eclampsia was due to a toxæmia was clear, and that the origin of the toxin was some bio-chemical change in either the placenta or the fœtus.

Dr. Lea asked what were the severe symptoms rendering artificial abortion necessary at the fifth week of gestation. He thought a toxæmia was perhaps the cause of the nephritis becoming so much aggravated.

Drs. Griffith and Eden replied.

Antero-posterior Positions of the Head Impeding Labour.

Dr. R. G. McKerron read a communication on antero-posterior positions of the head as a cause of difficult labour, with notes of two cases. Case I. Mrs. B., aged 41, had had ten full-term children; labours difficult, with use of forceps. She had, when seen by the author, been attended by a midwife for over nine hours. The os had a diameter of rather more than 2½ inches; the head was above the brim, the occiput anterior, the posterior fontanelle 1¼ inch from the symphysis, the sagittal suture running almost directly backwards. Traction with Simpson's forceps failed to produce any advance. The occiput was rotated with the forceps so as to bring the long diameter of the head into the oblique diameter of the pelvis; the head then passed the brim with moderate traction, and the labour was concluded with ease. The child died three days later; the mother recovered well. The measurements of the pelvis were: Interspinous 8.75 inches, intercristal 10.25, external conjugate 7.1 inches. Case II was that of a woman, aged 38, the mother of one child delivered after a protracted labour by forceps. The child presented and was delivered in the same way as in Case I; it died on the third day. The subdural space was found distended with blood. The mother recovered well. The pelvic measurements were: Interspinous 9 inches, intercristal 10.6 inches, external conjugate 7.5 inches. The author remarked upon the rarity of this presentation.

Specimens.

Dr. Amand Routh showed a specimen of Myxo-sarcoma of the Uterus removed by hysterectomy.—Dr. Lea showed a specimen of Hæmatosalpinx occurring in chronic salpingitis.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

J. W. Moore, M.D., P.R.C.P.I., President, in the Chair.

Friday, March 10th, 1899.

Ulcer of the Œsophagus.

Dr. J. A. Lindsay (Belfast) read notes of a case of ulcer of the œsophagus, resulting in abscess of the posterior mediastinum rupture into the lung, emphysema of the face and neck, and death. The patient, a man, aged 59, was admitted to the Royal Hospital, Belfast, suffering from abdominal pain, distension, and collapse. A few hours before admission, as the result of drinking a bottle of stout, he had been seized with severe pain in the epigastrium, and had vomited. There was a history that the patient had suffered for some weeks from pains in the abdomen, to which he had not paid much attention. On admission to hospital he complained of pain in the epigastrium and weakness. The abdomen was moderately distended, and tender on palpation in the epigastric and in both lumbar regions. There were signs of a large effusion into the right pleura. The temperature was 100°, the respirations hurried, and the urine contained much sugar and a little albumen. Towards midnight of the day of admission the patient's state began to change for the worse. For the first time a puffiness of the left eyelid was observed, which rapidly extended over the left side of the face and neck and the upper portion of the left chest. This was found to be superficial emphysema. The pulse was now 120, weak and irregular, the respirations 56, and the patient much collapsed. The possibility of a gastric ulcer which had ruptured through the diaphragm into the lung was considered, but the history was, on the whole, against gastric ulcer. The abdominal pain had been vague, shifting in position and not severe, and there had been neither hæmatemesis nor melæna. The indications were held to be too obscure to justify operative interference. The patient gradually sank on the following day and died at 11 o'clock P.M., 37 hours after drinking the bottle of stout, and 23 hours after the first appearance of emphysema of the face and neck. A necropsy was made 22 hours after death. Emphysema was found to be well marked in both mediastina, especially the left. The right pleural cavity contained 50 ounces of serum, rather flocculent in character. There were also a few ounces in the left pleural cavity. Signs of acute pleurisy were well marked on both sides. Two inches above the cardiac orifice of the stomach there was an elongated ulcer, 1½ inch long, in the œsophageal wall. In the lower part of its extent it involved only the mucous membrane. The edges of the ulcer were thickened but not indurated. There was no evidence of any malignant deposit around the ulcer or elsewhere in the œsophagus, and no secondary deposits in any of the viscera. A sinus connected the ulcer with an abscess in the posterior mediastinum between the œsophagus and the aorta. This abscess had ruptured into the lung at its root, and air had extravasated along the deep fascia, and also along the superficial fascia of the neck. There was no communication between the abscess and the pleural cavity. The aorta was atheromatous, as were the arteries of the base of the brain. There was chronic thickening of the pia and arachnoid, general congestion of the meninges, and œdema of the brain substance. The puncta cruenta were well marked. The kidneys were much congested and the liver fatty. The pancreas was normal. The view taken was that the ulcer in the œsophagus was probably of syphilitic origin. The patient had suffered some years before from what he called "blood poisoning"—which might have been syphilis. No definitely syphilitic lesions were found at the necropsy, but the state of the brain lent some support to the theory of syphilis.

In reply to Dr. Finny, Dr. Hayes, Dr. Coleman, and the President,

Dr. Lindsay said that it was the condition of the vessels of the brain that had suggested to him its possibly syphilitic origin.

Probable Tuberculous Meningitis.

Dr. Lindsay also read notes of a case of probable tuberculous meningitis, which terminated in recovery. The patient was a young lady, aged 19, seen in consultation with Dr. King Kerr, of Knock, Belfast. There was tubercle on both sides of the house, and the patient's mother and younger sister were sufferers from phthisis at the present time. The patient had had tuberculous glands excised from the neck a few years ago. She had suffered from periodic headaches, but had been otherwise healthy. In November, 1898, she took an attack of ill-defined pleurisy, with some effusion in the right side. This pursued a slow course until December 3rd, when she first complained of headache. Next day the headache was more severe and vomiting set in. On December 5th the headache was severe and continuous, vomiting frequent, tongue thickly coated, temperature 101.5°, pulse 96 (weak and irregular), pupils sluggish, patient very restless, signs of fluid in the right pleural cavity. Next day the patient was delirious, temperature 101° in the morning, and 102° at night, *tache cerebrale* well marked, pupils dilated and almost immobile, continuous vomiting, double optic neuritis. Late at night the patient became comatose, and began to pass all evacuations involuntarily. The pulse remained frequent, weak, and regular. The patient could swallow her milk, and sometimes show signs of slight consciousness on being spoken to in a loud voice. The condition lasted from Tuesday, December 6th, to

Friday, December 9th, when the coma began to abate. By Sunday, December 11th, the patient was much better, and thenceforward made an uninterrupted recovery. The treatment consisted in the continuous application of cold to the head by means of Leiter's tubes, and the administration of bromide and iodide of potash, with an occasional mercurial purge. The grounds for suggesting the possibility of the meningitis being tuberculous were: (1) The fact that mother and sister were sufferers from phthisis; (2) the presence at an earlier stage of tuberculous glands in the neck; (3) the existence of an ill-defined pleurisy, which might have been tuberculous.

Remarks were made by Drs. DRURY, FINNY, KNOTT, R. TRAVERS SMITH, and the PRESIDENT; and Dr. LINDSAY, in reply, said that the President's suggestion of pneumonia had also occurred to him. Tubercles were not found in the choroid, but the patient was so restless that the examination of the eye was accomplished with difficulty.

NON-FEBRILE PNEUMONIA.

Dr. LINDSAY also read notes of a case of non-febrile pneumonia. The patient, a gentleman aged 33, was seen in consultation with Dr. M'Kisack, of Belfast. There was a history of alcoholism. The patient first sought advice upon October 13th, 1898, for headache, sickness, abdominal pain, and *malaise*. The temperature was 98.8°, pulse 80, respirations 20; no abnormal signs in the chest; tongue very foul. Next morning the patient felt better; the chest was again examined with negative results; in the afternoon the patient sat for some time in the dining room and talked with friends. About 9 P.M. it was noticed that his breathing was becoming hurried. He passed a restless night. Next morning he was much worse, respirations 36, temperature in the mouth and in the groin 96.5°, well-marked signs of consolidation of the right lower lobe—namely, dulness, bronchial breathing, and increased vocal fremitus; at 4 P.M. the temperature was 98° in the groin and 99° in the rectum, respirations 36, pulse 106 and very weak, patient much collapsed, but quite conscious. Crepitus was now audible over a considerable portion of the right lower lobe. The sputum was rusty. Towards evening the temperature for the first time began to rise, and at 8 P.M. it was 101°. Death took place at 9.30 P.M., within twenty-four hours of the first advent of definite pulmonary symptoms. Alcohol, strychnine, carbonate of ammonia, digitalis and oxygen were administered, but without effect.

Remarks were made by the PRESIDENT and Dr. COSGRAVE; and Dr. LINDSAY, in reply, said he always gave strychnine in these cases.

MORPHINOMANIA.

Dr. H. C. DRURY read a paper on this subject, which was discussed by Dr. DAWSON, Dr. COSGRAVE, and the PRESIDENT.

SECTION OF OBSTETRICS.

W. J. SMYLY, M.D., in the Chair.

Friday, March 17th, 1899.

REPORTS OF ROTUNDA HOSPITAL.

Drs. PUREFOY, GLENN, and A. SMITH commenced a discussion on the action of the General Council of the Academy in refusing the recommendation of the Obstetrical Section to print and circulate amongst the members the reports of the Rotunda Hospital.

Dr. CRANNY said that the reports of the Rotunda Hospital were of considerable importance, and it was impossible to discuss them without being able to see them previously to their being read at the meeting. The General Council had not treated the Section with sufficient consideration. He proposed that the reports should be printed and circulated among the members of the Academy at the expense of the members of the Academy.

Dr. DOYLE considered that, since Dr. Purefoy had up to this published the reports at his own expense, there was no need to make a change.

Dr. CRANNY, resuming, said that the old Dublin Obstetrical Society, of which he had been secretary, used to print and circulate among the members the hospital reports, at the expense of the Society. He failed to see why the Council of the Academy had not bestowed more consideration on their suggestion. Why should Dr. Purefoy be at the expense of printing these reports in addition to having gone to the trouble and labour of making them out? It was the business of the Academy, and it ought to be done by the Academy.

Dr. PUREFOY seconded Dr. Cranny's motion.

Dr. DOYLE did not see why the report of the hospital with which he was connected should not also be published at the expense of the Academy, and the same argument should apply to the reports of all the other Dublin hospitals.

Surgeon-General POTTER said that this motion would amount to practically a vote of censure on the General Council, and he therefore would not support it.

The CHAIRMAN then put the following motion to the meeting:

That the Council be asked to reconsider their decision, and that in future hospital reports of sufficient interest be printed and circulated amongst the Fellows of the Academy.

The motion was passed.

EXHIBITS.

Dr. ALFRED SMITH exhibited three Myomatous Uteri, removed by retroperitoneal hysterectomy: (1) The first specimen was a large soft myoma, which had been removed five days previously. The patient had given birth to two children, and after the birth of the younger child, who was now 3 years old, the uterus in repose came down to the size of a three months' uterus. The tumour, which was considerably œdematous, and blocked up the pelvis completely, extended well into the broad ligament. (2) The second specimen was a very small fibroid, which he removed on account of the constant trouble which it gave during micturition. On cutting through the pedicle there was no hæmorrhage, and he found that there was only uterine artery developed to any extent and that was on the left side. The absence of a uterine artery on the right side was the chief point of interest in this specimen. (3) The third specimen, which he had removed a fortnight ago, was large, and appeared to him before operation as subperitoneal and pedunculated. On operating, however, he found a second pedicle intimately adherent to the promontory of the sacrum, and this gave him considerable trouble until he found out the condition. He then attempted to form a myomectomy. He put a clamp round the cervix in the ordinary way in order to suppress hæmorrhage from it, and then proceeded to amputate the large tumour which he exhibited. On loosening the ligature, however, there was hæmorrhage everywhere. He tied several arteries, but notwithstanding this he could not arrest the hæmorrhage, so that he was obliged to perform hysterectomy. The patient did remarkably well.

Dr. PUREFOY said that Dr. Smith's failure to find the uterine artery on one side was another illustration of the variations in size often observed in different cases in the uterine vessels. It was very difficult to forecast what the behaviour of a fibroid would be. There were some harder than others, and the rate of growth in these cases was comparatively slow. The difficulty Dr. Smith had in controlling the hæmorrhage in the case of myomectomy showed that one ought to be prepared for an emergency, even in the case of a tumour with a small pedicle. He suggested that tying the ovarian arteries might have had some effect in checking the hæmorrhage in this case.

Dr. SMYLY suggested that the small tumour might have been better removed *per vaginam*.

Dr. SMITH, replying, said there seemed to be a growing opinion that operation should be the treatment in the case of fibromata. He looked upon these cases as strong arguments in favour of operative treatment. The uncertainty of the prognosis was another point in favour of operation. As regarded the shock of removal of the uterus by the retroperitoneal method, his experience was that patients suffered more pain and distress after removal of the tubes and ovaries only than when the tumour and the uterus down to the level of the cervix were removed. With reference to Dr. Smyly's suggestion, the reason he removed the tumour from above was on account of the long pedicle attached to it making this easy.

MIDLAND MEDICAL SOCIETY.—At a meeting on March 1st, Dr. W. G. LOWE (President) in the chair, Mr. GAMGEE showed a case of Coxa Vara in a male, aged 16 years. The disease affected the left hip, and had been noticed seven months. The chief symptom was pain about the hip on

standing. The chief physical signs were (1) three-quarters of an inch of shortening, (2) free flexion, (3) abduction very limited, (4) the trochanter was above Nélaton's line, (5) muscular wasting, and (6) displacement of the trochanter outwards. A radiograph was exhibited showing the dropping and lengthening of the neck of the femur which characterised the disease.—Dr. Kauffmann showed a man, aged 53, the subject of Senile Chorea. The affection, which was attributed by the patient to the carrying of excessively heavy weights—he was a market porter—had come on gradually, commencing two years before in the left hand. There was no nervous disorder in any near relative, several of whom were living. The patient appeared aged beyond his years. His reason was good, his speech a little jerky, and his voice feeble. There was no aphasia. The handwriting, which the sufferer declared used to be very good, was quite illegible, the marks bearing no recognisable resemblance to ordinary letters. Choreic movements affected the face, the respiratory muscles and all four limbs, and resembled in character those seen in juvenile chorea. They ceased only for short periods during sleep, being continued during the greater part of apparently sound sleep. Under observation the movements became markedly aggravated. The muscular weakness was such that the patient could not walk unsupported.—Dr. Short showed a case of Wasting of the Thenar and Interosseous Muscles of the Left Hand in a compositor. There was no history or sign of lead poisoning. He had worked for six years with a compositor's stick in the left hand, and six months ago the left hand was first noticed to be weak. There was some cramp in it at first, but no tingling or numbness of the hand. The hand gradually wasted, and when seen two months ago showed the reaction of degeneration. There had been no sensory symptoms throughout. Great improvement had taken place under treatment, and now there was no reaction of degeneration. His hand was now fairly strong. In spite of the great improvement the prognosis in this case was still doubtful. It was shown as one of the cases referred to in Dr. Short's paper on the Treatment of Occupation Neuroses.—Mr. Jordan Lloyd showed specimens of Carotid and Aortic Aneurysms removed *post mortem* from the body of a man, aged 38. The man had a healthy history, and had never suffered from venereal disease of any kind. Seven weeks before his death he had first observed a swelling in the right side of the neck at the level of the upper border of the larynx, which had the ordinary characters of a carotid aneurysm. He was admitted into the Queen's Hospital for the purpose of ligation of the vessel. He was then in his usual health. During the night preceding the morning on which the operation was to have been performed he was suddenly taken with hæmoptysis, small in amount, became collapsed, and died within half an hour of the onset of the first symptoms. The *post-mortem* examination showed death to have been due to a rupture of a moderate-sized aneurysm of the thoracic aorta, situated about 3 inches beyond the arch, and developed from the right side of the vessel over the front of the spine towards the right pleura; rupture had taken place into this cavity. The lower lobe of the right lung was adherent to the wall of the aneurysm, and at the site of this adhesion an escape of blood had taken place into the lung giving rise to a large pulmonary apoplexy. The man had not complained of any symptom which directed attention specially to the chest, but the lungs and heart were examined in the ordinary manner and passed as healthy.—Dr. Walter Jordan read a paper on Spastic Paralysis in Childhood.—Dr. Sidney Short read a paper on Ten cases of Occupation Neuroses.

Kidderminster Medical Society.—At a meeting on March 17th, Mr. S. Stretton in the chair, it was unanimously resolved to confirm the resolution of the Liverpool Medical Institution with regard to vaccination.—Mr. J. Lionel Stretton showed: (1) A Calculus removed by suprapubic lithotomy from a boy aged 6 years; although no sutures were used the wound was soundly healed in sixteen days; (2) an Ovarian Cyst with Twisted Pedicle removed from a woman aged 43; she progressed satisfactorily to the end of the third day, when she had a sudden attack of syncope, which proved fatal; no *post-mortem* examination could be obtained, but an examination of the abdominal contents revealed nothing abnormal. Mr. Stretton also read notes of the case of a girl aged 21 who was admitted with symptoms of Acute Peritonitis, dating from a strain two months previously. Her abdomen began to swell three weeks ago, and Mr. W. Moore who attended her found an inguinal hernia on each side; the right one was reduced, but the left one only partially. On opening the abdomen she was found to be suffering from extensive tuberculous peritonitis, with considerable thickening and adhesion of the omentum, and nothing attributable to the hernia as was expected.—Dr. Evans read notes of a man aged 36 who was admitted with indefinite Abdominal Symptoms. The bowels, which had not been moved for a week, were relieved with an aperient, but he gradually became worse and died a fortnight after admission. *Post mortem* the intestines were found distended and congested and covered with flakes of lymph. The liver was immensely large and hard, and on section it was seen to be affected with a soft diffuse growth. Behind the stomach was a large glandular tumour (lymphosarcoma) the size of a year-old child's head; it was firmly fixed to the spinal column, and could not be removed. Chains of infected glands ran down each side. Dr. Evans commented upon the extreme rapidity of the growth and the indefinite symptoms accompanying it. The question of operation did not arise, as the patient's condition after admission was too serious.—Mr. B. Addenbrooke read a paper on Town Cow Byres and their Influence on the Number and Variety of Microbes in Milk.

West Kent Medico-Chirurgical Society.—At a meeting on April 7th, Dr. Morgan Dockrell (President) in the chair, Dr. George A. Heron introduced a discussion on Tuberculosis, with special reference to Treatment. He dealt first with the different ways in which tuberculosis was spread, and then referred to the methods of preventing it. He next discussed the different methods of treatment, such as serum-therapy, tuberculin, and the open-air treatment, which he declared was not new but very old.—Mr. Ernest Clarke read a short paper on Tuberculous Disease of the Eye, and the President read a paper on Tuberculosis of the Skin.

Bradford Medico-Chirurgical Society.—At a meeting on March 21st, Dr. Berry (President) in the chair, Dr. Crowley gave a demonstration of Microscopical Specimens.—Mr. Hall showed a number of Photographs and Casts of Surgical Cases, and gave brief descriptions in each case.—Dr. Lodge read notes of a case of High Myopia in which a satisfactory result had been obtained by removal of the lens. The patient was shown.—Mr. Horrocks read notes of a case of Simple Stricture of the Rectum which had been satisfactorily treated by a simple operative measure. Mr. Horrocks said that the kind of stricture he had in mind was one within easy reach of the anus, and varied in depth from a simple narrow band running round the gut to an annular stricture an inch in depth. This affection was more common in women than in men, and it frequently became very narrow before patients presented themselves for treatment. Their condition in consequence was one of great discomfort, and in the case brought before the Society the patient became insane. The patient was a woman, aged 55, who had suffered from rectal trouble for twenty years. She had bougies passed fifteen years before with some temporary relief. Her condition had gradually become worse, and her mind was constantly occupied with the rectal trouble. On examination there was a stricture an inch within the anus, which barely admitted the index finger. The stricture was about a quarter of an inch in depth, and the mucous membrane was fixed at the narrowed point, but above was loose and healthy. No scars were seen on the pudendum or around the anus. On June 10th, 1898, E.C. mixture was given. The anus was thoroughly stretched and the stricture exposed. A vertical incision was made 1½ inch long through the posterior part of the stricture; with the fingers the stricture was stretched till this vertical cut became transverse. The mucous membrane was then held in position and stitched with chromic gut sutures. After the operation the narrowed part readily admitted three fingers. The patient did well after the operation, and the bowels were relieved regularly and freely, but she could not be persuaded that the stricture did not still exist. Subsequently she became an inmate of Menston Asylum. Mr. Horrocks remarked that the operation

was suggested by the procedure of pyloroplasty for non-malignant stricture, which was exactly similar in principle. It was necessary for the success of the operation that the mucous membrane above the stricture should be healthy, or at any rate that it should be possible to free it from the subjacent tissues. In a second case which he had treated by this method, it had been necessary thus to free the mucous membrane before the vertical incision could be converted into a transverse one.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on April 7th, Dr. S. D. CLIPPINGDALE (President) in the chair, Dr. S. T. PRUEN (Cheltenham) read a paper on Recent Advances in the Treatment of Tuberculosis. After referring to the statistics, he discussed the transmissibility from man to the lower animals and *vice versâ*, and gave instances to show that tuberculous infection could pass not only between man and mammals, but also between man and birds, or even fishes. He also showed that a great reduction of the mortality amongst infants could be brought about by the sterilisation of their food. Turning next to pulmonary tuberculosis in adults, he described his visits to the various sanatoria in England and on the Continent, and especially described the cure at Nordrach in the Black Forest, where great attention was paid not only to the question of a proper supply of air night and day, but also to over-feeding, to regulated exercise, to proper rest, and to isolation from the cares and pleasures of the outside world. Dr. Pruen then showed a book written in 1840 by an Englishman named Bodington, of Sutton Coldfield, near Birmingham, who had invented and carried out in practice a cure for phthisis very like that at Nordrach. This cure was very successful, and one of the patients, who when she came under his care was in the third stage of phthisis, he described as being quite cured three years later. Dr. Pruen added that she was still quite well, though it was now sixty-three years since she underwent the cure. This cure, although it was successful, was known by Bodington's medical compeers as the "beef-steak and porter cure," and so much ridicule was thrown upon it, that the profession as a whole were afraid to take it up, with the result that Germany had now the credit of discovering it although an Englishman was really first in the field. A discussion on the paper followed, in which Dr. GARDNER (Bournemouth), Dr. F. R. WALTERS, and the PRESIDENT joined.

BIRKENHEAD MEDICAL SOCIETY.—At a meeting held on March 10th, Dr. H. NAZEBY HARRINGTON (President) in the chair, a discussion on Instrument Midwifery was introduced by Dr. E. BRIEN. After tracing the history of the forceps, he touched upon the mechanism of labour, and then went on to the cases in which forceps were indicated, describing the action of the forceps and the different applications of the instrument. After comparing the English and Continental methods, he discussed the operation in a general way, and called attention particularly to the advantages of axis traction over ordinary ones. A discussion followed, and Dr. BRIEN replied.—Dr. SYDNEY MARSDEN read a paper on the Pathology and Treatment of Ringworm. He dwelt on the known pathological lesions caused by the fungus of tinea tonsurans, etc., and referred to the researches of McFadyen, Bitter, Fermi, Lauder Brunton, Rosenbach, and Sabouraud, also to the work of Dr. Gruby carried out in 1842-44, and finally to the researches of McFadyen and Blaxall, and Dr. Leslie Roberts of Liverpool; and then passed on to suggestions for treatment. He suggested the desirability of some steps being taken to have the disease notified to the medical officer of health. Ringworm of the scalp was excessively frequent in this country; it was a standing cause of nuisance and difficulty in our elementary and other schools, and might interfere seriously with a child's life prospect; it was here that the importance of notification and control would be seen, and would be of great value on those grounds. Therefore he advocated its notification. A discussion followed in which the following gentlemen took part: Drs. STANSFIELD, TEMPLE, BRIEN, and HARRIS. Dr. MARSDEN replied.

REVIEWS.

A SYSTEM OF MEDICINE. By many writers. Edited by T. CLIFFORD ALLBUTT, M.D., LL.D., F.R.S., Regius Professor of Physic in the University of Cambridge. Vol. vi. London: Macmillan and Co. 1899. (Pp. 944, illustrations 44, plates iv, tables 2. Price 25s.)

As originally planned, this *System* was to be contained in five volumes, but even when the fourth volume came out it was clear that this was out of the question, and it now appears that two more instalments, making eight in all, will be required to contain the articles that have been written. This necessary disturbance of the original scheme is not without its disadvantages, for it prevents one system of diseases being completely dealt with in one and the same volume; for example, this instalment contains the termination of the circulatory diseases, the diseases of muscles, and the commencement of the nervous system.

The first article on right-sided disease of the heart is a valuable contribution to our knowledge, inasmuch as Dr. Newton Pitt makes full use of records of the Guy's Hospital, and has based his conclusions on the fresh statistics thus obtained, and not on general impressions or on authority. His data are opposed to the idea that tricuspid stenosis is congenital in origin, and show that it is due to rheumatism: all but 2 of 87 collected cases were associated with rheumatism.

Angina pectoris is divided by Sir R. Douglas Powell into (1) vasomotorial angina or pseudo-angina, which is not accompanied by any lesion either of the heart or coronary arteries, the prognosis is favourable in this form, which further contrasts with the other in being commoner in women: and (2) angina pectoris gravior, which may be considered under two heads, first that depending on disease of the heart muscle or valves and in the second place that dependent on disease of the coronary arteries.

Diseases of the mediastina are classified and described in detail by Dr. F. Roberts. Under the heading of chronic mediastinitis, indurative mediastino-pericarditis is described in a critical and thoroughly practical manner, the difficulties attending its recognition being fully recognised. A short section is devoted to morbid conditions of the thymus gland.

The nature, signs, symptoms, and diagnosis of tumours of the lung and of the mediastinum are conveniently considered together since they merge into each other. In this connection extensive reference is made to the works of other observers, and a broad and comprehensive account of intrathoracic tumours has been provided.

Professor Welch's contributions on thrombosis and embolism are of a very high order, and are well worth the attention of every pathologist and practitioner. In the section on thrombosis he discusses at length the formation of thrombi, and describes the part taken by the blood platelets. The relation between thrombosis and phlebitis is philosophically discussed, and the relation of marantic thrombi to micro-organisms fully considered. A very interesting account, with full references to literature, is given of thrombosis of various parts of the body and of its association with different diseases. The effects and symptoms of thrombosis receive full attention, and the article, which is a model of exhaustive work and clear exposition, ends with a brief account of the treatment of thrombosis of the veins of the extremities.

In the section on embolism there is a very interesting account of paradoxical embolism, where the embolus is supposed to pass through the patent foramen ovale, and of retrograde embolism where the embolus seems to travel along a vein against the normal current of the blood. The factors that bear on the anæmic or hæmorrhagic characters of an infarct are discussed, but no absolute decision can at present be come to. After a description of other forms of embolism such as that due to air, fat, embolism in special arteries is considered.

After a clinical account of phlebitis contributed by Mr. Clutton, Dr. Mott gives a full and freely-illustrated account of atheroma and other forms of arterial disease. This article is a most valuable contribution, containing full references to the work of others, and at the same time being provided with original statistics and observations drawn from the

writer's work at Charing Cross and at Claybury. Like the author's previous article in vol i. on the general pathology of nutrition, it is a model article greatly enhancing the value of this system of medicine.

Sir W. T. Gairdner gives a great deal of attention to the factors leading to the production of aortic aneurysm and discusses at length the claims of sudden strain and atheroma as causal agents. The symptoms and diagnosis of aneurysm are well illustrated by cases, some of them like the case of Mr. Liston, the well-known surgeon, having historical as well as clinical interest. The diagnosis is summed up in 6 propositions expanded, but only slightly modified, from their original form in the writer's *Clinical Medicine*, published in 1862.

Dr. Rolleston treats the subject of aneurysms of arteries in the abdomen and also contributes the article on diseases of the lymphatic vessels in which the results of lymphatic obstruction such as chylous ascites are described in a succinct and masterly way. With this article the section devoted to the circulatory system closes.

The next division of the system is a short one and is headed "Diseases of Muscles." Myositis is divided by Dr. Batten into primary and secondary forms, while a short section is devoted to myositis ossificans. An interesting account of Thomsen's disease, or myotonia congenita, is provided by Dr. Hale White, who has carefully examined one example of this condition which he regards as probably the rarest in medicine.

Idiopathic muscular atrophy and hypertrophy is divided by Dr. Beevor into three groups, pseudo-hypertrophic muscular paralysis, the juvenile form of progressive muscular atrophy, and the facio-scapulo-humeral form of Landouzy and Déjerine. This article is followed by a succinct description of hemiatrophy and hemihypertrophy by Dr. W. Aldren Turner.

The next section is that most important one on the diseases of the nervous system, which is really only broached in this volume. Two general articles of an introductory character dealing with pathology and physiology come first as a kind of preface. The first is a clearly-expressed account of the general pathology of the nervous system by Dr. Bevan Lewis, who states the modern conception of the neuron, and refers to the *rationale* of "system" diseases. Professor Sherrington follows with an account of the problems of neuro-muscular physiology as bearing on the subjects of tremor, "tendon phenomena," and spasm, which are then fully described and practically illustrated by Dr. Sharkey. The first division of the diseases of the nervous system is the trophoneuroses. In an excellent article on nervous arthropathies and osteopathies, Dr. Turney discusses in an exhaustive and interesting manner the *rationale* of the lesions. After describing the causes that make for atrophy and for hypertrophy of bone, he refers to the latter as an "ataxy of reaction." Mr. Hopkins has contributed a short article on the neurotrophic diseases of the soft tissues, and deals chiefly with the skin, while the Editor has inserted a brief note on adiposis dolorosa, having seen cases of this condition in Dercum's clinic, and being satisfied as to its clinical entity.

The articles on the two allied subjects, Raynaud's disease and erythromalalgia, have been most wisely entrusted to Dr. T. Barlow, who first sets forth Raynaud's account and views, and then critically considers whether the results of more extended observation render any modification of his original views necessary. The account of both diseases is extremely complete and is admirably illustrated, both pictorially and by practical observation. In the description of erythromelalgia, a table showing the distinctive features between that disease and Raynaud's disease has been borrowed from Weir-Mitchell, the original describer of erythromelalgia.

This brings the section on the trophoneuroses to an end, and that on the diseases of the nerves begins with a systematic account of the diseases of the spinal nerves by Drs. G. A. Gibson and Fleming, who describe local neuritis of various nerves, neuralgia, sciatica, and so forth. There is an interesting account of amputation neuroma, containing a good description of the minute anatomy. Paralysis of the various peripheral nerves are considered *seriatim*, and a useful table showing the distribution and origin from the successive spinal segments of sensory and motor nerves is appended to the article. Dr. Judson Bury, of Manchester, whose name is already widely known in connection with the subject, has contributed a valuable account of multiple symmetrical peripheral neuritis.

Under neuralgia Dr. Head first describes tic douloureux, and gives statistics of removal of Meckel's ganglion for this fell disease, which are highly encouraging, since in no case has the disease recurred on the affected side. Minor neuralgia secondary to lesions of the teeth is fully described, and a table showing the innervation of the teeth from segmental areas, as far as it has been worked out, is given. In the accounts of other secondary neuralgias the writer necessarily brings in much of his valuable and wellknown work on referred pain and superficial tenderness.

In an exhaustive article on the diseases of the cranial nerves, Dr. Aldren Turner describes *seriatim* the anatomical connections and course of the fibres of the nerves in a most complete and minute detail. Bruce's arrangement of the cell groups of the third nerve nucleus are given, and a description of what is known as to the nerve supply of the iris is included under ophthalmoplegia. Much of the author's original investigations is incorporated in the article. It is shown that the destructive corneal changes following section of the fifth nerve are due not to paralysis but to irritation. A well-considered discussion on the nerves of taste is included. The glossopharyngeal and vagus nerves of ordinary anatomy are described as one nerve, the vago-glossopharyngeal. The anatomical details are rather too full and the clinical part somewhat curtailed.

The outlines of medical ophthalmology are sketched in a well-written article by Mr. Brudenell Carter. Part of what would naturally come into this article—namely, an account of the retinal and papillary changes in renal disease—has been included in Dr. Dickinson's article on "diseases characterised in albuminuria" in vol. iv.

Mr. Horsley writes on compression of the spinal cord, and when speaking of the treatment of deformity of the spine due to tuberculous caries, says: "Recently the old and somewhat barbarous treatment of kyphoses by immediate reduction has been revived, and often improperly regarded as treatment of caries. It is very questionable whether any mechanical advantage accrues to the patient from straightening out the curve."

The concluding article is a very exhaustive description of the affections of the spinal meninges by Dr. Risien Russell. It includes chronic and acute inflammation of the spinal meninges, tumours, hæmorrhage, and a number of other conditions, and is a most complete source of reference on the subject.

Finally, it may be said that the present volume is a worthy successor to the previous volumes of this justly successful *System of Medicine*.

The Throat and Nose and their Diseases. By Lennox Browne, F.R.C.S.E. Fifth edition, revised and rewritten. London: Baillière, Tindall and Cox. 1899. (Roy. 8vo, pp. 1000, 547 coloured illustrations. 31s. 6d.)

The author claims for this edition of his book—which first appeared in 1878—that it is practically a new work. In its preparation he has had the assistance of Mr. Mayo Collier in the chapters on Anatomy, and of the late Dr. Cagney in the chapter on Nervous Diseases of the Larynx, while to Mr. Wyatt Wingrave has been assigned the responsibility for the details of Morbid Anatomy and for the revision of the book. The result is a handsome, profusely-illustrated volume, remarkably free from misprints.

Although we admire the author's skill in drawing, we cannot express entire admiration for some of the coloured plates. To a skilled laryngologist they are unsatisfactory and to a beginner they may be misleading, whereas many of the pen-and-ink sketches scattered through the text are in every way admirable. The reproduction of several pathological specimens, and particularly of the sections stained by the Ehrlich-Biondi method, are excellent.

The book as a whole is not arranged as the younger school of laryngologists might wish. For instance, out of some 900 pages, only 124 are devoted to diseases of the nasal fossæ. We cannot agree with the apportioning of space which allows

ten more pages to the affections of the lingual tonsils than are given to the entire subject of the pharyngeal tonsil and diseases of the naso-pharynx. It is unfortunate that in a textbook such undue importance should be given to diseases of the base of the tongue, and it is surprising that the naso-pharynx should not have received fuller consideration from an author who, in other parts of the work, lays such great stress upon the importance of nasal respiration.

There are not a few statements which are too dogmatic for a general textbook, and some of which the accuracy may reasonably be challenged. It comes to us as a surprise that it should be stated (p. 119) that "the wider the distance between soft palate and pharynx the more surely one may expect, on examination, to find postnasal trouble." This statement certainly demands further inquiry and observation. There is, we believe, a general impression that the case is altogether the other way, and that the happy possessor of a roomy naso-pharynx could tolerate with impunity conditions which would otherwise be most harmful. It is somewhat surprising also to read such a statement as that spasm of the pharynx, "innocent in itself, is, if neglected, liable to lead to true stricture of a practically, if not actually, malignant nature" (p. 303). We know what a complete stricture is, but what is a stricture which is practically, but not actually, malignant?

We cannot agree with the author that "all unguarded forceps are dangerous, and can hold no necessary or justifiable position in the surgeon's laryngeal armament" (p. 172). In skilled hands unguarded laryngeal forceps are as free from danger as any others, and their use is much more precise than any so-called guarded forceps possibly can be. The methods of removal of laryngeal growths described on pp. 665 and 666 appear to have been satisfactory in the author's hands, but we hardly think that they will induce others to abandon the use of finer methods under direct observation. His methods may explain his statement that he has not yet dared to treat a "singer's nodule" surgically, doubting the probability of the restoration of pure tone after such a procedure on an intrinsic portion of the vocal organ. Whilst it will be admitted that these nodules are often amenable to other treatment, and that their disappearance can be brought about in the majority of instances by general measures, yet there are many voice users to whom the loss of time entailed by a prolonged treatment is of the highest importance.

There is a good deal of practical information in the way both of symptomatology and treatment in this book; and we are glad to notice that it is clearly expressed that the sphere of action of gargles is very limited. References are frequent to the writings of French and American colleagues; but, with few exceptions, the work of British laryngologists does not meet with what we consider to be an adequate acknowledgment. Indeed, some most excellent work which has recently been done in this country has been strangely overlooked. The style is not always clear, and in some instances is rather laboured.

NOVA ET VETERA.

"THE GOOD REGENT": A CHRONICLE PLAY.*

The appearance of Sir Thomas Grainger Stewart's fine drama, entitled *The Good Regent* must attract in many ways the interest of the medical profession. However much the profession may be called upon in the course of ordinary duty to study the effects of illness upon the imagination, or of imagination upon illness, or again to study the imaginative faculty as part of the many complexities concerned in the formation of human character, excursions of doctors into the domain of poetical literature are far from common.

As regards the putting of thoughts into verse, Akenside will generally come first to our minds when thinking of medical poets. The *Pleasures of the Imagination* was written by him at the age of 23. It attained at the time a very wide popularity and was followed by other poetical effusions from his pen, but it made no lasting impression, and, reading it to-day, we can hardly understand how it should have attained so high a reputation. Our lamented friend, Dr. Bristowe, published collections of exceedingly readable and artistic poems. In America Oliver Wendell Holmes and Weir Mitchell have both produced very charming poems and also much poetry in the form of refined prose fiction. Both the works of Holmes and the earlier works of Weir Mitchell bear upon them the mark of the medical training and associations of their distinguished authors. But Weir Mitchell has of late years written novels unconnected in any way with medicine, though they manifest that insight into all forms of human thought which is a mark of the highest medical accomplishment. Sir Henry Thompson has written excellent novels, founded on professional knowledge and intuitions; and one great novelist of the present day—Dr. Conan Doyle—after writing much that was concerned with medicine from a scientific point of view, has produced for us novels of a wider range, the offspring of a highly cultivated and powerful mind. Some of these, indeed, are so fine as to have almost the quality of epics.

Sir Thomas Grainger Stewart's drama has no obvious connection with medical study or thought. Its inspiration comes from a deeper personal source. It is the production of an intellect trained and steeped in Scottish inspiration, full of deep religious thought, full of high aspiration. It is the loving portraiture of a man who has come to be the object of the poet's admiration by reason of his sincerity, of his breadth of views and toleration, and of his determination to work for the right through all the difficulties of a turbulent period, through all the entanglings of the most unscrupulous diplomacies, and above all through constant misunderstandings with friends incapable of reaching the height and the breadth of the objects which he has set himself to attain. With all this the work is not by any means merely that of an advocate. If in any way it might be held to contain advocacy, it is the advocacy of noble principles, and of noble and unselfish devotion to them, which pervades the book, and, without in any way introducing the personality, makes one feel in reading it the nobility of the soul and the cosmopolitan knowledge and sympathy of the author.

In the construction of his drama the author owns no trammels of dramatic unities. The action covers about eighteen years, from 1552, where the scene is in Paris, to January 23rd, 1570, the date of the Regent's murder at Linlithgow. In the first scene we are introduced to Mary Queen of Scots, then a child of 10 years, precocious in knowledge and wit, imbued already with strong religious belief, and taking a vivid interest in the amusements of the French Court. We next find her at Orleans, consort of Francis King of France, herself under the style of Queen of France and Scotland. The deadly struggle between the old religion and the new has become more and more pronounced year by year. Mary is seen receiving the representatives of the Scots estates, who are calling for the abolition of the Mass, and of the jurisdiction of the Pope of Rome throughout the realm of Scotland. The scene is rather abruptly terminated by the illness of King Francis, but not before the queen has declared her complete adhesion to the Romish Church, and to all that such adhesion implies. She displays once or twice during the interview somewhat of that subtle and feline sarcasm which was to cost her so much in later days. This trait in her character has been drawn by Scott, with perhaps some exaggerated pungency, in *The Abbot*, where the Lady of Lochleven is again and again worsted by her in wordy contests. It indeed appears probable that Mary's execution was hastened in consequence of the exercise of her sarcasm in letters addressed or shown to Queen Elizabeth of England. Then follows the death of the French King and the subsequent arrival of Mary in Scotland. After her first enthusiastic reception she becomes enveloped in the clouds of religious dissensions, and, feeling her unfitness to carry on the struggle alone, becomes ready to accept the idea of a second marriage in order to consolidate her position. Undeterred by the remonstrances of her brother, the future Regent, and of her most important counsellors, she yields to the lust of the eyes and marries Darnley. We are made to see how, early disgusted with Darnley by reason of his coarseness and brutality, she seeks help and consolation in Rizzio. The scandal involved by this new relation is fully developed, and the catastrophes begin.

The mind of Moray is opened for us in a soliloquy wherein

* By Professor Sir Thomas Grainger Stewart, M.D., LL.D. William Blackwood and Sons, Edinburgh and London. 1893. 8vo, pp. 220. 6s.

both his detestation of Darnley and his hardly-spoken desire to be rid of Rizzio are set forth. Shortly afterwards the news of the murder of Rizzio is brought to him by the leader of the assassins, Ruthven, who gives a full account of the "justification" of the Italian. One catastrophe is now past; a second follows swiftly at Kirk-o'-Field. News of this obscure tragedy is brought to Moray by John Knox, who denounces Bothwell as murderer, and argues that Queen Mary was accessory:

Knox: My mind is haunted by a fearful thought
That one above them all shares in the guilt.
Moray: What do you mean?
Knox: I mean that she whom now,
Even to your face, I must call Jezebel,
Was privy to the plot.

—Act IV, Scene ix, page 127.

The Queen being now in the power and under the influence of Bothwell, Moray sees no safety for himself in Scotland, and flies to France. Meanwhile, the Council of the Scottish leaders meets in Edinburgh, assumes the care of the infant prince, and, after a discussion, in which the various opinions and characters of men like Argyle, Morton, Glencairn, and Knox are tersely and vividly delineated resolves to call Moray back from France and offer him the Regency.

Moray accepts, and on his return is met by Lethington, the mouthpiece of the Council, at Whittingham. From Lethington Moray learns the course of events—the abortive trial of Bothwell, the abduction of Mary by Bothwell, her flight with him, her alleged captivity, the gathering of armed forces on both sides and the meeting at Carberry Hill, ending in the evasion of Bothwell and the imprisonment of the Queen. After listening to Lethington, Moray is crushed by the terrible story of Mary's guilt and of her participation in the guilt of others. When the contents of the fatal casket, left behind in Edinburgh Castle by Bothwell, are revealed by Lethington, Moray is compelled to say:

Ah! If this be true
Her cause is lost. Ruin awaits her. None
Of all earth's monarchs ever sank so deep.
I hold it false till I shall closely scan
These writings for myself. Where are they now?

—Act IV, Scene xiii, page 150.

Queen Mary and Moray meet next in her famous seclusion at Lochleven Castle. In a most pathetic interview, Mary agrees to abdicate the throne in favour of her son James, with Moray as Regent. She is unable to refute the charges brought against her, and throws herself upon Moray's mercy, large enough to forgive even her crimes.

Queen Mary (aside): My deeds, have they
Brought scorn upon my land?
Moray: Proud England rings
With horror and contempt. In France they jeer
And scoff at our coarse ways. They whisper how
Such work could be achieved more subtilely
If we but knew the way. Should they obtain
These damning proofs, that you had part in it,
Our lot must be eternal infamy.
Queen Mary (after long silence and weeping):
Eternal infamy, and wrought by me.
It breaks my heart. Brother, I abdicate,
Not now compelled, but with my soul's assent
I put aside my power, my throne, my crown.
I vow my life like those who in the shades
Of cloistered walls seek peace with God. I vow
To spend my years redeeming all my past.
Till welcome death release me from my woes,
And my sore-stricken land regains its fame.
But you must aid me. You must hold the reins
Until my boy be come to man's estate.
Accept the trust the Estates have offered you—
A trust which I confirm.

—Act IV, Scene xiv, pages 154-155.

Mary's perfidy, however, resumes its sway over her. Freed from the personal control of Moray, and aided by conspirators within and without the Castle, she effects her escape, and, joining hands with Bothwell and his levies, she is for a moment triumphant; but the battle of Langside puts an end to all further hope. Bothwell flies the field, Mary speeds South, and delivers herself up to the representatives of Queen Elizabeth. After this she ceases to appear in the drama, which ends with the conspiracy formed by the Archbishop of St. Andrews and others for the assassination of Moray, now at the height of his power and hailed by the people as "The Good Regent." Their tool, Bothwellhaugh, formerly saved from death by Moray, fires from his hiding place the fatal shot. Moray, at the very moment when the cheers of the citizens of Linlithgow welcome him, falls wounded to the death, and passes after uttering a broken soliloquy of great power and pathos.

Throughout the play Moray's nature and its development in various directions are, of course, carefully studied and analysed by the author. The skein of his life, intertwined at every turn with Mary's vicissitudes, appears in the main three-threaded. There is a thread of deep religious conviction, involving unceasing opposition to the Church of Rome; a thread of true and deep love for his erring sister; a thread of intense patriotism. How far any thread of personal ambition may be mingled with these must be best judged by each person who may read the play. We see him at one time dominated by Knox, and steeled into an austerity which alienates the rest of his colleagues and brings despair to his sister. We see him in another aspect, chivalrous in his support of his sister and burning with aspirations for the well-being and progress of his country and people. At times we are permitted to see him in the enjoyment of domestic life and of pleasant sojourn in his country home under the influence of its scenery, yet carrying with him even there enough of anxiety and dread of calamity to disturb his full happiness. The whole presentment of Moray is favourable enough to justify the designation of "The Good Regent." Among the *dramatis personæ*, Knox stands out strongly, but the limit of this notice scarcely admits of anything like a full discussion of his character.

Argyle and Glencairn, Morton and Huntly, Archbishops Beaton and Hamilton, find their places in the list, each with well-defined personality. Lethington takes his place as a sort of moderator of opinions, and also discharges to some extent the functions of a Greek chorus, noting and commenting on events. The style, while characteristic of each personage, is throughout dignified and the diction always scholarly. There is enough Scottish phrase and intonation to fit with the story and to indicate the local colouring. The mark of knowledge, judgment, and polished literary skill is written on every page.

The dramatist does not forget the humour which is ingrained in Scottish life and thought. He introduces here and there interludes, as perhaps they may be called, in the shape of gatherings of a knot of country people at Widow Campbell's tavern, Edinburgh. The people speak in fairly broad Scotch dialect, and represent the differences of opinion as they affect and are recognised by the country people.

That the poet is strongly stirred by natural scenery comes out on many pages of the book. His power of description and his inborn love of the mountains, heaths, and woods of his country find their expression in such passages as the following:

In such a day which seems
A second summer time, how passing fair
Is all the scene, these mountains and their glens,
The clear-cut outlines of the lofty peaks,
The wooded valleys dark with sombre pine,
Lit up by their red boughs! See how the sun
Makes bright these golden birches! Mark the hues—
The russet brown of heather and the green
Of mossy hollows; while that winding stream
Glints in the sunshine, and the mountain tarns
Sparkle like bright eyes in the lonely moor.

—Act II, Scene vi, pages 58-59.

Who that has plodded among the woods of Scotch pine can fail to recall the lighting up of the stems and branches of the trees by the declining sun, here caught and reflected in rays of coppery lustre, here penetrating amid the trunks, to lead the eye to the sight of the deep blue haze of the recesses of the forest? Who can forget the growing evening when the gleam slowly dies out, and the mist swelling exchanges its blue for grey, and wraps the clumps of pines with solemn "sombreness"?

One song is introduced, John Maitland being the singer—a dainty welcome to the Queen at Holyrood.

Much more might be written about this noble drama. Whatsoever medical man may read it will rise from its perusal with pride that his profession numbers in its ranks an author of such genius as Sir Thomas Grainger Stewart, and I think that no Scotsman will read it without many a thrill of added patriotic pride. It is to be hoped that some day we shall see this drama put upon the stage, for which it appears to be in many and essential ways admirably suited.

W. M. O.

The late Mr. Francis Heathcote has bequeathed to the Royal Sea Bathing Hospital Margate, the sum of £10,000.

LITERARY NOTES.

MESSRS. BAILLIÈRE, TINDALL, AND COX ask us to correct a statement made in this column last week to the effect that they are about to publish a work entitled *The Administrative Control of Tuberculosis*, by Sir William Broadbent and Dr. John Broadbent. The work in question which consists of the Harben Lectures, 1898, by Sir Richard Thorne, is already published. Sir William Broadbent and Dr. J. Broadbent are engaged in the preparation of an enlarged edition of their work on diseases of the heart, which Messrs. Baillière, Tindall, and Cox hope to have ready next month.

In the catalogue of "valuable books and manuscripts" to be sold by auction by Messrs. Sotheby, Wilkinson, and Hodge on Monday, April 24th, and three following days, there are several "lots" of interest to medical antiquarians and lovers of old books. Thus in the list of the second day's sale we find Hieronymus Mercurialis, *De Arte Gymnastica*, "with curious full-page woodcuts," Paris, 1577; T. Gale, *Certaine Workes of Chirurgerie*, "newlie compiled and published by Thomas Gale, Maister in Chirurgerie, black letter, 1586;" H. Chapman: *Thermæ Redivivæ: The City of Bath described, with some Observations on those soveraign Waters*, 1673; N. Culpeper: *Pharmacopœia Londinensis, or the London Dispensatory*, 1661; J. Hill: *The British Herbal*, 1756; A. Paré, *Les Œuvres d'Ambroise Paré*, Conseiller et Premier Chirurgien du Roy, "with numerous woodcuts in the text, including a number of monstrosities," Paris, 1585. In the list of the third day's sale we note: "*A Closet for Ladies and Gentlemen, or the Art of Preserving, Conserving, and Candying, etc.; also divers Soveraigne Medicines and Salves for Sundry Diseases.* At London, for Arthur Johnson, dwelling neere the great North Dore of Pauls, 1608." This is apparently the first edition of this cookery and receipt book; the earliest mentioned by Hazlitt is that of 1630. Among the books forming "a portion of the valuable library of the Rev. F. K. Harford, Minor Canon of Westminster"—also in the third day's sale—is the following "very choice and interesting English MS." of which we give the description as it stands in the catalogue:

Cauliacus (Guido). "Here Begiiney ye Iuventorie or ye Collectoriie in Cirurgicale Parte of Medicene. Compiled and Complete i ye Zere of Oure Lord 1363 by Guydone ✣ Gy de Caulyiaco, Cyrurgien, Maistr. in Medicene ✣ doctor of Phisic, in ye ful clere studie of Montis Pessulani ✣ Montpelers, wt. som addicons of oth. doctourez necessary to ye foresaid Arte or Crafte." English Manuscript on Vellum (181 *ll.*), clearly written in black letter, double columns of 48 lines, rubrics, headings, paragraphs, etc., in red, blue, and green, 14 Very fine Ornamental Painted and Illuminated Initials, with charming Floreate Marginal Decorations, several hundred smaller illuminated initials, drawings of Surgical Instruments, etc. (margins of leaf 80 cut off, 1 leaf defective), oaken boards, old calf, with clasps. (End of XIVth Cent.)

In a "Medical Ballad," of which a copy has been sent to us, Dr. Herbert Crosse of Norwich sings the professional prowess of "Hippocrates John Hunter Brown." The career of that eminent practitioner forms a fitting subject for the epos, and his *vates sacer* has done justice to his high theme. The medical instinct showed itself early in Hippocrates Brown, for we are told that

> At school he would not leapfrog play,
> But went and made himself a tray,
> Often in which the livelong day
> He'd prod the dead Batrachian.

This is a form of scientific research to which even Mr. Stephen Coleridge could hardly see any objection. At Cambridge, when his friends went to study "life" in the music halls he would "stew at Michael Foster." Even in his diet he was strictly professional:

> An Abernethy biscuit he
> Would take for breakfast and for tea;
> He worshipped Jenner's memory,
> So lunched off double Gloster.

In the fulness of time he bought

> a nice brass plate,
> And cheerfully sat down to wait
> For private patients.

But his practice was of "a very very private" kind till he adopted the course of enlightening the pensive public as to his merits. This he did with such success that his professional brethren were naturally greatly shocked. But Hippocrates Brown bore their evil opinion with exemplary fortitude:

> "A plague on Ethics," Hippy cried,
> "I'll no such hobbyhorse bestride,
> Our wily seniors can ride
> With Styrap—when it suits 'em.

As for him

> He rose to riches and to fame,
> His objects high, his fees the same,
> He cared for neither praise nor blame,
> Nor cynics' cachinnations,
> He'd operate, I'm much afraid,
> For homœopaths—if cash was paid—
> Or gentlemen attached to Aid—
> Hush! hush!—Associations.

In the interest of poetical justice we are grieved to record that Hippocrates died "consistent to the last" in his reprehensible views of medical ethics, and if he did not die in the odour of professional sanctity, at least he was inodorously resolved into his constituent elements, for

> They kept his wake at Woking.

THE PREVENTION OF TUBERCULOSIS.

BELFAST.

A TOWN meeting to found a branch of the National Association for the Prevention of Tuberculosis was held in the City Hall, Belfast, on April 4th, under the presidency of the Lord Mayor, Mr. Otto Jaffé, J.P. The attendance included the Marquis and Marchioness of Dufferin, the Marquis of Londonderry, Lord Dunleath, Colonel M'Calmont, M.P., Sir James Henderson, Sir Samuel Black, Sir William Broadbent, Bart., Rev. T. Hamilton (President Queen's College), and a large representation of the medical profession and leading citizens of Belfast. Dr. Howard Sinclair and Mr. Herbert Ewart acted as secretaries to the meeting. After some preliminary business had been disposed of, Sir W. BROADBENT delivered an address. He said that it was fitting that Belfast should take a prominent position in the present movement, as the late Dr. Henry MacCormac, of Belfast, had been a pioneer in the preventive treatment of consumption. He wrote a book which made a great impression upon his (the speaker's) mind at the time on the causation of consumption by rebreathed air, and he preached ventilation both by way of prevention and cure. Speaking of the communicability of the disease, Sir William Broadbent said that the panic which had arisen in some minds was altogether baseless. He did not think that the public would submit to the compulsory notification of consumption, but much might be done by voluntary action. Whenever a patient died from consumption, the death certificate should be a notification of the disease, and all rooms in which a consumptive patient had died should be thoroughly and completely disinfected. It was a mistake to say that the Association was interfering with the proper work of the family medical man. The first requisition for a meeting for the formation of branches of the Association had come from the medical profession. Many medical men were so circumstanced that they could not insist upon unpalatable truths, and the Association would help the family medical man to enforce those precautions which were necessary in the interests of the community, and would assist instead of interfering with him. One result upon which the Association had to congratulate itself was that the agitation which had been started had led many of the large dairy associations to adopt precautions against tuberculosis, and they were followed by many of the more enlightened dairy farmers and by many private individuals. The loss would not ultimately be very great. As regarded the open-air treatment of consumption, he was glad to learn that it had been started at the Forster Green Hospital. It had been shown by quite satisfactory experience that it was possible to treat consumption successfully by the open-air method in such different localities as Edinburgh, Norfolk, various other parts of England, and in Ireland. What they had to do was to ensure that every large centre of population should have within easy reach some place where the open-air treatment could be carried out, and he thought municipalities would come to recognise that it was cheaper to send their consumptive patients to a place where they would have a chance of recovery, rather than simply to house them in infirmaries until they died.

Lord Dufferin proposed a resolution approving of the constitution and rules of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

The President of the North of Ireland Branch of the British Medical Association (Dr. O'Neill) seconded the resolution. The deaths from consumption in Belfast were 3 per 1,000, and

that did not include the deaths from such tuberculous maladies as hip-joint disease, knee-joint disease, meningitis. Much was being done in Belfast to abate the ravages of the disease. Their mills and factories were now thoroughly ventilated. They had a thorough system of cattle inspection at their abattoirs, and the milk supply was carefully examined. The city was well supplied with parks and public baths. The health of the people should be the supreme law.

The resolution was carried unanimously.

Lord Londonderry moved the election of the President and Vice-Presidents of the Belfast Branch of the Association: *President:* The Marquis of Dufferin and Ava. *Vice-Presidents:* The Marchioness of Dufferin and Ava, the Marquis of Londonderry, Viscount Templeton, Sir W. Q. Ewart, Bart., Sir James and Lady Henderson, the Right Honourable Thomas Sinclair, D.L., Professor Cuming, Mr. Arthur Hamill, J.P., Mr. Forster Green, and Mrs. Green.

Dr. Lindsay, in seconding the motion, said there was great need for a branch of the Association in Belfast, as consumption claimed about one death out of every six in the city.

The resolution was passed unanimously.

Mr. R. H. Reade moved the election of the Executive Committee.

Dr. Calwell, in seconding, suggested that in connection with their unions and infirmaries special wards might be set apart for the worst cases of tuberculosis, so that their sanatoria might be left open for those cases in which a real hope of recovery might be entertained.

The resolution was passed.

Votes of thanks to Sir William Broadbent for his address and to the Lord Mayor concluded the proceedings.

Tuberculosis in Milk.

Professor Owen Williams, of the Edinburgh New Veterinary College, recently gave a lecture on Tuberculosis to the Edinburgh and District Dairykeepers' Association. In concluding his lecture he made the following suggestions: That as far as possible the cows from which they obtain their milk should be kept in well-lighted and well-ventilated byres, and if possible should be turned out of their byres for a short time every day, so that the place could be well aired. Owners should endeavour to have their premises thoroughly disinfected, and frequently done, if they had disease amongst their cows. Fresh air and sunlight were both extremely good disinfectants. Thirdly, they should decline to receive any milk from a cow which had any udder complaint until their professional adviser could assure them that the milk was free from danger. It often happened that a cow got a cold in a quarter of her udder, and after the inflammation had subsided the milk might become normal and good for use. Another matter which should be taken notice of was the using of tuberculous animals for breeding purposes. The managers of the various agricultural shows—particularly the Highland Agricultural Society—should encourage this matter by insisting that no animal should be eligible for a prize unless that animal was certified to be free from tuberculosis. He also urged that the Government should take the distribution of tuberculin into its own hands, and see that it was not only of proper quality, but that it was used for proper purposes. Another all-important thing was the inspection of meat, and in this connection he said that sufficient notice was not taken of imported meat, and especially of hams, bacon, and tinned meats. They had all read the statements made as to the commissariat of the American army during the late war; and if they could give that sort of stuff to their own soldiers, what might they not be sending over to us?

Tuberculosis in Cattle.

Whilst the Cheshire County Council has been conducting an inquiry into the existence of tuberculosis in cattle (an account of which appeared in the British Medical Journal recently) the Agricultural Subcommittee of the Lancashire County Council has instituted a similar series of experiments with the same end in view. In 1895 it was decided to test the dairy herd of the Council, with the result that of 14 animals tested, 9 reacted. These 14 were retested five weeks later with precisely similar results, except that one cow, which had obviously deteriorated in the meanwhile, did not react. It died during the following month from tuberculous meningitis. That it did not react at the second occasion is in conformity with the usual finding in cases of advanced tuberculosis, when the usual dose of tuberculin has been injected. Two of the healthy and two of the reacting animals were slaughtered. Tuberculous deposits were found in the latter, but not in the non-reacting cows.

Early in 1896 the rest of the herd was tested, with the result that 25 out of 33 reacted (75.75 per cent.). But of the young stock bred on the farm—27 in number—only one reacted. As a consequence, and with a view to preventing the spread of tuberculosis, the Committee resolved that the healthy should be isolated from the tuberculous animals, that the cowhouses should be thoroughly disinfected, and that all calves should be reared on the milk of non-reacting cows. These measures were so effective that in January, 1898, only 31.43 per cent. of the cows reacted, and none of twelve young bulls, and upon again testing the herd later in 1898 only 4 out of 37 cows reacted (10.9 per cent.), and of 51 young stock only 2 reacted (3.9 per cent.). The *post-mortem* examination of reacting animals gave 94.4 per cent. tuberculous, and of non-reacting animals 100 per cent. were free from tuberculosis. Of 47 cows that died or were slaughtered, only 2 showed tuberculosis of the udder. The gradual stamping out of the disease on the Council's farm shows that the intelligent working out of such rules as are dictated by theory gives gratifying results within a comparatively short period. The policy of buying only non-reacting cows, and of breeding only from healthy stock, combined with improved hygienic conditions will, it is to be hoped, achieve its own reward within the next two years, namely a healthy stock, in which lies dormant no inherited tendencies.

THE MEDICAL DEFENCE UNION.

The annual general meeting of the Medical Defence Union was held at St. Martin's Town Hall on April 6th; the chair being taken by Dr. W. S. A. Griffith, the President.

The report mentioned that since the last annual meeting the offices of the Union had been removed to larger premises at 4, Trafalgar Square, W.C. The work of the Union during the year showed no falling off in amount, and cast a most onerous duty upon the Council, the Executive, and Emergency Committees. The funds of the Union were in a healthy condition. The income had been more than sufficient to meet the yearly expenditure, although in the majority of actions brought against members which had to be fought out at the courts the costs had to be defrayed by the Union, the plaintiffs usually being men of straw, from whom nothing could be obtained. In many instances, however, as soon as it became known that the action would be defended by the Union it was not proceeded with, for it had become pretty well known that the Union never compromised any case which it took up.

Special attention was directed to the fact that if a member was in arrears with his subscription it was impossible for the Union to take up his case during such period as he remained in arrears. Further, the membership of the Union was purely personal and professional, and could not include the action of a partner or qualified assistant, so that a firm could not be defended in an action if all the members were not members of the Union; the case only of the individual member could be taken up by the Union. It was desirable, therefore, that members taking a partner or an assistant should insist that they should join the Union. The opinion was expressed that a new Medical Act was an absolute necessity, and this was illustrated from the experience of the Union during the year 1898. There was no certainty or uniformity in the administration of the Medical Acts, and however clear the evidence might be as to the guilt of a defendant, it was impossible to say that the verdict would be given against him. As to this, the Council had come to the decision that it was not advisable to spend the funds of the Union upon prosecuting unqualified practitioners.

The Solicitor's report dealt in some detail with the legal work of the Union during the year, illustrating the classes of cases which came under consideration, mentioning in particular the prosecution of "Dr. Matthews," of Norwich. The Solicitor, Mr. Hempson,

also expressed the opinion that in view of the anomalies which prevail, it is a matter of absolute uncertainty what decision can be expected in any case, and that until the law is placed upon a more definite and ascertained basis by an amending Act of Parliament, the Union would be well advised to undertake no further prosecutions under the Medical Acts.

In proposing the adoption of the report, which had been circulated, the PRESIDENT said probably very few except those who benefited by the work of the Union and those engaged in its work had any conception of what was done on their behalf gratuitously by a few medical men from different parts of the country. The amount of time which the work of the Union demanded from the members of the Council had now got to be a serious matter, and those upon whom the bulk of the work devolved certainly found it necessitated considerable sacrifice on their part. The work was increasing as the report showed, and it was increasing to a very considerable extent. He could not give any exact facts as to the number of matters which used to come before the Council, but instead of meeting occasionally, as in the early days of the Union, it was now necessary to meet not less than twice a month, and the amount of work to be done at these meetings was so great that it was frequently not possible to get the work completed between 4 and 6.30 P.M. The first section of the report was compiled by Dr. Bateman, who had written the greater part of it during his convalescence from a serious illness, from which they were all glad to see him return strong and well. The exceedingly valuable report of the solicitor, Mr. Hempson, followed, and in mentioning these two gentlemen first he considered no one could doubt that the success of the Union to a large extent depended on them; the responsibility for deciding matters of principle came upon the Council, but the carrying out of the work rested with these two gentlemen, and the great success of the Union depended on their very able work. The work of the treasurer and the Finance Committee was of almost equal responsibility to that done by the secretary and solicitor, and he felt strongly, though the matter had not been before the Council, that some steps should be taken—he could not say adequately—to recompense the Treasurer, Dr. Masters, and to recognise the value of his services. He was also glad to say that the finances of the Union were in such a satisfactory condition that this could well be done. Especially was this desirable, because during Dr. Bateman's illness Dr. Masters did the bulk of the heavy work, and he could not let this meeting pass without expressing their thanks to Dr. Masters for so ably doing the Secretary's duties at a moment's notice for two months. In mentioning these three gentlemen no one would suppose that he wished to omit the members of the Council. Men came from distant parts of the country to take part in the ordinary routine work of the Council, and if it were not for these men representing so many varied interests, the work of the Union would not be done in the same excellent way that it was. He was certain that it would be the feeling of every member of the Union that they were in the highest degree indebted to the members of the Council who attend to do the Union's work. So long as he held the very responsible post of President he would endeavour to make it his principal duty to carry out the first object of the Union, and the one which he felt sure all would agree to—namely, to defend and assist in every possible way its members when unfairly attacked in matters relating to their professional duties. Other matters were frequently before the Council affecting the profession as a whole rather than individual members of the Union, and the Council were asked to take action in regard to them; but until the profession had generally agreed to a solution of these questions, it seemed to him to be undesirable to go beyond matters on which there was general unanimity. For difficulties would at once arise which would tend, not to unite their members, but rather to split them asunder, and he personally—and he believed he was expressing the feelings of his colleagues of the Council—was of the opinion that it was wiser to take up the work that lay before them—and there was plenty of it—rather than take part in discussions on matters which might lead to serious differences of opinion amongst themselves. The question of medical aid societies had been discussed in the Council and referred to a Committee to report as to whether any further steps should be taken to investigate more closely the circumstances of candidates before electing them members of the Union. This was a matter on the principle of which all were agreed, but no one had yet suggested a practicable method for carrying this out.

Dr. FELCE, in seconding the adoption of the report, drew attention to the fact that it did not refer to all the cases that came before the Council, and stated that the name of the Medical Defence Union was one which the public had learned to regard with respect, and it was in many cases quite sufficient for it to be known that the Medical Defence Union was defending a member for the attack immediately to cease.

Dr. BOUSFIELD regretted the absence of the Schedule of Cases from the report.

The resolution for the adoption of the report was then unanimously carried.

The retiring members of the Council, Dr. W. S. A. Griffith, Dr. A. H. Jones, and Dr. T. Garrett Horder were re-elected; the accounts were received and adopted, and Mr. Hardy was elected Auditor.

On the motion of the TREASURER (Dr. Masters) a sum not exceeding £100 was allotted *pro ratâ* to the provincial members of the Council as payment or part payment of their railway fares whilst attending Council meetings, an amendment proposed by Dr. PURCELL, and seconded by Dr. BOUSFIELD, to make the sum £120 having first by permission been withdrawn.

The following resolution was proposed by Dr. DANFORD THOMAS, and seconded by Dr. HERRINGHAM:

That this meeting of members of the Medical Defence Union, believing that no effectual legal action can be successfully taken against quacks and other unregistered and unqualified persons practising medicine for gain under the provisions of the present Medical Acts, do consider that the time has arrived for the promotion of a Bill in Parliament for the amendment of the same, and that this meeting would further suggest that the Council of this Union should take such action in the matter in conjunction with other associations as may by them be deemed advisable, to assist in supporting such amended legislation as may effectually protect the interests of the medical profession as well as those of the public generally.

Dr. LOVELL DRAGE referred to the injustice done to the public by unqualified and unregistered people practising on certificates issued by registered practitioners, and quoted a certificate from the Army Medical Department practically giving the holder the right to practise midwifery.

The resolution was then put and carried unanimously.

The meeting terminated with a cordial vote of thanks to the President.

THE NEW LUNACY BILL.

A BILL entitled "An Act to Amend the Lunacy Acts," introduced by the Lord Chancellor, was ordered to be printed on March 27th. The following is an abstract of its principal provisions:

URGENCY ORDERS.

Clause 1, Subclause (1), substitutes "four days" for seven days as the duration of an urgency order. Subclause (2) enacts that

Every urgency order shall be accompanied by a statement made and signed by the person who signed the urgency order, and by the medical practitioner who signs the medical certificate..... That it is necessary for the safety and proper treatment of the alleged lunatic, or for the safety of others, that he should be forthwith placed under care and treatment, and showing fully and specifically the reasons why an urgency order is required.

Subclause (3) makes the penal section (317) of the principal Act, in regard to wilful misstatements, apply to the statement of this clause. It is identical with the provision in the Bill of last year.

JUDICIAL AUTHORITIES AND RECEPTION ORDERS.

Clause 2 provides (1) that for purpose of Section VIII of the principal Act a patient shall be taken before or visited by the judicial authority who made the order; also (2) that any person who is justice of the peace, *by virtue of his office* may be appointed a judicial authority; that (3) the names and addresses of justices appointed as judicial authorities shall be sent to the Commissioners and the Masters in Lunacy; and

(4) that "no fees shall be payable in respect of any proceedings before a judicial authority for a reception order."

Specification of Asylum.

Clause 3 provides that an order need not specify the particular asylum of a county or borough where there are more than one. A small but useful amendment.

Suspension of Summary Reception Order.

Clause 4 provides that the suspension of a summary reception order shall run from the date of the order; that the medical certificate may be given before or after the order; and that the subsequent certificate of removal shall certify that the lunacy continues. These are useful and desirable additions.

Detention in Workhouse.

Clause 5 limits the detention of an alleged lunatic in a workhouse, on a justice's order pending inquiries, to three days.

"Absence for Health."

Clause 7 provides for notice being sent to the Commissioners of the name, address, and duration of absence of a patient for reasons of health.

Borough Asylums.

Clause 8 extends provisions in the original Act to borough as well as county asylums.

Property of Lunatics and Visits to Licensed Houses.

Clause 10 extends the powers of dealing with the property of lunatics to a lunatic in a workhouse.

Clause 11 provides that a house licensed for not more than ten patients may be visited by a single Commissioner.

Special Inquiries.

Clause 12 extends the powers in regard to inquiries connected with the cure and treatment of any lunatic or alleged lunatic, or as to the administration of the place of detention. "The Lord Chancellor or a Secretary of State may by order in writing require any person to attend and give evidence upon oath at any inquiry," and to produce documents, etc., relating to such inquiry. Any person, having had reasonable expenses for attendance tendered him, failing "to comply with order shall be liable on summary conviction to a fine of ten pounds, or on conviction on indictment to a fine not exceeding fifty pounds or to imprisonment not exceeding two years."

Reception of Boarders.

Clause 13 (1) permits the manager of an asylum or hospital to receive a boarder with the consent in writing of two of the members of the visiting committee either before admission *or within seven clear days after the reception*. The consent to admission may be given by one instead of two commissioners.

These changes will facilitate the admission of voluntary boarders. The other subclauses remain unchanged from last year.

Limitation of Numbers.

Clause 14 limits the number of patients in any hospital and its branches to the number for which the hospital is certified. The superintendent for a breach of this clause being liable to a fine not exceeding £50.

Powers of Commissioners.

Clause 15 gives the Commissioners powers to require amendments of the regulations of lunatic hospitals.

Clause 16 gives the Commissioners power of inquiry in regard to the management of lunatic hospitals, and to require that "such things be done as the Commissioners think proper for rendering the management satisfactory or for carrying out the regulations."

Clause 17 enacts that a branch establishment in connection with an asylum or a hospital, shall be deemed to be part of the asylum or hospital, provided that "no patient shall be *received in the first instance* under a reception order in a branch establishment, and that a branch establishment need not be visited in any one year by more than one Commissioner."

The Clauses 14 to 17 greatly increase the authority of the Commissioners over the lunatic hospitals.

Reception Contracts, Plans, and Dissolution of Agreements.

Clauses 18, 19, and 20 refer to reception contracts, plans and contracts of alterations and extensions and dissolution of agreements; they are identical with those in last year's Bill (July, 1898).

Pensions and Allowances.

Clause 21, which is new, entirely destroys all certainty of pension, which might by it be reduced to one farthing per annum. The following is the text of this clause:

Pensions and Allowances.—(1) It shall be the duty of the visiting committee of every asylum to grant to such of their officers and servants as are engaged in the care or treatment of lunatics superannuation allowances under Section two hundred and eighty of the principal Act, and it shall be the duty of the county council to confirm the grants so made, and the allowance to be granted to an officer or servant under that section shall be at the rate of one-sixtieth of the value of his salary and emoluments for each year of service in every case in which he *has served with diligence and fidelity to the satisfaction of the committee.*

(2) *Where an officer or servant has not served with diligence and fidelity, the committee may grant him such allowance of less amount as they think proper.*

(3) Provided that an officer or servant shall not be entitled to the grant of an allowance if he has voluntarily resigned his office, not being fifty years of age, or not being incapacitated by confirmed illness or infirmity, or if he has been dismissed from his office for misconduct.

Grant of Allowance or Gratuity in Cases of Injury.

Clause 22 is as follows:

Where any officer of an asylum is injured—

(*a*) in the actual discharge of his duty; and

(*b*) without his own default; and

(*c*) by some injury specifically attributable to the nature of his duty:

the visiting committee may grant to him out of the county or borough fund, as the case may be, such annual allowance, or, if he dies from the injury, to his widow or mother, and to his children, or any of them, such annual allowance or gratuity as the visiting committee may consider reasonable, subject to the regulations contained in the first schedule to this Act.

Adjustment of Liabilities.

Clause 23, which provides for the adjustment of liabilities between local authorities and guardians, is unchanged from last year.

Temporary Care of Incipient Insanity.

Clause 24, which has been introduced into the Bill in response to expressions of opinion recently made to the Lord Chancellor by a deputation from the British Medical and the Medico-Psychological Associations. It runs as follows:

(1) If a medical practitioner certifies that a person is suffering from mental disease, but that the disease is not confirmed, and that it is expedient, with a view to his recovery, that he be placed under the care of a person whose name and address are stated in the certificate for a period therein stated, not exceeding six months, then during that period the provisions of Section three hundred and fifteen of the principal Act shall not apply.

(2) The certificate must not be signed by the person under whose care the patient is placed.

(3) Where a medical practitioner signs any such certificate he shall, within one clear day after signing it, send a copy of it to the Commissioners, and the Commissioners may visit the patient to whom the certificate refers.

(4) The person who receives a patient under any such certificate shall, within one clear day after receiving the patient, give notice to the Commissioners of his reception, and if the patient dies, or the residence of the person receiving him is changed within the period mentioned in the certificate, shall within two clear days give notice of the death or change of residence to the Commissioners.

(5) He shall also, within two clear days after the expiration of the period mentioned in the certificate, or if he ceases to have the care of the patient at an earlier date, then within two clear days after that earlier date, send a report to the Commissioners stating whether the patient recovered, and if not, in what manner he was dealt with when the person making the report ceased to have the care of him under the certificate.

(6) If default is made in sending any notice or report required by this section, the person in default shall be guilty of a misdemeanour and be liable to a penalty not exceeding fifty pounds.

(7) No person shall under this section receive more than one patient at the same time.

(8) After the expiration of the period mentioned in the certificate, another certificate under this section in respect of the same patient shall not be given within two years from the date of the expiration.

Administration.

Clause 25 extends the penalties for offences against patients to "any person employed in the care of a single patient or of a lunatic in a workhouse."

Clause 26 permits the Masters in Lunacy (subject to rules of court) to exercise the jurisdiction of the Judge in Lunacy.

Clause 27 amends the administrative powers in the case of persons not found lunatic by inquisition. The principal

change is the deletion from the principal Act of the property limitation of £2,000, or an income of £100.

Clause 28 provides for visits by the Chancery ? to lunatics "not so found" mentioned in Section CXVI of the principal Act. A very necessary and desirable provision.

Clause 29, "effect of inquisition upon reception orders," remains unaltered from last year's Bill.

Clauses 30, 31, and 32 are merely formal.

THE LEAGUE OF MERCY.

WE learn that the Great Seal has now been affixed to the Charter of the League of Mercy. The League is the outcome of a preliminary meeting summoned by His Royal Highness the Prince of Wales at Marlborough House on March 1st, and its object is to promote the welfare of the Prince of Wales's Hospital Fund, more especially by encouraging personal service in the cause of the sick and suffering in the London hospitals, such services to be acknowledged by the bestowal of "The Order of Mercy."

At the time of the Diamond Jubilee it was generally recognised that no more fitting mode of commemorating Her Majesty's illustrious reign could be devised than that by which it was hoped the metropolitan hospitals would be freed from their load of debt, and liberally aided in their most beneficent labours.

If our hospitals are to remain in the future, as they have been in the past, dependent on voluntary support, and neither rate-aided nor State-aided, it is essential that all legitimate means should be provided for enlisting the willing co-operation of all who seek an outlet for genuine philanthropy, as well as of those who directly or indirectly benefit by hospital treatment or hospital-acquired knowledge.

The Prince of Wales has shown that he is indeed the friend of the London hospitals, but the work is so vast, and the need of continuous and personal service so exacting, that some recognised system to keep the service in repair and sustain personal effort is considered to be essential.

We gather from the Charter, which lies before us, that the League consists of the Sovereign (Her Majesty the Queen), a Grand President (His Royal Highness the Prince of Wales), a Lady Grand President (Her Royal Highness the Princess of Wales), Presidents, Lady Presidents, Vice-Presidents, Lady Vice-Presidents, Members, Lady Members, and Associates (both gentlemen and ladies). In order to carry out the purposes for which the League of Mercy has been formed, the whole of London and the Home Counties have been divided into about one hundred districts. The boundaries of each district are as nearly as possible those of the several Parliamentary divisions. For each of these districts one President and one Lady President will be appointed. The President will divide his district into not more than thirty subdistricts, and to each of these subdistricts he and the Lady President will respectively assign one Vice-President and one Lady Vice-President. With each Vice-President and with each Lady Vice-President will be associated not more than twenty members, gentlemen or ladies as the case may be. Each Member and Lady Member will undertake to secure every year at least twenty subscribers (to be called Associates) of one shilling and upwards to the Prince of Wales's Hospital Fund for London.

The Order will be conferred by Her Majesty the Queen, on the presentation of His Royal Highness, as a reward for personal services only, and such services must have been gratuitously rendered in connection with the relief of sickness, suffering, poverty, or distress. Subject to the foregoing essential condition, but not otherwise, Chairmen of the Committees of Hospitals who have actively held that office for at least ten years, founders and benefactors of important hospitals and other institutions for the relief of sickness and suffering, persons who have gratuitously rendered the required services to the League for five years at least and persons giving gratuitous services, which should render them worthy in the judgment of the Grand President, are eligible to receive the Order.

Provision is made in the statutes for holding divisional and presidential meetings, and a great meeting will be held annually, at which the Prince of Wales as Grand President will preside, and all the workers in the League of Mercy will be invited to attend.

We are informed that those who desire to co operate in the work of the new League can obtain information from the local branches in their respective districts. Central offices have been opened at 28, Southampton Street, W.C., where Colonel Knollys is in attendance as Registrar, to give all information and advice that may be required. Lord Wolverton, Dr. W. J. Collins, and Mr. J. Harrison, of the Privy Council, have been appointed by the Prince of Wales as Honorary Secretaries, and Sir Henry Burdett is the Honorary Treasurer.

It will be noted with satisfaction that the Order is to be bestowed for personal service only; and that no shadow of a suspicion that mere money giving is to constitute a claim for recognition will be allowed to arise. It is doubtless true that the great want of our hospitals has been and is the sinews of war, and that the giver of wealth is a true benefactor; but while such benefactions will not disqualify the donor, they are to constitute no claim in default of personal service.

THE MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held on March 24th at 429, Strand, London. There were present Dr. DE HAVILLAND HALL, Chairman, Dr. J. B. Ball, Mr. J. Brindley James, Mr. F. Swinford Edwards, Dr. J. W. Hunt, Dr. Francis J. Allan, and Dr. W. Knowsley Sibley.

The accounts presented showed that the business of the Society was progressing in a satisfactory manner, although, as is usual in the spring of the year, a rather heavy claim list was produced. About one-half of the sickness claims received by the Society during the last three months have arisen from influenza, but with few exceptions they have been of short duration, and there is little doubt that the epidemic has not been of anything like the same severity as in previous years.

The quinquennial valuation of the Society's business is now in progress, and there is every reason to hope that the Committee will be able to announce to the members at the general meeting to be held in May that a considerable surplus exists. This surplus may be applied, as on the last occasion, to the payment of a cash bonus to the members or in any other manner that the general meeting may determine. The reserve funds of the Society are now very large, amounting to over £126,000, and are ample to ensure the certain payment of the benefits provided by the Society. Some of these, such as the payment of annuities till the age of 65 to members totally and permanently incapacitated from performing professional duties, involve a considerable outlay; but the flourishing state of the Society's finances enables the Committee to make special reserves to meet all such cases, in addition to valuing the business on the stringent bases used in 1893.

Prospectuses and all particulars can be had on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

SANITATION AND THE CHURCH CRISIS.—The *Humanitarian* for March delivers itself as follows: "The crisis commends itself on two grounds hygienic, not doctrinal, namely, fasting and incense. (1) Fasting. Experience goes to prove that abstinence from flesh food during the spring time of the year (Lent) is decidedly good for health, and cleanses the blood from impurities. (2) Incense—which it has reason to believe is a strong antiseptic and disinfectant. In a crowded London church, where many people are herded together breathing impure breath and foul air, incense is decidedly destructive to microbes, and for that reason the use of incense ceremonially or otherwise is favoured."

MUNIFICENT BEQUESTS TO BIRMINGHAM CHARITIES.—Mr. Richard Cadbury, a partner in the well-known firm of Messrs. Cadbury Brothers, lately died in Palestine, where he had gone for a holiday. Mr. Cadbury during his life was one of the city's most generous philanthropists, and took the greatest interest in many of its charitable undertakings. Under the provisions of his will the following charitable legacies are announced to hospitals: The Temperance Hospital, London, £10,000; the Birmingham General Hospital, £5,000; the Birmingham Eye Hospital, £5,000; the Birmingham Ear and Throat Hospital, £2,500; the Birmingham Orthopædic Hospital, £2,500. In addition to these, large sums of money are left to other charitable purposes, some £40,000 in all being thus given away.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 15TH, 1899.

THE NEW LUNACY BILL.

That the Lunacy Acts should already require amendment to the extent of thirty clauses, many of considerable importance, affords striking evidence of the modern and active interest in insanity, and is a testimony to a feeling of dissatisfaction with the existing law, in spite of—perhaps even by reason of—the efforts that have been made in recent years to improve it. The Lunacy Bill of the present session reproduces to a considerable extent the provisions of the Bill as amended and printed at the end of the Parliamentary session of 1898, but there are certain important differences.

One of these is the introduction of an entirely new clause relating to the temporary treatment of incipient insanity. This clause so closely follows the recommendations of the Joint Committee of the British Medical and Medico-Psychological Associations recently brought to the notice of the Lord Chancellor by a deputation representing these two societies,[1] that only satisfaction can be expressed in regard to it. The seventh subclause, which limits these cases to single care, may require some consideration, as well as the eighth subclause, by which two years must elapse before the patient can be placed under temporary care a second time. The early removal from home which this clause will facilitate will render suitable early treatment possible in many cases; but the limitation of the duration of temporary care will probably result in many patients being admitted to asylums who would otherwise remain for protracted periods in private care.

The other most important novel features in the new Bill are the provisions with regard to pension and gratuity, and they are open to grave objections. Pensions of asylum medical (and other) officers have hitherto been permissive, but not illiberal. But the fact that the grants were permissive has led, in a certain number of instances, to the infliction of a great injustice. Further, the uncertainty thus arising is seriously felt by asylum physicians, whose provision for advanced age necessarily largely depends on the amount of the pension to which they can look forward. Many officers of asylums in the poorer counties and boroughs would probably, if it were absolutely assured, be inclined to accept the scale of pension offered in the present Bill (one-sixtieth of the pay and emoluments for each year of service), though it is a poor rate of pension when the very arduous nature of the work and the risks it entails are taken into consideration. A serious effort must therefore be made to amend the clause so that this rate should be declared the minimum scale of pension, while leaving power to the authorities who give the pension to grant the existing scale under suitable circumstances.

The medical officers of our asylums especially suffer in this regard, from the fact that previous service in other counties or boroughs and the time spent in acquiring professional training and experience do not count towards pension. This should be met in all cases by allowing a certain number of years towards pension, as is done in the case of first-class civil servants, and thus remedy an undoubted hardship.

The pension clause of the present Bill differs from that of last year in the proviso that the pension is made dependent on the fact that the officer "has served with diligence and fidelity to the satisfaction of the Committee;" and where this has not been the case "the Committee may grant him such allowance as they think proper." These provisions of course do away with all assurance of pension, and would place the officers in a worse position than that in which they now are. The irreducible minimum of one-sixtieth should be firmly insisted on as the lowest to be granted to an officer who has retained his post until he was eligible for pension, for it must be assumed that the "satisfaction of the Committee" has been proved by long service.

The grant of allowances or gratuities to asylum officials in cases of injury is a necessary and distinct recognition of the dangers of the service. The schedule regulating the allowances to contribute to their support gives six, twelve, eighteen, or twenty-four sixtieths of the salary and emoluments, according to the degree of impairment of capacity. That provision, which limits the allowance for injury, together with superannuation allowance, to three hundred pounds a year, might inflict considerable injustice on a medical superintendent eligible for pension, who would probably get no compensation whatever for injury. This is manifestly wrong, and needs amending.

The abbreviation of the duration of the urgency order from seven to four days is a change which may cause great inconvenience in country districts where magistrates are not always easy to find. The discharge of a homicidal lunatic as a result of this proposed change will probably sooner or later induce a return to the longer period; but, in the meantime, the desire at all risks to safeguard the liberty of the subject, even if it be homicidal, will probably prevail against all reasonable representations. If the proposal to make this change is to be adopted, provision should be made for a great increase of the Justices appointed as judicial authorities under the Act, and at least one qualified Justice in each district must be available at all times. No doubt the terms of the Scottish law, by which the urgency order is restricted to three days, will be referred to as supporting this change in the English Act; but it must be pointed out that the Sheriff, who is the judicial authority, is, if absent, always represented by his substitutes, so that no difficulty occurs in practice.

The new Bill would bring the lunatic hospitals very

[1] The proceedings of the deputation were reported in the British Medical Journal of March 11th, 1899, p. 625.

much more under the control of the Lunacy Commissioners than has been hitherto the case. Complaint has been made that this will fetter these institutions and restrict new or useful methods of treatment. It must, however, be remembered that the licensed houses have long been under even more rigid control, yet have often been pioneers in pioneer work.

Most of the other proposed alterations are slight amendments of the original Act, supplying omissions, etc., and call for no special comment.

The pension clause, we must repeat, is the one that demands the most serious attention of the profession. In its present form it would appear to give power to Committees to reduce pensions to a vanishing point, and would leave the asylum service in a much more unfavourable condition than the Police or even the Poor-law. The "satisfaction" of some Committees on which the pension is made to hang would lead, we fear, to a considerable amount of dissatisfaction among the pensioners.

THE ANTHROPOMETRY OF THE BRITISH ARMY OFFICER.

IN our review of the Army Medical Report for 1897 we did not refer to some interesting tables (Appendix XIII of the of the volume), "showing the ages, heights, weights, and measurements of candidates medically examined for commissions in the army, etc., between 1889 and 1898," because we considered they deserved special notice, on account of their importance national as well as anthropological.

It will probably be safe to assume that the statistics of candidates include all, whether accepted or rejected, who were medically examined for commissions. These figures are, no doubt, set forth with due care and accuracy: but there must be one element of uncertainty in them. There must be, indeed, some want of strict uniformity in measurements embracing 8,261 observations, extending over ten years, and no doubt the work of from 100 to 200 medical examiners of varying anthropometric dexterity.

In scientific anthropometry it is essential that any multiplicity of measurements should be made by only a few trained hands, and on a rigidly uniform method, in order that correct averages may be obtained. This is too often forgotten or ignored; for, if there be one official (let alone vulgar or even professional) error greater than another, it is that one medical man with a measuring tape in his hands is, or ought to be, as good as another. It is, however, a mischievous fallacy, which is constantly being found out and exposed, among medical officers set to recruiting work; for, in chest measurement especially, a peculiar dexterity, only perfected by long practice, is required.

If, therefore, we cannot look for strict scientific accuracy in these tables, yet they fully prove that the British army possesses a body of officers of splendid physical development. It is often asserted—and we will not entirely negative the contention, although based on imperfect knowledge and misconception of facts—that the physical standards required of candidates for commissions, as set up in late years, are above the average for youths or grown men of our country: that, for instance, the weight standard merely puts a premium on "fat boys"; and that, had the standards been in existence fifty years ago certain of our most distinguished living generals would never have had an army career at all. Such arguments have no doubt some truth, as they have much plausibility; but the question is, Do they afford sufficient reasons for materially altering or lowering the standards?

Officers of superior physical endowments are not merely desirable, but necessary, for the army; and if the nation can command not merely a sufficiency but an abundance of such candidates, why descend to a lower stratum? Our officers are, indeed, the very flower of the manhood of certain classes, chiefly the upper middle, in the community; and it is very necessary that the high existing standard of physique should be maintained, even with the result of inevitable hardship towards their brothers with a poorer development.

We have no suitable tables wherewith to compare these statistics of candidates with averages in civil life; but will contrast them with ordinary recruiting statistics, to which they bear close affinity.

The ages of the candidates range from 16 to 24, but the great majority were from 17 to 20 years. The enlisted men range from 18 to 25 years, and, owing to superiority of age, ought to have an advantage in the comparison. Stature is the first of the physical standards attained in growth, and a maximum is usually reached by the 20th year. About 60 per cent. of the candidates were between 67 and 71 inches in height; but the same percentage among accepted recruits ranges only between 65 and 66 inches; from which we conclude that the officer is, on an average, about 2 inches taller than the soldier.

Weight should have a definite correlation with height—otherwise a tall man is only a weed, and it should also exhibit steady increase after 19 or 20 years of age. In the candidate tables of weight (which are only for five years 1894-8, and record 2,670 cases) between 16 (two years younger) and 24 (one year younger than the enlisted soldier) about 66 per cent. were between 110 lbs. and 150 lbs., whereas among enlisted recruits about 80 per cent. are between 115 lbs. (the minimum) and 150 lbs.; but an additional 20 per cent. of the candidates were between 150 lbs. and 170 lbs., which turns the scale in their favour. Of course the greater height of the candidates should yield greater weight, but it is counterbalanced by their lesser age.

A difficulty arises in comparing the chest measurements owing to a difference in tabulating these measurements. We understand that in the measurements of candidates the mean chest capacity is the standard; whereas in recruiting it is necessarily the minimum, owing to the construction of the tables: thus these latter, beginning at 31 in. go up inch by inch to 38 in., the minimum being the starting figure. The soldier, therefore, whose chest mobility is represented in his documents by the formula 33-5 or 34-6, figures in statistics as 33 in. or 34 in. only, not a mean of 34 in. or 35 in., which seems hardly fair to him, and is certainly calculated somewhat to mislead.

The average minimum chest of about 80 per cent. of enlisted soldiers is from 32 to 36 inches; of which 50 per cent. are between 33 and 36, and an additional 10 per cent. over 36. Among the 8,261 candidates, however, about 77 per cent. are returned between 32 and 36; with an additional 17 per cent. 36 to 40 inches and over; so that they

compare favourably with recruits, notwithstanding their younger years.

These figures are, of course, approximate, but nevertheless substantially accurate. The officer has apparently an initial superiority over the soldier at the beginning of service; but, judging from the excellent development of men of the reserve, it is doubtful if it is wholly maintained. If the officer cannot be overtaken in height, he may in weight and chest measurement by the soldier who spends seven years with the colours.

THE SANITARY POWERS OF COUNTY COUNCILS.

Medical officers of health have now been appointed at fixed salaries, under the County Councils Act, for Cheshire, Derbyshire, Durham, Essex, Glamorganshire, Northamptonshire, Northumberland, Nottinghamshire, Shropshire, Staffordshire, Wiltshire, Worcestershire, and the West Riding of Yorkshire. Dr. Thresh, in addition to the county appointment, holds office under two local authorities, as is provided for in the Act. Mr. Fosbroke also has five similar appointments.

The councils of these counties, that of Nottingham alone excepted, require the whole time of their medical officers and find them plenty to do. Those of the Counties of Somerset and Warwick, have it in their minds to do something of the same sort. Some of the less go-ahead counties meantime engage medical men to advise them from time to time, some of them paying an honorarium, to cover the reading and advising upon the reports of the local health officers which have to be sent to the County Council, and granting fees for extra work done. Though the value of services of this kind is not to be underestimated, it is highly desirable that the larger County Councils and perhaps, in a few instances, combinations of the lesser lights should have at command the services of a special class of men, who, giving their whole energies to the subject of public health, are able to speak with some authority on important questions likely to arise.

Sir John Dorington indeed, in defence of the backwardness of Gloucestershire in this matter, urged that a "county medical officer is scarcely more than a name," except where he supersedes the existing officers of the district councils. But even in Essex and Worcestershire referred to above, his work as sole medical officer for certain districts forms but a part, and by no means the most important part, of the services the county officer renders to his council. The late Sir Douglas Galton made this abundantly plain. He spoke not without authority in matters sanitary, not only as a man long and honourably identified with public hygiene, but, what was in his case even more important, as chairman of a council who had for many years enjoyed the advantage of having an active and able health officer to advise them. He pointed out that it was largely due to the influence of their county officer that they had been able to get notification introduced, the only Worcestershire parish which for long held out being one situated in a district mainly belonging to Gloucestershire. He showed how Mr. Fosbroke, by tabulating the returns and issuing a weekly postcard with the results, kept not only himself but every medical officer in the county acquainted with the progress of infectious disease in the district. In touch with these officers and with the British Institute of Preventive Medicine, he was able to furnish any of them with a supply of active antitoxic serum for immediate use. He not only analysed the reports of the district officers, reporting on their recommendations to his own council, but he was the trusted and experienced adviser of the various local authorities, frequently conferring with them and their own medical officers. Here his ripe experience and eminent tact enabled him frequently to render no slight service in helping them to wise conclusions on such important questions as the provision of infectious diseases hospitals, the prevention of the pollution of streams, the disposal of sewage, and of manufacturing refuse and the like.

Mr. Halsey, the Chairman of the Surrey County Council, has said that "upon the general principle—one of the greatest value in sanitary matters—that prevention is better than cure," he "cannot too strongly urge upon all counties to appoint their own medical officers of health at a salary sufficient to secure knowledge, experience, tact, and devoted service." He adds, "that this is not impossible is proved in our case."

We have before us while we write the admirable report of Mr. Sergeant, the able and energetic medical officer for the administrative county of Lancaster, in which, after furnishing the members of the council with a clear and concise account of health matters in the County Palatine, he goes on to deal with each separate district, pointing out what is, what is not, and what ought to be done, and concluding with valuable statistics and tables. We may perhaps deal on another occasion with some of Mr. Sergeant's valuable suggestions, but refer here to the report simply as one evidence, amongst many similar ones, to show the good work being done by county medical officers of health. We might also refer to the useful monthly reports with which Mr. Kaye, the energetic successor of Dr. Whitelegge, furnishes the West Riding County Council. These show at a glance in what parts of the West Riding the various infectious diseases are prevalent and give other valuable information of the health conditions of the county. Like Mr. Sergeant's, Mr. Kaye's services are often requisitioned in matters of difficulty by the district councils, and we are glad to see that his own sanitary committee have recently shown their appreciation of his work by a substantial addition to his emoluments.

Until a considerably larger proportion of the English and Welsh counties provide themselves with the staff necessary to do their work efficiently, it is unlikely that the Local Government Board will issue the Order, as they are empowered to do under the Act, devolving some of their own higher administrative and advisory functions upon county authorities. The Board has yet too much to do. Much of its work could be admirably performed by county councils, but so many of the latter have hitherto shown themselves laggards in important matters, that the more energetic bodies we have named are deprived by the indolence and incompetency of their contemporaries of the privileges they have so amply earned.

Medical Magistrate. — Mr. John H. Wolstenholme, M.R.C.S.Eng., the Chairman of the Urban District Council of Abergele and Pensarn, has been placed on the Commission of the Peace for the county of Denbigh.

SECRET COMMISSIONS.

AT the meeting of the Council of the British Medical Association on April 12th, attention was called by the President of Council to the recent report of the Special Committee of the London Chamber of Commerce on Secret Commissions, and the following resolution was unanimously adopted: "That the attention of the Council has been called to grave general accusations impugning the probity of the medical profession in the matter of receiving secret commissions, and that the Council call upon the London Chamber of Commerce to substantiate such accusations, in order that the Council may be in a position, should such practices exist, emphatically to condemn them as a grave breach of professional good conduct, and inconsistent with membership of the British Medical Association."

BACTERIOLOGY AND PUBLIC HEALTH IN EDINBURGH.

A DEPUTATION from the Royal College of Physicians of Edinburgh met the Public Health Committee of the Town Council on April 10th, in conference on certain points concerning the public health. The Convener, Bailie Pollard, presided. The deputation was composed of the President and fourteen Fellows, and among those who spoke for the College were the President (Dr. James Andrew), Sir John Batty Tuke, Drs. Clouston, E. W. Balfour, P. McBride, Noël Paton, and Berry Hart. The subject of the conference was the provision of reports, in the interests of public health, on morbid products obtained from patients suspected to be labouring under communicable disease, and on materials such as milk and water which might be the means of communicating disease. The importance of this kind of work was emphasised, and it was pointed out that a large amount of work of this nature had been undertaken by the College through its Research Laboratory during the last few years. The College believed that the work should be continued, and wished to ascertain whether this view was shared by the Town Council, and, if so, whether the Town Council would be prepared to consider the advisability of conjoint action in the matter. At the close of the conference the Chairman thanked the deputation, and stated that the representations of the College would have the fullest consideration of his committee.

WORK, PLAY, AND HANDIWORK.

THE subject of overpressure in schools and the best distribution of the hours of work and play is receiving serious attention in Germany at the present moment. Dr. Springer, in a recent lecture on Mental Disturbances Among Children, pointed out that many cases of laziness and incapacity in school hours, which received the severe censure of the teachers, were merely symptoms of commencing mental disease. The remedy for this state of things is of course a well regulated school discipline, plenty of relaxation, and the reduction to a minimum of competitive examinations. Some time ago we called attention to Dr. Kemsies's experiments on school children with Mosso's ergograph. They were most ingenious, and were certainly instrumental in arousing an appreciative interest in the minds other than headmasters. We now see a practical result in the issue[1] of definite rules to be observed by all school teachers and those who have care of young children. These regulations, which practically endorse the views set forth by Dr. Kemsies, may be summarised as follows: (1) All obligatory scientific lessons should be finished before midday, the afternoon should be devoted to gymnastics, drawing, singing or handicraft. (2) The time occupied by mental work should not exceed four hours a day in the case of young children, and the weekly allowance should not be more than twenty-four hours. When a lesson is given in the afternoon three hours shall elapse between the last period of work before lunch and the commencement of the afternoon lesson. The first half of the week rather than the last half should be used for any additional hours that it may be necessary to add. (3) The intervals of rest between each lesson should be as follows: After the first lesson, 5 to 10 minutes; after the second lesson, 15 minutes; after the third lesson, 15 minutes; after the fourth lesson, 20 minutes. (Richter, of Jena, gives 20 minutes after the third lesson and 30 minutes after the fourth—a proportion of 75 minutes rest to 300 minutes of school work.) It has, however, been found that 60 minutes' rest is sufficient for 300 minutes of school work. (4) The subjects must be arranged in the order of their fatigue-value, Gymnastics, having the greatest fatigue-value, should never be followed by lessons of any kind. With regard to mental work, the subjects having the greatest fatigue-value are mathematics and foreign languages; these must, therefore, take precedence over religious history, geography, religious instruction, and natural history; the last subject appears to be so refreshing to the child's mind that he is able very often to have another hour's foreign language. Examinations should take place in the first half of the week. (5) Short holidays at frequent intervals are found to have a more lasting effect than the long and less frequent holidays. A regular half holiday on Wednesday, irrespective of saints' days, is an excellent institution.

[1] *Deut. med. Woch.*, March 3rd, 1899.

INTERNATIONAL TEMPERANCE CONGRESS.

THE seventh meeting of the International Congress for the Prevention of the Abuse of Alcoholic Drinks was held in Paris on April 3rd and following days. It was announced that the number of members was 1,000, about one half of whom were foreigners. The President is Dr. Legrain, Medical Superintendent of the Evrard Asylum, to whom the organisation of the Congress is largely due. The Congress was formally opened by M. Jules Legrand, Under-Secretary of State in the Ministry of the Interior, who, in his address, announced that the Minister of Public Instruction had made an important grant for the purposes of the Congress. The Congress has the support of a number of members of the Senate and Chamber of Deputies of all parties, and of the clergy. The Cardinal Archbishop of Bordeaux, the Bishop of St. Dié, and the Bishop of Nancy were among the members of the congress. In the addresses delivered by Dr. Legrain, and by the representatives of the Government, M. Legrand and M. Bayet, who spoke as representing the Minister of Public Instruction, a certain divergence of opinion was manifest. All were agreed as to the evils of alcoholism, but while Dr. Legrain, who is President of the Union Française Anti-alcoölique, which numbers 30,000 members, and has numerous local branches scattered throughout France, preached a war of extermination against alcohol, MM. Legrand and Bayet presented a more modest but more practical programme, which was formulated by the former as follows: "We are resolved to struggle against alcohol. But as we wish our efforts to be fruitful, we will not fight against wine or beer, or cider." The reasons given were that these drinks are not so dangerous as spirits, and a campaign for the promotion of abstinence from them, would, in a wine and cider-making country like France, be foredoomed to failure. The communications amounted to some 150 in number. M. Gley demonstrated the therapeutic inutility of alcohol. Dr. Drysdale showed from the statistics of the London Temperance Hospital that almost all diseases can be treated, and in a remarkable proportion of cases with success without alcohol; in the course of twenty-four years the medical staff of that institution had in a total of 13,984 patients prescribed alcohol only twenty-four times. An account of the work of the same hospital was given by Dr. Ridge, of London. Dr. Faidherbe, of Roubaix, contended that alcohol is not only useless but hurtful to workers. M. Bienfait, of Liége, refuted a number of popular prejudices in regard to the

supposed digestive, stimulant, and prophylactic properties of alcohol. Dr. Whyte, of Manchester, who discussed the influence of alcoholism on longevity, stated that in respect of the expectation of life at the age of 20 and upwards, the abstainer has the advantage of the non-abstainer by 14.08 years. The same theme was handled by Dr. Drysdale. Dr. David, of Chicago, answered the question, Is there a direct relation between the increasing consumption of alcohol, idiocy, and insanity? emphatically in the affirmative. M. Barthès, discussing the relation between alcoholism and crime, stated that in the places where he had the opportunity of making observations the liquor shops were in point of number in direct ratio to the number of deaths, crimes, and offences, and in inverse ratio to the number of births—a fact from which he concluded that the publican plays a leading part in the demoralisation of the race. He proposed the following resolution:

The Congress, in view of the fact that the results obtained in the struggle against alcoholism by the primary schools, colleges, and *lycées* are satisfactory, thinks it desirable that anti-alcoholic instruction should be compulsory in courses given to adults in agricultural and commercial schools, as well as in the great schools of the State and in all the universities of France.

Among the other communications were reports by M. Buisson and M. Brunon, Director of the Rouen School of Medicine, on the part taken by the students of the universities in the temperance crusade, and addresses by Monseigneur Turinaz, Bishop of Nancy, and Pastor Rochat, of Geneva, on the attitude of the clergy in relation to the movement. On Wednesday, April 5th, the Paris Municipal Council gave a reception at the Hotel de Ville, where, in addition to milk, coffee, tea, and other temperance drinks, champagne was offered to the members of the Congress. It would be interesting to compare the number of bottles of wine consumed at this sober gathering with that of the Homeric banquet in the Rathhaus of Berlin at the International Medical Congress in 1891.

THE TOWN OF LILLE AND THE MEMORY OF PASTEUR.

Pasteur at the outset of his career was professor of chemistry at Lille and Dean of the Faculty of Science of that town. Some of his earliest discoveries were made there. There is, therefore, a special appropriateness in the choice of Lille as a place for the commemoration of his life and work. This has now been done by what may be called a twofold monument by which not only is the memory of the man kept live, but his work is continued and expanded. On April 9th a statue of Pasteur on an ornamental pedestal was unveiled in the Place Philippe-Lebon, Lille, in the presence of Dr. Viger, Minister of Agriculture, M. Guillain, Minister for the Colonies, representatives of the civil and military authorities, academic and other public bodies, and notabilities of various kinds. A private luncheon preceded the ceremony at which Dr. Viger spoke of the great assistance which Pasteur's discoveries had afforded to agriculture, and dwelt on the services rendered to medicine and sanitation by the famous investigator. At the unveiling of the monument addresses were delivered in the name of the Committee by M. Bayet, formerly Rector of the University of Lille; in the name of the Pasteur Institute of Paris by M. Duclaux; in the name of the manufacturers of the Nord by M. Agache; in the name of the town of Lille by the Mayor, M. Delory, the two Ministers of State and others. On the same day the Pasteur Institute of Lille was formally opened. Towards the foundation of that institute every town and almost every village of the departments of the Nord and the Pas de Calais have contributed, the total amount subscribed by the public being more than £10,000. A site of 10,000 metres in area was given by the town of Lille. The first stone was laid in November, 1895, and the institute was recognised as "of public utility" on April 1st, 1898. The total cost of building and installation—exclusive of the site—has been over £40,000. The town of Lille and the Nord and Pas de Calais departments grant liberal subsidies towards its maintenance, and the private benefactor has not so far been wanting. In addition to bacteriological work of the ordinary kind, and to the preparation of antitoxic serums, provision is made for investigations bearing on agriculture and the industrial arts—distilling, brewing, sugar making, etc.—on which the economic prosperity of the North of France largely depends. The staff of the institute consists of a director (Dr. Calmette), six heads of laboratories, two assistants, a secretary, who has charge of the library and of the accounts, and fourteen servants who look after apparatus, animals, etc. As showing the work of the institute in one of its departments, it may be stated that from February 12th, 1895, to January 1st, 1899, 796 persons bitten by animals of one kind or another supposed to be rabid were submitted to antirabic inoculations. The total death-rate was 0.62 per cent.

INAUGURATION OF THE LIVERPOOL SCHOOL OF TROPICAL DISEASES.

The authorities and supporters of the new School of Tropical Medicine in Liverpool have lately been pushing on their arrangements with great activity with a view to commencing work in the approaching summer session. The promoters have been fortunate in securing for the important post of Lecturer on Tropical Diseases the services of Major Ross, of the Indian Medical Service, whose researches on the part played by the mosquito in the causation of malaria have made his name so well known. The formal inauguration of the school will take place on April 22nd, when Lord Lister has kindly undertaken to perform the opening ceremony. On the evening of the same day Lord Lister will be entertained at a banquet given by the Committee of the School at the Adelphi Hotel. The list of those who have accepted invitations to be present includes the Lord Mayor of Liverpool, the Presidents of the Liverpool and the Manchester Chambers of Commerce, Sir William Broadbent, Bart., Sir Joseph Fayrer, Sir Christopher Nixon, Professor Michael Foster, Professor Clifford Allbutt, Professor Sims Woodhead, Dr. Haffkine, Dr. James Barr, Dr. T. R. Bradshaw, and many others prominent in medicine, science, and commerce. The subscriptions guaranteed to the school now amount to the sum of £1,600 per annum.

METHODS OF DEALING WITH EPIDEMIC PLAGUE.

Opinion in India does not seem to be as yet formed as to the good to be derived by evacuation, segregation, and all the usual machinery employed to deal with plague whenever it appears in a locality. There are still those who maintain that with men, money, and autocratic power they could stamp out plague in any community. There are others who hold that the application of these means, by causing scare, riot, and resistance to authority, does more direct and indirect harm than dealing with the infected in their own houses. But another method is now advocated by no less an authority than Sir Anthony MacDonell. The Lieutenant-Governor, whilst declaring the policy of the local government at Allahabad, states that the evacuation of infected houses and the segregation of plague-stricken people, together with their attendants, have proved to be effective in checking the outbreak of plague in his district. He advocates making segregation as pleasant as possible, but if the plague is to be stamped out there should in the beginning be as few relaxations as possible. At the commencement of an outbreak of plague the only chance of escape is by an effective system of evacuation and segregation. When, however, the plague has got hold of a city, then may concessions to natural feelings be made and the stringency of sanitary measures mitigated. Sir Anthony states that, should plague appear in his province, rigid

rules of segregation will be adhered to until it is found that these measures prove more injurious in their effects than the evils which they are designed to remedy. This common-sense statement has much to recommend it, and the general feeling of both Europeans and natives in India is pronouncedly in sympathy with it.

RESPIRATORY DISORDERS AMONG ARSENIC WORKERS IN CORNWALL.

SINCE the decline of the copper and tin mining industries in Cornwall a number of arsenic works have been in operation on the sites of the old mines, and the attention of the Tavistock Board of Guardians has been directed to the large number of persons employed at these works who have been disabled, and have come upon the parish for support. Dr. C. C. Brodrick, Medical Officer of Health for the Tavistock Rural District, and Dr. Albert Bowhay, Medical Officer of Health for the Calstock Rural District, at the request of the Board, have investigated the state of matters in the parish of Calstock, and find that a large number of persons once employed at the arsenic works are in receipt of parish relief, and are suffering from respiratory diseases attributed to the effect of arsenic fumes. They have also discovered that out of 100 persons employed at these works who have died in the last three years 83 have died of respiratory diseases. On visiting the works they observed that the furnacemen used no protection at all, while the millers and grinders had the mouth and nostrils covered only with lint and a handkerchief. They recommend the use of a wire mask covered with gauze by all those employed at the works. The Board of Guardians have sent copies of this report to the managers of the works, and also to the Local Government Board. These two medical officers have for many years been familiar with the arsenic works, and are well acquainted with the medical history of the workers, so that their opinion is deserving of serious consideration. The large amount of respiratory diseases attributed to the inhalation of arsenical fumes is a matter of the greatest interest to the toxicologist. With the exception of the outbreak of arsenical poisoning at Hyères in 1888, in which a large number of persons were poisoned by drinking wine which had accidentally become contaminated with arsenic, and in whom bronchial irritation with scanty secretion of mucus was marked, no specific influence exerted by arsenic in producing respiratory disease has been recognised. In whatever way it may be introduced into the system, the usual effects have been on the gastro-intestinal tract and nervous system; but it appears that these effects have not been produced in the unfortunate workers in Cornwall. It may be that some other element in the fumes is responsible for the respiratory disorders. Mundic, the ore from which the arsenic is obtained, contains in addition tin, copper, and sulphur. In the process of roasting this material a large amount of sulphurous acid gas is produced, and the furnacemen are thus exposed to sulphurous fumes when the calcining furnace doors are opened. They are frequently attacked by a severe form of bronchitis, in which there is a burning sensation in the throat and chest; and after some days, when the expectoration becomes copious, the patient finds relief, and the attack runs a normal course. Dr. Arlidge, in his work on the *Diseases of Occupations*, refers to this matter, and states that as a result of his inquiries he finds that men employed in roasting sulphur in sulphuric acid manufactories are not liable to such severe bronchitic attacks. The frequent occurrence of respiratory disorders among the arsenic workers may, he suggests, be due to the admixture of arsenical vapour or arseniuretted hydrogen in small traces. The late Dr. E. Ballard, quoted by Dr. Arlidge, states that the fumes produce "gastric disturbances in some cases, and laryngeal and bronchial irritation in others." In the oft-repeated inhalation of fumes containing even small quantities of arsenical vapour, a certain amount would be condensed in the mouth, swallowed with the saliva, and produce the well-known effects on the gastro-intestinal tract, and ultimately on the nervous system. Arseniuretted hydrogen, too, which is an extremely poisonous gas when inhaled in a dilute or impure form, produces the ordinary symptoms of arsenical poisoning, no specific effect on the bronchial mucous membranes having been noted. In view of the medical officer's statement that no case of arsenical poisoning in the ordinary sense of that term had occurred, it seems hardly probable that the effects on the respiratory system are due to arsenic. Some years ago Dr. Bowhay remarked on the large amount of chest disease—bronchitis, emphysema, phthisis and fibroid phthisis, and asthma—which prevailed among the tin and copper miners. This was ascribed to the great depth at which they worked, and the rapid changes of temperature to which they were exposed in coming from the high temperature which prevailed in the mines into the cold air on the surface. It has been suggested that this may be the origin of the respiratory disease in some of the miners who subsequently became attached to the arsenic works, the exposure to the sulphurous fumes having aggravated their previous chest troubles. It appears that the managers of the works are fully aware of the dangers of arsenical poisoning occurring among their workmen, and every care seems to be exercised by them to prevent it by inculcating habits of personal cleanliness. It is, however, a matter of great difficulty, if not of impossibility, to prevent the furnacemen inhaling the sulphurous acid gas, which, being gaseous and not particulate, passes readily through gauze.

PERSPIRATION IN DOGS.

SOME time ago we received from a correspondent an inquiry as to whether the very prevalent belief that a dog perspires through the tongue was a vulgar error or well founded. Being unable to discover any authoritative statement with regard to the sweat glands of the dog's skin, we applied to Mr. S. G. Shattock, Pathological Curator at the Royal College of Surgeons, who has been kind enough to take considerable pains to give an answer. He writes as follows: The inquirer defines very precisely what he himself implies by the question by asking, whether the dog exudes fluid from the tongue of the same kind as that exuded from the human skin. To this question the answer is, No. The skin of the dog is abundantly furnished with glands, having the characteristic disposition and structure of those which in man produce sweat, namely, coiled tubular structures lined with columnar epithelium and provided with long straight ducts of much less diameter than the coils. The dog's tongue, except about its posterior part, is unprovided with glands of any kind, and those found in the situation mentioned do not exhibit the microscopic characters of sweat glands, but may be classed as "mucous." These glands are furnished with wide ducts and are of the acino-tubular variety; the secreting cells are highly vacuolated, transparent, and so swollen as to practically fill the gland recess, the nuclei being displaced towards the outer or basal ends. Whatever secretion takes place, then, from the dog's tongue cannot be regarded as having the same physiological characters as that exuded from the skin; in other words, the dog does not sweat by the tongue.

CHILD LABOUR.

A REPRINT of a series of articles published by the *Daily Mail* has been published under the title, *The Children's Labour Question*. The importance of the question can hardly be overrated; putting aside all sentiment, there is the wide issue involved of the common weal. These children are the future begetters of the race, and the nation for its own good must see to it that the stock does not de-

teriorate. We have no sympathy with those who employ child labour for the sake of lower wage, and were this the only issue legislation would be simple enough, but in the hard struggle for life where unskilled labour is followed at home, and where the cruel system of sweating sets a price which is only one remove from starvation, the little ones have to forego the game in the street, or the half-day at school, to keep the bare home over their heads. It is here that the pinch comes, and it is here that the question of child labour touches the complications of trade unions, elementary education, Poor-law relief. Regarding this question from the educational standpoint, it is shown by test examinations that the girls suffer more from dulness and apathy than the boys. This touches on the physiological side of child life; the girl at the critical time of her development is handicapped by living the double life of school and the mill, showing that these conditions are unfavourable to the sexual development. This fact is a strong argument against the employment of the immature girl in factories. Again, when the half-timer is subjected to the height and weight test, the advantage is decidedly on the side of the full-timer, though the home conditions must also be considered as putting up the scale. But allowing that the half-timer starts at a disadvantage, this fact should be an argument against his taking any share in factory work until he has overcome the adverse conditions of his family history and home life. From the medical point of view there can be no question that the circumstances of child life should be such as will favour the fullest development of the physical nature.

REINFECTION IN SYPHILIS.

Not long ago the majority of authorities denied the possibility of a second attack of syphilis. Ricord, in 1858, admitted that, theoretically, the syphilitic infection might become progressively attenuated and die out, and therefore that a patient might contract syphilis twice, in the same way as variola. Ricord, however, denied that this theory was supported by clinical evidence. Diday, on the other hand, in 1862, published a series of 32 cases of so-called repeated syphilis, and stated that a patient might contract syphilis several times, whether he had undergone complete disinfection and became infected afresh, or whether a virus of great intensity was added to the sum of infection in a patient incompletely infected by an attenuated virus. The divergence of opinion on this subject was increased by the fact that it was enough for a patient to develop an ulcer resembling a chancre in order to diagnose reinfection. Fournier, however, in 1868[1] stated that any syphilitic patient at any period of the disease might develop without reinfection ulcers resembling a primary sore, and pointed out that ulcers of the balano-preputial furrow are liable to inflammatory induration which is often difficult to distinguish from syphilitic induration. Therefore, in order to diagnose true reinfection Fournier considered three conditions necessary: (1) An undoubted first attack of syphilis; (2) a period of quiescence, complete, or interrupted only by tertiary symptoms, and having lasted several years; (3) a new infection characterised by a fresh indurated chancre followed by undoubted secondaries. Fournier, however, stated that he had never seen such a case. Cases of what must be regarded as undoubted second infection in syphilis have, however, been recorded by Hutchinson, Zeissl, Ogilvie, and others, and more recently by Du Castel and Tarnowski. Du Castel's case[2] was that of a man who, in 1892, was treated at the St. Louis Hospital for an indurated chancre, followed by a pustular secondary syphilide and mucous plaques in the throat. In 1897 he again presented himself at the same hospital with a second indurated chancre, which was followed by a typical roseola. Tarnowski's case[3] was that of a man who was treated from 1886 to 1890 for various cutaneous syphilides and other manifestations of syphilis. In 1897 he contracted soft sores, which were followed in due course by a typical polymorphous syphilide consisting of macular, papular, and pustular eruptions. One of Fournier's conditions, namely, that an indurated chancre must be present, if this case can be accepted, would be proved to be unnecessary. This will be the more readily believed by those who entertain the opinion that first attacks of syphilis are frequently followed by soft sores.

[1] *Annales Générales de Médecine.*
[2] *La Médecine Moderne*, May, 1898.

LONDON UNIVERSITY COMMISSION.

Notice is given that the Commissioners appointed under the University of London Act, 1898, are now prepared to consider applications from duly qualified teachers and lecturers giving instruction of the university type in public educational institutions situate within a radius of thirty miles from the University buildings who desire to be recognised as teachers of the University. By a "public educational institution" the Commissioners understand to be meant an institution for general education or for any special kind of education, which is not carried on for private gain or profit. Applications stating the applicants' qualifications should be addressed to the Secretary, Mr. T. Bailey Saunders, at the office of the Commission, 32, Abingdon Street, Westminster, S.W., on or before Saturday, May 13th, 1899. It will, it is added, be convenient if teachers and lecturers in physics, chemistry, or other subjects, effective instruction in which requires laboratories and expensive apparatus, would state what resources of that character they have at their disposal. Teachers or lecturers on whose behalf applications have already been made by their colleges or schools need not repeat them.

CHINESE MEDICAL WOMEN.

In the *China Medical Missionary Journal* for December, 1898, Miss Mary Brown, M.D., points out the great need for female medical practitioners in China. The field of obstetrics is left entirely alone by the native doctors, who do not pretend to know anything about the treatment of such cases, and as the result of the want of intelligent care great numbers of Chinese women lose their lives. In gynæcological cases medical women would find much to do among their Chinese sisters, who, as a rule, will not consult a male practitioner about the diseases peculiar to their sex. The natural solution of the difficulty lies in the training of Chinese women in medicine. Accordingly, for the last few years, Miss Brown has been teaching a class of four young women, who have proved themselves quite capable of studying and practising medicine. Last year, during her absence in America, they performed five operations for cataract, four of which were completely successful. In other lines of medicine and surgery they have proved themselves equally efficient. In obstetrical practice they have successfully carried through the most difficult cases, so that Miss Brown has no doubt that Chinese women may become skilful practitioners. When they were first sent out to treat patients they were not always well received by their countrywomen, who preferred the foreign female doctor. They are gradually, however, winning the confidence of the people. Miss Brown admits that there are certain difficulties in the way of Chinese women becoming successful practitioners. One of these is the unwillingness to perform disagreeable services for others, which is a racial characteristic. So far neither medical education nor the principles of Christianity, which they have been taught, have eradicated this feeling. Thus one very bright intelligent woman, who had studied foreign medicine, absolutely declined to treat obstetrical cases on the ground that it was degrading. Another difficulty is the [illegible] of

[3] *Vratch*, No. [illegible], 1898.

early marriages. The Chinese, however, have a very keen commercial instinct, and as they are beginning to see that there is an excellent prospect of making money by the practice of foreign medicine, they are very eager to be taught. At present, according to Miss Brown, Christians and non-Christians alike seem to think that it is only necessary for a man or a woman to buy a few medicines and retail them in order to be a doctor; but as they come to realise that greater knowledge will bring greater gains, they will try to acquire that knowledge. Miss Brown, however, appears to be doubtful whether the highest ideal of the practice of the medical art, in which the relief of suffering holds the first place, will commend itself to the Chinese mind.

THE CHAIR OF PATHOLOGY, GLASGOW.

Of the eight candidates for the Chair of Pathology in the University of Glasgow, the curators have elected Dr. Robert Muir, at present Professor of Pathology in the University of St. Andrews. Professor Muir was a distinguished student of Edinburgh University in Arts and Medicine. He took the degrees of M.B. and C.M. with first-class honours in 1888, and was awarded in 1890 a gold medal for his thesis for the degree of M.D. Thereafter he acted for a short time as assistant to the Professor of Physiology in Edinburgh, and then was appointed assistant to the Professor of Pathology, becoming senior assistant in 1892. He devoted considerable time to bacteriology, and in 1894 was appointed Lecturer in Pathological Bacteriology. From 1892 to 1898 Dr. Muir was also Pathologist to the Edinburgh Royal Infirmary. In 1898 he was appointed by the University Court of St. Andrews to the newly instituted Chair of Pathology in that University, to conduct classes in Dundee. Although largely occupied by the duties of these appointments, Dr. Muir has found time to prosecute research in various directions, and has published many important articles—notably in connection with the pathology of the blood of the bone-marrow.

THE NEW INEBRIATES ACT IN OPERATION.

A CASE under the clauses of the New Inebriates Act, 1898, which empower a jury to try a convicted prisoner on the charge of habitual drunkenness, was heard at the Blackburn Quarter Sessions on April 7th. The prisoner, a female weaver, aged 46, pleaded guilty to larceny, and was thereafter found guilty on a second count charging her with habitual drunkenness. The Recorder sentenced her to imprisonment for one month, to be followed by detention in a certified inebriate reformatory for three years, or such less time as the Home Secretary might determine. When the number of certified reformatories has increased, and when the beneficial results of the new remedial treatment are realised, we have little doubt that the power to substitute remedial detention for any imprisonment in a police cell or a prison will be frequently exercised. Another encouraging fact is that the Home Secretary, on the application of the new Bishop of Grahamstown and others, has licensed, as a certified inebriate reformatory for females, certain lands and buildings at Brentry, Gloucestershire.

ANTIVACCINATION IN THE UNITED STATES.

A BILL has been introduced in the Pennsylvania Legislature repealing the law requiring from all children entering public schools a certificate of vaccination. The Executive Committee of the Public Education Association has characterised the Bill as a vicious measure, and has asked the House and Senate Committees in charge of it to postpone action until "the friends of public health can be heard." The College of Physicians, at a meeting on March 1st, adopted resolutions protesting against and condemning the Bill, stating that the measure "is unwise, dangerous, and a step backward in sanitary matters, and will expose the community to increasing danger of an epidemic of small-pox, and to consequent incalculable injury to health and immense loss of commerce to any community in which such an epidemic may occur." The Board of Public Education of Philadelphia has adopted a resolution earnestly protesting against the passage of the Bill. The measure has been unfavourably reported on by the Committee on Public Schools, in whose hands it was. In connection with this matter it is interesting to note that the Legislature of another State—Arkansas—has lately had what it evidently accepted as a convincing object lesson of the value of vaccination. A daily paper, quoted by the *Boston Medical and Surgical Journal*, contains the following significant item of news: "Members of the Legislature were panic stricken yesterday when it was announced that physicians had diagnosed the illness of Senator Lankford as small-pox. After a half hour's debate the House voted to vaccinate all its members."

THE LONDON SCHOOL OF TROPICAL MEDICINE.

HIS Majesty the King of the Belgians, in his capacity of Sovereign of the Congo Free State, has sent a donation of £200 to the London School of Tropical Medicine. We understand that His Majesty intends that the cadets of the Medical Service of the Congo Free State shall go through a course of special study at this school before entering on their duties in the Congo Free State. The Secretary of State for India has also contributed £1,000 to the school.

A COMMITTEE to which was entrusted the duty of deciding upon a suitable memorial to be erected by the citizens of Philadelphia, in honour of the late Dr. Pepper, in recognition of his many services to the community, has recommended the erection, at a cost of 10,000 dols. (£2,000), of a statue, which it is proposed shall be placed upon the Plaza of City Hall.

WE regret to have to record the death, on Sunday last, at an advanced age, of Dr. Jukes de Styrap, Consulting Physician to the Salop Infirmary, and the author of the well-known *Code of Medical Ethics*. At the meeting of the Council of the British Medical Association on Wednesday the following resolution was adopted: "That the Council of the British Medical Association desire to express their great regret at the death of Dr. Jukes de Styrap, whose long connection with the Association and the interest he took in raising a high standard of professional duty will cause his work to be long remembered by the profession."

PROFESSIONAL SECRECY IN THE UNITED STATES.—Governor Roosevelt has signed an amendment to the Civil Code which absolutely prohibits a physician from divulging any information concerning one of his patients, either before or after the death of the latter. Up to the present time the insurance law has permitted the physician to testify concerning the physical condition of a policy-holder.

INTERNATIONAL CONGRESS OF WOMEN.—An International Congress of Women will be held in London this year, beginning on Monday, June 26th, and continuing till the following Tuesday, July 4th. This Congress is under the auspices of the International Council of Women, which will hold its quinquennial session on Wednesday, June 28th. The programme is divided into five sections, under the following headings: Education, Professions for Women, Legislative and Industrial Questions, Political and Social Work. In the "Professional Section" the following subjects are proposed for treatment and discussion:—Professions: (*a*) Professions open to women; (*b*) effect upon domestic life of the admission of women to the professions. Medicine: (*a*) Training and qualifications of women doctors; (*b*) women's work as doctors in private practice and under Government. Nursing: (*a*) The professional training and status of nurses; (*b*) the organisation of trained nurses; alumnæ associations; (*c*) the future organisation of the nursing profession.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The Midwives Bill came on for second reading at the end of Wednesday's sitting. The hour for adjournment had almost come, and Mr. Tatton Egerton was very brief. He said that the Bill was the result of the labours of a Select Committee which sat in 1894, and in its present form had been largely accepted by the medical profession, and with some reservation by the General Medical Council, the Royal College of Physicians, and the County Councils Association. He asked that the Bill might be read a second time and referred to a Committee. Mr. T. P. O'Connor protested against a measure of such great importance, which had met with vehement opposition from a large and influential section of the medical profession, being taken at a late hour on Wednesday afternoon, when there was no time for adequate discussion. The Bill, he said, would create and confer very large privileges on a number of registered midwives, and there was a strong opinion in the medical profession, especially among practitioners in small country districts, that this would have the effect of substituting inexperienced and untrained attendance for trained and practised attendance. The Bill contained no guarantee for the proper training of the midwives it proposed to recognise. After three or four months of perfunctory training they would be allowed to take charge of cases which needed the attendance of medical men. The danger in the Bill was that the wives of the labouring classes would be induced by the low fee to engage midwives to be certified under the Bill in substitution for medical attendance. While midwives were useful and necessary assistants, mothers would, if without medical attendance, be exposed to serious danger. Mr. O'Connor said further that the Bill would prevent women from rendering gratuitous assistance to their neighbours as was the kindly custom in country districts, and concluded by moving the adjournment of the debate. The Speaker refused to accept this motion, as the debate would in a few minutes be adjourned by rule. Mr. Galloway then expressed the opinion that the Bill was wholly unnecessary, and likely to lead to women without experience obtaining certificates. Sir William Priestley, who rose two or three minutes before the hour of adjournment, said that though it was true that there was some opposition to the Bill on the part of a certain section of the medical profession, the danger to the interests of medical practitioners which was likely to arise had been greatly exaggerated. In all the Christian countries of Europe the midwives were under State control, and were duly qualified for their duties. No complaint was made in these countries of its interfering with the interests of the general practitioner. Sir William then went on to observe that the object of the Bill was to secure that women of the poorer classes should have the assistance of properly skilled midwives, under medical control, but at this point his speech was interrupted by the clock. It should be added that the Bill of the British Medical Association embodying the amendments which should be introduced into the Bill before the House, and thus showing that the Bill as it stood was not approved by the Association, was in the hands of members to whom it had been specially distributed. The Bill has been put down again for next Tuesday, but it is unlikely to come on then, and its chances this session are very remote. If the discussion of the Bill does come on again, Sir William Priestley would have the right of continuing his speech.

Water Questions are still likely to engage a good deal of attention during the remainder of the session. The adjourned debate on the second reading of the Rivers Pollution Prevention Bill has been set down for May 1st. Before this a big fight is anticipated in the Committee Rooms on private Bills promoted by the Corporations of Derby, Leicester, and Sheffield. The counties of Derby and Nottingham are also interested, and will appear by counsel. Altogether a three weeks' fight is anticipated, and "the bar" is very large. The Bills raise several important questions. Among others the policy of authorising big towns to go out of their own watershed areas to impound waters, upon which it is urged the inhabitants of the areas naturally watered by the streams proposed to be taken have a prior claim. The opinion is expressed that the principle should be settled by a public Bill, which should at the same time give county councils power to make combined water areas, on the same principle as districts are now combined for the purpose of infectious hospital provision. There are other points, especially that with regard to underground waters—a burning question in the Midlands at present—as to which it is also felt that Parliament should lay down some general principle.

Lead Poisoning in the Potteries was the subject of a question by Mr. McKenna, who elicited from Mr. Jesse Collings the information that the Bill to amend the law relating to factories and workshops prepared by the Home Office will propose to give power to the Home Secretary to deal with the prohibition of the use of lead for glazing those kinds of earthenware for which, according to the recent report of Professors Thorpe and Oliver, leadless glazes are available, to prescribe the use of the double silicate of lead which is almost insoluble for use in other ware, and to prohibit the employment of young persons and women in the processes known to be dangerous.

Inebriate Reformatories are not at present to be established in Scotland. The Lord Advocate has stated that the Government propose to defer the expenditure which would be involved until experience of the operation of the new legislation and the extent of the probable permanent demand for such institutions had been ascertained. It appears that no application for the establishment of such a reformatory has yet been made.

The London Government Bill is not likely to have an easy time in Committee. Already there are twenty-one pages of amendments on the paper. Mr. Pickersgill has an amendment to Clause 9 to give a borough council power to authorise any Committee appointed by it for any of the purposes of the Public Health Acts to institute any proceedings or do any act which the Council might have instituted or done except raising a loan or making a rate or contract. A determined effort will be made by several members to make the Act apply to the City, both by way of amendment of Clause 1, and by moving instructions to the Committee to extend the scope of the Bill by giving to the County Council the powers and duties now exercised by the Corporation of the City which concern the administrative County of London as a whole. Mr. Lough has given notice of an instruction to provide for the transfer to the new local authorities of all the powers and duties of guardians of the poor, and to assimilate the Poor-law areas in London to the areas of the new local authorities.

The Secret Commission Bill to be introduced by the Lord Chief Justice into the House of Lords next Thursday has for its object, according to the preamble, "to check by making them criminal, a large number of the inequitable and illegal secret payments, all of which are dishonest, and tend to shake confidence between man and man, and to discourage honest trade and enterprise." The Bill would constitute the gift, offer, receipt, and solicitation of any corrupt payments offences, and contains clauses dealing with gifts to the agent or his wife or child by persons having dealings with the principals. Other clauses deal with cases in which a person receives a gift from another to make recommendations to a third person for the benefit of the second person in the transaction. The penalties are extremely severe — imprisonment for a period not exceeding two years, with or without hard labour, or a fine not exceeding £600, or both imprisonment and fine.

At the annual meeting of the Medical Society of Vienna, held on March 17th, Professors Weinlechner, von Reuss, and J. Mauthner were elected Presidents, Dr. Edward Law, of London, a corresponding member, and 42 Vienna practitioners ordinary members.

THE AMENDMENT OF THE MEDICAL ACTS.

II.

FAILURE EFFECTUALLY TO PREVENT UNQUALIFIED PRACTICE.

IN May, 1896, one of the ablest judges on the Bench, Lord Justice (then Mr. Justice) Collins, in delivering judgment in a case which involved the construction of Section XL of the Medical Act, 1858, said that "at present the law on the subject was in a fog. It was impossible to say what were decisions of law and what were decisions of fact." The object of the Act of 1858 is twofold: (1) to regulate and control the practice of medicine and surgery, and (2) to enable persons requiring medical aid to distinguish qualified from unqualified practitioners. The interpretation, however, which has been put upon the Act fails to secure adequately either of these results, and renders strong corroboration to the remarks of the learned Lord Justice which we have just quoted.

During the years 1895-99 a number of cases have been reported in the BRITISH MEDICAL JOURNAL relating to proceedings taken under the Medical Act, 1858, against unqualified or unregistered persons, under the Apothecaries Act, 1815, against persons for acting as apothecaries without the necessary certificate, and also cases in which, although no proceedings have been taken under the above-named Acts, the conduct of unqualified or unregistered persons has been involved.

The selection which is published below has been made with a view of showing some of the evils which flow from allowing such persons to practise medicine, surgery, or midwifery, and the necessity, owing to the confused state of the existing law, that the Medical Acts should be amended, and that further powers should be granted to prevent unregistered or unqualified persons from practising for gain.

It must be clearly understood that the cases referred to are by no means exhaustive, but are merely a selection from cases which have been reported in the BRITISH MEDICAL JOURNAL between the dates above mentioned. There may be, and without doubt are, very many other cases bearing on the same subject which have only been reported in the local press of the district in which they have arisen.

A perusal of the selected cases leads to the following conclusions—namely:

(*a*) That the provisions of the Medical Act are not nearly wide enough to reach some of the worst cases, and the result of any particular case may be absolutely uncertain owing to conflicting decisions.

(*b*) That a difficulty may arise under the Apothecaries Act in proving that the defendant prescribed for and supplied medicine to the patient, for unless both these facts are proved the defendant may escape.

(*c*) That there ought to be cumulative penalties for repeated offences, as in many cases the fine inflicted is inadequate to deter the defendant from continuing to practise. (See Cases 7 and 8, 15 and 16.)

(*d*) That a person who has been struck off the *Register* for misconduct should not be allowed to practise; the practical disqualification at the present time being that he cannot sue for his fees, a difficulty which he gets over by requiring to be paid in advance.

(*e*) That it is difficult to get persons to prosecute for fraud or to bring actions for obtaining money by false pretences. This class of case is always difficult of proof. Mere suspicion of fraud will not suffice; the fraud or false pretence must be proved up to the hilt; and, further, persons do not like to come forward and acknowledge publicly that they have been made fools of, or that they were suffering from a certain class of disease, or were in a certain condition, facts which are fully appreciated by this class of practitioner: and, lastly, even if judgment be recovered, it is in many cases a barren victory, because the defendant has no goods or property on which execution can be levied.

(*f*) That the meaning of the Medical Act is obscure and uncertain, and the decisions are in hopeless conflict and confusion.

(*g*) That unqualified and unskilled persons can attend with impunity patients suffering from the most dangerous and infectious diseases, and operate upon or deal with the most delicate organs of the body. (See Cases 24, 25, 26, 29, 30, and 31).

(*h*) That there is no proper check on persons practising as "botanists" or "herbalists," a class who largely avail themselves of this disguise to carry out illegal operations. (See Cases 33 and 38).

THE APOTHECARIES ACT.

It will be seen that our list contains six actions (numbers 1 to 6) to recover the penalty under Section XX of the Apothecaries Act, 1815, against persons for acting as apothecaries without possessing the necessary certificate. Of these actions 5 were successful, and 1 (No. 4) unsuccessful.

UNDER APOTHECARIES ACT, 1815.

No. 1. *Name of Case and Date.*—Apothecaries Society *v.* L. Tomasso. October 12th, 1896.
Tribunal.—Southwark County Court (Deputy Judge).
Cause of Action.—Unlawfully practising as an apothecary.
Evidence.—A witness called on defendant complaining of a cold. Defendant supplied and charged him for a bottle of medicine, desiring to see him again. Witness called again, and was examined with a stethoscope after which defendant supplied and charged him for another bottle of medicine. Defendant admitted he had never been registered in England as an apothecary.
Defence.—Patent medicine proprietor, and held certificate from American university.
Judgment.—For plaintiffs. £20.

No. 2. *Name of Case and Date.*—Society of Apothecaries *v.* Hay. January, 1897.
Tribunal.—Walsall County Court (Judge and jury).
Cause of Action.—Unlawfully practising as an apothecary.
Evidence.—Unqualified assistant for fourteen years. Started on his own account, prescribed, compounded, and dispensed medicines. No evidence for the defence. Judge told the jury no doubt the defendant had acted illegally, and must return a verdict for the plaintiffs.
Verdict and Judgment.—Jury found for the defendant, but added that they found the defendant had practised illegally, and there seemed a great amount of mystification and haziness about the Act, and they therefore unanimously found for the defendant. The judge held this finding amounted to a verdict for the plaintiffs, and accordingly entered judgment for them, with costs.

No. 3. *Name of Case and Date.*—Society of Apothecaries *v.* Tempest. March 7th, 1898.
Tribunal.—Judge of the Blackburn County Court.
Cause of Action.—Unlawfully practising as an apothecary.
Evidence.—Defendant had no qualification recognised by law. He had the word "Dr." over his door, and had described himself on a bill as "M.D.U.S.A." Had issued handbills with "F.C.S.M." following his name, which he said meant "Fellow of the College of Safe Medicine, London." It was admitted his name was not on the *Medical Register*.
Defence.—That he had practised as a physician and surgeon, and not as an apothecary, and he had a licence to practise in England from the above-mentioned College.
Judgment.—The judge found he had acted as an apothecary. Fined, £20. Leave to appeal granted.

No. 4. *Name of Case and Date.*—Society of Apothecaries *v.* Mrs. P. Hobbs. October 7th, 1898.
Tribunal.—Greenwich County Court (His Honour Judge Addison and a jury).
Cause of Action.—Unlawfully practising as an apothecary.
Evidence.—Three witnesses were called who said the defendant had treated them, but two admitted that they suggested the medicine required—a tonic advertised. His Honour observed that an unqualified person might open a shop and sell medicines provided that no poisons were sold or treatment of patients undertaken.
Verdict and Judgment.—That defendant had not acted as an apothecary. Judgment for defendant. Leave to appeal refused.

No. 5. *Name of Case and Date.*—Society of Apothecaries *v.* Davies. January 12th, 1899.
Tribunal.—Huddersfield County Court (Deputy Judge).
Cause of Action.—Unlawfully practising as an apothecary.
Evidence.—None given in report. Defendant did not appear.
Judgment.—£20 and costs.

No. 6. *Name of Case and Date.*—Society of Apothecaries *v.* Allen. February 16th, 1899.
Tribunal.—Whitechapel County Court (His Honour Judge Bacon).
Cause of Action.—Unlawfully acting as an apothecary.
Evidence.—A witness said Allen had examined him and gave him medicine and pills, for which a charge of 1s. was made.
Defence.—The defendant gave advice free, and only charged for medicine supplied.
Judgment.—For plaintiffs, £20 with costs.

The defendant in case No. 1 was afterwards found guilty, on January 18th, 1898, at the Central Criminal Court, of administering a drug with intent to procure miscarriage, and sentenced to seven years' penal servitude (No. 35).

In Case 2 a point which should not escape notice is the finding of the jury that "the defendant had acted illegally, but there seemed a great amount of mystification and haziness about the Act, and they therefore unanimously found for the defendant," but notwithstanding this finding the judge entered judgment for the plaintiff.

UNDER THE MEDICAL ACTS.

Out of 15 prosecutions (Nos. 7 to 20A) under Section XL of the Medical Act, 1858, 10 were successful and 5 unsuccessful.

Under Medical Act, 1858 (Section xl).

No. 7.—*Name of Case and Date.*—Medical Defence Union *v.* Davies. October 24th, 1895.

Tribunal.—Stipendiary's Court, Tunstall.

Charge.—Unlawfully using the title of surgeon, implying that he was thus recognised by law, on July 26th and September 3rd.

Evidence.—Defendant's name did not appear in *Medical Register;* he had a sign in his window bearing the name "Dr. Davies, Surgeon." A witness said that on each of the dates above mentioned the defendant had prescribed for him, supplying him with and charging him for bottles of medicine, and had also signed certificates as "M.D." Defendant pleaded guilty.

Judgment.—Fined £10 and costs in each case—£22 4s. in all—or two months' imprisonment, the Stipendiary observing the offence was a very serious one.

No. 8. *Name of Case and Date.*—Hulse *v.* Davies. December 3rd, 1896.

Tribunal. Stipendiary's Court, Birmingham (Mr. Wright).

Charge.—Pretending unlawfully to be a surgeon within the meaning of the above Act.

Evidence.—Prosecutor consulted the defendant twice, and on each occasion was supplied with and charged for a bottle of medicine. The defendant also gave Hulse a club certificate signed B. W. Davies per pro Dr. Downs, M.B., surgeon, etc. Dr. Downs denied that he had authorised defendant to use his name, and that he knew it was being so used. Defendant pleaded guilty.

Judgment.—Fined £20 and costs. The Stipendiary observed that defendant had been convicted in two cases of this kind of offence a little over twelve months before.

No. 9. *Name of Case and Date.*—T. R. Allinson. June, 1895.

Tribunal.—Marylebone Police Court (Mr. Bennett).

Charge.—Using L.R.C.P., and falsely using the title of licentiate in medicine.

Evidence.—In 1879 defendant was registered in *Medical Register* as L.R.C.P.Edin. and L.R.C.S.Edin. May 28th, 1892, his name was erased from *Register* by the Council. Action brought by defendant against the Council complaining of erasure dismissed, Appeal therefrom by defendant dismissed by Court of Appeal; nevertheless, he continued to hold himself out as L.R.C.P.Edin., and used initials L.R.C.P.

Defence.—Erasure of person's name from *Register* did not prevent him practising as a medical man.

Judgment.—Mr. Bennett thought the case a bad one: fined £20 and £10 10s. costs. Application to state a case refused.

No. 10. *Name of Case and Date.*—Medical Defence Union *v.* Ferdinand. December 6th, 1895.

Tribunal.—Westminster Police Court (Mr. Shiel).

Charge.—Falsely and wilfully taking and using the title of M.D., thereby implying that he was recognised by law as a physician.

Evidence.—One witness said Ferdinand prescribed for him, supplying and charging for a bottle of medicine. Ferdinand also signed a certificate as Dr. Ferdinand M.D.U.S.A., and advertised in a newspaper as "Dr. Ferdinand—who graduated in the eclectic schools of America—the first physician in the world." He also claimed to be "a duly-qualified Doctor of Medicine from the eclectic schools of America." Witness asked Ferdinand whether he was qualified, and he said he was. Other witnesses were called, who said they had consulted Ferdinand and received a certificate in which he signed himself "M.D., LL.D., Ph.D., Pa.," not in *Medical Register.* There was no evidence that Ferdinand was a doctor of the eclectic schools of America.

Defence.—No proof that Ferdinand had acted "wilfully and falsely." No one who added to the letters "M.D." the letters "U.S.A." could be convicted under Section xl.

Judgment and Fine.—Mr. Shiel said he should utterly disregard the addition of the letters "U.S.A.," and he was quite satisfied Ferdinand had violated the law. Fined £20 and £10 10s. costs, or two months in default of distress.

Further Proceedings Reported, 12, Times Law Rep., 135.—Ferdinand appealed against the conviction.

Tribunal.—County of London Sessions, Clerkenwell (Sir P. Edlin, Chairman).

Result.—Conviction and sentence affirmed with costs. The Chairman, in dismissing the appeal, said the appellant's signatures were before the Court, and, even if they had been unaccompanied by conversation, the mere fact that he had added "U.S.A." or "Pa." would not be sufficient to justify him.

No. 11. *Name of Case and Date.*—Medical Defence Union *v.* Bridgwater. May, 1896.

Tribunal.—The Stipendiary magistrate, Cardiff.

Charge.—Unlawfully, wilfully, and falsely pretending to be a doctor of medicine.

Evidence.—The defendant was not registered in England. A witness said he consulted the defendant, who prescribed for him. Bridgwater's name was upon the window of his surgery, followed by the letters "M.D., U.S.A.:" inside the surgery was a diploma of some American university.

Judgment.—Charge dismissed, the Stipendiary saying the defendant only held himself out to be an M.D. of the United States, thus implying that he could not be registered under the Medical Act. Refusal to state a case, on the ground that the question was one of fact and not of law.

Further Proceedings.—A rule *nisi* was granted, calling on the Stipendiary to show cause why he should not state a case. The hearing to make the rule absolute came on before Grantham and Collins, J. J. Reported 12 *Times L. Rep.*, 433.

Result.—Rule discharged. Per Curiam: The magistrate having found there was no intention to deceive, the rule must be discharged. Per Grantham, J.: The real question was whether the fact of a practitioner using the letters "M.D." after his name was evidence that he intended to hold himself out as a registered doctor of medicine. No case went so far as to say that it was, and that, although he added the letters U.S.A., he was nevertheless guilty of a false pretence. Per Collins, J.: At the present, the law on the subject was in a fog. It was impossible to say what were decisions of law, and what were decisions of fact.

No. 12. *Name of Case and Date.*—Medical Defence Union *v.* Mrs. Prickart. May 30th, 1896.

Tribunal.—The Stipendiary magistrate, Cardiff.

Charge.—Unlawfully using the title of Doctor of Medicine contrary to the Medical Act, 1858, Section xl.

Evidence.—Mrs. Prickart was a L.R.C.P.Ireland, and of the University of Zurich; her name had been struck off the *Medical Register* for advertising. A witness said he consulted her, and she gave him a certificate, in which she signed herself "M.D."

Judgment.—Charge dismissed, the Stipendiary refusing to state a case on the ground that the case was frivolous, and no question of law arose.

Further Proceedings.—A rule *nisi* having been obtained calling on the Stipendiary to show cause why he should not state a case, the hearing of the application to make the rule absolute came on before Grantham and Collins, J.J. Reported 12, *Times L. Rep.*, 415.

Result.—The Court discharged the rule, on the ground that there was no evidence that Mrs. Prickart used the name of Doctor of Medicine wilfully and falsely.

Two Charges.

No. 13. *Name of Case and Date.*—Medical Defence Union *v.* Ison. September 1st, 1896.

Tribunal.—Stipendiary magistrate, Leeds (Mr. Atkinson).

Charge I.—Unlawfully, wilfully, and falsely using the name, title, addition, and description of "Oculist and Aurist," thereby implying that he was registered as a medical practitioner under the Medical Act, or that he was recognised by law as a practitioner in medicine.

Charge II.—Unlawfully pretending to be a surgeon.

Evidence.—The defendant had caused to be affixed to a wall a placard in which, under the Arms of the City of Leeds, were the words "Leeds Eye and Ear Dispensary, established 1871. Mr. T. Ison, Oculist and Aurist." At the defendant's premises there was affixed to the wall, "Leeds Eye and Ear Dispensary, established 1871," and on the inner door under the Royal Arms, "Mr. Ison, Consulting Aurist and Oculist." He also advertised in the public press words to the same effect. No evidence was called for the defence.

Judgment.—First charge: Dismissed. Second charge: Fined £5 or seven days in default of distress. The Stipendiary in a considered judgment said as to

The First Charge. He saw nothing in the mere employment and description of the words "oculist and aurist" to warrant an inference that the defendant was recognised by law as a practitioner in medicine. It was admitted that a qualified medical practitioner never described himself as an "oculist and aurist," and those terms were generally used by "quacks." That admission destroyed the whole fabric of the case as regarded the first charge.

The Second Charge.—The inference to be drawn from the advertisements was that the Leeds Eye and Ear Dispensary was a recognised medical institution, and that defendant himself was a qualified medical practitioner. Apart from the references to the "Leeds Ear and Eye Dispensary" in the advertisements, he would probably have found in the defendant's favour.

(*Personation also.*)

No. 14. *Name of Case and Date.*—General Medical Council (Scottish Branch) *v.* John Sutherland. February 27th, 1897.

Tribunal.—Sheriff's Court, Glasgow.

Charges.—(1) Falsely and wilfully calling himself "Dr." (2) Impersonating his deceased uncle Daniel Sutherland.

Evidence.—Defendant, formerly draper's assistant, had assisted his uncle, Daniel Sutherland, a medical practitioner, who had been struck off the *Register* for unprofessional conduct. Defendant advertised by means of pamphlets, and in the newspapers under the name and title of Dr. Daniel Sutherland.

Defence.—He had been assistant to his deceased uncle for fourteen years, and had so much experience he thought there would be no harm in carrying on the business after his uncle's death.

Judgment.—Fined £15 15s., and £10 costs, the sheriff saying he regarded the offence as a serious one. It was bad enough to say he was Dr. D. Sutherland, but it was a great deal worse for him to deal with illnesses of a serious nature.

Two Prosecutions of the same Individual.

I.

No. 15. *Name of Case and Date.*—Geddie *v.* Haworth. September, 1897.

Tribunal.—Accrington Police Court.

Charge.—Falsely implying that he was recognised by law as a physician under the Medical Act, 1858, Section xl.

Evidence.—"Dr. Haworth, Homœopathic Physician," appeared on the fanlight over his door, and "Dr. Haworth, Homœopathic Dispensary and Massage Institute," on a brass plate. The defendant had been convicted in the previous April on a similar summons.

Defence.—The word "Canada" was place after the above words on the brass plate, and therefore defendant had never given himself out to be anything more than he really was.

Judgment.—Charge dismissed, the Bench being equally divided.

II.

No. 16. *Name of Case and Date.*—Medical Defence Union *v.* Haworth. August 17th, 1898.

Tribunal.—Accrington Police Court.

Charge.—Unlawfully, wilfully, and falsely pretending to be and using the name and title of "Doctor of Medicine," thereby implying that he was registered under the Medical Act, 1858.

Evidence.—None given in report. The defendant did not appear, nor was he represented.

Judgment.—Fined £20 and costs, or in default two months' imprisonment.

No. 17. *Name of Case and Date.*—C. C. Whitefoord. April 20th, 1898.

Tribunal.—Marlborough Street Police Court (Mr. de Rutzen).

Charge.—Wilfully and falsely taking titles and descriptions implying that he was registered under the Act, and for pretending to be, and taking and using the titles of Doctor of Medicine and Apothecary contrary to the said Act.

Evidence.—In 1868 defendant was entered on *Medical Register.* In 1891 was convicted of illegal operation upon a woman, in consequence whereof

his name was erased from *Medical Register*, and struck off lists of M.R.C.S. and L.S.A. He had a brass plate on his door with the words "Dr. Whitefoord, accoucheur," thereon. A witness said that he consulted defendant who gave him a draught, medicine, and pills, and a certificate with the letters "M.D." after the defendant's name.

Judgment.—Fined £5 and £3 3s. costs.

No. 18. *Name of Case and Date.*—Medical Defence Union *v.* Hetherington. May 21st, 1898.

Tribunal.—Newcastle magistrates.

Charge.—Wilfully and falsely pretending to be a Doctor of Medicine.

Evidence.—The defendant, who styled himself "Dr.," was not on the *Medical Register*, nor did he hold any registrable qualification. It was stated that defendant was a Doctor of Medicine of the U.S.A., but there was no proof of this, no evidence being called for the defence.

Judgment.—Fined £20 and costs.

No. 19. *Name of Case and Date.*—Scottish Branch Medical Council *v.* Eastburn. July 8th, 1898.

Tribunal.—Glasgow Sheriff's Summary Court (Sheriff Boyd).

Charge.—Falsely pretending to be and taking or using the name or title of a physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine or Surgery, or other names, titles, additions, or descriptions implying that he was registered under the Medical Act, 1858, or that he was recognised by law as a physician or surgeon, or a Licentiate in Medicine or Surgery or a practitioner in medicine.

Evidence.—Although it was alleged that the defendant called himself physician and surgeon, the only evidence seems to have been that he used the letters "A.M.S." and the words "the celebrated American electic specialist" after his name. He was not registered.

Judgment.—The sheriff held that the letters "A.M.S." followed by the words above set out meant American medical specialist, and "led naturally to the impression that the defendant was recognised by law as a practitioner of medicine." Fined £20 and £3 3s. costs.

Further Proceedings.

Tribunal and Date.—Lord Justice Clerk and Lords Trayner and Moncrieff November 17th and 18th, 1898.

Application.—Eastburn sought to have the above-mentioned conviction suspended or quashed.

Result.—Conviction quashed, on the ground that the framing of the charge and conviction were faulty. Per the Lord Justice Clerk: That the addition of the letters "A.M.S." after the defendant's name was a name which he gave himself, and there was nothing contrary to the law in that.

No. 20. *Name of Case and Date.*—General Medical Council *v.* Steel. December 15th, 1898.

Tribunal.—Petty Sessions, Houghton-le-Spring.

Charge.—Unlawfully and falsely taking and using the title of "F.C.S.M.," thereby implying that he was recognised by law as a medical practitioner.

Evidence.—Defendant had been convicted four years previously for using the letters "M.D." and "B.C., which conviction was upheld on appeal to the High Court. He had attended a girl who died of scarlet fever, and after her death he signed a certificate with the letters "F.C.S.M." after his name. The witnesses for the prosecution all said in cross-examination that they knew the defendant was not a doctor and had no medical qualification.

Defence.—No pretence that defendant was a medical man. The letters "F.C.S.M" did not imply that he was a medical man, but meant Fellow of of the Council of Safe Medicine, whose examinations he had passed.

Judgment.—Charge dismissed but without costs. The Bench observed that they had very serious doubts as to whether defendant had infringed the section, and they gave him the benefit of the doubt.

No. 20A. *Name of Case and Date.*—Albert Bell. January 28th, 1896.

Tribunal.—Metropolitan magistrate (Mr. Hannay).

Charge.—Using the titles M.D. and doctor without being a duly qualified medical practitioner.

Evidence.—On the defendant's name being called there was no answer, but a solicitor who appeared for the defence said that the defendant Bell had been dead for several years. The fact was his client, Mr. Henry Walters, had bought the business from Mr. Bell, and he was quite willing that the summons should be amended by striking Bell's name out and inserting that of Henry Walters in its place. Walters had removed the letters objected to that were on the plate outside his house. The solicitor further said Walters did not prescribe physic for those who came to consult him, all he did being to recommend them the use of a belt which would cure anything and everything in a month. Evidence was given in support of the prosecution.

Judgment.—Fined £20 and £6 6s. costs, with the alternative in default of two months' imprisonment.

Cases 7 and 8 were prosecutions of the same individual for pretending to be a surgeon within the meaning of the Act, and in each case the defendant pleaded guilty.

In Case No. 9 the defendant's name had been removed from the list of licentiates of the Royal College of Physicians, Edinburgh, and since the decision he had had the letters "ex-L.R.C.P." placed after his name on a door plate.

Although the conviction in Case 10 was upheld on appeal to Quarter Sessions, yet it must now be read by the light of Case 11, which is a later one, and a decision of the High Court of Justice, and if the decisions are inconsistent Case 10 is overruled. In Case 10 the magistrate by convicting the defendant, and the Court of Quarter Sessions by upholding the conviction, must have found as a fact that he acted wilfully and falsely, whereas in Case 11 the magistrate found that there was no intention to deceive.

But Mr. Justice Grantham, in giving judgment, says that no case goes so far as to say that if a man uses the letters "M.D.U.S.A.," he can be guilty of a false pretence within the meaning of the Act.

So that although the cases may be distinguished upon the ground that the finding of facts are different, yet upon the whole it must be taken that Case 10 has been overruled. In both Cases 10 and 11 it will be observed that the charge was for using the letters "M.D.U.S.A." after the defendant's name. The very important observation of Mr. Justice (now Lord Justice) Collins, which is set out at the commencement of this article, occurs in Case 11.

The defendant in Case 10 was subsequently on December 15th, 1899, found guilty of perjury, in that he swore at an inquest that he was an M.D.U.S.A., and was sentenced to twelve months' hard labour (No. 40).

A point to be noticed in the judgment in Case 13 is that, apart from the references to the Leeds Ear and Eye Dispensary in the defendant's advertisements, the Stipendiary said he would have probably found in the defendant's favour, a decision which would allow an unqualified person to operate on or deal with such delicate organs as the eye and the ear with impunity.

The cases numbered 15 and 16 are instructive from the fact that they refer to the same individual, and exemplify the uncertainty of success which attends charges brought under Section XL of the Medical Act.

The Bench in Case 15 dismissed the charge, being equally divided, although it appeared that the defendant had been convicted of a similar offence in the April previous. In Case 16 he was again convicted.

Case 20 very clearly shows that an unqualified person can attend cases of sickness of a kind most dangerous to the public health—in this case it was scarlet fever—there being no means whereby he can be prevented from so doing.

The Bench held that the letters F.C.S.M. (Fellow of the Council of Safe Medicine) did not imply that the defendant was a registered practitioner. The defendant had been previously convicted of using the letters M.D. and B.C.

THE APOTHECARIES ACT AND MEDICAL ACT.

The next two cases (Nos. 21 and 22) are examples of cases in which the same individual was sued under the Medical Act and under the Apothecaries' Act as well.

TWO PROSECUTIONS OF THE SAME INDIVIDUAL UNDER MEDICAL ACT (1858), SECTION XL, AND UNDER APOTHECARIES ACT (1815) RESPECTIVELY.

No. 21. *Name of Case and Date.*—Medical Defence Union *v.* Matthews. August 23rd, 1898.

Tribunal.—Justices at Norwich.

Charges.—Under Medical Act, 1858, Sec. XL: (1) Unlawfully and falsely using the title of doctor; not being a registered practitioner thereby implying that he had been registered under the said Act. (2) Unlawfully and falsely using the title of surgeon.

Evidence.—Defendant had advertised "Dr. Matthews's Pectoral Elixir," "Dr. Matthews's Liver and Stone Pills," "Dr. Matthews's Liver and Stomach Pills." On one of his billheads he described himself as "Surgeon, Accoucheur, etc." One of the witnesses for the prosecution said he regarded defendant as a quack, and he believed everyone in Norwich did so.

Judgment.—(1) Dismissed without costs, magistrates saying they did not think he acted wilfully and falsely. (2) Fined £1, and 12s. costs.

No. 22. *Name of Case and Date.*—Medical Defence Union *v.* Matthews. August 24th, 1898.

Tribunal.—County Court, Norwich (His Honour Judge Willis).

Cause of Action.—Under Apothecaries Act, 1815; unlawfully practising as an apothecary.

Evidence.—Defendant admitted offence.

Judgment.—Fined £20, and an agreed sum for costs.

Under the Medical Act the defendant was fined only £1, whereas under the Apothecaries Act, upon practically the same evidence as that given in the Medical Act case, the full penalty of £20 was recovered.

SIDELIGHTS ON UNQUALIFIED PRACTICE.

The next cases, four in number (23 to 26), are instances in which an unqualified person has obtained money from patients by fraudulently representing that they can cure them of the disease from which they were suffering.

OBTAINING MONEY BY FALSE PRETENCES.

No. 23. *Name of Case and Date.*—Reg. *v.* George. January 8th, 1897. BRITISH MEDICAL JOURNAL, January 23rd, 1897.

Tribunal.—Recorder of Burnley and a jury.

Charge.—Obtaining money by false pretences from W. Martindale with intent to defraud.

Evidence.—Martindale, a working man, believed he was suffering from disease, consulted the prisoner, an unqualified person, who advertised

wonderful cures as a "specialist." The prisoner represented to Martindale that he was seriously affected, and obtained £11 7s. from him in nine days. Martindale discontinued his visits, and thereupon received a letter from the prisoner threatening to put the matters in the hand of a solicitor. Medical evidence was given to the effect that there were no traces or appearances in Martindale of the ailments as stated by the prisoner.

Defence.—Prisoner *bonâ fide* believed Martindale was suffering from disease that he diagnosed; mistaken diagnosis.

Verdict and Sentence.—Guilty; twelve months' imprisonment. The judge, in sentencing the prisoner, stated that the offence was a cruel one, and one deliberately committed. The prisoner had stripped a hard-working man out of every shilling he had saved, and he considered the offence the worst he had the misfortune to try.

Three Claims against the Same Individual.

No. 24. *Name of Case and Date.*—Howard *v.* Sherman. December, 1895. British Medical Journal, December 21st, 1895.

Tribunal. Judge, Manchester County Court.

Claim.—To recover 21 guineas obtained by fraud and damages for negligence in treating plaintiff for rupture.

Evidence.—Defendant a "hernial specialist" advertised that cure for rupture was guaranteed. In consequence of advertisement plaintiff consulted defendant paid 1 guinea, and was absolutely assured of a cure. Upon this assurance he purchased from defendant for 20 guineas an apparatus to be worn. The appliance gave him great pain, and defendant said the rupture was on the left side. Mr. Whitehead, F.R.C.S., gave evidence that there was no hernia on the left but a small rupture on the right side; the appliance was an improper one, and wrongly applied. The defendant was unqualified, and had been connected with horse-trotting in U.S.A.

Defence.—The defendant had not promised a cure. The truss was a good one.

Judgment.—£22 and costs, the judge holding the plaintiff had parted with his money upon fraudulent representations.

No. 25. *Name of Case and Date.*—Greenwood *v.* Sherman. February, 1896. British Medical Journal, February 29th, 1896.

Tribunal.—Judge, Manchester County Court, and jury.

Claim.—Money obtained by fraud, expenses incurred, and damages for improper treatment.

Evidence.—Defendant advertised "Rupture cured without operation" ..... S. T. Sherman, Hernial Specialist. On faith of advertisement plaintiff consulted defendant, who examined him, charging 1 guinea, and told him he would give him an appliance and a compound, for which 80 guineas was charged and paid. Plaintiff said he suffered great pain from the appliance, which was not properly constructed, and the compound did him a great deal of harm. He then consulted Mr. Whitehead, F.R.C.S., who gave evidence in support of his case. The defendant did not appear.

Verdict and Judgment.—85 guineas and costs.

No. 26. *Name of Case and Date.*——— *v.* Sherman. February 20th, 1896, British Medical Journal, February 29th, 1896.

Tribunal.—Judge, Manchester County Court.

Claim.—Apparently for money obtained by fraud.

Evidence.—Plaintiff, a farmer, seeing the defendant's advertisement, which promised cure without operation, consulted him, and paid a fee of 21 guineas. The treatment did him no good but a lot of harm.

Judgment.—£23 2s., the judge observing that he was surprised that respectable journals inserted such advertisements.

Case 23 was a criminal prosecution for obtaining money by false pretences, the defendant having obtained £11 7s. by way of fees from the prosecutor, a working man, in nine days, by representing to him that he was very seriously affected. The Recorder, Mr. Shee, Q.C., in sentencing the prisoner, said that the offence was a cruel one, and one deliberately committed. In Cases 24 to 26 actions were brought by different plaintiffs against the same defendant to recover money obtained by fraudulent representations, and in two of them (24 and 25) a claim was also put forward for improper treatment. The defendant, who was described as a "hernial specialist," advertised that cure for rupture was guaranteed, and seems to have carried on a very lucrative business, as the aggregate sum received from the three plaintiffs amounted to 122 guineas. In one case (27) damages to the amount of £10 were recovered against an unqualified person for improper treatment, the judge observing that in this case definite harm had been done.

Damages for Improper Treatment.

No. 27. *Name of Case and Date.*—Bayliss *v.* Robert Whitehead. December, 1895. British Medical Journal, December 21st, 1895.

Tribunal.—Judge, County Court, Manchester.

Claim.—Damages for improper treatment.

Evidence.—Defendant, unqualified person, advertised in *Manchester Courier*. The plaintiff, a cook, consulted defendant, who told her she had a tumour which would turn into a cancer. He gave her some plaster and medicine and painted the growth with something which gave her great pain. Mr. Whitehead, F.R.C.S., gave evidence for the plaintiff, and said he had removed the tumour, which was a benign one, but was much inflamed owing to the irritation from some caustic application. The treatment adopted by the defendant was a barbarous and painful one.

Judgment for plaintiff for £10 and costs, the judge observing that in this case definite harm had been done.

Case 28 is important owing to the remarks made by Mr. Shiel, one of the metropolitan police magistrates. In dismissing an application for a summons, under Section xl of the Medical Act, against a person for falsely assuming a medical title after his name had been erased from the *Register*, the learned magistrate said "there was not anything in the Act which made it obligatory for a qualified man to be registered, though there ought to be such a provision.

Under Medical Act, 1858, Section xl.

No. 28. *Name of Case and Date.*—General Medical Council *v.* Collins. March 2nd, 1898.

Tribunal.—Mr. Shiel, Westminster Police Court.

Charge.—Application for a summons under Section xl of the Medical Act, 1858, for the false assumption of a medical title. It was stated by counsel that Collins's name had been erased from the *Medical Register*. Notwithstanding this he continued to practise, using titles implying that he was still a registered practitioner.

Result.—The magistrate refused to grant the summons, saying he did not think there was anything in the Act which made it obligatory for a qualified man to be registered, though there ought to be such a provision.

Nos. 29, 30, and 31 are instances of cases in which the conduct of unqualified persons has been commented upon by coroners who have held inquests on the bodies of persons attended by such practitioners.

Inquests.

No. 29. *Name of Case and Date.*—Inquest upon the body of Elizabeth Round. April, 1897. British Medical Journal, April 3rd, 1897.

Tribunal.—Coroner, Birmingham.

Evidence.—Deceased, who suffered from stye in the eye, visited and procured medicine from a dispensary called "The Midland Homœopathic and Magneto-Electric Institute." Some little time after she became worse, and died. The proprietor of the institute gave evidence at the inquest, and said he had no qualificaton, but had been a chemist. He used the letters M.E.F.S.Sc. after his name, which represented the titles Medical Electrician and Fellow of the Society of Science and Arts. He gave deceased pulsatilla. It appeared from the medical evidence that the deceased suffered from a weak and dilated heart, and should not have taken pulsatilla.

Result.—The coroner said it was highly improper that an unqualified person should attempt, more or less, to impose upon the unintelligent public by holding himself out by the manner of his advertisement to be a properly qualified medical practitioner.

No. 30. *Name of Case and Date.*—Inquest on the body of J. H. Booth, aged 3 years. January 2nd, 1899. British Medical Journal, January 28th, 1899.

Tribunal.—Coroner and jury, Derby.

Evidence.—The mother of the deceased said he complained of headache, and she had rubbed his head with some ointment a Captain Fielden had given her. Captain Fielden, a retired captain in the Scots Fusiliers, said he amused himself by doctoring anyone, examining and prescribing for children in the ordinary way. He made no charge for visits or remedies, nor did he receive money directly or indirectly from the dispensary where the physic was made up. He admitted having looked at the child's head, and gave the mother some ointment to rub on, and told her to send to the dispensary for some medicine the next day. He had attended and also left some medicine for an elder child who was sickening for typhoid. He did not report cases of infectious disease. The physic was made up at a dispensary kept and owned by a Miss Walmsley, who was one of the patients he had cured. The medical evidence showed the child died from convulsions.

Result.—The coroner, in summing up, said it was quite clear from Captain Fielden's own evidence that, however dangerous cases might be, he attended people, examined them, and prescribed for them. Personally, he, the coroner, had yet to learn that any person not a duly qualified practitioner had a right to take upon himself such serious responsibility as Captain Fielden had, or that the law gave him power to undertake the treatment of cases which required the greatest medical skill. He could not conceive a more dangerous practice than that of an unqualified person attempting to attend adults and children suffering from very severe diseases, including typhoid fever. The coroner further added that he felt it his duty to send a copy of the depositions to the proper authorities, before whom he should place all the facts, and, if they felt it desirable for the protection of the public, they would no doubt take the necessary steps.

No. 31. *Name of Case and Date.*—Inquest upon the body of James Wood. January 6th, 1899. British Medical Journal, January 14th, 1899.

Tribunal.—Mr. R. Rodd, County Coroner, Devon, and a jury.

Evidence.—Mrs. Wood, the widow, deposed that deceased, who had been suffering from diabetes, had been treated by two doctors, and subsequently having seen an advertisement, he consulted Mr. W. H. Roberts. Mr. Roberts was called, and said that he had no occupation except that of an agent from Johannesburg. He was not a qualified practitioner, although he advertised he would cure cancer and diabetes. Witness gave deceased powders, and told him to write and let him know his habits and mode of life. Deceased had paid him £2 10s. on account, leaving a balance of £3 2s. The powder he gave deceased contained merely table salt for removing constipation from which deceased also said he suffered. Had deceased lived he would have continued treating him, the amount demanded covering the whole treatment. It also appeared in evidence that Roberts had written to one of the witnesses that he did not treat deceased, as he was careful not to treat any case, and he did not charge anything for an interview, but only to cover expenses he might incur. The powders were analysed, and proved to be common table salt.

Result.—The coroner remarked that the inquiry had done good in exposing a wicked trade practised on deceased and on the public. The jury returned a verdict of death from natural causes, and through the coroner expressed themselves strongly that the treatment was absolutely useless, and was nothing more than a fraud, and severely censured Roberts.

The coroner in Case 29 said it was highly improper that an unqualified person should attempt more or less to impose upon the unintelligent public by holding himself out by the manner of his advertisements to be a properly qualified practitioner. The person whose conduct is thus spoken of had affixed the letters M.E.F.S.Sc. to his name, which he said meant Medical Electrician and Fellow of the Society of Science and Arts. It was apparently considered that it would have been useless to have instituted proceedings against him under the Medical Act in the face of the decisions in Cases 11, 19, and 20.

Again in Case 30 the coroner said he could not conceive a more dangerous practice than that of an unqualified person attempting to attend adults and children suffering from severe diseases, including in this case typhoid fever. The coroner seems to have been under the impression that the law would not allow an unqualified person to act in such a manner, for he further adds that he felt it his duty to send a copy of the depositions to the proper authorities before whom he should place all the facts, and if they felt it desirable for the protection of the public they would no doubt take the necessary steps.

Unfortunately, however, there is no certainty that proceedings taken against this person, either under the Medical Act or the Apothecaries Act, would terminate successfully. In Case 31 both the coroner and the jury characterised the unqualified person's conduct as fraudulent. This individual, who admitted he advertised that he could cure cancer and diabetes, said he was paid £2 10s. by the deceased man, leaving a balance due of £3 2s., and that the powders he supplied were made of common table salt. He also said he did not treat deceased; he was careful not to treat any case, and he did not charge anything for an interview, but only to cover expenses he might incur. These precautions would appear to have been taken so as to avoid an action being brought under the Apothecaries Act for acting as an apothecary without a certificate.

The terms of his advertisement do not appear in the report, but the following is a copy of one of his cards:

DISEASES.

Anæmia.
Aneurysm.
Asthma.
Bright's (Kidney aff.)
Bronchitis.
Cancer (Special).
Constipation.
Diabetes.
Dizziness.
Diarrhœa.
Dyspepsia.
Epilepsy.
Fistula.
Gall Stones.
Headache.
Heart Affection.
Insomnia.
Liver Affections.
Phthisis.
Palpitation.
Rheumatism.
Skin Disease.
Urinary Disorder.

Agent for

DRS. FOREST AND SCHUSSLER'S

Hydrobio Chemical Remedies.

At per Box of 12 Tissue Salt, or for Whole Course as per Agreement.

We neither Prescribe nor Treat Patients.

For Self-administration only.

CANCER A SPECIALITY.

All Appliances needed may be had at WOOD'S, Chemist, Stonehouse.

CONSULTATIONS ABSOLUTELY FREE.

W. H. ROBERTS,

2, BARTON CRESCENT, MUTLEY.

Cases Nos. 32 to 38 afford examples of cases in which procuring abortion or an attempt to procure abortion has formed the subject matter of the charge.

No. 32. *Name of Case and Date.*—Reg. *v.* Mary E. Sprackland. January 21st, 1896. BRITISH MEDICAL JOURNAL, January 25th, 1896.

Tribunal.—Cave, J., and jury, Maidstone Assizes.

Charge.—Using an instrument with intent to procure the miscarriage of a woman.

Occupation of prisoner not given.

Evidence.—There were several charges in respect of different women. Prisoner described by counsel as a professional abortionist. The prisoner charged 5s. for the operation.

Verdict and Sentence.—Guilty; five years' penal servitude. It was stated that more than ten other instances were known of similar malpractice by the prisoner.

MURDER—ILLEGAL OPERATION.

No. 33. *Name of Case and Date.*—Reg. *v.* Aldridge. March 17th, 1897. BRITISH MEDICAL JOURNAL, March 27th, 1897.

Tribunal.—Judge and jury, Leeds Assizes.

Charge.—Murder of Harriet Blagborough, whose death, it was alleged, was the result of an illegal operation.

Evidence.—The prisoner was described as a "botanist."

Verdict and Sentence.—Guilty; sentenced to death.

ABORTION.

No. 34. *Name of Case and Date.*—Reg. *v.* Minnie C. Graham. December, 1897.

Tribunal.—High Court of Justiciary, Edinburgh (Lord Justice Clerk and a jury).

Charges.—Four charges of illegal practices.

Evidence.—Prisoner passed herself off to a chemist as an M.D.U.S.A. From six to thirteen lady patients visited her daily. A number of instruments were found in her possession.

Verdict and Sentence.—Guilty; five years' penal servitude.

No. 35. *Name of Case and Date.*—Reg. *v.* Ady and L. Tomasso. January 18th, 1898. BRITISH MEDICAL JOURNAL, January 22nd, 1898.

Tribunal.—Channell, J., and jury, Central Criminal Court.

Charges.—(1) Ady for using an instrument with intent to procure miscarriage, and for using means unknown with the same intent. (2) Tomasso for administering a drug with intent to procure miscarriage.

Evidence.—Ady had been struck off *Medical Register* on June 4th, 1896.

Verdict and Sentence.—Both guilty; Ady seven years' penal servitude, Tomasso seven years' penal servitude.

Channell, J. said they had been habitually doing this as a matter of business, and they carried it on so far as he knew with the greatest skill. He thought they were very dangerous persons on the ground of the extreme skill with which the operations were performed.

No. 36. *Name of Case and Date.*—Reg. *v.* W. M. Collins. June 27th. *et seq.* 1898. BRITISH MEDICAL JOURNAL, July 2nd, 1898.

Tribunal.—Grantham, J., and a jury, Central Criminal Court.

Charge.—Murder of Mrs. Uzielli, whose death was alleged to have been caused by an attempt on the part of the prisoner to procure a miscarriage.

Evidence.—The prisoner had been a qualified medical practitioner, but his name had been erased from the *Register*.

Verdict and Sentence.—Guilty of manslaughter. Seven years' penal servitude.

MURDER: ILLEGAL OPERATION.

No. 37. *Name of Case and Date.*—Reg. *v.* Inglis. December 9th, 1898. BRITISH MEDICAL JOURNAL, December 17th, 1898.

Tribunal.—Channell, J., and jury, Leeds Assizes.

Charge.—Wilful murder of Emma Anderton, whose death was alleged to have been caused by an attempt on the part of the prisoner to procure abortion.

Evidence.—Prisoner was a midwife.

Defence.—Prisoner said she had used a syringe to give a vaginal injection to ease the pain from which deceased was suffering; she was unaware deceased was pregnant.

Summing-up.—The Judge told the jury, *inter alia*, that if death was caused by the prisoner negligently using an unclean instrument, although she had no intention to procure abortion, they might find the prisoner guilty of manslaughter.

Verdict.—Not guilty.

ABORTION.

No. 38. *Name of Case and Date.*—Reg. *v.* Hare. January, 1899. BRITISH MEDICAL JOURNAL, January 21st, 1899.

Tribunal.—Darling, J., and jury, Central Criminal Court.

Charge.—Using an instrument with intent to procure miscarriage.

Evidence.—Prisoner, a herbalist, carried on business as a vendor of medicines. A young married woman consulted him in consequence of handbills advertising his medicines. She alleged he performed an operation on her, in consequence of which she had a miscarriage.

Verdict and Sentence.—Guilty. Twelve years' penal servitude, the judge saying no doubt the prisoner had been a regular abortionist for many years. In May, 1889, he was convicted of a similar offence, and sentenced to ten years' penal servitude.

No. 39. *Name of Case and Date.*—Reg. *v.* Ferdinand. December 15th, 1896. BRITISH MEDICAL JOURNAL, December 26th, 1896.

Tribunal.—Lawrence, J., and a jury, Central Criminal Court.

Charge.—Wilful and corrupt perjury in that he swore at an inquest that he was an M.D. of the United States of America.

Evidence.—The prisoner produced a diploma which was said to have been granted to him in Pennsylvania, but the name in the diploma had been tampered with.

Verdict and Sentence.—Guilty. Twelve months' hard labour.

The prisoner in Case 36 and one of the prisoners in Case 35 had at one time been duly qualified and registered practitioners, but in both instances had been struck off the *Register* for misconduct.

The prisoners in Cases 33 and 38 were described as a botanist and a herbalist respectively; the prisoner in Case 38 had previously been convicted of a similar offence, and sentenced to ten years' penal servitude.

In Case 34 the prisoner passed herself off as an M.D.U.S.A. Case 39 is added to the selection only for the purpose of showing a further stage in the career of the defendant in Case 10.

Although we have not taken any pains to make a complete collection of cases, yet the facts brought out from our list, incomplete as it is, are sufficient to indicate that the Medical Act as it is interpreted by the Courts is insufficient to protect the public from the nets and toils of the unqualified and untrained practitioner.

The Legislature, by passing the 52 and 53 Vict., cap. 18 (The Indecent Advertisements Act, 1889) has successfully suppressed advertisements relating to certain diseases from being exhibited in public places, but unfortunately the Act does not prohibit the authors of such advertisements from practising their noxious trade, and working upon the fears

and credulity of those persons who are so unfortunate as to consult them.

Mr. W. E. Hempson, Solicitor to the Medical Defence Union, in his report for the year 1898, presented to the annual meeting of the Union the other day, has expressed a very decided opinion, founded on recent experience, as to the inefficiency of existing medical legislation.

"Having regard," he writes, "to the anomalies which prevail in these connections in the construction to be placed upon the penal sections of the Medical Acts [illegible] that it is a matter of [illegible] evidence may be, as to what [illegible] and until the law is [illegible] tained basis by the introduction [illegible] liament, the Union will, in my opinion, be well advised to undertake no further prosecutions under the Medical Acts."

It will be asked what steps can and ought to be taken to remedy the defects which we have pointed out, and at the same time effect the object for which the Medical Act of 1858 was [illegible] can be given is that fresh legislation is necessary to [illegible] Section XL of the Act by making it illegal for any person to practise medicine, surgery, or midwifery for gain, unless he be duly qualified and registered, and that in the case of repeated offences the Court shall have power to inflict a [illegible]

GERMAN SURGICAL CONGRESS.

[From a Correspondent.]

This annual Congress of German Surgeons took place at Berlin from April 4th to 7th, and as usual was well attended by representatives from all parts of Germany, and from Austria, Russia, and other countries. Professor Hahn, of the F[illegible] but it will be remembered for the thoroughness with which important modern problems of surgery were discussed and views exchanged by some of the most eminent representatives of this branch of medicine.

Operations in Epilepsy.

On the first day, Kocher (Bern) read a paper, opening the subject of operation in epilepsy. He took the view that epilepsy arises chiefly from pressure in the interior of the cerebral meninges, which pressure may have various causes; and that operative treatment is useless unless the increased pressure of the inside [illegible]

Von Bergmann (Berlin), Barker (London), Koerte (Berlin), v. Beck (Karlsruhe), and Gussenbauer (Prague) took part in the lively debate that followed.

Anatomical specimens and patients were exhibited in support of different views.

Congenital Dislocation and Injuries of the Hip.

Hoffa (Wurzburg) [illegible] the most important congenital deformity. He [illegible] the tenth year of [illegible] These dislocations [illegible] immediate steps should be taken. [illegible] they, however, be due to actual malformation, various splints might be resorted to, [illegible] should be worn even after apparent cure. [illegible] had observed more than 100 cases, had stated that boys would often show congenital [illegible] after the tenth year, if not earlier, [illegible] and the deformity remedied, care being taken not to deepen the socket of the joint.

Lorenz (Vienna) agreed with Hoffa, but would fix the age limit at 7 years in cases of double-sided dislocation.

Petersen (Bonn) described the apparatus used in Schede's clinic, which permitted exact regulation of the force employed. He said that since their adoption unfavourable results had become noticeably less frequent.

Mikulicz (Breslau) thought that there was not much to choose between the various bloodless methods, and that success or failure depended mainly on the peculiarities of the case. He was of opinion that a large percentage of dislocations were brought about only during birth, and that these were the cases easy to treat successfully.

[illegible] neck of [illegible] some deformity and considerable impairment of mobility. One of his cases he had operated upon, but without producing much [illegible]

Kocher related his experience of this injury, and remarked that it also might result as a consequence of rickets, the deformity being directly produced by the weight of the body.

[illegible]

Fenda (Berlin) referred to the frequency of tubercle of bone as a cause of miliary tuberculosis. He mentioned one case in which a tuberculous swelling of the pubes resembled a hernia.

[illegible]

Kroenlein [illegible] gastric ulcer the [illegible] tion. A similar case was reported by Wagner.

[illegible]

Modlinski, [illegible] related their experience [illegible] enterostomy for [illegible] unattended [illegible] at the results were most satisfactory [illegible] most considerable.

New Growths Following Injury.

After remarking on the relationship recently observed [illegible] of [illegible] accident insurance, von Eiselsberg proposed collective investigation, and his suggestion was adopted.

Treatment of Typhlitis.

A whole afternoon was devoted to the question of operative interference in cases of inflammation about the cæcum. It was introduced by Kehrer (Berlin) who described the various forms of the disease and discussed the results of operation. Sonnenburg expressed the most advanced views, [illegible] peration [illegible] s. Al[illegible] r to [illegible] shaped [illegible]

Gussenbauer and others joined in the discussion, during which Sonnenburg's views did not receive unqualified support.

[illegible]

Von M[illegible] after[illegible] as a[illegible] cases of [illegible] ulceration. [illegible] ent on whom he had operated successfully [illegible] ce of rib cartilage with its periosteum.

An[illegible]

Kornig (Berlin) de[illegible] rosemic appearance of rar[illegible] ng bones [illegible], but inflammation in the neighbourhood might often again render them benign in nature.

Excision of the Bladder.

Modlinski (Moscow) urged that removal of the bladder was indicated in cases of recurring malignant lesions or numerous ulcers. He had excised the whole organ, converting a portion of the rectum into a substitute.

Large Ovarian Tumours

Woermer (Gmunden) related 4 cases of ovarian tumours removed by himself, each [illegible] our weighing from sixty to one hundred pounds.

CONCLUDING PROCEEDINGS.

The proceedings of the last day consisted chiefly in histories of interesting cases and exhibition of patients, of apparatus, etc. Professor v. BERGMANN was elected President of next year's Congress.

ANALYSIS OF THE EVIDENCE GIVEN BEFORE THE PLAGUE COMMISSION.

III.—METHODS OF CONTROLLING PLAGUE.

Port Inspections.

THE inspection of vessels leaving the principal Indian ports of the affected area is a most important measure for preventing the disease spreading to other countries, and one which up to recently had proved very successful. Between January, 1897, and November, 1898, 87,571 outward bound vessels and native craft, having crews totalling 790,376, and carrying 728,759 passengers, were dealt with in the port of Bombay. Out of this number, 165,798 were rejected or sent to the observation camp, and among such rejections 249 cases of plague were detected, or developed the disease before they were discharged from observation.

At Karachi 69,360 persons were examined, and one case of plague detected; while of 35,360 persons who were detained under observation for ten days 5 developed plague, all within the incubation period of five days; of 7,310 outgoing passengers detained 17 developed plague.

Railway Inspections.

The inspection of passengers from infected parts at different railway stations has been an important measure for limiting the spread of the disease, and although it was started too late to prevent the epidemic being carried to Poona and many other places in the Bombay Presidency, yet it has been of great service in protecting more distant places. Calcutta, for instance, probably owed its escape for more than a year after the outbreak of the disease in Bombay in large degree to this measure, and many think that the light way in which it has suffered so far may be due to the great cleansing of its more densely populated parts which this breathing time allowed of being carried out. The North-West Provinces again are greatly indebted to the same measure for their comparative immunity from the disease. At Sibi, on the railway to Baluchistan, passengers were detained for ten days, and 3 cases of the disease were detected, no others occurring in this province. At Poona over 1,000 persons were detained, and 40 of them developed plague, while at Ahmedabad no fewer than 77 cases from Bombay were detected. In Southern India railway employees were the first to suffer from the disease in several instances.

Cordons and Quarantine.

These measures have been but little resorted to, and in nearly every instance have signally failed. The only instance in which a cordon appears to have been of any service was on the borders of an infected native State, where the salt frontier force was increased and utilised as a cordon, with the result that the disease was kept out of the villages in British territory. In the Punjab cordons were made use of to isolate infected villages, but they were a failure, owing to the police force being not only insufficient but corrupt. In more than 50 per cent. of the villages around which a cordon was placed the infection passed in. At Kankal, in the North-West Provinces, again, although the town was surrounded on all sides with rivers and canals, with only two exits over bridges, yet an attempt to isolate it from surrounding places by means of a cordon failed, and the disease appeared in a neighbouring town and villages. In Baroda, also, quarantine measures were reported to have signally failed to check the disease.

In this connection, the incubation period of the disease is of great importance, and the evidence on this point is pretty unanimously to the effect that ten days is the extreme limit, while many consider it to be as short as five days, so that the period of quarantine ordered by the Venice Conference appears to be ample.

Segregation of Cases.

The discovery and isolation of cases is obviously a measure of the first importance in controlling outbreaks of plague, and in a country the inhabitants of which are sufficiently educated to see that it is to their interest to assist in carrying it out, it would doubtless be of the greatest value. In India, however, the fatalistic ignorance of the people has led to their offering the most active and vigilant opposition to segregation of infected persons and those that have come into contact with them to such a degree as nearly, if not quite, to nullify the benefits to be derived from it. In only one instance has segregation been reported to have been an unmixed blessing, and in this instance (in Damaun) early information was given by the people themselves, and evacuation was then found to be unnecessary. The disease was reduced 50 per cent. in a month, and disappeared a short time after. The other extreme was met with in Bombay and Bangalore, where attempts to segregate infected people led to active opposition and rioting, while cases were moved about in order to conceal them. Thus the very measure which was intended to check the spread of the disease only led to its wider dissemination, until it was recognised that the remedy was worse than the disease. When segregation was given up in Bangalore the people became more amenable, and other measures were resorted to with some success. In Karachi again segregation was reported to be unnecessary and dangerous, and was largely given up in favour of evacuation combined with disinfection. The Surgeon-General of Bombay said that segregation should be carried out together with disinfection of the affected houses, but he admitted that it was very difficult to carry it out owing to want of sufficient organisation and to the passive, or even active, opposition of the inhabitants. Latterly the duty of house-to-house visitation for the purpose of searching out and isolating plague cases in Bombay has been entrusted to native gentlemen of some standing, but a volunteer plague searcher admitted in his evidence that the experiment had proved unsuccessful, although he was formerly strongly in favour of it. The recent recrudescence of the disease in a more aggravated degree than ever in this much afflicted city seems to bear out this statement, and the prophecy of this witness that the authorities might be compelled to revert to the former plan, which had more backbone in it, may yet be verified. A solicitor, a volunteer plague worker, in the same town said that he thought that the only way to prevent the spread of the plague was to stop plague patients leaving their houses, as was done in the great plague of London. In Poona, on the other hand, although at first the inhabitants objected to segregation and concealed cases, yet it had been found that by co-operation with the people themselves, and by causing them as little inconvenience as possible house-to-house visitation and the reporting of all cases of sickness could be carried out. These measures, together with evacuation of infected houses and with corpse inspection, ensured that few cases escaped notice. In this way compulsory evacuation, except in the case of infected cases, was found to be unnecessary. The experience in Karachi appears to have been just the opposite—namely, that house-to-house visitation helped to spread the disease, while evacuation was the most useful measure.

The general effect of the evidence is to the effect that segregation of cases in Indian towns is a measure of doubtful value: unless the confidence of the inhabitants is first gained—by no means an easy matter—it is very likely to defeat its own end, and lead to the spread of the disease through concealment and frequent movement of cases, and people who have been in contact with them. If, however, either the assistance of the people themselves, or an organisation at the very beginning of an outbreak that is strong enough to overcome all opposition is at hand, this is, under favourable circumstances, a most powerful method of preventing the spread of plague. It must be put into action with due caution, and may in many cases have to give place to other measures, of which the most important and successful is evacuation of the whole town or village either at once or by degrees.

THE PLAGUE.

CALCUTTA.

THE general state of plague in India seems to be that, whilst the epidemic is abating in Bombay and the Southern Provinces, the disease is slowly spreading in Calcutta. This is the third time plague has been pronounced to exist in Calcutta. On the two previous occasions few cases were observed, and after the outbreak ceased there were those who declared that it was not plague which had threatened, but some other disease. During this the third outbreak the declaimers are fewer, but those who

still persist in the opinion are more loud than ever in their declamations. We hope the minority are in the right.

The Special Commission.

A number of native doctors and laymen have been interrogated as to their observations on plague and its treatment by the Commission. Some declared it to be infectious, others denied it. Mr. Patee, a Justice of the Peace, who had worked as a volunteer during the epidemic, said, in reply to a question as to the contagiousness of plague: "I have seen people sitting in close proximity to plague patients, and have also observed them hugging and kissing them, and yet I have not noticed a single instance to have been affected by plague. I am therefore of opinion that plague is not contagious." Mr. W. L. Desni said that natives of India preferred qualified medical practitioners to attend them instead of vaids and hakims, and they were only deterred from doing so by the high fees charged by those who treated disease in the European fashion. Mr. Damanwalla, the leading Parsee inhabitant of Damaun, volunteered a statement that he had seen 5 cases in which buboes were treated by the application of live frogs. The frogs were cut transversely, and applied to the buboes, a bandage being tied to prevent the frog escaping. The patients seemed to get great relief from this kind of treatment. These, and such statements as these, are but the mere tattle of native superstitions, and it would seem that the members of the Commission can do little good by eliciting or listening to such.

Hong Kong.

During the second week of March there were 5 deaths from plague in Hong Kong, and by telegraph we learn that "47 cases of plague and 43 deaths have occurred in the colony up to April 10th." This is the fifth year in succession in which plague has prevailed in Hong Kong, and although the number of cases during the last twelve months have been few they are sufficient to cause the authorities to be vigilant, as at any moment it may assume an epidemic form.

NURSING EXHIBITION IN BERLIN.

In view of the improvements effected of late years in the theory and technique of nursing, the exhibition to be held in Berlin next month should prove of great interest to the public.

While the demand for skilled nursing is not so widespread in Germany as it is in this country, it is nevertheless growing. The wealth of the country has increased, the standard of comfort risen considerably during the last few years, and there is an increasing readiness to spend money on such an object. It is proposed to form a permanent collection, in the university, of such exhibits as are suitable for teaching purposes.

The exhibition is to be divided into the following sections:

A. General. B. Special Nursing.

A.—1. The sick room: Lighting, ventilation, heating, disinfection, etc.
2. Sick beds: Bedsteads, bedding, etc.
3. Patient: Foods, medicines and applications, clothing, etc.
4. Literature of nursing.

B.—Nursing of:
1. Lung diseases.
2. Children.
3. Obstetric cases.
4. Surgical cases.
5. Insane cases.
6. The sick in war.
7. The sick in the colonies.

The exhibition is to be open from May 20th to June 18th. All exhibits must be ready in their places by 6 P.M. May 18th. In the case of institutions, societies, etc., the charge for floor space may be reduced or omitted; further information, as to custom house conditions, etc., can be obtained from the Bureau der Ausstellung, Philharmonie, Köthenerstrasse 32, Berlin, S.W. Fees are payable to the Treasurer, Herr Commercienrath Emil Jacob, Holzmarktstrasse 65, Berlin, O.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL.

Meetings of the Council will be held on July 12th and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch: East London and South Essex District.—The next meeting will be held at the Town Hall, Walthamstow, on Thursday, April 20th, at 4 P.M. The chair will be taken by Dr. Shadwell, Vice-President of the district. Sir R. Douglas Powell, Bart., M.D., will read a paper on Empyema. Visitors are invited.—C. J. Morton, Honorary Secretary, 56, Orford Road, Walthamstow.

South Wales and Monmouthshire Branch.—The spring meeting will be held at Newport on Tuesday, May 2nd. Notices of communications, nominations for membership, etc., should be sent in on or before Monday, April 17th.—Alfred Sheen, Cardiff; D. Arthur Davies, Swansea, Hon. Secretaries.

South Western Branch.—A meeting of this Branch will be held at the Public Rooms, St. Austell, on Saturday, April 15th, at 4 P.M. Agenda.—Papers: Mr. J. Cuthbertson Walker, Notes on a Case of Retroverted and Retroflexed Uterus. Mr. F. Everard Row, Radical Cure of Hernia (the discussion will be opened by Mr. Woollcombe). Mr. C. Hamilton Whiteford, the Mechanical Factor in Surgery. Dr. Montgomerie, Notes on a Case of Colotomy for Intestinal Obstruction caused by Carcinomatous Stricture of Sigmoid Colon (with specimen). Mr. Paul Swain, (1) Specimen from a Case of Colectomy for Malignant Disease, (2) large Ovarian Cyst containing a Calcareous Mass. Mr. F. Everard Row, Specimens of (1) Foreign Body, (2) Calculus, removed from the Male Urethra. Mr. C. Hamilton Whiteford, Model demonstrating his method of retaining a rubber catheter after external urethrotomy (Wheelhouse) by fixation from the perineal wound. Dr. Bushnell, (1) Microscopic Section of Tuberculous Ligamentum Teres, (2) Pathological Specimens from the Clinical Laboratory of the South Devon and East Cornwall Hospital. Tea and coffee will be served at 3.30 P.M.—H. W. Webber, 4, Woodland Terrace, Plymouth, Honorary Secretary.

North Wales Branch.—The spring intermediate meeting of this Branch will be held at the Colwyn Bay Hotel, Colwyn Bay, on Tuesday, April 18th, at 2.30 P.M. After formal Branch business the following papers will be read: W. W. Herbert, M.B., Peripheral Neuritis. Roger Edwards, M.D., the Right Value of Different Kinds of Food in Health and Disease. J. Lloyd Roberts, M.B., the Proposed Changes in the Lunacy Act. Lawson Tait, F.R.C.S., (1) the Story of an Aching Kidney; (2) the Method of Removing a Pregnant Uterus. J. E. Gemmell, M.D., a Case of Ectopic Pregnancy; tubal abortion. Hugh R. Jones, M.D., Vaccination and Small-pox. Rushton Parker, F.R.C.S., (1) Some Cases of Hip Disease due to Osteo-Myelitis (with Photographs and Splint); (2) Recurring Parotid Tumour in Young Subject. Hugh E. Jones, M.D., (1) the Operative Treatment of High Myopia; (2) Septic Thrombosis of Lateral Sinus Treated with Antistreptococcic Serum. J. Elliott, M.D., Notes on Cases Treated with Hot Air (Greville treatment). Robert Jones, F.R.C.S.Ed., On the Operative treatment of Spina Bifida: *x*-ray Photographs. H. Briggs, F.R.C.S., will exhibit (1) Crochet Hook Removed by Posterior Vaginal Section from Peritoneal Cavity; (2) Radiograph by Dr. Thurston Holland. Luncheon on the table at 1.30 P.M. prompt. Tickets 3s. each.—W. Jones-Morris, Is-y-coed, Portmadoc. H. Jones Roberts, Gwydd-fôr, Pen-y-groes, Honorary Secretaries.

Border Counties Branch. The spring meeting of this Branch will be held in the Railway Hotel, St. Boswells, N.B., on Friday, April 21st, at 3.30 P.M. A meeting of the Council will be held at 3.15 P.M. Order of business: Minutes of last meeting. Election of new Members. Consider nomination for election to the Royal Medical Benevolent College, Epsom. Papers: Dr. Mair, on Renal Calculi. Dr. Somerville, on Thrombosis. Dr. J. W. Crerar, on the Regional Anæsthesia of Oberst and Kroegius. Dr. Hamilton, on Sulphur. Dr. Dixon, Note on an Unexpected Action of Sulphonal. Dr. Bannerman will show a Patient. Dr. MacGregor will show Temperature Chart from a Case of Infective Endocarditis. Dinner will be be served in the hotel after the meeting.—W. F. Farquharson, Garlands, Carlisle, Honorary Secretary.

South Eastern Branch: East Sussex District.—The next meeting will be held at Tunbridge Wells, on Thursday, May 11th, at 5 o'clock. Notice of communications should be sent before the end of April to the Honorary Secretary, J. W. Batterham, M.B., Bank House, Grand Parade, St. Leonards.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

The spring meeting of this District was held at Upper Norwood on March 9th; Mr. E. Beaumont, of Upper Norwood, in the chair.

Confirmation of Minutes.—The minutes of the last meeting at Reigate were read and confirmed.

Next Meeting.—On the proposition of Dr. H. G. Thompson, seconded by Mr. Newby, it was resolved that the next meet-

ing should be held at Croydon on Thursday, May 11th, and that Dr. Parsons Smith be invited to take the chair.

Election of Officers.—Mr. Henry J. Prangley was reappointed Honorary Secretary. The following were nominated for representatives on the Council of the Association—namely, Dr. J. H. Galton for Surrey, Dr. Tyson for Kent, and Mr. T. J. Verrall for Sussex.

Demonstration.—Dr. PATRICK MANSON gave a demonstration on Malaria.

Exhibits.—Messrs. Allen and Hanbury exhibited Surgical Instruments, etc.

Dinner.—After the meeting twelve members and visitors dined together.

WEST SOMERSET BRANCH.

THE spring meeting of this Branch was held on April 7th, at Taunton, under the presidency of Mr. R. H. F. ROUTH, Bridgwater.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The Vaccination Act, 1898.—Communications from the General Council, and from the Worcestershire and Herefordshire Branch, on the Vaccination Act, 1898, were read. After some discussion it was resolved:

That no action be taken by this Branch until the working of the present Vaccination Act be more manifest.

Discussion.—A discussion on Constipation was introduced by the PRESIDENT and joined in by several members.

Tuberculosis.—The discussion of the Report of the General Council on Tuberculosis was postponed until the next meeting.

Dinner.—The meeting was followed by a dinner at the Railway Hotel.

SPECIAL CORRESPONDENCE.

BERLIN.

A National Health Society.—Professor Virchow on the Standard of Education in Germany.—Mixed Clinical Classes.

UNDER the lead of Professors von Leyden and Rubner a new National Health Society has been formed, the objects of which are stated to be: (1) To give the greatest possible publicity the laws of hygiene, and the results of hygienic research; (2) to take up a position with regard to all social questions affecting the health of the masses; and (3) to propose and support such practical undertakings as may be conducive to national health.

Professor Virchow, the Nestor of German Medicine, puts to the blush many of his younger colleagues by his versatility and power of sustained mental effort. Besides his professorial and editorial duties he is a keen politician, one of the heads of the Progressive Party in the Prussian Diet, and a leading member of that active town council which has transformed the insanitary Berlin of the Sixties and Seventies into the best-drained and cleanest city in Europe. Moreover, he is the life and soul of the Archæological Society in Berlin, presiding at its meetings, and enriching them by interesting pieces of antiquarian research. Thus, in the autumn of a long life devoted to things of the intellect, and feeling his own mental storehouse growing wider and wider, it is perhaps not unnatural that Virchow should be a little out of touch with the student youth of the present day. He thinks, in fact, that higher education in Germany is steadily lowering its standard. This was the theme of a speech he delivered the other day in the Prussian Diet, in the course of the debate on education *apropos* of the Budget. His own experience as examiner, he said, showed him decided signs of deterioration—taking an average of the students presenting themselves for examination—a deterioration which he could not help attributing to the modern neglect of logic and the classics.

Clinical students of Halle University have publicly protested against the admission of women to the medical curriculum. In a paper fixed on to the University blackboard they hotly oppose, not the study of medicine by women, but the attendance of women at clinical courses in common with male students. They appeal to the clinical students of Germany, who, they say, either know by experience or can fully imagine the awkward situations, outraging all sense of decency, which necessarily ensue from such study in common. "With the female students," they say "cynicism has entered our university"—and they imperatively demand the exclusion of female students from the men's clinical courses, appealing to the medical students of all German universities to join in the protest. The Berlin medical students have not followed the lead of their Halle brethren. They have refused to let the protest be fastened on their University blackboard. In Halle itself an authoritative counter-declaration has appeared, signed by the Dean of the Medical Faculty, Professor Weber. The complaints of the students have been carefully considered by the medical professors, and have been found to rest partly on misunderstandings, partly, however, on direct misrepresentation. Through their Dean the medical professors solemnly declare that neither morality nor the scientific gravity of clinical instruction has suffered in any way since the admission of female students, nor have the tone and general deportment in the clinics and lecture theatres changed for the worse in any way. They declare the students' accusations to be totally unfounded, and deplore the animosity shown by them against the female students, which these latter have done absolutely nothing to deserve; and they would not hesitate to proceed against the authors of the protest if they were not convinced that they had not realised the full meaning of the step they had taken. Finally, the professors hope that peace will soon be restored and the good feeling between professors and students henceforth remain undisturbed.

EDINBURGH.

Farewell Reception to Dr. Sophia Jex-Blake.—Sir Henry Littlejohn's Annual Report.

A FAREWELL reception was held in Edinburgh on April 5th in honour of Dr. Sophia Jex-Blake, who, after forty years of work, is retiring from public life. Invitations were issued in the name of the Marchioness of Bute, Lady Helen Munro Ferguson, and the Executive Committee of the Edinburgh Hospital for Women and Children. In the absence through indisposition of the Marchioness of Bute, Lady Helen Munro Ferguson occupied the chair, and was supported on the platform by the Countess of Moray, Lady Victoria Campbell, Miss Louisa Stevenson, Miss Mair, Emeritus Professor Masson, Dr. Balfour, Dr. Sibbald, Dr. Peel Ritchie, and others. Apologies were read from Sir William Muir and others. Professor Masson recalled the old days when many people in Edinburgh thought the foundation of society would be shaken if women began to study medicine, and he proposed the following resolution:

That this company, remembering all that has been done by Dr. Jex-Blake so pre-eminently for the medical education of women, and for the opening up of the medical profession to women, both here and elsewhere, takes this opportunity of congratulating her on the present evidences of the success everywhere of the cause which owes so much to her powerful initiation and persevering advocacy; and regrets that the occasion should also be one of farewell.

Dr. Peel Ritchie, in seconding the resolution, said he had originally lent a helping hand to Miss Jex-Blake and her fellow students, not from any enthusiasm for the cause they represented, but because he thought they were not receiving fair play at the hands of those who had at first led them on by fair promises. In the course of twenty years, however, he had considerably modified his attitude. He had been much struck by the fact that while free dispensaries stood open on every side many working women in Edinburgh were willing to pay a relatively considerable sum in order to be attended by doctors of their own sex. He thought Edinburgh doctors in former days had too much looked upon the question as one affecting Edinburgh only, whereas it was really one affecting the whole world. Referring to Professor Masson's words, Dr. Jex-Blake said she had indeed gone through stormy times in Edinburgh, but her remembrance of injury was far outweighed by the memory of the loyal and chivalrous kindness she had all along received from Edinburgh men and women, some of whom—such as Dr. Balfour and Miss Louisa Steven-

son—she was glad to see present. She expressed great satisfaction in the fact that her work would be carried on by students of her own, and carried on under more favourable auspices than formerly, as the Women's Hospital was about to be moved from its present small and incommodious premises to her own residence on Bruntsfield Links. Dr. Balfour and Dr. Sibbald then said a few words, the former as one who had supported the movement from the first, the latter as one who, to use his own expression, is "gradually drawn in to join the triumphal procession."

The annual report of the Medical Officer of Health of the city of Edinburgh, which has just been issued, is an unusually long, interesting, and valuable piece of work. It extends to 61 large foolscap pages, as against 37 in the previous year. The population of Edinburgh in 1898 was 295,628, the deaths numbered 5,320 (17.99 per 1,000), the births 8,097 (27.38 per 1,000). During the last twenty years the death-rate has been lower than in 1898 on six occasions, but only twice has it been very materially lower, namely, in 1894 and in 1896. The birth-rate of 27.38 has remained practically stationary since 1890. The number of deaths given above does not represent the absolute number registered, which was 5,792, because deduction must be made of persons not citizens of Edinburgh, but dying in the Royal Infirmary, Sick Children's Hospital, Chalmers Hospital, Longmore Hospital, Morningside Asylum, two large poorhouses, and Leith Fever Hospital, which is also situated within the boundaries of Edinburgh. The death-rates in the other seven of eight of the principal towns of Scotland during 1898, as given by the Registrar-General, were as follows:—Greenock, 21 4; Glasgow, 21.2; Dundee, 21.0; Paisley, 21.0; Perth, 20.5; Aberdeen, 19.1; Leith, 17.9. The year 1898 might be accounted a favourable one both as regards climatic conditions and freedom from any excessive mortality from zymotic disease, so that the death-rate of 17.99 given may be regarded as a normal rate for the city under present conditions. The average death-rate during the last five years had been 17.7. Of the total 5,320 deaths, 1,805 occurred under 5 years of age, and it is pointed out that this is "a trustworthy index under ordinary conditions to the general healthiness and state of the sanitary administration of a town." This is due to the fact that children are specially susceptible to insanitary influences and unhealthy conditions of life, and their mortality consistently increases according as these conditions are present. The report points out that:

> Measles and whooping-cough annually cause a large mortality at this period of life, and, while the City Hospital has been of the greatest benefit in reducing zymotic mortality, it is a matter of regret that in regard to these two scourges of infant life we are able to do so little in affording proper treatment in hospital. The large majority of deaths from these two diseases occur not from the actual disease but from pneumonia, bronchitis, and other sequelæ, often the result of carelessness and ignorance on the part of parents in exposing their children too soon during convalescence. This is specially dangerous in the Old Town, where the narrow closes act as funnels for the passage of our easterly and northerly winds. As it is impossible to provide hospital accommodation for all cases of these two diseases, we are only able to isolate the most clamant or those where the special circumstances may prove a source of danger to the public, and I think, therefore, that it might be of advantage to distribute a handbill to all families where the disease exists, pointing out the special precautions advisable, and warning the parents of the danger incurred by careless exposure. Of the 1,805 deaths under five years, more than half (1,140) occurred under 1 year, which is equivalent to saying that 140 children died under 1 year of age to every 1,000 born. This is a lamentable fact, more especially when it is known that much of this mortality is preventable, being due to neglect on the part of mothers and to injudicious feeding.

During the last twenty years there has been a regular and well-marked epidemic of measles every two years. The mortality of disease last year was 134, equal to a death-rate of 0.45 per 1,000 of the population. In 1897 it was 1.00; 97 deaths occurred in children under 2 years of age, a fact which very forcibly illustrates how very fatal the disease is in the earliest years of life. Scarlet fever accounted for 72 deaths, equal to a death-rate of 0.24 per 1 000 as compared with 0.31 in 1897, and 0.17 in 1896. Whooping-cough, the most fatal scourge of infant life, caused 124 deaths, or a death-rate of 0 41 per 1,000. Diphtheria and membranous croup caused 38 deaths, equal to a death-rate of 0.12 per 1,000. The relative freedom of the Old Town from this disease as compared with the New Town, but more especially with the still more modern portion of Edinburgh comprised in the southern districts, is an interesting fact which I have observed for several years, but which it is difficult to account for satisfactorily, although probably the question of elevation and soil are the chief factors in causing the difference. Enteric fever caused 27 deaths. Only 241 cases were notified, a smaller number than has been recorded for 19 years, with the two exceptions of 1886 and 1892, when the number of cases were respectively 224 and 238. Influenza is stated to have caused 93 deaths, equal to a death-rate of 0.31 per 1,000. The disease was not prevalent last year to any extent, and I think it is extremely doubtful whether many of those deaths recorded as due to this disease were cases of true influenza, and whether they should not more properly be included under some of the secondary causes of death, such as pneumonia and other chest affections. Diarrhœa caused 104 deaths, but of these 74 occurred under 1 year of age, and 87 under 5 years. Edinburgh fortunately is not a "diarrhœa town." Puerperal fever gives a record of only 5 deaths, but Sir Henry Littlejohn thinks it probable that this gives too favourable a view. Cancer caused 267 deaths, equal to 0.90 per 1,000; 81 were of the stomach and œsophagus. Tuberculous diseases caused 762 deaths, of which phthisis gave 530. Diseases of the nervous system caused 631 deaths, of which 153 were under 5 years of age. Diseases of the circulatory system gave 569 deaths, diseases of the respiratory system 929 deaths (more than half were caused by pneumonia, and 862 due to pneumonia and bronchitis), 465 deaths (393 under one year) were credited to developmental diseases, 135 deaths to accident; suicide caused 20 deaths, 8 being cut-throats, poison in 6 cases, and hanging in 6 cases. In 1898 the total notifications amounted to 7,378 cases. There were 7 cases of small-pox, of which 6 recovered and 1 died; the latter had not been vaccinated, was a woman of 60, and the disease was confluent. Typhus fever, at one time endemic, has gradually become less and less common. The disease, however, has lost none of its former virulence, and is still highly infectious and fatal. From the first part of October to the second week of January last there were 82 cases, but only 79 belonged to the year 1898, with 9 deaths. The disease apparently started at a wake in the first week of September, in a small, dark, and exceedingly dirty house in connection with the body of a man returned as having died of pneumonia. Four women and 2 men present at the wake became ill, of which 3 were treated in the city hospital for typhus fever. Certain points of interest and importance have to be noted in connection with this outbreak: typhus fever is the same virulent disease, and it is essential that all cases be isolated and treated in hospital. All who have been in close contact should be put in quarantine for at least fourteen days; 12 of those so isolated afterwards developed the disease. The non-infectivity of typhus at moderate distances is a striking fact: when the infected family were comparative strangers, no more cases occurred in the stair. When the people were all known to each other, and were in the habit of visiting each other's houses, scarcely a family escaped. Note also the favourable mortality of the cases treated in hospital, and the practical immunity of the staff attending on the cases. The latter was undoubtedly due to the free ventilation kept up in the wards. Three thousand and seventy patients were treated in the City Hospital during 1898; the average daily number under treatment throughout the year was 295. The greatest number of patients resident in the hospital at one time was 410 on November 14th, and the lowest 257, on September 14th. One hundred and forty-seven deaths occurred in the hospital, equal to 5.30 per cent. of the total cases treated; 26 of these died within twenty-four hours of admission. There was a total cost of £48 19s. per occupied bed per annum. Five hundred and sixty-five patients enjoyed the benefits of the Convalescent Home at Campie House: 5,711 apartments were disinfected, and 6 public schools containing 356 rooms. Sir Henry Littlejohn's report is illustrated and amplified by four charts, and by twenty statistical tables, and is altogether an elaborate and valuable report.

GLASGOW.

The Royal Infirmary Scheme.—The Medical Officer of Health.—The Muirhead College for Women.

In 1897 the Lord Provost of Glasgow made the suggestion that in commemoration of the 60th year of Her Majesty's reign a sum of £50,000 should be raised for the purpose of rebuilding

the front of the Glasgow Royal Infirmary. The scheme gradually grew to such an extent as to embrace the rebuilding of the whole infirmary, the sum of money ultimately aimed at being £100,000, and over £85,000 has now been subscribed. However, comparatively little progress has as yet been made with the scheme. An architect was employed by the executive committee to prepare plans, but unfortunately these have been the subject of a great deal of discussion, and have produced much difference of opinion. In particular, the staff of the infirmary have not been able to approve of them, and now it has been decided by the committee to commence *de novo*, and to invite a limited number of architects to submit plans, in the meantime, of the south or Queen's Jubilee monumental front building, which shall as far as possible harmonise with the architectural conditions of its surroundings. It is hoped that when the plans have taken more definite form that the public interest in the scheme will be increased and the necessary funds be subscribed. What is aimed at is said to be a hospital of 600 beds, but there is reason to believe that to build such a hospital with every modern improvement will require a much larger sum than £100,000.

The Glasgow Corporation have appointed Dr. A. K. Chalmers the medical officer of health of the city. Dr. Chalmers was Junior Medical Officer until Dr. J. B. Russell's transference to the Local Government Board for Scotland. Dr. Chalmers's salary as medical officer has been fixed at £700 per annum. In the meantime no assistant medical officer has been appointed, though the extensive and increasing duties of the medical officer of a city like Glasgow would seem to render the assistance of a thoroughly trained junior a practical necessity.

At the recent meeting of the General Council of the University reference was made to the progress made at Queen Margaret's College, and in particular to the fact that accounts showed at least an apparent surplus of between £400 and £500. How this prosperity will be affected by the establishment of a second College for Women in Glasgow remains to be seen. A scheme has been practically settled for the establishment of the Muirhead College in the immediate vicinity of the Victoria Infirmary. This College is to be founded and maintained by funds left by the late Dr. Henry Muirhead of Lanark, for the instruction of women in physical and biological science, so as to fit them to become medical practitioners, dentists, electricians, chemists, etc., and the management and teaching are as far as possible to be carried on by women, the clinical and pathological instruction being received at the Victoria Infirmary. The question of how far it is expedient that women should in the different faculties have separate instruction is a question that has caused considerable difference of opinion, and it will be interesting to watch the development of this new college reserved exclusively for women.

BRISTOL.

The Royal Infirmary and Hospital Abuse.—Munificent Bequests.

THE annual meeting of the subscribers to the Royal Infirmary was held on March 28th. The report showed that the out-patients had increased during the year by 3,438, the total number amounting to 40,504, but owing to the repairs, etc., taking place inside the institution the number of in-patients was only 2,969, or 214 less than in 1897. Both the total ordinary income and expenditure had increased, the former being £9,913, or £265 more, the latter £14,218, or £1,043 more than in 1897, the increase to the income being mostly due to the higher rate of interest on investments. The debt, as it is called, owing to the secretary is now £8,500, certain legacies having been employed to reduce it. The cost of the new, or rather reconstructed, theatre, was rather over the estimate—£2,862 being spent in all. Additional accommodation is being provided for the nursing staff, and when the new wing to the home is built there will be room for about fifty more nurses. In the outdoor maternity department 546 cases were attended. During the past year the question of hospital abuse was considered by the Committee, and a notice has been placed in the out-patient department to the effect that those who can afford to pay are not eligible for treatment; that the possession of an out-patient note does not entitle the holder to treatment unless found to be a proper object for charity after due inquiry; and that the casualty room is always open for the immediate treatment of emergencies, but the person is not to continue to attend if he can afford to procure the requisite aid.

By the will of Mr. Vincent Stuckey Lean University College will receive £5,000, the General Hospital and Children's Hospital £1,000, and Müller's Orphanages £20,000.

CORRESPONDENCE.

SYPHILITIC DISEASES: THEIR PREVENTION, STUDY, AND TREATMENT.

SIR,—The subject of syphilis is evidently to be brought very prominently before the profession, both in this country and on the Continent, during the present year. It is to form the subject of a discussion in the Surgical Section of the annual meeting of the British Medical Association at Portsmouth, with reference to its prevalence in the army and navy. Its prophylaxis, and that of other venereal diseases, is to be dealt with at an international conference to be held in Brussels. I have been invited to attend each of these, and to take part in the discussion. Whether I shall be able to do so remains to be seen, but I would wish to bring before the members of the Association and other readers of the BRITISH MEDICAL JOURNAL a very important part of the question. I allude to the subject of voluntary lock hospital accommodation in this country as a means of preventing syphilis, as well as of providing facilities for its study and treatment both by medical practitioners and students.

In a paper recently published by me in the *Liverpool Medico-Chirurgical Journal*—noticed in this JOURNAL a few weeks ago—I gave a brief history of the six lock hospitals in the United Kingdom for the reception of females, describing the existence of the Liverpool hospital as "somewhat precarious." It has now, alas! been closed as a hospital, though it will continue, I trust, to do at least some good work among out-patients. So there are now only five lock hospitals for females in the United Kingdom, those of England being that in Harrow Road, London, which has two wards with 40 beds closed for want of funds; the Manchester and Salford Hospital, with 40 beds, only a very few of which are occupied; and the Bristol Hospital, with 17 beds. In Scotland there is the Glasgow Lock Hospital, with a capacity of 81 beds, though never more than 60 are occupied. In Ireland there is the Westmoreland Lock Hospital of Dublin, with room for 150 beds, though the average occupied is only 62.86.

In addition to these, there are lock wards in the general hospitals of London and a few other towns and cities, and it is still a moot point whether lock hospitals or lock wards in general hospitals are preferable. I invite earnest attention to this very important matter. There used to be accommodation in the Magdalen Ward of St. Bartholomew's Hospital for 50 females; now there are only 14 beds. In Guy's and the Royal Free Hospitals there was a ward in each with 30 beds; both are closed. There was a lock ward in King's College Hospital with 6 beds; it is now closed. In St. Thomas's and Middlesex Hospitals there has been a slight reduction, making in six hospitals a total reduction of 97 beds for the reception of females suffering from venereal diseases. Can anyone explain why this has been done? At the present time, so far as I am aware, there are 57 beds for females with these diseases in the following hospitals: the London, 8; Middlesex, 7; St. Bartholomew's, 14; and St. Thomas's, 28. There is also the male lock hospital in Dean Street, Soho.

The late Liverpool Lock Hospital comprised really the lock wards of the Liverpool Royal Infirmary, of which it has from its erection been an essential part, being under the management of its committee, though with its own separate surgical and administrative staff. The committee of the Liverpool Royal Infirmary give as a reason for their action that they are not adequately supported by the public, which is unfortunately too true in Liverpool as elsewhere. Men in hundreds and thousands are successful in business and make their "pile" without doing anything adequate towards the support of the hospitals. Generous supporters of these latter die and their places are not taken by their sons, and so our hospitals live on in a state of chronic bankruptcy from year to

year, some being like the London Lock Hospital, crippled for want of funds, or like the Liverpool Lock Hospital and the lock wards of the London hospitals, closed altogether.

The following eight metropolitan hospitals have no lock wards: Charing Cross, Guy's, King's College, the Royal Free, St. George's, St. Mary's, University College, and Westminster. The Committee of the Liverpool Royal Infirmary may plead, therefore, that they are in excellent company. It is a curious commentary in the discussion on lock hospitals and lock wards that in this year 1899 one of the only six lock hospitals should be closed, that the London Lock Hospital should have 40 beds closed, not for lack of patients but for lack of funds, and that there should be in the twelve general hospitals of London only 57 beds for females with venereal diseases.

I am weary of that old cuckoo cry, Let these patients go to the workhouse! Those who raise it forget or ignore two facts—first, that many will not go to the workhouse; and, secondly, if they went, the workhouse authorities are not bound to admit them except as destitute parishioners.

I can foresee another and a very serious consequence of this reduced hospital accommodation for venereal diseases—namely, that in the interests of humanity the surgeons of general hospitals will feel compelled to admit severe cases of syphilis into the surgical wards, and however objectionable such a proceeding may in some respect be, they will, in my opinion, be perfectly justified in doing so.

I trust that even at the eleventh hour Messrs. Alfred Cooper and Jonathan Hutchinson may be able to give a better report of our mode of dealing with syphilis before the Brussels Conference.—I am, etc.,

Liverpool, April 10th. Fredk. W. Lowndes.

THE AMENDMENT OF THE MEDICAL ACTS.

Sir,—I observe that in the British Medical Journal of April 8th you publish an editorial article with the view of rehabilitating your position in having published certain statements made by your anonymous correspondent of last year.

Your article is well calculated to mislead your readers, not only on the important matter of the interpretation of the Medical Acts, but also on the smaller, but to me not unimportant, question of my public responsibilities and actions in regard to the reform of those Acts.

Had you not suddenly sprung this matter and Mr. Haldane's opinion upon me without notice, I could have had the necessary documents transcribed for this week's issue, but as they have to be collected I must deal with Mr. Haldane's opinion next week. That opinion, as will be seen by everyone who is interested in this question, is entirely contrary to many of the cases that have been tried during the last ten years, and even within the last week; and like the only case Mr. Haldane quotes—namely, Carpenter *v.* Hamilton—is quite twenty years out of date.

In justice also to the members of the Association I must point out that to obtain counsel's opinion on the point in question is perfectly useless, seeing that counsel's opinion on a point which can only be decided by a judicial decision of the High Court is not, as your editorial article suggests, the law on the subject at all. It is only one man's opinion, and, as we see every day, may be altered even by its author to-morrow. As a member of the Association, I object also to our money having been expended in taking Mr. Haldane's opinion on this case. When you, sir, sat next to me in the High Court at the hearing of the Hunter Appeal Case, Mr. Haldane told the judges in our hearing that the "man in the street" could practise medicine, surgery, and midwifery in this country whether registered under the Medical Acts or not. At that time Mr. Haldane was instructed by Mr. Upton, the Solicitor to our Association, and whose reactionary views on this subject are well known. Under the circumstances I should have thought that it was better for the purposes of criticism that counsel's opinion should, if at all, have been obtained from a gentleman who had not already committed himself publicly on the question.

With regard now to my position, allow me to dissipate a little of the fog with which you have concealed my action in the matter of the reform of the Medical Act up to the present. Your editorial article begins by referring to the draft Bill recently adopted by the Parliamentary Bills Committee, and from its tone and frequent use of the editorial "we" it might be readily imagined that for that Bill the Association is indebted to the editorial staff of the Journal. The Bill in question was prepared by a Subcommittee, consisting of Drs. Woodcock, Ritchie, Bateman, Brown, and myself, and, as one greatly interested in its furtherance, I was asked to carry it through the Parliamentary Bills Committee, which I did. The laborious work of the Subcommittee from first to last was never furthered by any assistance from you, and now this recent contribution of yours, including Mr. Haldane's opinion, so far from adding to our knowledge on the subject, makes confusion worse confounded, because Mr. Haldane ignores every single decision that has been obtained in the Courts, high or low, since the day of Carpenter *v.* Hamilton more than twenty years ago. How this can be, as I have no doubt it will be, accepted by some as a practical contribution to the question at issue, is difficult to explain, and how you can imply as you do in your own words that we are now "fully informed as to the nature and efficiency of the laws which already exist" I cannot understand, and my reasons for my difficulty I shall publish next week.

The necessity for the Bill now brought up by the Parliamentary Bills Committee arises not from the statement of the case as presented by Mr. Haldane at all, but because under the Medical Act every case has to go in the first place before magistrates, and it is the grave inconsistencies prevailing in such courts which have led to the most contradictory decisions being given first in favour of my interpretation of the Act and then against it, according as to whether the magistrates have been swayed by personal and local feelings regarding the individuals summoned before them. To end this state of things, as I pointed out to the Parliamentary Bills Committee, it is necessary that we should have an Amendment Act, but at the same time it is to be hoped that the members of the Association will not be betrayed by your article into thinking that a counsel's opinion constitutes the law on any subject, while their own common sense will tell them that a counsel's opinion which does not take into consideration decisions of the courts less than twenty years old cannot be said to truly settle the question, as you suggest, or indeed to do anything else than present an unintentionally false representation of the facts.—I am, etc.,

Cavendish Square, W., April 12th. Victor Horsley.

*** Mr. Horsley is a little difficult to please. He complained that the article published on November 26th was anonymous, and said that he would welcome "open discussion and elucidation of this important subject, especially by well-known lawyers." Mr. Horsley now expresses the view that "to obtain counsel's opinion on the point is perfectly useless," because the point can only be decided by a judicial decision of the High Court. It is perfectly true that the point can only be decided by the High Court, but to assert that counsel's opinion is therefore useless is a *non sequitur*. Counsel's opinion, which it may be pointed out was given before the appeal in Hunter *v.* Clare came on for hearing, was obtained as a contribution to forming a judgment as to the nature and efficiency of the laws which already exist, as was said in the article published last week. There is not a word from beginning to end of that article which should lead anyone to imagine that "the Association is indebted to the editorial staff of the Journal" for the draft Medical Acts Amendment Bill which was adopted by the Parliamentary Bills Committee on March 24th, and is to be considered by the Council at a special meeting to be held at an early date. Upon the main point—that amendment of the Medical Acts is necessary—we are entirely at one with Mr. Horsley.

Sir,—Your readers' thanks are due to you for putting before them so lucid an interpretation of Section xl of the Medical Act of 1858. Messrs. Haldane and Hodges's reading is intelligible enough. They say it must be construed strictly, and, from the tenour of their remarks, imply that the section was intended to penalise the offence of "wilfully and falsely" pretending to be a registered practitioner.

This, and this only, in my opinion, was the object of the Legislature when the Medical Act of 1858 was passed; and, although it cannot be denied that that principle has been extended by our Courts, it is equally clear that judicial encroachment on the broad principle laid down by the Act

has only resulted in creating confusion in the profession without in any way protecting the public from illicit practitioners.

Although no one can have any sympathy with the defendant in R. *v.* Baker, the contention of Mr. Harris, Q.C., before the Divisional Court (Coleridge C. J., Wright J.) that Section XL of the Act of 1858 referred to no other offence than the "wilfully and falsely" pretending to be a registered medical practitioner seems to me unanswerable. The contemptuous manner in which his arguments were received by the Court in no way controverts their force, and the ruling of the Lord Chief Justice as to the scope of the Medical Acts is worthy of attention. "It was intended by the Legislature," said Lord Coleridge, "that persons who employ a medical practitioner should know what are his qualifications and what examinations he has gone through, so that they may know for what branch of practice he is qualified."

This ruling was given after the Medical Act of 1886 had become law, when every registered medical man, no matter what might be his qualifications, was lawfully qualified to practise every branch of his profession. The idea of any member of the public consulting the *Medical Register* to find out "for what branch of practice" a particular doctor might be qualified is almost ludicrous.

That medical men, who may legally practise every branch of their profession, should be liable to prosecution for using titles indicative of the duties they undertake is an anomaly so grotesque that its mere mention ought to be the signal for its abolition, and for this reason it is necessary that the disputed sections should be amended so that they cannot possibly be misinterpreted.

It is hard, however, to put on the promoters of the Act of 1858 any responsibility for such proceedings as Hunter *v.* Clare. It is not unlikely that when they drafted Section XL they little thought to what uses it might be put.—I am, etc.,

MAJOR GREENWOOD, M.D., LL.B.
Barrister-at-Law.

Hackney Road, N.E., April 10th.

NURSING IN IRISH WORKHOUSES.

SIR,—In a letter published in last week's BRITISH MEDICAL JOURNAL Dr. Thompson of Omagh issues a challenge implying a disbelief in some statements I made in a letter written by me to the *Irish Times* on the above subject. Passing over this implied disbelief, I would point out the unfairness of giving names of nurses and institutions through the press, and I fancy Dr. Thompson must have thought of this difficulty. However, I will try and give him sufficient evidence to show I had good grounds for what I said. In my letter to the *Irish Times* I expressed my own opinion, and while Dr. Thompson very naturally upholds institutions, with one of which he is officially connected, he must allow others to have and express their opinions even though they may be different from his.

Dr. Thompson holds that nurses can be trained in county infirmaries as well or better than in large teaching hospitals. I have no doubt that many good nurses have been trained in county infirmaries and bad ones in large teaching hospitals; but speaking as a general rule, I hold that the hospitals have better facilities for doing this than the county infirmaries, and the fact that a few of the latter (Omagh Infirmary may be one for all I know to the contrary) turn out good nurses does not prove the contrary. Dr. Thompson should back his opinion by showing that all county infirmaries have trained nurses as matrons, that the medical officers give lectures regularly, and that the course of training and the examinations the nurses have to pass are equal to those in our large teaching hospitals. Instead of this, he makes irrelevant statements and asks questions which imply disbelief in other men's good faith. Now, as to my experience of nurses trained in county infirmaries, it certainly has not been extensive. The last one I employed was within the past twelve months, and though I did not see her certificates, she was recognised by the Local Government Board. About the first thing I asked her to do was to put a carbolic compress on a bad leg, and she did this as follows: She boiled the pure acid, saturated lint in this, and bandaged it on the leg, with results which Dr. Thompson can easily imagine. When told to wash a patient, she took him out of bed naked, and placed him on the floor in the ward, while as for bandaging, cleanliness, and tidiness, she knew nothing about them. I had to report her as quite untrained and generally incompetent. I cannot believe that such a nurse could have been turned out of a large hospital having a trained lady superintendent and a resident medical staff, even after making a liberal allowance for original bad material. I quite understand that one swallow does not make a summer, but Dr. Thompson has, for so far, written nothing in the least likely to alter my opinion.—I am, etc.,

W. R. DAVISON.

Ballymena, April 19th.

SIR,—Dr. Thompson is under a misapprehension. I neither expressed approval or disapproval of county infirmary nurses. I know nothing whatever about them. I expressed my approval of the qualifications laid down by the Local Government Board, who had to draw the line somewhere between the nursing institutions whose certificates they would accept and those they would not accept. I believe there is one county infirmary at least—the Meath Hospital—which fulfils their requirements.—I am, etc.,

T. H. MOORHEAD, M.D.

Cootehill, April 11th.

DISTRICT NURSES AND THE MEDICAL PROFESSION.

SIR,—Attention has recently been drawn in your columns to the friction that occasionally arises in connection with district nursing, owing to the fact that the nurses are in some localities allowed to act as irregular medical practitioners, and to undertake the treatment of the sick and injured, irrespective of professional advice. The Committee of Management are doubtless eager to do all they can to relieve suffering in their fellow creatures, but do not realise that a nurse under such circumstances is assuming responsibilities for which she is not trained, and which lie beyond her province. The consequence is that difficulties occur between the doctors and the nurses, with the result that in many places the usefulness and success of district nursing has been hindered.

Medical men have frequently protested against such licence being permitted to district nurses, but their protest has been weakened, if not disallowed, on the ground that their action has apparently been based on self-interest.

It may therefore be useful to point out that the same opinion is held by those who represent the nursing profession, and who have done much to promote the success of district nursing. The following illustrations of this statement may be quoted:

Thus, Miss Amy Hughes (late Superintendent of the Central Training Home, Queen Victoria Jubilee Institute for Nurses for the sick poor) writes:[1]

"No nurse, however well trained, should ever be expected or allowed to treat, or prescribe for, any case whatever, beyond rendering first aid in emergencies. She should never undertake the nursing of a case that is not under a medical man."

And again:[2]

"It should be a rule to do nothing without doctors' orders, except under the most special circumstances or in an emergency."

Lady Mabel Howard writes in a similar strain:[3]

"No district nurse ought ever to be allowed to act on her own responsibility, except in emergency cases.....Often the inhabitants of a country district will wish to call in the nurse to act without the doctor, where she is free of charge. But this gives her a responsibility she ought never to take; it makes the position of nurses towards doctors an impossible one, and, one may almost say, sets the district on fire."

These quotations should strengthen the hands of medical men who are confronted with the difficulty referred to above, a difficulty which, if satisfactorily solved, will greatly conduce to the smooth working of nursing associations, especially in rural districts.

There is another important matter connected with district nursing, which may be briefly alluded to. Originally district nursing was intended to supply skilled nursing for the poor and destitute in their own homes, and the subscriptions and donations of charitable persons were solicited for this purpose. But of recent years a large number of sick persons belonging to a class above the poor (such as policemen, printers, postmen, small shopkeepers, engineers, etc.) have been nursed gratuitously by means of the funds collected for the

[1] Clifford Allbutt, *System of Medicine*, vol. i, p. 448
[2] *District Nursing*, p. 17.
[3] *Nineteenth Century*, 1898, p. 838.

nursing of the poor. This is an abuse parallel to that by which persons able to pay for medical attendance are allowed to receive gratuitous attendance at hospitals and dispensaries intended for the poor and indigent.

I have elsewhere[1] pointed out the best method of preventing this abuse of a charitable institution intended to provide skilled nursing for the necessitous poor, and need merely state here that the suggested remedy may be found by organising district nursing on a provident self-supporting basis, that is on a similar basis to that adopted by provident dispensaries.—I am, etc.,

Reading, April 10th. Jamieson B. Hurry.

CANCER HOUSES.

Sir,—In answer to Dr. Symons's kindly criticism of my recent paper on the local distribution of cancer, I must reply, first, that I only used the term "cancer house" twice in the whole paper, and then only when quoting the opinions of others; and further, that I was not dealing with any actual or supposed relation between the dwelling-house and malignant disease; and, secondly, I must remind him that I did not draw any inferences from the few multiple cases occurring in one house, regarding it as unsafe to do so on such a meagre basis.

Dr. Symons seems to me to be quite mistaken in taking it for granted that the probability of the occurrence of multiple cases can be determined by mathematical methods. He calculated out the probable number of multiple cases in Cambridge with no correction for differing liabilities to the disease among parts of the town varying greatly in area. Dr. Symons expected from his calculations 15 double cases instead of 7 which I found to have occurred; he expected 0.034 triple cases, and I found ten times that number. It is very doubtful whether such figures are of any use whatever, and in my paper I made no use of them. In any case multiple cases ought to occur more frequently in the cancer districts, and this is, in my experience, what actually happens; while Dr. Symons seems to start on the false supposition that the multiple cases of cancer will be equally distributed in all parts of the town, and this is not the case.

But the calculated probabilities may even be brought to aid the arguments advanced in my paper regarding the distribution of the single cases of cancer, for the single cases, as I have shown, are distributed in a manner which no mathematical process would ever have led one to expect.

I have to thank Dr. Symons not only for his valuable criticism, but also for his courtesy in kindly sending me a copy of his letter in advance of its publication.—I am, etc.,

Cambridge, April 11th. E. Lloyd Jones.

THE MODERN DOCTRINE OF BACTERIOLOGY.

Sir,—The abstract of a paper read by Dr. Granville Bantock before a meeting of the British Gynæcological Society on March 9th last, and which appears in the British Medical Journal of April 8th, should not, in my opinion, have been given such publicity. The paper, as reported, shows no evidence of careful research, and the deductions drawn are obviously illogical. An advertisement of the existence in the English profession of an influential yet recklessly unscientific element must tend to depreciate the esteem in which English medical science is held throughout the world.

There must be many thoughtful men who, like Dr. Bantock, received their medical training before the establishment of the science (not the "doctrine") of bacteriology, who are unable to grasp the significance of its facts. It must require considerable self-possession for any such, except after the most laborious investigation, to deliberately discredit the discoveries which have been made in this the most important field of modern medical research.

That bacteriologists, like some other specialists, have a tendency to quit the narrow way of scientific truth and rush violently down the steep place of their own speciality will be admitted by all. To select certain of the undeveloped discoveries of bacteriology and garnish them with an account of personal successes in commonplace surgery does not constitute any proof "that the modern doctrine of bacteriology is a gigantic mistake."—I am, etc.,

Wilfrid Watkins-Pitchford, F.R.C.S.Eng.

Edgbaston, April 11th.

[1] *District Nursing on a Provident Basis.* The Scientific Press, Limited. 2s.

OBITUARY.

JOHN FENTON EVANS, M.B., C.M.

Major I.M.S.

The death from plague of Major J. F. Evans, Professor of Pathology in the Medical College, Calcutta, announced by telegraph a few weeks ago, is a profound loss, not only to his many personal friends, but also to the Indian Medical Service.

The exact mode in which he contracted the disease from which he died is not known, but he had been much exposed to the risk of infection. He had been in charge of the plague wards in the Medical College Hospital since April, 1898, and had made *post-mortem* examinations on the bodies of plague patients even up to the day upon which he himself developed symptoms of the disease. The onset was rather insidious; he was ill on March 7th; on the following day the symptoms were fully developed, and the presence of a small glandular swelling in the right axilla left no doubt as to the diagnosis. The attack was a grave one from the first, though a marked improvement in the symptoms on the fourth and fifth days of the disease led to hopes that the worst might be over. Unfortunately on the evening of March 12th a marked change for the worse set in, accompanied by rise of temperature and delirium, and on the following morning the condition was seen to be hopeless. He passed away quite quietly at 3 P.M. on March 13th.

Major Evans's career in the profession and in the service had been an exceptionally distinguished one. He was born in 1858. In 1880 he graduated M.B. and C.M. at the University of Edinburgh. Almost immediately after graduating he joined the Bristol Medical School, with the object of making a special study of anatomy and physiology. In September, 1881, he was chosen medical tutor to the Bristol School, and in this capacity, and later as house-physician and house-surgeon to the infirmary, he remained connected with Bristol for five years. In April, 1886, he entered the Indian Medical Service. At Netley he obtained the first prize in clinical medicine, and the second prize in military surgery. He arrived in India in October, 1886, and was for short periods of time attached to the 20th Punjab Infantry, and the 39th Bengal Infantry, in Allahabad and Umballa. From 1887 to 1889 he was on field service in Burmah, partly with the Upper Burmah field force, and partly as staff-surgeon to Sir George White with the Chin field force. After leaving Burmah he was attached to various regiments at Mian Mir and Jubbalpore, until October, 1889, when he was permanently appointed to the charge of the 18th Bengal Infantry. After fifteen months at home on medical certificate, he returned to India in 1891, and was shortly after again on field service in the North Lushai Hills and with the Eastern Surma column. For his services here he was thanked by the general officer commanding.

In 1893 and again in 1894 and 1895 he held the appointments of Professor of Chemistry in the Lahore Medical College and Chemical Examiner to Government. In the following year he acted for three months as Resident Physician and Professor of Pathology in the Medical College, Calcutta—appointments to which, after acting for brief periods as civil surgeon in various stations, he returned permanently in January, 1897.

Among his published writings may be named a report upon the field rations of the Madras sepoy, for which he received the thanks of the Government; a report upon the deterioration of atta (flour), for which he was also thanked by Government; and a report upon the various poisons used for criminal purposes in India. He had worked at bacteriology in Berlin and at the Brown Institution. He had devoted much time to the study of the malarial organism and the blood in malaria, and among his unpublished papers have been found a number of original observations upon this disease. Other subjects upon which he has left valuable but, it is believed, unpublished original material are the etiology of dysentery; the organisms of cancer and their analogy with those of malaria; an undescribed nematode entozoon found in the intestines of sepoys; a new species of rhopalomyces; blood deterioration in apparently healthy individuals in malarial districts in Assam, and others. It is hoped that the notes which he has

left may prove sufficiently full to enable others to prevent this really valuable material from being entirely lost.

In December last he gave evidence before the Indian Plague Commission, and was personally congratulated by the Commissioners upon the interesting nature of his observations. No man was more highly, more universally, or more deservedly held in esteem by all with whom he had relations, and no man was more beloved by the few who knew him intimately. None was ever more conscientiously devoted to his duty, to which he in the most literal sense of the words sacrificed his life. The deepest sympathy is felt by all for his relatives in their great loss; a sympathy which is accentuated by the fact that he was very shortly to have proceeded home, and only on the day when the disease attacked him had made final arrangements for obtaining leave.

ALFRED THOMAS GIBBINGS, M.D.

DR. A. T. GIBBINGS was born at Woodbury, Devon, in 1848, but his family within a few years removed to Chichester. He entered the medical profession first as a pupil of Dr. Leonard Buckell of that city, and then as a student at King's College Hospital, of which he became an Associate, Scholar, and Prizeman. He became M.R.C.S. and L.S.A. in 1869, graduated M.B.Lond. in 1870, and M.D. in 1874. After becoming qualified he was for a time House-Surgeon to the Stamford, Rutland, and General Infirmary. He then entered into partnership with Drs. Daly and Long of Dalston, N.E., and at the time of his death was a member of the firm of Daly, Gibbings, and Hunt.

For two years he had had reason to suspect degenerative change in the cardiac muscular tissue; but he consulted no one, having resolved to work to the end, and live his life in his own way. During the past winter his practice was unusually onerous, partly from the prevalence of influenza, partly from the multiplication of his duties as a public vaccinator by the legislation of last year. He greatly felt the strain, and his appearance caused anxiety to his friends. In the weeks preceding Easter he had been attending, among other patients, three cases of pneumonia in one house. On March 31st he was himself in a febrile condition. This continued, but he could not be persuaded to relinquish his work until April 3rd. On April 4th symptoms of pneumonia were evident, and he died on April 6th.

Dr. Gibbings's chief characteristics were his cheerful, happy temperament, his unfailing kindliness, his strict integrity, his simple straightforwardness, and his dislike of ostentation. He took so strong an interest in his profession that he enjoyed his practice, taking not merely a scientific, but a human interest in his patients, by whom he was in consequence trusted and beloved to no common degree. He had the esteem and goodwill of every medical man, without exception, in his neighbourhood, as well as the warm friendship of those who knew him intimately.

JOHN BRUNTON, M.D.

DR. JOHN BRUNTON died suddenly at his residence, Endsleigh Street, London, on March 25th. He was born at Campbeltown, Kintyre, on May 16th, 1835, the son of William Brunton, LL.D., a man well known and highly respected in the West of Scotland, who, after holding appointments at Coatbridge, Falkirk, and Campbeltown, became rector of the Grammar School at Paisley, a post which he occupied for thirty years. Dr. William Brunton was well acquainted with Sir Walter Scott, Christopher North, and the "Ettrick Shepherd," and when he died at the age of 83 he left a memory loved and revered by all with whom he had been brought into contact. His eldest son John received his education at Glasgow University, where he graduated B.A. in 1855, M.A. in 1856, and M.D. in 1860. In the same year he became a Licentiate of the Faculty of Physicians and Surgeons of Glasgow. He was a brilliant student, and distinguished himself not only in the arts course, but also in the medical course, taking prizes in nearly every department, including chemistry, anatomy, physiology, practice of medicine, midwifery, and forensic medicine.

After holding the posts of House-Surgeon and House-Physician to the Glasgow Royal Infirmary, and studying in various Continental schools, he settled in London in 1862, and by his skill in his profession and his devotion to its duties, he was beloved by all with whom he came in contact, whether rich or poor, and for many years enjoyed a large medical practice. He was a Surgeon to the Maternity Charity, Medical Officer to the Midland and Great Northern Railway Companies, Physician to the Presbyterian College, Queen Square; Consulting Surgeon to the Royal Caledonian Asylum, and a Certifying Factory Surgeon. He had held the offices of Vice-President of the Obstetrical Society and of the Medical Society of London. The esteem in which he was held by the Glasgow University was shown by the fact that he continued as examiner for medical degrees during a period of no less than twelve years.

Dr. Brunton was well known in the profession in London, both as a man of cheery and genial manner and as an accomplished practitioner of medicine. He contributed numerous papers to medical literature, and gave particular attention to diseases of the ear, being the inventor of the otoscope and the writer of various papers upon aural subjects. He was a man who took a high view of the duties and responsibilities of the profession, and was distinguished not only by his wide acquaintance with its literature and practice, but by the strong common sense which he brought to bear upon his work. He was a keen angler, and generally spent his holiday with a fishing rod. He was a staunch friend and a devoted husband and father, and leaves a widow and grown-up family to mourn his loss. His death, as has been said, was sudden. On March 23rd he was confined to bed, but on the following morning he resumed work and made his usual round. After dinner he became suddenly unconscious, and died the following day, March 25th. The cause of death was cerebral hæmorrhage.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,481 births and 4,222 deaths were registered during the week ending Saturday last, April 8th. The annual rate of mortality in these towns, which had been 23.1 per 1,000 in each of the two preceding weeks, declined to 21.7 last week. The rates in the several towns ranged from 11.8 in Cardiff, 16.1 in Bolton, 16.3 in West Ham, and 16.6 in Gateshead, to 29.7 in Halifax, 27.5 in Brighton, 28.1 in Burnley, and 33.0 in Wolverhampton. In the thirty-two provincial towns the mean death-rate was 22.1 per 1,000, and exceeded by 1.6 the rate recorded in London, which was 20.5 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the death-rate was equal to 1.7 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.5 in Huddersfield, 2.6 in West Ham, 3.5 in Manchester, and 4.0 in Burnley. Measles caused a death-rate of 1.0 in Gateshead and 2.4 in Manchester; whooping-cough of 1.1 in Sunderland, 1.6 in Hull, and 1.8 in Birkenhead, in Burnley, and in Preston; and "fever" of 1.0 in Derby and in Salford, and 1.2 in Wolverhampton. The mortality from scarlet fever showed no marked excess in any of the large towns. The 75 deaths from diphtheria in the thirty-three towns included 34 in London, 7 in Sheffield, 4 in Leeds, 4 in Liverpool, 4 in Leicester, 4 in Portsmouth, 3 in Swansea, and 3 in Birmingham. No fatal case of small-pox was registered last week, either in London or in any of the thirty-two large provincial towns; and only one small-pox patient was under treatment in the Metropolitan Asylum Hospitals on Saturday last, April 8th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,584 to 2,322 at the end of the five preceding weeks, had further fallen to 2,234 on Saturday last; 150 new cases were admitted during the week, against 224, 177, and 167 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 8th, 1,044 births and 665 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 21.0 to 23.3 per 1,000 in the three preceding weeks, declined to 21.8 last week, and almost corresponded with the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 17.7 in Edinburgh and 17.9 in Greenock to 25.7 in Dundee and 27.3 in Aberdeen. The zymotic death-rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Dundee and Aberdeen. The 311 deaths registered in Glasgow included 9 from measles, 2 from diphtheria, 6 from whooping-cough, and 10 from diarrhœa. Four fatal cases of measles and 9 of whooping-cough were recorded in Edinburgh; 6 deaths from measles and 3 from diphtheria occurred in Aberdeen, and 4 from diphtheria in Dundee.

VITAL STATISTICS OF LONDON SANITARY DISTRICTS DURING THE FIRST QUARTER OF 1899.

[SPECIALLY REPORTED TO THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarised the vital statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the first or winter quarter of the current year. The mortality figures in the table relate to the deaths of persons actually belonging to the various sanitary areas, and are the result of a

omplete system of distribution of deaths occurring in the public institutions of London among the various sanitary areas in which the patients had previously resided.

The 34,942 births registered in London during the three months ending March last were equal to an annual rate of 30.8 per 1,000 of the population, estimated at 4,546,752 persons in the middle of this year; this rate was identical with that recorded in the corresponding period of last year, but was 1.4 per 1,000 below the average rate in the first quarters of the ten preceding years, 1889-98. The birth-rate during the period under notice in the various sanitary areas showed, as usual, wide variations, owing principally to the differences in the sex and age distribution of the population. In Kensington, St. George Hanover Square, Hampstead, Stoke Newington, St. Martin-in-the-Fields, and London City the birth-rates were considerably below the average; while they showed the largest excess in Fulham, St. Luke, St. George-in-the-East, Mile End Old Town, St. George Southwark, and Bermondsey.

The 22,732 deaths of persons belonging to London registered during the three months ending March last were equal to an annual rate of 20.1 per 1,000, against 19.3, 18.0, and 21.3 in the corresponding periods of the three preceding years; in the first quarters of the ten preceding years the death-rate in London averaged 22.3 per 1,000. The lowest death-rates in the various sanitary areas were 11.9 in Hampstead and in Stoke Newington, 12.5 in Plumstead, 14.8 in Lee, 15.1 in Lewisham (excluding Penge), 15.9 in St. Martin-in-the-Fields, and 16.0 in Wandsworth; the highest rates were 25.8 in London City, 26.0 in St. Saviour Southwark, 27.8 in St. Olave Southwark, 28.0 in St. George Southwark, 28.3 in Holborn, and 29.0 in St. Luke. During the quarter under notice 1,917 deaths resulted from the principal zymotic diseases in London; of these, 386 were referred to measles, 96 to scarlet fever, 468 to diphtheria, 681 to whooping-cough, 2 to typhus, 146 to enteric fever, 1 to an ill-defined form of continued fever, and 137 to diarrhœa. These 1,917 deaths were equal to an annual rate of 1.69 per 1,000, against an average rate of 2.34 in the corresponding periods of the ten preceding years, 1889-98. In the first quarter of the three preceding years the zymotic death-rate was 3.25, 1.64, and 2.90 per 1,000 respectively.

No death from any of the principal zymotic diseases was recorded last quarter in Strand sanitary area; in the other sanitary areas the lowest zymotic death-rates were 0.31 in Plumstead, 0.55 in St. George Hanover Square, 0.57 in Stoke Newington, 0.65 in St. Giles, 0.69 in Westminster, and 0.80 in Hampstead; the highest rates were 2.52 in St. Saviour Southwark, 2.57 in Holborn, 2.58 in St. Pancras, 2.82 in Chelsea and in St. Saviour Southwark, 2.91 in Clerkenwell, and 4.13 in Newington. Measles showed the highest proportional fatality in St. Pancras, Clerkenwell, Shoreditch, St. George-in-the-East, Limehouse, Mile End Old Town, and Lee; scarlet fever in Fulham, Rotherhithe, and Lee; diphtheria in Fulham, Clerkenwell, St. Saviour Southwark, St. George Southwark, Newington, Bermondsey, and Lewisham; whooping-cough in Hammersmith, Chelsea, St. Pancras, Holborn, St. George Southwark, Newington, Lambeth, and Wandsworth; and enteric fever in Westminster, St. Giles, St. Luke, London City, and St. George-in-the-East sanitary areas. Of the 2 fatal cases of typhus registered in London last quarter, 1 belonged to Bermondsey and 1 to Rotherithe sanitary areas. No death was referred to small-pox in the metropolis during the three months ending March last.

During the first quarter of this year 2,238 deaths from phthisis were registered in London, equal to an annual rate of 1.98 per 1,000, against 1.82 and 1.98 in the corresponding periods of the two preceding years. Among the various sanitary areas the lowest phthisis death-rates last quarter were recorded in Hampstead, Stoke Newington, Hackney, Wandsworth, Lee, and Lewisham; and the highest rates in St. Giles, Strand, Holborn, St. Luke, St. Saviour Southwark, and St. George Southwark.

Infant mortality, measured by the proportion of deaths under 1 year of age to registered births, was equal to 129 per 1,000 last quarter, against 142, 127, and 142 in the corresponding periods of the three preceding years. Among the various sanitary areas the rates of infant mortality were lowest in Marylebone, Stoke Newington, St. Giles, Lee, Lewisham, and Plumstead; while they showed the largest excess in Westminster, St. Martin-in-the-Fields, Holborn, Limehouse, St. Saviour Southwark, and Newington.

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions during the First Quarter of 1899.

Sanitary Areas.	Estimated Population middle of 1899.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
LONDON	4,546,752	34,942	22,732	30.8	20.1	1.69	1,917	—	386	96	468	681	2	146	1	137	2,238	129
West Districts.																		
Paddington	128,794	717	590	22.3	18.4	1.28	41	—	1	2	6	26	—	—	—	6	45	126
Kensington	172,899	935	835	21.7	19.4	1.14	49	—	1	2	14	26	—	3	—	3	66	152
Hammersmith	108,785	827	580	30.5	21.4	1.62	44	—	4	3	6	24	—	4	—	1	51	151
Fulham	130,720	1,232	611	37.8	18.7	2.03	66	—	1	3	22	23	—	5	1	6	63	133
Chelsea	96,721	637	563	26.4	23.4	2.82	68	—	2	1	11	50	—	3	—	1	44	152
St. George Hanover Sq.	80,876	365	327	18.1	16.2	0.55	11	—	—	1	3	2	—	4	—	1	31	115
Westminster	52,117	295	296	22.7	22.8	0.69	9	—	—	—	2	1	—	3	—	3	43	173
St. James Westminster	21,827	119	132	21.9	24.3	0.92	5	—	1	—	1	1	—	2	—	—	15	143
North Districts.																		
Marylebone	140,139	1,029	733	29.5	21.0	1.14	40	—	3	2	10	14	—	5	—	5	75	103
Hampstead	80,252	375	239	18.7	11.9	0.80	16	—	7	1	3	3	—	—	—	2	19	112
St. Pancras	244,548	1,749	1,304	28.7	21.4	2.58	157	—	40	11	21	66	—	11	—	8	142	141
Islington	348,085	2,493	1,685	28.7	19.4	1.66	144	—	47	4	15	64	—	9	—	5	160	122
Stoke Newington	35,187	208	104	23.7	11.9	0.57	5	—	1	1	1	2	—	—	—	—	13	43
Hackney	222,571	1,738	928	31.3	16.7	1.68	93	—	31	2	30	18	—	5	—	7	79	105
Central Districts.																		
St. Giles	37,196	300	204	32.4	22.0	0.65	6	—	2	—	1	—	—	—	—	—	33	57
St. Martin-in-the-Fields	12,142	39	48	12.9	15.9	0.99	3	—	—	—	—	—	—	—	—	3	6	205
Strand	23,016	133	132	23.2	23.0	0.00	—	—	—	—	—	—	—	—	—	—	17	135
Holborn	29,621	179	209	24.2	28.3	2.57	19	—	3	—	4	6	—	1	—	3	31	235
Clerkenwell	66,068	589	400	35.8	24.3	2.91	48	—	18	1	9	6	—	4	—	7	40	151
St. Luke	40,868	481	295	47.2	29.0	1.67	17	—	6	1	2	1	—	3	—	4	39	112
London City	27,986	112	180	16.1	25.8	1.58	11	—	—	—	1	1	—	7	—	2	17	143
East Districts.																		
Shoreditch	121,071	1,117	740	37.0	24.5	1.95	59	—	20	1	10	15	—	5	—	2	87	153
Bethnal Green	128,938	1,341	726	41.7	22.6	2.40	77	—	30	2	16	6	—	7	—	7	66	130
Whitechapel	81,391	729	450	35.9	22.2	1.58	32	—	13	1	7	8	—	2	—	1	47	114
St. George-in-the-East	48,560	516	308	42.6	25.5	2.23	27	—	10	1	5	3	—	3	—	—	33	145
Limehouse	58,807	538	343	36.7	23.4	2.39	35	—	14	—	11	6	—	2	—	2	20	162
Mile End Old Town	113,161	1,117	626	39.6	22.2	1.84	52	—	22	2	15	7	—	6	—	—	59	152
Poplar	170,666	1,561	957	35.9	22.0	1.61	70	—	21	3	18	19	—	3	—	5	99	138
South Districts.																		
St. Saviour Southwark	24,207	187	157	31.0	26.0	2.82	17	—	2	—	11	1	—	1	—	2	19	176
St. George Southwark	60,536	585	422	38.8	28.0	2.52	38	—	5	2	15	14	—	—	—	2	61	150
Newington	124,166	1,101	797	35.6	25.7	4.13	128	—	16	1	30	72	—	3	—	6	78	158
St. Olave Southwark	11,098	91	77	32.9	27.8	1.08	3	—	—	—	2	—	—	—	—	1	7	110
Bermondsey	85,835	842	511	39.4	23.9	2.15	46	—	3	—	22	10	1	3	—	5	49	147
Rotherhithe	41,050	347	206	33.9	20.1	1.66	17	—	—	3	3	6	1	1	—	—	27	107
Lambeth	308,108	2,445	1,547	31.8	20.1	1.56	120	—	4	11	40	49	—	11	—	5	157	121
Battersea	174,996	1,403	739	32.2	16.9	1.15	50	—	4	2	23	12	—	4	—	5	67	133
Wandsworth	200,655	1,396	836	26.7	16.0	1.30	68	—	1	6	19	35	—	4	—	3	59	110
Camberwell	264,817	1,937	1,142	29.3	17.3	1.61	106	—	18	6	24	40	—	5	—	7	105	110
Greenwich	182,513	1,515	851	33.3	18.7	1.34	61	—	8	4	14	16	—	10	—	9	74	123
Lee	40,219	234	148	23.3	14.8	1.70	17	—	8	3	2	3	—	1	—	—	6	98
Lewisham	91,027	596	342	26.3	15.1	1.15	26	—	2	1	14	3	—	2	—	4	25	97
Woolwich	41,542	319	212	30.8	20.5	1.06	11	—	—	2	5	3	—	—	—	1	32	125
Plumstead	64,031	473	200	29.6	12.5	0.31	5	—	—	3	—	2	—	—	—	—	23	97

ROYAL NAVY AND ARMY MILITARY SERVICES.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From	To
Colonel T. J. Gallwey, M.D., C.B	Egypt'n. Army	Aldershot.
Major J. G. Harwood	Aldershot	Punjab.
,, D. Wardrop, M.B.	Crete	Devonport.
,, R. L. Love, M.D.	Londonderry	Dundalk.
,, E. R. Cree	Bengal	Portsmouth.
,, H. J. McLaughlin, M.B	Half-pay	Dover.
,, T. Archer, M.D.	Chester	Manchester.
,, E. Butt	Dundalk	Punjab.
,, T. R. Lucas, M.B	Madras	Devonport.
,, B. M. Skinner	Punjab	Home District.
,, J. D. T. Reckitt	Jamaica	Aldershot.
,, J. R. Mallius, M.B	Bengal	Portsmouth.
,, C. W. Johnson, M.B	Pembroke D'ck	Colchester.
,, S. Hickson, M.B.	Curragh	Devonport.
,, W. T. Swan, M.B.	Portsmouth	Jamaica.
,, T. Daly	Madras	Netley.
,, H. M. Adamson, M.B	Cork	Bengal.
,, C. H. Burtchaell, M.B.	Woolwich	Preston.
,, J. S. Davidson, M.B	Colchester	Madras.
,, A. B. Hinde	Madras	Portsmouth.
Captain R. H. E. Holt	Bengal	Gosport.
,, G. E. Hughes	1st Life Guards	Home District.
Lieutenant R. E. G. Phillips	Woolwich	1st Life Guards
,, J. Poe, M.B.	Curragh	Punjab.
,, A. E. Thorp	Liverpool	Bengal.
,, C. W. Mainprise	Dover	,,

ROYAL NAVY MEDICAL SERVICE.

SURGEON OCTAVIUS W. ANDREWS, M.B., the Instructor of Surgeons entering the Navy at Haslar Hospital, has been awarded the Chadwick prize of a gold medal and £100. He represented the Navy at the last Medical Congress at Paris.

The following appointments have been made at the Admiralty:—W. R. KNIGHTLEY, Surgeon, to the Royal Marine Infirmary, Portsmouth, April 5th; JAMES H. FERGUSSON, Surgeon, to the *Excellent*, lent April 5th; ERIC D. MACNAMARA, B.A., to the *Duke of Wellington*, for disposal, April 10th.

ROYAL ARMY MEDICAL CORPS.

SURGEON EDGAR DUMARESQ BATT, of Lansdowne House, Abergavenny, died on March 13th, in his 82nd year. Dr. Batt, who was the son of the late Mr. Thomas Batt, joined the Army Medical Department in 1841 as Assistant Surgeon, and was promoted Surgeon in 1852. He served with the 98th Regiment in North China in 1842, and was present at the attack and capture of the Chin Kiang Foo and at the investment of Nankin, receiving the medal. He also served with the 9th Lancers in the Punjab campaign, and was present at the battle of Goojerat, receiving the medal and clasp. He was on board the *Buckinghamshire*, on her passage to England with invalids, when that ship was burned and wrecked.

INDIAN MEDICAL SERVICE.

AN examination for commissions in the Indian Medical Service is to be held in London in August next. The exact date of the examination and the number of commissions to be granted is to be announced hereafter.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT-COLONEL M. BENNY, M.D., having resigned his appointment in the Volunteers, ceases to belong to the Army Medical Reserve, March 29th.

CONVALESCENT SICK SOLDIERS.

THIS scheme, advocated long since in the BRITISH MEDICAL JOURNAL, is indicated in a letter just sent by the War Office to commanding officers. "It is considered advisable," says the communication, "that more advantage should be taken of any available barrack and hospital accommodation at those stations in the United Kingdom which are situated on the sea coast or in other suitable localities for the purpose of affording a change of air to sick or convalescent soldiers, and so conducing to a more rapid and complete recovery of their health." It is proposed that the following stations should meantime be assigned for this purpose, but other suitable stations may also be selected as occasion requires:

Station.	District.	For Soldiers from
Eastbourne	S.E.	Home District, Woolwich.
Shorncliffe	S.E.	S.E. District, Thames.
Sandown, I. of W.	Southern	Southern, Aldershot.
Pembroke Dock	Western	Western District.
Great Yarmouth	Eastern	Eastern District.
Scarborough	N.E.	N.E. District.
Tynemouth		
Fleetwood	N.W.	N.W. District.
Ayr	Scottish	Scotland.
Glencorse		
Curragh	Curragh	Dublin.
Holywood	Belfast	Belfast.
Londonderry		
Queenstown	Cork	Cork District.
Kinsale		

It is anticipated that the only extra expense in giving effect to the scheme will be the cost of travelling.

ARMY SUPPLIES IN THE FIELD.

IN the discussion which followed the lecture delivered by Lieutenant-Colonel F. T. Clayton, of the Army Service Corps, before the officers of the Aldershot Military Society on the Supply of an Army in the Field, Surgeon-General O'Dwyer, P.M.O., advocated that the Medical Department should be allowed a free hand in the field in making local requisitions instead of being handicapped by having to take turn for supplies. He did not approve of abolishing canteens at manœuvres, for some sort of recreation must be provided for the troops of a voluntary army, and an issue of rum would be worse than the canteen establishment which did not sell spirits. The General Officer Commanding at Aldershot, Sir Redvers Buller, said that the whole responsibility of medical transport and supplies should rest on the medical authorities.

THE VOLUNTEERS.

SURGEON-LIEUTENANTS J. MARNOCH, M.B., 1st Aberdeenshire Artillery, and T. E. LLOYD, 4th Volunteer Battalion the South Wales Borderers, are promoted to be Surgeon-Captains, March 29th.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the respective corps specified, dated March 29th: ROBERT W. MITCHELL, M.B., 4th (Cambridge University) Volunteer Battalion the Suffolk Regiment; JOHN CHESNUTT, 2nd Volunteer Battalion the East Yorkshire Regiment; PERCEVAL A. LLOYD, 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment; JAMES S. SWAIN, 2nd Tower Hamlets Rifles.

Brigade-Surgeon-Lieutenant-Colonel W. E. S. BURNETT, 4th Volunteer Battalion the Cheshire Regiment, has resigned his commission, March 29th; he is permitted to retain his rank and uniform, and vacates the appointment of Senior Medical Officer to the Cheshire and Lancashire Volunteer Infantry Brigade.

Surgeon-Lieutenant R. S. RODGER, M.B., 1st Volunteer Battalion the Manchester Regiment, also resigns his commission from January 31st.

Surgeon-Major ARTHUR H. ROBINSON, M.D., retired, late 2nd Middlesex Volunteer Artillery, is appointed Surgeon-Major 3rd Kent (Royal Arsenal) Artillery, April 5th.

Surgeon-Lieutenant M. G. DUNDAS, 1st Norfolk Artillery (Eastern Division Royal Artillery) is superseded for absence without leave, April 5th.

Surgeon-Captain C. F. GLINN, 4th Volunteer Battalion the Devonshire Regiment, has resigned his commission, April 5th.

Surgeon-Captains F. H. APPLEBY, 4th (Nottinghamshire) Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment), and J. G. SAVILLE, 5th (Ardwick) Volunteer Battalion the Manchester Regiment, are promoted to be Surgeon-Majors, April 5th.

Surgeon-Captain T. E. STUART, and Surgeon-Lieutenant F. A. BROOKS, M.D., serving in the 1st Essex Volunteer Artillery, are transferred from April 1st to the newly-formed 2nd Essex (Harwich) Volunteer Artillery, with commission of same rank and date.

VOLUNTEER MEDICAL STAFF CORPS.

MR. CYRIL ELLIS is appointed Quartermaster in the Manchester Companies, April 5th.

LIEUTENANT-COLONELS M. R. RYAN, M.D., P. H. JOHNSTON, M.D., and I. B. EMERSON have been granted increased pay under Article 362 of the Royal Warrant.

THE HIGHER RANKS OF THE R.A.M.C.

LIEUTENANT-COLONEL writes: I agree with Surgeon-General Hamilton that it would be of decided advantage to fix the age of entrance into the R.A.M.C. at from 22 to 25, instead of 21 to 28. The present rule makes too great disparity in age between officers whose commissions are of the same date; while men over 25 on entrance can seldom reach the administrative ranks and so serve on without hope. I would further limit the numbers who attain the rank of Lieutenant-Colonel to those actually required for the more important posts, instead of automatic promotion after 20 years' service. Requiring men of that rank to perform duties the same as when they entered the service only lowers the rank in the estimation of the army. Let promotion to the rank be by selection and limited in numbers; but do not interfere with the pension of Majors after 20 years' service, which would avoid the hardship of non-selection; men passed over should be made to retire.

MEDICO-LEGAL.

A "LADY DOCTOR" AT SOUTHEND.

CONSIDERABLE local interest appears to have been excited in connection with the inquest on the body of Mrs. Elizabeth Smith West, owing to the fact that she had been attended by a lady "doctor," Madame Comber, of Pitsea.

According to reports in the *Southend Standard* of March 30th and April 5th, on the inquest being resumed on March 29th, by the Coroner, Mr. C. E. Lewis, Henry West, the husband, who was recalled, stated that Madame Comber first began to attend his wife in the middle of January, and was called in at the request of the deceased. After treatment for three or four days, Mrs. West told witness she was being relieved of the pain in the lumbar regions. The woman afterwards treated her for her kidneys. On the Thursday before Saturday, March 11th, witness told Madame Comber his wife was in pain, and asked whether she could relieve her. She sent a girl out for a pennyworth of rhubarb and a pennyworth of peppermint. After that Madame Comber came downstairs, and said: "You go upstairs, your wife is as jolly as a sandboy; she is all right now." Witness saw his wife, who said she had taken a draught administered by the woman, and felt much relieved. That was the last visit paid by Madame Comber, for witness told her he had sent for the doctor, and she said she had better not stop. The woman came three or four times a week, and for a fortnight previous to the death of the deceased small bottles arrived containing draughts which his wife was to take every other night. There were no names on the labels of the bottles.

The Coroner: Did you believe Madame Comber was a qualified person?—From what my wife said I did. She said she was a certified woman, and had walked the hospitals in France. Witness had several times advised his wife to send for a doctor, but she had great faith in Madame Comber, who gave the names of several persons she had attended.

Replying to Madame Comber, witness said she had told him she held diplomas.

Madame Comber: No such thing: I never told him that.

Evidence was given by Louise Harriet Groser, a niece of the deceased (who had been living with her for fourteen years) as to treatment of the deceased by Madame Comber, and, after some further evidence, the inquest was adjourned to April 5th.

On the inquest being resumed, and some further evidence being given by Mr. West Louise Harriet Groser, and Nurse King,

Madame Comber was called, and expressed her willingness to give evidence.

The Coroner: Are you a married woman?—Yes, but my husband has been in the workhouse for years.

What was he?—A carpenter.

What do you describe yourself as?—I was a chemist.

What do you call yourself now?—Nothing. I only go out as a nurse if anyone sends for me, as Mrs. West did. Then, if there is anything I can do, I do it, but I do not put myself up as a doctor.

You describe yourself then as a nurse?—As a nurse.

And if anyone sends for you, you go and nurse them?—I do anything I can, and if I can mix anything I do it for them.

What do you mean? The same as I did for Mrs. West. I sent her medicine which contained bitterwood to create an appetite, and a little rhubarb.

If necessary you send your patients medicines?—Yes, and send for a doctor.

Where do you procure the medicine from? Do you mix it yourself?—Yes.

Where?—In my house at Pitsea, and I buy my drugs at King's, in High Street, Southend.

When called in to the deceased, Mrs. West complained of a pain in the side, and a poultice was applied. A week or two after she said, "I have got a pain in my back. I think I have a cold from sitting in the chair." I then applied a poultice as hot as she could bear it. I then prepared a medicine consisting of quassia chips and isinglass and a little syrup of sugar. I kept on attending her, and gave a draught containing rhubarb, peppermint, and sugar, but no other drugs. I afterwards gave her some antibilious pills. On March 9th Mrs. West was much worse, and I told Mr. West he had better have further advice, and he said, "I will."

Examined by Mr. Hempson on behalf of the Medical Defence Union, it was elicited from Madame Comber that she had formerly carried on business with a qualified practitioner as surgeons and apothecaries, and she received half fees; but that was in 1875. She had not received anything for twenty years. It also appeared that Madame Comber was formerly known as Madame Votier when in France, where she was a dentist.

Witness, being asked if she diagnosed diseases, replied: No, only temporary cases. Did not know of such a disease as peritonitis.

Dr. Waters said he had attended the family for several years, and on March 9th was called to attend deceased, whom he found in a more or less collapsed condition and suffering from symptoms pointing to acute peritonitis. He attended her until her death on Saturday morning. On the Sunday he made a *post-mortem* examination, and found signs of a recent commencement of inflammation of the bowels, commonly called peritonitis. There was no evidence of pregnancy nor of any injury. The cause of death was heart failure consequent upon commencing peritonitis and distension of the stomach with gas. The distension of the stomach was caused partly by the peritonitis and partly, witness should say, from paralysis of the bowels.

The Coroner: Can you say that the treatment deceased received did accelerate her death?—I should not like to say definitely that it did. That it was inadvisable I am quite prepared to say. It was certainly not the right thing to give rhubarb or to manipulate the stomach, bearing in mind the vomit of blood. But that is an opinion. There would obviously have been a better chance if better treatment had been procured earlier.

Dr. Cleveland Smith corroborated Dr. Waters's evidence.

The Coroner having summed up, the jury, after some minutes' private consultation, returned a verdict in accordance with the medical evidence. They also wished Madame Comber to be severely censured for practising without any qualification, and expressed their sympathy with Mr. West, to whom in their opinion no blame whatever attached.

The Coroner addressed Madame Comber, and pointed out the risk she would incur if she continued to attend and prescribe for people as she did in this case.

When closing the inquest the Coroner is reported to have remarked: "A thing that passes my comprehension is that people should be so ignorant as to employ a silly old woman of this description, paying her more than they can get medical attendance for."

PROSECUTION BY THE GENERAL MEDICAL COUNCIL: USING THE TITLE M.D. FALSELY.

At Pontefract Borough Police Court on Thursday, April 6th, before the Mayor and other magistrates, Joseph Tempest, of Priory Glen, Pontefract, was charged on three counts with having (1) pretended to be a doctor of medicine, (2) pretended to be a medical practitioner, and (3) with having used the title of physician. The prosecution was at the instance of the General Medical Council, for whom Mr. Riley, barrister-at-law, appeared, and Mr. H. S. Schultess-Young represented defendant.

In opening the case Mr. Riley said the defendant was not on the *Medical Register*, and he thought he would be able to convince the Bench that he was nothing more or less than a quack, and had no right whatever to make use of the letters M.D. after his name as he had been doing. Defendant had already been fined the full penalty, £20, at Blackburn County Court, a year ago, in an action by the Society of Apothecaries for unqualified practice as an apothecary. Four months after that he moved to Pontefract.

Thomas Stroyan, an ex-police constable, of Accrington, proved having visited defendant at Pontefract. He was given some pills and medicine for an imaginary ailment, and on the bottle label was the title M.D., the glass over the front door having the words "Dr. Tempest" upon it. Cross-examined, witness said he was not deceived, as he knew the defendant was not a proper doctor.

Joseph Grimshaw, a weaver, of Oswaldtwistle, said he was attended some time ago by defendant, whom he believed to be a duly qualified medical practitioner, as he lived opposite to him, and he had "Dr. Tempest" upon his door-plate. He found out that he was not a proper doctor, and he then refused to pay his bill, and told defendant he had been deceiving him. After defendant came to Pontefract he wrote to him twice, signing himself M.D. in each case, asking for the money. In one he stated that witness's honour went no further than the law compelled him, and said he must remind him that they would both have to go before another tribunal which would not consist of "a guild of medical vipers to assist rogues in dishonest schemes."

Mr. Schultess-Young contended, in defence, that defendant had no intention to wilfully deceive the public by using the title M.D. He advertised himself largely as a medical botanist, giving a lengthy description of his various certificates and diplomas, and taking the whole of the circumstances together he failed to see how how anyone could have been deceived.

"Dr." Tempest gave evidence, and the Bench, having retired, decided to convict, and the last two summonses being withdrawn at their suggestion, they decided on the first summons that defendant had pretended to be a doctor of medicine, and fined him £20 and the costs of the case.

ASSISTANTS AND FEES.

Querist.—Notification fees, or any other professional fees, received by an assistant or *locum tenens* for work done in his principal's practice must be paid to the principal. In some cases an assistant or *locum tenens* might be entitled to certain fees where there is an agreement to this effect, but, in the absence of this, the assistant or *locum* is entitled to nothing beyond his salary.

W. M. O'C.—The validity of the dismissal depends upon the rules and by-laws of the society and the nature of the agreement (if any) entered into between the parties. A solicitor should be consulted.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

Second Professional Examination for the Degrees of M.B., Ch.B.—The following candidates have passed this examination under the new regulations.

Final Examination.—D. M. Aitken, M.A.; J. F. Allen, C. M. Anderson, C. R. V. Ash, A. A. Ayton, R. T. Baillie, A. C. Begg, R. A. Belelios, J. H. M. Bell, A. Brown, E. E. Brown, G. M. Brown, J. Brownlee, R. W. Buchanan, H. Buist, E. P. Calder, R. A. Cameron, S. M. W. Campbell, C. C. Choyce, B.Sc.; P. T. Copeland, C. G. Cumming, B. N. Cunningham, W. H. Dickinson, M. Scott Dickson, W. E. C. Dickson, B.Sc. (with distinction), H. Dodgson, J. W. Duffus, M.A.; R. S. Ellis, B.G. Firman, Cath. Fraser, S. Garvin, A. L. Gurney, A. M. Hamilton, E. R. Henderson, C. E. P. Husband, W. Hutchison, C. H. Lindsay, C. B. M'Conaghy, E. M'Elney, A. F. Mackay, H. J. C. Maclaren, A. M. Malcolmson, J. G. Munro (with distinction) J. H. C. Orr, H. M. Roberts, M. M. Smith, Kate Southen, B. A. Spence, G. L. Thompson, J. O. Thorne, G. R. Turner, A. S. Watson, P. Weatherbe, A. J. Williamson, J. M. Dupont, J. R. Edward, R. A. Glagg, R. M. Grant, A. R. Hallam, R. A. J. Harper, D. C. Henry, C. W. Howe, A. Hunter M.A.; A. E. Hunter, E. M. G. Jayne, G. A. Jolly, A. C. Keay, J. P. Kennedy, G. J. Licesne, W. Lee, S. Lyle, J. G. M'Bride, L. T. M'Clintock, J. B. M'Cutcheon, W. Macdougall, P. F. M'Farlane, G. M'Farland, J. M'Kenzie, K. D. C. Macrae, W. Mair, G. R. Mill (with distinction), W. Miller, J. Morrison, D. Munro, A. C. Murray, G. S. Murray, D. A. Ogilvie, W. Paterson, S. G. Peill, C. E. Pepper, G. Pereira, H. G. Pesel, L. W. Pole, E. J. Porteous, W. G. Porter, E. T. Potts, W. H. Prentice, H St. J. Randell, G. C. J. Robertson, J. S. Robertson, M. W. Robertson, C. W. Salesby (with distinction), T. B. Shaw, M. W. Smart, G. C. Strathavon, D. Sutherland, P. Telles, E. J. Tyrell, E. A. Walker, J. A. L. Walker, A. G. Waugh, E. Wells, T. S. B. Williams (with distinction), F. E. Wilson, J. Woods.

Anatomy and Physiology.—M. Agnew, R. V. Clark, J. Dalgleish, C. Douglas, J. L. Duncan, N. C. R. Hausen, A. R. Johnston, E. Jones, N. F. Machardie, W. S. Patton, J. H. H. Pirrie, L. T. Price, T. A. Smyth, H. L. Spark, P. S. Tillard, O. J. Evans, J. Halliday, P. Murray, M.A.; H. E. Wareham.

UNIVERSITY OF ABERDEEN.

Graduation Ceremony.

Honorary Degrees.—Among those on whom the Honorary Degree of LL.D. was conferred at the graduation ceremony of April 7th were James Frederick Goodhart, M.D., F.R.C.P.; Professor Charles Stewart, F.R.S., Conservator of the Museum of the Royal College of Surgeons; George Frederick Stout, M.A., late Lecturer on Comparative Psychology, Aberdeen University.

Ordinary Degrees.—The following received the degrees undermentioned:

Degree of M.D.—W. Findlay, M.A., M.B.—Thesis: Conium Maculatum: Observations on its Pharmacology and its Preparations; G. A. Reid, M.B.—Thesis: Pernicious Anæmia; G. Savage, M.B.—Thesis: The Preservation of the Perineum; A. M. Sims, M.B.—Thesis: On the Use of Quinine in the Treatment of Congo Fevers; R. B. T. Stephenson, M.B.—Thesis: The Height and Weight of the Negro and Coolie Races in British Guiana, with the Effect of Acute Mental Disease on their Bodily Weight.

The thesis of Dr. Findlay was considered worthy of commendation

Degrees of M.B. and C.M. (Old Ordinances).—R. A. Batchan, L. Cotterill, A. B. Cruickshank, J. Halley, D. Mackenzie, R. N. Petrie, A. C. Profeit, J. S. de Silva.

Degrees of M.B. and Ch.B. (New Ordinances).—A. H. Cran, M.A.; J. M. Duncan, M.A.; C. Le Fanu; G. A. Finlayson, M.A. (with credit); J. C. Galloway, M.A.; A. R. Haig, M.A.; C. Hunter, M.A.; F. A. Innes, M.A.; J. W. Lindsay, M.A.; J. H. Mackay, M.A.; J. McPherson; G. A. Mavor, M.A. (with honourable distinction); A. M. Mitchell, M.A.; C. Murray, M.A.; A. B. Simpson; J. A. Stephen, M.A.; L. P. Stephen, M.A. (with honourable distination); W. E. Taylor; J. A. Tolmie, M.A.; J. H. Wilson.

PRIZES.—The following obtained the University prizes and gold medals in the Faculty of Medicine:—Fife Jamieson Memorial Gold Medal in Anatomy, Robert Aird, M.A.; Keith Gold Medal for Systematic and Clinical Surgery, Henry Fraser; Shepherd Memorial Gold Medal for Systematic and Practical Surgery, John C. Galloway, M.A.; Matthews Duncan Gold Medal in Obstetrics, J. W. Lindsay, M.A.; Dr. James Anderson Gold Medal and Prize in Clinical Medicine, G. A. Finlayson, M.A.

RECEPTION.—A highly successful reception was held by the Principal and Professors of the University on the evening of the graduation day in the Mitchell Hall at Marischal College in honour of the graduates.

THE CHAIR OF NATURAL HISTORY.—The Queen has been pleased to appoint Mr. J. Arthur Thomson, M.A., F.R.S.E., to the Chair of Natural History in Aberdeen University, rendered vacant by the death of Professor H. Alleyne Nicholson. After graduating at Edinburgh in 1880, Mr. Thomson devoted himself to the study and teaching of zoology. He worked in Edinburgh under Professors Nicholson, Geikie, Cossar, Ewart, and others, and in Germany under Professor Haeckel at Jena, and under Professor Schulze in Berlin. Since 1886 he has been Extramural Lecturer on Zoology in Edinburgh, where his teaching, both in the theory and practice of his subject, has met with marked success. He has delivered courses of lectures at Dublin, Glasgow, and in Aberdeen, and in 1893 he was appointed by the Town Council of Edinburgh Lecturer on Zoology, and in 1895 on Botany also, in the Royal (Dick) Veterinary College. Besides holding these and other lectureships, Mr. Thomson has served as Examiner in Zoology at Aberdeen and St. Andrews, and in Biology for the triple qualification in Medicine at Edinburgh. Mr. Thomson, besides numerous papers on biological subjects, has written several books, of which both his *Outlines of Zoology* and *The Study of Animal Life* are now in their third edition. Aberdeen University thus gains a young and energetic zoologist with a wide knowledge of his subject and with an exceptional experience in teaching. His popularity when serving here as an examiner will ensure him a welcome from the students.

CONJOINT BOARD IN SCOTLAND.

AT the quarterly examinations in Edinburgh, the following candidates satisfied the Examiners:

First Examination, Four Years' Course.—R. E. Turner, N. Oliphant, E. Saxton, and F. C. H. Dady.

One passed in the division of Elementary Anatomy and Histology.

First Examination, Five Years' Course.—E. H. Knowles, G. H. van Zyl, H. F. Walker, C. Macaskie (with distinction), G. L. Baker, A. E. Griffith, H. Carlaw, R. N. Macdonald, and J. H. Stewart (with distinction).

Three passed in the division of Physics, 2 in Biology, and 2 in Chemistry.

Second Examination, Four Years' Course.—R. B. Sandiford, J. C. Franklin, and A. J. Morkill.

Two passed in the division of Anatomy and 1 in Physiology.

Second Examination, Five Years' Course.—Catharine Francis Marianne Leach (with distinction), W. S. Cowin (with distinction), J. B. Mason, L. Beesly, G. C. Ghose (with distinction), B. K. Chatterjee; Jeanie Newton, A. T. Hoskins (with distinction), H. F. Wilkin (with distinction), P. G. Marshall, H. E. J. Batty, J. D. J. Bruce, A. W. Frew, W. E. Graves, A. L. White (with distinction), R. H. Crombie, H. E. Staniforth.

Third Examination, Five Years' Course.—E. C. K. Murray (with distinction), D. Mitchell (with distinction), A. Brownlee; G. H. Usmar, W. A. O. Cole, D. L. Williams, E. Hill, W. M. Browne, L. R. Popham, E. F. Cox, E. MacKenzie, G. S. Coghlan, T. R. Leohard, E. Khamis, and D. Jeaffreson.

One passed in the division of Anatomy and 1 in Pathology.

Final Examination.—W. C. Carnegie, H. H. E. Russell, E. P. Marett, J. G. W. Pauli, J. E. Ratcliffe, W. Carey Haywood, R. F. N. Overton, W. M. Paul, Katharine Constance Sampson, W. A. Pitt, I. Daniels, L. W. Cock, C. L. Dunn, F. C. Ackland, C. A. Fortin, W. L. Cockcroft, R. M. Quin, R. N. Woodley, R. W. Jubb, R. Tarbuck, R. S. Muir, R. C. Morris, R. D. C. Rose, J. W. Barber, G. Young, G. E. A. Thomas, D. P. G. O'Sullivan, W. Campbell, R. R. Lakhadhir, and C. G. Etches.

One passed in the division of Medicine and Therapeutics, 1 in the division of Surgery and Surgical Anatomy, 6 in the division of Midwifery, and 4 in the division of Medical Jurisprudence.

CONJOINT BOARD IN ENGLAND.

SECOND EXAMINATION.—THE following gentlemen have passed the Examination in the subjects indicated:

Anatomy and Physiology.—T. C. Rutherford, St. Thomas's Hospital; C. H. Robertson, W. H. Cole, G. H. H. Manfield, A. H. E. Wall, W. E. J. Tuohy, J. T. Hicks, and E. Faulds, Guy's Hospital; J. H. D. Bolton, H. A. Lyth, G. F. I. Harkness and C. A. Hewavitarna, University College, London; H. T. Seymour and M. T. Williams, London Hospital; C. F. Day, C. J. A. N. Mercier, and J. Couper, Charing Cross Hospital; E. A. Bell, King's College, London; G. S. Hughes, W. A. Rees, Middlesex Hospital; G. T. D. Elder, Cambridge University and St. Mary's Hospital; F. H. Noke and T. C. Neville, St. Bartholomew's Hospital; C. U. Ind, St. Thomas's Hospital; J. H. Hurst, Yale University and St. Thomas's Hospital; A. E. Pinniger and D. Smith, Middlesex Hospital; L. W. Forsyth, Cambridge University and Middlesex Hospital; E. Roberts, F. L. Thomas, M. W. Cohen, H. T. Palmer, K. Anderson, and T. M. Smith, Guy's Hospital; F. M. G. Tullock, H. M. Major, and F. S. Langmead, St. Mary's Hospital; R. H. Lee, King's College, London; L. R. Tosswell, L. C. Ferguson, N. Macfadyen, F. E. Waterfield and L. Galsworthy, St. Bartholomew's Hospital; J. Jones, London Hospital; J. W. W. Adamson, St. George's Hospital.

Anatomy only.—E. W. Toulmin, St. Mary's Hospital; S. B. Atkinson, St. Bartholomew's Hospital.

Physiology only.—F. J. Russell, London Hospital; U. M. Asplin, Cambridge University and King's College, London.

Twenty-six gentlemen were referred in both subjects, four in anatomy, and two in physiology.

FIRST EXAMINATION UNDER THE "FOUR YEARS" REGULATIONS.—The following gentlemen have passed this Examination in the subjects indicated:

Part I. Chemistry.—R. A. Robinson, University College and School of Science, Technology and Art, Liverpool.

Part II. Materia Medica.—J. R. Clements, Jefferson Medical College, Philadelphia, Cambridge University, and St. Thomas's Hospital; W. S. Armstrong, St. George's Hospital; A. Gentel, St. Mary's Hospital; M. B. Oliver, University College, London; and E. R. L. Thomas, London Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

PRELIMINARY SCIENCE EXAMINATION FOR THE LICENCE IN DENTAL SURGERY.—The following gentlemen have passed this Examination:

H. Chapman, B. S. Dewhurst, and H. C. Highton, Victoria Science and Art School, Southport; L. Myer and W. S. Rose, Birkbeck Literary and Scientific Institute; J. G. Morrell, High School, Middlesborough; and T. Stordy, Harris Institute, Preston.

Fourteen gentlemen were referred for three months.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

DR. J. B. COLEMAN, Physician to the Richmond, Whitworth, and Hardwicke Hospitals, and Dr. F. C. Martley have been elected Fellows of the College.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION, PART II.—The following candidates have passed in:

Anatomy.—J. M. Barlet, St. Mary's Hospital; J. H. Bennett, Birmingham; C. C. Bernard, Royal Free Hospital; W. E. Cuthbertson, Bristol and Glasgow; H. J. Gater, Guy's Hospital; S. K. K. Haslam, Royal Free Hospital; F. Heffer, Cambridge, S. F. Hickman, Royal Free Hospital; G. W. C. Hollist, Guy's Hospital; R. L. Jones, Cambridge and Middlesex Hospital; A. Kellgren, Royal Free Hospital; J. M. King, Edinburgh and University College Hospital; C. E. H. Leggatt, St Mary's Hospital; F. Marriott, Edinburgh; J. L. Martin, St. Mary's Hospital; A. E. Maturin, Guy's Hospital; O. C. H. L. Moll, Durham and Guy's Hospital; G. Raymond, St. Thomas's Hospital; D. Roberts, University College Hospital; W. Thorp, Royal Free Hospital; J. E. Turle, University College Hospital.

Physiology.—J. M. Barlet, St. Mary's Hospital; J. H. Bennett, Birmingham; C. C. Bernard, Royal Free Hospital; E. J. Crew, Guy's Hospital; S. R. Dudley, St. Bartholomew's Hospital; H. J. Gater, Guy's Hospital; F. Heffer, Cambridge; S. F. Hickman, Royal Free Hospital; G. W. C. Hollist, Guy's Hospital; R. L. Jones, Cambridge and Middlesex Hospital; F. P. Joscelyne, Leeds; A. Kellgren, Royal Free Hospital; C. E. H. Leggatt, St. Mary's Hospital; N. Lipscomb, St. Bartholomew's Hospital; F. Marriott, Edinburgh; J. L. Martin, St. Mary's Hospital; H. Mills, St. Bartholomew's Hospital; O. C. H. L. Moll, Durham and Guy's Hospital; D. Roberts, University College Hospital; W. Thorp, Royal Free Hospital; J. E. Turle, University College Hospital; F. J. Turner, Guy's Hospital.

PRIMARY EXAMINATION, PART I.—The following candidates have passed in:

Biology.—E. J. Howes, Liverpool; A. J. O'Leary, Liverpool; D. Roberts, University College Hospital; E. P. Turner, Birmingham; E. N. L. Wilson, Royal Free Hospital.

Chemistry.—A. J. Ambrose, Westminster Hospital; L. Denny, Royal Free Hospital; G. P. K. Grey, Middlesex Hospital; E. M. Handley, Royal Free Hospital; E. J. Howes, Liverpool; A. H. Muirhead, St. Bartholomew's Hospital; A. J. O'Leary, Liverpool; H. G. Peel, Leeds; Z. Rowlands, Royal Free Hospital; E. N. L. Wilson, Royal Free Hospital.

Materia Medica and Pharmacy.—St. C. G. Ballenden, Birmingham; T. Burdekin, University College Hospital; J. C. S. Dunn, St. Bartholomew's Hospital; A. B. Dunne, Cambridge and Leeds; F. R. Featherstone, Guy's Hospital; T. L. A. Jones, Cardiff; A. J. O'Leary, Liverpool; G. H. Watson, St. Bartholomew's Hospital.

FEMALE INEBRIETY.—In an address to the Charity Organisation Society on the Industrial Farm Colony at Duxhurst, Lady Henry Somerset stated that inebriety among women was not diminishing, but rather increasing. This has been the testimony of the managers of homes for female inebriates for a number of years before the Reigate undertaking was established four years ago. The accumulated experience of such judiciously conducted institutions as the old-established Brownsland Home in Scotland and Bergmont Sanatorium at Liverpool, confirmed by that at Duxhurst, completely disposes of the traditional disbelief in the curability of female inebriates. The accommodation for female inebriates committed under the new Inebriates Act has been increased by the licensing of an inebriate reformatory for twelve women at Duxhurst, and of another for Roman Catholic women at Ashford, Middlesex, to be known as St. Joseph's Home.

MEDICAL NEWS.

The date of the Cavendish Lecture before the West London Medico-Chirurgical Society is Friday, June 16th, and not June 13th, as stated in a previous issue.

A State School of Public Health.—A Bill is now before the Legislature of New York providing for the establishment of a State school of public health, in which there will be carried on scientific and laboratory investigations into the character of infectious and contagious diseases, and analyses of water, milk, and other food supplies. The Bill also provides that free instruction in sanitation and the prevention of disease shall be given to all members of local health Boards who may apply for such instruction. An appropriation of $25,000 (£5,000) is made for fitting up the building of the New York University in East Twenty-sixth Street near the First Avenue as such a State school of public health, and $25,000 additional is appropriated for the purchase of supplies and apparatus for the proposed school. Dr. Henry, who is the promoter of the Bill, has succeeded in securing a favourable report on it by the Ways and Means Committee, whereby it is brought before the Assembly for consideration. Some active opposition to the Bill may, it is said, be looked for.

Raid on Massage Houses.—The police, at the instigation of the Vestry of St. James's, have at last taken a decided step with regard to the West End massage houses, and on Saturday last at Marlborough Street three women were charged on a warrant with keeping a common, bawdy, ill-governed, and disorderly house in Jermyn Street. On the same day Mrs. Lavender Ross and two other women were charged with keeping a similar establishment in Cork Street. On Monday, Thomas William Hill Wilson, aged 29, was arrested on charges connected with the house in Jermyn Street. It was stated that he had other establishments, and that he moved the women from one to another. He had been warned by the Vestry in January last, but had declared his intention of carrying on the business, which was advertised by sandwichmen in the street. His bank-book showed that the takings in January were £180, and in March £232. The women were allowed out on bail, but in the case of Wilson bail was refused. During the last few days the sandwichmen have practically disappeared from the streets, and the brass plates have been hastily removed from most of the massage houses. Now that the police have turned their attention to the matter, they are likely to have their hands full.

A meeting of registered dentists was held in Manchester last month to discuss the desirability of withdrawing the keeping of the *Dentists' Register* and the administration of the Dentists Act from the General Medical Council, to form a separate dental council, and to discuss the subject of safety in the administration of anæsthetics. We are informed that the meeting was chiefly composed of dentists registered without qualification under the waiver clauses of the Act. The character of the meeting is, however, stamped by two things: first, that a public lecture upon anæsthesia reform was proposed, a thing which can hardly be productive of any effect beyond the advertisement of individuals who are hardly in a position to throw much light on this subject; and secondly, that the ground of complaint against the General Medical Council was the report of the committee appointed to procure an amendment of the law respecting company practice; it was alleged that the interests of the dentists were being betrayed by the reticence of that report, and that incomplete and confidential communications with a Government department should have been disclosed. Had this sort of thing been done it is hardly likely that the committee would have conducted their negotiations to the successful issue now reached.

MEDICAL VACANCIES.

The following vacancies are announced:—

BATH: EASTERN DISPENSARY.—Resident Medical Practitioner. Salary, £100 per annum, with furnished apartments, coals, gas, and domestic attendance. Applications to Colonel F. V. Eyre, Honorary Secretary, Rockville, Lansdown, Bath, by April 22nd.

BETHNAL GREEN BOARD OF GUARDIANS.—Second Assistant Medical Officer for the Workhouse and Infirmary, Waterloo Road, Victoria Park. Appointment for six months, subject to re-election. Salary at the rate of £80 per annum, with rations, furnished apartments, and washing, and £3 per annum in lieu of beer. Application on forms provided to the Clerk to the Board, Guardians' Administrative Offices, Bishop's Road, Victoria Park, N.E., by May 4th.

BIRMINGHAM CITY ASYLUM.—Resident Clinical Assistant. Board and lodging provided. Applications to the Medical Superintendent.

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon. Appointments for six months. No salary; but residence, board, and washing provided. Applications to the House Governor by April 29th.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Appointment for six months, subject to re-election. Salary at the rate of £42 per annum, with board, lodging, and washing. Applications to the Secretary at the Hospital, Edmund Street, Birmingham, by April 18th.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence at £60 per annum, with board, washing, lodgings, etc. Applications to the Secretary, 15, Richmond Terrace, Blackburn, by April 22nd.

BRISTOL ROYAL HOSPITAL FOR SICK WOMEN AND CHILDREN.—House-Surgeon. Salary, £100 per annum, with rooms and attendance. Applications, endorsed "House-Surgeon," to be addressed to the Secretary by April 26th.

CARLISLE DISPENSARY.—House-Surgeon. Salary, £130 per annum, with apartments. Applications to Mr. G. A. Lightfoot, Hon. Secretary, 14, Bank Street, Carlisle, by April 22nd.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon; unmarried. Salary, £140 per annum with rooms. Applications to the Secretaries, 80, Bondgate, Darlington, by April 20th.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL, Leicester Square.—Demonstrator on Dental Surgery. Honorarium, £25 a year. Applications to the Dean by April 19th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—Assistant Anæsthetist. Appointment for six months. Salary at the rate of 10 guineas per annum; and Surgeon to Out-patients, must be F.R.C.S.Eng. Applications to the Secretary by April 17th.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Appointment for six months. Salary, £30. Applications to the Secretary by April 22nd.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY.—Vacancy on Honorary Medical Staff. Applications to the Secretary, 13, Kilburn Park Road, by April 22nd.

KNIGHTON UNION.—Medical Officer and Public Vaccinator for the Llanbister Union. Must reside in the district. Salary, £80 per annum, with usual medical fees, and fees for vaccination. Applications to the Clerk by April 19th.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon (non-resident). Appointment for twelve months. Salary, £90 per annum. Applications to the Secretary of the Faculty by April 19th.

LEWES DISPENSARY AND INFIRMARY AND VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £90 per annum, with furnished apartments, board, coal, gas, and attendance. Applications to the Hon. Secretary, Mr. Reginald Blakey, Lewes, by by April 22nd.

LONDON COUNTY ASYLUM, Claybury, Woodfordbridge, Essex.—Junior Assistant Medical Officer, between 23 and 30 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications on forms provided to be sent to the Asylums Committee Office, 6, Waterloo Place, S.W., by April 19th.

LONDON HOSPITAL, Whitechapel, E.—Obstetric Registrar. Application to the House-Governor by May 4th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Medical Registrar. Salary, 50 guineas per annum. Applications to the Secretary.

MANCHESTER: CHORLTON-UPON-MEDLOCK DISPENSARY.—Resident House-Surgeon. Salary, £120 per annum, with furnished rooms and attendance. Applications to the Hon. Secretary by April 26th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Resident Medical Officer and Assistant Resident Medical Officer. Appointments for six months. Salary at the rate of £50 per annum attaches to the senior post. Applications to the Secretary by April 24th.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Physician. Appointment for twelve months. Salary £50, with board, lodging, and washing. Applications to the Secretary, by April 22nd.

READING: ROYAL BERKS HOSPITAL.—Vacancy on Medical Staff. Applications to the Secretary by May 8th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with board, lodging, and washing. Applications to the Secretary by April 19th.

ST. GEORGE'S UNION.—Second Assistant Medical Officer at the Infirmary, Fulham Road. Salary, £50 per annum, with board, residence, and washing. Applications to Dr. H. W. Webster at the Infirmary.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to the "Medical Staff of the Royal Infirmary, Sheffield," care of the Secretary, by April 19th.

STOCKPORT INFIRMARY.—Assistant House- and Visiting-Surgeon. Salary £70 per annum, with board, washing, and residence; also a Junior Assistant House-Surgeon. Salary £2 per mensem, with board, washing, and residence. Applications to the Secretary by April 18th.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Surgeon. Salary, £50 per annum, with board, apartments, and attendance. Applications to the Secretary by April 25th.

VICTORIA HOSPITAL FOR CHILDREN.—House-Physician. Appointment for six months. Salary at the rate of £50 per annum, with board and lodging. Applications to the Secretary, at the Hospital, Queen's Road, Chelsea, S.W., by April 20th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary-Superintendent by May 3rd.

WREXHAM INFIRMARY.—House-Surgeon. Salary £30 per annum, with board, washing, and furnished apartments. Applications on forms provided to be sent to the Secretary, by April 17th.

MEDICAL APPOINTMENTS.

AMBROSE, W. C., M.R.C.S., L.R.C.P., appointed House-Surgeon to the East London Hospital for Children, Shadwell, *vice* Stuart B. Reid, M.A.Camb., M.R.C.S., L.R.C.P., resigned.

ANDERSON, A. C., M.B., C.M.Edin., appointed Assistant House-Surgeon to the Taunton and Somerset Hospital.

BODINGTON, A. E., L.S.A., appointed Clinical Assistant to the Chelsea Hospital for Women.

BRICKWELL, F., M.B.Lond., M.R.C.S., L.R.C.P., appointed Junior Assistant Medical Officer in the Cumberland and Westmoreland Asylum, Carlisle.

GAYLOR, Edward, L.R.C.P.Edin., L.F.P.S.Glasg., appointed Medical Superintendent Belper Joint District Isolation Hospital.

GIMBLETT, W. H., M.D.Durh., appointed Medical Officer of Health to the Buckhurst Hill Urban District, *vice* H. Brown, L.R.C.P.Edin., resigned.

GRAHAM, F. M., F.R.C.S., L.R.C.P.Edin., appointed Medical Officer for the Whitmore District of the Newcastle-under-Lyme Union.

HILL, Charles A., M.B., B.C., B.A.Camb., M.R.C.S.Eng., appointed Assistant to the Bacteriologist to the Royal Commission on Sewage Disposal.

JONES, Hugh Edward, M.R.C.S., L.R.C.P., late Senior Assistant-Surgeon, appointed Honorary Surgeon to the Liverpool Eye and Ear Infirmary.

MCELLIGOTT, Maurice G., D.P.H., L.R.C.P.I., L.R.C.S.I., appointed Deputy Medical Superintendent Belper Joint District Isolation Hospital.

MACLAREN, J. P., M.A., M.B., C.M., appointed a Clinical Assistant to the Chelsea Hospital for Women.

MARTIN, R. C., M.R.C.S., L.R.C.P., appointed Junior House-Surgeon to the Great Northern Central Hospital.

SMITH, J. M., M.D.Glasg., D.P.H.R.C.P.Edin., appointed Parochial Medical Officer Dundonald, *vice* Wm. Alexander, M.D., C.M.Glasg., retired.

TINSLEY, S., L.F.P.S.Glasg., appointed Medical Officer for the Huggate District of the Pocklington Union.

VOORTMAN, John Bernard, L.R.C.S.E., L.R.C.P.E. and L.F.S. and P.Glasg., appointed Government District Surgeon for the Town and District of Fauresmith, Orange Free State, South Africa, *vice* Dr. A. E. W. Ramsbottom, resigned.

WILSON, Geo. O'Keeffe, L.R.C.P., L.M., L.R.C.S.I., etc., appointed Assistant Temporary Physician to Cork Street Fever Hospital and Houses of Recovery, Dublin.

WILLOUGHBY, W. G., M.D. Lond. (Med. and State Med.), D.P.H.Camb., M.R.C.S., L.R.C.P., reappointed Medical Officer of Health to the Borough of Eastbourne.

DIARY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Mr. T. F. Chavasse: Note on a Case of Gastrectomy, with specimen.—Dr. Bertram Hunt: Two Cases of Splenic Anæmia, with Internal Hæmorrhages in Infants.—Dr. J. H. Drysdale: Three Cases of Sprue.—Dr. Stacey Wilson: Casts of Hearts with Dilated Right Ventricles.—Dr. Russell and Mr. Buzzard: Cysts in Human Liver containing Paramœcia.—Dr. W. J. Hadley: Peculiar Lardaceous Liver.—Dr. H. Morley Fletcher: Atrophy of Parietal Bones.

Chelsea Clinical Society, Jenner Institute of Preventive Medicine, S.W., 8.30 P.M.—Discussion on Recent Investigations into the Etiology and Pathology of Tuberculosis, in which Professors Sims Woodhead, Sidney Martin, and Watson Cheyne will take part.

WEDNESDAY.

Royal Meteorological Society, 25, Great George Street, Westminster, S.W., 7.30 P.M.

Royal Microscopical Society, 20, Hanover Square, W., 8 P.M.

THURSDAY.

Harveian Society of London, 8.30 P.M.—Clinical Evening.

FRIDAY.

Epidemiological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Dr. F. R. Blaxall: The Relations of Bacteriology to Epidemiology.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 P.M.—Papers by Dr. G. H. Savage and Dr. H. G. Turney.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

FEATHERSTONE.—On Thursday, March 30th, at Ballandalloch, Blackheath, the wife of J. A. Featherstone, M.B., of a daughter.

HOSSACK.—On April 9th, at The Pentlands, Woodbridge Road, Ipswich, the wife of James Hossack, F.R.C.S.Edin., of a son.

NEWBOLT.—On April 12th, at 42, Catherine Street, Liverpool, the wife of George Palmerston Newbolt, M.B.Dur., F.R.C.S, of a daughter.

MARRIAGES.

CARTER—RICHARDSON.—On April 5th, at the Magheragall Parish Church, Lisburn, co. Antrim, by the Rev. J. P. Maud, M.A., Vicar of Chapel Allerton, Leeds, assisted by the Rev. R. Walker, LL.D., Rector of Magheragall, Eustace George Carter, M.R.C.S.Eng., of Chapel Allerton, Leeds, youngest son of the late Joseph Barton Carter, M.R.C.S.Eng., to Josephine Mary (Effie), youngest daughter of Joseph Richardson, Esq., Springfield, Lisburn, co. Antrim.

CROSS—BERGUER.—On April 5th, at Holy Trinity Church, New Barnet, by the Rev. G. E. Gardner, Ernest William Cross, M.R.C.S.Eng., L.R.C.P.Lond., of Leytonstone, Essex, son of William Henry Cross, of St. Bartholomew's Hospital, to Constance Mary, daughter of the late Rev. H. J. Berguer, of St. Philip's, Islington. No cards.

EDWARDS—LUCAS.—On April 11th, at the Church of King Charles the Martyr, Falmouth, Edward Charles Edwards, M.D.Edin., of "Shian," Penzance, second son of Henry Charles Edwards, of Woodbridge, to Ellen Edgcome, second daughter of the late Frederic Lucas, Paymaster R.N., and of Mrs. Lucas, of Falmouth.

HALL—RITCHIE.—On the 8th inst., at St. Anne's Church, Wandsworth, by the Rev. Norman Campbell, M.A., Thomas Lambert Hall, M.R.C.S., L.S.A., Townsend House, Dinwyn, Herefordshire, to Grace Ogle Barbellion, fourth daughter of the late Dr. Ritchie, of Otley, Yorkshire, and Mrs. Ritchie, of 30, Earlsfield Road, Wandsworth.

HUNTER—FREW.—At 12, St. James's Terrace, Hillhead, Glasgow, on April 5th, by the Rev. Thomas Adamson, D.D., assisted by the Rev. J. Dykes Lang, brother-in-law of the bride, James Ewing Hunter, M.B. and C.M., to Margaret Scott Frew, youngest daughter of the late Alexander Frew, Glasgow. At Eonie Duncairn, Helensburgh, first, second, third Fridays after August.

MASON—LANGHORNE.—On April 6th, at St. Peter's Church, Woolley, Wakefield, George A. Mason, M.A., M.B., B.C.Cantab., of 45, George Street, Portman Square, W., to Alice Wood, eldest daughter of R. Ernest Langhorne, Solicitor, Woolley Moor House, Wakefield.

MORICE—SEDDON.—On November 29th, 1898, at Wellington, New Zealand, Charles G. F. Morice, F.R.C.S.Edin., of Greymouth Hospital, to Louisa Jane Spottswood, third daughter of the Right Hon. R. J. Seddon, P.C., LL.D., Premier of New Zealand.

STEPHENS—BROWNE.—On February 14th, at St. George's Cathedral, Cape Town, by the Rev. W. Sarkey, Henry Woolcott, M.R.C.S., second son of the late Daniel Woolcott Stephens, of Woodford, Essex, to Margaret Mabel, third daughter of Joseph Laing Browne, of Cardiff.

TIDSWELL—CALLEY.—On the 11th inst., at St. Mark's Church, Surbiton, Surrey, by the Rev. J. H. Calley, brother of the bride, and the Venerable Archdeacon Burney, Herbert Henry Tidswell, M.R.C.S. and L.R.C.P.Lond., of Camborne, Cornwall, to Agnes Elizabeth Calley, youngest daughter of the late Rev. Charles Calley, Rector of Blunsdon St. Andrew, Wilts.

DEATHS.

GIBBINGS.—On the 9th inst., at his residence, 93, Richmond Road, Dalston, London, Alfred Thomas Gibbings, M.D.Lond., aged 50 years.

HAYDON.—In loving memory of William Chatterley Haydon (eldest son of the late William Rudall Haydon, M.D.), born May 20th, 1877; fell asleep April 8th, 1899, at 37, St. Peter's Street, Tiverton, the result of his unfailing, unselfish devotion to his father during his last illness. Friends will kindly accept this, the only intimation.

RENTON.—On March 31st, at Brighton, suddenly, William Renton, L.R.C.S., L.R.C.P., L.M.Edin., L.S.A.Lond., late of Knaresborough, aged 52 years. Interred in the family vault at Knaresborough Parish Church, April 4th.

ROWLANDS.—James Rowlands, F.R.C.S., 51, King Street, Carmarthen, in his 85th year.

SCOTT.—On the 23rd ult., at Worthing, Sussex, Alice Godwyn, wife of Kenneth Scott, Cairo, Egypt

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1-p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Tu., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

X. Y. Z. would be glad to know of any institution or nursing or convalescent home where an old lady, aged 72, who is convalescing from impacted intracapsular fracture of femur, could be received and nursed. She would not require much attention, and her relatives will contribute to her support.

W. C. R. asks to be recommended the most suitable book for a general practitioner on materia medica, with pharmacology and therapeutics according to the new *Pharmacopœia*.

*** Our correspondent might consult either *Pharmacy, Materia Medica, and Therapeutics*, by W. Whitla, M.D., Seventh Edition (London: H. Renshaw. 1808. 10s. 6d.), or *Materia Medica, Pharmacy, Pharmacology, and Therapeutics*, by W. Hale White, M.D., Third Edition (London: J. and A. Churchill. 1898. 7s. 6d.).

M. C. T. writes: I am giving up general practice for consulting work and wish to acquaint my professional brethren in the town in which I live of the fact. Should I call upon them all or would a written intimation be in good taste? In the latter case might my communication bear my new consulting hours?

*** We think our correspondent should neither by circular nor by personal calls endeavour to diffuse the information he wishes to communicate. He must content himself with speaking to his friends, whom he may quite properly ask to tell others of his intention.

Professional Secrecy.

M. D. writes: In the case of a woman living apart from her husband and who periodically gives way to drink, the husband, who pays for the attendance upon her, asks the cause of the illness. What is the duty of the medical attendant? Is he to be bound by "professional secrecy" not to tell the husband, or should the latter's request be granted?

*** Our correspondent has not made it quite clear whether he has been engaged to attend by the husband or the wife. Where a doctor is engaged by one party to attend upon another and his services are accepted, he may be fairly called upon to tell the truth to his employer. In the case of a husband and wife we do not think the fact that the payment comes out of the husband's pocket necessarily makes him the employer, and if the wife engaged the doctor he is bound to her and must not reveal her secrets. Should this be so, we advise our correspondent to ask his patient if he has her consent to tell her husband the truth. If she agrees, he can answer the husband's question, but if she withholds her consent he must follow the rule of professional conduct which prevents him from giving information except with the consent of his patient.

ANSWERS.

General Practitioner does not state on what ground he claims to use the cockade.

M.B.—We are informed that the water supplied to Birkenhead, though rather hard, is of excellent quality, and that there is no special prevalence of hepatic colic in the town.

M. writes to inform "J. M." that Messrs Boulton and Paul, Rose Lane Works, Norwich, make various forms of shelters for the open-air treatment of consumption.

Practitioner.—The publication of such an advertisement in a local paper is open to objection. If it is considered necessary to give any notification it should be limited to the patients on the practitioner's own books.

Zephyr.—Of the larger works in the English language on diseases of the ear we may mention Politzer's *Textbook* (London: Baillière, Tindall and Co. 21s.) and of the smaller, Barr's *Diseases of the Ear* (Glasgow: Maclehose and Sons. 12s. 6d.).

C. F. L.—Salmon's *London Dispensatory* is by no means a rare book. It is usually priced in the catalogues of second-hand booksellers at about 4s. 6d. We have, however, known of a copy being bought at a stall for 1s.

J. B.—In effect we are asked to say how the spirit of the Dentists Act may be evaded without infringing its words. Convictions have been obtained under that Act against persons who have used forms of words not expressly scheduled in the Act. The individual as to whom the question is asked ought to procure a diploma registrable in this country.

Cottage Hospitals.

J. H. D.—Our correspondent might consult *Cottage Hospitals*, by Sir Henry Burdett, K.C.B. Third edition. (London: Scientific Press. 1896. 10s. 6d.)

Home for Epileptic Child.

C. W.—Application might be made to the General Director of the Training Colony, Lingfield, Surrey, for information as to terms of admission to the Home for Epileptic Children there, or to the Meath "Home of Comfort" (for epileptic women and children) at Godalming. It is possible that Mr. Douglas Kent, one of the Honorary Secretaries of the Associated Bristol Charities, 35, Queen Square, Bristol, might be able to help our correspondent.

An Exceptional Case.

Subscriber.—According to our correspondent, B. assists A. to operate upon a lady patient to whom three weeks after the operation B. becomes betrothed. The lady still requires treatment, and the question put to us is, should A. give up the case to B? There certainly is no obligation for A. to give up the case to B., but under the somewhat unusual circumstances it would be very natural for A. to ask his patient what she would like him to do, and to be guided by her. On the other hand, we should think B. a very foolish man if he was anxious to add to his other responsibilities by becoming the medical attendant of his future wife.

The Treatment of Tuberculous Meningitis.

Dr. Henry Greenway (Plymouth) writes, in reply to our correspondent, "R.M.J." (British Medical Journal, April 1st, page 832), to recall a paper published in the Journal of June 14th, 1884. In that paper Dr. Greenway described how he had been induced to employ phosphorus in the treatment of a case of tuberculous meningitis. In the first case recovery rapidly ensued and in other cases improvement was equally remarkable. He prescribed it in the form of Fauconnet's syrup of phosphorus (a French preparation, sold by Roberts and Co., New Bond Street). It contains about one-sixth of a grain in a fluid ounce. The quantity of syrup he gives is 2 minims for each year of age, the dose to be repeated every four hours. In a subsequent note Dr. Greenway states that he has used with success the oleum phosphoratum of the *British Pharmacopœia* freshly prepared.

Treatment of Pulmonary Tuberculosis.

Hoxton, R. D.—Some particulars of sanatoria for the open-air treatment of phthisis will be found in the British Medical Journal of September 3rd. 1898, p. 667; October 29th, 1898, p. 1383; November 19th, 1898, p. 1599; January 28th, 1899, p. 247; and February 4th, 1899, p. 324; but we doubt whether our correspondent will easily find an institution with charges suitable to the means of an artisan.

W. H. G.—We cannot ascertain that there is any society which would help a consumptive patient of the domestic servant class to the Cape.

These and many other similar questions which we have received during the last few months show that there is a growing demand for sanatoria for consumptive patients of the working class or of slender means. It is hoped that the erection of a sanatorium of the kind may shortly be undertaken under the auspices of the National Association for the Prevention of Consumption.

Registered Medical and Unregistered Dental Practitioners.

Cantab., J. H. S.—The Dundee and District Branch of the British Medical Association brought the question of the administration of anæsthetics by registered medical practitioners for unregistered dental practitioners before the General Medical Council, and the Council adopted a resolution to the effect that if a charge of covering in connection with such administration of anæsthetics were brought before the General Medical Council, it should be entertained and investigated (Minutes of General Medical Council, December 1st, 1898).

Tonsillotomy and Hæmorrhage.

Mr. Lennox Browne (Mansfield Street, W.) writes: In response to the question of "A.W.S.," I may be allowed to quote from the recently-published fifth edition of my book that "regarding the question of hæmorrhage, I can but say that it has been most rare in my experience. I have an aggregate knowledge in my practice, and that of my colleagues, of fully 50,000 cases; and in the thirty years or more over which these cases have been spread, I have only seen and known of three or four cases in which the bleeding has been serious, and only one in which it was at all alarming."

I have no knowledge of the use of chloride of calcium, but in the case of a patient having a hæmorrhagic tendency I should suggest the following:

1. Administration of a saline purge for a few days before the operation.
2. The avoidance of an anæsthetic, especially ether or nitrous oxide gas.
3. The local application, or the injection into the gland immediately before the operation, of some local extract of witch hazel with or without cocaine.
4. The use of a wire *écraseur* instead of a guillotine.
5. During operation to avoid wounding the pillars of the fauces.

If in spite of these precautions hæmorrhage does not occur:

6. Syringe the back of the throat with hot water.
7. Apply pressure within the mouth, with concurrent counter-pressure externally, a somewhat tedious measure, which is, however, particularly recommended by Lefferts.
8. The careful drying of the part and application of styptic colloid on cotton-wool, supplemented by pressure; and, lastly, if all these fail, or even preferably, adopt the practice suggested by Macintyre of "passing a needle threaded with a long whipcord ligature through the anterior faucial pillar, the stump of the tonsil and the posterior pillar, securing the two ends, which are to be cut off short."

One of the two most obstinate cases of bleeding I have seen was the result of eating a captain's biscuit soon after the operation; the second occurred forty-eight hours after operation to a domestic servant when cleaning a doorstep; therefore I have since enjoined the strictest repose for some hours in the recumbent position, administration of soft diet, avoidance of conversation, and with children the playing with toys, and even looking at picture books.

NOTES, LETTERS, Etc.

THE KANTHACK FUND.

DR. J. H. DRYSDALE (25, Welbeck Street, W.) writes to acknowledge the following list of subscriptions to this fund, and to state that the fund will shortly be closed:

	£	s.	d.
H. P. Cholmeley, M.A., M.B.	1	1	0
J. S. Edkins, M.D.	5	5	0
W. E. Sargant, M.R.C.S., L.R.C.P.	1	1	0
T. R. Smith, F.R.C.S.	2	2	0
R. C. Ackland, M.R.C.S., L.R.C.P.	2	2	6
William Osler, F.R.S., F.R.C.P.	1	10	0
Lord Lister	10	10	0
Alfred Willett, F.R.C.S.	10	10	0
Sir Richard Thorne-Thorne, K.C.B.	2	2	0
Stephen Paget, F.R.C.S.	1	1	0
John Fawcett, M.D.	1	7	0
C. H. Cosens, M.R.C.S., L.R.C.P.	5	5	0
James Calvert, M.D.	5	5	0
G. C. Garratt, M.B.	5	5	0
R. A. Walter, M.R.C.S., L.R.C.P.	2	2	0
J. D. Rawlings, M.B.	1	2	6
J. R. Leeson, M.D.	1	1	0
W. Black Jones, M.D.	1	1	0
J. Ackery, M.R.C.S.	3	3	0
Arthur Latham, M.B.	10	10	0
Mrs. Unwin	5	5	0
A. B. Green, M.B.	5	0	0
G. Walker, M.D.	1	1	0
H. S. Wellcome	5	5	0
C. F. Marshall, M.D.	1	1	0
E. Clifford Beale, M.D.	1	1	0
T. P. Legg, M.B.	1	1	0
A. B. Rendel, M.B.	5	5	0
Anonymous	1	1	0
J. H. Churchill, M.R.C.S., L.R.C.P.	1	1	0
Claud Worth, M.R.C.S., L.R.C.P.	1	1	0
Ernest Clarke, F.R.C.S.	2	2	0
D. H. P. Cowin, M.R.C.S., L.R.C.P.	0	10	0
J. G. Forbes, M.B.	1	1	0
A. Norman, L.R.C.P., L.R.C.S.	5	5	0
A. M. Mitchell, M.B.	2	2	0
H. H. Tooth, M.D.	5	5	0
A. Lyndon, M.D.	2	2	0
J. L. Maxwell, M.B.	1	1	0
T. G. A. Burns, M.R.C.S., L.R.C.P.	5	0	0
A. G. Penny, M.B.	1	1	0
R. A. Yeld, M.B.	0	10	0
E. C. Frend, M.R.C.S., L.R.C.P.	0	10	6
A. L. Ormerod, M.B.	1	1	0
E. W. Ormerod, M.B.	1	1	0
A. F. Stabb, M.D.	5	5	0
E. W. Brewerton, M.R.C.S., L.R.C.P.	2	2	0
Mabyn Read, M.D.	1	1	0
M. L. Hepburn, M.D.	1	1	0
J. Hobday, M.B.	1	1	0
R. Farrar, M.D.	1	1	0
W. J. Horne, M.B.	2	2	0
G. J. Briggs, M.R.C.S.	1	1	0
T. H. Molesworth, M.B.	1	1	0
P. Horton-Smith, M.D.	2	2	0
F. W. Robertson, M.B.	1	1	0
F. Belben, M.B.	2	2	0
C. Balfour Stewart, M.B.	5	5	0
Chas. Niell, M.B.	10	10	0
C. Addison, F.R.C.S.	2	2	0
W. B. Addison, M.B.	1	1	0
E. F. Trevelyan, M.D.	3	3	0
A. Cuddon Fletcher	1	1	0
G. H. Sowry, M.B.	1	1	0
R. Sevestre, M.D.	2	2	0
H. J. Bumstead, M.B.	5	0	0
Amount previously acknowledged in BRITISH MEDICAL JOURNAL	267	11	0
	£459	2	0

REICHARDT FUND.

DR. G. H. SAVAGE (3, Henrietta Street, Cavendish Square, W.) writes to acknowledge the following further subscriptions to this fund:—

	£	s.	d.
Anonymous	75	0	0
J. F. Maingay	2	2	0
Norbury Tott	2	2	0
H. C. Vardon	5	5	0
Dr. James	1	1	0
Patrick C. Kerr	2	2	0
F. R. Walker	5	0	0
Dr. Hearden	5	0	0
W. Luttge	5	5	0
William Duff	2	2	0
Alec. B. Johnson	2	2	0
Alec. Johnson, jun.	2	2	0
F. Mead	2	2	0
C. Braby	0	5	0
Mrs. Phillips	2	0	0
Captain Cuthbert	1	1	0
Lady Glyn	3	3	0

THE HUNTER FUND.

MR. RIVERS WILLSON (Treasurer) (42, Wellington Square, Oxford) writes to acknowledge the following further donations received on behalf of this fund in response to his letter published in the BRITISH MEDICAL JOURNAL of April 1st, 1899, p. 827:

	£	s.	d.
Amount acknowledged April 8th	13	0	0
Dr. R. R. Law, Sidcup	0	5	0
Dr. John Brown, Bacup	0	10	0
The Brussels Medical Graduates' Association	2	2	0
Dr. Louis J. Fitzpatrick, Norwood, S.E.	1	1	0
Dr. Dhingra, Finsbury Park, N.	0	5	0
F. H. Oliver, Esq., Kingsland Road, N.	0	5	0
A. Greenwood, Esq., Queen's Park, Dalston	0	10	6
Herbert C. P. Masser, Esq., Longford, Coventry	0	10	6
Dr. J. W. Noble, Nottingham	0	10	6
Dr. F. de Havilland Hall, 47, Wimpole Street, W.	1	1	0
Total	£20	1	0

POISONING BY BELLADONNA PLASTER.

MR. WM. MARTINDALE (New Cavendish Street, London, W.) writes: Referring to Mr. Oliver Smithson's letter in the BRITISH MEDICAL JOURNAL of April 8th, p. 849, the official plaster of *B. P. 1898* is standardised to contain only 0.5 per cent. of alkaloids. That of *B. P. 1885* had alcoholic extract of belladonna root 1 part, to 4 of plaster basis, and if made with a good extract might contain as much as 1.25 per cent. of alkaloids. It was therefore about double the strength of the present official plaster. The latter should now only be supplied, as the new *Pharmacopœia* should undoubtedly at present be in force. I have known the plaster of the former *Pharmacopœia* produce similar untoward results.

DR. J. C. MC. WALTER (Dublin) writing on the same subject, says, with reference to emplastrum belladonnæ *B. P. 1898*: On weighing a plaster, spread on leather of 13½ inches in length and 6½ inches in breadth, I find that it contains 986 grains; less than half of this is leather, so that over 500 grains of belladonna plaster are applied to the skin. If such a plaster be of *B. P.* strength (and a chemist selling any other is liable to prosecution) no less than 2.5 grains of belladonna alkaloids are presented for absorption! I myself have noted poisonous effects to follow the minim doses of the new tincture of belladonna, equivalent only to 0.005 grain of belladonna alkaloids, so if makers conform to the *B. P.* standard in plasters we must expect a perfect epidemic of atropine poisoning.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Mr. R. B. Anderson, London; C. J. Aitken, M.B., Bedford; Mr. F. M. B. Archer, Birr. **B** J. W. Batterham, M.B., St. Leonards-on-Sea; Mr. W. L. H. Blenkarne, Worthing; Mr. R. Barwell, London; Mr. L. Browne, London; Miss A. H. Boyle, Brighton; Dr. J. B. Buist, Edinburgh; Messrs. Baillière, Tindall and Cox, London. **C** Dr. W. L. Christie, Bedminster; Dr. W. H. Calvert, Melrose; Cantab; Dr. F. G. Clemow, Calcutta; Dr. J. Cargill, Half Way Tree, W.I.; Dr. A. E. Cooper, London; Mr. C. V. Creagh, Portsmouth; Dr. A. Cordes, Geneva; Mr. J. Chronnell, Hindley; Mr. W. H. Cuthbert, Frinton-on-Sea. **D** Dr. A. T. Davies, London; D. P. V.; Mr. J. H. Dewhurst, Chipping Campden; Dr. E. H. Douty, Davos Platz; D. A. Davies, M.B., Swansea; J. H. Drysdale, M.B., London; W. R. Davison, M.B., Ballymena. **E** Elswick Cycles Company, Newcastle-on-Tyne; Dr. M. G. Evans, Caerphilly. **F** Fees; Dr. W. F. Farquharson, Carlisle; R. Fielding-Ould, M.B., Liverpool; Dr. R. T. Ferguson, Anstruther. **G** Dr. A. E. Giles, London; Dr. W. H. Gregory, Beverley. **H** Mr. F. A. Humphry, Brighton; Dr. J. Haddon, Denholm; Mr. T. Hoban, Surbiton; Mr. H. Holmes, Pontefract; Dr. R. G. Hebb, London; Dr. J. B. Hurry, Reading Mr. J. Hartley, Darlington; Miss A. Hadwen, Gloucester; Sir S. Haden, Alresford; Dr. A. H. Hart, London; Mr. T. G. Horder, Cardiff; Mr. J. A. Hislop, Blackford; Dr. J. P. Henry, London; Mr. T. P. Hugill, London; P. J. Hamilton, M.B., Ardara; Mr. T. Hayes, London; C. A. Hill, M.B., Liverpool; Hoxton. **J** Dr. A. H. Jacob, Dublin; Dr. H. N. H. Joynt, Suva, Fiji Islands; Mr. H. H. Jennings, London; R. Johnson, M.B., London; Junior Member. **L** Dr. O. L. Levy, London; Librarian; G. R. Leighton, M.B., Pontrilas; Mr. E. Laurie-Robinson, Guernsey; W. Leask, M.B., Birkenhead; Mr. C. F. Lee, Rustenburg, S.A.; Messrs. Lotz, Abbot and Co., London. **M** Mr. J. F. McClean, London; J. S. McKendrick, M.B., Glasgow S. Macvie, M.B., Chirnside; Mere Licentiate; Mr. J. C. McWalter, Dublin; Dr. C. J. Morton, Walthamstow; Mr. W. Martindale, London; Mr. B. Marshall, Atherton; J. K. Murray, M.B., Whittlesea; Dr. R. L. Meade-King, Taunton; Mr. C. H. Miles, Stantonbury; M.O.H.; Mr. W. M. Morison, Annfield Plain; Dr. D. J. Mackenzie, Glossop; Mr. W. Marriott, London; Mr. F. H. Madden, London; Dr. T. H. Moorhead, Cootehill; Medicus; J. D. L. Macalister, M.B., Forfar; E. H. G. Morris, M.B., London. **N** Dr. F. P. Norbury, St. Louis; Dr. A. Napier, Glasgow; Mr. M. J. Nolan, Downpatrick. **O** Dr. W. M. O'Connor, Aldershot. **P** Mr. H. J. Prangley, London; "Pioneer," Manager of the, Allahabad; Practitioner; Public Vaccinator. **Q** Querist. **R** Mr. J. S. Rajasundera, Colombo; Dr. G. H. D. Robinson, London; Mrs. F. Rye, London; Resident; R. D. **S** Dr. G. H. Simmons, Chicago; Mr. W. Stewart, Southport; Sangongo; Mr. H. W. Sharpin, Brighton; Spero; Dr. F. H. Sinclair, Belfast; Dr. G. H. Savage, London; Mr. J. J. Smith, London; Dr. A. W. Sheen, Cardiff. **T** Mr. L. Tait, Birmingham; Mr. R. F. Tomlin, London; Mr. C. H. Thackrah, Halifax. **V** S. M. Varis, M.B., Lucknow; Mr. J. B. Voortman, Fauresmith. **W** Dr. R. Willson, Oxford; Mr. F. T. Walker, Sheffield; Dr. T. J. Wood, Bradford; Mr. S. M. Woolmer, Concordia, S.A.; Dr. W. G. Willoughby, Eastbourne; Mr. C. H. Whiteford, Plymouth; Dr. H. W. Webber, Plymouth; Mr. J. H. Wolstenholme, Abergele; Mr. J. Whyte, Manchester; Mr. F. C. Wood, Ripley; Dr. F. J. Waldo, London. **Y** Dr. M. Young, Crewe; Dr. E. S. Yonge, Manchester.

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AN ADDRESS
ON
THE DANGERS OF DELAY.

Delivered before the Nottingham Medico-Chirurgical Society, March 8th, 1899.

By A. W. MAYO ROBSON, F.R.C.S.,

Senior Surgeon to the General Infirmary at Leeds; Professor of Surgery in the Yorkshire College of the Victoria University.

Mr. President,—When my old friend and your worthy colleague, Dr. Cattle, did me the honour on your behalf to ask me if I would give an address before the Nottingham Medico-Chirurgical Society, I decided somewhat hastily in the affirmative, trusting that some inspiration would come to me in the intervening period, which has, however, allowed me sufficient time to realise the difficulty of worthily fulfilling my promise. Fortunately Dr. Cattle helped me to a certain extent by suggesting that I should give something practical.

After casting about for a time it occurred to me that I might perhaps engage your attention most profitably by selecting a subject in which the physician, the surgeon, and the general practitioner of medicine are equally interested; the text of my address being The Dangers of Delay.

There are certain minds that seem to adopt as their motto, "Never do to-day what you can put off till to-morrow," which in legal quibbles and in many of the ordinary affairs of life may be a more or less useful maxim, but which in medical or surgical matters may frequently mean the difference between life and death. This procrastination, some of the evils of which I hope to consider to-night, is only occasionally to be laid at the door of the patient or the friends; for, as we all know, our clients, as a rule placing implicit confidence in our judgment, will in nearly every instance be guided by us if in consultation we are united.

I think the blame rather lies in the traditions of the past that we have not yet completely shaken off, in the reminiscences of the old days when an operation was a truly dreadful business to be avoided if possible, and possibly it lies a little in that *laissez faire* policy of the old school, for there are yet a good number of Micawbers in the world, and we know that they are sometimes encouraged by the unexpected turning up.

I will not trouble you with some of the more obvious dangers of delay in surgery, such as waiting for distinct fluctuation before venturing to incise the periosteum in a case of periostitis, or of waiting for the formation of pus before incising in a case of thecal whitlow, but will pass on to consider certain groups of cases in which I know by ample experience not only that delay in treatment is dangerous, but that serious delay, even in these enlightened days, is the rule rather than the exception.

First let us consider that large group of diseases that has been so much engaging the attention of the public recently. I refer to tuberculous affections, which are almost as common from a surgical as a medical point of view.

Perhaps there is no more fertile cause of serious joint disease ending in deformity or death than the delay which frequently occurs before absolute rest is advocated in the early stages of spinal or hip disease.

A child complains of a little pain on walking or on great exertion; the pain, being irregular at first and by no means constant, is put down to so-called "growing pain" or rheumatism, and no more is thought about it by the friends until a limp is noticed, and even then a night's rest will relieve it, and even if it should be mentioned to the doctor the best is made of the matter. And as there are probably no very obvious signs the poor victim is allowed to continue walking until the limp becomes so obvious that a careful physical examination is demanded, when stiffness of the joint, or even abscess is discovered, and the case has entered on its more serious stages.

From a large experience I am very firmly convinced that if complete rest were insisted on in the early stages of these tuberculous joint cases, whether spine, hip, knee, elbow, or other joint, a complete and permanent recovery would occur in a very large number, probably in 95 per cent. of the cases. In nearly every case there is a history of injury or strain, may be months before, which is almost forgotten until recalled by the questions of the surgeon; this is followed by a little local injury near to or at an epiphysis, which under rest would entirely clear up, and which may lie dormant for a longer or shorter time until some other cause, such as deteriorated health, imperfect feeding, exposure to infection, further injury, or some unknown cause leads to rarefying osteitis with pain on movement.

In this stage complete rest would obviate further trouble in the greater number of cases, but in the absence of proper treatment the inflamed area becomes the seat of tubercle, with its well-known sequelæ of abscess and destruction of bones and joints. Even in this stage much more can be done by the simple treatment of iodoform injection, if combined with judicious general treatment, including rest and fresh air, than is generally appreciated.

I can point to a considerable number of cases of advanced caries of spine with abscess treated in this way and now quite well, and of tuberculous joints, which years ago I should have excised, but which have completely recovered without any mutilation.

While I am a great advocate of the avoidance of delay in treatment, I would urge—even at the risk of being thought heterodox—the avoidance of excision, so long as there is any hope without it, in this class of joint disease, particularly in the lower extremities; for, at the best, excision inflicts a terrible mutilation, and the subsequent shortening owing to damaged epiphyses frequently means the saving of a practically useless member. So much am I impressed with the success of the iodoform treatment, even in advanced tuberculous abscesses and joint disease, that while the number of cases of tuberculous disease under treatment has not lessened, the number of excisions has markedly diminished in my own practice and in that of some of my colleagues in the Leeds Infirmary.

In private practice this treatment is specially successful, as the after-care and open-air treatment can be more efficiently carried out, but in hospital practice we are let down by the absence of suitable sanatoria for the after-treatment, and I would take this opportunity of pleading for the provision of such for the fresh-air treatment of surgical as well as medical tuberculoses.

There has of late been so much written on the subject of cancer of the breast that I will not take up much of your time in discussing it, though it is so very important both on account of its terrible effects and its frequency, as well as because of the distinctly beneficial effects of thorough surgery if adopted without delay. I think it is a good rule to advocate the removal of every tumour of the breast at an early stage, which I feel sure is at present not the general rule, though advocated by many surgeons. Over and over again I have removed a scirrhus of the breast from a patient who has had a simple adenoma for years, the removal of which at an early stage would have been the simplest matter in the world. You never know when the epithelium in a simple adenoma may overstep the basement membrane and become a carcinoma; therefore delay in advocating surgical treatment is, to my mind, extremely unwise, especially as the simple operation is devoid of risk. I operated on a case recently, in which a small tumour was pointed out to a medical man who pooh-poohed it, thinking it simple, and the patient, only too pleased to put off the evil day, sought no further advice for 9 months, when I had to do a most extensive operation in order to thoroughly remove the disease. Now in this case my medical friend with whom I saw the case thought to save his patient anxiety, but forgot all about looking at the little lump to see if it was increasing until after that important interval his patient pointed out to him what was then obviously a scirrhus. I could furnish many similar examples were they necessary.

Nothing is becoming more clearly established than that the early and complete removal of cancer is curative and not simply palliative, and this is shown equally well in cancer of the cervix uteri and cancer of the rectum. How often do we operating surgeons have sent to us cases of carcinoma uteri too late for operation, and cancer of the rectum too advanced for anything but colotomy, yet if we had only seen these cases early, the patients might possibly have been cured; for

instance, I can at this moment point to a number of patients in good health from whom years ago I removed an epithelioma of the cervix, either by supravaginal amputation or by vaginal hysterectomy, and in the same way I can point to cancer of the rectum treated by proctectomy and well years later.

But it is quite useless to hope for a cure by operation or even prolonged relief, when the uterus is fixed and the broad ligaments and glands are involved in the disease. Sometimes the patients have themselves to blame for the delay, but very frequently I fear the medical adviser must take some of the responsibility, for alas! too often, time is lost in waiting for a positive diagnosis.

Intermenstrual hæmorrhage, or hæmorrhage after the menopause, should always demand careful and immediate attention, and an ulcer bleeding on touch should not be too long watched, but should be examined microscopically, and in case of doubt, freely removed, for it must be borne in mind that cancer is inevitably fatal, but that supravaginal amputation of the cervix is practically devoid of risk, and that even vaginal hysterectomy has only a mortality of 5 per cent., or even less.

Perhaps in no class of cases is delay in surgery attended with so much danger as in abdominal diseases, several of which from this point of view I will consider. First let me quote from Dr. Wm. Ewart's Harveian Lectures, 1898:

> Not many years ago lives were sacrificed daily to the impossibility of establishing the diagnosis of actual suppuration in the abdominal cavity. To operate on an abdomen where an extensive abscess had not yet formed did not enter the professional mind in those days, and the idea of laparotomy for the sake of ascertaining that no abscess existed there was as foreign as are to us the thoughts of dwellers in distant planets. The whole anxiety was lest an operation should be attempted whilst pus had not been proved to exist. Most of the cases operated on died because gangrene and suppuration, though imperfectly revealed by physical signs, had proceeded too far.

What better testimony could we have of the dangers of delay?

TUBERCULOUS PERITONITIS.

Tuberculous peritonitis is in its earlier stages usually attended by effusion into the general peritoneal cavity, and in this stage is curable by abdominal section and drainage. Some of my most satisfactory cases have come under this category, and in several that I could relate operations performed on apparently hopeless invalids have been attended with excellent results. For instance, out of a considerable number of cases I will select two as examples:

My friend, Dr. Black, of Harrogate, sent a patient to me some years ago who was extremely ill with tuberculous dropsy in the abdomen and with doubtful phthisis. Simple drainage of the abdomen, though the peritoneum was covered with tubercle, led to recovery, and not long ago I had a letter to say that the patient is not only well but that she is now apparently the most robust and healthy member of an otherwise healthy family.

A few years ago I was asked to see a young lady in this county, who had been given up as beyond recovery by two able physicians who had seen her in consultation, and when I saw her lying in bed like a typhoid patient in the last stage of exhaustion, with sunken eyes, attenuated limbs, a hectic flush, extreme emaciation, a much enlarged abdomen, and dulness at the apex of the left lung, I almost felt inclined to say it was too late; but the simplest operation—an incision only large enough to admit a drainage tube—led to remarkable results, though the mesentery stood up stiff with tubercle and tuberculous nodules were scattered all over the peritoneum; for she began to recover at once, and four months after she wrote to tell me that she was so well as to be able to hunt and follow her usual country pursuits, and I have since heard of her in robust health.

If the patient be not operated on and survive the stage of effusion, we get matting of intestines and viscera generally, intestinal obstruction, caseation of glands, suppuration, and other troubles which frequently end fatally in one way or another. Moreover, the operation is of the simplest; an opening no bigger than to admit the finger and to allow of drainage is all that is required, and this can be done quite well under cocaine anæsthesia, the whole procedure not occupying more than a few minutes.

APPENDICITIS.

This is so very large a subject, and one of so much importance, that I could only touch the fringe of it even if I gave up the whole hour to its discussion.

It may sound somewhat radical, but I speak from conviction after considerable experience, when I say that I believe the early operation undertaken as soon as appendicitis is diagnosed, first advocated by Dr. McBurney, would lead to a far greater percentage of recoveries than the method of individualising which we in England still generally adopt.

I believe this, because I know that the removal of an appendix without delay—that is, before suppuration, perforation, or gangrene has occurred, or before firm adhesions have been formed, is practically unattended by risk, as shown by my own experience, and that of many other surgeons; moreover the operation can be accomplished through a small incision with separation rather than division of muscular fibres. In waiting for resolution we not infrequently land ourselves in serious difficulties, and have to operate under very unfavourable circumstances.

Catarrhal appendicitis furnishes the greater number of cases of recurrent appendicitis, and this is the variety which may, and usually does, recover without surgical treatment, though, while the first and second attacks may be catarrhal and end in resolution, the next seizure may assume the suppurative form and produce general peritonitis, demanding operative interference.

My friend, Dr. Macrae, has been kind enough to look through the notes of my cases in order to ascertain the proportion of cases of perforating or suppurative appendicitis which have been preceded by attacks of simple catarrhal appendicitis, and he finds that in the greater number one or more simple attacks have preceded the serious seizures.

The following case is an example:

> I saw a young man of 19 with Dr. Scarth, of Leeds, on August 30th, 1896. The history showed that the attack was quite sudden, but he had had two slight attacks of catarrhal appendicitis within the year. When seen by me thirty-six hours after the onset of the attack, the rapid pulse, the absence of tumour, the sudden onset, the hard, tense abdomen, the presence of fluid in the flanks, the persistent vomiting, and the marked tenderness over McBurney's point, made me suspect perforation with extension of peritonitis, and I decided on immediate operation. The abdomen was opened by an incision 3 inches long over the cæcum. Suppurative peritonitis was found, with entire absence of adhesive peritonitis around the original seat of disease; 30 to 40 ozs. of thin, very offensive pus were evacuated from the iliac fossa and the cavity of the pelvis, the small intestines being bathed with offensive matter. The appendix, very large and gangrenous, was found perforated close to the cæcum, the opening being large enough to admit the tip of the little finger. It was removed where it joined the cæcum, and the stump was invaginated and closed by Lembert sutures. After the pus had been wiped away the abdomen was freely washed out with hot boracic lotion. Two large drainage tubes were inserted, one to the bottom of the pelvis and the other into the right kidney pouch. From the evening of the operation the pulse and temperature became and remained normal, and recovery was satisfactory in every respect.

Suppurative appendicitis may run an acute or a subacute course, but whatever form it assumes, whether with or without perforation, or with or without gangrene, it demands operation, which in my opinion should be advised at the earliest possible moment, that is, as soon as a probable diagnosis is arrived at.

I have never regretted operating, but I know of several calamitous cases where delay at the request of the patient or his family has led to a fatal termination, which might have been avoided had operation been more strongly urged.

One case of this kind in an otherwise healthy youth that I saw with my friend Dr. Lee, of Dewsbury, some years ago, made a very firm impression in my mind. We saw the patient on the third day of the attack, the tumour being well marked. The symptoms having apparently subsided somewhat, delay in operation was sanctioned in conformity with the wishes of the parents; the same night the abscess burst internally, and he died the following day, whereas had we operated I think there can be little doubt that we should have saved him.

In another case in an adult I saw the patient on the fourth day of his illness, and strongly advised operation, which was consented to, but when I went prepared to operate another consultant counselled delay. I never saw the case again, but I heard that a few days afterwards the abscess burst internally, and the patient died rapidly from general peritonitis. I could furnish many similar examples.

Dr. Willie Meyer, in the *Medical Record* of February 29th, 1896, remarked that "an appendix, once inflamed, has to be looked upon as a diseased organ, which is very apt to give

repeated and more serious, even fatal, trouble in the future." He therefore advocates the removal of the appendix in every case after a first attack, and I think this sound advice, though in England our practice is generally less radical.

I suppose we can all point to cases where a patient has had an attack of catarrhal appendicitis ending in complete recovery without recurrence, therefore those who advocate delay have reason on their side; but I do most strongly uphold that if after a first attack we should think it wise to wait, after a second attack operation should be decidedly urged, as repeated seizures will certainly recur, and from being catarrhal may become suppurative, and lead to other complications. I have operated on a considerable number of these cases in the quiescent period, and not only have not had a death but have never had any real anxiety with the cases subsequently.

Peritonitis is not the only danger, as shown by a case I saw about a fortnight after the onset of a third attack of appendicitis, the appendicitis having apparently subsided. Rigors, with tenderness and enlargement of the liver, pointed to pylephlebitis, and although the appendix, which was perforated and surrounded with offensive pus, was then removed, the liver trouble continued, and ended fatally a month later, despite the employment of antistreptococcic serum, exploration, and all other treatment that could be thought of. I had been consulted about the patient after his former attack, and advised the removal of the appendix, which would have saved him the subsequent trouble had the advice been acted upon.

I had, in November, 1898, the curious experience of removing the appendix in three cases, all presenting the same dangers; in all there had been several recurrences, and each was adherent on its outer side to the external, internal, and common iliac veins respectively, and quite free on the inner side, each appendix being strictured and distended with muco-pus, so that there was probably no chance of a safe issue in any of these cases without operation, since if the perforation had occurred externally, embolic pyæmia must have ensued, and, if internally, general peritonitis. Here delay would in all probability have been fatal.

Only a few weeks ago I removed a tuberculous appendix, the disease having already extended to the adjoining part of the cæcum and to the omentum which was adherent over it. There had been numerous attacks of appendicitis within a period of three years, and doubtless the tubercle was of recent origin. The patient has made a good recovery, and from the course of another similar case that I operated on some time ago in all probability he will be cured, but had there been further delay I feel sure the tuberculous process must have extended, and not improbably ended fatally. Within the present month I have operated on two similar cases, in both of which there had been a number of previous attacks.

Not only do these and other dangers result from delay in operating, but the suffering, anxiety, uncertainty, and loss of time assume serious proportions, as in one case on which I operated where there had been nearly fifty attacks of inflammation.

Cholelithiasis.

Cholelithiasis, until comparatively recent times, was looked upon as being a painful and inconvenient malady seldom or never attended by danger, the numerous serious or even fatal complications to which gall stones give rise being apparently ignored. I have operated over 300 times on the biliary tracts, and in many of the cases have had to perform extremely difficult and dangerous operations on patients in the last stages of illness from deep jaundice, infective cholangitis, persisting vomiting, or exhaustion, when, had the cases been operated on at an earlier stage, the operation would have been quite simple and the chances of recovery 99 per cent.; for under ordinary circumstances nothing can be simpler than to operate on a normal-sized or a distended gall bladder, before the gall stones have entered the common duct and before the normal anatomy of the parts has become completely disarranged by adhesions and contractions, but no class of operation presents more difficulty than those in which complications have supervened.

Among the dangers of delay in these cases not the least, though often long delayed, is that of malignant disease. I find that I have operated on 40 cases of malignant disease involving the gall bladder or some part of the biliary apparatus, and I must have seen quite double the number of cases where I did not advise operation; so that if only from its frequency I consider the disease is one that merits consideration from a clinical and not merely pathological point of view. In by far the greater number of cases the disease is a sequence of gall stones.

Zenke found gall-stones present in 85 per cent. of cases of cancer of the gall bladder.

Musser, in an analysis of 100 cases, gives the proportion as 69 per cent.

Courvoisier found gall stones present in 74 out of 84 cases of primary cancer of the gall bladder, Brodowski in 100 per cent., Jale in 23 out of 30, Bertrand in 14 out of 15, and Siegert in 95 per cent. of primary, but only in 15 or 16 per cent. of secondary, carcinoma of the gall bladder.

Mr. Beales stated that out of 100 necropsies at the Cancer Hospital 4 were cases of primary carcinoma of the liver and all had calculi in the gall bladder; 36 had secondary carcinomatous growths in the liver, but there were no gall stones present in any of them. Of 9 cases of primary carcinoma of the liver at Colney Hatch gall stones were present in 7.

These facts, to my mind, support so strongly the theory of gall stone irritation producing primary cancer of the gall bladder and liver that I think it ought to have great weight with us in advising on the surgical treatment of cholelithiasis.

The following opinions express my views with regard to treatment:

1. Seeing that statistics from various countries and by many observers agree in showing the frequent association of gall stones and primary cancer of the gall bladder and liver, it is desirable that cases of cholelithiasis should be submitted to surgical treatment at an earlier stage than has hitherto been the custom.

2. In all cases of tumour of the gall bladder, even if unaccompanied by symptoms, an operation should be advised, and the obstruction, usually a calculus, should be removed.

3. If these rules were followed, primary cancer of the gall bladder and extension to the liver would probably be less frequent.

4. If early operation in cases of tumour of the gall bladder were followed out, even if cancer had commenced, it could be caught in an incipient stage, when a cure by cholecystectomy, or even partial hepatectomy, might be reasonably hoped for.

5. An exploratory operation, even in a patient seriously ill, with a localised tumour in the gall bladder region, is worth advocating, though malignant disease be feared, in the hope that the disease may be inflammatory, and so capable of relief.

6. If there are any secondary nodules in the liver, or if adjoining viscera are invaded, the operation had better be terminated as a simple exploratory one.

When I come to look through the notes of my cases, I find among the complications of gall stones for which I have operated:

Infective and suppurative cholangitis.
Acute cholecystitis with empyema of the gall bladder.
Phlegmonous or gangrenous cholecystitis.
Persistent jaundice leading to blood deterioration, loss of flesh, hæmorrhages, and other troubles.
Dilatation of stomach owing to pyloric adhesion.
Intestinal obstruction from localised peritonitis, volvulus, lymph bands, or obstruction of the lumen of the gut by concretions.
Fistulæ into the stomach or bowels.
Persistent and uncontrollable vomiting.
General peritonitis owing to ulceration and perforation of the gall bladder or bile ducts.
Rupture of a distended gall bladder or bile duct, and other troubles almost too numerous to mention.

I am therefore almost perforce driven to the conclusion that delay in advising operation in cases of cholelithiasis is responsible for the greater number of these troubles which so frequently lead to danger and not infrequently to death. Nor should it be forgotten that death may actually occur from the violence of the pain in an ordinary gall-stone attack, for I know of two such cases, and have heard of others.

I hope the time is not far distant when it will be more fully recognised that though cholelithiasis, so far as its course and early treatment are concerned, is distinctly a condition for medical treatment, it is both unjust to the patient and unfair to the surgeon to continue medical treatment until serious complications supervene, or the patient is almost, if not quite, past relief before surgical treatment is advised.

Perforated Gastric Ulcer.

Here delay is inexcusable, for it is incontestably proved that

the main factor in success is early operation; for instance, in my own experience, my last three cases all recovered from the operation, because I was able to operate within twelve hours of the rupture, and before the stomach contents poured into the peritoneal cavity had become septic, whereas in three previous operations, where there had been a delay of twenty-four to forty-eight hours, not only had the system become poisoned, but the peritoneal cavity was filled with putrefying fluid and general peritonitis was present, and in these operation failed to relieve.

An interesting series of 78 operations for gastric ulcer has been collected by Messrs. Keen and Tinke,[1] which furnishes a good example of the dangers of delay, for since 1896 in cases operated on within twelve hours of rupture there was only a mortality of 16.66 per cent., whereas of those submitted to operation in from twelve to twenty-four hours the mortality was 50 per cent., and within from twenty-four to forty-eight hours 55.58 per cent. But it may be argued that a diagnosis cannot always be made at once; then in a case of doubt it is much better to make a small incision in the middle line, and if a gastric ulcer has perforated, inodorous gas will escape on opening the peritoneum. The opening need not be larger than just sufficient to admit the finger, and the whole exploration need not occupy more than a few minutes, it being done under cocaine if there is an objection on the patient's part to a general anæsthetic, though of course general anæsthesia is to be preferred, so that in case it is necessary to proceed with operation there will be no further delay.

When the profession at large thoroughly grasps the fact that at least five out of six patients with perforated gastric ulcer can be saved by immediate operation, what a number of lives will be saved that are now needlessly sacrificed! I argue that in every case where perforation is in question a surgeon should be called in without delay to consult with the regular medical attendant or the physician in attendance, and he should come prepared to operate at once if there is a perforation, or to explore within the twelve hours if there is doubt.

PERFORATED TYPHOID ULCER.

Almost the same arguments may be applied to perforating typhoid ulcer, for although the rate of mortality after operation will necessarily, from the nature of the cases, be much greater, every life saved by operation is a life gained, since the outlook under medical treatment is extremely unpromising. Moreover, it is to be borne in mind that in this class of cases the perforation will probably be recognised early, for the patient will certainly be under medical supervision at the time, and either in a special institution or in a sick room with nurses in attendance, so that surgical treatment may be applied with very little delay and before the general peritoneal cavity has become invaded by escaping septic material.

Another thing to be remembered is, that as the perforation is usually in the neighbourhood of the cæcum, the seat of the disease can be reached at once by an incision there, and the dangers of a prolonged search and exposure of the abdominal contents are avoided, so that a rapid operation can usually be done if performed early. From the increasing number of successful operations it is becoming more manifest that even the severe general condition of a typhoid patient is not sufficient to warrant us in withholding surgical treatment from these desperate cases, and where the diagnosis of perforation is made, operation is indicated in almost every case.

We must not forget that delay in operating makes the difference between treating a perforating typhoid ulcer, at first a local matter, and operating at a later stage for general septic peritonitis following the perforation.

Again I will refer to statistics to prove the point. That able and philosophical physician, Dr. Osler, said in congratulating Dr. Cushing on his results in the surgical treatment of three cases of perforation in typhoid, "To save one case in three of perforation is much more than we can do on the medical side, for they all die with us except a few cases of appendical perforation." Probably, however, one in three is a greater number than at present has been saved, as Dr. Keen puts down the recoveries as 19.6 per cent., and Dr. Finney as 26.2 per cent., so that if we take the mean of these two figures as expressing the actual results, we may reasonably hope to save from 22 to 23 per cent. of cases of typhoid where intestinal perforation has occurred.

Of the importance of this subject no doubt can be entertained, when the fact is grasped, that according to different authorities in America, England, Germany, and Australia, from 10 to 20 per cent. of the fatalities in enteric fever arise from perforation. I would therefore urge that the physician and surgeon should be more intimately associated in the treatment of typhoid cases, and that, when any abdominal symptoms occur in the course of the fever, especially if there be pain and tenderness in the right iliac region, a surgical consultation should be held, with a view to early treatment; for I believe it is only when this is fully realised that the mortality in these otherwise fatal cases can approach the low percentage now attained in acute perforative appendicitis.

DILATATION OF THE STOMACH AND STRICTURE OF THE PYLORUS.

It would be interesting to know how many invalids from stomach disorders are at the present time dosing themselves with patent medicines and being dosed for chronic dyspepsia, when they are really the victims of simple dilatation of the stomach or of dilatation associated with pyloric contraction, both of which troubles could be cured by operation.

Vomiting some little time after food, with thirst and rapid emaciation, should create the suspicion of, and lead to the examination for, dilated stomach, as shown by stomach splash and other well-known signs; if with this peristalsis from left to right is noticed, the chances are greatly in favour of narrowed or otherwise obstructed pylorus, which may, of course, be dependent on malignant disease, but which in many cases is due to some simple or removable cause.

I have myself published a number of cases of stenosed pylorus where complete cure has been established by pyloroplasty, and have done a further number of equally satisfactory cases which have not yet been reported. Before the Clinical Society of London, I pointed out some years ago how adhesions of the pylorus to the gall bladder or liver create a kink of the outlet from the stomach, thus leading to symptoms simulating stenosis, and I then referred to cases which had been cured by operation. Since that time not only have I added considerably to the number of such cases operated on with success, but the observation has been corroborated and acted on by other operators.

There is a class of cases of ulceration of the pylorus or of the stomach near the pylorus producing a very distressing form of chronic dyspepsia, and very apt to be mistaken for malignant disease. Within the past year I have operated on two of these cases; the first in consultation with Dr. Johnstone, of Ilkley, with whom I hope to publish it in detail.

The patient, a middle-aged lady who had been a complete invalid for many months and ailing for years with so-called chronic dyspepsia and with well-marked dilatation of the stomach, and who had been submitted to the Weir-Mitchell and various other forms of treatment, when operated on was found to have the pylorus firmly adherent to the under surface of the liver, and on separating the two, an ulcer with its base in the liver was found, the aperture in the pylorus being about the size of a sixpence. The passage through the pylorus was contracted so as only to permit the passage of a No. 10 catheter; separation of the adhesions and pyloroplasty completely cured the patient, who rapidly gained weight, and is now well.

In another case in which I was associated with my colleague, Dr. Barrs, a young medical man was worn to the last stage of exhaustion, and had lost flesh until every bone showed prominently through his skin, the prominent physical signs being dilatation of the stomach with a doubtful tumour under the liver. On exposing the stomach, the tumour had every appearance of malignancy, and extended from the pylorus along the lesser curvature of the stomach to the entrance to the œsophagus, so that excision was out of the question and gastro-enterostomy was done, with the result that the patient has gained over 2 stone in weight, is now quite well, and carrying on a large general practice. From the result, it is highly probable that what appeared to be growth was in reality inflammatory exudation around an extensive ulceration in the stomach.

In both of these cases delay nearly led to loss of life, and the operations should have been performed before the patients were so far reduced, especially as the symptoms had been so well marked for some time before; the patients consulted the physicians, who diagnosed the conditions and advised efficient treatment.

I could relate many other cases did time permit, but these will serve to point out the fact that many cases treated for months or years as chronic dyspeptics are really suffering from dilated stomach, and some of them from pyloric obstruction, and that the former condition may be relieved by

gastrorrhaphy, and the latter by pyloroplasty or by gastro-enterostomy.

Intestinal Obstruction.

I hold that every case of intestinal obstruction is a case for consultation, and should be seen at an early stage by a surgeon, not necessarily for operation, but that he may be prepared to interfere as soon as ordinary remedies have failed, and before the system has become poisoned by the fermenting contents of the gut above the seat of obstruction; moreover, in an early stage, the diagnosis of the nature and seat of the obstruction can be more easily made out, and, if the obstruction be a mechanical one, such as an internal hernia, a band or a volvulus, the less delay in operating the better for the patient, for nothing short of operation is likely to afford any relief. How frequently is the surgeon called in to relieve obstruction when the patient is moribund from septicæmia, and when all that he can do is to bring up a loop of bowel and drain it, the result being some slight relief, but in a great number of cases only for a short period. Then, unfortunately, surgery is blamed for the death, whereas the blame should be on the delay in applying surgical treatment. I have seen some of the most simple operations, such as the simple division of a band or the reduction of an internal hernia, to fail, not because of the technique or because of the failure to relieve the obstruction, but because the distended bowel had become paralysed and the mucous membrane necrosed before relief had been sought by the only means possible. This was very well demonstrated by Professor Kocher in a paper he gave before the British Medical Association in Edinburgh, on the Causes of Death in Acute Intestinal Obstruction, in which he showed photographs of the ulcerated and gangrenous mucous membrane in the gut above the seat of obstruction.

The dangers of delay in this class of cases could be illustrated by very many examples, but as we doubtless all know of cases in point I will not take up more of your time, but would simply urge that we should strive to avoid these dangers by an early surgical consultation, and, if needful, operation.

Ovarian Tumours.

I have operated some hundreds of times for large ovarian tumours, and the question has often crossed my mind during the operation, Why should these cases have been allowed to go on so long before being submitted to operation, when by bimanual examination they can be recognised in their infancy and removed with almost absolute certainty of recovery before any complications have supervened? Sometimes, of course, it is owing to the patient having failed to seek advice, but I know that in many cases it is due to that *laissez faire* policy of not interfering until the tumour is producing distress, which frequently means waiting until some complications have supervened demanding early operation, when the dangers of ovariotomy are decidedly increased; in fact, in this case we may put down the dangers of delay as 4 or 5 per cent. as compared with the almost complete absence of danger in early operation, to say nothing of all the discomfort and inconveniences which have to be borne.

To give examples of suppurating cysts, cysts with twisted pedicles, cysts with numerous and firm adhesions, general peritonitis owing to ruptured cysts and other complications, all of which might be avoided by early operation, is unnecessary, and I think everyone will agree that here delay is most undesirable.

Uterine Tumours.

Here we are entering on more debatable ground, but I think it is becoming more generally recognised that myoma uteri is not the harmless growth that it was once considered to be; for though at first it is usually benign, it not infrequently undergoes sarcomatous or carcinomatous degeneration.

It is usually thought that these tumours disappear at the menopause, and that therefore waiting may be counselled; but how often are we disappointed to find that the climacteric brings no amelioration, but that the growth and hæmorrhage persist long after a change has been expected. Moreover, in many of the cases where such amelioration does occur, how often does it come to a patient so worn down by hæmorrhage and pain that she remains a permanent invalid for the rest of her existence.

Apart from myomata breaking down and sloughing, and so giving rise to septic troubles, other complications arise from pressure on nerves, ureters, kidneys, and rectum, leading to complications of various kinds; so that the simple myoma is by no means the harmless disease that it was conveniently considered when its surgical treatment was so unsatisfactory and fraught with so much danger.

The mortality from removal of the appendages, myomectomy or hysterectomy, has been reduced to such a low figure that we may now venture to consider the question as to whether every myoma should not be treated like an ovarian cyst, and operated on at an early stage. My own feeling is, if causing no trouble, we may be content to wait; but as soon as it causes inconvenience or tends to grow, especially if in a young person or if in a woman who has to work for her living, it should be operated on without waiting for all the dangers and inconveniences which we know that delay will entail.

Reference.
1 *Phil. Med. Journ.*, June 14th, 1898.

THE PROGNOSIS AND TREATMENT OF ACUTE INTUSSUSCEPTION.*

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The frequency of intussusception as a cause of acute obstruction of the bowels and death was, until quite recent years, not sufficiently recognised, and in my own student days we were accustomed to look upon the disease as one of extreme rarity. The explanation of this probably lies in the fact that as the trouble is particularly common in young children, and in them is apt to terminate fatally very quickly, its presence was in many cases overlooked.

Leichtenstein's statistics would seem to show that it forms quite 40 per cent. of all the cases of acute intestinal obstruction, and two or three such cases are seen almost every year at most of our large general and children's hospitals.

Diagnosis.

The diagnosis of intussusception is not, as a rule, a matter of any great difficulty unless the main symptoms be masked or otherwise obscure. Fifty per cent. of the cases occur, according to Treves, in children under 10 years of age, and it seems to be slightly commoner among boys than girls. The main symptoms are a sudden onset of abdominal trouble with vomiting, the presence of blood and mucus in the rectum, tenesmus, and the presence of an abdominal tumour.

1. Of all the classical symptoms, the presence of bloody mucus in the rectum or its passage *per anum* is of such frequent occurrence as to be almost pathognomonic of the disease. It is present in more than 80 per cent., and its presence in a young child who has been taken suddenly ill with acute abdominal trouble should make us strongly suspect an intussusception.

2. The onset of the illness is usually sudden, and is often attended with collapse. The pain, as is usual in intestinal obstruction, is generally referred to the umbilicus, and is colicky in character. Actual vomiting is a very variable symptom, and may be absent from first to last. In about a quarter of the cases it is persistent, and becomes fæculent. It is commonest—as one might expect—in intussusceptions occurring in the small intestine. It generally becomes more persistent towards the fatal termination of a case, and is then probably due to the peritonitis which has supervened.

Straining or tenesmus was a marked symptom in three of my cases, but it not so constant a symptom as either vomiting or the passage of blood. It would seem to be most marked in intussusceptions of the large intestine, or when the intussusception, beginning in the small intestine, has reached the rectum.

The presence of a sausage-shaped tumour in addition to the symptoms enumerated above would make the diagnosis almost a matter of certainty. But in 50 per cent. of the cases no such tumour can be made out. The tumour is somewhat elongated, often easily movable, and owing to the fact that intussusceptions most frequently commence at the ileo-cæcal

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valve, it is generally first to be felt on the right side of the abdomen, and then passes across the umbilical region towards the left hypochondrium, as the intussusception passes down the colon.

I do not think quite sufficient stress is generally laid on the suddenness of the onset and the colicky nature of the pain in these cases. These have been marked symptoms in the cases I have seen.

The apex of the intussusception in a certain number of cases may protrude from the anus or be felt *per rectum*. I have not referred to it as a symptom, for though its presence makes the diagnosis certain, it is a sign of ill omen and should never be waited for. In most of the cases in which it is present the intussusception is already irreducible and the great majority of such cases prove fatal.

PROGNOSIS.

In discussing the prognosis of intussusception it must be remembered at the outset that a number of cases have been recorded of undoubted recovery after gangrene and spontaneous separation of the gangrenous bowel without any other treatment than careful dieting. Such an event, however, is one of extreme rarity, and the mortality of cases where nothing more is done than a mere passive expectant treatment is as high as 98.8 per cent. Statistics and mortality tables, compiled from the published records of cases, are frequently apt to give too rosy a view of the results of any particular form of treatment owing to the inclination which naturally exists on the part of all to publish successes rather than failures. But even such statistics show the mortality of the disease under all forms of treatment up to within a few years ago was as high as 70 or even 80 per cent.

I have adopted a different method in attempting to arrive at a true mortality of the various measures employed for the relief of the disease. I have collected from the published hospital statistics of a few London and provincial hospitals during the years 1888-1898 records of all the cases of intussusception admitted into those institutions; and endeavoured from them to draw some conclusions.

I have in this way collected records of 104 cases of intussusception, and though the details in many of the cases have been meagre and lacking in important particulars, yet the numbers are sufficient to justify our arriving at certain conclusions.

I have in this connection to acknowledge my indebtedness to a valuable paper by Mr. McAdam Eccles in *St. Bartholomew's Hospital Reports* for 1897, and to my colleagues at the General Hospital for permission to make use of their cases.

Of the total 104 cases, 38 recovered, whilst 66 died. This gives a mortality of 63.4 per cent. It is, indeed, a high one, and in reality should in all probability be even higher, for several doubtful cases have been included which recovered.

On the other hand it includes a large number of cases in which no active treatment whatever was adopted, or where, inflation having proved unsuccessful, no further operative treatment was deemed advisable. It also includes a number of cases in which the patients were moribund when admitted into hospital, and only the *post-mortem* examination revealed the true cause of death.

The abdomen was opened in 55 cases out of the 104, generally after failure by injection or inflation to reduce the intussusception.

Of these 55 cases, all details are wanting in 8 of them, so they have been excluded. The remaining 47 can conveniently be divided into two groups:

1. Those in which the intussusception was capable of being reduced.
2. Those in which it was irreducible or gangrenous.

Class A.—Reducible: 23 cases—8 deaths, 15 recoveries, giving a mortality of 34.8 per cent.

Class B.—Irreducible or gangrenous: 24 cases—22 deaths, 2 recoveries; mortality 91.7 per cent.

Some valuable statistics have been published by C. L. Gibson, of New York, in the *Medical Record* for July 17th, 1897, based upon the published reports of 239 cases. They are of course open to the objection I before mentioned, that published cases are apt to be records of successes rather than of failures. He gives somewhat similar figures to mine—namely, a mortality of 38 per cent. for the reducible cases and of 82 per cent. for the irreducible cases when submitted to abdominal section.

The causes of death and the ages of the patients in the unsuccessful reducible cases are of interest. The ages of the fatal 8 cases were: 6, 10, 6, 5, 8, 4, 13, 5 months, or an average age of 7 months. The average age of the successful 15 cases was 3 years 10 months. This shows how extremely fatal the disease is in children under 1 year.

The cause of the fatal issue in the reducible cases was usually shock or exhaustion. In the irreducible cases the only two successful ones were two in which excision of the entire intussusception was performed. The deaths were due generally to shock or peritonitis.

I have been unable to find out in a sufficient number of cases the duration of the patient's illness before submitted to operation to justify drawing any trustworthy conclusions. But Gibson, in his table of 149 cases operated upon, shows that the percentage of cases in which the intestine was irreducible varied directly with the number of days of illness.

First day of illness.	Percentage of irreducible cases
Second " "	14
Third " "	38
Fourth " "	57

As the mortality is 34.8 in the one and 91.7 in the other the importance of early operation if it is to be successful is evident.

TREATMENT.

Inflation of the bowel by air or liquid was for many years the only active form of treatment ever adopted, and even now is usually given a trial before abdominal section.

It must be remembered, however, in estimating its efficacy and in comparing it with treatment by abdominal section, that in the worst cases, where the intestine is evidently gangrenous or hopelessly irreducible it, is not usually tried, and that the majority of cases in which it fails to reduce the intussusception are afterwards given the slender chance afforded by abdominal section. To form thus any just idea of its worth we must include amongst the failures of this method all those cases afterwards operated upon whether successfully or not.

Out of the 104 cases in my series 63 were given the chance of inflation. Of these 63 cases it was successful in 15. In the remaining 48 cases the intussusception was unaffected or quickly returned. These numbers give a percentage of 23.9 successes and 76.1 failures.

These figures would show that even among the reducible intussusceptions inflation is not such a successful mode of treatment as abdominal section.

The figures given above show a high mortality for the disease however it be treated; but there is this encouraging fact—the mortality seems to decrease every year. In drawing up these figures in the first few years of the period 1888-98 one came across scarcely a single record of recovery, but in the later years the statistics were much better.

At the General Hospital during the last two years we have had 9 cases admitted, 2 of which were moribund on admission, yet we have had 4 recoveries.

The future success or failure of our treatment of intussusception lies with the physician and general practitioner rather than with the surgeon. Early recognition followed by prompt operation will in the future save the majority of these patients, but the rescue of a late case with gangrenous intestine as yet remains an almost hopeless task.

If treatment is to be of any avail in intussusception when once the diagnosis has been made there should be no delay, no waiting twenty-four hours in hope the symptoms will abate. The patient may be given a small morphine hypodermic to ease his pain and check the peristaltic movements of the intestines, while preparations are at once made for active measures.

Inversion of the patient and massage of the intestines through the abdominal walls are credited as having been the successful means of reducing an intussusception, but few if any surgeons would advocate or even countenance such barbarous methods now. The choice of procedure lies between immediate abdominal section and manual reduction of the telescoped bowel, or an attempt to do this by inflating the lower bowel with air or injecting it with fluid.

The advantages claimed for the method of injection are that a fairly large number of successes have been recorded where it has been tried; that the extra shock inseparable from an abdominal section is avoided, and that in case of failure it is always open to proceed to abdominal section. The distension of the

bowel should be made with liquid, and not air, and the fluid should be forced in by gentle hydrostatic pressure, and not by means of any form of syringe. By using a low pressure (not more than 2 feet of water) and allowing it to slowly enter the rectum, the risk of rupturing the coats of the bowel is reduced.

The great disadvantages, to my mind, of any treatment by large enemata, are:

1. First of all, the immediate risk of over-distension and rupture of the bowel by the distending force. Several surgeons have had the courage and candour to put on record such cases; and at the *post-mortem* examinations of several fatal cases after inflation the bowel has been found lacerated.

2. Secondly, that it is quite impossible through the unbroken abdominal wall to determine positively that an intussusception has been completely reduced. When the symptoms continue after apparent reduction by enemata it is found at the subsequent operation, or at the *post-mortem* examination, that the reduction has not been complete, or, as the advocates of inflation generally put it, that the intussusception has recurred. In point of fact, it is always a case of incomplete reduction. When operating upon recent intussusception it is as a rule quite easy to reduce the major part of the imprisoned bowel. It is the last half-inch or inch which creates the difficulty; and it is precisely this same last half-inch which is apt to remain unreduced by inflation.

3. But lastly, the greatest drawback to inflation is that if symptoms continue in spite of apparent reduction, valuable time has been lost, and the golden opportunity of reduction by any means has gone by.

For these reasons I would limit treatment by inflation to cases of intussusception in young infants of under 6 months, who have only been ill a few hours, and in whom an abdominal tumour is well marked, and would be prepared to at once do laparotomy if the tumour did not entirely disappear.

Abdominal Section.

Abdominal section is the treatment *par excellence* for intussusception, and the success or non-success of this method will depend in the future more upon early diagnosis on the part of the attending physician than upon anything else.

The death-roll of intussusception up to within the last year or two has been a standing opprobrium to our art, and we may as well openly pose as fatalists as stand by with folded hands, as has been the custom too often in the past, and wait for the 1 in 100 chance of spontaneous cure.

Yet in spite of this we are told, in one of the most recent American textbooks, in cases of acute obstruction from intussusception "if these means (inflation, manipulation, etc.) do not prove successful by the third day surgical measures should be resorted to." By the third day 38 per cent. of the intussusceptions will have become irreducible, and their cure a desperate hope.

The operation itself may prove a very simple one, or in a complicated irreducible case may call forth all the surgeon's ingenuity and skill. The incision should be made directly over the tumour if one can be felt, and as in more than 50 per cent. of the cases intussusception starts at the ileo-cæcal valve; an incision in the right linea semilunaris will usually expose it. If possible the tumour should be brought out through the abdominal wound. If this is impossible the fingers of one hand are to be passed along the distended bowel, and trace the intussusception downwards till its lower end is reached. The enclosed bowel is then to be gently forced upwards through the coats of the large colon and gradually reduced, while the other hand exercises gentle traction on the upper end. In reducible cases this is often fairly easy until the last inch or so is reached. This having been strangled longest is most œdematous and swollen, and much care and gentleness is often necessary in reducing this last piece to avoid tearing or otherwise damaging the bowel. The vermiform appendix generally appears when the reduction is nearly complete.

Nothing more should be done in an early case. The abdomen is to be quickly closed, and all means taken to counteract shock in so young a patient. The after-treatment is the same as that after reduction of a strangulated external hernia.

Unfortunately, when time has been lost in trying less effectual measures, or the case has not been seen or recognised until late, the intussusception when exposed will be found to be irreducible, and the imprisoned bowel sometimes gangrenous. The case is then truly a desperate one, and the utmost skill will rarely save the patient. The mode of treatment will depend greatly upon the patient's general condition.

The ideal method is certainly to excise the whole of the intussusception, and to unite the divided upper and lower ends of the intestine by one of the numerous methods of intestinal anastomosis. A Murphy's button, in my opinion, would be the best, as being the most speedy. Unfortunately the patient is but very rarely in a condition to stand so severe an operation.

Successful cases where this has been done have been reported by Banks, Cripps, Pick, Lees, Silcock, and others,[1] but the great majority of such cases have died from shock or peritonitis after the operation.

The other is to make an artificial anus above the intussusception, and later on to perform an intestinal anastomosis, or to leave Nature to separate the gangrenous bowel.

Mention should be made of a method proposed by Rydygier and carried out by him. It consists in suturing the entering piece of intestine to the ensheathing tube at its neck by a continuous suture, and then, opening the ensheathing tube, extracting the intussuscepted piece of bowel and excising it within the sheath. By this means less intestine is excised than in total resection of the intussusception, and the author claims that it is speedier than an ordinary intestinal anastomosis by suture. All these methods are indeed but desperate resources, and attended with a very high mortality, so high indeed, that it is questionable whether in cases where we know beforehand that the bowel must be gangrenous we should submit the patient to the extra shock of an operation, or leave him to the very slender chance of cure by spontaneous separation of the gangrenous bowel.

Case I.—Acute Ileo-cæcal Intussusception: Abdominal Section: Reduction: Death.

History.—J. L., a female infant of 7 months, was admitted into the Children's Hospital on June 10th, 1897, suffering from acute intussusception. The child had been suddenly taken ill with abdominal pain, collapse, and vomiting thirty hours before admission. There had been several slight actions of the bowels, and small quantities of bloody mucus had been passed *per anum*. Vomiting continued up till admission.

Condition on Admission.—The child was somewhat collapsed, eyes sunken, pulse 120, temperature 97°. No tumour could be felt through the abdominal walls. On an examination of the rectum there was a distinct fulness to be felt in Douglas's pouch, and the examining finger on withdrawal was covered with blood-stained mucus.

Operation.—A diagnosis of acute intussusception was made, and abdominal section performed two hours after admission. A long mesial incision was made, and the intussusception felt for with two fingers of one hand. As it could not be found, the small intestines were brought out through the abdominal wound and traced downwards. A large intussusception was, after some difficulty, discovered in the true pelvis. It consisted of the lower part of the small intestine, which had become invaginated into the ascending, transverse, and descending colon, dragging them all into the pelvis. The intussusception was pushed back out of the descending and transverse colon without any trouble, but the reduction of the last few inches near the cæcum gave a good deal of trouble. It was found to have started at the ileo-cæcal valve. After reduction, the walls of the small intestine and cæcum were found much thickened and œdematous, and had much blood extravasated into them. The abdominal wound was then quickly closed, and the child put back to bed.

After-history.—Vomiting ceased entirely after the operation. The bowels were opened several times, and a large quantity of blood passed with the motions. For two days the child seemed to be doing very well. The pulse, however, remained always rapid, varying between 130 and 140. On the night of the third day the child suddenly became very collapsed, and, in spite of free stimulation, sank and died.

Necropsy.—The *post-mortem* examination held the next day revealed little. There was no peritonitis. The abdominal wound was sound. The lowest 6 inches of the ileum and cæcum were very much discoloured, and contained much extravasated blood in their walls. There was some lymph on their peritoneal coats.

Case II.—Acute Ileo-cæcal Intussusception: Abdominal Section: Reduction: Recovery.

History.—J. J., a little boy aged 4, was admitted into the General Hospital on March 28th, 1898, with the history that at 9 A.M. that day he had been suddenly seized with violent abdominal pain. He became very collapsed and vomited almost continuously for an hour. He was then violently purged and passed a considerable quantity of blood *per rectum*. This was repeated at noon and again half an hour afterwards. The vomiting continued up till his admission to hospital at 3.30 P.M., but the collapse passed off. He had always been a delicate boy and suffered much from bronchitis.

Condition on Admission.—The temperature was 97°F. The pulse 112, small and regular. He wore an anxious expression and complained of abdominal pain across the umbilicus. The abdomen was lax, and there was but little tenderness. To the right of the umbilicus a freely moveable tumour could be easily felt. It was tender on pressure and could be

felt to harden when it was pressed. The rectum contained a little blood and mucus.

Operation.—An anæsthetic was given and laparotomy performed seven and a half hours after the onset of the symptoms. The opening was made in the right linea semilunaris, immediately over the tumour. The intussusception, which was five inches long, was brought outside the abdomen. It was reduced without difficulty except its last half inch, the reduction of which required considerable care. The ileo-cæcal valve formed the apex of the intussuscepted bowel. The abdomen was closed in the usual manner, the whole operation lasting only nineteen minutes.

After-history.—The patient's recovery was rapid and complete. For a few days after the operation he had a good deal of bronchitis, aggravated by his getting out of bed within a few hours of the operation. The bowels were opened naturally on the fourth day and he passed a hard fæcal mass which was covered with blood. The stitches were removed on the eighth day, and he was discharged from the hospital early in May wearing a small abdominal belt to support the operation scar.

CASE III.—ACUTE ILEO-CÆCAL INTUSSUSCEPTION: ABDOMINAL SECTION: REDUCTION: RECOVERY.

History.—A.T., a boy, aged 3 years, was admitted into the General Hospital, Birmingham, on March 20th (just twenty-four hours after the previous patient) suffering from abdominal pain and vomiting. At 1 P.M. on the day of admission, shortly after straining at the closet without any action of the bowels, he was seized with violent pain in the right side of the abdomen. He vomited several times during the afternoon, and had repeated attacks of abdominal colic. About an hour before admission he became profoundly collapsed and convulsed; he afterwards again vomited, and the collapse passed off. He had previously been in good health, though the action of the bowels had been somewhat irregular.

Condition on Admission.—The temperature was 100° F., his pulse 96, small and regular. At times he lay apparently quite comfortable, and would allow firm palpation of the abdomen. But at intervals he was seized with attacks of colic, which produced a good deal of collapse. The abdominal walls were blistered and inflamed, the result of hot turpentine fomentations. In the intervals between the attacks of colic a small sausage-shaped mass could be distinctly felt to the right of and below the umbilicus; the mass was not tender, and was freely movable. The rectum was empty. The bowels had been opened once after the beginning of the illness.

Operation.—The diagnosis of intussusception being fairly clear, the patient was at once anæsthetised, and laparotomy performed seven hours after the commencement of his symptoms. A 3½-inch incision was made in the right linea semilunaris, and the tumour exposed. It was brought outside the abdomen with some difficulty. The tension on its mesentery in order to do this produced a good deal of shock, which passed off when it was relieved. The intussusception was an ileo-cæcal one, and measured 3½ inches. The invaginated bowel was easily reduced except for its last inch. This was swollen and œdematous, and after reduction appeared as a raised œdematous ring on the surface of the intestine. The abdominal wound was closed, and the inflamed and vesicated skin around freely dusted with boracic acid powder.

After-history.—Notwithstanding the raw state of the abdomen the wound healed by first intention, and the stitches were all removed on the eighth day. The bowels were opened on the third day after the operation, and a hard blood-stained fæcal mass was passed. They were afterwards kept open regularly by small doses of cascara sagrada. The boy was kept in bed a month to consolidate the operation scar. He was discharged well from the hospital on May 15th, and has remained in good health since.

CASE IV.—ILEO-CÆCAL INTUSSUSCEPTION: ABDOMINAL SECTION: COLOTOMY: RECOVERY.

History.—On September 2nd, 1898, I saw W. M., with Dr. Gifford, of Brierley Hill, to whom I am indebted for the clinical notes of the case. He was a delicate boy, aged 8 years, who had been ill for five days with acute abdominal symptoms. On August 26th, after eating large quantities of fruit two days previously he was seized with diarrhœa and abdominal pain. Some castor oil was given to clear out the bowels, but the pain persisted. On August 30th he vomited twice, but got up, as he felt better. The stools were watery and offensive, but there was no blood or mucus passed. On August 31st the diarrhœa still continued, with rather more pain. An indefinite swelling could be felt in the right iliac fossa, resembling that of an appendicitis. On September 1st the diarrhœa still continued, and the mass in the iliac region extended upwards into the right loin. In the evening he became much worse, passing watery motions every hour or so, while the lumbar swelling rapidly increased in size. The temperature was 99.6°, and the pulse 120. On September 2nd the abdomen was more tumid and tender on pressure. The tumour had reached the right hypochondrium, and the boy's condition appeared desperate.

Abdominal Section.—At 1 P.M. on September 2nd an incision was made in the right linea semilunaris over the tumour. An intussusception starting at the ileo-cæcal valve, and passing up the ascending colon into the transverse colon, was exposed. There was no peritonitis, but the colon was enormously distended by the intussuscepted bowel, its walls being purplish black in colour, extremely thin, and in one place apparently gangrenous. The intussusception was quite irreducible, and it was found quite impossible, owing to its size and fixity, to bring it outside the abdomen to deal with it. The walls of the colon were therefore united to the edges of the incision in the parietal peritoneum in the upper part of the wound, and an area of apparently gangrenous large intestine thus shut off from the abdominal cavity, as in an ordinary colotomy. The rest of the abdominal wound was closed in the usual way.

After-history.—On recovering consciousness he was given a small morphine hypodermic injection and nourishment given entirely *per rectum*. His temperature that night was 98°, and pulse 140. Some flatus was passed from the gangrenous area in the colon. On September 3rd it was noted that no more vomiting had occurred; he was given morphine for his extreme restlessness. He was passing flatus through the wound and *per anum*. The pulse was 160, and the temperature 97.8°. He made a protracted convalescence. There was a good deal of cellulitis from the upper angle of the wound. Pus tracked across the abdomen and round the left side of the body, and an abscess was eventually opened and sloughs removed from it on the left side of the spinal column. During all this time his pulse ranged from 125 to 165, and his temperature was as high as 103.5°. He only vomited once or twice during convalescence. The bowels were opened regularly by enemata. They were liquid, but not offensive, and never contained any sloughs. The abdomen remained much distended for twelve days. The wound granulated up slowly, fæcal matter and flatus frequently passing through it, and a small fistula still persists through which a little black discharge occasionally finds its way. The emaciation during the first few weeks was alarming in spite of the large quantities of fluid food taken. At the end of four weeks he was given solid food, and then began to put on flesh again. He is at present apparently as well and active as ever, save for the slight discharge from the fistula. The bowels act daily without any trouble or discomfort.

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PERITONITIS AS A CAUSE OF INCREASED PERISTALSIS IN THE RECTUM AND IN OTHER PARTS OF THE INTESTINE:*

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WE are all so familiar with paralysis of the bowel in acute peritonitis, that we are apt to think that increased action of the bowel can hardly be due to the same cause acting under different circumstances. I for one did not realise it till the following case brought it home to me.

CASE I.—PELVIC PERITONITIS.

About five years ago Dr. P. A. Young asked me to see with him, late one night, a married woman, aged 37, who showed certain obscure abdominal symptoms, and was in an anxious condition.

History of Attack.—About midday, while sitting in a tramway car, she had been suddenly seized with intense abdominal pain, and had only with the greatest difficulty dragged herself from where the car left her to the rooms in which she was living. Dr. Young saw her about half an hour after she got home, and found her lying on the top of her bed half undressed, faint and collapsed, and with a bedpan under her. Her bowels were being so frequently moved that she thought she had "dysentery." There was nothing in the bedpan, however, except urine and a little mucus from the bowel. She felt cold and shivery, pulse 100, temperature normal. She had vomited several times, and complained of great pain, felt chiefly about the umbilicus, which came on in severe paroxysms, with intervals of about two minutes. The abdomen was tender to touch. Various palliative measures were adopted, and when I saw her the pain was less, and the tenesmus had diminished. She had an anxious look, and was very nervous about herself. Pulse was then about 108, temperature normal. The abdomen on inspection was not distended; respiratory movements impaired. The muscular wall was resistant all over, especially in the left iliac fossa, and there was a good deal of tenderness over the lower part of the abdominal wall. *Per rectum* there seemed to be a little "ballooning," but nothing definitely abnormal. The walls of the vagina seemed unduly hot, but that was all.

Previous History.—She had been married for twenty years, and had two sons aged respectively 18 and 19. Shortly after the birth of the second son she had had a miscarriage, but it did not seem to have left any ill effects, for her menstruation had gone on regularly at three weeks' intervals. It had usually lasted two or three days, and had caused no trouble. She had thought her heart weak on account of shortness of breath on going upstairs, but Dr. Young had been unable to make out anything to account for this. She was on a visit to Edinburgh. A few days before this sudden seizure she had been in bed with a sharp attack of follicular tonsillitis during the progress of a menstrual period. Although recovering from this attack she had not felt well; her tongue had been furred and her liver and stomach had been apparently out of order. On the morning on which she was taken ill her bowels had been moved several times with a powder (rhubarb and grey powder) which Dr. Young had prescribed.

Diagnosis.—We found it very difficult to make up our minds about the case, but thought that fæcal impaction in the sigmoid flexure was as feasible and the most probable diagnosis. There was no reason for thinking that the pelvic organs had been diseased; and the region of the vermiform appendix did not seem involved. On the other hand, colic from fæcal impaction sometimes causes great collapse, and although she said that her bowels had always been regular, and that they had moved loosely on the morning of the seizure, we could not on that account exclude the possible presence of fæcal masses. In the rectum at least they may set up irritation, and cause a loose catarrhal discharge which finds its way past them. There were certainly symptoms pointing to peritonitis, but in the absence of anything to explain its occurrence, and under the belief that colic might simulate such symptoms, we thought it better to treat the case by palliative measures, and watch its further development.

After-history. — During the night the patient sent for Dr. Young on account of a feeling of irritation in the bladder. This was relieved after the use of the catheter, and next morning she did not complain of it. Her general condition in the morning seemed much the same, but her pulse was quicker—that is, 115, and her abdomen was more swollen and tender. Throughout the day she grew weaker, and about 5.30 P.M. took a sudden

* The substance of a paper read before the Medico-Chirurgical Society of Edinburgh, March 1st, 1899.

turn for the worse, became cold and collapsed, and died at 6.30 P.M., about thirty hours after the seizure in the tramcar.

Necropsy.—At the *post-mortem* examination we found the pelvis full of grey grumous fluid, and recent lymph glued together all the coils of intestine there. The ovaries and tubes were healthy, except for the signs of recent inflammation: both tubes, however, contained fluid exactly like that in the pelvis. Mr. Stiles kindly examined for me the fluid from the tubes and that taken from the pelvis, and reported the presence of streptococcus in both. There were no faecal masses in the large intestine.

This was therefore a case of very severe pelvic peritonitis from the streptococcus. The etiology of the disease is very interesting. I do not wish to divert attention from the main purpose of this paper, but in passing let me say that I believe streptococci were carried by the circulation from the throat to the Fallopian tube or tubes; that an accumulation of fermenting fluid formed there, and that its sudden escape into the pelvis was the cause of the attack in the tramcar which so soon ended in death. The marked tenesmus for the first few hours of the illness led us astray, by making us think of the inside rather than of the outside of the bowel as the seat of the lesion.

About a year after this Dr. Young asked me to see another case with him, which, although differing from the last one in some respects, resembles it in others, and has an important bearing on our present subject.

Case II.—Gangrenous Perirectal Abscess.

Condition of Patient when First Seen.—A young married woman, about five months pregnant with her first child, had sent for Dr. Young hurriedly on account of symptoms which at first sight had seemed to be those of impending miscarriage. She was suffering from very severe bearing-down spasms, which he found, however, were affecting the rectum and not the uterus. When I saw her late at night the spasms were still going on at intervals of a few minutes. During the spasm she held her breath, and her whole body was strained as in a uterine contraction; the perineum was forced down, and the mucous membrane of the rectum was violently everted. Nothing, however, came by the bowel except a little mucus. Inspection between the spasms shewed that the perineum remained swollen, especially on the sight side, but the skin over the swelling was not discoloured; on percussion this swelling was distinctly resonant, and it had a soft fluctuating feeling on palpation. When examined from the vagina and rectum, the interior of the pelvis had a soft and boggy feeling.

History of the Attack.—She stated that about a fortnight before I saw her she had been overheated and tired in hurrying to hear a public lecture, and had been chilled while listening to it. Next day she complained of pains in her back and legs, which steadily grew worse, and were aggravated by her going to nurse a friend in a miscarriage a few days later. Afterwards the pain had been felt in the neighbourhood of the anus and down the hips, and, as she had a tendency to piles, Dr. Young had recommended hot fomentations and a sitz bath. She got no relief, however, and micturition became increasingly difficult, until three days before the tenesmus began the catheter had become necessary, and had remained so. On the morning of the day on which I saw her she was straining at stool, as the result of having taken some opening medicine as she thought. Suddenly something seemed to give way about the back passage; the lump appeared in the perineum, and the tenesmus and bearing down began. There had been no vomiting, and except during the spasms there was no abdominal pain.

Diagnosis.—The sudden appearance of the perineal swelling, its marked resonance, and the absence of redness of the skin over it seemed to point to hernia forcing its way through the pelvic floor. The boggy feeling of the interior of the pelvis I thought might also be explained in this way. If a hernia, it was evidently not strangulated, so, as my efforts to reduce it under chloroform were unavailing, she was left over the night with a bandage on the swelling and the pelvis raised. I hoped that gravitation and pressure might do gradually what manipulation had failed to effect.

After-history: Recovery.—By next morning her urgent symptoms had disappeared. During the night a large collection of fœtid fluid and gas had burst through the vagina, and she had felt instant relief. The perineum had to be freely incised, and extensive sloughs were removed. The abscess had completely surrounded the rectum as far as the finger could reach. Dr. Young attended her through a miscarriage which occurred within a week, and by vigilant care and watchfulness prevented any contamination of the uterus from the abscess, which was discharging in the perineum and through the vagina. She is now in excellent health, with the affected parts soundly healed.

This was a case of gangrenous perirectal abscess. The extreme tenesmus must have been due as in the first case to irritation round the outside of the rectum, only it was in the cellular tissue instead of on the surface of the peritoneum.

Having been forced by these two cases to recognise that increased action of the rectum may sometimes be associated with inflammatory conditions outside and not inside the bowel, I was on the look-out for further illustrations of this symptom. The condition of the anus in perirectal cellulitis secondary to acute prostatic inflammation seemed to be one. Not only is there increased frequency of micturition, and straining at stool in such cases, but the anal sphincter seems unable to regain its tone. The anus becomes quite patulous and relaxed and allows the finger to be inserted without resistance. A condition like this has also been observed in advanced cases of senile enlargement of the prostate, but in the light of the cases just narrated the explanation usually offered for that condition does not seem adequate. It is said that the very frequent straining to empty the bladder, during which the anal sphincter is also relaxed, lead to a continuous relaxation of the latter. This may be partly true, but does it not seem also probable that irritation from the wall of the rectum acting reflexly may be another factor in the condition, especially since in many of such cases inflammation in and round the prostate is superadded to the senile enlargement? On the other hand, frequent micturition, due to irritation of the vesical mucous membrane alone is not accompanied with anal relaxation, or if at all, to a much less extent.

These considerations were present in my mind when I was asked to deal with the following case last summer:

Case III.—Pelvic Abscess.

History.—It was that of a student in the students' ward of the Edinburgh Royal Infirmary. Mr. Caird had opened a fœtid appendicular abscess in the right side about ten days before, and being out of town for a day or two had asked me to take charge of the case in his absence. For about ten days after the operation progress had been satisfactory, but for a few days latterly the patient had not been so well. He had been duller, less inclined for food, pulse somewhat more rapid, and temperature inclined to rise. On the morning when I saw him a decided change for the worse had set in. His face was flushed, and his conjunctivæ had a tinge of yellow; he was very drowsy and stupid. His temperature and pulse, if I remember rightly, were about 100. His abdomen was distended and tympanitic, but not tender. The nurse casually mentioned that he had had some diarrhœa, gradually increasing for the last day or two, and that he did not seem able to control the evacuations. She thought it due to increasing weakness.

Diagnosis.—On examination I found the anus patulous and a boggy feeling in the pouch of Douglas, which on bimanual examination amounted to indistinct fluctuation. Here, then, the symptoms seemed those of septic poisoning rather than of peritonitis; and the diarrhœa, patulous anus, and result of anal examination made it highly probable that an accumulation of fœtid pus had occurred in the pelvis. Possibly an examination without the rectal symptoms ought to have been sufficient. They might, however, have been interpreted differently, and it was a great comfort to feel in urging an immediate operation that they strengthened the view one took instead of weakening it.

Operation.—He was put under chloroform without delay. I worked down in the middle line just above the bladder, and after separating coils of adherent intestine, I had the pleasure of reaching in the pelvis a small collection of most offensive pus. After this the patient made an uninterrupted recovery.

On referring to some of our textbooks I find sufficient notice of such symptoms to confirm these observations, but a sufficient absence also of notice to justify this attempt to bring them more prominently into notice. Thus as regards pelvic perirectal abscess, there is no allusion to tenesmus as a symptom in Allingham's, Ball's, Cripps's, or Matthew and Smith's works on the rectum. In some of the older books, however, there is. Thus Percival Pott[1] alludes clearly to the straining and tenesmus which accompany such abscesses, and so does Ashton.[2]

In the account of pelvic peritonitis, moreover, no mention is made of accompanying rectal symptoms in Zweifel's *Cyclopædia*, nor in Hart and Barbour's *Manual*. In Pozzi's work on *Gynæcology* (translated by Wells, 1892), however, there is a passing reference to this symptom, but it is mentioned along with others, and no especial importance is attached to it.

But if peripheral irritation is able to excite the action of the rectum and simulate diarrhœa or dysentery, we may naturally ask if a similar phenomenon may not be found in connection with other parts of the intestine. On examination we find that it is so. In the first place it has been definitely proved by experiment. In 1896 A. S. Grünbaum read a paper at the meeting of the British Association on the effect of peritonitis on peristalsis. Only extracts of the paper have been as yet published,[3] but Dr. Grünbaum writes in answer to my inquiry that "The gist of the whole point investigated can be put in a few words. In rabbits the introduction of irritants, whether chemical like turpentine, or bacterial like cultures of bacillus coli communis, cause increased peristalsis for about twenty-four hours. All portions were not equally affected, but the rectum was very decidedly. The inquiry was undertaken at Professor Nothnagel's request at Vienna." In the abstract which appeared in the British Medical Journal it was said that:

> In the first twenty-four hours the peristalsis of both large and small intestine was increased; it then gradually diminished in about four days. The large intestine became paralysed before the small.

Apropos of this inquiry Professor Nothnagel[4] says:

> We have just been speaking of paralysis of the bowel in acute diffuse peritonitis. It would be a mistake to describe that as a necessary sym-

ptom. The relations of peristalsis are rather the following. Numerous clinical observations show that in acute diffuse peritonitis normal evacuation, that is, a normal degree of peristalsis, is found in individual cases. In puerperal peritonitis peristalsis may be even increased. To this one might fairly reply that the cause of diarrhœa was not the anatomical process of inflammation as such, but other causes acting indirectly. However, clinical observation and the results of experiments upon animals which Grünbaum undertook at my suggestion, teach us that in other forms of peritonitis also a distinct increase of peristalsis may be present at the beginning. Hence paralysis of the bowel can in no way be described as an invariable symptom of acute diffuse peritonitis.

Such clinical observations as Professor Nothnagel refers to may be found in Treves's well-known lectures on peritonitis.[7] He says:

In 100 cases of peritonitis from the London Hospital the bowels were classed as "loose" in 28 instances. In some of these 28 cases there was actual diarrhœa, in other the bowels acted with frequency and without artificial aid; while in a third series of cases a free action was maintained by enemata or by aperients. In two cases of peritonitis in which diarrhœa was met with it was noteworthy that the peritonitis did not appear until after the diarrhœa had set in, a circumstance which suggests the action of the colon bacillus.

By this he seems to indicate that the diarrhœa might have led to the diffusion of the colon bacillus, and thus might have caused the peritonitis, but Grünbaum's experiments make it quite possible to suppose that the peritonitis caused the diarrhœa.

But there seems to be still another way in which experiment and clinical observation mutually throw light on one another. In the Bradshaw Lecture for 1892 upon the Signs of Acute Peritoneal Disease, Dr. Gee makes the very interesting suggestion that the pain of early acute peritonitis is really due in great measure to colic. Thus, after having pointed out how difficult it sometimes is to distinguish colic from peritonitis, he continues:

But it may be that in contrasting thus the pain of peritonitis with the pain of colic, we are seeking for a distinction where there is no real difference. Indeed, it is highly probable that the earlier physicians were often right, and that much of the spontaneous and paroxysmal pain of peritonitis is due to colic, that is to say, to vermicular contractions of the intestines much more powerful than usual. Surgeons tell us that when they open the abdomen in order to remove an ovary, the intestines are seen to be at first in very active movement; and that these movements may be painful is proved by what we sometimes observe in intestinal tympanites, when the peristaltic contractions of the bowels can be seen through the abdominal walls, each contraction being attended by an unnatural sensation or by actual pain.

From some remarks in other parts of this lecture, it would appear that Dr. Gee did not consider that peritonitis might cause an increase of ordinary peristalsis. Had he done so, however, it would only have increased the probability that his suggestion as to colic was correct.

We are now, I think, justified in believing that as the result of irritation round the intestine (produced most frequently by peritonitis), the following symptoms may be produced, that is, increased peristalsis amounting sometimes to severe spasm in the small and greater portion of the large intestine, and relaxation of the sphincter, frequent evacuations, and, in severe cases, intense straining and tenesmus, when the walls of the rectum are involved.

It is not, however, necessary to suppose that such symptoms will be prominent or even recognisable in every case of peritonitis or of perirectal irritation. If we take into account the following considerations this will not be difficult to understand. The peristalsis of the small intestine may be so irregular or so transient that it may not show itself as diarrhœa. Grünbaum found that the large intestine became paralysed before the small; hence the effect of the increased peristalsis might only be to fill the large intestine with an accumulation of fæces and gas. Again, in relation to the rectum it might be that certain forms of organism which often produce pelvic abscesses such as the gonococcus do not cause an irritation which is sufficiently intense to give rise to the symptoms in question. Or, again, it may be necessary that a certain area of the rectal wall should be affected in order that a perceptible result should be produced, and pre-existing adhesions may prevent this.

But, on the other hand, it seems not unreasonable to extend our view of the possibilities of reflex effects upon the intestine. If the afferent nerves of the intestine (whether of the mucous or peritoneal surfaces) can reflexly stimulate the intestinal muscular coat, why not afferent nerves belonging to the same splanchnic system but coming from other viscera in the abdomen, pelvis, or even thorax? This would explain the presence of colic from renal or biliary calculus, or from a severe onset of pneumonia, as in such cases as Mr. Symonds has recently referred to.[6] Already we know that the walls of the stomach are reflexly affected by such irritation, for vomiting is a common symptom in such cases.

Although we have confined our attention to reflex excitement of the intestinal muscular coat from irritation, we must not forget the possibility of a reflex paralysis coming on at a later stage, and thus increasing the paralysis due to involvement of the muscular coat itself.

In conclusion we may briefly consider some of the advantages to be derived from the knowledge gained from this study of a few symptoms:

1. Such cases as the first two which I have just described will be clearly understood, and therefore promptly and efficiently treated when they present themselves.

2. The possibility that increased action of other parts of the intestine may be due to a cause outside and not inside the walls of the bowel may often help us to account for otherwise obscure symptoms in ways perhaps that we cannot as yet realise.

3. The probability that colic may in like manner be caused by irritation outside as well as inside the bowel may be most valuable in helping us to form a diagnosis in a difficult case. Hitherto most of us have only recognised that many of the symptoms of peritonitis and of colic (intestinal, renal, or biliary) are often very much alike. Now we may be prepared to believe that some of them are identical. This, instead of discouraging us, should have the opposite effect. We shall know what symptoms to accept as possibly common to several causes, and we shall not put too much stress upon them. This will make us seek more eagerly for points in differential diagnosis. Thus perhaps symptoms which otherwise might have been missed or passed over as unimportant will be found lying ready to our hand as invaluable guides when we understand how to look for and use them.

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TWO CASES OF OPERATION FOR PERFORATING GASTRIC ULCER.

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THE first case of perforating gastric ulcer I saw in 1896, in consultation with Dr. Bennett, who, having made the diagnosis, telegraphed me to bring instruments.

CASE I.

Previous History.—The patient was a girl of 19, well developed, and exhibiting no obvious signs of anæmia. She was a shop-girl, and had been accustomed to long hours and hurried meals. When 9 years old she had been treated for a tuberculous elbow, and later for a tuberculous dactylitis. For the last seven years she had enjoyed the best of health. Until a fortnight previously to her present illness, apart from a very occasional dyspepsia generally due to some dietetic indiscretion, she had exhibited no signs of ulcer. She admitted being treated for palpitation two years before, and that she had been ordered to take iron pills.

History of Attack.—A fortnight before I saw her she had returned from her summer holiday, and after an attack of sea sickness had complained of pain after every meal. From its severity, the case with which it could be localised, and the tenderness on pressure, the doctor diagnosed a gastric ulcer, and gave full instructions as to diet. A few days later the urgent symptoms arose, and Dr. Bennett hurriedly attended. He found the girl in very great pain, extremely tender over the abdomen, with rapid pulse and drawn face.

Operation.—I was sent for, and in less than 3 hours after the onset of acute symptoms the operation was begun. A median incision was employed, and the stomach explored, when a small opening was found about large enough to admit a crow quill. Through this some food had travelled, consisting of partially digested milk. There were no adhesions, and barely any signs of even local peritonitis; a little lymph surrounded the orifice, which could be removed with the finger. The edges of the ulcer were not indurated. There had been some escape of gas into the abdomen. The ulcer was situated on the anterior surface of the stomach, a little below the lesser curvature and quite at the pyloric end. There was nothing, therefore, to prevent a rapid inversion of the ulcer, and having roughened the parts around, a row of Lembert sutures completed the occlusion. The abdomen was irrigated, and the wound was closed without drainage.

After-history.—The patient vomited twice during the night, and complained of great pain over the abdomen, and the temperature the following day was 101° and the pulse 115. Two days after the operation there was no pain, the tongue was moist, the pulse 96, the temperature normal, and the patient evinced but little desire for food or water. On the third day she was fed on small quantities of peptonised milk, which gave her no incon-

venience. In three weeks after the operation she was sitting up, and in seven weeks, having taken fourteen days' holiday, she resumed her work. Nearly three years have passed since the operation, and I have every reason to believe she is still well.

The operation lasted less than twenty minutes, and every circumstance favoured her recovery.

The small size of the perforation, the absence of induration, the condition of surrounding peritoneum, the site of the ulcer, the small quantity and character of the escaped contents, and the fact that only three hours had elapsed since the rupture, all rendered the prognosis good and the operation easy. From a study of the girl's history, and the appearance of the ulcer, the possibility of a tuberculous origin is worthy of note.

The second case was sent to me at the Royal Southern Hospital on November 12th, 1898, by Dr. Humphreys, who had diagnosed a perforation:

Case II.

History of Attack.—The patient was a woman, aged 21. Thirteen hours previous to admission she was seized with sudden violent abdominal pain and vomiting. I was in the hospital when she was admitted at 3 o'clock. She looked very distressed, complained of great thirst, and suffered intense abdominal pain. The pulse was 120, very weak, but not running in character. Her extremities were cold, and the abdominal muscles very rigid. A rub could be heard accompanying respiratory movements over left lower ribs in front.

Operation.—We decided to operate at once, and I wish to acknowledge the valued help of my colleague, Dr. Alexander. On opening the abdominal cavity the surfaces of the colon and stomach were seen to be coated with lymph, and to have become adherent to the lower surface of the liver. Adhesions had also formed between the stomach and the abdominal wall. These adhesions were carefully separated, revealing behind a cavity from which oozed brown fluid containing partially digested food. The opening from which this came was found high up beneath the liver on the anterior surface nearer the cardiac than the pyloric end. There was considerable difficulty experienced in bring the ulcer sufficiently to the surface to enable us to stitch. The perforation would about admit a small finger. It was indurated and surrounded by lymph, which was firm and adherent, and was carefully removed by a Volkmann spoon. We then proceeded to introduce sutures, but found they immediately tore through. A silk suture was therefore passed as near the interior of the stomach, as we felt to be safe, and made to surround the gastric opening. This was tightened in purse-string fashion and leakage prevented. The wall of the stomach was further brought over it and fixed by a row of Lembert sutures, while this was further fortified by sewing omentum over the region of the ulcer. The operation area was carefully irrigated with saline solution, and a gauze drain inserted. The patient seemed to bear the operation without material increase of shock, and saline injections *per rectum* were given for the dual purpose of restoring vitality and allaying thirst.

After-history.—On the next and succeeding days she was starved with the exception of a drachm of water every hour and enemata of brandy, peptonised meat and milk. On admission her temperature was 100°, and for the first four days it did not rise. Towards the end of the fifth day it fluctuated, its highest point being 101°. From this time to the fourteenth day it often reached 102°, but the patient in all other respects, save a rapid pulse, seemed fairly well. On the eighth day the drain, which had become adherent, was removed. My house-surgeon, Dr. Owen, to whom I am indebted, noted on the fourteenth day: "Patient, after the operation, progressed favourably up to last night, although throughout the fourteen days the breathing was a little rapid. She was, however, able to take bread, and a fair amount of beef-tea, milk, etc., and had not vomited since operation, and the temperature for the last week had reached 102° in the evening." She had no rigors.

Second Operation.—At 3 A.M., fourteen days after operation, she suddenly developed a ticklish cough, and soon expectorated a quantity of foul-smelling pus. Her breathing became rapid, and at 6 A.M. she looked cyanosed. I was away from home, but Dr. Alexander was fortunately at hand, and at 10 A.M. the patient was anæsthetised and the old sinus explored. There was no collection of pus found. An exploring needle was put into the thorax but only clear fluid withdrawn. The needle was next passed into the left hypochondrium and pus withdrawn; this was followed by a free incision giving exit to a quantity of fœtid pus. The cavity was well washed out. The patient was throughout the proceedings very collapsed, and various restoratives were prescribed, including strychnine, digitalin, saline solution in axilla, brandy enemata, and sinapism to præcordium. At noon she had sufficiently rallied to inspire hope. In the evening she died.

Necropsy—A *post-mortem* examination was made by Dr. Owen and Dr. Humphreys. They report that the sinus which was left at the top of the original laparotomy wound did not lead to any collection of pus. The upper surface of the liver was adherent to the lower surface of the diaphragm by very firm adhesions. The repair of the stomach performed ten days before was seen to be healed and the occlusion complete. The abscess cavity which was opened the day of patient's death was seen to lead towards the posterior part of the under surface of the diaphragm. On separating the left lung from the diaphragm to which it was firmly fixed, a small hole was discovered entering lung tissue and perforating diaphragm and discharging foul smelling pus. A probe passed through this perforation entered the abscess cavity explored the previous day by my colleague. On slitting up the walls of this cavity it was seen to be bounded by the under surface of the diaphragm above, and externally by the colon stomach and thickened neighbouring tissues below; its posterior part was the opening communicating with the left lung. The spleen was contained in the centre of this abscess cavity. On opening the chest some clear serum and lymph were found in the left pleural cavity and several pleuritic adhesions were apparent. On distending the stomach no fluid escaped. The wound in the viscus had quite healed, but four of the silk sutures were *in situ*, the others had disappeared. On the mucous surface a small depression showed where the ulcer had existed. There was no ulcer on the posterior surface.

A greater contrast between two cases could hardly be found. The first was as simple as the second was complex. The fact that operation was not performed for over fourteen hours after perforation was itself sufficient to decide the issue. The adhesions and the involvement of the cardiac end, fixed as it is, rendered suturing a matter of considerable difficulty.

It is interesting to note that over 95 per cent. of cases unoperated upon die. Life is rarely prolonged over twenty-four hours. Ulcers are more frequent on the posterior than the anterior surface of the stomach, but perforations are much more frequent on the anterior aspect. This is probably due to the greater facility with which buttressing adhesions form behind. In 31 cases operated upon, collected by Barling, 22 were on the anterior surface, 5 on the posterior; subsequent cases confirm this proportion.

What was the cause of this perisplenic and subphrenic abscess not connected with the wound area? Had we found an ulcer on the posterior aspect it would have explained much; but it is noteworthy that cases are recorded where retrogastric and perisplenic abscess have caused death where perforation has occurred on the anterior surface alone. This may be accounted for in one of two ways: either by a direct trickling of septic material through the foramen of Winslow into the lesser peritoneal cavity or by lymphatic absorption. In an ulcer on the anterior surface the gastric contents have but to travel round the right free border of the lesser omentum, and both the greater and lesser peritoneal cavities are soiled; and if the foramen of Winslow be closed by adhesions the invasion of an abscess from the lesser cavity will be obstructed.

This raises a final question suggested recently by Willoughby Furner, of Brighton: Would it not be wise in all cases both to examine the posterior surface of the stomach and to irrigate the lesser peritoneal cavity, which can easily be effected through the layers of the great omentum or of the transverse meso-colon? The mere irrigation of the greater cavity may be the very means of infecting by septic particles the lesser one, and a survey of reported cases convinces me that where practicable this should be done. By such a precautionary measure the fatality attending operations for gastric perforations would, I venture to predict, be considerably lessened.

EXOSTOSIS OF THE VERTEBRAL BORDER OF THE SCAPULA: REMOVAL

By H. BETHAM ROBINSON, M.S.Lond., F.R.C.S.,
Assistant-Surgeon and Surgeon for Diseases of the Throat, St. Thomas's Hospital; Assistant-Surgeon to the East London Hospital for Children, Shadwell.

Exostoses of the scapula requiring removal are certainly unusual, but in the following case the size of the tumour and the deformity produced rendered such a proceeding desirable.

L. F., a little girl nearly 9 years old, was sent up to me by Dr. Wallace of Earl's Court and admitted into St. Thomas's Hospital for operation on June 23rd, 1898.

The history given was that she had had the swelling nearly all her life, but recently it had not seemed to grow. There was no complaint of pain or of any inconvenience. The parents thought that it might have been due to lifting the child by the arms.

On examination, the right scapula appeared "winged," its inferior angle being raised off the chest wall and displaced upwards and outwards. This proved to be due to a hard nodular tumour springing from the vertebral border of the scapula just above the inferior angle, and having a base of attachment about two inches across. In spite of this mechanical displacement, the muscular movements of the bone were normal. The tumour had caused retardation in the development of the bone so that the vertical distance from the spine to the inferior angle was one inch less on the right side.

On June 28th the tumour was removed. An incision was made over the tumour in the axis of the vertebral border, and this was converted into a T shape by a horizontal cut on its inner side. The thinned lower border of the trapezius was

exposed, and as it could not be drawn out of the way its lower border was notched vertically. The rhomboideus major, which was now exposed, was split in the line of its fibres, and the tumour became evident covered over by a thin layer of fibres belonging to the serratus magnus. The fibres were separated not cut, and the bossy growth became fully displayed. Its base was sawn across with a keyhole saw and removed, and as its covering cap of cartilage was continued all round on to the vertebral border, the site of attachment was gouged away to prevent any chance of fresh growth. The tumour was a typical cancellous exostosis, with a very marked cartilaginous cap growing from the epiphysial line between the scapula and its vertebral border, and was about the size of a tangerine orange. After sponging out the wound with lot. hydrarg. perchlor. 1 in 1,000, the edges of the rhomboideus major were allowed to fall back into position, and stitched together by three sutures of fine silk. The edges of the cut part of the trapezius were also stitched with fine silk, and a split drainage tube was placed just beneath its lower border. The skin edges were brought together with horsehair, and the wound dressed with cyanide gauze.

On June 30th the wound was dressed to remove the split drain, and on July 4th it was again dressed and found to be healed. All stitches were removed. The temperature was an ideal aseptic one. She left the hospital on July 9th.

About the end of September she came to see me, and then the scapula was in close apposition with the chest wall and all muscular movements perfect.

The treatment of the case and the subsequent progress require no comment to be made. A point to note is the marked interference to the normal development of the bone from the growth of the exostosis, a feature found frequently when these tumours spring from the epiphyses of the long bones.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

SECOND ATTACKS OF SYPHILIS.

In April, 1885, I was consulted by a young gentleman who was suffering from a typical Hunterian chancre upon the corona. It had made its appearance as a pustule a few days after connection, and, after enlarging slowly for about three weeks, had suddenly become indurated. This was followed by glandular enlargement, roseola (which recurred three times at intervals of a few weeks, each attack being milder than the preceding one), sore throat, etc. He was treated with the green iodide of mercury, given in gradually increasing doses until diarrhœa set in, when it was stopped for a few days. All the symptoms disappeared in the course of six months, but the treatment was kept up as a precaution for some time longer.

In October, 1887, two years and six months after the first infection, the patient came to me again with another chancre, situated also on the corona, about half an inch from the scar of the previous one, which was plainly visible. The incubation period was approximately the same. The glandular enlargement, which had quite disappeared, returned again. A papular syphilide followed. There was a characteristic sore throat, and, in short, there were all the ordinary symptoms of a mild attack of syphilis, absolutely uninfluenced to all appearance by the previous one. On this occasion the patient was treated with small doses of blue pill, as he had complained a good deal of the diarrhœa caused by the green iodide. The anæmia was more pronounced, and lasted for a good deal longer than on the previous occasion, and for quite three years he was troubled with reminders—slight attacks of palmar psoriasis, papules on the face, etc., which, however, yielded readily to local treatment. Since then he has been, I believe, quite free. On the whole, the second attack was a little more severe and persistent than the first.

I am under the impression that second attacks of syphilis are much more common than is usually believed. I have the notes of four other patients, three of whom are quite clear that they have had it once before, and one is certain that he has had it twice; and from the accurate knowledge they possess of the symptoms and course of the complaint, I think it is quite possible that they are correct. The above case I can vouch for, as I attended the patient throughout in both attacks. It is of especial interest from the fact that the time that elapsed between the two attacks—two years and a-half—is almost the shortest on record.

One other point is worthy of note. It is said by some that syphilis is incurable—once syphilitic always syphilitic. It is difficult to understand, if this were the case, how a patient who was already suffering from the complaint could become infected by it.

C. Mansell Moullin,
Wimpole Street, W. Surgeon to the London Hospital.

THE SLEEPING SICKNESS.

I was much interested in the letter of my colleague, Dr. Ferguson, on the sleeping sickness, which appeared in the British Medical Journal of February 4th, 1899. I cannot, however, say that my experience in British Guiana in any way agrees with that of Dr. Ferguson on this matter.

I have never met with a case of sleeping sickness, although latterly I have been very much on the look-out for it. The only approach to it that has come to my knowledge was the case of a coloured Creole woman resident some distance up the Demerara River, who was brought to me with the distinct complaint of being always drowsy and sleeping excessively during the daytime. She was a fine, well-developed woman, and showed no other signs of any disease. Possibly this may have been a case of sleeping sickness in an early stage.

Dr. Ferguson's assurance that "the disease is also sometimes found in the aboriginal Indians of this colony" would be of the highest interest were it not marred by the thought that in all probability he is referring to advanced cases of ankylostomiasis, and not to sleeping sickness. Recently it has been shown by Dr. Daniels and myself, in the *British Guiana Medical Annual*, 1897, that quite 60 per cent. of our aboriginal Indians are the hosts of a blood parasite very similar to, if not identical with, the filaria perstans. We know the extremely suggestive way in which Dr. Manson has shown that the filaria perstans and the sleeping sickness occur in exactly the same endemic areas. If, therefore, Dr. Ferguson is right in his statement that the disease is found in the aboriginal Indians of this colony, we have another very strong link in the chain of evidence connecting the sleeping sickness with the filaria perstans.

Cases of advanced ankylostomiasis undoubtedly may show many of the symptoms of sleeping sickness, but due entirely to the extreme anæmia of the brain produced in ankylostomiasis. Moreover, in a case of advanced ankylostomiasis—and it would only be in such a case that symptoms similar to those of sleeping sickness would occur—one would hardly expect to find blood-counts, such as those given by Dr. Manson in his description of the two cases of sleeping sickness—namely, 5,300,000 per c.mm., hæmoglobin 60 per cent., and 4,500,000 per c.mm., hæmoglobin 50 per cent. There is no special mention of anæmia in either of the cases, nor is that given as a symptom in any of the descriptions of sleeping sickness in textbooks on tropical diseases.

A. T. Ozzard,
Government Medical Officer, British Guiana Medical Service.

INFLUENZA AND OTITIS MEDIA.

I have had under my care during the present epidemic an unusually large number of cases of suppuration of the middle ear following an influenzal attack. In some of these seen in the earlier stages the results, under appropriate treatment, have been good, the hearing power being little if at all affected. In others, however, seen later the effect has been most disastrous not only to the hearing power, but also to the condition of the middle ear, the suppuration having been most profuse, with necrosis and shedding of the ossicles, and in two cases the mastoid region was affected and had to be operated upon. My object, therefore, in writing these few lines is to impress strongly upon those in charge of the cases from the commencement the absolute necessity of paying the

greatest attention to the very first symptom of ear trouble, more especially in the very acute cases. The inflammation is, as a rule, very violent, and rapidly runs into a suppurative condition. I would therefore urge that on the very first symptom of pain in the ear, hot lead fomentations and mastoid counter-irritation be employed. The drumhead should be most carefully watched, and on the first sign of serous effusion in the middle ear paracentesis should be performed without a moment's hesitation. If energetic measures are thus used in the initial stages, the chances are that there will be no suppuration.

Devonshire Street, W. W. R. H. Stewart,
Aural Surgeon Great Northern Central Hospital;
Consulting Surgeon London Throat Hospital.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MONKWEARMOUTH AND SOUTHWICK HOSPITAL, SUNDERLAND.

CASE OF RUPTURE OF UTERUS TREATED BY ABDOMINAL SECTION; RECOVERY.

(Under the care of Arthur Holdsworth Davis, M.B.Lond., M.R.C.S., L.R.C.P., Honorary Surgeon to the Hospital.)

Mrs. C., aged 43 years, multipara, was admitted on January 2nd, at 3 A.M., with the following history: Labour began early in the morning, January 1st. Pains continued all day until 5 P.M., when the membranes ruptured and pains ceased until 8 P.M. after which they became continuous until her delivery. She was first seen by me at 11 P.M. on January 1st. She seemed much distressed, and complained of incessant abdominal pain.

On vaginal examination the cervix was found to be about half-dilated, the vertex presenting with the occiput pointing to the right sacro-iliac synchondrosis. The head was freely movable above the brim of the pelvis, which was apparently normal. There was no hæmorrhage, and there was no obvious mechanical impediment to the advance of the head. The liquor amnii had all escaped.

The condition of the patient was one of great distress, and for this reason interference seemed indicated. I administered chloroform, and applied Milne Murray's axis-traction forceps. The forceps slipped on gentle traction, and were abandoned in favour of version. Podalic version was performed with very great difficulty, the uterus being firmly contracted on the fœtus. The after-coming head was easily delivered with forceps, and a dead fœtus weighing 12½ lbs. was extracted.

There was a little hæmorrhage but certainly no serious amount. The placenta, lying partly in the uterus and partly in the vagina, was removed manually with ease. It was at this moment that I became aware of something being wrong, as I experienced the sensation of preternatural mobility of the uterus, and a feeling of far too much "room" in the vagina. The patient was still under the influence of the anæsthetic. External hæmorrhage had ceased after removal of the placenta. The hand was again introduced, and two fingers passed through a rent anteriorly in the roof of the vagina and lower portion of the uterus. A loop of gut was felt between the fingers. I admitted the case at once into hospital, and operated at 3.30 A.M., January 2nd, two hours and a half after delivery.

The abdomen when opened was found to contain a quantity of blood. The uterus, which was fairly contracted, was lifted out and the rent easily seen. It was about 3 inches long, beginning in the roof of the vagina anteriorly, and extending obliquely upwards from left to right through the wall of the uterus. The peritoneum was torn for some inches more than the uterine muscle, and gaped widely. The muscle wall was closed by interrupted catgut sutures, the peritoneum by continuous catgut. The abdomen was then irrigated with many pints of saline solution, all clots removed, the various cavities carefully sponged, and the incision in the parietes closed in layers. At the end of the operation pulse was 140, but the patient was warm and breathing well. She made an uninterrupted recovery.

Remarks.—I do not know why the head did not advance naturally, except that the occiput pointed to the rear and the fœtus was huge. The rupture, I presume, occurred during version, which was exceedingly difficult.

I publish this case not as a surgical triumph, but as being of interest to general practitioners like myself.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Friday, April 14th, 1899.

WOUND OF A LARGE SUPERFICIAL INGUINAL ARTERY IN WHICH THE BLOOD WAS FLOWING FROM THE TRUNK TO THE THIGH.

Mr. W. G. Spencer described an exceptional case in which, whilst laying open a tuberculous sinus in the groin, an artery the size of the brachial was wounded. The bleeding was at once controlled; no complication occurred during the healing of the sinus, nor was the circulation in the limb disturbed. The point at which the artery was wounded was just in front of Poupart's ligament, where the skin and subcutaneous tissue were much infiltrated by tuberculous disease. When the two ends had been tied and the artery divided between, the upper end retracted and pulsated strongly; it was then situated immediately beneath the skin, 1 inch above and a little internal to the middle of Poupart's ligament, and resembled the brachial artery in an amputation stump. The lower end neither retracted nor pulsated. No accompanying vein was seen. The common femoral could be felt behind. On the opposite side an artery could be felt crossing Poupart's ligament close beneath the skin, distinct from the common femoral artery. Professor Thane had not been able to throw any light upon this exceptional vessel. The artery was clearly given off somewhere from one of the iliac arteries, and, after reaching the abdominal wall, crossed in front of Poupart's ligament, to be distributed to the inner side of the thigh. The only likely explanation was that it was a superficial obturator artery. To this there was the obvious objection that the obturator artery was essentially a deep one, and that its aberrations had been closely studied in connection with femoral hernia. The provisional name, "superficial inguinal," was, therefore, employed in the absence of any information as to the origin of the vessel.

Mr. Clement Lucas suggested that the vessel might have been an aberrant branch of the deep epigastric artery. He had seen branches of considerable size perforating the superficial muscles over that artery.

The President also thought that the vessel might have sprung from the deep epigastric artery, and asked from what direction it appeared to come.

Mr. Spencer said that on the side operated on the tissues were so much thickened that nothing could be made out as to the course of the vessel. On the healthy side a small artery could be made out distinct from the common femoral in which blood was flowing from the trunk into the thigh. He thought that Mr. Lucas's explanation was very likely the correct one.

SYPHILITIC STENOSIS OF BOTH BRONCHI.

Dr. Rolleston and Dr. Cyril Ogle described three cases. Case I.—A woman, aged 25, who came to St. George's Hospital, January 3rd, 1899, complained of cough and loss of weight. There was stridor, but no alteration of voice. Air entered both lungs equally. Septic pneumonia developed and terminated fatally. There was fibrosis of the lungs, thickening of the pleura, and the bronchial glands were acutely swollen. There was a localised narrowing of the bronchi with dilatation, probably from retention of secretion, of the bronchial tubes beyond. There was extensive syphilitic disease of the liver. Case II.—A man, aged 29, was admitted under the care of Dr. Whipham in November, 1896, for increasing difficulty in breathing. There was stridor, and air did not enter the left side as well as the right. The larynx was normal. Both testicles were enlarged. He was given iodide of potassium,

but the dyspnœa increased, and death ensued from septic pneumonia. There was narrowing ($\frac{1}{5}$ inch.) of both main bronchi, due to thickening of the bronchial wall. There was sign of recent ulceration. The tubes beyond were distended with yellow mucus. The testes contained gummata. Case III.—A man, aged 29, was admitted to St. George's Hospital, under the care of Dr. Cavafy, on September 24th, 1897, for increasing shortness of breath and stridor. There was syphilitic perforation of the hard palate. Tracheotomy gave no relief. At the necropsy, both bronchi were found much stenosed. There was no syphilitic disease of the other viscera. Examination of published cases showed that syphilitic stenosis of the bronchi was usually combined with a similar lesion in the trachea, and that syphilitic stenosis of the bronchi alone was rare; reference was made to four other cases of stenosis of both bronchi, and three of one bronchus, making with the three cases described that evening, ten in all. The average age of these ten cases was $36\frac{1}{2}$ years, only two being above 40 years. The sexes were almost equally affected. In the cases brought forward by Dr. Rolleston and Dr. Ogle, it seemed probable that administration of iodide of potassium had done harm, inasmuch as it increased the secretion in the obstructed bronchial tubes. This secretion accumulated, and by undergoing decomposition changes, set up septic bronchitis, broncho-pneumonia, and fever, from septic absorption. In order to avoid this, it was recommended that full doses of belladonna should be combined with the iodide so as to prevent the secretion of mucus from the bronchial mucous membrane.

Mr. CLEMENT LUCAS considered that treatment could not do much good in these cases, as the lesions were of the nature of a cicatrix, like leucoplasia of the tongue, and fibrosis of the testis. He had seen two cases of syphilitic stenosis of the trachea, with lumen so contracted that a tracheotomy tube could not be inserted.

Dr. S. WEST thought the cases must be very rare, as he had never met with one during many years in which he had been pathologist to two hospitals. Stenosis might also be one of the results of inflammation extending from the lymphatic glands.

Dr. ROLLESTON, in reply, thought the cases might be less rare than was supposed. Of the cases recorded half had come from Guy's Hospital, where probably they were well recognised, and a look-out kept for their occurrence. In one case the condition was diagnosed, and recovery followed treatment.

UNUNITED FRACTURE OF THE HUMERUS CAUSED BY INTERPOSITION OF THE MUSCULO-SPIRAL NERVE BETWEEN THE FRAGMENTS.

Mr. CLEMENT LUCAS described two cases. Case I was that of a man, aged 41, and the fracture, which was compound, was caused by the kick of a horse on November 12th, 1895. He was taken to a local infirmary and his arm put up in a rectangular splint. Some sloughing of skin occurred. On February 2nd, 1896, an operation was performed and a wire applied, as union had not taken place. On April 11th, 1896, he was discharged, union having failed to take place, while musculo-spiral paralysis was established. He was admitted into Guy's Hospital on May 12th, 1896. There was a false joint at the junction of the upper two-thirds with the lower third of the left humerus, together with scars due to the injury and operation. The elbow was fixed in a semi-flexed condition, the fingers and wrists were also flexed and fixed. Loss of sensation existed over the distribution of the radial nerve. The splint was removed; massage, passive movements, and electricity were applied till the movements of the elbow were restored, and some pronation and supination and partial movement of fingers and wrist were rendered possible, but musculo-spiral paralysis remained. On June 12th, 1896, an incision was made on the back part of the arm, and the musculo-spiral nerve was traced up to where it was found engaged between the fragments. The wire encircling the fragments was found to include the fibrous extension of the nerve. The bone was again resected and wired, and the nerve being cleared for about 2 inches above and below was also resected, about an inch of the fibrous part being cut away and the ends united by means of sterilised silk. Primary union of the skin wound took place, and he left the hospital soon after with the arm in a plaster case. Three months later it was found that union was still incomplete, when the bone was again exposed, and a screw as well as a wire applied to the fractured ends, and the nerve again resected. A sinus remained as a result of this operation till November, when it closed. The bone was then firmly united but the paralysis remained. Electricity and massage were used, and a useful arm for carrying was obtained, but the nerve had not recovered when last seen. The second case was that of a man, aged 30, who was admitted into Guy's Hospital, under Mr. Clement Lucas's care, on October 9th, 1896, suffering from an ununited fracture of the right humerus and musculo-spiral paralysis. Five months before admission, when riding a bicycle, he was run into by a cart, the shaft of which struck his right arm, causing the fracture. It was put up in splints about an hour later, and these remained on seven weeks. Afterwards for three weeks he had a poroplastic case. At the time of the accident and afterwards the patient suffered severe pain down the back of his forearm, on the outer side, extending to the thumb and forefinger. On November 15th, 1896, Mr. Lucas made an incision between the triceps and brachialis anticus $4\frac{1}{2}$ inches in length on the antero-external aspect of the arm, and finding the musculo-spiral nerve, traced it up to where it was engaged between the fragments. The nerve was detached, resected, and united by silk, and the fragments of bone were resected and united by a screw and an encircling wire, primary union following. He left the hospital with the arm in a plaster-of-paris case on December 6th, 1896. He returned in a month when it was found that good bony union had taken place. When last seen, though he had a useful limb, the power of extension at the wrist had not been recovered.

The PRESIDENT described the case of an aged female patient under his care in St. Bartholomew's Hospital, suffering from fractured humerus, with musculo-spiral paralysis and severe neuralgia. He operated, and found that the fracture was oblique, and that the nerve nearly divided was lying behind the upper fragment. The nerve had a bulbous swelling on its distal as well as its proximal extremity, a condition which he had seen in other similar cases. He had to resect a portion of the bone, and then wired the fragments and sutured the nerve. The bone lesion had done well, but little improvement had taken place in the paralysis. Such absence of improvement he thought was very apt to occur after suture of the musculo-spiral nerve. Muscles, tendons, and nerves being interposed between the fragments of broken bones prevented union. He inquired if the fragments had been left in complete rest after the fracture. If not, might not that have been the cause of the non-union?

Mr. LUCAS, in reply, said that neither case had come under his care at the first. In many cases the musculo-spiral nerve was involved in the callus, not in the fracture. In his cases the nerve was certainly involved in the fracture.

SKIN AFFECTIONS IN RENAL DISEASES.

Dr. SAMUEL WEST read a paper on this subject. Rashes associated with œdema were for the most part erythematous in character, transitory in duration, produced few symptoms, and unless general, had but little clinical importance. If the skin was broken, as after puncture or when blebs had formed and burst, secondary infection might occur, and rashes of an erysipelatous character might arise, or phlegmonous inflammation or even gangrene might develop, but these were accidental events. Rashes without œdema occurred almost exclusively in the course of "granular kidney." They were generally widespread, and often universal, of great obstinacy, and of grave significance, taking the form of erythema, pityriasis rubra, dermatitis exfoliativa, general eczema, and lichen. They were rarely hæmorrhagic. The following cases were described: (1) General Erythema in a man, aged 42, under treatment for uncontrollable diarrhœa. A general erythema developed which itched greatly and persisted until death. *Post mortem* no lesion was found except granular kidney. (2) Pityriasis Rubra, two cases: A man, aged 47, was admitted for the rash and most extreme asthenia. The signs of granular kidney were well marked. He improved in the hospital, but shortly afterwards, having lost ground again, died of uræmic coma. A woman, aged 41, was admitted also for the

skin eruption, and extreme asthenia. The rash in the course of time disappeared, but the asthenia continued, and she ultimately died of exhaustion. (3) Dermatitis Exfoliativa: A man of 48, admitted for the rash, presented clear signs of granular kidney; the rash improved, but did not entirely disappear, and the patient died shortly after reaching home. A woman of about 44 was in the hospital for a surgical affection; the rash developed; signs of granular kidney were discovered, and she died shortly afterwards of asthenia. (4) A Papular Lichenous Eruption: One case occurred in a man of 40, which was attended with a rise of temperature, and, as there was small-pox about, the question was raised as to its being one of variola, to the papular stage of which it bore some resemblance. The man died soon after, and granular kidneys were found. The second case was that of a woman of 52, whose chief symptoms were vomiting, diarrhœa, and asthenia, and who died in uræmic coma; the rash appeared fourteen days before death; it rapidly spread over the whole body; the papules were in some parts as large as a split pea, and resembled urticaria. In a third case, a girl aged 20, the papules were of small size, and developed twelve days before her death; in this case also the chief symptoms were vomiting, diarrhœa, and asthenia, and she also died comatose. Dr. West remarked that the cases in which these rashes appeared almost invariably ended fatally, and usually before long. The rashes occurred only late in the disease, and when the signs of granular kidney were well marked, though not infrequently overlooked. The association of a generalised skin eruption with albuminuria was of great importance, and if the cause of the albuminuria were granular kidney, it was of the gravest significance, for the patient would soon die—not of the skin affection but of the granular kidney.

Dr. Rolleston had seen some of the cases published by Dr. Le Cronier Lancaster ("uræmic eruptions of the skin") quoted by Dr. West, and had examined the kidneys. These eruptions appeared to be caused, however, by some toxic factor other than uræmia, as that was a common occurrence, whilst the rashes were rare. Possibly, drugs were sometimes the exciting cause; sometimes toxic matters absorbed from the intestines; and he noticed that several of Dr. West's cases had suffered from diarrhœa. As generalised dermatitis (Savill's disease) was due to a micro-organism, it was possible that the cases of exfoliative dermatitis described by the author might also be so produced. Flexner had noticed that persons suffering from chronic diseases usually died from secondary infections, and that the blood of persons so dying had a much weaker germicidal action than the blood of healthy persons.

Dr. Colman said that the eruption seemed usually to occur when the kidney disease was advanced. He mentioned a case of a papular lichenous eruption occurring in a patient suffering from locomotor ataxy, which arose ten days after the patient was admitted to hospital, and which was at first also suspected as being a case of small-pox. The patient had intense itching, and died from asthenia after a few days' illness. At the necropsy advanced granular disease of the kidneys was found. As with albuminuric retinitis, the occurrence of these eruptions appeared to be of grave significance.

Dr. Longhurst mentioned a case under his care in which an old gentleman suffering from advanced Bright's disease had purpura first on one leg then on the other. He inquired if it was not probable that the condition which occurred in the skin occurred also in the mucous membrane of the bowels, and produced the obstinate diarrhœa from which such patients often suffered.

Dr. Toogood said that cases of exfoliative dermatitis were common in the parochial infirmaries. The superintendents generally had found no micro-organisms, but considered the cases to be due to a toxin taken with the milk, because, when the milk supply from a particular firm which supplied all the affected infirmaries was stopped, the disease quickly ceased. The rash in those cases, at any rate, could not be traced to Bright's disease.

Dr. West, in reply, said that two or three of the groups of cases seemed to be due to toxæmia, usually uræmia. With respect to the cases with intestinal symptoms, possibly milk had produced those intestinal troubles. Some of the cases he had described were under treatment for the skin affection, and the kidney lesion was found when looked for. His object was to draw attention to the eruptions, some of which were of grave import, without, in the present defective state of knowledge respecting uræmia, explaining the mode of their production.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. Payne, M.D., President, in the Chair.

Tuesday, April 18th, 1899.

Carcinomatous Stomach Removed by Gastrectomy.

Mr. T. F. Chavasse exhibited a specimen, which was removed from a man, aged 64, complaining of pain and vomiting. The abdominal wall was retracted, and a firm, sausage-shaped swelling could be felt in the region of the stomach. After removal an endeavour was made to unite the divided end of the œsophagus with the duodenum; but, owing to the carcinomatous infiltration of the former, the Murphy's button used for this purpose could not be applied. The œsophagus was therefore closed, and the duodenum secured to the abdominal wall. A short while afterwards a preternatural opening into the duodenum was made, feeding being carried on through this. Death took place from cardiac failure. Examination of the specimen showed a highly contracted state, and walls much thickened from carcinomatous disease of an atypical columnar-celled kind; perforation had occurred at one spot, but closure had been brought about by adhesions.

Splenic Anæmia in Infants.

Dr. Bertram Hunt recorded two examples of the above condition. The first concerned a child aged 8 months; the spleen was enlarged, but there was no rickets. After death the spleen weighed 7 ounces, and measured 6 inches by 3 inches. Histologically it showed an increase of fibrous tissue, the Malpighian corpuscles being nearly replaced by the same tissue. In the second case (that of a child aged 16 months) the spleen, after death, measured 4½ inches by 3 inches, and weighed 4½ ounces. Structurally it resembled that first noticed. In this case there was marked rickets of the bones, and widespread hæmorrhage between the dura mater and arachnoid. The blood in such splenic forms of anæmia might be of the chlorotic type or of that found in pernicious anæmia. There were none of the common signs of scurvy, bleeding from the gums, etc., in the second case, and the author did not think that the rachitis was concerned in the production of the anæmia. In rickets the splenic enlargement was due mainly to fibrous increase of the trabeculæ, the Malpighian corpusles being unaffected. In neither child was there any evidence of syphilis.

In answer to the President he stated that both children had been fed on cow's milk.

Three Cases of Sprue.

Dr. J. H. Drysdale read notes of three cases of this disease, which presented the usual characters, the chief symptom being diarrhœa, the stools being themselves uncoloured and fatty; the tongue was smooth and shrunken; the small intestine very thin, in some of the cases, moreover, ulcerated. He did not think it safe to regard the changes seen as the initial ones. Recovery at length became impossible by reason of the degeneration of the mucosa; the thinned areas were probably due to the resulting starvation, the true lesions being those where the submucosa was thickened. Bile was present in the gall bladder in all the cases, the want of colour in the stools being either due to the bile pigment being masked by the fat present, or because the transformation of the bile pigment which normally occurs in the fæces had not taken place. In one case there was a highly cirrhotic condition of the pancreas; this suggested an explanation of the presence of fat in the stools. The disease was probably bacterial, but no distinct evidence of this was as yet forthcoming.

Dr. H. D. Rolleston drew attention to Dr. Walker's view that the action of the pancreatic secretion was necessary for the transformation of the biliary pigment into that which coloured the fæces, and thought that the case in which the pancreas was diseased bore out this hypothesis.

The President had seen two cases of sprue during life, and noticed the high degree of fermentation present in the fæces as pointing to alteration in the pancreatic secretion. He also

adverted to the marked nervous disorder present in some cases, this taking the form of hypochondriasis.

Casts of Hearts with Dilated Right Ventricles.

Dr. Stacey Wilson showed casts: (1) of a normal organ, (2) of one from a case of dilated right ventricle and perforation of interauricular septum, (3) of a heart allowing of aortic and mitral regurgitation. The cavities were distended with molten paraffin, and from the organs plaster-of-paris moulds were afterwards taken. Both the morbid organs showed a marked upward protrusion from the superior part of the dilated right ventricle, rising above the level of the auriculo-ventricular septum, and due to dilatation of the conus arteriosus. This result, however, was not invariable. In adults especially the dilatation might proceed mainly from the right side of the right ventricle. Upon the pulmonary artery three results ensued from the upward dilatation of the ventricle; it was shortened by reason of the upward displacement of the pulmonary aperture to a degree of about 30 per cent., and the arterial wall, moreover, was relaxed, an aneurysmal bulging being the result; besides this the direction of the vessel became more horizontal, and it was to its altered direction with respect to the long axis of the right ventricle that the author attributed the production, in most cases, of the systolic murmur met with in such cases of dilated right ventricle.

Dr. H. D. Rolleston thought the view better explained the diastolic murmur met with in such cases than the systolic.

Dr. A. Garrod would like an explanation as to why the murmur increased in the recumbent position, as it conspicuously did, for example in chlorosis.

The President observed that in chlorotic anæmia this upward extension of the right ventricle was nearly always present. He thought the altered direction of the artery explained very satisfactorily the production of the murmur. A similar murmur was at times heard in cases of pleurisy with effusion, the heart being displaced upwards in such a way, doubtless, as to alter the axis of the pulmonary artery.

Dr. Wilson did not think that the upward enlargement explained the diastolic murmur. The murmur was exaggerated by the recumbent position, since in the erect the weight of the heart tended to straighten the pulmonary vessel.

Paramœcium Coli in Cysts of the Liver.

Dr. A. E. Russell and Mr. E. F. Buzzard related the case of a man, aged 59, admitted into St. Thomas's Hospital with carcinoma of the stomach. There was nothing unusual in the history nor in the course of the disease. Death occurred rather unexpectedly on May 6th, 1898. At the *post-mortem* examination there was found a large malignant growth of the pylorus, the orifice being considerably stenosed so as to admit only the tip of the little finger. The stomach was enormously dilated. The liver was normal save for the presence of about twenty small cysts, which were barely as large as peas; they were situated in the region of the larger portal canals. In consistence they were firm, and contained brownish or orange-stained material of caseous consistence. Some of this was examined by Mr. Buzzard, and found to contain living paramœcia, which were identified by Dr. Hawkins. Two cysts were examined, and both contained the living parasites. Examination of mounted and stained specimens showed that the cysts possessed a thick fibrous wall. The presence of this parasite in the intestinal tract, and especially in diarrhœic conditions, was well established, and it might be the exciting cause of an attack of, or aggravate the condition in, such diseases as, cholera, dysentery, etc. In the case under notice constipation, with light coloured stools, had been the rule, and no history of diarrhœa was obtainable. As regards the cysts the most reasonable assumption was that they owed their origin to an irritative process set up by these parasites, and that the latter found their way into the liver from the intestinal tract by way of the common bile duct, the bile-stained contents of the cysts suggesting their origin in the bile-duct system. The association of living parasites in the liver with malignant disease of the stomach was of undoubted interest, even though, as was probable, it was merely a coincidence.

Mr. S. G. Shattock observed that this case at present was unique, and he quite agreed with the authors as to the location of the parasites in the bile ducts. The condition might in some respects be compared with that of psorospermosis in the rabbit's liver, in which the protozoa certainly wandered from the intestine up the bile ducts; it was not, however, on this account a "pseudo-psorospermosis," but, if a term was needed, a "paramœciosis." In the psorospermial liver the dilated ducts became the seats of complex papillary ingrowths, but nothing of this kind was shown in the cysts described by the authors of the communication. It was unfortunate that no exact observations were made upon the gastric contents, as possibly in consequence of an alteration or diminution in the gastric secretion the development of the ingested organism took place uninhibited in the stomach itself as well as in the intestinal canal.

Peculiar Lardaceous Liver.

Dr. W. J. Hadley exhibited a liver in which the ordinary histological characters of lardaceous disease were present, but in which none of the known dyes gave the lardaceous reactions; the material did not, either, give the reactions of hyaline degeneration. The same was true of the spleen. In the kidneys imperfect reactions were obtained. Weigert's fibrin stain was productive of no result. The organs were taken from a jaundiced old man who had been tapped for ascites.

Card Specimens.

Dr. J. R. Lloyd: (1) Small Aneurysm of the Left Renal Artery and Thrombosis; subsequent Atrophy of the Left Kidney and Enlargement of the Right; (2) a Pleural Cyst; (3) a Case of Hernia of Intestines due to adhesions.—Dr. M. Fletcher: Symmetrical Atrophy in the Parietal Bones.

LIVERPOOL MEDICAL INSTITUTION.

W. Macfie Campbell, M.D., President, in the Chair.

Thursday, April 13th, 1899.

Phosphorus in Lucifer Matches.

Dr. Imlach called the attention of the meeting to the report recently issued by the Home Office on the use of phosphorus in the manufacture of lucifer matches.

Prurigo Ferox.

Dr. Barendt showed a boy, aged 13. The "eczematisation" of the skin due to incessant scratching, with prurigo efflorescences glimmering through, and in the vicinity of this secondary eruption, was most marked on the shins and forearms. The thighs, buttocks, and arms, with the exception of the internal aspects, displayed red ridges and configured areæ of thickened integument powdered with material like asbestos. The "prurigo buboes" were well marked in the inguinal and axillary regions, and the skin, where free from rash, was harsh to the touch. The family history shed no light on this incurable affection, and treatment was only palliative.

Pylorectomy.

Mr. Rushton Parker showed a man, aged 48, upon whom he had performed pylorectomy on January 16th. Stomach troubles had existed five or six years, and recently pain and vomiting after food had reduced him to emaciation. No tumour could be felt, and the diagnosis of carcinoma was provisionally assumed. At the operation a hard tumour was found in the posterior wall near the pylorus, the mucous membrane was thickened but not ulcerated, and although the growth was doubtful and not strongly suggestive of carcinoma, excision seemed the only way of dealing with it. The duodenum was attached to the stomach by continuous silk stitches, one set for the mucous membrane, the other for the peritoneum, and the remaining gap in the stomach was closed by attaching its sides in the same fashion. The patient made a good recovery, and in a few weeks was able to eat ordinary food. The growth showed no evidence of carcinoma, but was evidently of syphilitic origin, as evidenced by small gummata, endarteritis, and cellular infiltration.

Pyloroplasty.

Mr. Rushton Parker showed a man, aged 21, upon whom he had performed pyloroplasty on January 23rd, 1899. There had been a history of dyspepsia for five years, and a condition

of dilated stomach, but no symptom suggesting gastric ulcer. The pylorus was found to be narrowed to $\frac{3}{8}$ inch in diameter outside. This was opened, and a small circular ulcer found inside the stomach. Pyloroplasty was performed over a Mayo Robson's decalcified bone bobbin, and the diameter of the pylorus increased to $1\frac{1}{2}$ inch outside. The patient made a good recovery from the operation, and for three weeks after was fed on milk, as in the treatment of gastric ulcer; after that he ate fish, and in a month or five weeks ordinary meat diet. On April 13th he was in good health, as was also the patient described in the preceding case.

Localisation of Foreign Bodies in the Eye by X Rays.

Dr. Grossmann described a method which he had employed in preference to Mr. M. Davidson's stereoscopic method.[1] He utilised the movements of the eye for obtaining the parallax of the shadow of the foreign body, the Crookes's tube, the patient's head, and the sensitive plate retaining the same position in two successive exposures. It might be necessary under certain circumstances to make two pairs of exposures to obtain both the vertical and the horizontal parallax. The author claimed for this method that it is simpler than the stereoscopic method, and that a path could be chosen for the x rays which offered the least amount of bony opacity.

General Suppurative Peritonitis.

Mr. R. W. Murray showed a boy, aged 9, upon whom he had operated for general suppurative peritonitis associated with a gangrenous appendix. The patient was first seen by Mr. Murray in September, 1898; he had been seriously ill for five days with abdominal pain, constipation, and continuous vomiting. The abdomen was much distended, tender, and tympanitic. On opening it the intestines were found bathed in pus, and bubbles of gas came from the right iliac fossa. The median incision was enlarged, the intestines turned out of the abdominal cavity, and the appendix, which was gangrenous and perforated, excised. The abdomen was then well washed with warm boracic lotion; the distended intestines, after being cleansed, were with some difficulty returned, and the wound closed, except at the lower part, where a drain was inserted. The boy ultimately made a good recovery.

Mr. W. Mitchell Banks said that all surgeons who had opened the abdomen in cases of general suppurative peritonitis had been disheartened by the want of success that had attended their efforts. There was little cause for wonderment at repeated failures when one considered that this condition was simply the final and fatal flare up of some smouldering fire in a corner of the abdomen which had quietly got the mastery of ordinary treatment. One had also to deal with a patient who when brought on the table was already nearly dead. He was septic through and through; partly from the chronic absorption of poison from the primary focus, partly from the extremely rapid absorption by the peritoneum of the poison which had been discharged into it. The points especially worth attention were: First, How did we know that general septic peritonitis had occurred? and, secondly, When the abdomen was opened in this condition what were the chief dangers and how were we to meet them? With regard to the signs and putting aside all such causes as depended upon the diseases of the uterine or ovarian organs from the perforation of ulcers of the stomach or bowels, these being so rapidly fatal, they were driven to the conclusion that by far the commonest cause of suppurative peritonitis was, in the first instance, an appendicitis or a perityphlitis. It was not a disease in itself, but only the manifestation of a disease on an antecedent character, which culminated in this disastrous condition. Without describing the course of symptoms it was sufficient to say that at a given moment in the progress of the case all the existing symptoms became immensely intensified. On the point of diagnosis Mr. Banks said there was no one pathognomonic symptom of general suppurative septic peritonitis. Pain of course must be subdued, but if there was no great pain he deprecated the use of opiates as being harmful to the patient and distracting to the surgeon. When the abdomen was opened the best thing to do was to wash the peritoneum and cleanse the bowels. As the majority of cases occurred in children it might be possible to have in the operating theatre a tin bath beside the table at a height convenient to the surgeon. If the bath were filled with a hot salt solution the child might be put into it, and the abdomen opened in it and washed out under water. This was a theoretical proposition, but perhaps it might yet be tried. If ease of execution and rapidity were to be gained, the median incision could be enlarged by a cross cut in the direction of the cæcum. Cross cuts healed easily, and did not weaken the wall subsequently. It was sometimes impossible to return the intestines; if after a fair trial this could not be done, the best thing was to open the intestine at its most distended part and tie in a glass tube; this lay out through the wound, and through it flatus and fluid fæces could be squeezed sufficiently to let the bowels be returned. Speed and rapidity of operating were all-important.

Mr. Rushton Parker remarked that in some cases the patient did not come under the surgeon's care until the symptoms were conspicuously those of intestinal obstruction alone—constipation, flatulence, distension, and the inability to pass even wind. In the event of abdominal section various degrees of peritonitis were found, and sometimes fæcal extravasation, while the patient usually passed rapidly into a septicæmic state and died, though no symptom of septicæmia might have existed before operation. The hopeless condition of such patients was not discovered before operation, which seldom succeeded. In others the symptoms of septic poisoning were already present, and the inducement was to operate still less. Both sets of cases proved disappointing because necessarily undertaken too late.

Dr. E. T. Davies thought that surgical interference was unnecessary in all cases of appendicitis. The catarrhal form recovered without surgical aid when treated by rest in bed, warm poultices, mild purgatives, and restricted diet. The local suppurative form should be treated by incision, lavage, and drainage. In the fulminating type the only chance of saving the patient was by immediate laparotomy and turning the intestines out of the abdomen, washing and sponging them carefully with warm saline or boro-glyceride solution. The bowels, if greatly distended, should be incised to evacuate the poisonous contents and the incisions sewn up again.

Drs. Humphreys, Raw, Barr, Grünbaum, and Thelwall Thomas also spoke; and Mr. Murray replied.

Society of Medical Officers of Health.—At a meeting on April 14th, Dr. E. Gwynn, President, in the chair, Dr. A. Hill read a paper on the Use of Antiseptics in Food. Perhaps those most widely used at the present were boric acid, and salicylic acid, though of late formic aldehyde, under the name of formalin, had been extensively employed. Between 1896 and 1898 he had examined 1,016 samples of milk, of which 59 were preserved by boric acid, and 29 (of 600 only examined for it) with formic aldehyde. Boric acid was found in 216 out of 574 samples of butter, and in 28 of 33 of margarine. It was present too in 5 out 6 samples of cream, 1 containing salicylic acid also. Four of 7 samples of sausages, 4 of 6 of ham, all of 4 hams and tongues, 1 of 3 pork pies, 1 of 2 pickled meats, and 1 of 2 polonies; 5 of 6 samples of jam, 5 of 11 of ipecacuanha wine, and 1 of 12 of sherry, contained salicylic acid. Benzoic acid had been used in France since the prohibition of salicylic; sulphurous acid was widely employed in the treatment of wines, beers, lime juice, etc., and fluoride of sodium, a powerful antiseptic, but in doses of a few grains almost poisonous, had been so too. As to their effect on digestion, the case of formic aldehyde admitted of no doubt, 1 part per 1,000 of milk rendering the casein insoluble in pepsin and hydrochloric acid, and 1 to 4,000—that is, 1 of formalin (a 40 per cent. alcoholic solution of formic aldehyde) to 2,000 parts by weight of fish, hardening them so as to be quite unsaleable. England was almost the only country in the civilised world where the use of antiseptics as such was wholly unrestrained, and prosecutions had to be undertaken under Section VI or Section II of the Sale of Foods and Drugs Act, and the defence always endeavoured to throw on the prosecution the onus of proving injury in the particular case. But while one man deemed 18 grs. of boric acid to 1lb. of butter sufficient, another put in 80 grs., and though the quantity consumed in one article of food might be productive of no ill-effects, it was quite possible that the aggregate dosage of several in daily

[1] British Medical Journal, January 1st, 1898.

use might be highly injurious, to say nothing of individual susceptibilities. Dr. Hill quoted the opinions of numerous authorities, based on chemical observations, and experiments on themselves and on dogs, as to the effects of small and large doses of boric acid, to show that it tended to interfere with nutrition, increase excretion by the bowel and kidney, inducing catarrhal and inflammatory conditions and cutaneous eruptions, and to depress the heart's action to such an extent that fatal consequences had followed its use even in surgery. The action of salicylic acid on the heart and cerebral functions, as well as on nitrogenous metabolism, was well known, and its great value as a drug made its habitual use more evidently dangerous. Perhaps, however, the most serious aspect of the question at present was the effect of boric acid on infants, whose sole or chief food was milk, and it was not improbable that much infantile diarrhœa might be due thereto. In Germany all antiseptics were illegal, boric acid to meat and milk especially, and their use was prohibited more or less strictly in France, Italy, Holland, and even in Spain and some States of both North and South America. In France, however, produce intended for exportation was exempt, and "Brittany butter," and the milk more recently sent over from Normandy, were highly charged with boric acid. There was no real justification for the use of chemical preservatives, but, if they were not prohibited unconditionally, some such authoritative regulation was required as would have been exercised by the Board of Reference in the Bill introduced in 1897 by Mr. Kearley and other members of the House of Commons. There was, however, a means of preserving all perishable articles of food which was absolutely free from objection and applicable to all alike. That was refrigeration: and if fresh meat and butter could be thus brought from the antipodes without the least deterioration, surely they and milk might be so from the provinces or the Continent, without the aid or addition of chemicals or drugs. After remarks by Dr. TUBB THOMAS, Dr. WILLOUGHBY, while fully recognising the evils of "preserving" milk, pointed out that the changes in the milk itself, which called for the use of antiseptics, and which they concealed rather than prevented, might be the cause of the diarrhœa in infants, rather than the boric acid added to it. Mr. CASSAL, as a public analyst, felt painfully the false position in which, unless in friendly co-operation with the medical officer of health, the chemist was placed when called on to give an opinion on the question of the possible injury to health, demanding a special knowledge to which he could lay no claim. He however held and always took up the position in Court, that "if a substance were present in quantity sufficient to exert an antiseptic action, it must *de facto* inhibit digestion and therefore it must if of any use be harmful." Again, unless the fact and the proportion of the addition were clearly stated, the article could not be deemed of the "nature, quality, etc." asked for. Dr. WOODFORDE, as representing a dairying district, agreed with Dr. Willoughby that milk after thorough refrigeration would well bear carriage by rail over 100 miles and keep sweet for forty-eight hours, provided the surroundings and vessels were clean. It was only when these were insanitary and dirty that any antiseptics were needed, and they were not used by the better class of farmers. Drs. W. BOND, EDMUNDS, ALLAN, and others having spoken, Dr. HILL replied. Two resolutions (1) deprecating the use of chemical antiseptics in foods and (2) demanding that if they were permitted their nature and amount should be clearly stated, were passed almost unanimously.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At a meeting on March 29th, Dr. ALEX. MILLER, President, in the chair, Dr. MALCOLM BLACK read a paper on Three Years' Induction of Premature Labour for Contracted Pelvis in the Glasgow Maternity Hospital. The method employed in all cases was by the introduction of a bougie. The bougie was sterilised by soaking for four hours in carbolic (1 in 20). From November 15th, 1895, until November 15th, 1898, there were 50 cases under the care of himself and his colleagues. He grouped them as follows:—Group 1: Two cases where the mother was lost—the only maternal fatalities. One died from rupture of the uterus, the other from severe hæmorrhage resulting from the bursting of a Champetier de Ribes's bag. The child in the former case was dead, in the latter alive. Group 2: Five cases where the labour had to be completed by craniotomy. Group 3: Fifteen cases where the child was born dead or died immediately after birth. Group 4: Ten cases where the child was born alive, but died before leaving the hospital. Group 5: Twenty cases where the child was born alive and left the hospital alive.—Dr. CARSTAIRS DOUGLAS read an account of a fatal case of Acute Yellow Atrophy of the Liver, verified *post mortem*. After referring to the extreme rarity of this disease, he stated that the patient in this case was a 5-para, aged 35, who was in the eighth month of pregnancy. For ten days (December 5th to 15th) she had the symptoms of an ordinary catarrhal jaundice, with vomiting, bilious urine, offensive motions, and a slight yellowness of the skin. On December 15th she fell into a stupor, which continued through the night and into the following day (December 16th), when she gave birth to a child without giving any indication that she was in labour. On the following day she was removed to the Edinburgh Royal Infirmary, under the care of Professor A. R. Simpson. On admission she was comatose and deeply jaundiced. There were no indications of convulsions or of paralysis. The temperature was 97° F. Scattered over the legs were subcutaneous hæmorrhages. Liver dulness (relative) could only be made out between the fourth and sixth ribs, and there was no absolute dulness at all. The urine was the colour of pale porter; it contained bile, but no albumen, sugar, or blood. Microscopically somewhat imperfect crystals of leucin were obtained, but no tyrosin. The uterine cavity was thoroughly explored, and found to be empty and healthy. The bowels were thoroughly moved by croton oil and fomentations of digitalis applied over the kidneys. Next day, December 18th, the coma was deeper and the icterus intense. The temperature was still 97° F. The pulse became imperceptible and the breathing rough and tubular, and the patient expired on the afternoon of December 18th, four days after the onset of serious symptoms. The *post-mortem* examination revealed a great diminution in the size of the liver; it weighed only 27½ oz. (barely 700 grams). Though flabby to feel, it was tough on section; the inferior surface of both lobes was light yellow in colour, the superior and posterior surfaces being dull red, with a slight yellow mottling. On section, the organ was markedly non-vascular, and the anterior part of both lobes was of a canary-yellow colour. The kidneys and heart showed indications of fatty degeneration, and there were hæmorrhages into the pleura and the gastric mucous membrane. Dr. Douglas, in conclusion, pointed out that at present there was no proof of a microbic origin. He was inclined to believe that some rare and virulent chemical poison was absorbed from the intestine leading to disorganisation and atrophy of the liver, and that the patients died as a result of poisoning by the products of their own metabolism.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 16th, Dr. ALFRED ROBINSON, President, in the chair, Mr. SIMEON SNELL exhibited: (1) Coloboma of Iris, two cases—one extending through choroid, the other confined to the iris; (2) Tumour of each Orbit, probably extending across septum; a stereographic photograph was shown; (3) Optic Atrophy (post-neuritic) after influenza. Mr. Snell also showed the following sections of Eyes with Tumours: (1) Three Gliomata (one an instance in which the eye first affected had been removed two years previous to the appearance of the disease in the second eye); (2) a case of Carcinoma of Globe apparently commencing in the cornea; (3) five instances of Sarcoma of Choroid—one a leucosarcoma in an old man, two in young men, one a middle-aged man and one from a middle-aged woman.—Dr. ARTHUR HALL showed a case of Herpes Gestationis.—Mr. MILNER showed a case of Rupture of the Long Head of the Biceps.—Dr. SINCLAIR WHITE exhibited and made remarks on: (1) A woman from whose bladder he had excised a Cancerous Growth nine months ago. The growth was about an inch in diameter, and grew round the entrance of the right ureter. It was removed through a suprapubic wound, together with the entire thickness of the bladder wall. To prevent urinary extravasation a dependent opening was made into the vagina. The resulting vesico-vaginal fistula was closed three months later. The patient was now free from recur-

rence, performed her vesical functions perfectly, and was much improved in health. (2) A case of Paralytic Talipes Equino-varus treated by transplanting the tendon of the tibialis posticus and the outer third of the tendo Achillis to the tendon of the common extensor and the peroneus tertius muscle. The result achieved was remarkably good. The patient was a boy aged 10 years. (3) Four cases operated on for Undescended Testicle. In each case, after free division of the cremaster muscle and incision of the tunica vaginalis a silkworm ligature was passed through the tunica albuginea at the lower end of the testicle, and both ends of the ligature passed through the base of the corresponding side of the scrotum, and fastened to the thigh by means of strapping. (4) A woman cured of a Suppurating Pelvic Cyst which had discharged into the bladder for four years. The cyst was in the first instance opened and drained suprapubically, but, as the sinus did not close, it was subsequently successfully dealt with by draining it into the roof of the vagina. (5) Cases of Excision of the Knee and Ankle. (6) Cases illustrative of Diseases of the Nose.—Mr. Pye-Smith read notes of a case of Traumatic Dislocation of the Hip into the dorsum ilii in a boy aged 5 years. It had been produced by a fall during a scuffle with another boy, and was easily reduced by manipulation under chloroform. Mr. Pye-Smith also showed a Sequestrum of Bone forming the nucleus of a vesical calculus removed by median lithotomy from a man who had sustained a fracture of the pelvis from a crush in a coal mine two years previously. The sequestrum had probably entered the bladder about a month before its removal. The President, Dr. Keeling, Dr. Wilkinson, Mr. Pye-Smith, Dr. Sinclair White, Dr. Addison, Mr. Dale James, and Dr. Hargreaves made remarks.

Forfarshire Medical Association.—At a meeting on April 7th, Dr. McGillivray, who was in the chair, showed (1) a patient with Double Upward Coloboma; (2) a patient suffering from well-marked Follicular Conjunctivitis.—Dr. Pirie showed two Roentgen Ray Photographs of a Compound Comminuted Fracture of the First Phalanx of the Right Forefinger in a man who refused to allow amputation. The later photograph showed a false joint forming, and the patient had now fair movement. Dr. Pirie showed several other Roentgen Ray Photographs taken by himself.—Professor Kynoch showed a Papillomatous Cyst of the Ovary removed by posterior colpotomy, and emphasised the ease with which small tumours could be removed by this method.—Dr. Foggie read notes of a case of Acute Yellow Atrophy occurring in a girl of 14. After a period of indefinite ill-health gastric catarrh and jaundice had set in, and lasted for fourteen days with occasional hæmatemesis. Marked depression followed, and was succeeded by sudden and rapidly fatal cerebral symptoms, in which an initial delirium had given place to coma and tetanic convulsions. A petechial eruption was present both before and after the onset of the jaundice. No diminution in the liver dulness could be determined. Although a *post-mortem* examination was not allowed the diagnosis of acute yellow atrophy seemed warranted. He quoted the view recently supported by W. Hunter of the condition being a rare form of malignant jaundice of obscure infective nature due to an organic poison, probably found in the intestine and acting on the liver after absorption, and he thought this view would assist in the explanation of the great clinical variation in the repeated cases. Dr. Buist thought the pathological conditions described as characteristic of acute yellow atrophy belonged to the terminal stage of the disease, and acute yellow atrophy, though a rare disease, had, he said, been comparatively frequent in Dundee in recent years. Professor Kynoch added a case he had seen during pregnancy in which he believed the condition of the intestine *post mortem* pointed to it as the starting point of a toxæmic. Dr. Pirie also spoke, and Dr. Foggie briefly replied.—Mr. Greig gave a further communication on Two Years' Experience in the Surgical Out-patient Room of the Royal Infirmary. He had had 63 cases of malignant tumours and 40 non-malignant; of the latter, 18 were sebaceous cysts, 11 in males and 7 in females, the average age being 38; 13 of these non-malignant tumours were papillomata, 2 of which were in the mouth, 1 in a female aged 80, and another in a child. He discussed the pathology of this condition, and stated that injury by a tooth was usually the primary cause. Of the tumours, 4 were ranulæ, 3 hæmatomata, 3 implantation cysts, 2 dermoids, fibromata and lipomata, and 3 myxomata. Of the 63 malignant tumours, 2 were carcinomata of the breast, 5 sarcomata, and 33 were epitheliomata. Of these last, the youngest was 36 and the oldest 80 years of age. There had been 15 cases of mammary abscess, 3 of which were in patients not nursing at the time. In the remainder of the cases suppuration occurred while nursing the first child, 1 the fourth, 3 while nursing the fifth child. The cases of hydrocele numbered 26, 6 of which were infants in whom he recommended the needling, which was making several small punctures rapidly by a needle into the sac. The cases of hernia numbered 100; of these, 88 were inguinal, and 59 of these were between the ages of 1 and 10 years. Mr. Greig's statistics showed the cases of inguinal hernia to be four times as common on the right as on the left. Of 32 cases in males, 28 of these had phimosis. He recommends circumcision in these cases, but was not prepared to say it was a cause of hernia. Twenty-four cases of erysipelas had attended during those years, 10 of them having it on the face. They were all treated with 1 to 500 of perchloride of mercury in glycerine, and 10 to 25 per cent. of ichthyol. There were 25 cases of bursitis, 16 of ganglia, and 21 of tenosynovitis. The Chairman, Professor Kynoch, Drs. Halley and Gray made remarks, and Mr. Greig replied.

Association of Registered Medical Women.—At a meeting on April 11th, Mrs. Stanley Boyd, M.D., Vice-President, in the chair, Miss Traill Christie, M.D., B.S., late officer on plague duty in India, read a paper on the various methods for the prevention of the spread of plague which had been adopted from the six h century till now. Miss Christie dwelt on the methods and result of inoculation against plague, as she had been connected with this branch of the work.—Miss Sharpe, L.R.C.P. and S., showed a case of Lupus of the Throat and Nose treated by the *X* Rays. The growth on the nose had disappeared after twenty-four applications, and the throat had greatly improved after twelve. Miss Sharpe also read a paper on *X*-Ray Therapeutics, and mentioned another case of lupus under her care which was making satisfactory progress.

Midland Medical Society.—At a meeting on March 15th, Dr. Lowe (President) in the chair, the following officers were nominated for election: *President:* Dr. Rickards; *Treasurer:* Mr. Garner; *Secretaries:* Dr. Kauffmann and Mr. Christopher Martin; *Members of Council:* Mr. Bennett May, Mr. T. F. Chavasse, Mr. Jordan Lloyd, Mr. Henry Eales, Mr. J. W. Taylor.—Dr. Nelson read a note on Medical Book-keeping without Books, in which the miseries of the visiting list, ledgers, and bill-making were detailed, and the simplification of matters by the American card system (as organised by the Literary Bureau Company) demonstrated.—Dr. Stacey Wilson read a paper on the Treatment of Chorea.—Mr. Lawson Tait read a paper on Ectopic Gestation.

REVIEWS.

On Villous Growths and the Common Affections of the Rectum. By Thomas Bryant, M.Ch., F.R.C.S., Member of the Council and Past President of the Royal College of Surgeons of England. London: The Medical Publishing Company, Limited. 1899. (Demy 8vo, pp. 52. 25 Illustrations. 3s. 6d.)

The commoner affections of the anus and rectum are, without doubt, not so carefully treated by surgeons as they deserve to be. Though trivial from the purely surgical standpoint, they are of unquestionably greater import to the patient than many conditions which call into play the highest resources of our art. It is well, therefore, that one of the leaders of our profession, one upon whom have deservedly fallen most of the high honours which are open to the surgeon, should deem it not derogatory, not a matter of unimportance, to call attention once again to such minor diseases. This work will not only be helpful and acceptable to the junior members of the profession, for whom it is especially written, it will be worthy

the close attention of all. The clinical instruction, the repeated exhortation to a more careful examination in all cases, the detailed advice as to deft and successful treatment, are all admirable. Some of the views on pathology, notably that upon the causation of fissure, are not wholly in accord with current views, but that is of little consequence. The work is a clinical work, and as such adequately and effectually fulfils its purpose.

The illustrations are mostly from drawings by the late Mr. P. Y. Gowlland, which have since his death passed into Mr. Bryant's custody. Mr. Gowlland was an enthusiastic artist, and his speciality gave him opportunities of representing pictorially all kinds of anal maladies that are rarely drawn from Nature with the skill here displayed.

THE ENGLISHWOMAN'S YEARBOOK AND DIRECTORY, 1899. First year of New Issue. Edited by EMILY JANES, Secretary of the National Union of Women Workers of Great Britain and Ireland. London: Adam and Charles Black. 1899. (Demy 8vo, pp. 296. 2s. 6d.)

IF any man, from a dock labourer to a duke, desires to know what to do with his daughter, this book will tell him. If any woman wishes to know what career is open to her, she may, on reference to this book, find out all about it, and may learn of a suitable opening for her young ambitions, according to her social position, education, strength of mind and body, predilections or prejudices, and according to her taste for a life of work, play, science, art, or philanthropy. We hardly think the book makes enough of the advantages of the "married profession," but it must not be forgotten that it exists primarily to meet various "crying wants" of the day, and that these largely pertain to the unmarried unemployed.

It is with some regret that we note the inclusion of medical women "flocking alone," as Dundreary would say, apart from their colleagues in the dreary if somewhat hypothetical apartness which the accidents of their sex, position in time, too exuberant veneration of their fellow women, and, shall we say, in part, their own shortsightedness, have conspired to impose upon them. We must, however, admit that, in view of these limitations, the book was bound to include them, and would have been sadly incomplete without some notice of them. It is not clear, however, that it would have suffered from the omission of their names, or, at any rate, of their addresses. This comment is based on the feeling that a special section of the members of a great learned profession is not, by reason of sex, in need of more special personal indications than are already to be found in the ordinary professional directories, while they are in a better position where no such indications can be cited as existing for their advantage. The *Englishwoman's Yearbook* is here to fulfil a temporary want consequent on the rapidly shifting and developing conditions of woman's social life. The more stable these conditions become, the less will such a book be necessary; therefore, in wishing it a short life and few editions, we are confident we are wishing what its own originators most fervently desire.

ESSAYS FOR STUDENTS. By STEPHEN PAGET, F.R.C.S., Surgeon to the West London Hospital, Surgeon to the Ear and and Throat Department of the Middlesex Hospital. London: Baillière, Tindall and Cox. 1899. (Cr. 8vo, pp. 177. 3s. 6d.)

THIS small collection of essays on subjects relating to clinical surgery, though intended for students only, will be found useful and instructive by those engaged in actual practice. The author has not only had full opportunities of both testing and studying the practical applications of the latest developments in surgery, but he is also well fitted to afford pleasure as well as instruction to his readers. The first and second essays, which deal with strangulated hernia and cancer of the breast, will be found really important additions to the abundant literature on these subjects, and to the busy practitioner, who may from time to time be perplexed by the varied complications of the one affection, or disheartened by the persistent virulence of the latter, are likely to afford much useful help and information. The essay on some "run-over" cases is an able contribution to abdominal surgery, and its perusal will afford much relief to surgical seniors who still cling to a prudent conservatism in their treatment, and are disposed to resist the indiscriminate resort to an exploratory laparotomy in cases of injury to the abdomen. In the last paper the reader will find a thoroughly comprehensive though epitomised review of the present condition of aural surgery.

NOTES ON BOOKS.

PHARMACEUTICAL HANDBOOKS.

The Pharmaceutical Formulary, the twelfth edition of Beasley's *Pocket Formulary*, edited by J. O. BRAITHWAITE (London: J. and A. Churchill. 1899. Fcap. 8vo, pp. 464. 6s. 6d.) is a synopsis of the British, French, German, and United States *Pharmacopœias*, and of the chief unofficial formularies in common use in this country and abroad, and such other medicinal formulæ as experience has proved to possess more than local importance. This twelfth edition is in reality a new work, since the book has been entirely rewritten. The author has certainly succeeded in his object of bringing together in a compact and convenient form all that is best in what is practically the world's pharmaceutical practice. The definite information given upon so great a number of substances, together with the numerous formulæ, will render this book of great value to the medical practitioner as well as to the pharmacist.

The tenth edition of Drs. Harvey and Davidson's *Syllabus of Materia Medica* (London: H. K. Lewis. 1898. 16mo, pp. 80. 1s.) has been revised in accordance with the *British Pharmacopœia*, 1898, by Mr. MARTINDALE, who, in order to aid the transition, and to encourage medical practitioners and students to use the metric system for prescribing, has given the approximate doses of each drug and preparation in metric terms. The book is intended to be a guide to the medical student in his study of the more important articles and preparations of the *Pharmacopœia*. Its size renders it convenient for the pocket and for ready reference.

Aids to Materia Medica, Parts I and II, by W. MURRELL, M.D., F.R.C.P. (London: Baillière, Tindall, and Cox, 1898. Crown 8vo, pp. Part I, 91. Part II, 133. 2s. 6d. each) are on the lines of the *British Pharmacopœia*, 1898, and all the new preparations and processes are introduced. An introduction and the materia medica of inorganic substances comprise the contents of Part I. The second part is devoted to drugs of vegetable origin. These books will no doubt be useful to the student for examination purposes, the subject being one which lends itself to the synoptical method.

M. H. BOCQUILLON-LIMOUSIN has got out the new issue of *Formulaire des Médicaments Nouveaux pour 1899* (Paris: J. B. Baillière et Fils. Fcp. 8vo, pp. 332. Fr. 3) with commendable promptitude. It gives an account of some hundreds of new drugs which have come into existence during the last few years. The information respecting each medicament comprises its source, physical and chemical properties, physiological action, therapeutic application, dose, and method of administration. The rate at which new medicines are introduced is remarkable. This edition contains thirty-seven remedies which appear for the first time in the formulary. Their names are benzeucaine, betula, captol, cosaprine, creasolide, eigone, erythrol, eupthalamine, guaiacyl, gasterine, quinine, glycerophosphate, guaiaquine, guethol, hydrargyrol, ingestol, iodocaseine, iodogallicine, iodoterpine, rubidium iodide, laogine, oleates, silver orthophosphate, protargol, quinochloral, saligallol, saliformine, salitannol, styrone, tannolbine, tannone, thiocol, ursal, valerydine, validal, vanadine, and vaso-dilators.

THE INEBRIATES ACT, 1898.—All the clauses affecting the detention of criminal inebriates are now being enforced. Under the clause authorising the detention, not exceeding three years in duration, of a prisoner convicted three times within the preceding twelve months of drunkenness, a young man, described as the terror of the local licensed victuallers at Rowley, who had been seventy times convicted, was ordered to be sent to an inebriate reformatory for two years.

MAJOR-GENERAL LEONARD WOOD, M.D.

The career of Major-General Leonard Wood, of the United States Volunteer, Military Governor of the Province of Santiago de Cuba, is one of interest to members of the medical profession, as he is a conspicuous example of the special fitness for organising and administrative work under new conditions which seems to be developed in a remarkable manner by a medical training. Reference was made in the British Medical Journal not long ago to the career of this distinguished officer, who, more perhaps than any other of the men who played a prominent part in the war between Spain and the United States, has impressed his personality on the mind of his countrymen as a strong man who can be trusted to do effectively whatever work, whether it be treating a colic or governing a conquered province, may come in his way.

General Wood, who is 38 years of age, graduated at Harvard in 1882, and a year afterwards joined the army as a contract surgeon. He showed the stuff of which he is made in the campaigns against the Apaches in Arizona and Mexico, in which, in addition to his medical duties, he commanded detachments, and won the medal of honour. When the war with Spain broke out he was an assistant surgeon in the United States army with the rank of captain. He was stationed at Washington, where he was in medical charge of the army officers and their families. Together with Governor Roosevelt, an old fellow campaigner, he was authorised to raise a regiment of cavalry of which Wood was to be colonel and Roosevelt to be lieutenant-colonel. This is the regiment which as the "Rough Riders" won for itself such distinction in Cuba. For his conduct at La Quasina Wood was promoted to the rank of Brigadier-General, and after the battle of San Juan he was appointed Military Governor of Santiago. He entered on his duties on July 20th, 1898, and in his new sphere of duty the value of his medical training soon became evident. Santiago was then one of the unhealthiest places in the world; its inhabitants were suffering from disease and famine, and were dying at the rate of 200 a day. General Wood has been at once Governor, Judge, Financial Officer, School Superintendent, Health Commissioner, Water Commissioner, and Street Commissioner; in short, the whole administrative machinery of civil and military government has been centred in this one man. How he has acquitted himself of his tremendous task may be gathered from an article published in *M'Clure's Magazine* for March by Mr. Henry Harrison Lewis, who visited Santiago in the autumn. Mr. Lewis sums up the work done by General Wood as follows:



Major-General Leonard Wood, U.S.V., Military Governor of the Province of Santiago de Cuba.

"At the time I concluded my visit of observation, there had been just four months of American rule in Santiago de Cuba. Those four months had effected:

"The rescue of the population from starvation to fair satisfaction of all their daily necessities.

"A reduction in the municipal expenses.

"The conversion of one of the foulest cities on earth to one of the cleanest.

"The reduction of an average daily death-rate of 200 down to 10. A considerable progress in a scheme of street and road improvement that will add immensely to the convenience and beauty of the city.

"A radical reform in the custom-house service, resulting in increased revenues.

"The correction of numerous abuses in the management of gaols and hospitals and in the care of the inmates.

"The liberation of many persons held on trivial or no charges, the reformation of the courts, and a strict maintenance of law and order.

"The freedom of the press.

"A restoration of business confidence, and a recovery of trade and industry from utter stagnation to healthy activity.

"This unparalleled regeneration has been wrought, not by a host of men native to the locality, exercising offices long established and enjoying a traditional prestige, but by an American brigadier-general of volunteers, a stranger to the place and people, embarked in the work on a moment's notice, and having for his immediate *aides* only a few fellow army officers, some of whom had been out of West Point less than two years, and all of whom were as new to the situation as himself. It was the *tour de force* of a man of genius; for in the harder, more fundamental, of tasks that confronted him here General Leonard Wood had had no previous experience."

General Wood, as his friend and brother-in-arms, Governor Roosevelt, has told us, was a Cape Cod boy, and to this day there are few things which delight him more than to sail a small boat off the New England coast, especially in rough weather. In his campaigning against the Indians he underwent fatigue and hardship which only a man of iron frame and the most resolute courage could have endured. And of him, as of Mark Antony, it might be said, that all this was borne so like a soldier that his cheek "so much as lank'd not." General Wood is a born leader of men.

The photograph of General Wood here reproduced was taken by Miss Frances B. Johnston, and was published in the *Buffalo Medical Journal* for April, to which we are also indebted for most of the facts given as to the career of the Military Governor of Santiago de Cuba.

The Medical Department of the United States Navy.—The Naval Personnel Bill, which passed the last Congress, gives the rank and pay of rear-admiral to the chief of each bureau, including that of medicine and surgery, promoting Dr. van Reypen, the present head of the medical department. This Bill also increases the pay of the medical officers of high rank, but works to the disadvantage of those occupying the lower grades, the newly-commissioned naval surgeon now having the rank and pay of a second lieutenant of infantry, whereby his brother officer in the army begins his military career with the rank and pay of a first lieutenant of cavalry.

THE GERMAN MEDICAL CONGRESS.

[From our Special Correspondent.]

Carlsbad was chosen as the meeting place of the seventeenth German Medical Congress in consequence of the strong desire of the Austrian members, who were anxious to show their German colleagues their famous health resort and its institutions. The number of meeting places is restricted to five, but on this occasion Carlsbad was chosen instead of Vienna. In spite of inclement weather, the attendance was very good, representatives of Germany, Austria, and Russia being most numerous. Among well-known physicians present there were v. Leyden, Senator, Nothnagel, v. Jaksch, Ewald and Schott.

The Forests and Springs.

A very brief survey of Carlsbad suffices to show its natural beauties and advantages. Situated as it is in a long and exceedingly narrow ravine running from north to south, the valley being also tortuous, the exposure to cold winds is reduced to a minimum. Almost overhanging the town on the precipitous sides of the valley or ravine are extensive forests consisting mainly of pines, beeches, and firs, which cover miles of shady walks and bridle paths. It should be generally known that the cure can be carried out at all times of the year, and in fact the number of winter visitors and residents is increasing. The cure consists in baths—mineral and "moor"—together with copious drinking of the waters. There are eighteen saline springs, of which the most famous is the "Sprudel." They vary in composition and temperature to a slight extent, the Sprudel, with a temperature of 162° F., being the hottest. They are now all covered by ornamental halls, pavilions, and colonnades.

The Sprudel is the spring alleged to have been accidentally discovered by the Emperor Charles IV in the 14th century; but though the waters soon gained notoriety and were freely used by bathers, their internal use was not commenced until two centuries later. The Sprudel itself is a jet or fountain discharging about 500 gallons of water a minute. Until recently it regularly burst its capsule or shell every thirty to forty years, until by means of regular boring a constant and sufficient outlet for the carbonic acid was provided. The shell consists of deposited lime salts, which eventually occluded the orifice, but now the jet rises from a properly constructed fountain in throbs, varying from 40 to 60 a minute to a height of from 7 to 14 feet. The unused waters are not now allowed to run to waste, and a company pays annually a vast sum for the right of bottling or evaporating the precious fluid during the winter months for exportation. There are two other springs with ferruginous and acid waters.

The bath houses are numerous and elegant, notably the newly-erected Kaiserbad. This is a considerable improvement on the older bath houses, and would satisfy the demands of the most ardent advocates of physical therapeutics. Under one roof it is possible in the 126 bath rooms to indulge in cold water baths, vapour baths, steam baths, spray baths, electric water baths, electric light baths, "moor" baths, and various modifications such as applications to portions of the body only. In the electric water bath the patient by his position completes a circuit. Electric light baths have recently received attention. Two of these, each with 48 incandescent lights arranged around the sides of a small case, are in much demand during the season. For use at Carlsbad the "moor" for the moor or mud baths is dug from large heaths at Franzensbad after removal of a small thickness of surface soil. The moor itself is a fine dark brown powder, believed to be geologically midway between vegetable mould and coal. It is ferruginous, and by admixture with Carlsbad Sprudel water in the bath its irritating effect is reduced. In most cases the body is completely immersed, but it is also used in the shape of compresses. It seems indicated in congestive diseases, but complete investigations and results are still wanting. All baths are supposed to occupy one hour, and with many the presence of a physician is imperative. The whole of the large upper floor is devoted to the Physical Institute with its innumerable gymnastic appliances. All the baths, springs, etc., are the property of, and are administered by the municipality.

Opening Ceremony.

Unofficially the Congress began its work on the evening of April 10th, when members met at the Stadt Park Restaurant to exchange greetings and sup together in an informal manner. The actual work began on the morning of April 11th, in the ball room of the "Kurhaus," the proceedings being opened by Professor Quincke (Kiel), who, after a few introductory remarks, gave a historical survey of medical treatment up to the present time. He was followed by Count von Condehove, Governor of Bohemia, who, as representative of the Austrian Emperor, welcomed those present. He remarked incidentally that whereas in 1888 16 per cent. of deaths in Bohemia were due to infectious diseases, this percentage in 1898 was reduced to 6. Officials representing the Ministry of Culture and Education, the Ministry of the Interior and Public Health, and the Ministry of War, followed. Others invited to address the meeting were a Deputy from the Prague University, Councillor von Hochberg (97 years old), the Nestor of the Carlsbad medical profession, and the Burgomaster of Carlsbad.

Organisation of the Congress.

The practice of the Committee is annually to select two subjects of scientific interest, and then to invite two of the members to prepare papers on each subject. The reading of these papers is followed by discussion. The remaining time is occupied by papers of which previous notice has been sent, these also being discussed.

Insufficiency of the Heart Muscle.

The task of introducing this, the first subject selected, was undertaken by Professor L. v. Schroetter (Vienna). He observed that the cardiac muscle differs from striped muscle, not only in its microscopical appearance, its nerve supply, and its electrical reaction, but also in the higher potential energy and reserve it possesses, which reserve is unequalled by that of any other organ in the body. He expressed the opinion that even from embryonic life cardiac muscle may be diseased, possibly owing to hereditary causes; but the heart muscle possessed a power of compensation not possessed in the same degree by any other structure in the body. The importance of congenital weakness of heart muscle as a cause of hypertrophy had not, he thought, received due attention. This congenital weakness did not appear to be connected with the nervous system, because the heart existed and pulsated in the embryo before any ganglia of the sympathetic system could be formed on it. In this connection he also remarked on the absence of pain in the heart, the pain produced by angina pectoris being situated outside, behind the sternum and around the base of the heart. These observations led him to the conclusions: first, that congenital weakness of the heart produced hypertrophy; and, secondly, that the vagus nerve reacts by means of hyperkinesis, which would explain the nervous symptoms of tachycardia which occur in cases of cardiac insufficiency. Clinically, this had manifested itself by instances where life ceased, apparently from muscular exhaustion secondary to active cerebral work, of which an example was quoted. A woman, aged 36, previously healthy, attended her husband during a lengthy and fatal illness. After his death she expressed her wish to die also, and under the author's observation tachycardia gradually supervened, ending in death, the only other symptoms noticeable being vomiting during the last two days of life. In severe cases of toxic disease, such as pneumonia and scarlatina, the connection between the nerves and the accompanying weakness of the heart was striking. Investigations, however, of the nervous elements had yielded but little information, and inquiries were now being more directed to the myocardium. Attention was first given to the coronary arteries, and in this connection it was found that ligature of the right artery was more easily tolerated than ligature of the left, to judge from immediate effects. Arterio-sclerosis of the coronary might also lead to foci of myocarditis, but these evil effects were generally obviated by collateral circulation. Again, as regards pericarditis and endocarditis, the danger had appeared to be due more to changes in the cardiac muscle, and not to depend so much on the amount of exudation as on the number of the vegetations. A similar effect was seen in specific toxic diseases like diphtheria, scarlatina, variola, and acute polyarthritis, where the

naked-eye appearances of the heart muscle only indicated a few outward patches of myocarditis, but where deep serous infiltration, especially at the apex and base of the left ventricle also existed. It was especially in these cases that bradycardia, instead of tachycardia was met with. Of this he related an instance. The patient was a girl who, with a high temperature, had a pulse of 32, which only rose just before death. Then again, injuries to the chest wall might lead to myocarditis, or even endocarditis. Dr. v. Schroetter then discussed that category of cases in which an overtaxing of the heart during life led to changes in its walls. He dwelt on the excessive muscular work undertaken in the pursuit of sport by people of sedentary habits whose mental activity suppressed all feeling of fatigue, and led them easily to overlook the moment at which danger supervened. Here again individuals suffered differently, and the time of day, the position of the body, and the surrounding circumstances must be taken into account. The treatment should be mainly prophylactic, and directed to watching patients carefully for a considerable period after an acute infectious disorder.

Professor Martius (Rostock) then followed with a similar paper, during the course of which he remarked that it was now more and more recognised that the heart in most instances was the first organ to die. Fatty degeneration and infiltration he was inclined to regard as less serious than had been generally thought hitherto. He considered that for the present morbid anatomy was not likely to throw much light on the nature of insufficiency of cardiac muscle, but that research should be in a clinical direction. As regards the heart's impulse, he still considered it impossible to state which function of the heart produced it. He claimed, however, to have established by a new method the fact that the systolic impulse as perceived clinically occurred during the closure of the valves. He found that healthy, normally constructed young men showed no apex impulse at all, whereas weakened hearts frequently yielded a diffuse and accentuated impulse, especially if the heart were large. He concluded that the normal heart performed its work under the most favourable conditions, and with absence of any friction, whereas in the diseased heart every concussion with the thorax wall represented a certain loss of energy. Consequently displacement, diffusion of area, and accentuation of impulse all pointed to an increase in the volume of the living heart. He would use the expression "increase in volume" in most cases in preference to the word "hypertrophy." Clinically there was as a rule more enlargement than could be established anatomically; an increase in the size of the cavities could never be brought about idiopathically. Many patients complained of cardiac symptoms, but without the presence of abnormal sounds; they were frequently assured that the heart was healthy, whereas closer examination would reveal an increased impulse, displaced to the left, and a small compressible pulse, symptoms agreeing with the conditions above described. Martius concluded with the statement that clinical (bedside) investigation was, and would always remain, the foundation for research.

Th. Schott (Nauheim) opened the discussion, coupling with it his paper on The Treatment of Chronic Heart Disease in the Young. He remarked that though these ailments in young individuals showed no symptoms which were exclusively their own, they possessed marked differences as regards, for instance, the seat of lesion when compared with adults. Thus the frequency of arterio-sclerosis in advanced years led to a more common affection of the aortic valve, which in early life would very rarely be diseased. Latterly he had directed his research towards investigations as to the effect of cycling both in the healthy and of two cases of cardiac disease, one a motor neurosis, the other a valvular affection with complete compensation. It became evident that in all cases when the speed was increased or the labour became excessive the heart dilated, the pulse becoming frequent, irregular, and showing abnormal curves, pointing to cardiac insufficiency. As regards treatment, he relied on physical measures at first in suitable cases. These were baths, suitable diet, and regulated exercise (mountaineering and gymnastics).

Dr. Grossmann (Vienna), continuing the discussion, remarked that whereas peripheral nerve stimuli almost invariably excited the heart to increased action, some branches of the trigeminus, for instance, had the opposite effect, which would tend to explain certain cerebral effects.

Professor Romberg (Leipzig) attached more importance to coronary changes. He also raised the question of the importance of taking into consideration not only want of contractile power, but also decreased ability to relax. As regards corpulent people he had noticed that the deficiency of muscle in the framework was accompanied by a proportionate wasting of the heart. Similarly, the phthisical heart shrinks to a degree corresponding with the general loss of weight. He did not consider it an anomaly if the apex beat in the case of children was felt in the axillary line.

Professor His (Leipzig) pointed out that all that was known regarding the nervous mechanism of the heart was that the nerves were those arising from the ganglia themselves, and those which passed through the ganglia but took their origin in the spinal cord. During the course of a recent investigation he was able to observe an unrecorded phenomenon. For 30 to 45 seconds the ventricles remained still, the ordinary heart sounds, apex impulse, and pulse disappeared, but a rhythmical sound was audible over the auricles, and a venous pulse distinctly visible in the neck. Even after the heart's contractions returned—as they did at the rate of 20 to 30 a minute—the contractions of the auricle continued more frequent.

Professor Quincke (Kiel) traced a connection between a strong apex beat and a weak pulse as the result of emotions. He considered that there was often an absence of co-ordination in the cardiac muscles, and that its absence accounted for many symptoms. By the use of the Roentgen rays he had been able to see that the heart might fill but not empty itself completely (an abortive contraction). This condition might exist along with a condition in which the heart did not fill itself completely. It was the former condition which he considered due to want of co-ordination.

Professor Poehl (St. Petersburg) remarked that the products of cardiac exhaustion belonged to the xanthin group, but that they were more readily oxidised. In many cases of cardiac disease the urine was excreted under a much reduced osmotic pressure. Mineral waters could increase this, and thus assist the heart.

Some ten or twelve other members—among them v. Leyden and v. Jaksch—had announced their intention to speak on the subject, but, after a proposal to proceed with new papers, a show of hands was in favour of closing the debate.

In summing up, Professors v. Schroetter and Martius stated that they agreed as to the outline of their respective spheres of work, and expressed gratification that they agreed in the main, though they could not modify their views so as to make them coincide with those of the other speakers.

Aortic Aneurysm.

A paper was read on this subject by Schmidt (Frankfort), who during an experience extending over 54 cases—52 in men, 2 in women—found evidence of syphilis in 16 instances. One of the earliest symptoms noticed was hoarseness, and among signs he found that of Oliver-Cardarelli most useful and constantly present. The "tugging," however, as noticed by himself, was in a downward direction. He also advised the habitual use of Roentgen rays for diagnosis. He was inclined to believe that syphilis frequently caused changes in the arterial wall which commenced as a thickening. In Bavaria, where some women did excessive physical work, he had found aortic aneurysm as frequent as among men. As regards treatment, he had had the best results from potassium iodide, to which he attributed the power of promoting the formation of cicatricial tissue. With medicinal treatment he had invariably combined rest in bed and dietary restrictions for eight weeks. In 8 cases he had succeeded in effecting a cure; 3 of these had been submitted to examination by the Roentgen rays, and the pictures still showed the extension of the aortic shadow. During the discussion,

Professor Hausemann (Berlin) stated that he had carefully looked for evidence of syphilis in 350 submitted to *post-mortem* examination by himself. In 64 instances large and small aneurysms of the aorta were found, which, however, had not in all cases been the cause of death. Evidence of syphilis was found in 12 persons, and of these 2 had succumbed to aneurysm. He doubted the possibility of potassium iodide

influencing the formation of connective tissue, but thought that it had a blood-coagulating influence.

Professor SENATOR (Berlin) believed that there was a connection between arterio-sclerosis and aneurysm. He did not consider the application of the Roentgen rays essential except for the purpose of diagnosing aneurysm of the descending portion of the aorta. He mentioned that he had a case under treatment which had received 6 injections with 1 per cent. gelatine solutions.

Professor v. SCHROETTER (Vienna) used the Roentgen rays to discover the shape of an aneurysm.

Professor BAÜMLER (Fribourg) referred to Macewen's treatment as deserving further trial.

Dr. UNVERRICHT (Madgeburg) advised care in the application of mechanical treatment, as he recently saw a patient die suddenly in whom the aneurysm was already filled with an old coagulum.

Professor QUINCKE (Kiel) could not help connecting syphilis and aneurysm in view of the invariable success attending a course of treatment with potassium iodide inunction.

HYALINE DEGENERATION.

Professor CZERNY (Breslau) stated that hyaline resulted from the destruction of cell protoplasm. Its presence could be detected my means of Weigert's fibrin colour reagent. Artificially it might be produced by inducing suppuration, but disappeared in healthy subjects. In the cachectic, it changed into amyloid material, and in them it might also be carried by the circulation and deposited in and around the vessels, more especially those of the brain. As secondary parenchymatous changes might thus result, it was possible that their occurrence might explain the cerebral disturbances in infectious diseases. This concluded the labours of the first day.

VISITS TO INSTITUTIONS.

The municipality arranged visits of inspection to the Kaiserbad and other institutions after the morning and afternoon sittings. During the evening there were informal gatherings at various restaurants.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on April 13th, 1899, Sir WILLIAM MAC CORMAC, Bart., K.C.V.O., President, in the Chair.

JACKSONIAN PRIZE.

The Jacksonian Prize for 1899 (subject, Hydrophobia) was not awarded. The subject chosen for the prize for the ensuing year 1900 is the Pathology, Diagnosis, and Treatment of the Diseases caused by and connected with Imperfect Descent of the Testicle.

COMMITTEE OF MANAGEMENT.

The Committee reported upon the following subjects:

1. *Recognition of the Royal University of Ireland.*—The report stated that the Royal University of Ireland was the only University whose examination in anatomy and physiology was not accepted in lieu of the Second Examination, owing to the condition in the regulation that residence at the University was necessary in the case of Scotch and Irish students; the Committee being of opinion that it was desirable that students of the Royal University of Ireland should not be under the disability of having to pass the Second Examination when they had completed the examinations in those subjects required for the Degree in Medicine of their University, they recommend that the following words be omitted from Paragraph 3, Section III, of the Regulations, namely, "where it is required that not less than two of the five years' curriculum of professional study shall have been spent in residence at the University."

2. *Recognition of Science Institutions.*—The Committee recommended that the following institutions, all of which had been visited and reported on by a member of the Committee, be added to the list of institutions recognised for instruction in chemistry, physics, and practical chemistry, namely: (*a*) Municipal Technical School, Manchester; (*b*) Bury Grammar School; (*c*) Swindon and North Wilts Technical School; (*d*) Mathematical School, Rochester.

3. *Cooke's School of Anatomy.*—In consequence of the death of Mr. Thomas Cooke, an application had been received from Mrs. Cooke asking that the recognition of the school might be continued on the understanding that the system of instruction in anatomy and physiology and operative surgery was continued on the same lines by a staff of teachers, two of whom had been with the late Mr. Thos. Cooke for several years, and by Mr. F. G. Hamilton Cooke, the son of the late Mr. Thomas Cooke. As the school was recognised in January, the Committee proposed to continue the recognition for the current year.

4. *Bacteriology for the Diploma of Public Health.*—The Committee recommended that the two examiners in Part I for the Diploma in Public Health be authorised to nominate for approval by the Committee of Management, an "assistant examiner in bacteriology," to examine in bacteriology, and be subordinate to the examiners in that part. The Committee further recommended that a remuneration of ten guineas for each examination should be given to the assistant examiner, and that he should be appointed for a year only, but be eligible for reappointment for four more years.

5. *Recognition of Schools.*—The Committee recommended that the Birmingham and Midland Eye Hospital should be added to the list of ophthalmic hospitals recognised by the Board; and that the course of laboratory instruction at the Middlesex Hospital School of Medicine should be recognised for the Diploma in Public Health.

The report was adopted by the Council.

CENTENARY COMMITTEE REPORT.

The Committee unanimously recommended that the centenary should be celebrated at some time between March 22nd and June 30th, 1900.

The Committee regard it as of cardinal importance to the success of the Centenary that the Council should have power to confer diplomas of Honorary Fellowship. In 1897 the Council were advised that a further charter would be necessary for this purpose; and the Committee now recommend that steps be taken with a view to obtaining a supplemental charter enabling the Council to confer these honorary diplomas on persons not being Members of the College, and that the legal advisers of the College be instructed to draft the necessary petition and charter.

It was determined that a meeting of Fellows and Members be held to consider the question of applying for power to confer honorary diplomas, the date of the meeting to be determined at a future occasion.

BRADSHAW LECTURE.

Mr. Howse was chosen as Bradshaw lecturer for the ensuing collegiate year.

INTERNATIONAL CONFERENCE ON VENEREAL DISEASES.

A letter, dated March 18th, was read from Mr. A. W. FitzRoy, Clerk to the Privy Council, stating, by direction of the Lord President, that the intentions of Her Majesty's Government as regards direct representation at the proposed International Conference at Brussels respecting Venereal Diseases had been modified to the extent that representatives to be appointed by the War Office and India Office would act as delegates of Her Majesty's Government, but that this was without prejudice to the liberty of the Royal College of Surgeons to send representatives of its own if desirous of so doing. The representatives of the College at the above conference are Mr. Alfred Cooper and Mr. Jonathan Hutchinson.

VACANCY ON THE COURT OF EXAMINERS.

The PRESIDENT stated that the vacancy on the Court of Examiners, occasioned by the expiration on May 10th next of Mr. J. McCarthy's period of office, would be filled up at the ordinary Council on May 11th.

The vacancy occasioned by Mr. J. McCarthy's resignation on the Board of Examiners in Dental Surgery will also be filled up on May 11th.

FELLOWSHIP BY ELECTION.

The Council elected to the Fellowship the two following gentlemen, Members of the College of twenty years' standing: Thomas Frederick Chavasse, Birmingham (April 19th, 1876); Frederic Shepard Dennis, New York (July 25th, 1877).

THE ANNUAL REPORTS OF THE REGISTRARS-GENERAL FOR ENGLAND AND SCOTLAND.

ENGLAND AND WALES.

THE annual report of the Registrar-General of Births, Deaths, and Marriages, which was issued on Saturday, April 15th, deals with the vital statistics of England and Wales for 1897. Although the earlier publication of quarterly returns somewhat discounts the interest attaching to the principal statistical facts of the year, the report just published contains a large amount of detailed information relating to the causes of death and the age at death necessary to the true appreciation of the death-rate.

Marriages and Births.

With regard to the marriage-rate during 1897, it showed a further increase upon that recorded in recent years, and was higher than in any of the twenty preceding years. The births registered in England and Wales during 1897 were equal to a rate of 29.7 per 1,000 of the estimated population; this rate corresponded with that in the preceding year, and, with one exception, was lower than in any year on record. The highest birth-rates were, as usual, in the mining or manufacturing counties of South Wales, Monmouthshire, Staffordshire, and

Durham, their populations containing a large proportion of young married people. The male births were in the proportion of 1,037 to each 1,000 female births, which almost corresponded with the average.

Deaths.

The 541,487 deaths registered during 1897 were equal to a rate of 17.4 per 1,000 persons living, or 1.2 below the mean rate in the ten preceding years. With the exceptions of the rates in 1894 and in 1896, the death-rate in 1897 was considerably lower than in any year on record. The lowest county death-rates were 13.3 in Surrey, 13.4 in Middlesex, 13.7 in Sussex, and 13.9 in Buckinghamshire; and the highest rates 19.5 in Staffordshire and in North Wales, 19.6 in London, 20.0 in Warwickshire, and 20.4 in Lancashire. With regard to the mortality at different age-periods, compared with the exceptionally low rates of the preceding year, the death-rates in 1897, both among males and females, showed an increase at nearly all age-periods. The proportion of deaths of infants under 1 year of age to registered births was 156 per 1,000, and exceeded the average. Infant mortality among males considerably exceeds that among females; to 1,000 of each sex born during 1897 the proportions of deaths under 1 year of age were 170 males and 141 females, showing an excess of 21 per cent. among males as compared with females. The urban death-rate during 1897 was equal to 1.82, and the rural rate to 15.8 in each 1,000 of their respective populations; both these rates were considerably below the average.

Causes of Death.

With reference to the causes of death in England and Wales during the year under notice, the death-rate from zymotic or specific febrile diseases, although below the average, showed a slight increase upon that recorded in the preceding year, owing to the marked increase in the fatality of influenza and of diarrhœa; the mortality from diphtheria also exceeded the average, but that from small-pox, measles, scarlet fever, whooping-cough, and "fever," was below the average. The fatal cases of small-pox, which had been 820, 223, and 541 in the three preceding years, were only 25 during 1897; they were fewer than in any year since 1890, and with two exceptions were considerably below those in any year on record. Of these 25 deaths, 16 were those of London residents, leaving only 9 in the rest of England and Wales. The deaths referred to influenza during 1897 were 6,088; although this number greatly exceeded that of 1896, it was nevertheless below that recorded in any other year since 1890. Hydrophobia was the certified cause of death in 6 instances during 1897, against 13, 20, and 8 in the three preceding years. The death-rate from intemperance both among males and females was the highest on record. The mortality from constitutional diseases was slightly below the average, but the death-rate from cancer among both sexes was higher than in any preceding year; the male rate exceeded by 20 per cent., and the female rate by 11 per cent., the corresponding mean rates in the preceding ten years.

Imperfect Information.

The causes of 23,057, or 4.3 per cent., of the total deaths during 1897 were so unsatisfactorily stated in the returns as to be useless for purposes of scientific classification. Such cases would have been still more numerous but for the inquiries which are systematically addressed by the Registrar-General to medical men concerning indefinite certificates of causes of death. As many as 4,130 replies were received in the course of the year under notice, with the result that nearly 3,000 contained information which led to the more accurate classification of the cause of death. For example, 695 deaths from vague headings such as tumour, or disease of liver, ovaries, uterus, etc.—were transferred to cancer, 312 accident, 151 to puerperal fever, and 90 to syphilis.

Scotland.

The forty-fourth annual report of the Registrar-General for Scotland, also just issued, covers the year 1898.

Deaths.

The population of Scotland, as estimated to the middle of the year 1898, was 4,249,946; of this number 2,053,648 were males, and 2,196,298 were females. The number of births was 130,879, and of deaths 78,406, giving an excess of births over deaths of 52,473. There was an increase of births and marriages, and a decrease of deaths when compared with the corresponding ratios for the previous year. The death-rate was 18.4 per 10,000 of the estimated population. In eight of the principal towns—Glasgow, Edinburgh, Dundee, Aberdeen, Leith, Paisley, Greenock, and Perth—32,153 deaths were registered, giving a death-rate of 20.5 in every ten thousand of the estimated population, or 2.05 per cent. It is satisfactory to note that Edinburgh, despite its evil reputation for east winds, has the third lowest death-rate of the eight towns named. Leith, somehow, has the lowest, and Greenock the highest. In the matter of illegitimate births Leith also shows the best record.

Miasmatic Diseases.

It would have added greatly to the value of the report could one have gathered the number of deaths throughout Scotland from the various diseases under this heading. We must, however, be content with these statistics, in so far as they relate to "eight of the principal towns in Scotland."

Whooping cough	caused	1,198 deaths	Chicken-pox	caused	5 deaths
Measles	,,	914 ,,	Mumps	,,	1 death
Scarlet fever	,,	402 ,,	Small-pox	,,	1 ,,
Enteric fever	,,	350 ,,	Relapsing fever	,,	1 ,,
Influenza	,,	336 ,,	Cerebrospinal fever	,,	1 ,,
Diphtheria	,,	252 ,,	Epidemic rose rash	,,	1 ,,
Typhus fever	,,	28 ,,			

Of the 1,198 deaths from whooping-cough in the eight principal towns in Scotland, 1,151 were in children under 5, and the remaining 47 in persons between the ages of 5 and 20. Of the 914 deaths from measles, 861 were in children under 5; of the 402 deaths from scarlet fever, 249 were under 5; and of the 252 deaths from diphtheria, 207 were under 5.

"*Puerperal Fever.*"

In Sir Henry Littlejohn's annual report of the city of Edinburgh, noticed in the British Medical Journal of April 15th, he says:

> Only 5 cases of death are recorded from this cause (puerperal fever). I am afraid, however, that this represents a too favourable view of the mortality from this disease, and that some deaths, at any rate, which ought to be counted under this heading are ascribed to subsidiary conditions which do not indicate the true nature of the case.

The Registrar-General's report gives 7 deaths in Edinburgh from puerperal fever, and 21 from diseases of parturition (including abortion). Sir Henry Littlejohn tabulates 23 deaths in the Edinburgh Maternity Hospital, which treats something like 340 indoor patients annually. This, in relation to the total of 26 or 28 in Edinburgh, seems to call for some explanation, or to some greater accuracy in the nomenclature of death certification.

Typhus and Smallpox.

The 8 principal towns of Scotland do not compare well with England or London in typhus fever. Edinburgh heads the list with 9 deaths, Glasgow is second with 8, Dundee 7, Aberdeen 2, Paisley and Greenock 1 each, while Leith and Perth have a clean record.

Leith is responsible for the only death from smallpox. It occurred in a person under the age of 20 who had been vaccinated. It is stated that a child under 5 died in Aberdeen from "cow-pox and other effects of vaccination."

Phthisis.

Phthisis caused 2,985 death, of which 1,404 must be credited to Glasgow, 530 to Edinburgh, 336 to Dundee, 239 to Aberdeen, 151 to Leith, 142 to Paisley, 127 to Greenock, and 56 to Perth.

The percentage of deaths from phthisis to the population in each of the 8 principal towns was as follows:

Greenock	0.210
Dundee	0.205
Leith	0.199
Glasgow	0.196
Paisley	0.188
Perth	0.187
Edinburgh	0.179
Aberdeen	0.171

The evil reputation of Edinburgh in regard to chest disease is thus shown to be unmerited. It has often before been pointed out that it is not the most fatal town in Scotland for those suffering from phthisis as is sometimes stated. Its percentage death-rate is much under the average, and it actually occupies the second best position among the towns of Scotland. No doubt the mortality from phthisis is still far

too large, but that is another matter which the municipal authorities are already dealing with.

Other Causes.

Cancer caused 1,296 deaths, and diabetes mellitus 54. There were 75 suicides, 7 homicides, and 1 execution; and no fewer than 1,286 persons in the 8 towns named died from "ill-defined and not specified causes," surely an argument in favour of better registration.

LITERARY NOTES.

AT the time of his death Sir Benjamin Ward Richardson had virtually completed a series of biographies of the leaders of medicine upon which he had been long engaged. These are to be published by Messrs. Hutchinson and Co., in two volumes, under the title of *Disciples of Æsculapius*.

We are informed that Messrs. Macmillan will, in the course of the present year, publish a biographical work dealing with leading members of the medical profession in the nineteenth century. The author is Mr. J. Y. W. MacAlister, librarian of the Royal Medical and Chirurgical Society.

In the *Phonographic Record* for April, Sir William Gowers has a note upon a case of Parental Consanguinity, in which four out of the six children of a "first-cousin" marriage were born blind. In the same number, Dr. Thomas Eastes discusses The Open-air Treatment of Consumption, and Dr. Thomas Caiger details two cases of Tapeworm Complicating Typhoid Fever, which suggest to him the probability that the typhoid bacilli kill the worm.

The Rebman Publishing Company will shortly issue a *Text-book of Pathology*, by Professor Stengel, of Philadelphia. An entirely new *Pocket Medical Dictionary*, edited by Dr. W. A. Newman-Dorland, of Philadelphia; *An Atlas of External Diseases of the Eye*, by Professor O. Haab (of Zurich) edited by Dr. G. E. De Schweinitz, being volume vi in the "Hand Atlas" series; and Dr. J. P. Crozer-Griffiths's manual on *The Care of the Baby*, are also among the forthcoming publications of the same firm.

At the meeting of the German Surgical Society held recently in Berlin the Medical Department of the Ministry of War presented the first volume of a series of historical memoirs relating to German military surgery. The volume, which is from the pen of Dr. Albert Köhler, deals with medical officers and "field surgeons" of the 17th and 18th centuries. The work is illustrated with numerous portraits.

We understand that Professor Sheridan Delépine, of Owens College, Manchester, is now engaged in preparing for publication the lectures on general pathology which he has delivered during the last twelve years. Professor Delépine has also edited with annotations an *Atlas of Urinary Sediments*, which is now in the press.

A portion of the collection of manuscripts known as The Appendix, and formed by the late Earl of Ashburnham, is to be sold in May. According to a writer in the *Times*, the auction is likely to draw collectors from all parts of Europe and America. Among the "lots" is a collection of medical tracts, in verse and prose, recipes, etc., of the fourteenth and sixteenth centuries. Some of these are extremely curious. Among them is a treatise on blood letting, which begins as follows:

> Maystris that vthith blode letyng
> And that wyth geteth your levyng
> Here ye may lere wysdom full gode
> In what place ye schulle let blode.

An interesting piece of historical work is promised from Edinburgh, "*The Early Days and First Knights of 'The Royall Colledge of Phisitians,' Edingburgh*," the extended oration of the Harveian Society, Edinburgh, delivered at the 114th Festival by the President, Robert Peel Ritchie, M.D., F.R.C.P.E., F.R.S.E. The book, which is to be printed by Constable, will extend to about 350 quarto pages; it will be bound in buckram with gilt top, and will have ten collotype portraits. The edition is to be limited to 355 copies, at a guinea each to subscribers. It will be sent to press when 200 subscriptions are received. The book will deal with the state of medical teaching and examinations in the time of Harvey; the effect of Harvey's discovery, writings, and lectures in the formation of medical societies and hospitals; and medical progress subsequent to Harvey. The origin of the Scottish College of Physicians, and the various attempts to establish a college will be reviewed, and sketches given of the lives of the twenty-one original Fellows, Dr. Robert Trotter and Dr. Archibald Pitcairne being more fully noticed; and, at greater length, the lives of the four First Knights—Sir Archibald Stevenson, Sir Andrew Balfour, Sir Thomas Burnet, and Sir Robert Sibbald. The concluding part will show the important share the College took in the early medical school in Edinburgh, its relation to the University, and the aid it gave in the examinations for the University degree, until a Faculty of Medicine was formed by professors selected from its Fellows.

In an article on St. Helena in the Olden Tyme published in the current number of the *Imperial and Asiatic Quarterly Review*, Mr. R. A. Sterndale, the Governor of that ancient British colony, gives some curious extracts from the colonial records which date back to 1673. The Governor appears to have lived in a kind of patriarchal state and to have entertained the officials of the colony regularly at his table. This custom seems sometimes to have been a sore trial to the host, for in a letter to the court of directors of the East India Company, written apparently in answer to complaints made against him, the Governor of that day says:

> In the case of smoking tobacco, which the Governor finds great incommodity to himself, and therefore does expect the council not to smoak at table when he is present nor no man to come there when he is drunk. . . . And this Governor is of opinion that nobody ought to sit at table with him that is not cleanly drest, or that has an infectious distemper on him, or that is drunk, and never did forbid anybodies coming but for one of these above-mentioned reasons.

The custom seems to have been distasteful to some guests also, for in 1716 it appears that an exemption from dining was granted to Dr. Du May who, though cursed with a peculiar idiosyncrasy, must have been a person of very robust constitution if the following story be correct:

> We allow him dyett money because he can't eat at the Fort, where the half of the provisions is usually pork, and if he sees any pork he faints away, let it be where it will, and is very ill with it, so that we are forced when he comes down to the Fort to have everything of that nature taken out of sight. He is in other respects an honest, and we think, a skilful man. This Dr. Du May is the man we mentioned to be lett blood so often, so that in five weeks we computed he took from himself between five and six gallons of blood, a thing so strange we did not expect his life, but now he is well recovered and we think it did him good.

With reference to the MS. of the English translation of Guy de Chauliac referred to in this column last week, the Rev. Frederick K. Harford (Dean's Yard, Westminster) writes: It may interest your readers if I state what I know respecting the English MS. of Guy de Chauliac now in my possession, and about to be sold on Wednesday next by Messrs. Sotheby. It was formerly in the collection of Richard Coffin, of Portledge, of which family my father's mother was an heiress. Prince, in *The Worthies of Devon* (page 227), thus writes respecting him: "The present heir and possessor of this antient seat is a right worthy and worshipful gentleman of excellent learning, especially in venerable antiquity, which hath been much his delight and study. *He hath a noble library*, and knows well how to make use of it." At my father's death, in 1879, this MS. came into my possession, and in 1890 (if I remember right) I showed it to Sir Benjamin Richardson, who asked me to take it to Sir Andrew Clark, then President of the Royal College of Physicians. Sir Andrew said that, as no English copy of Guy de Chauliac was known, he much wished that this might be published; but I did not feel justified in acceding to this request. With respect to the value of such a work I cannot be considered a fit judge, having allowed a most beautifully illuminated folio Bible (thirteenth century) to be bought in September-October, 1896, for £350; its fortunate acquirer soon discovering that it was a "Harleian," and the Bibliothèque Nationale valuing it shortly afterwards at £1,000. Shall I confess with shame that this Chauliac MS. was nearly sharing the same fate? One opinion, however, I may mention as coming from a prominent Oxford scholar, who during the last twenty years has been reckoned by many the best prose writer as well as the best historical lecturer in England. Three weeks ago he gave his decided opinion that it could not be worth less than £600, and agreed with Sir Andrew Clark that the reproduction of this work would be an event of unusual importance to any who are interested in the noblest of all arts, that of alleviating human suffering.

ANALYSIS OF THE EVIDENCE GIVEN BEFORE THE PLAGUE COMMISSION.

IV.—Evacuation and Disinfection.

The one measure that has been most generally approved as being effectual in controlling outbreaks of plague when once the epidemic has got a firm hold on a place is evacuation of the place combined with disinfection of the emptied houses. There seems to be no two opinions as to the great value of this method in the case of villages and small towns, but the exact limitations within which it should be applied with success are open to considerable discussion.

Villages and Small Towns.

It will be well then to consider first the evidence as to the efficiency of the measure when applied to villages and small towns. Several villages in Sirohi which were attacked were evacuated, and the infected huts burnt and the houses unroofed and whitewashed, and their floors burnt. Only 8 cases occurred in the camps, 7 of which began within forty-eight hours, although the population dealt with was about 8,000, among whom over 100 deaths had previously occurred. In the Punjab evacuation of the infected villages was the main measure relied on, and the deputy sanitary commissioner who was in charge of the operations reported that he had never known it fail, and that it was successful at every season of the year. It must, however, be remembered in connection with the last statement that in the Punjab there is much less rain than in most other parts of India, while during the rainy season it is much less regular and constant than elsewhere. It was also observed in this province that even if plague was reintroduced into a village which had been evacuated and disinfected, it showed little or no tendency to spread, and the evacuation of a few houses was sufficient to check the second outbreak. In this province 86 villages, with a population of 91,892 were attacked, but the deaths numbered only 2,103. Villages with a population of 6,000 were successfully evacuated. The total cost of these measures in the Punjab was about 4 lakhs of rupees.

In the North West Provinces again in the case of the outbreak at Kankal and Jawalapur, the evacuation of these towns, the largest of which had a population of 12,000, was successfully undertaken, together with that of a few neighbouring villages which became infected, and a most dangerous focus was thus stamped out within a few months. In this case it was found to be impossible to evacuate the whole area simultaneously, but those parts of the town which were most affected were first dealt with, and in the course of about two months the whole town was evacuated and disinfected in compartments with the happiest results, the people having much less objection to this measure than to house-to-house visitation and compulsory segregation of the sick. In Kotri, again, 44 imported cases from Karachi occurred before the first indigenous case, and on the town becoming infected wholesale evacuation was carried out, with the result that although before this measure was adopted 65 cases had occurred within a short time, during the following months only 35 were observed. Disinfection was also carried out, but there was a recrudescence in three houses. In Cutch Mandvie, in the first outbreak in 1897, there were 4,224 deaths in a population of 60,000. The outbreak of 1898, which was less severe, was controlled by evacuation and death registration, 5,000 people being segregated. In Nasik evacuation was not resorted to at once, owing to the population being too large, but eventually the whole city was dealt with, and the epidemic was controlled. The few cases that occurred in camp were traced to people returning to their houses to look after their property. There seemed, however, to be little harm in allowing shops to be open during the day. In Satara, again, evacuation was considered to be by far the most important measure if thoroughly carried out in a village or small town, and was said never to have failed in bringing an outbreak of plague to an end. In Kaladgi, in addition to the evacuation of infected villages, in several instances those within a radius of four miles were also evacuated in advance, chiefly in the case of out-of-the-way villages, which could not be relied on to report the first case of the disease.

Large Towns.

It is at once evident that it must be much more difficult to carry out the method of evacuation in large towns, and the opinion of the Surgeon-General that evacuation was theoretically excellent, but impossible in practice in large towns, expresses the usual view on this point. Nevertheless, evacuation has in several instances been carried out on a very large scale, with a success sufficient to point to the measure being advisable wherever a piece of open ground large enough for the purpose is available near the town. Thus, in the case of Baroda, the population of which numbered 112,000, this measure was resorted to on a large scale. At least 40,000 people removed themselves outside the city limits into open spaces, while the city proper was evacuated entirely, and 11,000 more people moved into camp in March, 1898. Only 9 cases subsequently occurred in the camps, all of which began within the first week after removal, and the epidemic ceased in April. The people in this case were said to have recognised that the evacuation of their dwellings was a good measure. In Nasik, again, the plague broke out in October, and between November and January the whole population (25,000) was evacuated successfully. In Poona evacuation was carried out to a limited extent, 4,800 persons being sent into camp; among them only 1 case of plague occurred. This strengthened greatly the evidence as to its value. In the Bombay Presidency evacuation was carried out in many places at the end of the rains in November, and produced an immediate effect, the disease decreasing steadily until Christmas, when the province was to a large extent free. It was not, however, found possible to carry it out in Bombay city, but it is said that arrangements will be made to adopt it in parts of the town at a time if the disease increases again, as it now appears to be doing.

The best example of a large town being evacuated to a great extent is afforded by Karachi. In the second outbreak here the whole town proper was evacuated with successful results, the people being allowed to return to their shops in the daytime. The people favoured the measure, and in the voluntary camps alone there were 25,000 persons, and in the health camps the mortality rapidly declined. Whole quarters of the town, with an aggregate population of 40,000, were completely evacuated. Evacuation for two months, with exposure of the houses to the sun—if necessary by taking off their roofs—was sufficient to ensure safety on their being reoccupied.

It appears, then, that while evacuation is by far the most successful measure for combating outbreaks of plague in small villages, it may also be of very great value in fairly large towns if carried out by degrees, and especially if a large number of the people can be led to adopt it voluntarily. It is also of interest to notice that this is the measure that has always been relied on in outbreaks of *mahamari* or hill plague, in which it is successful. The measure must, however, be combined with disinfection of the evacuated houses, and there is a good deal of difference of opinion as to the best method of carrying this out.

Disinfection.

Disinfection of houses that have been occupied by plague cases has been universally carried out, and is doubtless of great value, although cases of recurrence of plague in houses that have been so treated have frequently been reported in small numbers. In one instance this occurred as long as thirty-four days after the disinfection. On the other hand, there is a difference of opinion as to whether it is necessary and advisable to carry out disinfection of whole villages or quarters of towns that have been evacuated. Some think that the construction of native houses renders it impossible to disinfect them thoroughly, while others consider that the cost of the wholesale process outweighs its advantages. There is a still wider difference of opinion on the value of different disinfectants; many advocate mercury perchloride as the best, others hydrogen peroxide, while several witnesses prefer simply to trust to digging out and burning the mud floors of the houses and then lime-washing them, or to taking off their roofs and leaving them exposed to the sun and air for a considerable time. In Poona mercury perchloride was considered to be efficient if the process was carried out by British soldiers, while in Baroda the cases of

the disease recurred in houses that had been disinfected by this chemical under the personal supervision of the health officer himself. The reason of these differences is probably, as shown by Mr. Hankin's experiments, that the cow-dung which is so largely an ingredient of the floors of native houses contains a good deal of alkali which precipitates the mercury from solution, and this difficulty can be overcome by adding acid to the disinfectant. The digging out and burning of the floors is probably a good method of disinfection, only it is somewhat dangerous to the coolies engaged on the work, and one witness thought it to be useless. Unroofing of the houses has been of service in the dry districts of Sind and the Punjab, but this is not always practical. The evidence so far published does not appear to be sufficient to allow of a dogmatic opinion being expressed as to the best method of disinfection of plague houses, and it will probably be found that different methods are best suited to various conditions and places.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

THE annual general meeting of the London and Counties Medical Protection Society was held at 12, New Court, Lincoln's Inn, on April 18th; the chair being taken by Dr. HERON.

The annual report stated that the large percentage of members who had required assistance during the year confirmed the experience of previous years, and showed the extreme necessity of combination among medical men for the purpose of protecting their interests and character. A large proportion of the cases arose from charges of malpractice made against medical men, for the most part without foundation, and apparently in consequence of the medical man having sent in his account for services rendered. Several cases had been fought out in the Law Courts, and the results had in every instance justified the opinion of the Council that the charge brought against the member was absolutely unfounded. The report stated that "in spite of the extreme difficulties arising from the chaotic condition of the laws regulating medical practice, a good deal has been done by the Society in the direction of checking the dangerous practices of quacks. The Society has been carefully considering what steps can best be taken with a view to promoting adequate legislation for the regulation of medical practice and the protection of properly qualified medical men, and it was hoped that in the present year some definite progress may be made in that direction." The financial affairs of the Society continued to show steady progress, and the reserve fund had been increased during the year from £433 to £748. The report expressed regret at the loss sustained by the death of Sir William Roberts, who a short time before his death had made a handsome donation to the reserve fund; and of Dr. W. F. Cleveland, who, from the foundation of the Society, had shown a warm interest in its affairs.

Dr. HEY proposed that the annual report be received and adopted; this was seconded by Dr. L. HART, who suggested that the constant inroads on the interests of the medical profession by lay combinations, such as the School Board and Boards of Guardians, should be considered by the society with a view to taking up the matter, as he did not think it right that the conduct of such business should be left to small local societies. He specially emphasised the fact that by combined effort much could be done.

The CHAIRMAN replied that the Council were always glad and ready to help in the defence of any member who was unjustly attacked, but he deprecated fighting the School Board or any other large and wealthy body when the London and Counties Medical Protection Society had but £1,000 to their credit, and it would naturally suggest itself to those present that any society to fight like that must have funds enough, if necessary, to push the matter through to the House of Lords.

Dr. THOMPSON said the Council had much useful work to do in defending the interests of the members when attacked, and thought that that was their first duty rather than fighting large corporations.

Dr. HUGH WOODS said that medical men were constantly "giving themselves away" by giving certificates for the School Board without receiving any payment. The School Board was now quietly getting medical men to work for the Board, leaving them, however, to get their fees from the parents of the children. In his opinion, medical men should refuse to give these certificates unless properly paid for so doing, and they might very properly refuse to furnish the detailed statements required in these certificates. The School Board endeavoured to obtain a statement of the precise nature of the disease a child is suffering from, and he would ask why any doctor should be put into the position of running the risk of an action for libel by precisely stating the reason of a child's illness, as, for instance, in the case of a child suffering from hereditary syphilis. The School Board insisted on medical men filling up long printed forms, tying them down in the most rigid manner, and then the Board quietly left the doctor to get his fee how and when he could. In his own district that was not the case. That was what happened in many districts, but he was unable to see that the London and Counties Medical Protection Society could help medical men who thus gave themselves away; if, however, a member refused to do the School Board's work without proper remuneration, and then if the Board acted unfairly, the Council of the Society would most assuredly take the case up.

Dr. MAJOR GREENWOOD pointed out that the School Board compelled the parents to produce certificates, and if the doctor to whom the parents applied happened to be their club doctor, he was practically forced to give a certificate for which the School Board paid nothing. It was an evil and vicious system all round, the trouble arising in his opinion from cheap contract work.

The resolution was then put and carried unanimously.

Mr. Jonathan Hutchinson was re-elected President, and the Council was re-elected, the Honorary Secretaries being Drs. Hugh Woods and Foulerton. The meeting closed with a cordial vote of thanks to the Chairman.

THE PREVENTION OF TUBERCULOSIS.

BOURNEMOUTH.

A MEETING convened by the Bournemouth Medical Society was held on March 30th to consider the desirability of forming a Bournemouth branch of the National Association for the Prevention of Tuberculosis. Invitations had been issued to the medical men in the town, ministers of all denominations, members of the Town Council, and others taking an interest in local public affairs, and there were between fifty and sixty present, including Dr. J. Roberts Thomson (who was elected to the chair), Mr. T. F. Gardner (Chairman of the Bournemouth Medical Association), Dr. H. G. Lys (who acted as Secretary), Mr. P. W. G. Nunn (Medical Officer of Health), Dr. Frazer, Dr. Snow, Mr. Mahomed, Dr. Ransome, Dr. Kinsey Morgan, Dr. Harsant, Dr. Percy Duncan, Mr. J. R. Philpots, Dr. Marriner, Mr. Parkinson (Wimborne), Dr. Milner, Dr. Ross, Dr. Tuthill, Dr. Simmonds, Dr. Davison, and Dr. Clift.

The formal resolution:

That a branch of the National Association for the Prevention of Tuberculosis be formed in Bournemouth,

was moved from the chair, seconded by Mr. T. F. Gardner, and supported by Dr. Ransome, a member of the Organising Committee of the Central Association; Dr. Snow, Dr. Kinsey Morgan, and Mr. Nunn. The resolution was carried without dissent.

On the motion of Dr. Snow, seconded by Dr. Percy Duncan, the following were elected officers of the Bournemouth branch:—*Vice-Presidents:* Mr. A. H. Smith, M.P., and Mr. John Fair. *Treasurer:* Mr. A. D. George. *Executive Committee:* Mr. Walter C. Parker, General Stansfeld, Major Maunsell, Rev. F. E. Toyne, Mr. Percy M. Bright, Mr. J. H. Ralph Smythe, Rev. R. Brook Lander, Mr. S. Hardwick, Mr. G. E. Bridge, Dr. J. Roberts Thomson, Dr. W. V. Snow, Dr. A. Ransome, Mr. T. F. Gardner, Dr. F. W. Ramsay, Mr. D. M. Ross, Mr. Parkinson, and Dr. J. A. Hosker.

On the motion of the Chairman, seconded by Mr. Gardner, it was decided to invite Sir George Meyrick, Bart., to accept the office of first President of the branch.

A vote of thanks to the Chairman for presiding closed the proceedings.

Folkestone.

At a meeting of the Folkestone Medical Society held on April 15th, Dr. Tyson (President) in the chair, Mr. Yunge-Bateman, D.P.H.Camb., Medical Officer of Health, brought before the Society a series of facts regarding tuberculosis and recommendations for its prevention, which he was bringing to the notice of the local authority with the view of inducing it to take action in the matter. Among other important suggestions he included distribution of leaflets by the sanitary authority, pointing out the nature of tuberculosis, voluntary notification and precautionary measures, such as disinfection of rooms in which a phthisical patient had lived. Milk should be systematically examined for pathological signs, and bacteriological diagnosis of tuberculosis should be made at the expense of the local authority. In contracts for milk supplies a clause requiring tubercle-free milk should be inserted. Powers should be obtained from Parliament to examine all cows supplying milk in the town wherever the cows might be; also all dairies and cowsheds within or without the boundaries, and to prohibit the sale of questionable samples.

A discussion ensued, in which Mr. Barrett, Mr. Dobbs, Dr. Ewart, Dr. Larking, Mr. Powell, Dr. Sworder, and Dr. Lys took part.

THE NEW VACCINATION ACT IN OPERATION.

The Certificate of Vaccination.

Our columns have contained frequent references to the difficulty with which the public vaccinator has to contend in the competition to which he is exposed with certain practitioners who do not scruple to defer to the weakness of misguided mothers by vaccinating in one, or at most in two, spots. It has been suggested that to counteract this mischievous practice, which is so largely responsible for the cases of small-pox in vaccinated children under 10 that occur in all serious outbreaks of small-pox, either vaccination by public vaccinators should alone be recognised as efficient, or no vaccination by a private practitioner should be accepted as sufficient unless it satisfied the requirements laid down by the Local Government Board in their Instructions to Vaccinators.

There are grave objections to both of these proposals, but it is quite possible to do something to remedy the evil indirectly by so framing the certificate of vaccination that it shall not only show the exact ratio of efficiency attributable to the vaccination performed in each case, but that it shall also indicate clearly to the guardians of the child the responsibility they assume in being parties to its inefficient vaccination. With the view of directing the attention of the Local Government Board to this matter, the Executive Committee of the Jenner Society has forwarded to the Board the following resolutions:

(1) That it is desirable that the form of certificate of successful primary vaccination should in all cases record "the number of separate scarified areas, punctures or groups of punctures made, and the number of separate normal vaccine vesicles or groups of vesicles which have been produced," as required in Clause 8 of the Instructions to Public Vaccinators, contained in Schedule 3 of the Order of the Local Government Board of October 18th, 1898, and that the certificate when so filled up should be registered, so that it may be a permanent record of the nature of the vaccination in each case, and that it should be available at any time for reference.

(2) That it is also desirable that the certificate should bear on its face some statement of what, in the opinion of the Local Government Board, constitutes "efficient" as distinguished from "successful" vaccination, in terms of the prescription in Clause 7 of the same Instruction, so that parents or guardians who refuse to have their children vaccinated according to the standard so prescribed may at least be informed by the certificate of the responsibility they incur in so refusing.

(3) That the above resolutions be communicated to the President of the Local Government Board with the expression of the hope that he may see fit to issue an order to give effect to them.

The Fees in Country Districts.

Mr. Gerald Leighton, M.B., C.M.Edin.Univ. (late Public Vaccinator, Skenfrith District, Monmouth Union), writes: Our Board of Guardians (Monmouth Union) in December last invited a proposal from the public vaccinators. I am public vaccinator for three distant parishes—not for the one in which I reside. The average distance of my cases is about six miles over a mountainous district with very bad roads. I found by experience that every journey was a morning's work. I asked for 2s. 6d. under Section A, and 12s. 6d. for the two necessary journeys—I think a fair offer. This was to extend up to ten miles distance. I have no cases near at hand to make up for distant ones or lost journeys. The Board considered this excessive, and referred it the Local Government Board, who, after an interval of nearly three months—during which time I vaccinated as I got my lists—decided to offer me 1s. and 7s. 6d. instead of what I asked. As this meant my spending half my day for 4s. 3d., I have tendered my resignation, which the Board have accepted. The hire of a trap from the village inn to any of my cases would be 7s. 6d. I am expected to go twice or more for this! Out of the first eight cases notified me I had three fruitless journeys, covering about thirty miles. Comment is indeed needless.

Public Vaccinators' Fees.

F.H.S. writes: How can I charge for a case of vaccination under the following circumstances? I receive notice from the vaccination officer in official List H. of a child 4 months old, and upon arrival at the house (six miles from home) find the child had been successfully vaccinated a month before, no certificate being sent in. I certify the case to the vaccination officer as I find it. Ought I to enter the case in my register?

*** The case should not be entered in the Vaccination Register, and only the fee under Article 3 (*a*) of the order can be claimed. The order imposes upon vaccination officers the duty of making personal inquiries—see Fourth Schedule, Instructions to Vaccination Officers, Paragraph 6 (*a*). According to the Act 1871, Clause 12, the public vaccinator may, on the request of the parent, sign a certificate of successful vaccination in a case which he has not himself vaccinated. The guardians do not pay for such certificate, the giving of which is purely a matter of private arrangement between the parent and the public vaccinator.

T. G. H.—1. No child's name can properly appear twice in list H, nor, after it once appears in the list, can any claim be sustained for a second fee under Article 3 (1) (*a*), even if the public vaccinator have to postpone a dozen times. The maximum fee for any child is compounded of one fee under Article 3 (1) (*a*), and one fee for the successful vaccination of the child.

2. No provision is made under the new Vaccination Act for the public vaccinator to visit and offer to vaccinate children whose births were registered before August 31st, 1898. The Local Government Board have said that "they do not consider that the names of children who have attained the age of 6 months by January 1st, 1899, should be included in the lists to be forwarded to the public vaccinator."

Meanwhile, at Guildford and at Bilston, summonses under Articles 29 and 31 of the Act of 1867 have been dismissed by the magistrates on the ground that the public vaccinator had not sent twenty-four hours' notice of his intention to call, nor had he visited the home of the child and offered to vaccinate.

Thus the magistrates and the Local Government Board are at variance, the latter saying in effect that the public vaccinator has no duty toward these old cases, the magistrates saying that they refuse to convict unless he performs the same duties toward the cases registered before August 31st, 1898, as toward the cases registered since that date. The only solution is the bringing of a test case before the higher courts.

Public or Private?

G. P. writes: In the British Medical Journal of April 1st "Public Vaccinator" writes that personally he gets more trouble in his capacity by men who know very little about the subject than he does from the objectors to the operation. As this statement is a gratuitous insult to the intelligence and capability of private practitioners and without a shadow of foundation, it is beneath contempt to answer it as "Public Vaccinator" should know that nearly all the medical men on the *Register* have been instructed in the principles of vaccination and hold certificates of efficiency from instructors and examiners appointed by the Local Government Board; therefore, they are quite as competent to vaccinate as "Public Vaccinator." All vaccinators should be paid for successful vaccination by the Government, provided the regulations regarding the number of marks, etc., be complied with. Private vaccinators strongly object to public vaccinators visiting at their patients' houses and offering to vaccinate gratuitously, thus depriving private vaccinators of their fees. It also gives them an opportunity of robbing them of their patients by being introduced to the family under the sanction of official authority. This is one of the most objectionable clauses in the New Vaccination Act, and causes much ill-feeling between public and private vaccinators. It is most advisable that the public should be protected by efficient vaccination, and in order to prevent the country from being decimated by small-pox at a no distant date, the office of public vaccinator should be abolished.

Dr. John B. Buist (Edinburgh) writes: The views expressed by "S." in the British Medical Journal of April 8th seem to me to be calculated to promote friction between private medical practitioners and public vaccinators, and I write to disclaim any sympathy with them. The Act of 1867 created public vaccination and gradually deprived the great bulk of the profession in England both of opportunities for vaccinating and of good vaccine material; but private practitioners were equal to the occasion, and created the enormous demand for animal lymph which now exists. Deprived of the hearty support of the profession, public vaccination has been unable to prevent an enormous increase in the number of unvaccinated children in England. The obvious lesson is that public vaccination is unable to contend against private vaccination, and that the cause of vaccination requires the support of the whole of the medical profession. Personally I believe in leaving vaccination in the hands of the family doctor and supplying him with reliable vaccine material. In my opinion public vaccinators are not specialists.

Duties of Public Vaccinators.

R. (Public Vaccinator).—(1) The legal advisers of the Local Government Board have given it as their opinion that the public vaccinator, not being an officer of but only a contractor with the Board of Guardians, is not entitled to a pension under the Poor-law Superannuation Act.

The Poor-law Medical Officers' Association also took counsel's opinion on the same point, with a similar result. More recently the Public Vaccinators' Association has obtained an answer from the Local Government Board, to the effect that the recent vaccination legislation has not in any way modified the opinion previously expressed by them. The point has not yet been tried in the courts so as to get a judicial decision, but we know at least one other instance where the deductions are being made from the public vaccinators' fees with a view of ultimate pension. (2) On the expiration of seven days after the child has reached the age of 4 months, if the vaccination officer has not a valid certificate of one kind or another in his possession in respect of that child, "he shall proceed to make personal inquiries with a view to obtain the requisite certificate. If on making these inquiries he is unable to ascertain that the child has been vaccinated, but the child is still resident in the district, the vaccination officer shall include the name and home of the child" in the official list of the public vacciuator. (3) No vaccination can be certified to be successful until it has been inspected some days after the operation and typical vesicles are seen to result. It is obvious that a certificate of successful vaccination cannot properly be given at the time of performing the operation.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must include details of the precise character and objects of the research which is proposed and must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C.

Reports of work done by the assistance of Association grants belong to the Association.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

ERNEST HART MEMORIAL SCHOLARSHIP.

The Council are also prepared to receive applications for a scholarship of £200 for the study of some subject in the department of State Medicine in memory of the late Mr. Ernest Hart.

Applications must be sent in writing on or before June 15th, stating the particulars of the intended research, qualifications and work done.

Forms of application for the scholarships can be obtained from the General Secretary.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, April 12th, 1899.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

GRADUATION CEREMONIAL.

THE Spring Graduation Ceremonial of the University of Edinburgh took place on Friday, April 14th. The degrees conferred were mostly in the Faculties of Law, Arts, and Divinity.

In presenting Mr. William Mitchell Banks, F.R.C.S., Emeritus Professor of Anatomy, University College, Liverpool, the Dean of the Faculty of Law (Sir Ludovic Grant) said: The University is proud to recognise in Dr. Mitchell Banks a graduate of her own, whose record as a student was crowned with distinction, and whose subsequent career reflects lustre upon our School of Medicine. In the department of Surgery Dr. Mitchell Banks has attained a pre-eminent position, as practitioner, teacher, and writer—particularly in connection with the treatment of cancer and the radical cure of hernia. But more important, if possible, than his contributions to scientific surgery, is the work which he has achieved as a pioneer and harbinger of medical education in Liverpool. His creative zeal and genius for organisation have been the motor forces which have called into existence that flourishing and famous School of Medicine which now takes rank with the best in the country. He has filled all the highest offices open to men of science in Liverpool, and he has represented his University on the General Medical Council. His Alma Mater offers a cordial welcome to her distinguished son, and in token of her appreciation confers upon him her highest honour.

Professor Annandale afterwards presented Dr. Sydney Monckton Copeman for the Cameron Prize in Therapeutics. In doing so he said: The Cameron Prize is awarded annually to the member of the profession who is considered to have done the most to advance our treatment of disease, and the University, through its medical faculty, is of opinion that Dr. Copeman well deserves the prize. Dr. Copeman, by his original and careful researches, discovered that when ordinary vaccine lymph was mixed or combined with glycerine it was a purer fluid, a fluid less likely to be injurious from bacterial and other changes, and therefore affording a safer and more satisfactory method for applying it in practical work. Dr. Copeman, therefore, has not only given a valuable improvement in vaccine, but we have hopes also that his investigations will lead to doing away with the prejudices and objections which are made to vaccination.

The degree of Doctor of Science in the Department of Public Health was conferred on Mr. J. Penny, M.B., C.M., B.Sc. (Thesis: Experimental Research on the Bacillus Typhosus (Eberth-Gaffky) in Sludge), and the degree of Bachelor of Science in the same department on Messrs. V. G. Alexander, M.B., Ch.B., D. M. Crichton, M.B., C.M., and C. M. Hector, M.D.

THIRD PROFESSIONAL EXAMINATION FOR THE DEGREES OF M.B. AND CH.B.—The following gentlemen have passed this Examination:

R. Affleck, T. H. W. Alexander, H. C. H. Allen, J. D. Anderson, Mary S. Anderson, H. E. Arbuckle, P. A. J. Asbury, B. H. S. Aylward, A. J. Baird, S. A. Ballantyne, M. C. Beatty, J. H. Bell, H. Bishop, A. B. Black, O. C. Bradley, L. P. Brassey, J. M. L. Brown, M.A.; A. Byron, G. F. Buist, G. B. Butt, R. A. Cameron, J. O. Campbell, M. Campbell, M.A.; G. S. Carmichael, J. B. Cassels, Violet Coghill, W. P. Cormack, J. Craig, T. O. Davies, W. Eadie, R. S. Ellis, E. Ewart, J. S. Eustin, D. C. L. Fitzwilliams, A. Fleming, Catherine Fraser, A. Frew, W. E. Frost, Y. Fukuda, J. S. Geikie, J. C. Gilchrist, W. Girdwood, P. S. Haldane, G. H. Hanna, F. Hardie, N. E. Harding, H. Harris, D. Heron, Eleanor Hodson, Katie W. Hogg, H. J. Hoile, L. J. Hood, F. F. C. Jagger, E. B. Jamieson, J. G. S. Jamieson, M.A.; M. Johnston, J. C. Kennedy, F. K. Kerr, S. M. de Koch, L. Laurie, P. G. Leach, A. C. Lennie, A. G. Lowther, R. J. M'Lelland, C. B. M'Conaghy, J. G. M'Dougall, *Sara L. M'Eldery, W. E. M'Farlane, A. C. M. M'Hattie, J. H. M'Kee, A. J. Mackenzie, D. S. MacKnight, Harriet J. C. Maclaren, H. J. M'Lean, D. M'K. MacLeod, A. MacNab, G. W. P. Maitland, J. M. A. Macmillan, M.A.; A. A. Martin, H. Mason, F. C. Matthew, M.A.; E. T. Melhuish, J. B. Milne, J. Miskelly, J. Munro, Florizel Myers, H. C. Nixon, J. C. Parker, N. Patterson, C. P. Paul, J. Pender, Mary C. Pepper, J. B. Primmer, J. R. Prythack, S. Rattray, O. L. Rhys, Catherine M. Richardson (with distinction), D. J. Roberts, G. A. P. Ross, J. Ross, M.A.; R. A. Ross (with distinction), W. C. Ross, A. J. Ryle, Laura S. Sandeman, T. B. H. Scott, W. S. Scott, Elizabeth T. Selkirk, J. F. Selkirk, H. D. Shepherd, T. S. Shepherd, S. R. Sibbald, F. D. Simpson, W. Slass, J. A. Smail, C. B. Snow, G. B. A. Speirs, A. D. Spence, Eleanor R. Sproull, T. G. Stewart, C. O. Strong, M. A. Sloan, J. H. Thornley, A. Trotter, C. S. Vartan, W. Wallace (with distinction), A. G. Watson, N. S. Wells, G. D. Whyte, F. M. Wigg, A. W. Wilson, Mary R. Wilson, T. J. G. Wilson, A. M. Wood (with distinction), and G. Wright.

Messrs. L. C. P. Ritchie and G. R. Turner have passed in the subject of Pathology of the same Examination.

UNIVERSITY OF DURHAM.

FIRST EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE (NEW REGULATIONS).—The following candidates have satisfied the Examiners:

Elementary Anatomy and Biology, Chemistry and Physics.—C. H. Crass,* College of Medicine, Newcastle-upon-Tyne; J. F. Dover, College of Medicine, Newcastle-upon-Tyne; C. W. M. Hope, College of Medicine, Newcastle-upon-Tyne; Janet Lane-Claypon, London School of Medicine for Women; Lucy Selina Molony, London School of Medicine for Women; Thomasina Georgina Prosser, College of Medicine, Newcastle-upon-Tyne; T. Rowell, College of Medicine, Newcastle-upon-Tyne; F. W. Ritson, College of Medicine, Newcastle-upon-Tyne; B. S. Robson, College of Medicine, Newcastle-upon-Tyne; A. Smith, College of Medicine, Newcastle-upon-Tyne; F. T. Simpson, College of Medicine, Newcastle-upon-Tyne; W. C. Smales, King's College, London; O. B. Travers, Guy's Hospital; M. C. Wetherell, Guy's Hospital; H. Wolfenden, College of Medicine, Newcastle-upon-Tyne.

* First class honours.

Chemistry and Physics.—S. C. Clapham, M.R.C.S., L.R.C.P., Guy's Hospital; H. L. Currie, College of Medicine, Newcastle-upon-Tyne; J. J. Grant, College of Medicine, Newcastle-upon-Tyne; A. H. Heslop, Oxford University; Lizzie Evelyn Kendal, College of Medicine, Newcastle-upon-Tyne; W. H. Lamplough, Mason College, Birmingham; J. H. McDowall, College of Medicine, Newcastle-upon-Tyne; H. T. Newling, St. Mary's Hospital; T. E. Pemberton, Mason College, Birmingham; J. M. Shaw, College of Medicine, Newcastle-upon-Tyne; F. R. Snell, University College, Nottingham; B. E. Spurgin, College of Medicine, Newcastle-upon-Tyne; S. D. Turner, M.R.C.S., L.R.C.P., St. Thomas's Hospital; T. N. Wilthew, College of Medicine, Newcastle-upon-Tyne.

Elementary Anatomy and Biology.—A. Budd, College of Medicine, Newcastle-upon-Tyne; W. D. Carruthers, Mason College, Birmingham; J. Cooper, B.Sc., F.C.S., College of Medicine, Newcastle-upon-Tyne; W. R. L. Drawbridge, St. Bartholomew's Hospital; Margaret Douglas French, London School of Medicine for Women; A. H. Fullerton, College of Medicine, Newcastle-upon-Tyne; R. Glendinning, Guy's Hospital; C. R. Lease, College of Medicine, Newcastle-upon-Tyne; G. E. V. Morris, Mason College, Birmingham; Flora Murray, London School of Medicine for Women; C. Muthuswamy-Anthony, Guy's Hospital; J. R. Wylie, College of Medicine, Newcastle-upon-Tyne; H. H. Whaite, Mason College, Birmingham; A. L. Wilkinson, College of Medicine, Newcastle-upon-Tyne.

Elementary Anatomy, Chemistry, and Physics.—E. J. Manning, St. Mary's Hospital; D. M. B. Snell, St. Thomas's Hospital.

Elementary Anatomy.—Lætitia Nora Ede, College of Medicine, Newcastle-upon-Tyne.

Mr. H. Noel-Cox, of St. Thomas's Hospital, has passed this Examination in Chemistry with Chemical Physics under Old Regulations.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary examinations, and conformed to the by-laws and regulations, have been admitted Members of the College: W. Graham, M.B., Ch.B. Vict., University College and Royal Infirmary, Liverpool; E. E. Nicholl, St. Thomas's Hospital; and A. A. Palmer, M.B. Edin., F.R.C.S. Edin., Edinburgh University.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 22ND, 1899.

MEDICAL AND PHARMACEUTICAL LEGISLATION.

In an article announcing the introduction of these two measures which appeared on April 8th, the limitations of space, as well as the fact that the interest of the medical profession was mainly centred upon the first-named of the two Bills, rendered it impossible to do more than allude to the Bill affecting pharmacy.

Certain considerations, however, which have been raised by the Council of the Pharmaceutical Society, as well as the attitude assumed by the speakers at the meeting of that body and by their official journal, now make some discussion of the Pharmacy Bill desirable.

The Pharmaceutical Society are very dissatisfied with the terms of the Bill which the Lord Chancellor has offered to them, and the official organ, the *Pharmaceutical Journal*, criticised it in a temperate article on April 8th, at the same time commenting upon the provisions of the Medical Bill. With regard to the latter, it was suggested that there may be difficulty in defining what is meant by carrying on the profession or business of medicine, etc., and that there is no specification of the authority by which supervision and prosecution are to be exercised—difficulties which present themselves with even greater force in the case of the Pharmacy Bill. But in the issue of April 15th, after a meeting of the Council of the Pharmaceutical Society had taken place, a considerable change of tone is apparent, and not only is their Bill condemned as incapable of amendment, but the Lord Chancellor is declared to be an enemy to the craft of pharmacy.

It will not be rash to assume that the Lord Chancellor did not introduce their Bill for his own amusement, but with a genuine desire to do something towards remedying the evils of which the Pharmaceutical Society complains, and the position assumed is the more remarkable inasmuch as the President of the Society in his address distinctly laid down that "no considerable alteration in pharmaceutical law would be effected until two factors were combined, one the support of the Government for the time being, and, secondly, the support of their own body."

Whilst the tone of the comments referred to cannot be commended, one point is raised upon which we are inclined to agree. The Lord Chancellor's Pharmacy Bill, whilst it imposes upon companies who undertake the work of pharmacy the obligation to employ qualified persons—which is a step in the right direction—goes on to provide that if, and so long as they do so, the company may assume titles which can be assumed by individuals only when properly qualified. This appears to be wrong in principle, for it concedes that under certain conditions, conditions perhaps in practice difficult to enforce, a company may make use of titles which, if they mean anything at all, imply that the user has received a certain education and has passed certain examinations, which the company obviously cannot have done.

It would seem fitting that the prohibition of the use of titles by anyone other than a qualified person, whether corporate or not, should not be conditioned in any way, but should be absolute. Any meddling with the proper use of titles implying qualification is a dangerous precedent.

A desire is expressed by the pharmacists that they should be included in the Medical Bill, and, failing this, they go so far as to say that they will oppose the passing of the Medical Bill, and even hint at opposition to any future medical or dental legislation whatever. We prefer to think that these are sentiments uttered in the heat of the moment. It is hard to conceive that any body of Englishmen would deliberately adopt such a dog-in-the-manger policy, which, while it would alienate not only the sympathy of the whole medical profession, but that also of every person who may become acquainted with the facts, would at the same time postpone indefinitely their own chance of getting anything done in the direction they desire. For in effect they say, If we have failed to persuade the Government precisely to meet our views where you have succeeded, we will endeavour to prevent your reaping the fruits of that success, notwithstanding that it in no way concerns us, and notwithstanding that the statutory recognition that the proceedings of companies must be curbed in certain directions cannot but be a very strong ground for the extension of that recognition in so far as it is found to be applicable to the case of pharmacy.

It must be remembered that the Pharmaceutical Society had been invited by the Lord Chancellor to lay its views before him, and they have done so, according to their own showing; but they have failed to induce him to adopt their position in its entirety. They lay their failure to persuade the Government to do what they asked in their suggestions for a Draft Bill at the door of the General Medical Council, and reproach the Council with having thrown them over. It need hardly be said that it is not the business of the General Medical Council to procure amendments to the Pharmacy Acts; but on the other hand, it must be borne in mind that the very first fruit of the action of the General Medical Council's Committee was that the Lord Chancellor took up the question of the grievance of the pharmacists in a very practical way, for he introduced an amendment to a Pharmacy Bill last session. It is true that the Pharmaceutical Society did not like the form of the amendment; nevertheless, it was a concession of the general principle, and that at a time when the Lord Chancellor had not yet done anything whatever for the medical profession.

The General Medical Council is further reproached by the pharmacists with having neglected the case of the veterinary surgeons; again, we would suggest that it was

not their business, but as we have learnt that the Royal College of Veterinary Surgeons has taken, and is taking, its own chosen line of action in the matter, it would seem that the phrases alluded to must have been penned under some misapprehension of the facts.

Much is made of the fact that two members of the General Medical Council's Committee had formerly been associated with the Pharmaceutical Society, with the College of Veterinary Surgeons, and with certain other bodies in a joint committee, upon which it is to be presumed that they worked for the joint cause. But had these gentlemen now drafted a Bill which related only to those professions which are under the tutelage of the General Medical Council, they would have done neither more nor less than their present position required of them. We are authorised to state, however, that they did not draft the Bill, that they never saw it until it was in print, and that they simply presented their case, which, as a matter of fact, did contain (as may be gathered from the minutes of the General Medical Council) allusion to the Veterinary Surgeons and the Pharmaceutical Society, and then left to the legal advisers of the Government the task of giving effect to such provisions as might appear to them desirable. Hence the two Bills, so far as medicine, dentistry, and pharmacy are concerned, embody the results of the consideration by minds of the highest legal acumen of the matters represented to them, and the imputations of unfairness made by the *Pharmaceutical Journal* are very much out of place unless it can be shown that the facts have been misrepresented.

In the endeavour to procure legislation the only effective line of action is, if possible, to convince and persuade the Government by laying before them facts and practicable suggestions; and, whatever may be thought as to convincing, there can hardly be two opinions on the subject that our contemporary's articles are not calculated to persuade.

THE CONTROL OF SYPHILIS.

THE annual report of the Royal College of Surgeons of England for the year 1897 contains a statement to the effect that the Council of the College had forwarded an address to the Secretary of State for India regarding the prevalence of venereal disease among the British troops in that country. In this address the Council observe, "We therefore express an earnest hope that Her Majesty's Government may take effective means to check the ravages of the disease (venereal) which not only undermines the constitution of those who contract it in the first instance, but by reason of the many ways in which it may be transmitted, destroys the health and happiness of countless persons, and induces in the children of those originally infected diseases of a most formidable character." The evils which this disease causes could hardly be described in more appropriate language, and those best acquainted with it state that venereal disease is on the increase among the civil population of this country. As far back as the year 1896 the Secretary of State for the Home Department was approached, with the object of appointing a Departmental Committee to inquire into the subject of the prevalence and of the treatment of venereal disease among the population of England. The Government, while admitting the importance of the subject, did not think the time had arrived for taking action in the matter, because there was not then a sufficiently informed public opinion on the disease to justify them in so doing. In the last number of the JOURNAL was printed a letter from Mr. F. W. Lowndes, of Liverpool, in which he showed that, beyond the London Lock Hospital, part of which was closed for want of funds, there were only fifty-seven beds available in all the metropolitan hospitals for females suffering from venereal disease.

It would seem that in consequence of this state of things a considerable number of women do not receive proper treatment in the early stages of syphilis, and it is only when they can no longer get about that they seek relief in the various homes of refuge which have been established of late years in London. These institutions are under the management of ladies who devote their lives to works of charity of this kind. These ladies are thus brought into daily communication with young women suffering from various forms of venereal disease, and they have been so deeply impressed with the extent of the misery caused by this malady that they have associated themselves in a numerous and influential body, determined to do their utmost to secure such measures as may be thought best, after due inquiry, to check the ravages of syphilis. The Council of the British Medical Association were requested to use their influence in this matter, and appointed a Committee to consider the subject, and, if it was thought desirable to do so, to memorialise the Government to appoint a Departmental Committee to inquire as to the extent to which venereal disease exists in this country, irrespective of its temporary increase or decrease, to collect suggestions to express an opinion as to any means that can be advised for preventing or for limiting the spread of venereal disease, and to collect information as to the existing arrangements for, and the proper treatment of persons suffering from the disease. This would include the distribution of hospitals and the number of beds or other means available for the proper treatment of these cases. We understand that other bodies are moving in this matter. It is a subject which cannot advantageously be discussed at public meetings or by the daily press; nevertheless, there is a deep and firm conviction gradually being formed by the public that the time has arrived when an official inquiry should be instituted as to the actual extent to which the disease prevails, and the best means of checking its ravages among the civil population of this country; while the action of the Government with reference to the disease in India and the correspondence above referred shows that the Home Office is alive to the importance of this subject, but will not move unless stirred to do so by outside pressure. The influential body of ladies who have taken up this subject are perhaps the best possible exponents of public opinion in this matter. Only a deeply-rooted conviction, formed from their observation of the terrible misery this disease causes, would have induced these ladies to have come forward as they have done regarding a question of this kind. The medical profession, from experience likewise gained in the treatment of persons affected with both acquired and inherited syphilis, has long been firmly convinced that it "destroys the health and happiness of countless persons," and consequently

cannot but feel the deepest sympathy with the action set on foot by the Ladies Committee, and a sincere hope that their efforts may be attended with success.

THE AMENDMENT OF THE MEDICAL ACTS.

The Draft Medical Act Amendment Bill which was brought before the Council of the British Medical Association on April 12th, and then briefly discussed, will (as was stated last week) be fully considered at a special meeting of the Council which has been summoned for May 12th. The draft Bill is the result of the earnest and devoted labours of a Subcommittee of the Parliamentary Bills Committee, of which first Mr. Victor Horsley, and afterwards Dr. Woodcock, acted as Chairman. The delay in the completion of the draft is fully justified by the complexity of the subject, and by the fact that the Subcommittee had to interrupt its work on the amendment of the Medical Acts in order to direct its attention to the consideration and amendment of the Midwives Bill. Pending its discussion by the Council it is considered it would be premature to publish the draft of the Medical Acts Amendment Bill, but the three principles embodied in it have been stated in the report of the special meeting of the Parliamentary Bills Committee which was called to consider it, and by which it was adopted with certain modifications embodied in the draft presented to the Council. One of these principles is that the law should forbid under penalties the practice of medicine for gain by any person not registered on the *Medical Register*. This principle is one which deserves to be supported on grounds of public policy. An article published in the British Medical Journal of April 15th, p. 930, gave some instances of the evils which are the direct consequence of the practice of medicine by quacks. The ignorance of these pretenders is a standing menace to the public health, and the criminal practices to which they have in so many instances resorted, and will no doubt continue to resort, are an outrage on public decency and a danger to private morality. Upon the injustice to registered medical practitioners who are recognised by law as the only persons capable of holding public medical appointments, and giving legal certificates, but who are yet not adequately protected from the downward and degrading competition of unscrupulous quacks, it is hardly necessary to enlarge. The facts are well known, and anyone who wishes to extend the list published last week may easily find many not less glaring instances in the pages of this Journal of earlier dates, in the reports of the Defence Societies, and in the minutes of the General Medical Council. If there be any members of the medical profession who yet doubt the necessity for more stringent legislation against unqualified practice, the list of crimes and misdeeds committed by quacks which we have given can hardly fail to convince them that it is high time the law were so amended as to make such things, if not impossible, at least surely and swiftly punishable.

Elsewhere in the present issue of the Journal will be found a long letter from Mr. Victor Horsley, defending the interpretation which he puts upon the provisions of the Medical Acts, and giving the grounds which lead him to reject the opinion of Mr. Haldane, Q.C., and Mr. Hodges upon the legal point at issue. We do not propose to follow Mr. Horsley in the legal argument which he sets out, still less to indulge in personalities and recriminations which cannot help to a solution of the question. His complaints would indeed justify the retort, *Quis tulerit Gracchos de seditione querentes?* The matter is, however, one which concerns not the opinions of individuals but the welfare of the whole medical profession. Whatever may be the real meaning and purport of the Medical Acts, the fact remains that the administration of them is ineffective, that a judge of the High Courts has declared that at present the law on the subject is in a fog, and that Mr. Hempson, the Solicitor to the Medical Defence Union, has recently felt compelled to advise that body, having regard to the anomalies which prevail in these connections in the construction to be placed upon the penal section of the Medical Acts—anomalies which make it "a matter of absolute uncertainty, whatever the evidence may be, as to what decision can be reliably hoped for,"—not to undertake further prosecutions under these Acts "until the law is placed upon a more definite and ascertained basis by the introduction of an amending Act of Parliament."

Mr. Horsley considers that the law might be so interpreted as to be much more effective than it has as yet proved to be; but he not only admits that it requires to be strengthened, but has personally given much labour and time to drafting an amending Bill containing clauses designed to bring this about. We can only express a hope that the attention of the profession may now be concentrated on this need for reform, and that the articles which have been published in these pages may be accepted as contributing to clear the ground for the impartial consideration of the draft Medical Acts Amendment Bill, when in due time it can be published for the judgment of the profession at large. We need hardly say that our sole aim has been, and will continue to be, to help to the best of our power in obtaining a fuller measure of legislative protection for the public from ignorant quacks, and for the medical profession from unscrupulous competition. But if we are to get this, our appeal to Parliament must be made not with a clamour of discordant opinions, but with one united voice.

THE STRUGGLE FOR THE WATERS OF THE DERWENT.

Etymologically, perhaps, the expression the "waters of the Derwent" might be objected to as tautological, for the word now spelt Derwent of course means water. The particular river of this name, whose waters seem likely to be the subject of a considerable fight in the Parliamentary Committee rooms, is the tributary of the Trent which rises where the millstone grit caps the mountain limestone to the North of the Peak in the uplands where Derbyshire and Yorkshire join. Bills have been deposited by Sheffield, Derby, and Leicester, for impounding the river and its tributary streams in its upland reaches. Each scheme proposes to erect reservoirs, and each provides for liberal compensation water to the streams whose flood water is to be impounded. Each also provides for the supply of district councils through whose areas the several aqueducts may pass. Meantime the county borough of Nottingham has been casting longing eyes upon the same source of

supply. The circumstances of this large manufacturing town are somewhat peculiar. Its present supply is derived chiefly from borings in the Bunter. It is proposed to work the underlying coal measures. In all probability, if this be done, it will drain the wells in the stratum above, and Nottingham thus claims a right to be heard in its demand for a share in the water coveted by Derby, Leicester, and Sheffield. The Leicester Bill proposes five storage reservoirs—the first on the Derwent, in the parishes of Hope Woodlands and Bradford, in the counties of Derby and Yorkshire respectively; a second, also on the Derwent, partly in the parish of Derwent, in Derbyshire, and partly in the two parishes already named; a third and fourth in the first named Derbyshire parish on the river Ashop; and the fifth partly in this same parish of Hope Woodlands and partly in Bamford and Thornhill, both in Derbyshire, on the Derwent. It proposes ultimately to impound all the waters of the Derwent above the Bamford reservoir, and to return to the stream daily 10,200,000 gallons as compensation. Sheffield proposes three reservoirs, all on the Derwent, and asks powers to collect the waters of that river and of the Ashop, Westend, Alport, Lady Clough, Hurden Clough, Cranberry Clough, Abbey Brook, Ouzelden Brook, Lady Bower Brook and their tributaries. Sheffield offers 11,000,000 gallons as compensation, and the Bill contains conditions as to not drawing from certain streams when the water falls below a stipulated amount. Derby proposes eight reservoirs, the first corresponding to the first one proposed by Leicester; a second in the same two parishes of Hope Woodlands in Derbyshire, and Bradfield in the West Riding; a third in the same parishes and partly in Derwent, all three on the Derwent; two others on the Ashop, but in Hope Woodland; a sixth, the Bamford reservoir, on the Derwent, in three Derbyshire parishes and two others on the river Noe and the Burbage Brook respectively. Derby is even more liberal in the matter of compensation than either Leicester or Sheffield. There are other points of interest in the three Bills, but we have indicated generally the more important. The coming contest certainly accentuates the difficulty of dealing piecemeal with the large sources of supply, and will be watched with interest by all desirous of seeing some central expert authority, capable of advising Parliament in this matter of the rush for the gathering grounds. On the rights of these several places to the water opinions will vary. Sheffield lies nearest, and is the largest, but Nature has turned the river towards the south. Derby is actually on the stream while it still bears the same name; and Nottingham is on the Trent after it has joined the larger stream. Leicester is furthest away. None of the waters of the river flow near it. Which of the claimants needs it most will be a knotty point to decide.

TUBERCULOSIS IN THE QUEEN'S DAIRY HERD.

The Prince of Wales, at the Marlborough House meeting in December last, stated that Her Majesty had sanctioned the destruction of thirty-six out of forty of her dairy cows at the Windsor Farm, in consequence of their reacting to the tuberculin test. This statement at the time raised considerable interest and obtained wide publicity. Since then the reports of work on similar lines in various parts of the kingdom have been published, and now the precise results obtained in the case of Her Majesty's herd are made known in a paper in the *Journal of Comparative Pathology and Therapeutics*, from the pen of Professor J. McFadyean, the Principal of the Royal Veterinary College, who conducted the experiment. Later it was thought advisable to slaughter the entire herd, and each cow was carefully examined *post mortem* at the Veterinary College. The results, shortly expressed, are as follows: The temperature of each cow was taken on the day preceding the injection, and again at the time of injection and at intervals of three hours after up to the fifteenth hour. The mean temperatures of those cows that were subsequently found to be tuberculous were as follows: At injection 101.7°, and at the three-hourly intervals respectively 101.9°, 102.7°, 104.2°, 105.2°, 104.8°; of those in which no tuberculous lesions were found at corresponding times they were 101.7°, 101.7°, 102.3°, 101.2°, 101.1°, and 101.4°. The udders of four of the cows were found to be diseased, though the lesions were of a septic rather than of a tuberculous nature. Five of the carcasses contained echinococcus cysts, and in one the liver was cirrhotic from the presence of flukes. In one of the animals which had reacted (a temperature of 105.8° had been recorded at the fifteenth hour) no lesion dependent upon the tubercle bacillus was found, but the uterus contained about a quart of turbid, non-putrid liquid, the mucosa was inflamed, and a cyst as large as the fist was present on the course of the left Fallopian tube. This case illustrates one of the possible sources of error in the use of tuberculin. Professor McFadyean states that the premises in which these cows were kept are probably the best in the kingdom as regards cubic space, light, ventilation, and cleanliness. Nevertheless the disease had attacked thirty-six out of forty animals. A new dairy herd is being obtained for the Queen's Home Farm, all the animals for it being tested, and admitted to the herd only when they do not react.

TUBERCULOUS MILK CLAUSES.

The towns promoting private Bills dealing with the sale of milk from cows with tuberculous udders received, as we mentioned some weeks ago, an intimation from Mr. Boyce, on the part of the Local Government Board, that if clauses relating to milk were redrafted on certain lines, that Board, and the Board of Agriculture, would render some assistance in the matter. Accordingly, by arrangement through the several parliamentary agents, clauses embodying the principles agreed upon were drafted, and submitted to the several corporations. At a meeting of town clerks and medical officers in Manchester these new clauses were carefully considered, and again printed as amended, and forwarded by the London agent to Mr. Boyce. Some slight alterations, even upon these amended clauses, were made at his suggestion, and the result communicated to the town clerks of the several towns concerned. On Tuesday a conference was held between the agents of these towns and the central Council of Agriculture, at which Mr. Jeffreys, Mr. Grant Lawson, and several other members of Parliament representing the agricultural interest, were present. The President of the Board of Agriculture (Mr. W. Long) was also at the conference, as were also Dr. Niven and Dr. Spottiswoode Cameron, the medical officers for Manchester and Leeds. It was finally arranged that if the clauses were limited in their action to tuberculosis of the udders, Mr. Jeffreys would withdraw his motion asking the House of Commons to instruct its Committee to strike out the clauses altogether. It was felt that, as the towns had gone so far in the direction of meeting the views of the dairy farmers, any general instruction of this kind would not be likely to find favour with the House, and would certainly not be supported by the Government. We must congratulate the boroughs upon having thus narrowed the issue to be fought out before the Parliamentary Committees. The clauses, as they will now probably be presented to the Committees of both Houses, will provide: (1) That the words dairy, dairymen, and medical officer of health shall have the meaning given to them in the Infectious Disease (Prevention) Act, 1890; (2) that it shall be penal knowingly to sell milk from a cow with tubercle of the udder in any of these towns; (3) that any such cow in a dairy shall be isolated from the milk producers; (4) that a dairyman supplying milk in

any of these towns shall give notice to the medical officer of health of that town, if he has any cow "affected with, or suspected of, or exhibiting signs of tuberculosis of the udder;" (5) that the medical officer of health may take "for examination samples of milk produced, or sold, or intended for sale within the borough," getting, if the sample is taken outside the town, the order of a magistrate; (6) the medical officer of health, or an officer exhibiting his authority in writing, may with a veterinary surgeon enter a dairy and inspect the cattle, and take separate samples of milk from any teat of any suspected cow. If of opinion that the milk from a dairy is likely to cause tuberculosis in his town, the medical officer of health may report to a specially-appointed committee of his authority, who may summon the dairyman to show cause why they should not order him to cease supplying milk within the town, and, if satisfied of the danger, issue an order accordingly. Though not so far-reaching in some respects as those, for instance, asked for by Leeds, which practically sought the powers possessed by Glasgow and Edinburgh, these clauses will be a great advance upon existing legislation, even aided by the new Local Government Board Dairies Order. Probably, as public opinion grows stronger, they may, if found deficient when they come to be worked, be further strengthened; or, still better, a general and more far-reaching Act be passed with the same object.

SIR THOMAS BROWNE.

A CORRESPONDENT writes: Anent your recent reference to Sir Thomas Browne, may I quote from a note by Mr. Robert Fitch, to be found at page 223 of the Proceedings of the Archæological Institute at Norwich in 1847? Mr. Fitch says: In August, 1840, some workmen who were employed in digging a vault in the chancel of the church of St. Peter's Mancroft, Norwich, accidentally broke, with a blow of the pick-axe, the lid of a coffin, which proved to be that of one whose residence within its walls conferred honour on Norwich in olden times. This circumstance afforded me an opportunity of inspecting the remains; the bones of the skeleton were found to be in good preservation, particularly those of the skull; the forehead was remarkably low and depressed, the head unusually long, the back part exhibiting an uncommon appearance of depth and capaciousnes; the brain was considerable in quantity, quite brown and unctuous; the hair profuse and perfect, of a fine auburn colour, similar to that in the portrait preserved in the vestry of St. Peter's Mancroft. The coffin-plate, which was also broken, was of brass, in the form of a shield, and it bore the following quaint inscription:

Amplissimus Vir
Dns. Thomas Browne, Miles, Medicinæ
D Annos Natus 77. Denatus 19 Die
Mensis Octobris, Anno Dni. 1682, hoc
loculo indormiens, Corporis Spagy—
rici pulvere plumbum in aurum
convertit.

The lead of which the coffin was made was completely decomposed, and changed to a carbonate crumbling at the touch. Sir Thomas's mural monument is fixed to the south pillar of the chancel, and opposite to this on the north pillar is another mural monument to his lady, Dorothy Browne, who died three years after her husband. The inscription is in verse, probably written by their eldest son Edward, the physician to Charles II, and President of the College of Physicians, as was also probably the inscription on the coffin-plate of Sir Thomas, of which the discovery has been described. The inscriptions upon the mural tablets referred to are as under:

M S. Hic situs est Thomas Browne, M.D., Miles, A° 1605, Londini natus, Generosâ Familiâ, apud Upton in Agro Cestriensi oriundus, Scholâ primum Wintoniensi, postea in Coll. Pembr., apud Oxonienses, bonis literis haud leviter imbutus, in urbe hac Nordovicensi Medicinam Arte egregia et foelici successu professus. Scriptis quibus Tituli, Religio Medici et Pseudodoxia Epidemica, alijsque, per Orbem notissimus. Vir prudentissimus, integerrimus, Doctissimus; obijt Oct. 19, 1682. Piè posuit mœstissima Conjux Domina Doroth. Browne.

Sacred to the memory of Lady Dorothy Browne, of Norwich, in the county of Norfolk. She died February 24th, 1685, in the 63rd year of her age.

Reader! thou maist believe this sacred stone;
It is not common Dust thou tread'st upon;
'Tis hallowed Earth, all that is left below,
Of what the world admir'd and honor'd too,
The Prison of a bright celestial mind,
Too spacious to be longer here confin'd;
Which after all that Virtue could inspire,
Or unaffected Piety require';
In all the noblest offices of life,
Of tenderest benefactress, mother, wife,
To those serene abodes above is flown
To be adorn'd with an immortal Crown.

DEATH OF SIR WILLIAM ROBERTS.

THE death of Sir William Roberts, which occurred on Sunday afternoon last, in his 70th year at his residence in London, will be generally felt to be a real loss to the profession of which he was so distinguished a member. Not only had he earned a great reputation as a physician and pathologist, but by his sincerity, uprightness, and geniality he had won the affectionate regard of all with whom he was brought into personal relations. Sir William Roberts had also served the State well in several capacities. He was a member of the Opium Commission which visited India, and until within a short time of his death he was a member of the University of London Commission. Down to a month or two ago when he began to suffer from the illness which has now proved fatal it seemed that he might have many years of work before him and that his friends might have continued to enjoy the racy phrases in which he was wont to give utterance to his shrewd judgments on men and things.

THE ANTIVACCINATION LEAGUE AND ITS ACTIVITIES.

A NOTICE of the work of the Jenner Society, as presented in the report of the Executive Committee of the Society for the year 1898, was published in these columns a fortnight ago. We are now able to announce the renewal by the Council of the Association of the grant to the Society of £100 which it had made in the two previous years. This was unanimously passed by the Council, but the readiness with which it was accorded would probably not have been diminished had the members been aware of some noteworthy facts which are to be found in the report of the recent meeting of the Antivaccination League, as published in the *Vaccination Inquirer*, the official organ of the League. The council of this body appear to be so impressed with the probable effects on their propaganda of the educational work carried on by the Jenner Society that they have started a special fund of £5,000 to counteract its machinations. Towards this fund, it was stated at the meeting, £1,100 has been already promised by some half a dozen contributors, amongst whom the Countess de Noailles gives £500, Mr. W. Tebb, ex-president of the League, £200, "Leicester Friends" a similar amount, and other contributors smaller, but considerable, sums. The meeting was informed by the hon. secretary of the League that on the strength of this fund, which is to be supplementary to the ordinary income of the League, stated by him to be between £800 and £900 a year, it was proposed to make "a complete reorganisation of the London office," and he invited members "to qualify as lecturers" and thus "render assistance to Messrs. Biggs, Milnes, and Paul, and others" who have hitherto undertaken this work for the League. It was also announced at the meeting that a "Women's Antivaccination League" is to be formed, the members of which are not only to teach mothers "the truth of antivaccination,

but to be health doctors to their children." The female enthusiast who propounded this scheme significantly added that "if they got the women to interest themselves in the movement the men would soon follow." In various other respects the report of this meeting is very instructive, as showing that the League has not been in the slightest degree propitiated by the concession made to the conscientious objector by the Act of last session, but that it is determined to oppose vaccination to the bitter end. Under these circumstances it is clear that the Jenner Society has its work cut out, and that if it is adequately to meet the mischievous agitation which is to be thus carried on with increased resources, it will need much larger support, both from the medical profession and the general public, than it has hitherto received. The Honorary Secretary of the Society is Dr. Bond, Gloucester, who will supply further particulars.

THE PIANO AS A CAUSE OF NEUROSES.

ALL—except perhaps teachers of music—will agree that at the present day the piano is too much with us. It is one of the drawbacks of an advanced civilisation, and if we are often tempted to pity those who lived in the dark ages before the dawn of the electric light and when the automobile was not, our satisfaction at the superior graciousness of our state may be tempered by the recollection that they were free from the everlasting tinkle of the piano. The maelströms of crashing sounds which many performers think it necessary to produce as proof of their skill jar the delicate apparatus of the nervous system to a degree, that, in irritable persons, might have serious consequences if they were compelled to undergo the torture frequently. It was doubtless after an experience of the kind that Théophile Gautier defined music as the most costly of noises. Sir James Paget once took the trouble to calculate the number of muscular movements executed by a skilled player in a single performance. But who shall count the thrills, the pangs, the multitudinous shocks which a sensitive person suffers from the pyrotechnic display of a pianist who sets himself to tickle the ears of the groundlings? A lady boasted to Dr. Johnson that a piece which her daughter had just played was difficult. "Madam," replied the sage, "I wish it had been impossible." Oliver Wendell Holmes must have suffered the torture of the piano when he wrote so feelingly of science which

> Like a poultice comes
> To heal the blows of sound.

Only less irritating to the nerves are the ineffective strumming of the amateur and the damnable iterations of the learner. The piano has been the *causa teterrima* of quarrels that have sundered ancient friendships; it has wrecked many enterprises of great pith and moment; it has disturbed the finer adjustments of the cerebral machinery in many literary and scientific workers, has driven studious men from their books to the bottle, and has stimulated peaceable citizens to the commission of violent assaults. These are among the evil effects of the piano considered *passive* as the schoolmen would say—from the point of view of the sufferer. But the operator does not come off scathless. A recent writer, Dr. Waetzhold, thinks that the chloroses and neuroses from which so many young girls suffer may be largely attributed to the abuse of the piano. He therefore urges that the "deadly" custom of compelling young girls to hammer on the keyboard before they are 15 or 16 years of age should be proscribed by public opinion. Even at that age the exercise should be permitted only to those who, in addition to real talent, possess a robust constitution. He cites figures showing that, out of 1,000 young girls studying the piano before the age of 12 years, 600 were afflicted with nervous troubles in later life; while among those who began to learn the piano at a later age, only 200 suffered in like manner. Of those who never touched the instrument at all, only 100 were similarly afflicted. The study of the violin produced even more disastrous results than those attributed to the piano. Fortunately the violin is not yet a universal nuisance as the piano has come to be. If the barbarous fashion of compelling all girls to learn the latter instrument cannot be put down in any other way, Parliament might be less usefully employed than in passing an Act for the protection of minors from this form of cruelty. The man who deliberately adds one to the number of indifferent players who already vex the general ear should be held guilty of malice against the human race.

"DEATH IN THE POT."

THE use of enamelled iron ware for culinary purposes is becoming very common. Most households possess one or more of these articles, which have much to recommend them on the score of ease in cleansing, and the rapidity with which heat penetrates to the contents. Mr. Sharpin, F.R.C.S., of Brighton has, however, called our attention to this latter property, and shown that it may constitute a source of danger. He met with the case of a cook who, in cleaning a saucepan made of this ware, had been pierced with a small piece of the enamel under the fingernail. Upon examination after extraction, the fragment proved to be like glass in appearance and sharpness. He points out how readily this enamel breaks off from the subjacent iron, if it be submitted too rapidly to a great heat. This he attributes to the rapid expansion of the metal without a corresponding extension of the enamel. Once cracked, moisture obtains access to the iron, which becomes rusty, and the enamel then peels off in small flakes or large pieces. Mr. Sharpin ascertained that it was very difficult to pick these pieces out of certain vegetables, for example, spinach or cabbages, and draws the inference that many people eat food to which particles of enamel are adherent. He then inquires whether, such being the case, this may not account for the greater frequency of certain intestinal troubles at the present day than in the days before enamelled ware came into general use. So minute are some of these particles that they may well escape naked-eye examination, and yet they are so sharp as easily to cause minute lesions in the intestinal tract. He adverts to the extensive literature on the subject of appendicitis, viewed from the standpoints of pathology, surgical interference or treatment, but to the paucity of statements as to the causation of that disease, and concludes that this is due to the causal factor being in many cases so minute as to have escaped detection. The initial lesion he considers may possibly be due to some such minute fragment, sharp, with cutting and spiked edges, and indigestible. After an extensive general and hospital practice covering a period of forty-five years, he believes that cases of intestinal mischief of the nature alluded to are far more frequent now than thirty years ago. He therefore advises that all housekeepers and others in charge of the domestic arrangements in households where enamelled saucepans, etc., are used should have them overhauled at frequent intervals, and that those in which the enamel is defective should be at once discarded.

THE STATE CHILDREN'S ASSOCIATION.

WE have received the second annual report of the State Children's Association, which gives full details of the work done during the past year under the chairmanship of the late Lord Herschell. The Association, with a view to secure individual treatment of children under the guardianship of the State, seeks to obtain the dissolution of large schools, so that the children may be brought up, when possible, in families or in small groups where they will be daily in touch with the various interests and activities of social life; to dissociate the children from all connection with the workhouse and the officials who have to deal with a pauper class; and to obtain for the State further powers

of control over neglected children. A Bill for the better control of Poor-law children was drafted under the direction of the Association, and introduced by Mr. Flower in the last session of Parliament, but though it had the sympathy of the Government and the approval of a large number of Boards of Guardians, it was blocked. It has, however, been again introduced. Early in the year a letter was forwarded by the late Lord Herschell, on behalf of the Executive Committee of the Association, to the President of the Local Government Board, commending the action of the Board in dissolving the Sutton Schools, pointing out that by close inquiry the number of children to be provided for directly by the guardians would be considerably reduced; and urging the Board to reconsider the proposal that the guardians should build blocks and erect colonies for pauper children, which would only be improved barrack schools. No further action has been taken by the Local Government Board, and the guardians in the several unions have had to make new arrangements for the provision of pauper children as a distinct class. The Metropolitan Asylums Board was approached, and a deputation from the Association waited upon them inviting their consideration of the desirability, in connection with the new responsibilities placed upon the Board for the care of Poor-law children, of obtaining the co-operation of ladies and gentlemen having special experience in the education, training, and medical care of children. A written reply was received stating that the Board was not prepared at present to fall in with the views of the deputation. The report tells of much useful assistance rendered to the guardians in dealing with pauper children under their control. A number of questions were drawn up and issued to the candidates at the metropolitan election of guardians early in the year. Replies received to these questions, in some cases with inquiries for further information on special points, show how valuable the work of the Association in this direction has proved. A number of public meetings have been held during the year, the object being to lay before the public the present conditions under which State children are reared in barrack schools and in similar institutions, in the hope of awakening a spirit of inquiry which may lead to reform. The Association has also issued a number of pamphlets bearing on the work, which can be had at the office, 58, Old Broad Street, E.C. The report concludes with some details of the reforms suggested by the Association which have been effected in various directions, and largely as a result of the influence exerted upon public opinion by their work. While much has been accomplished—and the results have justified the existence of such an Association—much remains yet to be done, and that, unfortunately, in the face of opposition. But all who have the interest of children at heart, and specially of children who through no fault of their own are dependent on the State, must wish well to, and give every support to an institution which is doing such valuable work as the State Children's Association.

SCHOOLBOYS, PARENTS, AND INFECTION.

A headmaster, writing in a contemporary, gives an excellent illustration of the working of that kind of charity which begins at home and ends there. Owing to the presence of infectious illness amongst his pupils, the headmaster sent out a circular to the parents, ten days before the holidays began, warning them that their sons had been exposed to the risk of infection, and advising their isolation until its incubation period had been safely passed. One of the boys subsequently showed to him a letter from home lamenting that he could not be received into the bosom of the family because of the possible risks to his own brothers and sisters, but indirectly intimating that the health of other folks' children need not be taken into consideration, for it went on to state that during the week for which he was to be kept away from home in the charge of an old servant, his spirits were to be maintained by his being taken to "Maskelyne and Cook, the Zoological Gardens, and such other places of entertainment as he might select." This was, of course, merely a selfish thoughtlessness. When people like this do think, they are specially given to vigorous expressions of indignation if their own household chance to suffer from similar thoughtlessness on the part of their neighbours. Yet the mischief—the misery—which their own light-hearted indifference may cause is almost incalculable. Crowded places of public entertainment, particularly those frequented by the young, afford a peculiarly effective combination of the conditions most favourable to the dissemination of infectious disease, for they ensure an aggregation of susceptible individuals who are for the time exposed to the debilitating influence of a more or less depurated atmosphere, which not only temporarily lowers the natural powers of resistance to infection, but which also—being charged with effete and decaying organic matter at a favourable temperature—furnishes an excellent culture medium for the further growth, multiplication, and intensification of the microbial contagia introduced into it. For people who take such oblique views of their responsibilities a course of elementary copybook morality (nowadays too much neglected) ought to be compulsory, though, indeed, a very little dispassionate consideration of the matter should suffice to impress upon their minds that if the injunction to love one's neighbour as one's self be primarily a counsel of unselfishness, its practical application to these problems of everyday life ensures a more than equivalent return.

MR. MITCHELL BANKS.

The many friends of Mr. Mitchell Banks will read with great satisfaction the true and graceful words with which the Dean of the Faculty of Law presented the honorary degree of LL.D. granted to him by the University of Edinburgh last week. Mr. Banks has well earned such a distinction by his important contributions to the practice of surgery, by his eminent services to medical education through the foundation of the School of Medicine in Liverpool, in which he had a large share, and by the wisdom and public spirit which he has shown in guiding his medical brethren through more than one period of difficulty. Among the other recipients of the same honour on this occasion were the Marquess of Dufferin and Ava and Viscount Wolseley, Commander-in-Chief.

LAUGHTER AS A THERAPEUTIC AGENT.

Therapeutic effects of different kinds have been attributed to laughter by the gravest medical writers from Hippocrates downwards. The Father of Medicine laid special stress on the importance of merriment at meals. The old physicians recommended laughter as a powerful means of "desopilating" the spleen. Fonssagrives said that mirth is the most powerful lever of health. Tissot professes to have cured scrofulous children by tickling and making them laugh. Dumont de Monteux relates the strange case of a gentleman who got rid of an intermittent fever after witnessing a performance of *Le Mariage de Figaro*, at which he had laughed consumedly. Other learned doctors state that nephritic, colic, scurvy, pleurisy, and other affections are favourably influenced by laughter. We have heard of a case in which an abscess in the pharynx burst during a fit of laughter. The popular view of the good effect of laughter on nutrition is enshrined in the proverb, "Laugh and grow fat." The most recent contribution to our knowledge of the therapeutics of laughter comes from an Italian physician. Dr. D'Aiutolo, in a communication presented to the Medico-Chirurgical Society of Bologna on February 17th discussed the action of laughter as an expectorant. He used

this treatment in five cases of bronchitis and other affections in which there was "a morbid product in the bronchial tubes and alveoli." A good laugh by shaking the chest helps the expulsion of the secretion and "produces a state of physical and moral well-being." Dr. D'Aiutolo admits that there may sometimes be a difficulty in applying the treatment. Susceptibility varies according to age, temperament, education, and social position. The practitioner has to bear all these different conditions in mind in selecting the kind of joke suited to the case with which he has to deal. As to sex, women are generally said to be deficient in a sense of humour, but they do not themselves think so—that, as Ancient Pistol says, "is the humour of it." In a recent number of the *Cornhill Magazine* the point was discussed by two ladies in a manner which places the feminine side of the question in a painfully clear light. Then there is the matter of race. The Latin races like a larger dose of the *gros esprit Gaulois* in their jokes than our less primitive or less frankly human taste can tolerate. On the other hand, hyperboreans otherwise blameless are often the subjects of an idiosyncrasy which renders them virtually "immune" against the most merrie-conceited jests. There is a further difficulty, and that is the choice of a person to administer the remedy. Sometimes, as Dr. D'Aiutolo somewhat reluctantly admits, a layman will succeed in moving the patient to laughter better than the most scientific physician. If the treatment becomes popular it may lead to the development of a new speciality, for which we venture to propose the name of "gelototherapy." A properly trained gelototherapeutist would see at a glance the indications of a particular case, and would never, for instance, administer a full flavoured "Limerick" to an Archbishop or a jibe at female frailty to a New Woman. He would also be careful in adjusting the dose and would frequently have, like Oliver Wendell Holmes, to avoid "being as funny as he could." The laughter treatment, we are told by Dr. D'Aiutolo, is contra-indicated in cases of pleurisy, heart disease, and peritonitis, and also in the case of neurotic children and pregnant women. We would add that it would be well to use it with caution in the case of elderly gentlemen afflicted with gout and strong-minded ladies with a mission.

STRETCHING THE SOLAR PLEXUS FOR ABDOMINAL PALPITATIONS.

M. JABOULAY, of Lyons, has been bold enough to perform an abdominal section and to stretch the solar plexus. He has considered for some time a well-known kind of disorder of the abdominal viscera characterised by violent aortic palpitations and tympanitic distension of the intestines from paresis of the muscular coats. Allied to this condition is functional disorder of the glandular organs associated with the digestive tract. The solar plexus seems to be at fault in these cases. In order to modify its excitability Jaboulay followed the principles already put into practice for the relief of exophthalmic goître. Stretching the cervical sympathetic has been followed by the reduction of the eyes into their orbits and the disappearance of the vaso-dilatation. He operated on a woman, aged 35, with neurotic symptoms, including violent pulsation of the aorta and tympanites. She had suffered from suppurative salpingitis and other pelvic disorders due to the puerperium, and had already undergone five surgical operations on the genital tract. Neuroses very frequently occur in such cases. On January 28th a median incision was made and the pylorus drawn down. The left forefinger was used to explore the aorta and its neighbourhood. The cœliac axis and the renal arteries were easily detected, as they pulsated strongly; then, by aid of a grooved director, a sufficiently blunt-ended instrument for the purpose, the trunk of the cœliac axis was laid bare, as well as the anterior aspect of the aorta adjacent to it. The denudation was carried a little along the superior mesenteric artery as though it was to be ligatured. These manœuvres were held sufficient to make an impression on the branches of the solar plexus, which form a meshwork in front of this part of the aorta after leaving the semilunar ganglia, and which are distributed to the stomach, intestines, liver, pancreas, kidneys, spleen, and suprarenal capsules. The operation is described in the *Lyon Médical* of March 26th. Amelioration has followed, though Jaboulay admits that the after-history is too short to be of value. If it does not justify the operation, it at least shows how it can be performed.

DR. ROBERTS THOMSON.

IT will be remembered that Dr. Roberts Thomson, the President of the British Medical Association in 1892, met with a serious bicycle accident on April 6th, 1898. On the anniversary of his accident Dr. Thomson received a letter signed by 270 subscribers, enclosing bank notes for the sum of £1,081, which the donors stated had been subscribed in order to express their cordial sympathy with Dr. Thomson in the severe accident which had withdrawn him from public life for so many months, and their sincere pleasure that he was now restored to his place among them. The gift, the letter went on to say, was intended to be an addition to the endowment fund of the Royal Victoria Hospital, Bournemouth, and the hope was expressed that a ward in that hospital might in future bear Dr. Thomson's name. This very gratifying and valuable testimonial was, we learn, subscribed for secretly, so that it came upon Dr. Thomson as a complete surprise. The list of subscribers represented all classes of residents in the borough, who were glad to express in this way their appreciation of Dr. Thomson's public work and private worth.

DISPENSARY ELECTIONS IN IRELAND.

IN the BRITISH MEDICAL JOURNAL of April 1st, page 806, we referred to the circumstances attending the election of Dr. Mackay to the Dundrum Dispensary, co. Dublin, and to the holding of an inquiry by the Local Government Board. The Commissioners have now refused to approve of the appointment on account of the irregularities connected with it, and a new election will take place in May. The electors will be the new Board under the Local Government (Ireland) Act, and it is generally believed that neither of the candidates who were first and second on the last occasion will be chosen, their political views not being in accord with those of the majority of the members. There is some discussion as to the justice of the decision, and it is pointed out that it raises a large question. If an election is to be declared void because some possibly unknown person improperly entices an elector away—the chosen candidate being entirely innocent—then many elections might be rendered inoperative for a time, or until a season more favourable for a particular individual. A further consideration is whether the Local Government Board can interfere with the choice of the new electors. But we must assume that all this has been the subject of consultation and advice by the law officers.

SIR HERMANN WEBER will deliver an address on The Climates of England Compared with Those of the Continent, at a *conversazione* to be given by the British Balneological and Climatological Society on Thursday next, at 9 P.M., at 20, Hanover Square.

WE regret to have to record the sudden death of Mr. John H. Hemming, of Kimbolton. Mr. Hemming had attended a meeting of the Council of the British Medical Association on April 12th. On April 14th he went to Northampton to attend the meeting of the South Midlands Branch, and on going upstairs to the meeting he staggered and fell, and immediately died.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The Navy Estimates, which were discussed on April 14th, included some items of medical interest, and led to some interesting information being given to the House. Wei-hai-wei, which has been so much talked of, was stated to be not only a good harbour and a strong post, but so healthy as to be a likely place of resort for naval invalids. The authorities have therefore decided to establish a hospital there for the sick sailors of the fleet in Chinese waters. This decision will give fresh importance to Wei-hai-wei, which is likely to become a chief naval station in far Eastern waters. When the vote for the Medical Services was reached, Captain Phillpotts complained that naval surgeons were required to provide their own surgical instruments, and that owing to their long absences abroad they had no adequate opportunities of keeping level with the advances of medical science. He suggested that they should have facilities for attending the medical schools from time to time. This gave the Civil Lord an opportunity of telling the House that a Committee had been engaged for some time considering these points and several others connected with the Medical Service. It is, indeed, an open secret that this Departmental Committee is carefully inquiring into the whole subject, with a view to encourage scientific study and work on the part of naval medical officers. Later in the evening the sanitary condition of the training ship *St. Vincent* was discussed, but the Secretary of the Admiralty was able to assure the House that the illness which had occurred was merely an outbreak of influenza, that the ship had been thoroughly disinfected, and her condition rendered satisfactory.

The Budget Proposals of the Chancellor of the Exchequer drew a large and animated attendance, and, as the secret of the Budget was well kept, the element of curiosity was very marked. The suspension of the 12 o'clock rule so as to prolong the sitting in case of necessity revealed the intention of the Chancellor to impose new taxation. The question was, who was to suffer? Many expected that a small tax on beer would be proposed, while others feared an increase in the income tax. There was an evident feeling of relief when the Sinking Fund was pointed out as the source from which £2,000,000 would be drawn, for to all professional classes an increase in the present high income tax would have been a hardship. The remaining £820,000 is to be raised by a stamp duty on investments and a tax on wines. The latter is unpopular with many members, as it is regarded as a retrograde step, and one likely to do harm by discouraging the use of light wines which previous Chancellors have sought to make more popular. It is further urged that it will bear hardly on our Australian Colonies, from which much wine comes, and will also irritate France. There is on these and other grounds sure to be much opposition to this proposal.

The University Degrees Bill has been blocked by General Laurie, who will move on the second reading that this House declines to place a stigma on foreign or colonial universities by enacting that any graduate or holder of a degree of such university shall be required to add to his name the title of such university, while graduates in the United Kingdom are exempted from such requirements. This questions the whole principle of the Bill, and so becomes an effective block to any progress at the end of a sitting, the only time at which the Bill can come on.

The Sale of Food and Drugs Bill is likely to be proceeded with steadily in the Standing Committee on Trade, and Mr. John E. Ellis has been appointed chairman. Sir Charles Cameron and Sir Walter Foster, among others, have been added to the Committee in respect to this Bill.

The Small Houses (Acquisition of Ownership) Bill occupied nearly the whole of Monday's sitting, and came in for some sharp criticism on both sides of the House. It was thought by many that the Bill being permissive was not likely to have much effect upon the housing question, and that in places in which it was adopted it would only benefit the class who are already able to acquire their houses by means of building societies. The Bill provides that a house acquired under the Bill by a loan from a local authority of four-fifths of its value to the occupier shall be sanitary in all respects and should be kept in a sanitary condition by the occupier. The Bill in this respect may when passed into law help in the direction of improving the public health. After two divisions the Bill was read a second time and referred to the Standing Committee on Law.

The Midwives Bill, which was put down for Tuesday for the adjourned debate, did not come on, but stood over in consequence of the count out till Wednesday and was then postponed to next Tuesday. Mr. Weir has put down a notice that he will move: "That no measure dealing with the question of midwifery can be considered as satisfactory which does not provide for female medical practitioners to have equal representation with men on the Central Midwives Board which it is proposed to appoint under the Bill." This will be seconded by Mr. Faithfull Begg.

The Royal Army Medical Corps has apparently engendered by its creation a desire on the part of the Army Veterinary Department for a similar title, but the Under-Secretary of State for War declared on Tuesday in answer to Captain Norton that there is no intention of placing the veterinary officers on the same footing as regards military titles as the Royal Army Medical Corps.

Venereal Disease in the army in India was the subject of a question by Major Rasch. The Secretary of State for India stated that the number of British soldiers sent home from India as invalids on account of venereal disease during the years 1894, 1895, 1896, and 1897 respectively was as follows: 1894, 301; 1895, 353; 1896, 479; 1897, 662. The returns for 1898 are not yet complete. The number now in Netley and Herbert Hospitals who have been sent there from India is, Netley, 199; Woolwich, 10.

Lead Poisoning is still receiving attention in the House, and two questions have been asked by Sir Charles Dilke as to the holding of inquests in cases of death from this cause. The coroner at Hanley appears not to have held inquests in two recent deaths, as the cases had been inquired into by the Home Office. The Home Secretary has, however, informed the coroner that he thinks it desirable that, as a general rule, inquests should be held in cases in which death is known, or suspected, to have been caused by lead poisoning.

The Metropolitan Water Companies Bill, which passed a third reading on Tuesday after some slight opposition, is a Government measure which provides for the prevention of any water famine like that of last year, by ensuring that the companies shall be able to supplement each other's deficiencies. It throws a considerable amount of responsibility on the Local Government Board, and is intended to avert difficulties until such time as the whole question of London water can be thoroughly dealt with.

The Lunacy Bill, introduced by the Lord Chancellor in the House of Lords, was read a second time on Tuesday without any discussion. The Bill embodies the clause for the temporary treatment of insanity suggested by the British Medical and Medico-Psychological Associations. The proposed provisions for pensions and gratuities will probably be criticised when the Bill comes down to the House of Commons.

The Public Health Acts Amendment Bill, a full account of the provisions of which was given in the British Medical Journal of February 25th, 1899, page 498, was read a second time on Wednesday and referred to a Select Committee.

Dr. Frederick Montizambert, Superintendent of Quarantine of Canada, and a former President of the American Public Health Association, has been appointed Director-General of Public Health of the Dominion of Canada with the rank of Deputy Minister.

THE ST. JOHN AMBULANCE ASSOCIATION.

The Stockport Centre.

The difficulty which has arisen at Stockport with regard to the administration of the St. John Ambulance Centre there has now reached a stage at which it may profitably be considered here. As was indicated in a brief reference to the subject in a previous issue of the British Medical Journal, it appeared desirable before commenting upon the matter to await the reply of Earl Egerton of Tatton, the President of the Local Centre, to the representations made to him. This has now been given, and a copy has been furnished to us.

The Centre was founded in 1883. Since then classes, conducted by medical men resident in the town, have been given annually, and examinations have been held in the ordinary course. In addition to general classes, special courses have been given to the police, and these have, in recent times at least, been given by the Medical Officer of Health, Dr. Porter, who is also Police Surgeon.

In 1897 Dr. Porter was instructed by the Watch Committee of the Town Council to inquire why the charge made for the examination of this class should have been so high as £5 5s. This inquiry made verbally by Dr. Porter was met in a discourteous manner by the Honorary Secretary of the Local Centre, Mr. Ferns, solicitor, and upon the matter being reported to the Watch Committee that body passed the following resolution:

That this committee hereby records its dissatisfaction with the manner in which the whole matter has been treated by Mr. Ferns, the Local Honorary Secretary.

A communication addressed to the Chief Secretary of the St. John Ambulance Association drew the reply that the total amount charged by the Central Association against the Stockport Centre was £1 3s. 6d., and it was suggested that the extra charge included stores supplied, hire of charts and diagrams, and perhaps a stretcher. To this Dr. Porter, still acting under the instructions of his committee, replied that the charge did not include stores, all of which were paid for separately; nor had it any reference to the hire of charts or a stretcher. In reply to this communication the Chief Secretary wrote, "I know nothing about it. I must refer you to the Chairman of the Centre if you wish for any explanation." An official communication was then addressed to the Honorary Secretary of the Local Centre asking him for an explanation of the extra charge, and transmitting to him copies of the correspondence. In reply, Mr. Ferns wrote a letter, in the course of which he said:

I beg to state that the fee of 5 guineas for last year's police class was made on the authority of this Centre, and is perfectly in order. I would further remark that this Centre has full power to regulate its own fees for classes held under it and the charges referred to in the letter of the Chief Secretary for examiner, etc., are matters solely between us and the head office, and have nothing to do with outsiders.

A further communication was then addressed by Dr. Porter to the Chief Secretary transmitting the reply of the Honorary Secretary of the Local Centre, and making certain inquiries as to the constitutional powers of local centres. In reply to this the chief Secretary wrote under date of March 23rd, 1897, as follows:

In reply to your inquiries: (1) The committee of a local centre of which the honorary secretary is but the mouthpiece of the committee, is perfectly justified in charging any sum it likes for the examination of an ambulance class, and we leave this matter entirely in the hands of the chairman and committee. As regards your second question, a Centre is responsible to the Association to the extent that it must carry out the regulations laid down in Pamphlet 57 (*b*). In extreme cases appeal can be made to the Central Executive Committee in London. If the Centre charged a class £100, it might of course be considered an exorbitant charge and an appeal be justifiable, but I do not consider that the charge of £5 5s. to a wealthy corporation such as Stockport, is at all excessive. A Centre has constantly to pay for poor classes which are not self-supporting, and naturally expects, in accordance with our usual custom, that those classes able to pay should contribute to those who cannot. Pamphlet 57 (*b*) answers your third question. The impression you mention that the account rendered to you has the direct sanction of this office is not warranted, for, as I mentioned above, we do not interfere in these matters.

At this point the matter was allowed to drop, but in June, 1898, the Chief Constable at Stockport requested the Honorary Secretary of the Local Centre to arrange for the examination of another police class, but Mr. Ferns replied making certain objections—among others, that before he could make the arrangements as requested he must "have some guarantee that the fees this time would be paid without demur." The Watch Committee thereupon resolved that all future communications with regard to ambulance work and the police force should be made direct to the head office in London, and this particular examination was conducted by the Central Association for the fee of £1 14s., but the Central Association objected to the continuance of this arrangement.

The Stockport Local Centre of the St. John Ambulance Association, as has already been stated, was founded in 1883 at a public meeting. A Committee of some twenty members was then elected, with Mr. Ferns as Honorary Secretary. We are informed that meetings of the Committee were held in October of that year, in September, 1884, and in January, 1885; one other meeting was called at which no one attended, and the next meeting of the Centre appears not to have been held until February, 1899. On January 25th, 1899, the Stockport and District Medical Society passed resolutions expressing the opinion that the charges made by the Local Centre for providing examiners for first aid and other classes should not exceed those of the head office in London for exactly the same work, and that the Medical Society should be represented upon the committee of the Local Centre by at least three of its members nominated by the Society. These resolutions were communicated to the Honorary Secretary, who, we are informed, called upon the Secretary of the Stockport Medical Society, and expressed himself in extremely unbecoming terms with regard to the Society. At a public meeting on February 7th, called for the primary purpose of distributing certificates and medallions to successful students of the Centre, an attack was made upon Dr. Smeeth, the Honorary Secretary of the Medical Society, and at a subsequent meeting of the Medical Society the following resolution was adopted:

That this Society expresses its continued confidence in its Secretary, and deprecates the unwarranted attack made on Dr. Smeeth in the *Advertiser* of February 10th.

Subsequently Dr. Christian, who had been elected a member of the Local Centre, wrote to Mr. Ferns, suggesting that he should apologise for the offence he had given as Local Honorary Secretary; but Mr. Ferns replied that, "as he had nothing to express regret for, either to the Ambulance Committee or to anyone else, he had no intention of doing anything of the kind."

At a meeting of the Stockport Medical Society held on March 30th it was unanimously resolved:

That in consequence of the offensive references and objectionable conduct of the Local Honorary Secretary of the Stockport Centre of the St. John Ambulance Association to the Medical Society and some of its members individually, prior to and arising out of the public meeting held in the Pendlebury Memorial Hall on February 7th, 1899, the members of the Stockport and District Medical Society will reluctantly be compelled to abstain from lecturing in connection with the Local Centre, as at present constituted, until the local Honorary Secretary withdraws and apologises for such references and conduct. And the Society further suggests that the past management of this Centre be officially inquired into by the Central Executive Committee in London.

On April 8th the Honorary Secretary of the Stockport Medical Society addressed a letter to Lord Egerton of Tatton, President of the Stockport Centre of the St. John Ambulance Association, forwarding a copy of the above resolution, and offering to furnish to Lord Egerton a complete statement showing how the unfortunate state of affairs with the Local Centre had been brought about, and stating that a deputation would be glad to wait upon him if he preferred that course. Lord Egerton of Tatton replied by a letter, dated April 13th, in which he declined either to receive a deputation or a written statement, and praising Mr. Ferns for having kept up the work of the Ambulance Association in the town unsupported for many years. Lord Egerton further stated that Mr. Ferns had his support and confidence, which had not been shaken by the attacks made upon him by some members of the Medical Society.

The occurrence at Stockport goes to confirm a suspicion aroused by certain other incidents in the history of the St. John Ambulance Association, that this Association is in danger of mistaking the relation in which it stands to the medical profession. Stockport is only one of a large number of towns throughout the country in which for many years members of the medical profession have, from the most disinterested motives, co-operated with the St. John Ambulance Association by giving lectures for the

local centres. It must be confessed that a more generous recognition of the debt which the St. John Ambulance Association owes to these gentlemen would be only becoming in a public organisation. However this may be, it seems abundantly clear that the Honorary Secretary of the Stockport Local Centre has mistaken these relations, and, as the President of the Centre has not thought fit to give weight to the representations which have been made to him on behalf of the medical profession, we must now look to the central organisation to undertake the inquiry which he has declined to institute; for it is intolerable that members of the medical profession should be treated with the discourtesy shown to them by the representative of the St. John Ambulance Association at Stockport.

In the meanwhile the medical men at Stockport are undoubtedly justified in declining to give further lectures for the St. John Ambulance Association. We do not wish to precipitate a controversy, but we must in justice observe that while the St. John Ambulance Association could not get on without the medical profession, the medical profession could get on perfectly well without the St. John Ambulance Association. Lord Egerton of Tatton speaks of the Medical Society declining to perform a public service in lecturing to the Local Centre, but, so far as it is the public duty of the medical profession to instruct the public in ambulance work, that duty can be discharged otherwise than through the St. John Ambulance Association.

We understand that the desirability of taking such a course is in contemplation in Stockport, and that if the St. John Ambulance Association continues to show its present impracticable attitude, steps will be taken to organise a local ambulance society, which will be managed locally with the co-operation of the medical profession in the town.

THE PLAGUE.

HONG KONG.

A TELEGRAM from the Governor of Hong Kong states that during the past week 10 cases of plague and 4 deaths from the disease have occurred in the colony.

INDIA.

Contrary to general expectation, at the onset of warm weather the number of plague cases is on the increase in many districts. On the other hand, a number of previously infected towns and districts are now free of plague; they are: Shikarpur, Upper Sind frontier, Thar and Parkur, Malir, Kantra, Palanpur, Dharanpur, Sachin, Janjira, Akalkot, Bhor and Savnmir.

In Bombay the number of cases of plague has but slightly diminished. In Poona marked recrudescence has occurred. During one day towards the end of March, 27 fresh cases and 11 deaths were recorded, and at the beginning of the month of April 100 cases remained in the various hospitals of Poona.

In Karachi from 40 to 60 fresh cases of plague occur daily, and the municipality are in difficulty as to the continued expense of maintaining the plague hospital and sanitary staff.

The Hyderabad report is not reassuring: plague seems to have increased in the territory rapidly during the past month. We are glad to see that Dr. Lawrie has overcome his scruples concerning Haffkine's fluid, and that he is urging its use on the condition that the fluid is sterilised in the laboratory of the Hyderabad Medical School.

The Lieutenant-Governor of Bengal now admits that "Calcutta has itself become the centre of infection by reason of its more constant intercourse with the mofussil." At last the fact seems to be brought home to the Calcutta authorities that plague really exists there. They have fought against the stigma in a manner worthy of a better cause. The measures proposed are not land quarantine, but (1) that no infected person shall be allowed to travel by rail or steamer, and (2) that all persons leaving an infected for a healthy district shall intimate the fact of their arrival to the authorities. This reduces the interference with business and travel to a minimum, and it is to be hoped that the liberty afforded will be welcomed by the natives, and that the *régime* will prove successful.

Professor Haffkine stated before the Commission of Inquiry that he preferred to be judged by the results of his method of treatment rather than by theoretical considerations of the admixture of the serum with microbes. He stated that he had devised a plan of producing and employing a supernatant fluid in his preparation for inoculation with the object of reducing the proportion of deaths to cases inoculated. With regard to the presence of microbes in the fluid, Haffkine said that the intrusion should be carefully avoided, but that the conditions under which it happened were such as to secure the elimination of all possible source of danger therefrom.

MECCA.

On April 12th two cases of plague were reported from Mecca.

FOOD ADULTERATIONS IN NEW YORK.—A Bill has been passed by the New York State Legislature appropriating the sum of 10,000 dollars to be used by the Commissioner of Agriculture in the investigation of food adulterations.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF SPECIAL MEETING.

A SPECIAL Meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Friday, the 12th day of May next, at 2 o'clock in the afternoon, to consider the recommendation of the special meeting of the Parliamentary Bills Committee held on March 24th last respecting the Medical Acts Amendment Bill.

FRANCIS FOWKE, *General Secretary.*

429, Strand, April 18th, 1899.

PROCEEDINGS OF THE COUNCIL.

AT a meeting of the Council held in the Council Room at the office of the Association, 429, Strand, W.C., on Wednesday, April 12th, 1899.

Present:

Dr. ROBERT SAUNDBY, LL.D., President of Council, in the chair.

Dr. CHARLES PARSONS, Treasurer.

Dr. JOHN WARD COUSINS, President-Elect.

Dr. JAMES BARR, Liverpool.
Dr. RAYNER W. BATTEN, Gloucester.
Dr. MICHAEL BEVERLEY, Norwich.
Mr. JAMES CANTLIE, London.
Dr. ALFRED H. CARTER, Birmingham.
Mr. ANDREW CLARK, London.
Dr. H. RADCLIFFE CROCKER, London.
Dr. MAURY DEAS, Exeter.
Dr. E. H. DICKINSON, Liverpool.
Dr. T. M. DOLAN, Halifax.
Brig.-Surg.-Lieut.-Col. E. F. DRAKE-BROCKMAN, London.
Dr. W. A. ELLISTON, Ipswich.
Professor DAVID W. FINLAY, Aberdeen.
Mr. R. S. FOWLER, Bath.
Dr. ALFRED GODSON, Cheadle.
Dr. BRUCE GOFF, Bothwell.
Dr. C. G. GOODING, London.
Dr. OGILVIE GRANT, Inverness.
Dr. J. GROVES, Carisbrooke, Isle of Wight.
Dr. HENRY HANDFORD, Nottingham.
Mr. JOHN D. HARRIES, Shrewsbury.
Mr. J. HUGHES HEMMING, Kimbolton.
Dr. HOLMAN, London.
Mr. T. VINCENT JACKSON, Wolverhampton.
Mr. T. R. JESSOP, Leeds.
Mr. EVAN JONES, Aberdare.
Dr. J. A. LINDSAY, Belfast.
Mr. JORDAN LLOYD, Birmingham.
Mr. N. C. MACNAMARA, London.
Dr. J. W. MILLER, Dundee.
Dr. JOHN WILLIAM MOORE, Dublin.
Dr. C. G. DRUMMOND MORIER, London.
Mr. W. JONES MORRIS, Portmadoc.
Mr. R. H. B. NICHOLSON, Hull.
Surg.-Gen. T. F. O'DWYER, Aldershot.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. FRANK M. POPE, Leicester.
Dr. EDWIN RAYNER, Stockport.
Dr. G. E. RENNIE, London.
Mr. H. B. ROBINSON, London.
Dr. JOHN ROLSTON, Stoke, Devonport.
Dr. L. W. SEDGWICK, London.
Dr. ALFRED SHEEN, Cardiff.
Dr. G. E. SHUTTLEWORTH, Richmond.
Dr. E. MARKHAM SKERRITT, Clifton.
Dr. R. SOMERVILLE, Galashiels.
Mr. HENRY STEAR, Saffron Walden.
Dr. W. J. TYSON, Folkestone.
Dr. A. R. URQUHART, Perth.
Mr. T. JENNER VERRALL, Brighton.
Dr. W. L. WINTERBOTHAM, Bridgwater.
Dr. S. WOODCOCK, Old Trafford.

The minutes of the meeting of January 18th and the Special Meeting of March 10th last having been printed and circulated were taken as read and signed as correct.

Read letters of apology for non-attendance from Sir T. Grainger Stewart (President), Dr. Henry Barnes, Dr. Bridgwater, Dr. Brassey Brierley, Mr. Langley Browne, Professor Henry Corby, Mr. George Eastes, Dr. F. Fergus, Dr. P. Sidney Jones, Dr. R. Maclaren, Dr. J. C. McVail, Dr. R. W. Philip, Dr. G. H. Philipson, Dr. Phillips-Conn, Dr. W. Russell, Dr. J. Roberts Thomson, and Mr. Joseph White.

BRITISH MEDICAL ASSOCIATION.

FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31ST, 1898.

BALANCE SHEET.

LIABILITIES.

DR.	£ s. d.
To Subscriptions paid in advance	664 8 7
,, Advertisements	623 2 4
,, Publishing ,,	4 7 6
,, Library	31 5 4
,, Contributions	724 6 6
,, Reporting	50 12 1
,, Engraving	126 17 2
,, Printing of Journal	459 6 9
,, Paper for Journal	816 0 10
,, Miscellaneous Printing	115 18 6
,, Stationery	54 19 8
,, Coals and Coke	3 6 0
,, Repairs	52 1 5
,, Legal Charges	91 0 0
,, Rates and Taxes, Insurance, and Electricity Supply	226 15 8
,, Plant and Type	263 17 6
,, Sundries	70 9 9
,, Wood Fund	25 0 [illegible]
,, Interest on Mortgage	285 0 0
	4,688 15 7
,, Loan on Mortgage of Freehold	38,000 0 0
TOTAL LIABILITIES	42,688 15 7
,, Amount written off towards depreciation of Furniture	1,442 9 11
,, Surplus Account— £ s. d.	
Balance on Jan. 1st, 1898 ... 69,196 12 10	
Less Balance Cost of Leases less Redemption Fund 1897 written off ... 8,749 13 10	60,446 19 0
Profit on Sale of Stock and Premium on Redeemable Stock now sold	4,538 6 3
Profit for 1898 brought from Revenue Account	4,736 8 9
,, Balance, being total of excess of assets over liabilities	69,721 14 0
	£113,852 19 6

ASSETS.

CR.	£ s. d.	£ s. d.
By Subscriptions—Amount due		1,992 16 6
,, Advertisements—Amount due		3,946 18 4
,, Sundry Sales—Amount due		174 8 8
,, Furniture and Fixtures at cost		2,503 5 5
,, Library		2,175 7 6
,, Plant and Type		2,067 2 3
,, Interest accrued on Investments and Rents due		291 15 11
,, Freehold of 2 and 3, Harvey's Buildings		4,640 0 0
,, Freehold of 429, Strand, 2, 3, 4, and 5, Agar Street	79,000 0 0	
,, Redemption of Land Tax	880 0 0	
		79,880 0 0
,, Investments (English Railway Debenture Stock) at cost		10,813 0 7
,, Cash, namely:—		
At London and Westminster Bank current account	1,567 15 4	
Deposit account	4,000 0 0	
		5,567 15 4
		£113,852 19 6

Revenue or Profit and Loss Account for Year ending December 31st, 1898.

	£ s. d.		£ s. d.
Editorial Expenses (Salaries, Contributions, Engraving, Reporting)	5,551 12 4	Subscriptions	19,430 5 0
Expenses of Printing Journal (Printing, Postage, and Paper)	21,664 16 9	,, former years	108 19 6
Office Expenses (Rent, Taxes, Office Postage, etc.)	2,164 4 0	Advertisements	19,325 15 7
Office Salaries and Wages	2,764 1 8	Sundry Sales of Journal	1,733 9 10
Association Expenses (Scientific Grants, Scholarships, Expenses of Committees, etc.)	4,993 14 2	Sundries—Reading and Binding Covers, etc.	130 2 7
Plant, written off towards Depreciation	500 0 0	Reprints	117 0 9
	37,638 8 11	Interest on Investments and Rents	929 6 8
Subscription Losses from Deaths, Resignations, etc.	549 18 5	Scientific Grants unused and returned	61 3 0
	38,188 7 4	Sale of Waste, etc.	16 11 0
Profit for Year carried to Balance Sheet	4,736 8 9	Discount on Printing, Paper, etc.	934 19 1
		Unexpended Grants to Committees	77 3 1
	£42,024 16 1		£42,024 16 1

STEWART FUND.

£579 invested in 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

1898.		£ s. d.	1898.		£ s. d.
Jan. 1.	To Balance brought down	35 12 4	Dec. 31.	By Balance	58 0 2
Dec. 31.	,, Interest one year on £579	22 7 10			
		£58 0 2			£58 0 2

MIDDLEMORE FUND.

£666 13s. 4d. invested in 3 per cent. North British Railway Debenture Stock in the name of the British Medical Association.

1898.		£ s. d.	1898.		£ s. d.
Jan. 1.	To Balance brought down	43 4 8	Dec. 31.	By Balance	62 11 4
Dec. 31.	,, Interest one year on £666 13s. 4d.	19 6 8			
		£62 11 4			£62 11 4

We have examined the foregoing Accounts with the Books and Vouchers of the Association, and find the same to be correct.

PRICE, WATERHOUSE & CO.,
44, Gresham Street, E.C.

March 11th, 1899.

Dr. G. E. Rennie, Representative of the New South Wales Branch, was introduced to the Council for the first time.

Read reply from Miss Cleveland, acknowledging with grateful thanks the resolution of condolence on the death of her father, the late Dr. Cleveland.

Read reply from Dr. Welby I'Anson, acknowledging the resolution of condolence on the death of his father, the late Dr. I'Anson.

Resolved: That the Council of the British Medical Association desire to express their great regret at the death of Dr. Jukes de Styrap, whose long connection with the Association, and the interest he took in raising a high standard of professional duty, will cause his work to be long remembered by the profession.

Resolved: That a copy of the foregoing resolution be forwarded to Dr. Styrap's brother.

The President of Council reported that he had seen a letter in the *Times* from Lady Balfour of Burleigh on the subject of the Midwives Bill to be brought before the House of Commons in two days' time, whereupon he gave instructions that a copy of the Midwives Bill of the Association with the memorandum and a covering letter should be sent to each member of the House of Commons.

Resolved: That the action of the President of Council in forwarding a copy of the Association's Midwives Bill to the members of the House of Commons be approved.

Resolved: That a copy of the Midwives Bill be sent to the principal newspapers in London and the provinces.

Resolved: That the attention of the Council has been called to grave general accusations impugning the probity of the medical profession in the matter of receiving secret commissions and that the Council call upon the London Chamber of Commerce to substantiate such accusations in order that the Council may be in a position, should such practices exist, emphatically to condemn them as a grave breach of professional good conduct and inconsistent with membership of the British Medical Association.

Resolved: That copies of the resolution be sent to the London Chamber of Commerce and to the public press.

Read resolution of thanks from the Jamaica Branch respecting the action of the Council in writing to the Colonial Office to point out that the Jamaica Legislature had passed a law which compelled medical practitioners to notify infectious diseases under the penalty of a 40s. fine, but provided no payment for the duty thus imposed, which had resulted in the repeal of the law.

Read letter from Jamaica Branch respecting the action of the Government of Jamaica in reducing the expenditure of the Medical Service, and dismissing the medical officers in consequence of the abolition of their districts.

Resolved: That the President of Council be requested to communicate with the Colonial Secretary upon this matter, and that a reply to that effect be sent to the Secretary of the Jamaica Branch.

Read application from the Jenner Society for a grant of £100.

Resolved: That the sum of £100 be voted to the Jenner Society towards the expenses of the work of that Society.

The Medical Acts Amendment Bill was then considered in accordance with Minute 561 of the Parliamentary Bills Committee, namely,

Resolved: That the Bill as amended by the Committee be adopted and be transmitted to the Council.

It was moved and seconded: That the consideration of the draft Medical Acts Amendment Bill as approved by the Parliamentary Bills Committee and sent up for adoption by this Council be postponed *sine die*.

Whereupon an amendment was moved and seconded: That the Parliamentary Bills Committee be requested to remodel the Bill, omitting the provisions reconstituting the General Medical Council and with regard to a single State qualification, but retaining and revising those dealing with unqualified practice.

This amendment was withdrawn by consent.

Whereupon a further amendment was moved and seconded: That the draft Medical Acts Amendment Bill, prepared by the Parliamentary Bills Committee, be referred for consideration to a special meeting of the Council to be called at an early date.

The amendment having been put from the chair the same was declared to be carried.

The amendment having been put as a substantive motion was declared to be carried.

Read resolutions from the Border Counties Branch asking questions as to covering.

Resolved: That the communication of the Border Counties Branch be referred to the General Practitioners and Ethical Committee.

Read communication from the Sanitary Institute asking the Council to appoint two delegates to their autumn Congress.

Resolved: That Dr. Groves and Dr. Handford be appointed delegates to the Sanitary Congress.

Read correspondence with Mr. Braxton Hicks, Honorary Secretary to the Coroners' Society, respecting the certification of stillbirths.

Resolved: That an answer be forwarded to the Coroners' Society to the effect that the Council do not consider the Midwives Bill the proper place for introducing an amendment to the registration laws.

Read resolution from the Yorkshire Branch relative to direct representation in the General Medical Council, namely,

That this meeting feels that the time has now come when the general practitioners of the United Kingdom are entitled to demand a much larger share of direct representation in the General Medical Council.

Resolved: That this Council feels that the time has now come when the general practitioners in the United Kingdom are entitled to demand a much larger share of direct representation in the General Medical Council.

Resolved: That a copy of the foregoing resolution be sent to the General Medical Council.

Read communication and resolution on the desirability of some alteration being made in the certificate of vaccination from the Incorporated Society of Medical Officers of Health.

Resolved: That the communication from the Incorporated Society of Medical Officers of Health be referred to the Parliamentary Bills Committee.

Read communication from the Royal Institute of Public Health, asking the Council to appoint delegates to their annual Congress to be held in Blackpool September 21st to 26th next.

Resolved: That Dr. Dolan and Dr. Barr be appointed delegates to the annual Congress of the Royal Institute of Public Health.

Read reply from Mr. Braxton Hicks to the communication from the President of Council conveying the sympathy of the Council at the condemnation passed upon him by a London magistrate in his endeavour to secure the proper performance of necropsies for the purpose of coroners' inquests.

20, Lupus Street, S.W.,
February 7th, 1899.

Dear Sir,—I have to thank you for your letter of the 4th instant, and to express my great appreciation of the sympathy shown me by the Parliamentary Bills Committee and the Council of the British Medical Association, in the matter of myself and Mr. Plowden.

This expression will greatly facilitate the action of myself and other coroners in carrying out our duties.

I beg to remain, yours faithfully,
A. Braxton Hicks.

Robert Saundby, Esq., M.D., LL.D., F.R.C.P.,
President of Council British Medical Association.

Read communication to the Irish Office, in reference to minute of Council 4,355, in which the President of Council reported that he had been in communication with Dr. Hamill of Drogheda.

Resolved: That the same be received and entered on the minutes.

In reference to minute of Council 4,266, forwarding a memorial to the Home Secretary respecting the question of an increase in the scale of fees to medical witnesses in courts of law, the General Secretary reported that the following reply from the Home Secretary had been received:

February 23rd, 1899.

Sir,—In reply to your letter of the 16th instant, I am directed by the Secretary of State to say that he does not see his way to accede to the application of the British Medical Association with regard to the scale of fees for medical witnesses in courts of law, nor does he think that any useful purpose would be served by receiving a deputation.—I am, Sir, your obedient servant,

Kenelm E. Digby.

The General Secretary,
British Medical Association,
429, Strand, London, W.C.

The President of Council reported that Dr. Farquharson asked the Secretary of State for the Home Department whether his attention had been directed to the inadequate scale of fees for medical witnesses in courts of law, and whether he would consider its revision with the view of more adequately remunerating medical men, who are compelled to give evidence, for their loss of time and expense incurred.

Mr. Jesse Collings, who replied, said: This matter has received the most careful consideration, but the Secretary of State has not seen his way to take any steps in the direction suggested.

The following letter was reported as having been sent to the Board of Agriculture respecting the definition of diseases in the Diseases of Animals Act, 1894, in accordance with minute of Council 4,410:

429, Strand, W.C.,
February 16th, 1899.

SIR,—At a recent meeting of the Council of the British Medical Association, it was resolved:

"That this Council do petition the Board of Agriculture either to extend the definition of diseases in the Diseases of Animals Act, 1894, so that it may comprise tubercle of the udder in milch cows, or to take such other action in regard to diseases of the udder in milch cows as will give effect to the recommendations on this subject contained in the report of the Royal Commission of 1896, appointed to inquire into the administrative procedures for controlling danger to man through the use as food of the meat and milk of tuberculous animals."

From the reports of the proceedings of the House of Commons for February 9th, it appears that Mr. Chaplin has already prepared an order on this subject. It is not necessary, therefore, for us to proceed with our petition, and I have only to express the satisfaction of my Council that the matter is being dealt with.—I am, your obedient servant,

ROBERT SAUNDBY, M.D., LL.D., F.R.C.P.,
President of Council, British Medical Association.

The Right Hon. Walter Hume Long, M.P.,
President, Board of Agriculture,
4 Whitehall Place, S.W.

[This letter has been formally acknowledged by the Board of Agriculture.]

Resolved: That 185 of the 186 candidates whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain a communication from Dr. W. Charnley respecting the non-publication of an abstract of a paper of his, and a resolution to the effect that the Committee see no reason for interference; the financial statement for the year ending December 31st, 1898, the accounts for the quarter amounting to £8,746 16s. 1d., and the auditors' report. The Treasurer reported that £4,000 had been paid to the Trustees of the Sutton estate, being the first instalment in repayment of mortgage of £38,000.

Resolved: That the Financial Statement for the year ending December 31st, 1898, as certified by the auditors as correct, be received and approved and published in the JOURNAL in accordance with By-law 26. (See p. 994.)

Resolved: That the minutes of the Parliamentary Bills Committee of April 11th be received and approved, and the recommendations contained therein carried into effect.

(For proceedings of Committee see next column.)

Resolved: That the minutes of the Medical Charities Committee of February 17th, March 2nd, and March 23rd, be received and approved, and the recommendations contained therein carried into effect, with the exception of the reconstitution of the Committee which was deferred to the meeting of the Council when all Committees are reappointed.

Resolved: That the minutes of the Contagious Diseases Committee of March 10th be received and approved, and the recommendations contained therein carried into effect.

Resolved: That the minutes of the Trust Funds Committee of the 11th inst. be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Trust Funds Committee contain the appointment of adjudicators for the Stewart Prize of £50.

Resolved: That the minutes of the Premises and Library Committee of the 11th inst. be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain the Report of the Librarian, the accounts for the quarter amounting to £29 17s. 11d., and a resolution accepting a tender for £84 5s. for painting the outside of these premises.

Resolved: That the minutes of the General Practitioners and Ethical Committee be received and approved, and the recommendations contained therein carried into effect.

The minutes of the General Practitioners and Ethical Committee contain resolutions dealing with unqualified practice, underselling, medical aid associations, and the granting of trade testimonials by medical men.

Resolved: That the Subcommittee appointed to consider the Annual Report consist of the President, President-Elect, President of Council, and Treasurer.

PARLIAMENTARY BILLS COMMITTEE.

A MEETING of the Parliamentary Bills Committee of the British Medical Association was held at the office of the Association, 429, Strand, W.C., on Tuesday, April 11th, 1899. Present:

Dr. R. SAUNDBY, President of Council, in the Chair.
Dr. J. WARD COUSINS, President-elect.
Dr. C. PARSONS, Treasurer.

Mr. S. H. AGAR, Henley-in-Arden.
Mr. D. B. BALDING, Royston.
Dr. R. L. BOWLES, London.
Dr. T. R. BRADSHAW, Liverpool.
Mr. GEO. BROWN, London.
Dr. W. A. CARLINE, Lincoln.
Dr. P. M. DEAS, Exeter.
Brigade-Surgeon-Lieutenant-Col. E. F. DRAKE-BROCKMAN, London.
Mr. GEORGE EASTES, London.
Dr. R. ESLER, London.
Mr. A. GODSON, Cheadle.
Dr. BRUCE GOFF, Bothwell.
Dr. OGILVIE GRANT, Inverness.
Dr. J. GROVES, Carisbrooke.
Dr. A. J. HARRISON, Clifton.
Mr. J. H. HEMMING, Kimbolton.
Mr. VICTOR HORSLEY, F.R.S., London.
Mr. EVAN JONES, Aberdare.
Dr. W. J. MICKLE, London.
Dr. J. W. MILLER, Dundee.
Dr. JAMES MURPHY, Sunderland.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. JOHN ROLSTON, Devonport.
Dr. G. E. SHUTTLEWORTH, Richmond.
Dr. R. SOMERVILLE, Galashiels.
Mr. C. R. STRATON, Wilton.
Dr. J. C. THRESH, Chelmsford.
Inspector-General ALEX. TURNBULL, R.N., Emsworth.
Dr. A. R. URQUHART, Perth.
Dr. MARTINDALE WARD, Twickenham.
Dr. DAWSON WILLIAMS, London.
Dr. S. WOODCOCK, Old Trafford.

It was proposed by Mr. BALDING, seconded by Dr. BRUCE GOFF, and resolved:

That Dr. Saundby, President of Council, be requested to take the chair.

The minutes of the last quarterly meeting and the two special meetings of February 3rd and March 24th having been printed and circulated, were taken as read and signed as correct.

Letters of apology for non-attendance were read from Dr. Farquharson, M.P., Dr. Bridgwater, Dr. McVail, Mr. Jones Morris, Mr. Verrall, Mr. Spanton, Dr. Gooding, and Mr. Cantlie.

INCIPIENT INSANITY.

The GENERAL SECRETARY reported that the Joint Committee of the British Medical and Medico-Psychological Associations waited upon the Lord Chancellor on February 22nd last in reference to the introduction of a clause in the Lunacy Bill dealing with the treatment of incipient insanity, and that the Lord Chancellor had expressed himself favourable to the views of the Committee.

It was proposed by Dr. URQUHART, seconded by Dr. MAURY DEAS, and resolved:

That the Subcommittee on the Lunacy Acts Amendment Bill be reappointed to watch the new Lunacy Bill with power to co-operate with the Medico-Psychological Association if advisable.

SCOTTISH POOR-LAW MEDICAL OFFICERS.

A letter was read from the Secretary of the Scottish Poor-law Medical Officers' Association, thanking the British Medical Association for its efforts to secure the Scottish Poor-law Medical Officers the right of appeal against dismissal to the Local Government Board in Edinburgh.

THE REGULATION OF MASSAGE ESTABLISHMENTS.

A communication was read from the National Vigilance Association forwarding a draft of a Bill to regulate the practice of massage and to prevent its abuse.

It was proposed by Mr. GEORGE EASTES, seconded by Dr. OGILVIE GRANT, and resolved:

That the communication be allowed to lie upon the table.

HOSPITAL SHIPS FOR INVALIDS.

A communication was read from an army medical officer respecting the necessity of urging upon the Government the need of providing hospital ships for the transport of invalids from the colonies.

On the motion of the PRESIDENT OF COUNCIL, seconded by Mr. VICTOR HORSLEY, it was resolved:

That the following gentlemen be appointed a Subcommittee to consider the matter, and report to the next meeting, namely: Mr. N. C. Macnamara, Brigade-Surgeon-Lieutenant-Colonel Drake-Brockman, Dr. John Galton, Inspector-General Turnbull, R.N., and Dr. Rolston.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

Dr. MAJOR GREENWOOD presented the report of the Sub

committee appointed to consider the question of the formation of the central fund for the superannuation of Poor-law medical officers. It was proposed by Dr. Major Greenwood, seconded by Dr. Murphy, and resolved:

That the Council be requested to see that this matter is urged upon the notice of the Local Government Board, and that the Subcommittee be reappointed, with instruction to watch the progress of the question.

Superannuation of Medical Officers of Health.

Mr. Parkinson, in presenting the minutes of the Subcommittee appointed to consider the question of the superannuation of medical officers of health, said the Subcommittee had considered a draft Bill which had been prepared, and which seemed to them to bring out the chief points, namely, fixity of tenure and the central fund for superannuation. Dr. Thresh and Dr. Groves, two members of the Subcommittee, were connected with the Municipal Officers' Association and the Society of Medical Officers of Health respectively, and would keep the Subcommittee informed of the work of those bodies in the matter. If it was found desirable to drop the Bill drafted; the Subcommittee had no doubt that they could get their views embodied in a Bill promoted by the Municipal Officers' Association. It was proposed by Mr. Parkinson, seconded by Dr. Groves, and resolved:

That the minutes of the Medical Officers of Health Superannuation Subcommittee of to-day's date be received and approved.

Adulteration of Foods and Drugs.

Mr. George Brown stated that the Subcommittee appointed to consider any proposed legislation dealing with the question of the adulteration of food and drugs had considered the two Bills now before Parliament, one being a Government measure introduced by Mr. Long, and the other a private Bill introduced by Mr. Kearley. They had arrived at the conclusion that the Bill introduced by Mr. Kearley was the better of the two, and recommended that the Bill, with slight amendments, should receive the approval of the Parliamentary Bills Committee. It was proposed by Mr. Brown, seconded by Dr. Major Greenwood, and resolved:

That the Adulteration (Food Products) Bill introduced by Mr. Kearley as amended be adopted, and that the Council be requested to petition in its favour, and that a copy of the Subcommittee's suggested amendments be sent to Mr. Kearley.

London Government Bill.

It was proposed by the President of Council, seconded by Dr. Murphy, and resolved:

That a Subcommittee be appointed, consisting of Dr. Farquharson, M.P., Dr. Dawson Williams, Dr. J. Spottiswoode Cameron, Sir Walter Foster, M.P., Dr. McVail, and Dr. Thresh, to watch the London Government Bill on behalf of this Committee.

Companies Medical Profession) Bill.

It was proposed by Dr. Williams, seconded by Dr. Major Greenwood, and resolved:

That the Council be requested to petition in favour of the Companies (Medical Profession) Bill, introduced into the House of Lords by the Lord Chancellor.

BRANCH MEETINGS TO BE HELD.

West Somerset Branch.—A special general meeting of this Branch will be held at the Railway Hotel, Taunton, on Tuesday, April 25th, at 4.30 o'clock. Business: To consider a proposal from the Bath and Bristol Branch that a Branch of the National Association for the Prevention of Tuberculosis should be formed in Gloucestershire, Somersetshire, and Wiltshire.—R. Liddon Meade-King, Taunton, Hon. Sec.

South Wales and Monmouthshire Branch.—The spring meeting will be held at Newport on Tuesday, May 2nd. Notices of communications, nominations for membership, etc., should be sent in on or before Monday, April 17th.—Alfred Sheen, Cardiff; D. Arthur Davies, Swansea, Hon. Secretaries.

South Eastern Branch: East Sussex District.—The next meeting will be held at Tunbridge Wells, on Thursday, May 11th, at 5 o'clock. Notice of communications should be sent before the end of April to the Honorary Secretary, J. W. Batterham, M.B., Bank House, Grand Parade, St. Leonards.

Bath and Bristol Branch.—The sixth ordinary meeting of the session will be held at Bath on Wednesday evening, April 26th, at 7.30 P.M., Lionel A. Weatherly, M.D., President. Business: Dr. E. J. Cave: Some Recent Applications of Bacteriology to Clinical Medicine. Dr. Carey Coombs: Puerperal Tetanus, with a Case. Mr. C. E. S. Flemming: Notes of a Case of Hemichorea in a Patient of 65. Mr. W. H. Thorman Knee-joint from a Fatal Case of Hæmophilia. Lieutenant-Colonel J. P. H Boileau, M.D.: Clinical Thermometry. Dr. H. Waldo: Lichen Ruber Planus, (1) Localised, (2) Generalised (both patients to be shown).—W. M. Beaumont, Bath, J. Michell Clarke, Bristol, Honorary Secretaries.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

A meeting of this Branch was held in Aberdeen on March 15th, Dr. J. O. Wilson Huntly, the President, in the chair. There was a large attendance of members.

Communication.—Professor Ogston read a very interesting paper on Chloroform, which led to a free and full discussion.

The Prevention of Tuberculosis.—Professor Finlay's paper on the Prevention of Tuberculosis was postponed to a special meeting which was held on March 21st, Dr. Thos. Milne occupying the chair. Professor Finlay at that meeting moved the following motion, which was seconded by Dr. Gordon, and unanimously carried—namely:

That a Committee of seven be appointed with powers to make representations to the Town Council and the Board of the Royal Infirmary regarding means for the prevention of tuberculosis, and to offer the co-operation of the Branch in any well-considered scheme directed to this end; also to take into consideration and report as to the propriety of forming an Aberdeen Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

After an interesting statement by Professor Matthew Hay, the following Committee was appointed: Professors Stephenson, Ogston, and Finlay (convener), and Drs. Angus Fraser, Edmond, Thomas Milne, and Riddell.

SOUTH-WESTERN BRANCH.

An intermediate meeting of this Branch was held on April 15th at St. Austell. The President, Dr. Montgomerie (Penzance), was in the chair, and twenty-two members were present. Tea and coffee were served before the meeting.

Confirmation of Minutes.—The minutes of the last intermediate meeting at Plymouth were read and confirmed.

Midwives Bill.—The President read a letter from Mr. George Jackson (Plymouth) with reference to the Midwives Bill at present before Parliament. After a discussion it was proposed by Dr. Noy Scott, seconded by Dr. Stephens, and unanimously carried:

That this Branch opposes any action which will legalise a definite status for midwives.

Direct Representation on General Medical Council.—The Honorary Secretary then read a letter from Dr. Sharp, of Whitby, enclosing a copy of a resolution carried unanimously at the meeting of the Yorkshire Branch of the Association at Leeds on March 22nd. The resolution:

That this meeting feels that the time has now come when the general practitioners of the United Kingdom are entitled to demand a much larger share of direct representation in the General Medical Council,

was proposed by Dr. Norway, seconded by Dr. Noy Scott, and carried unanimously.

Unregistered Dentists and the Administration of Anæsthetics. The Honorary Secretary communicated to the meeting that he had received a letter from Mr. T. Arthur Goard, the Honorary Secretary of the Western Counties Branch of the British Dental Association, informing him that "the General Medical Council had decreed that medical practitioners administering anæsthetics for unregistered dental practitioners should be considered covering the latter, and liable to receive serious judgment."

Communications.—The President read the notes of a case of Colotomy for Intestinal Obstruction, caused by a carcinomatous stricture of the sigmoid colon, and showed the specimen from the case.—Mr. J. Cuthbertson Walker read notes on a case of Retroverted and Retroflexed Uterus.—Mr. F. Everard Row read a paper on the Radical Cure of Hernia, the discussion of which was opened by Mr. Woollcombe, and continued by Dr. Norway.—Mr. C. Hamilton Whiteford read a short paper on the Mechanical Factor in Surgery.—Mr. Paul Swain showed the following specimens: (1) A piece of Small Intestine about 14 inches in length, which had become gangrenous owing to thrombosis of the mesenteric veins; (2) a portion of Descending Colon excised for malignant stricture; (3) large Ovarian Cyst, containing a calcareous mass.—Mr. F. Everard Row showed a piece of Indiarubber Ring (from a bottle) encrusted with calcareous

matter, which he had removed from the male urethra.—Mr. C. HAMILTON WHITEFORD showed a model demonstrating his method of Retaining a Rubber Catheter after External Urethrotomy (by Wheelhouse's method) by fixation from the perineal wound.—The HONORARY SECRETARY showed (for Dr. BUSHNELL): (1) Microscopic Section of Tuberculous Ligamentum Teres; (2) Pathological Specimens from the Clinical Laboratory of the South Devon and East Cornwall Hospital.

SPECIAL CORRESPONDENCE.

RIVIERA.

The End of the Season.—Intermediate Stations: For Phthisis: For Bronchitis: For Neurasthenia.—The Past Season.

WITH the close of the Riviera season the crowd of winter and spring sojourners begins to change its quarters. Fashion is the chief element which determines both the time and the direction of the move. Many who have spent some months on the coast begin to tire of the monotony of their surroundings, and to wish for another outlook and a different air. This desire is not without a certain amount of good reason. With the increasing heat of April many people—children most notably—begin to flag; their appetite fails, they grumble more than usual at the hotel fare, their sleep is disturbed, and they themselves become unsettled by the general exodus.

In the case of invalids the difficulty is to find suitable intermediate quarters, and this difficulty is increased by the fact that an intermediate station which may suit one case is unsuitable for another. Since the patient's predilections generally would lead him to the place where his friends are going, not a little difficulty is found in convincing him of this. Setting aside the merely travelling public who merely spend the spring on the Riviera preparatory to a tour in Northern or Southern Italy or elsewhere, the cases group themselves under three heads: The bronchitic and phthisical, the neurasthenic, and the aged or overworked. A fourth class might be added, that of the rheumatic; their faces are, however, always set towards Aix, Acqui, or other baths. It is in the cases of the first class that the chief difficulty is encountered, especially those of phthisis. Many phthisical patients begin to flag and lose weight in the increased heat. A return even to the South Coast of England is rarely wise, for the rapid change is apt to set up fresh mischief. The Italian Lakes again, which are an almost universal half-way house, rarely suit them well, the hotels being situated immediately on the lake, are apt to be damp. Varese, on the lake of that name, about one hour's railway journey from Milan, has a considerable reputation, and to some extent justly, since it is situated at some elevation above the lake. This advantage is shared by Locarno at the head of Lake Maggiore. Grasse, above Cannes, is another useful resort till the middle of May; it is 1,500 feet above the sea level, with good accommodation. After the middle of April, however, probably for the majority of cases the neighbourhood of Montreux, on the lake of Geneva, will be found most suitable. The distance is considerable, and the journey decidedly troublesome, but on the other hand from Montreux resorts of almost every altitude are within an hour or two's journey. For this reason the patient is saved much worry as to when the heat will drive him to undertake a long journey. The other resorts in the Maritime Alps, such as Ormea, Certosa di Pesio, and San Dalmazzo, open later, and are summer rather than intermediate resorts.

The bronchitic cases have a wider range of choice. Many of these, especially such as are advanced in years or gouty, will benefit by a stay at the Italian lakes. The well-known resorts on the Lakes of Como and Maggiore—Caddenabia, Menaggio, Billagio, Villa d'Este on the one; Baveno, Stresa, Pollanza on the other—are all suitable. Where bronchitis is complicated with asthma, a slightly greater altitude will often be more suitable, such as Siena or Perugia.

Turning to the neurasthenic cases, some require constant change, while others are more benefited by a prolonged vegetative life in one spot. In April and May Florence is probably one of the best resorts for this class of case. The combination there of bracing air and of a variety of interests has the most beneficial effect. The less active patients will do well in the calm of the Italian lakes; or, again, in May the open-air life and the possibilities of complete idleness which Venice presents will benefit them. For the aged and overworked probably no better rest and change can be obtained than at either the Italian lakes or Venice. The resorts thus far mentioned are chiefly situated south of the Alps. On the Marseilles route home there are very few halting places, Avignon being almost the only suitable one. With better accommodation the towns on the Var railway, Draguignan and Var, might become very popular resorts.

In spite of a bad beginning and of the prognostications of the *Daily Mail*, the season on the Riviera has not been a bad one, for the Riviera has never been so full as during the past two months. The fears aroused by the Fashoda incident and the typhoid scare at Nice kept the French Riviera empty in the earlier part of the season, for the bulk of the travelling population moved on to the Italian Riviera. The baselessness of the typhoid scare at Nice has been completely demonstrated, while the improved political situation, and more especially the presence of the Queen and various members of the Royal Family at Nice, have brought the French resorts once more into favour.

LIVERPOOL.

The School of Tropical Medicine.—The Lecturer in Tropical Medicine.—The Ladies' Charity: Practical Midwifery for Students.—The Eye and Ear Infirmary.

THE Committee of the Royal Southern Hospital have issued invitations to a reception at the Hospital on the afternoon of Saturday, April 22nd, when the ward appropriated to tropical diseases and the adjoining laboratories will be declared open by Lord Lister. In the evening the Chairman, Mr. A. L. Jones, and the Committee of the School of Tropical Diseases will entertain a large party at dinner at the Adelphi Hotel.

Major Ross, who has just been elected to the important post of Lecturer in Tropical Medicine in the School, has had eighteen years' experience of tropical diseases. His brilliant work in elucidating the life-history of the malarial parasite has placed him amongst the foremost of investigators in this field, as was noted in the BRITISH MEDICAL JOURNAL at the time. Laveran last January communicated his researches to the French Academy of Medicine. The Italian observers have confirmed his observations, and recently Koch has shown in his account of his expedition to Italy the importance and accuracy of Major Ross's investigations in the life-history of the malarial parasite outside the human body. His researches point clearly the way to the prevention of malaria, and in no place in this country will his work be more generally appreciated than in Liverpool.

By an arrangement which has lately been completed between the authorities of University College and the Committee of the Ladies' Charity and Lying-in Hospital, medical students can now obtain efficient instruction in practical midwifery in Liverpool. The number of confinements attended by the charity reaches an average of 2,000 a year, so that students ought to have no difficulty in finding cases; and it is considered that the new arrangements provide ample means for insuring effectual control over their work. The professor of midwifery, who has been given a seat, *ex officio*, on the Medical Board, will have a limited number of beds in the hospital, and so will be in a position to give practical clinical instruction from time to time. The committee of the hospital have also appointed an obstetric assistant with a salary of £100 a year, who will directly superintend the students who are taking out their midwifery. This appointment, which will be made annually, and given to the candidate recommended by the Medical Faculty, will be a valuable prize. The first to obtain it is Mr. Willett, who has been a most successful student of the Liverpool School. The eight districts into which the city had been divided for the purposes of the charity have been rearranged so as to include Greater Liverpool. Each district is provided with a district home, the residence of an obstetric nurse, who is a trained midwife, and gives all her time to the work of the charity. The Medical Faculty of the College have closed their own separate maternity, and have converted Brownlow House into the official residence of the obstetric assistant, with whom

students are recommended to reside while taking out their midwifery. The Lying-in Hospital and Brownlow House are in close proximity to the College and the Royal Infirmary. The district homes and Brownlow House are all supplied with telephones, so that the district nurses on being called to a case can communicate the fact to the students who are in residence without delay. The want of suitable provision for practical instruction in midwifery has long been felt in Liverpool, so that it has been a common practice for students to go to Dublin to carry out that part of their course. The present arrangement (which receives the cordial support of the hospital and district medical officers) will give Liverpool students all the facilities in this department which are enjoyed by their colleagues elsewhere.

The authorities of the Liverpool Eye and Ear Infirmary have resolved to fix an age limit to the tenure of office of the honorary surgeons, in place of the time limit which has hitherto been in force. Instead of retirement being compulsory after twenty years' service, it will take place when the medical officer reaches the age of 60. The adoption of this law brings the Eye and Ear Infirmary into line with the other leading hospitals in Liverpool, in nearly all of which retirement at 60 is the rule, and will probably before long be universal. Care has been taken that the change shall not press unduly on the assistant surgeons, who will be promoted to the rank of full surgeon on the completion of seven years' service as assistant, and will at the same time be allotted a certain number of beds in the hospital. The senior assistant, having already completed seven years of service, becomes surgeon forthwith, and his junior colleague will attain the same privilege in less than two years.

BRISTOL.

The University College Colston Society: Proposed University of Bristol: Date of the Dinner of the New Society.

Though opposition to the new Colston Society to assist University College is heard of in certain places, the inaugural meeting held on April 13th promised well for success. It is probable that it will succeed in doing good, for many who have for years been constant and regular subscribers, while sympathising with the objects of the older societies, feel that the doles and pensions have reached a stage when the limit might be considered to have been reached. They may not cease their subscriptions to the Anchor, Dolphin, and Grateful, but they will consider whether it would not be advisable to give their spare money in some other manner than in the rather promiscuous way that now obtains, for few of the many donors take the trouble to inquire where the money is spent or how. The Bishop of Hereford, who presided at the meeting, mentioned that Bristol was one of the most charitable cities of the kingdom—a fact which cannot be denied; and while no one wished to lessen the amount of good the Colston Societies did, he thought they would be honouring the memory of one of the greatest of Bristol citizens by assisting the educational institutions. He hoped that some day they would have a Bristol University, in which the existing colleges would work harmoniously together for the good of education. He proposed that the Society to be formed should be called the University College Colston Society, and should have for its object the endowment of chairs, and the assistance of University College in such other ways as the Committee might think fit. This was seconded by the High Sheriff and carried.

The Bishop of Bristol also spoke in support of the foundation of the Society, humorously promising not to found one in aid of Church extension. He referred to the importance of education to keep the Empire in the position it now held, and hoped that the day would come when pensions and doles, except in exceptional circumstances, would no longer be needed. If there was to be a university for the west of England, Bristol was the most fitting place for it; and they had to see that by local help, local interest, and local pride, that it came about. The Council of University College has appointed a Committee with power to add to their number, and the first dinner was fixed for the first week of December, when it is hoped some prominent politician interested in education will preside. If the enthusiasm shown at the meeting proves to be contagious, the success of the Society is assured.

CORRESPONDENCE.

HUNTER v. CLARE.

Sir,—As it has been said in some quarters that the late Dr. Hunter was an American quack, in consequence of his possessing an American diploma of M.D. which was assumed to be a "bogus" one; in justice to that gentleman's memory, for whose widow a fund is now being subscribed, might I ask you to publish the following?

Dr. Hunter's diploma was sent to me a short time ago, and I thought it had all the appearance of one granted by a State-recognised university. To be quite sure, however, I wrote to the Jefferson College, Philadelphia, and have just received the subjoined answer.

That a registered medical practitioner with such a degree should be refused the honorary title of M.D. in this country seems to me monstrous, and I think my opinion would be shared by any medical graduate of an English university, who being resident in Philadelphia, after acquiring the State licence to practise, was similarly refused there the same honorary distinction.

The holder of an M.D. degree of any recognised university, unless that university withdraws the distinction, must continue to be a doctor of medicine independently of all political considerations, wherever he resides. This has nothing whatever to do with the right to practise medicine. That is quite another matter. I am, etc.,

Major Greenwood, M.D.Brux., LL.B.Lond.,
Barrister-at-Law.

Hackney Road, N.E., April 15th.

Copy.

The Jefferson Medical College of Philadelphia, Pa.,
Dean's Office,
March 28th, 1899.

(Major Greenwood, M.D., 243, Hackney Road, London, N.E., England.)

My Dear Sir,—I have your letter of March 13th, and in reply I may state that Herbert Kingsley Hunter was a Doctor of Medicine of the Jefferson Medical College, of Philadelphia, and as such qualified to practise medicine, surgery, and midwifery in the State of Pennsylvania, so far as any diploma would qualify him for that work.

I do not know what the custom is of our students abroad with respect to attaching the name of the College to their title. In this country it is customary for a physician who holds the degree M.D. to attach the initials to his name without mentioning the institution from which he obtained his degree.

Yours truly,
J. W. Holland, M.D.,
Dean.

THE AMENDMENT OF THE MEDICAL ACTS.

Sir,—Mr. Haldane's opinion published in the British Medical Journal of April 8th, 1899, is, you say, "very free from doubt," and I note that you add "that it confirms the correctness" (*sic*) of your anonymous correspondent whose article you published in November 26th, 1898. I contest the accuracy of both of these your statements. Mr. Haldane and your anonymous correspondent certainly both agree in alleging that any street Arab can practise medicine or surgery in this country unrestrictedly, and that registration has not only nothing to do with the practice of our profession, but also that it has no object except the recovery of fees and holding certain appointments. Your anonymous correspondent and Mr. Haldane, however, are at variance on the effect of the Act of 1858, for the former, in his original article, denied that any penal section to punish an unregistered person practising medicine exists in the Act, whereas Mr. Haldane recognises that there is such a section. While, however, admitting its existence, he says it does not apply at all to an unregistered unqualified person practising medicine and surgery unless he directly deceives the public into thinking he is qualified, that is, registered, and then adds that if he, that is the unregistered street Arab "makes no pretence of being registered," or broadly gives out that he is unregistered, then, says Mr. Haldane, he "*cannot be convicted*." In support of this last amazing statement (which is flatly contradicted by,

besides others, the case of Tempest and of Allinson, tried during this last week!) he quotes the case of Carpenter *v.* Hamilton, which was tried twenty-two years ago. But since that date no fewerthan twenty-seven other decisions have been obtained in the Courts, and I am astonished to see that Mr. Haldane does not allude to one of them. I will presently supply his omission. First, however, let me point out that I am glad to see that according to Mr. Haldane my view is correct as against your anonymous correspondent, namely, that Section VI of the Act of 1886 is an "enabling section," and "confers the privilege on the registered practitioner to practise in the United Kingdom," etc. This statement of his is undoubtedly clear, but unfortunately it does not harmonise at all with the rest of Mr. Haldane's opinion. I will put the two in parallel columns:

MR. HALDANE'S ADMISSION.	MR. HALDANE'S OPINION.
Section VI, 1886, confers on the registered practitioner the privilege of practising medicine, etc.	The privilege of practising medicine and surgery is possessed by everybody, and has nothing to do with registration at all, which registration "is not precedent to practice."

Which of these two statements of Mr. Haldane's are the members of the Association to accept? I prefer Mr. Haldane's admission, because it is quite obvious that if the rest of Mr. Haldane's opinion were really correct no "enabling section" would have ever been put into the Medical Act at all: for how can a privilege be conferred on anybody, when in common with Dick, Tom, Harry, and the rest of the whole world, civilised and uncivilised, he has (according to Mr. Haldane's opinion) got it already? This is the first point on which explanation is due from you to the members of the Association because you state that Mr. Haldane's opinion is to yourself clear and decisive, and you are of course responsible for its having been taken, as the advisability of so doing was never referred to the Council.

It only remains for me to deal with Mr. Haldane's main position, which, in consequence of his omitting all the cases since Carpenter *v.* Hamilton, any tiro in medical defence can show is completely falsified by the decisions of the Courts of the last twenty years. The matter at issue is the interpretation of Section XL of the Act of 1858. Mr. Haldane tells us, in his opinion, that Section XL is a penal section. That we all knew before. He goes on to say it does not apply to any quack or unregistered person "merely because he is unregistered," and cannot be supposed to apply unless the prosecuting party proves to the Court that the quack pretended that his name was actually on the *Medical Register*, and to crown all he states that if the said quack makes no pretence of being registered "*he cannot be convicted*" at all.

I will now tabulate the 27 cases ignored by Mr. Haldane, and must first point out that in none was any direct attempt made to fulfil his indispensable condition as regards registration, but that in each instance the person was simply shown to be "unregistered," that is, his name was not found on the official copy of the *Register*, and, further, was shown by evidence to be practising medicine, etc., usually assuming, in addition, some sort of medical title.

Therefore, of the 28 cases the 21 successful ones are in direct contradiction of Mr. Haldane's reading of Section XL.

I may observe that where Mr. Haldane's mistake in reading Section XL Medical Act, 1858, lies is that he says the quack must be *proved* to have "wilfully and falsely pretended that that he is registered," whereas the section in fact only requires it to be proved that he is unregistered, and that he by his behaviour only *implied* that he was registered.

As the actual wording of the Section is "*implying* that he is registered under this Act, or that he is recognised by law as a physician or surgeon or licentiate in medicine or a practitioner in medicine," etc., etc., I am at a loss to understand why Mr. Haldane should have been at the trouble to devise an imaginary limitation of the reading of this section, and a reading, by the way, which has never been required by any Court, certainly not in any of the 28 cases tried, even including the single one that he does refer to.

In introducing the successful and unsuccessful cases you do not represent the position fairly in your second article. You say there are 10 successful cases and 5 unsuccessful. This is not correct. There are 21 successful decisions and 7 unsuccessful. This proportion gives quite a different rendering of the value of our Acts.

Table of Successful Prosecutions and Decisions under Section XL *of Medical Act, 1858.*

For comparisons with the adverse opinions of (*a*) Editor's anonymous correspondent, (*b*) Mr. Haldane, (*c*) Editor BRITISH MEDICAL JOURNAL. (*Note.*—It is fair to point out that in dealing with this matter both the Editor's anonymous correspondent and Mr. Haldane wholly ignore the existence of these successful cases.) (*a*) "Since the clause expressly imposing a penalty on anyone practising without having been duly registered is conspicuous by its absence from the Medical Act, 1858," no person can be prosecuted and convicted for such practice (Editor's anonymous correspondent, BRITISH MEDICAL JOURNAL, November 26th, 1898). (*b*) An unregistered person practising cannot be prosecuted under Section XL, Medical Act, 1858; conviction impossible unless evidence produced that such unregistered person specially asserts that his name is on the *Register;* conviction absolutely impossible if unregistered person declares himself to be unregistered (Mr. Haldane's opinion). (*c*) Opinions (*a*) and (*b*) are true and conclusive statements of the law on the subject (Editor BRITISH MEDICAL JOURNAL).

No.	Prosecutor.	Defendant.	Charge.	Evidence.	Result.	Reference.
1	M. D. U.	Davies, quack	Infringement, Section XL, Medical Act, 1858	Unregistered Medical Practice. Use of Title.	Conviction	B. M. J., Nov. 2, 1895, p. 1138.
2	Hulse	Davies, quack	" "	" "	"	B. M. J., Dec. 12, 1896, p. 1751.
3	G. M. C.	T. R. Allinson, disregistered person	" "	" "	"	"Cases," G. M. C., p. 73.
4	M. D. U.	Ferdinand, quack	" "	" "	"	B. M. J., Dec. 14, 1895, p. 1532.
5	Appeal in same case. Court of Quarter Sessions		" "	" "	Conviction affirmed	T. L. Rep., 9 vol. xii, p. 155.
6	M. D. U.	Ison, quack	" "	" "	Conviction on one count	B. M. J., Aug. 22, 1896, p. 482.
7	G. M. C.	Sutherland, quack	" "	" "	Conviction	B. M. J., Feb. 27, 1897, p. 564.
8	M. D. U.	Haworth, disregistered person	" "	" "	"	B. M. J., Sept. 3, 1898, p. 661.
9	G. M. C.	Whitefoord, disregistered person	" "	" "	"	B. M. J., April 30, 1898, p. 1176.
10	M. D. U.	Hetherington, quack	" "	" "	"	B. M. J., May 21, 1898, p. 1366.
11	G. M. C.	Bell, quack	" "	" "	"	"Cases," G. M. C., p. 73.
12	M. D. U.	Matthews, quack	" "	" "	Conviction on one count	B. M. J., Sept. 3, 1898, p. 660.
13	Styrap	Andrews, dentist quack	" "	" "	Conviction	Dec. 21, 1871.
14	Appeal in same case. High Court		" "	" "	Conviction upheld	26, *Law Times*, N. S., p. 704.
15	Ormsby	Steel, quack	" "	" "	Conviction	*Vide infra.*
16	Appeal in same case. High Court		" "	" "	Conviction upheld	10 *Times* Law Report, p. 483.
17	G. M. C.	Allbutt, disregistered person	" "	" "	Conviction	"Cases," G. M. C., p. 73.
18	M. D. U.	Sherman, quack	" "	" "	"	B. M. J., June 14, 1890, p. 1402.
19	G. M. C.	Tempest, herbalist quack	" "	" "	"	April, 1899.
20	M. D. U.	W. J. Jackson, quack	" "	" "	"	Annual Report, M. D. U.
21	G. M. C.	Allinson, disregistered person	" "	" "	"	*Times* Law Rep., Apr. 14, 1899.

M. D. U. = Medical Defence Union; G. M. C. = General Medical Council.

Each of these 21 cases is a decisive and absolute contradiction of the statements of your anonymous correspondent, of Mr. Haldane, and of yourself. With reference to Mr. Haldane's opinion, I note you take advantage of your position as Editor to add a footnote to my letter in which you say with indifferent taste that "I am difficult to please." I did protest, and I still protest, against our JOURNAL being made by its Editor a channel of publication for anonymous articles which

depreciate to the utmost extent the right and privileges of the medical profession without the slightest responsibility or authority. I have already exposed the one-sided character of that anonymous article, and now, with the wholesale contradiction which the twenty-one successful decisions under Section XL of the Medical Act, 1858, furnish against its author, I hope that the valuable space of our JOURNAL will not be occupied again by anonymous expressions of opinion against the social and political status of the profession. With regard to your expression that I am "difficult to please," I protest against such editorial comments as being merely impertinent. I certainly said that I would welcome in the JOURNAL "open discussion and elucidation of this important subject, especially by well-known lawyers," but do you mean to assert that Mr. Haldane's formal opinion, which you alleged last week to be a full and conclusive statement on the present condition of the law is an "open discussion" on the part of Mr. Haldane? But worse still, are the readers of the Association seriously to understand from you that Mr. Haldane's opinion is a *full* and satisfactory examination by a well-known lawyer of the question at issue, when Mr. Haldane only examined ONE unfavourable case out of the twenty-one favourable and seven unfavourable instances, which, as I have just shown, have actually been tried in the Courts? When I spoke of "open discussion and elucidation," I certainly did not mean that the members of the Association were to be made to pay for what you, sir, may represent to be a perspicuous and full examination of the legal interpretation of the Medical Acts, but which as I have shown (and you yourself have now published some of the same facts) ignores twenty-seven-twenty-eighths of the whole subject. To my mind, the taking of an opinion in this way is simply trifling with a very serious matter.

THE "UNSUCCESSFUL" CASES.

I now refer to the unsuccessful cases in which the decision of the Court has been adverse to my interpretation of the Act, and where the behaviour of the magistrates and judges has been such as to make it, in my opinion, necessary that the Medical Act should be amended. Some of these cases are referred to in your collection, but they are so mixed with the successful ones, and so little explanation is given of the circumstances that they are practically unintelligible. Moreover, they are not analysed, but quoted by you without adequate comment as adverse to the profession and its Acts. I will now supply this deficiency, and it will then be found that in almost every case the point on which decision was taken was not the interpretation of the law. Even then these unsuccessful cases are in such a small minority as compared with the twenty-one favourable ones, that they could not be held to negative my interpretation of the Acts. The cases are those of Carpenter *v.* Hamilton, General Medical Council *v.* Hamilton, Medical Defence Union *v.* Bridgwater, Medical Defence Union *v.* Frickhart (not Prickhart, as your article states), General Medical Council *v.* Eastburn, General Medical Council *v.* Steele, Geddie *v.* Haworth.

The two prosecutions of Hamilton may be taken together. This man called himself Doctor of Medicine of the Metropolitan Medical College of New York. Unfortunately on both the occasions on which he was prosecuted the prosecuting lawyers made no attempt to show (as was done in the case of Styrap *v.* Andrews) that Hamilton was not an M.D. or that his so-called diploma was anything more than a bogus one, or that he was not on any American register, or that the bogus institution referred to was still in existence. If these facts had been brought out on either occasion it is not to be believed that the magistrate would have accepted Hamilton's mere statement—namely, that he was a Doctor of Medicine (see also case of Bridgwater next below). This case therefore failed, not by reason of the interpretation of the Acts, but by the laxity of the prosecuting lawyers.

Medical Defence Union v. Bridgwater.—Though not affecting the interpretation of the Medical Acts, this is an important case, as showing what sort of evidence magistrates will at times accept, and it is one on which you lay special stress, because it, with the next case, went on appeal before Mr. Justice Grantham and Mr. Justice Collins. Bridgwater was a quack who professed to be M.D.U.S.A. Of course there is no such degree, for the Federal Government does not grant any diplomas or degrees. This ought to be well known to magistrates, and *a fortiori* to judges of the High Court; but, unfortunately, as we shall see, this point was not even recognised by Mr. Justice Grantham or Mr. Justice Collins. Bridgwater was summoned by the Medical Defence Union before the stipendiary magistrate at Cardiff for using the title M.D.U.S.A. The summons was drawn by Mr. Muir Mackenzie himself, and the case is an instructive comment on the absurdity so frequently uttered by those who, like Mr. Carter, say the Medical Acts are of no service to the profession, "because they only protect title and not practice," for the stipendiary magistrate laid great stress on the fact that more direct evidence ought to have been furnished on the question of practice. As to the question of title Bridgwater said he was an M.D. of the United States, and this act of perjury was positively accepted by the magistrate as a fact, "no question of law being involved" according to the decision of that magistrate. For you to include this case among others as affecting the interpretation of the law and without adequate explanation is therefore monstrous, because the law was not touched as regards its interpretation but only impaired by the moral effect of the summons being dismissed. However discreditable may have been the act of the magistrate in accepting Bridgwater's forged diploma as a "fact," his "judicial" action seems to have intellectually paralysed Mr. Justice Grantham and Mr. Justice Collins, for, as your correspondent truly observes, Mr. Justice Grantham actually said that since Bridgwater said he had the M.D.U.S.A., he was not guilty of "a false pretence." Now, if the use of a bogus degree and a forged diploma is not "a false pretence," it is very difficult for an ordinary layman like myself to know what is. Mr. Justice Collins, who, as you quote in your Article II, said on this occasion that the law was in a fog, and who seemed to be unable to decide such a perfectly plain issue, although only sixteen months before he had the precisely similar case of Steele *v.* Ormsby before him, and then had no difficulty in coming to a conclusion, also endorsed the statement of the stipendiary and likewise accepted Bridgwater's forgery as a "fact." Bridgwater, of course, returned to Cardiff and advertised largely that the High Court of Justice endorsed his diploma and the value of his degree!

The only result of this case, therefore, on the part of the Courts of Justice (!) was to lend a helping hand to fraud, to endorse forgery, and not deal with the interpretation of the Medical Acts. It will be of interest to your readers to know that in spite of such brilliant support Bridgwater's practice so rapidly waned that he left Cardiff, came to London, and set up close to the office of the British Medical Association, while his advertising circulars were distributed outside its door. But even this did not help him, and he has wandered on again whither, however, is not known.

M. D. U. v. Frickhart.—This person was a disregistered woman who had been struck off the *Register* for infamous conduct. She had two diplomas, her British diploma, which was removed in consequence of her being struck off the *Register*, and an M.D. Zurich diploma which is not registrable. She nevertheless commenced practice in Cardiff using the unregistrable M.D. Zurich diploma to convey to the inhabitants of Cardiff that she was a properly qualified medical practitioner and she practised and signed certificates. Of course such signing of a certificate was ample evidence of the assumption of title, she not being registered. Though this was actually proved in court, the same stipendiary who had on the same day recognised Bridgwater's forgery as a legal fact, declared that this prosecution of Frickhart was a frivolous one in his opinion. Therefore, although the evidence of false assumption of title had been furnished and proved up to the hilt, he dismissed the case, not on any point of law whatever, but on the ground that the summons was a frivolous one. Unfortunately, Mr. Justice Grantham, to whom the case went on appeal, said in effect, If the lady has a degree, why should she not use it? an idea which may have been pleasing to a judge, but was not either administration of the law or relevant to the question at issue. Consequently, in this so-called adverse case, which was to decide the value of the Medical Acts, no question of law was involved at all, and yet again you quote this case as being adverse to the usual interpretation of those Acts.

General Medical Council v. Eastburn.—In this case the General Medical Council through its Scottish Branch prosecuted Eastburn as being an unregistered person using various titles "implying he was registered," etc. The defendant was convicted and fined, but on appeal the conviction was quashed, not from any failure to interpret the law correctly, but because of a failure on the part of the lawyers who conducted the prosecution in the way of formulating the evidence, a purely technical point which has nothing to do with the interpretation of the Act. It should be remembered that the legal technicality of Scottish law is even more confused than that of English law. This case, therefore, also has no bearing on the interpretation of the Medical Act.

General Medical Council v. Steel.—This quack, who had been successfully prosecuted by the General Medical Council under the same circumstances and Section XL of the Medical Act in 1894 (see previous table), was again summoned, but the prosecution failed. This case did turn to a certain degree on the interpretation of the Medical Acts, but it is a case of no importance, because the Bench were divided and came to no decision. Therefore this case does not affect the question at issue, except that the magistrates, who are not necessarily gifted judges, could not make up their minds, and consequently were guilty of ridiculous inconsistency. The same criticism is to be passed on Geddie *v.* Haworth, in which the Bench were divided in 1897, but they convicted in 1898. (See previous table.)

The failure on one count in the case of the Medical Defence Union *v.* Matthews, which you quote as adverse, is not a failure in the interpretation of the Act, but a freak of inconsistency on the part of the magistrates, for with precisely the same evidence before them they convicted Matthews for calling himself "surgeon," but acquitted him for calling himself "doctor." Why they thus stultified themselves they did not explain.

The failure on the first count in the case of Ison was due, as the magistrate stated, to the insufficient character of the evidence for the prosecution as regards medical titles.

I trust that this summary of the "unsuccessful cases" will show your readers that when the Acts have apparently failed it has not been so much due to the interpretation of the law as to the inconsistencies and want of perception on the part of the legal administration of the statutes. To correct this has been the duty of the Parliamentary Bills Subcommittee, of which I am a member, and the Subcommittee, as you know, drafted a Bill which has been in your hands over six months.

I note that at the beginning of your Article II you say: "A perusal of the selected cases leads to the following conclusions," and then you give a list of conclusions of which some of the first refer to points concerning which the Medical Acts could be improved. It will probably interest the members of the Association to learn that these points were all fully considered by the Subcommittee of the Parliamentary Bills Committee more than a year ago, and the consequent necessary amendments of the law were all included in their draft Bill, which was sent to you at the end of last September.

Your adoption of the Subcommittee's conclusions will doubtless be a matter of satisfaction to the Association.—I am, etc.,

Cavendish Square, W., April 17th. VICTOR HORSLEY.

THE GENERAL MEDICAL COUNCIL AND THE DIPLOMA OF L.S.A.

SIR,—As an L.S.A. of nearly thirty years' standing I should like to add my quota as to the practical worth of that examination. I passed in 1870 "College" as well as "Hall"—good old-fashioned diplomas. My experience was that whilst the College tried to find out what you did not know (at any rate in the *viva voce* part of the examination), and set you conundrum kind of questions, the Hall persevered with you till the examiners found out what knowledge you did possess, without that irritating *tinkling* of "that bell" at the College when you were "sent about your business" to the next examiner just as you were beginning to get on "swimmingly" with the former one—a sort of treadmill!

I am proud of my L.S.A., and generally in my signature to sick certificates, etc., "trot it out" before my M.R.C.S.E. diplomas, and even on my door plate I do the same.

One of the most practical men in the profession was the late Mr. Slinn, of Ampthill, an obstetrician of no mean value, and *facile princeps* with the tocth, as he was with the obstetric, forceps. He died a few years ago respected by all who knew him, especially by his medical *confrères*. His only qualification at all was that of L.S.A.

Of course now that the L.S.A. is a double qualification its value is much enhanced, but the new L.S.A.s cannot be prouder of it than the old ones are.

I was at one time (in 1872) Visiting Assistant to Her Majesty the Queen's Surgeon-Apothecary in London (the late Mr. Claudius F. Du Pasquier), and, unless my memory fails me, the only medical diploma which he possessed was that of the Membership of "The Hall." His want of a strictly physician-like diploma did not prevent his being the valued friend and trusted medical adviser of Her Majesty the Queen, the Prince and Princess of Wales, the late Princess Alice, and other members of the Royal Family, besides being the *protégé* of that queen amongst women, the late Frances Countess Waldegrave.

Depend upon it, it is the doctor's manner, his tact, his experience, and his resourceful mind which eventually give him that success which he sighs for and aims at, more than any special diploma, be it even that of the M.D.Lond. itself.—I am, etc.,

W. L'HEUREUX BLENKARNE, L.S.A., M.R.C.S.,
Formerly Surgeon to the Leicester and Leicestershire Provident Dispensary, etc.

Worthing, March 21st.

MEDICAL AID ASSOCIATIONS.

SIR,—I think it may well be taken for granted that the Medical Defence Union could do much, and that the British Medical Association could do more, towards putting an end to the canvassing system pursued by medical aid associations than any other bodies. We cannot expect to get rid of evils by ignoring their existence, and therefore it is difficult to understand why some members of the profession should make objections to proposals which would undoubtedly prevent men who hold appointments in such associations from becoming members of the British Medical Association or of the Medical Defence Union. As this is a question which deserves the consideration of the profession at large, I would submit the following proposition: that intending candidates should be asked to make a declaration to the following effect:

> I hereby declare that I am not in any way connected with any medical aid association, family, or other club in which canvassing for patients takes place.

—I am, etc.,

Cardiff, April 15th. T. GARRETT HORDER.

COAL TAR PRODUCTS.

SIR,—At present the profession is pestered with the samples and circulars of American drug mixers. Certain of these samples are described as new synthetic "coal-tar products" of the benzene, etc., series. The "organic" terms "amine," "amide," etc., are handled with such an appearance of profound chemical knowledge that the ordinary reader is apt to be led away.

Several of these preparations contain as their active basis acetanilide ($C_6H_5NHC_2H_3O$), commonly known as "antifebrin," and made quite cheaply from aniline and glacial acetic acid. Clinically, one can suspect its presence by the considerable fall of blood pressure and even cyanosis when a specimen of one of these so-called synthetic samples containing it is administered. Chemically, a few manipulations serve to separate such mixtures into their components, and the main ingredient is in most cases readily identified.

I merely draw attention to the above in order that members may not be led into giving testimonials for these preparations which are frequently, as I have above pointed out, merely well-

known and in many cases useful drugs disguised under high-sounding names.—I am, etc.,

Edinburgh, April 14th. James Cameron.

NURSING IN IRISH WORKHOUSES.

Sir,—Dr. Moorhead acknowledges he has no experience of nurses trained in county infirmaries, though in his letter to the *Irish Times* I was under the impression he "damned them with faint praise." Dr. Davison was more energetic in his condemnation; when challenged as to his knowledge of these nurses he was obliged to confess he had only employed one, and she certainly seems to have been unsatisfactory; but I ask in all seriousness, Are the nurses of those county infirmaries which for years past have been successfully engaged in training nurses to be condemned because Dr. Davison's infinitesimal experience—confined as it was to a single nurse—was not up to the mark? I have never contended all infirmary nurses are trained; on the contrary, very few of them are, but I do affirm that nurses trained in those county infirmaries which have properly-organised nurses' training schools attached to them can supply the public or the district hospitals with as efficient nurses as any other hospitals, large or small, in the three kingdoms.

I believe there are only six infirmaries in Ireland that train nurses, namely, Derry, Monaghan, Donegal, Down, Tyrone, and Armagh. I shall be glad to know privately from Dr. Davison: Did the nurse he complains of come from any of these institutions? If she did not his argument has no weight, as I never contended a nurse from an infirmary that did not carefully train its nurses was qualified for any position in an hospital, even in the example of carelessness and ignorance given by Dr. Davison. There seems to have been some excuse for the nurse, because carbolic acid either in its crude or concentrated and liquified form should hardly be allowed in an hospital ward. It also seems strange Dr. Davison never saw the nurse's certificate or made any inquiry as to her qualifications or character.—I am, etc.,

Omagh, April 17th. Edward Thompson, F.R.C.S.I.

THE MODERN DOCTRINE OF BACTERIOLOGY.

Sir,—The letter of your correspondent, Mr. Watkins-Pitchford, is scarcely deserving of a reply or the space necessary for it, consisting as it does chiefly of personal abuse. If Mr. Pitchford will descend to particulars I shall be happy to enter the lists with him, and if he can put a different interpretation on the numerous facts I have given in my paper—of which I have sent him a complete copy—I should like to know what it is. It is because I have followed—and Mr. Pitchford has not—the most recent discoveries in the field of bacteriology that I have been able to present an argument that has not yet been attacked. I have therefore a right to retort the attribute of ignorance upon my detractor.

It seems to me unfortunate that the meaning of the word "science" has in recent times been so perverted as to include any branch of knowledge, however inexact it may be, and to speak of the "science" of bacteriology shows an ignorance of the true meaning of the word. I contend that the proper word as applied to bacteriology is "doctrine" or teaching—certainly in its present phase. Even the practice of medicine is simply an art, and has no claim to be called a science. I cannot ask you for space to elaborate this view.—I am, etc.,

Granville Place, W., April 14th. Geo. Granville Bantock.

OBITUARY.

JAMES ROWLANDS, F.R.C.S.Eng., L.S.A., J.P.

Mr. Rowlands, who died at his residence, King Street, Carmarthen, on April 10th, was the oldest member of the medical profession, as well as of the Corporation, in that town. He was the son of the late Rev. Daniel Rowlands, for many years Vicar of Llanllwch, near Carmarthen; but was born at Lowtre, in Cardiganshire, in 1814. He had thus nearly completed his eighty-fifth year.

He received his general education at Carmarthen, and his medical training at St. George's Hospital, London; and was believed to be the oldest St. George's man living. He became M.R.C.S. in 1842, and F.R.C.S. in 1857. For 40 years he was Surgeon to the prison at Carmarthen, and for many years also Surgeon to the local infirmary. He was Coroner for a long period; and an Alderman and J.P. In politics he was a Conservative.

He was deeply respected and beloved by all classes of the community; and remained in practice until illness compelled him to retire about six months ago.

He married in 1835, and celebrated his diamond wedding in January, 1895. His wife was too feeble to be summoned to his deathbed. His only surviving son is in America, but four married daughters were present at his decease.

WILLIAM FRAZER, F.R.C.S.I.,

Dublin.

We record to-day the death of a well-known and highly esteemed member of the profession, Dr. William Frazer, of Dublin, who died at his residence, after an illness of some months, on April 16th. He was attacked by influenza in November of last year. He developed heart symptoms which compelled his confinement to bed, and he gradually grew weaker until death came.

William Frazer was born in Dublin in 1824, and was educated for his profession at the Richmond School in connection with the hospital of that name. In the latter he was a resident for a couple of years, and he gained under the distinguished teachers of his day an extensive practical knowledge of medicine and surgery.

Later on he became a lecturer on Materia Medica in the Park Street School, and then in the Carmichael (formerly the Richmond). He had a deep knowledge of his subject, and he published a book dealing with it which was very popular in those days. He became in time Crown nominee on the Council of the Pharmaceutical Society of Ireland, and an Examiner in Materia Medica at the College of Surgeons. Meantime his practice extended considerably, and for many years he was one of the busiest men in the City of Dublin.

His natural energy directed itself into other channels also. He was a well-known antiquary and collector, and in the Royal Irish Academy, where he was a regular attendant, he read many papers on subjects of antiquarian interest, showing always great industry and knowledge. The Academy made him its Librarian in succession to the late Sir John Gilbert. He was a Fellow and Member of Council of the Royal Society of Antiquaries of Scotland. In all these directions he exhibited those admirable characteristics which secured for him a high position in the regard of his fellows.

Dr. Frazer was twice married. By his first marriage he had four sons and two daughters. Two of his sons became members of the profession. One is Dr. William Frazer, of Bournemouth; the other Dr. Kenneth Frazer, of Eastbourne; a third, Robert, joined the Indian Medical Service.

The funeral, which took place on Wednesday last, was one of the largest which has been seen in Dublin for a long time.

Surgeon-Major George Charles Wallich, M.D., who died in his eighty-fourth year on March 31st, was the son of Dr. Nathaniel Wallich, of the Bengal Medical Service, who for some years was Superintendent of the Botanical Gardens, Calcutta. George Charles Wallich received his medical education at the University of Edinburgh, where he graduated as M.D. in 1836. In 1838 he entered the Indian Medical Service, and served during the Sutlej campaign in 1842 (medal), the Punjab campaign in 1847 (medal), and was Field Surgeon during the Soutall Rebellion in 1855-56. He retired from the service in 1858, and in 1860 was attached as Naturalist to H.M.S. *Bulldog*, which, under the command of Sir Leopold Maclintock, surveyed the Atlantic for the laying of the proposed cable. Dr. Wallich, by his study of the materials obtained during the voyage of the *Bulldog*, was able to throw great light upon the distribution of life at great depths, and showed in particular that it still existed at the depth of 7,500 feet. During the rest of his working life he continued the study of these subjects, and received the gold medal of the Linnean Society in recognition of his researches into the problems connected with bathybial and pelagic life. He was the author of *Notes on the Presence of Animal Life at Vast Depths in the Ocean* (1860), *The North Atlantic Sea-Bed* (1862), and of numerous papers on the biology and distribution of the lower forms of animal and vegetable life. He

contributed to the *Magazine of Natural History*, *The Quarterly Journal of Microscopical Science*, and various other scientific periodicals.

Dr. James Andrew Duncan, who died in his 80th year at his residence, Henrietta Street, Covent Garden, London, on the morning of April 5th, was widely known and highly respected by a large circle of friends and patients. He was born in the metropolis, and was educated at King's College School, whence he passed on to his medical training at King's College Hospital, where he became House-Surgeon. He graduated M.B.Lond. in 1845, and became M.R.C.S.Eng. in the same year. Thenceforward he devoted himself to general practice, which he carried on without intermission for fifty-three years in the neighbourhood of the Strand; and it was only six months ago that failing health compelled him to retire. He was a skilful practitioner, and his personal qualities were of a high order, so that his practice was extensive. He was an Associate of King's College, Fellow of the Medical and Obstetrical Societies, and Physician to the Parochial Schools of St. Paul's; and some years ago contributed a paper on the Inhalation of Naphtha in Pulmonary Consumption to the *Medical Gazette*. He has left a widow, four sons, and two daughters. Dr. Duncan's death occurred after a painful and distressing illness, against which he fought with the same courage and patience which were his characteristics through life. He was in active work up to within a few months of his death, and no man ever kept up a more enthusiastic interest in his practice, or manifested a more unselfish devotion to his patients during the long period of fifty-three years.

The death of Mr. Ernest S. Medcalf has removed from Hove a well-known figure. He had been in ill-health for some months, but the sudden termination of his illness at the comparatively early age of 48 years does not appear to have been anticipated. Mr. Medcalf received his professional training at Guy's Hospital, and obtained the diplomas of L.R.C.P.Edin. and L.S.A. in 1873, and that of M.R.C.S. in 1874. He became attached to the western branch of the Brighton and Hove Dispensary in 1875, winning many friends in this capacity, and receiving, when he subsequently commenced private practice in Hove, a testimonial from his old patients. In 1881 he became a member of the Hove local governing body, and was also at one time a member of the Hove School Board. In 1887 he was elected Medical Superintendent of the Hove Fever Hospital at Hangleton, and on the resignation of Dr. Kebbell, then medical officer of health of the town, he succeeded to the post in 1889. At this time he resigned the post of Poor-law Medical Officer for Hove, but he retained the post of Medical Officer of Health up to the time of his death. Mr. Medcalf was a general favourite among the poor, and his social qualities endeared him to a much wider circle. It is pleasant to recall his work in connection with benefit and friendly societies, for the St. John Ambulance Association, and for various charitable institutions. The *Sussex Daily News* concludes an appreciative notice with the remark that "Mr. Medcalf, who was a bachelor, enjoyed the friendship, confidence, and hearty goodwill of all sections of the community both in Hove and Brighton, and his decease will be heard of with widespread regret."

Dr. William Hopkin Thomas, J.P., died suddenly at his residence, Bron-y-Garn, Maesteg, Glamorganshire, on April 13th. He had visited patients that morning accompanied by his son, and had returned to his house when he was suddenly seized with pain in the chest, and this, the fourth attack of a similar character which he had experienced during the last five years, proved fatal. He was born at Maesteg, and was 58 years of age. He received his medical education at King's College Hospital, London, became M.R.C.S. in 1863, L.R.C.P.Edin. in 1870, and M.D.St.And. in 1894. He first practised for about two years in Ebbw Vale, and for the last thirty-two years of his life in Maesteg, where he obtained a large practice. He was a member of the local Council and a magistrate. He was a genial and generous man, cheerful, active, and indefatigable in his work. He was a strong patron of the Eisteddfod, and encouraged music and Welsh literature. He had been a Medical Officer under the Neath Board of Guardians and under the Maesteg Local Board, and was Surgeon to several collieries. He had received two handsome public testimonials. He has left a widow and seven children, and much sympathy is felt for the bereaved family.

Mr. William Renton was born at Knaresborough in 1846. He was first articled to Dr. Bell of Bradford, who says that "his kindly disposition and honourable conduct endeared him to all who knew him;" and then became a student at the Leeds School of Medicine. Whilst there he was President of the Medical Students' Club. After taking the diplomas of L.R.C.S., L.R.C.P.Edin., and L.S.A.Lond., in 1871, he settled in his native town. His capability and energy soon secured him a large practice, and amongst other appointments he held those of medical officer of health and public vaccinator. He retired from practice some six years ago, and since then he has been studying and working in many of the London hospitals, perfecting himself in the latest advances in the various departments of medical science. His well-known trim figure and genial manners will be remembered by many who conducted and attended post-graduate classes in London. His friends were expecting and hoping to see him in practice again, giving his patients the advantage of his own excellent experience added to the benefits to be derived from his recent hospital work. Unfortunately cardiac valvular mischief began to trouble him some months back. A marked change was noted in his appearance, energy, and spirits, and he suffered from some severe anginal attacks. He was besought to seek advice, but, knowing that he had a serious valvular lesion, he preferred to remain in ignorance of what might be told him, and live an active life to the end. On the evening of March 31st, while staying at Brighton, he was suddenly seized with dizziness when out, but managed to regain his hotel and ascend to his room, where he quickly expired. His remains were interred in the family vault at Knaresborough Parish Church on Tuesday, April 4th; and the esteem in which he was held was evidenced by the large attendance at his funeral.

ROYAL NAVY AND ARMY MILITARY SERVICES.

HOSPITAL SHIPS.

Throughout the regulations of the Service, be they the Queen's Regulations or the Regulations for the Army Medical Department, the term "hospital ships" refers merely to ships organised for sick and wounded officers and men "at the seaboard base of operations in war," and employed either in lieu of or to supplement general and other hospitals on shore. No sanction whatever exists in the regulations quoted of hospital ships in the sense contended for by all army surgeons and allowed to be a necessity outside the military medical service, that is for the ordinary and extraordinary conveyance of sick officers, non-commissioned officers and men of our forces invalided at different seasons of the year from India, the West Indies, Egypt, South Africa, etc., who are now conveyed to England from our colonies in the ordinary hired troopships, with officers and men, women, and children returning from foreign stations in course of relief each year. The following table shows the extent to which officers and men are annually invalided from foreign stations. Taking an average in round numbers for ten years the extent yearly may be stated as follows:

From	Officers.	N.C.O. and Men.
India	140	2,000
Ceylon, the Straits, and China	10	120
Mauritius, South Africa, and St. Helena	10	120
West Indies, Bermuda, Canada	10	70
Malta, Gibralta, Cyprus, Egypt	20	320
Total	190	2,630

In the year 1894 a larger number of men than that given were sent home sick from Ceylon, the Straits, and China, and

also from Mauritius, South Africa, and St. Helena; while in the year 1897 the numbers sent home from India exceeded by 258, and from Cyprus, Egypt, Malta, and Gibraltar by 116, the averages already noted. Now these figures speak sufficiently in favour of applying hospital ships alone for the conveyance of sick.

Under the present system of accommodating sick in the ordinary troopships, these vessels are sent to England crowded with men, women, and children; officers who are sick have perforce to be kept in a saloon cabin with their healthy comrades. Let us picture to ourselves an officer prostrated with dysentery, abscess of the liver, or severe malarial fever, placed in such a position. Again, no proper hospital can be constructed in a troopship for the requirements of a large number of invalids. If a large number of invalids and sick are sent home, as is often the case, the healthy men are overcrowded. The sick bay in the existing troopships is quite close to the accommodation for women and children, the baggage room, as well as the sergeants' mess. The noise from each and all is almost incessant, and must be most trying to any sick person. Further, and of still greater weight, are the facts that the means for cooling the hospital in the tropics are inadequate, and for heating it out of the tropics insufficient.

The number of skilled attendants allotted to the hospital on a troopship is inadequate, being only 1 non-commissioned officer and 3 or 4 privates of the Royal Army Medical Corps, supplemented often, and largely, by untrained "orderly comrades." There are no nursing sisters for a hospital on board the troopship. There is not even a matron on a troopship in the case of sickness occurring among the officers' wives or children. How are such cases to be treated satisfactorily in absence of matron or nurses?

Of the average number of invalids sent home annually, it may safely be said that one half are constantly under treatment and require special care, nursing, and diet. Under existing arrangement in the troopships, although all is done that the circumstances permit, still it would be preposterous to state that these cases are placed under the conditions required for successful treatment.

In advocating properly equipped hospital ships for the conveyance of sick and invalided officers and men, it is unnecessary to discuss their construction and equipment, for the War Office, guided by the Medical Department, has already excellent models to work on, for example, the *Victor Emanuel* during the Ashanti war 1873-74, which was most successful, and a detailed account of which was given by the medical officer in charge in the *Army Medical Report* for 1873, p. 260; the *Ganges* during the Egyptian war of 1882, fully described by the medical officer in charge in the *Army Medical Report* of 1884, p. 327; the *Coromandel*, by the medical officer in charge in the *Army Medical Report* of 1895, p. 317. It seems well nigh impossible to suggest any improvement on the organisation and arrangements of these hospital ships, and the provision of a few of them for the purpose advocated in the present paper, although they must cost money, would at all events show the world that we are not unconcerned about the comfort of our sick and wounded, whom as a strong and wealthy nation we are bound to place under the best conditions for recovery from sickness or wounds.

ROYAL NAVY MEDICAL SERVICE.

Staff-Surgeon Alexander M. French has been promoted to be Fleet-Surgeon, March 28th. He was appointed Surgeon, September 30th, 1878, and Staff Surgeon twelve years thereafter.

The following appointments have been made at the Admiralty: Frederick J. Lilly, Staff Surgeon, to the *Forte*, April 20th: Edmund Corcoran, Staff Surgeon, to the *Resolution*, April 20th; Algernon C. Bean, Surgeon, to the *Forte*, April 20th; Harold E. Fryer, Surgeon, to the *Partridge*, May 4th: George Wilson, M.B., Staff Surgeon, to the *Fearless*, April 12th; Alexander G. W. Bowen, Surgeon, to Plymouth Division Royal Marines, May 1st; Ernest A. Penfold, Surgeon, to the *Vivid*, additional, April 15th; Hugh L. Norris, Surgeon, to the *Jason*, April 15th; John McElwee, Surgeon, to the *Medusa*, April 20th.

ARMY MEDICAL SERVICE.

Surgeon-Major-General William Marshall Webb died at the Ghesireh Palace Hotel, Cairo, on March 18th, at the age of 66. He was appointed Assistant Surgeon March 24th, 1854; Surgeon January 15th, 1864; Surgeon-Major March 1st, 1873; Brigade-Surgeon November 27th, 1879; Deputy Surgeon-General July 5th, 1881; and Surgeon-Major-General December 31st, 1887. He was granted retired pay July 6th, 1893. He was with the 19th Regiment throughout the Crimean campaign of 1854-5, including the battles of Alma and Inkerman, and the siege and fall of Sebastopol (medal with three claps and Turkish medal).

Brigade-Surgeon Decimus Filius de Hodgson, M.D., died at Carlisle on April 9th, aged 67 years. He entered the service as Assistant Surgeon September 28th, 1857; became Surgeon September 21st, 1872; Surgeon-Major March 1st, 1873; and Honorary Brigade-Surgeon on retirement on retired pay September 28th, 1882. He served with the Royal Artillery in the Sikkim expedition in 1861, and in the Zulu war in 1879, for which he received a medal with clasp.

ROYAL ARMY MEDICAL CORPS.

Colonel T. J. Gallwey has retired from the Egyptian army after seven years' service as Principal Medical Officer. He served in the Afghan war in 1879, and was present at the attack and capture of Ali Musjid (medal with clasp). His services in Egypt comprise the following: Egyptian war of 1882, including the battle of Tel-el-Kebir (medal with clasp, and Khedive's star); the Nile Expedition in 1884-85, when he had charge of the Debbeh Field Hospital, and took part in the operations of the Desert Column on its return to Korti (mentioned in despatches, promoted Surgeon-Major, clasp); the Dongola Expeditionary Force under Sir Herbert Kitchener in 1896 as Principal Medical Officer to the force, including the engagement at Firket and the operations at Hafir (mentioned in despatches, C.B., and Khedive's medal with two clasps); and the recent campaign in the Soudan under Lord Kitchener, as Principal Medical Officer (mentioned in despatches, and promoted to be Colonel). He has also been nominated to the Third Class of the Medjidie for services under the Egyptian Government.

Colonel James Fraser, M.D., has been appointed Principal Medical Officer, North-Eastern District.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant J. A. Clark is promoted to be Surgeon-Captain, April 19th.

INDIAN MEDICAL SERVICE.

Captain Arthur Oldham Hubbard, of the Bengal Establishment, died at Cairo on April 14th, at the age of 33. His commissions were dated: Surgeon-Lieutenant, July 27th, 1892; Surgeon-Captain, July 27th, 1895. He was appointed to the medical charge of the 13th Bengal Infantry, April 21st, 1895, but was on sick leave granted him in November last.

THE YEOMANRY AND VOLUNTEER RIFLES.

The undermentioned gentlemen have been appointed Surgeon-Lieutenants in the respective corps specified, dated April 15th: Francis E. Marston, Montgomeryshire Yeomanry: Thomas G. Lusk, M.B., 1st Cheshire and Carnarvonshire Artillery; Thomas Carwardine, M.B., 2nd Gloucestershire (the Bristol) Engineers; John Cameron, M.B., 1st (Ross Highland) Volunteer Battalion Seaforth Highlanders (Ross-shire Buffs, the Duke of Albany's).

GALLWEY PASHA.

The following Egyptian Army order has been issued:

"El Lewa Gallwey Pasha, C.B., is struck off the strength of the Egyptian Army from March 31st, 1899.

"The Sirdar wishes to express his regret at the retirement from the Egyptian Army of El Lewa Gallwey Pasha, C.B., who has served with His Highness's troops for seven years, during which time he has administered the Medical Corps with great success.

"His powers of organisation were shown during the expedition to Dongola in 1896, and in the subsequent expeditions of 1897 and 1898.

"During the cholera epidemic in 1896, and the actions of Firket, Hafir, Abu Hamed, Atbara, Khartoum, Gederef, and Rosaires, the results of his foresight and good work were conspicuous.

"He established civil and military hospitals in the reconquered Soudan province, and during the recent campaigns, by his good arrangements and careful supervision, the sick and wounded received every care and attention.

"The Sirdar, on behalf of the army, wishes Gallwey Pasha every success in the future."

PASSAGES FOR WIVES.

A correspondent attributes much of the impecuniosity of medical officers to the expense involved in frequent moves, and the great difficulty in obtaining free or indulgent passages for their wives, such as are granted to general officers, quartermasters, etc. He advocates free passages for wives and children of medical officers over ten years' service when ordered abroad on permanent tours of duty.

THE R.A.M.C. CREST.

Inquirer wants to know why the crest sanctioned for the Royal Army Medical Corps has not been officially announced in the *London Gazette* or the monthly Army List.

DELAYED PROMOTION.

A correspondent asks: Can you explain the announcements of promotions in the Indian Medical Service (British Medical Journal, March, 1899) ranging from nine to twelve months after they were actually due?

*** We cannot; but we ask in reply, Are such delayed promotions antedated to the date of the vacancy, and do they carry back pay?

The late Mr. Edward Ormerod has by his will bequeathed £500 each to the St. George's Hospital, the Cancer Hospital (Brompton), the Charing Cross Hospital, St. Thomas's Hospital, King's College Hospital, and the National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury.

MEDICO-LEGAL.

THE ASSESSMENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

IN the Court of Appeal (before Lord Justice A. L. Smith, Lord Justice Collins, and Lord Justice Romer) judgment was delivered in the appeal by the Royal College of Surgeons from the judgment of the Divisional Court (Mr. Justice Wright and Mr. Justice Channell).

The Royal College of Surgeons presented a petition praying for the discharge of an assessment made on them under Section 11 of the Customs and Inland Revenue Act, 1885. The ground on which the exemption was claimed was that the Royal College of Surgeons was an institution for the promotion of "education, literature, science, or the fine arts."

The petition set forth, *inter alia*: (1) That by the Revenue Act, 1885, there should be levied in respect of all real and personal property which shall have belonged to or been vested in any body corporate or incorporate, a duty of £5 per annum upon the annual value, income, or profits of such property after deducting all necessary outgoings, except in regard to property which, or the income or profits whereof, shall be legally appropriated, and applied for the promotion of education, literature, science, or the fine arts. (2) That the petitioners were a body politic established by Royal Charter in the year 1800, the object of the institution being the benefit of the common weal of this kingdom by the promotion of the art and science of surgery, and the due promotion and encouragement of the study and practice of the said art and science of surgery. (3) That they were, under terms imposed by Government, the custodians at their own expense of the Hunterian collection, which is national property. (4) That on June 24th, 1894, the annual value or income from real property was £7,200, the total value of the personal estate was £187,195, and the income therefrom was £5,833. (5) That the whole property was legally appropriated and applied for the benefit of the public at large or for the promotion of science, literature, or education. (6) That the College furnished accounts to the Commissioners claiming exemption. (7) That the Commissioners, nevertheless, assessed them at £3,161, and required them to pay £158 for duty thereon. (8) That the said sum of £3,161 included the following: £300, the annual value of that part of the library within the premises 40-42, Lincoln's Inn Fields; £250, the annual value of the official residence of the Conservator of the Museum; £200, the value of 39, Lincoln's Inn, another portion of the library. (9) Apart from the general claim to total exemption the petitioners submitted that, in any event, the above property came within the provision for exemption.

The Crown had granted exemption in respect of the museum, but contended that neither the library, the examination hall and offices, nor the conservator's house, should be exempted, they not being both appropriated and applied, in fact, for the promotion of science. For the petitioners, it was contended that they were altogether exempt, or in the alternative that the separate buildings were all or some exempt. The Divisional Court held that the conservator's house was exempt, but not the other property.

Sir Edward Clarke, Q.C., and Mr. T. R. Paget appeared for the Royal College of Surgeons; and the Attorney-General and Mr. Dankwerts appeared for the Crown.

At the conclusion of the arguments, the Court reserved judgment.

On April 15th, Lord Justice Romer, who read the judgment of the Court, said that the appeal raised the question whether certain property of the College was subject to duty under the Customs and Revenue Act, 1885. It was contended by the appellants that the property was exempted from duty as being property which, or the income of profits whereof, was or were legally appropriated and applied for the promotion of science. In order to see whether this contention was correct or not, it was important to ascertain what was the main purpose and object of the College. It was finally determined by the House of Lords in the case of the Institution of Civil Engineers, that if the main purpose or object of an institution be the promotion of science, though there might be some subsidiary purposes or objects, then its property, having to be applied and being applied for the purposes of the institution, was legally appropriated and applied for the promotion of science within the meaning of the Act, and accordingly exempt from duty. The case before them differed essentially from the case of the Institution of Civil Engineers; the Institution had only one main object and purpose. The College had two main objects, each of great importance. In fact, it would be difficult to say which of the two main functions imposed on and discharged by the College was the more important, and neither could be considered as merely subsidiary to the other. One might be shortly described as the promotion of the science of surgery, and the other the promotion and encouragement of the practice of surgery, including the promotion of the interests of those practising or about to practise surgery as a profession, and also including the examination of students and others to qualify for practice or honours in surgery or kindred subjects. In order to establish the statement as to the second main function it was necessary to refer to some of the more important facts connected with the charters governing the College, and the by-laws, rules, and regulations made thereunder, and the statutes affecting, and the duties discharged by, the College. The learned Lord Justice then proceeded to examine the Act of 18 Geo. II, c. 15, intituled "An Act for making the Surgeons of London and the Barbers of London two separate and distinct corporations," the charter of 1800, by which the last-named corporation was dissolved and the present College incorporated; the charter of 1822, the charter of 1843, the charter of 1852, and the charter of 1859 saying that from the time of the above charters the College continued to hold the examinations thereby directed or provided, and to grant certificates, and to be paid fees for the examinations. He then referred to the Medical Act of 1858 and 1886 dealing with various sections, and continued the judgment, saying that shortly after the later Act the College of Surgeons and the Royal College of Physicians had held joint examinations. The College had further duly recognised and carried out its duties connected with the practice and profession of surgery by its by-laws and rules.

The Court thought that the acts and duties performed by the College by virtue of the various charters and statutes amply showed the dual nature of the object and purpose of the College as above stated. As far as regarded property legally appropriated and applied to what the Court called the second main function, it appeared clear to them that such property could not come within any of the exemptions. It was equally clear that property which might be legally appropriated and applied for the promotion of the science of surgery was exempt from duty.

The question arose as to property of the College which was not legally appropriated and applied to one of the two main functions of the College as distinguished from the other. The College was under no legal obligation either to apply any of such properties or their incomes to the first main function of the College, or not to apply them to its second main function so that there had been no legal appropriation for a purpose exempting from duty, and the Court further thought that no property the subject of the appeal or its income was being even applied so as to exempt it from duty. The Court felt more doubt as to the libraries, but on the whole thought they were not so applied as to exempt them from duty. The appeal, therefore, must be dismissed with costs.

ACTION AGAINST MRS. LONGSHORE POTTS.

THE case of Gould *v.* Longshore Potts was heard at the Manchester Spring Assizes in the Civil Court, before Mr. Justice Bigham and a special jury on April 18th. The pleadings, according to the report in the *Manchester Guardian*, alleged unskilful and negligent diagnosis and treatment of the plaintiff by the defendant.

On the opening of the court, Mr. Ray, for the defendant, asked that the case should be put at the bottom of the list, as Mrs. Longshore Potts was at present in California, and was ill. An endeavour had been made to obtain permission to take her evidence by commission, but the Master had not allowed it. He had that morning received a telegram from agents in London stating that five affidavits were on their way from America substantiating the statement as to her health. Notice for trial was given on February 18th. The judge remarked that that was two months ago, and asked where the lady then was. Mr. Ray replied that he believed that she was in California, and that she was ill then. She was nearly 70 years of age, and could not come to England till the summer. It was difficult to make her understand what she had to do. The judge remarked that if the lady was 70 years of age and did not understand, it might be better to get the trial over. Two months was plenty of time in which to send affidavits from America.

Mr. Shee, Q.C., for the plaintiff, opposed the application. The writ was issued in July, 1898, and in October the defence was issued. Application was made to the Registrar to have the trial deferred on affidavits, alleging similar grounds as those now put forward. The plaintiff believed these affidavits to be incorrect, as, while they stated that the defendant was unfit to travel, she was really going about America delivering lectures. The judge stated that the case must stand in the list.

It was reached during the course of the afternoon, when Mr. Ray stated that in consequence of the refusal of his application to put the case at the bottom of the list, he could not do anything further as representing the defendant. He had no instructions in regard to cross-examining witnesses, but had his client been present she would have been in a position to rebut the allegation of incompetence which might be made against her.

Mr. Shee, for the plaintiff, stated that the reason why the case was not defended was that there was no defence. The plaintiff was a young married woman. In February, 1898, she was unmarried but engaged, and the marriage had to be postponed owing to the conduct of the defendant. All that the plaintiff was suffering from was neuralgia and indigestion. The defendant had been travelling about the world lecturing to women only. In February, 1898, she lectured in the Theatre Royal, Manchester. A large number of ladies attended, and amongst others the plaintiff and her sister. The plaintiff afterwards saw the defendant and was induced to submit to an examination. The defendant told her that she was suffering from a certain ailment, and persuaded her to use an appliance for which she charged £5 10s., but which he (Mr. Shee) was told was worth 2s. 9d. The plaintiff suffered great pain, and was afterwards assured by the medical men whom she consulted that she was not suffering from the ailment alleged by the defendant. More outrageous treatment it was difficult to imagine, and it was one for which the plaintiff sought substantial damages.

Evidence was given by the plaintiff and medical evidence was also called.

Among the medical witnesses was Dr. Sinclair, and, at the conclusion of his examination by Mr. Shee, the judge read a testimonial saying: "We, the undersigned, have pleasure in saying we have seen the credentials of Mrs. A. M. Longshore Potts, M.D.," etc.

The judge asked Dr. Sinclair if Mrs. Longshore Potts was M.D. Dr. Sinclair replied that she was an American M.D. The judge then went on to observe that the certificate was signed by Richard Gibson, then Lord Mayor of Manchester; James Mocrhouse, D.D., Bishop of Manchester; W. H. Watts, Lord Mayor of Liverpool; the Lord Provosts of Edinburgh and Glasgow; G. B. Dillon, Lord Mayor of Dublin; the Lord Mayors of York and Sheffield, Lord Windsor, the Bishop of Llandaff, and, strangely enough, Sir Henry Irving, "Lyceum Theatre, London." He supposed there was no reason to believe that these signatures were not genuine.

The judge asked Dr. Sinclair if he thought that a well-skilled person—a medical man or medical woman—a properly qualified medical practitioner might, by an error of judgment, as distinguished from negligence, make such a mistake as was made in this case. Dr. Sinclair replied that he could not conceive it possible that a medical man or woman should make the mistake as in this case.

Mr. Shee submitted that the defendant lived on deceiving and deluding the public.

The jury found for the plaintiff, damages £175.

THE WEST END MASSAGE ESTABLISHMENTS.

THOMAS WILLIAM HILL WILSON, who was recently charged with keeping and maintaining a common, ill-governed, and disorderly house at 66, Jermyn Street, St. James's, and an establishment of a similar description at 20, Great Portland Street, has been committed for trial, bail being fixed at £1,500 and his own recognisances in £3,000. It was stated by the police that he had been convicted of bigamy, horse stealing, and other offences.

Four girls who described themselves as "manicurists" were also sent for trial. Mrs. Lavender Ross, who was charged with keeping a disorderly house at 2, Cork Street, St. James's, was similarly dealt with, bail being allowed in the sum of £200. In this case an inspector of police stated that he had had the house under special notice for ten months and had seen the assistants standing at the windows showily dressed in tea-gowns and dressing-gowns and had seen them kiss their hands to gentlemen in the streets. A former assistant stated in evidence that she had paid Mrs. Ross five guineas to learn massage, but had had only three lessons. She did not know how to do massage and was told by Mrs. Ross that some of the men who visited the house wanted "French treatment." She received no salary, but if gentlemen gave her any sum over a guinea she kept the balance.

PROSECUTION UNDER THE MEDICAL ACTS.

AT the Marylebone Police Court on April 13th, Mr. Curtis Bennett heard two summonses issued at the instance of the General Medical Council against Thomas Richard Allinson, of Spanish Place, Manchester Square: the first for wilfully and falsely pretending to be a doctor of medicine and licentiate in medicine and surgery and general practitioner, and the second for using titles or descriptions implying that he was recognised by law as a physician, namely, "Doctor" and "ex-L.R.C.P.Ed."

Mr. Muir Mackenzie, barrister, was for the prosecution, and Mr. Schultess Young, barrister, defended.

In opening the case counsel stated that defendant was the editor of a medical column in the *Weekly Times and Echo*, and in consequence of what he wrote there he was in 1892 brought before the General Medical Council on a charge of professionally "infamous" conduct, and his name was struck off the *Register*, and as a result of this the College of Physicians of Edinburgh, from which he had obtained his diplomas, deprived him of his qualification, L.R.C.P. Notwithstanding this, he continued to use the letters on his doorplate, and in June, 1895, he was before that Court for that offence, and was fined £20 and 10 guineas costs. After that the defendant altered the plate by prefixing the L.R.C.P. with "ex-," but continued his medical articles in the paper, using the title "ex-L.R.C.P.," but in some pamphlets he used the title "doctor." A farm labourer's wife named Crow, in Essex, seeing the paper mentioned, communicated with defendant, and, it was said, was misled by the titles he used. He wrote to her as to treating her husband, who suffered from diabetes, and enclosed some printed matter in which his name appeared as "Dr." Allinson. In cross-examination, Mrs. Crow admitted that she did not know what the prefix "ex-" meant, and said that she thought that "ex-M.P." meant member of Parliament.

For the defence Mr. Young contended that Mr. Allinson had committed no offence by using the title L.R.C.P., because he prefixed it by the "ex." As to the use of the word "doctor," the defendant clearly stated in the columns of the newspaper immediately after the previous prosecution that he was not a doctor of medicine, although trained as one, but he was entitled to the use of the title out of courtesy. In no sense had he ever used the title with the object of deceiving the public, he simply wished to convey that he had a medical training. It was a common practice amongst surgeons to call themselves doctors.

Mr. Curtis Bennett held that the defendant in speaking of himself as "Dr." Allinson in some of his pamphlets and other printed and written matter, meant to convey to the public that he was a doctor of medicine. He therefore convicted him on the first summons, and fined him £5 and £5 5s. the costs. He dismissed the second summons.

MIDWIFERY PRACTICE BY MIDWIVES.

AT an adjourned inquest held recently at Ince, near Wigan, touching the death of Lydia Anne Clark, the wife of a collier, the evidence, as reported in the *Liverpool Daily Courier*, showed that Mrs. Lawrence, a certified midwife, had attended a Mrs. Meadows, who died of puerperal fever, between February 20th and February 24th last. On February 25th she went to the deceased, who succumbed to the same disease a few days later. Dr. Craston, who was called to Mrs. Meadows, stated he had warned Mrs. Lawrence against going to a confinement again for some time. But Dr. Monk, who attended Mrs. Clark, said that he thought a midwife who had had a case of puerperal fever might safely go to another confinement the following day if she thoroughly disinfected herself. Dr. Blair, another practitioner, said that if he had attended to a case of puerperal fever he would go to a confinement in an hour's time after taking certain precautions. Jane Lawrence stated that she was a certified midwife of twenty-two years' standing, and that she had attended over 2,000 confinements. When she heard that Mrs. Meadows was suffering from puerperal fever she did not again visit her. She thoroughly disinfected herself before going to Mrs. Clark. The jury returned a verdict of "death from natural causes."

In a report to the local Health Committee of the Borough of Crewe, Dr. Meredith Young, M.O.H., draws attention to four cases of puerperal fever in the practice of a certain midwife. On the occasion of the first case, she was warned against going to other confinements for at least a fortnight. But she neglected this advice, probably knowing there was no power to compel her to follow it, and the other cases followed, although she was disinfected at the isolation hospital by the sanitary authority. Two of the cases died, and Dr. Young very clearly points out the necessity of some means of compelling midwives to discontinue their practice temporarily when they have been in attendance on puerperal fever.

INQUEST AT RIPLEY.

AN inquest was held at Ripley, Derbyshire, on April 10th, by Mr. W. H. Whiston on the body of Elizabeth Beardmore, aged 30.

Alice Lord, wife of the Rev. G. Lord, United Methodist Free Church minister, mother of the deceased, said the latter had been living with witness for some months past. She had been under medical treatment at Manchester, and an operation was advised for a tumour from which deceased suffered, but she declined to be operated upon, and preferred to see Mr. Wilkinson, herbalist, Ripley, from whom deceased had medicine.

The Rev. G. Lord, the father, deposed that he had agreed to gratify the wish of the deceased to be treated by Mr. Wilkinson, who agreed to deal with the case.

Dr. Wood stated that he saw deceased six months ago, and recommended her to submit to an operation. He had seen the body since death, and affirmed that deceased had been suffering from a cystic tumour, and in his opinion death resulted from the growing size of the tumour, which interfered with the proper action of the lungs and heart; exhaustion followed upon peritonitis. Witness did not ascribe the fatal result to the herbal treatment, but thought deceased might have lived several years under a properly-qualified medical man.

Mr. Wilkinson, the herbalist, deposed to having treated deceased for some time, and gave her herbal medicine not containing any poisonous ingredients. He saw deceased on the morning of the day of her death, and found her very low, but did not then decide to send for a doctor. He admitted that it would have been better had he done so.

The Coroner having summed up, the jury returned a verdict in accordance with the medical evidence, and added a rider that, in view of such evidence, they considered that if proper medical assistance had been obtained the life of the deceased would have been prolonged.

A CORONER ON PATENT MEDICINES.

AN inquiry as to the death of Charles Ellis, aged 26, a wood carver, was commenced on March 7th, at the Southport Police-court, by Mr. S. Brighouse.

The Coroner, as reported in the *Liverpool Mercury* of March 8th, explained that the deceased had been subject to epileptic fits, and had been taking a French medicine called "Dr. Oscar Fanyau's remedy for epilepsy," which was procured from London.

It appeared that deceased had written to No. 90, Great Russell Street, London, whence he had received a pamphlet on epilepsy by Dr. Oscar Fanyau.

The wife of deceased stated that her husband had taken 3 bottles of No. 1 mixture, 3 of No. 2, 3 of No. 1 again, 3 bottles of No. 3, and 3 of No. 4, and had sent 29s. 6d. each month in payment.

Dr. Maule gave evidence to the effect that when he first saw deceased he was in a condition of deep stupor, and that the immediate cause of death was coma, but he could not say what set up that condition, save that it was not disease.

The inquest was adjourned for an analysis of the medicine.

On the inquest being resumed on April 11th the depositions of Mrs. Ellis taken at the first inquiry were read, and evidence was given by Mr. Johnson Ellis, deceased's father, who said the latter and his wife were under the impression that if he took the medicine a permanent cure would follow.

The Coroner then lead a letter dated March 10th from Dr. J. C. Campbell Brown, the county analyst, which stated that the essential point in the case was that the medicine was a strong solution of potassium bromide, and from the evidence it appeared deceased had been taking 150 or more grains of bromide in a day. There was a trace of arsenic and small quantities of other substances. The diuretic tea which was taken in conjunction with the remedy was chopped flowers, leaves, and stems of a great number of things which could hardly be identified.

Medical evidence was given as to the great care required in the employment of potassium bromide in the treatment of epileptics.

The Coroner, in his summing up, referred in strong terms to the Legislature permitting the sale of dangerous drugs under the guise of patent medicines, and the jury having retired, after deliberation returned a verdict to the effect that the deceased came by his death by coma accelerated by overdoses of bromide of potassium as sold and administered to him by Oscar Fanyau and Co., who ought not to be permitted to sell the drug in the guise of a fit remedy. The jury strongly condemned the false statements contained in the pamphlets and letters, and considered that the Legislature should interfere for the protection of the public against the publication of such statements, and to prevent the sale of this drug under conditions so dangerous to life.

PRESCRIBING CHEMISTS.

THE case of Coleman *v.* Coldwell and Co., in the Queen's Bench Division, before Mr. Justice Phillimore, on April 12th and 13th, was an action in which a child sued through her father as next friend, for damages against a firm of chemists for supplying her with a certain ointment by which her skin became disfigured.

It appeared from the opening statement of counsel that the mother of the child, having discovered that the child had contracted some form of skin disease, which she believed was ringworm, went to the defendant's shop, and saw an assistant who supplied her with an ointment. Its application was followed by inflammation, and the child was seen by Dr. Robbins, who had attended her since. A scar resulted, which Dr. Robbins and Dr. E. A. Harbord stated in evidence would, in their belief, be permanent. Dr. Robbins stated that the ointment was unguentum hydrargyri nitratis, and that it should not have been used undiluted.

For the defence it was submitted that the production of the inflammation and consequent scar was due to the ointment having been improperly applied, and not in accordance with the instructions of the defendant's manager.

Dr. Robert Buchanan and Dr. J. Stowers gave evidence that in their opinion the scar would probably disappear after some years. The latter witness, as well as Dr. Therwell Pyke, stated that the ointment was a proper remedy.

The jury found a verdict for the plaintiff, and assessed damages at £5.

The Judge entered judgment for the plaintiff, with costs on the High Court scale.

DEATH CERTIFICATION BY UNREGISTERED PERSONS.

DR. A. W. GEORGE (Brondesbury, N.W.) writes: Under the above heading in the Medico-Legal column of the BRITISH MEDICAL JOURNAL of March 11th you gave an extract from a weekly paper, together with some comment thereon. In the extract, an unregistered person says he can give a death certificate. Permit me to point out how it is done, thanks to the, in my opinion, neglect of duty of a coroner, and at the same time to

show that the individual knew what he was writing about. Early last year I was called to a lady, whom I found to be suffering from cancer of the breast, so far advanced as to threaten maceration. Immediate operation was urged. Two days later I received a note saying that a notorious individual whose name had been removed from the *Medical Register* was attending the patient, on which, of course, my visits ceased. A month or two later I came across the unfortunate lady's name in our medical officer's returns—I am a member of the Willesden District Council—in which her death was entered as uncertified. Making inquiries, I interviewed the registrar of deaths, etc., and was informed by him that a certificate was given by this unregistered individual, which he forwarded to the coroner, who accepted it and issued the order for burial. The registrar added: "He always does accept these certificates."

*** Our comment on the newspaper extract referred to was directed to the question of the validity of the certificate of an unregistered practitioner. The view then expressed—that such a certificate is invalid—is confirmed by Dr. George's letter, in which he states that the death of the patient, to whom he refers, was entered in the medical officer's returns as "uncertified." We quite agree that the practice of the coroner in accepting the so-called certificates of unregistered men is most reprehensible.

EVIDENCE.—The fee should certainly be retained. The inconvenience of attending the court is just as great whether evidence is or is not called for.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 7,623 births and 4,267 deaths were registered during the week ending Saturday last, April 15th. The annual rate of mortality in these towns, which had been 23.1 and 21.7 per 1,000 in the two preceding weeks, further declined to 19.5 last week. The rates in the several towns ranged from 11.2 in Cardiff, 13.0 in West Ham, 14.3 in Croydon, and 16.6 in Leeds to 24.7 in Liverpool, 26.4 in Wolverhampton, 27.1 in Brighton, and 28.3 in Manchester. In the thirty-two provincial towns the mean death-rate was 20.1 per 1,000, and was 1.5 above the rate recorded in London, which was 18.6 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.9 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.0 in Bolton and in Salford, 4.2 in Burnley, and 4.3 in Manchester. Measles caused a death-rate of 1.6 in Bolton and 3.0 in Manchester; scarlet fever of 1.0 in Halifax and in Bradford; and whooping-cough of 1.5 in Huddersfield, 1.7 in Cardiff, 2.1 in Plymouth, and 2.3 in Birkenhead and in Burnley. The mortality from "fever" showed no marked excess in any of the large towns. The 55 deaths from diphtheria in the thirty-three towns included 20 in London, 7 in Sheffield, 4 in West Ham, 4 in Liverpool, 3 in Portsmouth, and 3 in Leeds. Two fatal cases of small-pox were registered last week in Hull, but not one in London or in any other of the thirty-three large towns; and 3 small-pox patients were under treatment in the Metropolitan Asylum Hospitals on Saturday last, April 15th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,584 to 2,234 at the end of the six preceding weeks, had further fallen to 2,126 on Saturday last; 163 new cases were admitted last week, against 177, 167, and 150 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 15th, 1,016 births and 589 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 23.3 and 21.8 per 1,000 in the two preceding weeks, further declined to 19.3 last week, and was 0.2 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 16.2 in Paisley and 16.9 in Edinburgh to 24.8 in Aberdeen and 27.1 in Perth. The zymotic death-rate in these towns averaged 1.8 per 1,000, the highest rates being recorded in Leith and Perth. The 259 deaths registered in Glasgow included 8 from measles, 3 from scarlet fever, 2 from diarrhœa, 3 from whooping-cough, and 6 from diarrhœa. Two fatal cases of measles, 2 of scarlet fever, and 3 of whooping-cough were recorded in Edinburgh; and 2 deaths were referred to "fever" in Dundee.

THE CLEANSING OF RAILWAY CARRIAGES.

THE eighth annual report by the county and chief district sanitary inspector of Perthshire for the year 1898 contains a section on "public places of resort, railway carriages, etc." The inspector says that in 1893 he drew the attention of the County Council to the filthy condition of the railway carriages running within the county, the cushions being thickly charged with dry dust, and the floors in an offensive condition. No improvement had taken place in 1898. In 1893 the inspector had no power to enforce improvement, but now the new Public Health Act passed for Scotland provides that "the local authority may make by-laws for securing the cleanliness and sanitary condition of public conveyances plying within its district, and for preventing overcrowding in such conveyances," and he indicates that it is his intention forthwith to frame a code of by-laws to secure a much-needed improvement. Illustrating the need for such laws, he says:

"Apart from trains starting from places beyond our limits, but passing through our county, it is a common thing to find passenger trains starting from and terminating their journey at towns and villages within the limits of our own county without having watercloset accommodation, while in a few cases trains were discovered passing through the county and going a distance of upwards of fifty miles without such accommodation. It is a common practice for guards and others in charge of passenger trains to close the doors and windows of carriages while standing at stations before departure. No doubt this may be conducive to railway interests; but it has quite a contrary effect upon the health of the individuals who are compelled to travel in those carriages, and in some instances when a carriage door is opened by the passenger it smells offensively, and in some instances extremely so. If it is necessary, in the interests of railway companies, to keep doors and windows closed, some improved means of ventilating the compartments should be adopted. While all our public streets, pavements, and other open places are exposed to the rain and atmosphere, from which they receive the beneficial effects which such elements invariably afford, the real danger lies with the covered railway platforms and carriages, places which I believe are never washed, and all covered public places, which may only be washed at long intervals. As there are ample provisions contained in the new Public Health Act in dealing with persons affected with any of the well-known infectious diseases while travelling in public conveyances, I need not refer to them, but would like to call attention to the question of consumptive people who may and do make use of such carriages, and not only of such carriages, but also tramway cars, cabs, theatres, churches, railway stations, and all places of public resort. It is desirable, may necessary, that this state of matters should be carefully considered by our local authorities, but I must confess that such consideration is associated with a considerable amount of difficulty in devising such a remedy as would be agreeable to the parties affected, and would at the same time insure absolute protection to non-infected passengers. I would suggest that instead of railway compartments being provided as they are at present with cloth-cushioned seats and carpeted floors, that these should be entirely abolished, and some impervious but convenient substance substituted in their place—for example, strong leather cushions, and the floors lined with linoleum, which would permit of both being periodically washed with soap and water, which, if necessary, might be charged with disinfectant. I believe that a certain degree of benefit would be obtained were the sputa received into spittoons charged with a solution of corrosive sublimate or other powerful disinfectant, and these spittoons placed in convenient places in railway carriages and other places of public resort, and along with these spittoons printed notices should be posted conspicuously in all such places, enjoining all passengers who feel inclined to spit to make use of such spittoons. Similar measures, I believe, have been adopted in parts of Germany and the United States, with apparently good results."

DUTIES OF SANITARY INSPECTORS.

RURAL M.O.H.—According to the strict reading of the Orders of the Local Government Board prescribing the duties of a medical officer of health and of a sanitary inspector, the powers which the medical officer of health possesses as to directing the work of the sanitary inspector are subject to instructions given by the sanitary authority (Article 7). In default of such instructions having been given, the duty of the sanitary inspector would be restricted to informing the medical officer of health of the existence of any ascertained nuisances injurious to health (Article 9) which might be found in the new buildings which he inspects. It is not contemplated by the Local Government Board—and it certainly is not desired by the majority of medical officers of health—that the medical officer of health shall be called upon to undertake an inspection of drains, and more especially those of new buildings. He must, however, be "prepared to advise the sanitary authority on all matters affecting the health of the district, and on all sanitary points involved in the action of the sanitary authority (Article 4). The sanitary inspector is therefore compelled to produce his books, and to give all information with respect to any matter to which the duties of the sanitary inspector relate (Article 12); and the medical officer of health may in his official capacity inspect and satisfy himself as to the nature and extent of any nuisance reported."

NUISANCE AND SMOKE NUISANCE.

M. O. H. asks whether a brick kiln, built like a coke oven, and emitting dense smoke, would be injurious to the health of occupants of dwelling houses 10 yards distant.

*** Certainly it would. But is it necessary to prove this? A nuisance to come under Section XCI of the Public Health Act, 1875, need not necessarily be injurious to health. There is specially no need to prove this of a smoke nuisance. In the subsection dealing with smoke no mention is made of injury to health, even as an alternative reason constituting the thing complained of a nuisance.

HEALTH OFFICERS AT CONFERENCES.

A PRIVATE practitioner, who is also a medical officer of health, is requested in his official capacity to attend a conference in a distant town, and has his actual out-of-pocket expenses paid for him by his council. Can he claim a fee for the service thus rendered?

*** We do not think such service falls within the prescribed duties of a medical officer of health. A fee may reasonably be claimed and paid by a local authority to their health officer. At the same time, the rendering of such service apart from compulsion may not constitute an actual claim; but where only part of the time of the health officer is paid for, we doubt if any council will be found to maintain a refusal to a request for a fee.

ENQUIRER (Scotland).—What is required under the circumstances is "reasonable notice." A month's notice might be held to be reasonable notice, three months' notice would certainly be so regarded.

FEES FOR ATTENDANCE AT PARLIAMENTARY COMMITTEES.

M.O.H. asks what he should charge his sanitary authority for attending a House of Lords' Committee to give evidence on matters relating to his district, including journey to a town twenty miles distant to confer with parliamentary agent. He had to provide a substitute, and had to be in readiness to go at a moment's notice a week before he was actually summoned. He inquires also if an M.O.H. can be required to give evidence without fee in police prosecutions for offences against sanitary laws.

*** The Local Government Board Order, which in this respect is the same for both urban and rural officers, requires an M.O.H. to be prepared to advise his authority on all matters affecting the health of his district, and on all sanitary points involved in their action. He must also certify for the guidance of the authority, or of the Justices, in all matters where the certificate of an M.O.H., or of a medical practitioner, is required as the basis or in aid of sanitary action. Unless by special arrangement, such as a contract to give his whole time to his duties, or to undertake the kind of work our correspondent refers to, an M.O.H., it seems to us, is under no obligation to attend a police court or in the committee rooms at Westminster except in the same manner or at the same remuneration as an ordinary practitioner. It is well to remember, however, that as the special work arises out of work undertaken at a fixed rate of payment, a tax master, assessing costs, would probably have regard to the rate of remuneration already agreed upon. Clearly our correspondent is entitled to his fee for meeting the agent at the rate at which he would have charged one of his own patients, whom he wished to retain as such, for the time spent. A charge of 5 guineas a day for time spent in London, and 30s. to 40s. a day for hotel expenses, would not be unreasonable. He should also have railway (first-class), and cab fares allowed. It is generally well to talk these matters over with the Clerk before consenting to go.

HOSPITAL AND DISPENSARY MANAGEMENT.

DOWN DISTRICT ASYLUM.

At the monthly meeting of the Board of Governors of the Down District Asylum, a resolution was adopted at the conclusion of the business in the following terms, signed by each governor present:

We, the Board of Governors of Down District Asylum, at this, probably our last meeting, desire to place on record the expression of our appreciation of the ability and courtesy of Dr. Nolan, the resident medical superintendent, and of his good management of the institution during the past five years and a half. We wish to express our confidence in and our satisfaction with the assistant medical officer, Dr. Clark, during the years he has held that office. His assistance, we believe, has largely contributed to bring the institution to its present perfection.

CITY OF GLASGOW FEVER AND SMALL-POX HOSPITALS.

The annual report of the Physician-Superintendent of the Glasgow Fever and Small-pox Hospitals for the year ending May 31st, 1898, embodies a vast amount of statistical information in an easily assimilable form, and furnishes a valuable contribution to the epidemiological literature of the year.

Classification of Cases.—During the year 5,216 cases were admitted to the city hospitals, being a decided increase on recent years. The 5,216 cases were made up as follows: Classified infectious diseases, 4,859; unclassified infectious diseases, 40; non-infectious diseases, 215; nursing mothers, 102. Of the classified infectious diseases, 2,448 were cases of scarlet fever, 378 measles, 589 enteric fever, 521 whooping-cough, 174 diphtheria, 76 typhus fever, 62 erysipelas, 57 small-pox.

The "Unclassified Infectious Diseases" in the fever hospitals included 3 cases of appendicitis, 4 of tuberculous meningitis, 11 of cellulitis, 10 of phthisis, 27 of tonsillitis, and 57 of pneumonia. The unclassified cases at the small-pox hospital included 58 of chicken-pox, and 1 each of enteric fever, acne, lichen, scabies, strophulus, syphilis and vaccinal fever.

Diphtheria.—Of 51 cases sent in in error as diphtheria, 32 proved to be cases of scarlet fever, 10 tonsillitis, 4 measles. All the cases of diphtheria were treated with antitoxic serum. The fatality-rate was 22.9 per cent., but 8 of the cases were moribund on admission and died within twenty-four hours. The fatality-rate in cases of intubation was 50 per cent., as against 60 per cent. of the tracheotomy cases.

Enteric Fever.—The enteric fever fatality, 22.9 per cent., was exceptionally high, highest in the case of males between 30 and 35 years of age, where it was 57.8 per cent.; this high rate being due, it is suggested, to the natural reluctance of men in the prime of life to take to bed.

Typhus Fever.—Of 76 cases classified as typhus fever, 21 were admitted as "enteric fever," 3 as "undefined fever," 2 as "continued fever," and 1 simply as "fever."

Measles and Whooping-cough.—It is noted that since the opening of the hospitals 10,536 cases of measles have come under treatment, of whom 945 died, yielding a mean fatality-rate of 8.9 per cent. The number of cases of whooping-cough admitted during the year, 521, was the largest on record. The fatality-rate was 20.3 per cent., as against 19 per cent., the mean rate over 16 years.

Mixed Infection.—The cases of mixed infection included 19 of coexistent measles and whooping-cough, 12 of scarlet fever and measles, 6 of scarlet fever and whooping-cough.

MEDICAL NEWS.

Mr. Frederic H. Madden, for ten years Secretary of the Medical School at St. Mary's Hospital, Paddington, has been appointed Secretary to the Asylum for the Education of the Deaf and Dumb Children of the Poor, Old Kent Road, Surrey, and Margate, Kent.

The annual dinner of the Volunteer Medical Officers will take place on Wednesday, May 10th, at 7.30, at Limmer's Hotel, under the Presidency of Major-General Trotter, the officer commanding the Home District. Those desirous of attending should send in their names to Surgeon-Lieutenant Bidwell, 59, Wimpole Street, Cavendish Square, W.

Mr. Astrakoff, a well-known Russian engineer, lately deceased, has left 1,000,000 roubles towards the foundation of a University for Women in Moscow. The University is to comprise a mathematical, a scientific, and a medical faculty. The Council of the Moscow Government has voted an annual subsidy of 3,000 roubles to the new institution.

Women Dentists in Australia.—Miss Berry, a daughter of Sir Graham Berry, formerly Liberal Premier of Victoria, and Miss Godfrey, a daughter of a member of the Victorian Upper House, have both passed with credit the examination prescribed by the Dental Board of that colony, have been duly registered, and have entered into partnership in the medical quarter of Melbourne.

Notification of Mercurial Poisoning.—The Secretary of State has, by an order dated March 27th, applied the provisions of Section xxix of the Factory and Workshop Act requiring notification to cases of mercurial poisoning contracted in a factory or workshop on and after May 1st, 1899. The general effect of this order will be gathered from a leading article published in the British Medical Journal of February 11th, 1899, page 359, and further details as to the form of notification will be found in our advertising columns.

London School of Tropical Medicine.—It is announced that the grant made to the London School of Tropical Medicine by the Colonial Office is £3,500. Among other contributors are the Royal Niger Company, the Swedish and Norwegian Minister, and the Hong Kong and Shanghai Banking Corporation. The Belgian Minister has announced his intention to be present at the dinner in aid of the school over which Mr. Chamberlain will preside on May 10th. It is hoped that the buildings will be ready by the commencement of the winter session, and it is intended that the school should be opened on October 2nd.

Society for Relief of Widows and Orphans of Medical Men.—A quarterly court of the Society was held on April 12th, Mr. Christopher Heath, V.P., in the chair. Three new members were elected, and the deaths of two reported. The deaths of two widows were announced; one had been in receipt of grants since January, 1870, and had received £1,847 18s., the other since July, 1874, and had received £1,429 10s. A first application was read from a widow for herself and two children, and a grant was made. It was resolved to distribute £1,201 10s. at the next court to the 48 widows, 12 orphans, and 5 recipients from the Copeland Fund, now on the funds. Sir Thomas Smith, Bart., was nominated for election as Vice-President at the annual general meeting, and the following gentlemen as Directors: Mr. Morley, Mr. King, Mr. Leigh, Mr. Gimson, Dr. Samuel West, and Dr. Whipham. It was decided to hold the annual general meeting on Wednesday, May 31st, at 5 P.M. The expenses of the quarter were £56 10s. The offices of the Society are at 11, Chandos Street, Cavendish Square, W.

MEDICAL VACANCIES.

The following vacancies are announced:—

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer: unmarried. Salary, £100 per annum, with board and apartments. Applications to the Secretary by May 2nd.

BEDFORD COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum, with apartments, board, lodging, and washing. Applications to the Secretary by May 15th.

BETHNAL GREEN BOARD OF GUARDIANS.—Second Assistant Medical Officer for the Workhouse and Infirmary, Waterloo Road, Victoria Park. Appointment for six months, subject to re-election. Salary at the rate of £80 per annum, with rations, furnished apartments, and washing, and £8 per annum in lieu of beer. Application on forms provided by the Clerk to the Board, Guardians' Administrative Offices, Bishop's Road, Victoria Park, N.E., by May 4th.

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon. Appointments for six months. No salary; but residence, board, and washing provided. Applications to the House Governor by April 29th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer and Resident Surgical Officer. Salaries, £60 per annum, with board, lodging, and attendance. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by May 3rd.

BIRMINGHAM WORKHOUSE INFIRMARY.—Assistant Resident Medical Officer. Appointment for one year, but renewable. Salary, £100 per annum, with apartments, rations, coals, gas, laundry, and attendance. Applications to the Clerk to the Guardians, Parish Offices, Edmund Street, Birmingham, by April 28th.

BRISTOL ROYAL HOSPITAL FOR SICK WOMEN AND CHILDREN.—House-Surgeon. Salary, £100 per annum, with rooms and attendance. Applications, endorsed "House Surgeon," to the Secretary by April 26th.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £130 per annum, with rooms, coals, and gas. Applications to the Honorary Secretary by May 3rd.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by May 8th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Junior House-Surgeon. Salary at the rate of £50 per annum. Applications to the Secretary by May 8th.

CHELTENHAM GENERAL HOSPITAL.—Assistant House Surgeon; unmarried. Salary £80 per annum, with board, lodging, and washing. Applications to the President by May 2nd.

CHORLTON UNION.—Senior and Junior Resident Medical Officers at the Workhouse Hospitals, Withington, Manchester. Appointments for twelve months. Salaries £130 and £120 per annum respectively, with furnished apartments and attendance in the Workhouse. Applications, endorsed either "Senior Resident Medical Officer" or "Junior Resident Medical Officer," to the Clerk to the Guardians, Chorlton Union Offices, All Saints, Manchester, by May 4th.

DEWSBURY AND DISTRICT GENERAL HOSPITAL.—House-Surgeon. Salary commencing at £80 per annum, with board and residence. Applications, endorsed "House Surgeon," to the Chairman of House Committee, Infirmary, Dewsbury, by April 27th.

GLASGOW SAMARITAN HOSPITAL FOR WOMEN.—House-Surgeon (Female). Applications to the Hon. Secretary by April 29th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physician. Applications to the Secretary by May 2nd.

LEEDS GENERAL INFIRMARY.—Two House-Surgeons and Two House-Physicians. Appointments for twelve and six months respectively. Also Resident Medical Officer for the Ida Semi-Convalescent Hospital at Cookridge. Appointment for six months. Honorarium £25. Board, lodging, and washing provided with each appointment. Applications to the Secretary to the Faculty by April 28th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for twelve months, subject to re-election. Salary £80 per annum, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by May 1st.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £80 for the first year, £90 afterwards, with board and residence; unmarried. Applications to the Secretary, 24, Moorfields, Liverpool, by April 22nd.

LONDON HOSPITAL, Whitechapel, E.—Obstetric Registrar. Application to the House-Governor by May 4th.

LONDON HOSPITAL MEDICAL COLLEGE.—(1) Assistant to the Bacteriologist and Lecturer on Bacteriology. (2) Obstetric Tutor. Applications to the Warden by April 30th and May 4th respectively.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Medical Registrar. Salary, 50 guineas per annum. Applications to the Secretary.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary, £100 per annum, with furnished rooms, attendance, and board. Applications to the Secretary by May 1st.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Honorarium at the rate of £50 per annum, with board and residence. Applications to the Secretary by April 27th.

MANCHESTER: CHORLTON-UPON-MEDLOCK DISPENSARY.—Resident House-Surgeon. Salary, £120 per annum, with furnished rooms and attendance. Applications to the Hon. Secretary by April 26th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Honorary Assistant Physician. Applications to the Secretary, Hardman Street, Deansgate, by May 6th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Resident Medical Officer and Assistant Resident Medical Officer. Appointments for six months. Salary at the rate of £50 per annum attaches to the senior post. Applications to the Secretary by April 24th.

PADDINGTON INFIRMARY.—Resident Clinical Assistant and Second Assistant to the Medical Superintendent. Appointment for six months. Honorarium at the rate of £50 per annum, with board, residence, and washing. Personal application to Dr. M. F. Squire, at the Infirmary, 285, Harrow Road, by April 29th, between 9.30 A.M. and 1.30 P.M.

READING: ROYAL BERKS HOSPITAL.—Vacancy on Medical Staff. Applications to the Secretary by May 8th.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, W.C.—Anæsthetist. Applications to the Superintendent by April 25th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer. Salary to commence, £100 per annum, with board, lodging, and washing. Application to Dr. Finch at the Asylum.

SAMARITAN HOSPITAL FOR WOMEN AND CHILDREN, Marylebone Road.—Surgeon to Out-patient Department. Applications to the Secretary by May 5th.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House-Surgeon. Appointment for six months, with honorarium of £10, and board and residence. Applications to the Secretary before May 3rd.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Salary, £50 per annum, with board, lodgings, and washing. Applications to the House Surgeon by May 3rd.

STOCKPORT INFIRMARY.—Junior Assistant House-Surgeon. Salary £2 per mensem, with board, washing, and residence. Applications to the Secretary by May 2nd.

SWANSEA GENERAL AND EYE HOSPITAL.—House Surgeon. Salary, £50 per annum, with board, apartments, and attendance. Applications to the Secretary by April 25th.

THROAT HOSPITAL, Golden Square, W.—Resident Medical Officer. Salary, £50 per annum, with board, lodging, and washing. Applications to the Secretary-Superintendent by May 5th.

VICTORIA HOSPITAL FOR CHILDREN.—House-Physician. Appointment for six months. Salary at the rate of £50 per annum, with board and lodging. Applications to the Secretary, at the Hospital, Queen's Road, Chelsea, S.W., by April 29th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Physician; must be F. or M.R.C.P. Lond. Applications to the Secretary-Superintendent by May 3rd.

WREXHAM INFIRMARY.—House-Surgeon. Salary £80 per annum, with board, washing, and furnished apartments. Applications to the Secretary by May 3rd.

MEDICAL APPOINTMENTS.

AYRES, G. H., L.R.C.P., L.R.C.S.Irel., L.M., appointed Medical Officer for the Tarporley District of the Tarvin Union.

CHEATLE, A. H., F.R.C.S., appointed Assistant Aural Surgeon to King's College Hospital.

COLLIER, Joseph, M.B., B.S. Lond., F.R.C.S.Eng., appointed an Honorary Assistant Surgeon to the Royal Infirmary, Manchester.

EYRE, J. W. H., M.D. Dunelm, D.P.H.Camb., appointed Bacteriologist to Charing Cross Hospital and Lecturer on Bacteriology in the Medical School.

HILL, William, B.Sc.Lond., M.D., appointed Surgeon for Diseases of the Ear to St. Mary's Hospital, *vice* G. P. Field, M.R.C.S.Eng., appointed Consulting Surgeon.

HOFFMAN, A. H., M.D.St. And., L.R.C.S.Edin., appointed Medical Officer of Health to the Teme Rural Districts and Medical Officer for the Knighton District of the Knighton Union.

IREDALE, J., L.R.C.P.E., L.R.C.S.E., reappointed Medical Officer of Health for the Mablethorpe Urban District Council.

JORDAN, H. Martyn, F.R.C.S.Eng., appointed Registrar to the Chelsea Hospital for Women.

MACGREGOR, P., F.R.C.S.Edin., appointed Honorary Surgeon to the Huddersfield Infirmary, *vice* S. Knaggs, M.R.C.S.Eng., resigned.

MAGUIRE, George J., M.B.R.U.I., appointed Clinical Assistant to the Chelsea Hospital for Women.

MILLIGAN, William, M.D., appointed Honorary Aural Surgeon to the Royal Infirmary, Manchester.

MONSARRAT, W. Keith, F.R.C.S.E., appointed Assistant Surgeon to the Children's Infirmary, Liverpool.

MORGAN, D. N., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Tonyrefail and Gilfach District of the Pontypridd Union.

ORTON, J. O., M.R.C.S., L.R.C.P., D.P.H., appointed Medical Officer to the Infectious Hospital of the Foleshill Rural Sanitary District.

REED, J. Arthur, M.B., Ch.B Vict., appointed Assistant House-Surgeon and Visiting Surgeon to the Stockport Infirmary.

SPENCER, E. M., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Penarth District of the Cardiff Union.

WHITFIELD, A., M.D., M.R.C.P., appointed Assistant Physician in Charge of the Skin Department at King's College Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Mr. H. Betham Robinson: Some Complicated Cases of Appendicitis. Mr. W. Armstrong: Effects of Nitrogen Gas in the Excretion of Urea and Uric Acid. Dr. W. Bain: the Relative Excretion of the Nitrogenous Waste Products in a Case of Liver Abscess.

TUESDAY.

Chelsea Clinical Society, Jenner Institute of Preventive Medicine, S.W., 8.30 P.M.—Discussion on Recent Investigations Relating to the Treatment of Tuberculosis, in which Drs. Theodore Williams, J. E. Squire, Robert Maguire, S. H. Habershon, and F. E. Walters will take part.

WEDNESDAY.

Hunterian Society, 8.30 P.M.—Dr. Butler Harris: On the Influence of Ozone on Certain Micro-Organisms. Dr. T. Glover Lyon will show a New Method of Ventilation by a Working Model.

THURSDAY.

British Balneological and Climatological Society, 20, Hanover Square, W., 9 P.M.—Sir Hermann Weber on the Climates of England Compared with those of the Continent. To be followed by a conversazione.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, 4.30 P.M.—Informal Exhibition of Cases at meeting at 5 P.M.

FRIDAY.

Clinical Society of London, 8.30 P.M.—Clinical Evening. Patients in attendance at 8 P.M. The following cases will be shown: Mr. W. Turner: a Case of Achondroplasia. Mr. Stanley Boyd: Solution of Continuity of Both Femora. Mr. A. E. Barker: Revolver Shot of the Brain through the Hard Palate: Discovery of the Bullet on Corpus Callosum by Roentgen Rays: Removal on Sixty-ninth Day through the Vertex; Recovery. To be Illustrated by Demonstration of Lantern Slides. Mr. E. W. Roughton: Tumour of the Upper Jaw. Dr. A. Morison: (1) a Case of Unilateral Hypertrophy of the Accessory Muscles of Respiration; (2) a Case of False Accentuation of the Second Sound of the Heart. Mr. Mouat-Biggs: a New Splint for Fractured Clavicle. Mr. Stanley Boyd and Dr. Bond: a Case after Excision of the Posterior Half of the Tongue and Epiglottis. Dr. Batty-Shaw: Injury to the Roots of Both Brachial Plexuses in an Infant. Dr. Norman Dalton: Pulsus Paradoxus. Dr. Bezly Thorne: a Case of Aortic Disease with a Musical Bruit, to which "Competence" has been Restored by Baths and Exercise. Mr. W. G. Spencer: a Patient after Excision of a Meningo-myelocele, with a Skiagraph of the Condition before Operation. Mr. Battle: a Case after Removal of a Tumour of the Frontal Bone. (Read at meeting in March.)

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

DEMPSTER.—On the 13th inst., at Winsley, South Croydon, the wife of W. T. Dempster, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

DUPIGNY.—On April 19th, at Claremont Lodge, Streatham Hill, the wife of Elford Dupigny, M.R.C.S., L.R.C.P., L.D.S.Eng., of a son.

PROWSE.—On April 9th, 1899, at 5, Lansdown Place, Clifton, Bristol, the wife of Arthur B. Prowse, M.D.Lond., F.R.C.S.Eng., of a son.

MARRIAGES.

BARRETT—COWAN.—On April 12th, at Emmanuel Church, Liverpool, by the Rev. W. H. Harbur, uncle of the bride, Alfred Keppel Barrett, son of Dr. A. E. Barrett, Holland Park Avenue, London, great-grandson of the fourth Earl of Albemarle, grandson of the Hon. and Rev. Thomas Keppel, and grandnephew of Admiral Sir Henry Keppel, to Isabel, only daughter of the late William Cowan, Esq., of Liverpool.

CORNER—MACKWOOD.—On April 12th, at St. Martin's, Trafalgar Square, by Rev. Prebendary Kitto, Vicar, assisted by Rev. H. T. Le Fanu, of All Saints', Poplar, and Rev. Hall, Chaplain of Brompton Hospital for Consumption, Frank Corner, M.R.C.S., L.R.C.P., F.G.S., son of F.M. Corner, J.P., Poplar, to Elsie Tatham, only daughter of the late Thomas Watson Mackwood, and granddaughter of the late Christopher Tatham, M.R.C.S.

JOHNSTON—HILTON.—On April 12th, at Christchurch, Cheltenham, by the Rev. Canon Hutchinson, Edward Cocks Johnston, M.R.C.S., to Augusta Hilda, elder daughter of the late John Hilton, F.R.S., President of the Royal College of Surgeons, and Surgeon Extraordinary to the Queen, and of Mrs. Routh, of Aban Court South, Cheltenham.

DEATHS.

LANPHIER.—On April 12th, at Alford, Lincolnshire, Charles William Lanphier, M.R.C.S., L.R.C.S., aged 28.

ORMEROD.—March 29th, on board the ss. Arabia, of rheumatic fever, aged 27 years, T. Theodore Ormerod, M.B., of Edinburgh, and son of the late Thomas Ormerod, Brighouse.

ROBERTS.—On the 16th inst., at 8, Manchester Square, W., Sir William Roberts, M.D., F.R.S., in his 70th year. Funeral at Llanymawddwy, Merionethshire, Wednesday, 19th inst., at 11.30 A.M.

SAVAGE.—On April 14th, 1899, at Winchelsea, Mary, the wife of Dr. G. H. Savage, of pneumonia.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45 o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Tu., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Tu., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

JUNIOR MEMBER would like to be advised as to the best treatment to adopt to get rid: (1) Of the œdema left over the foot and ankle after an attack of gout in a woman, aged 60. Potassium iodide and vinum colchici are still being given. (2) Of rheumatism left in one shoulder-joint and the muscles of both arms in a man, aged 35, who has had an attack of subacute rheumatism, but is now up and has no temperature. Sodium salicylate acted up to a point, but now does no good. Potassium iodide is being tried.

DISTRICT NURSES AND DIPHTHERIA.

SCOTIA asks if a district nurse may safely attend to diphtheria cases.

*** Only if greatest care be taken (1) that any clothes she wears which may be exposed to the expectoration of the patient be removed; (2) that she be not herself suffering from any throat symptoms.

The diphtheria bacillus is easily killed, but there is little doubt that at certain times it may be communicated mediately.

ANSWERS.

SANGONGO (Ireland).—We are informed that there is no reason why a justice of the peace should not act as a registrar of births and deaths.

F.R.C.S.ENG. AND W. H. S.—We may refer our correspondents to papers recently published in these columns by Dr. Short (November 26th, 1898, page 1611) and Dr. Myrtle (December 10th, 1898, page 1745).

SURGEON.—The usual arrangement in the larger police forces is that the examination of recruits is included in the surgeon's duties, for which he is paid an inclusive salary. As this, however, does not usually exceed the amount per head which our correspondent proposed to charge for examination alone, he will see that the head constable's figure comes nearer the mark. Of course he can for the future, if he likes, decline the duty; but he should consider whether it might not be more to his advantage to conciliate the authorities with a view to getting regularly appointed as police surgeon.

ENQUIRER.—English bacteriologists seem more concerned to give references to papers in the German, French, Italian, or Japanese journals than to those appearing in our own tongue. Our correspondent might consult the issues of the *Index Medicus.* Two papers that have appeared lately in the *Journal of Experimental Medicine* (New York) give fairly complete bibliographies: (1) On Branched Forms of B. Tuberculosis, by Craig, vol. iii. p. 369; (2) On Gonorrhœal Septicæmia, by Thayer and Lazear, vol. iv, No. 1. The bibliography at the end of some of the articles on infectious diseases, etc., in Allbutt's *System* is fairly complete up to the date of writing.

AGE FOR RESIDENTS IN THE TROPICS.

J. A. H.—(1) Thirty-three is a safe age for entry on a tropical career. It is not advisable to commence tropical life before 20 or after 40. (2) The Assam Valley is malarious throughout. Upper Assam is healthier than Lower Assam, and residence on the hills than on the plains.

SHELTERS FOR THE OPEN-AIR TREATMENT OF PHTHISIS.

IN reply to a query on this subject which recently appeared in the BRITISH MEDICAL JOURNAL, Mr. F. T. Walker, manufacturer of sectional buildings, Sheffield, writes to inform us that he also manufactures "shelters," and will be pleased to supply drawings and particulars on application.

R. B. will find particulars of others than those he mentions in the BRITISH MEDICAL JOURNAL of September 3rd, 1898, p. 667; and November 19th, 1898, p. 1599.

TRAINING OF MIDWIVES.

M.B.—There are many institutions which give certificates to midwives trained by themselves. The only body which examines, but does not train, midwives, is the Obstetrical Society of London. Particulars as to the training required and the scope of the examination would be supplied on application to the Chairman of the Board for Examination of Midwives, Obstetrical Society of London, 20, Hanover Square, W. Herman's *First Lines in Midwifery*, published by Cassell and Co., would be a suitable handbook.

TREATMENT OF TUBERCULOUS MENINGITIS.

DR. J. CHRISTIAN SIMPSON (Cambridge) writes: May I reply to the request of "R. M. J." in the BRITISH MEDICAL JOURNAL of April 1st, for information about the treatment of tuberculous meningitis, by quoting shortly from my book on *Cerebral and Mental Symptoms*, page 135. Four operations have been suggested and tried for the relief or cure of this condition: "(1) That recommended by Keen, by which the ventricle is most easily reached laterally; (2) trephining through the occiput, as performed by Waterhouse and others; (3) trephining the upper cervical vertebræ, as done by Walsham; and (4) lumbar drainage." Mr. Morton, of Bristol, Mr. Mayo Robson, Dr. Cautley, and others have also written papers at various times in reference to one or other of these operations.

RECRUITING STATISTICS.

T. M. W.—Our correspondent may take it that, broadly, about 40 per cent. of recruits are rejected on medical examination. The proportion varies in different localities, and particularly with different examiners; as a rule, the more expert and experienced the examiner the fewer the rejections, and *vice versâ.* Much also depends upon the judicious selection of men offering by the sergeant recruiters; if men with obvious physical defects, or clearly under standard, are recklessly put forward for medical examination, then the rejections will be corre-

spondingly and needlessly high. Of the total rejections about 50 per 1,000 are for cardiac affections, functional or organic. That cannot represent the numbers suffering from such affections, because a recruit may be rejected for being under standard, for defective vision, hernia, varicocele, etc., at once, and before his heart or lungs have been examined, yet all the same may be labouring under cardiac trouble. It is necessary to keep such reservations and qualifications in view in generalising from all such statistics.

NOTES, LETTERS, Etc.

THE HUNTER FUND.

MR. RIVERS WILLSON (Treasurer) (42, Wellington Square, Oxford) writes: Permit me to acknowledge the receipt of the following donations:

	£	s.	d.
Amount acknowledged April 15th	20	1	0
Messrs. Liddon, Green, and T. A. B. Plowman, North Curry, Somerset	0	10	0
Thomas Corbett, Esq., Droitwich	0	10	0
T. H.	0	10	6
R. R. Sleman, Esq., 8, Portman Street, W.	1	1	0
George Jackson, Esq., Plymouth	1	1	0
L.S.A.	0	5	0
M.B., Sheffield	0	10	0
Frederick C. Wood, Esq., Ripley, Derby...	0	5	0
W. F. Brook, Esq., Fareham...	0	10	6
Total	£25	4	0

ILLUSTRATED ADVERTISEMENTS.

WE have recently received a number of letters with regard to the style of advertisements issued broadcast to members of the profession in this country by an American chemical company. Some of our correspondents take exception to the nature of the illustrations upon the cover of a pamphlet issued by the vendors. They consist of naked female figures which have no obvious connection with the drug or its action, and are certainly in doubtful taste. Other express their strong disapproval of an illustrated chart more recently issued by this same company. It will probably be sufficient for us to call attention to the fact that the receipt of such advertisements in this country causes dissatisfaction.

COLOTOMY AND MEMBRANOUS COLITIS.

DR. RICHARD NEALE, M.D.Lond. (Finchley Road, N.W.) writes: Six weeks' absence from England is my excuse for not having sooner replied to Mr. Keith's and Dr. Simpson's letters in the BRITISH MEDICAL JOURNAL of February 25th, page 515. I have to apologise for not having distinguished between right and left colotomy; my reference was to colotomy.

CELANDINE.

DR. WILLIAM HARDMAN (Blackpool) who in 1897 made inquiry with regard to the therapeutic use of celandine (chelidonium majus), again writes to call attention to the subject, and to inquire the best form in which to administer and apply it. He asks for experience as to whether it will cure warts and corns, and as to the season when the plant is most active. It is, he says, largely used by herbalists and by old country women in the district around Blackpool.

TYPHOID FEVER WITHOUT INTESTINAL LESION.

DR. JOHN HADDON (Denholm) writes: I have read with close attention the case of typhoid fever without any lesion of the intestine recorded by Dr. Bryant in the BRITISH MEDICAL JOURNAL of April 1st, and I am astonished to learn that such a case can possibly be met with. I was in the habit of using the thermometer, and by watching the temperature I thought I could diagnose typhoid fever pretty accurately. No doubt it is in the young and the old where the diagnosis during life is most difficult, and I never saw typhoid fever in a child so young as Dr. Bryant's patient. I appeal to all who are in the habit of using the thermometer night and morning in typhoid fever whether the course of the fever thus seen bears any resemblance to that of typhoid, on the supposition that the case was admitted either on the second or the fourteenth day of the disease. In spite of Widal's reaction and the discovery of any bacillus *post mortem*, I maintain that typhoid fever always affects Peyer's patches, and that the fever so characteristic of the second and third week is caused by the changes that take place in these glands. Pathology, no doubt, has made wonderful strides of late; but clinical observation must go hand in hand with pathology, else the pathologist will lead us far astray.

A FATAL MALADY PREVALENT AMONG DOGS.

SURGEON-LIEUTENANT-COLONEL J. BARKER, R.P. (Cliffe Lodge, Northfleet), writes: Adverting to the fatal malady in dogs described by writers in the *Veterinary Record* of March 18th, and to which you devote some space in the BRITISH MEDICAL JOURNAL of April 8th, will you permit me to give my experience for what it may be worth, having lost four favourite dogs at different times and places (two quite lately), the train of symptoms being similar; save loss of appetite, as it appeared to me, the animals would eat, but dared not, owing to the pain and distress caused by the act of swallowing; when they did make the attempt it was with a snap and gulp. A coincidence in connection with these cases is that the symptoms are the same as those produced by the common rat poison sold (phosphorus paste, I think). I can speak somewhat confidently in the matter, having closely observed the effects under the following circumstances a few months ago. Our stable being infested with rats I bought some tins of poison, placing portions most carefully, as I thought, behind the boarding, but a little kitten got in through a small opening, and, getting some of the poison, was seized with the symptoms described, and died in about a fortnight. A full-grown cat also we noticed caught the young half-dead rats that crawled out in quest of water and ate them, and became affected apparently, but not so seriously, and eventually recovered. There is every facility for purchasing the various "vermin destroyers" which are in very general use all over the country in farms and stables, and even in dwellings, and the poison gets scratched and carried about by the rats, and possibly picked up by unlucky dogs. We watched and nursed our pets with the greatest attention, and none but those who have witnessed it can form any notion of their intense suffering.

LARGE CHILDREN.

DR. CHARLES H. MILES (Stantonbury) writes: I may mention that I delivered Mrs. W. (multipara), aged 35, of a stillborn female child on November 21st, 1897, which weighed exactly 21 lbs. The delivery was effected by means of forceps. Seventeen months afterwards I delivered the same patient again of a stillborn female child weighing 19 lbs. In this case delivery was without forceps.

LETTERS, COMMUNICATIONS, ETC., have been received from:
A Mr. R. B. Anderson, London; H. Aldersmith, M.B., London. **B** Dr. W. Bain, Harrogate; Mr. W. L. H. Blenkarne, Worthing; Bayer Co., London; R. Brown, M.B., Kenley; Mr. J. B. Blackett, London; Dr. J. Bately, Gorleston; Dr. T. Buzzard, London; Dr. G. G. Bantock, London; Builders' Journal and Architectural Record, Editor of, London; E. C. Baber, M.B., Brighton; A. B. Barrow, M.B., London; Bronchocele; Mr. N. A. Butterfield, Retford; Mr. W. M. Beaumont, Bath. **C** Miss M. Canney, London; Dr. A. C. Clark, Shotts; Mr. H. W. Cox, London; Dr. J. Cameron, Edinburgh; Dr. W. M. Campbell, Liverpool; Miss Chancellor, Chelmsford: Dr. A. Cordes, Geneva; A. Court, M.B., Staveley; Mr. L. V. Cargill, London; Country Practitioner; Dr. A. E. Cooper, London; **D** Mr. L. E. Delmege, Burton; A. H. Davis, M.B., Sunderland; Disgusted; Comte de Marillac, M.D., Wiesbaden. **E** Mr. F. C. Evill, Barnet; W. Mc. A. Eccles, M.B., London; Evidence; Enquirer, Scotland; Dr. J. W. H. Eyre, London. **F** Fleet Surgeon; V. G. L. Fielden, M.B., Belfast; Mr. W. T. Freeman, Reading; R. Fielding-Ould, M.B., Liverpool. **G** Dr. B. Griffiths, Mardy; M. Grabham, M.B., Kingston, W.I. **H** Honesto Vivo; Mr. T. Holmested, St. Heliers; Sir F. S. Haden, Alresford; Mr. T. G. Horder, Cardiff; Mr. B. F. Hartzhorne, London; Mr. H. Hind, Harrogate; G. Halley, M.B., Dundee; Dr. J. Haddon, Denholm; Mr. R. H. A. Hunter, Lowestoft. **I** Mr. J. Iredale, Mablethorpe. **J** Dr. E. L. Jones, Cambridge; Mr. H. E. Jones, Liverpool; J. O. C.; Mr. H. H. Jennings, London; Mr. H. C. Jones, London. **K** Dr. W. W. Keen, Philadelphia; Kings, Worcestershire. **L** Messrs. Lawrence and Mayo, London; Dr. A. E. Larking, Folkestone; Dr. A. P. Luff, London; L. M. N. **M** Dr. C. F. Marshall, London; K. W. Monsarrat, M.B., Liverpool; Mr. J. Y. W. Macalister, London; Mr. E. R. Morgan, Morriston; W. R. Matthews, M.B., Aberdeen; Member; M.O.H.; Dr. C. W. M. Moullin, London; Mr. A. Maude, Westerham; "Medical Directory," Editor of the, London; Dr. R. L. Meade King, Taunton; M.D.; C. F. G. Mann, Washington, co. Durham; Mistura; Dr. R. C. Macdiarmid, Linares. **N** Dr. R. Neale, London; Nurse. **P** Dr. C. E. Purslow, Birmingham; Dr. T. D. Poole, Wolverhampton; Dr. F. Page, Newcastle-on-Tyne; W. F. Phillips, M.B., Kilchattan; Messrs. Parke, Davis and Co., London. **R** Mr. J. Robertson, Edinburgh; Rebman Publishing Co., London. **S** Dr. E. M. Skerritt, Clifton; Messrs. Street and Co., London; H. B. Smith, M.B., Bradford; Mr. H. G. J. de Styrap, Shrewsbury; Mr. J. Szalay, London; Messrs. Street Bros., London; Dr. H. Sinigar, London; Scotia; Dr. H. Snow, London; Surgeon; Dr. H. Scurfield, Sunderland; Dr. S. Sunderland, London; Dr. J. C. Simpson, Cambridge; Mr. J. A. Samner, Devonport. **T** Mr. T. Thomayer, Prague; Miss M. Thorne, London; Dr. E. G. Trevithick, Cheltenham; Thorough. **W** W. Watkins-Pitchford, M.B., Birmingham; Dr. J. W. Washbourn, London; Dr. R. Willson, Oxford; Dr. T. Washington, Durham; H. K. Wallace, M.B., Hamilton; Wheeler; Mr. C. H. Whiteford, Plymouth; Mr. L. K. G. Wilson, London; Mr. W. H. Wharton, Edinburgh. **Z** Zephyr.

BOOKS, Etc., RECEIVED.

Geburtshülfliche Taschen-Phantome. Von Dr. K. Shibata. Vierte Auflage. Munich: J. F. Lehmann. 1898. M.3.

Annuaire des Eaux Minérales, Stations Climatiques, et Sanatoria de la France et de l'Etranger. Par Dr G. Morice. Paris: Bureau de la "Gazette des Eaux." 1899. Fr. 1.50.

Zur Frage: Wann sind Gallenstein-Kranke zu operiren? Von Dr. F. Fink. Berlin: August Hirschwald. 1899. M. 1.

Outlines of Physical Chemistry. By A. Reychler. Translated from the French by J. McCrae, Ph.D. London: Whittaker and Co. 1899. 4s. 6d.

Beiträge zur Augenheilkunde. Herausgegeben von Dr. R. Deutschmann. Heft 31 40. Hamburg und Leipzig: Leopold Voss. 1899.

Viscum Album, the Common Mistletoe. By G. Black, M.B. London: E. Gould and Son. 1899. 1s.

Université de Leide. Recueil de Travaux du Laboratoire Boerhaave. Publié par D. E. S. Van Heukelom. Tome I et II. Leide: E. J. Brill. 1899.

Die multiple Fettgewebsnecrose. Von Dr. A. Katz und Dr. F. Winkler. Berlin: S. Karger; and London: Williams and Norgate. 1899. 4s 6d.

Die Krankheiten der Mundhöhle, des Rachens und des Kehlkopfes mit Einschluss der Untersuchungs und Behandlungmethoden. Von Dr. A. Rosenberg. Berlin: S. Karger; and London: Williams and Norgate. 1899. 7s.

The Natural Waters of Harrogate. By F. W Smith, M.D. London: Dawbarn and Ward. 1899. 1s.

100 illustrirte Fälle aus der Frauen-Praxis. Von Dr. A. Auvard. Fürs Deutsche bearbeitet von Dr. A. Rosenau. 2 vermehrte und verbesserte Auflage. Leipzig: J. A. Barth. 1899. M 6.

The Practice of Obstetrics. Edited by Charles Jewett, M.D. London: Henry Kimpton. 1899. 25s

A Practical Treatise on Fractures and Dislocations. By L. A. Stimson, B.A., M.D. London: Henry Kimpton. 1899. 25s.

. In forwarding books the publishers are requested to state the selling prices.

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AN ADDRESS
ON THE
EYE COMPLICATIONS OF THE ACUTE SPECIFIC FEVERS.

Delivered before the Thames Valley Branch of the British Medical Association on March 8th, 1899.

By PERCY FLEMMING, F.R.C.S.,
Assistant Ophthalmic Surgeon, University College Hospital.

Eye troubles frequently arise in the course of the acute specific fevers or remain as sequelæ of them. I propose to consider some of these to-day, and in doing so I shall limit the term "acute specific fevers" to the various fevers that are commonly met with in general practice in this country, and shall not include any account of syphilis, tuberculosis, septicæmia, etc.

Etiology and Pathology.

And in the first place let us see how the eye may be affected—that is, what are the possible channels by which the virus may reach the eye. The simplest way is, of course, by direct inoculation. This may be accidental, as when a variolous or vaccine pustule is scratched by the finger, and the latter inadvertently then applied to the eye. Or it may be, as in facial erysipelas, by direct microbic invasion, the cocci advancing in the lymphatics of the skin, and so ultimately reaching the lids and conjunctiva; but this is not a very common occurrence. More commonly (as in measles) the conjunctiva becomes inflamed as part of the general catarrhal condition, or, as in diphtheria, the inflammation may spread by continuity from the nose to the conjunctiva by the nasal duct. Such modes of infection are easily understood, but complications of deep structures such as the optic nerve, the orbital tissue, and even the central nervous system are frequently observed, and it is important to investigate their mode of origin. According to current pathological doctrines, such conditions are brought about by the absorption of "toxins," the products of the specific organisms, the toxins picking out particular structures and acting on them. Such a selective action is seen in the action of certain drugs: thus arsenic produces conjunctivitis, and tobacco (nicotine) acts on the optic nerve, producing definite structural change, and belladonna, taken internally, acts on the pupil and ciliary muscle. But in addition to this explanation, another is to be found in the anatomical relations that exist between the orbit on the one hand, and the nasal fossæ (with their communicating air sinuses) on the other. Inflammation of the mucous membrane of the nose is common in several of the fevers—notably influenza and measles—and such inflammation may spread to the frontal, ethmoidal, and sphenoidal sinuses, and from these in turn the orbital contents may become involved. Moreover, the optic foramen or canal is only separated by a very thin plate of bone (which may in some cases be perforated) from the cavity of the sphenoidal sinus, and it is easy to realise that inflammatory conditions may involve the nerve there, and set up a retro-ocular neuritis, and such a neuritis does occur as a sequela of the fevers.

An acute febrile illness seems to leave the patient in a condition in which he is more susceptible to microbic invasion, such susceptibility being perhaps connected with the lower temperature that so frequently remains after the subsidence of the pyrexia. The pulmonary complications so common after measles and whooping-cough are examples of this second infection; and, in the same way, conjunctivitis, corneal ulcers, and keratitis are common sequelæ of measles, scarlet fever, and whooping-cough; and the analogy between them is well exemplified in a case of orbital cellulitis occurring with influenza, in which the diplococcus pneumoniæ was found in the pus. The neglect of these late inflammatory conditions, for the most part superficial in the first instance, leads to destructive inflammation of the deeper tissues of the eye, and it is amongst the class that attend the hospitals that these severe complications of the acute specific fevers are met with.

A hæmorrhagic tendency may be induced by the altered blood state attendant on an acute specific fever, and of course is the factor in hæmorrhagic small-pox. This tendency may bring about impairment of vision either by producing retinal hæmorrhage, or, possibly, atrophy of the optic nerve may follow a hæmorrhage into its sheath.

Further, the movements of the eyeballs are dependent for their exact co-ordination on the activity of special nerve centres, and these centres may suffer in the general exhaustion of the nervous system that so frequently follows an attack of fever; and if owing to the state of refraction of the eyes there is an undue call on this centre, the latter in its weakened condition may be unable to maintain proper convergence of the eyes and squint may result, without any definite muscular paralysis. (Priestley Smith.)

In discussing the possible modes in which the exanthemata may affect the eye, it is important to bear in mind the frequency with which otitis media complicates or follows measles, scarlet fever, and less commonly whooping-cough; and a definite connection has been shown to exist between suppurative otitis and the eye condition known clinically as "pseudo-glioma." This term is applied to cases characterised by the presence of a yellowish white reflex in the vitreous, often simulating very closely the appearance given by true glioma. Pseudo-glioma is a clinical expression, and at least three distinct pathological conditions may give rise to this peculiar fundus reflex, but by far the most common of these three is a retinitis or choroiditis giving rise to inflammatory exudation into the vitreous. Ophthalmic surgeons usually see these cases late, and then an indefinite history of some acute febrile illness is obtained, or the child is said to have had convulsions, and other symptoms suggestive of meningitis. In two cases of pseudo-glioma in which *post-mortem* examinations were made, purulent otitis with basic meningitis involving the optic nerve was found; in each case the eye affected was on the side opposite to the ear affected. And in another recently reported case, pseudo-glioma was associated with otitis media, and symptoms pointing to basic meningitis, though unfortunately no *post-mortem* examination was obtained. Short of producing a retinitis intense enough to cause extensive exudation, otitis media may set up an acute optic neuritis, and possibly cause paralysis of some of the ocular nerves, especially the sixth.

Finally, it must be remembered that Bright's disease is a frequent complication of some, and may occur in any, of the acute specifics, and the various retinal complications—neuro-retinitis, hæmorrhages, etc.—of the renal disease may appear as sequelæ of the acute specific.

Such, then, are the various modes in which the eye may become affected. Another most important factor to be considered is the presence or not of the "strumous diathesis." Many of these complications and sequelæ are slight and insignificant in themselves; but if the child be strumous or ill-nourished, the inflammations are prone to persist and lead to more serious and deep-seated lesions, specimens of which I shall be able to show you.

We will now consider the individual fevers in detail, taking the more common ones first.

Measles.

Measles is accompanied by general catarrh, and in the days preceding the rash the eyes become red and inflamed, water freely, and the coagulated discharge adheres to the lashes. This catarrhal condition increases with the rash, reaching its height about the second day, and then gradually subsiding. But if the child be delicate or strumous, this conjunctivitis may persist for long, and associated with it is frequently an inflammation of the lid margins, which, if allowed to persist, leads to loss of the lashes, a loss which can never be made good, and which entails constant liability to damage from dust particles, etc., getting on to the cornea. Again, in these strumous children the conjunctival inflammation frequently leads to, or is associated with, corneal ulcers (phlyctens), and if these be neglected, perforation of cornea may ensue with consequent cyclitis, and subsequent shrinkage of the eye, so called "phthisis bulbi," as you see in this specimen removed several years after the attack of measles which caused its loss. In other cases the eye may be lost from the formation of a dense corneal cicatrix, with or without a staphylomatous condition of the cornea.

It will be seen that treatment in the early stages of the inflammation is very important. For the conjunctivitis simple

warm boric acid lotion, with a little boric acid ointment along the edges of the lids to prevent them sticking, is all-sufficient. If the tears are profuse, hot, and scalding an alkaline lotion (bicarbonate of soda gr. x ad ℥j) gives relief. When marginal blepharitis is present, the scabs should be diligently removed (a rather painful process), and dilute ammoniated mercury ointment applied. The removal of the scabs will be facilitated by using a borax lotion. Ulcers must be treated in the ordinary way, cleanliness being ensured by frequent boric acid fomentations, atropine drops, and a shade over both eyes, or dark glasses may be worn; and it is often best to get these children out of doors (provided the general condition permits), protected from the light by dark glasses, rather than to coddle them up indoors.

Of the rarer eye complications in measles, perhaps the most interesting is the occurrence of optic neuritis. There is no doubt now that this may occur in measles independent of any other complication. On the other hand, it is important to remember that meningitis may occur with or after measles, and the occurrence of optic neuritis in measles should rouse suspicion of the coexistence of this complication, and should lead to examination of the ears. Transient amblyopia is said to occur in convalescence without any ophthalmoscopic sign, analogous to the uræmic blindness, but quite independent of kidney disease; this amblyopia may persist for some considerable time.

Suppuration in the orbit, perhaps limited to Tenon's capsule, may occur either while the fever is at its height, or as in a case I have seen, during convalescence. In this latter case two distinct abscesses formed, producing proptosis, etc., but after opening and draining them the globe returned to its normal situation, and no ill-effects remained.

Measles often reveals the existence of hypermetropia. The essential clinical factor in hypermetropia is that the eye has to use its accommodative power for distant vision, and in consequence requires more than the normal amount of accommodation for near work. If the amount of hypermetropia be small and the person vigorous and strong, the extra muscular effort required to see clearly causes no inconvenience. But the exhaustion following an acute illness may render this extra work very fatiguing. Hence during convalescence from measles, etc., especially on return to school, such a patient may complain of difficulty in reading, the eyes soon becoming tired and words "running into one another." Actual paralysis of accommodation, if it occur at all, is very rare, but this sort of accommodative impairment is very common, and should, of course, be corrected by glasses, which may only be required temporarily, at the same time that attention is given to general health, tonics being indicated.

Whooping-Cough.

Whooping-cough, which so frequently occurs about the same time as measles, has few eye complications. The mechanical congestion that results from the paroxysm may lead to subconjunctival ecchymoses, which are of no importance. But the possibility of such a hæmorrhage taking place in the optic nerve sheath or retina must be thought of. Children convalescing from whooping-cough seem liable to corneal ulcers. It is convenient here to mention the frequency with which one is told that a squint—the ordinary "cross-eye"—was noticed after the child had had measles or whooping-cough. This may be a mere coincidence in some cases, but it is easy to see how the weakness resulting from a severe attack of measles or whooping-cough increases the difficulty which a hypermetropic child has of maintaining binocular vision when the refraction of the two eyes is different. And as has been indicated previously the co-ordinating centre may be weakened by the febrile attack.

On the other hand, the possibility of the squint being paralytic and not concomitant must be kept in mind in cases of whooping-cough, for hæmorrhages may occur in the sheath of the sixth nerve, though this is very rare.

Epidemic Parotitis.

Mumps need hardly be mentioned. Weakness of accommodation has been noted, and it is possible that the lachrymal gland may participate in the general glandular inflammation, and be accompanied by effusion into the orbital tissues, causing œdema of lids and conjunctiva, and congestion of optic nerve.

Scarlet Fever.

Scarlet fever is sometimes, though rarely, accompanied by a catarrhal conjunctivitis when the rash is at its height. Much more frequently a chronic persistent muco-purulent discharge is seen as a sequela. This is best treated by astringents, painting the everted lids with weak nitrate of silver solution (gr. x ad ℥j) being most useful, the patient himself using sulphate of zinc lotion, or alum, if the cornea be sound. Ulceration of the cornea is a rarer complication; this may be followed by perforation or destructive irido-cyclitis. As in measles, accommodative asthenopia may show itself in convalescence if the patient be hypermetropic.

The renal affection which occurs during convalescence may in its turn be complicated with typical "albuminuric retinitis." This, of course, occurs late. It is difficult to give a definite prognosis as regards vision in these cases. It depends mainly on the type of Bright's disease present, and, speaking generally, the prognosis is better than in "ordinary" albuminuric retinitis, but this merely means that the Bright's disease does not, as a rule, become chronic. In contrast with these cases some have been recorded in which, without any albuminuria, marked neuro-retinitis was present, which ultimately subsided, good vision remaining. Transitory blindness without apparent retinal change, and, as in measles, lasting usually longer than "uræmic amaurosis," may occur, and, of course, true uræmic blindness may develop. Otitis media, such a common sequela of scarlet fever, may set up optic neuritis, or possibly a retinitis with exudation (pseudo-glioma).

Typhoid Fever.

Eye complications in typhoid fever are not common. The prolonged fever with its consequent weakness may cause subsequent accommodative asthenopia, and occasionally true paralysis of accommodation may occur, associated with mydriasis, in this latter respect differing from the post-diphtheritic cases. Rarely the extrinsic muscles may be paralysed, but recently I have observed a case of ptosis. Keratitis, abscess of cornea, choroiditis may possibly be met with. The former is especially likely to occur in those cases associated with "coma vigil," the corneal trouble being in part due to desiccation and exposure. In such cases it may be necessary to protect the eyes with a pad and bandage. But the greatest interest perhaps attaches to changes observed in the optic nerve. Optic atrophy has been observed several times after typhoid, and recently I saw a patient with double optic atrophy (without signs of past neuritis), who stated that the failure of sight began during convalescence from a bad attack of typhoid. Such an atrophy may be the result of a retro-ocular neuritis set up by a toxin, or by inflammation reaching the nerve in the optic canal through the nose and sphenoidal sinus. This latter explanation seems the more probable in those cases of unilateral optic atrophy; and inflammation of the nose and throat is not uncommon in typhoid. The occurrence of marked papillitis—as distinct from retro-ocular neuritis—is, in my experience, rare in typhoid. Its presence in an undoubted case of typhoid suggests the possibility of meningitis coexisting, and should always lead to an examination of the ears, as the state of the latter may be responsible for the condition. On the other hand, meningitis is said to be an exceedingly rare complication of typhoid; and if the diagnosis of the case be doubtful, I believe the presence of well-marked papillitis is strongly in favour of the case being one of meningitis and not typhoid. Perhaps, however, a localised meningitis may not be such an uncommon occurrence in typhoid after all.

Cases of embolism of the central artery of the retina during convalescence from typhoid have been reported; it is quite possible that the lesion in some of these cases may be thrombosis and not embolism, the ophthalmoscopic appearances being practically the same.

Diphtheria.

Diphtheria may affect the eyes in several ways. On the one hand, various paralyses may remain as sequelæ; and, on the other hand, the conjunctiva may be the seat of the actual diphtheritic process, either primary or by spread from the nose.

Of the sequelæ, actual paralysis of accommodation is fairly common, and this condition is unaccompanied by mydriasis.

The subjects of this paralysis that are seen by ophthalmic surgeons are almost invariably hypermetropic; the reason of this is that a myope or emmetrope is much less likely to be inconvenienced by a loss of accommodation than is a hypermetrope, and therefore does not complain. In looking for this condition, it is important to remember that the pupil continues usually to react to the mental effort of accommodation and to the act of convergence, although the ciliary muscle itself may be totally paralysed. The symptom usually noticed about four or six weeks after the onset of the illness is the inability to see near objects: for example, reading or writing, or threading a needle, are difficult or impossible, and if the patient be a child it is frequently said that he or she can see better "with the mother's or father's glasses." The initial diphtheritic inflammation may have been slight; often a history of "sore throat" is all that can be obtained. The treatment here is threefold: First take the opportunity of the cycloplegia to work out the state of refraction, and order glasses accordingly (the latter will, of course, not enable the patient to read fluently, but will help him to do so). Next drop in eserine (gr. ij ad ℥j) or pilocarpin (gr. ℥ij ad j) three times a day. And finally, it must be remembered that the paralysis of accommodation is merely part of a general poisoning of the nervous system (including the cardiac centre), and this must be met by proper rest, cod-liver oil, iron, arsenic, etc.

Much less common than this paralysis of accommodation is the paralysis of some of the extrinsic muscles, most commonly the externi, leading to squint, diplopia, etc. The prognosis in both these cases of paralysis is very favourable. I have observed papillitis several times in patients recovering from diphtheria, and this may be followed by atrophy.

The lids may be the seat of the diphtheritic process, either primarily or by spread. This diphtheritic conjunctivitis is a very destructive inflammation as far as the eye is concerned. Its chief characteristics are: great brawniness and infiltration of the lids, making an inspection of the cornea difficult, the presence of a definite membrane on the conjunctiva which is incorporated with the lid, and cannot be easily detached, and scanty discharge. The early recognition of these cases is very important, as the cornea is soon involved, and may slough unless the treatment be prompt and energetic. Further, it is important to recognise their diphtheritic nature, because, if regarded as a purulent conjunctivitis and treated with silver nitrate, matters are made worse, the raw surface made by the caustic quickly becoming covered by new membrane. The essentials of treatment are (1) the use of antitoxin and the usual routine treatment of diphtheria, and (2) the frequent washing of the conjunctival sac with some antiseptic, of which quinine lotion (gr. iv ad ℥j with a minimal quantity of sulphuric acid) seems best. Under this treatment the membrane quickly disintegrates and separates by a process of suppuration.

The bacterial diagnosis of these cases is not altogether satisfactory—at least from the practical clinical point of view. That is to say, the Klebs-Loeffler bacillus may be found in cases of conjunctivitis which are not of a virulent or severe nature; and, on the other hand, as in a case in the hospital last year, it was difficult at first to demonstrate the organism, although the case presented all the typical features of a diphtheritic conjunctivitis, and later on the typical bacilli were demonstrated. Practically, from the point of view of prognosis and treatment, a case presenting the clinical features previously mentioned is diphtheritic; other cases of membranous conjunctivitis, in which the lids are not brawny nor the membrane adherent, are not so serious, even though the typical bacillus be present.

Influenza.

Influenza resembles diphtheria in several respects: in both there is a marked local inflammation followed by equally marked constitutional symptoms due to absorption of toxic products; and it is not surprising to find that the eye complications, more especially the late ones, of influenza resemble those of diphtheria. In the acute stages there is marked conjunctivitis, and sometimes corneal ulceration occurs. Facial herpes is not an infrequent accompaniment of influenza, and in some of these cases minute herpetic vesicles form on the cornea, giving rise to much irritation and photophobia; these cases in contrast to the corneal complications that appear with herpes zoster ophthalmicus tend to recover quickly, and the corneal lesions themselves are usually superficial. Fuchs's keratitis (a not very common form of corneal inflammation) is generally set up or follows a severe cold in the head, and hence may be seen with influenza. It is characterised by minute dotted opacities under the epithelium, with some slight ciliary and conjunctival redness; the latter is usually quite readily subdued, but the little dots often persist for months before they finally disappear. Pain on movement of the eyes is, of course, one of the well-recognised symptoms of influenza, and may be muscular or due to some orbital inflammation. As sequelæ there are accommodative asthenopia, true paralysis of ciliary muscle, and occasionally paralysis of the extrinsic muscles, just as in diphtheria. The acute inflammation of the nose and neighbouring cavity explains the occurrence every now and again of retro-ocular neuritis and orbital cellulitis and abscess. The neuritis usually comes on in fourteen to twenty-one days, is accompanied by deep orbital pain, and frequently a central scotoma may be found. As a rule the prognosis in such cases is good, but atrophy may appear later. Acute optic neuritis and papillitis also occur, these cases differing from those of retro-ocular neuritis in that all the signs of inflammation observed by the ophthalmoscope are much more marked.

Central retinitis and retino-choroiditis may occur after influenza. In one case I had examined the patient for glasses a week or two before the onset of influenza, and had noted that the fundi were normal. In the attack one eye was very painful, and subsequently during convalescence it was discovered that the sight in that eye was very defective. Ophthalmoscopically a patch of central retino-choroiditis was found, and this has remained *in statu quo* for several years. Some while since I saw a patient who presented a very striking appearance. The left eye, he said, became "bad" five days before he came to me, about a week after an attack of influenza; two days later the eye was painful and the lids more or less completely closed. When I saw him there was such swelling of the lower conjunctiva that a fold of it projected between the lids and was nipped by them. On separating the lids, the conjunctiva was seen to be slightly injected, the cornea was clear, the eyeball was a little proptosed, and outward movement rather limited. The condition rapidly improved under hot fomentations, leeching, and purgatives. This case is probably one of serous inflammation of Tenon's capsule—so-called "serous tenonitis"—a condition characterised by conjunctival œdema, slight proptosis, and limitation of movements as in this case, and influenza is recognised as one of the causes of this condition. An accumulation of fluid—perhaps mere œdema and not inflammatory exudation—in the capsule certainly explains the symptoms. And Fuchs has recorded a case of suppuration in Tenon's capsule occurring with influenza in which the abscess discharged anteriorly and the pus was found to contain the pneumococcus. Such a case as this would have the same relation to my case as an empyema has to a simple pleurisy. I have seen a case of panophthalmitis occur in the course of an attack of acute influenza, and on enucleation there was found to be much surrounding orbital inflammation; and I think it quite likely that the eye in this case became inflamed secondarily to the orbital inflammation or to a tenonitis.

Variola.

Eye complications in small-pox used to be very common; now in their severer forms they are rare. And the beneficial action of vaccination is most strikingly seen in the prevention of blindness. At the time when small-pox was very widespread, about one-third of all cases of blindness were due to it; now it is a rarity to see an eye lost from small-pox. I have notes of three cases of blindness due to an antecedent attack of small-pox, and in each of those the patient had for some reason or other not been vaccinated. One of these cases is almost of the nature of a crucial experiment, and it seems worth relating in detail. The patient was aged 27 when I saw her, and had a dense scar (leucoma) on the right eye, and a less dense one on the left. She could see a little with the latter, but was quite blind in the right. She was born in Scotland, and soon after her birth the family removed to London and in this way her vaccination was forgotten. In the 1871 epidemic all the family (herself and three sisters) were

attacked at the same time with small-pox, and treated together. The three vaccinated sisters had a very mild attack and were scarcely marked at all, whereas the unvaccinated one was not only badly marked, but practically blinded. Here all the conditions were the same, with the one all-important exception of vaccination.

In any case of small-pox—"modified" or not—the eye requires careful attention. In the acute stage the lids may be swollen from the presence of the eruption on or near them, and this swelling may be so great as almost to prevent the lids being separated, and may be accompanied by conjunctivitis simple or purulent. It is important to endeavour to prevent the lids sticking to one another by using some simple ointment, and in all cases, whether the lids be affected or not, the conjunctival sac should be washed out daily with some simple lotion. This, however, owing to the swollen condition of the lids, may be almost impossible, and may necessitate division of the outer canthus. More rarely pustules may occur on the palpebral and ocular conjunctiva, much smaller than the pustules on the skin, causing a purulent conjunctivitis, and later blepharitis, with loss of lashes, trichiasis, etc., may be met with. Such pustules, however, never form on the cornea. Keratitis, which is the most important and common complication that occurs in the modified cases seen in the present day, is not due to formation of pustules, but arises altogether independently, occurring after the twelfth day of the illness, usually later, when the rash is drying up, and is the result of secondary infection. The cases I have seen have been slight in severity, and have taken the form of superficial keratitis and vascular ulcer; in other cases the keratitis is severe, and runs on into abscess of cornea, which in turn may lead to perforation with prolapse of iris, etc. It is the scar resulting from this corneal ulceration, or the destruction of the eye following perforation, that causes the blindness. The treatment is mainly preventive—vaccination in the first place, and in the presence of an actual case of small-pox, regular systematic examination of the eye, with the use of simple antiseptic lotions; and this examination may very likely be carried out less regularly just at the most important time, because the keratitis usually comes on as the patients are getting better. If the ulcer has formed, treatment on general principles must be followed: atropine drops, perchloride of mercury, or quinine lotion in mild cases, and nitrate of silver or actual cautery applied to the ulcer if it show an infiltrated spreading edge. Bearing in mind too the fact that the eye is infected from the other pustules, it would seem an important part of treatment to endeavour to treat the pustules about the face with antiseptic applications.

The other complications of small-pox are not of special interest. Thus the various "strumous affections" are likely to develop after convalescence; ordinary iritis may occur, as also paralysis of accommodation, and, rarely, albuminuric retinitis. A diffuse neuro-retinitis has been described, occurring at the time when the rash is drying. Inflammation of the lachrymal sac, and, later, stricture of the nasal duct, have been observed, and attributed to formation of pustules in the duct or nose.

Vaccination.

Vaccination may be followed by eye complications, either the patient himself directly inoculating his own eyelid or conjunctiva from a ruptured vesicle, or more commonly by a child inoculating its mother's or nurse's eye. In this way typical vaccine vesicles and pustules may develop on the lids, causing swelling and œdema, or a severe conjunctivitis may be set up characterised by much swelling of the conjunctiva (chemosis), which may be severe enough to produce corneal ulceration and hypopyon.

The treatment here is clearly to prevent infection of the conjunctiva if the pustule has developed on the lid, and if the sac is already infected to empty the vesicle as soon as possible, foment the eye, and drop in atropine. When such cases as these are seen without any previous history to guide one, the diagnosis has to be made from a primary syphilitic chancre; but the fact that the ulcer is clean cut, much indurated, and has taken a considerable time to develop, will all point to syphilis, and once the possibility of vaccination is thought of, the history will make the diagnosis.

Varicella.

Varicella is sometimes accompanied by a mild conjunctivitis. As rarities it may be noted that one case of double panophthalmitis has been recorded, and another of retro-ocular neuritis apparently due to chicken-pox, but possibly these may have been mere accidental associations.

Erysipelas.

Facial erysipelas may directly affect the eye. Most usually the lids become swollen and œdematous and cannot be separated; this swelling may completely subside without doing any damage, but the swelling may be so great that gangrene of the lids may result or suppuration take place. It becomes therefore very important to relieve this excessive distension of the lids by small punctures, and to be ready to make a free incision if distinct fluctuation can be obtained. Such an incision is best placed so as to lie in the fold of skin at the inferior border of the lower lid, and if the pus be early let out no deformity need result. On the other hand, when there is distinct gangrene and loss of substance, ectropion and all its consequences may ensue, and plastic operations will subsequently be required for the correction of the deformity. As in the other fevers the cornea may ulcerate and destructive inflammation of the eye result, and the swollen state of the lid makes it very difficult to recognise and treat such complications.

The inflammation of the subcutaneous tissues may extend into the orbit and involve the orbital tissues, producing "orbital cellulitis" or orbital abscess, with extreme exophthalmos, and the inflammatory process may here involve the sheaths of the optic nerve, giving rise to optic neuritis, or by compressing the vessels cause atrophy of the nerve. Possibly the inflammation may spread back and involve the meninges and venous sinuses, and by way of the circular sinus may reach the other orbit. Hence the early recognition of orbital cellulitis is most important, free incision and drainage being obviously indicated. In other cases the suppuration, instead of being in the general orbital cavity, may be limited to Tenon's capsule, and it is quite possible that the latter may in some cases be the starting point of the former. Obviously, if the pus be limited to the capsule, the prognosis is much more favourable, and early incision is very important. The fact that loss of sight may follow an attack of facial erysipelas seems very inadequately noted in general textbooks. It may be due, as above described, to an orbital cellulitis, but erysipelas may cause papillitis and retro-ocular neuritis without setting up orbital cellulitis, although the latter has been stated by some to be a necessary factor in their causation.

The prognosis as regards vision is, as a rule, much better in the cases of retro-ocular neuritis, even though visual acuity at one time may be reduced to mere perception of light. But subsequent atrophy may set in, and the patient may first be seen when the nerve is already atrophic.

Another cause of blindness or impairment of vision in erysipelas is hæmorrhagic retinitis due to thrombosis of the retinal veins; this may be the result of inflammation of the orbital tissue, and in one case the actual thrombosis was observed to take place two days after the extension of inflammation from the lids to the orbit.

Before leaving the subject of erysipelas it is worth while mentioning a point of importance with regard to diagnosis. Herpes zoster in the territory of the ophthalmic nerve is accompanied by redness, swelling, and vesication of skin, and quite frequently by ulceration of the cornea; this condition, not being so well known as facial erysipelas, is very commonly mistaken for the latter, but attention to the unilateral distribution of the herpetic eruption will prevent the mistake being made. Facial herpes, as has been mentioned, is a fairly frequent accompaniment of acute febrile illness, and associated with the herpetic vesicles on the face may be a crop of similar vesicles on the cornea, giving rise to much photophobia, lachrymation, etc., and requiring the eye to be protected by a pad and bandage.

An Antirabic Institute at Hanoï.—In accordance with instructions issued by M. Guillain, French Minister of the Colonies, a serumtherapeutic department and an antirabic service have been established in connection with the hospital at Hanoï in Tonquin. Rabies is said to be very prevalent in Tonquin, and persons bitten by rabid animals have hitherto had to be sent to Saïgon for treatment.

ON VACCINATION AND SMALL-POX IN THE ITALIAN ARMY.

By Dr. RIDOLFO LIVI,

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The medical statistics of the Italian Army give for many years past information of great importance on vaccination and on cases of small-pox among soldiers. They divide the attacked individuals into two classes according to their remote or recent anamnesis. We call "remote anamnesis" that which relates to vaccination undergone before entering the military service; "recent anamnesis" that which relates to vaccination undergone while entering or during the service. Besides, the statistics make it possible for us to calculate with great approximation to accuracy the proportion, on the average strength, of the individuals (1) vaccinated in childhood or before entering the service; (2) variolated in childhood or before entering the service; (3) neither vaccinated nor variolated; and also the proportion of individuals having undergone military vaccination with or without success. Let us add that, in general, military statistics have over all others this great advantage, that they are compiled according to constant methods and rules; that they consider only individuals of the same sex, nearly of the same age and constitution, and all equally exposed to morbid influences. Thus we find ourselves in the best position to obtain a definite answer to the question of the utility of vaccination.

Table I.—*Vaccinations performed from 1867 till 1897 inclusive.**

Years.	Number of Vaccinations Performed during each Year.	Ratio per 1,000 Vaccinated.		Proportion of Good Success per 1,000 Vaccinated.				
		Variolated in Infancy.	Vaccinated in Infancy.	Not Variolated nor Vaccinated in Infancy.	In the Variolated.	In the Vaccinated.	In the Non-Variolated and Non-Vaccinated.	Total.
1867	41,923	68	852	80	200	250	410	260
1868	56,294	65	860	75	280	300	460	300
1869	34,736	72	849	79	300	370	500	380
1870	36,700	83	846	71	360	400	510	400
1871	73,390	58	881	61	350	360	510	370
1872	121,359	49	917	34	230	330	470	330
1873	104,389	63	902	35	250	350	440	350
1874	85,048	48	913	39	260	611	388	312
1875	97,647	46	915	39	294	337	401	337
1876	104,027	44	921	35	329	370	443	370
1877	73,853	36	933	31	343	370	457	371
1878	77,969	33	935	32	343	370	457	371
1879	119,788	32	940	28	378	407	504	409
1880	103,471	32	934	34	397	428	530	430
1881	109,082	28	945	27	434	467	578	469
1882	109,279	24	953	23	463	499	618	501
1883	132,384	22	941	37	541	582	721	585
1884	94,564	20	956	24	531	572	708	574
1885	188,708	22	959	19	568	587	741	591
1886	138,301	19	966	15	544	534	741	539
1887	129,402	21	961	18	559	606	723	611
1888	126,704	23	962	15	554	619	763	621
1889	109,950	22	962	16	452	503	664	505
1890	47,376	17	972	11	491	535	690	537
1891	195,072	23	963	14	537	639	790	639
1892	16,609	12	979	9	433	544	623	555
1893	118,211	17	962	21	593	670	771	672
1894	176,589	14	967	19	527	666	799	669
1895	90,491	12	971	17	544	669	792	670
1896	66,262	10	976	14	485	647	749	643
1897	115,003	10	977	13	584	695	791	698
Total...	3,095,571	—	—	—	—	—	—	—

* *Note.*—In reply to inquiry, the author explains that in statistics of the results of vaccination in the Italian army there are only two classes, "Positivo" and "Negativo," and that the latter includes all cases of imperfect pustules. "Positivo," therefore, which Dr. Livi translates as "Good Success," seems equivalent to the "Perfect Pustule" class of the British army statistics. He further explains that those in whom the vaccination performed on their arrival at the corps is unsuccessful are immediately revaccinated, and that the statistics of Table I include the successes from this second operation. Those who have a second negative result are again operated on in the following year.—Ed. B. M. J.

We put aside all comparison between small-pox morbidity and mortality among the military and civil individuals. We will consider only:

1. Whether in all the military population the individuals who have been vaccinated are more or less exposed than the unvaccinated, to attack by small-pox, and in what measure.

2. Whether among the individuals attacked by small-pox, those who have been vaccinated are more or less exposed, and in what measure, to death.

These are, after all, the capital points of the question.

I.—Vaccinations in the Italian Army.

From 1867 (the first year in which the medical statistics were compiled) till 1897 inclusive, 3,095,571 vaccinations and revaccinations have been performed on military men. The table (No. I) gives for each year the ratio of individuals who at the epoch of their vaccination showed (1) marks of small-pox (variolated); (2) marks of vaccination (vaccinated); (3) neither marks of vaccination nor of small-pox (neither variolated nor vaccinated). One sees very clearly a gradual diminution in the figures of the variolated, which is always parallel to a diminution of the figures of the unvaccinated. Thus we may come to the conclusion that small-pox was more prevalent when vaccination was not so general as it is now. We see also in this table (columns 6, 7, and 8) that the never-vaccinated individuals have the greatest rate of successful vaccination, while the least rate always belongs to the variolated.

The table shows also in the last column a regular augmentation in the general proportion of successes, which rises from 260 per 1,000 in 1867 to 698 per 1,000 in 1897; a fact owing, in our opinion, partly to the improvement in vaccination technique, as well as to the greater facility of securing a first-rate lymph; but partly also to the gradual replacement of arm-to-arm vaccination by animal vaccination, which has always given a greater ratio of successes.

II.—Small-pox in the Italian Army.

We give in Table II (p. 1018) the sickness and mortality by small-pox since 1867. This table is not very complete. First, for a long while, in our statistical returns, variola, varioloid, and varicella have been mingled under the same denomination. Still more, during many years, the statistics take no account of those attacked by small-pox treated in the civil hospitals; so that in order to have an idea of the course of small-pox throughout the entire period of thirty-one years, we should only consider the figures relating to military hospitals. However, a constant diminution is evident. From a serious mortality, we descend to almost *nil* in the last years. Sickness presents a parallel diminution. We are of opinion that the very notable progress gradually made in military hygiene—in the barracks as well as in the military hospitals—the stricter isolation of patients, and more rational disinfection, have contributed to this diminution. But if this great diminution were only due to the above causes, one could not know how to explain why, for instance, measles and typhoid fever have not diminished too, and at the same rate, while against these infections, in the barracks as well as in the military hospitals, all the hygienic prescriptions are practised with the same zeal and intelligence as against small-pox.

III.—Fatality Rates of those Attacked by Small-pox, According to their Vaccination.

Since 1877 the annual medical reports give a little table in which the cases of small-pox observed during each year are divided according to the remote and recent anamnesis of the attacked individuals. This series of twenty-one years' observations is however not homogeneous, for from 1877 till 1881 inclusive the cases of variola and varioloid are mingled with those of varicella, a disease whose affinity with small-pox is yet discussed, although denied by many pathologists. However we have divided 1877-97 into two periods, 1877-81 and 1882-97, in only the last of which varicella is separated from small-pox. Table III (p. 1019) shows that either examining separately the cases of small-pox (and varioloid) in the period 1882-97, or taking in small-pox, varioloid, and varicella (in the period 1877-81 as well as in all the twenty-one years), the results are always identical. Those who have never been vaccinated when attacked by small-pox have the greatest probability of death, those instead who have been recently and suc-

TABLE II.—*Sickness and Mortality by Small-pox since 1867 till 1897.*

Years.	Average Strength.	Admissions for Small-pox, Varioloid and Varicella.		Admissions for Small-pox and Varioloid only.		Deaths.		Sickness per 10,000 of Average Strength.				Mortality per 10,000 of Average Strength.	
								For Small-pox, Varioloid and Varicella.		For Small-pox and Varioloid only.			
		In Military Hospitals only.	In all the Hospitals and Infirmaries.	In Military Hospitals only.	In all the Hospitals and Infirmaries.	In Military Hospitals only.	In all the Hospitals and Infirmaries.	In Military Hospitals only.	In all the Hospitals and Infirmaries.	In Military Hospitals only.	In all the Hospitals and Infirmaries.	In Military Hospitals only.	In all the Hospitals and Infirmaries.
1867	206,452	698	?	?	?	36	?	33.4	,,	,,	,,	1.75	,,
1868	216,501	561	?	?	?	22	?	25.9	,,	,,	,,	1.02	,,
1869	187,149	213	?	?	?	8	?	11.4	,,	,,	,,	0.43	,,
1870	197,170	514	?	?	?	57	?	26.1	,,	,,	,,	2.89	,,
1871	189,291	1,168	?	?	?	116	?	61.7	,,	,,	,,	6.13	,,
1872	183,829	773	?	?	?	71	?	42.0	,,	,,	,,	3.87	,,
1873	191,684	399	?	?	?	17	?	20 8	,,	,,	,,	0.89	,,
1874	193,663	209	?	139	?	17	?	10.8	,,	7.2	,,	0.88	,,
1875	200,524	272	?	173	?	18	23	13.5	,,	8.6	,,	0.90	1.15
1876	190,376	219	?	?	?	13	19	11.5	,,	,,	,,	0.68	1.00
1877	196,192	198	?	?	?	18	19	10.1	,,	,,	,,	0.92	0.97
1878	195,172	233	?	?	?	13	14	11.9	,,	,,	,,	0.67	0.72
1879	193,370	247	266	201	155	10	10	12.8	13.8	10.4	8.0	0.52	0.52
1880	193,675	170	241	135	179	12	16	8.8	11.1	7.0	9.3	0.62	0.83
1881	191,366	276	314	201	241	22	30	14.5	16.4	10.5	12.6	1.15	1.57
1882	189,506	110	126	70	86	—	—	5.8	6.7	3.7	4.5	—	—
1883	192,881	113	117	64	68	2	2	5.9	6.1	3.3	3.5	0.10	0.10
1884	206,263	117	128	79	90	4	4	5.7	6.2	3.8	4.4	0.19	0.19
1885	203,406	184	214	141	198	8	9	9.1	11.9	6.9	9.7	0.39	0.44
1886	204,428	229	297	188	256	20	20	11.2	14.6	9.2	12.5	0.98	0.98
1887	212,898	187	261	157	231	3	5	8.8	12.3	7.4	10.8	0.14	0.23
1888	209,918	194	226	173	205	8	10	9.2	10.8	8.2	9.8	0.38	0.48
1889	218,917	168	204	138	174	4	5	7.7	9.3	6.3	7.9	0.18	0.23
1890	221,384	75	94	52	71	4	4	3.4	4.2	2.3	3.2	0.18	0.18
1891	220,714	69	87	44	62	—	1	3.1	3.9	2.0	2.8	—	0.05
1892	213,307	34	40	20	26	—	—	1.6	1.9	0.9	1.2	—	—
1893	214,439	61	71	30	36	—	1	2.8	3.3	1.4	1.7	—	0.05
1894	194,670	51	58	39	45	1	1	2.6	3.0	2.0	2.3	0.05	0.05
1895	202,915	56	59	38	40	1	1	2.8	2.9	1.9	2.0	0.05	0.05
1896	204,382	77	85	44	46	—	—	3.8	4.2	2.2	2.3	—	—
1897	204,312	54	63	30	35	—	—	2.6	3.1	1.5	1.7	—	—

cessfully vaccinated have the greatest probability of recovery. The order in which the different categories of remote and recent anamnesis are ranged is in all the cases identical:

	Fatality per 100 Treated.		
	Period 1877-81.	Period 1882-97.	Period 1877-97.
Never vaccinated in childhood and non-vaccinated at the corps	33.3	19.2	22.2
Vaccinated or variolated in childhood and non-vaccinated at the corps	9.7	8.5	8.1
Never vaccinated in childhood and vaccinated at the corps without success	10.3	5.0	7.6
Never vaccinated in childhood and vaccinated at the corps with success	7.1	4.5	4.4
Vaccinated or variolated in childhood and vaccinated at the corps without success	5.4	2.4	3.4
Vaccinated or variolated in childhood and vaccinated at the corps with success	2.9	2.3	1.8

The fatality rate of the most favoured group is in the period 1877-97 twelve times, and in the period 1882-97 eight times less than that of the least favoured group. One could not find a more striking proof of the attenuating action that vaccination exercises in the course of the disease upon the individuals attacked by it.

We have yet only to consider whether, and in what measure, it prevents the vaccinated individuals from being attacked. But, before discussing this subject, let us make an incidental observation, but not without importance. The Table No. III gives:

In the period 1877-81:
Among the vaccinated without success: 6.0 deaths per 100 patients.
,, ,, with ,, 3.1 ,, ,, ,,
In the period 1882-97:
Among the vaccinated without success: 1.8 deaths per 100 patients.
,, ,, with ,, 1.8 ,, ,, ,,

In the period 1877-81 fatality among the successfully vaccinated is about a half less than that among the vaccinated without success; while in the period 1882-97 both proportions are equal. Now Table No. I shows also that in the years 1877-81 the rate of success in the vaccinations was much lower than in 1882-97. Therefore, in the first period, a great number of those vaccinated without success are to be looked on as not vaccinated, because vaccination had been performed imperfectly, or with inactive material. These individuals were naturally in more danger than the successfully vaccinated if attacked by a serious form of small-pox. In the period 1882-97, in which the rate of successes in vaccination is considerably increased, the category of unsuccessfully vaccinated individuals is, for the most part, composed of persons who, through their individual constitution, have presented a greater resistance first against vaccination and then against small-pox.

IV.—Sickness and Mortality by Small-pox in Relation to the Average Strength.

In order to investigate as mathematically as possible whether vaccinated individuals are more or less exposed than the non-vaccinated to small-pox one must know, before all, how many individuals of every category of recent and remote anamnesis are on an average in the army. No documents of the sanitary statistics supply us with this information in a direct way; but nothing prevents us from calculating it with great approximation to accuracy.

According to calculations—for the details of which we refer the reader to our complete note[1]—we have found that the average strength may be divided, as regards the remote anamnesis, as in Table IV, p. 1019.

It is upon this division of the strength that we will now establish the small-pox morbidity and mortality of the different categories of remote anamnesis. But still more we must divide each group according to the recent anamnesis. As regarding the individuals who have been vaccinated at the corps, that is to say, the very great majority, it is very easy to divide them according to the results of vaccination, because Table I gives the proportion of successes in each category of remote anamnesis. But one must calculate also the number of individuals who have remained in the army for a

Table III.—*Small-pox Cases According to Remote and Recent Anamnesis.*

Recent Anamnesis.	Remote Anamnesis.																					
	Never Vaccinated nor Variolated in Childhood or before entering the Service.						Vaccinated or Variolated in Childhood, or before entering the Service.						Remote Anamnesis not Stated.						Total.			
	Attacked by Variola and Variloid.	Attacked by Varicella.	Attacked by Variola, Varioloid, and Varicella.	Deaths.	Deaths for 100 Treated.		Attacked by Variola and Varioloid.	Attacked by Varicella.	Attacked by Variola, Varioloid, and Varicella.	Deaths.	Deaths for 100 Treated.		Attacked by Variola and Varioloid.	Attacked by Varicella.	Attacked by Variola, Varioloid, and Varicella.	Deaths.	Deaths for 100 Treated.		Attacked by Variola and Varioloid.	Attacked by Varicella.	Attacked by Variola, Varioloid, and Varicella.	Deaths.	Deaths for 100 Treated.	
					For Variola and Varioloid only.	For Variola, Varioloid, and Varicella.					For Variola and Varioloid only.	For Variola, Varioloid, and Varicella.					For Variola and Varioloid only.	For Variola, Varioloid, and Varicella.					For Variola and Varioloid only.	For Variola, Varioloid, and Varicella.
Period 1877-81. Attacked by small-pox or varicella before being vaccinated at the corps	—	—	15	5	—	33.3	—	—	103	10	—	9.7	—	—	3	—	—	—	—	—	120	15	—	12.5
Attacked by small-pox or varicella after being vaccinated at the corps without success	—	—	58	6	—	10.3	—	—	629	34	—	5.4	—	—	17	2	—	11.8	—	—	704	42	—	6.0
Attacked by small-pox or varicella after being vaccinated at the corps with success	—	—	14	1	—	7.1	—	—	173	5	—	2.9	—	—	8	—	—	—	—	—	195	6	—	3.3
Attacked by small-pox or varicella with recent anamnesis not stated	—	—	14	1	—	7.1	—	—	22	—	—	—	—	—	84	12	—	14.3	—	—	120	13	—	10.8
	—	—	101	13	—	12.9	—	—	927	49	—	5.3	—	—	111	14	—	12.6	—	—	1,139	76	—	6.7
Period 1882-97. Attacked by small-pox or varicella before being vaccinated at the corps	26	4	30	5	19.2	16.7	188	29	217	16	8.5	7.4	11	1	12	2	18.2	16.7	225	34	259	23	10.2	8.9
Attacked by small-pox or varicella after being vaccinated at the corps without success	20	14	34	1	5.0	2.9	550	196	746	13	2.4	1.7	11	3	14	—	—	—	581	213	794	14	2.4	1.8
Attacked by small-pox or varicella after being vaccinated at the corps with success	44	10	54	2	4.5	3.7	619	258	877	14	2.3	1.6	29	8	37	1	3.4	2.7	692	276	968	17	2.5	1.8
Attacked by small-pox or varicella with recent anamnesis not stated	5	3	8	—	—	—	33	13	46	—	—	—	52	31	83	9	17.3	10.8	90	47	137	9	10.0	6.6
	95	31	126	8	8.4	6.3	1,390	496	1,886	43	3.1	2.3	103	43	146	12	11.7	8.2	1,588	570	2,158	63	4.0	2.9
Period 1877-97. Attacked by small pox or varicella before being vaccinated at the corps	—	—	45	10	—	22.2	—	—	320	26	—	8.1	—	—	14	2	—	14.3	—	—	379	38	—	10.0
Attacked by small-pox or varicella after being vaccinated at the corps without success	—	—	92	7	—	7.6	—	—	1,375	47	—	3.4	—	—	31	2	—	6.5	—	—	1,498	56	—	3.7
Attacked by small-pox or varicella after being vaccinated at the corps with success	—	—	68	3	—	4.4	—	—	1,050	19	—	1.8	—	—	45	1	—	2.2	—	—	1,163	23	—	2.0
Attacked by small-pox or varicella with recent anamnesis not stated	—	—	22	1	—	4.5	—	—	68	—	—	—	—	—	167	21	—	12.6	—	—	257	22	—	8.6
			227	21	—	9.3	—	—	2,813	92	—	3.3	—	—	257	26	—	10.1	—	—	3,297	139	—	4.2

Table IV.

Periods.	Remote Anamnesis in childhood or before entering the service.				Total average strength.	Ratio per 1,000 of strength.		
	Variolated.	Vaccinated.	Variolated and Vaccinated.	Never vaccinated or variolated.		Variolated.	Vaccinated.	Neither variolated nor vaccinated.
Period 1877-81 ...	7,689	178,909	186,598	7,237	193,835	40	923	37
,, 1882-97 ...	4,350	198,653	203,003	4,143	207,146	21	959	20
,, 1877-97 ...	5,031	194,118	199,149	4,828	203,977	25	951	24

longer or shorter time without being vaccinated. The regulations prescribe that recruits must be vaccinated immediately after their arrival at the regiments; but, before arriving at his regiment the recruit has already passed from 9 to 10 days at the chief town of the district of recruitment (*distretto di reclutamento*) without being vaccinated.

It is to be considered, too, that a very small number of conscripts escape vaccination, perhaps through arriving late from their country, or through falling ill of some disease which occasions them to be sent to the hospital. These individuals are vaccinated later on the occasion of other general vaccinations or revaccinations. Anyhow this number is very small indeed, almost infinitesimal. Therefore, in calculating the lapse of time during which each individual in the army remains without being vaccinated to be a fortnight, we believe we go further than is necessary. Now, supposing one third part of the army to be renewed each year, we will see (taking, for the purpose of this calculation, the average strength of the whole period 1877-97) that one-third of the strength (203,977 ÷ 3 = 67,992) remains every year 15 days without being vaccinated, or in other words, that the total days of the not yet vaccinated men in the force amount to 1,019,880 a year. This number, divided by 365 (the number of days in the year), gives an average strength of 2,794 not yet vaccinated in the corps.

Calculating similarly we have:

For the period 1877-81 ... Not vaccinated in the corps ... 2,658
For the period 1882-97 ... Not vaccinated in the corps ... 2,838

TABLE VI.

Recent and Remote Anamnesis.	Average Strength.	Attacked by Small-pox and Varioloid.		Deaths.		Per 10,000 Average Strength.	
		In 16 years.	In average each year.	In 16 years.	In average each year.	Sickness.	Mortality.
Never vaccinated nor variolated in childhood. — Not yet vaccinated in the corps	56	26	1.6250	5	0.3125	290.0	55.80
Never vaccinated nor variolated in childhood. — Vaccinated in the corps without success	1,103	20	1.2500	1	0.0625	11.3	0.57
Never vaccinated nor variolated in childhood. — ,, ,, with success	2,984	44	2.7500	2	0.1250	9.2	0.42
Never vaccinated nor variolated in childhood. — Recent anamnesis not stated	—	5	0.3125	—	—	—	—
Never vaccinated nor variolated in childhood. — Total	4,143	95	5.9375	8	0.5000	14.3	1.21
Vaccinated or variolated in childhood. — Not yet vaccinated in the corps	2,782	188	11.7500	16	1.0000	42.2	3.59
Vaccinated or variolated in childhood. — Vaccinated in the corps without success	80,802	550	34.3750	13	0.8125	4.3	0.10
Vaccinated or variolated in childhood. — ,, ,, with success	119,419	619	38.6875	14	0.8750	3.2	0.07
Vaccinated or variolated in childhood. — Recent anamnesis not stated	—	33	2.0625	—	—	—	—
Vaccinated or variolated in childhood. — Total	203,003	1,390	86.8750	43	2,6875	4.3	0.13
Remote anamnesis not stated	—	103	6.4375	12	0.7500	—	—
General Total	207,146	1,588	99.2500	63	3.9375	4.8	0.19
Partial Totals according to the recent anamnesis :							
Not yet vaccinated in the corps	2,838	225	14.0625	23	1.4375	49.6	5.07
Vaccinated in the corps without success	81,905	581	36.3125	14	0.8750	4.4	0.11
,, ,, with success	122,403	692	43.2500	17	1.0625	3.5	0.09

TABLE VII.

Recent and Remote Anamnesis.	Average Strength.	Attacked by Small-pox, Varioloid, and Varicella.		Deaths.		Per 10,000 of Average Strength.	
		In 21 years.	In average each year.	In 21 years.	In average each year.	Sickness.	Mortality.
Never vaccinated nor variolated in childhood. — Not yet vaccinated at the corps	67	45	2.1429	10	0.4762	319.8	71.07
Never vaccinated nor variolated in childhood. — Vaccinated at the corps without success	1,533	92	4.3810	7	0.3333	28.6	2.17
Never vaccinated nor variolated in childhood. — ,, ,, with success	3,228	68	3.2381	3	0.1429	10.0	0.44
Never vaccinated nor variolated in childhood. — Recent anamnesis not stated	—	22	1.0476	1	0.0476	—	—
Never vaccinated nor variolated in childhood. — Total	4,828	227	10.8095	21	1.0000	22.4	2.07
Vaccinated or variolated in childhood. — Not yet vaccinated at the corps	2,727	320	15.2381	26	1.2381	55.9	4.54
Vaccinated or variolated in childhood. — Vaccinated at the corps without success	88,108	1,375	65.4762	47	2.2381	7.4	0.25
Vaccinated or variolated in childhood. — ,, ,, with success	108,314	1,050	50.0000	19	0.9048	4.6	0.08
Vaccinated or variolated in childhood. — Recent anamnesis not stated	—	68	3.2381	—	—	—	—
Vaccinated or variolated in childhood. — Total	199,149	2,813	133.9524	92	4.3810	6.7	0.22
Remote anamnesis not stated	—	257	12.2381	26	1.2381	—	—
General Total	203,977	3,297	157.0000	139	6.6190	7.7	0.52
Partial Totals according to the recent anamnesis :							
Not yet vaccinated at the corps	2,794	379	18.0476	38	1.8095	64.6	6.48
Vaccinated at the corps without success	80,641	1,498	71.3333	56	2.6667	8.0	0.30
,, ,, with success	111,542	1,163	55.3810	23	1 0952	5.0	0.10

Now it remains to know how many, among these unvaccinated in the corps had been vaccinated or variolated in childhood, and how many had been neither vaccinated nor variolated. There is no reason to believe that the rates of these classes among the unvaccinated in the corps will be different from the rates found among all the military men in general, which we have established in the Table No. IV.

Then we have :

	Unvaccinated in the Corps.			
	Never Vaccinated nor Variolated in Childhood or before entering the Service.	Vaccinated.	Variolated.	Total.
Period 1877-81 ...	68	2,434	106	2,658
,, 1882-97 ...	56	2,722	60	2,838
,, 1877-97 ...	67	2,657	70	2,794

Subtracting these numbers from the total strength of each period, we have :

	Vaccinated in the Corps.			
	Never Vaccinated nor Variolated in Childhood or before entering the Service.	Vaccinated.	Variolated.	Total.
Period 1877-81 ...	7,139	176,455	7,583	191,177
,, 1882-97 ...	4,087	195,931	4,290	204,308
,, 1877-97 ...	4,761	191,461	4,961	201,183

Now, it remains only to be known how many, among all these vaccinated in the corps, have been successfully or unsuccessfully vaccinated. In order to ascertain this we have

only to calculate according to Table No. I the average of the successes obtained in vaccination during the two periods and in each category of remote anamnesis. Thus we have:

	Good Successes per 1,000 Vaccinations.		
	Among the Variolated.	Among the Vaccinated.	Among the Never Variolated nor Vaccinated.
Period 1877-81 ...	379	408	505
1882-97 ...	525	598	730
, 1877-97 ..	491	553	678

If we now apply these proportions to the already established number of variolated, vaccinated, and never vaccinated, we shall have the definitive repartition of the average strength into categories of recent and remote anamnesis, and with their respective combinations, as it results from the following table:

TABLE V.

Categories of Recent Anamnesis.		Remote Anamnesis in Childhood or before entering the Service. Variolated.	Vaccinated.	Total Variolated and Vaccinated.	Never Variolated nor Vaccinated.	Total average Strength.
Period 1877-81.	Not yet vaccinated in the corps	106	2,454	2,560	98	2.658
	Vaccinated in the corps ...	7,583	176,455	184,038	7,139	191,177
	Without success ...	4,709	104,461	109,170	3,534	112,704
	With success	2,874	71,994	74,868	3,605	78,473
	Total ...	7,689	178,909	186,598	7,237	193,835
Period 1882-97.	Not yet vaccinated in the corps	60	2,722	2,782	56	2,838
	Vaccinated in the corps ...	4,290	195,931	200,221	4,087	204,308
	Without success ...	2,038	78,764	80,802	1,103	81,905
	With success	2,252	117,167	119,419	2,984	122,403
	Total ...	4,350	198,653	203,003	4,143	207,146
Period 1877-97.	Not yet vaccinated in the corps	70	2,657	2,727	67	2,794
	Vaccinated in the corps ...	4,961	191,461	196,422	4,761	201,183
	Without success ...	2,525	85,583	88,108	1,533	89,641
	With success	2,436	105,878	108,314	3,228	111,542
	Total ...	5,031	194,118	199,149	4,828	203,977

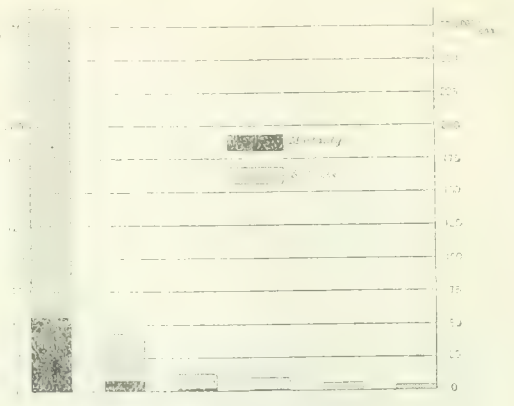
So that, to know the different receptivity of small-pox according to the different categories of anamnesis, we have only to seek the relation between the figures of the respective average strength, and those of the cases of small-pox given by Table No. III. Let us consider first only the period 1882-97, in which the cases of small-pox and varioloid have been kept separated from those of varicella. (See Table VI, p. 1020.)

These numbers are so significant that any commentary will be superfluous. We will only observe that, if the army were to be exclusively composed—in conformity with the wishes of the antivaccinists—of never vaccinated individuals, we should have, for an average strength of 207,000 men, no fewer than 6,007 small-pox cases per year, and an annual loss of 1,561 by death from small-pox.

But perhaps it may be objected that some of our proportional figures are based upon a too small number of observations. Let us then enlarge the field of our observations, extending it to the whole period 1877-97, though as we have already said, for the first five years varicella was mingled in the statistics with variola and varioloid.

In Table VII, p. 1020, we have mingled together variola and varicella, in order to extend our examination to the whole period 1877-97.

Diagram showing the Different Mortality and Sickness per 10,000 of the Average Strength according to the Remote and Recent Anamnesis.



A B C D E F

A. Never variolated nor vaccinated in childhood, and not yet vaccinated in the corps.

B. Variolated or vaccinated in childhood, but not yet vaccinated in the corps.

C. Never variolated nor vaccinated in childhood, and vaccinated in the corps without success.

D. Never variolated nor vaccinated in childhood, and vaccinated in the corps with success.

E. Variolated or vaccinated in childhood, and vaccinated in the corps without success.

F. Variolated or vaccinated in childhood, and vaccinated in the corps with success.

In conclusion, having demonstrated by the very great amount of evidence contained in the military statistics: (1) That small-pox attacks in a very much larger proportion the individuals who have never been vaccinated, and (2) that when it exceptionally attacks the vaccinated individuals it shows a very much smaller severity, we cannot conceive upon what proofs, upon what arguments, a serious scientific opposition to vaccination can be grounded.

REFERENCE.

[1] *Giornale Medico del R. Esercito*, January-February, 1899. [2] The duration of service in India is generally three years, for the cavalry only it is four years, for the gendarmerie (*Carabinieri*) five years.

PEMPHIGUS CONTAGIOSUS.

By N. GORDON MUNRO, M.B., C.M.Edin.,
Yokohama.

In Japan and China, along the whole southern coast line, it may be, of the Asiatic continent, there exists a skin affection of a comparatively trivial nature, but interesting in its close resemblance to pemphigus. This disease has not escaped the notice of Dr. P. Manson, who has given an excellent account of it in *Hygiene and Diseases of Warm Climates*, under the name of "Pemphigus Contagiosus." The Japanese name of this affection is "Tobi-hi" (sparking or leaping fire), a quite appropriate title, as the lesions resemble so closely those of superficial burns.

Pemphigus contagiosus is characterised by the occurrence of one or more bullæ, appearing simultaneously or in succession, and spreading by contagion from one part of the skin to another, or from person to person. Each bulla is preceded by a spot of hyperæmia which marks the site of the coming vesicle, and spreads with the development of the latter as a thin areola, or surrounding circle, sometimes not very evident. This spot of hyperæmia is usually the seat of a slight, rarely severe, itching, burning, or stinging sensation, which decreases with the advent of the vesicle, although it may return at a later stage, when the collapse of the vesicle brings the superficial and deep layers of the epidermis into contact. Each vesicle or bulla contains a clear fluid with a few cells from the stratum granulosum, leucocytes, and a micrococcus.

It can scarcely be doubted that this micrococcus, which was noticed by Manson, is the specific cause of the disease, and

for this reason it might be called the micrococcus vesicans. This micrococcus, which has a tendency to form diplococci, has been cultivated in various media by the writer. On glycerine or glucose agar-agar, it forms characteristic colonies, which have a highly polished, pure white surface, which reflects the light in a glistening manner, bearing a close resemblance to the white enamel which is used for "ringing" microscopic slides. On gelatine the cultures are not so distinctive, owing to the difficulty of keeping this medium solid during the summer months, the only season during which fresh cultures can be made. In bouillon the colonies grow slowly at the bottom of the tube, retaining their white colour, while on potato they have a pale yellow colour, but still retain their polish. I have not succeeded in reproducing the disease in lower animals, although personally and with the kind asssistance of Dr. Yokura, whose work in veterinary medicine is above praise, many efforts were made in this direction. He has, however, succeeded in inoculating a patient already infected with this disease, and in making pure cultures from the lesion, so that little doubt remains as to the cause.



Photograph 1.—Vesicles are too dark, and not clearly defined in photograph.

The bullæ may reach the size of an inch or more without breaking, but usually they become flaccid when from a fourth to three-fourths of an inch in diameter, and, the contents escaping, a weeping red surface is left under the cuticle, which frequently continues to exfoliate. When the bullæ are not far apart, they often become confluent, so that an area as large as the hand may be left bare and weeping. Under treatment, however, it is rare to see so large an area. The early stages of this affection are identical in appearance with the "pemphigus vulgaris benignus" of Kaposi, and the later stages have all the morphological characters of the exfoliating type of pemphigus, without the constitutional symptoms, though in some cases such symptoms are observed. One adult, who was removed from the British Consular gaol to the Yokohama General Hospital and died within eight hours of admission, had contracted the disease two months previously, and as he had not informed the prison surgeon until a few days previous to his death of his condition, he was believed to be suffering from debility and alcoholic depression. No cultures were made in this case, but in a second case a pure culture was made. This man was discharged from the hospital cured, to all appearance, yet he was found dead some months later, with a history it is true of alcoholism, dirt, and poverty, but with extensive exfoliating lesions on the feet and legs. He attributed his disease to sleeping on the straw of an old disused stable, but the rubbish had been cleared away, and could not, therefore, be examined. In neither of the above cases can it be proved that this disease was directly instrumental in producing death, yet the coincidence is suggestive. Photograph 1 was taken from a child under the care of the writer who was apparently cured, but who suffered a relapse while at the seaside, which extended in an exfoliating form, so that on his return Photograph 2 was taken. It is seldom that the writer has seen marked constitutional disturbances, yet there can be no doubt that children are often not quite so robust during and after the course of this affection as formerly.

In many ways indeed this disease resembles true pemphigus, and without going so far as to say that it is a form of true pemphigus, the likeness is sufficient to deserve more than a passing notice. The pemphigus acutus infantum of Europe must be an infectious disease, and is probably identical with pemphigus contagiosus, which the writer has known to follow the ministrations of one midwife in five infants throughout five separate cases of labour.

From the description, the resemblance of this disease to impetigo contagiosa will be apparent, but the writer is inclined to agree with Manson in the separation of the two affections. Pemphigus contagiosus does not begin with a febrile attack, does not invariably form pus, is more commonly distributed on the limbs and trunk than on the face or scalp; the scabs, or rather exfoliations, which spread round the periphery of the ruptured vesicle are not formed mainly of dried pus, but of desquamated epithelium, which may continue to exfoliate for weeks, and lastly, the invariable presence of micrococci in the fluid from the vesicles may serve to distinguish the two. On the other hand, the descriptions of impetigo contagiosa are not very consistent, and some, notably those of Dühring and Shoemaker, might possibly apply to pemphigus contagiosus. The majority of the cases which have come under the notice of the writer do not tally with those of Manson in having no areolæ, and in this way, perhaps, lean towards impetigo, but the distinction in unimportant.



Photograph 2.—Same as No. 1 some weeks later on return from country.

The treatment is mainly local. Washing the surrounding skin with corrosive sublimate soap, sublimate or ichthyol compresses, and the use of an ointment of white precipitate and naphthol, with a dusting powder of dermatol and borax in infants, usually ends the disease in a week or ten days, but tonics are often required, and particularly if a relapse takes place. Of these, the hydrochlorates of arsenic and quinine, with perchloride of iron, are the best.

NOTE.

Since the above was written, Surgeon Sichel has contributed an interesting article to the BRITISH MEDICAL JOURNAL, in which he describes

three varieties of pemphigus contagiosus. I cannot agree with Dr. Sichel in attributing pemphigus contagiosus to "excessive sweating," and I consider the term "sudoral dermatitis" as quite inappropriate when applied to this disease. This disease is extremely infectious, and I have seen a bulla on the forefinger of a mother eight hours after its appearance on the arm of her child. Possibly, however, the vesicular eruptions associated with lichen tropicus may have some such origin.

MALARIA AND PREGNANCY.*

By F. H. EDMONDS, M.R.C.S., L.R.C.P.,
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The coincidence of malaria and pregnancy must always cause anxiety, for the fœtal life is often sacrificed and the mother's endangered and sometimes lost. The subject divides itself into the effects of malaria—intermittent, remittent, and cachectic—on, first, the period from conception to the sixth month, and, secondly, from the sixth month to the end of the puerperal period. The simple intermittent has no effect on conception, and, if mild, no influence on the mother's or child's life.

In July, 1898, I saw a young girl who for the previous six or seven months had had a slight intermittent, never going for more than a fortnight without chills and fever, which had been treated with quinine, arsenic, aconite, amongst other drugs prescribed by a dispenser. I was called in on account of persistent vomiting which had come on during the last two months, and, on examination, satisfied myself that the girl was probably at the end of the third month of pregnancy. Under treatment the vomiting—which I considered as the sickness of pregnancy—was stopped, and the pregnancy continued its natural course.

If, however, the intermittent is more acute, and the temperature rises over 104°, abortion will usually take place, as in the case of a girl who, having missed two menstrual periods, developed an acute intermittent (quotidian), and on the third day, with a temperature of 104.8°, passed a complete membrane containing a fœtus before she had time to get the quinine mixture made up.

In all cases of pregnancy seized with acute intermittent the patient complains of the pains in the abdomen, and the uterus can be felt hard and firmly contracted; but if quinine be given and the temperature does not rise to 104°, each succeeding paroxysm will have less effect on the uterus, and mother and child will be saved.

The (bilious) remittent malarial has the same effect on pregnancy as the simple intermittent, only differing in degree, the fever being usually higher; abortion is more common, and is often followed by a very large hæmorrhage of florid blood. Here also, if the case comes under treatment early, and the pregnancy be not taken into account, there is not much greater danger to the mother than in cases where there is no pregnancy. Malarial cachexia, notwithstanding the great depression and apparently low vitality of the subjects, is no bar to conception, and does not interfere with the progress of pregnancy, nor need its treatment be neglected on account of the pregnancy.

Last year a young girl came to town from up the river Demerara. She was said to have had low fever every fourth day for nine months, and was, when I saw her, in a chronic malarial cachexia. I also found that she was about four months pregnant. After taking iron, bromides, and nux vomica she improved greatly, and returned to her home with every prospect of fulfilling her time successfully.

The absence of effect on pregnancy in these cachectics is probably due to the absence of high temperatures.

In the second period the complication of pregnancy with malaria gives rise to a much more acute and dangerous condition, due in great part to the reaction of the now partly independent fœtus. In this period, if the woman be attacked by an intermittent during the first paroxysm, the fœtal movements become very strong, and cause rather severe pain; they can be seen in many cases until the temperature passes 103°, when a painful, continued cramp of the uterus appears to limit the fœtal movements; in this case the fœtus may die, or it may live to react against another paroxysm; but in either case the mother will say she did not feel any more movement after such a certain paroxysm, although the next paroxysm will still be marked by the strong and painful contraction of the uterus, and soon a paroxysm is accompanied by a miscarriage of a fœtus bearing evidence of intrauterine death of some few days, peeling epidermis and mottling, and the placenta is discharged of a heavy dull blue colour.

In October last year I saw a woman who was in her eighth month. At the time she was in the hot stage of the fifth paroxysm of an intermittent (tertian), temperature, 104.6°; the movement had been violent for the two first attacks, but had not been felt at the later, nor during the intervals; the uterus was painful and very hard. Before she could get the prescription made up, she had miscarried, the fœtus peeling, and the placenta gorged and leaden-coloured.

If the intermittent be not treated, the same painful, hard contraction of the uterus takes place at the succeeding paroxysms.

A bilious remittent malaria complicating the second period is the most serious condition we have to deal with; the reactions of the fœtus are marked at first, but as the fever remits become weaker, and seem to fade away gradually, and not to cease after a certain definite effort. The contraction of the uterus is not so firm, but is painful, and there is much soreness and tenderness over the uterus and usually over all the abdomen. The adynamic character this fever tends to causes delay in miscarriage or in parturition, and at the same time does not admit of the use of ergot, or of chloral, so that the process of delivery is very slow, lessening the chance of saving the child's life, which otherwise might be effected more frequently than in intermittent. However, if the temperature has risen much over 104°, the fœtus will be dead before delivery.

When this bilious remittent appears during or just after parturition, the mother's life is placed in the greatest danger. I have seen young and healthy women pass to the last week of pregnancy in good condition, and then fall off, become sallow-looking, have low remittent fever; during labour the temperature has risen, the tongue become thickly coated with a yellow fur, the patient become very restless, the pains weak and long drawn; after delivery there has usually been gushing of fluid dark blood; then an improvement for—usually—48 hours, when a relapse (another paroxysm?) comes on with higher temperature, deeper jaundice, greater weakness and constipation, which, on relief being given by an enema, results in the passage of a large, black, stinking stool. After five or nine days' alternations—each marked by increasing weakness—the patient dies quietly, with many appearances of puerperal fever, but having had her lochia of good colour, quantity, and odour; and having had no uterine pain or tenderness. In these cases the child is frequently strong and healthy, but there is not a more dangerous condition for a woman than to be seized by a malarial remittent during her puerperium.

Malarial cachexia affects the second period of pregnancy much as any other condition of debility. The sufferer is reduced to a very low state by the cachexia, which is an asthenic state much increased by the disordered digestion usually present in these cases, where the stomach refuses to retain any medicine, and rejects even the lighter forms of nourishment. Labour is very slow and lingering, with weak inefficient pains, and usually requires the assistance of forceps. The child is often born big and strong.

Twenty years' active work in malarious districts has convinced me that malarial fever is responsible for a large number of stillbirths. I am constantly seeing pregnant women suffering from untreated malaria, and always find that in the first paroxysm of intermittents, during the ague stage, the fœtal movements are very strong and frequent, and the uterus not contracted. During the hot stage the uterus contracts more strongly, and continues contracting so much and so firmly that the fœtal movements cannot be felt. I have always prescribed quinine, 5 gr., every four hours, and in cases where the temperature had not risen above 103°, and in which fœtal movements could still be felt, have seen the malaria checked and the pregnancy proceed to term. I have also often seen, where the fœtal movements had ceased after a previous paroxysm, and where the patient commenced taking quinine as soon as it was ordered, the miscarriage in a few hours of a fœtus showing signs of intrauterine death of some days before the quinine treatment was commenced. I have seen many cases where miscarriage has taken place, usually with evidence of intrauterine death of many hours, in patients whose malaria had remained untreated. I have also known many cases of pregnant women during the earliest months taking 10 and 15 gr. doses of quinine and continuing the pregnancy to term.

I am strongly of opinion that malaria, by rapidly raising the body temperature, tends strongly to abortion and miscarriage, and also that the early use of quinine, by reducing temperature, lessens very considerably the stillbirth rate.

* Presidential Address delivered to the British Guiana Branch.

ECZEMA TREATED BY *X* RAYS.

BY C. THURSTAN HOLLAND, M.R.C.S.,
Honorary Medical Officer in Charge of the *X*-Ray Department, Royal Southern Hospital, Liverpool.

ON December 7th, 1898, P. T., a young woman aged 19, was sent to me, with the following history: About a year ago she was operated on for a swelling on the left hand, over the metacarpal bone, and pus was evacuated. The wound soon healed, but immediately afterwards an eruption broke out around the scar and gradually extended over the back of the hand and up the fingers. For five months she had been attending as an out-patient at the skin department of one of the hospitals, but stated that the affection was getting worse and worse. The hand presented the appearance shown in Fig. 1.



Fig. 1.—Chronic eczema of the hand. Before treatment by *x* rays (December 7th, 1898).

A chronic eczematous eruption covered the whole dorsum; the skin was thickened, very scaly, and cracked all over; and there were a large number of adherent, blackened scabs, the largest just between the bases of the middle and ring fingers.

All other treatment was stopped, and the hand was exposed seven times—on December 7th, 12th, 16th, 19th, 24th, and 29th, 1898, and January 3rd, 1899—to an active *x*-ray tube. The apparatus used consisted of a 10-inch coil, worked from a 6-cell accumulator through a resistance, and fitted with a

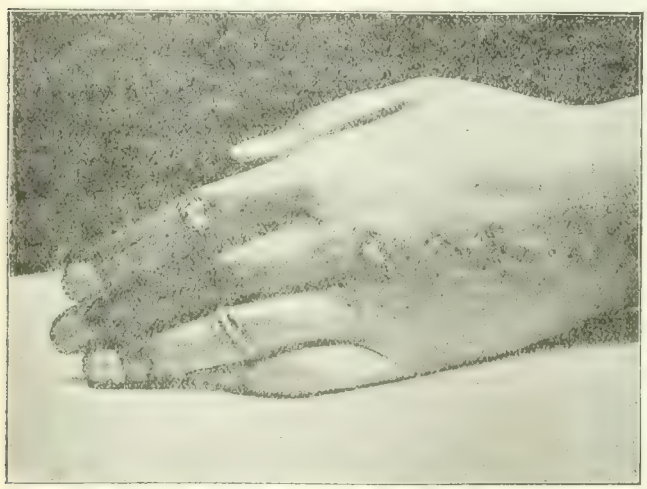


Fig. 2.—After treatment by *x* rays (February 18th, 1899).

mercury interruptor. A Zehnder tube was used on four occasions and one supplied to me by Mr. Isenthal on the other three. The lower edge of the glass of the tube was distant from the hand from 4 to 7 inches; each exposure was fifteen minutes in duration. No inflammatory change was noticed at any time; on the date of the last exposure (January 3rd) the scabs were loose and were picked off, and most of the scales had also disappeared; a small ulcer was found under the large scab referred to above. No further treatment was adopted, and on February 18th the condition was as is shown in Fig. 2.

All eczema has quite disappeared and the hand is well. The mark at the base of the middle and ring fingers and the other mark in a line with it on the back of the wrist are due to scarring; the scars are quite free from disease—in short, the case is cured. The explanation is probably that the *x* rays had a stimulating effect on the tissues of the diseased area, stimulating them and thus enabling them to bring about a cure.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

OBSTINATE HICCOUGH.

MR. R. W. S. CHRISTMAS'S interesting "memorandum" on the above subject appears to invite comment or confirmation as to the value of nitroglycerine in such cases. Some eight years ago I treated a lady between 30 and 40 years of age for a violent hiccough, which, sometimes once or twice repeated and occurring at varying intervals, made it almost impossible for her to mix in society. The digestion was treated by diet, regimen, and various internal remedies without result. Nerve sedatives were no more efficacious. At length I prescribed tabloids of $\frac{1}{100}$ grain of nitroglycerine to be taken two or three times a day, and in addition every time the condition threatened to recur. The effect was immediate and the malady was subdued in about a fortnight. Two years later there had been no recurrence.

Upper Brook Street, W. W. BEZLY THORNE.

I SHOULD like to add my experience of an aggravated case of this troublesome affection to the two reported in the BRITISH MEDICAL JOURNAL of March 11th and 18th, and to record the action of a remedy which proved absolutely instantaneous in its action. In the summer of 1894 a gentleman, aged about 30, came to my house in the middle of the night accompanied by a friend, and I could distinctly hear down my speaking tube a loud noise like the barking of a dog, the noise subsequently proving to be emanating from my patient, who was in a most exhausted and distressed condition from the violence of the seizure. He was quite unable to speak, and his companion informed me that he had had several previous severe attacks, and had been prescribed various drugs, including prolonged chloroform anæsthesia and hypodermic injections of morphine. I gave him a drachm of oil of turpentine in a little mucilage, and it acted like a charm; all symptoms disappeared immediately, and he was not troubled again during the few days he was under my notice. The man was a summer visitor, and I have not heard of him again, but he assured me he would never be without oil of turpentine in the house. The simplicity and effectiveness of the remedy appear to me to make the case worth recording.

Dovercourt. HAROLD GURNEY.

A CASE of obstinate and violent hiccough in a young man came under my treatment a few years ago. There was no discoverable cause for the hiccough, which lasted for several days. It was treated by morphine and chloroform, but as very slight improvement occurred, a blister was applied on each side of the cervical spine over the origins of the third, fourth, and fifth cervical nerves, in the hope of influencing the phrenic nerves. This stopped the hiccough in a few hours.

Lincoln. E. MANSEL SYMPSON, M.D., M.R.C.S., B.C.

DISLOCATION OF THE RADIO-CARPAL JOINT.

ON looking over the latest volume of the New Sydenham Society's publications—Professor Helferich on *Fractures and*

Dislocations—the other day, I found it there stated that only some thirty cases of undoubted dislocation of the radio-carpal articulation have been recorded. That the accident was a rare one I knew, but I did not know before that so few undoubted cases had been put on record, and I hasten accordingly to record the thirty-first. It happened here, in December, 1898, to a strongly-built young man of about 25 years of age. I saw him a few minutes after the accident and found a complete dorsal dislocation of the right radio-carpal joint without any fracture. Reduction was most easily accomplished by extension and slight pressure on the protruding carpus. In a fortnight he had practically full use of the joint.

His story of the cause of the accident was that while separating two men who were fighting in a publichouse, one of them pushed him over and he fell heavily on his right hand which was fully flexed at the wrist.

Forfar. J. D. L. Macalister, M.B., C.M.

EXCISION OF BREAST SCIRRHUS: "RECURRENCE" NEARLY TWELVE YEARS AFTERWARDS.

Mrs. M., aged 42, had the right breast excised for a scirrhous growth, of "hazel-nut" size, in January, 1887. It had been noticed five weeks. The patient was a small, spare, lachrymose woman, of rather alcoholic tendencies. The axillary glands were tender on pressure, but not enlarged. They were all carefully removed.

There was no after-treatment, and the patient was not seen again till November, 1898, when she returned with an ill-defined, hard nodule fixed to the fourth rib, below the scar, and causing the usual lancinating pain. This was excised in January last, and proved a typical carcinomatous deposit. The cicatrix and axilla were healthy. There was no sternal prominence or other indication of "insidious marrow infection."

I venture to record this case because at first sight it seems to controvert my fairly well-known views. These patients ordinarily betray marrow deposit at the time of operation; or, if not, the physical signs appear soon afterwards. Unless held in control by opium, that condition gives rise to "recurrent nodules" in two three years as an average rule. *Per contra*, a lady from whose chest wall I removed two large "recurrent" masses in May, 1891, and who has taken a small nightly dose of nepenthe ever since, has betrayed no reappearing deposit to the present time, although palpable signs of marrow infection were then present.

Here there were never any physical signs of marrow deposit, and no opium treatment. The reappearance seems referable to a minute residual nidus of carcinoma cells, enclosed in scar tissue, which markedly inhibits their growth. A tiny nodule can be felt on palpation, but for several years caused no inconvenience to the patient. Of this event I have seen several instances. At all events, the case may be commended to the notice of any who still uphold the familiar dictum of Volkmann.

Gloucester Place, W. Herbert Snow.

OPERATIVE TREATMENT OF DISTENDED SMALL INTESTINE IN ACUTE OBSTRUCTION AND IN ACUTE PERITONITIS.

Authorities are now fairly agreed that thorough evacuation of the bowel above the obstruction is the key to the treatment of these cases. During the last seven years I have had opportunities of watching the results in upwards of a hundred cases of this nature. As might be expected, the worst results have occurred where, by a long operation, the damaged bowel has been excised, and the ends united by simple suture or a button or bobbin. Somewhat better are those in which the bowel has been emptied by multiple enterotomies, the incisions being closed at once. The best are those in which a temporary enterostomy has been performed, and the artificial anus closed later when the patient is unpoisoned. To perform a prolonged operation on a poisoned patient is generally futile, and if in addition to this a Murphy's button is inserted, its lumen is so small that the patient is left with what is, to all intents and purposes, a partial obstruction, not to mention the tendency of the button to cause kinking by its weight.

Enterotomy will, in time, empty the bowel, but does not provide for the escape of fluids secreted afterwards, and which very quickly redistend the bowel, in the same way that a distended urinary bladder is quickly refilled after evacuation. Temporary enterostomy meets this objection. In fact if the surgeon called in to operate on a case of acute obstruction were to leave his Murphy's button or somebody's bobbin at home, and take instead a simple glass tube with which to drain the distended intestine, it would be better for both himself and the patient. In recent years Treves, by employing this method for all acute cases, has reduced his mortality one half.

Plymouth. C. Hamilton Whiteford, M.R.C.S., L.R.C.P.

HÆMORRHAGE FROM THE BOWELS IN A CASE OF GRANULAR KIDNEY.

In the third of the Lettsomian Lectures on some clinical aspects of granular kidney, in the British Medical Journal of March 11th, 1899, Dr. Samuel West calls attention to the fact that hæmorrhage may occur from almost any part of the body, and instances one case of hæmatemesis and one case of hæmorrhage from the bowel. The following case appears to be an instance of the last-named variety.

On January 18th I was called about 10.30 P.M. to see an old lady, aged 72. Her friends gave a somewhat confused history of her illness to this effect: A few hours previously, whilst at the house of a relative, she had some sort of attack described as a "fit." She appeared to lose consciousness for a few minutes, then recovered to some extent. The statement was made spontaneously by one of her friends that she "appeared to trail one leg" on attempting to walk. She was conveyed home and put to bed. When I saw her she was in bed, breathing rather quickly and muttering incoherently, apparently in a condition of low delirium. There was a slight elevation of temperature, and a slight amount of cardiac dilatation. The pulse was rapid, hard, and tense. I could find no signs of paralysis. The only treatment I then ordered beyond the necessary directions for nursing was a mild aperient.

Next morning she was still in a state of low delirium, but the pulse was quieter and the temperature just above normal. The patient had had a copious evacuation of the bowels, partly involuntary as far as I could ascertain. I requested a specimen of the urine to be preserved for me, but was unable to obtain one for some time—not until after the acute stage of her attack had passed off. The urine then was slightly acid, specific gravity 1008, with a slight trace of albumen.

In the evening she was quite sensible, but I was informed that about 4 P.M. an attack of diarrhœa had set in. I did not think it necessary to try to check this at once. Next morning (January 20th) I heard that the diarrhœa had continued all night, and on inspecting the stools discovered that they consisted almost entirely of pure blood. On further inquiry I found that the so-called "diarrhœa" of the day before was the passage of blood with a small quantity of fæces.

I examined *per rectum* to see if there was any local condition which would account for the hæmorrhage, but could find nothing, nor could I obtain any history which would point to any definite cause. As the hæmorrhage continued at intervals throughout the day, I tried to check it by giving a mixture of bismuth and chalk, but it had no effect. For the next two days it still continued, and I tried bismuth, catechu, ergot, and acetate of lead in full doses, but failed to arrest the hæmorrhage.

On the morning of January 22nd the patient was becoming so exhausted that I determined, in opposition to the usual practice in cases of granular kidney—for such was my diagnosis—to give small doses of opium. Accordingly I gave her 5 minim doses of tinct. opii, with bismuth and mucilage, and this speedily took effect. The medicine was given every two hours for three or four doses, then the interval was gradually lengthened, and in two or three days the hæmorrhage had practically ceased. The patient began to recover rapidly. She is now apparently in her usual health.

It may be said that this case cannot be accepted as a true example of granular kidney on account of the difficulty of confirming the diagnosis by other means, and also excluding absolutely all other causes of hæmorrhage, but after careful investigation it appeared to me to be the only explanation of the case.

Allan I. Petyt, M.A., M.B., B.C.Cantab, L.S.A.Lond.

Longton, Lancs.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.

CASE OF CYSTIC DISEASE OF THE BREAST IN A BOY, AGED 3 YEARS.

(Under the care of Mr. D'Arcy Power, F.R.C.S., Surgeon Victoria Hospital for Children; Assistant Surgeon St. Bartholomew's Hospital.)

[Reported by Mr. A. Chilcott Parsons, House-Surgeon.]

The patient, a healthy-looking boy of 3 years, was brought up to the hospital on December 22nd, 1898. According to his mother's account he had always enjoyed good health. Eighteen months previously she noticed that the left breast was fuller than the right, and since that time it has been slowly getting larger. There was never any pain in the breast or any discharge from the nipple.

On examination there was felt in the left breast a soft round tumour about the size of half a tangerine orange. It appeared to be cystic in character and adherent to the skin. The nipple was normal, and there was no "dimpling" over the tumour. No edge could be made out, and there were no enlarged glands in the axilla; no tenderness on palpation.

Operation.—An elliptical incision was made in an oblique direction across the tumour, which included the nipple, and extended as far as the anterior border of the axilla. The tumour was dissected away with the overlying skin. All the gland tissue was then removed together with a portion of the fascia covering the pectoral muscles; no glands were seen. There was very little bleeding; but even when the main tumour was removed by incisions carried widely upon each side of it, many small cysts were cut into as they lay in the surrounding connective tissue. The wound was then sewn up with silkworm gut and a drainage tube inserted for twenty-four hours. Stitches were removed on the tenth day, and the wound healed by first intention. Macroscopically the larger tumour was seen to consist of a simple cyst about the size of a walnut, partially subdivided into smaller loculi by incomplete septa. The lining membrane was smooth, and the cyst contained a clear yellow fluid.

Remarks by Mr. Power.—The case is interesting both on account of the sex and youth of the patient, for it is rare to find cystic disease of the breast in so young a boy. I thought it better to remove the whole breast rather than to incise the main cyst because the gland was functionless, because the scar would be less perceptible, and because the cysts were so numerous that it was impossible to get rid of them otherwise. The lymphatic origin of the cyst led me to remove the pectoral fascia, which was riddled with lymphatics from the breast.

ASHTON-UNDER-LYNE INFIRMARY.

COLOTOMY, SIMPLE AND COMPLICATED.

(Reported by A. J. Rodocanachi, M.D.Lond., House-Surgeon.)

J. E. B., aged 58, was admitted under the care of Dr. Bisset Smith on August 8th, 1898, suffering from advanced cancer of the rectum with fistulæ. Left inguinal colotomy was performed on August 30th. The parietal peritoneum was first stitched to the skin, and then the colon fixed in this wound by stitches, as recommended by Jacobson. On September 4th the bowel was opened. On September 6th the upper and inner lip of the wound gave way, so that about 2 feet of small intestine prolapsed and became soiled with fæces. It was promptly cleansed and returned without difficulty; a sterilised sponge was put into the opening. When the sponge was removed on September 8th, another prolapse of intestine occurred, which was also quickly reduced. No ill-effect resulted, and the patient lived until February, 1899.

W. G., aged 50, was admitted under the care of Dr. Ure on August 10th, 1898, suffering from symptoms of intestinal obstruction of fourteen days' duration. Rectal examination gave a negative result. A diagnosis of malignant disease in some part of the colon was made, and a left lumbar colotomy was performed, the bowel being opened at once. By this the distension was immediately relieved, and a great quantity of fæces evacuated. After this, the bowels began to act *per rectum*, and the lumbar wound was allowed to close. On October 8th it had completely healed and he was discharged, apparently well. On November 29th he returned with renewed obstruction, which was temporarily relieved by opening and dilating the old wound. As this showed a great tendency to close, and as a mass of growth could now be felt *per rectum*, left inguinal colotomy was performed. The first stage was done on December 29th; but it was found that the colon here had no mesocolon and, therefore, it could not be drawn to the surface at all. The parietal peritoneum was, therefore, stitched down to the bowel. There was much dragging pain for days after. The wound was drawn in, the colon lying at the bottom of a pit. Union was slow owing to the escape of peritoneal fluid, so the second stage was postponed till January 17th. This gave considerable relief, but a recto-vesical fistula formed and death occurred on January 26th, 1899.

D. W., aged 63, was admitted on December 13th, 1898, under Dr. Ure, suffering from rectal cancer of many months' duration. He had nearly starved himself because of the pain caused by the passage of fæces. Left inguinal colotomy was performed through a small incision, with separation of the muscular fibres. The colon, which was collapsed, was drawn out and fixed by a glass rod through the mesocolon—after the method of the late Mr. Greig Smith—no stitches being used. It was opened on the sixth day. Convalescence was rapid and the patient soon had good control over his motions.

Remarks.—The first case shows that a peritoneum that was not irritable enough to form firm adhesion with the colotomy wound in a week was not irritated by fæcal soiling. The complication in the second case, absence of mesocolon, is fortunately rare, occurring in 3 or 4 per cent. of cases according to Harrison Cripps. It completely spoils the chance of getting a good spur or an artificial anus, in which the sphincter action of the separated muscle fibres can be utilised.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. Bryant, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, April 25th, 1899.

The Clinical Examination of the Hæmic Leucocytes.

Dr. Arthur G. Phear read a paper in which he laid stress on the advantages of fluid preparations over the cover-slip method more commonly in vogue in the study of the hæmic leucocytes. In fluid preparations the white cells were undistorted, and camera lucida drawings and measurements could be relied on as accurate. The thickness of the unflattened cell was not a disadvantage; by gradually focussing from above downwards through the depth of the cell, views were obtained at different focal planes which were equivalent to a series of horizontal sections, and a good idea was gained of the shape and disposition of the nucleus and other structures within the cell. In preparing the fluid film, a solution of methylene blue (0.2 per cent.) in 40 per cent. alcohol was used for diluting the blood. The advantage of the alcoholic solution was that it laked the red corpuscles, so that the white cells alone remained conspicuous. Methylene blue was the best stain for clinical work. A small quantity of the diluting solution was added to a drop of blood on a glass slide, and the two thoroughly mixed by directing a current of air through a pipette on to the surface of the fluid. The fluid was allowed to spread as a thin film under a cover glass, and the edges were then sealed with vaseline. The procedure took about three minutes. The preparation might be examined at leisure with an immersion lens; it was available equally for a differential count of the leucocytes and for the study of individual cells. In fluid films the contour of the polymorphonuclear cells was, with rare exceptions, rounded. Their diameter varied from 9 to 10 μ; this was smaller than the apparent dia-

meter of the flattened cells in dried preparations. In the complex nucleus it could in almost every case be made out, by gradually changing the focus, that connecting strands passed from one lobe to another; the nucleus was, in fact, an undivided elongated body, not as a rule branched, but much contorted, in places deeply constricted, elsewhere bulged into rounded lobes. The lymphocytes and the large hyaline cells represented the extremes of a single group of cells, the members of which differed in no essential particular save in the amount of protoplasm around the nucleus. The nuclear diameter was fairly constant in the cells of this group, varying only between 4.5 and 5.5 μ. In the films prepared by the method advocated, a group of cells could be differentiated (large oval cells) which found no place in commonly accepted classifications. The cells were the largest of the normal leucocytes, and were the only ones whose form departed notably from the spherical. They might be as much as 14 μ in length. Their contour was oval. The nucleus was large and irregular, usually reniform. The protoplasm was remarkable for its affinity for methylene blue, with which it became rapidly and uniformly stained an opaque blue colour. The coarsely granular or eosinophile cells (diameter 9.5 to 10.5 μ) were at once recognised in the film prepared with methylene blue solution, notwithstanding the absence of an acid dye; the large refractile granules were conspicuous, and were tinged a greenish colour. The cells containing basophile granules (diameter about 8 μ) had a characteristic appearance. The protoplasm contained granules of medium size, many of which were aggregated in one or more deeply-stained clumps near the surface of the cell. The non-granular part of the protoplasm was stained a peculiar mauve or purple colour. The nucleus consisted of a number of lobes usually massed at the centre of the cell and stained a slate or greyish-blue colour. For the differential count the fluid film made with an alcoholic solution of methylene blue was both convenient and trustworthy. Separate counts over different areas of one preparation gave uniform results, showing that the blood was evenly mingled with the diluted fluid. No fewer than 500 cells should be enumerated at a time; the more the better. It was desirable to use a mechanical stage, and to work with an immersion lens. The blood should always be procured, if possible, before the first meal of the day was taken. For a healthy individual the following figures represented the limits within which the percentage of the several cells usually lay at the time stated: (1) Polymorphonuclear cells, 45 to 60 per cent. (2) Rounded hyaline cells, 35 to 45 per cent. (inclusive of lymphocytes, 10 to 20 per cent., and large hyaline cells, about 2 per cent.) (3) Large oval cells, with irregular nuclei, and protoplasm which stains diffusely in solutions of methylene blue, 5 to 10 per cent. (4) Cells containing coarse oxyphile granules, 1 to 2.5 per cent. (5) Cells containing basophile granules, 0.3 to 1 per cent.

Dr. Hellier regretted that the clinical bearings of the author's study of leucocytes had not been referred to, and asked to which of the classes of leucocytes he would assign the wandering cells described by Koch as the carriers of tubercle bacilli from one part of the body to the other, and to which the phagocytic cells of Metchnikoff.

Dr. Phear, in reply, said he thought the phagocytic cells were possibly the coarsely granular eosinophile cells, and that he was unable to give an opinion as to the identity of the carriers of the tubercle bacilli. He had of set purpose omitted reference to the clinical side of his work, reserving that for a future paper.

Dysarthria and Delay in Learning to Speak following Cerebral Disturbance in Infancy.

Dr. F. Parkes Weber, who read this paper, said that the patient, who belonged to a healthy family, was now 7 years old. The history was that at 2 years of age he was just learning to speak like other children, when he was attacked by some acute disease with cerebral symptoms. This illness left him unable to speak, but apparently unaffected in other ways. When seen at 5 years of age he was able to utter peculiar sounds, doubtless an attempt at articulate language. He was physically fairly well developed, could hear well, understand what was said to him, and appeared to be of average intelligence. He then gradually began to speak, though with obvious difficulty in getting the sounds out and with great defects in pronunciation, dropping the consonants at the end of most words, and replacing the sounds of *k*, *g* (hard or soft), *ch*, and *s* by a *d*-sound or *t*-sound. Such "lalling"-like defects, together with stammering, rendered his speech most imperfect. He could recognise single figures and the letters of the alphabet, but could hardly recognise even short words when shown them on paper. He sometimes made mistakes when writing his own Christian name, although he had doubtless been repeatedly drilled at it. He could not recognise his name when shown it in printed characters. He seemed, in fact, almost word-blind. Such was his condition at the age of 7, when seen in January, 1899. He was now making rapid progress in pronunciation. The condition might best be accounted for by supposing that the infantile illness injured the cortex of both cerebral hemispheres chiefly affecting the speech centres (parts concerned in some of the most highly differentiated functions of the brain). The present case and similar cases differed from the typical ones of cerebral diplegia, with bulbar (pseudo-bulbar) symptoms, in the fact that the movements of the palate and the mechanism of swallowing were not in the least affected. The speech defect in this case, as in other similar cases, was probably a minor form of what had been described as "idio-glossia" by Dr. Hale White and Golding-Bird, and for which Dr. F. Taylor had suggested the terms "idio-arthria" or "idio-phasia." A practical point in regard to the present case and similar cases, was that the speech centres, although damaged by some early disease, seemed, nevertheless, capable of ultimate fairly normal development. This was confirmed in the present instance by the rapid progress which the boy was making since real trouble had been taken in teaching him by the oral and other methods.

Dr. Fletcher Beach said that the articulatory defects described were common in mentally deficient children, as also was the inability to count. Other features in the case described, which might be called "baby language," possibly indicated a reversion to the condition of an early stage of life. In cases of very low cerebral type too the "language" was like the sounds produced by wild beasts. He remarked that the speech centre being the latest to be evolved was the first to undergo dissolution, according to rule.

Dr. Russell Wells referred to a similar case. A child, born at eight months, had infantile paralysis of the left foot in his first year. He could not make himself understood until he was 5 years old, and then he began to speak "baby language." He all along learned to speak with great difficulty, and would read words the wrong way on, for example "was" for "saw." Now at the age of 19 he was distinctly above the average in mental development for his years, and during 17 and 19 he learned more than the average boy learned during the whole of his school life. He suggested that the condition was a "setting back" merely of mental development.

Dr. Shuttleworth said that the history of the case certainly suggested a backwardness in development of intelligence as well as of speech; that in fact it depended on paucity of ideas as well as on difficult articulation. The tendency to write words backwards was a common feature of defectively intelligent children. Many defective children wrote "god" for "dog." He referred to the lazy articulation of degenerate nations described by Max Müller, and applied the principle to children of defective energy. He thought there was no evidence of a unilateral lesion in the present case. He had seen a somewhat similar case in which a defect of articulation was developed after whooping cough, but recovered, to a considerable extent, in the course of a few years.

Dr. Langdon Down said the principal interest was in the pathology of these conditions. The difficulty of conceiving that a general febrile disease should have selected a small portion of the motor area rather negatived the inflammatory theory. He thought it remarkable that, seeing the importance of speech to thought, the boy should have so much intelligence with so defective speech.

Dr. Parkes Weber, in reply, said that the sister of the ward in which the patient was thought him of average intelligence. He stated that the spelling of words backwards by his patient was only of rare occurrence. He thought his inability to count could not be taken to prove defective intelli-

gence, as he was so difficult to teach. In regard to the pathology of the condition, he said it might be due to general shock, the sensitive speech centres suffering most, or to a meningitis.

MEDICAL SOCIETY OF LONDON.

John Morgan, F.R.C.S., in the Chair.

Monday, April 24th, 1899.

Some Complicated Cases of Appendicitis.

Mr. H. Betham Robinson read a paper on some complicated cases of appendicitis in which the abscess in relation with the appendix was attended later by suppuration in the neighbourhood of the liver. This infection of the peritoneum, he remarked, was very liable to spread along the ascending colon when the adhesions were defective, and was possibly aided by the recumbent position and the natural curve of the lumbar region. The pus collected in the right hypochondrium in the space between the inferior surface of the liver, the upper part of the right kidney, and the hepatic flexure of the colon, with a possible extension over the anterior and superior surfaces to form a subdiaphragmatic collection. He related 4 cases illustrating this sequence of events. In the first case a male, aged 18, was admitted to hospital with a first attack, on the second day of illness, with a well-marked localised mass in the right iliac fossa. As it was evident that he had a fluid collection he was explored. The appendix was found to be gangrenous on one side, and stinking semi-purulent fluid was evacuated. His temperature dropped for a time and then rose again, this being due to a fluid collection beneath the liver. This was opened by an incision parallel with the costal margin, running into the loin, and drained. The after-progress was slow but satisfactory. Case II was that of a girl of 8, who was admitted on the fourth day of illness with a well-marked lump in the iliac fossa. On the eighth day it was evident that there was a collection of fluid, and this was opened, giving exit to a considerable quantity of offensive pus. The appendix was embedded in adhesions and no perforation was found. After an apparent quiescence there was a fresh rise of temperature associated with a collection below the liver. This was explored on the fifteenth day and half a pint of pus evacuated. Except for a little jaundice there was no further trouble. Case III was that of a boy, aged 16, who was admitted with a collection of fluid in the pelvis and lower abdomen, with a history of appendix tumour of four weeks' duration. This was opened, and a large quantity of pus evacuated which had been roofed in by adherent small intestine. The appendix was not found. His progress for a week was satisfactory, but he then developed a parotid bubo on the left side, which suppurated and was opened. After another fortnight his liver dulness was found to be raised, and this was associated with signs of fluid at the right base. An exploration was made below the margin of the ribs, and the liver proved to have dense adhesions on both its upper and under surfaces, but no pus was discovered. A hypodermic needle was passed into the pleura with a negative result. After this his nightly rise of temperature with emaciation strongly suggested pus or tuberculosis. As some œdema was noticed over the right lower spaces laterally, a portion of the tenth rib was removed, and foul pus was set free from a localised cavity. From this time on he gradually improved. There was no actual proof in this boy of any subdiaphragmatic collection, but the lung signs ending in the empyema gave some colouring to this view. The last case (a boy of 12) was of a different type. After the symptoms of appendicitis he developed a small abscess in the abdominal wall below the costal margin outside the rectus. This on exploration was found to have tracked upwards from the pelvis, where there was another small collection, a granulating track uniting the two. Subsequently a fæcal fistula formed, which contracted up to a very small hole after one unsuccessful attempt to close it. The difficulty was to determine whether the pus below the costal arch was extraperitoneal or intraperitoneal, the infection having travelled up the colon. Taking the whole lesion into consideration, an intraperitoneal course seemed the more likely.

Mr. Battle said that he had only been called upon to treat subdiaphragmatic abscess dependent upon peritonitis on three occasions. The first case was that of a boy admitted in September last with symptoms of acute septic peritonitis. He removed the gangrenous appendix and met with much offensive pus and later on a huge abscess formed on the upper surface of the liver which had found its way into the pleura. The patient recovered, but only after an extensive operation. He thought these collections tracked up along the surface of the bowel and not in the cellular tissue. He related another case of supposed subdiaphragmatic abscess in which after two operations he could find nothing and another in which, in spite of operation, the abscess was only discovered *post mortem*.

Dr. Hanley related the case of a patient admitted with symptoms of localised peritonitis in the upper part of the abdomen without anything referable to the cæcum. On operation a little pus was evacuated from the neighbourhood of the liver, but the patient did not do well and a little clear fluid was drawn from the right pleura. The heart, however, was much displaced. Ultimately it was found that the whole of the trouble beneath the liver extending deeply towards the spine had started from a cæcal abscess.

Mr. McAdam Eccles mentioned the case of a lad with suppuration of the right iliac fossa not definitely pointing to the appendix. Pus was evacuated through the right iliac fossa, but his temperature again rose and a futher collection of pus (intraperitoneal) was evacuated through an incision in in the lumbar region. He suggested that "tracking" might possibly be prevented by making a counter incision in the loin at the same time.

Mr. Robinson did not think it was necessary to make a counter incision in every case.

Effects of Nitrogen Gas in the Excretion of Urea and Uric Acid.

Mr. W. Armstrong (Buxton) read a paper on the effects of the Buxton water, which contained free nitrogen, on the excretion of uric acid and urea, and he formulated the following conclusions: (1) That the excretion of uric acid and urea, more especially the former, and also the flow of urine, were largely increased by drinking, or by immersion, in the Buxton thermal waters; (2) that it was even more efficacious when bathed in than when drunk as regards the excretion of uric acid; (3) that diuresis was somewhat greater when drunk than when used as a bath; (4) that any deviation from the normal temperature either by heating or cooling interfered with its efficacy; (5) that alterations in temperature would not be likely to prejudice the therapeutical properties of the salts, but that, on the other hand, it would greatly interfere with the contained gases; (6) it being generally stated that while the skin would not absorb water or salts, it would take in gases readily, the effects of the bath might be due to that factor; (7) that under ordinary circumstances the higher the temperature to which a bath was raised the more likely it was to bring out an acute attack of gout, with these waters, however, the tendency would barely show up to 82°, and became less evident with each rising degree of heat, the patient feeling, perhaps, stiffer and sorer, but an acute attack rarely supervening.

The Relative Excretion of the Nitrogenous Waste Products in a Case of Liver Abscess.

Dr. W. Bain related the case of a patient, aged 31, who was admitted with signs of liver abscess on November 17th and died on December 23rd. There was a history of recurrent attacks of dysentery. Soon after admission 48 oz. of chocolate-coloured pus was withdrawn by trocar and cannula from the liver, and the sediment was found to consist of necrosed liver cells. He give the results of urinary analysis with details of the diet under which the results were obtained.

Dr. Luff welcomed Mr. Armstrong's statement as to the diminished excretion of uric acid in the early stages of gout, and pointed out that the copious deposit of urates at this period was due not to an excessive uric acid, but to a diminution in the quantity of fluid. He agreed that under certain circumstances this quasi-nascent nitrogen might produce active effects. He remarked incidentally that while natural mineral waters might be imitated, their therapeutic effects could not be reproduced.

Mr. Armstrong briefly replied.

Dr. Arthur P. Luff has been elected a Vice-President and member of Council of the Medical Defence Union.

HARVEIAN SOCIETY OF LONDON.

Clinical Evening.

H. E. Juler, F.R.C.S., President, in the Chair.

Thursday, April 20th, 1899.

Coxa Vara.

Mr. Jackson Clarke showed a girl, aged 3½ years, suffering from unilateral coxa vara. When first brought to hospital she walked with a pronounced limp, the body lurching to the left when the foot of that side was placed upon the ground. The left great trochanter was found to be nearly on a level with the anterior superior spine of the ilium. There was neither eversion nor inversion of the limb, and the head of the femur was felt to move smoothly in the acetabulum. The patient had severe rickets. The treatment consisted in the use of an extension apparatus worn continuously.

Congenital Dislocation of the Hip.

Mr. Jackson Clarke showed photographs of a girl, aged 6 years, who had congenital dislocation on the left side. The trochanter had been 2 inches above Nélaton's line, and on manipulating the limb the head of the femur was felt to move about on the surface of the ilium. Mr. Clarke reduced the dislocation by Lorenz's method under anæsthesia. It was not until the final movement—that of abduction—was made that the head of the femur was felt and heard to slip into the acetabulum. The thigh was then fixed in the completely abducted and partly everted position by plaster bandages reaching from the iliac crests to the foot. This position was maintained for ten weeks, when the bandage was replaced by another with a slightly diminished degree of abduction. The patient now wore a steel instrument, and a considerable degree of abduction was kept up, the patient walking with a patten on the right foot. When the instrument was properly adjusted the head of the femur was in its socket. The now extensive experience of the results of Lorenz's bloodless method had proved that up to a certain age congenital dislocation of the hip was a curable affection.

In reply to Mr. Roughton, Mr. Clarke said that he thought some cases of coxa vara were of the nature of greenstick fractures of the neck of the femur.

Aneurysm.

Dr. Robert Maguire showed a woman who presented the physical signs of an aneurysm involving the arch of the aorta and the innominate artery. He had seen little good result in such cases from prolonged rest in bed and low diet.

Dr. Harry Campbell noticed that Dr. Maguire attributed the arterial sclerosis in this case to syphilis, and asked whether a connection between the two had been definitely established. He thought the patient had granular kidneys, as the heart was hypertrophied and there was albuminuria. He suggested, by way of treatment, the introduction into the aneurysm through an insulated trocar of several feet of fine-drawn gold wire, and the employment of a mild galvanic current, the wire being left *in situ*—a method which had yielded good results. He did not think that patients with thoracic aneurysm should be doomed to months of enforced rest.

Dr. Cautley said that although hospital patients were rarely suitable subjects, seeing that the aneurysm was commonly due to a combination of strain, alcohol, and syphilis, among the better classes good results could sometimes be obtained by strict Tufnell's treatment. He referred to a very severe case of aneurysm of the transverse part of the arch in a gentleman, aged 37. After a diet of 6 ounces of solid food and 8 ounces of liquid daily, with absolute rest, for a period of ten weeks, the patient recovered completely and lived for twenty-five years without any recurrence. Similar good results might be obtained in suitable cases.

The case was also discussed by the President and Mr. Raymond Johnson, and Dr. Maguire replied.

Oblique Fracture of the Humerus treated by Wiring.

Mr. Roughton showed a man, who in December, 1898, sustained a simple fracture of the humerus extending from the deltoid insertion obliquely upwards for about 2½ inches. As it was found impossible to keep the fragments in apposition by means of splints, he cut down upon the fracture and secured the ends by means of two silver wires passed horizontally round the bone. The patient recovered with a shapely and freely movable arm. The position of the wires and of the fracture after operation was demonstrated by a skiagraph.

Extensive Lupus Erythematosus.

Dr. Whitfield exhibited a woman, aged 56, the subject of very extensive lupus erythematosus of ten years' duration. The eruption began behind the left ear, and had gradually spread, causing a large, bald cicatricial patch, reaching nearly up to the occipital protuberance. The edges of this patch, where the disease was still active, were red, and somewhat infiltrated. On the nose and both cheeks were numerous discoid patches, showing very little tendency to involution, and large areas of fine white scarring. Both ears were extensively affected on the inner aspect of the conchæ. The patient presented no evidence of any other organic disease.

In reply to the President, Dr. Whitfield said that the treatment of lupus erythematosus might be divided into palliative and active. In the first class he would include the use of soothing and protective lotions, powders, and ointments; in the second the use of such drugs as pyrogallic acid, chrysarobin, and the oxidised compounds of these drugs, mercurial ointments, and plasters, also operative measures such as scarification and the application of the fine galvanocautery. He proposed in this case later on to use mercurial applications, and if these did not succeed he should try the effect of tattooing the spreading edges with the galvanocautery, as he had seen great benefit from this line of treatment in obstinate cases of the disease. It was necessary to reserve all the active forms of treatment for use when the disease had been reduced to as quiescent a state as possible, otherwise one was liable to do more harm than good.

Disseminated Sclerosis.

Dr. James Taylor brought forward a well-marked case of disseminated sclerosis occurring in a young girl. In answer to a question by Dr. Harry Campbell, it was stated that there was no defect of speech, and no emotional excitability. The patient was gradually getting worse, and it was feared that the prognosis was hopelessly bad.

Paralysis of Trapezius Muscle.

Dr. Harry Campbell showed a case of complete paralysis and atrophy of the scapular portion of the right trapezius, apparently due to the involvement of the spinal accessory nerve in an old cicatrix. The case showed the important part taken by this muscle in keeping the scapula in position. The bone was considerably altered in position, the glenoid cavity looking downwards and outwards, and the inferior angle projecting as in "winged" scapula; the outer part of the clavicle was bent downwards by the fall of the acromion and coracoid process. The patient showed an occasional tendency to a form of wry-neck from over-action of the opposite trapezius.

In answer to Dr. Jaffe, Dr. Campbell stated that the lower part of the muscle showed the reaction of degeneration.

Treatment of Locomotor Ataxy by Exercises.

Dr. Leonard Guthrie demonstrated upon a case of locomotor ataxy the treatment of the disease by specially-arranged exercises as suggested by Frenkel. The power of co-ordination had been considerably improved.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

Jordan Lloyd, F.R.C.S., President, in the Chair.

Friday, March 24th, 1899.

Embolism of the Central Artery of the Retina.

Mr. Eales showed a woman, aged 45, whose sight was defective in the right eye only. The F.V. was contracted to 5° from the fixing point, but V. = ⅔. With the ophthalmoscope the optic disc was very pale and atrophic, and the retinal artery

very contracted; but there was an unusually large cilio-retinal artery running out to the Y.S. area. The history pointed to sudden failure of vision six years ago, vision having remained the same ever since. She had mitral systolic and presystolic murmur, and the apex beat was in the sixth interspace in the nipple line—her heart having been affected by rheumatic fever in 1873. Mr. Eales considered the case to be one of embolism of the central artery of the retina, the Y.S. retaining its function in consequence of its free supply by the cilio-retinal artery before mentioned.

Peripheral Neuritis.

Dr. Walter Jordan showed a child, aged 3, with paralysis of the right arm, which had been put down as a case of anterior poliomyelitis. That diagnosis he now withdrew in favour of peripheral neuritis. All the muscles of the shoulder and upper arm were flaccid and wasted; no movement of the shoulder or elbow at all was possible, but the wrist and fingers could be freely moved, and thus the child used its hand when the forearm lay on the table. The limb was slightly colder than that of the other side. The history given was that, in September, 1898, the child had a sore throat, which "broke," with a discharge by the mouth. The next day there was complete paralysis of both arms and both legs; the child could not sit up. Improvement took place quickly. In a week the child began to use the left arm; in a month she could walk. For fourteen days she had no sensation in the right arm, being unable to feel pins stuck into it. The child, as shown, could walk perfectly and use the left arm perfectly. The right arm was affected as stated; there was no loss of sensation in it. Both knee-jerks were absent. Another point in the history was, that the day after birth the right arm was noticed to be very much thinner than the left. Until the present illness, however, the child was able to use it perfectly well in feeding herself, etc. Although the condition of the throat was obviously not diphtheria, and although the paralysis followed the throat remarkably quickly, the conclusion reached was that the case was one of neuritis, following the affection of the throat, and damaging particularly a limb which had previously shown evidence of bad nutrition from some cause operating before birth. The loss of sensation and the continued absence of knee-jerks especially led to this diagnosis.

Injury and Shortening of the Femur.

Mr. William Thomas showed a child aged 10 months whose right femur was considerably shorter than the left. The mother stated that when about 2 months old the child had fallen out of bed, that he cried continually afterwards, and always seemed to be in pain, and about two months later she noticed that the right leg was shorter than the left. Mr. Thomas suggested that the femur had been fractured by the fall a little above the epiphyses, and had not properly united. He pointed out a peculiar jerk which was visible and audible when the child straightened the leg. He also showed a skiagraph of the legs, and contended that the difference in certain measurements supported the theory of fracture.

Electrical Stimulation of the Exposed Cortex Cerebri.

Mr. George Heaton read a note on a case in which he had applied electrical stimulation to the exposed motor area of the brain in a boy. The boy was aged 8 years, and operation was undertaken for the relief of clonic convulsions with aphasia. His illness began at the beginning of December, 1898, with fever and gradual onset of aphasia with partial loss of consciousness. His convulsions apparently began with clonic contractions of the right side of the face and right upper extremity. The cortex cerebri was exposed over the left motor area. The dura mater was much thickened, and the pia mater was œdematous and its veins fuller than usual. A very weak faradic current was employed, and was applied by means of electrodes of silver wire previously sterilised. The following observations were made: (1) Stimulation of the third frontal convolution in front of the præcentral sulcus caused no contraction; (2) stimulation of that part of the ascending frontal convolution on a level with the lower limit of the fissure of Rolando caused elevation and retraction of the left angle of the mouth; (3) stimulation of the corresponding portion of the ascending parietal convolution (immediately behind the lower limit of the fissure of Rolando) caused elevation and retraction of the (opposite) right angle of the mouth; (4) stimulation of the ascending frontal convolution just opposite the knee of the fissure of Rolando caused elevation of both upper eyelids. The chief feature of interest observed was the fact that in observation No. 2 a stimulation of the ascending frontal convolution at its lower end caused a contraction of muscles on the same side of the face. The stimulation was repeated several times by Mr. Gamgee, and always with the same effect. Mr. Heaton laid stress on the ease and simplicity with which such electrical stimulation could be applied, and its harmlessness if only a weak current were used. It was frequently almost impossible, when a small surface of the brain was exposed, to recognise with any certainty the sulci and convolutions under the trephine aperture. In such cases electrical stimulation would prove of immense value in locating the particular part of the motor area which was actually exposed when that particular part of the brain was being operated upon.

Renal Calculus.

The President showed a uric acid calculus, weighing nearly 1 oz., removed from the right kidney of a lady about 60 years of age, by lumbar nephrectomy. She had suffered for many years, and had been told over and over again that she had no stone in the kidney. The urine always contained large quanties of uric acid crystals, and but very few corpuscles of any kind. The large calculus was removed through a vertical incision in the kidney pelvis—an inch and a-half in length, which was not sutured—and urine escaped from the lumbar wound only during the first thirty-six hours after the operation, the whole wound being soundly healed within a week.

Hydatid of Liver.

Mr. Smallwood Savage showed a liver with a large hydatid cyst, and with a marked hobnailed cirrhosis. The patient, aged 26 and unmarried, had five years ago severe epistaxis which lasted six months. Four years ago she had diarrhœa and jaundice, which came on gradually in the course of a fortnight and lasted five months, being under treatment in turn at the Hereford Infirmary and St. Thomas's Hospital. Mr. Savage saw her for the first time on March 15th, 1898, when he found that she had an enlarged liver of uniform and of fairly hard consistence, and that the dulness extended from the sixth rib in the right nipple line to about two inches below the level of the umbilicus. He also observed that she had large varicose veins in both legs and on the surface of the abdomen, and that she had piles, and some ascitic fluid in the abdomen. When seen in October, 1898, the varicose veins were further exaggerated and inflamed and the liver was altered in shape, the note being that the liver dulness extended from the fifth rib to about three inches below the level of the umbilicus, or in extent 10½ inches in the right nipple line; that the dulness extended 3½ inches to the left of the middle line in the epigastrium, and that the lower edge, which was hard and rounder than normal, was felt within a finger's-breadth of the crest at the anterior superior spine, and a hand's-breadth at the posterior past of the crest. There was also noted a rounded prominence of the extent of one's palm situated in the epigastrium, which fluctuated, and further, by flicking this lump with one hand a thrill was transmitted to the other hand placed in the lower right intercostal spaces in the middle and posterior axillary lines. There was at the same time slight ascites, but no jaundice or œdema of legs. The diagnosis of "hydatid" being made Mr. Savage incised and drained the cyst by an incision in the epigastrium. The fluid so drawn off, and amounting to four pints, was of an olive-green colour, a specific gravity of 1010, a slightly alkaline reaction, but containing no albumen; microscopically hooklets were found. The patient did well for ten days, when in consequence of the constant drain of a clear bilious fluid, the onset of vomiting and diarrhœa, and a slight evening temperature of 100°, she died of toxæmia at the end of three weeks. *Post mortem* the liver was found to have turned through a quarter of a circle, the right lobe being lowermost and the left uppermost. The right lobe showed marked hobnailed cirrhosis, but the left and quadrate lobes were transformed into a hyatid cyst almost the size of one's head. The vessels at the porta of the liver were pressed upon. Mr. Savage, in view of the absence

of any obviously separate cause to account for the cirrhosis, mentioned how it might have been possible for the hyatid cyst to have caused a secondary cirrhosis.

Urinary Organs from a Case of Impacted Calculus.

Mr. George Heaton showed the urethra, bladder, and kidneys from a case of impacted urethral calculus which proved fatal from uræmia. The patient, a boy aged 7 years, was admitted into hospital with urinary extravasation due to impaction of a uric acid calculus in the membranous urethra. The child died a few days after admission, of uræmia. The kidneys, especially the right, were in a state of acute interstitial nephritis. The ureters were dilated, the bladder much thickened and contracted. The calculus, after impaction, had set up ulceration of the urethra, and the stone lay in a cavity in the perineum filled with putrid decomposing urine.

SOCIETY OF ANÆSTHETISTS.

Dudley Buxton, M.D., President, in the Chair.

Friday, March 17th, 1899.

Nitrous Oxide Gas and Oxygen as an Anæsthetic in Surgical and Dental Operations.

Mr. Bellamy Gardner read a paper on this subject, in which he pointed out that short operations such as tenotomy, catheterisation, moving stiff joints, pelvic examination, etc., could be satisfactorily performed under the influence of nitrous oxide gas and oxygen. After the administration had lasted a few minutes, 15 to 20 per cent. of oxygen was required to avoid muscular rigidity. The anæsthesia was less profound than that of chloroform or ether. Under it there was excitation of reflexes of adjacent limbs, etc., and reflex alteration in respiration. Retching movements and sickness could not be prevented by "pushing" this anæsthetic. Florid, alcoholic, and muscular men and small children were not good subjects. The administration itself could be achieved only by the expenditure of 40 gallons of the mixture over a quarter of an hour. Thus, two 50-gallon bottles of gas and one 24-gallon bottle of oxygen would be required for any operation taking over half an hour. The drawbacks to this mixture were, he thought: (1) The production of only a moderately-profound anæsthesia with tendency to muscular rigidity reflexes; (2) its unsuitability for young children.

Death after Administration of Gas and Oxygen followed by Chloroform.

Mr. Granville read notes of a case. The patient, aged 17, was apparently healthy; the operation was for radical cure of varicocele. Gas and oxygen were given first, and anæsthesia was readily induced. Oxygen was allowed to mix freely with the gas. Slight duskiness was noticed at times, which was relieved by giving more oxygen. The mixture was given for twenty minutes, but as the operation lasted double the expected time, the supply of gas ran short and the patient resumed consciousness. He moved, groaned, and the operation was temporarily suspended. His pupils became small, his breathing was regular, and his pulse was 116. Chloroform was then administered by the drop method, when, after four or five minutes, the pulse, which was being watched all the time, suddenly weakened. The chloroform was at once withdrawn, the pulse quickly became imperceptible, and the breathing continued deep and regular for about five minutes longer. Every effort was made to restore the patient, but without success. The case, he thought, showed the inadvisability of giving chloroform after gas and oxygen, as he had little doubt that the patient's heart had become dilated during the administration of the gas and oxygen, and that the chloroform, although given in small quantity, still further permitted dilatation and finally inhibited its action. The gas and oxygen he thought were accessory before the fact.

Mr. Noble mentioned a case in which gas and oxygen were administered, and when the anæsthesia was complete cyanosis became marked, although stertor and jactitation were absent. A tooth was extracted, when respiration at once stopped, but after pulling forward the tongue and compressing of the thorax, respiration recommenced after two minutes, being slow, shallow, and sighing. The same patient had taken gas previously with a similar cessation of respiration.

Mr. Bellamy Gardner and Dr. Flux deprecated the death being attributed to gas and oxygen.

Dr. Silk pointed out that the physiological effects of the gas and oxygen might persist in the individual even when he appeared to resume consciousness, and it was quite conceivable that chloroform might increase these effects and finish what the mixture had commenced. He cautioned against the indiscriminate use of the mixture, as no doubt its value would thereby be lessened.

Mr. Crouch narrated a case of a patient to whom he gave gas diluted with air, and found evidence of dilatation of the heart during the administration. He had had precisely similar experience in giving gas with oxygen, and in such cases he carefully noted the condition of the heart.

The President thought there was a danger of the elevation of the mixture into a kind of "panacea" among anæsthetics; he had found many persons had formed the most extravagant conception of its possibilities, and were not aware of its limitations.

Dr. McPhail (Brighton) having narrated his experience, Mr. Bellamy Gardner replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

Professor E. H. Bennett, M D., President of the Academy, in the Chair.

Friday, March 24th, 1899.

Chronic (Circumscribed) Abscess in Tibia (Brodie's).

Mr. Henry Gray Croly communicated several cases of Brodie's abscess, and exhibited portions of bone removed by a small trephine and drawings of the cases; the bones were much thickened and diseased. Case I occurred in a young man in the lower end of the tibia. The patient, who was admitted into the City of Dublin Hospital, suffered from severe pain confined to a small spot about 4 inches above the ankle-joint. All treatment, constitutional and local, failed to give relief. Mr. Croly trephined the tibia at the most painful part; a small quantity of pus escaped. The patient got immediate relief, and made a rapid recovery. Case II.—A young lady, residing in the South of Ireland, suffered from pain at the junction of the middle and lower third of tibia for about 16 years. All treatment having failed, amputation was proposed and refused. She came to Dublin. Mr. Croly trephined the tibia. A small quantity of pus escaped. The bone was very hard and thickened. The patient made a perfect recovery. Case III.—A young man, at present in the City of Dublin Hospital, suffered for 10 years from very severe pain in the lower third of the right tibia. An incision was made through the periosteum some months previous to his coming under Mr. Croly's care. The symptoms were not relieved. There was thickening of the bone above the ankle-joint. Mr. Croly trephined, and about 2 drachms of healthy pus escaped as the portion of bone was being removed. The wound healed rapidly, and the patient got immediate and permanent relief. Case IV. A young girl, at present in the City of Dublin Hospital, suffered for over three years from severe and constant pain in the upper third of the right tibia. She was operated on by a surgeon, but got no relief. Mr. Croly trephined the tibia. The portion of bone was diseased, and there was considerable thickening and density of the tibia. There were two œdematous and pouting granulations at the part affected. The patient got instant relief from pain.

Remarks were made by Professor E. H. Bennett, Mr. T. Myles, Dr. Knott, and Mr. T. E. Gordon; and Mr. Croly, in reply to Mr. Myles, said that he had not meant to convey that circumscribed abscess of bone was confined to the tibia, but it was met much more frequently there. He could not see any analogy between a cartilage erosion and subcartilage trouble as described by Barwell, who believed that the disease did not begin in the cartilage or bone, but in the cartilage under the bone. He had cut out the head of the humerus, but it bore absolutely no analogy to circumscribed abscess of the tibia. Tuberculous disease of the knee-joint had nothing to say to the condition.

ENTERIC FEVER FATAL THROUGH EMBOLIC HEMIPLEGIA.

Dr. J. W. MOORE reported the case of a married woman, aged 29, who died on the forty-third day of an attack of enteric fever. Severe intestinal hæmorrhage occurred as early as the tenth day, persisting for three days. The patient, notwithstanding, progressed favourably until the twenty-seventh day, when a fresh rise of temperature, pain in the left side, and a choking sensation marked the occurrence of hæmorrhagic infarction in the spleen. Eleven days later a violent rigor and rapid rise of temperature to 105.6° ushered in an attack of right hemiplegia with complete aphasia. The patient sank and died on the forty-third day. The heart was softened; an *ante-mortem* clot was found in the left auricle; the left middle cerebral artery was blocked by a firm embolus; the spleen was the seat of several hæmorrhagic infarctions; the terminal few inches of the ileum showed frequent excavations formed by the previous detachment of numerous typhoid ulcers.

In reply to Dr. MCWEENEY, Dr. J. W. MOORE said that the endocardium was perfectly healthy, and that he could not account for the *ante-mortem* clotting. He attributed the clotting to the extremely feeble action of the heart which existed for the last ten or twelve hours of life. The spleen was not examined for Eberth's bacillus; Widal's reaction was positive. In reply to Dr. TRAVERS SMITH, he said that in speaking of profound changes of the heart, he was speaking generally and not with regard to the present case, in which no minute examination of the heart muscle was made. Cardiac failure not infrequently did lead to death in enteric fever. He spoke solely from clinical experience.

CARCINOMA OF LIVER.

Dr. D. F. RAMBAUT exhibited specimens of Primary Carcinoma of Liver, with enormous enlargement of spleen.

The SECRETARY (Professor MCWEENEY) showed Gallstones with Multiple Abscess of Liver and Carcinoma of the Bladder from the liver of a woman aged nearly 70, who suffered from severe and persistent jaundice for several months before death and was thought to have cancer of the liver. The liver was studded throughout and on the surface with hundreds of small abscesses which contained two varieties of bacillus coli, distinguished by their appearance on gelatine plates and on potato. Both were highly virulent for animals (rabbits) and produced abundance of indol. He was inclined to look upon the organisms as the primary etiological factor, then came the calculi and finally the conversion of the gall bladder into a solid mass of neoplasm.

In reply to Dr. EUSTACE, Dr. RAMBAUT said that in his case there was a varicose condition of the gastric and œsophageal veins and also the veins behind the peritoneum. In asylum necropsies only about one-twelfth of the cases of cancer of liver were primary. Perhaps the cirrhosis of the liver would account for the portal obstruction in this case. With reference to Dr. McWeeney's case he said that he had lately made a *post-mortem* examination on a woman who died of consumption and found four abscesses in the liver. From the pus obtained he got almost a pure culture of bacterium coli.

Dr. MCWEENEY, in reply, said that he had lately seen a very large kidney completely riddled with small abscesses containing a creamy pus which contained one organism only—the bacillus coli in prodigious numbers, and they could be seen easily filling up the urinary tubules. Without doubt, the process had penetrated from the pelvis through the papillæ along the straight tubules, and had excited suppuration from the interior of the urinary tubules outwards. The same thing was constantly found in what were unjustly called "surgical" kidneys. In cases of typhoid fever, it was his experience to find Eberth's bacillus invariably present in the gall bladder. Cases were on record where, in cases of typhoid fever, the typhoid bacillus was found twenty years afterwards in the gall bladder. In fact, the bile seemed to be an ideal medium for the long preservation of the life of various pathogenic species of bacteria.

PECULIAR CLOT FROM A CASE OF EPISTAXIS.

Dr. NINIAN FALKINER reported the following case: M. C., aged 76 years, a dressmaker, widow, suffered from a chronic cough. She had eight children, one living. On Sunday, March 27th, 1898, when coughing, blood commenced to flow from the mouth and nose, and continued intermittently until March 29th, 1898, when, with a severe fit of coughing, accompanied by a feeling of suffocation, the clot was coughed up. The bleeding ceased, but the patient sank and died on April 11th, 1898. The clot, which he was unable to break down with a spoon, was evidently a cast of the posterior nares, with a process about 8 inches in length, which probably extended down into the œsophagus; it was composed entirely of blood clot and contained no organised tissue.

Dr. MCWEENEY regarded Dr. Falkiner's explanation of the cases of rhinoliths as, at any rate, extremely suggestive.

ULSTER MEDICAL SOCIETY.

JOSEPH NELSON, M.D., President, in the Chair.

Thursday, April 13th, 1899.

CASES.

MR. T. SINCLAIR KIRK showed a case of Subphrenic Abscess successfully operated on.—Dr. CALWELL showed (1) a case of Transposition of the Viscera; (2) a case of Rare Tertiary Affection of the Lips; (3) a case of Skin Disease for Diagnosis; (4) a case of Prurigo Ferox.

ABSCESS OF LIVER.

Surgeon-Lieutenant-Colonel MOORHEAD read a paper in which he dealt especially with the form of abscess of the liver met with in the tropics. Abscess was etiologically the expression of hepatic insufficiency induced by a variety of causes, all tending to impair the structure and function of the liver, and so to subject it to the invasion of pyogenetic bacteria. In the tropics the functional activity of the skin was greatly increased, and was related vicariously to the portal rather than to the respiratory system. Consequently a chill gave rise to hepatic congestion, an intestinal catarrh, and not to a respiratory complaint. Hepatic affections were six times as frequent in India as in England. The active agents in the production of liver abscess were generally the pus-forming bacteria, which could reach the liver cells when diseased, even without any bowel lesions. Some abscesses ran a latent course, others had undefined symptoms, but, as a rule, the course of the disease was fairly typical. The abscess might contain only a few drachms or several pints of pus. It was single in about 75 per cent. of cases. The diagnosis was generally simple, but sometimes impossible without exploration. Prognosis in cases permitting of early operation was fairly good. About 50 per cent. recovered in hospital practice, and about 75 per cent. in private practice. In other cases the prognosis was very grave. Abscesses opening through the lungs pretty frequently recovered, but the recovery was tedious. The treatment was mainly surgical, and varied according as the abscess pointed or was confined to the liver. In the former case the treatment might be summed up in the the four words—explore, excise, drain, dress. In the latter case aspiration should first be tried, and, should this fail, incision of the parietes and puncture of the abscess with a large grooved trocar and cannula should follow. The cannula should be left in a day or two before inserting the drainage tube.

Dr. BYERS and the PRESIDENT made some remarks upon the paper.

AN UNNOTICED CAUSE OF DYSPEPSIA.

Dr. CALWELL read a paper on this subject. He first drew attention to the frequency of gastric adhesions, amounting to 5 per cent. in cases of death from whatever cause; (2) to the presence of localised peritonitis in cases of gastric ulcers which had not eaten beyond the muscular coat; (3) to the formation of gastric and subphrenic abscess in such cases, although no perforation had taken place; and (4) to the interference with the normal gastric peristalsis by such adhesions. He pointed out a dyspepsia characterised by sudden stitches, a paroxysm of pain brought on by large meals or by distension and relieved by rest in bed. In a case under his care there had been a gastric ulcer which had healed, the patient feeling well so long as she attended to her diet and avoided exertion. One night while taking a bath a sudden pain heralded the symptoms of perforation. At the operation five hours subsequently large adhesions were found, some of which had torn, causing a perforation. The patient had suffered for years from dyspepsia and had had one attack of hæmatemesis. It was suggested that the idea of an "adhesion type of dys-

pepsia" might be entertained, where the ulcer was probably quite healed, but the adhesion gave continuous or intermittent trouble, brought on by anything that increased the gastric movements and removed by rest of stomach and body. In cases of this kind resisting ordinary medical treatment Dr. Calwell suggested that laparotomy should be performed. Where adhesions had taken place there was always the danger of a rent or tear due to sudden exertion, especially in association with a full stomach.

Drs. Kevin, Dempsey, Houston, Byers, A. P. B. Moore, Kirk, R. Campbell, Johnston, Fullerton, and the President took part in the discussion upon the paper.

Birkenhead Medical Society.—At a meeting held on April 7th, Dr. H. Nazeby Harrington (President) in the chair, Dr. Hughes read notes of a case of Peritonitis with Obstruction.—Dr. Owen Morris gave some after-notes on a case for Diagnosis which he had shown at a previous meeting.—A paper was read by Dr. H. L. Pearson on Sewer Venting and Sewer Ventilation. He pointed out that the escape of abominable smells into the roadway from sewers was a disagreeable nuisance, but when it became a question whether such a nuisance was a nuisance dangerous to health, sanitary experts did not all stand on the same ground. After quoting the opinion of several distinguished medical officers of health, who were in favour of continuing the existing method of ventilating sewers by means of open grids on the roadway, Dr. Pearson gave instances of several cases of illness occurring in his own experience which were distinctly traceable to emanations arising from sewers open for purposes repair. In conclusion, he strongly advocated the closing of all road grids, making it imperative at the same time that every soil pipe should be fitted with a ventilating shaft of its own diameter. He would give up the idea of ventilating the sewer or trying to make the air in the sewer sweet, for he held the opinion that the proper place for sewer air was the sewer itself. He would abolish the word "ventilate" altogether and only deal with sewer "venting."—Drs. Marsden, Morris, and Pinkerton criticised the paper.

Liverpool Medical Institution.—At a meeting of the Pathological and Microscopical Section on April 20th, Dr. Grossmann in the chair, Dr. John Hay gave an account of a case illustrating Stenosis of the Conus Arteriosus Dexter. He demonstrated that in the normal heart the cavity of the right ventricle might be divided into two parts—the sinus and the conus—which were frequently marked off from one another by a muscular constriction. In the case described the narrowing was so great as to produce obstruction. There was great hypertrophy of the right heart, and large vegetations in the conus and on the pulmonary valves. The septum was complete, and the ductus arteriosus closed. The heart was obtained from a woman of 20, and there was no history pointing to congenital disease. Dr. Hay fully illustrated his remarks by specially prepared specimens, by casts of the cardiac cavities, and by lantern slides.—Dr. Abram read a paper on a case of rare Lesion of the Kidney, believed to be a carcinoma affecting the glomeruli, and giving rise to numerous secondary growths. The note was illustrated by naked-eye and microscopic specimens, and by lantern slides. The notes were discussed by Drs. and Messrs. Lowenthal, Buchanan, Larkin, Barr, and Archer.—Dr. Nathan Raw showed the organs from a case of Cancer of the Breast, containing a large amount of secondary deposit.—Mr. Thelwall Thomas showed Implantation Cysts of the Hand and Fingers.—Mr. Douglas Crawford showed a Right Ovarian Dermoid obtained from a multiparous woman of 32. The tumour at the time of operation was in a state of infarction from twisting of the pedicle.—Mr. Hawkins-Ambler showed a specimen of Villous Cancer of the Cervix Uteri. The specimen was prepared from some masses removed by curetting as a preliminary to hysterectomy.—Mr. Newbolt showed (1) portions of a Knee-joint of a woman of 29 removed by excision for very painful rheumatic arthritis of five years' standing; (2) an Epithelioma of the Antrum from a man aged 53; (3) a Myxoadenoma of the Parotid.—Dr. Buchanan exhibited (1) Urethral Caruncle; (2) Fibroid Epulis; (3) some Red Crystals in a specimen of sputum stained for tubercle bacilli. These closely resembled and were easily mistaken for bacilli; but it was shown that they were crystals probably precipitated from the carbol-fuchsin.—Mr. Larkin showed: (1) an Exostosis, the size of an orange, that had grown from the venter scapulæ, close to the vertebral border and just below the level of the spine; (2) a Large Fibroma of the Skin of the Front of the Thigh of a girl, aged 17.—Mr. R. C Dun showed (1) a Fibrous Epulis from a boy aged 9; (2) two Vesical Phosphatic Calculi removed from boys aged 9 and 2½.—Dr. Abram showed a series of Museum Specimens prepared by a modification of Jore's method.—Dr. John Hay showed a Malignant Pustule of the Neck.—The President exhibited an Unopened Eyeball, in which a foreign body had been localised by an *x*-ray method he had already described to the institution. The eyeball was opened in the presence of members, and the foreign body found at the expected site. Several members discussed the specimens.

Sheffield Medico-Chirurgical Society.—At a meeting on March 30th, 1899, Dr. Hunt, Vice-President, in the chair, Dr. Arthur Hall showed a case of Linear Ichthyosis Hystrix.—Mr. Simeon Snell showed: (1) Recurrent Third Nerve Palsy associated with Migraine; the patient, a woman aged 23, was shown first before the Society in 1884, and the case reported in the *Transactions* of the Ophthalmological Society, 1885; (2) Embolism of Central Artery of Retina in a young woman.—Dr. Sorley showed a case of Muscular Atrophy from polyneuritis following influenza.—Mr. Archibald Cuff exhibited and made remarks on: (1) A case of Hemihypertrophy; (2) a specimen of Cerebellar Tumour.—Dr. Martin read notes of a case of Cæsarean Section in a primipara aged 23, a deformed dwarf. From measurements carefully taken before the patient left the hospital it was found that the distances were: between the crests of the ilia, 10¾ inches; between anterior superior spines, 10 inches; antero-posterior diameter, 6 inches; internal conjugate (with callipers), 1 inch; thickness of sacrum (with callipers), 3⅝ inches. She was admitted into the Jessop Hospital for Women at 2.30 A.M., April 13th, 1898, and was in labour at the time. The deformed condition of the pelvis was at once noted by the house-surgeon, Mr. Sidney Barber, and the necessity for operation recognised. After consultation with the other members of the staff, Dr. Martin performed Cæsarean section, the life of both mother and child being saved, the operation lasting thirty-five minutes. There was a smart dash of hæmorrhage after the patient was put to bed; this seemed to be controlled by a subcutaneous injection of $\frac{1}{100}$ gr. of citrate of ergotin. There was some bronchial trouble and rise of temperature for four days after operation, but both speedily subsided, and the patient made an excellent recovery, being discharged on May 7th, 1898.—Mr. Richard Favell related a case of Vaginal Extirpation of the Gravid Uterus.—Dr. Hunt, Dr. Arthur Hall, Dr. Hargreaves, Dr. Gwynne, Dr. Burgess, Dr. Keeling, Mr. Snell, Mr. Richard Favell, Dr. Martin, Dr. Sinclair White, and Mr. Sidney Barber made remarks.

REVIEWS.

Reise-Berichte über Rinderpest, Bubonenpest in Indien und Afrika, Tsetse-oder Surrakrankheit, Texasfieber, tropische Malaria, Schwarzwasserfieber [Travel Reports on Rinderpest, Bubonic Plague in India and Africa, Tsetse or Surra Disease, Texas Fever, Tropical Malaria, and Blackwater Fever]. Von Robert Koch. Berlin: J. Springer. Glasgow: F. Bauermeister. 1898. (Royal 8vo, pp. 136, 10 figures. 2s. 9d.)

The reports of Dr. Koch's travels cover a space of time between December 9th, 1896, and May 20th, 1898; during this interval he investigated tropical and subtropical diseases in South Africa, in India, and in East Africa. The earlier reports, sent from Kimberley, are concerned with that terror of the African stockowner—rinderpest. Professor Koch does not accept the bacillus discovered by Dr. Edington as the actual cause of the disease on the ground that cultures injected into healthy animals fail to produce it, while the injection of a

small quantity of rinderpest blood infallibly produces the malady after an incubation period of from three to five days. He has not himself been able to distinguish the ultimate cause of the disease. As is well known, he believes that while the bile of animals which have died from rinderpest is destitute of infectivity, but can confer immunity for a limited period on healthy animals; that if the rinderpest poison be passed repeatedly through goats, which are not susceptible to the disease, the virus becomes attenuated; that the serum of animals which have had the disease confers protection on sound animals, and this in a very active way, a litre of serum being sufficient to immunise no fewer than fifty animals; and that a very high degree of immunisation may be brought about by the injection of a mixture of protective serum and virulent blood.

Dr. Koch's first report from Bombay is dated May 14th, 1897. In it he records the results of his investigations on the bubonic plague of India, with especial reference to Yersin's serum treatment of the disease and Haffkine's prophylactic vaccination. He has found that, as in the case of cholera and typhoid bacilli, the active immunising principle is contained in the bacilli themselves, and not in the culture fluids; also that the most powerful prophylactic effect is obtained from young cultures that have been killed by subjecting them to a high temperature (150° F.) for an hour, and that the desired immunity becomes fully developed in seven days.

Three months later he sent a first report concerning the bubonic plague as it occurs in East Africa, particularly in the Usambara district, east of the Victoria Nyanza. He considers that the plague bacillus of Africa is identical with that of India, and maintains that the clinical characters of the disease in the two countries are essentially similar. He likewise identifies the Surra fever of India with the tsetse disease of Africa, each being due, as he believes, to a filiform parasite—a trypanosoma—two or three times as long as the diameter of a red blood corpuscle, which always occurs free in the blood plasma, and invariably produces the disease in from nine to twelve days after it is introduced into the blood of susceptible animals.

In regard to Texas fever, named by Babes the epidemic hæmoglobinuria of cattle, and otherwise known as "red water fever," Professor Koch confirms the observations of the American investigators, Th. Smith and F. L. Kilborne, that the disease is due to one of the hæmatozoa—the pyrasoma bigeminum—which strongly resembles the parasite of tropical malaria. He found that an attack of even the slightest form of the disease confers complete protection against artificial infection with large quantities of Texas fever blood.

The volume contains also a study of tropical malaria. Koch announces that he has found four different kinds of malaria in German East Africa. Two of these are very rare; the third which he recognises as the ordinary tertian of temperate climates, represents 10 per cent. of his African cases; the fourth is the most prevalent (90 per cent.), and he chooses to call it "tropical malaria." He describes the parasite which gives rise to "tropical malaria," and claims to have found that the disease runs in quite typical and regular paroxysms of a genuine tertian type which correspond exactly to the life cycle of the parasite.

Discussing the different means by which malaria may be transmitted to man, Koch discards all in favour of that which takes place through the agency of blood-sucking insects, such as mosquitos; and he suggests, on the analogy of ixodic fever, that possibly the mosquito receives the parasites, transmits them to its eggs and larvæ, which on assuming the imago stage are capable of infecting man. It must here be pointed out that Dr. Koch misstates the position taken up by British investigators in this matter of the mosquito in malaria. He represents them as saying that the mosquito carries the malaria germ to the water, and that it is through drinking water that the germ is conveyed to man. Certainly Dr. Manson did suggest such a possibility, but only as one amongst many other possibilities. Dr. Koch does not make plain, as he certainly ought to have done, that the mosquito theory is preeminently British in its inception. Certainly a supposition that the mosquito might be connected with malaria is as old as history. As he himself has stated, a similar vague suspicion prevails among the natives in East Africa. But the merit of showing the probability of such a connection on the grounds of true scientific analogy is entirely due to English workers, as has more than once been pointed out in these pages.

Dr. Koch's statement that he has succeeded in establishing the relationship of the parasites of tropical malaria to its peculiar type of fever, in the same way in which the Italian physicians had proved it for ordinary tertian infection, is misleading. He seems to claim this as his own discovery; but how he can do so, in face of the statement made at his lecture at the Colonial Association at Berlin that he had made himself acquainted with the literature of malaria, is past comprehension. His tropical fever is no other than the disease called "summer-autumn tertian" by the Italian physicians and "malignant tertian" by some other writers. Koch's description of the parasite corresponds entirely with that of the summer-autumn parasite of the Roman Campagna, of Africa, of India, of China, of America, and of other countries.

As to the type of fever and its relation to the development of the parasite, it was clearly described by Bignami and Marchiafava in 1891, and they fully recognised its tertian cycle and purposely called it "summer-autumn tertian." If Koch had taken the trouble to compare his temperature charts with those of Marchiafava and Bignami, with Manneberg's, with many of those in Thayer and Hewetson's monograph, he would have seen this at a glance.

As to blackwater fever, Koch again propounds what purports to be a discovery of his own. In his address to the German Colonial Association in Berlin he said: "My investigations have led me to the conviction that blackwater fever has no direct connection with malaria at all; it generally is nothing more nor less than quinine poisoning;" and, further, "I must, unfortunately, refrain from telling you all my reasons for this assertion; they are of a strictly medical nature, and the detailed stating of them would lead me too far, but you may rely upon it that they are completely conclusive."

This detailed statement of his reasons for regarding blackwater fever as being neither more nor less than quinine poisoning we expected to find in the more recently published scientific account of his investigations, but all we find there are the threadbare and well-known arguments of a quarter of a century ago. Professor Tomaselli, of Catania, was the originator of this conception about the hæmoglobinuric effects of quinine, and since he propounded this idea it has been repeated again and again by Italian writers. Others, in view of the peculiar geographical distribution of blackwater fever and the peculiarities in the natural history of the disease, have on very good grounds expressed the opinion that the disease is caused by a specific parasite like, it may be, but specifically distinct from, that of malaria. This is surely a much more reasonable view of the matter than Tomaselli's hasty hypothesis. Koch, by lending the authority of his name to Tomaselli's conception will cause, and already has caused, much mischief by undermining confidence in quinine as being the sovereign and well-proved remedy for all forms of tropical malaria.

Notwithstanding the serious blemishes which we have felt it our duty to point out, the work is full of interest, and contains much of permanent value.

The Microscope: its History, Construction, and Application. Being a familiar introduction to the use of the instrument and the study of microscopical science. By Jabez Hogg, M.R.C.S., F.R.M.S. Fifteenth edition. London: G. Routledge and Sons. 1898. (Demy 8vo, pp. 728, 20 plates and woodcuts. 10s. 6d.)

Half a century ago Mr. Hogg (whose recent death is recorded elsewhere) was a pioneer in the use of the microscope for scientific research, and in 1854 he published the first edition of his book, believing that such studies were "but coldly and indifferently appreciated by the general public," and that this state of things was "mainly attributable to the want of some concise, yet sufficiently comprehensive, popular account of the microscope." The volume he produced was well received, and has been the guide and counsellor of many a tiro in microscopic work, giving him practical directions for the choice and use of his instrument, as well as a fund of information on

natural objects suitable for examination. It was a modest volume of 480 pages, and its success was such that a second edition was called for the following year, and a fourth in 1859, by which time it had increased in bulk by nearly 50 per cent. The author's interest in his theme never flagged, and we are called upon to-day to notice the fifteenth edition of his book.

Such an achievement is almost a record in scientific literature, and the author was especially fortunate in having lived to see the instrument of his choice develop from the toy of the *dilettante* into an indispensable aid in almost every branch of science and every department of industry. By the medical man it has always been fully appreciated, and, judging the volume before us from his point of view, we find that it has some good points and not a few deficiencies, due, no doubt, to the growth of science to which we have alluded. The earlier part of the book, treating of the structure of the microscope and its accessories, has been carefully brought up to date, all the principal novelties both of British and Continental makers being duly recorded, whilst the author's seniority enables him to add many interesting historical notices.

In the second part of the book the subject of human histology has been very sparsely treated, being comprised within a chapter on the vertebrata, which in itself only occupies thirty-eight pages. The account of the methods of embedding is insufficient, and serial sections are not alluded to.

Regarding the very important department of bacteriology the author has been well advised in seeking the assistance of Professor Crookshank, whose name is a sufficient guarantee for the accuracy of this portion of the work. The book is abundantly illustrated, though some of the figures are rather antiquated. From the literary point of view the reader's pleasure is marred by some slipshod sentences and several proper names are misspelt.

The Johns Hopkins Reports, Vol. VII, Nos. 1 and 2. Report in Gynæcology. The Johns Hopkins Press. 1898. (4to, pp. 136.)

There can be no doubt of the special excellence of Dr. J. G. Clark's Critical Review of 1,700 Cases of Abdominal Section from the Standpoint of Intraperitoneal Drainage. It is a first-rate sample of scientific clinical research as conducted in an American medical school. Drainage is certainly passing out of favour. Not many years ago we often heard foreign authorities defend *drainage à outrance*. In England there were always practical doubters; that is to say, men who did not drain but maintained that antiseptics and closure of the peritoneum saved where drainage of the peritoneum without antiseptics failed. Clark rejects all forms of drainage, except under very special limitations. Robb and Ghriskey's experiments, published in 1891, discredited the rule in the opinion of Baltimore. Dr. Howard Kelly, of the same school, gave a trial to the Mikulicz gauze bag, but soon discarded it. Lastly, Miller and Clark demonstrated by bacteriological examination the great frequency of the infection of drains after operation.

On the grounds of further bacteriological research and clinical observation published in this essay, Dr. Clark maintains that intraperitoneal drainage is absolutely dangerous. It causes, he insists, traumatic and chemical irritation and frequently introduces poison from without into the system. He endeavours to show that it is not effective in removing fluids and infectious matter. Fæcal fistula and obstruction of the bowel, vesical irritation and hernia are not unknown results. Clark trusts to asepsis. When a case is already septic no doubt recovery after operation often surprises the surgeon, but it is now admitted on plain clinical evidence that the peritoneum can dispose satisfactorily of a considerable amount of infectious matter. The more the poison is diluted and not concentrated in a localised area, the more easily can the danger of sepsis be conjured. The Baltimore school, therefore, place their trust in saline infusions into the peritoneal cavity. To assist the peritoneal current the foot of the patient's bed is elevated. In worse cases salt solution is infused into the submammary cellular tissue. Dilution of the blood current with water appears to assist greatly in the satisfactory disposal of virulent germs.

These researches and opinions are of high importance, but they will not absolutely convince every competent authority. We must not forget that the operators who have used, and those who have discarded the tube and the gauze drain, are apparently the same men in the same institution. The later treatment must then be associated with greater experience, and possibly with improvements in other technical matters besides drainage not taken into consideration. Personal experience plays a very high part in reducing very low mortality tables, where the 3 or 4 per cent. of deaths represent 3 or 4 desperate cases. Increased skill reduces the 3 or 4 to 2 or 3. Again, Dr. Clark speaks of fæcal fistula following drainage. This must remind us of that ugly complication preceding drainage. Howard Kelly himself insists that "in all cases where there is danger of a fistula drainage should be employed." This danger is specially present when suppurating tubes or ovaries are removed; nor does the intestine always give way during the operation, so that the lesion is recognised; yet it is precisely in such cases that Clark believes drainage to be deleterious. Again, is the saline infusion infallible? We doubt it, for once the spray and the drainage tube were spoken of as though they were so. There is, certainly much food for reflection in Dr. Clark's treatise.

In conclusion, a word must be said on the valuable scientific essay on vaginal cysts by Dr. J. E. Stokes, also contained in this volume. It is a bit of sound pathological work.

The Medical Annual and Practitioner's Index: A Work of Reference for Medical Practitioners. Seventeenth Year. Bristol: John Wright and Co. 1899. (Cr. 8vo, pp. 728; 25 plates, 134 figures. 7s. 6d.)

This excellent summary of the progress of medicine and surgery contains a large amount of carefully-digested information on a variety of subjects, from the pen of well-known and competent writers. The contributions, indeed, cover so wide a field that a rapid survey of the general scope and arrangement can alone be attempted in this place.

The first part opens with a review of therapeutic progress. General remarks on the new *British Pharmacopœia*, etc., are followed by references to recently-introduced remedies; in connection with which it may be observed that urea was recommended as far back as 1852, as a diuretic in dropsy due to cardiac disease by Tanner in his *Practice of Medicine* (6th edition, 1869, vol. ii, p. 516). Tables of the principal alterations in the new *Pharmacopœia* are appended. This section concludes with articles on practical *x*-ray work, electro-therapeutics, and the climatic and open-air treatment of phthisis.

The greater part of the book, however, is devoted to new treatment. The subjects are taken in alphabetical order, and range from abdominal surgery to yellow fever; a number of plates and figures accompany the text. The second instalment of an Atlas of the Pathogenic Bacteria contains practical remarks on Widal's reaction, suspected diphtheria, etc., with eight well-executed coloured plates of various micro-organisms.

Part III includes a review of legal decisions affecting medical men and the public health, an article on sanitary science in 1898, and miscellaneous information on new appliances, etc.

Altogether, the present issue of the *Annual* can be confidently recommended as a trustworthy work of reference. It is furnished with a good index. The book reflects great credit on the general editor.

Elementary Physiology. By Benjamin Moore, M.A., late Assistant Professor of Physiology at University College, London. London: Longmans, Green and Co. 1899. (Cr. 8vo, pp. 295; 125 illustrations. 3s. 6d.)

This little book is intended to be intelligible to the general reader, and we have nothing but praise for the lucid manner in which Mr. Moore has carried out this idea. So many of the elementary textbooks on physiology have been written by those who have no right to pose as physiologists that it is refreshing to meet with one written by an author who is able to speak with authority, and not as these other scribes. We hope that the author's wish will be fulfilled that the book may remove some of that deplorable ignorance so often met with among people reckoned well educated, as to the structure and actions of the parts of their own body.

THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

OPENING CEREMONY.

On Saturday, April 22nd, the new School of Tropical Diseases in Liverpool was formally inaugurated by Lord Lister. The chief events of the day comprised a visit to the special ward in the Royal Southern Hospital, a visit to the Thompson-Yates Laboratories, and a banquet at the Adelphi Hotel given by the Chairman and Committee of the School of Tropical Diseases.

The Tropical Diseases Ward.

The ward which has been set apart for the reception of cases of tropical diseases, known as the Samuel Henry Thompson Ward, is lofty and cheerful, commands an extensive view of the Mersey, and contains twelve beds. It has been entirely redecorated and refurnished, and two adjacent rooms have been fitted up as ward laboratories with the most recent appliances.

The Opening Ceremony.

Lord Lister, who was accompanied by the Lord Mayor, the Presidents of the Royal Colleges of Physicians of London and of Ireland, the staff of the hospital, and a large number of visitors inspected the ward and the laboratories, and was then requested by the Chairman of the hospital (Mr. William Adamson) to declare them open.

Mr. Adamson pointed out that since the hospital had been opened fifty-seven years ago the wards, he believed, had never been free from cases from the tropics, and it was an interesting fact that during the last few years 460 cases had been under treatment therein. He was pleased to see that all parties viewed with satisfaction the establishment of a school for the study and treatment of tropical diseases in the city, and he felt certain that as in the past so in the future the Medical Board would continue to keep in view the objects of the charity—namely, the relief and cure of sufferers. In the year 1877 19 cases of malaria were brought into the wards in one day, and as far as could be ascertained all the patients recovered. The proximity of the hospital to the docks was no doubt the chief reason for patients being carried there. The necessity of now understanding more of the nature of these diseases which, in foreign lands had sapped many a promising life, having become apparent to some of their leading merchants, foremost among all being Mr. A. L. Jones. Action had been taken, and the Committee of that institution, ever eager to hold out a helping hand, were setting apart has a ward with twelve beds for the treatment of special cases. Laboratories, etc., were also provided where the science and skill which were now linked to University College and the hospital might lead to ascertaining as far as human research could go the cause of the maladies. The ward was at present full. The twelve occupants of the beds represented the following nationalities, namely, China, India, the United States, Norway, Sweden, Russia, Finland, England, and Ireland. The tropical diseases from which the patients suffered had been contracted in Java, India, Brazil, the Savannah, South Carolina, Benin, and Cape Coast Castle. It was proposed also to train nurses who would go abroad provided not only with a certificate of competence as fully qualified nurses, but also with a special knowledge of tropical diseases, so that with the confidence which a full training and experience usually brought they would be able to help medical men in foreign countries to cope with illness in its earlier stages.

Lord Lister said that he felt sure that Liverpool in this matter was doing what was of the greatest importance for the welfare of mankind. It might have been supposed by some people that the treatment of tropical diseases there was a somewhat fictitious matter, and that patients were got together for the purposes of the school and for nothing else; but they now learnt that patients with tropical diseases had been treated in that hospital for a long time past. At the same time, it was to the advantage of these patients that there should be a distinct tropical diseases school. In direct proportion as any hospital ward had associated with it a school in which diseases were earnestly studied in all their bearings and under the critical eyes of trained observers was the welfare of the patients. People sometimes had the notion that a hospital with a medical school was not so good for the patients as a hospital which had no medical school. There could be no more ridiculous mistake. It was where there was no school, no supervision or public criticism, and nothing to stimulate research with a view to teaching, that the medical officers were apt to become sluggish, and to fail in their duty, both in the treatment of the patient and the advancement of medical science. The Hospital and the School Committee were to be congratulated on having obtained the services of so distinguished a man in these tropical diseases as Major Ross, whose observations had been of the highest importance; every week or two they saw evidence and confirmation of the accuracy of his work, the recognition of which came from Germany and from France, and in fact from everywhere. It was most fortunate that they were able to obtain a man of such distinction, of such competence as an observer, and one having had so much experience in tropical diseases, to be the medical officer; and also to be able to associate the school with the great College, of the pathological department of which Professor Boyce was the head. It was a double security that everything would be done to the best advantage. Therefore he felt it a peculiar pleasure to be allowed to have the honour of declaring the ward open.

Visit to the Thompson-Yates Laboratories.

In response to the courteous invitation of Professor Boyce and Major Ross, I.M.S., Lord Lister and a numerous company paid a visit during the afternoon to the Thompson-Yates Laboratories, where Major Ross demonstrated a number of microscopic preparations illustrating the connection of the organism of malaria with the mosquito.

Visit to the R.M.S. Lucania.

In the morning Lord Lister and a party embarked on the tender *Alert*, belonging to the Mersey Docks and Harbour Board, and were conducted over the *Lucania*, belonging to the Cunard Steamship Company. Lord Lister expressed his admiration at the style and spaciousness of the vessel, and before he returned ashore proposed "Health and Prosperity to Captain Horatio McKay," the veteran commander of the *Lucania*.

Banquet: Speech by Lord Lister.

In the evening the Chairman (Mr. A. L. Jones) and the Committee of the School of Tropical Diseases entertained a large and distinguished company at a banquet given in the Adelphi Hotel. Among those present were the Right Hon. the Lord Mayor, Lord Lister, the President of the Royal College of Physicians of London (Dr. Church), the President of the Royal College of Physicians of Ireland (Dr. J. W. Moore), Sir Richard Thorne, K.C.B., Sir William Broadbent, Bart., Sir Christopher Nixon, Sir Charles Cameron, Sir J. Crichton Browne, Professor Michael Foster, Professor Clifford Allbutt, Dr. Patrick Manson, Dr. Waldemar Haffkine, Principal Glazebrook, Dr. F. W. Mott, the representatives of foreign Governments in Liverpool, the chairmen of the Chambers of Commerce of Liverpool and Manchester, and many leading citizens, including members of the staffs of all the principal hospitals.

The usual loyal toasts having been duly honoured, the Chairman proposed "The Study of Tropical Diseases," a toast which, he said, could commend itself very emphatically to those who were connected with the commerce of the country. All who were associated with the tropics keenly felt their weakness to deal with the diseases which were prevalent there. Great service could be done by improving the habits of the people, but another important side of the question was the health of the men who were sent out to the tropics to carry out commercial enterprises. He was proud that the present movement had been started and supported by Liverpool people, but he could not find words to express his feeling of appreciation of the valuable help which they had received from their scientific friends. As to Professor Boyce, until he had met him he had never known what it was to be energetic. He felt that the effort they were making that day was one worthy of Englishmen, and a most pleasant feature about it was the encouragement they had received from abroad. Germany, Holland and Belgium had sent liberal contributions and a contribution from America was on its way. He desired as a member of a firm of shipowners to express his recognition

of the work done by the Royal Southern Hospital. It was a most painful sensation to him to go through that institution and find some of the men lying there almost helpless; incapacitated, in some cases, in endeavouring to obtain a living for themselves, but certainly in endeavouring to obtain a living for the merchant and shipowner. When Sir William MacGregor, the Governor of Lagos, left that morning he requested him to speak in his name and to say that he thought this was one of the finest movements which had ever been started on behalf of the tropics.

Lord Lister said he felt great pleasure in replying, for he was fully impressed with the great importance of making a special study of tropical diseases. The medical student in the ordinary hospitals had exceedingly rare opportunities of seeing any of those diseases, and for a man who was about to practise in the tropics it was perfectly plain that it must be most advantageous to have the opportunity of practically studying the diseases well before he embarked upon his tropical career. He was glad to be able to bring testimony of much more importance than his own on this matter—that of a very distinguished man who had long practised in tropical regions, Sir Joseph Fayrer. He wrote: "I am much disappointed that I am unable to be present at the inaugural banquet of the Liverpool School of Tropical Diseases. May I ask you to be so kind as to read his letter, or part of it, at the dinner, and to say on my behalf how much I regret my enforced absence, adding that it would have given me the greatest pleasure to be present to express my sympathy with the project, and say how heartily I wish all success to this admirable addition to the great medical school of Liverpool? The instruction imparted at the school of tropical medicine will be most valuable, and the admirable additions which have been made for giving effect to the scheme, deserve, and I believe will ensure, success. That such an institution is needed there cannot be a doubt, and the benefit to all concerned will be great. The advantages possessed by the important city of Liverpool in furnishing material for the study of tropical disorders in a well-endowed and established hospital, together with a school of eminent teachers, ensure the success of the scheme, which I trust will be carried out with unimpeded progress." The Liverpool School of Tropical Diseases had a most powerful combination of advantages. There was a supply of cases of tropical diseases for the students to study, certainly second to none in the British Isles. There was also, as his hearers had seen, that afternoon in the ward which he had the privilege to declare open, an excellent and beautiful ward specially devoted to tropical disorders, and there was also, which was of the utmost importance, connection with a great medical school which was prepared to act in unison, and give all the advantages of the co-operation of its professors. The arrangements made for the laboratories in which the investigations were to be conducted seemed to him to be eminently satisfactory. He had also seen a syllabus of the intended course of instruction, and he felt convinced from that syllabus that those advantages would be utilised to the utmost. That being the case he confessed he sympathised very deeply with them as Liverpool men in feeling that it was somewhat of a hardship, or would be a hardship if men who studied in Liverpool under the best conceivable conditions that could exist should nevertheless have to go to London. It would be a hardship upon their students that men studying in Liverpool, and taking a graduate course here, should have to break away from Liverpool and go to London for the purpose of studying there those identical diseases; and he could not but feel that such an arrangement must act very prejudicially upon their school, because, overburdened as the medical student now was with subjects for study, it would naturally be unfair to a man studying in Liverpool that he should have to attend a course of diseases in Liverpool and afterwards go to London and study them there. He felt this so strongly that he lately took an opportunity of obtaining an interview with Mr. Chamberlain upon the subject. He found in the first place that Mr. Chamberlain cordially sympathised with them in their efforts. In the second place, he learned from Mr. Chamberlain that the arrangement proposed was only made for a single year, and Mr. Chamberlain commissioned him to say to them that when that year had expired he would reconsider the question, and he added significantly, "We shall then see what Liverpool can do." If Mr. Chamberlain saw what Liverpool could and assuredly would do, he felt confident that at the expiration of the year that disadvantage would no longer exist. He could not resist expressing the great satisfaction it gave him to see that great concourse of Liverpool men, perhaps he might say the best specimens of commercial men in that great commercial centre, met together as they were to promote a scientific object. Liverpool men had in many ways shown their sympathy with science. He visited Liverpool some twenty years ago, and the contrast there was between the medical school and the whole provision for the pursuit of learning and science in Liverpool as it then was and as it was now was simply astonishing, and that in a large measure was due to the munificence of the citizens of Liverpool. He could not help thinking—though here he spoke without the slightest authority—that the time would come when they would be in co-operation with the London School of Tropical Diseases, with which he had most hearty sympathy. He hoped the time would come when not only those intending to take positions as medical officers in the colonial service would be examined in London by a London examiner, and in Liverpool by a Liverpool examiner, but also that London and Liverpool would be associated in examining the candidates for those offices. When that came about—and he believed there was a strong probability that it would do so—there would be in that colonial department for tropical diseases a great college or university instituted, which would be of immense value indeed to the country and to the world; and they would be able at the same time to maintain the system, which he trusted they would ever maintain, of having those who were examined in a particular subject examined in part by the teachers of that subject, a system in which, after varied experience in different schools, he had the greatest confidence as being the best calculated to promote earnest, thoroughgoing study. It also gave him very great pleasure to see present men like Dr. Patrick Manson, so distinguished a pioneer and investigator in tropical disorders; such a hero as Dr. Waldemar Haffkine, who for many years past had, with the most unselfish devotion, exposed himself to serious risks in the cause of humanity and prevention of tropical disorders. Again, he felt pleased at having met that day for the first time a man much younger, but still highly distinguished, Major Ross, who had already achieved a European reputation, and whom he was glad to see associated with that school.

Dr. J. W. Moore, President of the Royal College of Physicians of Ireland, in responding to the toast said that he considered it an honour and a privilege to have been allowed to take part in the movement which had been so happily inaugurated that day, and he gave Liverpool the greatest credit for the honourable position which she occupied with regard to that subject. He regarded the establishment of the special ward in the Southern Hospital as in some respects even a greater step in advance that the establishment of the magnificent laboratories which had been inspected that day.

Principal Glazebrook, in proposing the toast of "The Medical Profession," emphasised the importance attached to the appointment of Major Ross as lecturer in the School of Tropical Diseases, and expressed the hope that patients in other hospitals in the city suffering from tropical diseases would derive equal benefit with those in the Southern Hospital from the establishment of the School.

Dr. Church, President of the Royal College of Physicians, in responding said that there were two moving principles which caused men to enter the medical profession: the desire to investigate the mysteries of Nature, and the desire to allay the sufferings of some of their fellow-creatures. These two principles were, he thought, safeguards of the profession. The philanthropic citizens of Liverpool had been quick to see that the endowment of science, especially science as connected with medicine, was a greater gift to humanity than the mere endowment of a certain number of beds and hospitals. Hospitals and beds, however valuable, only touched a limited locality, whereas the knowledge obtained by scientific investigation was spread over the whole world.

Professor Michael Foster, who also responded, read the following translation of a telegram which had been received by Professor Boyce from Professor Marchiafava, of Rome: "Not being able to be present at your glad ceremony to-day,

I send you my best thanks, and my respects to my illustrious colleagues, and I wish all success to the effort which must in the highest degree be for the benefit not only of science but of humanity."

The toast of "The New School" was given by the Right Hon. the LORD MAYOR, and acknowledged in appropriate terms by Dr. CARTER and Professor BOYCE.

"Our Guests," proposed by Mr. C. W. JONES, was responded to by His Excellency the GOVERNOR OF THE GOLD COAST and Mr. W. F. LAWRENCE, M.P.

Lord LISTER proposed the toast of "The Chairman," Mr. A. L. Jones, which was received with musical honours, and suitably acknowledged.

THE PREVENTION OF TUBERCULOSIS.

CHELSEA CLINICAL SOCIETY.

THE first of two special meetings of the Chelsea Clinical Society for discussing the recent investigation relating to the Etiology, Prevention, and Treatment of Tuberculosis was held at the Jenner Institute of Preventive Medicine, Chelsea Gardens (by kind permission of the Director, Dr. Allan Macfadyen) on April 18th.

The President (Dr. J. Foster Palmer), who occupied the chair, in opening the proceedings, said they had long been aware that tuberculosis depended upon the pathogenic action of some minute organism, but of late years there had been a recognition in this country of the contagious nature of tuberculous disease, and also a widespread belief in its successful treatment on a more rational basis. The number of people who had at some time suffered from a patch of tubercle was something enormous, and from an examination of the *post-mortem* books of St. George's Hospital for the year 1892 he found the average proportion to be about 36 or 37 per cent.

Professor Sims Woodhead said he had to confine his attention to the pure pathological side, and as soon as one came to that side of the question one saw at once how closely the clinical aspects of tuberculosis and its pathology coincided with the experimental, because there had been so many experiments carried out on various animals with tuberculous material that there had been gradually collected practically all the lesions that were to be found in the human subject. They had now come to know that they could produce in animals all those various conditions which at one time were said to be so very different from one another, and he proposed to give examples of some of the different lesions which appeared to him to throw some light on the growth and spread of tuberculous disease. The tubercle bacillus was undoubtedly the primary and the ultimate factor in the causation of disease, but there were secondary predisposing causes of so many kinds that one must be constantly on the outlook to determine how it was that tubercle got its coign of vantage and then spread. He showed diagrams of a series of sections of the lungs, which he had collected from a large number of cases of phthisis, showing caseous glands and different kinds of lesions, and illustrating some of the conditions under which tuberculous development would be found in the lungs. Some of these cases pointed to the fact that in this form of tuberculosis the spread of the disease was entirely by the lymphatic channels. Sometimes one found at the base of the lungs well-marked areas of caseous tubercle, and where that was the case they would invariably find that the base of the lung was adherent to the diaphragm. And if in a case of abdominal tuberculosis one found the upper surface of the liver adherent to the diaphragm they knew that they would find with absolute certainty tubercle in the lower pleura. These cases were met with very frequently, and they were forms of comparatively chronic tuberculosis. These various forms of tubercle existed in the human body, and almost every one of them could be found in animals. A large number of experiments had been made, in which it had been shown that milk had set up tuberculosis of the tonsils. It had been known for a very long time that pigs fed on tuberculous milk invariably developed a swelling under the jaw, but it was some time before their attention had been drawn to the fact that apparently the increase of the tubercle bacillus was through the tonsils. This mode of invasion had, perhaps, more to do with pulmonary tuberculosis than was sometimes imagined. It must be remembered that when there was a complete alteration of the lymphatic circulation there was in consequence a predisposition to the attacks of the tubercle bacilli through an alteration in the nutrition of the tissue. The nutrition of the tissue was enormously altered by any interference with the expansion of the lung, and it acted not only on the blood supply but on the lymph supply. If they examined the lower animals, they would find every single form of tuberculous lesion. In the guinea-pig would be found the lesion in which there were very few tubercle bacilli; in the pig, on the other hand, they would find an enormous number; the guinea-pig was far more susceptible than the pig, but the number of bacilli was very much smaller in the guinea-pig than in the pig. He believed that indicated, not that the guinea-pig was more susceptible than the pig, but that once the resisting powers of the pig were done away with there was an enormous increase in the number of bacilli, or it might mean that a much larger number of tubercle bacilli was required to set up tuberculosis in the pig than in the guinea-pig. The horse, again, was not a very susceptible animal, but once tubercle bacilli got into the system they appeared to multiply at an enormous rate and to set up tuberculosis of a primary character. In the cow, which was comparatively susceptible, it appeared to take fewer of these bacilli to bring about tuberculosis. In this connection they must remember that the channels of invasion were different in different animals, because they would find that according to the channels of invasion different organs were affected. In the horse the spleen was almost invariably affected, the reason being that the horse was almost invariably affected through the alimentary tract, and the tubercle bacilli were taken in along with the food: whilst in the cow, where the infection seemed to be through the respiratory tracts, they would find the lung was first affected, and the spleen was seldom or never touched. These were important points which bore on the etiology of the disease in the human subject. In conclusion Professor Woodhead said he believed that tuberculin in some form or other had a very much greater future before it than they were sometimes willing to allow. They knew that in a certain number of cases of skin tuberculosis tuberculin had a most beneficial effect, but it had that beneficial effect only in those cases in which there was a free surface. He looked forward with very great hope to a time when tubercle would be almost eliminated.

Professor Sidney Martin said that the infection in some cases being through the mouth, the tonsils, and the intestines, whilst in others it occurred through the skin, the lungs, or the joints. In considering the invasion of the body by an infective disease, several factors presented themselves: (1) Susceptibility of the animal to disease; (2) dosage of the poison; (3) virulence of the bacillus. All these points were of the greatest importance in determining whether the disease could be cured. As a result of experimenting, he thought that one great result which had been obtained was that there might be either direct local infection, or infection at some distance. For example, there might be a lesion in the intestinal tract of one animal, while in another the mesenteric glands only would be infected. He thought it would appear as if the bacillus could penetrate the mucous membrane of the intestine without causing any local lesion, and that this effect would most likely be accounted for by the dosage of the poison. Tuberculosis in different parts of the body, such as the meninges and bones, was frequently the result of infection through the blood stream. The question of the infectivity of the resolving tuberculous lesion was most important not only from a pathological, but from a clinical point of view. He instanced the caseous deposits frequently observed in the lungs and lymphatic glands, in cases which were apparently quiescent, and he had observed that in cases in which cancer also existed this was the rule. In fact he might go further, and state that carcinoma and tuberculosis never co-existed in an active state. Tuberculous lesions in man tended to undergo localisation and cure, whilst in animals the disease was progressive. With regard to milk the question was easy, but in the case of meat he thought grave danger existed, this chiefly occurring from the "dressing," the meat itself being rarely infected with tubercle.

A paper sent by Mr. Watson Cheyne, who was prevented from attending, was read by Dr. Austin Cooper, the Secretary.

In surgical work (said the author) tuberculosis was met with in a variety of forms and situations—in the skin and mucous membranes, the subcutaneous tissues, tendon sheaths, bones, joints, glands, peritoneum, genito-urinary organs, etc.—and a point of the greatest importance as regarded treatment was whether the tuberculous deposits with which surgeons had to deal had originated primarily in the part affected, or whether they were only part of a general infection; in fact, whether in operating on a tuberculous affection they really had the chance of removing the whole disease, or were only taking away one local manifestation. It was clear that the outlook as regards results would be much better where they had to do with a primary affection than with a secondary one. In some situations there was no difficulty in believing that they had to do with a primary affection. In the skin, for example, many cases undoubtedly arose from direct infection, and the same was often the case with intestinal tuberculosis. The majority of cases of glandular disease, also, more especially in the cervical and mesenteric glands, might also be looked on as primary, the bacilli being directly carried to the glands by the lymphatic vessels without producing any lesion at their point of entrance. Klebs's experiments were well known, in which he found that if he fed animals with coarse and hard tuberculous masses, such as cheesy glands or pieces of diseased lung, tuberculous ulcers occurred in the intestines; while, if he used finely-divided tuberculous tissue, ulceration did not occur in the intestine, but in a considerable number of cases tuberculosis developed in the mesenteric glands. In the human subject the conditions were similar; in the case of the cervical glands more especially they seldom found any lesion at the point of entrance in the throat, and yet there could be no doubt that in most cases the bacilli entered in that situation: in these cases the bacilli were carried directly to the glands by the lymphatic vessels and probably did not enter the general circulation for some time, so that the removal of these glands might quite well rid the patient of the disease. In order to do this, however, it was most important to remember that the infection spread rapidly to adjacent glands and that the enlarged glands which one could see and feel were not the only ones diseased. It was the failure to recognise this fact that had led some surgeons to doubt the value of excising tuberculous glands, for, contenting themselves with the removal of visibly diseased glands, they had found that before long fresh glands enlarged. If on the other hand one removed not only all the enlarged glands, but also all the fat containing small glands over a considerable area round about, the result was in the great majority of cases highly satisfactory and no fresh enlargement occurred. This of course involved an operation of considerable difficulty and magnitude, but it was well worth doing. In considering the question of tuberculosis of more distant parts, such as bones and joints or the genito-urinary system, it was clear that the bacilli must in the great majority of cases have reached the part through the blood stream. The question of the primary or secondary origin of the disease was a much more difficult one. In some cases infection of joints had arisen as a direct result of punctured wounds, but in the great majority of cases no such mode of origin was present, and it must be assumed that the bacilli were present in the circulating blood, and were deposited from it in the part affected. Reference was made to Krause's experiments, in which he showed that in animals inoculated with tubercle bacilli, joint disease could readily be set up, provided the injury was not too severe. It was not severe injuries such as dislocations or fractures which were followed by tuberculous disease, but slight injuries such as sprains. Some authorities strongly supported the embolic origin of joint affections, but although this might occur in some cases, there were a number of points which seemed to preclude it as a common mode of origin. One very strong point against this view was the marked predisposition to tuberculous disease shown by different joints. Why, for example, should the proportion of hip-joint diseases in children under 10 years of age affected with tuberculous joint troubles be 30 per cent., while that of the tarsus was only 4 per cent., if both were due to embolism? Surely the embolus would stick as readily in the one part as in the other. Nor was it that one joint was more subject to injury than the other. It looked as if the bacilli had a selective power, and found some condition present in the hip-joint which suited their growth better than in the tarsus; in any case there was a strong and varying local predisposition in different joints to the deposit and growth of the tubercle bacilli, and that the bacilli floating in the blood stream arrived at some part predisposed to disease by injury, or some other cause, and settled there and grew; it could not be a pure mechanical plugging of the vessels.

Some lantern slides were shown illustrating the remarks of Professor Sims Woodhead and Mr. Watson Cheyne, after which a discussion took place, in which Sir Charles Gage Brown, Mr. F. R. Walters, Mr. Gibbes, and Mr. Nitch-Smith took part.

Professor Sims Woodhead in responding said that as regards infection by the tonsils, he only wished to indicate that there were a considerable number of means of infection and of channels by which the lungs might become affected. He knew from actual experiments that infection was sometimes through inhalation, and he believed in a large number of cases of tuberculosis the infection was carried to the lung by means of the respiratory channels. If they wished thoroughly to understand the subject they must not confine their attention to looking for the tubercle bacillus in the channels through which it usually entered, but they must look in every direction. He believed that when the channels were in a healthy state they acted as a kind of portcullis, and were a natural protection against bacteria; and it was only when they were overworked and when their tissues were weakened and became devitalised by the continual action of poisonous products that they became the seat of the disease, the point at which the disease entered. Having passed this point, the tubercle bacilli were checked at every gland, and it was only as they became more and more active and vigorous that they passed further and further from the point of entry. They would find nothing but a gland at the root of the lung duct, and it could not be supposed that the gland had become infected from some outside source apart from the lung. Although there might be no evidence of the presence of bacilli in the lung itself, and no evidence of any point at which the bacilli had entered, they must assume that they had made their way through the lung tissues along the lymphatics, and had been arrested in the lymphatic gland; there they began to multiply, and made their presence manifest by giving rise to the peculiar conditions associated with tuberculous processes. They must not look upon any special method of invasion as being the only or the most frequent one; sometimes an invasion took place from the cells, sometimes these bacilli found their way into collections of fluid already there, and into dead and damaged tissues. They could not affect the healthy tissues, but as soon as they came to any point at which they could get a lodgment and nutrition, and where there was less resistance, then at that point one got tuberculosis. In reply to Sir Charles Gage Brown, he said he did not believe those cases of acute pleurisy were primarily of tuberculous origin, but were collections of fluid around otherwise healthy lungs. The tubercle bacilli were taken into the air vesicles; they did not remain there, but found their way into the distended lymph channels. There they multiplied, and two months later set up tuberculous disease; it was not a primary lesion, but it was a tuberculous lesion grafted on to some other conditions which were specially favourable for the development of the tubercle bacilli, and as a result one got secondary tuberculosis. He only threw this out as a suggestion, and not in any degree as an explanation; but, still, it was a suggestion based upon what he had observed in connection with experiments in *post-mortem* work, and he believed it was to something of that kind that they would have to look for an explanation of secondary tuberculosis.

Conference of Metropolitan Guardians.

A conference of delegates from metropolitan Boards of Guardians on the subject of tuberculosis, convened by the St. Saviour's Union, Southwark, was held recently at the offices of the City of London Guardians, Bartholomew Close.

Mr. T. Cooksey (St. Saviour's), who was voted to the chair, said a large number of patients suffering from tuberculosis were treated every year in the Poor-law infirmaries, but with the existing accommodation and appliances it was exceedingly difficult to deal with them in a satisfactory manner. Unfortunately they had not the proper means for isolating the patients, and that in itself was a source of danger to others. It

remained to be seen whether the Poor-law unions were sufficiently impressed with the gravity of the matter to take common action for bringing about a better condition of things.

A paper on Phthisis Patients under the Poor Law was read by Mr. F. Redman (St. Saviour's). The only course open to them at present was to send phthisis cases to their infirmaries, where the amount of air space allotted to them was altogether insufficient. Purity of air and plenty of air was the great thing needed at a sanatorium, and many medical authorities had contended that a change of climate was immaterial so long as the air conditions were fulfilled. It would appear that, on the average, about 1 in every 13 of the present inmates of the Poor-law infirmaries would be fit subjects for transference to sanatoria, and the additional room thus created in the local infirmary would not only immediately decrease the maintenance charges, but probably stave off the necessity for large expenditure on rebuilding for years to come. Among the pecuniary advantages of providing sanatoria was the tendency of such a course to lessen pauperism by restoring to health the breadwinners of numerous families who otherwise would be dependent on the rates. He concluded by moving the following resolution:

That, having regard to the large number of cases of tuberculous disease which find their way into establishments under the care of the Poor-law guardians, and the danger of infection incurred by non-tuberculous patients, it is desirable that special institutions should be established in the country, to which all hopeful cases of tuberculous disease should be removed.

Dr. F. J. Reilly (Mile End) seconded the resolution, which was supported by Mr. H. H. Richardson (City).

Dr. Lindow (Woolwich) said that, speaking as a medical man and as a guardian, he felt that they had not sufficient experience yet to undertake the establishment of such institutions. He believed that they were as capable of treating tuberculous cases in their infirmaries with suitable buildings, as they would be in what were called sanatoria. The common lodging house was the centre of infection in regard to tuberculosis, and something should be done to reduce their number or improve the conditions under which they were conducted. He hoped that they would not come to a decision on that matter that day, but address a circular to the medical officers of the various unions inquiring how many cases under their charge might be characterised as hopeful. The medical superintendent in his union told him that only 10 per cent. could be so regarded.

Mr. Ecroyd (St. Olave's, Bermondsey) criticised the resolution.

Dr. Porter (Medical Officer, Kensington) observed that of the 93 cases admitted into Kensington Parish Infirmary last year, there was only 15 that he could probably have sent to a sanatorium, and he calculated that the total number of suitable cases in the metropolis for treatment at sanatoria was 400. He thought that a tentative scheme might be carried out of providing a sanatorium, which should be built 300 feet above sea level, for 200 specially selected cases.

The Rev. E. C. Hawkins (City) considered that the subject was one that should be inquired into by a Royal Commission.

After further discussion, Mr. Redman agreed to modify his resolution, which was eventually carried unanimously, in the following terms:

That having regard to the large number of cases of tuberculous disease which find their way into establishments under the care of the Poor-law guardians, it is desirable that the Local Government Board should make an exhaustive inquiry into the cause and treatment of the same.

ST. GEORGE SOUTHWARK.

At the request of the vestry, Dr. Waldo, Medical Officer of Health for St. George Southwark, has drawn up in a concise form and in plain language, for the use of the poorer classes, some general instructions how to deal with consumptive persons, so as to prevent them becoming a source of infection to others, and how consumption may be prevented, to a large extent, by careful attention to food and drink.

SANATORIA FOR THE PEOPLE.

Dr. William Calwell, Physician to the Throne Consumptive Hospital, Belfast, who is a pioneer of the open-air treatment in Ireland, has published a translation of a little book by Dr. Nahm, of Ruppertshain, entitled, *The Erection of a Consumptive Sanatorium for the People* (Belfast: Mayne and Boyd. Price 2s.) Dr. Calwell contributes a most useful introduction, in which the details of the construction and management of popular sanatoria are discussed.

IPSWICH AND DISTRICT BRANCH OF THE NATIONAL ASSOCIATION.

Mr. G. F. Hulme, M.B., C.M., Montague Road, Felixstowe, has been appointed Honorary Secretary of the Branch in place of Mr. W. W. Sinclair, resigned. It is proposed to hold a general meeting of the members shortly, to consider what further steps should be taken to advance the aims and objects of the Association.

PORTUGAL.

The Portuguese Minister for War has appointed a Committee to study modern prophylactic and hygienic methods in regard to pulmonary tuberculosis in armies. The Committee, which is instructed to report within six months, consists of Dr. Carlos Moniz Tavares (President), J. Barbosa Leao, Almeida Dias, Rezendo Junior, and Carlos Lopes (Secretary).

A Committee which was recently appointed by the Society of Medical Sciences to study the question of the installation of a sanatorium for indigent sufferers from tuberculosis is actively at work. It has enlarged the scope of its reference and has presented to the Society a scheme for the establishment in Portugal of a league against tuberculosis. The Committee has visited numerous places in the neighbourhood of Lisbon, Bucellas, Caneças, Montachique, Arrabida, Azeitao, with the object of deciding on a suitable site for the projected sanatorium.

THE GERMAN MEDICAL CONGRESS.

[FROM OUR SPECIAL CORRESPONDENT.]

(*Continued from p. 976.*)

DISEASES OF THE HEART.

AT the morning sitting on the second day further progress was made with the reading of papers dealing with subjects having reference to the heart. This arrangement was made partly to allow members anxious to discuss the work of the preceding day as to cardiac insufficiency the opportunity of doing so.

Functional Mitral Insufficiency.

Dr. WINKLER (Vienna) stated that over the mitral valve sounds were occasionally audible for which no cause could be found *post mortem*. He attributed this anomaly to a fault in the action of the papillary muscles and a deficient insertion of the valve muscles. He impeded the action of the papillary muscle experimentally without damaging the valves. Both systolic and diastolic sounds continued to be produced, but there was a regurgitation of blood from the left ventricle into its auricle. That the valves were uninjured was shown by examination *post mortem*. He claimed to have established a relationship between a functional and organic mitral insufficiency.

Investigations of the Heart by the Roentgen Rays.

Dr. v. CRIEGERN (Leipzig) described a method by which with the fluorescent plate he had obtained more exact and less contradictory measurements. The necessary appliances were shown, and the results which were obtained by comparing dilated or hypertrophied hearts on the one hand and anæmic or cachectic hearts on the other were demonstrated. He thus distinguished between various types of action, the weak type not being identical with the action of a weak heart. In weak individuals, however, muscular activity, digitalis, alcohol, and respiration might produce a change from one type to the other. Skiagraphs illustrating these points were handed round.

Dr. LEVY DORN (Berlin) remarked that no doubt the shadow never gave a representation of the exact size of the heart. Tables should therefore be prepared showing the relative shadows of normal heart at varying ages, and with varying weights of body and size of thorax. Two pictures were produced showing the heart during inspiration and expiration, each while lying on a table, the position he proposed to adopt in all cases.

Neurotic Insufficiency of Cardiac Muscle.

Dr. J. JACOB (Cudowa) read a short paper on this subject,

which dealt with many points already treated by his predecessors.

Plethora.

Dr. F. Hirschfeld (Berlin) followed with a paper dealing with plethora as a cause of insufficiency. Such plethora or high blood pressure occurred in cases of latent arterio-sclerosis affecting all the arteries. It was aggravated by circumstances which increased the quantity of blood, for instance, excessive physical work or excessive consumption of albumen. The causes leading to an increase in the volume of blood were little known, but two to three weeks of rest with diet restricted to the point of reducing the weight by 4 to 5 lbs. always proved beneficial.

Digitalis in Chronic Diseases Affecting the Circulation.

Dr. Groedel (Nauheim) dealt with the question as to how long the use of digitalis should be continued. He had seen a cumulative action after four or five days, especially when the drug was administered in pneumonia, or to produce diuresis. This danger should be guarded against. The author did not believe that the drug lost its effect after long use, nor did he think that digitalism existed to the extent described. He did not administer digitalis in cases of arterio-sclerosis, and in chronic circulatory diseases he recommended physical treatment alone as long as possible.

Preparations of Digitalis.

During the resumed discussion on cardiac diseases, Dr. Unverricht (Magdeburg) drew the attention of the Congress to two new preparations of digitalis, dialysate, and digitoxin. The first was prepared from the fresh leaf and had proved reliable. Digitoxin was the active principle of digitalis. He had found it absolutely harmless even when used hypodermically, and its action was much more rapid. He had given it in a large dose to a moribund patient with surprising results. For internal use it was now made in tablets by Merck, in which form the author had now used it for three months to the exclusion of digitalis. It was easily dissolved in alcohol, and when given in large quantities might produce depression and even collapse.

Demonstrations.

The first portion of the afternoon sitting was devoted to a number of demonstrations.

The Sternogoniometer.

Dr. Rothschild (Soden) showed a small instrument to which he had given this name. With it the angle between the manubrium and body of the sternum could be determined. The instrument was placed vertically in the middle line. There was, he said, always a varying amount of mobility in the joint, causing the angle to increase and diminish during the respiratory act. This mobility persisted until about the 60th year. It might be absent earlier in life owing to ankylosis or exostosis. This rigidity, by impeding the proper expansion of the thorax in its upper portion, might be a predisposing cause of phthisis. Immobility might be due also to emphysema, and these two points were sufficient to prove the uses to which the instrument might be put.

New Instrument for making Thoracic Measurements.

Professor v. Basch (Vienna) demonstrated an apparatus with which he made measurements of the thorax with the object of finding the capacity or volume of the lungs. It had no resemblance to the spirometer, the results being arrived at by reducing the pressure in the lungs. His investigations had already shown that the volume of adult lungs when healthy should be about 2,000 c.cm., with slight variations. In cases of phthisis the volume was naturally diminished; in cases of emphysema it might increase up to 2,600 c.cm. He had also made the interesting observation that in some cases of cardiac disease the lungs increased in volume.

Cardiac Skiagraphs.

Dr. Boghean showed a mechanical appliance to regulate the depth and rhythm of respiration.

Further Roentgen photographs showing the heart during various positions of the body were shown by Dr. Determann (St. Blasien).

Diseases of the Stomach and Liver.

The real work of the sitting, however, was devoted to the viscera, more especially the stomach and liver.

The Influence of Drugs as regards Secretions of the Stomach.

Professor Riegel (Giessen) stated that hitherto no means had been available by which the gastric solutions could be rapidly and energetically influenced. Following Pavloff's method, he had detached a portion of an animal's stomach by ligature, and examined the secretion therefrom under varying conditions. Bearing in mind the usual reaction of the vagus to atropine, this drug was first tried, and was observed to produce a diminution in the secretion of both gastric juice and hydrochloric acid. In one instance secretion was delayed for one hour. Antagonistic results were obtained with pilocarpin, which increased the secretion fivefold. On the other hand, mechanical irritation had as yet not been proved to influence the gastric wall. The effects of pilocarpin were more marked in the absence of food. Riegel confirmed these results in 80 individuals, and, in the case of one hyperacid stomach, was unable to find any acid after the use of atropine. Naturally, the results were not as exact as in the experiments, but it had become evident that atropine at any rate was a practically useful drug, applicable to certain cases of gastric derangement.

Professor Soltmann (Leipzig) while confirming the observations as regards atropine, also noticed that the drug diminished constipation.

The Influence of the Nervous System on the Gastric Functions.

Aldehoff and v. Mering (Halle) made a report on some experiments on the vagus nerve. To determine the influence of the nervous system on the three main gastric functions—movement, secretion, and absorption—the vagus was not divided at the neck, but excised to the extent of several inches in the neighbourhood of the diaphragm. The rhythmical contractions continued, and after filling the small intestine they ceased, as would be the case in an uninjured animal. The quantity of secretion was at first diminished, as also the proportion of hydrochloric acid, but soon returned to the normal. The cœliac plexus was excised in 10 or 12 animals. The functions of the stomach continued to be normal, but temporary glycosuria and diarrhœa supervened. However, all animals lived several months. Absorption also was unimpaired, but with regard to this function the authors stated that researches now in progress would soon show this to be a physical process. Finally, division of the splanchnic nerves produced the same results. According to the authors, the experiments proved that the action of the central nervous system was only inhibitory.

Gastric Secretions.

Dr. Pfoundler (Prague) described methods of determining the quantities of hydrochloric acid secreted after certain volumes of food taken at regular intervals. As the calculations implied the use of logarithms it was feared that they might not as yet prove of practical value.

Dr. Gintl (Carlsbad) discussed the effect produced on the gastric secretions by Carlsbad waters.

Diagnosis of Stomach and Liver Disease.

Dr. Rosenfeld (Breslau) gave an interesting demonstration on this subject. He referred to the well-known diagrams representing the stomach with ends almost equally large, the organ lying almost transversely and slightly to the left. He found that the stomach lay almost upright with about four-fifths of its bulk well to the left of the middle line. The organ was very much smaller at the pyloric than the proximal end. His observations were made partly by frozen sections, partly by distending the stomach (by means of a rubber tube) with air, and then photographing the corpse with Roentgen rays while lying. Under these circumstances the thin lower lobe of the liver was also seen to descend almost to the middle of the crest of the ileum. Finally the transverse colon was pushed downwards, but before its descent it rose well up towards the spleen.

Chloride of Sodium Mineral Waters.

Dr. Dapper (Kissingen) observed (1) that weak saline solutions augmented deficient secretions, (2) that more fat

can be consumed when drinking such saline waters, and that fat had recently been found to diminish gastric hyperacidity or acid gastric catarrh of the stomach. He obtained good results in such cases when giving 200 to 300 grams of fat together with weak sodium chloride solutions.

The Diagnosis and Treatment of Primary Tuberculous Gastric Ulcer.

Dr. PETRUSCHKY (Danzig) reported an obstinate case of gastric ulcer which, after resisting all treatment, was diagnosed as tuberculous owing to the marked reaction to Koch's tuberculin. The patient was a young woman who had some time previously been treated for anæmia, but had recovered. All the symptoms of gastric ulcer then supervened, including hæmatemesis. During prolonged treatment with tuberculin the patient got well, the largest dose being 100 mg. It had been impossible of course to discover any tubercle bacilli in the gastric contents. After three months' rest a second course of treatment with tuberculin was commenced, but whereas the first gave rise to tenderness, slight pyrexia, and vomiting, no reaction took place on this occasion. This patient had continued in good health since 1892.

ALBUMINURIA OF ADOLESCENTS.

Professor A. PRIBRAM (Prague) read a paper founded on the investigations of 15 patients, young men and women, in whose cases every passage of urine was tested while under observation. In one case the observations were carried on during a period of six years. All the patients were pale, quickly growing young people, sometimes with typical symptoms of chlorosis and diminution of hæmoglobin. All improved, and were absolutely cured. The albuminuria was increased by all exercise in an erect position, notably by violin playing while standing. On the other hand, absolute rest while lying, even if the arms were moved, led to the excretion of normal urine. The transition might be very rapid. Albumen was absent in the first urine passed daily, unless it appeared together with spermatozoa or vulval epithelial cells respectively. These forms of albuminuria were most marked during the period of growth of the limbs; when growth ceased the symptoms began to disappear spontaneously. In one case Pribram had observed the same affection in the father at a corresponding age. Regulation of the diet was unnecessary, as rest alone influenced the quantity of albumen passed. This treatment, if continued for a sufficient time, also led to increase of weight and considerable deposition of fat. An intercurrent attack of scarlatina causes the albumen to disappear so long as the patient remained in bed. No casts were observed at any time in any case.

GASEOUS ABSCESS IN THE ABDOMINAL WALL.

Professor v. SCHROETTER, jun. (Vienna) related the case of a patient, aged 67, who without any premonitory symptoms developed in the course of several months a slightly painful, discoloured tumour in the left hypogastrium. Fluctuation and a tympanitic sound were distinct. A skin incision was made, and the abscess opened; 25 c.cm. of clear gas and pus escaped, the latter discoloured and fæcal in odour. The floor of the abscess was formed by the external oblique muscle, through which passed a fistula some 4 to 5 cm. long. The case did well, and motions again passed without assistance. Analysis of the gas showed chemically 16 per cent. CO_2, 61 per cent. N., and 22 per cent. H.; bacteriologically, bacteria coli commune without any of the anaërobic organisms known to produce gas phlegmons. Though the tumour was on the left side, the author considered the case one of perityphlitis which had occasionally been recorded in this position.

EXHIBITION.

At the conclusion of the sitting some time was afforded for an inspection of the exhibits, which were distributed over several rooms. A large amount of wall space was devoted to statistical tables and maps supplied by the Public Health Department of the Austrian Empire. The municipalities of Carlsbad, Marienbad, and adjoining baths also furnished climatological and other figures, but many of the medical appliances were of more general interest. Among these was an apparatus which could be fixed to the four posts of any bed. A second frame, or mattress, with a central aperture corresponding to the position of the buttocks, was laid on the ordinary bed, and connected to the appliances by means of ropes, which are acted upon by windlasses. A child could raise the frame, by winding alternately at the head or foot of the bed, sufficiently high to enable a bedpan to be passed under the patient. An air cushion could be placed in the circular aperture if required. When raised sufficiently the bed could also be remade underneath the elevated frame. It had been used for several years by the inventor, and was applicable to a large number of cases. A Hamburg firm showed various apparatus for the purpose of enclosing limbs and treating them with hot-air baths. The number of concentrated foods prepared from milk and meat was remarkable, and many specimens of drugs were shown by the firms of Bayer, Elberfeld, and others.

BANQUET.

The annual banquet took place on the evening of April 12th, when the customary speeches were delivered. Owing to disturbances threatened by the leaders of a building trades strike, a battalion of infantry had to be despatched hurriedly from Eger. Everything, however, passed off most successfully.

The Congress resumed its sittings at an earlier hour on the following morning, owing to the numerous papers still unread.

The Behaviour of Uric Acid in the Organism.

Professor W. HIS (Leipzig) stated that before proceeding with the explanation of gouty processes, a number of facts must be considered, notably the following:

1. Hitherto the nature of the combination in which uric acid existed in the blood and tissues had remained unknown. It seemed necessary to assume the presence of double uric acid combinations, and these substances required further attention.

2. Uric acid salts when present, and especially in cases of gout, must by no means be considered altogether harmless. In the first place they acted as foreign bodies and sometimes produced necrosis with reactive inflammation and a capsule of granulation tissue. These surrounding tissues, if prepared and subcutaneously injected into an animal, produce marked effects; for instance, the reaction was quicker than with carbonate of calcium.

3. Acid urate of soda, when injected into the abdomen or joints, produced active inflammation and necrosis not only of the newly-formed granulation tissue but also of the newly-arriving leucocytes. Cartilage remained unchanged, but the peritoneum acts like a joint.

4. The absorption of injected uric acid and its salts took place not only by means of chemical solution, but also and to a greater extent through phagocytosis. The uninuclear migratory cells, the peritoneal epithelial, and the giant cells of the granulation tissue share in this change.

5. In the interior of cells uric acid crystals lost their refracting power and became invisible. The chemical fate of uric acid after absorption by phagocytes was unknown. Blood and organs which were examined after injection of uric acid in large quantities showed no perceptible amount of acid.

6. In determining the amount of uric acid by estimating the nitrogen after precipitation with ammoniated silver solution, an error arose if the solution contained albumoses. These, according to His, show some of the facts arrived at by the Leipzig school, and pointed to the direction further research should take.

LOSS BY SICKNESS AND DEATH IN THE GERMAN AND FRENCH ARMIES.—In a comparative statement of the French and German forces, it is stated that Germany loses by sickness and death only half as many soldiers a year as France does. In 1897 that number was in Germany 21,017; in France it was 41,310. The cause of this difference is not far to seek. Owing to the larger population, the number of those liable to military service in Germany is much greater than in France. The army authorities in Germany can therefore put back a great number of men who do not quite come up in bodily strength and health to the high standard. Reckoning the yearly proportion of sick and dead in the two armies, and the coming increase in the German military establishment, the difference is about 90,000 men.

ANALYSIS OF THE EVIDENCE GIVEN BEFORE THE PLAGUE COMMISSION.

V.

Curative and Prophylactic Inoculations.

Curative Serums.

The first serum that was tried as a cure for plague was that of Yersin. The witnesses who had tried it all agreed that it was ineffective. Dr. Galliotti gave evidence with regard to a serum which had been prepared by Professor Lustig in Florence. The results had not been very satisfactory, but he hoped for better when he was able to prepare it in Bombay, as it was sometimes partly spoilt on the voyage to India. Another witness stated that this serum was tried in Bombay in six or seven cases with very satisfactory results in 1897. An injection of the serum reduced the temperature 3 or 4 degrees. During 1898, 257 cases were treated with the serum, of which 145 died and 112 recovered, showing a mortality of 56 per cent. This percentage would have been considerably reduced if 30 moribund cases had been eliminated. The percentage was higher in 1898 than in the previous year, but this was due to an increase in the severity of the type of the disease every succeeding year. A serum prepared by Professor Roux at the Pasteur Institute at Paris had also been tried at Karachi in 47 cases, 25 of which recovered after doses of 40 c.cm., given at intervals of from twelve to twenty-four hours. Before the trial of the serum treatment the mortality in the hospital where it was tested was 70.14, and during the period of the trial 74.6 per cent. of the untreated cases died, while the mortality among the treated was 46.8 per cent. The value of these figures is, however, somewhat discounted by the fact that although mild cases are said not to have been treated, yet it is also stated that in no cases under three days old was the serum used. The results were also uniformly unfavourable in pneumonic cases, which are always the most fatal. No harm ever followed the use of the serum. Professor Mayr of the Austrian Mission said that in two instances in which the blood of the patients showed a considerable number of plague microbes on microscopic examination, three injections of Lustig's serum were made, with the result that all alarming symptoms disappeared, and the patients recovered in a very short time.

It appears then that while the serum treatment has not furnished brilliant results, yet slightly favourable reports on the use of the serum have been recorded, and encourage the hope that the practical difficulties in their preparation may yet be overcome and their curative powers considerably increased before very long.

Haffkine's Prophylactic Inoculations.

A very large amount of evidence has been given on this subject, and, with one notable exception, the whole tendency of it has been in favour of the method. It will be convenient to deal with the objection that has been taken to it first—namely, that the medium which is inoculated is a putrescent organic liquid. This is at variance with the evidence of a host of witnesses, who stated that they had never seen the slightest harm follow its use in large numbers of cases. The explanation of these divergent statements has been furnished by those who are responsible for the manufacture of the fluid, who state that an examination of a series of bottles stored in the laboratory where it is made, some of which dated as far back as May, 1897, has shown that a small number of them had become contaminated owing to the bottles being imperfectly sealed, but that all the fluid was efficiently sterilised in the process of manufacture. Moreover, such contamination in the rare cases in which it has occurred can easily be detected by the smell on opening the bottles, while the organisms that have been cultivated from such bottles were all non-pathogenic. The harmlessness of the fluid is thus explained, and the evidence as to its efficiency can now be examined.

The principle of Professor Haffkine's inoculation is similar to that of his prophylactic against cholera. The fluid consists of a culture of the plague organisms that have been sterilised. In its first trial in Bombay 8,142 persons were injected, and out of these 18 subsequently developed plague, but only 2 of them died; both showed symptoms within twenty-four hours, that is before there had been time for any protection to be afforded. Professor Haffkine also gave the results of his method in various places in the Bombay Presidency, which showed that those who were inoculated enjoyed, with very few exceptions, immunity from plague, which was at the same time causing great mortality among the uninoculated. The Surgeon-General had witnessed some of these trials, and after a careful inquiry had given evidence to the effect that as far as he could see the case for inoculation was absolutely clear, for although it was not absolutely preventive, yet it was so to a considerable degree. The best instance in which it has been carried out on a very large scale in a limited community is perhaps that of Hubli, and from a report that has just been issued it appears that a protection of 85 per cent. on the whole epidemic, and of 90 per cent. and over for the greater part of the time was obtained. More than 20,000 persons were inoculated in this town, and 10,000 of them were operated on a second time, the double giving a 10 per cent. advantage over the single inoculation. Eventually 95 per cent. of the entire population were inoculated, and at the time the report was written the epidemic had practically died out. There could be no question as to the causal relation between this fact and the inoculation measures. The people of all classes after a time recognised the benefits of the process and flocked to be inoculated. Again, in Dharwar, 4,926 inoculations with a single dose gave 45 cases and 15 deaths, while 3,387 double inoculations gave only 2 cases and 1 death. It is also worthy of note that in these instances not the least difficulty was raised with regard to Pardanashin women. Another Bombay witness stated that he had inoculated a large number of people, and in only 3 cases had the disease subsequently attacked them, and all recovered. Numerous cases have also been reported in which the inoculated members of families escaped while the uninoculated contracted the disease. In Bangalore plague occurred in 38 inoculated persons, but only 10 of them died, although the general mortality in the hospitals was 55 per cent. In the Punjab very favourable results have been reported. In the Hoshiapur district, 1,407 persons were inoculated, and no deaths occurred among them, whilst several occurred among the uninoculated in the same villages. A very good test was furnished by the inoculation of seven-eighths of the coolies who were engaged in cleaning out the houses of the infected, and were consequently exposed to considerable danger of infection. Among the small number who were uninoculated, there were many cases of plague, but no single case occurred among the number, seven times as large, who had been inoculated before commencing the work. In Karachi one witness stated that there had been 6,000 inoculations without any bad effects, while another said there had been only one case of the disease among 900 inoculated within his knowledge, but most of them belonged to the upper classes, among whom the danger of infection was slight. In another town 1,018 people had been inoculated, and, although some cases subsequently appeared among them, the mortality of those attacked was only 35 per cent. against a 70 per cent. among the uninoculated. In a village in the Baroda State, 513 were inoculated with 3 deaths, while among 437 uninoculated, 26 deaths occurred.

The symptoms which follow a dose of 3 cubic centimetres of the fluid are fever, usually running up to about 102° F., but occasionally rising two or three degrees higher, some pain at the seat of inoculation, and usually some enlargement of the nearest lymphatic glands. All the symptoms pass off in two or three days, but reinoculation is recommended after about four months, in order to secure lasting results. The protective action does not commence until forty-eight hours after the inoculation, so it is of no avail if the disease manifests itself within that time, which has been the case with a large number of the instances in which plague has followed the infection, the patients having already contracted the infection before the inoculation was performed. In order to get a lasting protection, a sufficiently large dose must be used to ensure a good reaction with fever following, and latterly somewhat larger doses have been used than at first were deemed advisable, and better results have accrued.

The evidence on this head may then be summed up as proving that a considerable immunity is produced by efficient doses of this material, and that this is enhanced by its repetition. The cases which have occurred after inoculation are

milder, and attended with a considerably lower mortality than among the uninoculated. It is, therefore, a most valuable accessory to other plague measures, and especially so in protecting those who are exposed to infection, while carrying out measures for the suppression of the epidemic. Although in small communities it may be effective in controlling an outbreak if nearly the whole community will submit to the operation, yet this will only very exceptionally be the case, and it should therefore be subordinated to other methods, such as evacuation and disinfection.

CONCLUSIONS.

It will be gathered from this review of the abstracts of the evidence which has, so far, been published, that although the Special Plague Commission will have several knotty points to settle with regard to the best methods of preventing the spread of plague, and of controlling outbreaks of the disease under different circumstances, yet an authoritative pronouncement on these points, based on a careful weighing of all the voluminous evidence that has been put before them, cannot fail to be of great value to those who are responsible for carrying on the campaign against this insidious and intractable epidemic. The full report will be looked forward to with great interest by the very large classes who are directly or indirectly interested in the terrible outbreak of plague under which India is still labouring, after famine and war have passed away.

LITERARY NOTES.

DR. WILLIAM HENRY DRUMMOND, whose volume of verse *The Habitant* (noticed in the BRITISH MEDICAL JOURNAL of February 12th, 1898, p. 453) has deservedly achieved a widespread popularity, has just issued another collection of verses entitled *Phil-o-rum's Canoe and Madeleine Vercheres*. The book, which is published by Putnam's Sons, contains several illustrations by Mr. F. S. Coburn.

Dr. J. B. Joly has recently published a volume entitled *Histoire de la Circoncision*, in which the history of circumcision and the methods of performing the rite among ancient peoples—Egyptians, Phœnicians, Jews, savages; and in modern times among Mohammedans in Algiers, Egypt, etc., are fully described.

A second edition of Hirsch and Gurlt's great biographical dictionary of eminent physicians and surgeons of all times and nations is in preparation under the editorial direction of Dr. Windscheid, *Privat-docent* in the University of Leipzig. The new edition will be illustrated with numerous portraits.

Mr. R. Hale Woodhouse (Hanover Square, W.) writes to us as follows in regard to an expression used in a paragraph entitled The Piano as a Cause of Neuroses, which appeared in the JOURNAL of April 22nd:

> The language of the BRITISH MEDICAL JOURNAL is generally so accurate and well chosen that I was astonished to see in this week's issue the following sentence, p. 988, line 44:
>
> "..... the ineffective strumming of the amateur and the *damnable* iterations of the learner."
>
> Surely one word in this sentence must be due to a printer's error.

We accept our correspondent's complimentary reference to our language with due modesty, and hope to continue to deserve his good opinion. But alas! we cannot transfer the responsibility for the word which has shocked Mr. Woodhouse to the printer nor even to his "devil," although the vocable suggests a diabolic origin. We must, in fact, plead guilty to having been misled by the evil example of Falstaff, who in King Henry IV, Part I, Scene II, so far forgets himself as to say to Prince Hal, "O, thou hast damnable iteration." We remorsefully admit that Sir John Falstaff can hardly be cited as a pattern of propriety of speech. We hope, however, that Mr. Woodhouse will see that we were only swearing by second intention. We submit, therefore, that the expression should not be counted as detrimental to our character for "accurate and well-chosen language."

The new number of *Janus* contains the first instalment of what promises to be an interesting and important contribution to the history of leprosy by Dr. Ehlers, of Copenhagen. He gives an account of the Danish leper houses of the Middle Ages. At first the only places of shelter for the victims of leprosy were the monasteries and convents. Dr. Ehlers says: "It is impossible to deny that the Catholic Church then supplied in a manner perfect for the period the want of any legal organisation for the relief of the poor." One of the earliest benefactors of hospitals—which in the early middle ages were nearly always leper houses—in Denmark was King Knud (Canute) VI, who died in 1204. According to Dr. Ehlers, the Scandinavian word "spedalskhed" which is used to denote leprosy, shows that that disease was the only one for which isolation in a hospital was considered necessary —*morbus ho-spedalis*. The German word *Aussatz* also indicates the special necessity of *aussetzen*, that is, placing apart, sufferers. The first legal ordinances for the segregation of lepers in Denmark date from the thirteenth century. The enactments gradually became stricter till the middle of the sixteenth century, when the diminishing prevalence of the disease made the stern measures of earlier periods unnecessary.

The April number of the *Edinburgh Review* contains an interesting article on the History and Effects of Vaccination. The gist of it may be gathered from the following paragraph:

> The Government and Parliament have shown lamentable weakness in yielding to a foolish agitation; they have exposed the population to very great danger, and the final effect of this legislation will only be certainly known after it has been in force for some years. Let us, however, make the best of things. It is easy and useless to be pessimistic, to see what may happen if everyone behaves foolishly. Happily, however, there always remains a good thick stratum of common sense in the majority of people, and it is possible that this may now be roused in defence of vaccination, and that more may be done indirectly to control the anti-vaccinist fanatics than any compulsory legislation has been able to effect. Indirect pressure has the immense advantage of being able to make itself felt where it is wanted, and where it cannot be passed on and received by deputy. No committee can pay the fine if an unvaccinated person cannot get employment, cannot insure his life, cannot enter a benefit society, and cannot take a lodging in a desirable place.

In the same article it is stated that from 1684 to 1695 *Evelyn's Diary* abounds in references to the disease and to its terrible results. Thus, under "December, 1684," we find the entry:

> The small-pox very prevalent and mortal, March 7th, 1685: My daughter Mary was taken with small-pox, and there soon was found no hope of her recovery. A great affliction to me.

A few days later there is mention of her death:

> Oh! dear, sweet child, how shall I part with all this goodness and virtue without the bitterness of sorrow and reluctancy of a tender parent? . . . Never can I say enough, oh dear, my dear child, whose memory is so precious to me! . . . . Thus lived and died . . . . the joy of my life.

She was 19 years old. Three months later it is noted that:

> Mr. Hussey, who made love to my late dear child, died now of the same cruel disease. On August 27th, 1685: My daughter Elizabeth died of the small-pox soon after her marriage. April 15th, 1686: The Archbishop of York now died of small-pox. December, 1694: The small-pox increased exceedingly, and was very mortal. The Queen died of it on the 28th. January 13th, 1695: The deaths by small-pox increased to 500 more than in the preceding week.

In a paper read before the meeting of the American Medical Publishers' Association recently held at Denver, the Secretary, Mr. C. Wood Fassett, gave the following list of new medical journals which appeared in the United States during the year which ended on February 15th, 1899:

American Journal of Physiology, Boston; *American X Ray Journal*, St. Louis; *Chicago Medical Observer*, Chicago; *Climate*, St. Louis; *Country Doctor*, Sparta, Tenn.; *Georgia Journal of Medicine and Surgery*, Savannah; *Hospital Life*, Chicago; *Journal of Scientific Medicine*, Chicago; *Kansas City Medical and Surgical Journal*, Kansas City, Mo.; *Medical Dial*, Minneapolis, Minn.; *Memphis Lancet*, Memphis, Tenn.; *Medical Libraries*, Denver, Colo.; *Medical and Surgical Bulletin*, Nashville, Tenn.; *Medical and Surgical Monitor*, Indianapolis, Ind.; *Monthly Cyclopedia of Practical Medicine*, Philadelphia; *National Hospital and Sanitarium Record*, Detroit, Mich.; *North American Journal of Diagnosis and Practice*, St. Louis; *Obstetrics*, New York; *Philadelphia Medical Journal*, Philadelphia; *Southern Medical Journal*, La Grange, N.C.; *St. Louis Hospital Bulletin*, St. Louis; *St. Louis Medical Gazette*, St. Louis; *St. Paul Medical Journal*, St. Paul, Minn.; *Texas Clinic*, Dallas; *The Psychiater*, Hospital, Ill.; *The Journal of the Mississippi State Medical Association*, Biloxi, Miss.; *Therapeutic Digest and Formulary*, Kansas City, Kan.; *Western Medical and Surgical Gazette*, Denver, Colo.; *Wisconsin Medical Recorder*, Janesville, Wis.; *Western Clinical Recorder*, Chicago.

On the other hand, the following journals have been absorbed into other periodicals—or into the infinite:

Atlantic Medical Weekly (Providence, Rhode Island), merged in the *Philadelphia Medical Journal*; *Daily Lancet* (New York); *Eureka Springs Medical Journal* (Eureka Springs, Ark.); *Magazine of Medicine* (Atlanta, Georgia); *North American Medical Review* (Kansas City, Kan.); *Ohio Medical Journal* (Cincinnati, Ohio); *Philadelphia Polyclinic* (absorbed by the *Philadelphia Medical Journal*).

These lists may be taken as showing pretty nearly the normal relation between the birth and death rate of medical journals in the United States.

PROFESSOR W. KÖRTE has been appointed Permanent Secretary to the German Surgical Society in the place of the late Professor Gurlt.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, APRIL 29TH, 1899.

MATHEMATICAL METHOD IN THE STUDY OF VITAL PHENOMENA.

We have before now taken occasion to call attention[1] to the valuable work that is being done by a few able investigators, such as Professors Weldon and Karl Pearson, in the application of mathematical methods to biological data. The help that may be afforded to biological knowledge in general and to evolutionary theory in particular by such modes of study is undeniable; and their value is not lessened if, like other excellent methods of research, they are occasionally liable to erroneous or imperfect application. It will be remembered that the statistical method was powerfully advocated by Professor Weldon (whom we are glad to congratulate on his election to the Linacre Chair at Oxford) in his Presidential Address to Section D at the meeting of the British Association last year at Bristol. "Numerical knowledge of this kind," he remarked on that occasion, "is the only ultimate test of the theory of natural selection, or of any other theory of any natural process whatever." Of Professor Karl Pearson's investigations he went on to speak as follows:—"The new method given to us by Professor Pearson affords a means of expressing such knowledge in a simple and intelligible form; and I, at least, feel very strongly that it is the duty of students of animal evolution to use the new and powerful engine which Professor Pearson has provided, and to accumulate this kind of knowledge in a large number of cases.....The new method is not only a simple means of describing the facts of variation, but it is a powerful instrument of research." It is quite true that some conclusions based on the statistical method have been sharply criticised, as for instance by Mr. J. T. Cunningham; but even should these and other criticisms prove to be well founded, the importance of the method itself would remain unaffected.

It cannot be doubted that the increased precision imparted to biological conceptions by the successful employment of mathematical methods must in the long run exercise a beneficial influence on the art of healing. Medicine and surgery are so entirely dependent for their efficiency on the various sciences which concern themselves with the phenomena of life, that a genuine advance in the latter is certain sooner or later to call forth a corresponding improvement in the resources at the disposal of the active practitioner. Hence, although much of Professor Karl Pearson's work may not at first sight have any obvious bearing on the matters that more immediately concern the readers of the British Medical Journal, we have no hesitation in saying that in these and similar elaborations and extensions of the quantitative methods of induction—involving as they do a free use of the modes of accurate measurement and computation—lies the best hope for the further advancement of the biological sciences ancillary to medicine, and therefore for the ultimate progress of the healing art itself. We do not propose to attempt—nor do we think our readers would expect from us—a criticism of the mathematical processes employed by Professor Pearson in his valuable series of *Contributions to the Theory of Evolution*, of which the last memoir, dealing with the Reconstruction of the Stature of Prehistoric Races, is now before us. That these processes are of an elaborate and intricate character will be sufficiently apparent to anyone who will take the trouble to glance through almost any of Professor Pearson's papers—for instance, those published in the *Philosophical Transactions* for 1894 and 1895. It may, however, be well to point out in brief and general terms the relation which subsists between the ordinary statistical methods and those more abstruse processes of which Professor Pearson's form a good example.

Let it first be granted—which few will be found sufficiently hardy to deny—that in all scientific research the quantitative methods of reasoning should be employed wherever the nature of the material renders this possible. In other words, the relations of supposed cause and effect are to be investigated by means of some kind of measurement. This measurement may be of any conceivable degree of complexity, from a mere "counting of heads" to the elaborate computations of astronomers and physicists. Quantitative data having thus been obtained, it becomes imperative to discover, if possible, the natural law underlying the observed relations between the series of phenomena under observation. For this purpose it is necessary to frame provisional hypotheses, and then to make a fresh appeal to facts for verification; which may be done both directly and indirectly. In the latter case, the supposed law is worked out theoretically to its proper conclusions, which may often have little obvious connection with the facts originally observed, and these conclusions are tested by comparison with actual phenomena.

Inasmuch as there are relations between natural phenomena which are not capable of a simple arithmetical statement, it will sometimes happen that the processes just referred to assume a character which put it out of the power of any but a trained mathematician to deal with them; and, indeed, it may be said that, other things being equal, the greater the mathematical skill of the investigator the more likely is he to compel any set of data to yield up information really latent in them though invisible to the eye of the ordinary observer. Thus it is in the power of anyone to establish a rough statistical relation between the temperature of the air and the prevalence of certain diseases: a process of simple enumeration will lead one as far as this. A further exercise of the mathematical faculty is required for the appreciation and verification of the Weber-Fechner law in physiology, and a still further

[1] See an article on the Mathematical Theory of Evolution and Vital Statistics, British Medical Journal, March 9th, 1895, p. 545.

effort will be necessary in order to follow such a piece of mathematical reasoning as that given by Dr. Longstaff in his investigation of the communicability of phthisis, or to work out Mr. A. C. Waters's application of the differential calculus to the formulæ of a life table. But in all these cases the reasoning process is essentially the same; and the difference between the simplest and crudest employment of the statistical method on the one hand, and the investigation of the most recondite physical law on the other, is one of degree rather than of kind.

It is the peculiar merit of such investigators as Mr. Francis Galton, Professor Weldon and Professor Pearson, that they have applied to the elucidation of the more complex relations between biological phenomena such modes of treatment as have hitherto been chiefly, though not entirely, employed in the inorganic branches of science. Of Professor Pearson's work we may specially mention his successful dissection of an asymmetrical frequency curve (discussed in these columns in the article above referred to) and his method of testing, by means of the graphic expansion of a binomial, the assumed law of probability in variation under different conditions. Thus, taking any ordinary frequency curve, such for instance as that where the abscissæ represent periods of life and the ordinates represent percentage mortality from some given cause of death, Professor Pearson has now placed it in our power to say not only (1) whether the curve, if symmetrical, follows the law of probability, but (2) whether, if unsymmetrical, its skewness is due to heterogeneity of material; and in certain cases (and these the most frequent) to be able to assign each part of the effect to its own cause. Further should the skewness not be due to (2), we can determine whether (3) it is a homogeneous probability curve, and if so whether the skewness is attributable to (4) the necessity of variations occurring in one direction rather than another, the contributing causes being independent, as in throwing dice, or to (5) the interdependence of contributing causes, as in drawing and keeping cards from a pack.

Each of these investigations furnishes expressions which are of importance to the vital statistician no less than to the general biologist, the first promising aid in the disentanglement of what Mill called the "homogeneous admixture of causes," as, for example, where deaths from distinct diseases are returned under one head; the second going far towards supplying a crucial test of the truth of natural selection. Those who still regard the latter achievement as a mere "saying, with a pompous parade of arithmetic, something one knew before," may be recommended to study, if not the original paper, at any rate, Professor Weldon's comments on it at Bristol.

Besides several subjects of somewhat special and limited interest, such as the age-incidence of enteric fever, to which Professor Pearson's method has been applied with more or less elaboration of detail, there are others which cannot be ignored by those who wish to seek a wide and comprehensive basis for scientific medicine, whether therapeutic or preventive. Such are the questions of regression, heredity, panmixia and telegony, together with the important subject of the physical relations between the sexes as modified by civilisation. On all these matters it will be admitted that it is of the highest consequence to be furnished with the clearest and most definite information that can be obtained; and any mode of investigation which promises to substitute exact knowledge of natural law for the mixture of vague surmise and imperfect generalisation that too often forms the atmosphere through which these problems are regarded, is to be welcomed as a distinct gain.

But important and, indeed, necessary for a scientific completeness of view, as the detection and application of the natural laws regulating these and similar phenomena must be, it is also to be remembered that the value of the quantitative methods is not to be taken as limited to the subjects that have already engaged the attention of Professor Pearson and other workers in the same field. We wish, in fact, to enter a claim, in common with Stanley Jevons and all sound logicians of the modern type, for the application wherever possible of the methods of mathematical reasoning founded on exact measurement, not only to the central doctrine of evolution, but to all kinds of scientific knowledge as well.

For many of the sciences which concern themselves with inorganic nature the assertion of such a claim is scarcely needful, since in their case it has long been accepted and acted upon. But in the biological sciences, in addition to those aspects of the various problems concerned which tax to their utmost the resources of the trained mathematical investigator, there are various paths still open in which a great deal of useful work can be done by those whose equipment in mathematical knowledge is of a far humbler order. For an example of what is here meant we need not look further than the domain of public health, in which the statistical method is of necessity in constant employment. In several branches of this subject many conclusions of high theoretical interest, as well as of great practical importance, lie as it were upon the surface; while the same material, so far from being exhausted by the ordinary methods of research, has been shown, when subjected to the skilled manipulation of an acute mathematician like the late Dr. William Farr, to be capable of yielding a yet larger crop of striking and practically useful results. It is to be hoped that Professor Karl Pearson may find many imitators; and that his methods, analogous as they are to those already employed in a large portion of the field of science, may meet, as time goes on, with a fuller measure of recognition and application in the various departments of biology.

THE LIVERPOOL SCHOOL OF TROPICAL DISEASES.

IT is not surprising that the widespread interest manifested during recent years in all that concerns our vast empire should have suggested the need of devising better means for educating practitioners in the prevention and treatment of diseases peculiar to the tropics. A large number of young men who have obtained their qualifications to practise in the British Isles annually go out to settle in the tropical Colonies, while many others become medical officers to ships trading with the tropics, where they may at any time be called upon to deal with the most virulent forms of diseases of which they have had no experience whatever, and of which their knowledge derived from books

is likely to be of the slightest and haziest description. No acquaintance, however complete, with the general principles of medicine as practised in this country, can be relied on to replace actual experience of the severer forms of tropical diseases, and such considerations doubtless inspired the Colonial Office to suggest to the authorities of the various medical schools throughout the country the advisability of including tropical disorders in their curriculum. It is only natural that Liverpool, which is in almost daily communication with the fever-haunted coasts of Africa, and owes all its prosperity to its foreign and colonial trade, should have taken up the suggestion with enthusiasm.

It is less than six months since Mr. A. L. Jones of the West African Steamship Company, on the occasion of the annual dinner of the Royal Southern Hospital, offered a sum of £350 a year towards the maintenance of a school of tropical medicine which was to be established in connection with the hospital and University College conjointly. The offer was at once accepted by Mr. Adamson, Chairman of the hospital, on behalf of his Committee, and by Principal Glazebrook on behalf of the College, and the Committee of the hospital subsequently decided to set apart a special ward for the treatment of tropical diseases, and to construct a clinical laboratory in close proximity. Professor Rubert Boyce, Director of the Pathological Laboratory of the College, threw himself into the movement with characteristic energy; the Liverpool Chamber of Commerce and the Association of Foreign Consuls gave it their approval, and in the course of a few months a fund amounting to nearly £2,000 a year was subscribed.

The circumstances attending the inauguration of the school last week were of such a kind as to indicate that no pains have been spared to render it thoroughly efficient. The wisdom of selecting the Royal Southern Hospital for the clinical side of the work is apparent from the large number of cases of malaria and other tropical diseases which have been admitted to its wards ever since its foundation; while the Thompson-Yates laboratories, which will be utilised for purposes of research, are admirably provided.

The President of the Royal Society (Lord Lister), the Presidents of the Royal Colleges of Physicians of London and of Ireland, and Professor Michael Foster expressed their hearty sympathy with the scheme, while the presence at the inaugural ceremonies of Professor Haffkine and Dr. Patrick Manson, and the messages of sympathy received from Sir Joseph Fayrer and Professor Marchiafava show that it has the hearty approval of those who have most contributed to advance the knowledge of tropical diseases. The cases admitted to the Liverpool hospitals would alone afford a wide field for clinical investigation, and the promoters of the movement have it in their power to enlarge the field of observation by giving passage in their own ships to those who desire to study these diseases as they are found in their native haunts. The fact that a distinguished investigator like Major Ross is at the head of the school is a sufficient guarantee that these opportunities will be turned to the best account.

Liverpool is in the proud position of being a pioneer in this important movement, and her natural advantages and the enterprise of her citizens have provided her with a school for the study of tropical diseases, well equipped both on the scientific and on the clinical side. It cannot therefore be supposed that the school will be allowed to languish for want of such official recognition as may be granted to any similar institution elsewhere.

MR. CHAPLIN ON VACCINATION.

In the discussions which have taken place regarding the new Vaccination Act, Mr. Chaplin's chivalrous efforts to protect his ministerial colleagues from public blame have stood out very notably. He himself, it is well known, never wanted a conscience clause, and almost single handed he fought strenuously against it on the floor of the House of Commons. The clause was indeed yielded by the Leader of the House in entire opposition to Mr. Chaplin's views. Yet now at the Press Club the President of the Local Government Board makes a gallant attempt to obscure the issue. He says that he found the conscientious objector ready-made, and that he was invented by the Royal Commission, including the late Lord Herschell. That may be quite true to-day, but it was equally true when Mr. Chaplin prepared his Bill, and yet he then entirely ignored the conscientious objector. It is therefore a little hard on the Royal Commission to place the responsibility on it. Mr. Chaplin also made the announcement that evidence is beginning to come in that under the new Act the practice of vaccination is growing. Sir Richard Thorne has informed him that there are distinct indications of a general increase in the amount of vaccination going on, and that in a number of cases the actual statistics are highly satisfactory. In several instances the increase has ranged from 25 to 100 per cent., and in some unions where vaccination had been almost at a standstill a substantial amount of it is now in progress, the request at times emanating from the parents themselves without any pressure. All this is very cheering. Before the Act was passed vaccination default had risen to some 30 or 33 per cent., and black as the outlook at present is, it would have been much worse had home vaccination and the use of glycerinated calf lymph made no diminution in this enormous default. Had the conscience clause and revaccination been introduced together as a part of the settled policy of the Government on the subject a great deal might have been said in its defence. In dealing with the one and leaving the other untouched, the Government pursued an ambiguous course, and it is necessary to be very careful not to attribute to Section II results which have been achieved, if not in spite of it, at least independently thereof.

A BRITISH CENTRAL COMMITTEE OF THE RED CROSS.

With the view of organising in time of peace the voluntary aid which would undoubtedly be given in abundance to the Army Medical Service in the event of the country being involved in a great war, Lord Lansdowne some time ago invited representatives of the National Society for Aid to the Sick and Wounded in War, the St. John Ambulance Association, and the Army Nursing Reserve to meet the heads of the Army Medical Service at the War Office, and discuss with them the lines upon which a central organisation for bringing voluntary aid throughout the British Empire into touch with army medical requirements might be created. As an outcome of this conference a Central British Red Cross Committee has been formed, and has now been recognised by the Secretary of State for War as the official channel through which offers of voluntary aid in time of war will be accepted by the War Office. The committee is composed of representatives of the above named societies and of the War Office. Princess Christian and Miss Wedgwood will act as representatives of the

Army Nursing Reserve. Lord Wantage, V.C., Lord Rothschild, and Sir William Mac Cormac as representatives of the National Society for Aid to the Sick and Wounded in War; and Viscount Knutsford and Sir John Furley as representatives of the St. John Ambulance Association; while the War Office is represented by the Deputy-Director-General (Surgeon-General Muir) and the Assistant Director (Lieutenant-Colonel Gubbins, Royal Army Medical Corps) of the Army Medical Service, and by the officer in charge of Mobilisation Services (Colonel Hon. F. W. Stopford, C.B). Lord Wantage has been appointed Chairman of the Committee and Major W. G. Macpherson, Royal Army Medical Corps, Secretary. The Committee are at present holding their meetings in the board room of the Medical Division of the War Office, 18. Victoria Street. Westminster.

A DENIAL OF JUSTICE.

The pleasant legal fiction that there is no wrong without its remedy receives a curious illustration in the present position of the subject of medical witnesses' fees, on which a question was recently asked by Dr. Farquharson in the House of Commons, and a most unsatisfactory answer given by the representative of the Home Office. Several years ago it was pointed out to the Home Secretary of the day that medical witnesses were compelled to leave their homes and practices and employ *locum tenentes* while themselves away giving evidence on behalf of the Crown, and that the guinea a day allowed for their attendance could not possibly recompense them for their loss of time and the expenses to which they were necessarily put. The Home Office did not deny that a substantial grievance had been brought before it, but declined to remedy it, on the ground that it had been in existence for many years, and that successive Secretaries of State had been afraid to burn their fingers by touching it. The present Home Secretary, acting no doubt on the advice of the permanent officials, has declined to receive a deputation on the subject either from our own Association or from the Police Surgeons' Association, who are specially interested in the matter. Meanwhile, a correspondent draws our attention to the fact that in a certain town in Lancashire nearly all the medical men have for some time practically agreed to have nothing to do with medico-legal cases, and that there is in consequence at the present time a prisoner awaiting his trial in Liverpool in whose case medical evidence would have been of the utmost importaece, but, owing to the niggardliness of the State, may not be forthcoming. Medical men in the town referred to, and others where the grievance is felt, might be well advised to represent the facts to their representatives in Parliament, so that the subject should be discussed upon the Estimates.

BICYCLING WITHOUT THE USE OF THE HANDLES.

Now that so many riders, both lay and medical, use bicycles, it may be interesting to know that the question of riding a machine without holding the handles has been investigated with the aid of mathematics, and the inquiry has been successful in reaching conclusions of a practical kind. The mathematical part of the investigation we owe to Mr. F. J. W. Whipple, of Trinity College, Cambridge.[1] One of the most interesting points worked out was the condition of stability in a machine ridden without holding the handles. Mr. Whipple finds that there are four "critical velocities" connected by mathematical formulæ for the stability of the motion, which he calls respectively V_1, V_2, V_3, and V_4. For velocities above V_1 (that is, the high velocities) the motion is unstable, but may be rendered stable if the rider turns the front wheel towards the side at which he is at any moment tending to fall, or by his moving his body away from that side. The force he has to employ in the former case is considerable, and therefore not to be recommended. In the latter condition the distance he has to move his body is small, and this method of securing stability of motion is thus a practical one. For velocities between V_1 and V_2 (that is, medium velocities) the motion is stable even when the rider does not move his body or make use of his handles, and this is the most favourable velocity for all practical purposes. For lower velocities, less than V_2, the motion without the use of handles becomes unstable again, but it can be compensated by the rider moving his body a small distance towards the direction to which he is at any moment tending to fall. It will be seen that this is just the opposite to what he has to do to secure stability when the speed is above V_1, that is high. For very low velocities below V_3 the stability of motion is further decreased, and to preserve his balance the rider has to use his handles as well as to move his body; the balance for such low velocities is not, therefore, automatic, but is a feat of some difficulty, and requiring constant attention. Coming now into the region of practical cycling, Mr. Whipple finds that for a typical safety machine the following are the values in miles per hour: $V_1=12.2$, $V_2=10.4$, $V_3=8.5$, $V_4=7.4$. The practical conclusion reached is that a velocity of about V_2 is the most important condition in determining ease and stability of riding. A rider moving at the rate of about 11 miles an hour on a "typical" machine can therefore ride without using his handles, and with the maximum of ease and the minimum of conscious effort. What this may mean for the cycling enthusiast it would be difficult to estimate. Spinning along at a speed of V_2 miles per hour along a straight road, he can have free use of both his hands to light his pipe or to do a number of other things. Mathematics have come to his aid and proved that the rider and machine moving at V_2 miles an hour are in a condition of stable equilibrium. He can neglect trifles, such as little pebbles or a small side wind even when blowing in gusts; for every small displacement thus produced in the moving system is automatically adjusted. True he may have to touch the handles occasionally to alter his direction; but on the whole, and given a wide path, he can ride on serenely and safely. He need not stoop or lean forward any longer; round shoulders will become a thing of the past. Secure in his speed of 11 miles an hour, he will for the future sit erect as beseems a lord of creation, and from the proud height of his machine feel not only that he can survey the prospect around, but be conscious that rider and machine are at the time exemplifying the doctrine of stability of motion. It remains only to add that Mr. Whipple's investigations also go to prove that a well-inflated tyre is further conducive to such stability of riding. Science has thus come to confirm what practice and experience have determined in this as in so many other matters; but it is to be hoped these valuable results may not be taken as a premium on "scorching."

[1] *Quarterly Journal of Pure and Applied Mathematics*. March, 1899.

THE LONDON COUNTY COUNCIL.

The London County Council resumed its sittings after the recess on April 25th, Lord Welby, the Chairman, presiding. The sitting was chiefly occupied in discussing the proposal to construct a tunnel under the Thames to connect the districts of Rotherhithe and Shadwell, at an approximate cost of £2,198,250. The Council finally approved the construction of the tunnel by 69 to 29 votes. Besides greatly facilitating river transit in the most congested parts of London, the scheme will carry with it the rehousing of a large number of persons of the working classes. The Council has profited by its experience in the case of the Blackwall Tunnel, and there is no reason to believe that any greater engineering difficulty will be encountered at Shadwell. The elaborate precautions taken to prevent the "caisson disease" in those engaged in the compressed-air boring work will no doubt be repeated, and we trust

with the same conspicuous success. The Public Health Committee submitted several pages of proposed drainage by-laws under Section ccii of the Metropolis Management Act, 1855. It was agreed to postpone the consideration of those by-laws for one week. These by-laws are to be made under the old Act of 1855, not under the Public Health Act of 1891, and are not to apply to the City of London, but we do not gather that the reason is that similar by-laws are already in operation within the City area. Doubtless under the Public Health Act the City would be excluded from the operation of the Council's by-laws. It may be that a similar exclusion may be urged under the old Act; if that be so, the Council is under no obligation itself to make such limitation.

A RESEARCH INSTITUTE FOR INDIA.

A scheme has been started in Bombay to found a Research Institute in India which shall supply a technical education of an advanced character. The scheme has been arranged down to its minutest details, even to the number of assistants and professors to be allotted to each department, and the initial outlay and annual expenditure carefully reckoned. The result of the total calculations is that some 15 lakhs of rupees are required to start the institute on the contemplated scale and a further annual outlay of 3 lakhs of rupees to keep it up—allowing a wide margin for variations in estimates and accidents of various descriptions, upwards of a crore of rupees (100 lakhs, or £1,000,000 sterling). Turning to the point of how the sum is to be raised a most promising start has already been made owing to the generosity of Mr. Jamsetjee N. Tata, who has offered a property representing a capital of 30 lakhs of rupees as a nucleus for the scheme, which is deserving of all success.

TYPHOID FEVER IN GENERAL HOSPITALS.

In consequence of a question put to us by a correspondent, inquiries have been made into the conditions under which typhoid patients are received into and maintained in general hospitals in London. There is, as far as we know, no such institution in London which does not admit cases of enteric into the general wards. The proportion of such cases is, however, as a rule limited either definitely or by implication, and this for two obvious reasons. The first is the risk of infecting other patients; this can, of course, be minimised by care in the sterilisation of fomites and excreta, and hence is not really serious unless complicated by the second difficulty, which is the increased strain thrown upon the nursing staff. It may safely be said that in no other disease is such prolonged and assiduous attention by the nurses required as in typhoid fever, and should they be overworked, not only does the patient suffer, but the chances of infection of the other inmates of the ward are enormously increased. We are indebted for replies to the inquiries on this head to members of the staffs of seven of the leading London general hospitals. With regard to the proportionate number of cases, this is in general limited, though hard-and-fast lines are not always drawn. Thus at King's College Hospital the proportion is not allowed to exceed 1 to 6, and the same proportion holds at St. Bartholomew's Hospital, where, however, there is no strict rule in force. At St. Thomas's Hospital, also, fixed rules are absent, but the cases of typhoid fever rarely exceed the same proportion. At Guy's Hospital the number is limited to 2 acute cases in each division of 20 beds, while at the London Hospital the proportion is 2 to 9. At Charing Cross and University College Hospitals the relative figure is higher, 6 cases of typhoid fever in a ward of 20 to 23 beds being the maximum at the former, and 3 in a ward of 16 at the latter. The next inquiry touched the question of the cubic space allowed to each case. As regards St. Bartholomew's and King's College Hospital, the information did not go beyond the statement that this was the same as that allotted to patients suffering from other complaints; at the remaining hospitals the figures were: Charing Cross 1,000 cubic feet, University 1,140, London 1,348, and Guy's and St. Thomas's 1,800 each. It should be mentioned that several of our correspondents fully recognise and deplore the inadequacy of this. The last question was as to the cause of the limitation of cases, and the general effect of the answers is that the limitation is due mainly to the nursing difficulty, but at King's College Hospital the risk to other patients was considered to be an element. At the London Hospital, on the other hand, in view of the stringent precautions adopted, it is considered that the danger from infection has been obviated. These facts are interesting for comparison. There can be no doubt that the precautions against infection, though differing in details, are efficient in all the institutions.

INTESTINAL ABSORPTION.

In a paper read before the Royal Society on April 20th, Professor E. Waymouth Reid of Dundee gave the result of experiments on the absorption from the intestine of the animal's own serum and of solutions of glucose and peptone. The experiments were made by means of Leubuscher's method, in which two loops of intestine are simultaneously employed, the one the experimental and the other the control loop. Professor Reid concludes that the intestinal epithelium takes an active part in adsorption, because, in the first place, an animal absorbs its own serum or even plasma under conditions in which filtration into blood capillaries or lacteals, osmosis and adsorption are excluded; and in the second place because the absorption of serum ceases or is diminished when the epithelium is removed, injured, or poisoned in spite of the fact that removal at any rate must increase the facilities for osmosis and filtration. The state of nutrition of the cells is the main factor in their activity, and this is intimately associated with the blood supply; but the activity of the cells might be raised by stimulation with weak alcohol, without evidence of concomitant increase of blood supply. The chief factor in the absorption of peptone is an assimilation (or adsorption) by the cells, while in the absorption of glucose, diffusion, variable by the permeability of the cells (and so, probably, related to their physiological condition) is the main factor. In the lower ileum the absorption of the organic solids of serum is greater, and of peptone and glucose less than in the upper ileum, but the relative impermeability of the lower ileum to glucose disappears if the epithelium be removed. Absorption in the colon is for all constituents of serum, for peptone, and for glucose less for the same area of surface than in the middle region of the ileum.

TEXAS FEVER AT THE CAPE.

Among the many difficulties that beset the colonists of Cape Colony, not the least that they have to contend with is the parasitic diseases incident to cattle. There are certain areas of the Colony where Texas fever is enzoötic. Professor Edington, Director of the Bacteriological Institute of Cape Colony, has been engaged for some time past in studying this disease with a view to its preventive treatment. In a communication made to the Royal Society in June last he arrived at the following conclusions: (1) The blood of animals, themselves healthy, from a red-water area, is dangerous if inoculated into an animal which suffers coincidentally from another disease. (2) That the blood of animals suffering from mild or modified red water may be safely inoculated subcutaneously, but is dangerous when inoculated into a vein. (3) That such subcutaneous inoculation conveys a mild form of the disease. If the blood of the inoculated animal is injected intravenously, it is virulent, and hence it is to be inferred that the subcutaneously inoculated animal is more or less immunised. In a paper read before the Royal Society on April 20th,

1899, Professor Edington narrates some further experiences; 20 c.cm. of defibrinated blood of an animal inoculated a year previously was injected into the vein of a young ox. This produced an acute febrile reaction, the animal became ill, and died twenty-eight days later. The blood contained the spherical forms of the parasite. Evidences of morbid processes were found in the liver and kidneys. Twenty animals inoculated with doses of 10 to 20 c.cm. of defibrinated blood from a "salted" animal had febrile reaction and some slight symptoms of the disease, but all recovered; 7 others inoculated with 10 to 15 c.cm. of blood from another "salted" animal also recovered. These "salted" animals were "fortified" by reinoculation with virulent red-water blood, and somewhat large doses of their blood used for inoculating a herd of 107 animals. Of these 17 died of characteristic red water; the rest recovered. Another lot of 53 head, all of which save one had been born and reared on red-water veld, were inoculated, but none reacted except the imported animal. Inoculated adult animals sent to red-water veld have escaped the disease, while some accompanying uninoculated young beasts, which are not so susceptible as the adult cattle, all became infected, with 3 deaths. The method of inoculation in Professor Edington's hands—who only uses small doses of 5 to 10 c.cm.—has proved so successful that the farmers have petitioned Government to place an inoculating station at Graham's Town, so that the animals coming from clean Karroo areas for transmission to the coast may be inoculated previous to entering the infected belt.

THE OFFER TO VACCINATE.

There is only one satisfactory solution of the anomalous position in which the Vaccination Order, 1898, leaves those children whose birth was registered before August 31st, 1898, and in respect of whom no certificate of exemption has been obtained, or, what is practically the same thing, forwarded to the vaccination officer. Prosecutions are sought, nay, hailed with delight, by the antivaccinationists, as so many occasions of cheap martyrdom. In addition, the magistrates are divided as to the proper course to adopt, and are dismissing cases (whether rightly or wrongly in law matters not for our present purpose) because there has been no provision in the Act or Order for the "offer to vaccinate" to be brought to the homes of these children. Waiting for the law courts to decide is a wearisome delay and a source of paralysing uncertainty. How is the Gordian knot to be cut? By the Local Government Board recognising the lacuna in the legislation, and issuing a supplemental order, which shall provide for the offer to vaccinate being made in the case of every child under 14 years of age at the time of issuing the Order, in respect of whom no valid certificate under the Vaccination Acts shall have been received or be in force. The Local Government Board would seem to have this power by Section VI of the Act of 1898. We trust that the Association of Public Vaccinators will see its way at once to approach Mr. Chaplin on this point, and put an end to the difficulty which so many of our correspondents have experienced.

ANGLO-AMERICAN NURSING HOME IN ROME.

The glamour of the Eternal City of Rome is so great as to attract thither again and again those fortunate enough to have visited it, and the climatic advantages of the Italian winter cause all parts of Italy to be used as health resorts. It is to Rome as a centre that Anglo-Americans run for refuge when taken ill, and it is scarcely to be credited that no place exists in this crowded resort of the English-speaking race in which patients can obtain care and skilled nursing. It is true nunneries and sisterhoods take in cases of illness, but the good sisters are untrained, and display some jealousy of trained interference. A case of typhoid fever recently taken to one of these nunneries was left untended during the night, lifted from bed to change a mattress by one little nun and ministered to for all purposes by one sponge. That such a state of things should exist is a reproach and a shame to the Anglo-Saxon peoples, and the proposal to establish an Anglo-American Nursing Home is one deserving of support. A Committee has been formed with the British Ambassador as President, Sir George Bonham as Vice-President, many leading residents in Rome as members of the Committee, and Mr. E. F. Ede, 25, Via Gregoriana, Rome, as the Treasurer. A staff of trained nurses will be maintained, and these will be available if required to attend patients residing in hotels or apartments, and several free beds will be provided in the home for patients unable to contribute towards their own maintenance. A sum of over £500 has already been promised, but, as it is expected that the expenses of the institution cannot be less than £200 a year, further subscriptions are required, and will be received by Messrs. Coutts and Co., 59, Strand, W.C.

DR. THOMAS NEDLEY, OF DUBLIN.

Dr. Nedley, who for many years has been a remarkable figure in Dublin Society, died at his residence, 4, Cavendish Row, on April 25th, in his 79th year. He was a Licentiate of the Edinburgh College of Surgeons, 1851; of the Irish College of Physicians, 1860; and M.D. of the University of Aberdeen, 1856. He engaged in general practice, which was for some time very lucrative. He held for many years the office of Surgeon to the Dublin Metropolitan Police, to the Board of National Education, and to the household of the Lord Lieutenant. But it was not as a medical man that his reputation was remarkable. For more than half a century he had moved in Dublin society, attracting to himself the friendship of most of those who were prominent in rank or in literature and art. He had a charming tenor voice, with which he was wont to delight all who heard it. But he reigned supreme as a raconteur. He had a humour which was always gay and sparkling, and his imagination lent itself to the creation of tales which, told as he alone could tell them, made his name famous. He took no part in professional life; he did not belong to any medical society, and he never attended any medical meetings. But for all that the profession was proud that it numbered in its ranks such a brilliant man as Tom Nedley, whose good nature and tolerance were all-embracing, and who in keen wit and bright conversation had only one competitor—his friend the late Father James Healy.

THE BAVARIAN CODE OF MEDICAL ETHICS.

A Committee of the Medical Councils of Bavaria, appointed for the purpose, has recently drawn up a code of medical ethics which, if accepted by the Councils, will serve as a guide to the Courts of Honour which have to sit in judgment on cases of alleged professional misconduct. The general principles set forth in the code are the same as those accepted by members of the medical profession in all civilised countries. Among special enactments we note that it is considered contrary to medical etiquette for a practitioner to sell drugs or apparatus, to sell a practice, or to serve as an intermediary in such negotiations, to seek to get patients through midwives, bath attendants, etc., to publish testimonials and thanks from grateful patients, to publish reports of medical cases otherwise than in professional journals, to prescribe advertised medicines "notoriously inefficacious," to "cover" unqualified practitioners, to be present at operations by persons not belonging to the medical profession. Consultation is permitted with any practitioner eligible for membership of the Medical Councils and "remaining within the province of scientific medicine." Punctuality at consultations is insisted upon, only a quarter of an hour's grace being allowed. If the consultant fails to appear

within that period, the practitioner in charge of the case prescribes according to the requirements of the situation. The consultant, in the absence of the practitioner in charge, must go away without examining or prescribing unless the case be urgent, and he live at a distance, when he may examine and leave a written statement of his opinion for the practitioner in charge. The consultant must on no account put on any air of superiority, and must not criticise the previous treatment. In case of disagreement a third practitioner must be called in, or if this cannot be done the practitioner in charge must state the case to the family, and leave them to decide. If no understanding can be come to the consultant must retire, after stating his reasons. As regards fees, local medical societies should fix a tariff which shall be binding on all their members; there may be special tariffs for towns or for particular districts, but these must be accepted by the local society. Contracts with corporations, insurance societies, and establishments must be approved by the society, which may refuse to sanction them when the fees are lower than those in use. Rebates may be made in the case of poor patients, but every reduction of fees must be formally intimated at the time of settlement. The practitioner should not treat gratuitously any patient in a position to pay. Applications for appointments, public or private, must never be accompanied by offers of reduction of fees or by depreciation of other candidates. Medical practitioners and their families should be treated gratuitously. A practitioner should do duty for a professional brother in case of short illness or absence, but this is not made to apply to confinements or operations.

THE BERTILLON CLASSIFICATION OF CAUSES OF DEATH.

A pamphlet containing an exposition of the Bertillon classification of causes of death[1] has been issued by the American Public Health Association. This Association, comprising the sanitary officers of Canada, Mexico, and the United States, has unanimously recommended the general adoption of this system for mortality reports, and there seems to be every likelihood that after 1900 it will be generally adopted. Dr. Bertillon has given in his classification three different nomenclatures. The most abbreviated of these consists of 40 cases of illness (some non-fatal), the second of 89, and the third of 142. Appended to these nomenclatures are explanatory notes to guide the registrar or health officer in allocating any particular cause of death, and a series of useful rules are given to be observed in doubtful cases. The English Registrar-General would be conferring a great favour on medical officers of health in this country by similarly publishing the rules which long usage has established in his department in classifying deaths. Thus a death is returned as due to "measles, diarrhœa." Under which heading should it be entered? Or, again, a death is ascribed to "whooping-cough, diphtheria," once more without any indication as to which is the primary disease. Under which is the death to be finally entered? There does not appear to be any insuperable difficulty in assimilating the classifications of Farr and Bertillon. The latter is in fact based on the former, and is formed on the principle of classification according to anatomical seat in most instances, and not according to the supposed nature of the disease. The wisdom of this is seen when we consider how such diseases as rheumatic fever and tetanus need to have their places altered. The Bertillon, like Farr's, system cannot pretend to be a perfect system of classification of causes of death. No perfect system is practicable in the present state of medical science, and the progress of medical science would speedily make a modern classification obsolete. All that is attempted, and what is fairly well accomplished, by the Bertillon system is to ensure precision of meaning and comparability of the individual terms used in the classification of causes of death.

[1] First published in *L'Annuaire Statistique de la Ville de Paris pour l'Année 1896.*

THE LUNACY BILL AND THE PENSION CLAUSES.

The Lunacy Bill, with the omission of Clauses 21 and 22, passed through the Committee stage in the House of Lords on April 20th. The Pension Clause (21) was struck out on the expression of dissent by the Marquis of Ripon, who apparently spoke on behalf of the County Councils Association, the Earl of Kimberley supporting the opposition, which was based on the fact that at least one county had arranged not to give pensions. No regret can be felt for the loss of the clause as it appeared in this year's Bill, since it would have put asylum officers in a worse position than they now occupy, but astonishment must be felt that the County Councils should claim the right to ignore existing Acts of Parliament by arranging not to grant pensions. The present Act, if it does not impose the duty of pensioning, at least indicates very clearly that it expects pensions to be granted and granted in a liberal spirit. The claim put forward by County Councils to contract themselves out of this implied duty is in fact to ignore the intention and spirit of the Act. Lunatics are supported from the general exchequer to the extent of nearly two-fifths of their maintenance, and the central authority might fairly claim to have some influence in determining the general principles to be followed. Why the Gratuities Clause (No. 22) should have followed the pensions clause is not easy to understand. It was a tardy recognition of a long-standing injustice, and a strong effort should be made to have it reintroduced in the House of Commons, when it would be desirable that attention should be drawn to the pretensions of the County Councils to an independence and authority so great as that advocated in this matter by the Marquis of Ripon.

THE ESSEX COTTAGE NURSING ASSOCIATION.

The fifth annual meeting of this Association was held at Colchester on April 18th. The eagerness with which societies of this kind are formed is an indication that they meet a want, a want to which attention has frequently been drawn in these columns; that is, a system of efficient nursing for the villager and cottager, whose remoteness from the centres of medical and nursing aid places them at a disadvantage as compared with their wealthy neighbours or indeed with the pauper class. According to the statement by Dr. Thresh, to whose energy and organising skill the Association owes much of its success, thirteen probationers are in training at the home in Leytonstone. The course in the home comprises lectures in first aid and nursing, and in sick cookery; the teaching in practical nursing is carried out in the homes of the cottagers, under the superintendence of two trained nurses. Financially the Association is in a flourishing condition, and the demand for its nurses is greater than it can supply. Valuable testimony to the good work of the nurses was borne by several speakers from the country side. One difficulty was the want of suitable women to be trained. It is not every cottager who has the aptitude to become a suitable cottage nurse; added to intelligence at least sufficient to appreciate and apply the training, there is required sympathy with the village life and the skill to adapt herself to the sphere of her work. So many schemes for cottage nursing are being tried in various part of the country, each of them claiming to have solved the problem, that the time seems to have come when a conference for the discussion of the whole question might be held with advantage. Such a conference might perhaps best be called by the Queen Victoria Jubilee Institute. The crux has always appeared to be the safeguarding of the interests of the public and of the fully trained nurses. At present there is

no guarantee that the cottage nurses have a sufficient training, nor is there any method of so controlling their actions that they shall not undertake work for which they are not qualified. No scheme of cottage nursing is complete that does not include as part of the system the fully trained nurse, to be requisitioned when necessary, and the adequate representation of the medical profession on the governing body of the local organisation.

HOW THE CONSCIENTIOUS OBJECTOR IS DEALT WITH IN THE UNITED STATES.

In a recent number of the New York *Sun*, Acting Assistant-Surgeon Hamilton, of the United States Marine Hospital Service, gives the following account of a small-pox panic at Laredo, in Texas, and the mode of dealing with the conscientious objector adopted in the land of the free: "The State health officer took charge, and he had to call on United States troops for assistance, as the people would not be moved. The assistant city marshal was wounded on Sunday, March 19th, while trying to keep an ambulance at work, and the ambulance had to stop, as there was too much excitement, and the mob was large and beyond the control of the Texas Rangers and city police. The State health officer needed more force, and one troop of the 10th United States Cavalry was put at the service of the mayor. On Monday, March 20th, when the ambulance commenced to move out patients, the mob again became uncontrollable, and the captain of the State Rangers was wounded, and one of the leaders of the mob was killed and several others were wounded. The troops were called upon and responded at once, cleared the streets, and there has been no disturbance since. Notwithstanding all this trouble, the vaccinating corps of which I took charge for a thorough house-to-house inspection and vaccination, have had very little opposition. There have been about twelve to fifteen refusals, which had to be reported, arrested, and then vaccinated; otherwise no trouble. There have been over thirteen hundred vaccinated or revaccinated since I commenced, and there would have been more, only I had my corps stop work when any fighting was going on for fear that some of them might be injured. My force is not large enough, but that is all the city said they could afford at present." Let antivaccinists who rely so much on the people take warning from this, which is by no means an isolated instance of the methods of enforcing sanitary regulations in the United States. A true democracy, as Wellington said, is the strongest of all forms of government, and the time may come, even in this country, when, if moral suasion proves ineffectual, conscientious objectors will be vaccinated at the point of the bayonet.

ELECTRICITY IN GYNÆCOLOGY.

The recently-issued volume of the *Transactions of the American Gynecological Society* for 1898 includes an instructive discussion on the use of electricity in the diseases of women, which took place at the annual meeting held in Boston. Several gynæcologists of great authority joined in the fray, and all who spoke could claim that they had the advantage of much experience. On the whole, their opinion was unfavourable; they practically answered in the direct negative the title of the discussion, Has Electricity ceased to be a useful Therapeutic Agent in Gynæcology? Yet Garrigues boldly maintained that it not only held its own, but had of late enlarged its territory in different directions. In the majority of cases of uterine fibroid he found it effective. Willis Ford preferred to operate on fibroids or to leave them alone, but advocated electricity in simple metritis and non-suppurative perimetritic exudations. But Grandin spoke very plainly in an opposite sense. Electricity, he argued, had as much warrant for existence in the therapy of gynæcology as many another method equally obsolete, as far as he was concerned, and yet still practised and taught by a school by no means insignificant. Boldt found electricity useful in ovarian neuralgia and in some forms of endometritis, where the curette was not needed. He thought that vaginal extirpation of the cancerous uterus by the galvanocautery was dangerous, and made the very important statement that he knew of a number of cases where the ureters were injured by the hot irons used in Mackenrodt's practice for vaginal hysterectomy. The ureters tend to become obstructed through the effect of the cautery on the adjacent tissues; the knife does not bring about such a complication. Palmer Dudley informed the meeting that his battery was now in his cellar, and anyone might have it who would take it away. Lapthorn Smith claimed ten years' experience of electricity. It involved, as compared with other methods, great waste of time and needless expense to doctor and patient. The former, he implied, was discredited in the eyes of the latter, owing to the discomfort and the imperfect results of the treatment. When a case of fibroid came to him, he advised operation; if that were refused he employed electricity, as he had cured some 60 cases by that method. Ten others were failures; the 60 needed no more gynæcological treatment. Florian Krugg was an extreme opponent of electricity. He went further than Palmer Dudley, as he would only give his battery to a gentleman who would promise on no account to use it on a human being. In cases of hysteria and neurosis, with vague pains all over the body, where a moral effect has to be produced, the treatment might be of use; but Krugg added that it would have just as much effect if the electrodes were not connected with the battery. Stansbury Sutton maintained that electricity did harm to fibroids. He also was ready to give his battery away. Like Krugg, he denounced the idea that electricity could cure fibroids. It cured hæmorrhage in many cases, but so did the curette. Electro-puncture involved great danger, peritonitis might be set up or the intestines injured.

AN AUSTRIAN AMBULANCE SHIP.

The example given by the United States during the Spanish-American war of fitting out an ambulance ship under the Red Cross regulations has been followed in Austria. The enterprise, which is due to private initiative, is intended to commemorate the jubilee of the Emperor Francis Joseph. At the express desire of the Emperor the vessel has been named the *Graf Falkenhayn*, after the first President of the Austrian Red Cross Society. The Association has been entrusted with the care of the ambulance ship by the donor, Baron von Reinelt, who has also devoted a sum of 50,000 florins to its maintenance in times of peace. The new steamer, which has an estimated speed of nine knots, has an isolated wing for infectious cases, and two bath rooms, and is provided with all modern hygienic requirements. Its equipment, which is now complete, includes four lifeboats and two disjointable rafts. The *Graf Falkenhayn* will for the present be stationed at Trieste, where she will be placed in charge of a retired officer of the Austrian Lloyd Company. The Austrian Red Cross Society is the first institution of the kind in Europe which possesses a permanent naval ambulance.

OPERATIVE INJURY OF THE THORACIC DUCT.

This accident seems to be more common since operations for mammary cancer have been practised on the very radical principles supported by Mitchell Banks, the Baltimore school, and other surgeons. Lund has recently reported a case of operative injury of the thoracic duct in the *Boston Medical and Surgical Journal*. The left breast was removed and seen to be cancerous, and, as the patient was not at the time prepared for any extensive operation, the complete dissection of glands was postponed till two weeks later. Then the axillary and clavicular glands, and the greater part of both pectoral muscles were excised. The whole subclavian triangle, internal jugular vein, and sub-

clavian arch were cleared. The thoracic duct was borne in mind, but at the close of the operation there was no evidence of leakage. On the second day there was much pain in the neck, on the fourth some milky fluid leaked from the skin wound which was partly opened and was found to be filled with milky fluid more or less coagulated. A steady and rapid leakage of the fluid was detected at the deepest part of the wound, corresponding to the situation of the thoracic duct. So rapidly did the fluid well up, that quick sponging was needed to keep the wound dry. Pressure was applied, but for four days the escape of chyle was so free that the dressings had to be changed very frequently. Then a very firm gauze packing was placed over the wound, and the leakage almost entirely ceased. Though so much nutritive material ebbed away in this gross mechanical fashion, the patient's convalescence was hardly affected by it at all. Cushing reported 9 cases of this accident in the *Annals of Surgery* last year, all occurred in operations for the clearing of tuberculous or cancerous glands. Only one death occurred, and that was probably caused by damage done to large veins. The duct was sutured in one case, and forthwith there was no leakage; but since Cushing's statistics were made public this suturing has been done twice without any immediate cessation of the escape of chyle. Warren and Mixter also had a case where chyle began to ooze from a tumour which developed a few days after radical operation for cancer of the left breast. The oozing went on for about a fortnight, but was stopped by simple pressure with strapping. Twice since that case have the same observers had the same experience, even to the absence of any sign of injury to the thoracic duct at the time of the operation, and the subsequent subcutaneous extravasation of chyle and partial escape of that fluid through the edges of the wound. Pressure appears sufficient to remedy what would seem at first sight to be a grave injury. Only 1 death seems to have occurred in 14 cases. According to the valuable evidence of the Johns Hopkins Hospital staff, the duct has been wounded in 2 out of 35 "complete operations" for cancer of the left breast. This seems a high proportion, and the accident is strenuously to be avoided. There is a little mystery about the late appearance of the cardinal physical symptom. Possibly injury inflicted at the time of operation leads to sloughing of the wall later on. There are several theories explaining why the injury is not necessarily fatal. Cushing suggests that the right thoracic duct may do compensatory work, and the left duct is not rarely double.

POST-GRADUATE COURSE IN PATHOLOGY AT LIVERPOOL.

Arrangements have been made for holding a post-graduate course in pathology in the Thompson-Yates laboratories, Liverpool, during the summer session. Classes will be formed for the study of bacteriology, morbid histology and neuropathology, and may be taken out separately or conjointly. The lectures will be largely illustrated by demonstrations and will include practical work as far as possible. The syllabus has been drawn up by Dr. Abram, Dr. Grünbaum, and Dr. Warrington, who will conduct the classes, and it is hoped that a large number of practitioners will join. The first meeting will take place on Tuesday, May 2.

SPECIALISM IN THE UNITED STATES.

The development of medical specialism in the United States suggests that in that enlightened republic a condition of things may in time be brought about like unto that which prevailed in ancient Egypt, where the human body was, as it were, pegged out in claims, each of which was allotted to a particular class of specialist. Among the most recent indications of this tendency may be noted the formation of an "American Association of Proctologists," which is to devote itself to the cultivation of rectal surgery, a field which it appears has been "very much neglected by the physician and the general surgeon." This interesting body is convened for the first time to debate *circa ardua recti* at Columbus, Ohio, during the forthcoming annual meeting of the American Medical Association. A body whose scientific enterprise extends somewhat higher is the American Gastro-Intestinal Association, which will hold its second annual meeting in Washington on May 2nd, immediately after the meeting of the Association of American Physicians.

THE MEDICAL BILL FOR THE ISLE OF MAN.

This Bill, of which a short account was given in the British Medical Journal of April 1st, has been under consideration in the House of Keys, and is now referred to a small Committee, which we understand will take evidence. An opportunity thus appears to occur for strengthening the provisions of the Bill, which at present goes little beyond the existing Medical Acts, and we hope that those who may give evidence will not fail to avail themselves fully of it. Among the points to which special attention should be directed are the following: That it is of vital importance to prohibit unqualified practice, and not merely to perpetuate the weakness of Section xl of the Medical Acts; that there should be an adequate penalty attached to unqualified practice, otherwise any prohibition must remain almost a dead letter; that registration, and not the possession of this or that diploma, should give legal right to practise, otherwise it will be difficult to get magistrates to convict the holders of bogus degrees; and that practice must be defined in some such terms as that prescribing or performing any operation, or treating patients in any way for gain, shall constitute practice within the meaning of the Act.

Sir William Turner, President of the General Medical Council, was among the recipients of honorary degrees from the University of Cambridge on Thursday last.

A *conversazione* will be given at the London Medical Graduates' College and Polyclinic on Monday evening next, May 1st.

His Royal Highness the Prince of Wales has nominated the following as delegates on behalf of the National Association for the Prevention of Consumption to the Berlin Congress for the Prevention of Tuberculosis: Sir Hermann Weber, Mr. Malcolm Morris, Dr. Hillier, and Mr. C. Rube. The first statutory general meeting of this Association will be held under the Presidency of the Earl of Derby, K.G., at 20, Hanover Square, on May 4th, at 5 p.m.

Dr. J. H. Walker, Principal Medical Officer of British North Borneo and Labuan, has retired after eighteen years' service. A concert was given in his honour by the members of the Sandakan Club, and in the course of the evening a presentation was made to him by His Excellency the Governor, who spoke in the highest terms of Dr. Walker's energy and interest in the affairs of the colony generally, as well as his skill and sympathy in his professional work.

The Kensington Nursing Association.—H.R.H. Princess Louise was present at the meeting of this Association on April 24th. According to the report which was placed before the meeting the number of patients on the books had increased during the past year, and the Marquis of Lorne, who presided, paid a high tribute to the work of the nurses. A new home is required, and an effort is to be made to raise the £2,500 necessary to take improved quarters for the nurses.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENTS.]

Army Medical Matters occupied a large share of the debate on the Army Estimates on April 21st. It was, indeed, curious how vote after vote raised questions of medical interest, so that the discussion repeatedly turned on points connected with the health of the troops. The sewage farm at Aldershot first came on for consideration, and a strong protest was made against its conversion into a dairy farm for the supply of milk to the soldiers. It was contended that milk from such a farm could not be pure; but the Financial Secretary of the War Office quoted the case of Birmingham, and boldly admitted that he had used milk from the sewage farm there. In spite of this personal object lesson the point was pressed, and finally an immediate inquiry by experts into the suitability of the milk for human consumption was promised and the conversion of the farm to other purposes, should the report be unfavourable. In the meantime, it is to be hoped that sterilisation of the milk will be adopted, as suggested by Dr. Farquharson, so as to meet the suspicion which exists as to its purity. Next the insanitary condition of the Piershill Barracks, Edinburgh, was the subject of complaint. A sewage farm in close proximity was regarded by several speakers as the cause of the sickness among officers and men. The Government, in reply, promised inquiry, and stated that it was intended to spend nearly £100,000 on these and other Edinburgh barracks. Later on, when the vote for civilian medical attendance and medicines came up, an animated discussion ensued, in the course of which the old system of regimental surgeons was strongly advocated by Colonel Welby, who was answered by Dr. Farquharson with a warm defence of the new system of a Royal Corps. The popularity of the new departure was shown by the official statement that, instead of a dearth of candidates, there are now two for every vacancy. The evening closed with quite a warm debate on the insufficiency of the supply of female nurses at Cairo and Alexandria after the Soudan campaign. The "foolish and petty economy" of the War Office in this matter was strongly condemned, and, on the motion of Captain Norton, a reduction was moved as a protest, and the Government majority was reduced to 63, the lowest point of the night.

The Infectious Diseases (Notification) Act (1889) Extension Bill (which was published in the BRITISH MEDICAL JOURNAL of April 8th, page 860, and commented on in the JOURNAL of the same date, page 862) passed through Committee, and was read a third time, on Monday night. It was at one time threatened by a motion to add a new clause requiring certain statistical information to be given on the notification certificate, and also requiring the medical officer of health to send a copy of every notification to the County Council. It was objected to the second requirement that it would give undesirable publicity to the occurrence of any infectious disease on business premises, and would lead in some cases to pecuniary loss without affording any extra protection to the public health. These additions were not moved, as they were ruled out of order; and so the Bill passed, and will most likely have an easy passage through the House of Lords on to the Statute Book. It will come into operation on January 1st, 1900, and from that date the Notification Act of 1889 will take effect in every urban, rural, and port sanitary district in which it has not hitherto been adopted.

The Sale of Food and Drugs Bill is having an exciting time in the Standing Committee on Trade. At the first sitting an attempt was made to prohibit the colouring of margarine altogether, and to apply the same rule to butter, but the Government easily defeated this proposal. A much narrower division, however, took place on Sir Charles Cameron's attempt to place the Local Government Board in the same position as the Board of Agriculture with respect to the examination of food products at the port of entry. On Monday the fight was renewed, and a second attempt to place the Local Government Board on an equality with the Board of Agriculture, as regards power to act in the interest of consumers by means of inspectors in the country, succeeded. The Bill is likely to be a good deal modified in Committee, and will occupy, it is expected, three or four more sittings.

The Prevention of Corruption Bill was introduced by Lord Russell of Killowen into the House of Lords on April 20th. His speech was almost entirely founded upon the report of the London Chamber of Commerce, and the Lord Chief Justice did not add to nor subtract very much from that document. After a few words from the Lord Chancellor, who observed that over-severity was to be avoided, the Bill was read a first time.

The London Government Bill entered on its Committee stage on Monday, and by resolution of the House will now occupy Mondays, Tuesdays, and Thursdays till Whitsuntide, except when the Budget is taken on Monday next. The numerous instructions down for debate before going into Committee were ruled out of order, and consequently interesting discussions on the Metropolitan Asylums Board and Poor-law administration were prevented. From the Speaker's ruling, it is found that any amendment to transfer the Poor-law work to be new Borough Councils will be out of order. This is a matter of regret to many London reformers. The progress of the Bill in Committee promises to be slow; the first two days did not suffice to pass the first clause, and it is quite possible that the Committee stage will not be finished by Whitsuntide.

The Midwives Bill came on a few minutes after 12 on Tuesday's sitting, and its second reading was moved. The Speaker rose to put the question, and for a moment its fate hung in the balance, and then the fatal words "I object" were uttered by Sir Walter Foster, and the Bill stood over till Monday next. It is not probable that a Bill on which the debate was opened on April 12th will pass without further criticism.

Inebriate Reformatories.—From a reply of the Home Secretary it appears that three inebriate reformatories have been certified, but that no local authority has yet established such an institution. Several are considering the matter. There is as yet no certified reformatory for men, and a few cases have occurred in which men ordered to be detained under the Act have had to be discharged in consequence of there being no place to receive them. No State inebriate reformatory has yet been established, but with one small exception the reformatories certified are willing to receive persons committed under Section 1 of the Act.

Feeble-Minded and Defective Children, in the treatment of whom reform is required on the lines recommended by a Departmental Committee in January, 1898, are to be the subject of legislation on the part of the Government. The Bill has been prepared, but it is not decided when or in which House it will be introduced.

Recruits and their Teeth were the subject of a question this week, and it appeared that in 1898 no fewer than 1,767 were rejected for the "loss or decay of many teeth."

DISTRICT NURSING IN CARDIFF.—The ninth annual report of the Cardiff Branch of Queen Victoria's Jubilee Institute for Nurses shows that 1,216 cases were nursed and 37,498 visits made to patients during the year 1898. The Queen's nurses were fully occupied, at an average cost of 14s. 6d. a case. The average number of visits to each case was nearly 31. The average cost a visit was thus well below 6d., and was certainly a very inexpensive way of bringing valuable help to those in want of it, as is shown by many examples cited in the Superintendent's portion of the report. The Honorary Treasurer, Dr. Sheen, is able to report that the total cost of this excellent work was £883 9s. 6d., which was raised by donations and subscriptions (£446), the proceeds of entertainments (£194), a Council grant of £210 for the training of probationers, interest on a bequest (£50), a grant from the Guardians (£69), and three other items amounting to about £56. The balance from 1897 was £1 4; that from last year was under £143.

CONTRACT MEDICAL PRACTICE.

Friendly Societies and Medical Aid Associations.

A General Practitioner writes: Having had over twenty years' experience in the working of club practice, I think I may venture to say I can write with some authority on the subject, and now that discussions are taking place on the subject of medical aid, I would like to make a comparison between that and the so-called friendly (?) societies, which I think will work out (looking at it from a medical point of view) very much more favourably for the medical aid than for the friendly societies. I must premise that I am residing in a town of 60,000 inhabitants, but so closely allied to other towns that immediately around, within two miles and a-half, the population is about 140,000. I do not hesitate to make two assertions:

1. That the bulk of the better-class artisans are in some one or other friendly society.

2. That very few, if any, of the friendly societies pay more than 3s. 6d. per annum per member and 1s. 6d. per annum for children; many of them pay only 2s. 6d. and 3s. per annum for adults.

Friendly societies recruit their members by the aid of very earnest canvassing by all the members, and by the taking in of children of all ages from infancy, both males and females. One of the rules supposed to hold good with these societies, and in fact one that is said to be their safeguard, is that all candidates must undergo a medical examination before admission. Well, if this rule is strictly carried out it would be a safeguard, but how often do the medical officers find that if they do not pass those brought for examination, they get into trouble with the club, and some other medical man is asked to examine them, and possibly they pass into the lodge with a grudge against the medical officer. Then, again, with the friendly (?) societies: how often is the medical officer badgered and baited for some little thing that gives offence to the dignity of some of the members. All these things are too well known.

Now to compare with the medical aid: I do not hesitate to say I have held this appointment for twenty years without friction, being well paid—4s. per annum for every male or female, adult or child—the money paid quarterly and to the day, with no deductions of 2½. for honorary membership and tips to treasurer and secretary, and items for children's *fêtes* and widows' and orphans' benefits; and I have not a single member in that society but what is far more entitled to be a member of a medical club than many in the friendly societies, in which latter I have justices of the peace, town councillors, manufacturers who own works and property and keep their carriages, and yet are content to receive medical aid at 3s. 6d. per annum. I think, for my own part, that the medical aid is by far the best of the two—pays the best, is the fairest, and gives the least trouble.

The Eastern Valley Association.

In the British Medical Journal of March 11th we referred to the resignation by Dr. Bowker of his office as surgeon to the Cwmbran Collieries on the ground that the workmen had refused to agree to the advance in the scale of medical fees, which had been accepted by many of the collieries in the district, in consequence of representations made by the Eastern Valley Medical Association. We regret to learn that a number of candidates have come forward to seek the office at the lower rate. It will, we believe, be generally felt that this is an unfortunate course to adopt, and that the applicants would have been better advised had they acted in unison with the medical profession in the district. Any member of the profession who may desire further information should communicate with Dr. A. B. Avarne, Crossfield House, Blaenavon, Monmouthshire.

Durham County Medical Union.

The movement originated a few months ago by the Durham County Medical Union to bring about an advance in the subscription paid by the miners to their club doctors, although at the outset it met with a good deal of opposition, is gradually making headway. A number of the collieries of the county have already agreed to pay the advance charge of 9d. instead of 6d. a fortnight, and every week the number is increasing. The members of the Medical Union, although they are not aggressively enforcing their demand, are presenting a bold and united front, and there are only one or two cases of medical men accepting the vacancies brought about by the demand for the advance on the old terms.

In one or two instances the local representatives of the miners, after having given their medical men notice to terminate their engagements, have made almost frantic efforts to replace them with practitioners willing to work on the old scale of 6d., but in no instance have they succeeded. Altogether the movement may be said to have taken a decided turn in favour of the medical men, and there is every probability if they maintain their present attitude that they will in the end get the increase of remuneration they seek.

A general meeting of the members of the Union was held in the Town Hall, Durham, on Tuesday, under the presidency of Alderman E. Jepson, M.D., J.P., of Durham. There was a large attendance of practitioners from the following districts: Durham, Washington, South Shields, Gateshead, Chester-le-Street, Beamish, West Auckland, Byers Green, Jarrow, Hebburn, Low Fell, Whickham, Blagdon, Easington, Wingate, Thornley, Stanley, Ryton, Stockton, Sherburn, Sunderland, Sheldon, South Moor, Craghead, Lanchester, Langley Moor, Waterhouses, etc. A number of new members were elected, including nearly the whole of the members of the South Shields Association.

The Executive Council submitted a report showing the progress which had been made in the movement, and mentioning the establishment of local committees of the Medical Union at Bishop Auckland, Trimdon, Chester-le-Street, Jarrow, Hetton, Consett, and Stanley. The report showed that in many places the increased rate asked for had been agreed to without any hesitation, and that in others where at first there was apparently much opposition there was in reality very little objection. The report was adopted with evident satisfaction.

Reports were presented by the secretaries of the various local committees detailing the work in their respective districts, and these were received as satisfactory. A report was given in regard to the Framwellgate Moor District, in which circumstances of an exceptionally interesting character were detailed. It appeared that this colliery, notwithstanding that the Lodge Secretary had tried to come to terms with seven or eight practitioners, was still without a medical officer, the medical men approached, after having had the circumstances explained to them, declining to entertain the matter. This was especially satisfactory as the lodges were now prepared to pay the ninepence asked for by the Medical Union.

The President read a letter which had been addressed to him by an old pitman, which showed that a large number of the miners had not had the matter put properly before them by their officials on account of the latter having kept to themselves the original communications in explanation of the application of the medical men. It was pointed out by the writer that many of the miners were under a mistaken impression that the question was a union one, and that they therefore were bound by the decisions come to at the meetings of the lodges, but it was abundantly clear from the communications which had been received from the leading officials of the miners' union that the question was not a union one, but one entirely for the doctors and their individual patients.

A discussion took place on the question of fixing the county rate of payment, as it appeared the old rates were not uniform all over the county. It was proposed and seconded that the rate of payment for the whole of the county be 9d. a fortnight, where previously it had been 6d. An amendment was proposed and seconded, providing that the married men be charged 9d., and all single men and lodgers 6d. a fortnight. The amendment was lost, and the resolution carried by a substantial majority.

It was stated that in certain districts the doctors, in consequence of delays with a view to an amicable settlement, had not yet given in their final notices, and after some discussion on this point it was resolved that in all those places where the notices had not already been given, they should at once be handed in so as to take effect at the next pay. In one or two cases where special circumstances were reported, it was

arranged that the giving in of the notices be deferred until the local committees had completed their arrangements.

A vote of thanks to the chairman terminated a most satisfactory meeting.

THE PLAGUE.

INDIA.

THE reports for the past week from all parts of India show a reduction in the mortality from plague.

In Bombay, although the hot season has set in, the number of plague cases has fallen to a less extent than at corresponding times in previous years. During the week ending April 1st there were 2,689 deaths from plague in India; 992 of these occurred in Bombay City, and 1,051 in the Presidency.

In Karachi there were 213 deaths from plague; in Calcutta 191; in the Mysore State 108; and in the Madras Presidency 50. In the Hyderabad State during the same period (last seven days in March) there were 34 deaths; in the Pergunnahs district of Bengal, 24; in Durbhangee, 13; and in the Punjab only 5.

History of Plague in Bombay.—Mr. James, a member of the Bombay Plague Committee, has presented a report of the various epidemics of plague which have visited the city. In the first year of the epidemic 27,597 persons died of plague; in the second year 25,958; and in the present year up to March, 18,503, giving a total of 72,058. Thus the mortality from plague has shown a tendency to decrease in spite of the large increase in the population of Bombay during the last three years. The epidemic began a month later each year, and has in the two previous epidemics declined about the same time, and it would appear as if the present outbreak might disappear about the end of April. Thus the duration of the epidemic has declined during each recurrence.

HONG KONG.

A telegram from the Governor of Hong Kong to the Colonial Office on April 25th stated that 31 cases of plague and 31 deaths had occurred in the colony during the week.

THE NEW VACCINATION ACT IN OPERATION.

ONE-MARK VACCINATION.

DR. H. W. POOLER (Public Vaccinator, Duddeston District, Aston Union) writes: From January 6th to March 18th inclusive I visited 272 children. I vaccinated 94; 5 were already vaccinated, and number of marks was not stated; 41 were vaccinated in one place; 21 declined, and no reason was given; 65 declined, in order to have one mark put on privately; 33 were postponed; and 13 parents were "gone out." Thus, omitting those who were out, and those postponed, and those in which no reason was given for refusal, and adding to my vaccinations the 5 in which the number was not stated, we find that out of a total of 205 children vaccinated or about to be done, no fewer than 106, or more than 50 per cent., had or were about to have one mark only. And this thing exists to a greater or less extent in all the other districts of our Union. Now, either four marks are necessary or they are not; if they be necessary, then no certificate should be valid which does not state that at least four scarifications have been made; if, however, four marks are not necessary, then the Local Government Board have no right to handicap their own officers by insisting on four insertions. Surely no steps will be taken to make all private vaccinators public vaccinators; nor will they be supplied with Government calf lymph free, as I have seen advocated, until they are first compelled to come into line with the public vaccinators. When the next small-pox epidemic comes what will be the position of these imperfectly vaccinated children? Surely their fate, posing as they will as vaccinated persons, will throw such a blot on vaccination as all the medical profession combined shall never efface. No surer way of furthering the ends of the antivaccinator can there be than this inefficient so-called vaccination. Apart from the prejudice in favour of one mark, I have met with but little real objection to vaccination, and only on two occasions have come across a confirmed antivaccinator.

PUBLIC OR PRIVATE?

PALINURUS writes: "G. P." objects to the visits of the public vaccinator to the children of private patients, but I should like to point out to him that it is quite the fault of the private practitioner. They should vaccinate earlier, and not forget to send in the necessary certificate to the vaccination officer, and then the public vaccinator would not have the unwelcome task of calling where he is not wanted, or be unworthily accused of touting for patients.

If private practitioners are "quite as competent to vaccinate as 'Public Vaccinator,'" they should give proof to that effect. Statistics prove that public vaccination is more efficiently performed than private, and as "it is most advisable that the public should be protected by efficient vaccination," it is better that those who perform the operation should be those whose results are the best, and not those who vaccinate in one or two places for the sake of a few small fees, which cannot amount to much. "G.P." need not fear for his private patients. I have been many years a public vaccinator, but never recollect getting private patients by it; rather the reverse. If the country is in danger of being "decimated by small-pox at no distant date," the private vaccinator, with his one-place vaccination, will have contributed considerably to that unfortunate result.

DR. W. N. NEVILL, B.A., M.D.Dub. (Public Vaccinator, Bedminster District, Bristol Union), writes: When "G. P.," in the BRITISH MEDICAL JOURNAL of April 22nd, asserts that "it is most advisable that the public should be protected by efficient vaccination," he makes a statement with which few medical men will be found to disagree. But when, as a means to this end, he proposes that "the office of public vaccinator should be abolished," it is difficult to follow his reasoning. If, however, for the words "office of public vaccinator," we substitute "farce of private vaccination," the sentence becomes intelligible at once.

My official lists for past quarter contained the names of about 400 children, out of which I vaccinated about 60. The parents or guardians of most of the remaining 340 said something to this effect: "If we are compelled to get it done at all, we will pay the shilling" (I have known it done for sixpence), "and have it done in one place." They know, or care, very little about efficiency so long as they can get a certificate.

If this is so in one district (out of ten in Bristol Union) in three months, how appalling must be the amount of inefficient private vaccination over the whole country in the course of a few years.

THE CAPITATION FEES.

C.C. writes: A little experience of the working of the new Act reveals many startling anomalies, if the entire Act be not entitled to that description. If, as you say, the Local Government Board have decided that "they do not consider that the names of children who have attained the age of 6 months by January 1st, 1899, should be included in the lists to be forwarded to the public vaccinator," the question at once arises, Did the Local Government Board intend that the vast number of children throughout the country who have gone unvaccinated since the appointment of the Royal Commission should continue unvaccinated, without even a "conscientious objection," or that they should (parents being willing) be vaccinated?

Presuming—and one cannot suppose anything else—that the Local Government Board desired them to be vaccinated, how can the public vaccinator be made aware of their existence, if there be not some regular means of informing him?

The vaccination officers in my district have taken this view, and have returned to me on Form H the names of hundreds of such, and I have vaccinated over 140 whose parents have welcomed me to their homes. But in most cases "notifications" of intended visits were required. Then there is the filling up of Form H, returns to the Local Government Board as regards result of lymph, and filling up of register. If all this is to go unpaid for, all I can say is that it is a very gross injustice.

As regards the register it is worth noting that the first supplied gives a space for years of age. This is hardly consistent with the idea that the Local Government Board only required those children to be vaccinated who were less than 6 months old on January 1st. The question of four scarifications is again one of much importance. The public vaccinator is everywhere met with the objection "Dr. So-and-So only puts on one mark." If the Local Government Board realises the importance of a sufficient scarification area, it should in all reason cease to recognise as "successful vaccination" the "pimples" aimed at and produced by some practitioners.

The demand that all practitioners should be paid for vaccinating by the local authorities (thus abolishing the office of public vaccinator) is one that should be argued on its merits; much might be said on both sides. Curiously enough, I have recently heard of one medical gentleman advocating this view, who is himself a factory certifying surgeon; as no special knowledge is required that office might likewise be thrown open.

I hope the Society of Public Vaccinators (which, by the way, I would like to join) will organise a strong deputation to Mr. Chaplin. He is eminently a rational man, and the sooner the unfairness and absurdities of some of the details of the new Act are placed before him the better.

*** Particulars of the Association of Public Vaccinators may be obtained from Mr. V. A. Jaynes, 157, Jamaica Road, S.E., or Dr. A. E. Cope, 26, Bessborough Gardens, S.W. The annual subscription is 5s.

DR. THOMAS P. GOSTLING (late Public Vaccinator of the Worcester District) writes: It appears to me that in your comments on the letter addressed to the Local Government Board by Mr. M. F. Carter, and on the answer of the Local Government Board to that letter, which appear in the BRITISH MEDICAL JOURNAL of April 8th, you miss two points: In the first place, the question raised in Mr. Carter's letter is badly put. We as public vaccinators claim a fee on children vaccinated by us who are not on the vaccination officer's list, by virtue of Article 3 (2) of the Vaccination Order, 1898, and not upon an opinion expressed in the BRITISH MEDICAL JOURNAL. The answer of the Local Government Board also does not refer to Article 3 (2). It simply says "that a public vaccinator will not be entitled to a birth fee" (so-called) "under Article 3 (1) (*a*) of the Vaccination Order of 1898 in respect of children whose births were registered before August 31st last." No public vaccinator claims this so-called birth fee, except on the cases vaccinated by him but not included in the lists supplied to him by the vaccination officer. Article 3 (2), which says "together with the number of children not included in such list but vaccinated by the public vaccinator himself," justifies this claim. This is plain English—and not the English which is usually employed by lawyers. It provides for the payment of a certain sum for children—that is, persons under 14 years of age—vaccinated by the public vaccinator himself; but there is another proviso. It says: "together with the number of children not included in such lists." Now, no child registered before August 31st, 1898, can be placed on the list, so that this clause must refer to all children under the age of 14 years who have been vaccinated by the public vaccinator and are not included in the vaccination officer's list, no matter whether they are aged 1 day or 13 years and 364 days. I trust that all public vaccinators will hold out, and not accept the ruling of some junior clerk employed by the Local Government Board.

*** Our correspondent's statement that "no public vaccinator claims this so-called birth fee except in the cases vaccinated by him, but not included in the lists supplied to him by the vaccination officer" is scarcely correct. The claim is made in respect of (1) "children in the lists." This is not disputed. (2) "Children not included in such lists, but vaccinated by the public vaccinator himself;" and of these there is no dispute in regard to children registered after August 31st, 1898. The Local Government Board say, however, that in regard to children registered before August 31st, 1898, Article 3 (1) (*a*) does not entitle the public

vaccinator to a "birth fee." The public vaccinators, on the other hand, maintain that Article 3 (2) distinctly includes such cases as the word "child" means by definition in the order, "any person not more than 14 years of age."

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must include details of the precise character and objects of the research which is proposed and must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C.

Reports of work done by the assistance of Association grants belong to the Association.

Research Scholarships.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

Ernest Hart Memorial Scholarship.

The Council are also prepared to receive applications for a scholarship of £200 for the study of some subject in the department of State Medicine in memory of the late Mr. Ernest Hart.

Applications must be sent in writing on or before June 15th, stating the particulars of the intended research, qualifications and work done.

Forms of application for the scholarships can be obtained from the General Secretary.

Francis Fowke, *General Secretary.*

429, Strand, London, April 12th, 1899.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF SPECIAL MEETING.

A Special Meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Friday, the 12th day of May next, at 2 o'clock in the afternoon, to consider the recommendation of the special meeting of the Parliamentary Bills Committee held on March 24th last respecting the Medical Acts Amendment Bill.

Francis Fowke, *General Secretary.*

429, Strand, April 18th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL.

Meetings of the Council will be held on July 12th and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

South Eastern Branch: East Surrey District.—The next meeting of this District will be held at the Greyhound Hotel, Croydon, on Thursday, May 11th, at 4 P.M.; Dr. S. Parsons Smith (of Croydon) in the chair. Agenda.—Minutes of Upper Norwood meeting. To decide when and where the next meeting shall be held and to nominate a member of the Branch to take the chair thereat. Papers, etc.: Dr. Mitchell Bruce: The early diagnosis and treatment of Tuberculosis. Mr. W. J. Walsham: Some remarks on the operative treatment of various internal Derangements of the Knee Joint. Dr. William Duncan: Some practical remarks on Uterine Hæmorrhage. Messrs. Burroughs, Wellcome and Co., will show some of their recent and improved productions. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 P.M.; charge 7s., exclusive of wine. All members of the South Eastern Branch are entitled to attend, and to introduce professional friends. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner.—Henry J. Prangley, Tudor House, Anerley, S.E., Honorary Secretary.

South Eastern Branch: East Sussex District.—The next meeting will be held at the Calverley Hotel, Tunbridge Wells, on Thursday, May 11th, at 5 P.M., Mr. J. B. Footner, in the chair. Dinner at 7 o'clock. Charge 6s., without wine. The following papers have been promised: Dr. de Havilland Hall: Cardiac Failure. Mr. E. H. Myddelton-Gavey: Possible Errors of Diagnosis in Ophthalmic Cases. Dr. Starling: A note on Diphtheria. Dr. Vise will also read a paper. The Chairman will exhibit patients, and Mr. C. Lammiman will show biliary and vesical calculi. J. W. Batterham, M.B., Bank House, Grand Parade, St. Leonards, Honorary District Secretary.

South Eastern Branch: North Kent District.—A meeting of this District will be held in the Council Chamber, Urban District Council, Beckenham, on Thursday, May 4th, at 3.45 P.M., Mr. F. Sheyes in the chair. The following papers have been promised: 1. Mr. Ashley W. Barrett, M.B., Methods of Relieving trouble from Impacted Wisdom Teeth; 2. Dr. Alex. Macgregor (North London Hospital for Consumption and Diseases of the Chest), The Pathology and Treatment of Phthisis. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends.—A. Tennyson Smith, M.D., Orpington, Honorary Secretary.

Metropolitan Counties Branch: North London Branch.—The last meeting of the session will be held at the Tottenham Hospital, The Green, South Tottenham, on Wednesday, May 10th, at 4.30 P.M. Election of officers. Dr. L. Guthrie will read a paper on Nights Terrors in Childhood and Kindred Affections. Cases of interest will be shown at the hospital. The District Committee will meet at 4.15 P.M.—H. J. Macevoy, Brondesbury, N.W., Honorary Secretary.

Metropolitan Counties Branch: West London District.—The next meeting will be held at the Museum, Great Portland Street, W., by kind permission of Mr. Jonathan Hutchinson, on Wednesday, May 3rd, 1899, at 5 P.M. Agenda.—Mr Jonathan Hutchinson, F.R.S.: The drawings and photographs obtained during the last twelve months.—Thomas Dutton, M.D., 13, Holland Park Avenue, W., Honorary Secretary.

Shropshire and Mid-Wales Branch.—The spring meeting will be held at the Salop Infirmary, on Tuesday, May 16th, at 3 o'clock. Members who wish to bring forward any business, to read papers, to show cases or specimens, or to propose any new members, are requested to communicate with the Honorary Secretary not later than Friday, May 5th.—H. Willoughby Gardner, Swan Hill, Shrewsbury, Honorary Secretary.

South Wales and Monmouthshire Branch.—The spring meeting will be held at Newport on Tuesday, May 2nd.—Alfred Sheen, Cardiff; D. Arthur Davies, Swansea, Hon. Secretaries.

BORDER COUNTIES BRANCH.

The spring meeting of this Branch was held at St. Boswells, N.B., on April 21st. The President (Dr. Muriel) was in the chair, and twenty-five members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Unregistered Dentists.—Dr. Somerville (Galashiels) reported that he had brought the question of unregistered dentists before the Council of the British Medical Association, and that the matter had been referred to the General Practitioners and Ethical Committee for consideration.

Royal Medical Benevolent College.—With regard to the elections to the Royal Medical Benevolent College, Epsom, it was resolved that the Secretary be authorised to use the votes of the Branch in the manner that he might deem most suitable.

New Members.—Dr. W. E. Gibbons (Carlisle) was elected a member of the Association. Dr. Cullin (Harrington) and Dr.

Wroughton (Wetheral), already members of the Association, were admitted as members of the Branch.

Direct Representation on General Medical Council.—A letter was read from Dr. Sharp, a member of the Yorkshire Branch British Medical Association, enclosing copy of the following resolution passed at a recent meeting of that Branch, namely:

That this meeting feels that the time has now come when the general practitioners of the United Kingdom are entitled to demand a much larger share of direct representation in the General Medical Council.

It was resolved unanimously that the Border Counties Branch support this resolution.

Communications.—Dr. BANNERMAN (Hawick) showed a patient on whom he had operated successfully for Volvulus of the Sigmoid Flexure. The PRESIDENT and Drs. CULLEN and HADDON made some remarks on the case.—Dr. MAIR (Hawick) read notes of two cases of Renal Calculi he had recently had under his care, and showed specimens of the calculi. A discussion followed, in which the PRESIDENT and Drs. CALVERT, YOUNG, HAMILTON, DIXON, HADDON, D'OYLE GRANGE, RAMSAY, and MENZIES took part. Dr. MAIR replied.—Dr. DIXON (Hawick) read notes of a case in which Toxic Effects had rapidly followed the Administration of a Single Dose of 30 gr. of Sulphonal; the face became swollen, there was a scarlatiniform rash, the pupils were dilated and insensitive, and the pulse was small, rapid, and irregular. He induced vomiting by the administration of apomorphine; the patient was quickly relieved, and next morning was in his normal state. The PRESIDENT and Drs. CARLYLE JOHNSTONE, HAMILTON, SOMERVILLE, and FARQUHARSON spoke.—Dr. CRERAR (Maryport) read a short paper on the Regional Anæsthesia of Oberst and Krœgius; he had found the use of cocaine by this method of great value in all operations on fingers and toes, and in the removal of teeth from the lower jaw. Drs. HAMILTON, RAMSAY, CALVERT, GRAHAM, D'OYLY GRANGE, and the PRESIDENT took part in the discussion.—Dr. HAMILTON (Hawick) read a paper on Some Uses of Sulphur, in which he advocated the use of sulphur as a disinfecting laxative in various diseases, for example typhoid fever, perityphlitis, diphtheria, etc. The PRESIDENT and Drs. MARR and MENZIES made some remarks on the paper.

Dinner.—After the meeting the members dined together in the Railway Hotel.

WEST SOMERSET BRANCH.

A SPECIAL meeting of this Branch was held at Taunton on April 25th to consider a proposal from the Bath and Bristol Branch that a branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis should be formed for Gloucestershire, Somersetshire, and Wiltshire. After some discussion it was resolved that, owing to the small number present (eight), the question be held over until the annual general meeting.

SOUTH OF IRELAND BRANCH.

A GENERAL meeting of this Branch was held in Cork on March 10th, Dr. J. GIUSANI (President) in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Unattached Members.—Dr. CORBY proposed, and Dr. MORIARTY seconded, and it was carried:

That a circular be sent to the unattached members inviting them to become attached members of the Branch.

President-Elect.—Dr. Moriarty was unanimously chosen as President-Elect.

Hospital Abuse.—It was carried that a letter be sent to the trustees of the various hospitals in the city drawing attention to the matter.

Irish Medical Association.—The following resolution was unanimously adopted:

That we have heard with great pleasure that it is the intention of the Irish Medical Association to hold their annual meeting this year in Cork. We believe this to be a step in the right direction in the interests of the Association itself, and we feel convinced it will tend to cultivate friendly relations between the members of the profession residing in different parts of Ireland, and in that way facilitate welding them together for the purpose of advancing the interests of the profession at large. We shall therefore have great pleasure in doing all in our power to make their meeting as agreeable and successful as possible

Vaccination and Revaccination.—Communications were read from the Worcestershire and Herefordshire Branch, and from the Council of the Association on the subjects of vaccination and revaccination.

SPECIAL CORRESPONDENCE.

PARIS.

The "Conseil de Surveillance" of the Assistance Publique.—A New Radioscope.—Dust Removal in Paris.—An International Congress of Public Assistance.—Congress of French Alienists and Neurologists.—Consumption of Alcohol in Different Countries.—General News.

THE Conseil de Surveillance de l'Assistance Publique contemplates building a sanatorium for phthisical patients in connection with the St. Antoine Hospital. As this hospital is situated in a thickly populated locality, some anxiety is felt about the project. The plans have been drawn up, and the expense will, it is estimated, be £340 a bed. This Council is composed of medical men, municipal councillors, legal authorities, for the most part capable administrators and philanthropists. The meetings take place every fortnight; the proceedings are not published. The Municipal Council wishes that obstetrical instruments should be kept at the *mairies* for the use of the medical officers of the "bureaux de bienfaisance" and for the medical night service. The Council has sanctioned the keeping in readiness of Tarnier's forceps and Reverdin's needle at the *mairies*.

At a recent meeting of the Academy of Sciences, M. Lippmann showed a radioscope designed by M. Londe, director of the radiographic and photographic services of the Salpêtrière. This instrument, which is made by M. Radiguet, demonstrates the depth of the tissues in which foreign bodies are imbedded. The instrument is known as the Radioscope Explorateur de Londe. Its construction is very simple and the results aimed at in its application are quickly obtained.

The Paris Municipal Council proposes changing the system of dust removal hitherto practised in Paris. This consists of carting off the contents of the household dust boxes, which are afterwards sent by train to different county localities. According to the new system the refuse will immediately be burnt. A company undertakes the business by contract. This modification robs the *chiffonnier* of his living, inasmuch as the dust boxes must be delivered intact to the contracting company, without previous rag or bone picking. The Paris *chiffonniers* recently called a meeting to resist this sanitary innovation; members of Parliament and of the Municipal Council were invited to attend. Several promised to oppose the project on the ground of injury to agriculture and the ruin it would bring—if realised—to many worthy families.

The Organising Committee of the International Congress of Public Assistance and Private Philanthrophy to be held in 1900 has decided that the Congress shall be divided into four sections. Among the questions to be discussed are the treatment and education of children, protected by the Assistance Publique or private benefactors, who for moral or other reasons cannot be placed in the family colonies, and reasonable assistance to be given to indigent tuberculous sufferers.

The Tenth Congress of French Alienists and Neurologists has been held at Marseilles. Dr. Flaissière, Mayor of Marseilles, was in the chair. Among those present were M. Floret, Prefect of the Department; M. Cossac, Procureur of the Republic; Dr. Livon, Director of the Marseilles School of Medicine; and M. Droumeau, Inspector-General of Asylums. Dr. Flaissière, in his opening speech, expressed his satisfaction in addressing a still larger audience than those assembled at former congresses. He congratulated the alienists and neurologists on the progress made by them in their department of science, and confidently prophesied that the problems still unsolved would by their researches and congresses be solved.

According to statistics presented to the Antialcohol Congress recently held at Nantes, France of all the European nations consumes the largest amount of alcohol. Her re-

quirements reach 14.19 litres of alcohol at 100° yearly for each inhabitant; the Belgians and Germans consume yearly 10.50 litres per head, the English 9.25 litres, the Italians 6.60 litres, the Swedes 4.50 litres, and the Canadians 2. If it is true that the birth-rate diminishes in proportion that alcoholism increases, the decrease in the French population is explained by the existence of an important factor. Increase in insanity has also coincided with the increase in alcoholism. In 1838 there were from 14,000 to 15,000 patients in the lunatic asylums, now there are 100,000. Suicides which have their origin in alcoholism are also becoming more frequent. In the North department these suicides have increased sixfold.

By a new regulation of the Assistance Publique gratuitous consultations will be given at the Paris hospitals in the outdoor department on Sundays and festivals. Admittance is from 8 to 9. At 9 the consultations begin.

The Paris Medical Faculty has awarded the Lacaze prize for the best contribution to the study of typhoid fever to Dr. Widal, Professeur Agrégé of the Medical Faculty. The value of the prize is £400.

The Municipal Council has appointed a Commission to study the question of the reorganisation and decentralisation of the services of the Public Assistance.

SHEFFIELD.

Meeting of the National Association for the Prevention of Consumption.—Death of the Treasurer of University College.—The Home Office Report on Dangerous Trades.

A MEETING called by and to be presided over by the Lord Mayor is to be held on May 10th with a view to the formation of a local branch of the National Society for the Prevention of Consumption and other forms of Tuberculosis. Sir William Broadbent and Professor Clifford Allbutt have promised to address the meeting, and among the other speakers will be prominent laymen and medical practitioners of the city and district.

The medical department of University College has quite recently lost by death a valued friend and worker. The late Mr. Edward Birks, who was a banker, was for more than a quarter of a century treasurer of the Medical School, and after the incorporation of this institution into University College he became treasurer of the last-named body. For a much longer period, moreover, he had been a lecturer on botany and only relinquished this post when his course of lectures no longer became necessary owing to that branch of study being provided for at the University College. By his colleagues he was greatly esteemed and his many services to the Medical School and to the medical profession will not easily be forgotten.

The recent report of the Commissioners appointed by the Home Secretary to inquire into the dangerous trades in this country, has, as far as it relates to the trades of this city, met with by no means an agreeable reception. The Chamber of Commerce has issued a comprehensive, and it must be admitted able, criticism of the report as far as it relates to the manufacture and use of grindstones and upon file cutting. It is complained that the Chamber received no proper intimation of the sitting of the Commission in Sheffield, and the opinion is expressed that there are evidences in the report of a want of special knowledge of the grindstone trade which could easily have been obviated had someone representing the employers and the employed served upon the Commission. It is contended that file cutting by hand is a decaying industry, but one, nevertheless, much cherished by the workmen, on account of the independence of control which they enjoy, doing their work at their own times by piece and without interference. File cutting by hand is being continually superseded by machinery, and it is held that if the recommendations of the Commission are adopted, the extinction of the industry will be expedited. In addition to this report of the Chamber of Commerce, the File Manufacturers' Association has the report of the Commission under consideration, with the object of giving expression to their views of the recommendations.

THE Queen of the Hellenes has bestowed a medal and diploma upon the English nurses who took part in nursing the wounded Greeks in the late Greco-Turkish war.

CORRESPONDENCE.

REGISTRATION OF COLONIAL DEGREES.

SIR,—A small paragraph in the report of the Proceedings of the Executive Committee of the General Medical Council on February 27th last, under the heading "Colonial Degrees," deserves the attention of all colonial practitioners, and also of all those interested in the higher education of women.

In 1897 Calcutta University conferred its M.B. degree on a woman graduate, who was then awarded the "Elgin" Scholarship, on condition that she obtained a registrable British qualification. Finding that women are not yet admitted to the Fellowship of the Royal Colleges of England and Scotland, she passed the examination of the Irish College of Surgeons, and received the diploma of Fellow in May, 1898. Application was made to the Registrar of the General Medical Council, who registered the M.B. degree, but refused to register the Fellowship diploma, on the grounds that "a colonial qualification can be added to a name on the general *Register* as an additional qualification, but British qualifications cannot be so added to names on the Colonial List." This is the opinion of Mr. Muir Mackenzie.

Part 2, Section XIV, of the 1896 Act, states that the provisions of the Medical Act, 1859, shall apply in the case of colonial practitioners when registered under the Act of 1886.

This lady *was* registered under the Act of 1886, and therefore appears entitled to have an additional qualification added to her name on the Colonial *Register* under Section XXX of the Act of 1858. As the non-registration of this Fellowship diploma debars the holder from appointments to which she legitimately aspires, and the Registrar informs me that similar applications have been refused on previous occasions, I have applied to the Privy Council for a direction to the General Medical Council, so that the question may be definitely decided; though, as it affects many colonial students, I should have preferred the application to have been made by the Irish College of Surgeons or the Scottish Association for the Medical Education of Women.—I am, etc.,

Edinburgh, April 20th. CHARLES FREDERICK KNIGHT, M.D.

CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW OFFICERS.

SIR,—The question of a central fund for Poor-law superannuation is still an urgent one in that service, and it is hard that members of this branch of the civil service should be so handicapped with regard to promotion. The hundreds of local pension funds scattered over the country, each carefully guarded by a watchful Board of Guardians, should be united into a central fund, and it is high time that this amalgamation should take place. The British Medical Association, through its Parliamentary Bills Committee, is the only body actively moving in the matter, and it is to be hoped that the Poor-law Association will soon follow and have a Bill introduced amending the Act.

A case occurring last week at the meeting of the Retford Board of Guardians illustrates the practical working of the present Act. A nurse of 44 years of age and of nearly twenty years' experience attended before that Board as the only applicant for a vacancy. The chairman pointed out to the members that, should this nurse become incapacitated from any bodily or mental ailment, she would at once become entitled to a pension from the Retford Board, even if she had only been in their service a few months. Naturally after this the candidate was refused the appointment, and after readvertisement the Board hope to get a nurse with smaller claims on their fund. Had this applicant not tried to provide for her old age by joining the superannuation fund, she would without doubt have secured the vacant post. Such is the bar to promotion blocking the way of ambitious officials.—I am, etc.,

April 21st. POOR-LAW MEMBER.

THE AMENDMENT OF THE MEDICAL ACTS.

SIR,—My attention has been drawn to the letter of Mr. Victor Horsley in the BRITISH MEDICAL JOURNAL of April 22nd, entitled, "The Amendment of the Medical Acts." As the lawyer who procured the conviction of Eastburn, one of the seven unsuccessful cases referred to by Mr. Horsley, I

desire to point out that the reason assigned by him for that case being ultimately unsuccessful is not the correct one. He says: "The defendant was convicted and fined, but on appeal the conviction was quashed not from any failure to interpret the law correctly, but because of the failure on the part of the lawyers who conducted the prosecution in the way of formulating the evidence, a purely technical point which has nothing to do with the interpretation of the Act. It should be remembered that the legal technicality of Scottish law is even more confused than that of English law."

The fact is, that the evidence was clearly formulated, and was strong enough to establish that the accused had violated Section XL of the Act; but, unfortunately, the judge of first instance before whom the accused was tried convicted him on one branch of Section XL of the Act, contravention of which branch was not charged against him. It was upon that ground the conviction was quashed by the Superior Court, and when doing so the judges expressed their opinion that the complaint was not relevantly laid, which, of course, it was not, as it was not framed to meet the conviction obtained.

It is true that legal technicalities of Scottish law are not favourable for securing convictions under a section so vague as is Section XL, and one which contains so many alternative offences. It cannot be doubted that it would be satisfactory to have a clearer section in a stronger and amended Act, and to an improvement of the law in that direction the General Medical Council might profitably give their attention. In any event, it must not be forgotten that the issue of every case depends largely on the idiosyncrasy of the particular judge who tries it, whether he be one of first instance or appellate.

Indeed, until the Act be amended, the medical profession is only half protected, because Section XL only strikes at the man who pretends to have one of the registrable qualifications, and leaves the large and dangerous class which openly disclaims connection with all schools and universities, yet practises various branches of medicine and surgery, to be dealt with by the slow, cumbrous, and uncertain methods of the common law as common cheats and swindlers.—I am, etc.,

R. P. LAMOND,
Mem. Fac. of Procurators, Glasgow.

West George Street, Glasgow, April 25th.

CONSUMPTIVE PATIENTS SENT TO NATAL.

SIR,—There is a growing practice among medical men in this country of recommending consumptive patients to go to Natal and other parts of South Africa, and under certain conditions the advice is good, but there have been cases in which that advice has been followed by lamentable consequences.

In those cases where the disease is only threatened or has become but slightly developed, and there is a reasonable prospect of recovery, provided that the patients have sufficient means of their own for their support, let them go to South Africa by all means, but not otherwise.

The facts should be known that, as regards Natal (and the same may be said of other parts of South Africa) there is no provision for the treatment of consumptives otherwise than in the hospitals—that the expenses in cases of sickness are greatly in excess of the expenses in this country—and that the private benevolence of the small European community is apt to be overstrained.

It is, therefore, extremely undesirable that invalids in the last stage of consumption should be sent out there to die, or to be sent back in a dying condition.

I write this letter by desire of the Government of Natal in the hope that by its publication in the BRITISH MEDICAL JOURNAL medical men in this country may realise the position more clearly.—I am, etc.,

WALTER PEACE,
Agent-General for Natal.

Natal Government Agency, Victoria Street, S.W., April 26th.

"DEATH IN THE POT."

SIR,—Since writing my letter of April 7th (BRITISH MEDICAL JOURNAL, April 22nd, p. 988) I have ascertained that a not infrequent cause of the enamel of a saucepan chipping off is a blow on the outside caused by dropping the saucepan on a brick or stone floor, or hitting it against a stone sink or brass tap. In my letter I referred to having pricked one of my fingers with a piece of powdered enamel when gently rubbing it between finger and thumb. I then thought I had extracted the piece in its entirety, but my finger continued very painful for between two and three weeks, and it was only at the expiration of that time that I noticed a speck at the seat of pain. Using the point of a double-bladed scalpel, I lifted this out and found it to be a little piece of glass not much bigger than the mite in a cheese. After its removal the pain entirely ceased, and the finger at once got well. I could not help asking myself what would have been the result had this little foreign body been caught in the appendix. In many cases I have no doubt Nature would have thrown it off, and it would have been carried onwards with the fæces; but on the other hand I can quite understand its being detained and setting up inflammation and abscess, and even working its way into the peritoneal cavity.

The more I have considered the matter the more convinced am I that it will be found this enamel, when it gets detached, is the cause of much of the intestinal mischief of the present day. My friends, whom I have felt it my duty to mention my opinion to, have one and all agreed with me, and one doctor was so horrified at what he saw when examining the enamel under a lens that he at once determined to use nothing in future in his own kitchen but tin-lined saucepans, and a lady resolved to do the same.—I am, etc.,

H. W. SHARPIN.

Brighton, April 22nd.

THE MEDICAL SICKNESS AND ACCIDENT SOCIETY.

SIR,—Some months ago, as a member of the above Society, I ventured to draw the attention—in the BRITISH MEDICAL JOURNAL—of the members generally to the hardship which is inflicted upon them by bringing all participation in the benefits of the Society to an abrupt termination on attaining the age limit of 65 years, just at a period of life when pecuniary assistance would be of inestimable service to many of its members. I also suggested that as the funds accumulated the age limit should be extended so far as the funds in hand would permit—say from 65 to 70 years—in place of the proposed payment of a quinquennial bonus which will be entirely inappreciable and will benefit nobody.

In a report which appears in the JOURNAL of April 15th your readers are told that "the quinquennial valuation is now in progress, and that there is every reason to hope that the Committee will be able to announce to the members at the general meeting to be held in May that a considerable surplus exists." We are also informed that the reserve funds amount to over £126,000. This pronouncement is very encouraging, and goes to prove that the Society is in a sound and prosperous financial condition. It appears the surplus funds may be disposed of in any way the general meeting of members may determine; and my object in writing is to express the hope that the general meeting will abstain from frittering away the surplus in payment of an insignificant dole, as was done on a former occasion, but will, on the contrary, allow the funds to accumulate so as to enable the Committee to abrogate, or at least to extend the age limit, and make some tangible provision for the declining years of the members. My former communication evinced considerable interest on the part of my fellow members, and my object in reopening the subject is that it may be as fully and frankly discussed as its importance deserves.—I am, etc.,

E. T. DAVIES, M.D.

Liverpool, April 24th.

AN APPEAL.

SIR,—Will you kindly allow us to call the attention of members to the case of Dr. J. T. Cooke, who is now suffering from phthisis. He took the double qualification in Edinburgh in 1885, and has since worked hard and steadily as an assistant in Northumberland and in Radcliffe, Lancashire. For nearly three years, however, he has been able to do nothing but take a few voyages as ship-surgeon, and he is now helpless and confined to his room. Having a wife and three children dependent on him his resources are quite exhausted, and unfortunately he has no relations or friends to fall back on. The local medical men have already opened a fund for him, but the case is one requiring more effectual and general help. We desire to raise enough money to enable his wife to

take a boarding house for hydro patients and others in Buxton. Contributions will be thankfully received and acknowledged in the Journal by:

E. Stanmore Bishop, F.R.C.S.,
3, St. Peter's Square, Manchester.
J. C. Eames, M.D.,
Barnfield House, Stoneclough, near Manchester.

Sums promised or paid to Mr. Stanmore Bishop:

	£	s.	d.
Mr. T. Jones	5	0	0
Dr. S. Buckley	1	1	0
Dr. Donald	1	1	0
Dr. Wild	0	10	6
Mr. Stanmore Bishop (Or if necessary £2 12s. 6d.)	1	1	0
Dr. Hannah (Buxton)	1	1	0

THE PHARMACY BILL, 1899.

Sir,—The object of the Bill introduced into the Lords, backed by all the weight of a Lord Chancellor's influence, is to enable a company to carry on the business and use the description of a pharmaceutical chemist or chemist or druggist. It is difficult to see the object of this provision, for clearly it is only an extension of the so-called "widows clause" of the Pharmacy Act, 1868—a clause open to grave objections, and the most obvious blot on an otherwise fairly satisfactory measure.

Personal qualification and personal responsibility are of the very essence of the relation between druggist and medical practitioner, and it is to preserve this personal element that I would like to see the medical profession taking up a position decidedly hostile to the new Bill.

Moreover, in the interests of the general public, this Bill should never be allowed to become law, for under it the protection conferred by the last Pharmacy Act is likely to be distinctly curtailed, and, seeing the large and increasing number of cases of accidental poisoning that occur in these days, one would imagine that any new legislation would err rather on the side of stringency than on the reverse, and afford a greater measure of protection by more closely scrutinising and restricting the sale of drugs.

It is true the proposed law provides that a company shall only be allowed to carry on the business and use the description of a pharmaceutical chemist "so long as its business is *bonâ fide* conducted by a manager or assistant being a duly registered pharmaceutical chemist, or chemist or druggist, as the case may be;" but is it not true that the incorporation and registration of limited liability companies have primarily a financial object?

With such an object in view a company may employ a qualified chemist to act as "cover" to as many unqualified assistants as may be thought necessary for the production of a certain financial result.

It is a somewhat lurid commentary that, so far as this year has gone, 25 per cent. of convictions under the Food and Drugs (Adulteration) Act, Pharmacy Act, and kindred Acts, have been obtained against drug stores and similar companies trading as chemists.

The compounding of drugs and the dispensing of prescriptions are not matters which can properly be employed for the production of inflated dividends, any more than the practice of medicine, surgery, and midwifery can, and it is to be regretted that a Bill should be introduced which will enable a company to use these methods.

This is not only a question for chemists and druggists: it is also one of considerable moment to medical men, for with the loss of confidence between prescriber and dispenser, which I think must inevitably ensue on the passage of this Bill, how are we to treat our patients satisfactorily? Can we be certain that the prescriptions we write will be accurately dispensed, and that pure drugs only will be used in their composition?—I am, etc.,

Liverpool, April 18th. R. Fielding-Ould, M.A., M.B.

DISTRICT NURSES AND THE MEDICAL PROFESSION.

Sir,—Now that the district nurse seems to be a factor with which we are to reckon in most places, the question of friction between nurses and medical practitioners, and the best way of avoiding it, which Dr. Hurry has raised in your columns, is one which should be of interest to most general practitioners.

Dr. Hurry says in his letter that the Committee of Management, though eager to do what they can, do not realise that the nurse assumes "responsibilities for which she is not trained," etc. Now, would this difficulty ever have arisen if the medical profession were represented on this Committee? Obviously not; and on general principles also the medical profession should be represented. The smooth working of every nursing association depends upon the co-operation of the medical profession, and every practitioner who has patients amongst the poor has some interest at stake.

I am sure that any Committee which has the best interests of district nursing at heart, would gladly welcome medical practitioners amongst their number, and those who represent the nursing profession, too, will readily see that this arrangement is what is required everywhere to increase the usefulness and ensure the success of the associations. And if anyone could be found with sufficient boldness to accuse the medical profession of defection in this matter, in that they have not asserted their right to representation on such committees, and to give to them that light and leading which they are seeking and have not found, could the position be defended?

In the interests of the poor patients therefore, in the interests of the nurses and practitioners, in the interests of peace and good order and of all concerned, is not this the opportune moment, when opinion on this matter is still in a liquid condition, for the medical profession to seek representation on every nursing committee? or shall we wait until the usefulness of the scheme is hampered with innumerable abuses, and then bewail the sad state of affairs? Whom shall we have to blame?—I am, etc.,

Torpoint, Devonport, April 18th. James A. Samuel.

NURSING IN IRISH WORKHOUSES.

Sir,—From a psychological point of view Dr. Thompson's letters on the above subject are rather interesting, but for all practical purposes, even as evidence for his own side of the question, they are absolutely worthless. He first of all wrote that having consulted his friends, surgeons of county infirmaries, he found that neither Dr. Moorhead nor Dr. Davison had for years employed a nurse trained in a county infirmary. When he finds this statement of his is not true, it never enters his mind that an apology might not be out of place. I must, however, admit that he pays me a great compliment when he asks if the training given in certain infirmaries is to be condemned simply because I say it. Here he forgets that I stated distinctly that I was speaking, or writing, what was entirely my own opinion, and he never seems to imagine that there may be a great many others who, though they have not stated it in public, yet hold opinions similar to mine. He reiterates his opinion of the great value that should be attached to certain county infirmaries as training schools for nurses, and without giving any data as to the course of training in these institutions, he seems to think his word should be accepted absolutely.

Surely Dr. Thompson has lived long enough to know that the present is a sceptical age, and he cannot expect to convince Local Government Boards and medical men generally without very much greater proof than his own word.

As regards the instance I gave, he says it is strange I did not see the nurse's certificate and made no inquiry as to her qualifications. Here again he gives evidence of being sceptical enough about other men's sayings, and at the same time shows he knows nothing of what he writes about. As a matter of fact, I have nothing whatever to do with the appointing of a nurse. The guardians make their own selection which is subsequently confirmed or otherwise by the Local Government Board. As for the nurse getting at the carbolic acid bottle, Dr. Thompson with all his commendations would appear not to be able to trust one of his nurses to make a 1 in 20 or 40 carbolic lotion. With us all lotions and dressings are kept in the surgery, to which nurses have access, and neither carbolic nor any other acid is ever kept in the wards. We are not quite so far behind as Dr. Thompson thinks. I am afraid it would be rather tiresome to follow Dr. Thompson further in his line of argument, which is too particular and not general enough for practical purposes, for which, as anyone must see, the Local Government Board can alone legislate.

In conclusion I have only to say that in my opinion the Local Government Board is to be highly commended for fixing the standard of qualifications for workhouse nurses as high as they have done. It was time to do it and it was well to do it right.—I am, etc.,

Ballymena, April 24th. W. R. Davison.

MEDICAL MEN AND ADVERTISEMENTS.

Sir,—For some time it has been observed and commented on that certain advertisements show increasing indecorum, advertisements about medicines having been the worst offenders. Many have reached us which are simply indecent, and it is time this was stopped. Some, professing to be for medical men only, fall into other hands, sometimes where we should most object to see them, sometimes into the hands of the ignorant, who may think that we countenance or do such things. Our profession must stand clear of every shadow of what is objectionable if we are to retain our proper rank and due social position, and if each of us is to prosper. Our duty compels us to see and do things of such a delicate and personal nature that we ought to be doubly careful to avoid the least approach to indecorum. First, because it is right, and because we owe it to our profession. Secondly, because each medical man stands on a pinnacle, and is a target for idle tongues and flippant opinions. Thirdly, because any lower standard of conduct will assuredly tell against us in the matter of income.

But as to unseemly advertisements the remedy is for everybody to refuse to buy any article so advertised. Trade is nothing without customers, and if traders find that doing so-and-so makes customers keep aloof, they will soon change their tactics. At present numbers of people will refuse to buy. And as to advertisements of any kind, no medical man's name should appear in them. To suffer one's name to be seen as recommending any drug or recipe is most derogatory; it pulls down the writer, and lowers the whole profession. We have especial need to stand at all times clear and upright.—I am, etc., F.R.C.S.

April 21st.

MEDICAL AID ASSOCIATIONS.

Sir,—May I ask of your courtesy a brief space in which to protest against the fatuous suggestion of some of your recent correspondents upon this burning question, that admission to the membership of the Association should in future be barred to those gentlemen whose misfortune it is to be compelled to be the holders of these unsavoury appointments? May I ask the advocates of this measure what earthly good they suppose would be effected by the passage of such a resolution by the Council? Should we be one hair's breadth nearer that solution of the difficulty to which we all wish to attain?

The Association, powerful as it is, is not the whole profession, and the resolutions of its Council have no authority that will coerce non-members into refusing to accept medical aid clubs. As the unwilling incumbent of one myself, I would earnestly ask the Council of the Association not to waste their time and energies in passing useless measures of the kind lately advocated, but to *really* assist in our emancipation by bringing the strongest possible pressure to bear on the General Medical Council (which alone has the power to stay the evil) to make the holding of such appointments impossible, on pain of withdrawal from the *Register*.—I am, etc.,

April 3rd. One in Bonds.

"SPERMINUM POEHL."

Sir,—My attention has been called to a circular which has been issued in French by the *Journal Russe de Chimie Médic. et de Pharm.* The circular is an advertisement of Poehl's spermine, a drug to which it attributes universal therapeutic value. It states that all reports on the action of this substance will be considered by a special international Committee of clinicians and physiologists, whose names are given. Those representing Great Britain are Drs. Lauder Brunton, W. H. Dickinson, McHardy, Harrison, Payne, T. R. Fraser, and myself. The use of my name in this connection is entirely unauthorised. I know nothing of the drug, nor of any such committee. I imagine the same must be true of the others whose names are mentioned.—I am, etc.,

London, April 23rd. W. D. Halliburton.

ANTENATAL THERAPEUTICS.

Sir,—Dr. Ballantyne's lecture on this subject reminds me of an experience of my own which occurred about fifteen years ago, and as it tends to show that the subject is deserving of more attention than it has hitherto received, it is fitted to supplement and to support Dr. Ballantyne's contention. The list of drugs mentioned by Dr. Ballantyne in this connection may, I am convinced, be considerably extended. He adduces evidence that syphilis, malaria, and abortion are all controllable by the administration of appropriate medicines to the mother; but can anything be done by drugs to prevent the idiocy, the malformations, deformities, and monstrosities to which he refers? I believe so.

Mrs. L. had had six children, one of whom was idiotic, three were rickety, and the youngest died of hydrocephalus within a year of birth. Shortly after this event the mother told me with natural anxiety and dread that another baby was expected. Remembering a brief and suggestive note which I had seen in the British Medical Journal a short time before by Mr. Nourse of Exeter on the apparent value of phosphorus in preventing malformations, I prescribed for Mrs. L. a mixture containing 2 grs. of calcium hypophosphite and 4 grs. of sodium hypophosphite for a dose. This medicine she took as advised till the birth of the child—that is to say, for the space of about six months. The result was as fine and as healthy a child as one could wish to see.

A second time—about two years after—the mother came to me again for the same reason, when the former treatment was again pursued, and with as happy a result.

It is true that I had advised the mother also regarding diet and all other hygienic matters that could influence her health for good; but there was so little that needed correction in her habits and surroundings—she lived in the country, moreover—that I am compelled to attribute to the medicine the chief credit of the result.

May I express the hope that this treatment will soon be further tested by those who may have the opportunity of doing so, and that the results will in due course be reported?

Of course where iron is indicated it would be decidedly advisable to add to the mixture some ferric hypophosphite (which is soluble with the help of a little citrate of potash), and even quinine hydrochlorate might in some cases be included with advantage; but unless these drugs are called for by the patient's condition, it would be best to try the above-mentioned salts of phosphorus alone.—I am, etc.,

Kilchattan, Bute, April 17th. W. Fleming Phillips.

TO KEEP MOSQUITOS ALIVE.

Sir,—In reference to Dr. Manson's letter on this subject in the British Medical Journal of April 1st, I would recommend those interested in mosquito keeping to feed the insects on sherry and sugar. After trying banana, lychee, raw meat, syrup, and many other things, I discovered that this mixture not only kept them alive, but made them remarkably fat and healthy.

In studying the life-history of different species of mosquitos in Hong Kong, Perak, and North Borneo, I have successfully used it for several years. The mixture consisted of about a saltspoonful of dry sherry and an equal quantity of brown sugar, and was changed every two or three days. A small quantity of water should also be supplied, in a separate vessel, to keep the insects in good condition, and I know of nothing better for confining them than an inverted finger glass. This should be placed on a piece of coarse flannel lint or similar material, to afford ventilation, under the rim of the glass, and exclude ants.

Investigators of the mosquito-malaria theory may be interested to learn that many species of mosquitos (if not all of them) refuse to feed on human blood for some days (about six or generally eight) after emerging from the larva. I discovered this by inserting the tip of my fourth finger through a small hole in the paper, on which I placed the inverted finger glass during these experiments. When 12 or 13 days old, however, the presence of the finger tip invariably caused great commotion amongst all the female members of the family, who quickly discovered it, and feasted ravenously. The males are not blood suckers, but I have kept them for weeks in good condition on sherry and sugar.—I am, etc.,

C. V. Creagh, C.M.G.,

Southsea, April 11th. Late Governor of North Borneo and Labuan.

OBITUARY.

Sir WILLIAM ROBERTS, B.A., M.D.Lond., F.R.C.P., F.R.S.,

Consulting Physician to the Manchester Royal Infirmary.

William Roberts was born at Bodedern, Anglesea, on March 18th, 1830. He was the seventh and youngest son of Mr. David Roberts, of Mynydd-y-gof, and Sarah, daughter of Mr. J. Foulkes, of Machynlleth, Montgomeryshire. Mr. David Roberts farmed his own land in Anglesea, and in addition practised as a surgeon in the neighbourhood, where indeed he was the only doctor. The homestead at Mynydd-y-gof was a well-known centre of hospitality for the neighbourhood, and Sir William's parents were strong supporters of Methodism, which then, as now, was a great power in Wales. Both Sir William Roberts's parents lived to a great age; several of his brothers achieved distinction in Manchester and elsewhere, and one of them, Alderman J. Foulkes Roberts, was Lord Mayor of Manchester in 1897-98.



Sir William Roberts, B.A., M.D Lond., F.R.C.P., F.R.S.
(From a photograph by Elliott and Fry.)

William Roberts was educated at Mill Hill School, and entered University College, London, as a medical student in 1849-50. He had a distinguished career as a student at University College, and attracted the attention of his teachers by the earnestness and thoroughness of his work. His interest in physiological problems, which persisted throughout his life, was aroused during his early student career by the influence of the teaching of Sharpey. Walshe, Garrod, Jenner, Quain, Hare, and Erichsen were amongst the teachers at the time that Roberts was a student, and Wilson Fox and George Buchanan were his contemporaries, the late Sir Russell Reynolds being slightly senior to him. Roberts was dresser to Mr. Erichsen in 1851-1852 when Joseph Lister (now Lord Lister) was House-Surgeon, and Lord Lister recalls at the present time his alertness and brightness of manner, combined with great assiduity and thoroughness in all his work. He graduated as a B.A. in the University of London in 1851, taking the highest honours in Chemistry and Animal Physiology, and became a Member of the Royal College of Surgeons and Licentiate of the Society of Apothecaries in 1853. In 1853 he also took the degree of M.B., obtaining the Scholarship and Gold Medal in Physiology and Comparative Anatomy, the Gold Medal in Medicine at the final examination, and the Medal and Exhibition in Chemistry at the first M.B. He took the degree of M.D. at the University of London in 1854, and in 1864 was elected a Fellow of University College, London. In addition to studying in the Medical School of University College, William Roberts afterwards studied in France and Germany, and there doubtless laid the foundations of his intimate knowledge of the medical literature of these countries, and to the end of his life he was thoroughly conversant with the modern advances made abroad, more especially in his own branch of medicine.

On returning from the Continent he was appointed in 1854 House-Surgeon to the Manchester Royal Infirmary, and very soon afterwards—at the early age of 25—on July 26th, 1855, he was appointed, without any opposition, to the post of full Physician to the Royal Infirmary, and Lecturer on Anatomy and Physiology in the Royal School of Medicine, Manchester. This appointment is probably unique, as although occasionally a medical school appoints a man as young on its staff, such an appointment is rarely made without opposition. He was appointed Lecturer on Pathology in 1861, and in 1863 Lecturer on the Principles and Practice of Medicine at the Owens College, with which the Royal School of Medicine had become united.

Dr. William Roberts remained on the staff of the Manchester Royal Infirmary until February 26th, 1883. He was thus on the active staff for nearly 30 years, and during the whole of that time he was an energetic teacher of Clinical Medicine, and played a great part in the development of this great Provincial School of Medicine. His clinical teaching, which appealed more especially to the senior and advanced students, was remarkable for its thoroughness and lucidity, and his custom was rather to investigate thoroughly at one visit two or three of the cases in his wards, than to make more general and discursive remarks on a greater number. The high character and efficiency of his teaching were recognised not only by the success of his pupils but also by his appointment as the first Professor of Medicine in the Victoria University, when the University received the charter enabling it to confer degrees.

He was admitted a Member of the Royal College of Physicians of London in 1860, and in 1865 he was elected a Fellow of the College, and his connection with that body remained singularly close throughout his life. He delivered the Gulstonian Lectures before the College in 1866, the subject being the Use of Solvents in the Treatment of Urinary Calculi and Gout. He gave the Lumleian Lectures in 1880, and served on the Council in 1882, 1883, and 1884. He was a Censor in 1889 and 1890, Croonian Lecturer in 1892, and Harveian Orator in 1897. In the Lumleian Lectures on the Digestive Ferments and on the Artificially Digested Foods, Dr. William Roberts brought together the results of an investigation on the digestive ferments extending over many years. These lectures and the work on which they were based probably form one of the most exact contributions in our language to a subject which is not only of great theoretical interest but of everyday importance in practical medicine. This happy combination of exact scientific inquiry on the one hand, and of recognition of the needs of practical medicine on the other, was perhaps one of the main characteristics of all his work. His original work on the digestive ferments dealt more especially with the activity of pancreatic extracts, and the nature and conditions under which the digestive ferments produced their action on the starchy and proteid constituents of the food. He elaborated his conclusions on this subject in a paper on the Estimation of the Amylolytic and Proteolytic Activity of the

Pancreatic Extracts, communicated to the Royal Society in 1881. He also developed the practical side of this question in a series of five lectures delivered at Owens College in 1885, and subsequently published in Lectures on *Dietetics and Dyspepsia*, and in 1891 in his work, *Collected Contributions on Digestion and Diet*, he again brought up to that date the whole of his work in this branch of physiology and medicine.

In the Croonian Lectures in 1892 on the Chemistry and Therapeutics of Uric Acid, Gravel, and Gout, he made most important contributions to our knowledge of both these disorders. This work, like that recorded in the Lumleian Lectures, was the result of a long series of observations characterised by extreme precision in execution and great originality of conception. His observations on the relationship existing between the forms in which uric acid exists in the blood, in the urine, and in gouty deposits were most interesting and instructive. Although Sir William made no contribution to the question which is at present exciting some attention, as to whether uric acid exists normally in the blood or not, his experiments showed conclusively that if it did, it would be present in the form of a quadriurate, and he demonstrated in the most interesting manner how these quadriurates, as the result of comparatively simple chemical interchanges, could be decomposed with the formation of the acid urates which are so characteristic of gouty deposits. He further demonstrated that by other chemical decompositions the quadriurates might readily liberate free uric acid. He showed that uric acid in an alkaline medium, such as the blood serum, or an artificial serum, was dissolved in the form of a quadriurate, and that, provided the quantity dissolved was sufficient and the reaction of the medium suitable, this quadriurate in the course of a variable time decomposed, liberating an acid urate, and that the rapidity of this decomposition was more especially favoured by the amount of sodium bicarbonate and sodium chloride and other salts present in the medium. In other words, given the presence of a quadriurate in an alkaline fluid such as the blood plasma, sooner or later as the mere result of chemical interchanges, provided a sufficient quantity of the quadriurate was present, a decomposition of the quadriurate must take place with the formation of the more insoluble acid urate. He showed further that in certain fluids such as synovial fluid this decomposition occurred more quickly than in others. By these experimental observations an important contribution to our knowledge of a portion of the pathology of gout was made. Similarly his observations on the conditions determining the precipitation of uric acid in the urine threw great light on the nature of gravel, since his experiments established the fact that the quadriurates in an acid medium like the urine readily decomposed liberating free uric acid, and that this decomposition was profoundly affected by such conditions as the reaction, the amount of salts present, quantity of pigment, and so forth. He demonstrated that a great many other factors were concerned in the formation of gravel besides a mere excess of uric acid in the blood or in the urine, and that the degree of concentration and the reaction of the urine were factors as important as the mere excess of uric acid. In this way he afforded a most satisfactory explanation of a well-known fact, that dilute urines often deposit uric acid abundantly, whereas in concentrated urines with an abundance of saline ingredients a deposit of urates occurs.

In the Harveian Oration delivered in 1897, he took as his subject, Science and Modern Civilisation, elaborating a theme that had been present to his mind for many years on the differences between the foundations of modern and ancient civilisations, the latter resting more on art, the former on science. He held strongly the view that modern civilisation was for this reason more stable and less liable to be destroyed by barbaric invasion than was the case with Roman and Grecian civilisation.

In 1865 Dr. William Roberts brought out the first edition of his work, *A Practical Treatise on Urinary and Renal Diseases*. This work was a most important contribution to English scientific medicine, as, notwithstanding the able productions of former writers on the subject, there was no book in the language which contained so complete an account, not only of the more common but also of the rarer forms of renal disease. To illustrate this it is sufficient to refer, even at the present time, to the chapters on cystic diseases of the kidney and on chyluria. This work made the reputation of its author, not only on account of its containing a vast amount of valuable information collected from various sources with reference to renal diseases, but perhaps more so on account of the abundant evidence it contained of the original work of the author. It is not often that a textbook produced by a practical physician is quoted as authoritative on physiological questions by the writer of a textbook on physiology; but the work that Dr. Roberts carried on with reference to the facts of calculous anuria and the light that this threw on the physiology of the kidney was such as to call for remark in Professor Michael Foster's well-known textbook. Dr. William Roberts showed that when the functions of the kidney were arrested owing to obstruction of the ureters a peculiar train of symptoms was produced, which differed in many respects from the uræmia of Bright's disease, and however difficult the explanation of this may be, the fact remains that not only was it an important contribution to practical medicine, but it was of equal importance to the physiologist. Although probably the chapter on Suppression of Urine in this well-known textbook is the one that contains the most striking evidence of original observation, yet there are records of many other original experiments, such as those on the diurnal variations in the acidity of the urine, and numerous observations on the estimation of sugar in the urine by fermentation, and also several tests and improvements of tests for the recognition of proteids and sugar in the urine. His experiments on the estimation of sugar by variations in the density in the urine after fermentation afford again a striking instance of the character of the man's work, the painstaking accuracy, the neatness and simplicity of the method, the exactness of the results obtained, all show his striking capacity for original observation. During his last illness and up to a short time before his death he was greatly interested in a further modification which he had devised in this method, and on which he was still making observations. The *Practical Treatise on Urinary and Renal Disease* soon reached a second edition, and the fourth edition was published in 1885. Without disparaging any of the other numerous works, it may be fairly said that it was the most important work produced on the subject. He also contributed articles on Wasting Palsy, Diseases of the Kidney to Reynolds's *System of Medicine*, Renal Diseases to *Quain's Dictionary*, and Gout to Allbutt's *System of Medicine*.

Dr. William Roberts was elected a Fellow of the Royal Society on June 7th, 1877, and he served on the Council in 1890-1891. His researches in histology, physiology, and pathological chemistry were the grounds for this honour. His most important papers communicated to the Royal Society were: (1) On Peculiar Appearances exhibited by Blood Corpuscles with Solutions of Magenta and Tannin, *Proceedings of the Royal Society*, 1863; and (2) Studies of Biogenesis, published in the *Philosophical Transactions* for 1874. The former paper dealt with the staining reactions and structure of the blood corpuscles and the peculiar manner in which tannin causes the hæmoglobin to be excluded, and the results detailed in this paper were used for the next thirty years in the routine instruction of succeeding generations of medical students. In the paper on biogenesis Dr. Roberts broke new ground; this research dealt with the question of spontaneous generation, and of what was known in those days as the "panspermic" hypothesis. He records a number of most carefully devised experiments with reference to the sterilisation of liquids such as milk, urine, hay infusion, etc., and the conditions affecting the sterilisation and the growth of bacteria in such liquids, such as the intermittent application of heat, the degree of heat necessary, discontinuous sterilisation, etc. He also deals with the influence of the reaction of the medium, showing by many ingenious experiments that alkaline nutritive media were far more difficult to sterilise than acid. His paper is most interesting reading at the present day when we remember the great advances that have been made in sterilisation and in bacteriology. The conclusions arrived at in the paper communicated to the Royal Society were further developed in the year 1877, on the occasion of the visit of the British Medical Association to Manchester, when he gave an Address in Medicine, taking as subject Contagium Vivum and its Application to Medicine.

Sir William Roberts's scientific work thus covered a very wide field, but whether dealing with histology, physiology, or practical medicine, all the work was characterised by the same scrupulous accuracy, and those who knew him well know the great number of control experiments of various kinds which were carried on often for years prior to any publication being made. It must also be remembered that all this scientific work was carried out during a period when the author was actively engaged in a large and rapidly increasing consulting practice in Manchester. The above short review of his work would not be complete without drawing attention to his first publication, an *Essay on Wasting Palsy*, published in the year 1858, which was characterised by the same thoroughness, and which affords further evidence that he was in no sense a specialist, but took a broad view of medicine. This essay was the first systematic treatise on this disease in the English language.

In 1879 Dr. Roberts received the Cameron Prize for his contributions to practical therapeutics, more especially in relation to the dietetic treatment of disease; and at the meeting of the British Medical Association at Cardiff in 1885, he delivered an address on Feeding the Sick. In 1895, when the Association met in London, he was President of the Section of Pharmacology and Therapeutics.

In 1885 Dr. William Roberts, greatly to his own surprise and without any previous communication to him, received the honour of knighthood, the first intimation of his preferment being a paragraph in a Manchester paper. The medical profession in Manchester and the surrounding district entertained Sir William at a banquet at the Queen's Hotel in celebration of this event.

In 1889 Sir William Roberts removed to London, chiefly to obtain more leisure from the incessant calls of a very large consulting practice, and during the last ten years of his life, whilst maintaining his interest in and actively pursuing several branches of scientific inquiry, he embarked on a new career of usefulness in the more official and administrative departments of the profession. In 1892 he was appointed a Fellow of the University of London, and soon afterwards became an active member of the Brown Committee—a subcommittee of the Senate of the University of London having the general management of the Brown Institution. His interest in this Institution was great, and, on the death of Sir Richard Quain in 1897, he was unanimously elected Chairman of this Committee, a post he retained until November, 1898. He represented the University of London on the General Medical Council from 1896 to the time of his death, and his keen interest in the great question of the provision of adequate university teaching in London was recognised by his appointment as a member of the Statutory Commission appointed in 1898 to deal with this matter. His rapid failure of health caused him to resign this only a few weeks ago. In 1893 he was appointed the medical member of the Opium Commission. He always looked back on his experience in India on this Commission as one of the most interesting events of his life. He took a broad view of the opium question, largely founded on the result of his keen observation of its supposed ill-effects whilst in India. In addition to carrying out the routine work of a Commissioner, he found time to bring before the profession the value of anarcotin as an antiperiodic. In addition to serving on the Opium Commission, Sir William Roberts in 1897 served on a committee appointed by the Home Office to investigate the question of the effects of moisture in weaving sheds on the health of the workers. Sir Henry Roscoe, who was one of his colleagues in this inquiry and a lifelong friend, having been a fellow student with him at University College, writes:

"One of the last as well as one of the most important subjects as influencing the health of the people in which Roberts took the greatest interest was a Home Office inquiry in 1897 into the effect of the use of steam in weaving sheds upon the health of the operatives in the Lancashire cotton mills. Sir William Roberts became my colleague together with Dr. Arthur Ransome, F.R.S., and all three being Manchester men we were well acquainted not only with the district but with the habits of the people. The evidence obtained and the report and recommendations sent into the Home Office were of so satisfactory a character that all danger of dispute between employers and employed, which at one time threatened to be serious, has been removed. To this end the high scientific abilities, professional knowledge and sound common sense of Sir William Roberts greatly contributed."

Although the long record of Sir William Roberts's scientific work and professional attainments is more than sufficient to account for the esteem in which he was held by his fellow practitioners, yet it was more especially the singularly affectionate and gentle disposition that lay behind an apparently reserved exterior which endeared him to a wide circle and which causes many to feel that his loss is irreparable. All those who have been privileged to know him will miss the kindly wit that sparkled on every occasion, and his friends know that it is no exaggeration to say that he was never known to express a harsh sentiment of anyone. Further, he was a man of the highest principles and his professional conduct was characterised by the greatest integrity.

Sir William Roberts was married in 1869 to Elizabeth, daughter of Mr. Richard Johnson. This lady died in 1874, leaving as issue one son, who died in 1893. During the last 20 years Sir William invariably spent some portion of every year at his country residence, Bryn, where he took the greatest interest in developing his estate. He was very solicitous for the comfort and well-being of his tenants, providing them with model farmhouses, replete with modern improvements. He was very fond of country pursuits, and, in addition, devoted a good deal of his time to the study of the flora of the district. He was also a keen fisherman, and the River Dovey flowing past his house afforded him excellent sport.

Sir William Roberts suffered severely from influenza some two years ago, and although in the course of time he recovered his usual alertness of manner, in the autumn of 1898 serious symptoms of ill-health developed, which in November were recognised to be dependent upon a severe internal affection. The malady slowly progressed until death on Sunday, April 16th. The funeral took place at Llanymawddwy, Merionethshire, the village near his country residence, Bryn, to which he was so attached, on Wednesday, April 19th. It was attended by his immediate relatives and a large concourse of friends, tenants, farmers of the neighbourhood, and school children bearing primroses. Dr. T. Harris, F.R.C.P. (a former House-Physician of Sir William Roberts), and Professor Thomas Jones, F.R.C.S., attended as representatives of the Medical Board of the Manchester Royal Infirmary. Professor Jones, in addition, represented the Senate of Owens College; and Dr. Matthews, of Levenshulme, came as one of his old Manchester pupils.

Dr. C. J. Cullingworth, who for many years was a colleague of Sir William Roberts in Manchester, has in response to our request sent the following tribute to his memory:

Of Sir William Roberts's scientific work during the years he resided in Manchester I leave others to speak, but I gladly avail myself of the opportunity of saying a few words as to the influence of his personal character upon the professional life of the place. My recollection of him dates from 1867-8, during which years it was my high privilege to be closely associated with him in his clinical work at the Manchester Royal Infirmary. Sir William Roberts was what men call an optimist. He believed in his fellow men and was always quick to recognise the good in them. He maintained that the motives of human action were much more frequently good than bad, and that we were much more likely to be correct if we judged men generously than if we judged them harshly. He never took part in or willingly listened to detraction. His nature was gentle, and he was studiously careful to avoid hurting the feelings of those about him. He would never allow himself to be dragged into a quarrel or even into a newspaper controversy. Notwithstanding his keen interest in passing events, he had no taste for public life and took no part in it. He disliked public meetings of all kinds, and had a singular distaste and inaptitude for every sort of committee work. Though an excellent host, he despised the popularity that comes from the lavish display of hospitality. His conversation sparkled with the unexpected, and was always exhilarating. He continually put things in new lights and set one thinking questions out afresh.

The carefulness and appropriateness of expression that characterised his writings were equally noticeable in his

everyday conversation. He was never slipshod; yet his keen sense of humour saved him from anything like pedantry. His buoyancy of spirit displayed itself in a quaint playfulness of speech and gesture, that remained with him to the end as one of his most striking and attractive characteristics.

It will be easily understood that, during the many years that he occupied the leading position in Manchester, the qualities that I have endeavoured to indicate, associated as they were with great strength of will and force of character, gave him a powerful influence. He became the sage counsellor to whom his brethren naturally repaired for advice, and his judgments were singularly shrewd, sober, and sensible. The tone of professional life in Manchester was raised by his influence and example to a high pitch, and few districts were so free from professional jealousies and petty rivalries and misunderstandings. All this made it not to be wondered at that his medical brethren in the North heard with very sincere regret of his determination ten years ago to remove to London, for it meant the withdrawal from amongst them of an influence that they could ill spare.

We are indebted to Dr. D. J. Leech, Professor of Materia Medica and Therapeutics, Owens College, Manchester, for the following:

The death of Sir William Roberts has caused deep sorrow not only in Manchester, but in Lancashire and the surrounding counties, for though ten years have elapsed since he went to reside in London, he was borne in affectionate regard in the district he had left by a very large circle both professional and lay. The position which for so many years he held as the leading consulting physician in the north-west of England was not quickly gained. For many years after he was appointed on the staff of the Manchester Royal Infirmary in 1856, he spent almost his whole time in the wards of his hospital or his little laboratory at home. He followed Jenner and Parkes, whom he delighted to call his masters, in his love of exact observation, and finding when he came to Manchester no provision for experimental work, he fitted up a small workroom in his own house, and was never subsequently without one. All the investigations he made and published were carried out at home and with his own hands. Even when ample laboratories were open to him at the Owens College, he never took advantage of them. He worked alone in his little room examining, weighing, and measuring everything himself, and trusting nothing to an assistant. He sought no appointment other than the one he held at the infirmary, and no special means for advancement in practice, but he laboured steadily on in the wards and his laboratory, not even at first writing much, but making his mark by such works as he did publish—for example, his essay on Wasting Palsy, and his contributions to the literature on urinary diseases. It was not until 1865, after the issue of his *Practical Treatise on Urinary and Renal Diseases*, that the reward came. The profession had found in him a man of sterling worth, and now the public began to appreciate him, and he rose very rapidly in name and fame.

His powers and his character alike caused him to be trusted by all, and for nearly twenty years he was the acknowledged leader of the medical profession in Manchester. As a clinical observer he was singularly acute; he had the faculty of being able to see at once the essential points in a case, and dismiss those of only secondary importance. As a therapeutist he was ready of resource and fertile in suggestions. There was always a freshness and originality in his remarks, so that those who consulted him about even the most ordinary cases felt they had learned something from him.

Sir William Roberts brought to bear on medical, as on all other matters, a wonderfully well-balanced judgment, and hence was regarded as one of the most reliable of advisers.

Single-minded and free from all jealousies and small ambitions, he never sought posts of position and power, but rather shrank from them. Honours indeed came to him, but they were not of his seeking. He worked hard all his life. From his consulting room he habitually adjourned to his cigarette and laboratory, and he was constantly revolving in his mind the problems which there came before him. Nevertheless he was ever bright and cheerful, often indeed almost playful, in his manner. No one appreciated a joke more than he, no one was more sympathetic with those in distress, and no one more kindly to those who wanted aid. He could, indeed, sternly reprehend what he thought was wrong, but he had a charitable mind, and always looked on the better and brighter side.

There were few of his juniors in Manchester who did not from time to time go to him for that sage and sound advice he was ever willing to give, and even after he left for London his counsel was often sought.

His memory will long live in the minds of his pupils, his fellow-workers, and many friends.

JOSEPH HUGHES HEMMING, M.R.C.S.Eng., L.S.A.,

Member of the Council of the British Medical Association.

The sudden death of Mr. J. H. Hemming, of Kimbolton, Hunts, from heart failure, at Northampton, on April 14th, at the age of 75, which we announced last week, was an event very deeply regretted by a wide circle of friends and acquaintances. Mr. Hemming was the second son of the late John Hemming, A.M., of Kimbolton, Hunts, whom he succeeded as a medical man in the place of his birth. During boyhood he attended local schools, but at the age of 14 he was severely burned by the explosion of fireworks in his side pocket on November 5th. This accident confined him to his bed for two years, and another year passed before the wound healed. The accident, however, did not retard his studies, as he read during his tedious recovery books of great writers from his father's library, and thus worked through the classics and every branch of a sound education entirely without help. At the age of 17 he held conversation with many of the learned men who visited his father.

He was articled to Dr. Roberts, of St. Asaph, and under him acquired much practical acquaintance with disease. He then proceeded to the University of Edinburgh, where he took a gold medal and other prizes. Sir James Y. Simpson, Professor Syme, and Sir R. Christison were his teachers, and he was rapidly advancing in his studies when the early death of his father cut short his career at the University. He became M.R.C.S.Eng. in 1848 and L.S.A. in 1849. He practised with great success in Kimbolton and the surrounding country for forty years; took Dr. H. A. Hallett as his partner in 1875, and retired from practice at the end of 1889. His practice was wide, his patients were of all classes, and he was equally ready to render service to the poor and to the rich. He had an excellent reputation for surgical cases, in the treatment of which he was specially successful, as became one of Syme's pupils. Unlike the successful country practitioners of to-day, whose tendency is to move into the towns, Mr. Hemming was content with the good work he was doing.

He was an original thinker, and a man of sound knowledge and correct judgment. Even when in active practice he always read every day a portion of some classic. This probably explains his general culture, which was one of his strong points. He was firm and upright in his character and actions, was held in high regard by all who knew him, and was trustee to many private persons and public societies. He was the author of several contributions to the British Medical Journal.

Mr. Hemming took great interest in the British Medical Association, and was a most constant attendant at its meetings. He was President of the South Midland Branch in 1886, and was also the representative of that Branch on the Council of the Association, and an active member of the Parliamentary Bills Committee from 1888 to the day of his death. He had held also the posts of President of the Cambridge and Huntingdon Branch, and President of the Cambridge Medical Society.

He attended the meeting of the Parliamentary Bills Committee in London on April 11th, and that of the Council of the Association on the following day, and appeared to be in his usual health. He was about to attend a Committee meeting at Northampton on April 14th, and had ascended a few steps of the stairs at the hotel, when he staggered and fell into the arms of his medical friends, dying instantly. On walking from the station to the hotel, a short distance only but a stiffish ascent, he had leaned on the arm of a friend, and complained of feeling tired; and he had written in a letter a few days previously that three meetings in one week was rather hard work. Mr. Hemming's sudden and unexpected decease cast a deep gloom over the meeting. The members passed a special resolution of sympathy and condolence with his

widow and family, and placed on record an expression of their great appreciation of his long, zealous, and valued services to the Branch, and of the personal loss they themselves had sustained by his death.

No inquest being considered necessary, the body was removed to his home the same evening. The funeral took place at Kimbolton on April 19th, and was the occasion of a vast concourse of people, the whole town almost assembling to pay a last tribute of respect to the memory of one who had been amongst them all his life, and was beloved by all, both rich and poor. Among the mourners were Dr. Griffiths, of Cambridge, representing the Cambridge and Huntingdon Branch; Mr. Milligan and Mr. Evans, of Northampton, representing the South Midland Branch; Dr. Allison, of Kettering, President-elect of the Branch; and Mr. W. G. Nash, of Bedford.

WILLIAM CARTE, F.R.C.S.I.,
Dublin.

A very highly respected member of the profession has just passed away at Dublin in the person of William Carte. He was born at Newcastle, co. Limerick, in 1829, and was descended from a well-known Kentish family. A progenitor, Rev. Joseph Carte, married in 1660 Sidney, the last of the daughters of the Earl of Leicester.

In 1852 Mr. Carte became a Licentiate of the College of Surgeons of Ireland, and a few months later he was appointed Curator of the museum. War having broken out he obtained an assistant surgeoncy in the army, and he served with great distinction with the 4th Light Dragoons in the Crimea. Soon after the conclusion of the war he was appointed Surgeon to the Royal Hospital, Kilmainham, an institution for the reception of old soldiers, corresponding to that at Chelsea. In 1874 he became a Fellow of his College, and a few years ago he held the office of Vice-President for twelve months. He did not, however, desire the higher office, and he passed back again into the ranks of the Council, where he was a distinct power in the administration of the affairs of the College. In 1891 he was appointed Physician and Surgeon on the staff of the Commander of the Forces in Ireland. He had not written on any medical subject for many years, but in 1854, after his return from the war, he published some interesting observations on the climate and zoology of the Crimea.

As years went by Mr. Carte associated himself with various commercial enterprises. He became in 1875 Chairman of the North Dublin Tramways Company, and in 1889 he succeeded to the supreme position in the great United Tramways Company of Dublin. Under his guidance and clever management its development was extraordinary, and it now ranks as one of the largest and most valuable of these companies in the Empire. For the past two years he especially devoted himself to the working of the thirty miles of street lines by electricity, but he only lived to see some portions of the way opened, and to be assured of the entire fulfilment of his prophecies.

Mr. Carte was greatly esteemed by the profession; and in that larger body, the commercial public, he stood in the first rank. He had a singular aptitude for business in the wider sense; and in every relation of life he held the respect of all who knew him for his unswerving uprightness.

He was accorded a military funeral in accordance with his rank of major, and was interred on Wednesday in the cemetery of the Royal Hospital, where he had served for forty years.

FREDERICK FAWSON LEE, M.B.Lond., F.R.C.S.Eng.

We regret to record the death of Mr. F. Fawson Lee, which occurred at his residence in The Close, Salisbury, on April 12th, in his 61st year. He received his medical training at St. George's Hospital, London, and became M.R.C.S. and L.S.A. in 1860, M.B.Lond. in 1865, and F.R.C.S.Eng. in 1868. He was appointed House-Surgeon of the Salisbury Infirmary in 1862, and held the post until 1869, when he entered into private practice in that city. So successful was he that he lately had two partners. He was elected Honorary Physician to the Infirmary in 1874, and held the post until his death.

Mr. Lee took the keenest interest in the Volunteer movement, and joined the 1st Wilts R.V.C. as Assistant Surgeon in 1869, being promoted Surgeon in 1877, Surgeon-Major in 1886 and Brigade-Surgeon-Lieutenant-Colonel in 1891. He received the Long Service Medal, and only resigned in August, 1898, with permission to retain his rank and wear his uniform. At the annual distribution of prizes in December last he was presented with an illuminated address by the members of the Salisbury and Wilton Ambulance Detachment, as a token of the respect and esteem in which he was held by all the members of the corps. He was also an ex-President of the Salisbury Medical Society, Surgeon to St. Nicholas Hospital, and Honorary Medical Officer to St. Mary's Home. He was for 25 years a member of the British Medical Association; and a most regular attendant at all meetings of the Southern Branch.

Mr. Lee, in common with the other medical men of Salisbury, had for weeks past had great stress of work on account of the prevalence of influenza; and on Friday, April 7th, was compelled to take to his bed, having been attacked by the complaint. Acute pneumonia followed; he never rallied, and died on the evening of April 12th.

The funeral took place on April 17th, in the cloisters of Salisbury Cathedral, the whole of the medical profession in Salisbury, the Committee of the Infirmary, the officers and many men of the Volunteer Rifle Corps, a large number of nurses from the Infirmary and the Nursing Home, and many other residents in the neighbourhood attending to show the respect in which Lee was held.

Mr. Jabez Hogg died at his residence on April 23rd, at the age of 82. He was the youngest son of Mr. John Hogg, of the Royal Dockyard, Chatham, and received his early education at the Rochester Grammar School. After leaving school he engaged in literary work, and at the same time gave special attention to the study of photography, which led to a connection with the *Illustrated London News*, the staff of which journal he joined in 1843, the year after its establishment. In 1845, when 28 years of age, he entered as a student at the Hunterian School of Medicine and at Charing Cross Hospital, and became a Member of the Royal College of Surgeons in 1850. He was one of the first practitioners to make himself proficient in the use of the ophthalmoscope. In 1855, after the retirement of Mr. Canton, he became the personal assistant of the elder Guthrie. He was Surgeon to the Royal Westminster Ophthalmic Hospital for many years, and was at the time of his death Honorary Consulting Surgeon. Mr. Hogg, in addition to a *Manual of Photography* (published in 1845), wrote many educational works; but the book by which he will be chiefly remembered is *The Microscope: its History, Construction, and Application*, the first edition of which was published in 1854. This book was remarkably successful, and the fifteenth edition, issued recently, is reviewed elsewhere in the present issue of the British Medical Journal. Mr. Hogg at one time took a keen interest in the movement for the reform of the Royal College of Surgeons, but for some years had lived in retirement.

We have received notice of the death of Mr. Boughton Kyngdon in his 80th year on March 11th at Bowral, New South Wales, where he had resided since 1893. He was born at Bodmin in 1819, received his medical education at King's College, London, and became L.S.A. in 1842. Subsequently he took a voyage as Surgeon of the ship *Agincourt*, and visited Sydney in 1846. He was so enchanted with the beauties of the locality that he determined to live and die there. After his marriage he practised at Southampton, Exeter, and Croydon in England with much success, but his ardent love of Sydney impelled him to undertake in 1878, when he was in his 60th year, the somewhat bold step of removing with his family to Australia. He commenced practice at Darlinghurst, and then removed to Bowral on account of Mrs. Kyngdon's health. His death was due to apoplexy. He had had two previous seizures, but had retained a fair measure of health. From youth onwards he was an enthusiastic botanist and naturalist. Whilst a student he translated De Candolle's *Vegetable Kingdom*, the work being issued in three handsome volumes. As a horticulturist he excelled. At Exeter and Croydon his gardens contained many novelties which were greatly admired. He also introduced Cochin China fowls

into Devonshire, and was an ardent photographer when wet process plates had to be used. He was a consistent Christian, kind and gentle, sympathetic and loving, and was himself beloved and revered by many friends. He leaves five sons, all of whom are in the colonies, and three daughters.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries and the colonies who have recently died are Dr. Ramon Felix Capdevila y Ferrer, some time Professor of Clinical Medicine in the University of Madrid, Member of the Royal Academy of Medicine, Grand Cross of the Royal and Distinguished Order of Isabel the Catholic, etc.; Dr. Anastasios Zinnis, Professor of Children's Diseases in the Medical Faculty of the University of Athens; Dr. Henry Hover Wright, formerly Lecturer on the Practice of Medicine in the Toronto School of Medicine, and one of the most active promoters of the Ontario Medical Council, of which he was president for a time, aged 82; Dr. John R. Schneller, Director of Health and Charities of Columbus, Ohio, and President of the Columbus Crematorial Association, aged 61; Dr. Karl Rückert, of Coburg, son of the distinguished German poet, aged 78; Dr. Eugen Leitz, of Wiesbaden, a well-known German clinician, some time Professor in the University of Giessen, aged 83; Dr. Alfred Graefe, of Weimar, the eminent ophthalmologist, formerly Professor in the University of Halle, aged 67; Dr. Josef Engel, some time Professor of Pathological Anatomy in the Josefs Academie, Vienna, and a former assistant of Rokitansky, aged 83; Dr. Jules Girard, Professor in the Medical School of Marseilles; Dr. Theodor Neustetter, Professor of Children's Diseases in the University of Prague, aged 70; Dr. Kahlbaum, Medical Superintendent of the Görlitz Asylum, a well-known specialist in mental diseases; and Dr. Schorstein, described as the Nestor of the hydrotherapeutists of Odessa, aged 81.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

EXAMINATION IN SANITARY SCIENCE FOR THE DIPLOMA IN PUBLIC HEALTH.—The following candidates have satisfied the Examiners in both parts of the examination:

T. W. N. Barlow, H. H. Borland, S. Copley, A. E. Druitt, W. F. Grant, J. C. W. Halliday, E. F. Harwood, G. F. McCleary, J. M. Martin, E. W. G. Masterman, P. Murison, A. A. Mussen, J. T. C. Nash, E. L. Parry-Edwards, B. L. Paton, A. M. N. Pringle, H. J. Spon, C. M. Vernon, Ethel Mary Nucella Williams.

UNIVERSITY OF GLASGOW.

GRADUATION CEREMONY.

THE usual Graduation Ceremony at the close of the winter session took place in the Bute Hall on April 18th. There was a crowded attendance, and the ceremony passed off in a most satisfactory manner. The Earl of Stair, Chancellor of the University, presided, and was supported by the Principal and a large representation of the University staff, and several members of the Corporation. After the "capping," Principal Story delivered a short address.

Amongst the honorary degrees conferred was that of Doctor of Laws (LL.D.) on Dr. James Finlayson. In presenting Dr. Finlayson Professor Moir said:

"Dr. James Finlayson, a Graduate in Medicine of this University, Physician and Lecturer on Clinical Medicine in the Western Infirmary, Physician to the Royal Hospital for Sick Children, and Fellow and Honorary Librarian of the Faculty of Physicians and Surgeons of Glasgow. Educated at the High School of Glasgow and the arts classes here, Dr. Finlayson received from this University in 1867 the degree of Bachelor of Medicine with honours, and in 1869 he graduated as Doctor of Medicine. Dr. Finlayson is not only a man of the highest standing amongst his brethren, but he has through strikingly original and trustworthy contributions to medical literature attained a wide reputation as an erudite and skilful physician who is not merely accurate in detail, but has a strong and clear insight into principle. In his *Clinical Manual* he has conferred an inestimable boon on hospital students, and by numerous original investigations recorded in the medical journals he has shed much light on the diagnosis, pathology, and treatment of internal disease. And while thus enlarging the modern bounds of the science, he has found time for important and valuable contributions to the history of medicine. His careful researches in Greek and Roman and the more ancient Egyptian medicine, his account of the life and works of Maister Peter Lowe, the founder of the Faculty of Physicians and Surgeons of Glasgow, and his account of the life and works of Dr. Robert Watt, author of the *Bibliotheca Britannica*, are well known, and full of interest to all students of medical history. But what has seemed to my colleagues specially to deserve the distinction which we desire you to confer upon him is not merely the success of Dr. Finlayson as a practitioner, or even as a teacher of medicine, but the fact that throughout his career he has followed these occupations in an eminently academic spirit, and by his unwearied interest in and care of the great medical library of the Faculty of Physicians and Surgeons has made it one of the most comprehensive and valuable collections in this country. For these reasons has appeared to the Senate that Dr. Finlayson is eminently worthy of the honour which I now ask you to confer upon him."

The following degrees were conferred:

Doctor of Medicine (*M.D.*)—*C. S. Marshall, M.B., C.M.—Thesis: Anti-streptococcus Serum, its Application in the Treatment of Scarlatina Anginosa; *E. J. Primrose, M.A., M.B., C.M.—Thesis: Notes on the Method and on the Diagnostic Value of the Serum Reaction (Widal's Test) in Enteric Fever, with a record of 149 Examinations of Serum made in 57 cases of Enteric Fever and in 22 other cases; D. Macdougall, M.B., C.M.—Thesis: The Treatment of Typhoid Fever by Carbolic Acid; J. S. Rosser, M.B., C.M.—Thesis: The Literature of the Creasote Treatment of Pulmonary Tuberculosis, with an account of 3 cases in which Large Doses were exhibited; W. J. M. Slowan, M.B., C.M.—Thesis: Version for Contraction of the Pelvic Brim, with an account of 12 cases personally conducted; W. S. Young, M.B., C.M.—Thesis: Cocaine as a Local Anæsthetic, with special reference to its use in Tooth Extraction.

* With commendation.

The degree of Doctor of Science was conferred on R. Kennedy, M.A., B.Sc., M.D.

PRIZES.—Dr. Robert S. Thomson and Dr. John W. Findlay were both presented with Bellahouston Gold Medals for excellence of their theses for the degree of M.D. previously conferred.

INDUCTION OF PROFESSOR OF PATHOLOGY.—On April 19th, Dr. Robert Muir was inducted to the office of Professor of Pathology, and, having signed the declaration *de fideli administratione* took his seat as a member of the Senate.

UNIVERSITY OF DURHAM.

SECOND EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.—The following candidates have satisfied the Examiners:

Anatomy, Physiology, Materia Medica.—V. B. Nesfield,* St. Mary's College, W. G. Robson,* College of Medicine, Newcastle-upon-Tyne; A. B. Bradford, St. Thomas's Hospital; Mary Evelyn De Rusett, College of Medicine, Newcastle-upon-Tyne; Alice Maud Dodd, London School of Medicine for Women; Mary Jane D'Vaz, London School of Medicine for Women; Laetitia Nora Ede, College of Medicine, Newcastle-upon-Tyne; H. W. Furnivall, University College, London; J. A. Giles, College of Medicine, Newcastle-upon-Tyne; Chella Mary Hankin, London School of Medicine for Women; Katharine Mary Helen Hawkins, London School of Medicine for Women; W. C. Hayward, M.R.C.S., L.R.C.P., Charing Cross Hospital; Guy Hannah Kirby, Mason College, Birmingham; H. R. Kendal, College of Medicine, Newcastle-upon-Tyne; K. Manson, College of Medicine, Newcastle-upon-Tyne; L. M. Markham, College of Medicine, Newcastle-upon-Tyne; L. C. Newton, College of Medicine, Newcastle-upon-Tyne; E. E. Norman, College of Medicine, Newcastle-upon-Tyne; H. H. Ruffmann, College of Medicine, Newcastle-upon-Tyne; D. R. Roberts, College of Medicine, Newcastle-upon-Tyne; C. A. Ryman, St. George's Hospital; H. Widdas, College of Medicine, Newcastle-upon-Tyne; F. G. Wilson, College of Medicine, Newcastle-upon-Tyne; T. Wilson, College of Medicine, Newcastle-upon-Tyne.

* Second-class honours.

ROYAL UNIVERSITY OF IRELAND.

SECOND EXAMINATION IN MEDICINE.—The Examiners recommend that the following candidates be adjudged to have passed the examination:

Upper Pass.—R. J. Bethune, Queen's College, Belfast; T. A. Carson, Queen's College, Belfast; W. Phillips, B.A., Queen's College, Belfast; E. T. Tuckey, Queen's College, Cork; T. Walsh, Queen's College, Galway; J. S. F. Weir, Queen's College, Belfast.

The above may all present themselves for the further Examination for Honours.

Pass.—Marion B. Andrews, Queen's College, Belfast; R. Best, Queen's College, Galway; Catherine L. Boyd, Queen's College, Belfast; W. H. N. Bright, Queen's College, Belfast; J. G. Campbell, Queen's College, Belfast; J. H. Campbell, Queen's College, Belfast; J. Corker, Queen's College, Belfast; A. T. Frost, Queen's College, Cork; D. Gleeson, Queen's College, Cork; Elizabeth S. Graham, Queen's College, Belfast; R. W. Harper, Queen's College, Belfast; P. Hefferman, Catholic University School of Medicine; M. J. Laffan, B.A., Catholic University School of Medicine; L. J. Lunham, Queen's College, Cork; M. J. Macaulay, Queen's College, Cork; J. McClatchey, Queen's College, Belfast; S. B. W. Moore, Queen's College, Belfast; A. J. Quirk, Catholic University School of Medicine; Jane E. Reynolds, Queen's College, Cork; F. W. Stewart, Queen's College, Belfast; W. A. Stoops, B.A., Queen's College, Belfast.

UNIVERSITY OF DUBLIN.

AT the First Summer Commencements, held in the Theatre of Trinity College on Thursday, April 20th, the Degree of Doctor in Medicine was conferred on Mr. J. P. MacLulich.

CONJOINT BOARD IN IRELAND.

FIRST PROFESSIONAL EXAMINATION.—Candidates have passed this Examination as undernoted:

In all Subjects.—E. Ellenbogen,* J. S. Ashe,* J. Grace, P. J. Irwin, T. Keogh, T. J. Cloyd, J. P. Ziervogel.

Completed the Examination.—W. Cremin, E. C. Jennings, P. M. Sheridan, J. Stuart, F. C. Yorke.

In Anatomy.—W. H. Bournes, D. E. Crosbie, P. Holmes, J. P. Maher, R. Martin, P. M'Dermott, F. G. A. O'Brien, E. J. Phillips, J. M. J. Rhatizan.

In Biology.—W. H. Bournes, D. E. Crosbie, P. Holmes, W. R. K. Magill, P. M'Dermott, F. G. A. O'Brien, E. J. Phillips.

In Pharmacy.—W. H. Bournes, D. E. Crosbie, J. F. Farrell, W. R. K. Magill, J. P. Maher, R. Martin, P. McDermott, F. G. A. O'Brien, J. V. O'Hagan, J. M. J. Rhatizan.

* In honours.

SECOND PROFESSIONAL EXAMINATION.—Candidates have passed this Examination as undernoted:

In all Subjects.—Miss M. J. Shire,* H. L. Becker.*

Completed the Examination.—A. L. Barry, N. J. Connolly, P. L. Crosbie, R. R. Faussett, P. A. Frazer, P. J. Hanafin, J. J. Harty, R. W. Hillis, J. J. Huston, F. J. Lennon, M. E. Lynch, J. R. Magee, C. J. O'Connor, C. R. M. Pattison, W. M'M. Phelan, J. C. Ryan, G. A. Sexton, S. A. Tucker, R. O. White, T. J. Wright.

In Anatomy.—F. J. Cahill, B. D. Gibson, D. Gillies, A. H. B. Hartford, J. Hennessy, J. B. Logan, Miss Logan, J. Nash, R. C. Nicholl, R. N. G. Oniton, C. F. P. Plunkett, M. C. Sage, G. B. Wilkinson.

In Physiology.—Miss Driver, A. H. B. Hartford, E. W. Knight, J. B. Logan, J. P. O'Donnell.

In Materia Medica.—C. H. Browne, F. W. Brunker, F. H. Cooke, H. T. Cookman, Miss Driver, W. N. Eustace, J. F. Fitzmaurice, J. Hennessy, C. F. P. Plunkett, M. C. Sage, J. H. White, G. B. Wilkinson.

In Histology.—W. H. Anderson, F. J. Cahill, H. T. Cookman, D. Gillies, A. H. B. Hartford, J. B. Logan, R. P. McDonnell, C. F. P. Plunkett, R. C. Nicholl, G. B. Wilkinson.

* In honours.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, April, 1899.—The following candidates passed in:

Surgery.—C. J. Barnes, King's College Hospital; W. F. C. Bennett (Section I), Sheffield; H. E. Dalby, Charing Cross Hospital; A. G. C. Davies (Section II), Guy's Hospital; T. S. Elliot (Section I), London Hospital; H. L. Hands, Madras and Charing Cross Hospital; H. C. Holden, Guy's Hospital; J. J. Huey, Glasgow; W. S. Inman (Sections I and II), Sheffield; J. W. Robertson, Kingston, Ontario; W. Sisam (Section I), Birmingham; S. Sugden, Manchester and St. Mary's Hospital; L. L. G. Thorpe, University College Hospital; W. H. Willcox, St. Mary's Hospital.

Medicine.—J. M. Anderson, Aberdeen and Middlesex Hospital; F. W. Chesnaye (Section II), St. George's Hospital; J. T. Davies (Sections I and II), Michigan; H. S. A. Davies (Section II), Michigan; W. J. Evans, London Hospital; H. Greenwood, London Hospital; W. Hickey (Section I), Manchester; W. St. G. G. Hill, St. Mary's Hospital; G. C. Hobbs (Section I), St. Bartholomew's Hospital; W. S. Inman (Sections I and II), Sheffield; L. Leibster, Vienna and London Hospital; W. P. R. Newth, St. Thomas's Hospital; H. J. Pickering (Section I), St. Bartholomew's Hospital; A. H. Safford, King's College Hospital; W. Sisam (Section I), Birmingham; L. K. Tickner, Durham; J. M. Twentyman, Cambridge and King's College Hospital.

Forensic Medicine.—J. M. Anderson, Aberdeen and Middlesex Hospital; C. F. W. Dunn, Cambridge and Middlesex Hospital; W. J. Evans, London Hospital; T. R. Griffiths, University College Hospital; W. Hickey, Manchester; W. St. G. G. Hill, St. Mary's Hospital; G. C. Hobbs, St. Bartholomew's Hospital; W. S. Inman, Sheffield; E. P. Marett, St. Thomas's Hospital; G. S. Moore, London Hospital; H. J. Pickering, St. Bartholomew's Hospital; J. W. Robertson, Kingston, Ontario; A. H. Safford, King's College Hospital; W. Sisam, Birmingham; J. Thompson, Belfast; J. M. Twentyman, Cambridge and King's College Hospital; E. D. Wortley, St. Bartholomew's Hospital.

Midwifery.—G. Aldridge, London Hospital; C. J. Coleman, Cambridge and Birmingham; A. B. Dunne, Cambridge and Leeds; E. L. Gowland, St. Mary's Hospital; H. M. Hardy, Guy's Hospital; J. E. Howroyd, Leeds; W. S. Inman, Sheffield; O. E. Lemin, London Hospital; B. S. O. Maunsell, St. Bartholomew's Hospital; W. E. Maw, Leeds; T. C. Mitchell, Leeds; G. S. Moore, London Hospital; S. Page, Birmingham; A. C. S. Waters, St. Bartholomew's Hospital.

The Diploma of the Society was granted to the following candidates: C. J. Barnes, C. J. Coleman, H. E. Dalby, A. G. C. Davies, H. L. Hands, J. J. Huey, W. S. Inman, L. Leibster, E. P. Marett, A. H. Safford, and S. Sugden.

MEDICO-LEGAL.

ACTION AGAINST A SURGEON.

THE *Manchester Guardian* in its issue of April 20th reports the case of Kite *v.* Gunn, which is one of some interest to the profession. The plaintiff was defendant's coachman and sustained a compound fracture of his right arm through a fall from a trap. He was first treated at the Stockport Infirmary, where his arm was put in splints and bandaged up. Three days after the accident Dr. Gunn examined the injured part, and considering that all was going on well, continued the same treatment. Later on he put the arm in plaster of paris. Repair did not take place properly and considerable deformity resulted. Subsequently, the patient being dissatisfied, brought an action against the doctor, alleging that his injury had not been properly treated, the bone not having been "set." Medical evidence was given for the plaintiff to the effect that the bone had been "set" properly at the infirmary, but owing to the treatment of the defendant the fragments had been separated. For the defence medical evidence was given that the fracture had originally been a very serious one: the house-surgeon who originally attended the case at the infirmary stating that he then formed the opinion that the result would be an exceedingly bad one. Mr. William Thorburn and Mr. Walter Whitehead both gave it as their opinion that the defendant had been guilty of no neglect, and that the plaintiff's present condition was very likely to have come about even with the best treatment. The jury without hearing counsel found a verdict for the defendant. The defence was conducted for Dr. Gunn by the Medical Defence Union, of which he was a member.

A DOCTOR'S LIBEL ACTION.

BEFORE Lord Chief Baron Palles and a special jury, an action for libel and slander was decided in Dublin last week, the plaintiff being Dr. Edward Thompson, of Omagh, and the defendant, Mr. Falls, a solicitor. The action arose out of the contest at the late election for the parliamentary representation of North Fermanagh. It appeared that in the case of two men charged with murder, Dr. Thompson and others were examined, and stated their belief that death was due to natural causes. In the course of a speech, the defendant stated that the plaintiff had turned himself from a professional witness into an advocate, and had been reproved by the Lord Chief Justice for his gross partiality. The defence was that the words were not spoken of the plaintiff in relation to his profession, and that the defendant had not caused their publication in the newspapers. After two days' trial, the jury found for the plaintiff, assessing the damages at £25 for each of two speeches.

MEDICAL WITNESSES' FEES AT CORONERS' INQUESTS.

AN inquest was recently held by Mr. Alfred Hodgkinson, the Coroner for East Middlesex, on the body of Margaret Main, who, it appeared from the evidence, had been subject to fits caused by heart disease, and who on April 11th was taken to the hospital in consequence of having been burned. She had apparently fallen in a fit near the fire and her clothing had ignited. Dr. Tomlin stated that he was called, and found deceased lying as described by the previous witness. She was fearfully burned, and he gave directions for her to be removed to the hospital, where he continued to attend her, but there was not the least hope of her recovery from the first. The jury returned a verdict of accidental death. The coroner stated that, the deceased having died in the hospital, he was unable to pay Dr. Tomlin the usual fee for giving evidence. He had shown the doctor instructions issued by Sir Richard Nicholson, who pointed out that if payment were made in such cases the Government auditor would not allow it. Several jurors expressed their sense of the unfairness of the medical witness's fee being withheld, especially after the gratuitous aid which had been given to the deceased.

We have frequently had occasion to comment on the unfairness of the provisions of the Coroners Act under which, where an inquest is held on the body of a person who has died in a.....public hospital.....or other medical institution, the medical officer, whose duty it may have been to attend the deceased person as a medical officer of such institution, is not entitled to the prescribed fee for giving evidence at an inquest or for making a *post-mortem* examination.

It does not, however, seem to be clear in this case that Dr. Tomlin comes within the exception provided for in the Act. It is the "medical officer whose duty it may have been to attend the deceased person as medical officer of the institution" who is not to be entitled to the fee or remuneration. If Dr. Tomlin were called to the deceased in a private capacity, he surely is entitled to the fee for giving evidence.

MIDWIFERY FEES.

JUNIOR was engaged to attend labour at a fee of three guineas. His services not being required, he was not called. Should he charge whole or part of fee—if part, what proportion?

*** What our correspondent would get if his claim were disputed would depend upon the particular view taken by the county court judge, the evidence he would want as to the terms of the engagement, and his view of the terms. Our correspondent, if he asked for half, would be more likely to get it than if he asked for the whole.

MEDICAL CERTIFICATES.

A CORRESPONDENT writes on behalf of himself and colleagues, surgeons of a medical charity, that the managing committee of the institution have issued instructions that in future the diagnosis must be appended to certificates handed to patients requiring written testimony of their inability to work. The nature of the illness must always be specified: whether, in the opinion of the surgeon or in that of the patient, it is desirable to do so or not. Our correspondent adds that the possibility of legal complications having been mooted, the surgeons are informed that the Committee are prepared to take all responsibility. The surgeons are anxious to ascertain (1) whether the law would recognise such assumed responsibility: and (2) what they ought to do under the circumstances.

*** If, in the exercise of their discretion, the governing body of the institution in question desire that the nature of the complaint should be stated on the certificate, we are advised that they are at liberty to make such a regulation as mentioned by our correspondent. We understand—and we lay particular stress on this—that the certificate would be handed to the patient, and would only be transmitted to his club or his employer or other person by the patient himself or with his express sanction, and this being so we do not think that any responsibility could attach either to the charity or to the surgeon signing the certificate in accordance with the regulations of the charity. Of course care would have to be taken in acquainting the patient with the nature of the disease before the certificate was transmitted, and it would be desirable in every case to have his written authority for its transmission. For instance, a form might be kept and signed by the patient to this effect: I am informed that I am suffering from ——, and I request that a medical certificate to that effect may be forwarded to ——. There is no method of absolutely safeguarding either the governing body of the charity or the surgeons who give the certificates from an action; and although if the above formalities are observed it is very unlikely that any such action would be successful, the surgeons may reasonably ask the governing body for a written indemnity. We have been made acquainted with the fact that in one large hospital where prior to the action of Kitson *v.* Playfair it was the practice to insert the nature of the disease in medical certificates, this practice has since the decision in that case been discontinued.

CORONER AND DOCTOR.

A CORRESPONDENT writes to call attention to the report of a recent inquest on a woman who had been attended by a medical man for various complaints for the last few years. The police report was to the effect that the deceased woman had given way to drink. The coroner elected to call another medical man to give evidence and make a *post-mortem* examination. At the inquest the coroner said that his officer had called on the medical practitioner who had attended the woman, and that "he declined to express any opinion as to the cause of death, or give any information," and that being so he (the coroner) selected another medical man to attend the court, who stated that the deceased had died from natural causes, and that a black eye and a bruise on the arm took no part in causing the death, and, further, that if he had attended the deceased during life he should have been able to have said the same without a *post-mortem* examination. The coroner then intimated that if the husband of the deceased was aggrieved at a *post-mortem* examination being made, the only person he had to blame was the medical practitioner who had attended the deceased, who, he suggested, might, if he thought fit, have given such information previous to the inquest, even if he could not legally certify, as might have avoided the *post-mortem* examination, and possibly the inquest.

*** In the preliminary investigation, which the coroner by himself or through his officer usually makes to enable him to decide in certain cases as to the advisability of holding an inquest or otherwise, it is usual for the medical attendant, if any, to be either interviewed or written to, and his opinion is then communicated to the coroner; and it is rather unusual for the practitioner to decline to express any opinion and to refuse to give any information concerning the case. Under these circumstances it is not altogether surprising that the coroner should seek an independent medical witness to give evidence before the Court. Although a medical man is legally entitled to say nothing previous to the inquest, yet, if he elects to adopt that course, he should remember that it may lead to doubts and suspicions which a word from him might satisfactorily remove. Previous to an inquest communications between the coroner and the medical attendant of a deceased person are considered as private and confidential. As regards the making of the *post-mortem* examination, the sole responsibility rests upon the coroner who ordered it.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

STAFF-SURGEON EDWARD FERGUSON has been promoted to be Fleet-Surgeon, March 30th. He was appointed Surgeon September 30th, 1878, and Staff-Surgeon twelve years therefrom. He was Surgeon of the *Thetis* during the war between Chili and Peru in 1879-83 and landed to do duty in the Peruvian Hospital at Lima, for which he received a medal and the thanks of the Peruvian Government.

The following appointments have been made at the Admiralty:—EDWARD H. WILLIAMS, Staff-Surgeon to the *Impregnable*, April 20th; EDGAR R. DIMSEY, D.S.O., Staff-Surgeon to the *Alexandra*, May 17th; FREDERICK A. BRICE, Staff-Surgeon to the *Psyche*, May 2nd; WILLIAM W. PRYN, Staff-Surgeon to the *Champion*, May 2nd; WILLIAM M. FRANCE, Staff-Surgeon to the *Lion*, temporary, May 2nd; WILLIAM SPRY, Staff-Surgeon, and F. C. STEARN, Surgeon, to the *Edgar* for voyage out, April 19th, and for the *Royal Sovereign* when commissioned, undated; RICHARD E. BIDDULPH, B.A., M.B., Staff-Surgeon to the *Edgar* for voyage home on *Royal Sovereign* paying off, undated; D'ARCY HARVEY, M.B., Surgeon to the *Pomone*, May 18th; JOHNSTON H. ACHESON, M.B., Surgeon to the *Excellent*, May 18th; HARRY SPICER, Surgeon to the *Edgar* for voyage out, undated: SAMUEL H. FACEY, Surgeon to the *Jackal*, April 19th; WILLIAM E. BENNETT, Fleet-Surgeon to the *Crescent*, May 2nd; JAMES W. O. UNDERHILL, M.B., Surgeon to the *Tribune*, May 9th; ERNEST A. PENFOLD, M.B., and JOHN BOYAN, Surgeon to the *Crescent*, May 2nd; WILLIAM H. DAW, Surgeon to the *Antelope*, May 4th.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL J. A. MARSTON, M.D., C.B., retired pay, late Army Medical Staff, is appointed Honorary Surgeon to the Queen, *vice* Honorary Deputy Inspector-General J. Jee, V.C., C.B., deceased, April 26th. Surgeon-General Marston's commissions were as follow: Assistant-Surgeon, November 10th, 1854; Surgeon, June 8th, 1867; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 27th, 1879; Deputy Surgeon-General, November 18th, 1882; and Surgeon-General, May 7th, 1880. He quitted the service on retired pay, October 16th, 1889. After serving for some years with the Royal Artillery, he was for some time stationed in London, and subsequently in Bengal. He was Sanitary Officer during the Egyptian war of 1882, and was at the battle of Tel-el-Kebir; for his services in that campaign he was mentioned in despatches, promoted to be Deputy Surgeon-General, and granted a medal with clasp, the 3rd class of the Order of the Osmanieh, and the Khedive's bronze star. In December, 1882, he was appointed to the charge of the Sanitary and Statistical Branch of the Medical Department at the War Office, which post he relinquished only a short time before his retirement in 1889.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL E. H. FENN, C.I.E., is seconded for service on the staff (that is, to be Surgeon to the Governor-General of India), January 6th.

Captain J. A. MURISON, M.B., resigns his commission, April 26th. He was appointed Surgeon-Lieutenant January 29th, 1895, and Surgeon-Captain three years after.

Brigade-Surgeon JOHN GORDON GRANT died on April 19th, at Bath. He was a son of the late Captain John Grant, of the 72nd Regiment, and entered the service as Assistant-Surgeon, October 17th, 1857; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; and Honorary Brigade-Surgeon, on retirement, September 27th, 1883. He was in the Egyptian wars of 1882, and was present in the engagement at El Magfar, in the two actions at Kassasin, and at the battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star).

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN J. CAMERON, M.D., is promoted to be Surgeon-Major, April 26th.

INDIAN MEDICAL SERVICE.

THE undermentioned promotions, which have been already announced in the BRITISH MEDICAL JOURNAL, have received the approval of the Queen: To be Surgeon-General: Colonel L. D. SPENCER, M.D., C.B., Bengal Establishment, October 25th, 1898. Surgeon-Lieutenant-Colonels, Bengal Establishment, to be Brigade-Surgeon-Lieutenant-Colonels: D.W. MARTIN, M.D., February 28th, 1898; R. L. DUTT, M.D., April 1st, 1898; J. DUKE, April 2nd, 1898; J. MCCONAGHEY, M.D., April 7th, 1898; E. PALMER, June 26th, 1898.

Lieutenant-Colonel J. SCULLY, Bengal Establishment, is permitted to retire from the service, from April 8th. He was appointed Assistant Surgeon, March 30th, 1872, and became Brigade-Surgeon-Lieutenant-Colonel, April 9th, 1897.

Lieutenant-Colonel G. F. BEVAN, Madras Establishment, is appointed to officiate as District Principal Medical Officer in the Madras Command, with the temporary rank of Colonel, from March 10th.

Lieutenant-Colonel W. A. MAWSON, Madras Establishment, is appointed Principal Medical Officer to the Tochi Force, *vice* Lieutenant-Colonel J. T. B. Booke, Bengal Establishment, granted leave out of India.

The undermentioned probationers are appointed Lieutenants from January 28th: J. C. H. LEICESTER (Bengal), H. INNES (Bengal), W. S. WILLMORE (Bengal), A. E. WALTER (Punjab), C. HUDSON (Bengal), L. T. R. HUTCHINSON (Bombay), C. F. WEINMAN (Bengal), H. M. CRUDDAS (Punjab), A. M. FLEMING (Punjab), E. L. WARD (Punjab), J. N. WALKER (Punjab), V. H. ROBERTS (Punjab), J. E. ROBINSON (Bombay), C. H. B. ADAMS (Bombay), G. KING (Madras), T. S. ROSS (Madras), G. P. T. GROUBE (Madras), W. MACM. PEARSON (Madras), D. C. KEMP (Madras).

The following Majors are promoted to be Lieutenant-Colonels from March 31st: *Bengal.*—F. F. PERRY, S. LITTLE, M.D., G. H. D. GIMLETTE, M.D., C. B. HUNTER, J. C. C. SMITH, M.B. *Madras.*—W. F. THOMAS, M.D., H. G. L. WORTABET, M.D., R. JAMES, M.B., D. S. E. BAIN.

The following Captains are promoted to be Majors from March 31st: *Bengal.*—W. H. W. ELLIOT, M.B., W. R. CLARK, M.B., G. F. W. BRAIDE, M.B., R. J. MARKS, C. E. SUNDER, M.B., M. A. KER, M.B., A. BUCHANAN, M.D., L. G. FISCHER, M.B., W. VOST, M.B., J. GARVIE, M.B., C. E. L. GILBERT, M.B., C. C. MANIFOLD, M.B., G. B. IRVINE. *Madras.*—F. J. CRAWFORD, M.D., D. SIMPSON, M.B., R. ROBERTSON, M.B., T. C. MOORE. *Bombay.*—C. H. L. MEYER, M.D., L. F. CHILDE, M.B., H. HERBERT, T. D. M. BARRY.

The following Lieutenants are promoted to be Captains from January 29th: *Bengal.*—A. W. R. COCHRANE, W. W. CLEMESHA, J. A. BLACK, R. P. WILSON, V. E. H. LINDESAY, J. C. ROBERTSON, N. R. J. RAINIER, C. D. DAVIES, E. L. PERRY. *Madras.*—M. B. PINCHARD, W. J. NIBLOCK, C. B. HARRISON, N. P. O'G. LALOR, T. H. SYMONS, E. R. ROST. *Bombay.*—C. R. BAKHLE, K. V. KUKDAY.

Lieutenant-Colonel R. A. K. HOLMES, M.D., Bengal Establishment, has retired from the service, March 20th. His first commission dates from March 30th, 1872; that of Surgeon-Lieutenant Colonel from March 30th, 1892.

The retirement from the service of Colonel D. O'C. RAYE, M.D., Bengal Establishment, and Lieutenant-Colonel W. H. THORNHILL, M.D., Madras Establishment, already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the Queen.

THE VOLUNTEERS.

SURGEON-LIEUTENANT H. MARSHALL, M.B., 2nd Cinque Ports Artillery (Eastern Division Royal Artillery), has resigned his commission, April 22nd.

Surgeon-Captain A. K. CROSSFIELD, 2nd Devonshire Artillery (Western Division Royal Artillery), is promoted to be Surgeon-Major, April 22nd.

Surgeon-Lieutenant H. W. SYERS, M.D., 3rd Middlesex Rifles, is promoted to be Surgeon-Captain, April 22nd.

Surgeon-Captain R. E. WILLIAMSON, 3rd Volunteer Battalion the Duke of Wellington's West Riding Regiment, formerly Captain 3rd Volunteer Battalion the Cheshire Regiment, resigns his commission and is appointed Major, April 22nd.

Surgeon-Lieutenant-Colonel A. HAMILTON, 2nd Volunteer Battalion the Cheshire Regiment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel on appointment as Senior Medical Officer to the Cheshire Brigade Volunteer Infantry, April 22nd.

THE ROYAL RED CROSS.

THE Queen has conferred the decoration of the Royal Red Cross upon Miss Catherine Sarah Mowbray, late Indian Nursing Service; Miss Mary Ellen Barker, Indian Nursing Service; and Miss Theresa M'Grath in recognition of services rendered in nursing the sick and wounded during the late operations on the Punjab frontier. The same Order has been conferred upon Miss Sarah Lucy Wilshaw and Miss Ellen Harper of the Army Nursing Service in recognition of services in tending the sick and wounded in Egypt in connection with the recent operations in the Soudan.

HOME DEFENCE AND THE R.A.M.C.

CAPTAIN W. BAKER BROWN, R.E., in his Prize Essay on "The Strength, Composition, Organisation, Conditions of Service, and Mode of Training of a Military Force for Home Defence" (*Journal of the Royal United Service Institution*, April), alludes to the Medical Service as follows: "Of the Royal Army Medical Corps we require 4,000 for our home army and about 500 for coast fortresses. We have at home about 2,000, with about 1,000 reserve. The remaining 1,500, together with the general reserve of 2,000, should be

easily obtained from militia units. As neither the Army Service Corps nor the non-commissioned officers and men of the Royal Army Medical Corps serve in India, foreign service should be easily arranged. The medical officers, however, have a very heavy proportion of foreign service, and the number of medical officers permanently employed at home should be largely increased." With Lord Wolseley's opinion supporting that of the writer of the prize essay, we may, possibly be within measurable distance of the "large increase" urged.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY.

It is understood, says the *Boston Medical and Surgical Journal*, that at present there are 618 medical men serving in the medical department of the regular army of the United States: of these only 191, or 30 per cent., are commissioned medical officers of previous military experience. The remaining 427 are medical men lately in civil life, temporarily under contract, who are now competently qualified professionally, but whose lack of long military experience, and indefinite status, largely render them incapable of coping satisfactorily with the various problems of organisation, military sanitation, and the control of men. The system of the employment of contract surgeons is, to say the least, unfortunate, and is based upon the popular idea that the civilian becomes the finished soldier by donning the uniform, and that the amateur is as competent as the professional in matters which have been deemed worthy of patient study and effort through many years of service by the latter.

TACTICS AND THE ARMY SURGEON.

A recent work on *Modern European Tactics* by Captain Bulck, of the Duke Frederick William of Brunswick's Regiment (No. 78) and Instructor at the Military College, Engers-on-the-Rhine, translated by Louis R. M. Maxwell, contains a special chapter dealing with the subject of the wounds caused by modern rifle bullets, a question which has never yet (as far as is known) been dealt with in any English tactical work. To this chapter appear as appendices the contributions of Surgeon-Major-General J. B. Hamilton to the British Medical Journal of May 14th, 1898; of Surgeon-Major C. M. Thompson, I.M.S., to the British Medical Journal, March 19th; and of Colonel W. F. Stevenson, A.M.S., to the British Medical Journal, May 21st, 1898. The views of Dr. Bruno, and of Surgeon-General Dr. Körting, Surgeon-in-Chief to the 1st German Army Corps, also find place in a work likely to hold its own in military literature. At present only vol. i of a series of four has been published.

PROMOTION.

Uncertain writes: The prospects of promotion cause anxiety to many medical officers; at present promotion to "selected Lieutenant-Colonel" (late Brigade-Surgeon) is quick, and under twenty-two years' service. Will this step again be delayed till twenty-six, or more, years' service?

*** We are not prepared to say offhand. It is an actuaria question, for the solution of which the ages of the holders of the rank, present and prospective, would afford some data.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 7,297 births and 3,093 deaths were registered during the week ending Saturday last, April 22nd. The annual rate of mortality in these towns, which had declined from 23.1 to 19.5 per 1,000 in the two preceding weeks, further fell to 18.3 last week. The rates in the several towns ranged from 11.8 in Cardiff, 12.9 in Burnley, 13.1 in Swansea, and 13.4 in Norwich, to 22.0 in Brighton, 22.4 in Manchester, 22.6 in Newcastle-upon-Tyne, and 23.4 in Liverpool. In the thirty-two provincial towns the mean death-rate was 19.1 per 1,000, and exceeded by 1.9 the rate recorded in London, which was only 17.2 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the death-rate was equal to 1.7 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic rates were 3.0 in West Ham, 4.1 in Birkenhead, and 4.2 in Manchester and in Blackburn. Measles caused a death-rate of 1.4 in West Ham, 1.0 in Bolton and in Salford, and 2.9 in Manchester; whooping-cough of 1.0 in Oldham and 2.7 in Birkenhead; and "fever" of 1.4 in Birkenhead. The mortality from scarlet fever showed no marked excess in any of the large towns. The 64 deaths from diphtheria in the thirty-three towns included 29 in London, 5 in Sheffield, 4 in Leeds, 4 in West Ham, 4 in Blackburn, 3 in Liverpool, and 3 in Portsmouth. No fatal case of small-pox was registered last week, either in London or in any of the thirty-two large provincial towns; and 3 small-pox patients were under treatment in the Metropolitan Asylum Hospitals on Saturday last, April 22nd. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,584 to 2,126 at the end of the seven preceding weeks, had further fallen to 2,144 on Saturday last; 189 new cases were admitted during the week, against 167, 150, and 163 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 22nd, 961 births and 554 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 23.3 to 19.3 per 1,000 in the three preceding weeks, further fell to 18.1 last week, and was slightly below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 10.2 in Perth and 12.2 in Paisley to 21.3 in Greenock and 21.9 in Dundee. The zymotic death-rate in these towns averaged 1.7 per 1,000, the highest rates being recorded in Aberdeen and Greenock. The 272 deaths registered in Glasgow included 11 from measles, 2 from scarlet fever, 2 from diphtheria, 6 from whooping-cough, and 5 from "fever." Six fatal cases of measles were recorded in Aberdeen and 3 in Edinburgh.

ANTISEPTICS IN FOOD.

The following is the text of the resolutions adopted at the meeting of the Incorporated Society of Medical Officers of Health on April 14th, when the discussion reported in the British Medical Journal of April 22nd took place:

1. That the Incorporated Society of Medical Officers of Health strongly disapproves of the practice of adding preservative chemicals to milk and other foods.

2. That if preservative chemicals are added to any food a full disclosure as to the nature and amount thereof should be made to the purchaser.

During the discussion upon the Sale of Food and Drugs Bill in the Standing Committee on Trade of the House of Commons on April 25th, Mr. Long, President of the Board of Agriculture, resisted a proposal made by Mr. Strachey to omit the proviso that butter and milk shall not be deemed to be adulterated by reason only of the addition of preservatives or colouring matter, which does not render them injurious to health. Mr. Long argued that the proposal raised the whole question of the use of preservatives which might be right or wrong. The clause only proposed to deal with imported goods, but if preservatives were not to be used in imported goods the prohibition should be extended to all articles of food whether imported or not. He urged that it would be inopportune to debate the question of preservatives, as a committee of experts had been appointed to go into the whole question. The amendment was defeated, as was also a further amendment which provided that no butter, milk, or cream containing a preservative should be imported as preserved without the name of the preservative and the amount used per gallon or per pound being stated.

DIVIDED COUNSELS.

A recent report to the Local Government Board by Dr. Deane Sweeting, on the sanitary circumstances and administration of the St. Dogmell's rural district, in South-west Wales, gives some account of a special inquiry in progress by the Board as to districts which are divided among a plurality of medical officers of health. The district was in part inspected by the late Mr. Netten Radcliffe nearly thirty years ago, but it is to-day seemingly in a state of need as regards many of the elements of sanitation. Indeed, Dr. Sweeting writes: "The most urgent necessities for the St. Dogmell's rural district appear to be (1) the provision of proper main drainage for the more populous and quasi-urban portions of the district, such as the villages of St. Dogmell's, Cilgerran, Newport, and, perhaps, part of Dinas; (2) the culverting of streams, to prevent their water being used for drinking; (3) improved method of refuse disposal; (4) the undertaking of or contracting for scavenging; (5) the acquisition of urban powers with a view to by-laws for the regulation of slaughterhouses and of new buildings; (6) the registration of cowsheds, dairies, and milk-shops, and the adoption of regulations for their control; (7) the carrying out of improved methods of disinfection; (8) the provision of an isolation hospital for infectious diseases." On the particular subject of plural health advisers, Dr. Sweeting points to the facts that the two health officers seldom confer officially together, rarely attend the council meetings, because they are seldom requested so to do, and very infrequently give connected advice or take concerted action of a sanitary character. Yet the council need to be guided by expert advice; but a curious side-light is thrown upon the reception likely to be accorded such advice by the locality in a remark by Dr. Sweeting that one of the health officers incurred some unpopularity by making a report containing strictures on local sanitary circumstances, whilst he was formally thanked for a subsequent report of a brief and meagre character. But Dr. Sweeting strongly recommends the appointment of one health officer for the whole district, at an adequate remuneration; and as illustrating the feasibility of the scheme he states that one inspector of nuisances is able to perform his duties over the whole area, twelve miles long and seventeen miles across, these being the extreme limits.

SALARY OR RETAINING FEE?

The remuneration from time to time offered to medical officers of health in provincial sanitary areas is in many cases of such paltry amount as to raise the question how far the councils making the proposal are desirous of securing an officer who shall seek to safeguard in an adequate manner the public health interests of the locality. Recently the Glossop Dale Rural District Council have received a rebuff from the Local Government Board, which Board has, we are glad to note, refused to sanction a salary of £20 in conjunction with repayment of a moiety from county funds, whereupon the salary has been locally increased by 50 per cent. But when one considers the amount of clerical work imposed by annual and other important reports, and the consumption of time needed to make any sort of inspection of rural parishes, it is matter for wonder whether any practitioner can find it within the bounds of reason to devote sufficient energies for the recompense of something under 12s. per week.

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1899.

[Specially Reported for the British Medical Journal.]

The vital statistics of the thirty-three large English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending March last, 87,586 births were registered in these thirty-three towns, equal to an annual rate of 30.8 per 1,000 of their aggregate population, estimated at 11,404,408 persons in the middle of the year. In the corresponding periods of the three preceding years the birth-rates in these towns were 30.4, 31.7, and 31.3 per 1,000 respectively. In London the birth-rate last quarter was 30.8 per 1,000, while it averaged 30.7 in the thirty-two provincial towns, among which it ranged from 21.9 in Huddersfield, 22.6 in Bradford, 23.8 in Halifax, and 24.5 in Brighton to 34.9 in Birmingham, 35.1 in Wolverhampton, 35.2 in Sheffield, and 35.3 in Liverpool, in Sunderland, and in Gateshead.

During the quarter under notice 58,487 deaths were registered in the

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the First Quarter of 1899.

Towns.	Estimated Population middle of 1899.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
33 Towns	11,404,408	87,586	58,486	30.8	20.6	1.75	4,941	—	1,109	366	1,128	1,417	499	422	141	1.4
32 Provincial Towns	6,857,656	52,044	35,201	30.7	20.6	1.76	3,009	—	723	270	656	736	341	283	149	1.8
London	4,546,752	34,942	23,285	30.8	20.5	1.71	1,932	—	386	96	472	681	158	139	130	0.7
West Ham	300,241	2,275	1,235	30.4	16.5	2.98	223	—	109	9	55	28	12	19	143	2.3
Croydon	127,759	808	492	25.4	15.4	0.66	21	—	—	2	4	12	1	2	118	—
Brighton	123,226	753	525	24.5	17.1	1.14	35	—	—	4	13	10	3	5	113	0.8
Portsmouth	190,741	1,285	838	27.0	17.6	1.74	83	—	15	9	32	4	12	11	116	1.3
Plymouth	100,637	697	517	27.8	20.6	1.20	30	—	1	1	4	18	2	4	164	0.2
Bristol	320,911	2,391	1,469	29.9	18.4	1.45	117	—	8	2	10	75	9	13	123	0.4
Cardiff	185,826	1,369	670	29.5	14.5	1.27	59	—	2	—	19	37	—	1	127	1.2
Swansea	103,722	725	530	28.0	20.5	3.25	84	—	2	4	58	16	1	3	157	2.5
Wolverhampton	88,821	778	442	35.1	20.0	1.41	31	—	1	1	4	3	14	8	120	0.7
Birmingham	514,956	4,480	2,548	34.9	19.8	1.36	175	—	37	14	34	33	31	20	144	2.2
Norwich	113,266	847	525	30.0	18.6	1.35	38	—	4	7	11	13	2	1	130	0.6
Leicester	213,851	1,549	854	29.1	16.0	1.24	66	—	—	7	42	7	4	6	143	3.4
Nottingham	239,384	1,673	1,161	28.0	19.8	2.26	135	—	44	11	11	38	15	16	170	1.1
Derby	106,401	722	475	27.2	17.9	1.47	39	—	9	12	1	7	6	4	127	—
Birkenhead	115,162	830	617	28.9	21.5	2.60	75	—	1	3	13	49	7	2	160	0.3
Liverpool	634,212	5,587	4,171	35.3	26.4	1.57	249	—	28	43	65	48	33	32	154	4.1
Bolton	162,221	1,285	869	31.8	21.5	2.28	92	—	48	5	4	11	16	8	148	—
Manchester	543,902	4,400	3,506	32.4	25.9	2.72	368	—	225	8	16	48	24	47	168	1.1
Salford	218,244	1,839	1,230	33.8	22.6	2.07	112	—	37	15	19	15	13	13	149	0.7
Oldham	150,772	949	886	25.2	23.6	1.58	59	—	16	9	11	15	4	4	195	0.1
Burnley	113,081	735	483	26.1	17.1	1.64	46	—	3	7	7	14	9	6	173	2.7
Blackburn	135,154	965	722	28.6	21.4	1.82	61	—	11	7	18	4	10	11	175	3.9
Preston	117,622	903	713	30.8	24.3	1.94	57	—	—	—	1	30	15	11	219	4.1
Huddersfield	103,464	564	453	21.9	17.6	1.06	27	—	4	2	2	15	3	1	135	2.4
Halifax	97,721	579	529	23.8	21.7	1.40	34	—	1	6	3	18	5	1	192	4.5
Bradford	236,241	1,334	1,133	22.6	19.2	1.34	79	—	7	15	7	28	15	7	153	1.2
Leeds	423,889	3,142	2,148	29.7	20.3	1.72	181	—	45	16	83	17	10	4	141	0.6
Sheffield	361,169	3,167	1,914	35.2	21.3	2.00	180	—	5	26	83	21	40	5	145	3.3
Hull	234,270	1,951	1,007	33.4	17.2	1.50	88	—	13	6	14	45	3	7	134	2.8
Sunderland	145,613	1,282	831	35.3	22.9	1.64	70	—	14	8	6	31	9	2	158	1.8
Gateshead	106,552	937	518	35.3	19.5	1.40	37	—	12	6	1	9	4	5	142	—
Newcastle-on-Tyne	228,625	1,843	1,170	32.3	20.5	1.02	58	—	21	5	5	17	3	7	141	1.0

thirty-three towns, corresponding to an annual rate of 20.6 per 1,000, against 19.5, 19.2 and 20.6 in the first quarters of the three preceding years. In London the rate of mortality was 20.5 per 1,000, while it averaged 20.6 in the thirty-two large provincial towns, among which it ranged from 14.5 in Cardiff, 15.4 in Croydon, 16.0 in Leicester, and 16.5 in West Ham to 22.9 in Sunderland, 23.6 in Oldham, 24.3 in Preston, 25.9 in Manchester, and 26.4 in Liverpool. The 58,486 deaths registered in the thirty-three towns last quarter included 4,941, which were referred to the principal zymotic diseases, equal to an annual rate of 1.75 per 1,000, against 2.69, 1.69, and 2.38 in the corresponding periods of the three preceding years. In London the zymotic death-rate last quarter was equal to 1.71 per 1,000, while it averaged 1.76 in the thirty-two provincial towns, among which it ranged from 0.66 in Croydon, 1.02 in Newcastle-upon-Tyne, 1.06 in Huddersfield, 1.14 in Brighton, and 1.20 in Plymouth to 2.28 in Bolton, 2.60 in Birkenhead, 2.72 in Manchester, 2.98 in West Ham, and 3.25 in Swansea. The 4,941 deaths referred to the principal zymotic diseases in the thirty-three towns during the quarter under notice included 1,109 which resulted from measles, 366 from scarlet fever, 1,128 from diphtheria, 1,417 from whooping-cough, 499 from "fever" (principally enteric), 422 from diarrhœa, and not one from small-pox. The fatal cases of measles, which had been 662 and 947 in the two preceding quarters, further rose to 1,109 during the three months ending March last, and were equal to an annual rate of 0.39 per 1,000; in London the death-rate from this disease was equal to 0.34 per 1,000, while it averaged 0.42 in the thirty-two provincial towns, among which measles was proportionally most fatal in West Ham, Nottingham, Bolton, Manchester, Salford, and Gateshead. The deaths from scarlet fever, which had been 312 and 415 in the two preceding quarters, declined again to 366 during the three months under notice, and were equal to an annual rate of 0.13 per 1,000; in London the scarlet fever death-rate was only 0.09 per 1,000, while it averaged 0.16 in the thirty-two large provincial towns, among which this disease showed the highest proportional fatality in Norwich, Derby, Liverpool, Salford, Burnley, Halifax, Bradford, and Sheffield. The fatal cases of diphtheria, which had been 680, 681, and 1,140 in the three preceding quarters, were 1,128 during the three months ending March last, and were equal to an annual rate of 0.40 per 1,000; in London the death-rate from this disease was 0.42 per 1,000, while it averaged 0.38 in the thirty-two provincial towns, among which diphtheria was proportionally most fatal in West Ham, Brighton, Portsmouth, Swansea, Leicester, Birkenhead, Blackburn, Leeds, and Sheffield. The deaths from whooping-cough, which had declined from 1,596 to 622 in the four preceding quarters, rose to 1,417 during the three months under notice, and were equal to an annual rate of 0.50 per 1,000; in London the death-rate from whooping-cough was 0.60 per 1,000, while it averaged 0.43 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Bristol, Cardiff, Birkenhead, Preston, Halifax, Hull, and Sunderland. The deaths referred to different forms of "fever" (including typhus, enteric, and simple and ill-defined forms of fever), which had been 305, 428, and 1,004 in the three preceding quarters, declined to 499 during the three months ending March last, and were equal to an annual rate of 0.18 per 1,000; in London the "fever" death-rate was 0.14 per 1,000, while it averaged 0.20 in the thirty-two provincial towns, and was highest in Wolverhampton, Bolton, Preston, Sheffield, Burnley, and Blackburn. The 422 fatal cases of diarrhœa were equal to an annual rate of 0.15 per 1,000; in London the rate of mortality from this disease was 0.12 per 1,000, while it averaged 0.17 in the thirty-two provincial towns, among which diarrhœa showed the highest proportional fatality in Wolverhampton, Nottingham, Manchester, Blackburn, and Preston. No fatal case of small-pox was registered during last quarter, either in London or in any of the thirty-two large provincial towns.

Infant mortality in the thirty-three towns, measured by the proportion of deaths under one year of age to registered births was equal to 141 per 1,000 during the three months ending March last, against 150, 139, and 145 in the corresponding quarters of the three preceding years. In London the rate of infant mortality was equal to 130 per 1,000, while it averaged 149 in the thirty-two provincial towns, among which it ranged from 113 in Brighton, 118 in Croydon and in Portsmouth, 120 in Wolverhampton, and 123 in Bristol to 173 in Burnley, 175 in Blackburn, 192 in Halifax, 195 in Oldham, and 219 in Preston.

The causes of 803, or 1.4 per cent., of the deaths in the thirty-three towns during the three months ending March last were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0.7 per cent., while it averaged 1.8 in the thirty-two provincial towns. The causes of all the deaths during the quarter were duly certified in Croydon, Derby, Bolton, and Gateshead, and only one was uncertified in Plymouth and in Oldham; while the largest proportions of uncertified deaths were registered in Leicester, Liverpool, Blackburn, Preston, Halifax, and Sheffield.

THE Seventh International Congress of Veterinary Surgeons will be held at Baden-Baden from August 7th to August 12th. Among the subjects selected for discussion are the prevention of tuberculosis in domestic animals, meat-inspection, the use of the flesh and milk of tuberculous animals, the prevention of foot and mouth disease, and the general measures to be taken to prevent the spread of epizoötics through the international trade in cattle. Further particulars can be obtained on application to the Secretary-General, Dr. Casper, Höchst-a-M.

Two sanatoria for consumptive patients are to be established in Finland by two assurance societies which have been constituted for the purpose.

MEDICAL NEWS.

Lord Lister has consented to become the first President of the St. Mary's Children's Hospital at Plaistow.

The Middlesex Hospital has received the sum of £1,050 from the executors of the late Hon. Maria Louisa Carlton to endow a bed in the new cancer wing.

At the last meeting of the Cardiff Urban Sanitary Authority the salary of the medical officer of health, Dr. E. Walford, was increased from £700 to £750 per annum.

The annual dinner of old students of King's College, London, will be held at the Holborn Restaurant on Monday, June 26th. The chair will be taken by Dr. W. S. Playfair, Emeritus Professor of Obstetric Medicine.

Successful Vaccination.—Mr. C. Penruddocke, public vaccinator for the Stapleford District of the Wilton Union, has been awarded the Government grant for efficient vaccination, and Mr. Aird Jolly, public vaccinator for the Acton District, has received the grant for the second time.

A course of six demonstrations in practical Roentgen ray work will be given at Charing Cross Hospital by Mr. Mackenzie Davidson on Wednesday mornings from 10 till 12, commencing on May 10th. The course will be limited to 24, and the fee will be 2 guineas. Further particulars can be obtained from the Dean.

Society for the Study of Inebriety.—At the annual meeting held on April 13th, the President (Dr. Norman Kerr) in the chair, a reception was given to Drs. T. D. Crothers and Shepard, U.S.A. The President cited cases in which the different provisions of the new Inebriates Act had been put in operation. Dr. Crothers called attention to the great advance in the recognition of the disease aspect of intemperance, and Dr. Shepard referred to the value of the Turkish bath in the treatment of inebriety. Dr. Stephen Lett read a paper on the Cocaine Habit.

Intermediate Education.—The Duke of Devonshire, speaking at Presteign recently, praised the public interest in education displayed by Wales. Both Wales and Scotland shame England in these matters, but it is to be hoped that even here the move has begun. There seems to be a growing interest in technical education for commercial purposes, whether in languages and bookkeeping for clerks, or in natural science for those engaged in manufacture. Education has two aims—to make good citizens, and to help men to earn a living. We have attended to the first but not to the second, and it is time that we recognised the defect and corrected it.

The Proposed Colony for Epileptics.—The scheme for establishing a colony for the epileptics and imbeciles belonging to the Manchester and Chorlton Unions, has received a check owing to the opposition of the Liverpool Corporation to the use of the site acquired by the Joint Committee for the purpose, on the ground of the risk of contamination of the Rivington watershed, which it adjoins. While all will sympathise with the Liverpool Corporation in their efforts to keep the water supply free from suspicion, it is hoped that the carrying out of the well-conceived and philanthropic project of the Manchester and Chorlton Committee may not be unduly deferred.

The Hundred Year Club.—Reference was made in a recent number of the British Medical Journal to this club, which was not along ago founded in New York. We are relieved to learn that it is not, as its name seemed to us at first to imply, a club for centenarians. The only duties of members are to pay the annual fee and to pledge themselves to endeavour to live more than 100 years. A beginning, says an American contemporary, has been made by a dinner at the Waldorf-Astoria. We have no doubt that the dinner was worthy of the famous restaurant where it took place. We are less certain, however, whether indulgence in such *lautæ dapes* can be reconciled with the pledge required of members of the club. They should remember the fate of the noble poet whose premature *exit* from the stage of life was (as recorded by Sir Mount-Stuart Grant Duff) due to too many *entrées*.

Cork Dispensary Doctors' Association.—At a recent meeting of this Association, Dr. Ryan expressed gratification at the proposal to hold a meeting of the Irish Medical Association in Cork, although he thought it would be a mistake to discontinue the annual meeting in Dublin. He referred to the subject of car hire in connection with the discharge of their duties. Private practice was a fluctuating element, while official work was a fixed factor. The fees under the Registration Act were for entirely distinct duties. The medical officer was not always registrar, but when he was he received an allowance for travelling. If it was right to grant this concession in a merely subordinate position, it was doubly right for the much more important work of medical officer.

The Lenval Prize.—The Lenval prize, founded by Baron Léon de Lenval, of Nice, will be awarded at the International Otological Congress to be held in London from August 8th to 11th, 1899. The value of the prize is the interest of a sum of 3,000 francs which has accumulated between one International Otological Congress and the next. By the terms of its foundation it is to be awarded to the author of the most marked progress bearing on the practical treatment of affections of hearing during that time, or to the inventor of any new apparatus, which is readily portable, and improves considerably the hearing power of deaf persons. The members of the jury as at present constituted are Professor Politzer (Vienna), Dr. Benni (Warsaw), Dr. Gellé (Paris), Professor Pritchard (London), Professor St. John Roosa (New York), Professor Kirchner (Würzburg), and Professor Grazzi (Florence). All persons desirous of competing for the prize are requested to communicate without delay with Mr. Cresswell Baber, Honorary Secretary-General, 46, Brunswick Square, Brighton, England, stating the facts on which their claim is based.

The St. John Ambulance Association in Stockport.—We have received a *précis* of correspondence which has passed between Dr. Christian of Stockport and the authorities of the St. John Ambulance Association. The perusal of this correspondence, which deals with incidents going back to 1896, confirms the opinion which we ventured to express last week, that the circumstances connected with the administration of the local centre ought without delay to be investigated by the central office. We learn from the *Cheshire County News* that at a meeting recently held at the Church Club it was resolved to form a St. John Ambulance Brigade in Stockport. Dr. Christian, who has taken the initiative in this matter, explained to the meeting that the object of the formation of such a brigade was to afford holders of first-aid certificates from the St. John Ambulance Association opportunities of meeting together for ambulance and nursing practice, and thus to combine individual efforts for the public advantage, and to render first aid to the sick and injured on public occasions, with the sanction of the police and other authorities, and to maintain in readiness for such duty a body of trained men and women qualified so to act. The formation of this brigade seems to prove that considerable interest in ambulance work is felt in Stockport, and that the medical profession is prepared, under suitable circumstances, to take its share in the good work.

MEDICAL VACANCIES.

The following vacancies are announced:—

ASTON UNION.—Resident Assistant Medical Officer at the Workhouse, Gravelly Hill near Birmingham. Salary £100 per annum with furnished apartments, rations, washing, etc. Applications to the Clerk to the Guardians, Union Offices, Vauxhall Road, Birmingham, by May 2nd.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer: unmarried. Salary, £100 per annum, with board and apartments. Applications to the Secretary by May 2nd.

BEDFORD COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum, with apartments, board, lodging, and washing. Applications to the Secretary by May 15th.

BERKS COUNTY ASYLUM, Wallingford.—Junior Assistant Medical Officer, unmarried, not over 30 years of age. Salary to commence at £120 per annum, rising to £140, with furnished apartments, board, attendance, and washing; £6 per annum allowed in lieu of liquors. Applications to the Medical Superintendent at the Asylum.

BETHNAL GREEN BOARD OF GUARDIANS.—Second Assistant Medical Officer for the Workhouse and Infirmary, Waterloo Road, Victoria Park. Appointment for six months, subject to re-election. Salary at the rate of £70 per annum, with rations, furnished apartments, and washing, and £5 per annum in lieu of beer. Application on forms provided to the Clerk to the Board, Guardians' Administrative Offices, Bishop's Road, Victoria Park, N.E., by May 4th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer and Resident Surgical Officer. Salaries, £60 per annum, with board, lodging, and attendance. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by May 3rd.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £130 per annum, with rooms, coals, and gas. Applications to the Honorary Secretary by May 3rd.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum with board and residence. Applications to the Secretary by May 8th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Junior House Surgeon. Salary at the rate of £50 per annum. Applications to the Secretary by May 11th.

CHELTENHAM GENERAL HOSPITAL.—Assistant House Surgeon; unmarried. Salary £50 per annum, with board, lodging, and washing. Applications to the President by May 2nd.

CHORLTON UNION.—Senior and Junior Resident Medical Officers at the Workhouse Hospitals, Withington, Manchester. Appointments for twelve months. Salaries £130 and £120 per annum respectively, with furnished apartments and attendance in the Workhouse. Applications, endorsed either "Senior Resident Medical Officer" or "Junior Resident Medical Officer," to the Clerk to the Guardians, Chorlton Union Offices, All Saints, Manchester, by May 4th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Medical Officer for the Casualty Department. Appointment for six months, but renewable. Salary at the rate of £100 per annum. Luncheon provided. Applications to the Secretary by May 13th.

GLOUCESTER: BARNWOOD HOUSE HOSPITAL FOR THE INSANE.—Junior Assistant Medical Officer. Salary £100 per annum, rising to £120, with board, etc. Applications to the Medical Superintendent.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physician. Applications to the Secretary by May 2nd.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for twelve months, subject to re-election. Salary £80 per annum, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by May 1st.

LEITH HOSPITAL.—Resident Surgeon. Appointment for six months. Applications to the Secretary, 33, Bernard Street, Leith.

LONDON HOSPITAL, Whitechapel, E.—Obstetric Registrar. Application to the House-Governor by May 4th.

LONDON HOSPITAL MEDICAL COLLEGE.—(1) Assistant to the Bacteriologist and Lecturer on Bacteriology. (2) Obstetric Tutor. Applications to the Warden by April 30th and May 4th respectively.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Remuneration at the rate of £50 per annum, with residence, board, and washing. Applications to the Secretary by May 20th.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary, £100 per annum, with furnished rooms, attendance, and board. Applications to the Secretary by May 1st.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Honorary Assistant Physician. Applications to the Secretary, Hardman Street, Deansgate, by May 6th.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Ophthalmic Surgeon and an Honorary Assistant Physician. Applications to the Secretary by May 20th.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—Surgeon. Application to the Secretary by May 13th.

NORTHAMPTON GENERAL INFIRMARY.—Assistant to the House Surgeon. Appointment for six months. Board, lodging, and washing provided. Honorarium £25. Application to the Secretary.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of £30 per annum. Applications to the Secretary, 41, Fitzroy Square, W., by May 6th.

READING: ROYAL BERKS HOSPITAL.—Vacancy on Medical Staff. Applications to the Secretary by May 8th.

ST. MARYLEBONE GUARDIANS.—Non-Resident Assistant Medical Officer for Dental purposes at the Schools at Southall. Salary £50 per annum. Applications to the Clerk to the Guardians' Offices, Northumberland Street, Marylebone Road, W., by May 15th.

SAMARITAN HOSPITAL FOR WOMEN AND CHILDREN, Marylebone Road.—Surgeon to Out-patient Department. Applications to the Secretary by May 5th.

SEAMEN'S HOSPITAL SOCIETY, Greenwich, S.E.—Three Physicians to in-patients, one Physician to out-patients, one Surgeon to in-patients, one Surgeon to out-patients, and one Ophthalmic Surgeon; also a Superintendent and Medical Tutor at the London School of Tropical Medicine Royal Victoria and Albert Docks. Salary £250 per annum and a capitation on the students. Applications to the Secretary by May 3rd.

SHREWSBURY: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary to commence at £130 per annum, rising to £150, with board, lodging, and washing. Applications to the Medical Superintendent by May 6th.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House-Surgeon. Appointment for six months, with honorarium of £10, and board and residence. Applications to the Secretary before May 3rd.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Salary, £50 per annum, with board, lodgings, and washing. Applications to the House Surgeon by May 3rd.

STOCKPORT INFIRMARY.—Junior Assistant House-Surgeon. Salary £2 per mensem, with board, washing, and residence. Applications to the Secretary by May 2nd.

THROAT HOSPITAL, Golden Square, W.—Second Resident Medical Officer. Salary, £50 per annum, with board, lodging, and washing. Applications to the Secretary-Superintendent by May 5th.

WAKEFIELD: WEST RIDING ASYLUM.—Locum Tenens for one month. Salary £3 3s. per week and apartments and board. Applications to the Medical Director at the Asylum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Physician; must be F. or M.R.C.P.Lond. Applications to the Secretary-Superintendent by May 3rd.

WREXHAM INFIRMARY.—House-Surgeon. Salary £80 per annum, with board, washing, and furnished apartments. Applications to the Secretary by May 3rd.

MEDICAL APPOINTMENTS.

ADAMS, D. V. M., M.B., Ch.B.Edin., appointed Resident Surgeon to the Glasgow Royal Infirmary.

ANDERSON, J., M.B., appointed District Medical Officer of the Tynemouth nion, *vice* R. Anderson, M.D., resigned.

BATEMAN, F. J. Harvey, B.A.Cantab., M.B., C.M.Edin., appointed House Surgeon to the Leith Hospital.

BAUMANN, E. P., M.B., Ch.B.Edin., M.R.C.S.Eng., L.R.C.P.Lond., appointed a Resident Physician in the Glasgow Royal Infirmary.

BENNETT, P., M.B., B.Ch., appointed Medical Officer for the Attercliffe District of the Sheffield Union.

CAMERON, A. F., M.A.St. And., M.B., C.M.Edin., appointed Resident Medical Officer to the Sheffield Union Workhouse.

CHRISTIE, B. A. Craig, M.B., C.M.Edin., appointed Resident Physician in the Glasgow Royal Infirmary.

DEARDEN, V. G. S., L.R.C.P.Edin., L.F.P.S.Glas., appointed Medical Officer of the Carbrook District of the Sheffield Union.

FOSTER, J., M.B.Edin., appointed Clinical Assistant to the Chelsea Hospital for Women.

GRAHAM, J. W. F., L.S.A., appointed Medical Officer for the Piddington District of the Bicester Union, *vice* W. J. Bond, M.B.Glas.

HOLLINSHEAD, F., M.D., appointed Medical Officer of Health to the King's Norton and Northfield Urban District.

LUMSDEN, J., M.D.Univ.Dub., appointed Senior Medical Officer to Guinness's Brewery, Dublin.

MCDOWELL Donald K., L.R.C.P., L.R.C.S.Edin., appointed a Senior Medical Officer in the West African Frontier Force.

MORE, John, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Rowell District of the Kettering Union, *vice* James More, M.D.Edin., resigned.

NIX, R. E., B.A.Camb., M.B., B.C., appointed Medical Officer for the St. James's District of the Bury St. Edmunds Incorporation, *vice* G. F. Henry, L.R.C.P., L.R.C.S.Edin., resigned.

NORMAN, E. P., M.D., appointed Medical Officer for the Brafield District of the Hardingstone Union, *vice* J. G. C. Scott, M.B., C.M., resigned.

PARRY, L. A., M.D., B.S.Lond., F.R.C.S.Eng., appointed Honorary Anæsthetist to the North-West London Hospital.

PELLETT, W. E., M.B., Ch.B.Edin., appointed a Resident Surgeon to the Glasgow Royal Infirmary.

SIMMONS, G. Allpress, M.D., B.S.Lond., M.R.C.S., L.R.C.P., appointed Attending Medical Officer to the Royal Pimlico Dispensary.

DIARY FOR NEXT WEEK.

MONDAY.

Odontological Society of Great Britain, 40, Leicester Square, W.C., 8 P.M.—Mr. C. B. Keetley: Limitation of the Gape after Operations on the Cheek and Jaws. Mr. Mayo Collier: Deformities of the Upper Jaw, Teeth, and Palate due to Nasal Obstruction.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Professor John MacFadyean: Congenital Tubercle on a Calf. Dr. F. W. Andrewes: Phagocytosis of Red Blood Corpuscles in a case of Aseptic Suppuration of the Knee-joint following Injury. Mr. S. G. Shattock: Chromolytic Clumping in Acute Rheumatism and Erysipelas. Dr. F. E. Batten: Further Evidence on the Pathology of Diphtherial Paralysis. Mr. H. J. Waring: Tumour on the Neck composed of Myeloid Cells. Dr. Still: Tuberculous Ulcers on the Stomach in Children. Card Specimens will be shown by Dr. Batten, Mr. Waring, Dr. Andrewes, Dr. Rolleston, and Dr. Rennie.

WEDNESDAY.

Obstetrical Society of London, 8 P.M.—Specimens will be shown by Mr. Targett, Dr. Purslow, and others. Papers: Mr. Alban Doran: Fibroid of the Broad Ligament weighing 44½ lbs. (20 kilos.) removed by Enucleation; Recovery; with Table and Analysis of 39 Cases. Dr. C. Hubert Roberts: Notes of a Case of a Large Retroperitoneal Fibroid undergoing Suppuration.

THURSDAY.

Harveian Society of London, 8.30 P.M.—Mr. C. B. Lockwood: A Series of Cases of Arthrotomy for the Relief of Pain and for the Removal of Synovial Fringes, Loose Bodies, and Fibro-cartilages.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Green: Medical Cases in the Wards.

Ophthalmological Society of the United Kingdom.—Clinical Evening. Cases in place at 8 P.M. Chair at 8.30 P.M.—Mr. A. H. Thompson: Tumour of Iris. Mr. Treacher Collins: (1) Tumour of Iris; (2) Unusual Opacity of Cornea. Mr. Arnold Lawson: Vascular Formation in Vitreous. Dr. Lediard: Sloughing of Cornea following Fracture of Base of Skull. Mr. Snell: (1) Primary Intraocular Carcinoma; (2) Traumatic Ptosis. Mr. Mackenzie Davidson: Skiagraph of Glass in Eyeball. Mr. Critchett: (1) Solid Œdema of Eyelids; (2) Snellen's Artificial Eyes. Mr. Mackay: Skiagraph of Foreign Body in Eye. Mr. Rowan: Carcinoma of Lung and Eye. Mr. Batten: Filamentary Keratitis.

FRIDAY.

Laryngological Society of London, 20, Hanover Square, 5 P.M.—Special Discussion on Asthma in Relation to Disease of the Upper Air Passages, to be opened by Dr. Percy Kidd and Dr. P. McBride.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, 8.45 P.M.—Dr. Morgan Dockrell: Presidential Address on General Health as a Factor in Skin Diseases.

West London Medico-Chirurgical Society, West London Hospital, W., 8.30 P.M.—Mr. H. J. Paterson: The Use of Gas in General and Dental Surgery, together with a Demonstration of a New Apparatus for the Prolongation of Nitrous Oxide Anæsthesia. Dr. John Pardoe: Some Modern Methods of Treating Chronic Urethritis in the Male.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

MARRIAGES.

BEAN—STARK.—April 25th, W. Percy Bean, L.S.A., Cross Gates, Leeds, to Margaret Wood, daughter of the late Peter Wood Stark, M.D., Barrow-in-Furness.

HINDS—MOSS.—On April 26th, at St. Botolph's, Heene, Worthing, by the Rev. J. P. Fallows, Rector of the Parish, assisted by the Rev. J. H. de Turri Croft, Rector of Cotesbach, Leicestershire, Frank, second son of the late George Hinds, of Goudhurst, Kent, to Mary Helen, only daughter of Matthew H. Moss, of Belsize, Worthing.

HOBBS—SHAW.—On April 20th, at Jesmond Parish Church, Newcastle-on-Tyne, by the Rev. C. Triffit Ward, M.A., Vicar of St. Peter's, Colchester, cousin of the bride, and the Rev. T. Brocas Waters, M.A., Allen Holmested Hobbs, M.B., B.S., to Ethel, second daughter of Benjamin Shaw, Newcastle-on-Tyne.

POTTS—MANN.—On April 19th, at St. John's Church, Ladywood, Birmingham, by the Rev. A. R. Moss, M.A., assisted by the Rev. E. J. Nurse, M.A., William Alexander Potts, B.A., M.D., eldest son of the late A. W. Potts, M.A., LL.D., first Headmaster of Fettes College, Edinburgh, to Florence, second daughter of W. S. Mann, M.R.C.S., L.S.A., Edgbaston, Birmingham.

REITH—MACHIN.—On the 20th inst., at the Parish Church, Erdington, by the Rev. Williamson Rust Innes, D.C.L., minor canon of Hereford Cathedral, cousin of the bridegroom, assisted by the Rev. F. S. Swindell, M.A., Vicar of the parish, Williamson Rust Reith, M.A., M.D., Erdington, second son of Alexander Reith, M.D.Aberdeen, to Helen Constance, elder daughter of Edmund Spooner Machin, M.R.C.S., Erdington.

SALISBURY—THOMPSON.—On April 5th, at St. Mary's, Burley-in-Wharfedale, by the Rev. G. A. Johnstone, Vicar of Micheldever, Hants, assisted by the Rev. R. P. Steadman, Vicar, Charles Ramsden Salisbury, L.R.C.P., M.R.C.S., of Alveston House, Evering Road, Stoke Newington, N., to Ida Muriel, only child of the late James Thompson, Esq., of Bradford, and of Mrs. Mumford, the Lawn, Burley-in-Wharfedale.

DEATHS.

HOGG.—Sunday, April 23rd, suddenly, at 102, Palace Gardens Terrace, Kensington, Jabez Hogg, M.R.C.S., F.R.M.S., late of 1, Bedford Square, W., in his 83rd year.

HUSSEY.—On April 23rd, at 24, Winchester Road, Oxford, Edward Law Hussey, Esq., F.R.C.S.Eng., ætat 83 years.

LEE.—April 12th, at The Close, Salisbury, Frederick Fawson Lee, M.B.Lond., F.R.C.S.Eng., aged 60.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Tu., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 3; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9 Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45 o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Tu., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1 Eye, Tu. F., 9; Ear, M. Th., 9. Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5, Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Tu., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F. 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Tu., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Tu., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

WALES wishes to hear of an asylum or home for an idiot boy (aged 10), with occasional epileptic fits. The parents can pay 4s. or 5s. a week.

JUNIUS asks for advice in the treatment of a gentleman, aged 85, in whom attempts at swallowing produce regurgitation or vomiting, so that it is difficult to administer any drug: enemata are not retained, and glycerine suppositories have been tried without good result.

STILLBIRTHS.

L. M. N. asks: 1. Is the birth of a stillborn child under any circumstances registrable? 2. Supposing a married woman miscarries at the end of the fifth month of pregnancy, and is delivered of a dead child which is clearly not viable, what is the recognised mode of disposal of the ovum? Should it all be put in the fire, or should the fœtus be buried by arrangement with an undertaker? This assumes that ordinary professional attendance takes place at the time of the miscarriage and subsequently.

*** 1. No, except by mistake on the part of the parent and the registrar. 2. The proper mode of disposal of the body of a fœtus is to get an undertaker to bury it, the medical man in attendance giving a certificate that it was stillborn. It should certainly not be put in the fire.

DESQUAMATION AFTER RUBELLA.

DR. W. B. RUSSELL (Colwyn Bay) relates a case of extensive desquamation after an attack, which he believes to have been rötheln, and inquires whether this has been observed in other cases. The patient was a boy, aged 18, who after three days of coryza had a rash on the face, and on the following day a general rash resembling that of measles. There was no sore throat nor enlargement of the tonsils, but there were enlarged glands behind the sterno-mastoid and in the axillæ. The rash persisted for five or six days. Recovery was rapid; the hands and feet began to peel after two or three weeks, and were not clear until the end of six weeks. The patient is said to have previously had both scarlatina and measles.

*** Desquamation to some, usually a slight, extent, appears to be the rule after rubella. It is commonly very slight when the rash has been of the measles type, more copious when it has resembled that of scarlet fever.

LOSS OF HAIR.

A. C. I. asks for suggestions for the treatment of the case of a lady, aged 35, whose hair seems to grow fairly well, but as soon as it gets a few inches long it comes out by the roots. Various forms of hair washes containing cantharides have been tried, and also the application of vaseline and lanolin (which latter seemed indicated as the scalp is a little dry), but with no effect. The lady is in good health.

CLAIM FOR MEDICAL ATTENDANCE UNDER EMPLOYERS' LIABILITY ACT.

COUNTRY PRACTITIONER writes to ask whether, under the Employers' Liability Act, he can claim anything for attendance and signing certificates on the workmen who had been engaged at a lime kiln, and who subsequently came under his professional care, one then suffering from dislocation of shoulder, the other from severe shock. Both became paupers when ill, and are not now able to pay anything.

*** Our correspondent has not supplied us with sufficient facts to enable any opinion to be given. He does not even say that the men met with the injuries he describes when engaged at their work, though this may perhaps be assumed from his letter. He does not tell us by whom he was requested to attend these two patients. He says that both became paupers, but he does not say whether he attended them as such or as private patients. He does not even say whether he is a Poor-law medical officer or not.

ANSWERS.

J. W. is recommended to consult a regular medical practitioner.

BRONCHOCELE is recommended to consult the physician under whose care the lady is.

ETHICS.—There seems to be no evidence that the surgeon whose name is mentioned is responsible for the appearance of the paragraph upon which our correspondent animadverts.

W. J. T. B.—A four years' course was adopted by the Harvard University and the University of Pennsylvania in 1891, and since then other universities in the United States have made similar regulations. Previous to that date the rule—to which there were few, if any, exceptions—was that the graduating bodies of the United States required only a three years' course from medical students.

DELTA.—Although there is a good deal in the circumstances narrated which must have caused annoyance to our correspondent, and in which he has our sympathy, he has not produced any evidence that the newspaper paragraph of which he complains was inserted by any of the medical practitioners named in it. Perhaps it would be better if he would send us all the correspondence that has passed if he wishes us to form any further opinion upon the matter.

MISTURA.—We are not aware that there is any prospect of such a regulation being adopted. The General Medical Council has never touched the subject, and appears to look upon dispensing under the supervision and subject to the responsibility of the medical practitioner as a resource for displaced unqualified assistants. Particulars as to examinations can be obtained on application to the Pharmaceutical Society, Bloomsbury Square W.C. and the Society of Apothecaries, Blackfriars, E.C.

A. B. C.—The last case where a will made by a person certified as being of unsound mind was upheld was tried at Birmingham Assizes, before Mr. Justice Mathew and a special jury, about three years ago or possibly less. It was fully reported in the papers at the time, as it naturally excited a good deal of interest. Previous cases were referred to in the course of that trial.

COLOTOMY IN CHRONIC DYSENTERY.

L. T. Y.—Other treatment having failed colotomy might be recommended for the treatment of chronic dysentery, but at present there appears to be no evidence as to the permanent benefit arising therefrom.

A STRING OF ANSWERS.

L.R.C.S.I.—(1) The domestic sterilisation of milk for an infant may be carried out as follows: Place a quantity of milk (diluted and prepared) sufficient to last for twelve hours in a bottle, and plug the mouth with cotton wool; then place it in a receptacle with a lid, and pour in boiling water to the level of the milk in the bottle; allow it to stand on the stove for thirty minutes. A temperature of 167° to 175° F. is sufficient for sterilisation, and does not impair the quality of the milk. Afterwards keep it in a refrigerator, and warm a little for use as required. (2) It would be advisable to consult a veterinary surgeon, by whom the tuberculin test of the cow should be carried out. (3) Good practical works on gynæcology are *Diseases of Women*, by G. E. Herman, M.B., F.R.C.P.Lond. (Cassell and Co. 1898. 25s.); *American Textbook of Gynecology*, by J. M. Baldy, M.D. Second Edition (London: Rebman Publishing Co. 1898. 34s.).

AUSTRALIA FOR PATIENTS WITH A CONSUMPTIVE HISTORY.

E. M. writes: Would a girl, aged 20 years, who at present has no sign of phthisis, but whose family history is very unfavourable—two brothers and one sister having died of phthisis—be benefited by settling in Australia?

*** It is probable that this patient would be benefited by residence in certain parts of Australia, if she has friends there, or is strong enough to work for her living. Speaking generally, the large cities are unfavourable for cases of this kind, and a residence inland, away from the sea coast, desirable. One of the southern colonies, or the inland parts of New South Wales, are more suitable than the northerly and tropical districts. On arrival at one of the large cities—either Adelaide, Melbourne, or Sydney—she should consult a medical man there, who will advise as to the exact locality best suited for her condition.

NOTES, LETTERS, Etc.

THE HUNTER FUND.

MR. RIVERS WILLSON (Treasurer) (42, Wellington Square, Oxford) writes: Permit me to acknowledge the receipt of the following donations:

	£	s.	d.
Amount acknowledged April 22nd	25	4	0
Joseph Smith, Esq., Bedford Park, W.	1	1	0
Dr. A. G. Bateman, 49, Devonshire Street, W.	1	1	0
F.R.C.S.Eng.	0	10	6
Dr. Latham, Cambridge	5	5	0
Total	£33	1	6

"THE PIANO AS A CAUSE OF NEUROSES."

WITH reference to a paragraph which appeared under the above heading in the BRITISH MEDICAL JOURNAL of April 22nd, Mr. John William Taylor (Bristol) writes: Most musical persons are, to say the least, sensitive: many bordering on the neurotic. It is not so much the piano which is to blame; in fact, in many cases it can be the remedy. Of course it is a mistake to force unwilling natures to study the piano or any other musical instrument, but few indeed are the persons who are not in some way musical. Those who are not may be spared the "neurosis" but lose far more. Neither should sensitive ears be disregarded, but the piano is not the worst nuisance in this world, and there is only the piano with which elementally to teach. The suggestion of the intervention of Parliament, etc., seems too much like the tactics of teetotal reformers and "anti" humbugs. The piano is a long-suffering instrument and is often badly used, but this vituperation from the BRITISH MEDICAL JOURNAL is perhaps "the most unkindest cut of all."

*** We assure our correspondent that we had no thought of "vituperating" the piano, an instrument for which *rightly used* we have the greatest respect. But Mr. Taylor himself admits that it is "often badly used," and it is against this that we ventured to make a meek protest. As for the suggestion that Parliament should protect minors from being compelled to learn the piano *invita Minervâ*, we may be allowed to hint that our esteemed correspondent has taken the proposal too seriously. But we confess that we feel abashed, and we can only say with Touchstone: "When a man's verses cannot be understood, nor a man's good wit seconded with the forward child, understanding, it strikes a man more dead than a great reckoning in a little room."

THE SUPPORTERS OF THE MIDWIVES BILL.

A CORRESPONDENT writes to call attention to the following advertisement which appeared recently in the London *Daily Mail*:

IN PARLIAMENT!!—WANTED the BRITISH PUBLIC to TAKE GREAT INTEREST in the MIDWIVES' REGISTRATION BILL NOW BEFORE PARLIAMENT, and to create an enlightened Public Opinion which will insist on the immediate passing of this LONG-NEEDED REFORM.

WANTED, the BRITISH PUBLIC to know that this beneficent measure will have the effect of reinstating (REGISTERED) WOMEN EXCLUSIVELY and with perfect safety in all cases, which is the ONLY CONDITION OF THINGS POSSIBLE in a Christianised Society, the present system being not only detested by every true-minded woman, but an insult to English common sense, a foul blot on English Home-life, and an unmanly degradation of Womanhood.

Our correspondent adds: I think that it is very evident that many of the supporters of this Bill are desirous of handing over all cases to their registered but not qualified midwives, as they say with safety, an assertion open to doubt. My own experience of the trained (?) midwife of the present day is that she endeavours to impress the general practitioner with her superior knowledge in ordinary cases, but when any cases of difficulty happen to occur, she frantically tries to shift any responsibility on to his shoulders. I should like to call the attention of those medical men who are backing this Bill to this advertisement. It is rather unfortunate that the advertisers have not the moral courage to give either their own names or that of any organisation which may have issued it.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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REMARKS

ON THE DIFFERENTIAL DIAGNOSIS OF INSULAR SCLEROSIS FROM HYSTERIA.*

BY THOMAS BUZZARD, M.D., F.R.C.P.,
Physician to the National Hospital for the Paralysed and Epileptic.

I PROPOSE to offer a few remarks upon the value of certain symptoms in aiding us to diagnose a case of insular sclerosis, or at least to differentiate in a doubtful case signs which point to organic disease of the central nervous system from those of "functional" character. Especially where the patient is a young woman, the early stages of this disease are very apt indeed to be attributed to hysteria. The initiatory symptoms are often so insidious that great difficulty is experienced in forming a correct diagnosis; and, owing to a kind of opprobrium which still lingers amongst us as attaching to the hysterical condition, no little injustice, sometimes of a very cruel kind, is apt to be done to the unfortunate patient. I am frequently asked in an imploring tone by a sufferer from insular sclerosis, "You don't think, do you, that I could walk well if I tried?" evidently referring in these terms to suggestions which had been freely made that the difficulty of progression simply arose from want of will.

I have not time, nor is it necessary, to enter generally upon the etiology, symptoms, course, anatomy, and other features of insular sclerosis. I need only remark that in a fully developed and typical case all or many of the following symptoms may be present: loss of power in one or more extremities with tendency to spasticity in the affected limbs, intention tremor, exaggeration of knee-jerks and wrist-jerks, ankle clonus, imperfect control over the bladder and (less frequently) the bowel, localised muscular wasting, bulbar symptoms, giddiness, double vision, more or less impairment of vision, optic atrophy, nystagmiform movements of the eyes, scanning articulation, apoplectiform attacks. The likelihood of a condition characterised by the presence of the greater number of these symptoms being ascribed to hysteria, although I am sorry to say that it is not altogether absent at the present day, diminishes with the advance of knowledge. But in the early stages, when only a very few symptoms are present, the probability of such an erroneous diagnosis being made is still very strong indeed. It has appeared to me, therefore, that some useful purpose might possibly be served by contributing to the study of a subject of great interest an estimate of the value which experience has led me to attach to certain symptoms—either singly or combined—as helping us at least to feel sure that we are dealing with a case of organic disease of the central nervous system, and not a purely functional affection. When the conclusion is reached that certain symptoms point to structural change a diagnosis is likely to be arrived at by a combined process of synthesis and exclusion. Apologising for the necessarily fragmentary character of the comments, let me at once proceed to deal with some of the symptoms.

The most frequent of all modes by which insular sclerosis is ushered in is by a loss of power, often of very sudden origin, being complained of in one of the limbs. This may or may not be accompanied or preceded by a feeling of "numbness" or "tingling." The loss is only partial; the patient lets things drop from the hand, perhaps, or what is still more common, in the course of a walk drags one of the legs. The limb, however, is still employed, though awkwardly. It is not uncommon for this to occur in the sequel of a strong mental emotion, and the patient, if a young woman, is practically sure, then, to have the symptom set down to hysteria. Should it be accompanied by no other sign I do not think it is possible to be quite certain that the conjecture is not a correct one. At the same time it should be remembered that loss of power of hysterical origin is likely to be more complete than that which is an early symptom of insular sclerosis. And it is much more likely to be accompanied by very marked anæsthesia. So that a paresis of a limb which is only associated with "tingling" or "numbness," and in which anæsthesia is not present, should be looked upon with doubt, and the patient subjected to observation. It is very likely that in the course of some days, or a few weeks, the power is regained. In these circumstances it is too often imagined that the diagnosis of "hysteria," which has in all probability been made, is amply confirmed. I have satisfied myself, from observation of numerous cases over many years, that a very characteristic feature of insular sclerosis is the liability of the patient to a transitory paresis of a limb, which is succeeded, after a longer or shorter interval, by a recurrence in the same or some other limb or limbs. On the other hand, such attacks as these, according to my experience, do not belong to hysteria.

As an example, I extract the following from notes of a case which had been supposed to be hysteria, but which died some years afterwards from insular sclerosis: "Sixteen months previously there had been a weakness of the right leg and the left hand, of which she got the better..... Again, in the autumn, there occurred a weakness of the right leg. But just before she came to me the left leg became the weaker."

In not a few cases an occurrence of squinting (paresis of an external ocular muscle) ushers in the disease, and the attacks of this kind are usually transitory, like those of the extremities. This, again, is a symptom which, according to my experience, is not one of hysteria.

It sometimes happens that blurring of the sight in one eye, which may go on to considerable loss of vision, is the first symptom, or it may occur later. The ophthalmoscope may show no change. Under the idea that the symptom is due to hysteria, the patient is encouraged to expect recovery, and this will very likely happen in due course (like the recovery of power in a limb). It will, however, be liable to be followed some time afterwards by a similar affection in the other eye, or a return of the difficulty in the same one. Here, again, let me say that this course of events, in my experience, constitutes no part of hysteria. I cannot remember ever to have seen a case thus characterised which the event showed to have been of purely functional origin. I have seen many, on the other hand, which the sequel, under my own observation, has shown to be examples of insular sclerosis. Although, as I have said, in many of these cases in which some loss of sight is complained of, no change is to be found by the ophthalmoscope in the fundus oculi, yet in others (still more often) some pallor of the optic disc (partial atrophy) may be observed. In at least 50 per cent. of cases of insular sclerosis I have found some (often very slight indeed) atrophy of one or both optic discs. It need scarcely be said that this appearance (especially if one eye only is concerned) should be reckoned as furnishing decisive proof that the patient is affected with disease of organic and not simply functional character. The discovery of the remarkable tendency to optic atrophy in cases of this disease, which has been arrived at in the last few years, has very greatly lessened the difficulty of diagnosing insular sclerosis. It should be remembered that the amount of atrophy is often very slight indeed, so that the examination by the ophthalmoscope requires to be of the most careful description to avoid erroneous inference. It is an interesting circumstance that a patient whose fundus oculi exhibits no change may have considerably more impairment of visual power than one in whom there is found a distinct though partial atrophy of the disc. I cannot now discuss the probable explanation of this anomaly nor attempt to enter upon a consideration of the visual troubles generally. They have been dealt with by me in previous publications.[1]

In turning over the pages of an old notebook the other day, I came across particulars of the case of a lady whom I had seen in March, 1883, with a view of deciding whether she should be submitted to a course of Weir-Mitchell treatment for the hysteria which her case had been diagnosed to be. Without going into details, I may say that I thought it to be an example of insular sclerosis, which the sequel showed it to be. But in my notes I find: "A suspicious history of loss of sight of the left eye, with gradual recovery of vision, and later on loss of sight in the right eye with gradual recovery of vision. In spite of this I believe the case to be one of insular sclerosis." At that time such symptoms were commonly believed to point to hysteria, and my note appears to

* Read at a meeting of the West Surrey District (South-Eastern Branch) of the British Medical Association at Godalming.

show that I then shared the general belief. Subsequent large experience has perfectly convinced me, as I have already mentioned, that such an opinion is quite erroneous.

The excess of knee-jerks, which is marked in insular sclerosis, is not of itself evidence of organic disease, but is common enough in emotional subjects. Loss of knee-jerks, on the other hand, is not caused by hysteria. Where their absence is clearly established (and considerable care is sometimes required for this) the symptom furnishes most valuable evidence of structural disease. In cases of insular sclerosis, however, the knee-jerks are very rarely indeed lost (they are almost invariably exaggerated), except that in certain conditions of severe muscular contracture it may be almost impossible, from mechanical reasons, to elicit them. A curious experience happened to me a week or two ago. A girl of 16 years of age (introduced by my colleague, Mr. Marcus Gunn) presented ophthalmic symptoms which pointed to insular sclerosis, and in the circumstances I felt confident of finding excess of knee-jerks. Instead of this there was very considerable difficulty in eliciting any at all, even with reinforcement. Her mother, who was present, seeing my surprise, suggested that I should examine her. She was a woman of absolutely perfect health, but in her I succeeded in eliciting a very slight response indeed, and that only in one knee. There is here evidently a family peculiarity which thus masks the indication which would otherwise be furnished by the state of the knee-jerks.

Ankle clonus is so very characteristic a symptom of insular sclerosis that the question of its possible existence as a purely functional phenomenon becomes of very great importance. Twenty years ago, in the early days of the discovery of tendon phenomena, I was disposed to think that ankle clonus was a not very uncommon symptom in purely functional disorder. The fact that with the progress of time and increased experience I no longer hold this opinion depends, it is probable, on the circumstance that in the distant past I considered as examples of hysteria many cases which really belonged to the class of insular sclerosis. However that may be, I do not now come across well-marked ankle clonus in cases of purely functional character, although in these a modified form of the phenomenon is not very rare. I think it must be looked upon that well-pronounced and persisting ankle clonus is a symptom of some structural change in the pyramidal tract, the exceptions to this rule being too few to be safely regarded. In the question of diagnosis of insular sclerosis the existence of ankle clonus would be a still more important sign but for the fact that it is in such cases almost invariably associated with other characteristic symptoms, and the combination is sufficient to constitute overwhelming evidence where a lingering doubt might possibly be felt if this symptom stood alone.

Absence of knee jerk associated with ankle clonus must be taken as clear evidence of organic disease. I have more than once met with this peculiarity in cases of insular sclerosis.

Intention tremor holds a very important place in the diagnosis, but it is not always present. In the hysterical there is sometimes a clumsiness of movement of the hand when directed towards an object (arising probably from a loss of muscular sense), but it is not of a kind to give rise to error. I cannot call to mind any instance in which well-marked intention tremor was observed by me in a case which the sequel showed to be of purely functional character. Nor am I familiar with nystagmiform movements of the eyes in cases of hysteria. (As is well known, these occur in other diseases of organic origin besides insular sclerosis.) The same must be said of the scanning articulation, which, however, is not a very common feature of insular sclerosis.

The bladder troubles in insular sclerosis, which are of very frequent occurrence, usually in the early stages assume the form of delay in the passage of urine. This may possibly depend upon the muscular spasticity which characterises the disease. I cannot pretend to be able to safely differentiate this symptom from that which is apt to occur in hysteria. It rarely or never amounts to the total inability to pass urine which is characteristic of hysteria, where the symptom is possibly the result of vesical anæsthesia. In the course of the disease there is not infrequently also too frequent action of the bladder and inability to retain it. In the advanced stages there may be a veritable incontinence from paralysis of the bladder.

In these remarks I have only touched upon symptoms of insular sclerosis, about which there is the most chance of a difficulty arising in regard to their value in indicating the existence of organic disease. In cases of hysterical paraplegia, the condition most likely to be confounded with insular sclerosis, there is liability to the occurrence of other symptoms to which it is necessary to allude.

Anæsthesia of the lower extremities, if very complete, is one of these, an anæsthesia which is bounded above by their junction with the trunk. This is a symptom of distinctly functional character, and taken by itself points in no way to the existence of organic disease. It is common, though not necessarily present, in hysterical paraplegia.

Hysterical contracture of the lower limb is a rather more difficult matter to deal with. This, like the contracture which is very apt to come on in advanced stages of insular sclerosis, is associated with excess of knee-jerk, except where there is mechanical difficulty in the way of its exhibition. On the other hand, it is not in the functional case accompanied by well-marked and persisting ankle clonus. Moreover the history of the case should be sufficient to guard against error. Hysterical contracture is apt to occur rapidly, indeed often suddenly, in a person previously well. The contracture in insular sclerosis arrives gradually after more or less long-continued or varying loss of power in the extremities. Contracture of the arm is comparatively rare in insular sclerosis, whilst it is perhaps more common than that of the leg in hysteria.

I have already referred to the fact that in hysterical paraplegia there is often profound anæsthesia of the lower extremities, which forms no part of the picture of insular sclerosis. But there is another point on the sensory side of great differential value to which I must allude. In by far the great majority of those cases of hysterical paraplegia in which anæsthesia is either altogether absent or but slightly expressed it will be found that the plantar reflex is absent. I first called attention to this interesting point many years ago.[2] A large subsequent experience has established the correctness of this statement. It will often be found on inquiry that the patient had been previously peculiarly susceptible to titillation of the footsole. Dr. Julia Brinck, who has been occupied in personally applying massage for many years in England, and whose opportunities for observation of the condition of the plantar reflex in cases of hysterical paraplegia are therefore unusually favourable, has informed me that her experience entirely accords with my observation. Moreover she frequently finds the plantar reflex, which had been quite absent at the commencement of a course of treatment, return on the patient's recovery. It is scarcely necessary to say that the plantar reflex may be absent in connection with destructive disease of the spinal cord, but in such cases the concomitant symptoms should be sufficient to prevent error. But the occurrence of absence of plantar reflex in the circumstances (cases of hysteria) described is proof that it may also be, what absence of the patellar tendon reflex never is, a purely functional symptom. Unfortunately its value as a distinguishing mark between organic and functional disease is diminished by the fact that the plantar reflex is probably not invariably absent in hysterical paraplegia, although exceptions to the rule are extremely rare. On the other hand, the plantar reflex as a general rule will be found present in cases of insular sclerosis and its retention in a patient suffering from loss of power in the lower extremities thus serves to lend evidence of some considerable importance against the case being one of purely functional disorder. But it sometimes happens that a temporary absence of plantar reflex occurs as a functional symptom superadded to structural change. This tendency for functional symptoms to be mixed up with those belonging to organic change constitutes a great difficulty in the diagnosis of insular sclerosis.

THE "TOE PHENOMENON."

There has recently taken place a very important development in the diagnostic value of plantar reflex to which I should like to refer. In February, 1896, J. Babinski brought before the Société de Biologie of Paris some most interesting observations, which he has amplified in succeeding contributions.[3] He shows that in normal conditions excitation of the foot sole provokes, amongst other reflex movements, such as

flexion of the foot on the leg, of the leg on the thigh, of the thigh on the pelvis, a flexion of the toes on the metatarsus. In some persons, on exciting the sole the toes remain to all appearance motionless, but they do not ever (in health) execute a movement of extension. This applies especially to the big toe. In certain pathological conditions, however, excitation of the sole provokes extension of the toes, especially of the big toe. This modification of the reflex he calls the "toe phenomenon. Without proceeding to the consideration of various details, I may say that in all the cases in which Babinski has observed this phenomenon its relation to disorder of the pyramidal system has been incontestably established, and he has not once noted its existence in a case in which the pyramidal system was certainly in a state of integrity. According to his experience it is never seen in hysterical paraplegia, of flaccid or spastic character. During the last five or six months I have had the opportunity of testing the observation in a variety of cases, and especially in many examples of insular sclerosis, and am able so far to confirm the exactness of Babinski's description. It appears, therefore, that by means of this very interesting test our power of distinguishing between organic and functional paraplegia is likely to be greatly increased. If the foot-sole, on being tickled, responds by a movement of extension of the big toe (care being taken to be sure that it is a movement of extension of the metatarso-phalangeal joint) we may take it as tolerably certain that there is an affection of the pyramidal tract, and that we have not to do with a case of functional paraplegia. In insular sclerosis it must be a rare event for the pyramidal tract in some part, at least, of its extent, not to be invaded by islets of sclerosis, and the value of the test is therefore strikingly exhibited. Time will not permit me to dwell further on this interesting discovery. The subject has been ably discussed by Dr. James Collier, and I cannot do better than refer you to a contribution from him which appears in the spring number of *Brain*.[4]

Notes and References.

[1] *Simulation of Hysteria by Organic Diseases of the Nervous System*, 1891; Atrophy of the Optic Nerve as a Symptom of Chronic Disease of the Central Nervous System, British Medical Journal, October 7th, 1893; Insular Sclerosis and Hysteria, *Lancet*, January 2nd, 1897; Retro-ocular Neuritis, *Opth. Soc. Trans.*, 1897. [2] "Absence of reflex from the sole of the foot is a very constant symptom in hysterical paraplegia .....Persistence in the application of a stimulus to the sole will, in hysterical cases, frequently but not always succeed in provoking a response after a few minutes."—Clinical Lecture on Diseases of the Nervous System, 1882. [3] See especially Le Phénomène des Orteils, *La Presse Médicale*, July 27th, 1898. [4] An Investigation upon the Plantar Reflex, with reference to the significance of its variations under pathological conditions, including an inquiry into the etiology of acquired pes cavus.

THE LOCALISATION AND SYMPTOMS OF DISEASE OF THE CEREBELLUM CONSIDERED IN RELATION TO ITS ANATOMICAL CONNECTIONS.*

By ALEXANDER BRUCE, M.A., M.D., F.R.C.P.E.,
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In bringing this communication before the Medico-Chirurgical Society to-night, my main object is to draw attention to the importance of certain nerve tracts, which have been proved by the recent investigations of neurologists to bring the cerebellum into intimate relation with the spinal cord and higher parts of the central nervous axis.

I do not propose to approach the subject from the point of view of the anatomist, but rather with the intention of impressing upon the clinician that a knowledge of their position and relations, when considered in connection with the results of experiment on the cerebellum and its peduncles, may afford valuable data for the explanation of some of the symptoms of cerebellar disease, and may assist him in the difficult task of its localisation.

The symptoms of cerebellar disease may for our purpose to-night be divided into two classes: first, those which are without special significance beyond the fact that they indicate the existence of an intracranial lesion, but which have no further localising values; and, secondly, those which are regarded as being more definitely characteristic of affections of the cerebellum. Among the former may be placed headache, optic neuritis, hebetude, and vomiting; among the latter the disturbances of equilibrium and co-ordination indicated by the peculiar reeling gait, the ataxia, the severe vertigo, and the deviations and oscillations of the eyeballs.

One important and puzzling feature of cerebellar disease is that these characteristic symptoms, as is well known, are not invariably present in all cerebellar lesions, for some such lesions may run a course which is more or less latent, or may be indicated by symptoms of so vague a nature as, in the present state of our knowledge, to be practically useless for localising purposes; and on the other hand similar symptoms may result from lesions which do not affect the cerebellum directly. One of the first steps towards the explanation of these peculiar variations in the phenomena of cerebellar disease was the recognition of the fact that these differences in the symptoms are not due to differences in the nature of the lesion (occurring as they do equally in tumour, hæmorrhage, softening, and sclerosis), but depend, as Nothnagel was the first to show, on differences in its situation. This author states in his *Topische Diagnostik der Gehirnkrankheiten* that "the conclusion to be drawn from all these observations is that the situation of the lesion is the factor that determines the presence or absence of symptoms; only when the lesion is limited to one hemisphere can it run the course without symptoms" (p. 47). "There are certainly many cases which show that lesions in the hemispheres may also produce symptoms....., but the analysis of these cases shows, in our opinion, without doubt, that the lesion in such cases involved adjacent parts in one way or other." It may be concluded, therefore, that the loss of the substance of one hemisphere does not of necessity produce any symptoms, or at least any symptoms as yet known to us. "Lesions actually limited to one hemisphere cannot be diagnosed" (p. 48). "Disturbances of co-ordination only occur when the lesion indirectly or directly involves the vermis—that is, the middle lobe of the cerebellum" (p. 50).

"Another question (p. 51) is whether disturbances of co-ordination must invariably appear when the vermis is involved. In my earlier publications I answered this in the affirmative on the strength of the observations then at my disposal."

"The later observations show undoubtedly that tumours may be situated in the vermis without causing any symptom of cerebellar ataxia, and therefore lesions of the vermis need not be invariably associated with disturbances of co-ordination.

"In this connection I may mention that these exceptions are always cases of tumour—that is, of slowly-growing lesions, and that in all cases a greater or less part of the vermis was left intact."

Nothnagel is frequently credited with the unqualified statement that it is only tumours in the middle lobe that cause disturbances of equilibrium, and that tumours of the lateral lobes always run a latent course. From what has just been quoted, however, it will be seen that this is not a correct interpretation of his opinion.

I shall now endeavour to explain from the anatomical standpoint why it is that disturbances of equilibrium occur specially in connection with lesions of the middle lobe, and why in certain instances these disturbances may also be present in lesions of the lateral lobe. The anatomical data have been obtained partly by the collation of observations of various investigators on the human fœtus, partly by the study of degenerations following experimental and pathological lesions of the brain and cord.

The cortex of the middle or vermiform lobe of the cerebellum forms the central termination for at least six important tracts derived from the spinal cord, two arising from the cord directly and the remainder from the nuclei of the postero-median and postero-external columns, namely, the clavate and cuneate nuclei (two arising from these nuclei on the same side and two from those of the opposite side, each represented by a single line in Fig. 1). The uninterrupted fibres consist of the direct cerebellar tract and the ascending antero-lateral tract of Gowers. All these tracts, except the last mentioned,

*Read before the Medico-Chirurgical Society, Edinburgh.

are contained in the restiform body or inferior peduncle of the cerebellum.

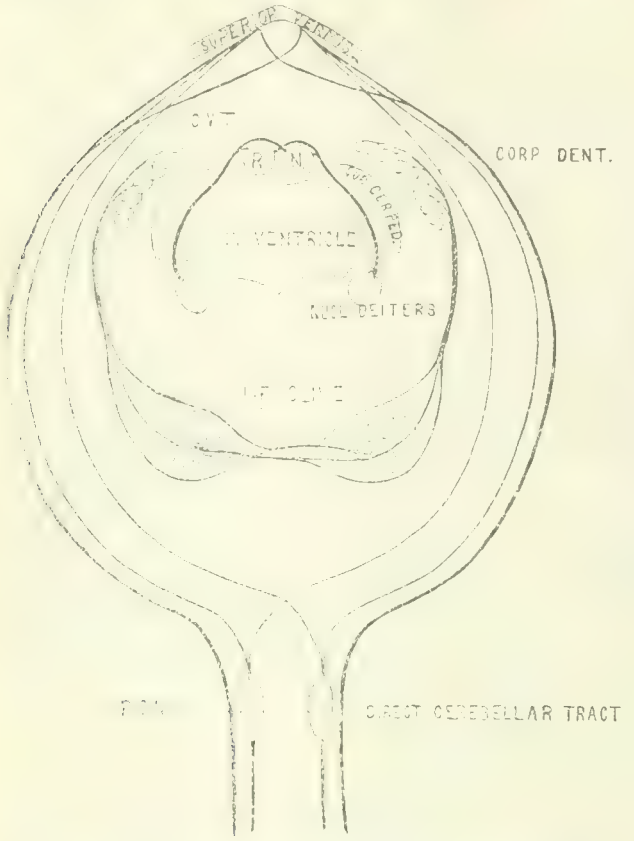


Fig. 1.—The constituents of the inferior peduncle. P. C. N., Each oval area represents the combined nuclei of the two divisions of the posterior columns, and gives a double tract represented by a single line to the restiform body of its own side and another to the opposite side. These represent the interrupted paths from the posterior column. R. N., roof nuclei. C. V. T., cerebro-vestibular tract from roof nuclei to nucleus of Deiters.

The tract of Gowers passes further up the pons and hooks round the fifth nerve before bending into the vermis, as has been shown by Loewenthal, Mott, and Tooth in animals and by myself in man. The majority of the fibres terminate in the upper part of the middle lobe, some on the same side and some after crossing the middle line.

While it must be admitted that the functions of these tracts are still somewhat doubtful, it is certain that they are not concerned in the conduction of impulses which give rise to impressions of touch, temperature, or pain, since they may be destroyed without interference with these forms of sensibility, and it must be presumed that some, if not all, of them, are concerned in the conduction of muscular sense impressions. It is important to note that none of these tracts pass to the lateral lobes, nor does any other tract from the cord, as far as is known, enter the lateral hemispheres or become connected with them, except indirectly, and even then to a comparatively slight extent. These tracts are all undoubtedly afferent to the cerebellum.

Another tract which was at one time regarded as a purely afferent sensory tract, and was therefore termed by Edinger "the direct sensory cerebellar tract," connects the nucleus of Deiters (one of the end nuclei of the vestibular nerve, lying at the lateral angle of the fourth ventricle), with the roof nuclei of the cerebellum.

Until quite recently the relations of Deiters's nucleus remained very obscure. Its most characteristic feature, and one that has impressed itself on most observers, is the large size of its cells, which in appearance are practically identical with the motor cells of the spinal cord. So close is this resemblance that, from the first time my attention was directed to these cells; I felt convinced that they must belong to a motor nucleus, although at that time it was not possible to trace their connections. Subsequent research has, however, determined to a very great extent the destination of the fibres derived from this nucleus. Although our knowledge of its relations is still far from being complete, enough has been learned to indicate its great importance. Monakow, in 1883, showed that the cells of this nucleus became atrophied after hemisection of the cord in the cervical region. The significance of this fact was, perhaps, not at first fully apparent, but the discovery of the existence and nature of the neuron showed that its cells must give origin to fibres which passed down the cord, and which had been divided in the above-mentioned operation. This view had been actually advanced by Deiters himself long before this. In 1888-89-92 I described two tracts arising from this nucleus; of these one passed in a downward direction, and could be followed as far as the outer side of the inferior olive; but, owing to the method of investigation then employed, it was not possible to trace it further.[1] Held subsequently observed that it was continued downwards into the antero-lateral columns of the cord, and more recent investigations have confirmed this view. The other tract passed inwards under the floor of the fourth ventricle, and, after giving a certain proportion of its fibres to the sixth nucleus, it crossed the middle line and apparently passed upwards in the posterior longitudinal fasciculus as high as the third nucleus. More recently our knowledge of the connection of these two tracts has been further extended by the study of sections stained by Marchi's method after recent injury to the nucleus of Deiters.[2] It is

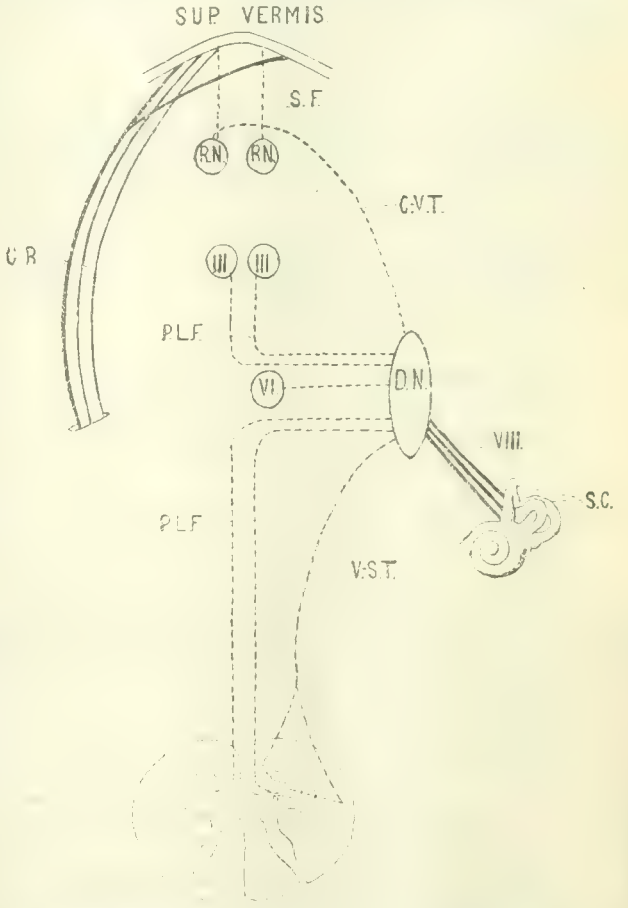


Fig. 2.—Scheme of the connections of the nucleus of Deiters.

now known that the first tract—which may be called the vestibulo-spinal tract—passes downwards and enters the

same side of the cord, where it divides into two parts, one division taking up its position at the side of the anterior median fissure and the other in the lateral column. Risien Russell has traced some of these fibres as far as the lower end of the thoracic region of the cord. They terminate in the anterior cornu of the cord on their own side at various levels.

The second set of fibres, that which passes inwards under the floor of the fourth ventricle, divides into several groups. One of these terminates in the sixth nucleus of the same side; the remaining groups enter the posterior longitudinal fasciculi (P. L. F.) on both sides, some turning upwards and some downwards. The two groups which bend upwards terminate in relation to the two third nuclei; those which have a descending direction pass down the anterior columns of the cord, where they occupy a position at the margin of the anterior median fissure. They appear to terminate by entering the anterior cornua of the cord.

It will be seen that, by means of these various tracts, the nucleus of Deiters is placed in a position to influence the nuclei of the ocular nerves and the motor cells of the cord throughout the greater part of its extent.

The nucleus of Deiters has another very important connection that can be traced backwards from it along the side of the fourth ventricle, then across the mesial plane of the cerebellum to terminate in a nucleus which is called, from its position in relation to the fourth ventricle, the roof nucleus. This tract was formerly regarded as the continuation into the cerebellum of the auditory nerve, and even of the lower cranial sensory nerves, and, as already said, was termed the "direct sensory cerebellar tract" by Edinger, but Ferrier and Turner, and more recently Risien Russell and André Thomas, have shown that the tract has its origin in the roof nucleus, and is thus not an afferent but an efferent tract, arising in the middle lobe of the cerebellum, and terminating in Deiters's nucleus.

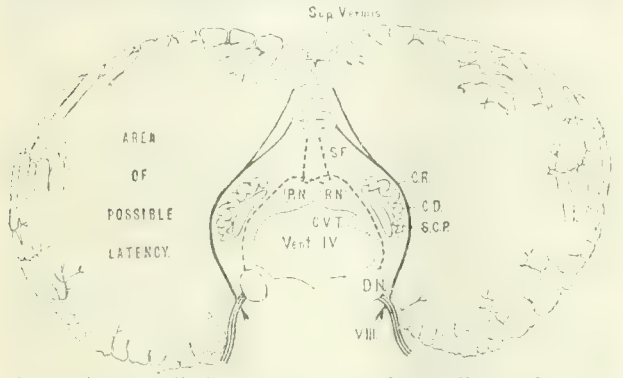


Fig. 3.—Diagrammatic transverse section of cerebellum to show connections of middle lobe: C. D., nucleus dentatus; S. C. P., superior cerebellar peduncle; C. R., inferior peduncle.

When the middle lobe of the cerebellum is further examined (Figs. 2 and 3), it can be seen that its cortex is connected by a series of sagittal fibres with the roof nuclei. This important link completes a chain of afferent, internuncial, and efferent fibres between certain sensory tracts in the cord, the middle lobe of the cerebellum, the nucleus of Deiters, the various oculo-motor nuclei, and certain motor centres in the cord. The integrity of this chain appears to be essential to the perfect maintenance of equilibrium. If we follow the course of the fibres in this system (as indicated in Fig. 2), we see that an impulse would travel upwards through the restiform body (C. R.) and Gowers's tract (not drawn) to the cortex of the middle lobe of the cerebellum (superior vermis). It would then pass by means of the sagittal fibres (S. F.) to the roof nuclei (R. N.). Starting again from one of them (the connection with the other roof nucleus being ignored for the sake of simplicity), it would pass by the cerebello-vestibular tract to the nucleus of Deiters. Here there might be a reinforcement by other impulses travelling from the semicircular canals (S. C.) by way of the vestibular nerve (VIII). At Deiters's nucleus fibres to the nuclei of the sixth and third, and perhaps the fourth nerve, as well as to the anterior cornua of the cord, mainly on the same side, would be simulated, and in this way there would be put into operation a very complex mechanism which is well adapted to affect the equilibrium of the body. We can thus understand how irregular or defective stimulation of Deiters's nucleus may lead to lateral oscillations of the eyeballs, and to irregular or impaired movements of the same side of the body, resulting in vertigo and disturbances of equilibrium.

It will be seen from what has just been said that the cerebellar termini of the constituents of this system are in the cortex and roof nuclei of the middle lobe; no such connection of the spinal cord or its nuclei with the lateral lobes of the cerebellum can be made out. These lobes seem to receive afferent fibres from the nuclei in the pons, which, in their turn, are in relation with the cortex of the frontal and temporal lobes of the cerebrum.

If we now consider the system of the superior cerebellar peduncle, which is also undoubtedly concerned in the maintenance of equilibrium, we see that this peduncle arises mainly from the nucleus dentatus, and terminates above in the red nucleus and optic thalamus of the opposite side. The nucleus dentatus is situated at the junction of the middle and lateral lobes, and is connected extensively with both of these portions of the cerebellum, as well as, through the inferior peduncles, with the inferior olives of the medulla (see Fig. 1).

It will be observed from Fig. 3 that this nucleus is in such a position as to be readily affected by lesions involving either the middle or the lateral lobes. It will be seen, for instance, that a section dividing the middle from the lateral lobes will cut through the nucleus dentatus, thus severing the origin of the superior peduncle, and may at the same time cut across both the afferent and efferent tracts of the middle lobe—namely, the inferior peduncle and the cerebello-vestibular tract. From these facts we can readily understand why it is that removal of one-half the cerebellum or of one lateral lobe causes practically the same symptoms as removal of one-half of the middle lobe, since in both cases the afferent and efferent fibres of one side of the middle lobe are divided, and the superior cerebellar peduncle arising from the nucleus dentatus is also involved to a greater or less extent. We are also in a position to understand why a section in the mesial plane of the middle lobe may cause few symptoms of disturbances of equilibration, and why these disturbances may be readily recovered from. Such a section will destroy the afferent and efferent fibres from both sides to an equal extent, so that the resulting interference with equilibration will be merely a symmetrical weakening of that function on both sides. This can be compensated for to a great extent by that portion of the mechanism for equilibration which has remained unaffected by the lesion. For the same reason a tumour of the vermis occupying a symmetrical position with reference to the middle line, or at least which destroys, symmetrically, afferent and efferent fibres of the vermis, would be marked by few or no symptoms, especially if its growth were so slow as to allow of compensation. The pronounced symptoms in the case of unilateral lesions are due undoubtedly to the fact that the interference with the mechanism is limited to one side, and the results produced are therefore asymmetrical. If one cerebello-vestibular tract or one nucleus of Deiters is alone affected, the usual stimuli from the latter to the nuclei of the ocular nerves and to the anterior cornua of the corresponding side of the spinal cord will be wanting; thus we can understand (1) the yielding of the limbs of the same side and the tendency to fall to that side, and (2) the oscillatory movements of the eyeballs.

These symptoms may, however, be absent after lesions of the lateral lobe external to these tracts, which would leave these systems entirely, or practically entirely, intact. Turner,[3] in reviewing Luciani's work, states that "in our experiments rotation round the longitudinal axis certainly occurs more constantly when the peduncles are divided than when the lateral lobes are removed. But this is not an absolute rule, and one of the most marked instances of rotation round the vertical axis which we observed was an animal in which only the cortex of the lateral lobe had been cauterised and under conditions likely to excite irritation of neighbouring parts." This statement may be regarded as being so far in harmony with the view just enunciated.

Thomas[4] expresses himself even more unequivocally:

"Lesions involving a considerable extent of the cortex, but not extending deeply and not implicating the central grey nuclei, produce disturbances which are of relatively short duration and of moderate intensity. Lesions limited to the cortex of one hemisphere, and not extending deeply, may be free from any disturbance."

It is well known that section of a superior or inferior cerebellar peduncle produces rotatory movements, and other motor disturbances, and also that similar disturbances follow removal of one half of the vermis or of one lateral lobe. This second fact may be readily understood when the arrangement of the parts is considered. An examination of Fig. 3 shows that removal of one half the vermis or of one lateral lobe involves a section of the intracerebellar portion of these peduncles. It is also stated that section of the middle peduncles produces somewhat similar symptoms, and since the cerebellar terminations of this peduncle are limited to the lateral lobe, it will naturally be asked why removal of the lateral lobe, which must involve an intracerebellar section of the fibres of this peduncle, should not in like manner produce similar symptoms. In answer to this, I would suggest that many of the results ascribed to section of the middle peduncle are really due to involvement of the upper or lower peduncle or of the cerebello-vestibular tract, or of all of these, during the operation employed for division of the middle peduncle, and that the results of a section limited to the middle peduncle have yet to be determined.

If the views here adduced be well founded, we may expect disturbances of equilibrium to be produced by lesions situated within an area bounded by the intracerebellar path of the two inferior peduncles, of the two superior peduncles, and the dentate nuclei in which the latter arise. This area contains the middle lobe (superior and inferior vermis, the roof nuclei, and the sagittal fibres connecting the latter with the cortex), and the cerebello-vestibular tracts from the roof nuclei to the nucleus of Deiters (Fig. 3). Lesions within this area may produce no such disturbances, provided they are symmetrically situated with reference to the mesial plane, and especially if their growth is so slow that compensation is established *pari passu* with the disturbances they may tend to cause.

On the other hand, lesions situated in the lateral lobes may produce no disturbance of equilibrium provided they are situated entirely external to the intracerebellar paths of the upper and lower peduncles, and of the nucleus dentatus (*area of possible latency* Fig. 3). If, however, these structures are interfered with, either by pressure or by direct involvement, then the characteristic symptoms of cerebellar disease will be produced, and will depend in their character and amount on the nature and extent of this interference.

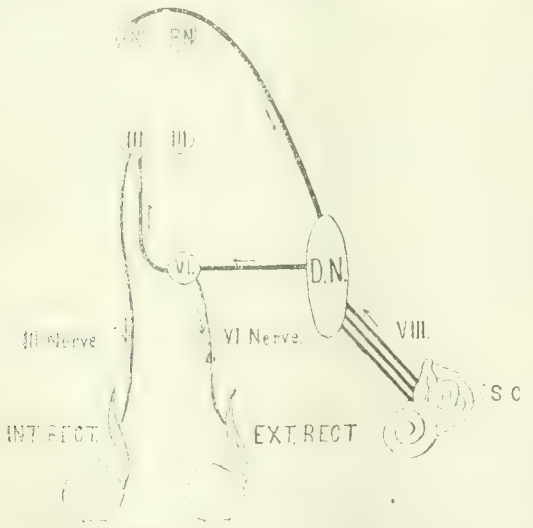


Fig 4. Relation of Deiters's nucleus to the mechanism for conjugate deviation.

If the cerebello-vestibular tract, or Deiters's nucleus, be injured, then the usual stimuli will not pass either to the anterior cornua of the cord or to the sixth (fourth) or third nuclei. Hence may result the weakness of the same side, the tendency to fall to that side, the impairment of the conjugate deviation to that side, the tendency of both eyes to be directed to the opposite side, and the lateral nystagmus which occurs especially when the eyes are directed towards the same side. A glance at Fig. 2 will show how the spinal symptoms may be produced, since the nucleus of Deiters will not act through the vestibulo-spinal tract and posterior longitudinal fasciculi upon the anterior cornua, and more especially upon that of the same side. The effect on the position and movements of the eyes will be easily understood from Fig. 4, if it be remembered that the sixth nucleus is the nucleus for the conjugate deviation of the eye to the same side, supplying, as it does, not only the external rectus, but also, through the opposite third nucleus and nerve, the internal rectus of the opposite side. A stimulus of Deiters's nucleus, acting on the sixth nucleus, will turn the eyes to the same side; absence of this stimulus will allow the other sixth nucleus to pull the eyes towards the opposite side and will thus weaken the voluntary attempt to look to the same side. On the other hand, lesions which merely irritate but do not destroy the nucleus of Deiters may cause rigidity or spasms of the same side of the body, or such an excess of movement as may cause the body to fall to the other side, and by acting on the sixth nucleus may turn the eyes to the same side.

Luciani, Ballance, and Thomas have also drawn attention to the possible effect which the superior peduncle may exert through the red nucleus and the optic thalamus on the ocular nuclei and the opposite motor nucleus, and it is not my intention to question this influence in producing the symptoms of the cerebellar disease. At the same time, the importance of the nucleus of Deiters as a co-ordinating centre seems too evident to be ignored.

It is by no means claimed that the above described mechanism is as yet so fully understood as to be capable of explaining all the symptoms of cerebellar disease, but it, at least, affords a working hypothesis on which the most characteristic and frequent among them may be interpreted.

REFERENCES.

1 *Proceedings of the Royal Society of Edinburgh*, xvii, 1888-1889, p. 26. 2 Ferrier and Turner, Risien Russell, and André Thomas. 3 *Brain*, 1884, p. 7. 4 *Le Cervelet*, p. 317.

ON THE PHYSIOLOGICAL ACTION OF CHOLINE AND NEURINE.*

BY

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and

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THE cerebro-spinal fluid removed from cases of brain atrophy, particularly from cases of general paralysis of the insane, produces when injected into the circulation of anæsthetised animals (dogs, cats, rabbits), a fall of arterial blood pressure, with little or no effect on respiration. This pathological fluid is richer in proteid matter than the normal fluid, and among the proteids, nucleo-proteid is present. The fall of blood pressure is, however, due not to proteid, nor to inorganic constituents, but to an organic substance which is soluble in alcohol. This substance is precipitable by phospho-tungstic acid, and by chemical methods was identified as choline. The crystals of the platinum double salt, which, when crystallised from 15 per cent. alcohol, are characteristic octahedra, form the most convenient test for the separation and identification of this base.

The nucleo-proteid and choline doubtless originate from the disintegration of the brain tissue, and their presence indicates that possibly some of the symptoms of general paralysis may be due to auto-intoxication; these substances pass into the blood, for the cerebro-spinal fluid functions as the lymph of the central nervous system. We have identified choline in the blood removed by venesection from these patients

* Abstract of a Paper read before the Royal Society on April 20th, 1899.

during the convulsive seizures which form a prominent symptom in the disease.

Normal cerebro-spinal fluid does not contain nucleo-proteid or choline, or if these substances are present, their amount is so small that they cannot be identified. Normal cerebro-spinal fluid produces no effect on arterial pressure; neither does the alcoholic extract of normal blood or of ordinary dropsical effusions.

The presence of choline in the pathological fluids will not explain the symptoms of general paralysis; for instance, it will not account for the fits just referred to. Its presence, however, is an indication that an acute disintegration of the cerebral tissues has occurred. If other poisonous substances are also present, they have still to be discovered.

Our proof that the toxic material we have specially worked with is choline rests not only on chemical tests, but also on the evidence afforded by physiological experiments; the action of the cerebro-spinal substance exactly resembles that of choline. Neurine, an alkaloid closely related to choline, is not present in the fluid; its toxic action is much more powerful, and its effects differ considerably from those of choline.

Physiological Action of Choline.

The doses employed were from 1 to 10 c.cm. of a 0.2 per cent. solution, either of choline or of its hydrochloride. These were injected intravenously. The fall of blood pressure is in some measure due to its action on the heart, but is mainly produced by dilatation of the peripheral vessels, especially in the intestinal area. This was demonstrated by the use of an intestinal oncometer. The limbs and kidneys are somewhat lessened in volume; this appears to be a passive effect, secondary to the fall in general blood pressure. The drug causes a marked contraction of the spleen, followed by an exaggeration of the normal curves, due to the alternate systole and diastole of that organ.

The action on the splanchnic vessels is due to the direct action of the base on the neuro-muscular mechanism of the blood vessels themselves; for after the influence of the central nervous system has been removed by section of the spinal cord, or of the splanchnic nerves, choline still causes the typical fall of blood pressure. The action of peripheral ganglia was in other experiments excluded by previous intravenous injection of a solution of nicotine.

Section of the vagi produces no effect on the results of injecting choline. We have obtained no evidence of any direct action of the base on the cerebral vessels. Choline has little or no action on nerve trunks, as tested by their electrical response to stimulation. This aspect of the subject has been taken up by Dr. Waller and Miss Sowton, who will publish their results fully in a separate paper. Choline has no effect on respiration.

The effect of choline soon passes off, and the blood pressure returns to its previous level. This is due partly to the great dilution of the substance injected by the whole volume of the blood, and may be partly due to the excretion of the alkaloid, or to its being broken up into simpler substances by metabolic processes. We could not find it in the urine.

If the animal has been given a hypodermic injection of morphine and atropine prior to the administration of the ether or A.C.E. mixture, the effect produced by choline is a rise of arterial pressure, accompanied by a rise of the lever of the intestinal oncometer. We consider this observation of some importance, for it shows how the action of one poison may be modified by the presence of another. This has some bearing on general paralysis, for the arterial tension in that disease is usually high, not low, as it would be if choline were the only toxic agent at work.

Physiological Action of Neurine.

The doses employed varied from 1 to 5 c.cm. of a 0.1 per cent. solution. These were injected intravenously.

Neurine produces a fall of arterial pressure, followed by a marked rise, and a subsequent fall to the normal level. Sometimes, especially with small doses, the preliminary fall may be absent. Sometimes, especially with large doses, by which presumably the heart is more profoundly affected, the rise is absent. The effect of neurine on the heart of both frog and mammal is much more marked than is the case with choline; in the case of both choline and neurine, the action on the frog's heart is antagonised by atropine.

The slowing and weakening of the heart appear to account for the preliminary fall of blood pressure; in some cases this is apparently combined with a direct dilating influence on the peripheral vessels. The rise of blood pressure which occurs after the fall is due to the constriction of the peripheral vessels, evidence of which we have obtained by the use of oncometers for intestine, spleen, and kidney. After the influence of the central nervous system has been removed by section of the spinal cord, or of the splanchnic nerves, neurine still produces its typical effects. After, however, the action of peripheral ganglia has been cut off by the use of nicotine, neurine produces only a fall of blood pressure. It therefore appears that the constriction of the vessels is due to the action of the drug on the ganglia; in this, it would agree with nicotine, coniine, and piperidine. Section of the vagi produces no influence on the results of injecting neurine. In animals anæsthetised with morphine and atropine, injection of neurine causes only a rise of blood pressure, which is accompanied with constriction of peripheral vessels.

Neurine produces no direct results, so far as we could ascertain, on the cerebral blood vessels. Neurine is intensely toxic to nerve trunks (Dr. Waller and Miss Sowton). It produces a marked effect on the respiration. This is first greatly increased; but with each successive dose the effect is less, and ultimately the respiration becomes weaker and ceases altogether. The animal can still be kept alive by artificial respiration.

The exacerbation of respiratory movements will not account for the rise of arterial pressure; the two events are usually not synchronous, and an intense rise of arterial pressure—due, as previously stated, to contraction of peripheral blood vessels—may occur when there is little or no increase of respiratory activity or during artificial respiration.

As confirmatory of Cervello's statement that neurine acts like curare on the nerve endings of voluntary muscle, and to which he attributes the cessation of respiration, we may mention that after an animal has been poisoned with neurine asphyxiation causes little or none of the usual convulsions.

The full paper contains references to previous work on the subject, and complete details of the methods used, and the cases investigated; it is illustrated by reproductions of numerous tracings.

[*Note added April 20th, 1899.*—It should be mentioned that in the case of brain atrophy referred to the cerebro-spinal fluid was removed soon after death. Since the foregoing abstract was written we have, however, by the kindness of Dr. Turner, had the opportunity of examining two specimens removed during life by lumbar puncture, and the results of our experiments with these corroborate the conclusions previously arrived at.]

TRAUMATIC EPILEPSY, STATUS EPILEPTICUS: TREPHINING: RECOVERY.

By NATHAN RAW, M.D.,
Medical Superintendent, Mill Road Infirmary, Liverpool.

The following case is a good example of what may be accomplished by an exploratory operation in an apparently hopeless case.

J. A., aged 25, labourer, was admitted into the Mill Road Infirmary, Liverpool, in an unconscious condition on September 2nd, 1898. Ten months previously he had fallen a distance of 18 feet upon his forehead. He was picked up unconscious and taken to a hospital, where he remained in an unconscious state for six days. He slowly recovered, and was discharged improved after six weeks. He resumed his work after a few months, and appeared in his usual health until two weeks before his admission here, when he was suddenly seized with a "fit." The fits continued at intervals for ten days. On the day before admission he had fifteen "fits" in rapid succession.

On admission the man was quite unconscious; his face was flushed, his pupils were unequal, the right dilated and fixed; there appeared to be some slight left facial paralysis, and the left arm and leg were a little more flaccid than the right. The deep reflexes were present. There was no scar or other

indication of the position of his injury. After a few hours he was able to understand simple questions, but could not give any information regarding his accident. The convulsions always commenced with flexion of the left thumb, rapidly spreading to the arm, and then becoming general. The head and eyes were always turned to the left side. There was well-marked optic neuritis on the right side.

He gradually passed into a condition of status epilepticus with stertorous breathing, profuse sweating, and complete coma. The temperature was 102° F., and the pulse 130. He was apparently dying, and as there was no definite scar or depression to indicate the position of the injury, it was decided not to operate; but his wife begged that something should be done, and I reluctantly consented.

On September 6th, his head was shaved, and the following operation performed. As he was quite unconscious, no anæsthetic was required. A large semicircular incision was made, so as to reflect downwards the whole of the scalp of the forehead. When this was done it was seen that the right frontal bone and half of the right parietal bone were depressed to the extent of quite one-eighth of an inch. A disc of bone was removed with a 1-inch trephine. The dura bulged to the level of the outer table, so great was the intracranial pressure. Another disc of bone was removed, and then I chipped away with forceps the greater part of the right frontal and the anterior portion of the right parietal bones, leaving an opening measuring $3\frac{1}{2}$ inches by $2\frac{1}{2}$ inches. The dura mater was not opened, and the bone was not replaced, but the wound was stitched up and a drainage tube inserted.

He recovered consciousness in six hours; the temperature rapidly dropped to normal; the pulse, which was 140 when he left the theatre, had slowed down to 100 by the evening, and after a natural sleep, he was able next morning to express himself as feeling better.

He made an uninterrupted recovery; the wound healed by first intention; and in eleven days he was walking about the ward.

On March 12th, 1899, he presented himself for inspection. He had been at regular work ever since his discharge on October 12th, and was feeling perfectly well, and had had no fit or twitching since the operation. He was directed to wear an ordinary cap with a large thick pad to protect his head.

ON THE ATROPHIC MARASMUS OF NURSLINGS (SO-CALLED HOSPITALISM OR ATHREPSY OF PARROT).*

By ADOLF BAGINSKY, M.D.,
Professor of Children's Diseases in the University of Berlin.

AMONG the multifarious diseases of children connected with disturbances of the digestive apparatus there is one that has for some time especially attracted the attention of physicians. It is characterised by a persistent decrease in weight, with gradual lessening of bodily powers and progressive exhaustion, with the occurrence of more or less marked complications of the respiratory organs, the skin, and the kidneys. The disease has been noted from time immemorial to occur in institutions where nurslings are taken care of. The affection has always been a source of terror to those in charge of foundling asylums, children's nurseries, and the like, on account of the extremely high mortality which has at times made it appear questionable whether it was worth while to attempt the rearing of children in such asylums at all. Charles West, in his *Lectures on the Diseases of Infancy and Childhood* (fourth edition, London, 1859) expressed the opinion that the affection was due to the exhaustion of the various organs.

Since the important advances which have been made in recent years in children's diseases, especially since the extension of our knowledge of anatomy, physiology, and epidemiology, various attempts have been made to make the clinical and pathological anatomical relations clearer. Investigators seem at the present moment to be of two opinions. One group of writers directs special attention to chronic catarrhal processes in the intestinal tract with their ultimate consequences. They attribute these catarrhal conditions to insufficient or faulty nutrition and to faulty nursing and care. The other group of writers lay more weight on bacterial infection, and above all on the influence of toxic substances. These toxins are the products of intestinal bacteria, and may be absorbed without any real lesion of the intestinal mucous membrane existing, and it is thought that by a process of chronic intoxication they seriously disturb the vegetative functions. The clinical aspects of the whole question were very well set forth by the French writer Parrot some years ago in a series of very comprehensive articles to which very little of importance can be added. To the affection Parrot gave the new name "athrepsia."[1]

I will spare you the exact description of the affection, which is unfortunately only too well known, and will content myself with showing you, for the purpose of recalling some of the more exaggerated features of the disease, a few photographs from my clinical cases. You will recognise the *macies maxima*—the deep sunken eyes, the wrinkled face, the piteous expression of countenance, the withered appearance of the skin as it covers in folds the atrophied muscles, while the fatty subcutaneous layer has practically entirely disappeared. There are, however, no rachitic changes in the bones, which are, on the contrary, well formed and without beading.

The first question that arises for our consideration is whether, since the disease is so notoriously common in children's asylums, we have to think of it as an infection or not. In answer to this question I may say that I have never seen this progressive atrophic condition spread from bed to bed in a hospital, but have always found that cases occur sporadically. When cases are observed side by side the relation is merely an incidental one; the children fall away gradually but very slowly, and at different rates of progress, not as though affected by the same pathological conditions, but finally reaching the same pitiable goal. Especially we find chronic dyspeptic disturbances occurring with varying degrees of severity, with occasional mild exacerbations, diarrhœa that is not severe running its course with or without vomiting, sometimes even constipation or normal-seeming motions, while furuncles may occur on the skin, and otitis media duplex may supervene.

As may well be imagined all this brings the children down in condition more and more, at times one complication, at times another seeming responsible for the deterioration in health. Remissions, however, may take place, and there may even be a gain in weight, which, however, is usually lost again in a short time.

No one can doubt that in all varieties of the affection bacterial influences have a place, and that the bacillus coli, the streptococcus, staphylococcus, pyocyaneus, and pneumococcus play a certain *rôle* in the etiology; yet these influences are not such that we can attribute to them any specificity in the production of the anomalies of nutrition that result. The really efficient cause of the condition in children's asylums is the same as that which is at work in the homes of the poor: It is the want of proper and sufficient care. The errors are, perhaps, only slight, but they suffice, when added together, to produce the condition. It may be that the child is let lie too long in damp or dirty wrappings, that it does not receive thorough cleaning immediately after vomiting, so that minute particles of vomited material are carried by aspiration into the lungs. When the child is fed by the bottle, it may be that the milk is given, now warm, now cold, or with the child lying down, so that again opportunity for the aspiration of food particles into the lungs is afforded. Even when apparently the greatest care is taken as to cleanliness of both bottle and nipple, other causes remain at work. In short, it is to a series of defects in care that the serious disturbances that are ultimately produced are really due. If each child could receive special attention for itself these defects might be avoided. Of course, I cannot deny that in a nursling department the communication of disease by child to child may easily take place, but for this the hospital as such is not responsible, but it is the fault of the nurses, who are either too few in number, or lacking in proper training, or who do not conscientiously fulfil their duties.

What are, then, the physiological and the anatomical conditions found *post mortem*? With the help of my chemical assistant, Dr. Summerfield, I have recently made a series of

* Read in the Section of Diseases of Children at the Annual Meeting of the British Medical Association, held at Edinburgh, July, 1898.

researches on the metabolism of such cases. In one case I found the following conditions:

G., aged 2½ months, was admitted into the hospital on February 6th, 1898, suffering from extreme marasmus. The child was very much wasted, and the following table shows the results of two series of researches, directed to ascertaining the quantity and kind of nourishment actually absorbed.

I.—As Nourishment taken, Milk, 1: Rademann's Meal, 2. 10 c.cm. contained 0.0242 g.N.

Date.	Nourishment Taken.			Urine.	Sp. G.	N.	Fæces.
	c.cm.		g.N.	c.cm.		g.N.	
Feb. 16	620	=	1.500	205	1004	0.85	Feb. 16 to Feb. 19: g. g.N. 97.6 = 3.133
,, 17	510	=	1.234	160	1010	0.85	
,, 18	660	=	1.597	230	1000	0.74	
,, 19	650	=	1.573	205	1004	0.67	

Total.

Excreted N. from urine, 3.11 + Fæces, 3.133 = 6.243
N. taken in Nourishment 5.904

Lost ... ... 0.339 g.N.

From N. 5.904 g. = 52.7 per cent. have passed the intestines without digestion, and given out by fæces.

II.—Nourishment the Same. 10 c.cm. = 0.0242 g.N.

Date.	Body Weight.	Nourishment N.		Urine. Quantity.	Sp. G.	N.	Fæces.
Mar. 1	3800						
,, 2	3750						Total = 64.9 g.
,, 3	3750	c.cm.	g.N.				
,, 4	3680	520	= 1.258	120	1009	2.627	1 g. = 0.039 N.
,, 5	3620	600	= 1.452	105	1009	2.286	
,, 6	3570	610	= 1.476	257	1007	2.018	Total: 2.531 g.N.
,, 7	3550	540	= 1.306	150	1010	1.996	
,, 8	3500	550	= 1.331	125	1008	2.479	
,, 9	3550						
,, 10	2520	2820	= 6.823				

Total taken: 6.823 N.

Excreted with urine, 11.403 { Excreted with fæces, 35.5 per cent. N.
,, ,, fæces, 2.531 } Lost N. total 7.111 g.N.

13.934

Most of the child's loss in weight was found to be due to its loss of nitrogenous substances. Is this result to be explained on the theory of a special condition of the intestinal tract, or are there other circumstances that account for it? The intestinal canal was acting under especially favourable conditions, for 37.1 per cent. of the nutritive substances introduced into it were unassimilated, and excreted again in the fæces.

I also made a series of detailed anatomical studies of the condition of the intestinal canal *post mortem*, and found sundry departures from the normal.

When I first began my researches on this question[2] I came to the conclusion that in these cases serious lesions existed, which were at times utterly destructive. I found that these lesions were not of equal severity over the whole intestinal canal, but I could demonstrate perfectly healthy parts lying in the neighbourhood of parts that had suffered severely. I have lately continued my researches on the intestinal canals of children who had died of marasmus. Specimens were in every case removed in less than two hours after the death of the subject, so that I consider myself thoroughly guarded against the possibility of error through *post-mortem* changes. My recent researches have confirmed those previously made. Especially striking was the fact that beside absolutely healthy parts of the intestinal tract I found others involved in the severest destructive processes in the mucosa, with atrophy and sclerosis of the remaintissues of the intestinal wall. The gastric mucous membrane as a whole seemed well preserved, at least not markedly atrophied; not so the intestinal walls. Changes were, however, already in progress. In the upper part of the small intestine these were of the nature of an inflammatory proliferation; further on in the small intestine they took on an atrophic character. Where the former process was in progress one could see peculiar prolongations and outgrowths of Lieberkühn's glands and of the villi, presenting an unusual bent and twisted conformation; while there was an overgrowth of the epithelial layer and an exudation of round cells into the interstitial tissue. The process was evidently one of chronic catarrh, perhaps even associated with inflammation.

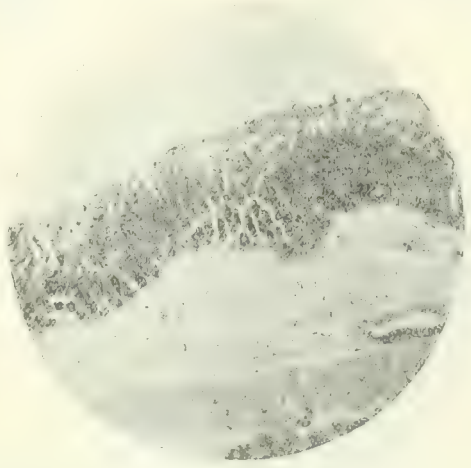


Fig. 1.—Commencing proliferation of the mucosa (chronic irritation).

In such a patch the submucosa and the muscularis are, on the whole, not much altered; at most there is noticeable a great overfilling of the blood vessels, with exudation of round cells. Close by such a patch, however, other patches may be found with perfectly unaltered mucous membrane and villi, the whole epithelial layer, especially the layer in which the glands are situated, being absolutely normal.

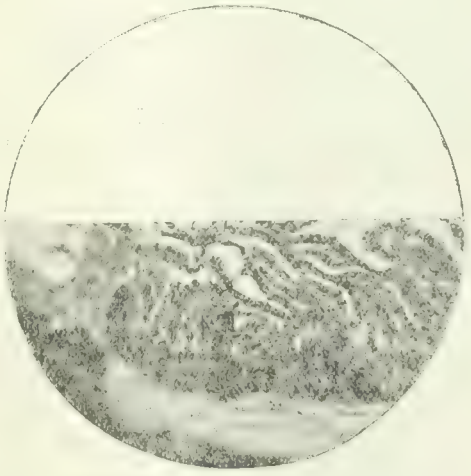


Fig. 2.—More advanced proliferation of the mucosa.

In striking contrast to these one comes suddenly upon patches that give the impression that most serious destructive processes are at work, the epithelial layer destroyed, and the villi to glandular layer almost completely gone, so that the observer is scarcely able to recognise what the original condition of the mucosa was from its ruined remains. In place of the former villi and gland layer nothing is left but collections of utterly irregular-deformed cells, some with enlarged or irregularly-shaped nuclei.

The whole mucosa is reduced in thickness to a minimum,

the submucosa and muscularis sharing the same fate. The whole process makes a complete picture of progressive atrophy. The disease involves also the lower end of the small intestine, and extends into the large intestine. At times we find the large intestine also studded with round cells and with thickened interstitial layers and proliferation of glands and epithelial cells. The proliferation spreads superficially, and also deep, so that the appearances are those which I indicate in the works I have mentioned as characteristics of chronic catarrh.

The chief characteristic in the pathological anatomy of the marasmus of children, then, is that, in addition to the catarrhal lesions and evidently as a result of these, there is a more or less well-marked and extensive atrophy of the intestinal

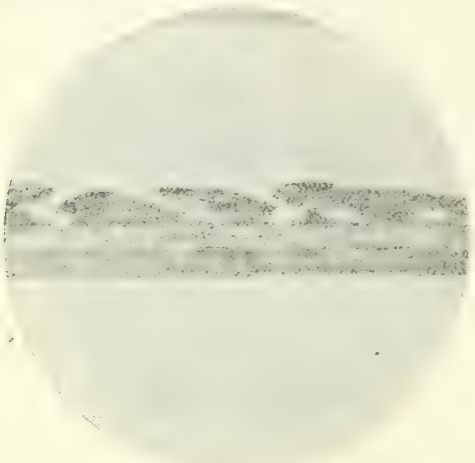


Fig. 3.—Atrophy of the mucosa.

walls. All the layers of the intestine are affected, and the consequence and quintessence of the whole process is the evident incapacity of the subjects to assimilate and absorb the nutritive material ingested. As a consequence of this loss of the nitrogenous substances of the body muscles, etc., there is persistent thirst and hunger, so that the clinical picture so often seen of children with their fists stuck into their mouths as far as they will go, and persistently going through sucking movements, receives an obvious explanation.

Objections have been raised to this observation from various sides. My friend Fr. Fede, of Naples, has insisted that he has seen cases what he calls "primary atrophy" in which there was extreme emaciation and fatal termination, and yet in which the intestine was in an absolutely normal condition. I have had the chance of making necropsies of two such cases which had been but a short time under observation. As a matter of fact, the intestinal wall was in almost its whole extent perfectly normal, certainly not atrophic, though here and there the signs of a catarrhal and inflammatory process were evident.

In these two cases, however, all the external appearances pointed to the fact that they had actually died of starvation. Not that they had failed to absorb nutriment supplied to them, but that they had in all probability ingested an insufficient amount. Such children may of course have absolutely normal intestinal mucous membranes, especially if unsuitable food has only been given for a short time. It is possible, then, if the necropsy is done soon enough, to distinguish by a microscopical examination "angel-making" by starvation from marasmus due to atrophy of the intestines. This may be of importance from a medico-legal point of view. There should be no question, to my mind, of talking, in the cases of really starved children, of death from "primary atrophy," as if this were a disease; on the contrary, we should call it very simply, in contradistinction to the sharply defined clinical and pathological picture that marasmic atrophy of the intestines gives us, death by starvation.

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TRACHOMA AND RACE.

BY MAJOR M. T. YARR, R.A.M.C.,
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OF the many problems connected with trachoma—a disease which as a scourge of the human race may fitly rank with leprosy, tubercle, and syphilis—perhaps the most interesting is the influence of race on its genesis and spread. The literature of the subject is scanty, and many points require further elucidation, but already one great fact stands out sufficiently clearly—namely, that the dominating influence in the etiology of trachoma is race. The labours of Swan Burnett, Chibret, and others show that the races composing the population of the world vary to a most extraordinary extent as regards receptivity of the trachoma virus, and that this variation cannot be explained by differences of civilisation and sanitary surroundings, or even, except in a limited sense, by differences of climate. Hence any attempt to study the distribution of the disease from a purely geographical standpoint—to construct a "trachoma map" of the world, so to speak—is foredoomed to failure: the trachoma problem is one of race, not place. No one can deny the influence of want, overcrowding, filth, and insanitary surroundings on the spread of what is, to a certain extent at all events, a contagious disease, but these influences are entirely subordinate to two great factors—first, race, and, secondly, but *longo intervallo*, climate.

RACE.

It can be shown that one race at least seems to be incapable of contracting trachoma; that other races enjoy a relative immunity; that others, again, are receptive to an extraordinary degree; and that between the two latter classes come races which are neither immune nor exceptionally receptive.

1. *Absolute Immunity.*

It appears to be certain that the Canadian indigenous tribes, including the Esquimaux, are entirely immune; both the specialists and the general practitioners of the Dominion are unanimous in their belief in this *absolute* immunity. Dr. Foucher, the well-known ophthalmic surgeon of Montreal, has never seen a case of trachoma amongst the savage tribes. An inquiry addressed by him to Desjardins of Montreal, Simard (Quebec), Orsey (Ottawa), Dudge (Halifax), Agnew (Winnipeg), and Benoit (Edmonton), all oculists of note, elicited a similar experience from his *confrères*; and confirmatory evidence from the general body of the profession was obtained in response to a circular note sent through the Medical Union of Canada.[1]

This immunity is the more extraordinary, inasmuch as these savages live under all the conditions usually considered most favourable to the development and spread of trachoma. They herd together in tiny hovels, their habits are filthy, and their food insufficient; tubercle and syphilis are rife, and epidemic diseases, such as scarlet fever and small-pox, ravage them to an extent unknown amongst civilised peoples. Dr. Foucher gives two striking examples in tribes with which he is personally familiar. The Cauglinawaga tribe, the nearest to Montreal, live on a reservation situated in a low-lying, damp, marshy country; their huts are overcrowded to an unheard of extent; cleanliness is unknown; a large proportion are syphilitic, tuberculous, or both; epidemic diseases are common; eye affections, too, are common, with one exception—trachoma—which is never seen. A still more remarkable instance, showing the powerlessness of contagion to affect racial immunity, is that of the Cris and Santeux of Manitoba, who live side by with the Russian Mennonites under precisely the same conditions of defective hygiene. The Mennonites suffer greatly from trachoma, blindness from this cause being very common their neighbours, the savages, are never attacked.

The Indians of the United States, who do not belong to the same race as the Canadian Indians, are by no means free from trachoma. Indians from the Canadian tribes are found in Pennsylvania, and are presumable immune, but unfortunately we have no information.

2. *Relative Immunity.*

Pure-blooded negroes, such as those from Senegambia, Guinea, and adjacent parts of the West Coast of Africa, enjoy

a relative immunity as compared with whites; in the United States this immunity appears to be almost absolute. Swan M. Burnett, of Washington,[2] first drew attention to this curious fact as far back as 1876, in a paper read at the International Congress of Ophthalmology in New York. The most remarkable instance of immunity adduced in this communication was that of the negroes employed in railway construction in Tennessee, who, living side by side with white workmen (chiefly Irish), under the same sanitary conditions, remained quite free from trachoma, although the whites suffered very severely.

Since 1876 Burnett has seen two or three cases of trachoma in mulattoes, none in negroes. In his latest report he produces evidence on the subject from the ophthalmic surgeons practising in parts of the States where negro populations are large. Callan of New York has only seen one case in a negro. Savage of Nashville, in a population one-third of which is composed of negroes, has never seen a case amongst them, though it is common enough amongst the whites. Ray of Louisville sees 800 to 1,200 cases of eye disease annually amongst negroes, but never trachoma, although many of his white patients are trachomatous. Phillips of Savannah, White of Richmond, Ayres of Cincinnati, have each seen one case. Bruns of New Orleans believes he has seen eight, but is doubtful as to some of them. Burnett himself has seen six doubtful cases in twenty years, but has never yet seen entropion.

The experience of practitioners in Cuba is very interesting, as there we have the population made up of three distinct races, namely, whites (Spaniards), negroes (not pure-blooded—many mulattoes), and Chinese. Santos Fernandez, the well-known oculist of Havana,[3] gives some curious statistics of the incidence of trachoma on the three races in Cuba:

Population.	Race.	Trachoma Cases.	Percentage.
460,000	Black	78	0.016
1,100,000	White	742	0.067
30,000	Yellow	33	0.111

It will be seen that for one negro attacked there are four whites and seven Chinese, a striking object lesson of the influence of race.

Van Millingen, of Constantinople,[4] disputes the racial immunity of the negro on the grounds: First, that he has seen cases of trachoma amongst negroes in Constantinople; and, secondly, that the indisputable immunity seen in other countries is due, not to race but to improved sanitation. Chibret, however, in his admirable paper on the Geographical Distribution of Trachoma,[5] shows that from the standpoint of ethnology the negroes of Constantinople are derived from a highly impure race, that of North-Eastern Africa, which for a lengthened period has intermixed with a (highly receptive) Semitic element; so that the occurrence of cases amongst the people of this mixed race is not only possible but probable. Van Millingen's second objection does not fit in with facts; doubtless, since the abolition of slavery, a small minority of the American negroes have made sanitary progress, but the great majority have still much to learn from their white neighbours in this respect.

Precise information from our *confrères* in West Africa is badly wanted, but I have reason to hope it will soon be forthcoming.

Chibret believes that the modified immunity of the inhabitants of the central plateaus of Auvergne and Bavaria is due to race[6]; I am inclined to think, however, that the immunity in this case is mainly due to climate. (See below.)

The Cingalese are stated to be relatively immune (Hirschberg); here, again, more precise information is needed.

3. *Receptivity.*

The evidence of the receptivity of the white races is too well known to need recapitulation here. Among whites the Jews, Poles, Italians, and Irish suffer most; and here, undoubtedly, poverty, defective sanitation, and overcrowding are the main causes of the increased prevalence of trachoma amongst these races *as compared with other white races.* Egypt, Persia, and India have been ravaged by trachoma for centuries; here, also, defective sanitation plays a certain part, but meteorological conditions are probably the main factors in reinforcing racial predisposition. (See below).

Some of Van Millingen's statistics are worth quoting, as showing the relative proportion of trachoma to other eye diseases in certain countries[7]:

Percentage of Trachoma to other Eye Diseases.

England	0.07	Turkey	18.00
Scotland	0.70	Bulgaria	20.00
Ireland	3.00	Russia	25.00
America	3.00	Greece	25.00
France	4.00	Italy	25.00
Belgium	4.00	Portugal	25.00
Holland	7.05	Central Asia ...	45.00
Spain	11.09	Africa	50.00
Hungary	12.00	Roumania	52.00

To the Chinese and Japanese belongs the unenviable distinction of being the most susceptible to trachoma of all the races of the world. Hirschberg found that trachoma accounted for no less than 78 per cent. of ocular affections in Southern China; Mujashita of Tokio places the percentage in Japan as high as 75. American observers note the same prevalence in the Chinese quarters of their cities. In Java and the Malay Peninsula the Chinese suffer to a much greater extent than the Malays. In the course of a recent conversation with me on the subject, Dr. Manson expressed the belief that the peculiar shape of the Mongolian eye had much to do with the extreme susceptibility of the race to conjunctival troubles; my own experience of four years in China inclines me to the same belief.

Climate and Subsidiary Influences.

Meteorological conditions, while they appear incapable of affecting immunity or partial immunity, have an important influence in reducing or increasing the spread of trachoma amongst the susceptible races.

It has long been recognised that, as a rule, the climate of high altitudes is unfavourable to the development and spread of the disease; for instance, trachoma is almost unknown amongst the races composing the permanent population of Switzerland, and cases brought into the country by travellers ameliorate rapidly. The rule, however, has numerous and important exceptions. Treacher Collins, in travelling through Persia, was particularly struck with the enormous amount of trachoma amongst the inhabitants of the mountain chains between Shiraz and Ispahan. River of Colorado (quoted by Swan Burnett) has seen cases in Leadville at at an altitude of 10,000 feet. Viger[8] found it very prevalent at high altitudes in Algeria. Many other instances could be given. These facts have led Van Millingen and Swan Burnett to believe that altitude has little or no influence—almost the only point on which these observers agree. I believe, however, with Chibret, that altitude has an important influence on the disease, but not altitude *per se*. Where extreme heat, dryness, and dust coexist with high altitudes—as in Persia, Algeria, and Colorado—these conditions overpower the immunising influence of diminished atmospheric pressure; but on the other hand, when the air is cold, moist, and dust-free, as in the Alps, trachoma becomes rare or unknown.

Strong sunlight, by producing inflammatory conditions of the conjunctiva, is undoubtedly a predisposing cause; add to this dryness, dust, and national headgear affording insufficent protection to the eyes, and we have all the essentials for the development of trachoma in a receptive race.

Filth, overcrowding, starvation, and all the conditions aptly summed up by Chibret in one word—misery—are also factors in increasing racial receptivity; they probably act mainly by lowering the powers antagonising disease, but partly no doubt by favouring contagion. Whether trachoma is contagious at all in the strict sense of the word—whether trachoma can communicate trachoma—is doubtful, but the problem is too wide to admit of discussion here.

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A CASE OF SPONTANEOUS RUPTURE OF THE HEART:*

By JOHN GORDON, M.D.,
Assistant Physician, Aberdeen Royal Infirmary.

SPONTANEOUS rupture of the heart is by no means a common occurrence. That being so, I thought it would be interesting to bring together the notes of this case, which I confess I was unable, either by percussion or by auscultation, to diagnose as a ruptured heart. The true nature was only shown by the *post-mortem* examination.

Previous History.—C. A., the subject of the following notes, was an unmarried female, aged 72, a well-nourished, fresh-complexioned, and on the whole well-pleased, smiling pauper inmate of the poorhouse. She had shown for some time previous to the fatal attack symptoms of senile dementia. She was troubled with excessive salivation, and was familiarly known by the other inmates as "Spittin' Kirsty." She had an inordinate belief in medicines, and kept constantly soliciting all officials for mixtures. The reason she would give for wishing a mixture was either some stomachic ailment, a slight cough, toothache, or her "spit," but as often as not she made the request without framing any reason. As a matter of fact, she had good appetite and digestion, and her cough, when she had any, was of the most trivial character.

History of last Illness.—On June 17th, at 1 o'clock, she partook with her usual appetite of a hearty meal of soup and fish, then went out and sat in full sunshine. Suddenly, about 2 P.M., she complained of pain in the breast, vomited, and became unconscious. After half an hour she so far regained consciousness, was supplied with 2 ounces of whisky, but fainted again, and was removed to the hospital at 3 P.M. in a still unconscious condition. She recovered a little about 3.30, was able to talk, and complained of pain across her chest and stomach.

Symptoms and Physical Signs.—She was seen by me about 6 P.M., and her first remark as usual was, "Give me a mixture, doctor." I found her complaining of great pain in the chest, and she had slight difficulty in breathing. She had a distressed look, with somewhat livid colour, was restless, but quite able and willing to talk. The temperature was subnormal, the pulse was small and soft, 120 per minute, the respirations were 24 per minute. Physical examination gave me no satisfactory explanation of her condition. I ordered poultices and an opiate, with light food.

Death.—The patient's condition continued much as indicated until June 20th, when at 10 P.M. she suddenly complained of intense pain—again across the chest. At this time she was evidently in great distress, moaning and crying out, a face of agony, profuse perspiration, extreme restlessness, and a quick, small pulse, 140 per minute. This condition, in spite of a hypodermic of half a grain of morphine, continued more or less until 6 A.M., after which she became quieter. During the day she revived somewhat, but kept in a semi-unconscious condition. She looked all that day extremely collapsed, the temperature was 97, the pulse very small (130 to 140), the extremities cold, and she died at 10.45 on the morning of June 22nd.

Necropsy.—Dr. George M. Duncan, Assistant Pathologist in Aberdeen University, kindly performed the *post-mortem* examination with me, and I have to thank him for the following notes illustrative of the case. The pericardial sac when opened was found to be distended with dark gelatinous blood clot. On lifting up the apex of the heart a small ragged slit about a quarter of an inch long could be seen on the posterior surface of the left ventricle an inch below the auriculo-ventricular groove, and a quarter of an inch to the left of the interventricular groove. The ascending and transverse portions of the aorta were much dilated, but the competency of the aortic valve, tested by water after removal of the heart, was not impaired. The aortic cusps appeared to be normal, but the walls of the vessel were markedly atheromatous, both coronary arteries were extremely atheromatous and tortuous, and could be felt standing out like rigid cords in the epicardial fat. On opening the right coronary artery a small thrombus was found completely blocking the branch of the vessel which passes along the posterior interventricular groove, and supplies the seat of the rupture. The left ventricle was filled with dark fibrinous blood clot. Its wall was somewhat flabby, but there were no signs of fatty degeneration, except at the part where the rupture took place. There was a ragged slit in the posterior wall about ½ inch from the interventricular septum and 1 inch below the edge of the aortic valve. This slit measured nearly ¾ inch in length; its edges were soft and friable. The opening was plugged by a small fibrinous clot. Lungs slightly œdematous and congested; liver, spleen, kidneys normal; brain normal, but cerebral arteries very atheromatous.

It may be as well to recall again the fact that the patient was practically an insane person, that the description of her ailments by no means tended to clear up any point of difficulty, and that the first set of symptoms might quite possibly have been mistaken for some gastric disturbance, although very soon the diagnosis that I was inclined to form was that of angina pectoris.

An interesting point in the history of the case is the time at which the actual rupture of the heart may have taken place. In my opinion the first onset of symptoms may have been caused by the small thrombus which completely blocked the branch of the right coronary artery, since after this onset the patient recovered very considerably, was able to take food, to engage in conversation, and complained only of pain in the chest.

I am inclined to assign the actual rupture of the heart to June 20th at 10 P.M. when the patient was suddenly seized with agonising pains in the chest. After a night of extreme pain there followed at 6 A.M. that state of collapse from which she did not again recover.

If these opinions be accurate, it follows that from the occurrence of the thrombus on June 17th at 2 P.M., there existed a period during which a branch of the coronary artery was prevented from nourishing its part of the left ventricle. During that period it may be supposed that the degenerative changes began in the muscular tissue, and that this weakened condition led to the spontaneous rupture of the left ventricle at that part. It has to be remembered that the branches of the coronary arteries are in great part terminal in their distribution, and that any stoppage to their circulation means a non-compensated interference with the part of the heart specially affected.

The period of local degeneration in this case included three days and eight hours, and this period represents the length of time during which the muscular tissue of the heart which had been deprived of its blood supply was still able to assist in carrying on the heart's function.

The period the patient lived after the rupture was one day, twelve hours, forty-five minutes. The interest in this has reference to the fact that the majority of cases die suddenly. Only in rare instances do the patients survive a day. It is stated that spontaneous rupture occurs mostly in the front of the left ventricle, whereas in this particular case rupture took place on the posterior surface.

The only other case of rupture of the heart that has come under my personal observation was in a male, and males are supposed to be more liable to it than females.

* Read at the Aberdeen Medico-Chirurgical Society.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

PROBABLE PERSISTENCE OF THYRO-GLOSSAL DUCT.

IN Professor Murray's Goulstonian Lecture on the Pathology of the Thyroid Gland, published in the BRITISH MEDICAL JOURNAL of March 11th, there are some remarks on the non-persistence of the thyro-glossal duct. In this connection, the following case I thought not without interest.

In September, 1898, whilst on a professional visit twenty-five miles from here, I was called in to see D. K., a woman aged 21, with enlarged thyroid gland. For some months she had complained of an offensive discharge into her throat, without vomiting or coughing it up, and with no accompanying catarrh. Sometimes this becomes quite profuse, and on such occasions she remarked a diminution in the size of thyroid enlargement. Firm compression on the gland produced such a discharge in the throat. The patient said it had resisted medical treatment for some months.

It occurred to me that it might be a persisting thyro-glossal duct from the median lobe of the thyroid gland, and I asked her to come to my surgery here for further examination and treatment, but in the meantime placed her on inunctions of lanolin and iodoform over the thyroid gland. About a month after I heard from her that this had completely cured the offensive discharge, but as to any variation in the goitrous condition I have not heard.

J. W. MCINTOSH, B.A., M.B.,
Coroner for Manitoulin, Medical Superintendent to the Indians.
Manitowaning, Ont., Canada.

ERYTHROL TETRANITRATE IN ANGINA PECTORIS.

IN this drug we have, I believe, a remedy superior even to "nitroglycerine," its effects being very rapid and more lasting. A man, 52 years of age, had good health until about three and a-half years ago, when he rapidly developed serious signs of heart failure. He had taken a good deal of whisky for some time previous to the commencement of his illness, and in addition to his cardiac trouble had cirrhosis of the liver. He

soon became unable to lie down in bed, having to sit up night and day almost entirely in a chair; feet, legs, and thighs became enormously swollen, and there was ascites. Purgatives, digitalis, and blue pill all failed to give more than temporary relief; his legs were punctured with Southey's trocar, and enormous quantities of fluid drained off, with marked relief to his dyspnœa. Gradually he recovered his strength, was able to get about driving or walking, but could never walk more than about half a mile or three-quarters of a mile without distress. During the three and a-half years following this illness he continued under treatment, taking strychnine, digitalis, tonics, very little stimulant, and his diet was regulated. Blue pill and salines were given regularly at intervals. During this three and a-half years he enjoyed fairly good health, and went to different resorts, with some benefit. The "Nauheim" system of gymnastic exercises was tried, and seemed to be of some slight benefit. About two months ago he took cold, and had an attack of bronchitis. This embarrassed his heart, and he commenced with very severe attacks of "angina." Nitrite of amyl, ethyl nitrite, and nitroglycerine were tried, the latter with much success, but caused severe headache, and ultimately it seemed to lose some of its effect. He was ordered erythrol tetranitrate tabloids, gr.½, twice or three times a day: these completely checked the anginal attacks, and their effect was much more lasting than nitroglycerine. The patient himself said they were much more satisfactory, and did not cause headache, and he readily continued the tabloids to prevent any return; this relief lasted for about a fortnight, when the heart gradually failed, and he died of sudden syncope, but the relief of suffering was most marked, and I felt it a duty to report the case, in the hope that others suffering from this much-dreaded affection may obtain equal benefit.

1, Birkdale, Southport. BOUGHTON ADDY, M.D.Lond.

POST-PARTUM CONVULSIONS: VENESECTION: RECOVERY.

ON January 16th, in the evening, I was called to attend Mrs. B., a primipara in her eighth month of pregnancy. I found the child well down in the outlet, and after a few pains she was naturally delivered of a very small, living male child. A few minutes after the expulsion of the placenta, which occurred within half an hour of the birth of the child, I noticed the patient looking very strange, and she became slightly cyanosed. This lasted four or five minutes then passed away, and she seemed better. I waited half an hour, and, everything being apparently all right, I left: but very shortly afterwards she had a violent fit and I was sent for again. On arrival I found her partially conscious and having convulsions about every ten minutes. I got her to take a draught of pot. bromid. and chloral hydr. (20 grs. each), and ordered it to be repeated if possible.

I was sent for again six hours afterwards; the nurse informed me that after the draught the fits were less frequent for a short time, and then came on worse and more frequent, and she could not get the patient to swallow another draught, she having had over thirty fits during my absence. I found the patient very much worse, with a failing pulse and barely any interval between the convulsions, which were very severe, so I decided to try the effect of venesection. I drew off 12 ounces of very dark and thick blood from the arm, which ran very slowly; but the fits immediately stopped and there was no recurrence. She remained unconscious and pulseless for about ten hours, when on calling I was able to rouse her, and succeeded in giving her a little milk. From this time she made an uninterrupted recovery, being able to come downstairs on the fifteenth day. The child died on the third day from convulsions.

I report this case to show the immediate relief which was obtained from the rather "old-fashioned" remedy of venesection.

St. Blazey, Cornwall. SANDOM DAVIS, M.R.C.S.Eng., L.S.A.

TONSILLAR CALCULI.

IN the BRITISH MEDICAL JOURNAL of January 7th there appeared a communication on Tonsillar Calculi, by Dr. W. G. Aitchison Robertson, of Edinburgh. A similar case came under my notice last year (1898).

The specimen in my possession was obtained from a boy, aged 13, who had not previously complained of sore throat. While sitting reading he felt something loose in his throat, and, thinking it was a plum stone, coughed it up; a few minutes afterwards he spat up another much smaller concretion, having experienced no pain or inconvenience with either. On examination about an hour subsequently I found a depression behind the left pillar of the fauces which had evidently been occupied by the calculi. There was slight hæmorrhage, but no tenderness, and the only noticeable glandular enlargement was behind the angle of the jaw on the left side.

Both calculi are smooth, and ovoid in shape, presenting facets on contiguous surfaces. The larger one measures 1 inch (25 mm.) in length, and ⅞ inch (22 mm.) in breadth, and weighs 76 grains (4.92 grams). The smaller one measures ¾ inch (19 mm.) in length, and ⅝ inch (15 mm.) in breadth, and weighs 15 grains (0.972 gram).

Both concretions are yellowish brown in colour, and very hard, and they retain the disagreeable odour noticeable in most tonsillar concretions.

The points in which this case differs from that of Dr. Robertson are:

1. The extreme youth of the patient (13 years).
2. The absence of noticeable sore throat previous to the discharge of the calculi.
3. The sudden discharge of the concretions without discomfort.

I have found in other patients giving histories of repeated suppuration and chronic sore throats several calculi, but these have been only as large as grains of barley.

ROBT. H. STRONG, M.B.Melb., M.R.C.S.Eng., D.P.H.Camb.
Melbourne.

A CASE OF AXILLARY MAMMA.

OWING to the comparative rarity of an axillary mamma, the following case, which I was asked to see by Dr. Tees, may prove of interest. A lady, aged 28, had her first child eight months before she sought advice about a swelling in her right armpit. She suckled her infant and had an abundant supply of milk. For three months she had noticed this swelling just behind the anterior fold of the axilla, and at intervals had felt shooting pains of varying severity down the inner side of the upper arm. She also observed that the right armpit was more than usually moist, and that her underclothing was stained.

On examination, a spongy mass could be felt just under the skin, passing beneath the outer border of the pectoralis major. The outline was irregular and lobulated; it was as large as a walnut, and produced a visible swelling when the arm was raised. It was movable around a point of attachment to the skin where a minute pore could be seen, and on compressing the mass several drops of a bluish-white watery fluid exuded from the opening. There was no areola round this opening. On comparing what escaped with the milk from the nipple, it was found similar to it, and on subjecting it to microscopic examination it presented all the characteristics of human milk. The swelling was quite separate from the pectoral mamma. There were no other abnormally-placed mammæ. After weaning the child, the pain vanished and the lump underwent considerable diminution in size, though it can still be felt.

GEORGE TEMPLETON, M.B.Edin., F.R.C.S.Eng.,
Assistant-Surgeon to the North-West London Hospital; Surgical Registrar to the Children's Hospital, Great Ormond Street.
Mansfield Street, W.

RUSSIAN RED CROSS SOCIETY.—An official report lately issued shows that on January 1st, 1898, the membership of the Russian Red Cross Society amounted to 17,387. In the 90 hospitals belonging to the 78 sisterhoods of the Red Cross 5,252 in-patients and 1,135,615 out-patients were treated in 1897. The number of Sisters was 2,290. The Society equipped an ambulance consisting of 2 surgeons and 20 Sisters for service during the Græco-Turkish war, and another ambulance of 5 surgeons and 10 Sisters was sent from Moscow. The total receipts for the year 1897 amounted to 2,453,579 roubles, while the expenditure amounted to 2,178,572 roubles. The funds at the disposal of the Society are estimated at 10,411,110 roubles exclusive of real estate valued at more than three millions of roubles.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

KASR-EL-AINI HOSPITAL, CAIRO.

TWO SUCCESSFUL CASES OF CÆSAREAN SECTION.

(By Frank Cole Madden, M.B., B.S.Melb., F.R.C.S., Professor of Surgery, Egyptian Government School of Medicine; and Senior Surgeon to the Hospital.)

These two cases are primarily of interest as illustrating an extreme degree of rickety deformity occurring in Egyptian patients, who, as a rule, are not very liable to this disease. Here, also, the rickety condition was apparently associated with achondroplasia, for both patients were tiny dwarfs with stunted limbs, marked lordosis, and lateral curvature of the spine, and contracted pelves. They bore a striking resemblance to each other in feature as well as in bony deformity, and both were primiparæ.

The first case was admitted to Kasr-el-Aini at the end of October, 1898, being, according to her own statement, in the ninth month of pregnancy. There were no signs of labour, and on examination the os was closed, and the head was well above the brim of the pelvis. The fœtal heart was distinctly heard, and the hard mass of the head occupied the lower part of the uterus towards the left side. The principal pelvimeter measurements were 7 inches between the anterior superior iliac spines, and 7½ inches between the middle of the crests of the ilium. The internal measurements could not be accurately determined owing to the condition of the true pelvis, but the diagonal conjugate diameter appeared to be just over 2 inches. Owing to the degree of contraction present Cæsarean operation was proposed, but was deferred until there were some signs of labour. Nothing happened for more than a month, and, as the uterus was slowly increasing in size, it was decided to operate at once. On the very morning fixed for the operation (November 26th) labour pains came on, the os began to dilate, and a small quantity of fluid was discharged. On examination under an anæsthetic the head was felt well above the brim of the pelvis, the uterus extended nearly up to the diaphragm, and a softish mass could be felt in its upper part, the limbs being indefinitely made out at the sides. There was a distinct depression about the lower third of the uterus just above the head.

The abdominal incision extended from an inch and a-half above the pubes to 4 inches above the umbilicus. The uterus was found immediately under the incision, and by slightly enlarging the abdominal wound it was completely turned out of the abdominal cavity. A sterilised towel was placed behind it, and a few gauze sponges were tucked in below, between the uterus and the bladder. The intestines, completely empty, lay at the back of the abdomen covered by the towel, and gave no trouble whatever. The vessels in the broad ligament on either side were digitally compressed, the uterus steadied, and an incision about 4 inches long made in the middle line of the uterus right down on to the placenta, which was attached anteriorly and presented into the upper end of the wound. The incision was rapidly enlarged below, the whole hand placed within the cavity of the uterus, and the child delivered, the cord being divided between artery forceps. The placenta was then quickly detached, and the somewhat adherent membranes, which extended right down to the os, peeled off. Except from the incision into the placenta, very little hæmorrhage occurred, and the uterus rapidly contracting, the pressure on the vessels was gradually relaxed, and the uterine cavity irrigated with hot sterilised water. Some clots which had collected in the lower third of the uterus were washed through into the vagina, and a large drainage tube, extending from the cavity of the uterus to the vaginal orifice, was placed in position. Silkworm-gut sutures mounted on straight triangular needles were then inserted, and included the whole thickness of the uterine wall, except the mucous membrane. The sutures were passed from within outwards on each side, and after a second irrigation of the uterine cavity, were tied in order. Several superficial silkworm-gut sutures to include the peritoneum and superficial muscular fibres were then inserted. The Fallopian tubes were divided between silk ligatures, the sponges in the utero-vesical pouch and the sterilised towel removed, and the uterus returned to the abdomen. No fluid or blood escaped into the peritoneal cavity during the operation. The abdominal incision was then completely closed with silkworm gut sutures. These sutures included the skin and superficial structures, avoided the recti muscles, but caught up the peritoneum on each side (as recommended by Galabin). The advantage of this suture appeared later when the recti muscles were seen strongly contracted beyond the line of suture during an attempt at vomiting. It would have been a very severe strain upon any suture to keep the sides of the incision in apposition during such strong muscular action. A few superficial sutures were necessary, and the wound was dressed with sterilised dressings. The child was a full term boy, and was soon resuscitated.

The subsequent history of the case was uneventful; the wound healed entirely by first intention, the tube was removed on the second day, and the mother and child were discharged on Christmas Eve, both perfectly well.

My best thanks are due to my excellent assistants, Mr. Hutchinson and Dr. Francis Badir for their valuable help throughout.

The second case was admitted on January 12th, having been already in labour for three days. She had very marked rickety deformities of the limbs, back, and pelvis. The diagonal conjugate diameter appeared to 2½ inches, and the sacral promontory was very prominent. The os was thinned and slightly dilated; the head was well above the brim, and the uterus had a slight hourglass contraction. The fœtal heart and placental *souffle* were very distinctly heard. The patient was very much exhausted, and was at once removed to the theatre and an anæsthetic administered. The abdominal incision was of the same extent as in the previous case; the uterus was turned out of the abdomen, a sterilised towel tucked in behind and at the sides, the vessels compressed, and an incision made into the uterus. The uterus was constricted in the centre and the upper part was doughy, and a number of much-dilated veins were seen on the anterior surface. These were avoided in the uterine incision, and indicated the position of the placenta. The child was quickly removed, and the placenta and membranes stripped off. The uterine cavity was irrigated with very hot sterilised water, and, as the opening into the vagina was free, no tube was inserted. The subsequent stages of the operation were identical with those of the first case, and silkworm-gut sutures were used throughout. The child was small, but well-developed and healthy.

After the operation the patient was very collapsed, but subsequently rallied and had a good night. The following day the child was put to the breast and, save for an attack of thrush, throve very well. The mother's condition was not at all satisfactory for some time, many of the sutures suppurated and for a few days the discharge from the uterus was both profuse and offensive. Then her cough became troublesome with much purulent expectoration. Gradually, however, the discharge from the uterus ceased, the offending sutures were removed and the suppuration around them stopped. On February 6th the patient was transferred to Dr. Sandwith for medical treatment. He considered her to be an old case of bronchiectasis. The wound is now quite healed, the child is well, and the mother has quite recovered from the effects of her operation.

For their invaluable assistance at this second (midnight) operation I am much indebted to Mr. Hutchinson and Dr. Goodman.

On February 20th this patient died rather suddenly, after a severe attack of coughing with expectoration of a large quantity of very offensive pus.

On *post-mortem* examination the greater part of the lower lobe of the left lung was found honeycombed by numerous old bronchiectatic cavities, from the size of a hazel nut to that of a large walnut, filled with offensive, dark, slaty grey pus. The whole of the lower lobe was firmly adherent by old fibrous union to the parietal pleura and the diaphragm. The abdominal wound was perfectly healed; the uterus and a coil of intestine were adherent to the anterior abdominal wall

towards the right side, and in a small pouch between the intestine and the uterus was a drop of thick glutinous pus. The wound in the uterus had healed firmly and the silkworm gut sutures, quite unchanged, were still in position, the deeper layer, now that the uterus had contracted, forming hoops with only a small piece of the suture buried in the wall of the uterus. The wound had healed entirely by first intention. The length of the uterus was 4½ inches and its substance was quite firm. The ligatures on the divided ends of the Fallopian tubes were unchanged, but were nearly hidden in a mass of soft connective tissue. The right ovary was hard and considerably enlarged, but the left was quite small and atrophic. The other organs were normal.

For these *post-mortem* notes I am indebted to Dr. Symmers, pathologist to the hospital.

The main points of interest in connection with these two cases are: The extreme rickety deformity (practically identical in both cases), the constriction of the uterus between the placenta above and the harder mass of the head below, the anterior attachment of the placenta, and in the second patient the indication of the placental site by the enormously dilated veins. The sterilised towel, placed behind and around the neck of the uterus, kept back the omentum and intestines, and absorbed any blood or fluid which might have found its way into the general peritoneal cavity. In neither case was it necessary to do any cleansing of the peritoneum, except just in front at the lower end of the abdominal wound. The intestines were never in the way, lying quite collapsed at the back of the abdomen.

The complete turning out of the uterus from the abdominal cavity greatly assisted the subsequent operations on that unwieldy organ, and also greatly simplified the compression of the vessels in the broad ligaments. Except for some bleeding from a large sinus deep in the muscular wall of the uterus, the hæmorrhage was never troublesome, the uterus contracting down very rapidly as soon as it was empty. After irrigation with hot sterilised water all hæmorrhage completely ceased. Strong silkworm-gut sutures were used for the uterus in both cases and very few superficial sutures were required. In such severe deformities the ligature of the Fallopian tubes would appear quite justifiable. Finally, the complete closure of the abdominal wound, as above described, with the exclusion of the recti muscles from the bite of the sutures, gave very satisfactory results. The insertion of the sutures on each side internal to the recti forms also a regular sheath for these muscles which are thus able to contract within their reconstructed sheath without exerting any lateral pull upon the abdominal incision.

It rarely happens that one is fortunate enough to operate upon two cases of this nature within three months, and it is hoped that some of the points mentioned in connection with them may be of interest to English surgeons.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. Payne, M.D., President, in the Chair.

Tuesday, May 2nd, 1899.

Congenital Tuberculosis in the Calf.

Professor John MacFadyean exhibited a specimen of this unusual condition, which was of interest in regard to the alleged frequency with which tuberculosis is directly transmitted. As a rule the calves of tuberculous cows were born without the disease, as proved by the absence of reaction on the injection of tuberculin. He had himself seen only one example before 1897; since then three had been forwarded to him. In one of these three there was advanced uterine tubercle in the cow. In the second the calf sent was only a day or two old, as shown by the condition of the umbilical cord; the tubercles in general were the size of barley grain, and were distributed through the liver, spleen, and lungs, as well as the myocardium; nothing was known of the cow. In the third case, the lungs of the cow were tuberculous; the uterus was not examined. In the calf of this case the lesions were found in the liver, spleen, kidneys, and a few in the lungs; the hepatic lymphatic glands were involved, and in addition the mesenteric and remote glands, even those of the limbs. As showing that calcification was not a criterion of the age of a tubercle, many of the lesions were calcified in the second case. The distribution contrasted with that in the full-grown ox, where the pleura and peritoneum were commonly involved, and the spleen hardly ever; discrete lesions of the myocardium in the adult, moreover, were extremely rare, as were also lesions in the remote lymphatic glands, such as the popliteal. In the calf the dissemination took place by the blood stream, hence the viscera were largely affected, as well as the various lymphatic glands, these being infected through the blood. Tuberculosis in the calf probably always arose from tuberculous endometritis in the cow. In the ox when the disease became generalised the lungs were chiefly affected and the same was true after experimental injection of the virus into the jugular vein, the endothelium of the pulmonary capillaries tending to arrest the circulating material.

A Case of Apparently Aseptic Suppuration of the Knee-joint following Injury.

Dr. F. W. Andrewes recounted the following unusual case. The patient was a healthy young man who was injured by the fall of a heavy door which struck him in the right loin. Profuse hæmaturia followed. Some pain and stiffness in the right knee was noticed from the time of the injury. Seven days later acute arthritis with fever set in, and the knee was aspirated on four occasions, synovia mixed with blood and pus being withdrawn. The patient ultimately recovered without loss of mobility. The fluid on standing separated into clear synovia and thick pus with blood as a deposit. The pus cells were large, and in active process of ingesting the red corpuscles. No micro-organisms could be demonstrated, either microscopically or by culture. The author suggested that the blood effused at the accident acted as an irritant, and in some way led to an aseptic form of suppuration. The aspirated fluid afforded a poor soil for bacterial growth, as it remained undecomposed for many weeks after exposure, but that it was not bactericidal was shown by the growth of anthrax bacillus, staphylococcus aureus, etc., when sown in it. Chemically it contained a considerable amount of nucleo-proteid.

Mr. Raymond Johnson inquired how long a time intervened between the injury and date of aspiration. He had examined the pus from a case of acute periostitis of the femur in which no organisms could be cultivated; he regarded the result as due to the inflammatory fluids having killed the pyogenic microbes.

Dr. Andrewes, in reply, stated that only four days intervened, and he hardly thought this sufficient time to bring about the death of any micro-organisms which might have started the inflammatory process.

Chromocyte Clumping in Acute Rheumatism.

Mr. S. G. Shattock had on a previous occasion drawn attention to the action of the blood serum in acute pneumonia upon normal blood, the admixture, as studied by means of the hanging drop, leading to a highly exaggerated rouleaux formation and massing or clumping of the red discs or chromocytes. He had, on applying the same method, obtained similar chromocyte clumping in normal blood by means of the blood serum from cases of erysipelas and acute rheumatism. The reaction probably obtained in all cases of infective disease where the blood exhibited an exaggeration in rouleaux formation, and where one result of the increased agglutination was the more rapid subsidence of the red mass and the formation of a buffy coat. In one of the cases of acute rheumatism the reaction of the serum with normal blood was obtained by using the serum of blood drawn the day after the fall of temperature to the normal; in this case a repetition of the observation made with blood drawn a fortnight later, the temperature having remained normal throughout that time, gave a similar result, showing that the change in the serum leading to the increased agglutination persisted during convalescence, as in the bacterial clumping obtained in specific infectious diseases. The blood serum, however, stood very little dilution. If the loop of serum were dilututed with four of distilled water it produced no result on normal blood; even when only once

diluted the rouleaux formation of normal blood was but little exaggerated. In all cases the author had checked the result by the study of normal blood similarly treated with normal human blood serum. Upon the leucocytes no change was produced. This could be seen in such preparations, but best if leukæmic blood was tested with the rheumatic serum; in such circumstances the chromocytes immediately became aggregated into islands, whilst the leucocytes, however large their numbers, remained unaffected. When the reaction ensued it was obvious to the naked eye, the hanging drop appearing as if it held a coloured precipitate. The reaction took place at once, though it might become more pronounced in the course of a few minutes. The speaker also referred incidentally to some experiments he had made with watery extract of uterine mucosa and the mucous membrane of the Fallopian tube, to test whether they possessed any property of inhibiting the coagulation of blood. In one case he had used the mucosa from a freshly excised uterus removed on the day on which menstruation was due; but the results had been in all cases negative, both upon cats' blood and human, and so they contrasted strongly with the well-known inhibiting power, in this respect, of a watery extract of the pharyngeal glands of the leech. The reason why menstrual blood did not coagulate had yet to be given.

THE PATHOLOGY OF DIPHTHERITIC PARALYSIS.

Dr. F. E. BATTEN said that while examining a series of cases, the result of which he read before the British Medical Association in July, 1898, he was struck by the fact that although in nearly all the cases of long standing the pathological change found in the nerves was definite and marked, yet in one case in which the disease had lasted for 50 days no change could be demonstrated in the nerves. He had therefore undertaken the examination of another series of five cases by the same methods that he had used in his first series, namely, Nissl's method, Marchi's method, and Pal's method. Four of these cases exhibited characteristic changes in the nerves; in one case, however, of 80 days' duration no change could be demonstrated in them. Two cases exhibited some change in the anterior horn cells as demonstrated by Nissl's method: in the first case it was limited to one cell, and in the second, although the changes were general, yet too long an interval had elapsed between the time of death and necropsy to allow of the case being accepted without hesitation. He repeated the conclusion arrived at in his former paper, namely, that the dominant lesion was a parenchymatous degeneration of the myelin sheath of the nerve, although one must always be prepared to meet with a certain proportion of cases which gave a negative result. In relation to the question whether the palsy was of nuclear or peripheral origin he said that it was almost certain that a general poison like diphtheria must act on the whole neuron; he had, however, endeavoured to show that the effects of the poison manifested themselves, at least in fatal cases, in the myelin sheath and not in the cell body itself.

TUMOURS FROM THE NECK CONTAINING GIANT CELLS.

Mr. H. J. WARING exhibited the above which was removed from the lower part of the left side of the neck of a man 61 years of age. It was closely connected with the platysma, and histologically comprised fibrous tissue, cartilage, and numerous multinucleated giant cells. The speaker thought its source to be most probably one of the branchial arches. Though only removed four months ago, local recurrence had taken place, showing its malignancy to be greater than that commonly associated with myeloid sarcoma.

TUBERCULOUS ULCERS OF THE STOMACH IN CHILDREN.

Dr. G. F. STILL recorded five examples of this unusual lesion, in three of which histological and bacteriological examination had been made with positive results. In all cases the ulcers were small: (1) A child aged 3½ years, admitted with vomiting and ascites due to tuberculous peritonitis: (2) a child aged 10 months, suffering from cough and tuberculous meningitis, and as shown after death from generalised tuberculosis: (3) tuberculous peritonitis: (4) a boy aged 9 years also affected with tuberculous peritonitis; (5) a child aged 2 years suffering from the same disease. The author had found only 5 cases out of 226 necropsies. Two cases were recorded in the Society's *Transactions*, but these were in adults. In children such ulcers were more frequent. There were no clinical symptoms associated with them. In 1 of the 5 cases perforation had occurred, but extravasation had been prevented by adhesions. The gastric lesion was not to be regarded as the primary site of infection.

CARD SPECIMENS.

Dr. F. E. BATTEN: Myeloid Growth.—Mr. H. J. WARING: Adeno-lipoma of Submaxillary Gland.—Dr. F. W. ANDREWES: Tumour of Socia Parotidis.—Dr. H. D. ROLLESTON: A similar specimen.—Dr. RENNIE: Tuberculosis of Urinary Tract.—Mr. C. F. BEADLES: (1) Bronchiectasis, (2) Unusual Tumour of the Breast.—Mr. S. G. SHATTOCK: Enterolith removed from Rectum (organic matter, mixed phosphates, no oxalate of lime).

CLINICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., President, in the Chair.

Friday, April 28th, 1899.

CLINICAL EVENING.

ACHONDROPLASIA.

MR. WILLIAM TURNER showed a girl, aged 10, but looking considerably younger, who was born of young, healthy parents, and had two sisters, aged respectively 7 and 3, who were both in good health. The younger of these was 3 inches taller than the patient, who was only 3 feet high. There was no history of syphilis in the family. The diaphyses of the bones in the limbs were very short, and did not increase in length; and although the epiphyses grew in breadth they did not add to the length of the bones. The clavicle was as long as the humerus. In each hand there was abduction of the ring and little fingers away from the two outer fingers. The abdomen was prominent, and there was marked lordosis of the spine. A transverse depression existed at the top of the nose. The child was intelligent and in the third standard at school. But the great mobility of her joints prevented her from doing many things which other children found easy. During the last five years she had not increased at all in height. The isthmus of the thyroid, or something like it, could be felt.

Dr. A. GARROD said that in the previous session he had exhibited a case, aged 7, exactly similar in all respects to the case now shown. His patient had a peculiar method of rising from the ground when lying down.

Mr. BARWELL thought the lordosis was due to the instability of the pelvis, and was analogous to that occurring in congenital dislocation (so-called) of the hip: the affection of the upper part of the femur caused the patient to throw the buttock and tuber ischii backwards.

SOLUTION OF CONTINUITY OF BOTH FEMORA.

Mr. STANLEY BOYD showed a patient, aged 18, in whom two years ago, after much difficulty in walking, both femora gave way so that he had become unable to walk or stand. When admitted to hospital there was a remarkable deformity of both thighs which persisted. Since the patient was shown Mr. Boyd had applied extension with marked improvement, especially in the left limb. He exhibited on the screen skiagraphs of the lad, which showed the characteristic deformities of rickets. The right upper limb was normal, but of the size of that of a boy of 8. The left humerus was very diminutive. Both femora were very defective at the centre, and also tender, but the shadow of the solution of continuity in the bones was almost as dark as that of the bones themselves. The isthmus of the thyroid gland could be felt. Mr. Mackenzie Davidson, who had skiagraphed the boy, thought the condition was due to deficiency of lime salts in the bones.

Mr. W. G. SPENCER thought this was an example of one of the general diseases of the skeleton which did not fall into any definite category, and which might be described as intermediate between rickets and osteomalacia.

Mr. CHARTERS SYMONDS referred to a case by Mr. Davies-Colley, reported in the *Transactions* of the Pathological Society, vol. xxxv, which he said was almost exactly similar. The child died at the age of 15 from paraplegia caused by yielding of the spine and pressure on the cord. It was diagnosed as osteomalacia.

Mr. Barwell suggested that there was something inflammatory about the lesions. There was great pain on the slightest movement of the limbs, and he commented on the fact that the substance uniting the fragments was as dark in the skiagraph as the bone itself. He did not consider that the case referred to by Mr. Symonds was comparable.

Revolver Shot of the Brain through the Hard Palate Operation: Recovery.

Mr. A. E. Barker showed a man who had fired two shots of a revolver into his mouth, and then despairing, had given himself up to the police. There was free hæmorrhage, but no loss of consciousness. Twelve hours after there was no trace of any nerve lesion except a slight drooping of the right eyelid. Eighteen days later he began to vomit frequently, and on the twenty-eighth day it was noted that the left side was growing weak and this paralysis by the thirty-second day was complete. There was marked optic neuritis, most pronounced on the right side. Some improvement occurred, and in a few weeks he was able to walk about. A skiagraph was obtained which showed the position of the two balls. He had several epileptic attacks, and after experiments on brains in the *post-mortem* room Mr. Barker localised one of the bullets, and trephined over the region, and ultimately succeeded in removing it, through the vertex, on the sixty-ninth day, from the vicinity of the corpus callosum. On recovering from the operation the patient was completely paralysed, but motion returned first in the leg and then in the arm, feet, and hands. Then it was noticed that his trunk muscles were quite paralysed on one side as shown in screen projections. He had since steadily improved, but as there was optic neuritis Mr. Barker pointed out that the prognosis was doubtful.

The President agreed that surgeons were well advised not to interfere in these cases, seeing that very often the bullet gave rise to no symptoms at all, and he referred to three cases in which no operation had been found necessary.

Mr. Gould asked whether Mr. Barker thought it was the removal of the bullet or the relief of tension that had brought about the amelioration in this case.

Mr. Barker admitted that there was considerable tension, but thought that as the symptoms were on the mend it was not likely that the bullet was causing irritation. He asked whether, in the cases referred to by the President skiagraphic or other evidence had been forthcoming of the presence of the bullets in the brain.

The President said that in one case a skiagraph had been made. His three cases were all in Germans.

Mr. Barker added that his patient was a Russian.

Tumour of the Upper Jaw.

Mr. E. W. Roughton showed a man, aged 39, who two years ago first noticed a swelling on the upper jaw just below the left eye, which had since gradually increased in size. There was a swelling of uniform hardness mainly occupying the left superior maxillary bone, also the nasal bone, and the malar bone. The alveolar process was much thickened, and the arch of the hard palate was much depressed. From the nose it was seen that the floor of the nose was depressed on one side, showing that it was a bony growth infiltrating not only the superior maxilla but also the adjacent bones. He had removed a portion of the growth, which on section proved to consist of delicate trabeculæ of bone with spindle and round cells, and some multinucleated giant cells. It might, he said, be leontiasis or a slow growing sarcoma.

Spontaneous Cure of Recurrent Carcinoma of the Breast.

Mr. A. Pearce Gould showed a woman who had already been shown to the Society in November, 1897. She was single, and aged 49. In 1888 she received a blow on the left breast which was followed by a lump, which in 1890 was removed, and on microscopical examination was diagnosed as scirrhus. In 1892 she returned with recurrence in the left axilla, which was excised, and in 1894 recurrence had again taken place, and on this occasion there was a lump in the right breast. These were excised in December. In 1895 she returned with another recurrence in the scar and also the lump in the other breast, and enlarged glands in the corresponding axilla. She also complained of shortness of breath, and her condition was looked upon as incurable, and she was admitted to the Cancer Ward of the Middlesex Hospital. There were then numerous nodules around the scar and elsewhere, and dulness at the base of the right lung. In March, 1896, she was unable to lie down in bed, and there was a large lump in the left thigh-bone. Nothing was done, but in June, 1896, she had lost her dyspnœa and the nodules had disappeared. The swelling in the thigh had diminished and was no longer painful. He had shown her in November, 1897, when the scars alone were visible, and he showed her again to prove that the improvement was not ephemeral. Mr. Gould mentioned that the patient had menstruated the last time in January, 1895, and the improvement had been manifested many months later, namely, between March and June, 1896. He commented on the fact that no credit could be given to any treatment, for she had had none, medicinal or operative, and the improvement had taken place in the cancer wards of the hospital devoted to cancerous patients for the last fifty years.

Mr. Clement Lucas mentioned that he had tried oöphorectomy in one case, but the growth in the breast had doubled in size within the six weeks following the operation, and he had subsequently removed it.

Mr. G. Templeton said he had microscopically examined the tumour removed from the left breast and found it to present all the appearances of typical scirrhous carcinoma. There was no evidence of secondary growths at that time (early in 1894).

Mr. Gould said he had not made any sections while the patient was under his care, and he had no explanation to suggest of the subsidence of the growths.

Unilateral Hypertrophy of the Accessory Muscles of Respiration.

Dr. A. Morison showed a woman, aged 35, with hypertrophy of the accessory muscles of respiration on the right side, namely, the trapezius, pectoralis major, sterno-cleido-mastoid, and scaleni. There were also rhythmical movements of the muscles of the right shoulder, but no affection of the heart or lungs to suggest that the affection was of a compensatory nature. It was evidently a functional disorder.

New Splint for Fractured Clavicle.

Mr. Mouat-Biggs (Cheltenham) exhibited a man wearing his splint for fractured clavicle, which he had used for the last fifteen years.[1] He claimed for it that it it gave absolute fixation of the broken bone with much less discomfort than the usual appliance. The pad for the axilla and elbow support were both fixed to the same splint, and the former caused no undue pressure in the armpit.

Excision of the Posterior Half of the Tongue and Epiglottis.

Mr. Stanley Boyd showed a patient (with specimen) who, when seen, presented an epitheliomatous tumour, involving the posterior half of the tongue and the epiglottis. The growth reached nearly back to the spine. The glands in the right and left triangles were also diseased. These he removed first; he then attacked the growth in the tongue by opening the right side of the pharynx and removing a portion of the hyoid bone, the tumour reaching down to the thyroid cartilage. The removal of the tumour left a cavity which he closed by a purse-string suture, and the patient began to swallow on the fifteenth day by turning on his left side. Some recurrence had taken place low down in the neck where the glands were not readily accessible, and this he had removed with the lower half of the jugular vein. The patient had since gained in weight, and the tongue looked fairly normal, but there was some narrowing of the pharynx.

Injury to the Roots of the Brachial Plexus in an Infant.

Dr. Batty-Shaw showed an infant, aged 13 months, in whom, consequent on violence exerted at birth on the left axilla, impairment of motion had resulted in the corresponding limb. Sensation was not affected.

Pulsus Paradoxus.

Dr. Norman Dalton showed a man, aged 48, with no history of rheumatic fever, syphilis, or alcohol, who had *râles* and coarse

[1] *Vide* British Medical Journal, 1892.

friction over the lower two-thirds of the left lung, but no dulness. There was marked retraction of the apex beat, which extended from the ensiform cartilage to 2 inches below the nipple. There was also typical pulsus paradoxus, but no other signs of adherent pericardium or of chronic mediastinal cellulitis. The heart sounds were normal, and the heart action strong. As no tubercle bacilli could be found he suggested that there was probably chronic interstitial pneumonia, with pleuritic adhesions in the lower part of the left lung, with probably much fibrous tissue between the heart muscle and the chest wall and diaphragm, and a certain amount of pericardial adhesion, though not enough to embarrass the heart.

A CASE OF AORTIC DISEASE WITH MUSICAL BRUIT REMEDIED BY BATHS AND EXERCISE.

Dr. BEZLY THORNE showed an omnibus driver, aged 48, who had been in good health until, after making a powerful effort to hold up his horses, he found himself to be breathless on attempting to walk. He remained under medical treatment with rest for six weeks without material improvement, and suffering orthopnœa at night. On February 10th, 1899, he commenced a course of treatment by baths and exercises, and by the 15th he was enjoying good nights and had recovered appetite. The course terminated on March 23rd. A loud diastolic musical murmur in the aortic area, which had been audible at a distance of from 6 to 8 inches from the chest wall, and had been accompanied by a widely-diffused thrill, was audible at a distance of about 2 inches only, and the thrill was limited to the immediate aortic area. The patient expressed himself as being in good general health and as able to walk a quarter of a mile at a good pace without discomfort. It was suggested that, although full compensation had not been established, the heart had been restored to a state of moderate competence.

EXCISION OF A MENINGOMYELOCELE, WITH SKIAGRAPH.

Mr. W. G. SPENCER showed an infant who, when 7 months old, was operated upon for spina bifida, and he showed a skiagraph of the condition. Previous to the operation the child had never been seen to use its lower limbs at all, but since it kicked about like a normal child. He had opened the sac and dissected out the cauda equina, etc., bringing together the walls of the sac by a double row of sutures, and keeping the child in such a position with the head lowered that the wound was the highest part. No untoward symptoms had followed, and no cerebro-spinal fluid had escaped through the wound.

OSSIFICATION OF THE TENDO ACHILLIS.

Mr. WILLMOTT EVANS showed an elderly man who presented a hard tumour in the left tendo Achillis, which in skiagraph appeared to be calcified if not ossified. There was a history of two injuries twelve and eight years ago, but the condition was not noticed until twelve months ago.

EPIDEMIOLOGICAL SOCIETY.

H. FRANKLIN PARSONS, M.D., President, in the Chair.

Friday, April 21st, 1899.

RELATIONS OF BACTERIOLOGY WITH EPIDEMIOLOGY.

DR. FRANK R. BLAXALL read a paper on this subject. The conception of a contagium vivum, though foreshadowed by Athanasius Kircher in 1671, while the origins of epidemics were still ascribed to meteoric influences or supernatural agencies, was no more than a hypothesis until the microbe observed by Pollender in 1849, was in 1863 shown by Davaine to be the essential cause of anthrax, and the subsequent labours of Pasteur, Lister, and Koch proved by demonstration or analogy that all fermentation, putrefaction, and infection was the work of bacteria and other low organisms. Epidemic and endemic diseases might be referred to one or other of two groups, the first consisting of the acute exanthemata, with perhaps one or two more, all general affections, conforming to a constant clinical type, highly infectious and conferring lasting immunity, the second comprising a number of diseases as typhoid fever and cholera, diphtheria, tuberculosis, tetanus, zoötic diseases communicable to man, erysipelas and all forms of septicæmia, venereal diseases, etc., mostly originating from a definite local lesion, less uniform in character, little communicable save by direct infection, and with the exception of typhoid fever, not conferring more than a transient immunity. It was remarkable that, while the microbes of most of the latter group had been identified, those of the former still eluded detection or defied artificial cultivation, though they might long retain a dormant vitality out of the living body. Of the second group—with which bacteriologists were best acquainted—the bacilli of tuberculosis, tetanus, anthrax, and diphtheria conformed with every one of Koch's and Martin's postulates, but suppuration might be set up by several different organisms, and some, as the pneumococcus, were capable of inducing different morbid processes, and could not be properly described as specific. Except, perhaps, some irritation the effects of bacteria were not due to their mere presence, but to their products, enzymes, setting up fermentative action, peptonising, etc., ptomaines generated by them from dead matter and more or less poisonous, and toxins which were the causes of the phenomena of disease, and had not been isolated, being something contained in, and at present inseparable from, the albumoses that alone had been precipitated. Some held that these toxins were the immediate products of the bacilli; others that they were formed in and from the juices of the living body, by enzymes produced by the bacteria, and this latter view, which was maintained by S. Martin, derived considerable support from the quasi-incubation and other phenomena, strongly suggestive of a continued production of the poison, occasionally observed in laboratory experiments on animals with the products of the bacteria, free from the bacteria themselves, obtained by the filtration of fluid cultures. Infection, however, was a matter of dosage and apart from natural resistance, or that which the individual seemed to enjoy, in respect of organisms long parasitic on his own body, a great degree of tolerance could be acquired or conferred by the continued repetition of sublethal doses; and, if these were given of progressively increasing virulence—as in the preparation of diphtheria antitoxin in the horse—there seemed no limit to the possible power of resistance. This, however, was not the fact; a point was at length reached when resistance broke down and immunity was lost; and in this phenomenon the author thought might be found the explanation of relapses in typhoid fever, the production of the antitoxin having proceeded at too rapid a pace before the toxin was eliminated. A sequel to the discovery of antitoxins by Behring was that of Widal in respect of typhoid fever—that the serum of a person suffering or who had suffered from that disease, and was therefore immune, exerted a peculiar and specific action on the bacilli of the same in artificial cultures; and both phenomena had been observed in other diseases. Artificial cultures of anthrax, tetanus, and diphtheria fulfilled Martin's requirement of producing their special toxins, tubercle, plague, glanders, erysipelas, and others conformed to all Koch's postulates; the blood of relapsing fever reproduced the disease, but the spirilla had not been cultivated out of the body. On the other hand, several forms of micrococci and streptococci produced septicæmias clinically identical, while pneumococci gave rise to several lesions other than pneumonia, as meningitis and otitis media. Complete as our knowledge of the bacteriology of diphtheria was in most respects, there were still several problems awaiting fuller solution, as the presence of Loeffler's bacillus in apparently healthy throats and the occurrence of cases of clinical diphtheria in which it could not be detected. But negative evidence was of little value, and the converse observation was easily explained by the tolerance acquired by the individual who, however, remained a source of danger to others. The failure to discover the Eberth-Gaffky bacillus in water believed to have been the vehicle of typhoid fever had been urged against its claim to be the cause of that disease, but was also easily accounted for by the long incubation of the fever, the large volumes of water through which it might be diffused, and its perishable character, while such water rarely failed to show the presence of B. coli and others more retentive of vitality, demonstrating the fact of excremental pollution. The specificity of the tubercle bacillus was now beyond doubt, but predisposition played a most important part in the propagation of the disease, and considering the wide prevalence of tuberculosis, the long duration of the morbid process and the fact that the bacillus flourished outside the living body, it seemed that preventive treatment

should be directed to the amelioration of the predisposing conditions, the destruction of sputa, the sterilisation of milk, if affected cows could not be excluded from dairies, and avoidance of the aggregation of consumptives in hospitals, the best treatment of phthisis being work in the open air. In a disease of indefinite duration it seemed useless to look for the means of immunising. The bacteriology of cholera had been unsettled of late by the discovery that Koch's "comma" was not alone, but that in different cases bacilli were present similar in form but distinguishable one from the other, and so far specifically different that the sera were not mutually protective. The bacillus of plague was cultivated, and the disease reproduced in several animals. Rats were specially susceptible, being attacked spontaneously during epidemics, but it was not certain whether they or man were the first to develop it. The rapid and complete disappearance of the plague from this country within a few years of one of the worst outbreaks was a problem of the deepest interest, and had never been satisfactorily explained. Was it possible that it was still with us enjoying a saphrophytic existence? As regards influenza, there could be no doubt of its highly infectious character, but he did not expect much help from bacteriology, whether in the way of prevention or of cure.

After some remarks from the President, Dr. Washbourn observed that Brieger's ptomaines were alkaloids, which the toxins, though not yet isolated, did not appear to be; and that the lapse of a period, like the incubation of a fever, following inoculations with sterilised toxins, did not prove them to be enzymes, for after the injection of solutions of arsenic into the peritoneal cavity, the symptoms of poisoning were often delayed for some days. It was a matter of absorption and of resistance on the part of the individual. When influenza was attended with mucous discharges the detection of the bacilli was conclusive, but often there were no secretions to aid the diagnosis.

Colonel Notter, R.A.M.C., and Mr. Pakes, discussed the relative values of the chemical and bacteriological examinations of water, the latter disparaging Parietti's procedure, which might, he said, kill the B. typhosus together with the B. coli, or spare both.

Dr. Goodall insisted on the need for a revision of Koch's postulates, which Koch himself had admitted, some of them being incapable of fulfilment in the greater number of specific diseases. Dr. Newsholme's profound researches into the relations between epidemics of diphtheria, the rainfall and other conditions, showed that there was much to be learned as to their causation that bacteriology alone could not teach, and there was also a wide field for investigation in symbiosis, or the influence of the concurrent action of two or more species of microbes in increasing susceptibility or in producing and modifying a disease.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

R. L. Swan, P.R.C.S.I., President, in the Chair.

Friday, April 7th, 1899.

Hey's Internal Derangement of the Knee-joint.

Dr. Knott read a communication in which he made emphatic objections to the generally-received view that this lesion was a displacement of one of the semilunar fibro-cartilages of the articulation. He described the signs and symptoms of the condition as it had frequently occurred in his own person, and compared them with the original description of Hey, and the subsequent accounts of other recognised authorities on the same subject. Dr. Knott's own view was that a subluxation of the corresponding condyle of the femur took place, the joint then becoming "locked," with the articular surface of the condyle "overriding" the prominent margin of the inter-articular fibro-cartilage.

Mr. Lentaigne discussed the communication, and alluded to the apparatus recommended by Mr. Shafter.

Mr. T. Myles said the most striking feature of the descriptions of this injury in the textbooks was the apparent total ignorance of the ordinary elementary anatomy of the knee-joint. He had seen a considerable number of cases. In two cases he opened the joint expecting to find a loose cartilage, but found a pedunculated cartilage in the knee-joint. One case had a history pointing to displacement of the internal semilunar cartilage, but he found a small pedunculated cartilaginous body, growing from the front of the joint, projecting between the condyle and tibia. On two other occasions he found the anterior attachments of the internal semilunar cartilage completely torn away. He had found it impossible to attach the semilunar cartilage to the top of the tibia. In every case in which he removed a piece of the cartilage the patient always complained of permanent weakness in the joint. Skiagraphs of the affection he considered to be most misleading, and the length of the ligamentum patellæ would be compensated for by the increased contraction of the quadriceps extensor.

Mr. R. C. B. Maunsell had removed a semilunar cartilage a year ago from a girl's knee. She had complained for several years of recurrent attacks of the dislocation. Recovery was rapid, and the patient was now perfectly strong.

Mr. Croly said that he had seen some important cases of this condition. A gentleman came to him with one knee slightly flexed, and hopping on the good leg; his knee-joint was "locked." He failed to find relaxation of the ligamentum patellæ, nor could he feel anything nummular on the inside of the knee. Extension, followed by sudden flexion, gave instant relief, and patient insisted on walking home. The interesting thing was the slight violence causing the affection, but that applied to all dislocations. The joint was locked in all the cases he had seen. The reason why the external cartilage was not displaced was that the popliteus tendon tied it so tightly in its groove. He thought there was a difference in symptoms of loose cartilage and this affection. The former caused a sickening sensation within the knee itself, whereas the latter caused intense pain over the line of the internal semilunar cartilage.

Dr. Knott, in reply, said that he believed the apparatus mentioned by Mr. Lentaigne to be very good for converting the knee into a hinge joint. He agreed as to the misleading character of the skiagraphs.

Advancement of the Recti Muscles of the Eyeball.

Mr. Story described the method of advancing the recti muscles in the treatment of strabismus, which he had devised more than three years ago, and had considered to be his own peculiar property till a publication in the *Annales d'Oculistique* had informed him that the essential point in his operation had been anticipated, so far as publication was concerned, by Valude. The essential point was splitting the tendon longitudinally, and suturing each half of it separately to the conjunctiva or sclerotic. Each half was engaged in a loop of suture lying at right angles to the direction of the fibres of the tendon, and the knots were tied over glass beads to prevent the sutures cutting too rapidly through the conjunctiva. The modification of splitting the tendon had also been described by Praun in September, 1898, as a novelty. Valude's description appeared in August, 1896.

Mr. Benson had seen Mr. Story perform the operation, and was impressed by the satisfactory results. It was not followed by the disfigurement which often resulted from lumpiness of the edge of the tendon near the margin of the cornea in former operations. He himself had employed a modification of Schweigger's operation, and frequently shortened the tendon rather than advance it to the edge of the cornea, and had been well satisfied with the results. He thought it probable that for the majority of cases the operation described by Mr. Story would answer the question better than any other single operation.

After some remarks from Mr. Maxwell and Mr. Croly,

Mr. Story, in reply, said he was sure that Mr. Maxwell's was a very good operation. He (Mr. Story) said he did not think that there was the same chance of one of the sutures giving way in his operation as in many of the other operations, because the only pull in his operation was directly along the tendon to the conjunctiva. The same pull occurred on the opposite side of that tendon, but in other operations where the tendon was not divided into two, and where there was a pull from one side of the tendon, the lower suture actually pulled on the upper one, and there was much greater chance for the sutures to cut through. Dr. Valude's reason for introducing the practice of splitting the tendon was because he found it was only those of the older operations were successful in which

the tendon split accidentally. He himself had never noticed the tendon split during the operation.

Section of Medicine.

John W. Moore, M D., P.R.C.P.I., President, in the Chair.

Friday, April 14th, 1899.

Addison's Disease.

Dr. J. B. Coleman made a communication on the subject of diseases of the suprarenal capsules, and exhibited the viscera and microscopic sections of two cases, of which he narrated the clinical history. One case presented the classical symptoms of Addison's disease, and it occurred in a girl aged 26 years, the duration of the disease being three years. Both suprarenal capsules were more than double the normal size, and were a mass of fibro-caseous material, containing giant cells and tubercles; sections of the skin showed brownish-yellow pigment in the cells of the rete mucosum; the heart weighed only four ounces; in the duodenum close to the pylorus there were pinhead-sized greyish nodules, due to hyperplasia of lymphoid tissue around the gland tubules. The other case was one of primary sarcoma of the suprarenal bodies, the patient being a man aged 23 years, who presented none of the symptoms of Addison's disease. For three months before his death he suffered from epileptiform fits and from weakness of his limbs; on admission to hospital he presented the signs of ataxic paraplegia; after a debauch he rapidly passed from a drowsy condition into collapse and coma; the necropsy showed both adrenals uniformly enlarged to the size of a man's fist, the growths consisting of round-celled sarcoma; there was a secondary growth about the size of a cherry in the wall of the right auricle, no tumours in the brain or cord; the cord showed degeneration in the motor tracts and in the posterior columns. Dr. Coleman suggested that the epileptiform fits and the degeneration in the spinal cord were the result of a toxæmia, the latter being due to the diseased condition of the adrenals; under the depressing influences of the debauch the terminal symptoms were set up —drowsiness, collapse, and coma.

After some remarks from Dr. R. Travers Smith,

Dr. Finny pointed out that great destruction of the suprarenals could take place without any of the symptoms of Addison's disease supervening. There was also a group of cases which presented all the evidence of suprarenal melasma, while a necropsy showed that the suprarenals were perfectly healthy. He himself had an example of the latter group under his care. The patient was suffering from tuberculous disease, but the suprarenals were unaffected. He therefore thought it probable that the disease was due to some affection of the large nerve elements in the neighbourhood rather than to structural changes in the gland itself.

The President said that, as had been shown, there were three groups of cases—namely, disease of the suprarenals and pigmentation, disease without pigmentation, and pigmentation without disease.

Dr. Coleman, in reply, said he thought Byron Bramwell's theory the safest, in which he combined the suprarenal inadequacy and the nervous theory.

Pyloric Obstruction.

Dr. Parsons related some cases of pyloric obstruction.

The President, Surgeon Croly, Mr. G. J. Johnston, and Dr. Langford Symes discussed the paper.

Chronic Pharyngitis.

Dr. Robert Woods read a paper on Chronic Pharyngitis and its Relation to Nasal Obstruction, in which he expressed his belief that mouth-breathing was the essential cause of chronic simple inflammations of the throat. He reviewed the chief functions of the nose, and pointed out how in mouth-breathers the disuse of the special apparatus for modifying the air, by warming, moistening, and filtering from dust, must affect the throat injuriously, since the throat was compelled to take on the function of the nose. In support of this contention he quoted an observation he had repeatedly made, that in these cases of chronic pharyngitis, if the velum palati be lifted, the pharynx wall under cover of it will be found normal. In addition to the more familiar forms of nasal obstruction, he drew attention to a common condition of the nose where the passage, though free enough in the daytime, became stopped at night. This results apparently from the difference in level of the head between the upright and horizontal positions, there being less drainage, and, therefore, greater tendency for the congested soft tissues to encroach on the air-space in the horizontal than in the upright. The paper concluded with a short account of the operative nasal treatment necessary for the cure of the condition.

BRITISH GYNÆCOLOGICAL SOCIETY.

H. Macnaughton Jones, M.D., President, in the Chair.

Thursday, April 13th, 1899.

Abdominal Causes of Death after Cœliotomy.

In a paper on this subject Dr. W. J. Smyly enumerated the following causes of death after cœliotomy more or less due to abdominal conditions: (1) Shock, (2) hæmorrhage, (3) ileus, (4) uræmia, (5) inanition, (6) tetanus, (7) embolism, (8) sepsis. He considered that probably the larger number of cases reported as deaths from shock had been due to loss of blood during or after operation. The heart working with a half-filled circulation, aggravated by even a small continued loss, was likened to a steam engine working a ship's propeller which lifts out of the water, or a locomotive when the wheels slip upon the rails. Late or secondary shock had been described, but he had never met with an example, and was inclined to attribute the fatal issue in cases that he had seen recorded to secondary hæmorrhage, sepsis, or the giving way of sutured viscera, especially intestine. After reviewing the principal points in the prevention and treatment of shock, Dr. Smyly went on to consider ileus and sepsis as causes of death. Ileus was generally due (1) to adhesion of intestine to raw surfaces, either the abdominal wound, the stump, omentum, or surfaces denuded in enucleating tumours or breaking-down adhesions; (2) to constriction of bowel by bands, or from a coil of intestine slipping through a hole in the omentum; (3) to kinking of intestine or volvulus. If milder measures failed, the abdomen should be opened without loss of time. He held the view that peritonitis was not in all cases due to sepsis, but that traumatic or plastic peritonitis might occur, especially when the intestines had been much exposed and manipulated. With regard to precautions against sepsis, he professed himself an extreme "ritualist." At the same time, he gave the credit to Lawson Tait and Bantock of having been the first to insist on absolute cleanliness. In conclusion, he quoted the advice of Doyen, *Opérer vite et bien.*

After some remarks by the President, Professor Japp Sinclair (Manchester) said that he had not heard a paper dealing better or more concisely with its subject than that of Dr. Smyly, and on all essential points he found himself in entire accord with the author. All the cases of shock which he had seen had been due to hæmorrhage, the result in some cases of accident, in others of blundering. He therefore looked on shock and hæmorrhage as equivalent. One cause of death was a want of tone in the bowel, which in some cases was chronic, the result of chronic constipation, and he always operated on such cases with great anxiety. Another cause of bowel trouble was pressure, such as that of a hæmatoma in the broad ligament. As regards prophylaxis, he thought they were often too late in giving aperients. When there was any doubt, peristaltic action could almost always be set up by calomel, which he gave on the day after operation in hourly grain doses. His experience of antistreptococcic serum coincided with that of Dr. Smyly; the serum might reduce temperature, but he had not seen a case where it had saved the patient's life. He thought that Dr. Smyly gave undue credit to Tait and Bantock in the advocacy of cleanliness; he remembered being very shocked at a description of the way in which Tait flushed out the peritoneum, teaching that it would do no harm to flush out with Birmingham tap water.

Dr. William Walter (Manchester) thought Dr. Smyly was right in drawing attention to shock as in itself a cause of death. Too often a patient came in one day and was operated upon on the next. Delay was especially necessary when a patient had been badly fed and came from unhealthy surroundings. He must confess to making a mistake sometimes in this matter owing to the exigencies of hospital practice. The best way to prepare against the tendency to shock was to

fortify the heart's action with strychnine, and to operate in a warm room, guarding against cooling of the intestines with warm compresses, etc. Perhaps the best thing of all was the Trendelenburg position; since this had been introduced patients seemed to bear difficult operations much better. He believed that death might be due to violent emotion. Thus he had a case in which the patient had recovered so far as to be sitting up. She was told some bad news, and hæmorrhage coming on suddenly led to a fatal result. When secondary hæmorrhage occurred, he thought that, unless one were actually on the spot, it was almost impossible to save the patient. If it were necessary to reopen for hæmorrhage, he advocated the plan of opening the vagina instead of the abdomen, washing out with very hot water, and packing with gauze. This procedure saved time, and was attended with less shock.

Dr. George Elder (Nottingham) agreed with Dr. Walter that in some cases bad results might have been due to too great hurry in operating before the patient was fit to stand it. It was well to wait three or four days, and to employ the time in learning the patient's habits, in getting her accustomed to her surroundings, and in seeing to the condition of bowels and kidneys. He did not like to operate on any woman who had made up her mind that she was going to die. There was one symptom which he had not seen described, but which he believed to be pathognomonic of hæmorrhage namely, intense pain, of a shooting character, uncontrolled by morphine. Dr. Walter had said that his experience of reopening the abdomen had been unfavourable, and he had compared the results with those of reopening for peritonitis. But he did not think that the cases were comparable; he had rarely seen a case in which the abdomen had been reopened for hæmorrhage where the patient did not recover. He was surprised to hear Dr. Smyly give the credit of aseptic surgery to Bantock and Tait. He was himself an old pupil of Lister, and he felt sure that what they knew of asepsis was due entirely to the untiring efforts of Lister during the last twenty-five years.

Mr. J. W. Taylor believed that the three chief factors in the production of sepsis were sponges, hands, and the breath of the operator. He had had the opportunity of seeing work in Birmingham under conditions that could not be considered aseptic; and this experience had helped him to see which details were of more and which were of less value. He had not seen a death due to the use of tap water, nor had he seen one attributable to clean instruments, even when these had not been boiled; but in the three factors he had mentioned he believed the chief danger lay. He agreed with what had been said as to the value of calomel. He always tried to get the bowels open by 6 o'clock on the morning following the day of operation; if they were not open then he gave small doses of calomel. There was another way to combat sepsis in cases where the kidneys were acting badly, and that was by means of the hot-air bath. Probably there were several kinds of peritonitis due to different kinds of micro-organisms, and they might hope for further light upon the subject when they were able to distinguish not only between the clinical types, but also between the micro-organisms concerned.

Dr. Dudley Buxton said that there was one aspect of anæsthetics which bore upon the discussion—namely, the relation of chloroform to shock. The shock of operation was, to a great extent, caused or enhanced by the physical effect of chloroform, which was most marked in anæmic persons, and in those who had lost much blood during the operation; and the explanation of the action of chloroform under these conditions was to be found in the alteration of pressure of the abdominal contents after the abdomen had been opened. For the maintenance of intra-abdominal pressure the action of the recti and of the diaphragm was needed, and during cœliotomy this action could not be exerted. When, in addition, the action of the nerve centres was weakened by anæmia, the effect of chloroform in lowering blood pressure through the filling of the "abdominal pool" was greatly enhanced. Consequently the mere opening of the abdomen made the patient more liable to shock from chloroform than was the case in any other kind of operation.

After some observations by Drs. Heywood Smith, Thomas Eastes, R. T. Smith, C. Ryall, and the President, Dr. Smyly observed that he had no idea of detracting from Lord Lister's fame; antisepsis came first, asepsis later, and in consequence of antisepsis. But Mr. Tait first showed that antiseptics were not only useless, but injurious to fresh wounds. He also emphasised the importance of avoiding contamination of the operator's hands, and this teaching had led to the modern aseptic methods.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Edwin Lee, M.R.C.S., President, in the Chair.

Friday, April 14th, 1899.

Operative Treatment of Typhoid Perforation.

Mr. A. E. Pearson read the notes of a case of enteric fever occurring in a boy aged 14 years, in which perforation had occurred on the sixteenth day of the disease. A limited peritonitis was the result involving the right iliac, hypogastric, umbilical, and part of the left iliac regions. The abdomen was opened in this last-named region on the twenty-fifth day of the illness, and about a pint of fæcal-smelling pus evacuated. Drainage tubes were inserted and satisfactory progress was then made, the temperature, pain, and discomfort subsiding until fourteen days after the operation, when a relapse of the specific infection followed. This fresh rise of temperature lasted some fourteen days, after which the patient made a perfect recovery.

Dr. Barrs reported a case of enteric fever in which perforation had taken place, and which was treated by abdominal section and suture of the intestine with a fatal result. The patient was a boy, aged 16, admitted to hospital in the third week of the illness, which was of average severity. Five days after admission he was suddenly seized with acute abdominal pain, soon followed by rise of temperature and vomiting. Twenty-four hours later the pulse had gone up to 120; the face was shrunken and the hands cold. The abdomen was rigid, motionless, distended below the umbilicus, and very tender to touch. Gurgling, as if of gas bubbling through a small opening in the gut, was felt in the right iliac fossa. The liver dulness was replaced by a tympanitic note, and a distinct fluid thrill could be felt in the lower part of the abdomen. Mr. Moynihan operated without delay. The abdomen was opened in the middle line. A large quantity of fluid, turbid and with flakes of lymph, escaped. There was intense inflammation of the parts of peritoneum exposed to view. The perforation was found at once, and closed with Lembert sutures. The boy survived the operation for eight days, during which time violent diarrhœa alternated with violent vomiting. The necropsy showed that no attempt at closure of the intestinal opening had been made. Before the perforation took place there had been obstinate constipation. In addition to milk and other fluids a little bread and butter and potted meat had been given on two occasions. Dr. Barrs said that it was clear from the appearances at the time of the operation that the perforation had been produced by the extension of the sloughing process through the peritoneum, and that the bread and butter and potted meat had played no part in its production. He was also inclined to advocate that in future cases the opening in the intestine should be brought to the surface and closed at some future time.

Mr. Moynihan described the procedure which he adopted. The abdomen was opened by an incision about 2 inches in length between the umbilicus and the pubes. On opening the peritoneal cavity a large quantity of greenish-yellow turbid fluid escaped. The abdomen was flushed out with hot sterile salt solution. The left index finger placed in the wound to guide the flushing tube felt the impinging of intestinal contents. The adjacent loop of gut was drawn to the surface, and a perforation equal in diameter to a lead pencil was discovered with their ragged edges. Three Halsted sutures were introduced and the perforation closed. The peritoneal cavity was finally cleansed and drained by means of strips of iodoform gauze, which fixed the sutured gut immediately beneath the abdominal incision, which was partially closed.

Foreign Body in Œsophagus.

Dr. Bronner (Bradford) read notes of this case. The patient, aged 5, swallowed a coin in June

1896. He coughed a good deal for a few days and was very hoarse; then for some months he had difficulty in swallowing liquids but could manage solids readily. In February, 1897, he had frequent attacks of spasm of the stomach and occasionally of the abdomen, and the cough became much worse. The voice was fairly good up to the end of 1897, when it again became hoarse and the spasmodic cough more marked. In April, 1898, the patient was first seen by Dr. Bronner, when there was impaired expansion of the right lung and much expectoration. The vocal cords were adducted and did not move. Tracheotomy was performed. A skiagraph showed a round foreign body near the front of the fifth dorsal vertebra. The coin was pushed down into the stomach and discharged *per anum* in five days. In ten days the cough and dysphagia had disappeared. In the winter of 1898 he had broncho-pneumonia, and large quantities of pus were coughed up. The apex of the left lung was opened and much pus escaped. The boy died a few days after the operation.

Diagnosis of Cerebellar Lesions.

Dr. Churton described the signs observed in the case of a man, aged 30, admitted into the Leeds Infirmary on December 28th, 1898. Four years ago he had an injury on the left side of the head, near the mastoid process. He had since had two attacks of severe pain in this region. A fortnight before admission the pain returned, with occasional tendency to fall forwards, epileptic fits, increased stupor, and marked weakness of the left arm and leg. The muscles of the left limb were distinctly flaccid; the grasp and knee-raising power were much weaker on the left side; there was bilateral ataxy of the legs, markedly shown when crossing them; the arms were also ataxic, especially the left. Ataxy of the arms was said to be rare in cerebellar cases (G. Rummo). There were two additional signs: the patient could not close either eye singly, and in convergence the left internal rectus was distinctly weaker than the right. Mr. Mayo Robson, to whom Dr. Churton was indebted for the opportunity of investigating the case, trephined over the left lobe of the cerebellum. The dura bulged at the orifice; no pulsation was perceptible. On incising the dura, clear fluid escaped freely. Next day the pain and ataxia were entirely gone. Perfect recovery ensued within a fortnight. Apparently the lesion was serous meningitis. Unilateral atony and asthenia, with bilateral ataxia of the legs, had long been held by Italian authors (Luciani, Rummo) to indicate the cerebellum as the site of the lesion, and, further, that it affected the lateral lobe on the same side as the paresis.

SOCIETY OF ANÆSTHETISTS.

Dudley Buxton, M.D., President, in the Chair.

Friday, April 21st, 1899.

Post-Anæsthetic Paralysis.

Dr. Turney, who read a paper on this subject said post-anæsthetic palsies might have a central origin and were then due to vascular disturbance. They resulted from: (*a*) Hæmorrhage precipitated by arterial tension resulting from struggling and excitement or venous congestion from asphyxia; (*b*) ischæmic softening described as occurring in chloroform narcosis in aged persons. Functional affections associated with mental excitement might also cause this condition. Paralysis might be caused by malposition of the patient's body such as dragging the patient's arm or arms over his head. Various cases of this were given. In some instances the paralysis persisted some time. The muscles involved were usually the deltoid, the clavicular portion of the pectoralis major, supraspinatus and infraspinatus, and brachialis anticus, biceps, and supinator longus, and in these "reaction of degeneration" was more or less complete. The lesion appeared to be one of the roots of the fifth and sixth cervical nerves. The exact spot at which the injury of the nerve occurred apparently was behind the posterior border of the sterno-mastoid, just above the clavicle, and it seemed to be the result of compression of the nerve cords as they lay on the first rib by the clavicle. Prophylaxis consisted in avoiding dragging the patient's arm upward, the head being supported on a pillow and inclined to the side on which the arm was resting. Other forms of post-anæsthetic paralysis were paralysis of single peripheral nerves, such as the musculo-spiral, from doubling of the limb under the body or from pressure against the edge of the operating table. Paralysis of the anterior crural nerve, due to pressure of the nerve between the thigh and the abdomen when the patient was in the lithotomy position, had occurred. Exsanguination of a limb by a tourniquet sometimes led to palsy. A case was given in which paralysis followed a hypodermic injection of ether in the left forearm. It appeared that the nerve to the extensor indicis was in this case actually injured by the hypodermic needle.

The President mentioned a case of peripheral paralysis due to pressure. He thought that the paralyses arising from hæmorrhage were not sufficiently understood, and it was important that the share the anæsthetic and other circumstances took in their production should be more accurately defined.

Mr. Tyrrell mentioned a case in which the use of manacles drawing up the patient's wrists under anæsthesia resulted in paralysis.

Mr. Wallace referred to the obscurity of some cases of post-anæsthetic paralysis.

Dr. Turney, in reply, doubted whether the theory of a toxic action of an anæsthetic was responsible for the paralysis could be considered proved.

Epileptiform Fit during Anæsthesia.

Mr. Harold Low read the notes of a case of an epileptiform fit occurring during anæsthesia. The patient, besides being alcoholic, was in a pyrexial condition and extremely ill from appendicitis. She was given gas and ether, and then ether with oxygen. After half an hour her pupils dilated, her breathing became deep, and she passed apparently through an epileptic fit, which was followed by other slighter fits until simple muscular twitchings occurred. There was no history of antecedent epilepsy or serious septic focus in the brain. No recurrence occurred.

The President inquired whether the condition might have been uræmic, or whether the patient might not have been the subject of masked epilepsy.

Dr. Turney suggested that it was a Jacksonian fit, the result of a minute hæmorrhage.

Mr. Paterson suggested that the oxygen employed, if used in excess, might have caused the convulsion, a result which did occur when oxygen was given under pressure in excessive quantity.

Mr. Low replied.

Close of the Session.

The President, in closing the meeting, stated that it was the last of the session, and he thanked the visitors and members who had assisted in making the session the success it had been.

Nottingham Medico-Chirurgical Society.—At a meeting held on April 19th, Mr. T. Davies Pryce, President, in the chair, Dr. George Flux (London) read a paper on the Open Method of administering Nitrous Oxide Gas. Invitations had been issued to many of the leading dentists of the town, and a large number were present. Mr. Blandy, Surgeon-Dentist to the Nottingham General Hospital, brought a patient on whom Dr. Flux demonstrated his method of producing Anæsthesia. The demonstration was completely successful, and showed that by this method nitrous oxide gas could be made to induce complete anæsthesia rapidly, and without any of the symptoms and signs of asphyxia which accompany the method when air is excluded. Mr. Blandy having extracted the tooth, the patient was allowed to "come round;" she had felt nothing, and was not in any way upset, on recovering consciousness, which occurred in about half a minute. A vote of thanks to Dr. Flux for what they considered to be a valuable improvement in nitrous oxide anæsthesia was proposed by Mr. Blandy and seconded by Mr. W. Goddard. This was carried unanimously.—The remainder of the evening was devoted to the exhibition of cases and specimens.—Mr. Martineau showed for Mr. R. C. Chicken: (1) A patient after operation for Gangrene of Lung; (2) a patient after operation for Large Popliteal Aneurysm, with notes on each case; (3) Aneurysm of Palmar Arch excised.—Dr. Handford showed: (1) A man with Abductor Laryngeal Paralysis; (2) a man with Myxœdema: (3) (*a*) Perforation of

Descending Colon in Enteric Fever; (*b*) Perforation of Small Intestine in Enteric Fever.—Mr. A. R. Anderson showed: (1) Two Renal Calculi removed by operation; (2) Large Biliary Calculus from Cystic Duct removed by operation. The gall bladder was distended with perfectly clear limpid fluid. After evacuation the gall bladder was sutured up completely, and abdominal wound closed. The result was completely successful; (3) Ruptured Liver. This was caused by a collision between a cyclist and a dray; the latter was nearly stationary, the former was going at about ten miles an hour. No external injury whatever was present, but the operation showed that the liver was torn right across the upper surface, and almost divided into two. Five and a-half pints of blood were free in the peritoneal cavity. The hæmorrhage was arrested by sutures and packing, but shock and loss of blood proved fatal in spite of transfusion of saline fluid to the extent of many pints.

Bristol Medico-Chirurgical Society.—At a meeting on April 12th, Dr. J. E. Shaw, who was in the chair, showed a patient with Peroneal Type of Muscular Atrophy. Dr. Michell Clarke and Dr. Cave made remarks.—Dr. Waldo and Mr. Harsant showed a case of Tuberculous Peritonitis treated by operation. Dr. Shingleton Smith, Dr. J. O. Symes, Mr. Paul Bush, Dr. Stack, Dr. F. H. Edgeworth, Dr. Michell Clarke, Mr. Ewens, Mr. Leonard, and Dr. C. Elliott discussed the subject.—Dr. W. C. Swayne showed a specimen of Complete Inversion of Uterus, with diffuse sarcoma and vesico-vaginal fistula; and Dr. W. H. Newnham made some remarks.—Dr. B. Rogers read a paper on a case of Thrombosis of the Portal Vein, and explained the condition of the numerous specimens illustrating the case. Dr. T. Fisher and Dr. F. H. Edgeworth discussed the paper.—Dr. Stack showed a recent specimen of Post-pharyngeal Abscess; and Dr. C. Elliott spoke on the subject.—Mr. Paul Bush read a paper on some peculiar Operations Cases occurring in lunatics. Dr. Sproat mentioned that all the patients entirely recovered their mental condition. Dr. Bristowe, Dr. Stack, and Dr. J. O. Symes discussed the paper.

British Balneological and Climatological Society.—A *conversazione* was given by this Society on Thursday, April 27th, at 20, Hanover Square. At the commencement, the chair being taken by Dr. R. Fortescue Fox, of Strathpeffer, the President of the Society, Sir Hermann Weber, M.D., read an address on The Climates of the British Islands compared with those of the Continent. He said that mild winters, cool summers, an absence of extremes of temperature and of sunshine, with windiness, were the chief characteristics of the climates of Great Britain. England had a great selection of summer marine health resorts; but fewer winter resorts, and they were all wanting in sunshine. There were no inland alpine or subalpine resorts; but an elevation of 1,000 feet in Great Britain exercised as much bracing effect on people as did an elevation of 3,000 feet on the Continent. In localities ranging from 200 to 1,000 feet, however, the British Isles were rich. The English climate had been called "a meteorological jumble of unpleasant things;" but a climate with changes was the most health-giving, calling into play in turns all the organs of the body. English people should endeavour to make the best of their climate, by artificial means if such were necessary. Arrangements should be made that invalids at all the health resorts should be able to be in the open air during nearly all day; nearly all diseases, besides tuberculosis, being much benefited by open-air treatment. Health resorts should be well provided with sheltered seats and walks, good hotels and a good cook. They should be made as agreeable as possible, with sunshine, flowers, music, etc. The authorities should not lose sight of influences which acted pleasantly on the brain, and reacted on the heart and other organs of the body.—Dr. W. M. Ord proposed a very hearty vote of thanks to Sir H. Weber for his address, and said that his kindly nature had led him to speak more approvingly of the climate of Britain than it seemed to deserve. Americans, on the contrary, had said that there was "no climate in Britain, only weather." Dr. G. Oliver, of Harrogate, seconded the resolution, and said that the address was an example of practical impartiality; the outcome of a wise mind devoted to an important subject. The vote was carried with applause, and Sir Hermann Weber briefly acknowledged it.—Meteorological instruments, by Messrs. Negretti and Zambra; geological maps, by Messrs. Stanford and Bacon; radiant heat apparatus, by various exhibitors; and works, prints, maps, and models appertaining to the subjects of balneology and climatology were exhibited; and the Leoni Ladies' Quintette gave an approved selection of music. The arrangements, which were under the charge of Dr. S. Sunderland and Mr. H. Shirley-Jones, the Honorary Secretaries, gave much satisfaction to the many visitors who attended.

Wigan Medical Society.—At a meeting on April 27th, Mr. Luther Cooke, President, in the chair, Mr. Hugh E. Jones showed and made some remarks on the following cases: (1) Septic Thrombosis of Lateral Sinus; the case having been treated by operation and the injection of antistreptoccic serum. A good recovery was the result. (2) A case of High Myopia Treated by Discission of the Crystalline Lens, with a good result.—An address illustrated by numerous excellent lantern slides, "On Ancient and Modern Surgery" was given by Professor Mitchell Banks. On the motion of the President, seconded by the Honorary Secretary, a cordial vote of thanks was carried with acclamation to Professor Banks and Mr. Jones, an appropriate allusion being made to the recognition of Mr. Banks's worth, by his Alma Mater the University of Edinburgh in having recently conferred upon him the degree of LL.D., a distinction which was well deserved and one which it was to be hoped he will long be privileged to enjoy.

REVIEWS.

Kirkes' Handbook of Physiology. By W. D. Halliburton, M.D., F.R.S. Fifteenth Edition. London: John Murray. 1899. (Demy 8vo, pp. 872; 668 illustrations. 14s.)

That a new edition of this excellent textbook should be called for in two and a-half years shows its well-deserved popularity. Great activity has been shown during this period and especially in this country, where some of the most important recent advances in physiological knowledge have been made. All the important facts which have been discovered the author has endeavoured to incorporate in the present edition. Mention may be made of Porter's experiments, which prove that the apex of the mammalian heart may, when supplied through a coronary artery with oxygenated defibrinated blood, be maintained in rhythmic action; and of Langley's experiments on connecting the central end of the divided vagus to the peripheral end of the divided sympathetic. On stimulating the vagus, after allowing time for the growth of the vagal fibres into the superior cervical ganglia, those effects are obtained which usually result from excitation of the cervical sympathetic. These experiments show that it is the peripheral connections and not the nerve fibres which control the nature of the reaction to excitation. Mention may also be made of Sherrington's researches on antagonistic muscles. He has shown that kneading the flexors inhibits the tone of the extensors of the leg, and abolishes the knee-jerk. The contraction of one muscle, by exciting the muscle spindles and afferent nerve fibres, reflexly inhibits its antagonist.

Haldane's researches on the effect of potassium ferricyanide on laked blood are also referred to. The combined oxygen is entirely discharged from the hæmoglobin and methæmoglobin formed by the reduction of the ferricyanide to ferrocyanide. The oxygen taken from the salt joins the hæmoglobin molecule in a different manner. In the section on the circulation the important effect of gravity is indicated, the measurement of arterial pressure in man described, and the sphygmometer figured. The discussion on the circulation of the brain is is amplified by the researches of L. Hill. This difficult subject should be placed more towards the end of the section. The chapters on the central nervous system have been wisely transferred in this edition towards the end of the book. This work is in every respect a most suitable textbook for the medical student.

UEBER DIE RESULTATE DER RADICAL-BEHANDLUNG DES GEBÄRMUTTER SCHEIDENKREBSES MIT DEM GLÜHEISEN [On the Results of the Radical Treatment of Uterine and Vaginal Cancer by the Cautery]. From the Private Gynæcological Clinic of Dr. Mackenrodt, of Berlin. Von Dr. GEORG GELLHORN. Mit 3 Abbildungen im Text. Berlin: S. Karger; and Glasgow: F. Bauermeister. 1898. (Roy 8vo, pp. 72. 2s. 3d.)

DIE EINSCHRÄNKUNG DES BAUCHSCHNITTS DURCH DIE VAGINALE LAPAROTOMIE (KOLPO-CŒLIOTOMIA ANTERIOR) [The Limitation of the Abdominal Incision through Vaginal Laparotomy]. Von Professor Dr. A. DÜHRSSEN in Berlin. Mit 7 Abbildungen and 6 Tabellen. Berlin: S. Karger; and Glasgow: F. Bauermeister. 1899. (Roy. 8vo, pp. 266. 7s.)

DIE GESTIELTEN ANHÄNGE DES LIGAMENTUM LATUM [Pedunculated Appendages of the Broad Ligament]. Von Docent Dr. EMIL ROSSA in Graz. Mit Zwei Lithogr. Tafeln. Berlin: 1899. S. Karger. (8vo, pp. 54.)

THESE paper-bound pamphlets are no doubt issued in a form convenient for the specialist who collects the printed experiences of others, yet does not wish to encumber his library with bulky and costly textbooks. GELLHORN's report of Mackenrodt's private experience in the removal of the cancerous uterus by the cautery is a treatise of considerable importance. With the usual industry of a German writer, Dr. Gellhorn furnishes us not only with tables of 39 cases, but also with a complete clinical report of each patient. Mackenrodt lost 7 of the 39, which would be a large mortality in cases of hysterectomy by the knife under the usual conditions, but he often uses the cautery in subjects where the disease is advanced, and has been rejected as unfit for operation by other authorities. Mackenrodt notes that he once lost a case of vaginal hysterectomy, where he used the knife, from hæmorrhage, but declares emphatically that he has never seen secondary hæmorrhage from the eschar of a burn in his cautery cases. As might be expected, he endeavours to show from his tables that recurrence is deferred by his method. Dr. Gellhorn's interesting pamphlet will be widely read but will not convince sceptics. The series of cases is too short, especially when we find that the actual cautery, the galvano-cautery, and the thermo-cautery were severally used in different cases. A large series in which only one form of cautery was employed would be more instructive. Slow cicatricial contraction seems the rule after the use of the cautery. This may cause obstruction of a ureter long after perfect convalescence from the operation. However, Mackenrodt had good results in very bad cases.

Professor DÜHRSSEN sings the praises of anterior kolpo-cœliotomy in a book crammed with matter of importance. The tables, which are excellent even for a German treatise, show all that is wanted both by the advocates and by the opponents of Dührssen's principles. We find 503 cases altogether; but 359 of these "vaginal laparotomies" were vaginal fixations for retroflexion, 35 vaginal fixations of the round ligament for retroflexion, and 6 vesical fixations of the uterus for retroflexion; 6 of the 359 vaginal fixations of the uterus died after operation. These candid statistics will not convert the British school of gynæcologists to the distinguished German professor's views. The sufferings of such daughters of Albion as are afflicted with displacements are not so severe as to send 359 of them to one single authority for operation. One death is one too many in a surgical procedure for a condition never fatal and never even very serious. Many of the remaining 130 cases in which Dührssen operated for disease of the appendages and tubal pregnancy with anteflexed uterus may have done all the better for having been subjected to operation after his special method. Vaginal hysterectomy and allied operations have certain advantages over abdominal sections of the ovariotomy type; thus, there is very much less shock. It is clear, however, that the newer method is liable to great abuse. The writings of so distinguished an authority deserve respectful consideration, though he will never convert English gynæcologists, we trust, to wholesale operating for uterine displacements.

Dr. Rossa's pamphlet will prove useful to the pathologist. The illustrations representing accessory tubal fimbriæ and various outgrowths from the mesosalpinx near the ostium of the Fallopian tube are, if not very finished, at least clear and instructive.

THE NURSING PROFESSION, HOW AND WHERE TO TRAIN. Edited by Sir HENRY BURDETT, K.C.B. London: The Scientific Press. 1899. (Small 8vo, pp. 372. 2s.)

As a handy book of reference this volume should fully answer the expectations of the compiler, as it gives information concerning the nursing profession in a manner to facilitate easy reference, and many a bewildered matron who is supposed to furnish unsuccessful candidates with all particulars about training institutions, will gladly refer the inquirer to this volume. It has also brought into one volume the heterogeneous mass of agencies, institutions, and homes, which cater for the nursing of the public.

When, however, we come to the second part of the title, How and Where to Train, we must confess to a feeling of sympathy with the would-be probationer who turns to its pages for information as to how to set about it. This simple-minded individual has not the knowledge that would enable her to sift the chaff from the wheat, and as she sees that every little hospital, from 12 beds and upwards, is prepared to give lectures succeeded by examination and certificate, a word of warning should be given as to the value of these certificates. The section "hospitals under 100 beds," should in the succeeding editions be further classified as under or over 50 or 40 beds, and it should also be stated whether or no there is a resident medical officer. In the next edition the classification ought to be carefully revised, as it shows signs of hasty compilation. In view of the requirements of the Local Government Board for certificated nurses, it is of great importance that a young woman should have a sound adviser as to which hospitals are recognised training schools.

DIAGNOSE UND THERAPIE DER NERVÖSEN FRAUENKRANKHEITEN INFOLGE GESTÖRTER MECHANIK DER SEXUAL-ORGANE [Diagnosis and Treatment of Nervous Diseases of Women dependent on Mechanical Disorders of the Sexual Organs.] Von Dr. Med. M. KRANZ in Barmen. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1899. (Roy. 8vo, pp. 106. 2s. 9d.)

THIS book will be admired and studied by a class of persons who, we believe, are yearly becoming fewer and fewer. The persons to whom we refer are those who can think that they have, in some trivial change in a pelvic organ, an explanation, by reflex action, of any and every symptom from which a woman may suffer. The following are some of the effects of uterine displacements, according to Dr. KRANZ: Hyperemesis, nervous dyspepsia, pneumatosis (that is, flatulent distension of stomach), atony of stomach, cramp of the cardiac orifice of stomach, cramp of the pylorus, nervous eructations, hyperacidity, tachycardia, uterine asthma, uterine cough, vertigo, epilepsy, hystero-epilepsy. We think that general physicians do not believe in the existence of these reflex effects of uterine displacements, and that the majority of those who in this country are regarded as the best gynæcologists are as sceptical of their existence as are the general physicians.

The method adopted by Dr. Krantz is descriptive, not argumentative, and his work will convince no one who is not predisposed to accept his opinions. He has a beautiful faculty for coining new words: for example, "Douglasitis," "hystero-helcosis," "polyhydorrhosis universalis:" and great confidence in his own power of diagnosis and pathological inference. Thus he tells us he has often observed severe frequently-recurring cramp of the ductus choledochus consequent upon uterine polypi and oöphoritis. Notwithstanding his ability in these directions his book cannot be recommended as worth serious consideration.

NOTES ON BOOKS.

REPORTS AND TRANSACTIONS.

The *Transactions of the Society of Alumni of Bellevue Hospital* for 1897-98 (New York: D. Appleton and Co.) contains the text of the papers read before the Society. Of these the most important is probably Dr. N. E. Brill's study of 17 cases of a disease clinically resembling typhoid fever, but in which the Widal reaction was not obtained. As all the patients recovered, the author is not in a position to make any statement as to the morbid anatomy, and the typhoid bacillus was not found in the 3 cases in which the fæces were seached for it. The volume also contains reports of many interesting cases and descriptions of specimens exhibited.

The eleventh volume of the *Transactions of the American Orthopedic Association* contains reports of the twelfth session which was held at Boston in May, 1898, under the presidency of Dr. R. W. Lovett, whose address on pathology in its relation to orthopædic surgery occupies the opening pages of the volume. The volume contains a large number of papers of particular value to specialists, and has many illustrations.

The report of the twenty-third annual meeting of the American Gynecological Society makes a goodly volume of some 500 pages, and forms the twenty-third volume of the *Transactions* of the Society. The volume contains also appreciative obituary notices of Drs. W. T. Lusk, Cornelius Kollock, J. Braxton Hicks, S. Tarnier, and H. P. Curtis Wilson, in each instance illustrated by a portrait. That of Dr. Braxton Hicks is certainly very good, and it is impossible but that that of Professor Tarnier should be characteristic.

Professor J. COSSAR EWART has reprinted in a volume, to which he has given the title *The Penycuik Experiments* (London: Adam and Charles Black. 1899. Demy 8vo, pp. 272: 49 illustrations. 10s. 6d.), his well-known papers on Zebra Hybrids and on Telegony published in the *Veterinarian*, 1896, 1897, and 1898, and in the *Zoologist*, 1898. In their present compact and elegant form they are made more interesting by a careful general account of the principles of breeding, reversion, prepotency, interbreeding, telegony, and the question of sterility in equine hybrids. The book is of the greatest interest and value to all who are studying and practising selective breeding of horses, and more especially to those who are endeavouring to combat the belief embodied in the theory of telegony.

In the *Verhandlungen des Congresses fuer innere Medizin*, von Dr. E. von LEYDEN and Dr. EMIL PFEIFFER (Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1898. Roy. 8vo, pp. 638; 12 illustrations and 12 plates. 12s.) are reproduced the various papers which were read at the sixteenth German Medical Congress in April, 1898. The most interesting contributions are those on diabetes and intestinal autointoxication. In all, 35 papers were read and 5 demonstrations given. The Society appears to be in a flourishing condition, and the meeting was well attended. The second part of a report of the meeting at Carlsbad this month is published elsewhere in this number of the BRITISH MEDICAL JOURNAL.

Professor VAUGHAN HARLEY and Dr. F. W. GOODBODY have edited the second volume of the *Reports of the Department of Pathological Chemistry*, which includes a collection of papers and abstracts published from the laboratory. We are glad to learn that the class of pathological chemistry has been well attended, and that several useful additions have been made to the apparatus in the laboratory. Among the workers' papers which appear in this volume are Drs. Risien Russell, W. H. B. Stoddart, E. C. Kingdon, Vaughan Harley, Wakelin Barratt, A. G. Levy, and Mr. Victor Horsley, F.R.S.

Bulletin No. 20, issued by the Division of Botany of the United States Department of Agriculture, entitled *Principal Poisonous Plants of the United States*, is a pamphlet of 60 pages by V. K. CHESTNUT and contains 34 well-executed illustrations. The information is systematically arranged, and includes an account of the habitat of the plants, their poisonous principles, the symptoms they gave rise to, and the remedial agents to be employed. A considerable amount of space is devoted to the Sumacs and the subject of Rhus toxicodendron poisoning is dealt with fully. A great deal of useful information is given in a very small compass.

A Practical Handbook on the Muscular Anomalies of the Eye, by HOWARD F. HANSELL, A.M., M.D., and WENDELL REBER, M.D. (Philadelphia: P. Blakiston, Son, and Co. 1899. Cr.8vo, pp. 182. $1.50), an elaboration of a series of lectures given at the Philadelphia Polyclinic, is intended "to present to beginners in ophthalmic work the principal facts in the diagnosis and treatment of abnormal states of the eye muscles." Part 1 treats of anatomy and physiology, Part 2 describes the various ocular palsies, Part 3 deals with the functional anomalies—heterophoria and heterotropia, while Part 4 describes the operations of tenotomy and advancement of muscles. Much space is given to the detection and treatment of heterophoria and heterotropia. The tone of the whole book is moderate, in refreshing contrast to the style adopted by some American authors, who write as if the subject they are treating is not only quite new, but as if all manner of ills to which the human race is subject are only to be cured by adjusting the unequal balance of the ocular muscles. By pressing this style they have brought upon themselves the somewhat unenviable name of "muscle snippers." In the volume before us the subject is treated in a lucid and instructive way, which at once gains the confidence of the reader. The tests which are given are those which experience in this field of work has led observers to rely upon, and consequently we have a book which is at once really practical and useful for reference. In describing the operation of tenotomy, the accidental wounding of the sclerotic is given as a possible danger. Surely none but the most inexperienced operator would be likely to meet with such an untoward occurrence unless he persists in snipping away at the tendon under cover of the conjunctiva instead of exposing it thoroughly and then cutting what is necessary. Old superstitions and practices die hard, and so some surgeons still prefer to divide a tendon in the dark rather than by a free dissection which can do no possible harm. The operation of advancement and capsular advancement is described.

The Atlas of External Diseases of the Eye (*Atlas der ausseren Erkrankungen des Auges*. Munich: J. F. Lehman. 1899. Crown 8vo, pp. 238; 76 coloured illustrations and 6 black and white drawings. M. 10. Edited by Professor Dr. O. HAAB, of Zurich) consists of 228 pages and forms one of the useful series of hand atlases published by Lehman. The plates are reproductions of water-colour drawings by Johann Fink, and are very well done. The *Atlas* is as useful as the larger and more expensive ones and has the advantage of being handy and useful for reference without being cumbersome. Professor Haab is so well known to ophthalmologists that they will anticipate that anything brought out under his supervision will be both accurate and well done, and these qualities are conspicuous in the volume before us. Whether an atlas ever quite justifies and repays the time and labour expended on it is perhaps a question about which different opinions can be held. This volume, however, is certainly one which may be recommended to the student as both the plates and the text are illustrative and instructive.

Willie: A Story of a Children's Hospital, by M. CALDERFORD (London: Swan Sonnenschein and Co., 1899, Crown 8vo, pp. 49, 1s.) tells of a nurse who is filled with resentment against fate when she hears that a friend is dying. In the hospital ward that night she battles with "dark rebellious questionings," while a sympathetic storm rages outside. Willie, who is suffering from meningitis, diverts her thoughts for a time, and with the dawn nurse and storm subside, the lesson is learned, and so to bed (like Mrs. Pepys) "sadly foxed, poor wretch." The description of Willie is realistic and rather repulsive, but the book as a whole is commonplace.

A GREEK PHILANTHROPIST.—Mr. Andreas Syngros, of Athens, who recently died, has left vast sums of money for various philanthropic purposes. Among the bequests connected with medical institutions are the following: £50,000 to the Evanghelismos Hospital, £10,000 to the Elpis Hospital, £15,000 to the Dromokaïtion Lunatic Asylum, £25,000 to the Amelieiori Orphanage, £10,000 to the Kadji-Kosta Orphanage, £15,000 to the Children's Asylum. The testator has further left a very extensive estate at Oropos, estimated to be worth more than £160,000, with directions that a marine sanatorium for scrofulous and convalescent children should be established there.

REPORTS AND ANALYSES

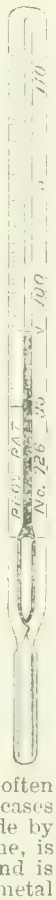
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Toogood's Improved Clinical Thermometers.—These instruments, recently patented, have the usual expansion chamber supplanted by a double column of mercury, which renders the thermometer sensitive, and confers upon it two valuable characteristics: registration is rapid, and the index can be set easily even by a single shake. These two advantages will be appreciated by all who use clinical thermometers. We have had one of the instruments in constant use for over six weeks, and have found it fulfil all that is claimed for it by the patentee. The thermometers are made in England by English workmen from English tubing. The price for ordinary thermometers of this pattern, registering in 60 seconds, are, with round front, 32s. per dozen; with lens front, 48s. per dozen. For rapid thermometers, registering in 30 seconds, with round front, the price is 38s. per dozen; with lens front, 66s. per dozen. For the Kew certificate the charge is 18s. per dozen extra. The maker is William Toogood, Burlington Buildings, Heddon Street, Regent Street, London, W., of whom the thermometers may be purchased.



An Elastic Truss Pad.—Messrs. Maw, Son, and Thompson have sent a sample of a soft and elastic truss pad which, we believe, possesses all the advantages of one recently brought out by Mr. Vincent Wood, to which reference was made in the BRITISH MEDICAL JOURNAL of March 11th. The sole difference probably between these two forms of truss pad consists in the material of which each is composed. The pad, supplied by the well-known firm in Aldersgate Street is procured, we are informed, from the Continent, and has been used by them in the manufacture of their trusses for a considerable time. It is certainly a very cheap as well as a comfortable and thoroughly efficient appliance.

Watchmaker's Lens.—Dr. J. Home Ross of Bishop Stortford has designed a very convenient watchmaker's lens for carrying in the pocket. Such an appliance is often of use to medical practitioners, especially in examining cases of skin diseases. This pattern, which has been made by Messrs. Lawrence and Mayo, 67 and 69, Chancery Lane, is very light and portable. It is made of aluminium, and is collapsible into its case, after the manner of some metal drinking cups. Two lenses are supplied, and the whole occupies very little space in the pocket or bag.

MEDICINAL AND DIETETIC PREPARATIONS.

"Abrolis" Mineral Water.—The results of our examination of a sample of "Abrolis" mineral water show that the organic matter contained by it is very small in amount, and that it may therefore be regarded as organically pure. Without entering into a consideration of the numerous claims as to superiority made for the water, we may say that it is a mild saline and alkaline water well charged with carbonic acid, and that it is very pleasant and palatable in character.

Orezza Mineral Water.—We have examined some samples of this water, which is obtained from the Orezza spring in Corsica. The results of our analysis show that the water contains very little organic matter, and that it may therefore be regarded as organically pure. It is a ferruginous water, the iron being present in the form of a ferrous carbonate. The water contains a sufficient amount of "free" carbonic acid to cause it to effervesce in a small degree when poured out of the bottle. It is stated that the water has been known and used in France for several years. We think that the water is one which well deserves attention.

LIFE INSURANCE AND VACCINATION.

(*Continued from page 870.*)

CLASS IV. EXTRA PREMIUM CHARGED TO UNVACCINATED PERSONS.

THIS class includes no fewer than nineteen offices, or more than any other class. In the first three on the following list the extra charge takes the form of a percentage addition to the premium. In all the others as to which definite information is given, the extra is assessed on the sum insured, the addition being stated for every £100 of the policy; but for the last seven offices in the list the amount of increase is not stated. It will be seen that there is considerable difference in the practice of the offices for which the amounts are stated.

1. *The Equitable Life Assurance Society* has "not had occasion in recent years to consider what extra to charge for a non-vaccinated person. Prior to 1893 the Society charged a uniform rate of 11 per cent. on the premium.

2. *The Scottish Widows' Fund Life Assurance Society* charges 10 per cent. upon the premium, and has done so for about twenty years. If this is declined, the proposed assurance drops.

3. *The Provident Life Office* charges "an extra of about 5 per cent."

4. *The Scottish Metropolitan Life Assurance Company.*—"If the directors were satisfied with every other point they might be disposed to accept at an extra of 20s. per cent., but if they were not quite satisfied with the life in every other way, the proposal would be declined."

5. *The Gresham Life Office.*—This office offers several alternatives to unvaccinated proposers, and might have been placed accordingly in Class I or Class II. The alternatives are: "(*a*) Postponed until vaccinated. (*b*) Accepted at an extra of 10s. per cent. (*c*) Policy endorsed 'excluding death from small-pox.' (*d*) Failing the above conditions the proposal is refused. In the early years of the Society the question as to vaccination was asked in the proposal form, but in consequence of this question always being answered in the affirmative, and for seventeen years only 6 deaths from small-pox having occurred, the question was omitted. In consequence of the large increase of the Society's Continental business, the question, 'Have you been vaccinated?' and 'How often?' has been reinstated in the medical report form."

6. *The Life Association of Scotland.*—This office also offers alternatives, and might have been classified differently. The directors "reject the proposal, or insist on vaccination if he will pay no extra, or charge an extra annual premium of 10s. per cent., or accept at ordinary rates, excluding death from small-pox from the agreement."

7. *The Scottish Equitable Life Assurance Society.*—"The directors accept the life with 5s. per cent. extra for non-vaccination; this extra would be taken off on the assured furnishing us with a medical certificate that he has been successfully vaccinated."

8. *The Scottish Life Assurance Company.*—"We insist upon vaccination before accepting on ordinary terms, otherwise an extra premium of 5s. per cent. per annum is charged."

9. *The Standard Life Assurance Company.*—"..... we do not decline the proposal, but give him an alternative of paying an extra premium at the rate of 5s. per cent., or delaying completion of the case until he has been satisfactorily vaccinated."

10. *The Scottish Provident Institution.*—"..... an extra premium (generally 5 per cent.) is charged."

11. *The British Equitable Assurance Company.*—"..... it is our practice to charge all unvaccinated persons 2s. 6d. per cent. per annum extra in addition to the tabular rates for whole life and endowment tables."

12. *The Edinburgh Life Assurance Office.*—"If the proposer has never undergone vaccination we give him the choice of two alternatives, either to pay a continuous extra of 2s. 6d. per cent., or to undergo the operation and furnish us with a certificate to that effect."

13. *The Clerical Medical and General Life Assurance Society.*—"..... an extra premium is ordinarily imposed, but its amount is fixed at the discretion of the directors, and such

points as the age, occupation, environment, etc., are taken into consideration."

14. *The London Life Association, Limited.*—"The directors would charge an extra premium for an unvaccinated person who had not had small-pox, but the amount depends entirely on the circumstances, though in view of the fact that small-pox is likely to become again a serious nuisance, the extra charge is not likely to be a diminishing quantity.....Quite recently the office declined to entertain at all a suggestion of an assurance on a person against death by small-pox only..... Of course for some time past proposals coming from certain districts have been more closely scrutinised as to vaccination."

15. *The Friend's Provident Institution.*—".....As a condition of being accepted he must either undergo vaccination and furnish a certificate that he has done so successfully, or pay a small additional premium."

16. *Union Assurance Society.*—"We cannot call to mind at present any case in which it was clear that vaccination had never taken place, but the probability is that such a case would be specially submitted to the directors, who would no doubt, according to their present views, charge an extra premium."

17. *The Westminster and General Life Assurance Association.*—"..... We express a wish for the proposer to be vaccinated, but on refusal sometimes accept the proposal with an addition to the premium."

18. *The Law Life Assurance Society.*—".....Our general practice would be to insist on vaccination, or, if this could not be obtained, not to accept the proposal at the ordinary rate of premium."

19. *The Norwich Union Life Insurance Society.*—".....in ordinary circumstances, if it were to transpire in the papers that a proposer had not been vaccinated, the acceptance would either be postponed until vaccination were certified, or an extra premium charged. In special circumstances, such as in the Gloucester district during the time of the last epidemic, the directors declined to receive proposals from any non-vaccinated persons."

CLASS V.—YEARS ADDED TO THE AGE OF UNVACCINATED PERSONS.

The offices in this class, with the gist of their replies, are as follows:

1. *The Commercial Union Assurance Company, Limited.*—"..... we either (1) defer consideration of the proposal until we receive a certificate of successful vaccination, or (2) proceed at once with an addition of seven years to the age."

2. *The Lancashire Insurance Company.*—".....an addition of seven years is charged to the age"; but "death from small-pox is not excluded, except under very exceptional circumstances, in consequence of the difficulty which often arises in ascertaining whether death might not be due, directly or indirectly, to some disease or illness resulting from small-pox. The directors have occasionally given exceptionally favourable treatment to non-vaccinated lives who have been resident in a town during an epidemic of small-pox and who have not been attacked. They consider this fact as evidence of non-susceptibility, and therefore as almost equivalent to vaccination or to an attack of small-pox."

3. *The Scottish Union and National Insurance Office.*—"..... our practice is either to reject the life or make an addition of five years to the age until we are satisfied that proposer has been efficiently vaccinated." With regard to the queries submitted by us, it is further stated that the practice of the office "was decided upon many years ago, but the increasing neglect of vaccination will probably render a revision necessary."

4. *The Caledonian Fire and Life Insurance Office.*—A proposal "may either be delayed until vaccination or accepted with an addition of five years to age, which would be removed on a certificate of successful vaccination being submitted to us."

5. *The Hand-in-Hand Fire and Life Office.*—"..... we generally either add three years to his age, or exclude small-pox or its sequelæ from the benefit of the policy, or ask him to be vaccinated."

6. *The Rock Life Assurance Company.*—"The usual plan has been to make an addition of three years."

7. *The National Provident Institution.*—"..... we make an addition to the premium representing three years added to his age (upon the whole life table), unless he is willing to undergo vaccination."

8. *The Liverpool and London and Globe Insurance Company.*—"If he answers in the negative, we suggest vaccination; and if he does not undergo it, we rate up the premium for his age by three years." It is added, "that instances of those confessing to non-vaccination have, in our experience, been very rare, although, no doubt, they will increase in the future."

CLASS VI.—PROPOSALS FROM UNVACCINATED PERSONS DISCOURAGED.

This class includes only a single office.

Equity and Law Life Assurance Society.—".....it is the practice of the office to discourage the proposal."

CLASS VII.—PROPOSALS DEALT WITH ON THEIR INDIVIDUAL MERITS.

The offices in this class and gist of their replies are as follow:

1. *The Royal Insurance Company.*—".....Up to the present we have received very few proposals on the lives of people who have not been vaccinated, and have not had small-pox. When a proposal has been received on the life of a person who has not been vaccinated, we have not usually experienced difficulty in inducing him to undergo vaccination. If this could not be arranged, the directors would adjust the premium to meet the circumstances, each case being dealt with entirely on its merits."

2. *The Kent Fire and Life Insurance Company.*—"Each case considered on its merits."

3. *The London Assurance Corporation.*—"The question of vaccination does not often arise, but when it does we have hitherto requested that the applicant be successfully vaccinated. Should he refuse to undergo vaccination, we have sometimes required a clause to be inserted in the policy barring small-pox, and making the surrender value only, and not the sum assured, payable in the event of death from small-pox, while in other cases we have charged a small extra premium. If the applicant decline all these alternatives the proposal is usually allowed to fall through. Each case is, however, treated on its merits, and there can be no absolute rule laid down."

4. *The Scottish Imperial Insurance Company.*—"..... Any case of a proposer who had neither been vaccinated nor had small-pox would be specially considered, and the probability is that he would be asked to produce a certificate of successful vaccination before his proposal would be accepted." This office might alternatively have been placed in Class I.

5. *The Sceptre Life Association.*—"..... the cases of applicants who have not been vaccinated are dealt with on their individual merits."

CLASS VIII.—NO DIFFERENCE MADE BETWEEN VACCINATED AND UNVACCINATED.

The Refuge Assurance Company, Limited, Manchester, was through an oversight omitted from the scope of our original inquiry. It has to be added to Class VIII.

The offices in this class and the gist of their replies are as follows:

1. *The Prudential Assurance Company, Limited.*—"..... We do not ask any question in our proposal forms regarding vaccination. Until the passing of the recent Act the practice was so general, that for practical purposes it was deemed to be as good as universal. The outbreak of Gloucester was the only occasion on which our experience was at variance with this assumption. We shall, of course, carefully watch our experience of small-pox, but at present, at least, we do not contemplate making any change in our practice."

2. *The Royal Liver Friendly Society.*—The Committee of Management "do not take any notice in their method of dealing with proposals for insurance of the vaccination question one way or the other."

3. *The London and Manchester Industrial Assurance Company, Limited.*—".....we do not charge an extra premium to unvaccinated persons or in their cases reduce the sums usually assured at death."

4. *The Royal London Friendly Society.*—".....the matter of

vaccination is not referred to in our proposals, nor in our Medical Officer's report."

5. *The Pearl Life Assurance Company.*—This office asks whether the life proposed for assurance is vaccinated, and "is able by this means to get a record of the number of proposals received for the assurance of unvaccinated lives," but they say "it has not been our custom to make any difference between vaccinated and unvaccinated."

6. *The Sun Life Assurance Society.*—".....at the present time it is not the practice of the Society to charge, in the case of adults, extra premiums on account of non-vaccination: the mortality amongst such lives, from the point of view of a life assurance society transacting business mainly among the middle classes, being for many years past insignificant. Whether the new Act will require us hereafter to change our practice it is at present too early to say."

7. *The New York Life Insurance Company.*—"The reply of the proposer makes no difference."....."In explanation of these facts I wish to say that for some long period of time our Company has done away with the restriction as to the vaccination, having offered to the public an absolutely unrestricted policy."

"For some time in the infected localities in South America, where small-pox was the rule almost the year round, we occasionally inserted a small-pox clause where a person had not been vaccinated; but even this custom with our Insurance Board is practically obsolete. The new law as regards 'conscientious objection to vaccination' will have no effect whatever upon our policy, and we do not intend to exclude small-pox as an acceptable cause of death."

8. *The Refuge Assurance Company, Limited.*—".....at present this Company does not ask upon its proposal forms any question as to vaccination, and does not make any difference between vaccinated and unvaccinated persons."

This completes our notes of the answers received from the insurance companies in reply to the second query of our circular letter.

Replies to Other Queries.

Our first query was "What question is asked in your proposal forms regarding vaccination or revaccination or both?" and the fourth query was, "Is any, and if so what, evidence required of the truth of the replies to questions regarding vaccination?" We need not go into the details of the replies to these questions. With one or two exceptions, the most important of which is the Prudential Company, all the offices make inquiry regarding vaccination. Some of them, however, do so not in the proposal form, but in the medical report form, and that seems the better course. Indeed the report should in every case include a statement of the number and area of the vaccination marks visible on the arm. This is already practically required by the United Kingdom Temperance Institution, whose "medical examiner is requested to describe the number and condition of vaccine scars," while the Law Union and Crown Office asks its advisers regarding every proposer "Has he good marks of vaccination?"

Nor do we propose to give details of the replies to the third query as to whether any difference is made between once-vaccinated proposers and revaccinated proposers. None of the offices have yet grappled with that question in any practical fashion, although some of them recognise its importance.

The replies from some of the offices contain various suggestive statements which want of space prevents us from dealing with at due length. The manager of the Imperial Life Assurance Company writes: "I may add that my directors regard the question of vaccination as of paramount importance, especially in view of the possible consequences of the recent Act. We are introducing in our new forms as they are issued some stringent instructions upon this point, and it is quite within the bounds of possibility that if the present disposition to avoid vaccination be maintained, my directors may take into consideration in future proposals not only the question of vaccination of the subject, but the larger question of the incidence of vaccination in particular districts, having in view the fact of the increased risk to lives in a district inhabited numerously by so-called conscientious objectors." There is no doubt that persons who have been vaccinated only in infancy will run a greater risk if they live in unvaccinated towns open to extensive epidemics of small-pox, than if they live in a well vaccinated community. Their remedy is revaccination, and that is the direction in which the Imperial Company should look for a solution of what may very soon become a real difficulty. Other offices also indicate that they are alive to the increasing importance of the question of vaccination and revaccination as affecting life insurance in this country under the new law.

We extract the following from some information kindly supplied by Dr. A. H. Smee, Chief Medical Officer of the Gresham Society, which does a large business on the Continent of Europe:

"Since the foundation of the Society in 1848 there have been 66 deaths from small-pox among the 20,125 claims. The total number of years of life exposed to risk since the origin of the Society has been 1,292,900. This would give 1 death from small-pox for every 20,000 years of life among vaccinated persons, but the risk has been very unevenly distributed in different years; no fewer than 37 of the small-pox deaths occurred during the epidemic which spread over Europe after the Franco-German war of 1871, and which lasted until the end of 1874."

"Since vaccination and revaccination have been made compulsory in Germany there has been no death from small-pox—for the last 25 years—among any of our insured in the North German States."

The merits of the questions which arise in connection with the replies received to all the queries are dealt with in a leading article.

THE PREVENTION OF TUBERCULOSIS.

Sheffield.

The Lord Mayor of Sheffield has called a public meeting for Wednesday, May 10th, at the Cutlers' Hall for the purpose of forming a local branch of the National Association for the prevention of Consumption and other Forms of Tuberculosis.

Dundee.

A meeting on the subject of tuberculosis convened by the Parish Council was held on April 24th. In addition to several members of the Parish Council there were present representatives of the Town Council, the Royal Infirmary, and the Victoria Hospital for Incurables. The Rev. J. M. Campbell, Chairman of the Parish Council, presided. He stated that the question had been considered by a Committee of the Parish Council, and that a suggestion had been made that the Council should obtain a sanatorium in the country where a few cases might be treated before a larger scheme was entered upon. It was explained, however, that the Council had no power to provide such a building, although they could pay liberal aliments to patients who might be sent to it. These patients would be heads of households in whom the disease was in its incipient stages, and their removal and treatment at such a period would mean a very great saving to the rates. In the discussion which followed it was pointed out that consumption had been declared an infectious disease, and it was questionable whether the experiments suggested should not be carried out by the local authority. It was also stated that the infirmary authorities were about to make experiments in the summerhouses attached to the institutions, and pending these Mr. Edwin Scrymgeour proposed that a subcommittee should be appointed to confer with the Sanitary Committee on the question. Ex-Lord Provost Mathewson, who seconded, said that sooner or later the public would be called upon to make ample provision for the curative treatment of incipient cases. The proposal was agreed to, and the Rev. Mr. Campbell, Dr. Mackie Whyte, and Messrs. James Guthrie, William Kidd, and E. Scrymgeour were appointed the subcommittee.

Russian Medical Congress.—The seventh Congress of Russian Medical Practitioners will be held at Kasan from May 10th to 17th. The work of the Congress will be divided among sixteen sections. In the Section of Syphilis and Dermatology the question of leprosy in Russia is proposed for discussion. The President of the Organising Committee is Dr. A. H. Gay, Professor of Dermatology and Syphilology in the University of Kasan, while Dr. N. M. Ljubimow, Professor of Pathological Anatomy in the same University, is Vice-President, and editor of the *Transactions*.

COUNTER PRESCRIBING MADE EASY.

In the matter of medicine the man in the street is mostly by way of being a nominalist. His idea is that that the whole art consists in finding a name for the ailment in any given case and then selecting the remedy corresponding to the name. That there is such a remedy he takes for granted; the only puzzle is to find the name of the disease. But after all even this may be regarded as an unnecessary refinement, a luxury reserved for exacting and suspicious valetudinarians. All that the practical man really wants is to have his symptoms relieved. For this he naturally goes to a chemist who will give him the appropriate pill or draught. As long as the average man is in his present state of barbarous ignorance in regard to scientific medicine, so long will counter prescribing continue to flourish; it is simply an illustration of the law of demand and supply.

That it does flourish even in the higher branches of the pharmaceutical profession, an unsuspected visitor to many a first-class chemist's shop in the West-end will have abundant opportunities of learning. That it is an abuse which ought not to exist, much less flourish, will be admitted by every pharmacist of the better class—as a point of ethical theory. But after making this profession of faith he will allow his assistants to give the man about town a pick-me-up, as likely as not containing strychnine, phosphorus, and other powerful agents, and the young woman with green sickness a "tonic" or a "blood purifier;" and the propriety of his principles will not prevent his saying at night when emptying out his till—

> [Medicus] me sibilat, at mihi plaudo
> Ipse domi simul ac nummos contemplor in arca.

What harm is often done by counter prescribing may be gathered from reports of inquests, and these are only the few cases in which the death of the patient is directly traceable to want of skilled treatment. We cannot expect the public to care very much about the infringement of a prerogative which rightly belongs to the medical profession, nor is the chemist likely to have serious searchings of heart on the subject, considered in the abstract. But if the public can be got to see that counter prescribing is always a fraud upon itself, and may, in cases of latent or threatening illness of a grave character, be dangerous and even directly fatal, it will look at the matter with less lightness of heart. This, however, can be brought about only by the enlightenment which comes of a knowledge of the principles of physiology, and the relations between effects and supposed causes. When the man in the street has grasped the truth that the scientific treatment of disease is something more than setting up a name as an Aunt Sally to be shot at with drugs, counter prescribing will die a natural death.

In the meantime there are chemists who do not mean to let it perish if they can prevent that consummation. We have before us a book entitled *Diseases and their Remedies, a Concise Survey of the Most Modern Methods of Medicine*, described on its title page as "written expressly for the drug trade by physicians and pharmacists," and published at the offices of the *Chemist and Druggist*. A prefatory "editorial note" says: "This treatise is offered to chemists and druggists under the conviction that it is of the utmost importance that they should be acquainted with diseases as well as with remedies.....that they fail to occupy the position they are often called on to hold in their relation to the public, and as an intermediary between them and the medical man, unless they have an intelligent acquaintance, not only with the medicine, but also with the cases in which it is used." Now we do not wish to be understood as holding the obscurantist view that medicine is a mystery to be jealously guarded by its priests from the eyes of the profane. On the contrary, we are convinced that the more widely a knowledge of the principles and aims and methods of scientific medicine is diffused the better; in the popularisation of such knowledge lies the best hope of the extermination of quackery—of which, by the way, we take this counter prescribing to be "a sect or scion," as Iago says. But the special plea put forth on behalf of the chemists, that they cannot discharge their function as intermediaries between the public man and the medical practitioner without a knowledge of disease, is not only baseless, but somewhat disingenuous. The chemist is not an intermediary between the public and the medical man in any sense other than that of a dispenser whose business it is to carry out instructions. He is not an "intermediary," even to the extent that an instrument maker often is; yet no one has thought of writing a handbook of surgery *ad usum* of that ingenious craftsman.

A little knowledge is proverbially a dangerous thing; and there is no province of human activity in which it is so dangerous as the practice of medicine. Knowledge brings caution, but half knowledge begets the rashness which makes fools rush in where angels fear to tread. Now "half knowledge" is a flattering description of the kind of knowledge of diseases that is to be got from the volume under consideration. Thus the druggist who, in the better fulfilment of his function as "intermediary," should wish to know about ague, will learn that "'fever and ague' is commonly met with in pestilential countries;" that when "an attack occurs every twenty-four hours it is termed quotidian," etc.; and that "during the intervals the patient is quite well, only waiting for his unpleasant visitor to come and rack his constitution." Diphtheria is "caused by the germs originating in decomposing sewage matter." Of angina pectoris the reader is told that "it is mostly a nervous disorder. There are nerves which regulate the functions of the heart and blood vessels, which are also in touch with the lungs, liver, stomach, and kidneys." In regard to cancer we learn that "it is highly probable that syphilis, leprosy, scrofula, and cancer are all intimately associated with one another," and all presumably "in a concatenation accordingly." Such being the case, one is not of course surprised to be informed that the nature of cancer is "perfectly understood;" this makes it all the more disappointing that the authors have kept the secret to themselves. But some compensation may be found in the priceless revelation that sulphur in the socks is a preventive of cholera: "If a teaspoonful of flores sulphuris is placed in each of the socks every morning, this is absorbed through the freely-acting pores of the soles of the feet. This keeps the blood pure, and enables it to resist the action of germs."

The information given about other diseases is equally exhaustive. We are asked to believe that this sort of thing is intended to give the man who makes up our prescriptions that "intelligent acquaintance not only with the medicine, but also with the cases in which it is used," which is alleged to be useful to him as an intermediary between the public and the medical man. Why, an intelligent acquaintance with metaphysics would be just as useful and much less likely to be harmful!

The book, in fact, might be accurately described as a counter prescriber's manual. If the descriptions of diseases are meagre to attenuation there is plenty of information as to remedies. The strongest drugs are freely recommended for this or that condition, and very seldom is any hint given as to the need of caution and discrimination in their use. Prescriptions abound throughout the book, many of them containing ingredients which might do infinite damage if used without a knowledge of disease very different in kind and degree from that given in this book. For what other purpose can this be intended than to enable the so-called "intermediary" to usurp the functions of the medical man? Indeed, the purpose is not concealed. In the "editorial note" it is plainly said that, while there is a form of counter prescribing which is illegitimate, "there is another form which is not only legitimate but necessary and inevitable, and which is conducive to the best interests of all concerned." The distinction cannot be accepted and in point of fact no attempt is made by the authors to define the differences which separate the "illegitimate" from the "legitimate" form. No form of counter prescribing is legitimate, and the sooner this is generally recognised by chemists, the more "conducive to the best interests of all concerned" will it be. A chemist who prescribes, "legitimately" or "illegitimately," is simply a quack; and if he takes the book here referred to as his guide he is a peculiarly dangerous kind of quack, clothing his ignorance with the outer garment of knowledge and wielding the weapons of the trained practitioner without the skill to use them.

Of the "physicians" who have given assistance in the concoction of this work, we can only say that they have put their knowledge to base uses. They have given an additional proof that our worst enemies are those of our own household.

MEMORIAL TO THE LATE PROFESSOR COATS OF GLASGOW.

It will be remembered that in February, soon after the death of Dr. Coats, Professor of Pathology in the University of Glasgow, his friends and admirers resolved to raise a fund for a memorial, and it was determined that the memorial should take the form of a university prize or scholarship in connection with pathology. It was also announced that to carry out the proposed plan a sum of at least £1,200 would be required. Already over half of that sum has been subscribed, but as many of Dr. Coats's friends and former pupils, who are widely scattered, may not be reached by circulars, those managing the fund desire us to intimate that contributions will be received and acknowledged by Dr. David Newman, 18, Woodside Place, Glasgow, or Mr. James J. MacLehose, Honorary Treasurer, 61, St. Vincent Street, Glasgow. We have not space to intimate all the subscriptions received, but the following are those of £2 and upwards.

	£	s.	d.
Professor M'Call Anderson	5	0	0
Grant Andrew	2	2	0
Thomas Barr, M.D.	3	3	0
John Bell	5	5	0
G. B. Bennett	10	10	0
Sheriff Berry, LL.D ...	3	3	0
Professor Bower, F.R.S. ...	2	2	0
Howard Bowser	25	0	0
John James Burnet	5	5	0
G. J. and M. C., per George Cuthbertson	10	10	0
Hector C. Cameron, M.D. ...	26	5	0
M. Pearce Campbell ...	2	2	0
Fred. Hugh Clarke, M.B. ...	2	2	0
Mrs. G. B. Clark	5	5	0
Allan Coats	10	0	0
Andrew Coats	20	0	0
Daniel Coats	50	0	0
George Coats	10	10	0
George Coats	20	0	0
James Coats, jun.	50	0	0
P. Coats	50	0	0
Sir Thomas Glen Coats, Bart.	50	0	0
A. Cameron Corbett, M.P. ...	5	5	0
Mrs. A. F. Craig	2	2	0
D. Mackellar Dewar, M.B. ...	2	2	0
William Gibb Dunn, M.D. ...	2	2	0
E. F. Duncanson	3	3	0
Freeland Fergus, M.D. ...	3	3	0
Professor John Ferguson, M.A., LL.D.	2	2	0
James Finlayson, M.D. ...	26	5	0
Wm. J. Fleming, M.D. ...	3	3	0
Sir W. T. Gairdner, K.C.B....	10	10	0
Arthur J. Hutchison, M.B...	2	2	0
Thomas Johnston	10	10	0
A. Brown Kelly...	3	3	0
The Right Hon. Lord Kelvin, G.C.V.O.	3	3	0
William Ker	10	10	0
Mrs. T. Macdiarmid	5	5	0
Professor Macewen, M.D. ...	5	0	0
Professor M'Kendrick, M.D., F.R.S.	3	3	0
George M'Kerrow, M.B. ...	2	2	0
James J. MacLehose, M.A...	5	5	0
Robert MacLehose, M.A. ...	5	5	0
Archibald E. Malloch, M.D.	20	0	0
James Mann	5	5	0
Rev. T. H. Martin	2	2	0
A. E. Maylard	5	5	0
George S. Middleton, M.D...	10	10	0
Alex. Napier, M.D.	2	2	0
David Newman, M.D. ...	26	5	0
Adam Nimmo	2	2	0
Dr. Wm. Osler	10	10	0
The Very Rev. the Principal	5	5	0
A. Maitland Ramsay, M.D...	2	2	0
Prof. Wm. Ramsay, F.R.S....	2	2	0
James Reid, M.D.	2	0	0
Wm. L. Reid, M.D.	10	10	0
J. C. Renton, M.D.	5	5	0
Rev. F. H. Robarts	2	2	0
J. W. Robertson	2	2	0
J. B. Russell, M.D.	2	2	0
Henry Rutherford, M.D. ...	5	5	0
Professor Smart, LL.D. ...	2	2	0
Robert Somerville, M.D. ...	2	2	0
J. Lindsay Steven, M.D. ...	10	10	0
Professor Stockman, M.D....	2	2	0
L. R. Sutherland, M.B. ...	5	5	0
John H. Teacher, M.B. ...	2	2	0
G. P. Tennant, M.D.	2	2	0
Mrs. Henry G. Thompson ...	5	5	0
William Tulloch	26	5	0
University Club, Subscriptions received per:			
T. Binnie, jun., M.A.	2	2	0
Walter W. Black,	2	2	0
Chas. Scott Dickson, Q.C., M.P.	5	5	0
James Fleming, LL.B. ...	5	5	0
Geo. A. Mitchell	2	2	0
Robert E. Smith, C.A.	2	2	0
T. L. Watson ...	2	2	0
And others to the sum of	30	9	0
David Yellowlees, M.D. ...	10	10	0

THE MEDICAL GUILD, MANCHESTER.

At the quarterly meeting of the Medical Guild, Manchester, held on February 28th, Professor J. Dixon Mann, M.D., F.R.C.P., in the chair, the following resolutions were passed unanimously:

I. *Raising the Standard of Preliminary Education.*—The Medical Guild desires, (1) To place on record its appreciation of the recent action of the General Medical Council in raising the standard of preliminary education; and (2) to respectfully urge the opinion that a still higher standard would further tend to raise the status of the profession collectively and as individuals, and to promote the public welfare.

II. *Medical Aid Associations.*—(1) The Medical Guild, having had its attention called to the methods pursued by certain industrial insurance companies, which combine medical aid work with ordinary life insurance, hereby expresses the opinion that it is inimical alike to the public weal and to the interests of the medical profession for practitioners to give their services to such companies in the furtherance of "medical aid." The Guild is also of opinion that the serious attention of the General Medical Council should be given to the matter.

(2) That copies of the above resolution be sent to the General Medical Council and to the direct representatives on that Council.

LITERARY NOTES.

The most recent book about South Africa is *Fifty Years of the History of the Republic in South Africa 1795-1845*, by J. C. Voight, M.D., which has just been published by Fisher Unwin. Dr. Voight was a member of the Cape Colony Volunteer Ambulance Service in the Transvaal in 1881.

Messrs. Cassell and Co., Limited, announce the early publication of a new text book on Orthopædic Surgery by Mr. Jackson Clarke. The work is to consist of about 500 demy octavo pages and will be fully illustrated. Besides furnishing a text book on the subject, it has been the author's aim to embody the many advances, including the Roentgen ray process, that have been recently made in the department of surgery with which it deals. A special feature of the book is to be an exposition of the pathology of deformities as a basis of orthopædic surgery.

Dr. Theodore Duka is the author of a book entitled *Kossuth and Görgei—Recollections of a Stormy Period—A Historical Essay*, recently published by S. Austin and Sons of Hertford. In this work the Hungarian struggle for independence in 1848 is placed in a new light Dr. Duka, who is a Surgeon-Lieutenant-Colonel of the Bengal Army on the retired list, is also the author of *Life and Works of Alexander Csoma de Körös* and of many contributions to the medical journals of this country and of Hungary.

In the *Archives Orientales de Médecine et de Chirurgie* for March, Dr. Voronoff of Cairo quotes some passages, and reproduces illustrations from the Latin translation of Avicenna's *Canon Medicinæ*, published at Venice, 1562, which show that the forcible straightening of the spine in cases of Pott's disease, recently introduced as a new method by M. Calot, is as old as the tenth century, possibly older; for Avicenna, whose span of life is indicated by the dates A.D. 980-1036, does not claim the method as his invention. The following passages show the procedure adopted by the Arabian physician. In angular curvatures, the operator, fixing the patient's body with his knees, pressed forcibly on the projecting part:

In illa (*sc.* gibbositate) quæ est ad anteriora extorta, spes est parva..... illa vero quæ est ad posteriora, indiget ut genibus tencantur vel amplectentur sicut operantur balneatores et onerent vel aggravent super eam cum fortitudine.

The surgeon sometimes stood on the patient's back:

Aut faciat ipsum jacere super ventrem suum et stet super eum cum calcancis suis.

He even made forcible pressure with a heavy pestle. Forcible extension was also made with primitive-looking apparatus of a fearsome kind, pressure at the same time being made on the hump with the hand; in refractory cases a man sat on the patient's back:

Quod si fuerit nobis necesse sedere super ipsum, faciemus illud et non timebimus aliquid.

Truly, there is nothing new under the sun!

To the *Journal of Anatomy and Physiology* for April Professor A. Macalister contributes an interesting archæological note on Poupart's ligament. Poupart seems to have gained his anatomical immortality on very cheap terms. He was by no means the first to describe the ligament which bears his name, and the description of it which he gave to the Royal Academy of Sciences in Paris in 1705 is characterised by a French writer as neither new nor exact. But although he did not discover his ligament, Professor Macalister assures us that he was a very worthy man. Born at Mans in 1668 of poor parents, he studied medicine in Paris after working under Duverney, became a member of the Royal Academy of Sciences, and Doctor of Surgery in the University of Rheims. He wrote on many subjects: cuckoo spit, the formica leo, leeches, dragon flies, hermaphrodite insects, ghosts, etc. By a curious irony of fate not one of his three biographers mentions the short paper containing his account of the ligament by which his name lives in medical literature. Poupart died, as he had lived, in poverty in 1709.

Mr. Jonathan Hutchinson, F.R.S., Emeritus Professor of Clinical Surgery at the London Hospital Medical College, will begin a course of four lectures on May 19th. The subsequent lectures will be given on succeeding Fridays.

CONSUMPTIVE PATIENTS IN SOUTH AFRICA.

The letter published last week from the Agent-General of Natal (page 1060) repeated a warning which has often been given in these pages by correspondents possessing practical experience. Apparently these warnings have not attracted all the attention they deserve, for we have this week received a circular letter from Mr. J. W. Atkinson, Secretary of the Provincial Hospital, Port Elizabeth, Cape Colony, who writes as follows:

CONSUMPTIVE PATIENTS SENT TO CAPE COLONY.

Sir,—The Board of Managers of the Provincial Hospital, Port Elizabeth, regret that they are compelled to bring before the attention of the European public the evils arising from the usage of sending persons in the last stages of consumption to this country without any means of support.

The Board of Managers feel that they cannot emphasise too strongly the hardship and suffering this treatment brings on those unfortunate sufferers in the last stages of consumption, who find themselves penniless in any of our South African towns, with certain death before them, allied with destitution, and the knowledge that they are entirely dependent on the charity of strangers.

We have further to point out that the climate of the coast towns is notoriously prejudicial to persons in any way affected by consumption. Those who would benefit from our South African climate must be able to reach the drier atmosphere of the great Central Plateau, known as the Karoo. We must point out that it is very difficult to obtain employment at any of the towns situated in the Karoo, and those who would benefit from the dry and bracing air of this health resort must have means to support them for at least some months, until the good effects of the climate enables them to seek employment at the large centres again.

Colonists are willing to do all in their power to alleviate the lot of those sufferers who find themselves destitute on our shores; but the increasing number arriving convince us that a number of those sent here are absolutely beyond hope of recovery, and consequently their fate is made harder by being sent away from their homes in a destitute and hopeless condition.

We sincerely trust that the medical profession will do all in their power to check the tendency of sending patients abroad in cases where the disease has reached a stage when cure is an impossibility.

We hope this letter will be accepted in the spirit in which it is written. In placing these facts before the European public the Board of Managers feel they are not only doing a service to the Colony, but to the numbers of consumptives throughout the European States who might be led to embark on a health searching tour, to find only bitter disappointment awaiting them at their destination.—Yours, etc.,

Provincial Hospital, Port Elizabeth. J. W. Atkinson, Secretary.

We have also received a letter from Dr. F. W. Grant, Surgeon to Gray's Hospital, Elgin, N.B., who visited Cape Colony and Natal early this year. His visit led him to form a very strong opinion that the coast towns of South Africa, and especially those of Natal, are most unsuitable for patients suffering from phthisis in the second or third stage. He is personally acquainted with two patients, who had not previously suffered from hæmorrhage, who had hæmoptysis within three days of their arrival in Durban. A patient threatened with phthisis or in whom the disease is only slightly developed may do well on the high land of the interior. He adds that a tramcar will take such a patient in a short time from the town hall of Durban to the Berea, where he may bask in the sun all day in an air more bracing than a few miles nearer the coast.

If this is true (he continues) of the Berea, it is even more so the higher one ascends Natal by the railway. One can fix on any place from 1,000 feet to over 6,000 feet up country, and there are abundance of hotels, and, what is preferable to my mind, good farmhouses where patients may be billeted. In the latter he or she may reside comfortably for £7 a month, and do well IF IN AN EARLY STAGE OF THE DISEASE; but I contend that in none of the places visited by me, or by the many people I consulted on this matter during my trip (clergymen, medical men, lawyers, merchants, etc.) can one hope to get meat, milk, eggs equal to, or nearly equal to, those obtainable at home, and my humble advice to all is to avoid South Africa as a resort for phthisical patients.

W. J. R., who writes after nearly three years' experience as surgeon on board the largest liners going to the Cape, sends the following observations on the same subject:

Excellent results are undoubtedly obtained there in suitable cases, but a large number of the cases sent are as follows:

1. The disease is far advanced and active.
2. They are almost without means, and are travelling third class or steerage.
3. They have no idea where they are going or what they are going to do after reaching the colonies, except perhaps a hazy notion of "taking a situation" on arrival, even though the poor creatures could sometimes barely crawl about the deck or sit in a deck chair.

The sea sickness of the early part of the voyage is very trying to such patients, often even suffering from hæmoptysis, and scarcely less so is the rapid change to the heat of the tropics. They often land with scarcely a penny unless perchance a subscription has been raised amongst the saloon passengers to send them "up country." All the deaths amongst passengers during my career as ship's surgeon were due to phthisis. I think that only under the following conditions should phthisical patients be sent to South Africa:

1. That the disease is in the early stages, and quiescent or nearly so.
2. That the patients are able to travel first or second class.
3. That they have means enough at all events to take things easily for a time, and look round quietly for suitable employment. The temperament of the individual ought also to be taken into account. Medical attendance is more expensive than in England, and, so far as I know, there are no sanatoria or hospitals for poor consumptives.

THE NEW VACCINATION ACT IN OPERATION.

Difficulties under the New Act.

We are receiving a considerable number of letters giving evidence of friction between the public vaccinator and the private practitioner; and while it is desirable that all the difficulties which are found to arise in the working of the vaccination machinery should have full expression, it seems equally undesirable to fan the flame of resentment by the insertion of letters which are written in the heat of the moment. There are no doubt grievances on both sides. Many of them are born of the uncertainty as to the law's requirements, and the natural difficulty of adaptation of new forms and methods of administration. These, we venture to hope, will become very rapidly infinitesimal. There will always be, however, the opportunity for the exercise of the golden rule in this as in other matters. We hear of cases where the mother has said that she intends to have the vaccination performed by her private medical attendant. It is not the duty of the public vaccinator thereupon "to expatiate on the superior quality of the lymph which he is prepared to use."

On the other hand, the conduct of a private practitioner who "goes to no small expense himself by having printed notices posted up at various public places to the effect that he will continue to vaccinate at his surgery at stated hours all children free of all cost" cannot be viewed with approbation.

We feel that of such instances it might be said "it is impossible but that offences will come; but woe unto him through whom they come;" and would again appeal to both private practititioners and public vaccinators to do everything in their power to prevent these difficulties arising, or if they arise, to secure that the cause of efficient vaccination shall not be jeopardised by any accentuation of bitter feeling.

Contracts with Public Vaccinators.

According to the *Andover Advertiser* for April 28th, 1899, the Whitchurch (Hants) Board of Guardians has, by six votes to five, given twenty-eight days' notice of termination of contract to its three public vaccinators who have served the union for thirty-one, twenty-two, and three years respectively, because they could not come to agreement with the Board as to the remuneration which they should receive under the new Act. Although the "treating of the matter as if it was one of soap or candles," was expressly disclaimed in the meeting, the difficulty was stated to be that "the doctors virtually refused to accept the Board's price." In the advertisement inserted in the same issue, it is set forth that "the guardians of this union are desirous of receiving tenders from duly qualified practitioners for the office of public vaccinator," for each of the three districts. "Tenders, stating qualifications and fees required," are to be sent to the clerk marked "Tender for appointment of Public Vaccinator," and in conclusion "the guardians do not bind themselves to accept the lowest or any tender."

Comment is almost needless, unless it be to say that a few such instances should suffice to end for ever the contract system of public vaccination by emphasising the necessity for the public vaccinator to be an officer with the same conditions of tenure of office as are found sufficient for the vaccination officer or the district medical officer.

One-mark Vaccination.

A correspondent writes: The experience of Dr. Pooler, one of the public vaccinators for the Aston Board of Guardians, as stated in the British Medical Journal of April 29th, p. 1036, is to the effect that the vaccination of a large number of the children in his district is insufficient, and the following is a report adopted by that Board when the subject was brought to its notice by the Warwickshire County Council last year:

The County Council drew attention to a passage in the annual report of the medical officer of health for Aston Manor for 1897, stating that the majority of the children were not sufficiently vaccinated, many of them bearing only one scar. Of those successfully vaccinated in the Manor, nearly half were vaccinated by a medical man whose practice, the committee were informed, was to make only one mark on the subject. Only about one-sixth of the children were vaccinated at the public station. The figures for the year 1896 showed that 297 vaccinations were performed by the public vaccinator, 725 by Dr. ——, and 637 by other doctors—a total of 1,659. As vaccination by one scar satisfied the law as it now stood, the guardians were unable to interfere in the matter. They believed the vaccination officer was doing his best to ensure compliance with the Acts, and they were unable to suggest any alteration of procedure that would be likely to secure better results.

THE PLAGUE.

PROFESSOR ROUX'S SERUM.

DR. V. E. NAZARETH, medical officer in charge of the Seth Vishindass Hospital, reports on the results of the experiments with Professor Roux's serum in the treatment of plague patients at the Karachi Plague Hospital. The experiments were somewhat limited in their nature owing to the small quantity of serum obtainable, the supply being only sufficient for the treatment of eight patients per week. The conclusions necessarily are far from decisive, though, according to Dr. Nazareth, the treatment is encouraging, and worthy of further trial.

From May 9th to June 6th (the period during which the serum and ordinary treatment were tried) 122 cases were treated in hospital, and the death-rate was 63.9 per cent.; 47 of the 122 were treated solely by injections of serum, and 25 recovered, giving a mortality percentage of 46.8.

The serum appears to be able to bear the ordinary temperature of tropical countries, and has no antiseptic substance added to it. There is no violent reaction after its injection, and under its influence, in favourable cases, the fever abates in a few hours, and in most cases the inflammation and pain of the glands subside with rapidity. The amount of serum used by Dr. Simonds, director of the Pasteur Institute of Saigon, who carried on the experiments, was, for an adult, 40 c.cm. for the first injection, 40 c.cm. for the second, which would be made 12 or 24 hours after the first; and a similar dose for the third injection. If, after the third injection, no appreciable improvement took place the treatment was abandoned. Failures occurred, particularly in cases of plague pneumonia, where the curative effect of the serum is stated to be almost *nil*.

No attempt appears to have been made to treat the cases as they were brought into hospital, irrespective of the length of time of the infection. On the contrary only recently-infected cases were treated. This fact, together with the comparatively few cases subjected to the serum treatment, materially detracts from the value of the experiment. In fairness it must, however, be noted that some remarkably severe cases are quoted in which the serum treatment was rapidly followed by most excellent results. For instance the two following cases may be mentioned out of 12 the notes of which are given in the report.

Cases Nos. 337 and 338.—Father and son. These two cases were very remarkable as evidencing the rapid effect of the serum treatment. They arrived on the evening of the 18th; the father who was conscious would not permit any treatment. No. 338, being unconscious, was, at Dr. Nazareth's request, injected with serum; his temperature was then 103.4° F. It fell to 100.4° F. next day, and after the second injection he sat up in bed apparently quite well. His temperature fell to 99° on the 22nd, and he was practically perfectly cured. His father, No. 337, in the meantime gradually grew worse, and on the evening of the 22nd was almost moribund. Although it appeared too late to inject him, his son's earnest pleadings persuaded Dr. Simonds to inject him the same evening, and the improvement next morning was so marked that a second injection was tried, and later the patient was declared out of danger.

INDIA.

From all parts of India accounts reach us that, with the exception of Kolar, the virulence of plague is subsiding. In Bombay, during the second week of April, the mortality from plague fell from 892 during the first week to 654. This leaves a daily death-rate of well-nigh 100 per day, so that, although the death-rate is relatively less, plague must still be said to prevail in an epidemic form. In the Bombay Presidency the total reported deaths numbered just under 1,000 for the second week in April. In Cutch Mandvie, which has suffered so severely in the past, plague seems to be actually increasing in spite of the high temperature prevailing, and in Karachi a similar state of things exists. Much is expected in the way of benefit when the rains set in, and, as the rainy season is due within a few weeks, it is to be hoped the anticipated improvement will accrue. In Calcutta, up to April 15th, the disease showed signs of increasing, as many as 35 deaths occurring on that date. Since then we learn by telegram that the outbreak is subsiding. It is interesting to read in the Calcutta returns that so many cases of "true or suspected" plague have occurred. The Calcutta authorities have so long claimed an immunity from plague that they still seek to cover the outbreak by announcing cases as merely "suspected." This is the only place in the world where at the present moment such a return is made, and it may be ascribed to one of two circumstances—either a specially careful supervision of the returns, or a blind attempt to hide the prevalence of the disease. One naturally asks, Why this difficulty of diagnosis in Calcutta? The difficulty has existed for two years, and it seems beyond the powers of the microscope or bacteriology to remove it.

Darbunga, a district some 250 miles north-west from Calcutta, Lord G. Hamilton stated in the House of Commons to be affected by plague. This is a most important announcement, as it proves that plague is spreading far and wide in Bengal, and approaching the great pilgrim centre of Benares. A curious feature of the report is that for the fortnight ending April 3rd 42 deaths from plague had occurred at Darbunga, whereas for the fortnight ending April 24th only 1 plague death is recorded. Withal it would seem that in Bengal plague has not attained a hold in the same way as in the Bombay Presidency, but the fact that it is more or less sporadic should not blind the authorities to its presence.

The Government of India have imposed new and stringent regulations regarding the inspection and disinfection of native passengers and crews leaving Calcutta. The new rules will bring the port of Calcutta more directly in line with the requirements of the Venice Convention. Under the regulations the clothing and bedding of all deck passengers and of the native crews will have to be disinfected on shore within the limits of the port before embarkation. This will entail delay and considerable expense upon the seaborne traffic, but even in view of trouble from the natives the step is a necessary one if Calcutta is to carry on trade with other ports in the Indian ocean.

HONG KONG.

During the past week 28 new cases and 31 deaths from plague occurred within the precincts of the colony of Hong Kong.

BULGARIA.

It is significant of the spread of plague that the Bulgarian authorities, in consequence of the presence of plague in Arabia, have adopted stringent sanitary measures against the possible introduction of the plague through Turkey from the return of the pilgrims from Mecca.

ROYAL COLLEGE OF PHYSICIANS.

THE quarterly Comitia was held on April 27th, Dr. W. S. CHURCH, President, in the chair.

Members.—The following gentlemen were admitted to the Membership, namely, P. S. Hichens, M.B., A. L. Ormerod, M.B., and G. Thornton, M.D.

Licentiates.—The College Licence was granted to 116 gentlemen, of whom 68 came under the regulations of 1892 (involving the five years' curriculum), and 2 presented themselves under the old regulations of 1884.

Gift by the late Dr. Hare.—A communication was read from the late Dr. Hare, expressing a desire to present the College with a gold angel piece of the time of Charles II., given to persons touched by the King for the king's evil. Since his death his widow had fulfilled his wish by presenting the coin to the College. A cordial vote of thanks was passed to her.

Election of Fellows.—The following Members were, on the nomination of the Council, elected Fellows: W. V. Snow, M.D.Lond., H. Handford, M.D.Edin., H. R. Spencer, M.D.Lond., W. J. Hadley, M.D.Durh., C. Ogle, M.B.Oxon., W. H. R. Rivers, M.D.Lond., W. J. R. Simpson, M.D.Aberd., P. Horton-Smith, M.D.Camb., S. A. M. Copeman, M.D.Camb., and A. Ransome, M.D.Camb.

Report of Committee of Management.—A report from the Committee of Management was adopted. The chief points in it were the recognition of the Royal University of Ireland as one of the universities whose students are entitled to exemption from the First and Second Examinations of the Board, the recognition of the Birmingham and Midland Eye Hospital, and the recognition of the course of laboratory instruction in Public Health at the Middlesex Hospital School of Medicine.

The Laboratories.—Reports from the Laboratories Committee were adopted, the first notifying the resignation of Dr. Sims Woodhead, and expressing the regret of the Committee thereat as well as thanking him for his valuable services, the second recommending the appointment of Dr. Grigor Brodie as his successor.

The Midwives Bill.—The report of the Midwives Bill Committee was adopted as follows:

> Your Committee, having carefully considered the Draft Bill—"To promote the better training of women as midwives and to regulate their practice"—referred to them by the College on January 26th, 1899, beg leave to report as follows:
>
> 1. That the College be advised to affirm the general principle that it is desirable, in the interests of the poor, to promote by statute the examination and licensing of midwives.
> 2. That the College be advised to give its general approval to the Midwives Bill, 1899, without expressing any opinion with regard to the clause making penal the unlicensed practice of midwifery, and reserving to itself the right of criticising the details of the Bill, and making any representations it thinks fit at the proper time and in the proper place.

Report of Finance Committee.—The quarterly report of the Finance Committee was received and adopted, and the thanks of the College were voted to the donors of books during the past quarter.

Communications were received from the Secretary of the Royal College of Surgeons, the Mayor of Blackpool, and the British Balneological and Climatological Society.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 6TH, 1899.

LIFE ASSURANCE AND VACCINATION.

I.

THE facts elicited by a recent inquiry into the practice of life offices with regard to the insurance of unvaccinated lives have now been stated in considerable detail in two articles.[1] The subject has an interest of its own for those who are engaged in life assurance work, and especially for those who, for the sake of their families and dependents or as a provision for their own old age, have invested part of their savings in insurance policies. Obviously the financial stability and success of life offices depend in large measure on the caution and foresight which they exercise in providing for future risks; and if, in the course of their career, any new risk emerges, or any risk previously looked on as trifling or distant looms in any degree larger and nearer, the question as to how the directors of a company or society have provided for that risk acquires a corresponding interest.

The probability of the spread of small-pox in England as a result of neglect of vaccination constitutes an insurance risk the exact dimensions of which no man, at least at the present moment, can exactly measure. Fortunately, however, it is a risk which persons who are not already insured can take care to provide against, for it happens that the great majority of life offices have from the beginning of their career taken special, if very various, means to guard themselves against its approach. Not for a moment do we suggest that the attitude of an office towards vaccination is the only, or the most important, thing which an intending insurer should consider. Economy of management, sagacity in the investment of funds, and strictness of medical examination, are among the matters which influence the safety and the profit-earning capacity of every such institution. Our present purpose, however, is to deal only with the vaccination risk, such as it is or may become.

It will be seen from the two articles referred to that 18 offices returned no answer to our inquiries, and that from 70[2] we received replies, giving in most cases quite fully the information sought for. All these offices excepting eight have done something, some much more than others, to meet the danger. The eight exceptions are: The New York Life Insurance Company, the Royal Liver Friendly Society, the London and Manchester Industrial Insurance Company, the Royal London Friendly Society, the Pearl Life Insurance Company, the Sun Life Assurance Company, the Prudential Life Assurance Company, and the Refuge Assurance Company. Five of these are mainly engaged in industrial or working-class business, two (the New York and the Sun) are engaged in ordinary business, and one (the Prudential) is very largely occupied in both departments. We may refer now more particularly to the New York Company and the Prudential Company, not because their practice differs from that of the other six offices in this class, but because of their prominent position in the insurance world, and we are much indebted to both offices for their replies.

The New York Company's information is given frankly and unhesitatingly. As regards vaccination, "the reply of the proposer makes no difference," and "the new law will have no effect whatever on our policy." This is in accordance with the practice of the Company, by which, for some considerable time, they have "offered to the public an absolutely unrestricted policy." This is a good phrase—"an absolutely unrestricted policy." There is in it the suggestion of a boon to the intending insurer hesitating between the claims of the active agents of half a dozen competing officers. But a boon received by one person is a boon given by another person. Who get and who give this boon? The recipients obviously are those of the assured who in other offices or under another system would not get an "absolutely unrestricted policy." As to the donors, it seems to us that for practical purposes they are the assured who require no special favour in the way of absence of restriction. For the matter specially under consideration, the recipients of the boon, be it small or large, are the unvaccinated, and the donors are the vaccinated insurers. In so far as the average risk is increased, it is natural to suppose that, other things being equal, the average bonus will be diminished; though, of course, in other than mutual offices, the profits to shareholders would also be affected, and the share capital would have its own responsibility. This system of unrestricted policies could be carried far beyond the limits assigned to it in the New York Office. Medical examination could be dispensed with and in that case the healthy would give the boon to the unhealthy; or persons engaged in dangerous occupations might be accepted without extra charge, and the required extra would come out of the pockets of the rest of the insured.

The reply of the Prudential Company is that no questions are asked about vaccination, because, they say, "until the passing of the recent Act the practice was so general that for practical purposes it was deemed to be as good as universal, the outbreak at Gloucester being the only occasion on which our experience was at variance with this assumption;" while as to the future "we shall of course carefully watch our experience of small-pox, but at present at least we do not contemplate making any change in our practice." What are the possibilities—we do not say the probabilities—of this future? The Prudential is justly proud of the wonderful fact that about one-third of the total population of the United Kingdom is insured in its books, and that as regards its industrial business the

[1] BRITISH MEDICAL JOURNAL, April 8th, page 869, and May 6th, p. 1102.

[2] The Refuge Assurance Company of Manchester was at first, through an oversight, omitted from our inquiry.

average duration of existing policies is over eight years. If, then, to take an extreme case, a pandemic of small-pox should arise while the Company is "watching its experience," what might the effect be? Some offices would have no unvaccinated to deal with; others would have to pay nothing when their unvaccinated died of small-pox; others would have to pay only surrender values, or to return the premiums already received. But the Prudential would have to meet the full death claims arising among the unvaccinated persons contained in a third part of the population of the United Kingdom, that third part being largely made up of classes amongst whom vaccination is most neglected. To begin to change its system even at the onset of such a pandemic, and without waiting any longer to watch its experience, might diminish the loss, but its eight-year-old policies would be in force without any reservation as to death by small-pox, and its obligations would correspond. Of course, its funds are huge as well as its business and they include some share capital, but the point is that among its assured there might conceivably be millions of unvaccinated, while into its funds no extra premiums would have been gathered to cover the extra risk. If the Prudential Company had declared that in its view vaccination does not protect against small-pox, its policy would have been easier to understand. But it adopts no such foolish attitude, its reason for asking no question about vaccination being that until now it has looked on the practice as almost universal. No doubt in the past its unvaccinated have received a large amount of indirect protection through their residence in a country where vaccination has largely prevailed, and where, therefore, epidemics have not been very easily set agoing and have been as a rule somewhat easily checked. That is a point made by the Sun Insurance Company of Canada. But the risk which an office has run in this country in the vaccinated past is no measure of the risk which, taking the extremest supposition, it would have to face in an unvaccinated future, and already it seems to have had some slight foretaste of that risk during the Gloucester epidemic. It is, however, no part of our purpose to exaggerate the risk, and just as the epidemic in Gloucester was stayed by the vaccination of some 35,000 persons in its population of 40,000, so wherever small-pox begins seriously to spread there will always no doubt be a rush and scramble for protection among those who have been careless or defiant of an absent enemy, and insurance companies which have not made special terms as to small-pox will share in the benefits of this panic vaccination. But before a general vaccination can be overtaken in such places the public and the life offices may already have suffered severely.

To prevent misapprehension, it may be pointed out here that Mr. Chaplin's announcement referred to in our last issue does not touch the principle of our argument. Even if vaccination were much less neglected than at present, life offices should so arrange their business that the vaccinated may not have to bear the risks of the unvaccinated. But, whatever we may assume as the average period of vaccinal protection against small-pox—a protection which persists much longer against death than against attack—so long as the default is greater amongst the births of the present day than amongst those of the beginning of the period in question, the average vaccinal protection of the country will be on the down grade. There has not yet been time to feel the effects of the default, which has for some years been steadily increasing in the country, and, even if it now comes to be something less than the 30 or 33 per cent. of a year ago, it may still be so great as to mark a diminution in the protection of the country as a whole.

It is of course for the directors of insurance companies to follow their own line of action in this matter. We do not pretend to decide the questions which it raises. Our object is only to indicate the fact that a special risk exists with regard to small-pox which did not exist when the community was better protected by vaccination than is now the case. But be the risk small or large, the great industrial assurance companies might now try by joint action to do what the keenness of competition may possibly deter some of them from doing individually. Is it out of the question for them to decide on a uniform precautionary procedure as regards unvaccinated proposers? The directors of course are genuinely interested in the sound management of their business. Looking to the constant leakage which goes on in industrial assurance business—and, after all, the eight years' average of the Prudential is not a very long duration for life policies, while in other industrial offices the period is, perhaps, even less—it cannot be said that any serious evil may not even yet be averted. No possible good, however, can come from shirking the difficulty, and it ought to be faced fairly and squarely, without delay, by all concerned.

EDUCATION IN THE FUTURE.

THE criticism of the Duke of Devonshire's Board of Education Bill during the second reading debate in the House of Lords was, if the Archbishop of Canterbury's remarks on religious education be excepted, practically confined to complaints that it was so small a measure. It is small, and there are no doubt many who wish it bigger, and who think that if they had had the charge of it and the present majority, they would have raised a temple of education on such perfect principles and of so solid a construction as to outlast time. It may be so; but on the whole their confidence is not likely to be shared by all. England, while devoted to moral principles, has for some extraordinary reason a certain indifference for principles that are intellectual. A scheme of elaborate detail and symmetrical proportion such as would delight foreigners, seems with us by these very qualities to create opposition and dislike. We prefer patching and mending old clothes to ordering a new suit. Moreover, the subject is one in which the country even now takes only a languid interest. If men cared half as much for education as for party politics, the present elementary system, now nearly thirty years old, would not still be a constant field for dispute. A little measure is therefore probably the best, and in the meantime we may consider to what we may look forward in the future.

The son of a labourer, of an artisan, of a small farmer, or of a small trader, begins his education at the National or the Board school. At 13 years of age the first goes to work, and the second becomes an apprentice. The first thing which it is hoped may happen is that a year more

may be given to schooling, and the second is that a clever boy of these classes should be able to continue his education in whatever direction his talents lie to a still later age, and should pass with a scholarship to a secondary or to a technical school. The farmer's or the tradesman's son goes at 8 or 9 years of age to a secondary school—either a private school or grammar school—and leaves it when he is 15 or 16 years of age. These schools we want to see well officered, so that their tone shall, as far as possible, reach that of the public schools, and their teaching be the best obtainable. The registration of teachers and a system of inspection are now proposed with this express intention. Such schools cannot afford the elaborate amusements of a large public school, but they will not be the worse on that account. Many of them are at the present moment excellent.

On reaching the age of 16 any boy of this class, or of those selected from the class below, ought to have the opportunity before him either—if he has special aptitude—of winning a scholarship, which shall enable him to continue his general education, with a view eventually to a learned profession and a university degree, or of receiving for a year or more the special technical training most useful for the branch of commerce or manufacture which he intends to enter. To these, too, the way should be open by scholarships for exceptional merit. A regular gradation would thus be established—and does already in practice to some extent exist—between the elementary, the secondary, and the technical schools. The connection of each with the others should be the work of the county or borough authorities, since the materials vary in different parts of the country.

At the schools containing 150 boys and upwards are educated most of those who will enter learned professions or the public services, or will take part in the management of estates or large business undertakings. These schools suffer mainly from three defects—a narrow classical learning, inferior teaching, and idleness. On the other hand, the system of responsibility on which they are managed produces so excellent an effect on character that parents who desire reform still continue to send their sons to them. They are undoubtedly improving, and will continue to improve.

The country does not desire any interference with the individual character of the schools. The elementary school system of a prescribed course of teaching, and of payment by results, it is felt should not on any account be introduced here. The departments for secondary and technical education must therefore be distinct from the elementary. Nothing would compensate us for the loss of that individual spirit which unites boys to the school and to one another, for it is the foundation of what a learned French author has frankly called the superiority of the Anglo-Saxon.

DIASTASES, TOXINS, AND VENINS.

Those who have followed M. Duclaux's critical summaries in the *Annales de l'Institut Pasteur* and his studies in biological chemistry have looked forward to the appearance of the second volume of his *Traité de Micro-biologie*, dealing with diastases, toxins, and venins, with great interest, as it is recognised that there are few men so thoroughly conversant with the literature, and few who have at the same time been able to investigate the subject for themselves so fully and systematically.

In the study of these substances the investigator is hampered at the very outset by the fact that they are all produced under such conditions that it has not hitherto been possible to examine them as pure substances. The very fact that they are produced as the result of vital activity, and are, as it were, specific products of the splitting up of albuminoid substances as a result of the vital activity of protoplasm, or of the growth of certain organisms or cells in nitrogenous media, and that they themselves, though so active, are produced in amounts so small that they are practically imponderable even when obtained in the crudest forms, renders it impossible to apply to their investigation any of the ordinary chemical analytical methods. In most cases their presence can be determined only by the effects which they produce in bringing about fermentations or by setting up toxic conditions in animals, whilst any modifications brought about in their structure are only to be tested in the same way.

Duclaux's work necessarily, therefore, deals almost entirely, on the one hand, with the biological or physiological and physical tests to which these specific products can be subjected, and, on the other, with the physical means of modifying their activity.

The range of literature, home and foreign, covered by Dr. Duclaux in his search for new facts and examples is wide; and it is pleasant to note, in passing, that in the best publications, alike of the Pasteur school as of other schools in France, the work of the foreigner is very generously recognised.

It has long been maintained that the substances in question, although they exert a definite chemical or rather hydrolytic power, or a power corresponding to hydrolysis, are the products of protoplasm. It would appear that it is only when they are formed in excess or in relatively large quantities that they become separated from the living protoplasm by which they are formed, and as it were overflow into the fluids in which this protoplasm is bathed, so that as a protoplasm becomes specially active in the direction of breaking down or hydrolysing proteid or carbohydrate substances, it may form such a large quantity of the special ferment that this latter cannot be contained in the cell. When it thus overflows it still so far retains its special characters and activities that it can carry on the work that it was capable of doing before it left the protoplasm of the cell.

Nevertheless, what is known of the special conditions under which living protoplasm does its work should quite prepare us to find that the "separable function" of the cell, as some of these substances have been called, can be carried on only under well-defined and limited physical conditions, and that these conditions correspond in a somewhat remarkable degree with those under which living protoplasm can work most efficiently and actively.

Now, in reading Duclaux's writings, it is apparent at almost every point, and in connection with almost every substance described, that the action of temperature, of moisture, of electricity, and the like, are the modifying factors with which the investigator has to deal. Then,

too, acids and alkalies, if comparatively dilute, appear to exert little or no marked influence related to the special source of the enzyme or toxin; stronger solutions exert a much more marked influence, just as they do on protoplasm.

When we come to the action of antiseptics on the disease ferments, diastases, and toxins, we find a different condition, for they are far less affected by these antiseptic substances than is the active living protoplasm by which they were formed. This, perhaps, is not to be wondered at when it is remembered that a diastase is sufficiently stable to be able to exist apart from the cell from which it was derived. We have further evidence of this in the fact that all the modifying physical and chemical conditions appear to exert a somewhat less influence on the products of the protoplasm than on the protoplasm itself; this is true, even of the effects produced by the absorption of oxygen. Since 1877 the importance of the diastase group has, as Duclaux points out, developed from a simple *question de cuisine* to a *question de fonctionnement vital*. While formerly it was a question dealing with the artificial digestion of food, it is now perceived to play a part in some of the most difficult problems in the production of immunity and in the causation and cure of disease.

It is interesting to note how much of the work carried on in connection with fermentation is now being utilised—for purposes of comparison and illustration—by those who are studying toxins and antitoxins. Much of our recent knowledge of these substances has been obtained through investigations carried out on lines successfully followed at an earlier period in the study of the diastases. This is a point of very considerable interest from a British standpoint, as some of the best work in this domain has been done by Brown and Morris and their pupils, Ling and Baker, O'Sullivan, Thompson, Graham, and others. It is becoming more and more evident, however, that chemistry must for the present give way to physics and physiology in the investigation of this interesting group of substances. It will be necessary first to understand exactly the conditions under which the diastases are formed and toxins and antitoxins produced before these substances themselves can be thoroughly understood. It appears that only by physical means can these substances be obtained in a state of purity, even approximately, sufficient to permit of their chemical composition to be determined. Through the researches of Metchnikoff and others the fact was brought out that the cells of the body play an important part in interfering with the advance of bacteria. Now there is evidence that not only do the cells themselves inherit properties which render them antagonistic to one another, but under special conditions they have the power of producing substances which, mixed together in a test tube, have still the power of neutralising one another.

" RUSSIAN SCHOOL CHILDREN'S TEETH.—The Russian Public Health Society has appointed a Committee, under the presidency of Dr. Limberg, for the organisation of a regular system of dental inspection and treatment in schools not only in St. Petersburg, but throughout the empire. As a preliminary step the Committee has sent out a circular of questions to all heads of schools of the lower and middle grades, and to all practitioners having medical charge of such schools.

CONSCIENTIOUS OBJECTORS.

THE Parliamentary return of conscientious objectors, prepared at the request of Mr. Bartley, was issued last week. It shows the number of certificates received by the vaccination officers up to the end of the year, and also the number of children to whom the certificates relate, in each Poor Law Union and Union County in England and Wales. Unfortunately the population of the separate unions is not stated, so that calculation of rates cannot be made from the return. By far the largest number of objectors (27,037) was at Oldham where, it will be recollected, special facilities were given by the magistrates for the registration of objections. Northampton comes next with 11,243, and Leicester, notwithstanding the local efforts to prevent advantage being taken of the Conscience Clause, sent in 9,885 certificates. Keighley had 6,227 objectors, but the certificates refer to 15,696 children, so that in this respect it stands second only to Oldham. At Luton there were 7,882 certificates, and Rochdale, Burnley, Bury, Ashton-under-Lyne, and Norwich are all high on the list. The return, it will be understood, refers not merely to infants under 4 months old, but includes the objections lodged with regard to all "children" born before the passing of the Act, and in this sense the word "child" applies up to the age of 14 years. A memorandum which accompanies the return states that over 12,500,000 births had been registered in the 14 years 1885-98, and that the total number of children not reported as having been vaccinated, including all who died before vaccination, was about 3,235,000. These figures, of course, are in the rough, but they suggest that there are still a very large number of children neither vaccinated nor certified under the Conscience Clause. The question for Mr. Chaplin is, What is to be done regarding them? Probably some indication of the intentions of the Government will be given during the debate which is expected in Supply on the vote for the Local Government Board. Once more there is cause to regret that last year's legislation was so haphazard in its nature. If revaccination of children before leaving school had been provided for, and, still more, if effect had been given to Dr. Bond's proposal with regard to unvaccinated children entering school, the children under 14 would soon have come under the operation of the law at one age or the other.

THE ROYAL SOCIETY'S CONVERSAZIONE.

The first *conversazione* of the Royal Society, which took place on Wednesday evening, was very largely attended, and a great number of interesting objects were exhibited, although there was no one of very conspicuous novelty. The exhibits bearing on medicine were not numerous. One of the most interesting was a large set of microscopic specimens of mosquitos, showing the development in the mosquito of filaria nocturna and of proteosoma Grassii Labbé, one of the parasites of malaria of birds exhibited by Dr. Patrick Manson and Major Ronald Ross, I.M.S. Professor Arthur Thomson, of Oxford, showed microscopic specimens and an ingenious model to illustrate how natural curliness of the hair is produced. He pointed out that three factors required consideration, the hair shaft, the hair muscle, and the sebaceous gland. Straight hair is always circular on section, and usually thicker than curly hair, which is ribbon-like and fine. The shaft of this thin ribbon-like hair is not sufficiently stout to resist the strain of the muscle which acts as an erector of the hair; consequently, this strain produces a curve in the hair, the degree of curvature depending upon the development of the muscle, the resistance of the hair, and the size of the sebaceous gland. The curve thus produced becomes permanent, and affects the follicle in which the hair is developed. The softer cells at the root of the hair accommodate themselves to the curve, and as they become more horny and advance

towards the surface they still retain the curved form of the follicle. Professor E. A. Schäfer, F.R.S., exhibited specimens showing (1) that after hemisection of the spinal cord Clarke's column undergoes atrophy on the same side below the lesion; (2) that the fibres of the pyramidal tract terminate at the base of the posterior horn and in Clarke's column, and not in the anterior horn; and (3) that the fibres of the descending antero-lateral tract terminate in the anterior horn. The Tsetze Fly Committee of the Royal Society exhibited enlarged photographs taken by Major Bruce, R.A.M.C., illustrating districts in South Africa affected by the tsetze fly disease. Mr. Campbell Swinton showed some interesting experiments with the Wehnelt electrolytic contact breaker, and Mr. W. Duddell gave a demonstration of oscillographs applied to alternate-current wave-forms and to the Wehnelt interrupter. Mr. Saville-Kent showed natural-colour photographs of zoological and botanical subjects, mostly from life, mounted as lantern slides; photographs prepared from negatives taken through screens corresponding in tint with the three primary colours of the spectrum were first taken and the positives were printed as three films or glass transparencies, each film being tinted with the colour complementary to that of its respective negative, the three films being then superimposed in correct register. In this way very brilliant photographs in colours were obtained. Dr. Sorby, F.R.S., demonstrated a method of mounting small fish and other marine animals as lantern slides, the colour being preserved and the bodies rendered transparent by immersion in strong glycerine. Lastly, Mr. R. Kearton showed a set of extremely beautiful lantern photographs to illustrate British wild birds in their native haunts, photographed direct from Nature. The skill and patience devoted to obtaining these photographs are as remarkable as the results are brilliant.

THE MEDICAL BILL IN THE ISLE OF MAN.

A COMMITTEE of the House of Keys has heard evidence upon the subject of this Bill, and has decided to report generally in its favour, but will suggest slight amendments. What shape these amendments will take is not stated, but a perusal of the evidence offered and of the speeches of counsel as reported leaves the impression that the opportunity of getting a really good Medical Act has not been adequately utilised. The advocates of the Bill as it stands, both in their evidence and through their counsel, admit that they would have much preferred a more stringent enactment, and that they deem this only an instalment. They appear to have been influenced by the fear that, even if they succeeded in getting such a measure through the Lower House it would be rejected in the Council, which corresponds to an Upper House. This reads strangely to any one conversant with English Parliamentary procedure, being the exact converse of what we should expect here. Only one witness (Dr. Wood) seems to have had the courage of his convictions, and pressed for a measure dealing with practice and not title only, being prepared to remain without a Bill rather than to receive an inefficient one. It is obvious from the evidence reported that some at least of the advocates of the Bill have only a very slight acquaintance with the miscarriages of justice which do occur, and were hardly in a position to advise a Parliamentary Committee on this aspect of the question. It must be remembered that, so far as the Medical Acts have effected improvement in medical education and have established a register of legally-recognised practitioners, the Isle of Man necessarily participates in such benefits without any Act of its own. But when we come to the penal clauses of the Medical Acts, in which the Isle of Man has no part, they are, as we have repeatedly pointed out, too weak, and the Bill under discussion in the Isle of Man is largely an enactment of these clauses. Hence it will, we believe, be generally felt that the medical profession in the island might well have striven for all which they hold to be desirable, and might have faced the risk of failure to carry their measure.

TEACHING OF TROPICAL MEDICINE AT ABERDEEN.

DR. MACONACHIE, late Principal of the Medical College, Bombay, delivered on May 1st his opening address as Lecturer on Tropical Medicine at Aberdeen. In the course of an interesting and practical speech he dealt largely with the great and increasing opening for work which is offered to medical practitioners in tropical climates. The spread of British influence in the hot climates increases these opportunities, and calculating that at the present time about one-fifth of the medical profession of this country practise or have practised in tropical or subtropical districts, he pointed out the extreme importance of a training in the subjects with which such men will be confronted. He described the responsible positions which might be gained by a hardworking and reliable practitioner in India—positions entailing not only medical qualifications, but the possession of common sense and business habits, and in this regard he was not surprised to find that Aberdonians were so often chosen for such posts. Sanitation had enormously improved these countries as places of residence, the appreciation of the practitioner was high, and for those to whom general private practice was distasteful, hospital posts were open which might engross the whole of a man's time. Specialists or scientific investigators had the most varied scope, and, on the other hand, successful civil surgeons rapidly made an extensive reputation and had experience in special lines, such as very few at home could obtain. Such a prospect would seem worthy of appealing to able young practitioners who, without interest or capital, found much difficulty in obtaining positions at home. The duty of a practitioner undertaking such responsible work was surely to make himself acquainted with the subjects with which he would have to deal, and the arrangement of the Colonial Secretary that only those trained in tropical diseases should obtain appointments in the Colonial services rendered the need for such teaching in the various medical schools more and more urgent.

THE NEW EDITIONS OF THE *REGISTERS*.

THE *Medical Register* for 1899 and the *Dentists' Register* for 1899 were issued on May 2nd. Last year the corresponding volumes made their appearance before the middle of April, and it was hoped that subsequent issues would appear as early, if not earlier, rather than later in the year. The late appearance of these official publications is a source of inconvenience to the medical profession, and there seems to be no good reason for the delay. The *Medical Register* must, by statute, contain the names, etc., "of all persons appearing on the *General Register* as existing on the first day of January in every year." That it has not been found possible to issue on this occasion until five-twelfths of the year for which it is current has elapsed is a matter which requires investigation with a view to amendment. From a table prefixed to the *Medical Register* itself it appears that the number of names added during 1898 was 1,210. This is 20 fewer than in 1897, 129 fewer than the average of the last five years, and 61 fewer than the average of the twenty-three years during which statistics on this point are available. The largest number of names ever added to the *Register* in any one year was 1,579 in 1893, and the number added this year is the smallest since 1888, when it was 1,184. The total number of names on the *Medical Register* continues to increase steadily, though less rapidly than was formerly the case. During the ten years, 1881-90, the average yearly rate of increase was 2.7 per cent., while in the eight years, 1891-8, it was 2.1 per cent. The number was 23,275 in 1881, 29,555 in 1891, and 35,057 in 1898. If the number of names on

the *Medical Register* in 1881 and 1891 (the census years), and 1898 be compared with the population of the United Kingdom as enumerated in 1881 and 1891, and estimated in 1898 we find that the proportion of names on the *Medical Register* to the population of the United Kingdom was in 1881 1 medical practitioner to 1,514 persons living, in 1891 1 to 1,289, and in 1898 1 to 1,157. It is true that these statistics cannot be received without qualification, for many names on the *Register* are those of British medical men who now practise in the colonies and abroad; still, so far as they go, they favour the view that the number of members of the medical profession in the United Kingdom is increasing out of proportion to the increase in the population. It is surprising to find after all that has been done to call the attention of registered practitioners to the necessity of notifying a change of address to the branch registrars that no fewer than 400 names were removed from the *Medical Register* during 1898 under the provisions of Section XIV of the Medical Act 1858. The number thus removed in 1897 was 582, and as in 1897 and 1898 together only 138 names were restored, the wastage appears to be considerable. Probably in many instances the practitioners are dead, and removals from the United Kingdom to the Colonies or to foreign countries may account for a good many more. The number of names removed during 1898 on evidence of death was 503, on ceasing to practice 1, and for infamous conduct 4. The net increase in 1898 was thus 415. The *Dentists' Register* for 1899 contains 4,966 names as compared with 4,837 in the *Register* for 1898. Of this number 3,217 are registered without additional qualification as persons in *bonâ fide* practice of dentistry at the time of the passing of the Dentists Act. This is in proportion to the total of registered dentists 64.78 per cent. as contrasted with 66.13 per cent. in the *Register* of 1898.

THE HOUSING OF THE POOR IN LONDON.

AT the meeting of the London County Council on Tuesday, a fresh and animated discussion arose upon the reports of the Housing of the Working Classes Committee. This Committee was in March last strengthened by the infusion of several new members in obedience to repeatedly expressed dissatisfaction with the slow progress made hitherto in grappling with this gigantic problem which confronts the sanitary reformers in London at every turn. It appears that the Committee, which is now presided over by Sir John Dickson-Poynder, M.P., is unable to find land in London which can be acquired at such a price that it will bear the cost of erecting artisans' dwellings upon it without placing a charge upon the county rate. The Committee report a striking instance which had been brought under their notice in the East End, where four acres belonging to one owner were being cleared of small houses accommodating 700 persons, but which might be utilised for housing 3,000. This area is about to be let, and will doubtless shortly be devoted to the erection of business premises, which are more remunerative than houses for the poor. Thus overcrowding will be accentuated in the district in question, which is one of the poorest in London, instead of being relieved: and the Council does not treat for the acquisition of the property, since it at present holds itself debarred from embarking upon any housing scheme which will involve a charge on rates. We understand the restriction in question—whether imposed by standing order or by resolution is not clear—will shortly be the subject of reconsideration. There are many members of the Council who would not hesitate to grapple with the housing problem, even at the risk of some cost to the ratepayer, and the disclosure of the nature of the new policy which, we gather, is at present under the earnest consideration of the Housing Committee, will be awaited with interest. At the same meeting the Council discussed at some length the proposed drainage by-laws submitted to the Health Committee under Section CCII of the Metropolis Management Act. Several amendments were made, one of which had reference to the use of the carried-up soil pipe as a ventilating pipe. A proposal to permit in certain cases the soil pipe to be constructed within the house was negatived by a large majority, composed largely of Progressive Councillors. In view of the amendments made, the final sealing of the by-laws was, on the suggestion of the Chairman of the Health Committee, Mr. Leon, postponed to a future meeting. A motion by Dr. Collins to omit the exclusion of the City of London from the operation of the by-laws as suggested in these columns last week was, we observe, carried by a large majority as being either superfluous or inexpedient.

THE SANITARY INSTITUTE.

THE Duke of Cambridge presided at the annual dinner of the Sanitary Institute on May 2nd. After the usual loyal toasts, Sir Alexander Binnie proposed "The Naval and Military Forces of the Empire," and referred to the improvement in the general sanitary conditions of those forces. The toast was acknowledged by Major-General C. P. Phipps Carey. Sir Richard Thorne, K.C.B., in proposing "The Houses of Parliament," said that as a civil servant of twenty-eight years' standing he could assert that he had never known any technical advice yet given to be set aside upon purely political grounds when the matter was one which concerned the public interest. The relations between the technical advisers, and the Government were always most harmonious, because the Ministers had great confidence in those advisers. Mr. T. W. Russell, M.P., Parliamentary Secretary of the Local Government Board, who responded, expressed the opinion that the Houses of Parliament were seen at their best when engaged on questions of public health. He believed that the Small Houses Bill, which had just gone through Committee, was a measure which would be exceedingly useful to thrifty people. With regard to vaccination, he said that many people had been unjust to the Government with regard to the Act of last year. He believed that the Act was going to win, and pointed out that with 150 Boards of Guardians opposed to the old law it was not possible to enforce it. He believed that the substitution of domiciliary for stationary vaccination would in time have a great effect. The fact that they were issuing 1,700 tubes of lymph a day, and the number had been steadily increasing since the Act came into force, was a happy augury, and he believed that it would turn out in the end that the amount of vaccination this year would be greater than last year. The Duke of Cambridge, in giving the toast of "The Sanitary Institute," referred to the great work which it had done in promoting sanitary knowledge. The public had made such use of the Parkes Museum, maintained by the Institute, that the Council had decided to start a building fund to provide a larger building to give the accommodation required for its increasing work. The Institute possessed 2,300 members and associates, its income last year was over £8,000 and its capital amounted to over £12,000. It had held 200 meetings attended by 90,000 people. The toast was acknowledged by Mr. Henry Laws, M.Inst.C.E., Chairman of the Council, who referred to the loss the Institute had suffered by the death of Sir Douglas Galton.

AID TO THE WOUNDED IN WAR.

THE Conference, initiated by Lord Lansdowne, under the chairmanship of Lord Wantage, between the Army Medical Service at the War Office and various voluntary aid societies, for the purpose of bringing the two into effective working contact during war, a most wise and necessary step. Of course, rules forming part of the army medical regulations whereby aid societies may work in the field under the regular service have long been in existence;

but hitherto nothing has been done to combine the action of individual societies so as to secure harmonious endeavour in war time, and not only provide efficient service, but prevent confusion and consequent waste of power and money. The object of the Conference is to secure this end through a central organisation, and we hope it may be satisfactorily attained. At the same time, it must not be overlooked that no voluntary efforts can effectively supply real first aid to the wounded, which is a duty that can only be done by the Army Medical Service itself; it is to be hoped, therefore, that, whatever the outcome of the Conference, there will be no relaxation of efforts to perfect that branch of the regular service. The regimental stretcher bearers naturally afford the very first aid to the wounded in the front line, and within the zone of fire; on their efficiency the lives of many stricken men necessarily hang. No one has seen that more clearly than H.R.H. the Duke of Connaught, who, before relinquishing the Aldershot command, with wise forethought sanctioned an annual competition for a challenge shield for regimental stretcher bearers. A contest was lately carried out under a garrison Committee, and Surgeon-General O'Dwyer, principal medical officer at Aldersbot, had the satisfaction of presenting the winning team of the 2nd Battalion Somerset Light Infantry with the shield. It is a handsome and appropriate work of art by Mappin and Webb, composed of silver and bronze on an oak background, and representing four bearers rendering first aid to a wounded comrade.

TUBERCULOSIS UNDER THE POOR LAW.

Attention was called some time ago to the question of the prevalence of tuberculosis in the Poor-law infirmaries of the metropolis, which drew forth some statistics which went strongly to support the opinion then expressed as to the large number of tuberculous patients under treatment in those institutions. The desirability of undertaking the treatment of some portion of those cases according to the methods which have of late proved so beneficial, if only as an adjunct to other measures of a preventive kind, which the sanitary authorities are employing, would seem to be undoubted. It is satisfactory, therefore, to learn that the representatives of the numerous parochial Boards in London have met and discussed the matter, and so made plain the point of view from which the matter appears to the bodies by whom this particular class of tuberculous patients is dealt with. As stated last week, a meeting was held under the presidency of Mr. Cooksey, of the St. Saviour's Board, at the Board Room of the City of London Guardians, and a paper was read by Mr. Redman, who argued in favour of the adoption of the open-air treatment, and was supported in his remarks by Dr. Reilly, Chairman of the Mile End Board, and other members of the medical profession. Other speakers, however, questioned some of the advantages claimed for the new treatment, and did not appear willing to accept as proven the need for any alteration in the existing arrangements. In the end the meeting, being unable to initiate any definite line of action, formulated a resolution addressed to the Local Government Board, calling upon that body to hold an exhaustive inquiry into the whole question; and there, at present, it rests.

THE HARE IN FOLK MEDICINE.

A correspondent has expressed some curiosity to learn when "hare's blood" was last used as a therapeutic agent, for what purpose, and in what manner? The hare has been employed in folk medicine at least from the time of Pliny. The use of the blood was continued in England until the end of the seventeenth century, but it is of course impossible to say when the practice ceased even if it has done so at the present time. It was believed that the blood anointed cured freckles, and that the ashes of the blood cured the bloody flux. All parts of the animal were used. the whole hare burnt to ashes was excellent against the stone if given in doses of 30 to 60 grains. Outwardly the ashes were used to take away excrescences and to cleanse, dry, and heal foul ulcers, whilst mixed with tar they cured alopecia. The dung mixed with tar, vinegar, and sandarcha caused hair to grow and was a good dressing for burns; mixed with bear's grease and given inwardly it cured the bloody flux. The brain was an antidote against poison and cured trembling. The broth was good against gout and pains of the joints. The fat was so attractive that it could draw thorns and other foreign bodies out of the flesh. The fur burnt to ashes stopped bleedings, and mixed with oil of myrtle, bull's gall, and alum helped an alopecia. The rennet was good against poison and dissolved blood curdled or congealed in the body. It cured epilepsy, and given in a pessary helped conception, though it killed the child. The rennet was more powerful if it were obtained from a sucking hare or leveret, and Pliny tells us further that it was useful as an amulet against quartan ague. The heart powdered and drunk (a third of a whole one at a time) in Rhenish wine cured epilepsy and quartan ague in a week, though if the disease were stubborn its use was to be continued for thirty days together. Galen says that it helps a pain in the womb. The testicles in powder cured diabetes and incontinence of urine. The liver given with earth of Samos was good for hæmoptysis, whilst the gall cured blindness and deafness. The womb taken in powder, after menstruation, caused conception. Martial refers in one of his epigrams to the virtues which the Romans attached to eating the flesh: that the eater became fair of face. He says to Gellia:

> Si quando leporem mittis mihi, Gellia, dicis,
> Formosus septem, Marce, diebus eris.
> Si non derides, si verum, lux mea, narras,
> Edisti nunquam, Gellia, tu leporem.

The later physicians held, however, that hare was a black meat, melancholy and hard of digestion—indeed, that it engendered more melancholy than any other meat; often eaten, it bred *incubus* (or nightmare), and caused fearful dreams. They decreed, therefore, that it ought not to be used as an article of diet, but only as a medicine. No lover of Pepys forgets that the hare's foot was sov'ran against colic if carried about by the sufferer. Pepys tried it on January 20th, 1664-5, for he says: "So homeward, on my way buying a hare and taking it home, which arose upon my discourse to-day with Mr. Batten in Westminster Hall, who showed me my mistake that my hare's foot (that is, one which he had already carried for some time without any success) hath not the joint in it, and assures me that he never had his colic since he carried it about with him; and it is a strange thing how fancy works, for I no sooner almost handled his foot but my belly began to be loose and to break wind, and whereas I was in some pain yesterday, and tother day, and in fear of more to-day, I became very well and so continue."

THE WILL OF THE LATE SIR JOHN STRUTHERS.

By a codicil dated February 20th, 1899, the testator bequeaths to the Royal College of Surgeons of Edinburgh the sum of £500 "for the purpose of promoting anatomical science," by founding a lecture to be delivered every third year before the College. The subject of the lecture to be on any part of normal vertebrate anatomy, the lecturer to be chosen at least a year before the lecture without restriction as to country or profession. Sir John Struthers left his large and valuable stock of anatomical drawings to the University of Edinburgh for the use of the professor of anatomy in the University. Most of the drawings were made by his own hand, and many of them direct from Nature. He also left £100 to the Royal Infirmary, in recognition of the benefit he had received from his connection with the old Royal Infirmary as a dresser, non-resident surgical clerk, house-physician, house-surgeon,

assistant surgeon, and junior honorary surgeon from 1842 till 1863, when he went to Aberdeen, and in recognition of the honour and pleasure he had since returning to Edinburgh in sitting on the Board of Management. Sir John Struthers also left to the University of Glasgow the sum of £500 for the founding of an award in anatomy for the purpose of encouraging original research or special practical work, the award to be made for original research or for the best special dissections or preparations or series of dissections or preparations relating to any part of anatomy, human or comparative, the decision to rest with the professor of anatomy in the University. The award is to be made every second year, and to take the form of a gold medal with money prize. The prize is to be open to all students and graduates of the University of Glasgow, including the women students and graduates of Queen Margaret College.

DISREGISTERED PRACTITIONERS.

THE nature of the decisions given by the magistrate in the two summonses issued at the instance of the General Medical Council against Thomas Richard Allinson ought not to be lost sight of. The proceedings were briefly reported in the BRITISH MEDICAL JOURNAL of April 22nd, p. 1007. On the first summons, for wilfully and falsely pretending to be a Doctor of Medicine and Licentiate in Medicine and Surgery, and general practitioner, the magistrate convicted, because the defendant had described himself as "Dr." The second summons was for using titles or descriptions implying that he was recognised by law as a physician, namely "Doctor" and "ex-L.R.C.P.Ed." A Mrs. Crow, a witness who gave evidence at the trial, said she did not know what the prefix "ex-" meant, and she even went so far as to say that she thought it was a higher or additional degree. It would almost seem that she thought that "ex-" was an abbreviation for "extra." Yet this summons was dismissed, and the result seems to make it desirable that in any contemplated amendment of the Medical Act provision should be made to meet such a case.

RIES-CLARKE'S OPERATION FOR CANCER OF THE CERVIX UTERI.

THE most recent illustration of the growing tendency to enlarge the scope and extent of operations for cancer is furnished by the method devised by two American surgeons for the removal of cancer of the uterus. In 1878 Schroeder introduced his method of high amputation of the cervix for cancer affecting that part of the uterus, and the remarkably good immediate results brought it rapidly into favour. It soon became evident, however, that as a radical operation it was quite inadequate, and rapid recurrence ensued almost invariably. Schroeder then perfected the method of complete removal of the uterus through the vagina (vaginal hysterectomy), which will always be associated with his name, and the procedure soon displaced the partial operation, as it obviously offered greater chances of permanent success. A long experience of it has now shown that it can only claim to be a palliative operation, and Dr. Halliday Croom has recently declared his opinion that sometimes it positively shortens the patient's life, owing to the rapidity of the recurrence. The explanation of this disappointing result is simple—namely, that the pelvic connective tissue strata, with their lymphatic glands, become much sooner infected from the primary growth than was formerly supposed. Obviously the only chance of improvement lies in an extension of the scope of the operation, and the anatomical difficulties before which surgeons have quailed for twenty years have now been boldly attacked by Ries and Clarke, who advocate the following procedure. If the growth be located in the cervix the sharp spoon is used to remove as much of it as possible, and either the lips of the os are closed with sutures, or a cap is fixed over the portio vaginalis so as to cover the affected area. The abdomen is then opened, and an extensive dissection of the pelvis is made, which results briefly in the removal of the whole of the pelvic connective tissue (broad ligaments, utero-vesical ligaments, meso-rectum, etc.), with its groups of glands situated along the internal iliac vessels, the sides of the sacral hollow, and the common iliac vessels up to the bifurcation of the aorta. In the process the ureters are dissected out and held aside out of harm's way, and the great vessels on both sides are all laid bare by blunt or sharp dissection. Finally the uterus is removed, and the peritoneum closed over the exposed pelvic fascia. If enlarged and fixed glands are discovered, the removal of the uterus alone is advised. This operation is obviously modelled upon Halsted's operation for cancer of the breast, but the technical difficulties, it is admitted, are far greater. So far 15 cases have been recorded with 3 deaths, but it is too early to speak of the permanent result. It is obvious that surgery can go no further than this in attempting the cure of cancer of the uterus.

LEAD POISONING IN THE POTTERIES.

A JOINT Committee appointed by the master potters of Staffordshire has forwarded to Sir Matthew White Ridley a statement in reply to the report on Lead Poisoning in the Potteries by Professor Thorpe, the Government Analyst, and Professor T. Oliver, M.D., Newcastle-upon-Tyne. Glazes used in the trade are of three classes: First, the glazes ordinarily used on earthenware and china. Secondly, those known in the trade as majolica glazes, and which are required to melt at a considerably lower temperature; these contain a large percentage of lead compounds. Thirdly, glazes for the production of jet and Rockingham ware, and which are also rich in lead. In regard to Class I the experts recommended the prohibition of the use of lead, and the substitution of a leadless glaze which was capable of being "adapted to all kinds of table, domestic, and sanitary wares." This, the manufacturers maintain, is not warranted by the experience of the trade as a whole. They assert that the many attempts made since the time of Josiah Wedgwood to produce leadless glazes have had to be abandoned. This answer scarcely disposes, however, of the recommendation, for not only do Drs. Thorpe and Oliver state in their report that they have seen excellent examples of ware that had been dipped in leadless glaze, but they believe that the goods at the present time are in the market, and are being bought by the public. Since certain kinds of ware can be produced from leadless glazes, it is surely advisable that experiments should still be conducted, for time and experience will overcome the difficulties that at present exist. As regards the second point, the manufacturers are prepared to accept the conclusions of Drs. Thorpe and Oliver, and that in future they will reduce to a "fritt" all the lead used in their glazes. This is a wise step, for if the "fritting" of the lead compounds is carefully carried out, it ought materially to diminish the amount of plumbism in potters. As many of the manufacturers, however, have little or no experience of fritting lead, they very properly ask the Home Secretary to allow them a reasonable amount of time so as to master the practical points, and suggest that as an aid to their own experiments in this direction they might have the assistance of the Government Laboratory to determine the solubility of fritts. A systematic medical examination of all workers who come into contact with lead is welcomed by the owners, who, however, are opposed to the proposal to exclude women and young persons from employment as dippers, dippers' assistants, ware cleaners after dippers, and glost placers, on the ground that it would deprive a large number of people of their livelihood, and would increase the wages costs. The manufacturers ask to be allowed to have a free hand in regard to the

amount of lead in the fritt for the glazes, and at the same time to employ women and young persons. It is stated that only 81 female dippers are employed in the whole of the Staffordshire potteries. From the experts' report it appears that 8.2 per cent. of male dippers were laid aside from plumbism, and 8.6 per cent. of the females similarly employed, whereas while male dippers' assistants suffered to the extent of 3.9 per cent., the percentage among females was 17.8 per cent. Until the problem of the fritting of lead compounds has been satisfactorily solved, it is clear that safety lies in excluding from the dangerous processes those who by sex and age are predisposed to lead poisoning. The conclusions reached by the manufacturers are that the Home Office regulations of 1898 are more complete than those in any other State in the world; that they might be strengthened by an extension of the medical examination to all operations coming into contact with lead; that it should be required of every worker to brush the teeth and cleanse the mouth before leaving the factory; also that the time has come when the use of raw lead in glazes may be prohibited. It was not to be expected that the manufacturers would at once adopt all the recommendations of Professors Thorpe and Oliver, but it is a real step in advance to find them readily agreeing to abolish the use of raw lead in glazes, and to substitute for it lead in fritted form.

THE ROYAL ACADEMY EXHIBITION.

No previous Academy in our recollection has been so devoid as this of any points of interest from the purely medical point of view. Only one picture—by Mr. Chevallier Taylor—affords the faintest suggestion of a text from which a clinical or pathological sermon can be preached; and here we have merely a commonplace husband sitting by the bedside of his wife, under the title of "In Sickness and in Health." But whether the patient is convalescent or holding her own, or drifting onwards to the unknown shore, the catalogue cannot tell us, and our imagination has not yet reached a diagnosis. Although the sentiment is sound, and the brush work firm and suggestive, we hardly think that it will awaken any general interest, or rival even in a minor degree "The Doctor," whom Fildes painted years ago with such loving skill. Goodall, who now seems firmly established as the ophthalmic artist laureate, contributes a striking portrait of Mr. Juler, and Sant reminds old friends of the genial face of Henry Lee seen at his best in profile, and in his habit as he must have lived thirty or forty years ago. This is really all that a careful study of the Burlington House show for 1899 can furnish us in any way worthy of record from the only point of view from which we are entitled to speak with critical authority.

ANTIVACCINATION AT SIDMOUTH.

IN his annual report for 1898, the medical officer of health for Sidmouth devotes a paragraph to the question of small-pox and vaccination. This has brought down on him in a local newspaper an attack by J. H., initials well known in connection with antivaccination newspaper letter writing. J. H. charges Dr. Pullin with "nescience" and "antiquated absurdities" and "nonsense," and so forth. A vigorous rejoinder by Dr. Bond elicited a complaint about "venomous personal attack" and "abusive bluff," which is just the kind of attitude to be expected from a writer who had, under cover of anonymity, made charges against a public official in such language as we have quoted. But perhaps the most curious part of J. H.'s letter is the postscript, in which, with regard to Gloucester, he says that "anyone requiring accurate information .... should write to Mr. George Newman, Latton House, Howard Street, Gloucester." For sheer effrontery this reference would be difficult to beat. It is well known that, ever since Gloucester paid the penalty of its folly, the excuse made by antivaccinationists has been that the town was in an insanitary condition. Mr. George Newman, for example, adopted this argument; and, speaking as a City Councillor, gave "the insanitation of the affected half of the city" as a cause of the epidemic, at the same time that he attacked the medical officer of health for not holding this view.[1] It is perhaps not so well known as it should be that this same Mr. George Newman, as secretary to the local antivaccination society, was the mouthpiece of the Gloucester antivaccinationists before the Royal Commission, at a time preceding the epidemic, and when he and his friends there were living in a fools' paradise, as regards the town's immunity from small-pox. Did Mr. Newman then tell the Commission about the insanitation of the half or the whole of Gloucester? By no means. He declared instead that "Gloucester is a very clean town," and in reply to a question as to whether it was not in recent years that sanitary activity had been chiefly apparent, he refused to accept any such limitation of time, and answered, "I think we have always been well abreast of sanitary improvements."[2] This is the man, speaking with these two voices, one to the Royal Commission before small-pox spread in Gloucester, and the other to the City Council after Gloucester had received its punishment, but before his own evidence to the Commission as above quoted had been published—this is the man to whom the anonymous assailant of Dr. Pullin refers the readers of the *Sidmouth Herald* for "accurate information" as to the Gloucester epidemic!

THE TEETH OF RECRUITS.

COLONEL DALBIAC'S question addressed to the Under-Secretary for War as to "the number of recruits rejected during the past year on account of bad teeth, who were in every other respect fully up to the required standard," and the answer that the number under the heading "loss or decay of many teeth" was "1,767," require some analysis to bring out the true statistical significance of the figures. The report of the Inspector-General of Recruiting for 1898 shows that 66,501 recruits for the regular forces were medically inspected, so that 1 in 38 (nearly) were rejected on account of bad teeth. The total number rejected was 23,287, which gives about 75 per 1,000 on account of bad teeth. The total rejections, however, are divided in the report into two classes: (1) various ailments; (2) want of physical development, the former including all those rejected for purely medical reasons, the latter for those under military standards. Those under standard numbered 9,318, and those rejected for various ailments 13,696; the first should be set aside, because, coming under the early part of the examination, they would be summarily rejected without reference to teeth; of the second, the proportion rejected on account of teeth works out at about 127 per 1,000. But none of these figures really show the actual numbers with bad teeth, which are no doubt very considerably more, because in the examination of recruits the first point is standard measurements, which, if seriously defective, causes the summary rejection of the recruit without reference to teeth. As, however, the examination of teeth is usually about the last part of the medical inspection, those rejected for defective dentition, may be held to be fairly fit in other respects. The question of teeth in recruits is a difficult one, but is fairly met by a recent revised regulation giving examining medical officers a wide discretion. It is really astonishing how many fine muscular men there are of the recruits' age with poor and defective teeth. On the other hand, numbers of weedy men have fair teeth. It is not so much a question of the total number of teeth lost or decayed, but whether (including the wisdom teeth probably in young

[1] Jenner Society's Publication: *The Lancet on the Gloucester Epidemic of Small-pox as misrepresented by Antivaccinators.*

[2] Sixth report of the Royal Commission on Vaccination, page 11 question 18,264, 18,265.

recruits still unset) there are left sufficient opposing molars for effective mastication. Beyond that it is neither desirable nor practicable to lay down hard-and-fast rules.

THE CASE OF DOCKRELL v. DOUGALL.

A CAREFUL perusal of the report of the appeal in the case of Dockrell *v.* Dougall, which will be found on page 1132 will show that although the point is one of some importance, the decision of the Court of Appeal does not affect the interests of medical practitioners so unfavourably as at first sight might appear. The case, as presented to the jury, was fought on the lines of an action for libel and libel only. The jury having found that the statement was not libellous, and not having answered the question as to whether it was true, the only point left open for the decision of the Court of Appeal was whether a man had a property in his own name *per se*, so as to entitle him to an injunction to restrain the unauthorised use of it, and the Court held he had no such property. Much sympathy will be felt for Dr. Dockrell in the unfavourable issue of the proceedings which he was compelled to take. It was perhaps unfortunate that none of the questions suggested by the judgment of Lord Justice A. L. Smith were submitted to the jury for their consideration, so that the real issue between the parties could have been determined. It is, however, always easy to be wise after the event, and no doubt Dr. Dockrell's professional advisers had good grounds for conducting the case in the way in which they did. Moreover it must not be assumed that the judgment amounts to a decision that a person has a right to use the name of a medical practitioner without authority for the purpose of puffing a quack medicine if it is calculated to injure him in his profession. Indeed, Lord Justice Vaughan Williams distinctly said that it seemed to him that in most cases, if the facts were properly alleged and properly relied on, the unscrupulous advertiser would find he had been guilty of an actionable wrong. The judgment of the Court of Appeal can only be regarded as a decision on the particular facts which were found by the jury, and not as a guide to what would happen if a similar case were placed before a jury in a different legal form, and further findings obtained from them.

HOMOLOGOUS HEREDITY OF GENERAL PARALYSIS.

IT is quite rare to find general paralysis of the insane repeat itself as such in parent and child, though isolated cases have been recorded from time to time almost as curiosities. In this respect general paralysis is unlike the other insane brain affections (for example, mania, puerperal melancholia, insanity with suicidal impulse, etc.), which tend often to reproduce the same species of alienation in child and parent. Oscar Müller[1] records an interesting case, in which necropsies confirmed the diagnosis of the disease in parent and child. A woman, aged 45, contracted syphilis when young, and now developed typical symptoms (mental and physical) of general paralysis. She had had two children, of whom one (the younger) died in infancy of convulsions; this child had shown symptoms of congenital syphilis after birth. The elder child, a girl, grew up, and seemed to exhibit average intelligence, and up to the age of 10 or 12 was a promising child. She now began to exhibit decided symptoms of mental failure, and the loss of fine co-ordinate movements. The handwriting soon became affected; she had been as a child an adept at skating, in which also she now seemed rapidly to fail. She also began to exhibit general mental dulness, and to lag behind in her class at school, till eventually she became quite apathetic, helpless, and demented, and died in this condition. The mother also about this time began to be affected with mental disorder; she at first developed extreme jealousy as a wife, then followed a carelessness and neglect of her own person, and a general apathy and indolence. She now took to drink, and neglected her household duties. Paresis of the muscles of articulation appeared early, the mind rapidly deteriorated, and she progressed rapidly into dementia, and died. Necropsy revealed the typical cerebral lesions of general paralysis of the insane, namely, thickening and increased vascularity and opacity of the pia-arachnoid membranes, undue adhesiveness of the same to the cortex in patches, with superficial decortication on stripping them off, dilated blood vessels, perivascular œdema, etc. The child's brain exhibited similar lesions, and left no doubt of the nature of the affection. There can be no doubt of the extreme interest, as of the rarity, of such a case as the above. Among isolated cases of such "homologous heredity" we recall individual ones published in this country by Turnbull in the *Journal of Mental Science*, October, 1883, and Major in the BRITISH MEDICAL JOURNAL, December 17th, 1892. Similar isolated cases are recorded by Westphal (1891), von Gudden (1894), Kraft-Ebing (1894), Regis (1895), etc.; altogether some 14 cases in the past twenty years being known in medical literature.

[1] *Allgem. Zeitschrift für Psychiatrie*, June, 1898.

THE LATE SIR SPENCER WELLS.

AT a plenary meeting of the Hungarian Academy on April 24th, Dr. Theodore Duka, of London, delivered a memorial oration on the late Sir Thomas Spencer Wells, who was a foreign member of the Academy. After giving a short account of his life, the speaker expressed his admiration for the courage and skill with which the difficulties that surrounded the earlier ovariotomists were surmounted, and dwelt on the immense benefits which have resulted from their perseverance. The success with which the operation of ovariotomy is now performed had been universally recognised as one of the greatest achievements of surgery. Dr. Duka also called to mind Sir Spencer Wells's exertions in connection with a monument to a great Hungarian—Ignaz Semmelweis. The oration was received with much applause.

BEFORE leaving Cimiez the Queen presented Dr. Allen Sturge of Nice with a silver inkstand and writing materials.

DR. G. V. POORE will give an address on Medical London of the Eighteenth Century at the meeting of the Medical Society of University College, London, on May 10th. The chair will be taken at 8.30 P.M. by Mr. Christopher Heath.

The Senate of the University of London have appointed Dr. P. H. Pye-Smith, F.R.S., to represent the University on the General Medical Council in the vacancy created by the death of Sir William Roberts, M.D., F.R.S.

THE annual dinner of the Royal Army Medical Corps will be held in the Whitehall Rooms of the Hôtel Métropole, London, on Monday, June 12th, 1899, at 7.45 P.M. The Director-General will preside. The Honorary Secretary of the Dinner Committee is Lieutenant-Colonel J. Hector, A.M.S, 135, Brigstock Road, Thornton Heath, Surrey.

THE Council of the Royal Society at its meeting on May 4th, recommended the following fifteen gentlemen for election as Fellows. Professor Barrett, Mr. C. Booth, Major Bruce, R.A.M.C., Mr. Fenton, Mr. Gamble, Professor Hadden, Dr. H. Head, Professor Lloyd Morgan, Mr. Clement Reid, Mr. Hele-Shaw, Dr. E. H. Starling, Mr. Tanner, Professor Threlfall, Mr. Tutton, and Professor Windle.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The Sale of Food and Drugs Bill moves slowly in the Grand Committee, and is being amended in some important particulars. Sir Charles Cameron, in addition to other amendments, has succeed in introducing words to declare it to be the duty of local authorities to appoint analysts and put the Acts in force. He also carried an amendment requiring the analysts so appointed to furnish proofs of competence to the satisfaction of the Local Government Board. The Government, however, successfully resisted all attempts to form a Board of Reference, or to place any committee formed for this purpose under the Local Government Board instead of the Board of Agriculture. It will, therefore, rest with the latter Board to fix standards for milk, butter, and cheese. On the question of giving power to inspectors to enter and inspect food factories at any reasonable time, and to take samples for analysis, the Government were beaten, and the question will have to come up on report. The Committee stage will last all next week.

Oysters and Legislation.—From an answer of the President of the Local Government Board it appears that the Bill to restrict the sale of oysters from polluted beds is ready, and will be introduced very shortly in the House of Lords by Lord Harris. The Bill will provide for the inspection of oyster layings, and in case of sewage pollution will give power to prohibit their removal for sale. The importation of foreign oysters from suspected sources will also be regulated.

The Transport of Invalid Soldiers was the subject of an important question by Dr. Farquharson on Monday, but the Financial Secretary of the War Office would not promise to press the adoption of a hospital ship on the Indian Government. On the contrary, he supported the official view that the balance of advantage is not on the side of such a ship as against the more rapid and frequent conveyance of invalids on board transports. In the case of the Colonies this is especially the case, as the invalids are sent thence by packet at the earliest opportunity.

The Lunacy Bill has passed through the House of Lords with some small amendments, and will now soon be before the House of Commons. Some of its provisions are sure to excite a good deal of criticism in the lower House.

The Midwives Bill came on again on Monday last, but the discussion was not resumed, and the Bill was put down for May 8th. It was blocked by Mr. Weir.

A Medical Officer for the Education Department is considered in some quarters a necessity in order to provide special skill in connection with the public health questions that constantly crop up in respect to elementary schools, as well as for the supervision of defective children, the deaf and blind, and the health and superannuation of teachers. The Committee of Council will not, however, appoint such an officer, and propose to use for the purpose of the Superannuation Act the medical officers employed by the Post Office and the Civil Service Commissioners.

Hydrophobia in the Indian Army.—It appears that between July, 1898, and March, 1899, 33 soldiers were sent from India to the Pasteur Institute, to be treated for hydrophobia, at a cost of about £10 a man. The results are stated to have been satisfactory. Between 1888 and 1897 there were 23 deaths from hydrophobia of British soldiers in India.

The Old Age Pensions Committee was appointed on Monday after a somewhat stormy discussion. There were no fewer than three divisions before the names were agreed to. The difficulty arose mainly from a desire on the part of some members to force Mr. Chamberlain to serve on the Committee.

Ozone in the House of Commons.—Sir John Leng is exercised about the prevalence of influenza among the members, and suggested last Tuesday that the First Commissioner of Works should supply ozone for the purification of the Chamber and lobbies when the members were not sitting. The First Commissioner has not seen his way to accede to this proposal, as the plant necessary for the manufacture and introduction of ozone would cost some thousands of pounds, and require an electrical pressure of 12,000 volts. Fresh air and thorough ventilation are the remedies on which members must rely for protection, at all events for the present.

The London Government Bill has been checked in its progress through Committee by the two nights' debate on the Budget Bill. It seems very improbable now that the Committee stage can be finished before the Whitsuntide recess.

University of Vienna.—The prospectus of the Medical Faculty of the University of Vienna for the coming summer semester shows a programme of 263 courses of lectures and demonstrations to be given by 33 ordinary and 35 extraordinary professors, and 95 *Privat-docenten* and assistants.

Christian Science in Chicago.—The American papers state that 20,000 dollars (£4,000) has been subscribed for two new temples, one for the north side and the other for the west side congregations. A year ago a third temple was dedicated on Drexel Boulevard.

A proposal for a considerable extension of the hospital accommodation of Paris is now before the Municipal Council. To carry this scheme into effect it is estimated that a sum of 72,000,000 francs (£2,880,000) will be required. With this fund 2,810 additional beds could be provided.

Metropolitan Nursing Association.—At the twenty-third annual meeting of this Association it was stated that 2,157 cases had been attended during the past year; an earnest appeal was made for more funds, want of money being the cause of the restricted work of the Association. This association is doing most valuable work among the sick poor.

The London School of Tropical Medicine.—As already announced, the Right Hon. Joseph Chamberlain, M.P., Her Majesty's Secretary of State for the Colonies, will preside at a festival dinner to be held at the Hotel Cecil on Wednesday, May 10th, in connection with the establishment of the London School of Tropical Medicine and the enlargement of the Branch Hospital in the Royal Victoria and Albert Docks. As will be seen from our advertisement columns, the Dinner Committee, of which Sir Donald Currie, G.C.M.G., M.P. is Chairman, includes the names of Lord Lister, Sir William Priestley, M.P., Dr. J. E. Pollock, Sir Charles Gage Brown, K.C.M.G., M.D., Mr. H. M. Stanley, Lord Strathcona and Mount Royal, Lord Rothschild, and other men of light and leading. The list of stewards is very long. Among the representatives of medicine, we note, among others, the names of Dr. Lauder Brunton, F.R.S., Dr. Robert Barnes, Surgeon-General J. Cleghorn, C.S.I., Mr. James Cantlie, Sir Trevor Lawrence, Bart., Dr. Allan MacFadyen, Mr. N. C. Macnamara, Dr. J. W. Ogle, Dr. Isambard Owen, and Professor W. J. Simpson, M.D. It is expected that from 300 to 350 persons will be present at the banquet. The contributions promised so far amount to £10,300, but this sum does not include the money on the stewards' lists. Among the contributions are the following: H.M. Secretary of State for the Colonies, £3,550; Bishop of London, £2,000; H.M. Secretary of State for India, £1,000; the late Admiral Coote, £500; H.M. King of the Belgians (as Sovereign of the Congo Free State), £200; Robert Barnes, M.D., F.R.C.P., £100; Royal Niger Company, £100; Mr. H. Sandbach, £100; Telegraph Construction and Maintenance Company, £100; Messrs. Anderson, Anderson and Co., £52 10s.; Right. Hon. Joseph Chamberlain, £52 10s.; His Grace the Archbishop of Canterbury, £50. The school buildings are rapidly approaching completion, and it is confidently expected that they will be ready and fully equipped by the commencement of the medical year. The new wing of the Branch Hospital is also making rapid progress. All who as citizens of the empire feel the responsibilities which the "white man's burden" lays upon each of us in his degree will wish Godspeed to an enterprise which is truly of national importance.

THE GERMAN MEDICAL CONGRESS.

[FROM OUR SPECIAL CORRESPONDENT.]

(*Continued from p. 1042.*)

LEUKÆMIA AND LEUCOCYTOSIS.

PROFESSOR LOEWIT (Innsbrück) observed that endeavours had been directed towards differentiating between leukæmia and leucocytosis, as also between their respective varieties, by comparing the varying proportions of each kind of leucocyte and by localising the pathological changes in different blood-producing glands according to the form of malady. A marked proliferation of mononuclear leucocytes certainly existed in cases of leucocytosis as compared with augmented polynuclear leucocytes in the other malady. In the latter affection an excessive number of leucocytes showing abnormal evolution was often noticeable also, but, on the other hand, little knowledge had been obtained from observing the comparative frequency of myelocytes, lymphocytes, or erythrocytes. Whereas cases intermediary between leucocytosis and leukæmia existed, and whereas both might be present together, the graver affection might also appear without the milder, which latter at all times should be regarded as a symptom. The author then proceeded to relate his researches as regards various parasites discovered by himself in several forms of leukæmia. In all cases organisms belonging to the category of a cystosporoid sporozoön could be found without any colouring reagent in fresh preparations. In the myeloid form he had discovered in the peripheral blood a hæmamœba which he proposed to term the large leukæmic hæmamœba. It multiplied in the blood by the formation of spores. These amœbæ were rarely seen in the blood of the lymphæmic variety, but a similar one, which he termed "hæmamœba viva," might be found in the blood-forming organs after death. Both might exist in the organs in a third class of cases. In one case these organisms were also found in patients suffering from pseudo-leukæmia. By the above means, the disease could be artificially produced in animals, and the amœbæ could always be found; moreover, the infection was transferable from one animal to others. He had been unable to reproduce the organism outside the body, though he had little doubt that this also would shortly be accomplished.

Professor MINKOWSKI (Strassburg), who also delivered an address on this subject, approached it from the chemical and clinical point of view. After referring to nucleinic acid, he remarked that it also existed as a salt in the heads of ripe spermatozoa. Similar substances had also been produced from the bodies of bacteria, and it would appear that they were closely connected with the most important vital functions. He had directed special study to the comparison between human leucocytes and lymphocytes; in both he found the same nucleinic acid but in differing quantities. Many other substances which had been already described possessed as yet little clinical interest; of more importance were the products resulting from the death of leucocytes among which uric acid took the first place, being evidently the outcome of the disintegration of cell nuclei. Nevertheless, it must not be regarded as a direct expression of leucocyte degeneration, as food contained substances closely related to uric acid, and also because the latter was still further oxydisable. Clinically the differentiation of leukæmia and leucocytosis was most important, because the former was a progressive, incurable disease, the latter a secondary, often curable disturbance. After describing the respective symptoms, Minkowski proceeded to distinguish between (1) ordinary leukæmia with prominent splenic symptoms, (2) acute leukæmia with symptoms of a constitutional disease, and (3) the chronic form with preliminary lymphomata. Those cases in which the latter disease was complicated by leucocytosis and those in which pernicious anæmia appeared to be a forerunner of leukæmia were referred to. As regards leucocytosis, he distinguished lymphocytosis of slight clinical interest, the polynuclear variety, often the consequence of specific fevers, and the eosinophile, at present only of diagnostic importance. Leucocytosis could be artificially induced, but the experiments with spermin, cinnamic acid, nuclein, etc., in the treatment of leukæmia had as yet produced no permanent result. More promising was the attempt to strengthen the organism in the struggle against pathogenic microbes. He concluded by saying that the time had nearly arrived when Virchow's statement made fifty years ago that white blood corpuscles were of importance in pathology—might be shown to apply equally to therapeutics.

Dr. KRAUS (Prague) remarked that in view of the negative results attending the cultivation of the amœba it was not yet justifiable to ascribe the disease to the organism exclusively.

Dr. GRAWITZ (Berlin) did not consider that microscopical examination of the blood alone justified any diagnostic or prognostic conclusions. Study of the marrow had shown that the most marked change was the alteration in the shape of the leucocytes and the increased size of the lymphocytes in cases of leukæmia.

Dr. GUMPRECHT (Jena) agreed with the last speaker as to the uncertainty of the results of blood examination, but was of opinion that leukæmia was the consequence not of diminished destruction of leucocytes but of excessive proliferation. He had also noticed a frequent association between an increased excretion of uric acid and an excessive number of leucocytes.

Dr. KUEHNAU (Breslau) had observed *post-mortem* nephritis associated with leukæmia in many cases. He considered that the parenchymatous renal changes were the consequence of blocked vessels or the result of compression.

Dr. GOLDSCHEIDER (Berlin) observed that leukæmia artificially produced in animals differed clinically from what was seen in human beings, and that the conclusions drawn by Loewit were premature.

Drs. JACOB (Berlin), MANNABERG (Vienna), KROENIG (Berlin), WINKLER and TUERK (Vienna) all joined in the discussion, and directed their remarks principally to the condition of the blood as seen under the microscope and the changes undergone by the leucocytes.

Dr. LOEWIT, in reply, argued that cases of leukæmia should be divided into two categories, those depending for their cause on micro-organisms, and those not due to this cause. Clinically they would be classed as acute or chronic. He considered that excessive proliferation and destruction might coexist, accompanied by prolonged vitality on the part of the leucocytes. The parenchymatous nephritis he was disposed to regard as due to micro-organisms. Finally, he considered that in order to avoid misunderstandings due to a brief verbal communication his methods should be studied when published *in extenso*.

THE CUTANEOUS EXCRETION OF FAT.

Professor LEUBUSSCHER (Meiningen) observed that though much attention has been paid to the diminution of excretion from the sudoriparous glands and its effect in producing skin diseases, the differences presented by various individuals had not been very much noticed. By applying filter papers to several regions of the skin and covering the paper with an impermeable material the quantity of excretion at various times and under different conditions could be approximately estimated. Children excreted larger quantities of fat than adults. In the latter the amount averaged 100 grammes per week. This was hardly affected by exercise, though, of course, perspiration might increase. Fatty foods produced a slight increase, the excretion in wasting diseases was practically inestimable.

MICROBES AND INTESTINAL PUTREFACTION.

Dr. E. GANS (Carlsbad) states that decomposition of albumen led to the production of indoxyl, which combined with sulphur, forming a sulphate. Pure cultivations of bacterium coli 2 to 4 days old considerably increased the production of sulphuric ether without leading to the appearance of indican in appreciable quantity. Pure cultivations of proteus vulgaris 4 to 7 days old increased the formation of indican, while sulphuric ether was in different cases either augmented or diminished. After pure cultivations of lactic acid bacteria no indican appeared, and the effect as regards sulphuric ether varied, which again contrasted with the observation that yeast produced indican. Finally, the simultaneous administration of bacterium coli and lactic acid bacterium had a marked effect on the formation of sulphuric ether without increasing the production of indican.

THE ABSORPTION OF OXYGEN BY THE BLOOD.

Professor F. R. KRAUS (Graz) said that the results of 20 accu

rate investigations had led him to conclude that the power of the blood to absorb oxygen depended on the amount of hæmoglobin it contained. Thus 1 gram of hæmoglobin was capable of appropriating 1 gram 37 centigrammes of oxygen, and it was therefore only necessary clinically to examine the blood by spectrophotometry in order to calculate the amount of oxygen the blood of an individual was capable of absorbing. The above weight of oxygen was carefully arrived at by means of the "evacuation" method, and all experiments were made with defibrinated blood. He considered that this property of absorption was of more diagnostic importance than the estimation of the quantity of iron in the blood.

Close of the Congress.

Owing to want of time a large number of papers still remained unread. Professor Quincke, the President, in summing up the work of the meeting expressed a belief that it would form a record as regards the value and utility of the work done. After the usual vote of thanks expressed by W. Leyden, the proceedings terminated and the members adjourned until next year when the Congress will meet at Wiesbaden.

NOVA ET VETERA.

AN ARISTOCRATIC QUACK.

The tendency of the public to give credence to the pretensions of the quack, and to endow him with a sort of heaven-born genius by means of which he is able to do far more for them than the regular practitioner can effect, is of very respectable antiquity. Charlatans flourished by the side of the fathers of medicine and surgery just as they do at the present day.

An interesting episode in the annals of quackery is recorded in those fascinating memoirs of Count Grammont, which, as has been well said, "paint the chief characters of the Court of Charles the Second with an easy and exquisite pencil." John Wilmot, Earl of Rochester, was a prominent figure in that somewhat dissolute court; well educated, accomplished, and possessed of rare literary ability, he unhappily wasted his great gifts in riotous living, and could so little resist giving scope to a vein of trenchant satire that he was often in disgrace and banished from the royal presence. It is, for instance, related of him that when more or less drunk, a frequent occurrence, he handed to the King what he supposed to be a lampoon upon some of the Court ladies, but which turned out to be some satirical verses upon the King himself.

This resulted in a longer banishment than usual, and his first diversion was to instruct one of his mistresses in the art of acting, and with some success, as she afterwards became famous as Mrs. Barry. Next he came back to town and ingratiated himself with the City magnates and their wives, and this after a time palling he set up as a quack doctor on Tower Hill. The manifesto which he issued is too long and too well known for full reproduction here, but we may recall some of its more striking passages. After a preamble, in which he depreciates the regular practitioners, whom he states to have been "run out of all wisdom, learning, perspicuousness, and truth," he says that "the politician is, and must be, a mountebank in State affairs, and the mountebank no doubt, if he thrives, is an errant politician in physic." He then begins to make promises:

> First I will (by the leave of God) perfectly cure that tabes Britannica, or grand English disease, the scurvy; and that with such ease to my patient that he shall not be sensible of the least inconvenience, while I steal his distemper from him. I know there are many who treat this disease with mercury, antimony, spirits, and salts, being dangerous remedies, in which I shall meddle very little, and with great caution; but by more secure, gentle, and less fallible medicines, together with the observation of some rules in diet, perfectly cure the patient, having freed him from all the symptoms, as looseness of the teeth, scorbutic spots, want of appetite, pains and lassitude in the limbs and joints, especially the legs. And to say true, there are few distempers in this nation that are not, or at least proceed not originally from the scurvy; which, were it well rooted out (as I make no question to do it from all those who shall come into my hands), there would not be heard of so many gouts, aches, dropsies, and consumptions; nay, even those thick and slimy humours, which generate stones in the kidneys and bladder, are for the most part offsprings of the scurvy. I will not here make a catalogue of diseases and distempers; it behoves a physician, I am sure, to understand them all; but if anyone come to me (as I think there are very few that have escaped my practice) I shall not be ashamed to own to my patient, where I find myself to seek; and at least he shall be secure with me from having experiments tried upon him, a privilege he can never hope to enjoy, either in the hands of the grand doctors of the Court and Tower, or in those of the lesser quacks and mountebanks. It is thought fit that I assure you of great secrecy as well as care in diseases where it is requisite, whether venereal or others, as some peculiar to women—the green sickness, weaknesses, inflammations or obstructions in the stomach, veins, liver, spleen, etc.—for I would put no word in my bill that bears any unclean sound; it is enough that I make myself understood. I have seen physicians' bills as bawdy as Aretine's dialogues, which no man that walks warily before God can approve of; but I cure all suffocations in those parts producing fits of the mother, convulsions, nocturnal inquietudes, and other strange accidents, not fit to be set down here; persuading young women very often that their hearts are like to break for love, when God knows the distemper lies far enough from that place.....

Whether the modesty of our quack was as genuine as he would appear to wish his public to suppose may be doubted, for he also promised "present relief to unfortunate young women in all manner of diseases and all kinds of accidents incidental to the fair sex, either from too unbounded charity to their neighbours or too great indulgence to themselves." So it would seem that practices now accounted criminal were included in his repertory.

His fame was not long in spreading to the precincts of the Court, and some of the great ladies, stimulated by curiosity, sent their chambermaids to consult him as a preliminary to going themselves. Rochester, himself disguised beyond recognition, was quick to identify them, and told them some home truths: thus, Miss Temple's maid was informed that she would have the small-pox and her mistress the great within two months at the farthest, if her mistress did not guard against a man in woman's clothes—this being an allusion to a scandal current in the Court circles. Undeterred, however, many ladies of the Court visited him, and two even of the more respectable of the ladies-in-waiting actually started, disguised as orange girls, with this purpose; but, having met with some unpleasant adventures by the way, they returned without fulfilling their object.

But Rochester was equally ready, if not perhaps equally competent, to render assistance to ladies who suffered from misfortune of an opposite kind, for his manifesto continues thus:

> I have likewise got the knowledge of a great secret to cure barrenness (proceeding from any accidental cause, as it often falls out, and no natural defect; for Nature is easily assisted, difficulty restored, but impossible to be made more perfect by man than God himself had at first created and bestowed it) which I have made use of for many years with great success, especially this last year, wherein I have cured one woman that has been married twenty years, and another that had been married one-and-twenty years, and two women that had been thrice married, as I can make appear by the testimonies of several persons in London, Westminster, and other places thereabouts.
>
> The medicines I use cleanse and strengthen the womb, and are all to be taken in the space of seven days. And because I do not intend to deceive any person, upon discourse with them, I will tell them whether I am like to do them any good. My usual contract is to receive one-half of what is agreed upon when the party shall be quick with child, the other half when she is brought to bed.

The manifesto, indeed, appealed chiefly to the fair sex, possibly because Rochester's main motive in becoming a quacksalver was to attract the fair but frail ladies of the Court of Charles II. After hinting at other wonderful secrets he possessed and asserting that he had gathered them in his travels abroad, "where I have spent my time since I was fifteen years old, to this my nine-and-twentieth year," in France and Italy, the manifesto continues:

> Those that have travelled in Italy will tell you what a miracle art does there assist Nature in the preservation of beauty; how women of forty bear the same countenance with those of fifteen; ages are in no way distinguished by faces; whereas, here in England, look a horse in the mouth, and a woman in the face, you presently know both their ages to a year.
>
> I will therefore give you such remedies, that, without destroying your complexion (as most of your paints and daubings do) shall render them perfectly fair; clearing and preserving them from all spots, freckles, heats, pimples, and marks of the small-pox, or any other accidental ones, so the face be not seamed or scarred.
>
> I will also cleanse and preserve your teeth white and sound as pearls, fastening them that are loose; your gums shall be kept entire, as red as coral; your lips of the same colour, and soft as you could wish for your lawful kisses.
>
> I will likewise administer that which shall cure the worst of breath provided the lungs be not totally perished and imposthumated; as also certain and infallible remedies for those whose breaths are yet untainted, so that nothing but either a very long sickness, or old age itself, shall ever be able to spoil them.
>
> I will besides, if it be desired, take away from their fatness who have overmuch, and add flesh to those that want it, without the least detriment to their constitutions.
>
> Now should Galen himself look out of his grave and tell me these were baubles, below the profession of a physician, I would boldly answer him, that I take more glory in preserving God's image in its unblemished beauty, upon one good face, than I should do in patching up all the decayed carcasses in the world.

After this burst of eloquence, Rochester made a rapid descent to business, and wound up his manifesto with the prosaic details contained in the following paragraph:

They that will do me the favour to come to me, shall be sure, from three of the clock in the afternoon till eight at night, at my lodging in Tower Street, next door to the sign of the Black Swan, at a goldsmith's house, to find

Their humble servant,
ALEXANDER BENDO.

Whether this effusion was entirely the product of the fertile brain of Rochester, or whether he made use of existing models, it seems that he contrived to cover almost the whole ground of quack advertisement, and his successors in the field have but slavishly copied him.

In his capacity of quack doctor he became acquainted with a number of Court scandals, and it was his habit when he had amassed enough material to retire for a few days into the country to compose libels. But, like many another, he could not cure himself, and we read that "he fell into a bad habit of body, and in set fits of sickness he had deep remorses, but as he recovered he threw these off and returned to his former ill courses." He suffered from some severe and intractable ulceration, and after a lingering illness died at the age of 35. Bishop Burnet, who was much with him in the last year of his life, and pays a great tribute to his natural worth, was satisfied that had he lived he would have carried out his good resolutions. In the National Portrait Gallery portraits of Rochester and of the bishop are both to be seen; the latter, if one may judge by his portrait, was a *bon vivant* not likely to look with too severe an eye upon the foibles of his penitent.

It is interesting to note that scurvy was a disease so prevalent that it takes the first place amongst the disorders which "Alexander Bendo" undertakes to cure; and the familiar fact that at that period, and indeed much later, a large proportion of the population was marked by small-pox receives another illustration from his promise to remove its scars.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must include details of the precise character and objects of the research which is proposed and must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C.

Reports of work done by the assistance of Association grants belong to the Association.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

ERNEST HART MEMORIAL SCHOLARSHIP.

The Council are also prepared to receive applications for a scholarship of £200 for the study of some subject in the department of State Medicine in memory of the late Mr. Ernest Hart.

Applications must be sent in writing on or before June 15th, stating the particulars of the intended research, qualifications and work done.

Forms of application for the scholarships can be obtained from the General Secretary.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, May 2nd, 1899.

HOSPITAL FOR CONSUMPTION, BROMPTON.—Dr. Frederick Roberts will give the opening lecture of the summer session on Wednesday next at 4 P.M. The subject will be the Clinical Investigation of Cases of Chest Disease. The lectures are free to all students of the hospital, and to members of the medical profession. Subsequent lectures will be given on succeeding Wednesdays during May and June at the same hour.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF SPECIAL MEETING.

A SPECIAL Meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Friday, the 12th day of May next, at 2 o'clock in the afternoon, to consider the recommendation of the special meeting of the Parliamentary Bills Committee held on March 24th last respecting the Medical Acts Amendment Bill.

FRANCIS FOWKE, *General Secretary.*

429, Strand, April 18th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL.

MEETINGS of the Council will be held on July 12th and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

MIDLAND BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Derby on Thursday, June 8th. It is proposed to hold a discussion on the Local Distribution of Cancer in the area of the Branch. Members who can contribute to the discussion, or who have any other matters of scientific or professional interest to bring forward, are requested to communicate as early as possible with FRANK M. POPE, 4, Prebend Street, Leicester, Honorary Secretary and Treasurer.

DORSET AND WEST HANTS BRANCH.—The next meeting of this Branch will be held at Blandford, on Wednesday, May 10th. Messrs. Daniell, Humphrys, and Spooner will be pleased to see members and friends at luncheon at their residences before the meeting. The business meeting will be held at the Town Hall at 3.30 P.M. Agenda:—Secretaries' Accounts for 1898. Report of Election of Branch Council. Election of a Representative of the Branch on the Council of the Association. Election of a Representative of the Branch on the Parliamentary Bills Committee. Election of New Members of the Branch. Place of Summer Meeting. Communication from the Worcestershire and Herefordshire Branch of the Association respecting the Vaccination Act, 1898. Mr. Parkinson: Respecting the Midwives Bill, and to move a Resolution. Discussion: Carcinoma, to be opened by the President. Communications:—Dr. Greves: Notes of Two Cases of Gall Stones, with Remarks on Diagnosis and Treatment. Mr. Parkinson: (1) Case of Scleroderma (patient to be shown); (2) case of Congenital Absence of Anus (patient to be shown). Dr. Lawton: Four Cases of Diabetes Treated by Uranium Nitrate. Dr. Lawrie: Notes of (1) A Fibroid Tumour of the Uterus undergoing Malignant Degeneration; (2) a Case of Ectopic Pregnancy. Specimens of (1) Fibroid Tumour of Uterus with Pyosalpinx removed by Subperitoneal Hysterectomy; (2) Fibroid Tumour of Uterus with Ovarian Cystoma removed by Subperitoneal Hysterectomy; (3) Fibroid Tumour of Uterus removed by Myomectomy. Dinner at the Crown Hotel at 6 P.M. Charge, 6s. each, without wine. Members intending to be present are requested to inform Dr. Spooner by Monday, May 8th.—WILLIAM VAWDREY LUSH, M.D., Weymouth, and C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of this District will be held at the Greyhound Hotel, Croydon, on Thursday, May 11th, at 4 P.M.; Dr. S. Parsons Smith (of Croydon) in the chair. Agenda.—Minutes of Upper Norwood meeting. To decide when and where the next

meeting shall be held and to nominate a member of the Branch to take the chair thereat. Papers, etc.: Dr. Mitchell Bruce: The early diagnosis and treatment of Tuberculosis. Mr. W. J. Walsham: Some remarks on the operative treatment of various internal Derangements of the Knee Joint. Dr. William Duncan: Some practical remarks on Uterine Hæmorrhage. Messrs. Burroughs, Wellcome and Co., will show some of their recent and improved productions. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 P.M.; charge 7s., exclusive of wine. All members of the South Eastern Branch are entitled to attend, and to introduce professional friends. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner.—Henry J. Prangley, Tudor House, Anerley, S.E., Honorary Secretary.

South Eastern Branch: East Sussex District.—The next meeting will be held at the Calverley Hotel, Tunbridge Wells, on Thursday, May 11th, at 5 P.M., Mr. J. B. Footner, in the chair. Dinner at 7 o'clock. Charge 6s., without wine. The following papers have been promised: Dr. de Havilland Hall: Cardiac Failure. Mr. E. H. Myddelton-Gavey: Possible Errors of Diagnosis in Ophthalmic Cases. Dr. Starling: A note on Diphtheria. Dr. Vise will also read a paper. The Chairman will exhibit patients, and Mr. C. Lammiman will show biliary and vesical calculi. —J. W. Batterham, M.B., Bank House, Grand Parade, St. Leonards, Honorary District Secretary.

Metropolitan Counties Branch: North London Branch.—The last meeting of the session will be held at the Tottenham Hospital, The Green, South Tottenham, on Wednesday, May 10th, at 4.30 P.M. Election of officers. Dr. L. Guthrie will read a paper on Nights Terrors in Childhood and Kindred Affections. Cases of interest will be shown at the hospital. The District Committee will meet at 4.15 P.M.—H. J. Macevoy, Brondesbury, N.W., Honorary Secretary.

Shropshire and Mid-Wales Branch.—The spring meeting will be held at the Salop Infirmary, on Tuesday, May 16th, at 3 o'clock. Members who wish to bring forward any business, to read papers, to show cases or specimens, or to propose any new members, are requested to communicate with the Honorary Secretary not later than Friday, May 5th. —H. Willoughby Gardner, Swan Hill, Shrewsbury, Honorary Secretary.

Dundee and District Branch.—It has been arranged to hold the annual meeting of the Branch in University College, Dundee, on Friday, May 26th, at 3 P.M. There will be a Clinical Congress at 4 P.M., and the annual dinner will take place in the evening. Applications for membership of the Branch should be sent to Dr. Buist, Honorary Secretary, Annfield House, Dundee, without delay.

BRITISH MEDICAL ASSOCIATION.

SIXTY-SEVENTH ANNUAL MEETING.

The sixty-seventh annual meeting of the British Medical Association will be held at Portsmouth on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1899.

President: Sir Thomas Grainger Stewart, M.D., LL.D., F.R.S.E., Professor of Practice of Medicine and Clinical Medicine in the University of Edinburgh, Physician in Ordinary to Her Majesty the Queen for Scotland, Edinburgh.

President-Elect: John Ward Cousins, M.D., F.R.C.S., Senior Surgeon, Royal Portsmouth Hospital.

President of the Council: Robert Saundby, M.D., LL.D., F.R.C.P., Physician to the General Hospital, Birmingham.

Treasurer: Charles Parsons, M.D., Dover.

An Address in Medicine will be delivered by Sir Richard Douglas Powell, Bart., M.D., F.R.C.P., Physician Extraordinary to Her Majesty the Queen, Physician to Middlesex Hospital.

An Address in Surgery will be delivered by Professor Alexander Ogston, M.D., Surgeon in Ordinary to Her Majesty the Queen in Scotland, Regius Professor of Surgery in the University of Aberdeen.

The scientific business of the meeting will be conducted in twelve Sections, as follows, namely:

A. Medicine.

Grand Jury Room.

President: John Mitchell Bruce, M.D. *Vice-Presidents:* Edward James Wallace, M.D.; Robert William Burnet, M.D. *Honorary Secretaries:* William Sykes, M.D., Bury Place, Gosport; Humphry Davy Rolleston, M.D., 112, Harley Street, W.

Discussions have been arranged as follows:

1. Wednesday, August 2nd.—On the Medical Tests required at present for Admission to the Public Services. It is hoped that this will be opened by Sir J. N. Dick, K.C.B. Professor Osler, Sir Dyce Duckworth, Dr. P. Manson, Dr. J. Mitchell Bruce, Dr. R. W. Burnet, Dr. T. D. Savill, Dr. Wm. Sykes, Dr. Hill, and Dr. E. J. Wallace, have promised to take part in this discussion.

2. Thursday, August 3rd.—On the Preventive and Remedial Treatment of Tuberculosis. The discussion will be opened by Professor T. Clifford Allbutt, M.D., F.R.S. It is hoped that Sir William Broadbent, Bart., M.D., F.R.S., Sir R. Douglas Powell, Bart., M.D., Sir T. Grainger Stewart, M.D., F.R.S.E., Sir W. T. Gairdner, M.D., K.C.B., Dr. Arthur Ransome, F.R.S., Dr. F. W. Burton-Fanning, Dr. Heron, Dr. R. Robertson, Mr. A. G. S. Mahomed, Dr. Alex. G. Davey, Dr. J. E. Squire, Dr. Browning, Dr. H. Walsham, Dr. G. A. Reid, Dr. W. Morton Harman, Dr. S. T. Pruen, Dr. Frank M. Pope, Dr. R. W. Philip, Sir H. R. Beevor, and Dr. S. Rendall, will take part in the discussion.

The following papers have been offered:

Briscoe, J. F., M.R.C.S. The Practice of Bloodletting.
Haig, Alexander, M.D. Uric Acid and the Circulation: some New Methods of Estimating its Effects.
Hutchinson, Professor Woods. On the Form of the Chest in Tuberculosis and its Significance.
Johns, W. Denton, B.A., M.D. On the Open-air Treatment of Tuberculosis in England (with demonstration of cured cases).
Luff, A. P., M.D. The Gelatinous Form of Sodium Biurate and its bearing on the Pathology of Gout.
Pruen, S. T., M.D. Diet and Nutrition in the Treatment of Tuberculosis.

B. Surgery.

Banqueting Room.

President: Henry Trentham Butlin, F.R.C.S. *Vice-Presidents:* Deputy-Inspector-General Richard Samuel Purnell Griffiths, R.N.; Alfred Lloyd Owen, M.D. *Honorary Secretaries:* Henry Rundle, F.R.C.S., 13, Clarence Parade, Southsea; D'Arcy Power, F.R.C.S., 10A, Chandos Street, Cavendish Square, W.

Special discussions will be held upon:

1. The Diagnosis and Treatment of Gunshot Wounds of the Abdomen. To be opened by Colonel Stevenson, M.Ch., R.A.M.C., Professor of Military Surgery at Netley, followed by Mr. A. Barry Blacker, Dr. A. H. Robinson, Major W. C. Beevor, R.A.M.C., and others.

2. The Prevention and Treatment of Syphilis in the Navy and Army. To be opened by Deputy-Inspector-General Griffiths, R.N., Royal Naval Hospital, Haslar, and Major W. Dick, M.B., C.M., R.A.M.C., Netley, Assistant Professor of Clinical Surgery, Netley. The following gentlemen have intimated their intention to take part in the discussion: Fleet-Surgeon A. T. Corrie, R.N., Dr. C. R. Drysdale, Major F. J. Lambkin, R.A.M.C., Mr. J. E. Lane, Dr. J. MacNamara, Major McNiven, R.A.M.C., Dr. G. Ogilvie, Dr. Shaw-Mackenzie, Staff-Surgeon Lloyd-Thomas, R.N., Mr. A. H. Ward, Colonel F. H. Welch, R.A.M.C., and Staff-Surgeon A. E. Weightman, R.N.

The following papers have been offered:

Carwardine, Thos., M.S. (Title not yet communicated).
Clarke, J. Jackson, F.R.C.S. An Analysis of 100 Cases of Spinal Curvature and Disease.
Freyer, P. J., M.Ch. Recent Notes on the Surgery of Stone in the Bladder.
Hutchinson, J., jun., F.R.C.S. The Vermiform Appendix in Relation to Hernia and Intestinal Obstruction. Illustrated by lantern slides and diagrams.
Macleod, H. W. G., M.D. The Treatment of Stone in the Bladder, with Notes of some Cases operated upon.
Moynihan, B. G. A., F.R.C.S. A Series of Cases of Malignant Disease of the Stomach treated Surgically.
Ogilvie, G., B.Sc., M.B., M.R.C.P. Heredo-parasyphilis.
Rundle, H., F.R.C.S. Notes on 375 Cases of Varicocele treated by Operation.
Sheen, W., M.D., F.R.C.S. (1) A Case of Secondary Thyroid Growth. (2) A Case of Malignant Disease in the Sac of an Umbilical Hernia.
Spencer, W. G., F.R.C.S. Two Fatal Cases of Venereal Phagedæna.
Thomas, J. L., F.R.C.S. (1) Two Recent Operations upon the Gasserian Ganglion for Neuralgia by the Hailey-Krause Route. (2) A Reliable Washing Tap for Operating Rooms, with a Demonstration of a Simple Method for Irrigating the Abdomen.
Ward, A. H., F.R.C.S. On the Rational Treatment of Syphilis.
Williams, W. Roger, F.R.C.S. The Surgical Treatment of Uterine Cancer.

Dr. Jas. Mackenzie Davison and Dr. Hugh Walsham will take part in a demonstration of X-Ray Photography in its Relation to Surgery.

C. Obstetrics and Gynæcology.

Marylebone Hall.

President: George Granville Bantock, M.D. *Vice-Presidents:* John Robert Kealy, M.D.; John Wm. Taylor, F.R.C.S. *Honorary Secretaries:* Charles Plumley Childe, F.R.C.S., Cranleigh, Kent Road, Southsea; Ernest Wilmer Phillips, M.R.C.S., Victoria Crescent, Victoria Road North, Southsea; Walter Wm. Hunt Tate, M.D., 57, Queen Anne Street, W.

The subjects selected for discussion are as follows:

1. Wednesday, August 2nd.—The Treatment of Fever following Delivery, with Special Reference to Serumtherapy. To be opened by Dr. Herbert Spencer.

2. Thursday, August 3rd.—The Natural Menopause compared with *(a)* the Menopause produced by Removal of the Uterine Appendages; and *(b)* the Menopause produced by Removal of the Uterus without Removal of the Appendages. To be opened by Mr. J. Bland Sutton, F.R.C.S.

The following gentlemen have signified their intention of joining in the discussions: Professor Murdoch Cameron, Dr. John Campbell, Dr. Cushing, Dr. Handfield-Jones, Dr. Shaw-Mackenzie, Mr. Christopher Martin, Dr. Newnham, Dr. Inglis Parsons, Dr. Purslow, and Mr. Lawson Tait.

The following papers have been offered:

Cameron, Professor Murdoch. A case of Rupture of Uterus, Missed Labour, and Delivery three months later.
Campbell, John, M.D. Treatment of Acute Peritonitis.
Newnham, W. H. C., M.B. A case of very unusual Suppuration in the Pelvis after Parturition.
Parsons, J. Inglis, M.D. A New Treatment for Prolapse of the Uterus; further report of cases.
Reid, M.D. The Causes which render difficult the Labours of Civilised Women.
Shaw-Mackenzie, J. A., M.D. The Syphilitic Factor in the Diseases of Women.

It has been arranged to exhibit pathological specimens illustrative of the papers for discussion.

D. State Medicine.

Gas Offices.

President: George Wilson, M.D. *Vice-Presidents:* Surgeon-General Charles MacDonagh Cuffe, C.B.; Joseph Groves, M.B. *Honorary Secretaries:* Henry Richard Kenwood, M.B., Granville House, Alexandra Villas, Finsbury Park, N.; A. Mearns Fraser, M.B., Epworth, St. Edwards Road, Southsea.

It is proposed to hold discussions on the following:

1. Recent Vaccination Legislation and the Prevention of Small-pox.

2. The Personal Communication of Tuberculosis and the Measures available for its Prevention. The following gentlemen will take part in the discussion: Sir Henry Littlejohn, M.D., LL.D.; Professor Delépine, Dr. A. Newsholme, Mr. J. Niven, Dr. Sidney Davies.

3. The Efficiency of Existing Measures directed against the Spread of Infection in Elementary Schools. The following gentlemen will take part in the discussion: Dr. A. Newsholme, Mr. A. E. Harris, Dr. J. F. J. Sykes, Dr. Sidney Davies, Mr. Henry R. Kenwood.

The following papers have been offered:

Cantlie, James, F.R.C.S. The Early Decay of Teeth in Great Britain.
Kenwood, Henry, M.B., D.P.H., and Griffith, A., M.D., D.P.H. The Distribution of Erysipelas in London and its Significance.
Marsden, A. Sydney, M.B., D.Sc., F.R.S.E. Overcrowding in Secondary Schools.

E. Psychology.

President: David Nicolson, C.B., M.D. *Vice-Presidents:* Samuel Rutherford Macphail, M.D.; Peter William Macdonald, M.D. *Honorary Secretaries:* James Neil, M.D., Warneford Asylum, Oxford; Bonner Harris Mumby, M.D., Medical Superintendent, Boro' Asylum, Portsmouth.

The subjects selected for discussion are as follows:

1. Lunacy Legislation as it Affects the Temporary Care of Incipient Cases. To be opened by Dr. Savage.

2. The Etiological Relation of Syphilis to General Paralysis. To be opened by Dr. A. W. Campbell.

3. The Treatment of Epileptics and Imbeciles. To be opened by Dr. Shuttleworth.

The following papers have been offered:

Bramwell, J. Milne, M.B. On Some Points in Hypnotism.
Hyslop, T. B., M.D. Double Consciousness.
Macdonald, P. W., M.D., and Davidson, A., will jointly contribute a paper on Developmental General Paralysis—a preliminary contribution.
Reid, Archibald, M.B. Alcoholism in its Relation to Heredity.
Sutherland, J. F., M.D., F.R.S.E. On Legislation affecting the Property and Person of the Well-to-do Inebriate.
Weatherly, L. A., M.D. How Can We Instil Rational Ideas Regarding Insanity into the Public Mind?

F. Anatomy and Physiology.

President: John James Charles, M.D. *Vice-Presidents:* Aurelius Victor Maybury, M.D.; Andrew Francis Dixon, M.B. *Honorary Secretaries:* Edwin John Norris, M.R.C.S., May Villa, Cottage Grove, Southsea; Wm. Joseph Essery, M.B., Netley Lodge, South Parade, Southsea; Marcus Seymour Pembrey, M.D., Charing Cross Hospital, W.C.

The subjects selected for discussion are as follows:

1. The Interaction between the Ovaries and the Mammary Glands. To be opened by Mr. Stanley Boyd, F.R.C.S. The following gentlemen have promised to take part in the discussion: Dr. Amand Routh, Mr. W. G. Spencer, F.R.C.S., and others.

2. On the Exchange of Gases in the Lungs. To be opened by the President. The following gentlemen have promised to take part in the discussion: Dr. Washbourn, Mr. W. G. Spencer, and others.

The following papers have been offered:

Barrett, J. O. Wakelin, M.D. The Anatomical Structure of the Ninth, Tenth, Eleventh, and Twelfth Cranial Nerves.
Cantlie, James, F.R.C.S. The Lobes of the Liver.
Harley, Vaughan, M.D. The Value of the Large Intestine in General Metabolism.
Hunter, William, M.D. Metabolism in Acute Yellow Atrophy of the Liver.
Pembrey, M. S., M.D. Cheyne-Stokes Respiration.
Reid, G. A., M.B. The Evidence for and against the Transmission of Acquired Characters.
Russell, J. S. Risien, M.D. Experimental Observations bearing on Epilepsy.

Specimens of anatomical interest will be shown by the President and Professor A. F. Dixon.

A demonstration (microscopes and lantern slides) of the chorionic epithelium will be given by Dr. Eden.

G. Pathology.

President: Joseph Frank Payne, M.D. *Vice-Presidents:* Frederick John Driver, M.D.; Otto Jackson Kauffmann, M.D. *Honorary Secretaries:* Edmund Fauriel Trevelyan, M.D., 40, Park Square, Leeds; William Carling, M.B., 11, Rosebery Terrace, Highland Road, Southsea.

The following paper has been offered:

Reid, G. A. O'B., M.B. Effects of Heredity in Disease.

H. Ophthalmology.

President: Simeon Snell, F.R.C.S.Edin. *Vice-Presidents:* Lysander Maybury, M.D.; Edward Treacher Collins, F.R.C.S. *Honorary Secretaries:* Arthur Vernon Ford, M.R.C.S., South View Lodge, Kent Road, Southsea; Arnold Lawson, F.R.C.S., 12, Harley Street, W.

The subjects selected for discussion are as follows:

1. The Visual Tests employed in the Navy, Army, and Mercantile Marine, and their Efficiency. To be opened by Deputy-Surgeon-General Henry Cayley, F.R.C.S., I.M.S.

2. The Pathological Significance of Sympathetic Irritation and its Connection, if any, with Sympathetic Ophthalmitis. To be opened by Mr. F. Richardson Cross, F.R.C.S.

The following gentlemen have signified their intention of taking part in the discussions: Mr. G. Anderson Critchett, Professor Malcolm McHardy, Dr. George Mackay, Mr. Devereux Marshall, Mr. A. Stanford Morton.

The following papers have been offered:

Collins, E. Treacher, F.R.C.S. A lantern slide demonstration of the Changes Produced in Eyes by various Operative Procedures.
Landolt, Professor Edm. The Determination of Visual Acuity: *(a)* The Principle of its Determination; *(b)* the Tests for Visual Acuity; *(c)* Practical Demonstration.
Lawson, Arnold, F.R.C.S. The Correction of Refractive Errors in the Treatment of Trachoma.
Scott, Kenneth, F.R.C.S.Ed. (Title not yet communicated.)

Invitations to attend the meetings of the Section have been accepted by Dr. Hermann Knapp (New York), Dr. Samuel Risley (Philadelphia), Dr. de Schweinitz (Philadelphia), Dr. Theobald (Baltimore), Dr. Ayres (Cincinnati).

I. DISEASES OF CHILDREN.

President: EDMUND OWEN, F.R.C.S. *Vice-Presidents:* JAMES GREEN, M.R.C.S.; DAWSON WILLIAMS, M.D. *Honorary Secretaries:* ALFRED HERBERT TUBBY, M.S.Lond., 25, Weymouth Street, Portland Place; GEORGE AUGUSTUS TULLIS, M.D., 20, Clarence Parade, Southsea.

The subjects selected for discussion are as follows:

1. Wednesday, August 2nd.—On the Treatment of Ununited Fracture in Children. To be opened by the President of the Section.

2. The Treatment of Pleuritic Effusions in Childhood. To be opened *(a)* Medical, by Dr. Robert Maguire, and *(b)* Surgical, by Mr. H. Betham Robinson. The following gentleman will join in the discussion: Mr. J. McGaw, Mr. C. H. Milburn, and Dr. E. H. Greves.

3. Thursday, August 3rd.—The Causation and Treatment of Convulsions in Infancy. To be opened *(a)* Etiology, by Drs. J. A. Coutts and A. M. Gossage; *(b)* Pathology and Treatment, by Dr. W. S. Colman; and *(c)* Public Health Aspect, by Dr. Hugh Jones. The following gentlemen will join in the discussion: Dr. Edmund Cautley.

4. Friday, August 4th.—The Treatment of Inguinal Hernia in Infancy and Childhood. To be opened by Mr. John Langton, F.R.C.S., The following gentlemen will join in the discussion: Mr. J. Macready, F.R.C.S., Mr. Fredk. Eve, F.R.C.S., Mr. D'Arcy Power, F.R.C.S., Mr. Robert Campbell, F.R.C.S., Mr. Henry A. Whitelock, F.R.C.S., and Mr. Geo. Heaton, F.R.C.S.

The following papers have been offered:

CAUTLEY, Edmund, M.D. Abnormal Ossification of the Parietal Bone in an Infant.
EWENS, John, L.R.C.P. The Necessity of Requiring a Full Course of Lectures on Children's Diseases and Attendance at a Children's Hospital as Part of the Medical Curriculum.
HEATON, Geo., M.B., F.R.C.S. A Successful Case of Splenectomy for Rupture of the Spleen, with a Note on the Consequent Blood Changes.
LITTLE, E. Graham, M.D. Night Fevers in Children.
MORGAN, G., F.R.C.S.E. Remarks on Tuberculous Adenitis.
PARKINSON, J. Porter, M.D. The Varieties and Causes of Cough in Children, with especial reference to Practical Treatment.
PRIESTLEY, J., M.D. Infantile Hemiplegia.
SIMPSON, E. Mansell, F.R.C.S. The Treatment of Rickets in an Out-Patient Department.
STILL, G. F., M.D. Observations on the Morbid Anatomy of Tuberculosis in Childhood.

J. PHARMACOLOGY AND THERAPEUTICS.

President: JOHN BUCKLEY BRADBURY, M.D. *Vice-Presidents:* C. H. WATTS PARKINSON, M.R.C.S.; SAMUEL GOSS, M.R.C.S. *Honorary Secretaries:* JOHN EDWARD HARRY KELSO, M.B., 67, Elm Grove, Southsea; WILLIAM TUSTING COCKING, M.D., 277, Glossop Road, Sheffield.

Special papers will be read and discussions opened on the following subjects:

1. Intestinal Antiseptics and their Value. The following will take part in the discussion: Dr. P. Watson Williams, and Mr. J. Burdon.

2. Headaches and their Treatment. The following will take part in the discussion: Dr. C. W. Suckling.

3. The Constitutional Treatment of Skin Diseases. The following will take part in the discussion: Dr. Robert B. Wild, Dr. J. C. M. Given, Dr. T. Churton, and Mr. J. Burdon.

4. The X-rays in the Treatment of Skin Diseases.

K.—LARYNGOLOGY AND OTOLOGY.

President: E. CRESSWELL BABER, M.B. *Vice-Presidents:* JOSIAH GEORGE BLACKMAN, M.D.; PATRICK WATSON WILLIAMS, M.D. *Honorary Secretaries:* HERBERT TILLEY, M.D., 101, Harley Street, W.; LYSTER COLE-BAKER, M.D., Bayfield, Kent Road, Southsea; THOMAS ARTHUR MUNRO FORDE, M.R.C.S., 21, Clarence Parade, Southsea.

The following subject has been selected for discussion:

The Diagnosis and Treatment of Chronic Empyema of the Frontal Sinus.

The following papers have been offered:

NEWMAN, David, M.D. (1) Malignant Disease of the Pharynx and Œsophagus, with cases. (2) Adenoid Disease of the Vault of the Pharynx in its Relation to Tuberculosis in Children.
HORNE, Jobson, M.D. Pachydermia Laryngis.
RÖPKE, Dr. (Solingen). Author's Method of Operation on Frontal Sinus.
THORNE, Atwood, M.B. Laryngeal Vertigo, with an account of three new cases.

L.—TROPICAL DISEASES.

President: GEORGE THIN, M.D. *Vice-Presidents:* Colonel KENNETH MCLEOD, M.D.; JAMES WATSON, M.D. *Honorary Secretaries:* Fleet-Surgeon JOHN TYNDALL, R.N., Tresco, St. Ronan's Road, Southsea; JOHN ROBERT STEVENSON ROBERTSON, M.B., 5, Western Parade, Southsea.

The subjects arranged for discussion are as follows:

1. Psilosis or Sprue: its Relations (Etiological and Pathological) to other Forms of Tropical Diarrhœa, and its Treatment.

2. On Thermic Fever (so-called Siriasis), with Special Reference to its alleged Microbic Causation.

3. The Agency of Insects in Spreading Infections.

Amongst those who have consented to take part in these discussions are Dr. Thin, who will open the first subject, and Colonel Kenneth McLeod, I.M.S., the second, Major Ross, I.M.S., will be invited to open the discussion on the third, on his return from India.

The following also intend to take part in the above discussions or send papers: Dr. Patrick Manson, LL.D., F.R.C.P., Inspector-General A. Turnbull, M.D., R.N., Dr. W. J. R. Simpson, Mr. James Cantlie, F.R.C.S., Colonel Crombie, I.M.S., Fleet-Surgeon H. M. Ellis, Royal Marine Artillery, Dr. James Watson, Surgeon Andrews, M.B., R.N., Captain Hughes, R.A.M.C., and Surgeon Stalkartt, M.D., R.N.

The following papers have been offered:

ANDREWS, Surgeon, O. W., R.N. Antivenene.
HUGHES, Captain, M. L., R.A.M.C. The Geographical Distribution of Undulant (Malta) Fever.
MANSON, Patrick, M.D. Filaria Periodicity.
STALKARTT, Dr. Blackwater Fever.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 1ST, 1899.

9.30 A.M.—Meeting of 1898-99 Council.
11.0 A.M.—Church Service; Sermon by the Right Reverend the Lord Bishop of Winchester, at St. Mary's Portsea.
2 P.M.—First General Meeting. Report of Council. Reports of Committees: and other business. Town Hall.
8.30 P.M.—Adjourned General Meeting from 2 P.M. President's Address.

WEDNESDAY, AUGUST 2ND, 1899.

9.30 A.M.—Meeting of 1899-1900 Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Second General Meeting. Address in Medicine by Sir Richard Douglas Powell, Bart., M.D. Town Hall.

THURSDAY, AUGUST 3RD, 1899.

9.30 A.M.—Meeting of Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Third General Meeting. Address in Surgery by Professor Alexander Ogston, M.D. Albert Hall.
7 P.M.—Public Dinner of the Association.

FRIDAY, AUGUST 4TH, 1899.

10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Concluding General Meeting.

SATURDAY, AUGUST 5TH, 1899.

Excursions.

Honorary Local Secretaries.

C. C. CLAREMONT, M.D., 57, Elm Grove, Southsea.
C. P. RUEL, M.R.C.S., L.R.C.P., Cromwell House, Kent Road, Southsea.

ANNUAL MUSEUM.

The Annual Museum in connection with the sixty-seventh meeting of the British Medical Association will be arranged in the following Sections:

SECTION A.—Food and drugs, including prepared foods, chemical and pharmaceutical preparations, etc.

SECTION B.—Instruments comprising medical and surgical instruments and appliances, electrical instruments, microscopes, etc.

SECTION C.—Books, including diagrams, charts, etc.

SECTION D.—Sanitary Appliances and Ambulances.

A fine and well-lighted hall will this year be utilised for the purposes of the Museum. This room is 150 feet in length, and 60 feet in width, and is in close proximity to the Reception Room.

Exhibitors (other than members of the medical profession) will be charged for table, floor and wall space as follows: In Sections A, B, and C, from 2s. 6d. per square foot, depending on the position of the table; tables 3 feet and 3 feet 6 inches wide being provided. In Section D, 6d. per square foot for

floor space (all fittings to be provided by the exhibitor). Wall space (where available) will be charged for advertisements at 6d. per square foot. Section D will be held in the Swan Street Board School, a short distance from the Drill Hall.

Advertisements in Museum Catalogue.—A catalogue will be printed, and 2,000 distributed gratis to members of the Association. Prepaid advertisements, to be sent before June 20th, will be inserted. Further particulars will be sent on application.

The plans of the hall and forms of applications for space will be ready early in May.

REGULATIONS.

1. All communications on general matters connected with the Museum, and all applications for space, should be addressed to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth, before June 1st. N.B.—No space will be allotted before that date.

2. A brief description of each exhibit for insertion in the Museum Catalogue must be in the hands of the Secretary before June 20th.

3. Space will as far as possible be allotted in the order of application, and in proportion to the amount applied for, the Committee reserving power to give preference to *bonâ fide* inventions and improvements not previously exhibited, and also to refuse any exhibit they may consider unsuitable.

4. In the event of more space being applied for than is actually available, the allotment will be made at the discretion of the Committee.

5. The Committee reserve to themselves the power to utilise any of the floor space set apart for Section D (if it is not all required for sanitary exhibits) for the erection of additional tables, or for any other purpose they may think fit.

6. All exhibits should be addressed to the Secretaries of the Museum, British Medical Association, Drill Hall, Grigg Street, Portsmouth, with the name of the Section for which they are intended, with the exception of those for Section D, which should be addressed The Board School, Swan Street, Portsmouth. Packages should not be addressed to a firm's representative at the Museum.

7. All exhibits must be delivered between July 27th and July 29th, and each package must bear a card showing the name and address of the exhibitor.

8. All exhibits must be placed in the allotted space by 2 P.M. on July 31st.

9. No signs or placards will be allowed in the hall which may interfere with neighbouring exhibits. No exhibit or placard on the central tables must reach higher than 2 feet 6 inches from the table. The arrangement of signs, placards, exhibits, etc., will in every case be subjected to the approval of the Committee.

10. Intimation of the space allotted to each exhibitor will be sent as promptly as possible after June 1st, marked upon a plan. On receipt of cheque for the cost of such space, a card for the admission of the exhibit will be sent.

11. All cheques to be made payable to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth.

12. No exhibits will be received except on the understanding that the above regulations are strictly complied with.

H. RUNDLE, F.R.C.S., *Chairman*,
13, Clarence Parade, Portsmouth.
R. EMMETT, M.R.C.S., L.R.C.P.,
83, Kingston Road, Portsmouth.
JAMES MCGREGOR, L.R.C.P. & S.Edin.,
9, St. Mary's Crescent, Portsmouth.

PATHOLOGICAL MUSEUM.

Specimens of interest for exhibition in the Museum should be forwarded, addressed to the Secretary of the Pathological Museum, British Medical Association, Boys' School, Seaman's and Marines' Orphan Home, Portsmouth, during the last week in July; and a brief description of each exhibit for insertion in the Museum catalogue must be in the hands of the Secretary by June 20th. Intending exhibitors are requested to communicate with the Secretary of the Pathological Museum, Staff-Surgeon L. Lloyd Thomas, R.N., Royal Naval Depôt, Portsmouth. All specimens must be mounted ready for exhibition.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at Bath on April 26th, Dr. MARKHAM SKERRITT in the chair.

Communications.—Dr. E. J. CAVE described some recent applications of Bacteriology to Clinical Medicine, and Dr. WALDO, Dr. MELSOME, Mr. MICHELL CLARKE, Mr. PAUL BUSH, Dr. WILSON SMITH, Dr. GOODRIDGE, Dr. PARKER, Dr. SHINGLETON SMITH, and Dr. MARKHAM SKERRITT joined in the discussion which ensued.—Dr. WALDO showed two cases of Lichen Ruber Planus (1) localised, (2) generalised, and Dr. HARRISON made some remarks upon them.—Mr. C. E. S. FLEMMING read notes of a case of Hemichorea in a patient aged 65.—Mr. W. H. THORMAN showed a Knee-joint from a fatal case of Hæmophilia.—Lieutenant-Colonel BOILEAU, M.D., read a paper on Clinical Thermometry. In the discussion which ensued, Dr. MARKHAM SKERRITT, Dr. WALDO, and Dr. EAGER took part.

SPECIAL CORRESPONDENCE.

BERLIN.

The Position of District Physicians.—Medical Courts of Honour.—The Language of Medical Certificates.

THE Government Bill concerning improvements in the official position of the district physicians (*Kreisärzte*), and for the establishment of local parish Boards of Health, was read a first time in the Prussian Diet, and after a short debate passed on to a special Committee of twenty-eight members. Briefly stated, some of the main points of the Bill are: The *Kreisarzt* is henceforth to be the Government official of his district for matters of public health, and the technical adviser to the district governor (*Landrath*). He is to be under the provincial governor, and his salary is to be pensionable. At the request of the authorities he is to give his opinion on matters connected with public health; is to take part in the district committee meetings with a deliberative voice; to make proposals to the authorities for the abolition of abuses as well as for the introduction of new sanitary measures. Before the publication of new police or other regulations on matters of public health, the *Kreisarzt* is always to be consulted. In cases where delay might be dangerous to the community he is empowered to act independently, and take preliminary measures for preventing the spread of infectious diseases. In every parish of more than 5,000 inhabitants a Board of Health is to be formed, which the *Kreisarzt* is to be empowered to convene at any time. It will be seen at once that the duties which the Prussian Government proposes to assign to the district physician are extremely vague in character. He is "to advise," "to propose," he is "to be heard," "to be consulted;" he is to have a "deliberative voice" only (not a vote) in assembly. Only in cases of great urgency may he act on his own responsibility and take preliminary measures. Again, though the Bill makes his salary pensionable—thus giving him the status of a Government official—not a word is said about the amount of the salary, though the present scale is universally recognised to be miserably insufficient. Not a word either as to whether private practice is to permitted or not. Hitherto such general practice has been a *sine quâ non*, enabling the *Kreisarzt* to eke out an income; but if the new proposals become law it will hardly be reconcilable with the conscientious carrying out of all the multifarious duties of the position. In medical circles considerable dissatisfaction is felt with the Government Bill, and the Central Committee of the Prussian *Aerztekammern* (representative body of doctors) has addressed a petition to the Prussian Diet, praying that certain changes be made. The petitioners set forth that the official duties of the *Kreisarzt* are not such as can be attended to in "spare time," but that modern hygiene—both as a science and in its practical bearings—has enlarged its domain so enormously of late that the entire work of competent men should be devoted to it. For this reason, and also because an official position demands absolute independence, the petitioners ask that all but consulting practice should be forbidden to the *Kreisarzt*, and that he be fully salaried by the State. They further propose the appointment

of assistants to the *Kreisärzte*, who would thus go through a practical training for a similar post later on, and who would render help at times of extra strain and work (epidemics, etc.) No doubt the terms of this petition will have due weight with the Parliamentary Committee, and there is reason to expect that the Bill will be considerably remodelled before it returns to the "plenum" of the House for a second reading.

The Bill for the establishment of Medical Courts of Honour is likewise passing through Committee in the Prussian Diet at present, and here too some changes in the Government Bill are earnestly desired. After long debate, the insertion of the following clause was decided on by the Committee majority: "Political, scientific, and religious opinions or actions of a medical man can never be a subject of inquiry on the part of the Court of Honour." If this clause is carried through the last stages of the Bill, the chief sting will be taken out of the whole affair, and the proposed new organisation will no longer be so utterly distasteful to the majority of the profession.

In a rescript addressed to the Central Committee of the Prussian *Aerztekammern*, the Prussian Minister of Education, Dr. Bosse, requests the Committee to recommend doctors to use as few foreign words (Greek and Latin ones in especial) as possible in their written opinions and certificates, these being intended, not for members of the profession, but for courts of law, insurance societies, etc., who are not accustomed to the peculiar "diplomatic language" of medical textbooks and medical prescriptions, a language which has come down to us after centuries of an evolution all its own.

PARIS.

The Paris Hospitals.—The University of Paris and the Berlin Congress on Tuberculosis.—French First Aid Society.—Disinfection of Flats.

M. Napias, Director of the Public Assistance, in his report on "Les Services des Etablissements Hospitaliers," makes the following statements: The number of beds is utterly inadequate to the demands upon them. The sick and indigent population has increased, while the number of beds has remained stationary. A great many of the hospitals are in imminent danger, owing to their condition, of falling to pieces: others are solidly built, but are thoroughly insanitary; others are solid in some parts of the buildings, whilst in other parts are falling into decay. M. d'Echérac declares that these facts cannot be contested. The Pitié Hospital, the old Hôtel-Dieu Hospital, Saint Antoine, Cochin, Andral, Aubervilliers, Saint Louis, Broca, La Salpêtrière, etc., prove their truth.

The Council of the Paris University has decided that the Paris Medical Faculty and the Superior Pharmaceutical School are to send delegates to the Congress against tuberculosis to be held in Berlin on May 24th and 27th. The means to adopt in order to combat tuberculosis, especially among the working classes, will be specially discussed.

The Secouristes Français is a society which aims at instructing the general public in rendering first aid to people injured in accidents whilst awaiting the arrival of the doctor. This society was founded six years ago by M. Alb. Rousselet. It is recognised to be of public utility, therefore it can legally accept bequests made to it. There are in the Seine department more than thirty sections of Secouristes Français, each directed by a medical man. At Caen and Laon there are also Secouristes Français. The same society in existence at New York was founded by a Frenchman.

The Sanitary Council of the Seine discussed at a recent meeting Dr. Le Roy des Barres's report on the necessity of making compulsory the disinfecting of flats after every removal. The landlords would thus be rendered responsible. At present disinfection is not legally prescribed, even in cases of illness included in the list of notifiable diseases. It is true that the municipal disinfecting service is constantly applied to by people wise enough so to act without compulsion, but the very large section who have not this wisdom can spread infection around them. The Sanitary Commission of the 5th arrondissement, in order to guard against the danger that threatens those who occupy dwellings not disinfected by outgoing tenants after illnesses of an infectious nature has occurred, demands that disinfection of all dwellings shall be compulsory after illnesses even of a doubtful character. M. Le Roy de Barres, admitting the desirability of such a law, nevertheless, in order to obtain some improvement, advises compulsory disinfection after each case of notifiable illness.

ROME.

The Italian Red Cross in Africa during the Campaign of 1895-96.—The Health of Rome in 1898.—The Centenary of Spallanzani.

The Italian Red Cross has lately published a report of its work during the campaign in Africa, 1895-96, and in relation to the assistance of the prisoners on their return from Scioa. The report is drawn up by Professor Postempski, Medical Inspector of the First Class of the Italian Red Cross, and Surgeon-Major Di Martino. In May, 1895, the Italian Red Cross sent to Africa a hospital of war of 50 beds under the charge of Dr. Del Prete, assisted by two surgeons and later on a third. The hospital was erected at Asinara and worked there from May 10th, 1895, till May 29th, 1896, admitting 1,463 sick and wounded among the Italian, Ascari, and native soldiers; an *ambulatorio* in connection with the hospital was open during the time of peace from May 10th to October 15th, 1895, giving assistance to 2,049 patients. In view of hostilities a new type of small mountain ambulance was made, and 10 of them were sent to Africa with 9 doctors. In the days subsequent to the battle of Adua the Red Cross surgeons erected 3 stations at Adi Quala, Adi Ugri, and Mai-Haini, giving aid to 851 wounded Ascari and Italians who had escaped from Abba-Garima. During the campaign 2,523 sick and wounded were admitted into the hospital and the various infirmaries of the Red Cross, and 31,046 visits were made at the stations. All this work was done by a staff of 14 surgeons at the most. Professor Postempski, who made an inspection of the diverse services at the end of the war, says that the work of the Red Cross surgeons quite equalled that of the army surgeons. Surgeon-Major Di Martino's report deals with the return of the Italian prisoners from Scioa to the coast. The Red Cross erected stations at Loeila, Bio Caboba, and Hanar on the way to the coast, where the prisoners rested for several days, and were provided with food, clothing, and medical assistance. At Hanar, Dr. De Castro, assistant to Di Martino, made 2,726 consultations, dressings, and operations, 925 of which were on the natives. Ras Maconnen was very much interested in the treatment of the Italian doctor, and was present at some of the operations. De Castro states that the cases of disease were 1,722, while the number of soldier prisoners was 1,531, and this was due to the fact that many of them suffered from more than one disease at the same time, and nearly all of them were affected by scabies and ophthalmia. Both in the campaign in Erithaea and in Hanar, the antiseptic dressing in its simplest form (sublimate 1 in 1,000, cotton wool, iodoform) always gave good results. The natives had a great respect for the iodoform on account of its odour.

The Communal Office of Statistics has published the statistics of the health of Rome for 1898. It is a dry document containing only statistical tables, without any introductory or explanatory remarks. The mortality for 1898 was 22.7 per 1,000 living. This was the highest mortality for many years past, and was much above the mean mortality from 1885 to 1898, which was only 17.8 in the 1,000. From 1880 onwards the number of births has always exceeded the deaths. During 1898 8,947 persons died in Rome, of whom 4,897 were males and 4,070 females. The deaths in respect to age were as follows: under 5 years, 2,680; from 5 to 15 years, 439; from 15 to 20 years, 217; from 20 to 30 years, 568; from 30 to 40 years, 652; from 40 to 60 years, 1,710; from 60 to 80 years, 2,260; and 414 above 80 years. Among the 8,947 deaths there were 41 homicides and 17 suicides. The percentage of mortality is as follows: 3.11 from fatal and congenital affections, 9.34 from infective, miasmatic, and contagious diseases; 4.94 from constitutional diseases, 15.45 from diseases of the nervous system, 0.12 from diseases of the organs of the senses, 28.50 from diseases of the respiratory apparatus, 10.62 from diseases of the circulatory apparatus, 16.09 from diseases of the digestive apparatus, 4.28 from diseases of the uropoietic apparatus, 1.15 from diseases of the sexual apparatus, 0.43 from diseases caused by pregnancy and parturition, 0.99 from diseases of the skin and subcutaneous tissue, and 0.70 from diseases of the locomotor apparatus. Besides there was a percentage of 1.56 from accidental deaths, of 0.16 from poisoning, of 0.97

from suicides, and of 0.74 from deaths due to unknown causes. The population of Rome was estimated to be 500,610 on December 31st, 1898.

A committee has been appointed in Reggio Emilia for the purpose of arranging a grand *festa* in honour of the first centenary of the death of Lazzaro Spallanzani in that city to end on May 15th. He was born at Scandiano in Modena January 12th, 1729, and died at Pavia February 12th, 1799. Spallanzani studied at Bologna, took holy orders, and in 1775 was elected professor of logic, Greek, and rhetoric at Reggio. Among his works are: *Le osservazioni microscopiche sulla teoria della generazione di Needham e Buffon*, in which he defended the doctrine of biogenesis against those authors; and *Dei fenomeni della circolazione*, and *Memorie sulla respirazione*. Spallanzani was the first who saw the circulation of the blood of warm-blooded animals under the microscope. He made use of the hen's egg during the development of the chick.

CHICAGO.

Small-pox in Illinois and Indiana.—A New Hospital for Chicago.—Prevalence of Pneumonia.—The late Professor Etheridge.

THROUGHOUT both Illinois and Indiana—contiguous States—many isolated outbreaks of small-pox are reported. The disease cannot gain any great headway, as the populace generally is exceedingly fearful of the contagion, which results in the prompt segregation of all cases. Furthermore, vaccination has been quite general among all classes of people, so that a widespread protection against the disease obtains. State health authorities, acting by vested authority over local health officials, very promptly act in emergencies of this character; and as the powers conferred by law are considerable, there is usually no great difficulty in prompt isolation and compulsory vaccination.

Another addition to the hospital facilities of Chicago is soon to be undertaken. A new building, costing at least 200,000 dols., is soon to replace the present temporary structure occupied by the Wesley Hospital at the corner of Dearborn and Twenty-fifth Streets. Prominent Methodists of Chicago and vicinity have pledged 150,000 dols. for the creation of the new building on condition that an additional 50,000 be obtained by general contributions. The President of the Wesley Hospital Association says the effort to raise the 50,000 dols. has been successful and will result in the collection of at least 75,000 dols. The erection of the new building will begin as soon as the weather permits. The hospital will be a six-storey structure, built according to the latest designs in hospital architecture. It will be of brick and will have a capacity of 250 beds. The site of the building adjoins the North-Western University Medical School. The Wesley Hospital was founded by the Methodists of Chicago ten years ago, and last year it treated 404 patients. The Wesley Hospital Training School for Nurses is connected with the hospital, and it will be enlarged with the enlargement of the institution.

Pneumonia is now somewhat prevalent in the city according to the Board of Health returns. Indeed it has been learned, by viewing the compiled returns for a number of years, that pneumonia is much more prevalent during February, March, and April, than in midwinter or fall and early winter months. No doubt the cold, raw, penetrating winds of March, with a great deal of atmospheric humidity, play an important part in the increased incidence of the disease. The influenza, by the way, which has been with us more or less all the winter, is quite rapidly subsiding. No considerable development of scarlet fever or diphtheria has occurred during the cold season.

Dr. James H. Etheridge, who was Professor of Gynæcology at Rush Medical College, and whose sudden death occurred recently at the comparatively early age of 51, was a characteristic man and teacher in many respects. He was very popular with the large bodies of students who for many years have listened to him. As a teacher he was strikingly forceful and oftentimes highly dramatic. As an operator he was skilful, rapid, and bold, and was especially at his best as a clinical instructor, being able to elucidate the facts and teaching of a case with the greatest measure of value to the student. During the last few years of his life he no doubt considerably exceeded in the field of operative gynæcology the work of any of his fellows in this metropolis. His successor in the Chair of Gynæcology and in hospital operative work has not, at this writing, been appointed.

LIVERPOOL.

The Abolition of the Vaccination Stations.—Daily Visiting Trained Nurses.—The Pathological Diagnosis Society.—The School of Tropical Diseases.—Recent Appointments.—Anti-vivisectors and the Ladies' Charity.

AT the usual monthly meeting of the Liverpool Chamber of Commerce a letter was received from the Town Clerk asking the support of the Chamber for an alteration of the Vaccination Act, 1898, so as to enable the health authority to continue to maintain the vaccination stations which were in use before the Act was passed. The Health Committee are desirous of retaining the stations, and the Chamber of Commerce agreed to support the Committee.

The Committee of the Queen Victoria District Nursing Association have made arrangements for a small staff of nurses who will pay visits, attend operations, etc., at the homes of patients on payment of moderate fees. It is hoped that this arrangement will meet the wants of patients who are in a position to pay for their nursing and therefore ought not to receive the gratuitous services of the district nurses, but who do not require the exclusive services of a nurse residing in the house. The scale of fees has been fixed as low as is consistent with the maintenance of the staff in a thoroughly efficient state.

The second annual report of the Pathological Diagnosis Society, which has just been published, indicates a steady increase in the amount of work done. It contains useful directions for procuring, preserving, and transmitting pathological specimens for examination, and also announces the fact that under special agreement hospitals and infirmaries can join the Society.

It is announced that the annual subscriptions promised to the School of Tropical Diseases now amount to about £2,500.

The office of surgeon to the Infirmary for Children, rendered vacant by the resignation of Mr. R. W. Murray, who has been appointed surgeon to the Northern Hospital, has been filled by the appointment of Mr. Robert Craig Dun, formerly assistant-surgeon to the Stanley Hospital. Miss Lucy Elizabeth Cradock has resigned the appointment of medical officer to the employees in the Post Office, which she has held for several years, and has been succeeded by Miss Mary Buchanan Lee.

Some of the Liverpool antivivisectionists consider that the National Antivivisectionist Society is not sufficiently drastic in its programme, and have formed a branch of the British Union for the Abolition of Vivisection. The first annual meeting of this branch has just been held, and the chairman spoke at length upon the social peril which he contended that vivisection in all its branches had become. The speeches made by eminent men at the opening of the School for Tropical Diseases were referred to with disapproval, and the paragraph in the JOURNAL of April 22nd, referring to the arrangement between University College and the Ladies' Charity, was quoted as a warning. Now that this society has thrown off the mask, it would be as well if it would style itself the Society for the Abolition of Medical Education.

CORRESPONDENCE.

CLIMATE AND THE CURE OF CONSUMPTION.

SIR,—Although Davos has probably had more phthisical patients in it than any other health resort in the world during the last twenty-five years, yet the scientific literature dealing with the medical aspects of the "cure" there and the statistics are very limited.

Herr Heirath Dr. Turban's book, *Beiträge zur Kenntnis der Lungentuberkulose*, which has just appeared—gives some very important facts. It enables Davos to take its place in the comparative statistics which are of such great service in determining the respective merits of rival resorts and methods.

In England it is being asserted again and again that climate has nothing, or very little, to do with the cure, and patients

are told that they can be cured just as well in England as in the high Alps. The new evidence is very much against this pleasant idea. Dr. Turban shows that during seven years 66.1 per cent. of all the patients treated in the sanatorium over which he presides were absolutely or relatively cured—that is, were discharged in a normal state of health, and that from one to seven years after their discharge 48 per cent. still retained this state of health.

Of patients in the third stage, with extensive and serious disease in the lungs, 17.4 were permanently cured; while of those in the first stage, with only slight tuberculosis in one lung, 97.5 per cent., or almost all, were permanently cured.

At Falkenstein, the best known of the German lowland sanatoria, we find the number of absolute and relative cures given as 24.2 per cent., or (according to Meissen's statistics) the permanent cures were only 22 per cent.—that is, less than half the number obtained at Davos.

That these results are obtained not only in closed sanatoria at Davos is shown by the statistics of Dr. Lucius Spengler for the years 1887-1890, when 41.8 per cent. of the patients treated by him were absolutely and relatively cured—that is, nearly twice as many as at Falkenstein.

Those of us who have personally experienced the curative effect of the Davos climate are glad to see its great value thus scientifically demonstrated.—I am, etc.,

Davos Platz, April 7th. EDWARD H. DOUTY, M.A., M.D.

NURSING IN IRISH WORKHOUSES.

SIR,—Even from a psychological point of view, Dr. Davison's letters to the BRITISH MEDICAL JOURNAL on the Irish nursing question can hardly be considered interesting or logical. He considers my arguments for all practical purposes worthless. In his opinion, perhaps so, but certainly not in the opinion of others. I adduced argument after argument, and so also did Dr. McDonnell of Dundalk, to show a nurse could be trained as well, if not better, in a small hospital like a county infirmary as in a large one. I showed that in a hospital classed as clinical, or one with 140 beds and with a resident surgeon and two visiting doctors, the nurses might receive no instruction whatever. It is unnecessary to repeat in further detail the numerous arguments I made use of; I can only refer Dr. Davison to my previous letters. I am not aware of having made untrue statements; every word I wrote I am prepared to substantiate.

I repeat, neither Drs. Davison or Moorhead have had sufficient experience of infirmary nurses to condemn them as inexperienced and unfit to hold the position of charge nurse in a workhouse hospital; if I have made any erroneous statement on other branches of the case, I shall at once express regret; to do otherwise would be very reprehensible, but Dr. Davison has shown no reason to warrant his observations, and in a matter of this kind an opinion without full practical knowledge is worse than useless. If Dr. Davison is so sure of his position, why did he not attend the meeting of the North of Ireland Branch of the British Medical Association last Thursday, where the whole subject was carefully debated? As Dr. Davison states, I have lived long enough in the world to be very sceptical; he condemns me, however, for doubting his word, and proceeds in his turn to doubt mine. I know thoroughly the course of training in many of the county infirmaries, and I restate it is as effective, or more so, than in any other hospitals in Ireland. I also instanced as regards the nurses trained in the Tyrone Infirmary, that I had reports from sixty-three doctors who had employed our nurses, and in every instance the certificate given the nurse was excellent. I also stated many of the Tyrone Infirmary nurses were employed in workhouse hospitals, and in the reports received from them the result was the same.

Surely, then, the proof as regards this hospital is ample. Dr. Davison says he has nothing to do with the appointment of a nurse for his hospital. This is in a sense true, but I am confident he takes sufficient interest in the matter to know who are the candidates seeking the post, so as to be prepared if asked to advise the guardians. In a concluding paragraph of his letter Dr. Davison mentions his nurses have access to the surgery where all the dressings, lotions, etc., are kept. In most hospitals nurses are not allowed into the compounding department, but receive their medicines, dressings, lotions, etc., in baskets from the official in charge of the department. My nurses know quite well the strength of the lotions, etc., in general use, but I certainly do not permit them to compound them. In conclusion I desire to say I have no wish to be discourteous to Dr. Davison or anyone else. I have merely tried to defend the small number of county infirmaries that I know have good nursing schools from being ignored and their nurses branded as inefficient. Men may think as they like, but when they come into the open and make statements they must prove them, and this Dr. Davison has not attempted.—I am, etc.,

Omagh, April 30th. EDWARD THOMPSON, F.R.C.S.I.

THE AMENDMENT OF THE MEDICAL ACTS.

SIR,—I am extremely vexed to find that I omitted Dr. Milburn's name from my letter of April 22nd as being one of the Committee appointed to draw up the Medical Acts Amendment Bill. With regard to the letter you published last week of Mr. Lamond, there is no essential uncorrectness in my statement concerning the Eastburn case, as he seems to think; it is quite clear, from Mr. Lamond's own showing, that the case failed because the lawyers did not formulate the indictment in accordance with Section XL of the Act. I said "evidence" because it was represented to the General Medical Council that that was where the technical flaw occurred; but whether it was indictment or evidence matters nothing to my argument, which was that the case in question did not impugn in any way the usual interpretation of the Medical Act, because the case failed solely on a technical irregularity.

I hope the profession will note the very serious statement which Mr. Lamond makes in his letter, and which in effect is the same as that made by Mr. Muir Mackenzie three years ago, namely, that unless you take into consideration the personal peculiarities of the judges you are not likely to get justice on medical matters.—I am, etc.,

Cavendish Square, W., May 3rd. VICTOR HORSLEY.

SPERMINUM POEHL.

SIR,—Referring to Dr. Halliburton's letter in the BRITISH MEDICAL JOURNAL of April 29th, I should wish to say that, like him, I was quite unaware of the proposed formation of any such "International Committee" on this subject, and that the use of my name is entirely unauthorised.—I am, etc.,

Wimpole Street, W., May 1st. J. F. PAYNE.

SIR,—I notice in the BRITISH MEDICAL JOURNAL of April 29th a letter by Professor Halliburton, in which he mentions an advertisement of Poehl's spermin in which my name occurs without any authorisation whatever from me.—I am, etc.,

Stratford Place, W., May 3rd. T. LAUDER BRUNTON.

*** In connection with this matter we have received from Mr. Zimmermann a letter enclosing a copy of a letter which he has addressed to Professor Halliburton. Mr. Zimmermann states that Professor Poehl visited him to obtain his assistance in the introduction of the preparation. Mr. Zimmermann informed Professor Poehl that the printing of the names of English medical men could not be allowed, and that Professor Poehl acquiesced. Mr. Zimmermann adds that Professor Poehl informed him that the committee referred to in the circular was not in existence, but had merely been proposed by the Russian journal quoted.

THE TUBERCULIN TEST AND DAIRIES.

SIR,—It would be interesting to know the ultimate danger propagated by milch cows that react, and apparently animals successfully injected do not react at the end of a month or even longer periods, and I am informed such cows have been known to pass into strange dairies as healthy. It occurs to me that such animals should be branded; but I fear unless the Government is ready to compensate, the farmer in all cases will not make the necessary sacrifice, and the public will be lulled into a false security.—I am, etc.,

Bournemouth, May 2nd. A. KINSEY-MORGAN, M.D., etc.

MEDICAL AID ASSOCIATIONS.

SIR, As I have been given to understand that the Committee of the General Medical Council are mainly considering the relation of medical men to these medical aid associations that are connected with friendly societies, I must beg of my

professional brethren who think with me that the Committee should investigate the connection between medical men and the medical aid associations that are under the direct control of the industrial insurance companies, to send without delay particulars either to Dr. J. G. Glover or to Mr. Victor Horsley.—I am, etc.,

Cardiff, May 2nd. T. GARRETT HORDER.

SANITARY PRECAUTIONS AT BOMBAY.

SIR,—In confirmation of Surgeon-General Hamilton's letter in the BRITISH MEDICAL JOURNAL of March 18th, allow me to state what took place on board the P. and O. *Peninsular* on her last voyage home.

While passing through the Suez Canal a fireman was discovered to have high fever, and was regarded as a "suspicious case" (plague). We arrived at Port Said about midnight on March 6th, and were kept waiting there until about 3 P.M. the next day, until orders could be obtained from London. We then proceeded to Marseilles, the ship authorities being very doubtful whether or not we should be allowed to land at Marseilles.

On March 9th the captain issued a notice that the "suspicious case" was small-pox, that all precautions had been taken to prevent its spread, and that passengers could be vaccinated by the ship's surgeon. It was current rumour that the fireman was entertained only the day before the ship sailed. Were Surgeon-General Hamilton's suggestion adopted, but the period lengthened from three days to ten days (the period of observation laid down by the Venice Convention), such an occurrence would be impossible.

The *Peninsular* was full of passengers, a large number of them being children. There seems to be something very faulty in the arrangements of the P. and O., when it was possible for a presumably unvaccinated fireman to be taken on board. At Port Said the Lascar's clothing was disinfected in a steam disinfector, but so far as one could see the Lascars were allowed to bring what clothes they like to be sterilised, no one apparently exercising any supervision over their selection. In several cases I saw Lascars sorting their kit for disinfection, and putting aside some that seemed quite as dirty as what they sent to the disinfector. Had the case proved to be one of plague no one would have been allowed to land at Marseilles, and all would have to have gone round to London by long sea voyage through the Bay of Biscay and English Channel, at a time of year most trying to people fresh from a tropical climate.

I believe that, so far, no ship carrying a European crew has has had a suspicious (plague) case on board.—I am, etc.,

April 3rd. J. B. SMITH, M.B., Captain I.M.S.

THE MALARIAL PARASITE.

SIR,—In July, 1896, the BRITISH MEDICAL JOURNAL published a letter from me suggesting that the motile separated flagella of the flagellated bodies were spermatozoa, and the recent investigations of MacCullum and Ross on analogous bird parasites have helped to confirm that surmise.

As we all know now, an attack of malarial fever confers no immunity; during an attack the blood is swarmed by the parasites, and the red corpuscles attacked; a person who has had malarial fever may remove to a non-malarial district, and remain there permanently; his blood may remain there free from all appearance of the parasites for months or years, and then suddenly one day he has an attack of shivering, and another swarm is attacking his blood cells. Where has this last swarm come from? Not from without that is certain. We can hardly suppose that the germs of the parasites can remain free in the phagocytically protected, constantly changing plasma of the blood for years. Far more likely they are discharged into the blood just before their attack: and, if so, it is reasonable to suppose they have parents. One would expect to find these parents soft, transparent, and algæ-like, developing the germs within their bodies, and periodically discharging them till they exhaust themselves, or become encysted, in which last case the discharge would only take place rarely, when the pressure within was able to rupture the cyst walls or when they were accidentally ruptured. The bodies which become flagellated would then be antheridia and the separated flagella antherozoids, whilst the non-flagellogenic bodies would be gonidia. Where are the parents to be searched for? One would say in the spleen first, then the veins of the portal system, then in the remaining ductless glands.

That the parasite is polymorphic I think is beyond doubt. If parent parasites are found in the human body, they will probably be as different in appearance from the extracorporeal forms of the parasite as chalk is from cheese. Ross has found that the blood parasites develop into extraordinary snake-shaped little bodies in the bodies of certain mosquitos. But if the parasites make men's bodies their homes only accidentally, as some suppose, the prosecution of research in this direction may lead the observer, Will-o'-the-wisp like, anywhere but to the place he wants to get. We know for certain that the presence of civilised man is inimical to the parasite, and that it flourishes vigorously in uninhabited wilds.—I am, etc.,

J. H. WHELAN, M.D., R.N.,

Simons Town, Cape of Good Hope.

SYPHILITIC DISEASES: THEIR PREVENTION, STUDY, AND TREATMENT.

SIR,—I have read Mr. Lowndes's interesting letter on this subject in the BRITISH MEDICAL JOURNAL of April 15th. I notice the statement that "The London Lock Hospital has forty beds closed, not for lack of patients, but for lack of funds." This statement requires considerable modification, for during the whole time that I was resident medical officer at the Lock Hospital the beds in use were amply sufficient for the patients: in fact, they were rarely all full, and even then mainly owing to an accumulation of chronic cases. The real fact is that patients dislike the name and the place itself, and prefer to go to general hospitals or to skin hospitals, where they are treated as ordinary hospital patients, and not as criminals and outcasts.—I am, etc.,

Finsbury Square, May 4th. C. F. MARSHALL.

OBITUARY.

JUKES DE STYRAP, M.R.C.P.I.

Dr. JUKES DE STYRAP, whose death on April 9th was briefly announced a short time ago, was born at Shrewsbury on September 30th, 1815. He received his early education partly at Shrewsbury School under Dr. Butler, and afterwards privately at Stourport in Worcestershire. He obtained his medical education at King's College, London, and obtained the diplomas of M.R.C.S.Eng. and L.S.A. in 1839. He became a Licentiate of the Royal College of Physicians of Ireland in 1850, and in 1859 was appointed physician to the Salop Infirmary, a post which he retained until 1867, when he retired, and was appointed consulting physician. In 1864 he had a severe illness, and was never subsequently completely restored to health. On his retirement from practice in 1865 he was presented by the medical profession of Shrewsbury with an inkstand and a purse of 60 guineas, as a mark of appreciation for his efforts "so freely and so disinterestedly given to advance the interests of our profession." The special claim of Dr. de Styrap to grateful recognition by the medical profession rests upon the work which he did in connection with medical ethics. At the meeting of the British Medical Association in Edinburgh in 1858, a committee was appointed to prepare an expression of the duty of the members of the medical profession towards society, and in the following year the committee was reappointed, with the addition of Dr. de Styrap, then secretary of the Shropshire Branch of the Association, formed by the amalgamation of the Salopian Medico-Ethical Society, of which Dr. de Styrap had previously been secretary, with the Shropshire Branch of the Association. Dr. de Styrap was subsequently President of this Branch, and in that capacity delivered an address in 1861.

In 1876, when the Ethical Branch ceased to have an independent existence a resolution was unanimously adopted, expressing the warmest thanks to Dr. de Styrap for the indefatigable zeal and energy with which he had discharged various duties towards the Branch, and for the unsparing manner in which he had devoted his time and talent to promote the interests of his brethren and the welfare of the profession at large. At the same time a tall silver cup with cover, called the Ethical Cup

—which had been used at the annual dinners of the Branch—was presented to Dr. de Styrap with the following inscription: "Presented to Dr. Jukes de Styrap by his medical-ethical friends in token of their esteem and regard, and in grateful remembrance of work well and truly done, January 31st, 1876." The outcome of Dr. de Styrap's great interest in the subject was the publication in 1878 of a *Code of Medical Ethics*, which he had drawn up upon the basis of previously existing codes, and had submitted to many leading members of the profession at that time. A second edition was published in 1886, and a third in 1889. There can be no doubt that this *Code*, which, as Dr. de Styrap was never weary of saying, was founded upon the general principle that a man should do to others as he would that they should unto him, has been of great assistance to the profession, especially to the younger members, by indicating the course which in various emergencies and difficulties has commended itself to the approval of thoughtful men. For many years Dr. de Styrap was a frequent contributor to our pages upon such subjects, and his assistance has often been gratefully acknowledged. For many years before his death he was practically confined to the house. His last illness—during which he was attended by Mr. R. W. O. Withers—was due to influenza, complicated with broncho-pneumonia, and after ten days—during which, however, he retained his mental faculties—he succumbed to increasing weakness.

Mr. C. Leeson Prince, who died on Saturday, April 22nd, at Crowborough, Sussex, was the type of meteorologist we can ill afford to lose. He selected a certain district for his observations, and carried them out patiently and accurately for the greater part of his life, and thus on sixty years' observations he has deduced the climatology of Crowborough and Uckfield, and been able to demonstrate the remarkable advantages of the former as a high-lying station for health seekers. His meteorological journals are full of useful information, and his books are most valuable contributions to the science of meteorology. He was also fond of the literature of the ancients, and translated Aratus. He received his medical education at Guy's Hospital, became M.R.C.S. in 1843, and L.S.A. in 1844, and practised for many years at Uckfield before removing (in 1874) to Crowborough.

Dr. Louis Foucart, who was for years a resident in Sydney, New South Wales, died suddenly, in his 80th year, at Ripon, on March 25th. He was educated at the University of Glasgow, and graduated M.D. and M.S. in 1848. He became L.R.C.S.Edin. in 1849, and was elected F.R.C.S.Edin. in 1875. He was Resident Physician for many years to the Glasgow Fever Hospital, and Surgeon to the Royal Infirmary, Glasgow. He subsequently went to Sydney, where he was appointed Government Medical Officer of Health, and Quarantine Officer of Port Jackson. He retired in 1889, and came to reside in England. One incident in his long life is worthy of special mention. He was on a visit to London in June, 1850, and happened to be passing near Hyde Park Corner on the 29th day of that month at the very time when Sir Robert Peel fell from his horse. He was the first to raise the injured statesman from the ground. He accompanied him home, and was in constant attendance upon Sir Robert Peel until his death on July 2nd.

We regret to announce the death, at the age of 38, of Mr. Clement Pound, who died on March 2nd, on board the British India Steam Navigation Company's ship *Goa*, between Lamu and Aden. He was born in Hampshire, received his medical education at the Middlesex Hospital, and became L.S.A. in 1886 and L.R.C.P.Lond. in 1887, and was then appointed House Surgeon to the hospital. He succeeded to an old-established practice at Odiham, Hants, on the death of his father, Dr. George Pound, in 1893, and held several local appointments, being Medical Officer to the Odiham District of the Hartley-Wintney Union, Divisional Police Surgeon, and Medical Officer to local branches of the Foresters and other kindred societies. In May, 1898, he was unfortunately compelled by bad health to relinquish practice for a time, and was advised to take a voyage to Natal. He returned thence in October last, when he joined the British India Company as Medical Officer for the further benefit of his health. During the last visit of his ship to Zanzibar Mr. Pound contracted fever, which was followed by acute pleurisy.

Mr. Thomas Anthony Humble Dodd, who died at Newcastle-on-Tyne on April 18th, in his 76th year, was widely known and much respected in the North of England. He studied at Newcastle and at Guy's Hospital, London; and became M.R.C.S.Eng. in 1845. Few men had a better knowledge of local history, and his opinion on all matters appertaining to local natural history was much sought after on account of his thorough knowledge of this subject. His fine manly presence and gentle courteous bearing endeared him to a large circle of friends, by whom he will be greatly missed. He leaves five sons and three daughters. Of the former, three are in the medical profession—namely, Dr. T. A. Dodd, of Eldon Square, Newcastle-on-Tyne; and Majors J. R. Dodd and Anthony Dodd, of the Royal Army Medical Corps.

We regret to have to record the death at his father's house in London of Mr. Kenneth Lawson. He received his professional education at the Middlesex Hospital, where he gained the Senior Broderip Scholarship and held the appointments of House-Surgeon and House-Physician. He took the diplomas of M.R.C.S.Eng. and L.R.C.P.Lond. in 1894. He took a great interest in pathology, and became Assistant to Professor Crookshank in the Bacteriological Department of King's College. He married in 1895, and in the following year was compelled by the state of his wife's health to leave London and settle in South Africa. In 1898 he was appointed Medical Officer of Health for Kimberley, and during the short time that he was able to hold the office he succeeded in founding and equipping a bacteriological laboratory. As Kimberley did not prove beneficial to his wife he returned with her to Bournemouth, where she died in November, 1899. On Easter morning last while at her grave he exposed himself to the cold weather, and had a rigor the same night. Pneumonia developed, and though the crisis occurred on the following Sunday, he was too weak to rally, and died on the morning of April 9th. Mr. Kenneth Lawson dying at so early an age as 28, was not able to leave behind him a record of professional achievement, but his friends lose in him a comrade whose character inspired the deepest affection and respect.

Dr. Carl Ludwig Studsgaard, Surgeon in Ordinary to the King of Denmark, and Professor of Surgery in the University of Copenhagen, whose death was recently announced in the British Medical Journal, was born at Copenhagen, on December 19th, 1830. He began his professional studies in the university of his native city, and completed them abroad. In 1855 he passed the State examination, taking his Doctor's degree in 1863, the subject of his inaugural dissertation being Diffuse Osteomyelitis. During the Schleswig-Holstein campaign of 1864 he served as a surgeon with the Danish troops. In 1875 he was appointed Chief Surgeon to the Communal Hospital of Copenhagen. Among his contributions to surgical literature are papers and monographs on Gastrostomy (1879), Surgical Statistics (1891), Colotomy (1892), Internal Œsophagotomy (1892), Choledochotomy (1892); Tumours of the Mesentery (1894), and Extrauterine Gestation (1896).

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Carlo Minati, sometime lecturer on obstetrics, and during the last few years professor of the history of medicine in the University of Pisa; Dr. D. Jonquière, Emeritus Professor of Materia Medica in the University of Berne, aged 77; and Dr. Jallet, formerly professor of midwifery in the medical school of Poitiers.

The Prince of Wales's Hospital Fund for London.—The Honorary Secretaries of this Fund have issued an appeal to the public for additional subscriptions to place the Prince of Wales in a position to distribute £50,000 at the end of the current year. The present income from annual subscriptions and interest produces about half this sum.

ROYAL NAVY AND ARMY MILITARY SERVICES.

THE MEDICAL STAFF CORPS.

THE annual dinner of the Militia Medical Staff Corps was held at the Trocadero on Saturday last under the presidency of Surgeon-Lieutenant-Colonel Collingridge, the Commanding Officer. Among the guests were the Director-General Army Medical Department, Surgeon-General O'Dwyer, Colonels Allin, Grier, and Squire; Majors Bedford and Dodd.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL W. S. M. PRICE has been appointed Principal Medical Officer, Egypt, *vice* Surgeon-General H. S. Muir, M.D., who has been appointed Deputy Director-General, Army Medical Service.

INDIAN MEDICAL SERVICE.

SURGEON-LIEUTENANT-COLONEL M. B. MORIARTY, Bengal Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from July 27th, 1898. He joined the department, October 1st, 1872, and became Surgeon-Lieutenant-Colonel, October 1st, 1892.

Lieutenant-Colonel W. H. THORNHILL, M.D., Madras Establishment, is permitted to retire from the service from April 8th. He was appointed Assistant-Surgeon, October 1st, 1877, and Surgeon-Lieutenant-Colonel, October 1st, 1897. He was in the Afghan war in 1878-80 (medal), and with the Burmese Expedition in 1886-8 (medal with clasp).

Deputy Surgeon-General GEORGE ELIAS FARRELL, C.B., Bengal Establishment, retired, died in Dublin on April 28th, aged 68 years. He served in the Afghan war in 1878, and was at the action of Sapari Pass (mentioned in despatches, medal), and with the Burmese Expedition in 1886-8 as Principal Medical Officer (received the thanks of the Government of India, mentioned in despatches, medal with clasp). He was appointed a Companion of the Order of the Bath in 1886, and retired from the service in 1891.

Surgeon-General ROBERT COCKBURN, Bengal Establishment, retired, died in London on the April 30th, aged 74.

VOLUNTEER MEDICAL ASSOCIATION.

THE next class of instruction of the Volunteer Medical Association for the Proficiency Examination will commence in the middle of May. All information can be obtained from Surgeon-Captain Harper, 25, Rosary Gardens, South Kensington, S.W.

REFORM IN THE INDIAN MEDICAL SERVICE.

A CORRESPONDENT declares the measures proposed for the reorganisation of the Indian Medical Service, by the author of *Medical and Sanitary Reform in India*, to be perfectly impossible. A purely military branch of that service would be most unattractive: to fill the civil surgeoncies, except at very small stations, with natives or Eurasians, impossible. Only in a few of the largest centres of population are other than Government medical officers available. The Government servants of the different departments demand a European doctor for themselves and families. The present arrangement, therefore, seems the best.

To pretend that service in the civil department unfits medical officers for military duty is absurd, especially as all are during their first years of service, posted to that duty. The number of natives serving in the commissioned rank is so small that their presence cannot reasonably be objected to.

Doubtless some improvements in the service might be made, such as the abolition of the regimental system and the establishment of station hospitals for native troops; the increase of bacteriological research, the general improvement of sanitation, etc. These reforms can only, however, be gradually effected, without arousing the prejudices of the natives, and in view of their great magnitude and expense.

There is in India an increasing band of medical men, both European and native, who try to disparage the regular Government servants, probably with the view of ousting them from coveted appointments. Finally, our correspondent declares we are ill-informed on matters Indian medical, but we can assure him he is therein mistaken, although it must be admitted that the absolutely contradictory reports we often receive from that country constitute a serious source of difficulty. He himself admits that some reforms at all events are to be desired in the Indian Medical Service.

SENIORITY IN INDIA.

A WRITER in a military contemporary draws attention to the anomalous fact that the "Surgeon-General on the Staff of the Commander-in-Chief of the Indian Army is *often* junior in the Service to the Surgeon-Generals with the Indian Army Corps," as Surgeon General Taylor at present is to Surgeon-General McVittie of the Madras Army Corps. The position is declared to be contrary to the spirit of "Section 71 of the Army Act." But even so, if the anomaly has *often* (the italics are ours) happened before, it does not seem to have given rise to difficulty in practice, probably because the Surgeon-General with the Commander-in-Chief issues orders "by order." In any case, as the writer suggests, the difficulty would be surmounted by giving Surgeon-General Taylor a step of local rank. But what rank?

HOSPITALS AND SANITATION IN INDIA.

GENERAL SIR EDWIN COLLEN, in his memorandum on the Indian military budget regarding reforms and new expenditure, alludes to the steps which are being taken to improve the management of dairies generally with a view to supply hospitals and British troops with pure milk. While admitting the importance of sanitary measures, and that a great deal remains to be done, he adds that year by year the Government is making improvements, and endeavouring to find out defects and their remedies. More troops are stationed in the hills during the hot weather, barracks rebuilt or renewed, and a supply of good water provided at an increasing number of stations. Investigations have been specially made into the sources of water supply at various places, and the most stringent precautions taken locally to protect the men from impure water. Valuable sanitary work has been done, Sir E. Collen acknowledges, by the officers appointed for the purpose, and special investigations have been made at stations where enteric fever has been prevalent, and water supply and drainage schemes have been pushed on. The establishment of cantonment hospitals will, it is hoped, do much to mitigate the severity of "a certain class of diseases," that is, venereal. Owing to the conservancy arrangements in the cantonments of the Bombay command being of an unsatisfactory nature, measures are being taken to introduce gradually into that Command the system which has proved so useful in the Bengal and Punjab Commands. Funds have been specially provided for sanitary improvements in the important military station of Quetta. There is no allusion to proposed expenditure in improving hospital transport in war on the frontier, regarding which so many complaints arose during the Tirah campaign.

AMBULANCE WORK IN HILL WARFARE.

IN a recent number of the *Journal of the United Services of India* appears an article with the above heading contributed by an army surgeon. The author of the paper apparently brings to bear on his conclusions the experience formed during the frontier fighting of 1897-98, but his suggestion that the removal of the wounded in mountain warfare, especially during a retreat, should be carried out in the firing line by the combatants themselves, and not by helpless unreliable Kahars or dooly bearers, appears to be unsound in principle and dangerous in practice, as it would withdraw combatants from the firing line to succour the wounded. Since the Tirah expedition the subject of ambulance transport for hill warfare has, we understand, been engaging the attention of the authorities at headquarters, but with what result is as yet unknown. One other point in the article adverted to is deserving of note—namely, the indifference with which the writer of it professes to view "first aid to the wounded." He contends that if a man is going to bleed to death he will do it in despite of all first aid; otherwise that a wound is capable of taking care of itself for some hours. The foregoing contentions seem to indicate that the army surgeon who writes on the ambulance in hill warfare is of opinion that non-combatants in hill warfare should be out of the fighting line. Whether all the men who have, by regulation, undergone instruction in the use of the field dressing know its application thoroughly seems to be doubtful. One Indian paper, in commenting on these matters, says: "The fact remains that both army and medical regulations enjoin regular instruction in first aid to the wounded, and that those regulations are not complied with."

AN UNDERMANNED MEDICAL SERVICE.

SPERO writes: Your article of March 4th on the undermanning of the army medical service suggests some further remarks and statistics. The monthly *Army List* for February, 1899, shows a full pay strength of only 790, or 100 under Sir Thomas Crawford's "dangerously low" level. Out of 295 captains and lieutenants 224 are serving abroad, and only 71 at home: and of the latter 15 or so are in various billets, leaving 55 only for ordinary duties. This stamps the service as practically a foreign one, of which the juniors get no longer at home than the periods of furlough granted to the Indian Medical Service. Of the 224 serving abroad, the West African absorb 14 and the Egyptian service 12 officers. It is doubtful whether the class of candidates so much desired has yet been forthcoming, as the marks are so far below those of the Indian service. The pay of the juniors of the latter service is generally half as much again as that of the R.A.M.C. in India, and yet the former complain of inadequate pay. The reforms which should now be aimed at in the R.A.M.C. are as follows: 1. Increased numbers. 2. Larger home service; fewer moves. 3. Increased pay of juniors in India and charge pay for seniors. 4. Increased accommodation and equipment in hospitals for clinical and especially chemical and bacteriological research.

MEDICO-LEGAL.

Replies in this column are limited to questions affecting the legal interests and privileges of the medical profession at large. The column is not to be used as a medium for affording legal advice in private or personal matters as to which the applicant ought to consult his own solicitor.

THE UNAUTHORISED PUBLICATION OF TESTIMONIALS.

IN the Court of Appeal (before Lord Justice A. L. Smith, Lord Justice Vaughan Williams, and Lord Justice Romer), the case Dockrell *v.* Dougall, an appeal from a judgment of Mr. Justice Ridley in an action for libel, was heard April 26th. The plaintiff was a physician. The defendant was the proprietor of a recipe for making a mineral water called sallyco, and carried on business under the name of the Sallyco Mineral Water Company.

In April, 1897, the plaintiff, who was suffering from gout, had tried a bottle or two of sallyco, and the defendant, hearing of this, called upon him, when the plaintiff said that nothing seemed to have done his gout so much good as sallyco, but he had been taking other drugs as well, and perhaps sallyco was getting the credit of it. The plaintiff was informed of what ingredients sallyco consisted. Shortly after this, the defendant published and distributed advertisements containing the following words, which were complained of as a libel: "Dr. Morgan Dockrell, physician to St. John's Hospital, London, and many of the leading physicians are prescribing sallyco as an habitual drink. Dr. Dockrell says, 'Nothing has done his gout so much good.'" Evidence was given at the trial to the effect that the appearance of the plaintiff's name in the advertisement was detrimental to the plaintiff in his profession, as it was contrary to the rules of the hospital to which he belonged, and because it made him appear as advancing the sale of a proprietary medicine contrary to the etiquette of his profession, and would bring him into contempt with his fellow practitioners.

Two questions only were left to the jury: (1) Was the matter complained of libellous? (2) If libellous, was it true? The jury found it was not libellous, but gave no answer to the second question. Judgment was reserved for further consideration on the plaintiff's application for an injunction to restrain the defendant from continuing to publish the advertisement.

Mr. Justice Ridley gave judgment for the defendant.

Mr. Blake Odgers, Q.C., and Mr. Brooke Little, who appeared for the plaintiff, contended that an injunction could be granted either on the ground that the plaintiff had a property in his name or that he was injured in his profession. They admitted that there was no specific damage proved, but said it was shown that the publication was calculated to injure the plaintiff in his profession.

Mr. Witt, Q.C., and Mr. E. de Witt, for the defendant, were not called upon.

Lord Justice A. L. Smith, after stating the nature of the application, said that there was no finding of the jury that the statement in the advertisement was untrue. There was no finding that the statement had injured or was calculated to injure the property or the business of the plaintiff, or the plaintiff in his profession. Lord Selborne in "*In re* Rivière's Trade Mark" (*L.R.* 26, Ch.D. 48) had asked the question, "Could not a professional man be injured in his profession by having his name associated with a quack medicine?" Where was the finding that there was any injury to the the plaintiff in his profession? Not having got a finding on any one of these matters, the contention must come to this: that a man had a property in his own name *per se*. The Court only had power to decide the question raised by the appeal on the verdict as returned by the jury, and he did not care to embark upon the question whether upon other findings the plaintiff might or might not succeed.

Lord Justice Vaughan Williams concurred. It was said the plaintiff had a right of property in his own name, which had been infringed by publishing it in the advertisement, but none of the authorities supported that proposition. Then it was said that an action would lie if the user of the name was accompanied by an infringement of the plaintiff's right of property or reputation, or his professional rights. The jury had decided the question of reputation. It was clear that an action would lie if the unauthorised user of a plaintiff's name caused an injury to his rights of property in the general sense of the word, or to his rights of property in a business or profession. If the plaintiff could have proved that the defendant had stated an untruth about him which had caused him injury in his property, that would have been an actionable wrong. The plaintiff had entirely failed to prove more than a user of his name by the defendant, he failed to prove any injury done to him in his property, business, or profession. The jury found no such damage. He had added these remarks lest an erroneous idea should get about that a person might advertise that an eminent physician had recommended a quack medicine when he had done nothing of the sort. On the contrary, it seemed to him that in most cases if the facts were properly alleged and properly relied on, the unscrupulous advertiser would find he had been guilty of an actionable wrong and in such a case a jury would probably award considerable damages in addition to any remedy to which a plaintiff might be entitled.

Lord Justice Romer agreed, and the appeal was dismissed.

CORONER ON *POST-MORTEM* EXAMINATIONS.

A MEMBER forwards the accompanying cutting from the *Bradford Observer* April 25th, 1899:

"A coroner's inquiry was held at Colne yesterday into the circumcumstances of the death of James Holgate, a local preacher, retired from business, who died suddenly without previous illness. A juryman asked for medical evidence as to the cause of death. Mr. Robinson, coroner, replied: 'If you have a *post-mortem* you must have a doctor. If the doctor only sees the body after death he can give no more scientific evidence than you can. I should not like any of my relatives to be cut up and mauled by doctors.' A verdict of death from natural causes was returned."

*** If the coroner made the observations reported concerning the scientific examination of a body after death, we can only say that they are expressions which reflect no credit upon himself, and raise the question whether he is fitted to conduct inquiries into the causes of deaths. The jury should have insisted on medical evidence being called and refused to return a verdict without it. The coroner would have been compelled by law to have complied with their wishes, and to have adjourned the inquest for that purpose.

SUDDEN DEATH: NO INQUEST.

M.B. LONDON was called suddenly as he was passing to see a woman whom he found dead on the floor. No cause of death was apparent, but she was supposed to have died in a fit. Notice was sent to the coroner, who decided not to hold an inquest, and our correspondent heard nothing further.

*** It is to be presumed that the coroner caused some inquiries to be made, and had a report from the police on the death of the deceased, and possibly her previous medical attendant, if any, may have contributed some information. On consideration of all the circumstances, the coroner may have satisfied himself that the death arose from natural causes, but he should remember that the public, the friends, and others want to be satisfied also, and this can be done only by holding a public inquest, and taking evidence on oath.

CORONER AND DOCTOR.

PILULA writes: Referring to the letter concerning "Coroner and Doctor," which appeared in the BRITISH MEDICAL JOURNAL of April 29th, and your reply to same, permit me to say that if the doctor in question had not "declined to express" his opinion at the preliminary investigation, but had then supplied the information requested by the coroner, he would have been even less likely to have been summoned to the inquest. True, it is "usual" for the coroner to seek as much information (professional and otherwise) as possible previous to the inquest, but surely any doctor is ill-advised indeed to give away gratuitously those professional services for which he is legally entitled to receive one guinea. All service rendered to the coroner otherwise than under summons at the inquest is, of course, not paid for, and it is the too frequent experience of medical men to find that the coroner has coolly obtained from them beforehand sufficient professional information to satisfy his purpose, and obviate the necessity of issuing a summons, and accordingly of paying for the services received.

Now, I quite agree with the medical attendant as to the attitude he adopted in the matter he referred to; and while any points of information calculated to assist the coroner in deciding as to whether an inquest was necessary should certainly not be withheld by any person, yet any information touching the professional points of the case should, most assuredly, be strictly reserved until given at the inquest in the legal course of events. A coroner has no right to demand strictly medical opinion in any other manner.

*** Our correspondent will observe that in our comments last week we distinctly stated that there was no legal obligation which required the doctor to reply to any preliminary queries made by the coroner or his officer. It is, however, not only "usual," but distinctly the duty of the coroner, to obtain all the reliable information he can, in those cases in which he has to exercise a discretion as to the holding of an inquest or otherwise. If the medical attendant is communicated with he can also use his discretion as to the replies he makes, or the amount of information he thinks it necessary to disclose. In some counties a fee of half a guinea has been paid and allowed by the authorities for the doctor's report to the coroner in cases in which no inquest has been held, but this is exceptional. We agree with our correspondent that it is inadvisable for medical men to render professional services or give advice gratuitously which ought to be paid for.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

A DECREE was passed by Convocation on May 2nd, admitting the McGill University of Montreal to the privileges of the statute concerning "Colonial and Indian Universities."

EXAMINATION IN PREVENTIVE MEDICINE AND PUBLIC HEALTH.—An examination for the diploma in Public Health will be held in Michaelmas term, commencing Wednesday, November 22nd, 1899. The names of the candidates must be transmitted to the Secretary to the Board of Faculties, Clarendon Buildings, Broad Street, Oxford, not later than Wednesday, November 8th. The fee, which must be paid at the time of entry, is for each of the two divisions of the examination £5.

EXAMINATIONS FOR THE M.B.—The first and second examinations for the degree of Bachelor of Medicine will commence on Wednesday, June 14th, 1899. The names of the candidates must be received by the Secretary to the Boards of Faculties not later than Wednesday, May 31st.

EXAMINATION FOR THE M.S.—The examination for the degree of Master of Surgery will commence on Thursday, June 22nd, and notice must be given to the Secretary to the Boards of Faculties not later than Monday, June 5th.

UNIVERSITY OF CAMBRIDGE.

THE following is the speech delivered by the Public Orator, Dr. Sandys, of St. John's College, in presenting Sir William Turner for the honorary degree of Doctor of Science:

(1) Virum regni totius medicorum concilio praepositum, virum honoribus academicis plurimis cumulatum, etiam noster Senatus titulo suo decorare anno proximo decrevit. Inter Lancastrienses natus, inter Londinienses educatus, inter Edinenses, medicinae in schola celeberrima, quam tot coloniae Britannicæ studiorum medicorum quasi μητρόπολιν venerantur, anatomiae scientiam per annos plus quam triginta praeclare professus, non modo Universitati suae aedificiis novis instruendae operam insignem dedit, sed etiam studiorum suorum actis per seriem edendis iamdudum maxima cum laude praefuit. Idem, rerum naturae spoliis olim in Britanniam feliciter reportatis, Australasiae praesertim anthropologiam opere in magno accuratissime expositam luculenter illustravit. Nuper societatis Britannicae scientiarum finibus proferendis praeses in annum proximum designatus, ab eadem disputationibus de anthropologiae scientia etiam inter Canadenses habendis haud ita pridem praepositus, hominum omnium plausus propterea praesertim meritus est, quod simiarum superbiam recentem repressit et generis humani dignitatem veterem denuo vindicavit.

Duco ad vos generis humani vindicem, equitem insignem, anatomiae professorem illustrem, WILLELMUM TURNER.

(The President of the General Medical Council, a man laden with academic honours, our Senate decided last year further to decorate him with its title. Born in Lancashire, educated in London, a distinguished teacher of anatomy for more than thirty years at Edinburgh in the famous school of medicine which so many British colonies of medical learning venerate as their mother city, he not only rendered signal service in the erection of new buildings for his University, but for a long time most ably edited the periodical which records the work done in his own department of science. Dealing with the spoils of Nature happily brought to Britain some years ago, he shed a stream of light on anthropology, especially that of Australasia, which he most accurately set forth in an elaborate work.

Lately chosen President of the British Association for the Advancement of Science for next year, not long ago President of the Section of Anthropology at the meeting of the same Association held in Canada, he won the applause of all men, in particular because he curbed the newborn pride of the apes and once more vindicated the ancient dignity of the human race.

I present to you the vindicator of the human race, the distinguished knight, the illustrious Professor of Anatomy, William Turner.)

The Rev. Thomas Wiltshire, Emeritus Professor of Geology and Mineralogy, received the same degree, and Mr. S. R. Gardiner that of Doctor of Letters.

REDE LECTURE.—Professor Cornu, of the Paris École Polytechnique, has been appointed Rede Lecturer for the current year. The Rede Lecture will be delivered in the Senate House on June 1st, at 4 P.M.

STOKES JUBILEE.—The celebration of the fiftieth year of Sir G. G. Stokes's tenure of the Lucasian Professorship will take place on June 1st and 2nd. A large number of delegates from British and foreign universities and scientific societies will be present. Honorary degrees will be conferred on a number of representative men of science. A gold medal and an address of congratulation will be presented to Sir George by the University, and a *conversazione* in the Fitzwilliam Museum, a garden party at Pembroke, and a public banquet, will be arranged.

HISTORY OF ANATOMY.—Professor Macalister announces a course of three lectures on Eponymous Structures in Human Anatomy on May 9th, 13th, and 16th, at noon, in the Anatomical Theatre.

ZOOLOGICAL STATIONS.—Vacancies at the University's tables in the zoological stations at Naples and Plymouth are announced. Candidates desiring to pursue biological research are requested to send their names to Professor A. Newton before June 1st.

DEGREES.—At the Congregation on April 27th the following were admitted to the degrees of M.B. and B.C.:

J. L. Allen, B.A., King's; W. D. Harmer, B.A., King's; J. H. F. Jerrard, B.A., Caius; S. E. Denyer, M.B., Queens'; A. N. Walker, B.A., Queens'.

UNIVERSITY OF LONDON

AT the meeting of Convocation, to be held at the University Building on May 9th, at 5 P.M. the report of the Standing Committee will be presented by Dr. H. F. Morley. The regulations for the matriculation examination are again under review, and the Standing Committee recommended the adoption by the Senate of a syllabus in which Latin, English, mathematics (two papers each), and general elementary science (one paper) are insisted upon, together with two of the following five languages: Greek, French, German, Sanskrit, Arabic; or one of these languages and one of five sciences. This scheme would satisfy the requirements of the General Medical Council, while the present regulations fail in this respect. The proposed scheme is, moreover, sufficiently elastic to provide for all classes of pupils, in classics, mathematics, modern languages, and science. Changes in the syllabus for the Final B.A. Pass and Honours Examinations are proposed. The report states that the Committee requests the Senate to communicate to the Committee any recommendations for revision of the regulations of the M.B. and B.S. Examinations prior to their adoption. There are two vacancies on the Senate at the present time, one caused by the appointment of Lord Kimberley to be Chancellor, the other by the death of Sir William Roberts, F.R.S. Both vacancies will be filled by the Crown. Mr. Lynn will move a resolution expressing disapproval of the removal of the University to a portion of the Imperial Institute.

UNIVERSITY OF EDINBURGH.

GENERAL COUNCIL.

THE statutory half-yearly meeting was held on Wednesday, May 3rd, Principal Sir William Muir in the chair.

The Business Committee gave its report, Business and Finance Committees were elected, and the report of the Finance Committee (the most interesting part of the meeting) was presented. This report is as follows: The report stated that the University Court had resolved to alter the incidence of certain charges hitherto made upon the General University Fund, which it was believed would improve the position of that fund, which is the only one unfettered by conditions, and over which the University Court has full freedom of administration. Regret is expressed that the uniformity of administration established by the University Act of 1889, by which the University Court had power to administer and manage the whole revenue and property of the University, had been broken by the acceptance by the Senatus of the separate control and management of two recent bequests. This departure set up a dual financial administration, and distracted the Senatus from their more special educational duties, which was due to the fact that benefactors gave or left their money, not to the University Court, but tied up in such a way as to prevent the free use of the monies. The appeal issued by the Joint Committee of the Edinburgh University bodies had resulted in the receipt of funds for the building for the newly-founded department of public health, and for the cataloguing of the library. The University Court had approved the continuance of the Joint Committee to make in the future some more extended appeal, in which the requirements of the University as a whole would be placed before the public. The following figures show how far the University Court had been able to give effect to the enormously increased requirements for additional teaching power in the greatly-extended range of studies now embraced in the several curricula. The comparison was with the first year after the passing of the Act of 1889:

	1889-90.	1897-98.
Principal and professors	£39,468	£40,836
Lecturers	1,226	4,798
Assistants	5,784	6,046
Examiners	1,689	2,533
	£48,167	£54,213

Owing to the lack of funds, the University Court had been forced to adopt in many cases the system of selecting as lecturers those who were assistants also to the professors. Of the total number of lecturers, no fewer than twenty-one were also professorial assistants. The total capital funds of the University during 1897-98 were £687,133 10s. 4d., the revenue £14,150 9s. 6d., and the expenditure £79,345 11s. 4d., giving a surplus revenue of £4,804 18s. 2d. As regards the General University Fund, the revenue was £43,501 6s. 8d., and the expenditure £43,904 4s. 3d., an excess of expenditure over revenue of £402 17s. 7d.

Medical Students.—The following statement of the number of matriculated medical students during eight sessions was given:

1890-91	1,951		1894-95	1,512	
1891-92	1,852		1895-96	1,455	
1892-93	1,736		1896-97	1,419	
1893-94	1,560		1897-98	1,405	

VICTORIA UNIVERSITY.

MEETING OF CONVOCATION.

A MEETING of Convocation of Victoria University was held at Owens College, Manchester, on April 27th.

The Council and Convocation.—Professor Smithells (Yorkshire College, Leeds), who was in the chair, said that the Committee of Convocation would in future look to the representatives of Convocation sitting on the Council to communicate at their discretion any important proposals coming before the Council, previous to such proposals being decided by the Council.

Honorary and Ad Eundem Degrees.—A long discussion ensued with regard to paragraphs in the report of Convocation as to honorary and *ad eundem* degrees. In the result approval was expressed of the proposal to admit professors and lecturers to the University to *ad eundem* degrees, and the proposal to admit to degrees certain of the professors, lecturers, and officers of the University not affected by the previous proposals, was also approved.

Election of Representative on the General Medical Council.—Dr. John Brown moved: "That in the opinion of Convocation the election of the representative to the General Medical Council for the Victoria University should be by the direct vote of the medical graduates, and that the University Court is respectfully desired to give attention to this matter." He urged that the adoption of the course he proposed would create more interest in the University among the medical graduates, who at present had no voice in the selection of their representative. The motion was seconded *pro formâ*. — Dr. Sinclair hoped the resolution would be defeated and would never be heard of again in Convocation. The General Medical Council, he said, was a judicial body which was appointed to deal with medical education and to look after the interests of the public as well as those of the medical practitioner. There had never been any question as to the high ability and the entire absence of bias of the members of the General Medical Council, and if the members were elected in the manner proposed they would become squeezable in the way in which members of Parliament were squeezable, and the result would be bad for the public interest and for the medical profession also.—Dr. Wild agreed that it would be a great misfortune if the resolution were carried.—Dr. Coutts also opposed the resolution.—Dr. Brown, in reply, said that he would certainly bring forward his resolution again if defeated. The motion was lost, the mover alone voting for it.

UNIVERSITY OF DURHAM.

THIRD EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.—The following candidates have satisfied the Examiners:

Honours—Second Class.—E. T. Born, College of Medicine, Newcastle-upon-Tyne; F. P. Wigfield, College of Medicine, Newcastle-upon-Tyne.

Pass List.—Hedda Alstrom, London School of Medicine for Women; L. J. Blandford, College of Medicine, Newcastle-upon-Tyne; G. B. Brown, College of Medicine, Newcastle-upon-Tyne; H. Braund, Guy's Hospital; E. H. Cooke, St. Thomas's Hospital; J. W. Heslop, College of Medicine, Newcastle-upon-Tyne; R. T. Jupp, Mason College, Birmingham; J. W. H. Morrison, College of Medicine, Newcastle-upon-Tyne; J. R. Mitchell, College of Medicine, Newcastle-upon-Tyne; J. Macfadyen, College of Medicine, Newcastle-upon-Tyne; P. M. Perkins, St. Bartholomew's Hospital; T. B. Rhodes, Mason College, Birmingham; S. Raw, College of Medicine, Newcastle-upon-Tyne; E. Swainston, College of Medicine, Newcastle-upon-Tyne; W. W. Stainthorpe, College of Medicine, Newcastle-upon-Tyne; J. E. Sidgwick, College of Medicine, Newcastle-upon-Tyne.

ROYAL UNIVERSITY OF IRELAND.

M.B., B.Ch., B.A.O. DEGREES EXAMINATION.—The following candidate have passed the Examination:

Upper Pass.—W. Cahill, Queen's College, Cork; B. J. Hackett, Catholic University School of Medicine; E. McDonnell,* Queen's College, Cork; J. W. D. Megaw,* Queen's College, Belfast; A. Murphy, Queen's College, Cork; R. Steen,* Queen's College, Belfast.

Pass.—R. Ahern, Queen's College, Cork; P. J. Burke, Catholic University School of Medicine; P. J. Eugland, Queen's College, Cork; F. S. Irvine, Queen's College, Belfast; F. C. McKee, Queen's College, Belfast; H. J. McNabb, B.A., Catholic University School of Medicine; W. O'S. Murphy, Queen's College, Cork; R. Officer, Queen's College, Belfast; W. Paisley, Queen's College, Galway, and Belfast, and University of Edinburgh; W. Rice, Queen's College, Cork; Isobel A. Tate, Queen's College, Belfast.

M.D. DEGREE EXAMINATION.—The following candidates have passed the examination:

Pass.—Mina L. Dobbie, London School of Medicine for Women; J. P. Frengley, Catholic University School of Medicine and Private Study.

* May present themselves for the further Examination for Honours.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of the President, Vice-President, and Council on May 2nd, the following gentlemen were elected Examiners: Anatomy.—Ambrose E. I. Birmingham, Alexander Fraser. Surgery.—H. Gray Croly, F. Conway Dwyer. Physiology and Histology.—J. Alfred Scott. Charles Coppinger. Biology.—John J. Burgess. Pathology.—Arthur Hamilton White, Edward H. Taylor. Midwifery and Gynæcology.—Frederick W. Kidd. Ophthalmology.—Patrick W. Maxwell, Louis Werner. Sanitary Law and Vital Statistics.—James H. Fergusson. Bacteriology.—Arthur Hamilton White

Engineering and Architecture.—J. Charles Wilmot. Dental Surgery and Pathology.—Arthur W. W. Baker, Daniel Corbett. Mechanical Dentistry.—Shenstone J. Bishop, George W. Yeates. Chemistry and Physics.—Robert J. Montgomery, Edwin Lapper. Languages.—L. J. Woodroffe. Mathematics, Physics, Dictation, and English Essay.—John Fraser.

DATES OF EXAMINATIONS.—Preliminary—March and September. Licence in Medicine, Surgery, and Midwifery—January, April, July, and October. Diploma in Public Health—February, May, and November. Licence in Dental Surgery—February, May, and November. Fellowship—February, May, and November.

CONJOINT BOARD IN IRELAND.

THIRD PROFESSIONAL EXAMINATION.—Candidates have passed this Examination as undernoted:

In all Subjects.—L. R. More-O'Ferrall,* J. E. P. Stewart,* F. G. Fitzgerald, J. Verdon, H. G. Westropp.

Completed the Examination.—W. J. Anglim, B. McM. Coffey, W. A. Cooke, T. P. Cormack, W. C. Croly, J. Foley, S. R. Gorkin, A. H. Jacob, S. Jacob, T. F. Laughrey, G. L. N. Miles, P. J. M'Ginn, C. B. Pasley, W. Patterson, R. W. Richards, J. F. Treston, J. Whelan.

In Anatomy (Four Years.)—G. T. O'Kelly.

In Physiology and Surgery (Four Years).—F. C. Fowler.

In Medicine.—R. A. Campbell, G. Canilla, J. W. Clarke-Bayliss, C. H. Cormac, S. W. Cumming, R. A. Johnston, G. C. L. Kerans, H. W. Spaight.

In Surgery.—R. A. Campbell, S. W. Cumming.

In Pathology.—G. R. Barton, G. Canilla, R. A. Campbell, C. H. Cormac, M. Gavin, M. M. Goldfoot, D. L. Harding, R. A. Johnston, G. C. L. Kerans, J. H. O'Connell.

In Therapeutics.—J. W. Clarke-Bayliss, C. H. Cormac, G. C. L. Kerans.

In Forensic Medicine, etc.—R. A. Campbell, G. Canilla, J. W. Clarke-Bayliss, C. H. Cormac, M. Gavin, D. L. Harding, R. A. Johnston, G. C. L. Kerans.

* In honours.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have passed the examinations of the Board as undernoted:

First Examination (five years' course).—W. G. Macdonald (with distinction), E. G. Taylor, T. P. Cox, E. O. Roberts, W. J. Shorten, W. F. Holland, J. M'Manus, E. P. A. Richardson, B. W. Dakers, W. S. Nicholson, S. R. Scott, E. Eccles.

First Examination (four years' course).—T. B. Trotter, G. A. MacFarland, T. A. Fall.

Second Examination (five years' course).—J. M'Intyre (with distinction), J. W. Isbister, S. Zamiruddin, W. Thomson, J. C. Galloway, A. Fox, A. Macmillan (with distinction), A. B. Laidlaw, W. H. Duncan, J. W. Skelley, J. Stewart, A. N. Collier, J. R. Smith (with distinction), S. J. Farries, T. A. Welch, C. H. Nash, J. E. Cooper.

Second Examination (four years' course).—R. Cooper, H. J. Bell, B.A., R. Dunlop, W. Boyd, J. D. Begley.

Third Examination.—A. Scoular (with distinction), F. H. Rainbird, C. W. Sharp, P. M. Dewar, A. F. Jack, J. T. Malloch, A. D. Cameron, T. M. O'Driscoll, E. G. D. Benson, E. W. Powell, P. R. Roy.

Final Examination.—J. M. Inverarity, W. M'Farlane, A. J. Wilson, R. Staward (with honours), D. M. Macgregor, W. Denness, Louise Alice Fox, J. V. Usher-Somers, G. A. Parker, E. Hepworth, A. S. Omund, E. Hill, S. H. Smith, D. Murphy, Margaret Elizabeth M'Neill, A. S. Sieger, G. P. Barff, J. Wiglesworth.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the first or winter quarter of 1899, and to the marriages during the three months ending December last. The marriage-rate was equal to 18.6 per 1,000, and was higher than in the corresponding quarter of any year since 1877.

The births registered in England and Wales during the quarter ending March last numbered 231,511, and were equal to an annual rate of 29.6 per 1,000 of the population, estimated by the Registrar-General to be nearly thirty-one and three-quarter millions in the middle of 1899. This rate was 1.3 per 1,000 below the mean rate in the corresponding quarters of the ten preceding years. The birth-rates in the several counties ranged from 20.6 in Westmorland, 20.9 in Rutlandshire, 22.9 in Sussex, and 23.8 in Berkshire to 33.5 in Monmouthshire, 33.8 in Warwickshire and in Durham, and 35.2 in Staffordshire. In thirty-three of the largest English towns, including London, the birth-rate last quarter averaged 30.8 per 1,000, and exceeded by 1.2 the general English rate. In London the birth-rate was equal to 30.8 per 1,000, and almost corresponded with the rate in the thirty-two provincial towns, among which it ranged from 21.9 in Huddersfield, 22.6 in Bradford, 23.8 in Halifax, and 24.5 in Brighton to 35.1 in Wolverhampton, 35.2 in Sheffield, and 35.3 in Liverpool, in Sunderland, and in Gateshead.

The births registered in England and Wales during the three months ending March last exceeded the deaths by 83,814; this represents the natural increase of the population during that period. From returns issued by the Board of Trade, it appears that 35,019 emigrants embarked during last quarter, for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these 35,019 emigrants, 16,106 were English, 2,571 Scotch, and 4,096 Irish, while 12,246 others were of foreign nationality. Compared with the averages in the corresponding quarters of recent years, the proportion of English and of Scotch emigrants showed a decline, while that of Irish emigrants showed a slight increase.

During the first quarter of this year the deaths of 147,697 persons were registered in England and Wales, equal to an annual rate of 18.9 per 1,000 of the estimated population, the average rate in the corresponding quarters of the ten preceding years having been 20.9 per 1,000. The lowest county death-rates last quarter were 13.8 in Westmorland, 14.6 in Middlesex, 15.4 in Sussex, and 15.8 in Surrey; while the highest rates were 20.5 in London, 20.7 in Shropshire, 22.0 in Lancashire, and 21.5 in North Wales. In the urban population of England and Wales, estimated at twenty-one and three-quarter millions of persons, the rate of mortality during the quarter under notice was 19.5 per 1,000; while in the remaining and chiefly rural population of nearly ten millions the rate was 17.4 per 1,000. These urban and rural rates were 1.8 and 2.6 per 1,000 below their respective averages in the corresponding quarters of the ten preceding years. Among thirty-three of the largest English towns the mean death-rate was 20.6 per 1,000, or 1.7 in excess of the general English death-rate during the same period. In London the rate was 20.5 per 1,000, while it averaged 20.6 in the thirty-two large provincial towns, among which the rates ranged from 14.3 in Cardiff, 15.4 in Croydon, 16.0 in Leicester, and 16.5 in West Ham to 23.6 in Oldham, 24.3 in Preston, 25.9 in Manchester, and 26.4 in Liverpool. In sixty-seven other large towns, with an estimated aggregate population of more than four millions, the mean death-rate was 17.8 per 1,000, or 2.8 below the rate in the thirty-three great towns.

The 147,697 deaths registered in England and Wales during the three months ending March last included 3,000 which were referred to whooping-cough, 2,350 to diphtheria, 2,015 to measles, 1,314 to "fever" (including typhus, enteric, and ill-defined forms of continued fever), 1,133 to diarrhœa, 883 to scarlet fever, and 3 to small-pox; in all, 10,698 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.36 per 1,000, which was 0.35 below the average rate in the corresponding quarters of the ten preceding years. The mortality from diphtheria and "fever" showed an excess, while that from each of the other principal zymotic diseases was below the average. Of the 3 deaths from small-pox registered in England and Wales during the quarter under notice, 1 occurred in Kent, 1 in the West Riding of Yorkshire, and 1 in Cumberland.

The rate of infant mortality in England and Wales last quarter, or the proportion of deaths under 1 year of age to registered births, was equal to 137 per 1,000, and was 10 per 1,000 below the average rate in the corresponding period of the ten preceding years. In London the rate of infant mortality was 130 per 1,000, while it averaged 149 in the thirty-two large provincial towns, among which it ranged from 113 in Brighton, 118 in Croydon and in Portsmouth, 120 in Wolverhampton, and 123 in Bristol to 175 in Blackburn, 192 in Halifax, 195 in Oldham, and 219 in Preston. The mortality in England and Wales last quarter among persons aged between 1 and 60 years was equal to an annual rate of 9.6 per 1,000 of the estimated population at this group of ages, and was 1.1 per 1,000 below the mean rate in the ten preceding first quarters. In the thirty-three great towns the mortality at this age-group averaged 11.5 per 1,000, and ranged from 7.1 in Croydon, 7.8 in Leicester, and 8.0 in Brighton and in Cardiff to 13.8 in Sunderland, 15.9 in Manchester, and 16.0 in Liverpool. Among persons aged 60 years and upwards, the death-rate in England and Wales last quarter was equal to 84.0 per 1,000 of the estimated population at this age-group, against an average rate of 90.8 in the corresponding quarters of the ten preceding years. In the thirty-three great towns the rate was 95.5 per 1,000, ranging from 67.6 in Portsmouth, 68.3 in Cardiff, and 71.4 in Hull, to 114.7 in Salford, 119.0 in Preston, and 121.2 in Oldham.

The mean temperature of the air at the Royal Observatory, Greenwich, was 41.8°, and was 2.9° above the average in the corresponding quarters of 128 years; it showed an excess of 6.0° in January and of 3.1° in February, but in March it was 0.4° below the average. The rainfall during the quarter amounted to 5.07 inches, and was 0.14 of an inch above the average.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,937 births and 3,862 deaths were registered during the week ending Saturday last, April 29th. The annual rate of mortality in these towns, which had declined from 23.1 to 18.3 per 1,000 in the four preceding weeks, further fell to 17.7 last week. The rates in the several towns ranged from 11.3 in Gateshead, 12.5 in Burnley, 13.1 in Swansea, and 13.9 in Croydon, to 20.9 in Liverpool, 22.9 in Sunderland, 23.2 in Manchester, and 27.6 in Wolverhampton. In the thirty-two provincial towns the mean death-rate was 18.1 per 1,000, and was 1.2 above the rate recorded in London, which was 16.9 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the death-rate was equal to 1.7 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.7 in Blackburn, 3.1 in Salford, 4.4 in Manchester, and 4.7 in Wolverhampton. Measles caused a death-rate of 1.9 in Bolton and in Salford, and 2.5 in Manchester; scarlet fever of 1.0 in Derby and 1.1 in Halifax; whooping-cough of 1.3 in Hull, 1.4 in Cardiff and in Burnley, 1.6 in Plymouth, and 1.8 in Birkenhead; and "fever" of 1.8 in Wolhampton. The 61 deaths from diphtheria in the thirty-three towns included 26 in London, 10 in Sheffield, 6 in Leeds, 4 in Leicester, and 4 in Manchester. One fatal case of small-pox was registered last week in Hull, but not one in any of the thirty-three large towns; and 3 small-pox patients were under treatment in the Metropolitan Asylum Hospitals on Saturday last, April 29th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,126 and 2,144 at the end of the two preceding weeks, had declined to 2,131 on Saturday last; 226 new cases were admitted during the week, against 150, 163, and 189 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 29th, 1,091 births and 644 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 23.3 to 18.1 per 1,000 in the four preceding weeks, rose again to 21.1 last week, and

was 3.4 per 1,000 above the mean rate during the same period in the thirty three large English towns. Among these Scotch towns the death-rates ranged from 17.0 in Edinburgh and 17.9 in Greenock to 22.8 in Glasgow and 28.8 in Perth. The zymotic death-rate in these towns averaged 2.5 per 1,000, the highest rates being recorded in Glasgow and Leith. The 322 deaths registered in Glasgow included 21 from measles, 3 from scarlet fever, 3 from diphtheria, 11 from whooping-cough, 4 from "fever," and 5 from diarrhœa. Three fatal cases of measles and 3 of whooping-cough were recorded in Edinburgh; 6 of whooping-cough in Leith; and 5 of measles in Aberdeen.

COMPLAINTS TO GUARDIANS AGAINST DISTRICT MEDICAL OFFICERS.

WE have received a report of a recent meeting of the Pewsey (Wilts) guardians, at which a long letter written by a clergyman was read, implying that there was habitual neglect of the pauper patients in his parish by the district medical officer, and at the same time setting up the writer's own opinion as to treatment against that of the medical attendant. This letter was by direction of the guardians forwarded to Dr. Farquhar, the district medical officer in question, who was asked for his observations thereon. Dr. Farquhar's reply was read to the Board, and appears to have given satisfaction to the guardians, as it was decided that no further action need be taken in reference to the matter.

This case, together with others of a somewhat similar character, leads us to fear that far too many charges of this kind are made against district medical officers, though perhaps sometimes the writer may be actuated by what he considers to be good motives. Clergymen, however, should remember that it is no part of their duty to supervise the work of the parochial surgeons, though many evidently think that such is the case. We apprehend that these gentlemen would object to have their own parochial work supervised by any one except those specially appointed for the purpose, and we venture to suggest that this privilege should be conceded to others as well as to themselves. An occasional suggestion to a district medical officer made by any parishioner in a friendly spirit would, we believe, always meet with attention; but habitual and unnecessary interference, especially if accompanied by disapproval of the treatment adopted, can do no possible good, and may fairly be described as the result of "bad taste." It is a great satisfaction to find that Dr. Farquhar was able so easily to disprove the charges which had been made against him.

DIPHTHERIA AT LONGTON AND FENTON.

DURING the latter part of 1896, 1897, and the first quarter of 1898, diphtheria was very prevalent in the urban districts of Longton and Fenton in Staffordshire. Dr. W. W. E. Fletcher has furnished a report on the subject to the Local Government Board. From this we gather that neither in Longton or Fenton was there any reason to attribute the prevalence of the disease, or its continuance, to any contamination of the milk or water supply of the districts. In Longton the death-rate from diphtheria, which previous to 1896 was something under 0.1 per 1,000, rose to 2.9 per 1,000 in the first quarter of 1898. This great rise in the mortality and prevalence of the disease over a protracted period of nearly three years showed either insufficient measures for repression or some local conditions exceptionally favourable to its maintenance and distribution of infection. It was ascertained that personal infection had been a main factor in the distribution of the disease, and this took place largely at the schools, since the larger number of cases at first occurred among the children of school age. The closing of the schools for long periods was followed by a great diminution in the number of notified cases. The absence of proper isolation in hospital, and the consequent nursing of patients in their own homes, led to a considerable excess of cases among females. In Fenton, though the number of cases notified was not so large, the mortality was much higher than in Longton, but the reason of this was not obvious. More effective isolation in hospital and more stringent regulation of school attendance were enforced in Fenton; but here, too, the main factor in the spread of the disease was personal infection.

CERTIFICATION OF LUNATICS FOR DETENTION IN WORKHOUSES

DISTRICT MEDICAL OFFICER writes to ask whether he is obliged to fill up a form for detention of a pauper lunatic in a workhouse, and this without a fee?

*** No district medical officer can be compelled to certify for any patients in a workhouse, but if he does certify for the detention of any lunatic therein, he is entitled to a proper fee for doing so. The Council of the Poor-law Medical Officers' Association some years back resolved that half a guinea would be a suitable fee for this duty.

HOSPITAL AND DISPENSARY MANAGEMENT.

CORK DISTRICT LUNATIC ASYLUM.

THE annual report for 1898 shows that the total number of patients under treatment was 1,712 (906 were males and 806 females). There were 306 patients admitted (185 males and 121 females), and 252 were discharged or died. The average annual increase in the number of patients for the last ten years has been 44, and during the last year it was 54 (45 men and 9 women). The inspectors express the opinion that the increase of insane under official cognisance must continue till the unregistered insane throughout the country have been absorbed. Dr. Oscar Woods, the medical superintendent, corroborates this statement by drawing attention to the fact that 100 chronic and hopelessly incurable patients were admitted during the year, and he adds that there is little doubt that the number of chronic patients admitted is increasing. A more unfavourable, and indeed a serious, fact also must be reckoned with, for Dr. Woods is of the opinion that the official returns would show that there is some ground for asserting that insanity is on the increase, the number of first admissions having sprung up from an average of 228 to 252. Of the cases discharged, the recoveries were 37.3 per cent. calculated on the admissions and the deaths, 7.4 calculated on the daily average number resident. One striking fact deserves special mention; of the 107 deaths only 1 died from general paralysis, while during the last five years only 3 cases of this disease came under notice. Another startling fact is that 26 per cent. of the male and 40 per cent. of the female population died of phthisis. How much the very serious overcrowding in the asylum is responsible for this does not appear, but considering the undoubtedly communicable nature of the disease, it affords ground for serious reflection, although Dr. Woods, fully realising the gravity of the situation, is doing his best to isolate all phthisical patients as much as possible in an institution overcrowded to the alarming extent of 228 patients. This overcrowding may also have been, in part at least, responsible for the list of nine serious casualties recorded by the Inspector of Lunatics at his visit, for he remarks that in going through the divisions he was struck (not for the first time) with the insufficient day-room accommodation for the acute and excitable patients, a class who need plenty of elbow room.

ST. PANCRAS AND NORTHERN DISPENSARY.

THE annual report for 1898 shows an increase of over £3 on the receipts over those of the previous year, with a coincident decrease in expenses exceeding £37; but, notwithstanding, the expenditure during the year exceeded the receipts by more than £52. The Committee regrets having to report the resignations of several honorary medical officers: Dr. Younger, Dr. O. Moore Jessop, who for fourteen years had been a member of the staff, and the senior physician during the greater part of that period, and Dr. Andrew Elliot. Dr. Jessop has been appointed a consulting physician. The vacancies thus created have all been filled. The cases treated during the year amounted to 4,961, with 34 deaths.

THE MARY WARDELL CONVALESCENT HOME FOR SCARLET FEVER.

THE annual report for 1898 of this Home, which stands on the borders of Stanmore Heath, Middlesex, is chiefly occupied by details of the fire which consumed the store cottage and servants' rooms in May last. The payment made by the Royal Insurance Company and contributions of friends have about replaced the losses. The patients admitted came from all parts of London and the suburbs, and during the year numbered 169, of whom 7 and 1 nurse contracted diphtheria in the Home, and 1 patient had erysipelas. One of the cases of diphtheria was fatal. The total ordinary expenditure for the year was £2,108, and of the extraordinary expenditure £743 (being for repairs £300, expenses in connection with the fire £93, and loan repaid to the bankers £350). An effort is being made to raise £2,000 in order to clear off the debt on the Home and provide for necessary repairs.

INDIA AND THE COLONIES.

INDIA.

KASHMIR MISSION HOSPITAL REPORT FOR 1898.—The annual report of the Kashmir Mission Hospital gives an account of the large amount of medical and surgical work accomplished during the year. There were 994 surgical in-patients, and 2,918 operations were performed with only 9 deaths; 703 operations were for various forms of eye disease, the larger number being for entropion and cataract. New growths are fairly common in Kashmir, and several large sarcomata were successfully removed. The number of medical in-patients was only about one-sixth of the surgical. The climate of Kashmir does not specially favour or induce any specific form of disease, those met with being the same as are most common in Europe. Malaria is quite rare on account of the altitude of the country; rickets also is rare, while scarlet fever and diphtheria are quite unknown. Parasitic skin diseases are universal, and digestive disturbances are very frequent, due, it is said, to the large amount of starchy food in the dietary. Bronchitis and rheumatism are very common in the winter; phthisis, pneumonia and pleurisy are rarely met with. At the State Leper Hospital 137 patients were under treatment during the year; of these 22 were women, and 6 children. In only 2 cases was there a history of leprosy in any relatives. In consequence of the large and increasing amount of medical and surgical work the hospital accommodation has been overtaxed, and already a new building is in progress to provide a new ward for 25 patients, and additional administrative offices.

NEW SOUTH WALES.

THE EFFECTS OF PROTECTIVE INOCULATION AGAINST TICK FEVER ON MEAT AND MILK.—The Principal Assistant Medical Officer of the Government of New South Wales has furnished a report on the effects produced on the meat and milk of cattle inoculated against tick fever. It deals first with the natural history of tick fever and details the result of experiments in the protective inoculation against the virus. These show that this procedure involves the setting up of a disease, which is attended by a certain number of deaths and in all cases by modified tick fever lasting 4 to 9 weeks. The effect of this illness upon the meat and milk of cattle inoculated are described. Examination of the meat from cattle killed during the illness showed it to be pale, flabby, and lacking in fat, but with no appearance of disease; and when the illness passed off the animals again became fat and in good condition, so that the deteriorating influences only acted during the period of ill-health following upon the inoculation. As regards the milk, average calculations showed a diminution in quantity for 7 to 10 days, but no alteration in the quality; the absence of any injurious effect from the use of the milk taken during the febrile period was proved by the consumption of the milk for drinking and domestic purposes by several persons without any ill effects.

THE Prince of Wales's Hospital Fund for London has received a cheque for £1,000 from Mr. J. B. Robinson as a donation.

MEDICAL NEWS.

Successful Vaccination.—Mr. J. Osborne Blunden, Public Vaccinator for the Neston District of the Wirral Union, has been awarded the Government grant for efficient vaccination.

French Hospital and Dispensary.—The thirty-first anniversary dinner in aid of the funds of this institution will take place at the Hotel Cecil on May 6th, when the chair will be taken by His Excellency the French Ambassador, supported by the Lord Mayor and the Sheriffs of London.

Epsom College.—Among recent successes of Epsom boys are to be chronicled an Exhibition for Mathematics at Jesus College, Oxford, gained by A. G. J. Alderson, a son of Dr. F. H. Alderson; and a Mathematical Demyship at Magdalen College, Oxford, by W. T. Wood. Mr. G. E. H. Ellis, an old Epsom boy, has taken a first class in Classical Moderations.

The annual meeting and May dinner of the Aberdeen University Club will be held at the Trocadero Restaurant on Wednesday, May 17th, at 7 P.M., when Sir James Sivewright, K.C.M.G., will take the chair. Members wishing to attend are requested to communicate with the Honorary Secretary, J. Gerard Laing, B.A., 2, Brick Court, Temple, E.C., or Dr. James Galloway, 54, Harley Street, W.

National Registration of Plumbers.—The annual meetings of the East and West of Scotland District Councils were held last week in Edinburgh and Glasgow respectively. Sir James Russell, M.D., who presided over the former, said that registration was necessary to secure for the public the benefits to be derived from increased competency of plumbers, and a diminution in the amount of preventable disease and death.

The Sultan and his Surgeon.—The *Frankfurter Zeitung* relates an extraordinary story about Emin Pacha, the Chief Surgeon to the Sultan of Turkey. He is said to have been charged, on information given by his wife, of plotting against the Sultan. Although it is generally believed that the lady's action was prompted by the wish for a separation from her lawful spouse, it is thought likely that Emin Pacha will be condemned to lifelong banishment.

The Metric System.—At the meeting of the Reading Pathological Society, the following resolution, proposed by Dr. Abram, and seconded by Dr. Jamieson B. Hurry, Honorary Secretary, was passed unanimously: "(1) That the Reading Pathological Society is of opinion that the metric system should be definitely adopted in the next edition of the *British Pharmacopœia*. (2) That the Honorary Secretary be instructed to communicate the above resolution to the General Medical Council."

The Food of the German Soldier.—The German soldier used to be given only two meals daily, namely, breakfast and dinner. The latter meal was given at eleven o'clock in the day, and from that hour till breakfast the following morning he had nothing to eat except what he was able to provide out of his own pocket. On January 1st, 1897, however, a step forward was made, and the soldier was given two evening meals in the week; the further additional meal for the remaining five days has now been granted, and for the future the German soldier will be served daily with a substantial evening meal.

Treatment of Inebriety at Rickmansworth.—In some respects the latest annual report of the Dalrymple Home at Rickmansworth is the most satisfactory of the series of fifteen yearly reports which have been issued by the Homes for Inebriates Association. Financially, the previous frequent tale of a deficit was last year succeeded by the cheering announcement of a profit of £106. This is specially gratifying, as any profits earned go to the improvement and extension of the undertaking, which has proved a successful experiment for the encouragement of more recently founded scientific efforts at the sound treatment of inebriety. There has also been an unusually large number of patients in the home, but this has arisen from more discharges and shorter periods of residence, not from the average number at any time having been higher; the increased number has been due chiefly to the erroneous belief, fostered by the exploiters of secret so-called "cures," that long residence in a special institution is unnecessary. As the respectable aggregate of 518 patients has passed through the Dalrymple Home, it is encouraging to learn that over one-third are doing well or have improved, though many of the cases were of long standing, the average age of addiction before reception having been 7½ years. In 31 instances the liquor indulged in was wine, and in 8 beer. There were 8 cases of addiction to morphine and cocaine, and 1 case of absinthe. The Committee congratulate their late medical superintendent, Dr. R. W. Branthwaite, on having been appointed inspector of inebriate reformatories under the Act of 1898, and announce that they have appointed Dr. F. S. D. Hogg to be his successor.

Medical Progress in Siam.—In a most interesting article a special correspondent in a recent issue of the *Times* records gratifying improvement in the general condition of the Siamese kingdom. The writer says that in Bangkok some attempt has been made at sanitation in deference to the persistent advice of English health officers; roads have been cut and trees planted; latrines have been put up and refuse collected, and improved hospital accommodation provided. But there is no water supply, and in this great city of more than 400,000 inhabitants the people have to drink the polluted and often brackish river water. Thousands of lives are every year sacrificed to the Menam waters. There is a Belgian physician to the King of Siam, but the health officers are British. Progress, it is believed, would be more rapid but for two chief causes (1) the multitude of advisers with which the King has surrounded himself, and (2) the masses of Asiatics who have been admitted to foreign protection.

The Temperature of the Soil.—At the last meeting of the Royal Meteorological Society Mr. H. Mellish read a paper on the observations of the temperature of the soil at various depths which had been at the stations of the Society. The observations, which at some stations went back to 1881, had been made at depths of 3 inches, 6 inches, 1 foot, 2 feet, and 4 feet. At nearly all stations the annual temperature at 1 foot was slightly higher than that of the air, though in winter there was little difference. In the summer months the soil at one foot was generally warmer than the air, the difference exceeding 3° at several stations. Mr. Mellish showed that on the mean for the year the light soils were 1° warmer than the air, while the "strong" were only 0.2° warmer. He is of opinion that it might be expected that wider extremes of temperature would be found near the surface in light soils than in strong ones, but that the heavier soils were better conductors of heat, and that consequently the extremes were propagated to greater depths in heavy soils than in light ones.

American Public Health Association.—The twenty-seventh annual meeting of the American Public Health Association will be held at Minneapolis, Minnesota, from October 31st to November 4th, 1899. The Executive Committee has selected the following subjects for consideration: The pollution of water supplies; the disposal of garbage and refuse; animal diseases and animal food; car sanitation; steamship and steamboat sanitation; the etiology of yellow fever: the relation of forestry to the public health: demography and statistics in their sanitary relations: the cause and prevention of infectious diseases: public health legislation; the cause and prevention of infant mortality; the period during which each contagious disease is transmissible, and the length of time for which each patient is dangerous to the community: sanitation, with special reference to drainage; plumbing, and ventilation of public and private buildings; method of international arrangement for protection against the transmission of infectious diseases; disinfectants; to examine into the existing sanitary municipal organisations of the countries belonging to the Association with a view to report upon those most successful in practical results; laboratories; to define what constitutes an epidemic; national leper home; revision of classification of diseases; dangers to the public health from illuminating gas leakage. Upon all these subjects special committees have been appointed to report. But this vast and comprehensive programme does not exhaust the energies of the Association, and it is intimated that papers will be received upon other sanitary subjects.

MEDICAL VACANCIES.

The following vacancies are announced :—

BARROW-UPON-SOAR, BILLESDEN, BLABY GRETTON, HALLATON, HINCKLEY, PUTTERWORTH, MONKS KIRBY, OAKHAM, AND UPPINGHAM RURAL DISTRICTS, AND THE MELTON MOWBRAY, THURMASTON, AND WIGSTON MAGNA URBAN DISTRICTS.—Medical Officer of Health for the said Districts. Salary £450 per annum. Applications to Geo. A. Badycote, Clerk to the Joint Committee, Putterworth, by May 10th.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer; unmarried. Salary, £100 per annum, with board and apartments. Applications to the Secretary by May 15th.

BEDFORD COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum, with apartments, board, lodging, and washing. Applications to the Secretary by May 15th.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Appointment for six months. Apartments, complete board and washing provided, and honorarium at the rate of £12 12s. per quarter. Applications, endorsed "House Physicians," to the Treasurer, Bridewell Hospital, New Bridge Street, E.C., by May 15th.

BIRMINGHAM: MASON UNIVERSITY COLLEGE.—Professor of Pathology and Bacteriology. Applications to the Secretary by May 31st.

BIRMINGHAM: QUEEN'S HOSPITAL.—(1) House-Physician. Appointment for one year. Salary £50, with board, lodging, and washing. (2) An Obstetric and Ophthalmic House Surgeon. Appointment for six months. Salary £10, with board, lodging, and washing. Applications to the Secretary by May 24th.

BIRMINGHAM: ROYAL ORTHOPEDIC AND SPINAL HOSPITAL.—Honorary Surgeon. Applications marked outside, "Application for Post of Honorary Surgeon," to the Honorary Secretary, 9, Bennett's Hill, Birmingham, by June 1st.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Resident House-Surgeon. Salary £65 per annum, with board, lodging, and washing. Applications to the Secretary by June 10th.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by May 8th.

CARLISLE DISPENSARY.—Resident Medical Officer. Salary £130 per annum, with apartments. Applications to the Honorary Secretary, Mr. G. A. Lightfoot, 14, Bank Street, Carlisle, by May 10th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Junior House Surgeon. Salary at the rate of £50 per annum. Applications to the Secretary by May 11th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Medical Officer for the Casualty Department. Appointment for six months, but renewable. Salary at the rate of £100 per annum. Luncheon provided. Applications to the Secretary by May 13th.

ERPINGHAM UNION.—Two District Medical Officers. Salaries £41 per annum, and the usual extra medical fees. Must reside within the districts. Applications to the Clerk to the Guardians, Northrepps, Norwich, by May 17th.

GLAMORGAN COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £130, rising to £150, with board, lodging, and washing. Applications to the Medical Superintendent by May 13th.

GROVE HALL ASYLUM, Bow, E.—Junior Assistant Medical Officer. Salary £120 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Appointment for six months. Salary £30. Applications to the Secretary by May 13th.

KING'S COLLEGE, W.C.—Assistant Dental Surgeon at King's College Hospital. Applications to the Secretary.

LANCASHIRE COUNTY ASYLUM, Whittingham.—Pathologist. Salary £200 per annum, with apartments, board, washing, and attendance. Also Locum Tenens for four or five months (not exceeding 30 years of age). Salary £2 2s. a week. Applications to the Medical Superintendent.

LEEDS: GENERAL INFIRMARY.—One House-Surgeon and one House Physician, for twelve and six months respectively. Board, lodging, and washing provided. Applications to the Secretary to the Faculty by May 28th.

LIVERPOOL STANLEY HOSPITAL.—Honorary Assistant-Surgeon. Applications to the Honorary Secretary by May 16th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Remuneration at the rate of £50 per annum, with residence, board, and washing. Applications to the Secretary by May 20th.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Ophthalmic Surgeon and an Honorary Assistant Physician. Applications to the Secretary by May 20th.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—Surgeon. Application to the Secretary by May 13th.

NORTH STAFFORDSHIRE INFIRMARY AND EAR HOSPITAL, Hartshill, Stoke-upon Trent.—Assistant House-Surgeon. Board, apartments, and washing provided. Applications to the Secretary by May 15th.

READING: ROYAL BERKS HOSPITAL.—Vacancy on Medical Staff. Applications to the Secretary by May 8th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months, when re-election is required. Salary at the rate of £100 per annum, with furnished apartments, board, and washing. Applications to the Secretary by May 16th.

ROYAL ORTHOPEDIC HOSPITAL, 247, Oxford Street, W.—House-Surgeon and Registrar. Salary, £.00 per annum, with partial board and residence. Appointment for six months, but eligible for re-election. Applications to the Secretary by May 20th.

ST. ANDREWS UNIVERSITY.—Professor of Pathology. Application to the Secretary of the University by June 21st.

ST. MARYLEBONE GUARDIANS.—Non-Resident Assistant Medical Officer for Dental purposes at the Schools at Southall. Salary £50 per annum. Applications to the Clerk to the Guardians' Offices, Northumberland Street, Marylebone Road, W., by May 15th.

STOCKPORT INFIRMARY.—Junior Assistant House Surgeon. Salary, £2 per mensem, with board, washing, and residence. Applications to the Secretary by May 16th.

TIVERTON UNION.—Medical Officer and Public Vaccinator for the Halberton and Sampford Peverell Districts. Salary £50 per annum, and fees. Applications to the Clerk by May 15th.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fifth Assistant Medical Officer. Salary £100 per annum, increasing to £150, with board, etc. Applications to the Medical Superintendent by May 16th.

MEDICAL APPOINTMENTS.

AITCHISON, T., M.B., C.M.Edin., appointed Medical Officer for the Willington Quay District of the Tynemouth Union.

ASHWIN, R. H., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Second Market Wichton District of the Pocklington Union.

BALLACHEY, H. H., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Adderley and Gausworth District of the Macclesford Union.

BOWER, George, L.R.C.P., L.R.C.S., D.P.H., appointed Clinical Assistant to the Chelsea Hospital for Women.

CAMERON, John, M.B., Ch.B.Edin., appointed House-Surgeon to the Central London Ophthalmic Hospital.

CLIFT, S. Leonard, M.D.Brux., M.R.C.S., L.R.C.P., appointed Medical Officer to Out-patients at the Royal Victoria Hospital, Bournemouth.

COLES, R. A., M.A., M.B., appointed Medical Officer for the Fifth District of the Bridge Union.

DEMPSEY, Martin, M.D., appointed Visiting Physician to the Mater Misericordiæ Hospital, Dublin, *vice* M. A. Boyd, deceased.

FOULERTON, Alex, G. R., F.R.C.S., D.P.H., appointed Lecturer on Public Health at the Middlesex Hospital Medical School.

GUNN, Albert A., M.B., Ch.B., appointed Junior House-Surgeon at the Blackburn and East Lancashire Infirmary.

HAWLEY, F. H., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the Caverswall District of the Cheadle Union.

LANDER, F. J., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of the No. 1 District, Nottingham Union.

MARTIN, James S., M.B., C.M.Edin., M.R.C.S., L.R.C.P.Lond., appointed House Surgeon to the Rotherham Hospital.

MATHIAS, R., M.A., M.B., appointed Medical Officer for the Pentyrch District of the Cardiff Union.

MORETON, T. W. E., B.A.Camb., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Tarvin District of the Tarvin Union.

NORWELL, J. S., M.B.Edin., appointed Assistant Surgeon to the Perth Royal Infirmary, *vice* William Robertson, M.D. Alas., resigned.

PERKINS, H. B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Barking District of the Romford Union.

STARR, Ewen Carthew, F.R.C.S.Eng., appointed Surgeon to Out-patients at the Great Northern Central Hospital, *vice* Peyton T. B. Beale, F.R.C.S.Eng.

STEWART, Parker, M.B., B.Sc., appointed District and Dispensary Surgeon of the Perth Royal Infirmary, *vice* William Robertson, M.D.Glasg., resigned.

TAIT, J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Sharnbrook District of the Bedford Union, *vice* C. Hicks, L.R.C.P., L.R.C.S.Edin., resigned.

WILSON, A. Garrick, M.R.C.S.Eng., L.R.C.P.Lond., appointed Junior Out-patient Surgical Officer to the Royal London Hospital, Moorfields, E.C.

WYNTER, Walter Essex, M.D., F.R.C.P., appointed Lecturer on Pharmacology and Therapeutics at the Middlesex Hospital Medical School.

DIARY FOR NEXT WEEK.

MONDAY.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Mr. Lennox Browne: Ozæna.

Medical Society of London, 8 P.M.—General Meeting for the Election of Officers and Council for Sessions 1899-1900. 8.30 P.M., Ordinary Meeting. Mr. Bruce Clarke: Encysted Calculi in the Urinary Bladder, with an account of 20 cases. Mr. Frederic Eve: Two Cases of Resection of the Large Intestine—Recovery.

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: Chorea and Choreiform Movements.

Royal Medical and Chirurgical Society, 8.30 P.M.—Dr. F. J. Poynton: Rheumatic Pericarditis. Dr. A. E. Garrod: A Contribution to the Study of Alkaptonuria.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Beevor: Myopathies.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 P.M.—Clinical Demonstration.

Hospital for Consumption, Brampton, 4 P.M.—Dr. Frederick Roberts: The Clinical Investigation of Cases of Chest Disease.

THURSDAY.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Dr. Dundas Grant: Clinical Anatomy and Physiology of the Ear.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to 3.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Mr. Stanley Boyd: Demonstration of Surgical Cases.

British Gynæcological Society, 8.30 P.M.—Specimen—Dr. H. Snow: Large Mammary Intracystic Sarcoma. Papers—Mr. J. W. Taylor, Birmingham: The Treatment of Gonorrhœal Salpingitis. Dr. John Campbell, Belfast: A Case of Pyosalpinx in which one of the tubes contained 19 ounces of pus.

Brixton Medical Society, 9 P.M.—Mr. Percy Dunn: On some points in the Treatment of Iritis.

FRIDAY.

Clinical Society of London, 8.30 P.M.—Dr. Hale White and Mr. Golding-Bird: Three additional cases of Right Colotomy for Chronic Colitis. Dr. St.Clair Thomson: Chronic Empyema of the Maxillary Sinus, undoubtedly of two years' and probably of seven years' duration associated with inveterate cough and periodical headache; completely cured in eight weeks by simple drainage through the alveolus. Mr. Mark Hovell and Mr. F. Eve: Cases illustrating the Pathology and Treatment of Chronic Suppuration of the Maxillary Sinus.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

JERVIS-PEREIRA.—On March 24th, at Lisbon (Portugal), the wife of Dr. A. A. Jervis-Pereira, surgeon-in-Chief to the Delagoa Bay Railway, Lourenço Marques, of a son.

SUTHERLAND.—At Kingsley House, Golspie, N.B., the wife of D. G. Sutherland, M.B., B.Sc.Edin., of a son.

WALKER.—On April 27th, at Hill Road, Wimbledon, the wife of George Walker, M.R.C.S., L.R.C.P., of a son (stillborn).

MARRIAGES.

ALEXANDER—WOODWARD.—On May 3rd, at St. Clement Danes, by the Rev. J. J. H. S. Pennington, M.A., James Whitelaw Alexander, M.R.C.P., L.F.P.S., The Lodge, Armley, Leeds, second son of the late Thomas Alexander, M.D., F.F.P.S.Glasgow, to Laura Woodward, niece and adopted daughter of the late James and Margaret Alexander, Grove House, Ripon.

LEEDHAM-GREEN—LEES.—On April 12th, at the Wesleyan Church, Somerset Road, Handsworth, by the Rev. Richard Green, Governor of Didsbury College, father of the bridegroom, assisted by the Rev. W. L. Watkinson, and the Rev. W. J. Moulton, Charles Albert Leedham-Green, M.D., F.R.C.S., to Edith Lascelles, eldest daughter of John Bayley Lees, Esq., J.P., Oaklands, Handsworth.

LEVICK—CASTLEDINE.—On April 27th, at Kirkella, by the Rev. T. E. Lindsay, of Middlesbrough, and the Rev. J. Foord, of Kirkella, Harry Driffield Levick, M.B., B.S., F.R.C.S., of 132, St. Paul's Terrace, Middlesbrough, son of Henry Levick, of Thrapstone, to Harriett Minnie Castledine, M.B., B.Sc., daughter of the late Henry Castledine, of Gloucester Gate, Regent's Park, London, and stepdaughter of Dr. Marson, Willerby, Hull.

SMITH—SKAR.—On April 27th, at the Church of the Sacred Heart, Gibraltar, by the Rev. Reginald Collins, Chaplain to the Forces, Peter Colin Campbell Smith, L.R.C.P. and S.E., L.F.P.S.G., son of Robert Smith, M.D., of Sedgefield, Durham, to Dorothée Caroline Marie Antoinette Francoise de Sales, daughter of the late Jens Bager Pedersen Skar, of Skar, Norway.

DEATH.

REYNALDS.—George Frederick Reynalds, M.R.C.S., L.R.C.P., of 4, Normanville, Church Road, Teddington, almost suddenly, at Lagos, West Africa, on Wednesday, February 15th, in his 30th year, from blackwater fever.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.
CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.
CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.
CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F.S., 3.
CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.
CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.
EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.
GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.
GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.
HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.
KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.
LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.
LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.
LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.
METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.
MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.
NATIONAL ORTHOPÆDIC. *Attendances* —M. Tu. Th. F., 2. *Operations.*—W., 10.
NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 3.
NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.
ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.
ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.
ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.
ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.
ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.
ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2
ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Laryngx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2; Abdominal Section for Ovariotomy, F., 2.
ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45 o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.
ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.
ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1. Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Tu., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Cundren's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2, Th., 2.30; S., 10; (Opthalmic), F., 10.
ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5, Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.
ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Tu., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Tu., 2.
SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.
THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.
UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Tu., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.
WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.
WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

A. W. B. asks for what public services and appointments a boy with myopia of 2D would be disqualified?

*** We believe only for the Royal Navy (executive), Indian Marine, and Bengal Pilot service.

MR. E. HARDING FREELAND, F.R.C.S.Eng. (22, Beaumont Street, Portland Place, W.), would be greatly indebted to any member of the profession who would have the kindness to forward him any specimens of hæmorrhoids, recently removed, for pathological investigation.

HOSPITAL FOR PAYING PATIENT.

COUNTRY MEMBER writes: Is there any hospital or home where a gentleman of limited means could be admitted to undergo a course of treatment for peripheral neuritis? He is at present in a general infirmary, but they seem there to require his bed, and I am afraid that in rooms he would grow worse again from want of proper control.

SIR THOMAS BROWNE'S WORKS.

C. asks whether Sir Thomas Browne's *Vulgar Errors and Urn Burial*, also *The Garden of Cyrus* (1669) is rare?

*** The collected folio edition of 1686 sells for about a guinea, so that it is not probable that the 1669 edition would cost as much. The earlier quarto editions are much more interesting.

TEMPORARY MENTAL UNSOUNDNESS.

J. M. H. has a patient, a trained nurse, who at her monthly periods gets very depressed, and is sometimes for three or four days practically of unsound mind. In the intervals she is quite well, and bright and cheerful. Is there any institution of any kind which would give her care and attention when ill in return for services as nurse when well? A small premium could be given.

*** It is a painful case, but it is doubtful whether such a one could be employed in responsible work.

TREATMENT OF PULMONARY CONSUMPTION.

WE continue to receive many letters of inquiry with regard to institutions for the treatment of patients suffering from pulmonary consumption. Dr. G. H. R. Holden of Reading desires to hear of an institution where a youth of 18 could be received for the open-air treatment for a moderate payment.—Dr. Reginald Nitch-Smith (Bessborough Gardens, S.W.) desires to hear of an institution where a male patient suffering from chronic phthisis, at present seriously ill and in want of skilled nursing and attendance, could be received for a small sum weekly.

*** The National Sanatorium at Bournemouth receives patients at the rate of 6s. a week, but a governor's letter is required.

ANSWERS.

DELTA.—We have received the statement and copies of correspondence and sympathise with "Delta" in his troubles, but do not see that we can help him. If he has no available proof that the person in question did the acts of which he complains he can take no further action. Undoubtedly it would have been a friendly and frank act to have answered his question definitely, and the failure to do so raises a very natural suspicion, but we do not think it is possible to go any further than this. Such disputes between neighbours are frequent, and are very much to be regretted. It is in these cases that local ethical committees might do much good, because the members of such committees have the local and personal knowledge which might enable them to interfere and adjust such differences with advantage.

"OBSTINATE HICCOUGH."

DR. C. B. RICHARDSON (West Brighton) writes: Colonel O., suffering from double aortic disease, came to me in a distressed condition from obstinate hiccough, having suffered three days. I cured him immediately by closing both ears and nostrils with fingers, and making him at the same time swallow a large tumblerful of water.

NOTES, LETTERS, Etc.

LOCUM TENENS AND AGENTS' FEES.

JUNIOR PRACTITIONER writes to complain of the fees charged by agents in the case of a *locum tenens*. He states that the fee of half a guinea is charged to both parties, and that recently this charge was made in a case in which the engagement was only for three days. He asks for suggestions to remedy this state of things.

CELADINE.

DR. A. C. SHAW-MACKENZIE (644, Fulham Road, S.W.) writes: Dr. Hardman will find the plant fully described in *Medical Botany*, by John Stephenson, M.D., F.L.S., and James Morss Churchill, F.L.S., published by John Churchill, Carlton Street, Waterloo Place, 1831. If he is unable to obtain a copy I shall be pleased to give him any information he requires from mine.

THE ALIMENTARY CANAL AND HUMAN DECAY.

MR. THOMAS C. HODGKINSON (Managing Director of the Electro-Neurotone Company) writes with reference to a paragraph with the above title to state that the use of the term "static electricity" in connection with the electro-neurotone was erroneous; the current derived from the neurotone is, he states, faradic.

FOMENTATION IN INERTIA UTERI.

MR. W. HEWLEY WHARTON (Student of Medicine, Edinburgh) writes: During my recent "outdoor" maternity practice I had two extremely obstinate cases of inertia uteri to deal with. After following the prescribed methods of management, all except galvanism without benefit, I tried experimentally the ordinary fomentation, and met with excellent results. The fomentation—that is, flannel wrung out of water at 120° F. —was applied on the anterior abdominal wall, covering the uterine area, and ten minutes afterwards the patient had a very severe pain, and the fœtus was immediately expelled. I had the same gratifying results in both cases. As there is always a certain amount of risk attending internal interference of any kind, I think the fomentation deserves a trial. I do not know enough of obstetric literature to say whether this method of stimulating uterine contraction was before advocated or not, hence I simply make the suggestion.

THE SECOND EXAMINATION OF THE CONJOINT BOARD IN ENGLAND.

JUSTITIA writes with regard to the Second Examination of the Conjoint Board in England: Under the old regulations, if a man having taken both anatomy and physiology together, satisfied the examiners in one subject, he was not required to present himself for re-examination in that subject, but could complete the examination by simply passing the subject in which he failed previously. But under existing rules it is very different. For instance, a man may present himself in March, and fail in physiology; he goes up again in July and gets through in physiology but fails in anatomy: thus he has at separate times passed the whole examination, but is obliged to present himself for re-examination in both subjects. To hardworking students such as have come under my notice this is very trying, as they can ill afford the time to go up and fail in the subject which they have passed three months previously. Under these circumstances I consider that the old regulations, being far superior to the new, should again be adopted.

THE USE OF HEAT IN THE TREATMENT OF ARTHRITIS.

DR. A. M. ROBERTS (South Norwood) writes: I have read with interest Dr. Short's article in a recent issue of the BRITISH MEDICAL JOURNAL. I have been applying heat locally in cases of arthritis by means of an ingenious little stove called the "Justice." In a case of gonorrhœal arthritis of the knee, I enveloped the joint with a light flannel bandage and enclosed it in a sponge bag opened at the bottom and drawn together by strings at each opening, and with a lighted "Justice" placed inside it. The result was very pleasing. In other cases where the pain was very acute I have moistened the flannel bandage with laudanum with good effect. The stoves, which are inexpensive and perfectly safe, can be had at 47, Cannon Street, London.

ACUTE DERMATITIS CAUSED BY HANDLING RHUS.

DR. M. GRABHAM (Kingston, Jamaica) writes: With reference to Dr. Frank Nicholson's article in the BRITISH MEDICAL JOURNAL of March 4th on a case of acute dermatitis caused by handling Rhus Toxicodendron, the following facts may prove of interest: About a year ago, while staying in the Pedro district of St. Elizabeth, my attention was called to two men who were suffering from a vesicular eruption, intermingled with excoriated patches, situated on the neck, shoulders, and hands, caused by lifting and carrying on their shoulders the branches of rhus metopium while engaged in clearing a piece of land for cultivation. This tree is a native of Jamaica and Cuba, and is known locally as the Jamaica sumach or burnwood. The fresh sap, which flows abundantly on incising the bark, is of a pale yellow colour, and has powerful vesicating properties. I found on smearing a few drops on my forearm that vesication was produced in about twelve hours. After a short exposure the sap changes to a deep brown and hardens, ultimately resembling a gum resin. It does not appear to have ever been used medicinally.

A DECIMO-DUODECIMAL SYSTEM.

DR. A. CORDES (Geneva) writes with reference to a note on the Metric System published in the BRITISH MEDICAL JOURNAL of April 8th:

A new system, once accepted, would be a great simplification, as you will see. Suppose we coin two new figures, to be added after 10, or, better, one after 5 and one after 10: the last of these two will be our actual number 12, exactly divisible by 1, 2, 3, 4, 6, 12. Suppose we change the figure 10, writing it in any new way, and write 12 as 10 is now. This new 10 (the actual 12) will have all the properties of 12, as I said, but its multiplication will be much easier. The new 10, for instance, multiplied by itself, will be our actual 120, but be pronounced 100, as, of course, having two new figures, we shall have to find two new names for the two new tens actually existing between 100 and 120. This new system—I do not ignore how difficult it is to change the human habits, especially for the every-day use—has all the advantages of the decimal and of the duodecimal systems. It ought to be called decimo-duodecimal system till it takes the shorter name of decimal, or any other new name, 12 not any longer existing as twelve. Of course it has to be settled that any figure placed at the left of another will be 12 times stronger than its right neighbour, not as it is now 10 times.

THE LUNACY BILL AND PENSIONS FOR ASYLUM OFFICIALS.

ASYLUM OFFICER writes: I feel sure every asylum official is grateful to you for calling attention to our just and reasonable claims to assured pensions, and for exposing the methods adopted in the West Riding of Yorkshire, which, as you say, is an attempt to override Section CCLXXX of the Lunacy Act, 1890. Why a wealthy county like the West Riding should thus oppose the granting of pensions it is difficult to understand, and when their scale of wages is compared with those of counties where liberal pensions are granted, it is still more difficult to understand the grounds of the Marquis of Ripon's opposition. All are agreed that Clause XXI of the Lunacy Bill was most unsatisfactory, but it was an easy matter to amend it; and how the hearts and voices of asylum officials ache and call aloud for a second Lord Shaftesbury! No other public service is without assured pensions, and so long as the Imperial Exchequer pays through the county councils the 4s. grant, Parliament has an equal claim with local authorities in dealing with this matter.

All round we have lost ground in the matter of pensions since the days of the good Lord Shaftesbury, and it is fair to assume that when the service qualifying for a pension was fixed at fifteen years, and the granting made permissive, it was not contemplated that future authorities would act in direct opposition to the spirit of the section. Why are we treated thus? The answer is ready. Members of Parliament and County Councillors have yet to learn that the votes from a public asylum can turn an election, and when these good gentlemen are made to understand that these electors have to be reckoned with, then—but not till then—are we likely to have our claims considered and justice done. It may not be generally known that every official who resides in a house or cottage has a vote at County Council as well as Parliamentary elections, and every attendant who occupies a separate bedroom has a Parliamentary vote. The present is an opportune moment, as overseers are issuing their lists, and the head of every asylum should make it his business to enter the name of each attendant, as above indicated. If this were done, and a united vote recorded at elections, the question of assured pensions would soon be settled.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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BOOKS, ETC., RECEIVED.

The Hygiene of the Mouth. By R. D. Pedley, F.R.C.S., L.D.S. London: J. P. Segg and Co. 2s. 6d.

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The Inebriates Acts, 1879-1898. By G Blackwell, L.L.B. London: Butterworth and Co. 1899. 3s. 6d.

Medical Missions in their Relation to Oxford. By Sir H. W. Acland, Bart., K.C.B., F.R.S. Second Edition. London: Henry Frowde. 1899. 1s.

The Nurses' Clinical Case Book. London: John Bale, Sons, and Danielsson. 6d.

Die Fruchtabtreibung durch Gifte und andere Mittel. Von Dr. L. Lewin und Dr. M. Brenning. Berlin: August Hirschwald. 1899.

Materia Medica and Therapeutics. By J. M. Bruce, M.A., M.D. Revised Edition. London: Cassell and Co. 1899.

A Class Book of (Elementary) Practical Physiology. By De Burgh Birch, M.D., C.M., F.R.S.E. London: J. and A. Churchill. 1899. 6s. 6d.

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REMARKS
ON
ENCYSTED VESICAL CALCULI, WITH AN ACCOUNT OF TWENTY-SEVEN CASES.

By W. BRUCE CLARKE, F.R.C.S.,
Assistant Surgeon to St. Bartholomew's Hospital, formerly Surgeon to St. Peter's Hospital for Stone, and to the West London Hospital.

In 1891 [1] I published an account of 6 cases of encysted vesical calculi. Since that date I have had 13 other cases under my care, and, by the kindness of my colleagues at St. Bartholomew's, have been able to describe 8 other cases, most of which I had the good fortune to see during their stay in hospital, making a total of 27 cases in all to form the materials for this paper.

As I pointed out in my former paper, the ordinary symptoms that we are accustomed to associate with vesical calculus are frequently absent in such cases, and consequently the diseased condition assumes oftentimes considerable proportions before it is detected. A stone which is fixed does not, as a rule, give rise to hæmaturia, and the acute pain, which is generally a consequence of the stone becoming grasped by the neck of the bladder, is usually remarkable for its absence. It may further be added that in some cases the stones are so deeply embedded in the bladder wall as to elude the beak of the sound, and only proclaim their existence when an attack of cystitis has supervened.

A perusal of the accompanying clinical histories cannot fail to convince anyone of the anomalous symptoms that are often present in such cases, and of the difficulties which must always beset their early recognition. It is at the same time a striking proof of the need of exploration in those cases of bladder disease which do not yield to the ordinary recognised modes of treatment.

Case VII.—J. J., aged 62, was sent to me in May, 1893, with history of four months' trouble with micturition. The prostate was slightly enlarged A small amount of pus in the urine at times. May 15th. He was sounded, and a small stone detected on the left side of the base of the bladder. It was not easy to feel it, and it could not be seized with the lithotrite, or made to shift from its position. Suprapubic cystotomy was accordingly performed. When the bladder was opened the small end of a calculus which was embedded at the prostate could be seen sticking up into it a little below the orifice of the left ureter, which appeared to open just at its margin. At first it seemed as if the stone could not be shifted at all, but by carefully moving it about with the finger it was eventually extracted, leaving behind a deep pit where it had lain concealed. The patient made an excellent recovery, leaving the hospital on June 19th.



Case VII.—Shows the situation of stone (about one-fourth natural size).

Two years later he came to see me, and on examining him with the cystoscope no trace of the sacculus could be detected. The stone in question is formed of uric acid. After descending from the kidney it had in all probability found its way into some small depression on the floor of the bladder, and there gradually increased in size, and slowly enlarged the sacculus to suit the needs of its growth.

Case VIII.—J. B., aged 67, first came under my care in February, 1893. He stated that seven years previously he had suffered from hæmaturia, and on one or two occasions since. For the last six months he had suffered a good deal of pain in the region of the bladder, and had frequent calls to micturition. His urine was foul, alkaline, specific gravity 1016, and contained a trace of albumen. His bladder was washed out frequently, but without affording him much alleviation. March 7th, 1893. Admitted into hospital; sounded with a negative result. As he did not improve, on March 23rd suprapubic cystotomy was performed. Deep down behind the prostate, and apparently almost outside the bladder, was found a stone of peculiar character. Its inner part was composed of oxalates, and it lay in a shell of phosphates, which had begun to redissolve, so the original oxalate nucleus was surrounded by a loosely-fitting crystalline phosphatic shell. In the process of extraction the shell was somewhat damaged. He recovered from the effects of the operation, and was able for awhile to get up and get about the ward; but the water remained foul and alkaline in spite of careful washing out of the bladder. Early in May of the same year he took to his bed again, and, getting gradually worse, sank from severe hæmorrhage on May 11th. The *post-mortem* examination demonstrated what was suspected at the time of operation, namely, that the pouch had practically perforated the bladder. The vesiculæ seminales contained pus, and some pus was also found in the cellular tissue round the base of the bladder. The kidneys were not diseased.

Case IX.—J. P., aged 66, came under my care with all the ordinary signs of enlarged prostate complicated by cystitis. He said he had been quite well up to two months previously. He was admitted to St. Bartholomew's Hospital on July 10th, 1893. His bladder was regularly washed out, but he did not make much progress. August 5th. He was sounded and examined with the cystoscope. The bladder would contain only 4 ounces of water. No satisfactory view could be obtained, and no evidence of stone was discovered with the sound. August 7th. Suprapubic cystotomy was performed, and two stones were found in a cyst behind the prostate. There was a well-marked prostatic enlargement at the entrance of the bladder, which was partly cut off and partly burnt away with a cautery. His recovery was prolonged but uneventful. The suprapubic wound took a long time to heal, and he did not leave the hospital until November 24th. At this time most of the urine had to be passed by catheter.

Subsequent History.—He has been seen on several occasions since; the last time rather less than a year ago. He has regained almost complete power of natural micturition, but usually passes a catheter before going to bed, and occasionally washes out his bladder. He states that there is often no residual urine.

Case X.—J. P., aged 68. (Sent to me by Dr Lancelot Rolleston.) November 7th, 1893. He stated that some four or five years ago he had some irritability of his bladder, and applied to a surgeon in New Zealand where he was living at the time. He was sounded, but no stone was found. His symptoms disappeared almost entirely for several years. In 1889 he was again sounded by the same surgeon and a stone discovered. He came to England and placed himself under the care of a surgeon who had had a very large experience of such cases. His stone was crushed, but though he remained some months longer in England the symptoms never quite disappeared. He was assured by the surgeon who had operated on him that there was nothing more in his bladder, and that by the time he reached New Zealand he would be quite well. This did not prove to be the case, and in 1893 he placed himself under my care. I sounded him on two occasions, and on the second the sound seemed to touch a rough surface on the bladder wall. I advised suprapubic cystotomy, and on November 26th, Dr. L. Rolleston being present, the operation was performed, and two facetted stones were removed from a pouch behind the prostate. Their upper surface was smoothed, presumably by the stone which had been removed by lithotrity two years earlier. On January 9th, 1894, he sailed for New Zealand, where he has enjoyed excellent health ever since. He was last heard of in November, 1898.



Case X.—Two facetted stones removed from pouch behind prostate (slightly less than natural size).

Case XI.—A.C., aged 64, was sent to me by the late Mr. Morrant Baker, under whose care he had been on several occasions on account of some prostatic trouble of several years' duration. In March, 1893, when I first saw him, he was complaining of an aggravation of his symptoms, and I sounded him and touched a calculus on the back wall of his bladder. An operation was advised, and on March 18th suprapubic cystotomy was performed, Mr. E. Willett giving the anæsthetic. He was sounded again at the time of operation, but no stone could be felt. His condition, however, seemed to warrant an operation. When the bladder was opened a stone was, after some little difficulty, found imbedded in the back wall of the bladder. Its free surface was so covered with inspissated mucus, the result of a recent attack of cystitis, that it was quite easy to understand how it was that the sound had failed to detect its presence a few minutes previously. It was eventually removed from the sac in which it was embedded, but I must confess with no small misgivings on my part as to the future of the case, as I feared lest an attack of peritonitis should supervene. The sac wall was quite loose, and when the stone was extracted it easily turned inside out and bulged into the interior of the bladder. Under these circumstances I seized it with a pair of pressure forceps, which were left on for forty-eight hours and then removed. Barring

some trouble that was experienced with his bowels, which may have been due to a slight attack of peritonitis, he made an excellent recovery, and left my hands about five weeks later. I saw him a year afterwards in excellent health. The stone was mainly composed of uric acid, but the surface which lay exposed in the interior of the bladder is coated with a layer of phosphates.

Case XII.—J. G., aged 71, came under my care in December, 1894. He was admitted to the hospital on December 7th. He looked very ill and emaciated.

History.—He had had urinary trouble off and on for fourteen years. Six years before he underwent lithotrity at St. Peter's Hospital. Four years before he underwent a second operation at St. Peter's. Two years before he had a third operation at St. Peter's, and was informed that two stones had been crushed. On each occasion he was considerably benefited, but since the last operation had been obliged to pass most of his water by catheter. On December 9th he was sounded by me, and a stone was felt in the prostatic urethra. A lithotrite was introduced and a small stone was crushed and washed out, but the remainder could not be seized, and appeared to be fixed to the bladder wall. Under these circumstances I decided to perform suprapubic cystotomy, and opened the bladder without any difficulty. Three stones were found firmly encysted in the bladder wall some little distance behind the prostate, and two small ones were lying loose on the top of the others. One of them is smooth and not coated by rough phosphatic material like the others. In all probability it had only recently come down from the kidney. The other four were thickly coated with mucus when they were first extracted. The patient grew gradually weaker, and died on December 11th.

Post-mortem Examination.—Both kidneys were in a condition of pyonephrosis. There was no peritonitis or sign of injury to the bladder wall.

Case XIII.—General C., aged 60, first consulted me in 1890 on account of some bladder trouble. He had had a stricture, and had been told his prostate was enlarged; but as he was able to empty his bladder as a rule he was loth to make use of a catheter; and though he had had repeated slight attacks of cystitis he declined to submit to any treatment. I only saw him on two occasions, and then lost sight of him until I heard of his death in 1894 under the care of Dr. Jowers, of Brighton, from peritonitis, which had been set up by the ulceration of a stone from a pouch on the back wall of his bladder into his peritoneum.

Case XIV.—June 20th, 1894. Colonel C., aged 80 (sent me by Dr. G. Coates, of Kensington), was suffering from an enlarged prostate, and had used a catheter at times for seven years. He had lately had to use it a good deal more often, and to get up frequently at night. His bladder held about 4 ounces of acid urine, 1021; a trace of albumen. As he declined at first to undergo a complete examination, his bladder was washed out daily and he was treated with alkalies and diluents, but he did not improve. July 2nd. He was sounded under an anæsthetic, and a stone just touched behind the prostate. An unsuccessful attempt was made to seize it with a lithotrite, and suprapubic cystotomy was performed. A stone was found tightly fixed to the wall of a pouch behind the prostate and removed. His recovery was a prolonged one, but he left London on September 2nd, and a month later was able to go out shooting. He remained perfectly well for two years when an attack of cystitis supervened, and he died at San Remo.

Case XV.—J. S., aged 69.

History.—He first attended in my out-patient room in 1894. He stated that for three years past he had had trouble with his water. He had been obliged to get up at night several times to pass water, and had frequent calls to micturate during the daytime. A catheter was passed, and he was found to have 6 ounces of foul residual urine. The prostate was considerably enlarged *per rectum*. He was instructed to wash out his bladder



Case XV.—Shows stone embedded in prostate (size about one-fourth).

regularly, and to draw off his residual urine before going to bed; and under this line of treatment he rapidly improved, and his urine became quite natural. About a year later (1895) his symptoms returned in an aggravated condition, and he was admitted into the hospital. Considerable difficulty was experienced in introducing a catheter, and no amount of washing out could make his urine healthy. His bladder was carefully examined on more than one occasion for stone, but none could be discovered. The cystoscope was also introduced, but no clear view could be obtained even after frequent washings out. The enlargement of the prostate rendered the passage of an instrument an exceedingly difficult procedure, and he was quite unable to pass any instrument for himself. Under these circumstances castration was advised, and he consented to the operation. It was performed on June 29th, and he sank gradually three days later.

A *post-mortem* examination was made on the following day. The kidneys displayed well-marked interstitial nephritis. Acute cystitis was present, and imbedded behind the prostate was found an encysted calculus. It was contained in a pouch which only communicated with the bladder by a very small aperture. The tip of the stone protruded into the bladder, and was thickly coated with mucus. It is doubtful whether even this slight protrusion was not due to the shrinkage which had already begun to take place in the prostate.

Case XVI.—W. J. T., aged 57.

History.—He stated that he had had a stricture for 20 years, and had had to have his water drawn off from time to time. Six years ago he was thrown out of a cart, and injured his perineum, since which time his urine had had to be drawn off by catheter.

Present Condition (April 10th, 1895).—No. 6 passes to bladder. Two strictures, one 2½ inches from meatus and one in the deep urethra; urine 1020, alkaline, offensive; contains pus. His bladder was washed out daily, but he died ten days later. He was at first under Mr. Langton's care, but I saw him, in Mr. Langton's absence, on two occasions before he died.

Post-mortem Examination.—Signs of peritonitis, and some recent subacute peritonitis as well. The adjacent viscera were firmly adherent to the bladder. The kidneys showed signs of interstitial nephritis; the ureters were not dilated. Bladder hypertrophied and dilated, and contained nearly two pints of fluid. At the upper left side there was a considerable pouch, from which the peritonitis had started. Its interior was very ragged from ulceration and sloughing of the mucous membrane. There were two calculi in the pouch. There was no direct opening into the peritoneum.

Case XVII.—R. W., aged 64, was admitted to St. Bartholomew's Hospital, under Mr. Butlin's care, suffering from hæmaturia and frequent micturition. August 2nd, 1896. A severe attack of hæmaturia supervened, and, being on duty for Mr. Butlin, I was summoned to see the case. His bladder was almost full of clots, which could not satisfactorily be washed out with an aspirator, and he was obviously suffering from cystitis. Under these circumstances I decided to perform suprapubic cystotomy without delay. The bladder was opened, and found to be filled with clotted blood and highly-offensive urine. When this had all been cleared away two stones were found lying in a pouch behind the prostate, from which they were only extracted with difficulty. One was about the size of a filbert, and the other somewhat smaller. A pedunculated middle lobe of the prostate was found and removed. The cause of the bleeding was not clearly determined. It was probably due to the congested piece of prostate, which was removed, and which appeared to have had its pedicle partially twisted. He was discharged about six weeks later, able to micturate usually without the aid of the catheter. He was in the habit of washing out his bladder daily. Three months later I saw him again, and he told me he felt perfectly well, and only used the catheter once a week as a matter of precaution.

Case XVIII.—C. S., aged 64. October 30th, 1897.

History.—Two years ago he began to have pain and difficulty in micturition, which soon became very bad at night. In John Ward for cystitis. Bladder examined with cystoscope with negative result. Bladder washed out regularly, and some improvement occurred.

Present Condition.—Emaciated. Complains of great deal of pain over region of bladder. Urine 1014, alkaline, albumen, pus, triple phosphates, ammoniacal, and fœtid. Residual urine ℥viij. Bladder washed out without much result. Cystoscopic examination negative. The urine was so thick that no satisfactory examination could be obtained.

November 22nd. Patient placed in Trendelenburg's position, and perineal cystotomy performed. A vaginal speculum was passed in through opening, but no good view could be obtained of interior of bladder. February 9th. A second examination made of the interior of bladder, as the patient's condition had scarcely improved at all. Patient gradually sank and died seven days later.

Post-mortem Examination.—A large sacculus was found in connection with the bladder on its back wall. The sacculus held when distended nearly half a pint of fluid. The opening by which it communicated with the interior of the bladder was circular and about ⅝ inch in diameter, and closely adjacent to the orifice of the left ureter. The sacculus contained two stones coated with phosphates, one about the size of a walnut and the other quite a small one. There was suppurative nephritis of both kidneys.

Case XIX.—J. P., aged 67. August 3rd, 1898.

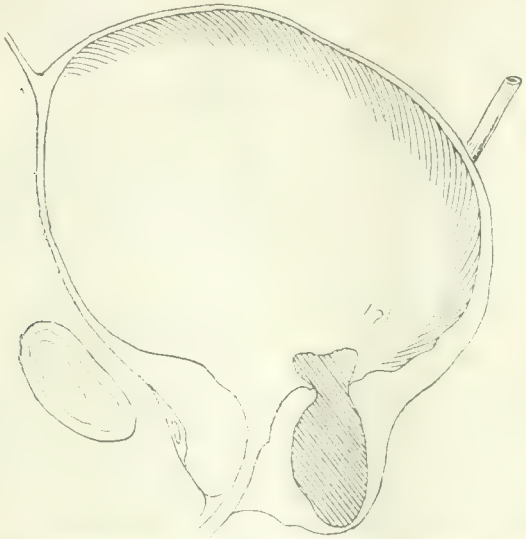
History.—Three years he had had trouble with micturition. He had been getting steadily worse lately. He had lately been unable to pass his water without catheter. Urine foul, ammoniacal, specific gravity 1015, contains pus and albumen. Prostate enlarged; has his water drawn off twice daily; amount varied very considerably. August 6th. Cystoscopic examination revealed general cystitis. Drainage advised; patient's friends would not consent till he was too bad to undergo operation. August 13th. Died.

Necropsy.—Bladder small and contracted. Large saccule containing upwards of 2 pints of fœtid urine. It communicated with the general cavity of the bladder by a small hole just above the trigone, which would just admit the index finger. It contained five small phosphatic calculi. Ureters and kidneys full of pus.

Case XX.—J. E., aged 71.

History.—He had a stone crushed at the Middlesex Hospital in 1874. Remained free from all trouble until early in 1897. In May, 1897, he was admitted, under the care of Sir T. Smith, into St. Bartholomew's Hospital, with cystitis, and was twice sounded and examined with the cystoscope, but without anything being discovered to account for his cystitis, with the exception of some enlargement of the prostate. He was accordingly instructed to wash out the bladder. The following year, October, 1898, he came to my out-patient room with his urine in a very foul condition. His

prostate was very hard and tender. Before arrangements could be made

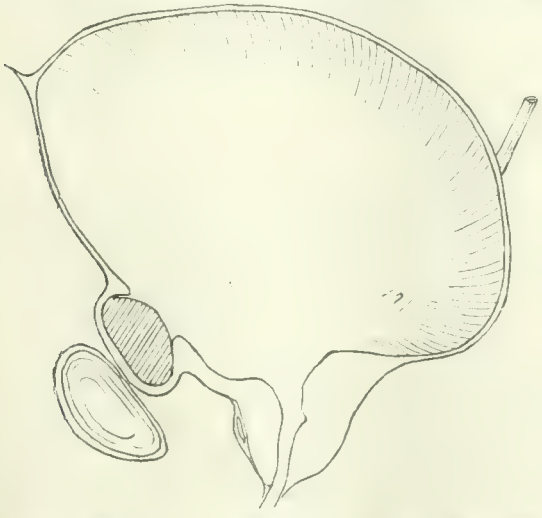


Case XX.—Shows large stone, which had almost perforated the prostate. The stone is drawn a little smaller than it should have been. It was nearly 2½ inches in its longest diameter.

for his admission to the hospital, he took to his bed and died a few days later. I obtained permission to examine his bladder, and found a large stone almost buried in a retroprostatic pouch. The lower part, which was embedded in the prostate, consisted of uric acid, whilst the upper part, which was contained in the bladder, was shaped like the calyx of a flower, and was composed partly of uric acid and partly of friable phosphates. Extreme prostatic tenderness was obviously to be accounted for by the position of the stone.

Case XXI.—F. P., aged 49 (under Mr. Langton and Mr. Cripps).

History.—He had had attacks of irritability of the bladder for many years. These attacks were at first attributed to a stricture. In 1887 he passed a small calculus, and a few months later he was admitted under Mr. Langton's care. Mr. Langton removed a stone by lithotrity, but the symptoms referable to his bladder still persisted. In Mr. Langton's absence, Mr. Harrison Cripps performed suprapubic lithotomy, and removed a stone from a sacculus which lay above the urethral opening behind the pubes. In September, 1892, some more fragments were removed by lithotrity, amounting to about 1¾ ounce. In November, 1892, suprapubic cystotomy was again performed by Mr. Harrison Cripps, and another stone removed from the sacculus above referred to. I was present on this occasion, and was able to look into the sacculus in question. The patient made an excellent recovery.



Case XXI.—Shows a sacculus in an unusual situation—semi-diagrammatic (size about one-fourth).

Case XXII.—W. W., aged 60 (under the care of Mr. Butlin). He was admitted into St. Bartholomew's Hospital on November 5th, 1897, with symptoms of great irritability of the bladder; was unable to hold his water more than a few minutes. His prostate was somewhat enlarged. He stated that his bladder had been very irritable for several years past, water often thick, urine alkaline, containing pus. He was sounded on the following day, and a stone (apparently of large size) was detected lying behind the prostate, but it could not be grasped by the lithotrite or moved from where it was lying. Under these circumstances suprapubic lithotomy was performed, and a stone was found lying in a sacculus and tightly gripped by its walls, so that it was only after some difficulty that it was dislodged by the aid of a scoop. Convalescence uneventful. Patient left the hospital on December 16th, passing all his water *per urethram*.

Case XXIII.—W. B., aged 57. He came under Mr. Butlin's care in November, 1893. His bladder was examined by means of a cystoscope and with a sound. An epithelioma occupied its base, and an encysted stone occupied the left side of the base in close proximity to the orifice of the left ureter. The patient was very ill, and refused operation. He died a few days later, and the condition was verified at the *post-mortem*.

Case XXIV.—G. E. (under Mr. Butlin's care). He was admitted into St. Bartholomew's Hospital on April 6th, 1894. Urine foul, alkaline, contained a trace of albumen and some pus. He had been sounded before admission, and a stone detected. An attempt was made to perform lithotrity, but unsuccessfully, as the stone was encysted. The bladder was inspected with the cystoscope, and the stone clearly seen embedded in the back wall of the bladder. I was present at the examination and saw the stone. It was decided to perform suprapubic lithotomy a day or two later. In the meanwhile the man discharged himself from the hospital.

Case XXV.—J. B., aged 40. (Under Mr. Walsham.)

History, 1893.—Three years ago he had a stone crushed at St. Bartholomew's Hospital. February, 1896. For two years after last operation was quite free from all vesical symptoms, but has had some irritability of the bladder more recently. June 17th, 1896. The patient was sounded, but no calculus could be detected. A rectal examination revealed some considerable tenderness about the prostate. As this condition did not disappear by rest in bed, etc., Mr. Walsham performed median lithotomy five days later, and removed ten stones, which were tightly wedged together in a pouch behind the prostate. A month later the patient left the hospital perfectly well, and there is a note in Mr. Walsham's own handwriting: "The rectum is natural; the prostate feels small and harder than normal."

Case XXVI.—R. W., aged 38. (Under Mr. Walsham's care.) September 10th, 1894. He was admitted into St. Bartholomew's Hospital suffering from occasional hæmaturia and frequency of micturition; was sounded and a calculus detected. September 12th. Lithotrity. After a considerable amount of *débris* had been crushed and removed, some portions of stone remained behind which appeared to be firmly fixed to the bladder wall, and could not be readily seized with the lithotrite. Suprapubic lithotomy was performed, and on the left side of the base of the bladder a pouch was discovered. A stone was sticking out of it, the top of which had been removed by the lithotrite. It was extracted after some difficulty with lithotomy forceps, and a second stone was found lying in the same pouch and was removed. The patient made a good recovery, and left the hospital well on October 25th, 1894.

Case XXVII.—May 10th, 1893. H. B., aged 14.

History.—Six years ago lithotrity was performed by Mr. Willett. Four years later the operation was repeated by Mr. Willett. One year ago Mr. Marsh removed a stone from a distinct pouch behind the prostate after suprapubic cystotomy. May 12th. Mr. Bowlby sounded the patient, and found a stone firmly wedged at the neck of the bladder, and could not seize it with a lithotrite. He accordingly performed the suprapubic operation, and removed an oxalate stone partially coated with phosphates, which was embedded in the same pouch from which Mr. Marsh had removed the previous stone.

Remarks.

Of the 6 cases that were recorded in my first paper, no fewer than 3 were due to pieces of bone that had found their way into the interior of the bladder from the surrounding structures. The other cases were instances of true encysted calculi, which had been formed presumably in the kidney, and then, finding their way into the bladder, had either dropped into a sacculus which was ready for their reception or had become fixed in some depression of the bladder wall, and had by their gradual growth formed a sacculus for themselves. It is probable that in at least one of the cases referred to in this paper—namely, No. 7—this was the way in which the calculus was formed; for when this bladder was inspected with a cystoscope two years after the removal of the stone no trace of a sacculus was to be seen. In Case No. 3, on the other hand, the sacculus was most likely quite independent of the stone, for stones were found on a second occasion in another part of the bladder, and the sacculus originally occupied was empty.

It has often been assumed that these sacculi are all due to what are called tunicary herniæ, and depend on the pouching of the mucous and submucous coats between the bands of muscular fibres. I am however convinced, after an examination of numerous specimens both before and after death, that the muscular walls very often form a constituent part of these sacculi. It is, moreover, often very difficult to determine with accuracy in all cases the nature of the sac walls owing to the inflammation which has been set up by the stone which has long lain there.

When operating on these cases there is one point which must always be considered, namely, what is to be done with

the empty sac from which a stone has been removed. There is no doubt that many of these sacs, especially when prolonged attacks of inflammation have destroyed their epithelial lining, tend to contract and cicatrise of their own accord if their orifice is of sufficient size to preclude the possibility of pus stagnating in their interior. If on the other hand the orifice of the sac is small and contracted and the sac itself of large size, some means must be adopted for its independent drainage, and the route which is selected must depend on the condition of the patient and the position of the sacculi. As most of these saccules are situated near the base of the bladder, it will probably be advisable if they demand drainage to drain them through the perineum, and to make a temporary channel between the bladder and rectum if this is possible.

Table of Cases.

Number.	Patient.	Surgeon.	Prominent symptoms.	Result.
1	W. M., 55	Bruce Clarke	Stones removed on two occasions successfully. Died three years later	R.
2	E. H., 67	,,	Stricture. Encysted stone found at *post-mortem* examination	D.
3	H. H., 57	,,	Stricture; stones removed from cysts on several occasions	R.
4	—	,,	All dependent on pieces of bone that had protruded into bladder and become nuclei for stones. One died	D.
5	—	,,		R.
6	—	,,		R.
7	J. J., 62	Bruce Clarke	Frequent micturition; some pyuria	R.
8	J. B., 67	,,	Pain; hæmaturia; foul urine	D.
9	J. P., 66	,,	Cystitis; enlarged prostate	R.
10	J. P., 68	,,	Pain and cystitis two years	R.
11	A. C., 64	,,	Prostatic trouble several years	R.
12	J. G., 71	,,	Symptoms fourteen years; lithotrity on two previous occasions	D.
13	Gen. C., 60	,,	Repeated slight attacks of cystitis. No operation	D.
14	Col. C., 80	,,	Enlarged prostate seven years; catheter	R.
15	J. S., 69	,,	Enlarged prostate four years; castration	D.
16	W. J. T., 57	Self and Mr. Langton	Stricture six years. No operation	D.
17	R. W., 64	Self and Mr. Butlin	Severe hæmaturia	R.
18	C. S., 64	Bruce Clarke	Two years cystitis off and on	D.
19	J. P., 67	,,	Three years cystitis. No operation	D.
20	J. E., 71	,,	Stone crushed twenty-two years before death; cystitis one year. No operation	D.
21	F. P., 49	Mr. Langton and Mr. Cripps	Stricture; recurrent attacks of cystitis	R.
22	W. W., 60	Mr. Butlin	Recurrent attacks of cystitis	R.
23	W. B., 57	,,	Stricture; cystitis some months and epithelioma of bladder. No operation	D.
24	G. E., 61	,,	Cystitis. Left hospital	*
25	J. B., 40	Mr. Walsham	Lithotrity three years previously; cystitis three months	R.
26	R. W., 38	,,	Hæmaturia and cystitis for several months	R.
27	H. B., 14	Mr. Willett and Mr. Bowlby	Lithotrity twice; lithotomy twice within eighteen months. Stone removed from retroprostatic pouch	R.

* The result of Case No. 24 is unknown.
The cases Nos. 7 to 27 are referred to in the present paper.

On looking over the symptoms which these cases presented it is difficult to single out any one sign which might be held to be of considerable diagnostic value. Cystitis of longer or shorter duration appears to have been present in every one of the cases, but as the great majority of them—namely, 16 out of 21—were above 60 years of age, and had in addition some evidence of enlargement of the prostate gland, the cystitis was naturally in the first instance ascribed to that condition, and not to the presence of a calculus. In several undue tenderness of the prostate gland when examined *per rectum* and rectal tenesmus were marked symptoms. Only 3 of the cases were under 40 years of age, one of them being but 14. The only two cases in the list between the ages of 50 and 60 had suffered from stricture; and it is noteworthy that 2 of my first 6 cases also had suffered from stricture, and were likewise between 50 and 60 years of age.

The difficulties of diagnosis were also enhanced by the fact that in several instances washing out the bladder was quite sufficient temporarily to restore the urine to a healthy condition. It is, perhaps, also worthy of note that in several instances the stones when extracted proved to be so thickly coated with mucus, that even when they lay upon the table no audible note could be obtained when they were struck with the beak of the sound. This affords a ready explanation of the difficulty which may be experienced in detecting a stone in the bladder under certain conditions.

In 6 of the 21 cases no operation was performed in most instances, because the patient's condition was too bad to admit of any chance of alleviating his symptoms. Of the remaining 15 that were submitted to operation, 4 died and 11 recovered.

The fact that in less than half the cases was the existence of the stone known before the operation was undertaken, certainly affords an additional argument for exploration of the bladder in those cases of cystitis which do not yield to ordinary treatment.

In one instance (namely, Case XV) the patient had been castrated to relieve his prostatic symptoms, and the stone was only detected after death. It is quite possible that if his bladder had been explored at an earlier period he might have retained his testes and had his life prolonged after removal of the stone.

I have since that time made it a rule to explore the bladder in obscure cases of enlarged prostate which remain irritable after repeated washing, and have never had occasion to regret this plan of treatment, which I have no doubt largely accounts for this series of encysted calculi. Even if no stone is detected, the patient usually derives great benefit from the operation, owing to the rest which is afforded to the urethra.

REFERENCES.
[1] Latent Calculus in the Bladder. *St Bartholomew's Hospital Reports*, vol. xxvii, p. 117. [2] See previous paper, *op. cit.*

ON ANTISTREPTOCOCCIC SERUM IN THE TREATMENT OF SMALL-POX.

By W. J. LINDSAY, B.A., M.B., B.C.

WHILE Resident Medical Officer at the Middlesbrough Isolation Hospital during the small-pox epidemic in that town and district during the earlier months of last year, I had opportunities of treating a large number of patients suffering from every variety of variola. It was soon evident that medicinal treatment did not influence the clinical course of the disease, and often did not alleviate symptoms. Attention was chiefly devoted to confluent cases, in which the prognosis is always doubtful, frequently most grave, since in mild cases no medicinal treatment was needed, and in hæmorrhagic none was of any avail. Drugs therefore giving unsatisfactory results, the clinical course run in these cases was closely observed in the hope of finding what, if any, form of treatment would be beneficial.

PRESENCE OF A PYOGENIC ELEMENT.

It was found that death most frequently occurred during a period of from three to five or seven days after the pustules began to dry and be absorbed. During this period the pustular "crusts" had disappeared from the face, the vesicles on the body had either ruptured or, the contents being absorbed in part, lay crinkled and dry on the skin as a sort of scab, the mouth and larynx, having lost much of their epithelium, exuded foul-smelling, blood-stained mucus. There was delirium, frequently violent, especially at night, universal coarse tremor, aphonia, often almost complete inability to move the limbs, great restlessness, refusal of food, the pulse, very rapid, weak, and generally failing, varied from 120 to 140 or more, the respiration was quick and shallow, varying from 30 to 40, or even 60 per minute. Death, as a rule, occurred apparently from sudden cardiac failure, which frequently gave no signs of its immediate approach. No organic disease of heart or lungs was found. Observing that this critical condition always occurred after the absorption of the pustules, it seemed reasonable to suppose that the specific virus of variola was reinforced by toxins of pyogenic organisms absorbed from the pustules, and that if this element of pyogenic septicæmia or pyæmia could be eliminated, the normal resistance of the tissues might, in certain cases, be able to cope with the effects of the variola virus successfully.

PROCESS OF PUSTULATION.

It was found that the purulent change occurred, first on

the surface of the vesicle, and not in its contents. Thus, as found by Klein,[1] and also by Copeman,[2] the clear serum of the vesicle yielded no growth on ordinary media (though it was in this serum the above observers found the bacillus which they believe to be specific for the disease) so the coagulation necrosis commences superficially, and at an early stage, if the thick cap of necrosed tissue of the vesicle be removed aseptically, the layer of clear serum beneath yields no growth. Finally, in the earliest stages of purulent change, the surface of the vesicle yielded growths, while the deeper portions of the same vesicle did not. The conclusion drawn, therefore, was that the purulent change was due to pyogenic organisms entering the vesicle from without, not through the lymphatic system, and that the pyogenic toxic element, referred to above, might be eliminated by two methods: (1) Prevention of suppuration in the vesicle; (2) by injecting an antitoxin.

PREVENTION OF SUPPURATION.

The possibility of preventing suppuration in the vesicles was tested through a series of 20 to 30 cases by the following methods. In the papular or early vesicular stage the forehead was well scrubbed with soap and water, washed with a solution of hydrarg. perchlor. (1-1000), and finally with ether. On this surface was painted collodion containing iodoform in suspension. The vesicles in this area did not undergo purulent change, though the coagulation or "creamy" stage was not prevented, also minor changes in the shape of the vesicles and depth of the resulting mark took place. Again, sterilisation of the arm was attempted, as in the forehead, except that liq. potassæ was also used, and a compress of a solution of hydrarg. perchlor. (1 in 1,000) was left on for six to twelve hours. Then the arm was carefully dressed in cyanide gauze, sal alembroth wool, and bandaged. The dressings were not disturbed till the pustules had well developed on the opposite arm; when removed it was found that purulent change had not taken place, but that the coagulation "creamy" change was present in the vesicles. The individual vesicle in the sterilised arm was rather smaller than on the exposed arm, the zone of inflammation surrounding each vesicle was less intense, and the patients asserted that the bandaged arm was less irritable. Success depended on the thoroughness of the preliminary sterilisation, the eruption should also be in an early stage. The difficulty of applying these methods clinically is manifestly great, and the results at best must be very uncertain.

SELECTION OF ANTITOXIN.

The view that pustulation is due to the access of ordinary pyogenic organisms was supported by the fact that convalescence from confluent attacks is generally interrupted, death occasionally brought about, by the large number of abscesses which develop all over the body, a condition resembling chronic pyæmia, and that crops of boils—the "acute furuncular diathesis" of Trousseau—were constantly present. The frequent presence of extensive cellulitis seemed to point to the streptococcus pyogenes aureus as the predominant organism, though the furuncles also indicated the presence of the staphylococci. Hence I determined to try what effect, if any, antistreptococcic serum would have on this toxic condition. The serum was obtained from the Jenner Institute.

SELECTION OF CASES.

Those cases only were chosen in which the prognosis was gravest, and in which, judging by analogy from similar attacks in other patients, a fatal termination was to be expected. In these cases confluence occurred either just before or early in the pustular stage. When confluence occurred extensively in the coagulation stage, and was not followed by marked pustulation; death invariably, in the writer's experience, followed. The serum was injected aseptically into the subcutaneous tissue of the abdominal wall, either just before or coincident with pustulation, those injections being usually given at intervals of twelve to twenty-four hours. In addition, digitalis, with either tinct. ferri perchlor. or liq. strychninæ, was usually given four-hourly.

CASE I.—H. W., aged 29, a furnaceman, previously healthy. Admitted on April 15th with a very close-set papular eruption over face, and much hyperæmia of intervening skin, papules closely set on arms and legs, less so on trunk. Patient very restless during succeeding four days, violently delirious at night, trying to get out of bed.

April 19th. Temperature rising; vesicles large, confluent on face and hands

April 20th. Condition very grave, face and hands covered with a mass of confluent pustules, difficulty in swallowing, trunk thickly covered with eruption. Pulse 120, regular; respiration 25, slight tremors present on April 21st. Temperature, after a restless night, rapidly rose to 103.2°, and remained about the same level throughout the day. Serum, 10 c.cm., injected at 3.30 P.M. The condition throughout the day was critical.

April 22nd. Slightly quieter night after morphine; condition unchanged. Temperature did not rise above 102° through the day.

April 23rd. Delirious during night; temperature tending to rise. Serum, 10 c.cm., injected at 2 P.M.; pustules drying; general condition rather better.

April 25th. General condition better; quieter nights; seems stronger; face cleaning. Pulse 108; respiration 22.

April 26th. Much worse; pulse 115, weak and irregular; respiration very shallow; temperature rose from 100.4° to 103°. Serum, 10 c.cm., injected at 6 P.M.

April 27th. Had a quiet night after morphine; seems better; clear-headed. He said he did not feel very ill, but excessively weak. From this date his temperature did not rise above 101°, and five days later reached normal. Here the temperature rather than the general condition was taken as an indication for serum, hence the long intervals between the injections. The rapidity of convalescence in this case was very remarkable, no complications of any kind arising.

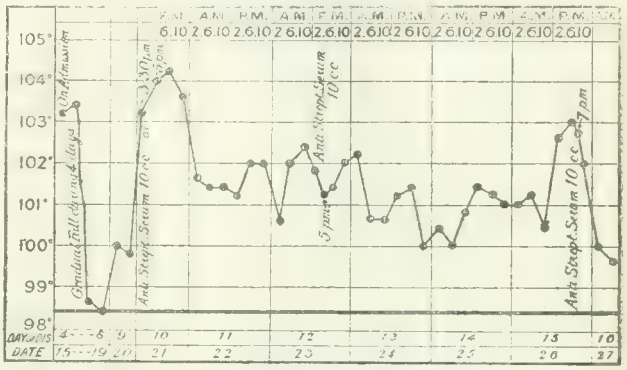


Chart of Case I.

CASE II.—W. T., male, aged 6. Admitted May 3rd with a close set eruption of large papules; face very flushed; eruption very copious on arms, legs, and trunk. Patient progressed well during three days.

May 6th. Vesicles very large and pustular, delirious, refuses food, very restless, temperature 101.2°.

May 8th Very restless and delirious, refuses nourishment, pulse 118, weak, respiration 25, cardiac sounds feeble, pustules confluent, condition very grave. Temperature in the evening rose to 102.2° Serum, 10 c.cm., injected at midnight.

May 9th. Had rather quieter night; seemed better in morning but in afternoon became very restless. Pulse 130, weak; respiration 35, very shallow; temperature 103.4°; seems very ill; serum, 10 c.cm., injected at 10 P.M.

May 10th. Condition unchanged, very restless night, seems very weak; pulse still rapid, 125, and slightly irregular; temperature again reached 103.4°. Serum, 10 c.cm., was injected at 10 A.M.

May 13th. Patient for two days showed slight improvement but general condition was very grave. To day patient is quite rational, feels better, but is very weak since shortly after last injection. Temperature has been steadily falling.

The early part of convalescence was rapid and satisfactory, but later was complicated by a typically mild attack of scarlet fever, of which several cases had arisen in convalescent patients not treated with serum; the ultimate recovery was complete. Of the 2 other cases that recovered, the clinical course of the disease so much resembled that in the cases reported as not to require detailed description.

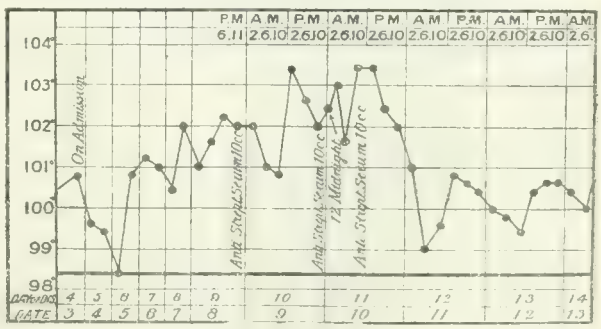


Chart of Case II.

CASE III.—W. B. was a healthy man of 35, who suffered from a very severe confluent attack. The patient early became delirious, pulse 120 to 130, weak; respirations 24 to 30, shallow. On eighth day of disease condition was still very bad; during preceding three days the temperature varied from 100° to 102°.

April 5th. Muttering delirium, at times semicomatose, pulse 128, weak

and irregular; respirations 25, temperature 102°; serum, 10 c.cm., injected 10 P.M.

April 6th. Next day, twelve hours later, the temperature fell to 101.4°, but afterwards rose to 102.8°; still very delirious, general condition rather worse; at 2 P.M. serum injected.

April 7th. The temperature gradually fell to 100.8° at 10 A.M., very delirious; pulse 140, feeble, slightly irregular; respirations 38, shallow, slight tremor present; temperature, 6 P.M., 103°; serum, 10 c.cm., injected.

April 8th. Less delirium, feels better, highest temperature 102°; subsequent progress was slow, but the temperature did not rise again above 102°, reaching 99° three days later; convalescence was delayed by furuncles, but no abscesses formed.

CASE IV.—J. P., a previously healthy man of 21, admitted with initial temperature of 101°. A very severe confluent attack, accompanied by much active delirium and some bronchitis.

April 21st. Pulse 118, weak; respirations 28, irregular, tremulous at times, tries to get out of bed. Patient very weak. Temperature 101.8°; serum, 10 c.cm., injected at 6 P.M.

April 22nd. Temperature rose to 103° at 6 A.M., but gradually declined to 101°; general condition rather better.

April 23rd. Very delirious, had to be tied in bed. In very exhausted condition; pustules drying up. At 10 A.M. the temperature rose to 104°; serum, 10 c.cm., injected. Temperature, 10 P.M., 102°.

April 24th. Very weak; pulse 130, irregular; respirations 34, shallow. In the afternoon the temperature rose to 104°; sponged, fell to 101°, later rose to 103°; serum, 10 c.cm., injected at 6.30 P.M.

April 25th. The temperature has steadily fallen to 100.2°; seems better, much less delirium; pulse 110, regular; respirations 25, very weak; temperature at 2 P.M., 103; sponged; temperature 101°; subsequently temperature only exceeded 100° on one occasion. The prostrated condition lasted for several days, but convalescence was later very rapid, though accompanied by almost complete alopecia.

CASE V.—A woman, aged 44. Admitted on third day of disease (temperature 105°) with severe confluent attack. For five days after admission she was very restless, at times delirious; pulse 110 to 120, temperature fluctuating below 101°. On the fifth day the temperature reached normal; on the sixth day secondary fever began. During this period she was very restless and at times maniacal; the vesicles remained of small size, and early ran together in large irregular confluent areas. At this period the condition was very grave; pustulation was in progress, there was much vomiting and delirium; the pulse was 120, weak; respiration 25, cardiac sounds feeble; the temperature steadily rose, till at 10 P.M. on the ninth day it reached 103.2°. Serum, 10 c.cm., was then injected. Four hours later the temperature reached 104°, after which it steadily fell to 100° at 2 P.M. on the tenth day. At 10 P.M. the temperature again reached 103°. Serum, 10 c.cm., was injected during this period. The woman's condition was very critical: she was getting weaker, and evidently was losing ground. Eight hours after the serum the temperature fell to 101.4°, but later rose to 104.2°, when more serum was injected, followed by a fall of temperature to 103°; death, however, occurred twelve hours later on the twelfth day.

CASE VI.—W. H., labourer, admitted on the fifth day, with very copious eruption on face, neck, hands, and arms, less copious on trunk; secondary pyrexia began on the eighth day, and pustulation occurred about the same time. The general condition and progress closely resembled that described in other cases. On the twelfth day the temperature reached 104°, when serum, 10 c.cm., was injected. In twelve hours the temperature fell to 101.8°. The pulse was 125, very weak and irregular. Respirations 25 twenty-four hours later. On the thirteenth day the temperature again reached 103.8°. More serum was then injected, with the result that the temperature fell in sixteen hours to 101° on the fourteenth day. From this date till the eighteenth day the temperature only once reached 102°, the patient seemed stronger and took food well, though pustules cleared up slowly. On the eighteenth day the condition became worse, very restless; irregular pulse, 130, and some tremor; temperature 103°; more serum injected, resulting in a fall of temperature to 100.2° in twelve hours. Temperature again began to rise, and patient, who showed signs of cardiac failure, died four days later, the temperature for eight hours before death being 107°. The long interval preceding the third injection was due to accidental causes.

In earlier cases serum injections were repeated only as the temperature rose after a previous injection, and the interval between the injections therefore varied. Later, however, better results were obtained after injections at regular intervals of twenty-four hours, beginning, as a rule, with the onset of pustulation. In no case were more than three injections given. Probably in some cases the injections should be continued for longer periods, or the amount of the earlier injections increased.

In cases treated with serum, the critical period following the absorption of the pustules was shortened, the intensity of the toxæmia seemed to be less, there was much less tendency to cardiac failure or collapse. The pulse throughout, though fast, was regular, and the strength of the beat was well maintained. Convalescence set in earlier and progressed rapidly. These patients were out of danger, and out of bed, before others with attacks of similar intensity. Most important of all, not one of the four patients treated with serum who recovered developed a single abscess throughout the convalescence. In cases of similar severity it was often necessary to make from 30 to 60 incisions in the same patient for abscesses or cellulitis, and many patients died in this condition of semi-pyæmia. That the severity of attack in these reported cases was as great as in those often fatal, where complications above referred to arose, is shown by the fact that they, too, suffered from acute furunculosis, almost complete alopecia, and flesh was lost as rapidly as in other cases. No local pain, local abscess, arthritis, or hyperpyrexia ensued in any of these cases.

BACTERIOLOGY.

To establish bacteriologically the value, whether great or little, of this treatment, would require a prolonged and careful bacteriological examination of the vesicles, pustules, and resulting abscesses in all their stages, such as the writer was unable to carry out. More or less roughly, by cultivations on ordinary media, organisms were obtained from pustules and from the pus of abscesses giving reactions similar to streptococci, and in a few cases to staphylococci. The contents of a vesicle, which appeared to have undergone purulent change in its interior, rather than on the surface, was examined by the Clinical Research Association, they reported staphylococcus aureus and staphylococcus albus present.

The bacteriology of variola is very incompletely known. Cohn[3] found cocci in variolous lymph, and this observation was confirmed later by Burdon Sanderson. Weigert[4] found the lymphatics in the region of a pustule, both in human small-pox and in sheep-pox, filled with cocci which were later named streptococcus variolæ et vaccinæ. Hlava[5] established the presence of streptococcus pyogenes in small-pox pustules. Garre[6] found streptococci in the internal organs in a case of variola hæmorrhagica, and in a fatal case complicated by pemphigus he found the streptococcus pyogenes aureus in the pemphigus vesicles. Steinberg[7] says that the microbes found in variolous pus are the usual pyogenic organisms.

Finally, the object of this paper is to set forth clinical facts that occurred under the writer's observation; not to propose a theory, but to leave others, whose opportunities for treating variola patients and for making the necessarily extended bacteriological inquiry are more prolonged than was the writer's, to test by a fair trial the value of this treatment.

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THE TREATMENT OF INGUINAL HERNIA IN CHILDREN.*

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INGUINAL hernia in children is a curable affection. Nature herself tends to bring about a cure, and it should be the aim of the surgeon to aid her in this. Yet it is a fact that there are very divergent opinions as to the best method in which art may thus assist the natural disappearance of the condition.

It is only my intention to discuss the treatment of the protrusion; yet to understand this thoroughly a few points in the etiology and the anatomy of the affection may not be out of place.

ANATOMICAL CONSIDERATIONS.

In both sexes a finger-like process of parietal peritoneum passes down through the inguinal canal, in the male accompanying the testis, and in the female the round ligament of the uterus. It is usual for this prolongation of the serous membrane to become obliterated and converted into a fibrous cord, wholly in the female, and except the lowest part in the male, this latter portion remaining as the tunica vaginalis. This closure should be complete very soon after, if not before, birth. Any failure in the obliteration of the process predisposes to protrusion of some of the abdominal viscera into the ready-formed sac. But I firmly believe that a very considerable proportion of infants who have a patent processus vaginalis never become the subjects of inguinal herniæ, and therefore it is necessary to look further for an exciting cause other than this predisposing condition.

* Read before the West Surrey District of the South-Eastern Branch of the British Medical Association.

Such a determining influence is generally said to be found in some factor which may of itself tend to produce violent expulsive efforts on the part of the child—as, for instance, a cough, constipation, phimosis, etc.; but I must confess that, while allowing that these have, perhaps, a certain amount of action in the production of the descent of the viscera, yet I do not think that the general and probably the most potent cause is to be found in any one of them. Improper diet in the early months of life is almost universally the factor that is at work. The faulty food sets up gastro-enteritis, leads to diarrhœa, vomiting, and to the development of a large quantity of gas in the intestines, and so to over-distension of the bowel. This in its turn produces greatly increased intra-abdominal tension, and thus the gut is brought into almost forcible contact with the weak spots on the abdominal wall, and hernia results. Certainly umbilical herniæ owe their origin to this factor, and I think also the majority of inguinal protrusions do the same. At the same time, the crying of the child, caused by the colic from which it suffers, will enhance the likelihood of a hernia appearing.

Treatment.

Passing now to the actual treatment of inguinal herniæ in children, I purpose to discuss it under two headings—mechanical and operative. The majority of inguinal herniæ—and for that matter all herniæ—in children are reducible, probably from the fact that the omentum is but seldom in the sac, as it is at this early age imperfectly developed. Sometimes there is some amount of difficulty in returning the contents of the sac, generally owing to the overdistended condition of the abdomen.

The rational palliative, or rather non-operative, treatment of the protrusion consists in the removal of any exciting cause, reduction of the contents, and the application of some form of apparatus to maintain the viscera in the abdominal cavity. The natural processes will then usually lead to the closure of the patent tube of peritoneum, and thus to the cure of the protrusion. It is only so long as the process of the serous membrane is dilated by the descent of viscera that its opposing surfaces are kept asunder. Remove this dilating force and obliteration will follow.

First, then, as to the possible exciting cause. Diet should have the utmost attention paid to it, but it is beyond the scope of this paper to more than indicate this important fact in connection with the successful treatment of these congenital protrusions. Careful regulation of the bowels is very necessary. With regard to phimosis, although admitting that in extreme cases where ballooning of the prepuce is occasioned by every act of micturition, I do not think a tight foreskin has much to do with the production of a hernia for the following reasons:

1. A large number of boys are afflicted with phimosis who never become the subjects of herniæ.
2. Congenital inguinal protrusions are decidedly frequent in Jewish male infants.
3. The phimosis in the majority of cases does not produce much, if any, obstruction to the outflow of urine, and therefore little or no straining on the part of the child.

If then phimosis exercises only a very moderate amount of influence in the production of a hernial protrusion, the question naturally arises as to whether circumcision can be beneficial so far as the hernia is concerned. I think that in some few instances the removal of the prepuce may tend to diminish the probability of increase of the protrusion, but I am quite sure that the operation will not cure or even materially benefit a hernia which is already in evidence.

It is unfortunately not infrequent to find that the operation of circumcision is performed and the child is not afterwards fitted with a truss, because it is thought that the removal of the foreskin is all that is needed to cure the hernia, while the fact is that in such cases the protrusion steadily enlarges.

To put it briefly, therefore, phimosis is seldom, if ever, an exciting cause of hernia in children, and consequently circumcision alone is not very likely to bring about a cure. This statement does not, of course, imply that the operation should not be performed for other adequate reasons, but that it must not be considered as of primary importance in its relation to congenital protrusions.

Secondly, we come to the reduction of the contents of the sac, and the application of some form of apparatus that is to keep the viscera within the abdominal cavity. As has been said, reduction is usually easy, but it is often not a simple matter to keep the contents of the sac reduced.

The form of instrument to be applied again occasions some divergence of opinion. It may be said that there are two chief varieties of apparatus in use—the skein of wool, and the steel spring truss. I may at once say that I strongly disapprove of the former, and earnestly recommend the latter.

The Wool Truss.

When one has to deal with a large number of congenital inguinal herniæ, the uselessness of the skein of wool truss becomes only too apparent. I believe that this form of appliance was first introduced by Mr. William Coates in the year 1848, and it still holds its own in the practice of many.

Let me give shortly the arguments for and against its use:

For: (1) Its simplicity; (2) its cheapness; (3) the ease with which it can be changed; (4) that it can be worn in the bath, and a dry one applied immediately afterwards; (5) that no attention is required except at the moment of changing.

Against: (1) It is inefficient, and therefore a false security, except in the simplest of cases; (2) it exercises little if any pressure directly over the hernial apertures, and thus no likelihood of a permanent cure is gained; (3) it may cause excoriation.

The Spring Truss.

Let me also give shortly the arguments for the spring truss:

For: (1) It is very efficient in retaining the viscera within the abdomen; (2) it exercises pressure directly over the inguinal canal, and thus tends to bring about obliteration of the processus vaginalis, and to enhance the prospect of a lasting cure.

In discussing the application of a steel spring truss to an infant, it may at once be conceded that an ill-fashioned instrument, covered with impure red composition rubber, one which is either too small or too large, or one that is improperly adjusted, will inevitably cause trouble. On the other hand a well-made truss, covered with pure rubber, with no seam that is next to the skin, of the right size, and properly adjusted, but seldom causes much inconvenience.

The method of measurement for an inguinal truss for an infant or young child is the same as that for an adult, that is to say, the tape should be carried round the pelvis obliquely, at the base of the sacrum behind, half way between the crest of the ilium and the top of the great trochanter at the side, and above the symphysis pubis in front.

For a single truss the actual number of inches thus obtained is the correct size; for a double truss it is well often to add an inch to this measurement, because a double truss does not stretch at all. The adjustment of a truss at so tender an age is of the utmost importance. The inguinal canal in infancy is practically non-existent, since the deep abdominal ring lies almost directly behind the superficial, but both, it must be remembered, are placed above the level of the pubic bone, and therefore of the symphysis. In children the upper part of the symphysis pubis is considerably higher than it is generally supposed, or than it appears, to be. There is, however, a distinct guide to the level required, for every child, and particularly a well-nourished one, presents a curved line running across the lower part of the abdomen, known as the fold of Venus, which accurately indicates the upper limit of the pubic bones.

The important fact to be borne in mind is that the whole of the pad of the truss must lie above this line, for if it be placed below it, the soft parts upon which it will then impinge must of necessity be compressed between the pad and the unyielding bone beneath, and, moreover, the pad would in no way tend to retain the intestine, seeing that it is placed altogether below the site of the rings through which the protrusion passes. Very soon such pressure would cause irritation, and then excoriation, but this untoward result can be entirely avoided if the truss is worn at the proper level, where it will press only on the soft parts. Here, moreover, it has but little tendency to shift its position, or to be displaced by the intentional acts of the patient.

A truss thus carefully adjusted must be worn by the child

continually, day and night, sleeping and waking, crying and peaceful. Temporary removal is necessary for the purposes of cleanliness, and when this is needed it should be undertaken with the patient recumbent, and when left unguarded by the truss, the hernial aperture should be protected by the nurse's finger or thumb.

It is remarkable how rapidly, often within a few weeks, after the application of a truss of a proper form for a congenital inguinal hernia, descent of the viscera ceases, but such would soon recur if the truss for any reason were discontinued. Permanent closure of the processus vaginalis will be obtained in the majority of cases only after a continuous action of the pressure of a spring truss over a period of some years. A cure, therefore, can be safely predicted, but the truss should not be discarded until the child has reached the age of at least three years.

Treatment by trusses should be begun at the very earliest possible moment, as for each year of life which is passed without the use of the instrument there is a corresponding diminution in the probability of a permanent cure. It is highly fallacious to aver that a hernia in an infant will become spontaneously cured without active treatment by truss pressure. Such a result is so extremely rare that it must be disregarded in practice.

Congenital inguinal herniæ in female infants are even more likely to be cured by treatment than those in male subjects. In certain instances young boys may develop very large scrotal herniæ, the outcome of neglect, which may not be efficiently controlled by an ordinary truss. In such cases a rat-tail or a forked-tongue truss will be required. In all cases of hernia in the young, attention should be paid to the encouragement of muscular development by means of calisthenics, etc.

THE RADICAL OPERATION.

Passing now to the operative treatment of inguinal herniæ in childhood, I would preface my remarks by saying that it is only a small minority of cases that need operation.

There are two chief arguments against a radical operation with a view to a cure in the case of young children, say before 3 years of age. One is the strong probability there is that a spontaneous cure will result, provided efficient truss pressure is secured, and a proper diet is given to the patient. That such a happy termination does frequently ensue is, I think, the experience of most practitioners, and it is certainly not common to be given the history of a hernia having been present in infancy, then an apparent cure, and afterwards a relapse in later life. This fact would seem, therefore, to be a valid argument against the necessity of an operation.

The other argument that is put forward is that the wound formed so near the urinary apparatus in a child is very liable to become septic. I do not think that this has much weight, for it is comparatively easy to prevent infection if the wound is made, as it should be, in the inguinal region and immediately closed with a collodion dressing of small size. It is a great mistake in all operations about this region in children to apply a bulky dressing, for such is much more liable to become contaminated than is a small one.

The following are the cases in which an operation may be advised:

1. Where a child is being properly fed, but in whom a hernia after a fair trial is not retained by a suitable truss, so that there is little or no chance of a spontaneous cure.
2. Where part of the contents of the sac are irreducible.
3. Where a truss has been worn for at least three years, but with no apparent cure of the protrusion.
4. Where a child has reached the age of at least 3 years but has never worn a truss.
5. Where a herniotomy has to be performed for strangulation.

Now, it is unusual for a hernia in a child not to be adequately controlled by a proper truss. It is rare to have irreducible contents in early life. A truss generally brings about a cure. The subject of a hernia in infancy is not often in the present day allowed to go for three years without treatment, and strangulation seldom needs an operation in children, so that it will be seen that the cases where a radical operation is needed are not by any means common.

The preparation of a child for a radical operation upon its hernia is a matter of considerable importance, for asepsis is a primary necessity to safety and success.

I always prefer to have the patient in bed for two days prior to the operation, so that the child may become somewhat accustomed to the necessary restraint, and in order that the skin may be thoroughly prepared. Two days, therefore, before the morning of the operation, the surface of the skin in the area of the wound that is to be made, should be scrubbed with soap and hot water, then the parts treated with ether, and finally with an antiseptic solution consisting of 1 in 2,000 biniodide of mercury. It is not well to use too strong an antiseptic upon the tender skin of a child, otherwise there is a great tendency to the formation of an eczematous eruption.

Directly after the application of the antiseptic, a dressing of the double cyanide of mercury and zinc gauze is to be firmly and immovably adjusted. This is left on until the following morning, when it is removed, and the whole of the process of cleansing repeated.

The second dressing is untouched till the time of the operation itself. On the table the cleansing is again carried out in a similar manner, so that the parts are only exposed immediately before the incision is made. I believe that this method of preparation is one that causes the least irritation, and one that at the same time induces true asepsis, for any septic material that lies at the bottom of the glands of the skin has time to be brought to the surface by the actively secreting glands. It is absolutely necessary that every step of the operation should be conducted with strict attention to the question of asepsis.

With regard to the actual operation, as the case is one of a congenital inguinal hernia, and presents merely a congenital aperture in the parietal peritoneum, there is nothing that is needed save to close this opening, seeing that the musculature of the abdominal wall is not at fault. This closure, however, must be performed at the site of the deep abdominal ring, and but little account need be taken of the superficial aperture.

The older the patient the more external lies the deep ring or the entrance of the canal, and thus the more it is under the cover of the arching fibres of the internal oblique and transversalis muscles. It is this fact, again, that renders the prospects of a lasting cure after operation so genuine.

An incision, which need not in a child be more than 1½ inch long in the majority of instances, is made over the line of the inguinal canal, extending from a little external to the middle of Poupart's ligament to just below the level of the crest of the os pubis. By this incision, the whole length of the canal will be uncovered. The aponeurosis of the external oblique muscle is thus exposed, and is to be divided the entire length of the wound, but at a somewhat higher level than the skin incision.

The neck of the sac is now separated from the spermatic cord, or the round ligament of the uterus that lies behind it. This dissection in the male subject may be a matter of some difficulty, and needs care to avoid injury to the vas.

When the neck of the sac has been isolated right up to the parietal peritoneum, which can be done by retracting the fibres of the internal oblique and transversalis muscles upwards and outwards, it should be opened, and any contents completely reduced into the abdominal cavity. I then usually deliberately sew up the aperture in the parietal peritoneum by a continuous suture of fine silk, in the same manner as in an ordinary laparotomy wound. In this way obliteration of the mouth of the sac is secured, and that quite at its connection with the serous membrane lining the wall of the abdomen. It is not necessary to close the lower end of the funicular portion of the processus vaginalis, for a natural tunica vaginalis will be formed in the male.

In the majority of instances this is all that is required, for I do not think that it is advisable in a congenital hernia to suture the arching fibres of the internal oblique and transversalis muscles to the lower half of Poupart's ligament in front of the cord.

These fibres normally act as a kind of sphincter and even in a sense as a valve, and the less they are disturbed either by division or suturing the better. In some cases where the hernia has been much neglected, and the parts have become a great deal stretched, it may be essential to insert one or even two sutures of silk so as to approximate the roof of the canal to its floor.

The aponeurosis of the external oblique muscle is now brought together by a continuous suture of fine silk, and the skin wound by interrupted sutures of silkworm gut. Then a small collodion antiseptic dressing is applied and the parts left untouched for five or six days, when the dressing is removed and the superficial stitches cut out and the wound redressed.

The child need not be kept in bed longer than ten days, after which period it may be allowed to run about, provided that sound healing has taken place. There is no necessity for such a patient to wear a truss subsequent to the operation, unless the parts previously had been much dilated by a large hernia. In this instance it is well that a truss should be applied for about a year as a precaution. The results of these operations are most satisfactory, and it is doubtful whether a promise can really be made of a lasting cure, save in the congenital inguinal herniæ of children.

Irreducible Hernia.

So far I have only dealt with reducible herniæ. A hernia which is in a condition of simple irreducibility, that is, one which is irreducible, but not strangulated, is not common in young children, but it does occur occasionally as the outcome of a congenital cæcal hernia on the right side, and more rarely owing to adherent omentum.

Both of these irreducible herniæ are perhaps best treated by operation, although if this for any reason is contra-indicated, then the application of a hinged-cup truss is to be advised.

When strangulation occurs in the congenital inguinal herniæ of childhood, it is seldom very acute—that is to say, the signs of intestinal obstruction are not well marked. Moreover, reduction is usually comparatively easy by taxis, or the hernia may become reduced either spontaneously or after the lower limbs and pelvis of the patient have been kept elevated for a few hours.

If these means fail, then herniotomy is necessary and should be performed together with a radical treatment of the sac.

TWO CASES OF RESECTION OF THE LARGE INTESTINE, WITH RECOVERY.

By FREDERIC EVE, F.R.C.S.,

Surgeon to the London Hospital and to the Evelina Hospital for Sick Children.

These two cases are examples of the commonest causes for which the large intestine may require resection—namely, for strangulation and gangrene by hernia, and for carcinoma. They both illustrate the wisdom of postponing resection when obstruction exists until this has been relieved. Case II is published especially to draw attention to the merits of extra-peritoneal resection and suture for artificial anus.

Case I. *Strangulated Left Inguinal Hernia: Herniotomy: Perforation of Transverse Colon: Resection of Bowel Five Weeks Later: Recovery.*—T. T., aged 46, was admitted to the London Hospital on November 23rd, 1896, with a large, strangulated, left scrotal hernia. The hernia had existed for twenty years, and he had worn a truss. On November 20th the rupture came down and he was unable to reduce it. Vomiting commenced on the 22nd instant. The bowels had not acted since the 19th. On November 23rd herniotomy was performed. The sac contained omentum and a portion of the transverse colon. This was deeply congested and perforated. The opening was too large and the condition of the bowel too unsatisfactory to admit of closing the opening by sutures. A glass tube (Paul's) was tied in the large intestine, and this was fixed by one or two sutures to the skin in the inguinal region. The patient recovered from this operation without any troublesome complications. A portion of bowel covered with granulations protruded from an opening in the abdominal wall, and the whole of the fæces were discharged through it. After allowing an interval of five weeks to elapse in order that the parts might consolidate and the inflammatory thickening disappear, the operation of resection was performed on January 2nd, 1897. Anæsthetic, ether and A.C.E. mixture. An incision was made vertically upwards in the semilunar line from the small protrusion of the bowel. This divided all the structures down to the peritoneum. It was my intention to perform the resection entirely extraperitoneally, after the manner suggested by the late Mr. Greig Smith.[1] But the peritoneum was found so thin and delicate that it would not permit of the necessary manipulation. This was doubtless due to stretching of the membrane from the proximity of the hernia. The peritoneal cavity was therefore opened, the proximal end of bowel secured, and the protruded portion then separated by the division of the abdominal parietes around it. The knuckle of intestine to be excised was brought quite out of the abdominal wound and the peritoneal cavity protected with sponges. The gut was resected, and the divided mesentery brought together with a running suture. The mucous membrane of the free ends of the intestine was first united by a continuous suture of fine silk. Next the peritoneal and muscular coats were united by about fifty Lembert sutures. The running suture through the mesentery was tied last. Finally, a graft of omentum was fixed around the line of sutures, especially near the mesenteric attachment. The abdominal wound was closed and a small drain was left in it. This was removed in twenty-four hours. The operation lasted about two hours. The patient suffered considerably from shock after the operation, but was never sick, and the wound healed by first intention. He was fed by nutrient enemata until the fourth day, when champagne and milk were given by the mouth. On January 28th he was able to leave his bed, and soon afterwards he was discharged quite well.

Case II. *Carcinoma of Descending Colon: Colectomy: Recovery.*—B. D., aged 47, was admitted to the London Hospital under the care of my colleague, Dr. F. J. Smith, on January 28th, 1898, suffering with chronic constipation.

History.—Her illness commenced at the beginning of the summer of 1897 with pain in the abdomen and vomiting. The vomiting occurred about two hours after a meal, and the pain was relieved by it. Some months ago she noticed a lump in the left loin. She had passed blood with the stools occasionally for some years, and had resorted to enemata for constipation for two years. Lately tenesmus had existed. She had lost two stone in weight within the last six months. She was transferred to the surgical wards on February 6th. Occupying the left loin just below the level of the kidney was a sausage-shaped tumour distinctly movable from side to side, and evidently situated in the descending colon. No enlargement of the liver existed. The abdomen was somewhat distended. Carcinoma of the descending colon was diagnosed. As a preparation for resection of the bowel a mild purgative (magnesiæ sulph.) was given, with the result that the constipation became absolute, the abdomen distended, and she vomited.

Operation.—February 10th, 1898. Anæsthetic, ether. The tumour was exposed by a longitudinal incision in the left flank, and found to be a constricting carcinoma of the descending colon just below the splenic flexure. The tumour was brought out through the wound, together with some inches of bowel on each side of it, and was stitched to the parietes, the wound being partially closed. An incision was then made into the bowel on the proximal side of the tumour, and a glass tube (Paul's) was tied in. It was not thought advisable to perform resection and suture of the intestine immediately, owing to the fact that the intestines were considerably distended, and the patient's condition not favourable for so serious an operation.

February 21st. The portion of the bowel with the tumour protruding from the wound was cut away level with the skin. The incision was so planned that more of the concavity than of the convexity of the protruding knuckle was removed, in order to permit subsequently of easier approximation of the ends. An attempt was made to prevent formation of a spur by suturing together the mesenteric borders of the ends. Microscopic examination of the tumour showed it to be a typical columnar-celled carcinoma. An interval of about a month was allowed for the inflammatory effusions around the wound to become absorbed.

On March 25th, under ether, an incision through the skin and parietes was made around the colotomy wound, and this was continued above and below the artificial anus for a considerable distance. These incisions were carried down to the peritoneum, which was then separated from the parietes for a distance of 1½ inch to 2 inches all round the bowel. The collar of skin attached to the divided ends of the bowel was removed, and the latter were refreshed, except at the united mesenteric borders. The ends of the bowel were then brought together by two rows of sutures, one uniting the mucous membrane, and the other the peritoneum and muscular coat. The bowel with the peritoneum was then pushed inwards, and the parietes united with silkworm gut, the wound being completely closed with the exception of a small gauze drain. Food by the mouth was given on the fourth day.

On April 3rd, nine days after the operation, a small fistula formed, and a slight fæcal discharge appeared on the dressings. Subsequently the wound was washed out with 1 in 4,000 solution perchloride of mercury whenever the dressings were changed, but there was no further discharge of fæces. The sinus was quite closed on April 20th. The patient was then allowed to get up. She is now (May, 1899) perfectly well, with no symptom of recurrence.

The propriety of draining the perforated intestine at the first operation in Case I, instead of attempting an immediate resection, is scarcely open to doubt. This remark applies to the present day, when Murphy's button is so much used, nearly as forcibly as it did in 1896, when the case related occurred; and it would apply more strongly to the large intestine than to the small. The introduction of Murphy's button has not in my opinion affected the justice of the conclusion expressed by Mr. Greig Smith as follows: "I have come to the conclusion that to resect living intestine during obstruction is surgically unsound; and I doubt if any improvement in methods will ever make the operation justifiable. The shock and the illness which follow resection of bowel are too great to put on a patient suffering from intestinal obstruction."[1] It has occurred to me that a perforation or other limited lesion of intestine, not suitable for suture, might be treated by an invagination of a portion of the circumference of the bowel, the invaginated part being retained in position by sutures; but I have not had a favourable opportunity of putting this to the test. Before performing resection I considered whether I would suture or use a Murphy's button, and came to the conclusion that for the large intestine, at any rate, the former was the safer.

In regard to Case II the same remarks concerning immediate resection at the first operation apply, although the obstruction

was not nearly so acute as in the first case related. An amount of partial obstruction had, however, existed for a considerable period; and this during the day or two preceding the operation had become complete.

I would strongly advocate the method of extraperitoneal suture as the safest, and that which is most free from anxiety. It is, however, not easy to strip up the peritoneum from the parietes to a sufficient extent without tearing it; but slight rents may be closed with a continuous suture of fine silk. The suturing of the intestine is also more difficult, owing to the position of the ends of the intestine. It was especially so in the case reported, because the walls of the bowel were sodden and very friable; and I had at the time considerable doubt as to whether the sutures would hold. They did not, in fact, do so completely, although the ultimate result was not affected.

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A CASE OF ARRESTED DEVELOPMENT OF THE THIRD AND FOURTH RIBS.

By ALFRED G. LEVY, M.D.Lond.

I found this abnormality in a somewhat poorly-developed boy of 13 years of age. The general features of the case are as follows:

The front of the chest on the right side (Fig. 1) presents a striking depression over the position corresponding normally

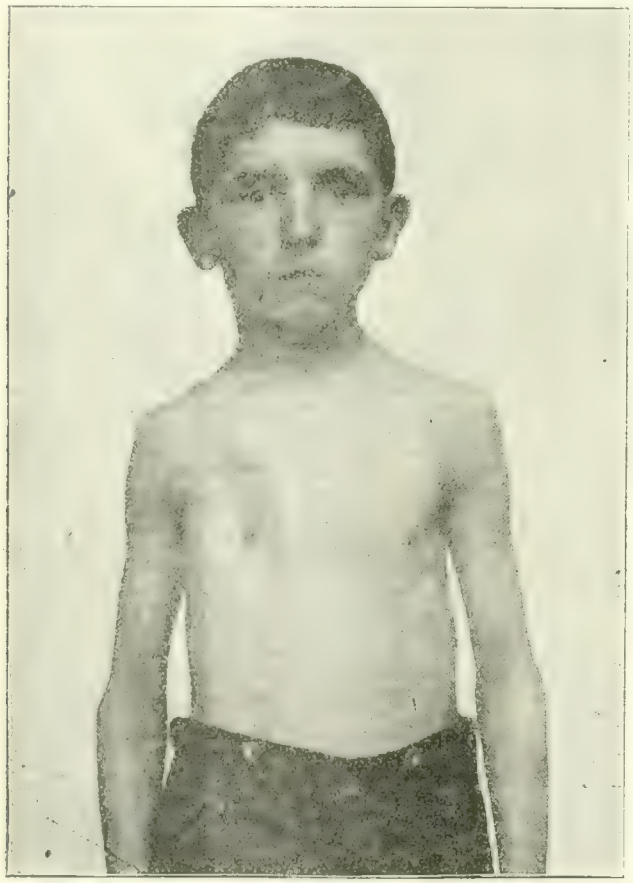


Fig. 1.

to that of the third and fourth ribs, and this appearance is accentuated by the exaggerated development of the clavicular portion of the pectoralis major, and of a small neighbouring portion arising from the first rib cartilage. There is no further trace of pectoral muscle, either major or minor.

The third rib cartilage is a little stump about half an inch in length, but the fourth is a narrow curved strip two-and-a-half inches long lying close along the upper border of the fifth cartilage. The end of the curtailed third rib may be obscurely felt in the axilla just under the margin of the pectoral muscle and lying close to the second rib while the attenuated termination of the fourth rib is found a little further back in the axilla. The skiagraph, made



Fig. 2.

for me by Messrs. Coxeter and Son (Fig. 2), was taken with the boy lying in the prone position, so that it represents a front view of the thorax, and the tapering ends of the malformed ribs are seen in the skiagraph.

Naturally some spinal deformity results. There is a well marked dorsal curvature with little compensatory curve either in the lumbar or the cervical regions; this is the usual type of curvature found in cases of collapse of the ribs, such as may be found following an empyema, but whereas in the latter case the convexity of the curvature would be directed towards the healthy side, in the present instance the spinal column is deflected towards the malformed side, as perhaps might be expected from the deficiency of muscular and bony support involved therein. Judging from the breadth of the intercostal spaces on the two sides of the chest, there does not appear to be much rotation of the vertebræ, but it is probable that matters have been considerably modified by a systematic course of gymnastics which the patient underwent about a year ago with markedly beneficial results.

Abnormal conditions of the chest such as I have just described are decidedly rare. Now and again a case of complete absence of some of the ribs, usually the asternal ones, is reported, the condition being sometimes associated with imperfect development or absence of corresponding vertebræ; but it would certainly appear that ribs tend more to vary in the direction of complete absence than in that of mere incompleteness of development. The first rib is partly responsible for examples of the last-named deformity, but L. E. Hertslet[1] states that only 5 cases of rudimentary first ribs are recorded in Great Britain, and Helm[2] can find only 16 in the general anatomical literature of the past twenty-five years. Both of the above-mentioned authorities record cases, as also does

Professor Struthers,[3] who likewise mentions degrees of deficiency sometimes discovered in the twelfth pair.

In Förster's *Missbildungen des Menschen* the following paragraph is found: "Finally, clefts in the thorax may sometimes be caused by defects of the ribs, in that several ribs of one side may be wanting from the mid-point onwards, and the gap thus formed being closed by a firm membrane. It is the anterior portions of the ribs which are wanting, together with the rib cartilages. Sometimes the rib ends are not quite absent; but the ribs, the posterior portions of which are perfect, are continued forward as riband-like bands."

Otto, in his *Pathological Anatomy*, also remarks upon the occasional deficiency of the attachment of the front ends of the true ribs, but the three cases to which he gives references differ materially from the condition which I have described. Of instances of similar deformities in the living subject I find the following records: (*a*)[4] A case presenting a longitudinal furrow between the six upper ribs of the left side and their cartilages; (*b*)[5] an infant in which all the ribs of the left side except the first two, which were perfect, were represented by short rudimentary processes; (*c*)[6] a case of a man in whom a depression "as big as the fist" on the left side of the chest was accounted for by the partial deficiency of the third, fourth, and fifth ribs on that side.

The rudimentary first ribs have been variously regarded as possessing developmental and even evolutionary significance, but instances of the retarded development of the other ribs are probably purely accidental faults, comparable to those occasionally found in almost all the other bones in the body.

It seems probable that the exact nature of this deformity may not be always readily recognised in the living subject without the aid of *x*-ray photography. It is not easy by digital examination alone to differentiate the somewhat obscurely felt tense membranous bands from bone, so that the condition may be quite readily mistaken for an acquired local incurvation of the chest wall.

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A PARTIAL AMPUTATION OF THE FOOT.

By JOHN HERN, M.D., F.R.C.S.EDIN.,
Surgeon, Darlington Hospital.

AT the annual meeting of the British Medical Association at Edinburgh in August, 1898, I showed to the Surgical Section a case in which I had performed partial amputation of the foot by a new method. The lines of incision in this amputation are practically those of Chopart's operation, the antero-posterior being preferable to the lateral flaps if they can be obtained.

The incisions are carried down to the bones, the lower flap being dissected back to the level of the medio-tarsal joint, the upper to that of the ankle-joint; the foot is now forcibly depressed, the ankle-joint opened anteriorly, the lateral ligaments of the ankle-joint are next cut, also the strong calcaneo-astragaloid (interosseous) ligaments, and the whole tarsus, excepting the os calcis, removed. The os calcis is now drawn forwards between the malleoli, and is wired firmly in that position: one strand of wire passed obliquely through the lower end of the tibia and the anterior portion of the os calcis is usually sufficient. Care should be taken that the heel is in the direct line of the tibia. In some cases about $\frac{1}{4}$ to $\frac{1}{2}$ inch of the anterior portion of the os calcis was sawn off; in others it was found easier to do a Chopart first, then to seize the head of the astragalus with the lion forceps, and remove it by inserting the knife under it, and cutting the strong calcaneo-astragaloid interosseous bands, and then proceeding as above described to bring forward the os calcis between the malleoli. The resulting stump is an excellent one: it is broad and firm, consisting as it does of the heel practically unaltered.

The human foot may be regarded as a tripod, the heel, the ball of the great toe, and the ball of the little toe being the three points at which the weight of the body is transmitted to the ground. Now, given an injury destroying all possibility of retaining both anterior points, the most satisfactory method of transmitting the body weight to the ground is through the heel alone, as done by this operation.

There is a broader stump than produced by Syme's amputation, and attended with less shortening and less shock. There is no tendency to drawing up of the heel and walking on the cicatrix, as in Chopart, for the enemy (tendo Achillis) is disarmed by the drawing forward of the os calcis, thus shortening the projection backwards of the heel and lessening the leverage.

An ordinary boot can be worn with comfort, and keeps well in shape if a steel plate be stitched into the sole and the sides of the boot stiffened or supported by light side irons and the front portion of the boot stuffed in some way.

THE TREATMENT OF DYSENTERY.

By D. M. M. ROSS, M.B.,
Wetherall.

WHILE practising in Jamaica, I was on the whole disappointed with the results which ipecacuanha gave, finding it by no means the "radix antidysenterica," which it appears to be in India. In some cases, more particularly in European patients and in the early stages of the disease, its beneficial influence was marked, but in a number of these there was nothing to indicate that rest in bed, dieting, and mild aperients would not have effected as desirable a result. The ordinary ipecacuanha powder of the *B. P.* appeared to be more efficient than the preparation "sine emetine."

In negro patients the average results were more satisfactory from the magnesium sulphate treatment. In some of these, however, ipecacuanha was useful; in others the sulphate caused so much griping that its use had to be abandoned.

It may be that the difference in the results produced by ipecacuanha in the two races is dependent on the difference of their modes of life, more especially as regards diet, and its effect on the functions of the liver.

The more I saw of the disease the more did I feel that treatment had to be varied to meet individual peculiarities and the different stages through which the disease passes. It is most important that coexisting cachectic conditions—for example, the malarial and scorbutic—should not be overlooked, and that the patient should not continue drinking the water in which the original infection was possibly conveyed, or remain exposed to any other source of infection which can be removed. As regards the medical treatment, I venture to give a rough outline of the plan I adopted: Rest in bed. As much rest for the alimentary canal as is compatible with a sufficient supply of nourishment. Fomentations when necessary to relieve colic. Removal and prevention of accumulation in the bowels, and relief of engorgement by the administration of ipecacuanha, magnesium sulphate, or castor oil. When it can be borne, lavation of the large intestine by warm injections of permanganate of potash or boric acid, followed if needful by starch and opium enemata to relieve tenesmus. When the stools become faecal, gradual substitution of intestinal antiseptics—bismuth salicylate or subnitrate, salol, resorcin, naphthol. If the ulcers appear to be slow in healing, astringent injections carefully administered. Tonics, and, where possible, change of air.

In one case, in which, fortunately, injections had not been recently used, death occurred from perforation, and in other fatal cases it was evident how little was needed to produce this issue.

In severe unresponding cases, care should be taken that the patient is not weakened by too protracted a course of ipecacuanha or magnesium sulphate. It is better to have earlier recourse to intestinal antiseptics, and to interrupt this treatment by the occasional readministration of either of the above drugs, should it seem to be desirable. As to opium, I believe the less it is used the better, though sometimes it has to be resorted to, and with good effect. In all severe cases, careful attention should be directed to the circulatory system.

The few cases of hepatic abscess I have seen followed dysentery contracted in Central America. No case of hepatic abscess

following dysentery contracted in Jamaica has come under my notice, nor have I seen any indications of such in the cases examined *post mortem*. Further bacteriological research may determine the differences in type, and aid us in treatment.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CHEYNE-STOKES RESPIRATION.

THE cause of that irregular breathing, known by the name of Cheyne-Stokes respiration, has long been, and is even now, a matter of dispute. The more generally-received opinion at the present time is that it is due to contraction of the minute capillaries—or, as Sir William Broadbent puts it, to high vascular tension—and this view receives confirmation from a case of gout under my care a few years ago. When the patient, a male, came first under my observation, he had very distinct Cheyne-Stokes respiration occurring at varying intervals, and kept on passing red pepper granules in his urine. Whenever this respiration came on I noticed the urine always showed the presence of uric acid, and that when the latter was absent the breathing was perfectly natural. After some time, by careful dieting—cutting down the amount of nitrogenous food and alcohol—the uric acid entirely disappeared, and with it the irregular breathing. As a further proof that high vascular tension is at any rate one of the causes, I may mention that it is capable of being temporarily arrested by the use of erythrol tetranitrate. I have thought it fit to put these two facts on record, as they may help to clear up the question as to the cause of this peculiar symptom.

Surbiton. F. P. ATKINSON, M.D.

PICRIC ACID IN SUPERFICIAL BURNS.

IN the evolution of wound treatment a deeper insight into Nature's way of healing breaches of continuity has led to the rejection of many methods formerly employed. Surgeons have seen that instead of hastening healing the antiseptics they employ rather retard the process, while wound treatment by aseptic methods is not applicable to the lesions produced by burns and scalds. It is obvious that an antiseptic which by its mode of action directly promotes rapid healing will give the best result on such a wound. In the lower animals and in man Nature heals large superficial wounds rapidly and painlessly under scabs. The essential in successful scab formation is the absence of all suppuration. By the use of picric acid in burns we can imitate closely Nature's method, and far from hindering the healing process we may directly assist it. The artificial scab produced by picric acid consists of coagulated albuminous fluids, reinforced by masses of detached epidermis. The scab is formed at once, thus lessening the chance of sepsis subsequently occurring under it. It has always been an axiom in burn treatment to preserve as far as is practicable the raised epidermis of the vesicles, for no dressing we may substitute can protect the underlying injured surface half so well. Picric acid preserves this layer, and by virtue of its hardening action transforms it into a large protecting scab. Healing in burns of the first and second degrees takes place rapidly without suppuration.

The technique of the method is very simple. The punctured vesicles must be accurately flattened out. No impermeable material must be placed over the simple gauze, which should be dipped in a saturated aqueous solution of the acid and applied after being squeezed fairly dry. Absorbent wool and a light gauze bandage further encourage evaporation, and thus retard the growth of any bacteria which may have gained access to the wounded surface. A pair of thin rubber gloves may be used to avoid the unpleasant staining of the dresser's hands by the acid. Renewal of the dressing need not take place for four or five days, unless there are clear signs of suppuration. The gauze is best carefully stripped off in the dry condition.

In my experience picric acid has not caused toxic symptoms either in children or adults. I venture to say that a closer examination of the so-called toxic cases will reveal the fact that the symptoms were precisely those of septic absorption so commonly observed in grave burns under any treatment.

The advantages of picric acid in superficial burn treatment may be briefly summed up as follows: (1) Simplicity of application; (2) painlessness; (3) rapidity of healing due to—(*a*) epidermisation under scabs, (*b*) a favouring of epithelial growth, (*c*) a minimum of suppuration: (4) absence of local irritation, or of general toxic effect; (5) a smoother, more natural cicatrix than that obtained with other methods.

Rio Tinto Company, Spain. IAN MACDONALD, M.D.

DISLOCATION OF ACROMIAL END OF CLAVICLE.

A FEW weeks ago I saw a case of dislocation of the acromial end of the left clavicle in a young man, aged 23 years. He, with several others more or less under the influence of beer, was throwing darts at a target, and had been using his right hand for about two hours. He tried to throw the dart with his left hand, when he suddenly felt a severe pain over the left shoulder, and found his left arm useless. I was at the time visiting a medical friend in Lincolnshire, where I saw the case. There was complete displacement upwards of the left clavicle at the acromial end. Broad strips of plaster by Sayre's method were applied over a pad, and the left arm confined to the side; but it was very evident that the pressure exercised had little effect in retaining the clavicle in position. The patient then drew on his braces, and we noticed that the elastic pressure kept down the bone. He was directed to tighten the left brace, and to keep quiet in the recumbent position. So good was the effect of the pressure by the elastic brace that it seemed to me this simple mode of dealing with such a dislocation was all that could be desired.

J. D. RECKITT,

Bedford. Major, R.A.M.C.

A CASE OF MASTOID SUPPURATION WITH HYPERPYREXIA AND JAUNDICE: OPERATION: RECOVERY.

ON December 26th, 1898, I was asked by my colleague, Dr. Slater, to see E.W., aged 11, with him in consultation. The patient had been playing in the hot sun, and arrived home feeling feverish and unwell. Dr. Slater found the temperature to be 104.5°. He at first suspected sunstroke, but further investigation elicited the fact that on December 25th the patient had had an attack of vomiting, and that the week before she had had a fall upon her head. A few days later her mother noticed an offensive discharge from her left ear.

When I saw the patient at 11.30 P.M. her temperature was 108°, her pulse 180 and very feeble, but regular. There was no loss of consciousness; she answered questions rationally. She complained of headache, but had no vomiting. There was no optic neuritis. There had not been any rigor or shivering. The child looked very ill. There was marked tenderness over the left mastoid and along the whole course of the internal jugular vein, but there was no œdema or redness over the mastoid. There was pus in the external meatus of the left ear, which was not offensive. No perforation could be seen, but there was pus on Shrapnel's membrane. The right ear was normal in every respect.

After consultation with Drs. Slater and Edwards, it was decided that the case was one of middle-ear disease, probably complicated with mastoid suppuration and sinus thrombosis. It was therefore decided to explore the mastoid antrum and lateral sinus at once, and, if the latter was found to be thrombosed, to ligature the internal jugular as low down as possible. Dr. Edwards administered chloroform, which was well taken, and I performed the following operation, assisted by Dr. Slater: The usual post-aural incision was made, and the bone cleared of periosteum. The antrum was opened with the small French chisels, and a drop of pus was found in it, which was not at all offensive. The mastoid antrum was now connected with the middle ear, the facial nerve being shielded by Stacke's protector, and through drainage established. No other collection of pus was discovered. The lateral sinus was then exposed, and a small Pravaz's syringe inserted. Fluid blood was drawn out. The wound was irrigated with biniodide of mercury solution, 1 in 2,000, and plugged with 20 per cent. iodoform gauze. After the operation

the pulse was stronger, and the temperature had fallen to 102°.

On December 27th the temperature was only 99.4°, and the child seemed to be perfectly well, but complained of much pain in the wound. In the evening the temperature was again 108°, but an hour later it was only 100.2°; there were no rigors or vomiting or delirium.

On December 28th the temperature rose in the morning to 107.8°, but notwithstanding there were no cerebral symptoms and no rigors. The spleen was enlarged, but no other abdominal abnormality was discovered. She had never lived in a malarious district. The temperature fell.

On December 29th the temperature rose to 103° in the morning, but speedly sank to 98.2°. The child had clay-coloured stools, but seemed quite well in other respects.

On December 30th there was a little discharge of pus from the wound; the temperature was normal, and the spleen was no longer to be felt.

On December 31st there was distinct general jaundice; the temperature was normal.

On January 1st the jaundice was less marked. From this point the child made an uninterrupted recovery. There was no discharge of pus either from the wound or from the ear, so the wound was allowed to granulate up.

On February 28th the child was perfectly well and the wound had completely healed, leaving a narrow scar. The hearing was normal on both sides. The upper part of the tympanic membrane was seen to be replaced by scar tissue, which moved well.

Comments.—The case offers many difficulties and unusual points. The thermometer used was tested with a Kew-certificated instrument and found to be accurate. The question arises how far the temperature was influenced by exposure of the patient to a semi-tropical sun and how far it was due to absorption of septic products. The absence of rigors and sweating and the complete recovery seem to negative the view that there was general septic infection, in spite of the fact that the spleen was enlarged and that jaundice occurred. The case is interesting as showing that marked jugular tenderness may exist in mastoid cases, although the lateral sinus is quite normal. The absence of any severe cerebral symptoms formed a marked feature of the case. It must not be forgotten that in South Africa temperatures run higher than they do at home without the same significance, a South African typhoid patient with a temperature of 105° being no worse than one with a temperature of 104° in England.

T. Harrison Butler, M.B., B.Ch.Oxon.,
Port Elizabeth, S. Africa. Radcliffe Travelling Fellow.

INFLUENZA AND OTITIS MEDIA.

In the British Medical Journal of April 22nd, p. 964, Dr. Stewart rightly draws attention to the necessity for dealing energetically with the first symptoms of middle-ear mischief complicating influenza. In the treatment advised by him he omits what I think the most important item, namely, blood letting, without which hot fomentations are very little use, either in stopping the mischief or relieving pain.

It is my practice, on the first complaint of pain in the ear, to order three leeches to be applied immediately in front of the ear, and after they have had their fill to follow them up with hot boracic fomentations. In some instances a second application of leeches is necessary, but this I have found rare. Besides local treatment I order calomel, to be followed in three hours' time by a brisk saline purge, and I find that in the majority of cases immediate relief from the pain is experienced.

Brechin Place, S.W. F. Ashton Warner.

VENESECTION IN CEREBRAL HÆMORRHAGE.

As an illustration of Dr. Fortescue Fox's remarks upon this subject, I should like to narrate the incidents of a case which came under my notice several years ago, and which were written down at the time of occurrence. Just as I was passing the house of a patient one evening, the friends came out hurriedly in search of me. On entering the dining room I found the patient—a strong, full-blooded man, aged 39—seated in a chair, with a blue-red face, eyes starting from head, breathing heavily, in a semicomatose state, with hands, arms, and neck of an exceedingly dusky, almost purple, hue; pulse full and bounding. Somewhat to the chagrin of the friends, I instantly bled the patient freely from the arm. Almost immediately the breathing quietened, the blueness vanished, the circulation became tranquil as the blood-pressure lowered, and consciousness returned. After two or three days in bed the patient was quite himself again.

Sale. Oliver Withers, M.D.

FIBRO-ADENOMA OF THE MALE BREAST.

May I add one more case of fibro-adenoma of the male breast to those already recorded?

About a year ago I was given for examination a firm, smooth, rounded tumour of the size of a hazel nut removed by one of the naval surgeons here from the breast of a bluejacket. The section of the growth (which I still have) showed under both high and low magnifying lenses the typical appearance of fibro-adenoma.

Plymouth. H. W. Webber, M.S., M.D.Lond.

A CASE OF POISONING BY COAL GAS: RECOVERY.

The following case may be of interest in view of the value of the use of oxygen therein:

H. L., a healthy adult, retired to rest on the evening of March 27th at about 11.30 P.M. By some means unknown the india-rubber tubing of the gas fire became detached, probably when the fire was turned out. As he did not appear by 9 o'clock the next morning his room was opened, and he was found insensible in bed.

On my arrival a quarter of an hour later I found him in a state of profound coma. The body was in a condition of marked opisthotonos, the eyes open, with pupils widely dilated, and the face dusky, especially about the lips. The heart sounds were hardly audible, and no pulse could be felt at the wrist. Respiration was shallow and "sucking" in character and very irregular. To stimulate the heart and respiration I injected full doses of strychnine and digitalin, and soon after was able to commence the administration of oxygen. The effect was most marked, each interval in its use being followed by a return of the urgent symptoms. After four hours most of the muscular spasms had subsided, and at the end of six hours the conjunctival reflex returned slightly. Complete consciousness did not return till the following day, and by the second day the patient, though somewhat confused, was practically well. I feel sure that the happy result was due to the use of the oxygen to a very free amount. It has since been found out that about 4,000 cubic feet of gas were poured into the room during the night.

Westbourne Park, W. Herbert E. Friend.

HYPODERMIC INJECTION OF QUININE IN MALARIA.

I do not know if the treatment of malaria by hypodermic injections of the soluble sulphate of quinine is being much resorted to by the profession; but I would like to point out that I get excellent results from it. I find doses of gr. j hypodermically for three or four days running give most excellent results. I do not refer to the mild forms of malaria, but to the severe forms—so-called malignant types—æstivo-autumnal forms, where enlargement of the spleen is present. Under this treatment the spleen is reduced to the normal size in a very short time; in this form the drug does not seem to produce the cinchonism so speedily as when administered by the mouth.

Chas. A. Johnston, M.B., D.P.H., Capt. I.M.S.
Secunderabad, India

Successful Vaccination.—Dr. Arthur Purkiss, late Public Vaccinator for the Wolston District of the Rugby Union, has received for the second time the Government grant for efficient vaccination.

Medical Magistrate.—Dr. T. Thornton Macklin, Medical Officer of Health for Scilly, has been appointed to the Commission of the Peace for the Isles of Scilly in the county of Cornwall.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WEST SUSSEX COUNTY ASYLUM, CHICHESTER.

TWO UNUSUAL CASES.

(By R. H. Steen, M.D.Lond., Senior Assistant Medical Officer to the Asylum.)

Rupture of Heart.

The following case is of interest owing to its extreme rarity.

S. K., female, aged 82, married, was admitted on September 10th, 1897. She was suffering from senile dementia, and was restless and abusive. Her pulse was fairly good, though the arteries were atheromatous and the heart sounds feeble. The lungs were emphysematous. She had advanced cataract of the right eye and commencing cataract of the left eye. Though feeble, she was able to be up and about till December 15th, 1898, from which date she was confined to bed.

On February 11th, 1899, the left foot, which had previously shown signs of feeble circulation, commenced to become gangrenous, and this spread gradually up the leg. The right foot also showed signs of poor circulation, but did not completely lose its vitality.

She died on March 14th, 1899. At 6 A.M. she was tended by the night and day nurses, whom she abused and struck at as was her custom. At 7 A.M. she was seen by the assistant matron, and appeared to be much as usual. At 8.10 A.M. she was having her breakfast, and had taken a cupful of milk, after which she thanked the nurse, and then suddenly fell back and died almost instantaneously. The medical officer, who happened to be near the ward, saw her within a minute of the event, and life was quite extinct.

Necropsy.—Thirty hours after death. The body was well nourished; there were no bedsores. Rigor mortis was absent. The pericardium was found to contain two ounces by weight of dark, undecolorised blood clot with a small quantity of blood-stained serum. On the anterior surface of the left ventricle, three-quarters of an inch from the septum, and two inches from the apex, was an irregular rent of angular shape two-thirds of an inch in length. Three-quarters of an inch higher up, and running nearly to the commencement of the aorta, was an irregular patch of diseased fatty epicardium with two small apertures in it, and these were found to communicate with the irregular rent. The interior surface of the heart corresponding in position to the rent outside was covered over the space of one square inch with a mass of fibrin which partially closed over the tear in the ventricle wall. The anterior branch of the left coronary artery was very atheromatous, and was blocked by a mass of decolorised clot half an inch from its commencement. On microscopic section of a portion of the wall of the left ventricle marked fatty infiltration and degeneration were found to be present. The aortic valve cusps were slightly thickened but competent. Other orifices and valves normal. The aorta showed a few small patches of atheroma. Many of the arteries of the body were atheromatous, and the femoral artery was filled with a partially-decolorised clot, while the popliteal arteries on each side were blocked by thrombosis. The brain was normal to the naked eye, with the exception of slight thickening of the membranes, atrophy of the convolutions, and advanced atheroma of arteries at the base.

Remarks.—Spontaneous rupture of the heart is a rare event, and Dr. Mallett of Paris writing in 1889[1] had been able to discover only 179 authenticated cases. It is a disease of senility, and always occurs in a heart already weakened by disease. This may be of the nature of fatty infiltration and degeneration, blocking of the coronary artery, syphilitic gumma, or acute myocarditis the result of septic embolism. Authorities differ as regards the liability of the sexes. The exciting cause is frequently of the nature of some exertion, but often, as in the present case, no such cause can be ascertained. The usual site of the rupture is the anterior surface of the left ventricle near the septum as just described, but in a case recently recorded it occurred through the posterior wall of the left ventricle.[2] Death is usually instantaneous. There is a case, however, on record[1] in which the rupture was supposed to have taken place fifty-three hours before death. The symptoms when life is prolonged for several hours are intense pain, dyspnœa, syncope, and collapse. Convulsions of an epileptiform character have been known to occur which may mask the real nature of the affection. The symptoms will be seen to resemble those of angina pectoris, but frequently the real cause of death will be unsuspected, as in the present case, till discovered on the *post-mortem* table. Two cases have recently been described in the insane, and both in patients suffering from senile dementia[2], [3].



Photograph of the anterior surface of the heart of S. K. The heart is suspended by a pin through the aorta. The rupture is shown prominently in the centre of the plate, with the irregular patch of diseased tissue immediately above. The right ventricle and pulmonary artery have been opened in the usual manner. A portion of the left ventricle section can just be seen on the extreme left.

Osteoma of Dura Mater.

The rarest of all brain tumours being the osseous, the following case is worthy of record.

E. B., aged 74, was admitted on August 13th, 1897, suffering from senile dementia, with a history of having become insane twelve years previously with symptoms of melancholia. She was a feeble old woman with valvular disease of the heart and emphysema of lungs. There were signs of an old fracture of the right wrist. She was very noisy and talkative at times, her memory was bad, and she was wet and dirty in her habits.

On September 17th, 1897, she had a severe syncopic attack and very nearly died. Subsequently she had two or three similar attacks. She became progressively more feeble, and from the middle of August, 1898, was confined to bed, having slight bronchitis and a weak irregular pulse. She sank gradually, and died on August 31st, 1898.

Necropsy.—September 1st, 1898. The body was thin and emaciated; there were no bedsores. The mitral and aortic valves very markedly thickened and calcareous, and the lungs presented signs of chronic bronchitis with emphysema. On

[1] British Medical Journal, July, 1889, p. 205.

[2] *Ibid.*, September, 1896, p. 655.

[3] *Ibid.*, February, 1886, p. 297.

opening the dura mater a tumour the size of a large walnut was discovered attached posteriorly to this membrane, and lying upon the tentorium, through which it had impressed itself upon the superior surface of the cerebellum. The under surface of the right occipital lobe exhibited a concave depression where it had rested upon the tumour. The tumour was ovoid in shape, weighed exactly 1 oz., and on section was found to consist of compact bone. It is remarkable that with the exception of the syncope, which was probably due to the heart disease, there were no symptoms of the presence of this tumour during life.

I am indebted to Dr. H. A. Kidd, medical superintendent of the asylum, for permission to publish these cases.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. BRYANT, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, May 9th, 1899.

RHEUMATIC PERICARDITIS.

DR. F. J. POYNTON, who read this paper, remarked that the case, and microscopic investigations connected with it, supported the views expressed by Dr. Lees and himself in two papers read before the Society in June, 1898, and were a further contribution to the pathology of rheumatic dilatation of the heart. A brief allusion was made to the two papers upon acute dilatation in rheumatism and chorea, and to the subsequent discussion. The salient features of the case were described, with especial comment upon the progressive cardiac dilatation. The necropsy was described, at which was found enormous cardiac dilatation, with but very slight valvulitis and only plastic pericarditis. The microscopic investigations showed morbid changes in the vessels, interstitial tissues, and muscle of the heart wall. These changes were general and not especially localised to the neighbourhood of the inflamed pericardium. Two of the clinical features were especially dwelt upon—one the extreme dilatation, the other the occurrence of Rotch's sign with the absence of pericardial effusion. The following reasons were given in support of the view that the myocardial changes were concurrent and not secondary to the pericarditis: First, dilatation might occur without pericarditis, and therefore it was unlikely that the myocardial changes were secondary to pericarditis when pericarditis was also present. Secondly, microscopic evidence pointed to the changes in the heart wall being general and not localised to the surface, and even in early pericarditis numerous foci of inflammation were found deep in the heart wall. Thirdly, the hypothesis of a rheumatic toxin probably of bacterial origin favoured the view of a simultaneous infection, when all parts of the heart were found diseased after death. Fourthly, though the *post-mortem* appearances of pericarditis were far more obtrusive than those due to changes in the myocardium, it did not necessarily mean that they were more frequent or had a graver significance. The anatomical characteristics of the pericardium probably favoured a free reaction to the rheumatic poison, the firm cardiac wall probably allowed less reaction, yet it might be much affected by the toxin. Attention was directed to the marked dilatation that might occur in rheumatism with comparatively slight clinical symptoms. It was pointed out that even in acute and fatal cases of rheumatic carditis the changes in the muscle, though definite, were not extreme, whereas in other conditions, for example "fatty heart," the myocardial changes might be extreme and yet there be no obvious dilatation. It was suggested that the explanation lay in the complexity of such a tissue as the cardiac muscle. It was liable to diverse pathological changes, which probably had different interpretations. Some of these changes might be extremely destructive to the vital properties of the muscle, and cause death from syncope with but little dilatation, others might pervert or impair the function of the muscle, and there be death with marked dilatation. The myocardial changes in rheumatism were not so gross as in cases of "fatty heart," yet the first definite clinical symptom of the latter might be sudden death, and therefore in rheumatism with less severe myocardial changes the clinical symptoms might not be urgent. The reparative processes, after an attack of carditis, were considered with especial reference to those taking place in the myocardium. Finally, allusion was made to adherent pericardium and the condition of the myocardium in those cases of morbus cordis in adults in which the symptoms far exceeded the physical signs. Microscopic sections were shown in support of the statements made in the paper, with explanatory sketches by Dr. SANDERS.

DR. LEES said that this communication contained much valuable evidence; it showed that the cardiac dulness determined during life might be verified *post mortem*. In this case there was an amount of precordial dulness that far exceeded that of the largest of the tracings shown last year, on which doubt was thrown, and in this case the extent of the dulness was verified. The influence of rheumatism on the heart remained much as it was in the days of Sibson, and should be clearly settled. In one case to which he referred death resulted from an attempt to drain a supposed pericardial effusion, which was really a much-dilated heart. This paper also disproved the validity of Rotch's sign. By this paper the condition of the myocardium in rheumatism had been elucidated; the changes were not by any means confined to the muscular layers next the pericardium or endocardium, but was a general muscular change. Many of the fatal cases of supposed valvular disease or of adherent pericardium were really cases of rheumatic myocarditis.

DR. JOHN BROADBENT agreed that the proposition that myocarditis might be independent of pericarditis or endocarditis was proved by one of the cases quoted in the paper. The myocarditis due to rheumatic toxæmia was in contrast with the changes leading to the late cardiac dilatation in, for example, typhoid fever with subsequent recovery and freedom from fibrosis. Supposing that both were due to toxins it was difficult to understand the small-celled infiltration of the rheumatic heart, in addition to the muscle changes characteristic of the typhoid heart. He thought the sudden death from syncope referred to might be due to a lesion of the cardiac nerves. In regard to the alcoholic heart one would not expect so much dilatation, as fibrosin was so marked a feature.

DR. T. J. MACLAGAN said that no doubt myocarditis was much more common in rheumatism than had been supposed. The signs of a recent pericarditis limited to the base depended, he thought, on affection of the fibrous structures of the heart, differing from the action of the rheumatic toxin on the muscles. In rheumatism with an excess of lactic acid in the body this was evidence of a general influence on the muscles both voluntary and involuntary, and the heart muscle did not escape.

DR. BARLOW referred to a case that bore out the main point of the paper. In a young woman, aged 15, who had suffered from acute rheumatism with slight pleural effusion for which she was tapped, it was found after death that the heart was greatly dilated; there was no endocarditis or pericarditis, but there were profound myocardial changes. He, in agreement with the previous speaker, thought that the rheumatic poison affected the muscles generally, the voluntary muscles as well as that of the heart. For in former days of untreated rheumatism there was very marked muscular prostration, and even now there was very prominent muscular wasting in acute rheumatism, independently of neuritis, suggesting a profound myositis.

DR. POYNTON, in reply, said he thought there were two processes in rheumatism, the toxic process and the reactive changes—the toxic process affecting the muscle substance and the reactive changes producing the interstitial changes. The changes in voluntary muscles had presented themselves also to him as a striking feature of acute rheumatism.

A CONTRIBUTION TO THE STUDY OF ALKAPTONURIA.

DR. ARCHIBALD E. GARROD read this paper. He said that although a very rare anomaly, alkaptonuria possessed much interest, both in its physiological and clinical aspects. The urine of alkaptonuric individuals darkened rapidly after it was passed, acquiring a deep brown colour. The change was much more marked on the addition of an alkali, and was attended by absorption of oxygen. The urine reduced Fehling's solution with the aid of heat, ammoniacal silver nitrate solution in the cold. It was optically inactive, and the reducing substance did not ferment. Fabrics moistened with the urine became deeply stained on exposure to air. The reducing action of the urine might cause the condition to be

taken for glycosuria. The history of alkaptonuria dated from an observation by Bödeker in 1859, but a case, almost certainly of this nature, was described to the Royal Medical and Chirurgical Society by Dr. A. Marcett in 1822. Dr. Garrod had been able to find twenty-four adequately recorded examples of alkaptonuria, which were embodied in a table together with seven additional cases hitherto unrecorded. For the notes of five of these he was indebted to Dr. Pavy, as also for some specimens of urine. Alkaptonuria was usually congenital and life-long, and was apparently without injurious influence upon the health of the patient. The great majority of the patients were males; of the congenital cases a considerable number had occurred in brothers and sisters. In a few instances temporary alkaptonuria had been observed. Bödeker isolated from the urine of his patient a substance which he called "alkapton." In some later cases pyrocatechin, and in some others protocatechinic acid were thought to be the abnormal constituents present. Kirk isolated and analysed a crystalline acid which he called uroleucic acid. Marshall gave the name of glycosuric acid to a substance isolated by him, and Wolkow and Baumann obtained from the urine of an alkaptonuric patient homogentisinic or hydroquinone-acetic acid, which substance had been met with in all subsequent cases in which it had been sought for. Huppert re-examined Kirk's material, and found that in addition to uroleucic acid, homogentisinic acid was present in large amount. Uroleucic acid had not hitherto been detected in any recorded cases except those of Kirk, but as a rule its presence did not appear to have been excluded. Observations by Wolkow and Baumann seemed to show conclusively that tyrosin was the parent substance of homogentisinic acid in the organism, and they regarded it as probable that the latter was formed in the intestine by the action of a special micro-organism. Later observations, although they did not directly negative this suggestion, had failed to lend it any support. It was at one time supposed that alkapton urines were extremely deficient in uric acid, but later observations did not support this observation. The author had had opportunities of examining the urine of five alkaptonuric individuals. Case I was that of an infant kindly transferred to his care by Dr. Voelcker. The staining of the napkins was noticed on the day following birth. No other cases had occurred in the family. The patient was now 15 months old and in good health. The fæces were found, as in all previous cases in which they had been examined, to be free from homogentisinic acid. A bacteriological examination made by Dr. Drysdale led to no conclusive results. The urine had all the properties of alkaptonuria, and the child was brought to the hospital on account of the peculiar colour of the urine. Owing to the youth of the patient no systematic analysis of the daily excretion could be as yet carried out, but uric acid was found to be present in undiminished quantity. Homogentisinic acid was abundantly present in the urine, and was extracted in the form of its lead salt by Wolkow and Baumann's process, as well as by a simpler process recently described by the author. Analytical figures were given showing that the lead salt obtained was lead homogentisinate, and from it the free acid was prepared and its melting point determined. A further search for the uroleucic acid of Kirk was attended with a negative result. In Case II the patient was a schoolboy, aged 14, whose sister was also alkaptonuric. Her case was described by Drs. Armstrong and Walter Smith in 1882. The boy was a patient of Dr. C. E. Baker. From the urine of this patient also homogentisinic acid was extracted by both the processes above referred to. Analytical data were given. Here also the search for uroleucic acid was attended with a negative result. In Cases III, IV, and V, the urines of the patients, who were two brothers and a sister, were kindly given to the author by Dr. Pavy. The specimens were small in bulk, and had been kept no less than eight years. It was, however, still possible to demonstrate the presence of homogentisinic acid in two of the specimens. The bulk of the third specimen was unfortunately lost, and the result was therefore inconclusive as to the presence of homogentisinic acid, although there was good reason to believe that this substance was present in this case also. The observations described in this paper tended to support the view that the presence of homogentisinic acid in the urine was the essential feature of alkaptonuria, and that uroleucic acid, when present, was of the nature of a by-product of the abnormal metabolic process. A bibliography of the literature of alkaptonuria was appended to the paper.

Dr. Pavy remarked that in the course of his experience he had met five cases of alkaptonuria and had been glad to place these cases at the disposal of the author of the paper. Fortunately alkaptonuria did not produce any injury to health. He agreed with the author that the evidence was against the theory that this condition was due to micro-organisms; he thought it must be due to some erratic metabolism in the body. Although the condition did not affect health, yet it had important practical bearings owing to the power of alkapton to reduce copper solutions when the subject presented himself for medical examination for life insurance or the services. Cystinuria also depended on faulty metabolism, but unlike the former condition, it caused grave calculus formation.

Dr. Maguire remarked that the case recorded represented only one kind of alkaptonuria. There were other cases not depending on homogentisinic acid; for example, that due to carbolic acid. The urine of carbolic acid poisoning was not dark when it was passed, unless the reaction were alkaline. A patient suffering from abscess of the kidney, with renal fistula, developed carboluria and the urine passing directly from the kidney by the fistula was not dark, yet when it passed *viâ* the inflamed bladder containing alkaline matter it was dark in colour. He asked what the constitution of the pigment was. He also thought the micro-organismal theory of causation could not be maintained, unlike, for example, the cause of the formation of indol. He said that all the poisons of autointoxication contained either the benzine group or the amido group.

Dr. F. G. Hopkins said that in the examination he had made of a series of 3,000 specimens of morbid urine, there was only one instance of typical alkaptonuria.

Dr. Garrod in reply stated that he believed the pigment had not been fully investigated; it belonged to the group of substances that were formed by the oxidation of aromatic bodies. These were not crystalline bodies. He did not think that the name "alkaptonuria" should be extended to the kindred bodies, for they had not the same reducing power.

MEDICAL SOCIETY OF LONDON.

Edmund Owen, F.R.C.S., President, in the Chair.

Monday, May 8th, 1899.

Report of Committee on Mr. Battle's Case Illustrating the Value of Coley's Fluid in the Treatment of Inoperable Tumours.

Messrs. Pearce Gould, Marmaduke Sheild, and Stanley Boyd reported that they had read the hospital notes of Mr. Battle's case illustrating the advantages of Coley's fluid in the treatment of inoperable tumours and also the published accounts of the case, and they had read Mr. Shattock's report of the microscopical appearances of the part removed, and they had examined two microscopical specimens prepared by him. They went on to state that in their opinion (1) the pathological appearances were not conclusive; (2) the clinical history did not exclude syphilis; (3) in view of the extreme difficulty of accurately diagnosing sarcoma from inflammatory formations only those cases the nature of which had been indisputably proved should be admitted as evidence of the value of any therapeutical measure.

Election of Officers.

The first business was that of the general meeting, when the new officers for the ensuing year were elected as follows: *President:* Frederick T. Roberts, M.D. *Vice-Presidents:* J. Mitchell Bruce, M.D.; George R. Turner, Samuel West, M.D.; Howard Barrett. *Treasurer:* David H. Goodsall. *Librarian:* Sidney Martin, M.D., F.R.S. *Honorary Secretaries:* James Calvert, M.D.; Frederick C. Wallis. *Honorary Secretary for Foreign Correspondence:* William Ewart, M.D. *Council:* William H. Allchin, M.D.; William H. Baker, William H. Battle, Stanley Boyd, Henry A. Caley, M.D.; Walter S. Colman, M.D.; Dennis J. W. Dallaway, Alban H. G. Doran, J. Kingston Fowler, M.D.; George W. Isaac, M.B.; Robert Maguire, M.D.; John H. Morgan, J. Baldwin Nias, M.D.; Humphry D. Rolleston, M.D.; Morton Smale, Frederick J.

Smith, M.D.; Herbert R. Spencer, M.D.; Charters J. Symonds, Arthur F. Voelcker, M.D.; Edward G. Younger, M.D.

Reports.

The reports show the Society to be in a very satisfactory position. After the usual votes of thanks the general meeting gave place to an ordinary one.

Encysted Calculi in the Urinary Bladder.

Mr. Bruce Clarke read a paper on this subject, which is published at p. 1141.

The President commented on the fact that the endoscope had not infrequently been found of little service, and agreed that in cases where other means of exploration failed the suprapubic incision was of the greatest value, especially if used in conjunction with the vaginal speculum.

Mr. Swinford Edwards expressed surprise that the author should have been enabled to bring together such a large number of cases of the kind in view of the fact that they probably did not get more than 10 cases of stone annually at St. Bartholomew's Hospital. He himself had done or seen upwards of 800 operations on the bladder, and these comprised very few instances of encysted calculi. Personally he had only had two such. He too expressed surprise that the cystoscope had so frequently been found of no use, but he admitted that it was not always possible to introduce the instrument, and when this was done hæmorrhage might obscure the field of vision. He expressed satisfaction that the author approved of the suprapubic incision in cases of suspected encysted calculus. He deprecated attempts to crush a stone while still encysted, one fatal case of his own having led him to renounce this procedure. He had dealt with a large calculus weighing nearly 3 ounces, which he had been able to detect by means of the lithotrite but could not grasp it. He then did a median perineal cystotomy, and succeeded in removing it from the suprapubic region into the cavity of the bladder, where he was able to crush it. He urged the importance in these cases of not persisting in attempts at lithotrity, but at once proceeding to do a suprapubic cystotomy.

Mr. Buckston Brown insisted on the necessity of distinguishing clearly between encysted and sacculated calculi. He would define a sacculated calculus as one embedded in the wall of the bladder, and he pointed out that at least five of the author's cases did not answer to this description, but were in a post-prostatic pouch. Encysted calculi could be divided into the sacculated and the post-prostatic, between which it was very important to distinguish, because the surgery and the results of the two conditions were altogether different. The author's fatal cases appeared to have been all cases of sacculated calculi. When the calculus was in a post-prostatic pouch it could be removed suprapubically without laceration of, or other damage to, the bladder wall, whereas it was rare that one was able to remove a true sacculated stone without some laceration and consequent trouble. He referred to a remarkable case in his own series in which he had had to perform suprapubic cystotomy three times in order to lift out a calculus from a sacculus, from which it could not be removed except by that incision. He pointed out that they owed their knowledge of this condition entirely to the suprapubic incision, adding that the surgery of encysted calculus was quite modern.

Mr. Freyer observed that he had operated on close upon 1,000 cases of stone in the bladder, but had only come across some 20 or 25 cases of encysted calculus. He agreed with Mr. Buckston Brown that calculi lying in a post-prostatic pouch must be distinguished from encysted calculi, the former not being necessarily encysted, though in some of the author's cases the stone seemed to be really encysted there. In regard to the sacculi these were of two kinds, according as the opening by which they communicated with the bladder was small or large. When the opening was narrow a cutting operation of some kind was imperative, preferably suprapubically. If, however, the opening was wide, his own practice was to crush the stone therein. With respect to the proportion of cases in which a cutting operation was necessary, he said that out of 400 operations on patients whose ages varied from 18 months to 90 years, with calculi weighing from a few grains to 6½ ozs., in only 8 had a cutting operation been found necessary. If the stone were encysted upon the posterior wall there might be no hæmorrhage, but one of the most severe instances of hæmaturia he could remember was in a patient with a stone in that position.

Mr. Bruce Clarke, in reply, said that when he was connected with St. Peter's Hospital he did not see many cases of encysted stone, but he suggested that people who went to special hospitals made their own diagnoses, whereas those who went to the general hospitals had their affections diagnosed for them, so that the latter provided a larger proportion of obscure cases. The same remark applied to cases of ovarian disease and diseases of the eyes. Apart from the difficulties in the use of the cystoscope that had been mentioned, he pointed out that if a bladder were so contracted as not to hold more than 4 oz. of fluid it was almost impossible to get a good view. He admitted that in some sacculi it might be possible to crush the stone, but no one would advocate this practice indiscriminately. He agreed that they must distinguish between a pouch and a sacculus, but he believed that all the cases he had brought forward that evening were actually encysted in the substance of the prostate itself, in fact these cases suggested that the stones might have formed around the small concretions which were met with in the substance of that organ. His object in bringing forward the paper was to show that there were many cases of stone in which it was almost impossible to make a diagnosis without opening the bladder, and their knowledge of the subject had come since the reintroduction of the suprapubic operation.

Resection of the Large Intestine.

Mr. F. Eve read a paper on this subject, which is published at p. 1149.

Mr. Battle agreed as to the inadvisability of performing resection while there was actual obstruction. He pointed out that it might not be possible to bring a malignant growth quite to the surface, and he mentioned a case in which the abdomen was so distended that the growth could not be drawn to within 2 inches of the skin, so he did colotomy above the obstruction and inserted a Paul's tube. Five weeks later he closed the artificial anus and performed lateral anastomosis by suture. That patient had continued quite well. In another case he had commenced with the method described by the author—namely, by bringing the bowel outside and putting in a Paul's tube; but unfortunately the patient did not rally, but died within three days from the effects of long-continued obstruction. Their experience at St. Thomas's was that lateral anastomosis by suture was preferable to end-to-end anastomosis with a button or bobbin. He had done one operation in a case that appeared favourable for the use of Murphy's button, but the patient died of peritonitis. He pointed out that it was very difficult to control the amount of pressure required to close the button, and when closed it could not be undone. He mentioned that in another case, shown with the previous patient before the Harveian Society, the woman had obstruction due to a growth in the sigmoid flexure, and he had employed Paul's method, but found it afterwards very difficult to re-establish the continuity of the canal, the septum thus formed having become very rigid. He subsequently made another abdominal incision and made a lateral anastomosis between the two parts of intestine, leaving part of the septum untouched. Later he passed a strong silk ligature round the septum, and the patient had made a good recovery.

Mr. Wallis agreed in deprecating the use of the button in operations on the large intestine, which in his experience had not given good results. He suggested that the very thickness of the wall of the large intestine, which rendered the application of the button difficult, invited them to employ sutures, as there was plenty of material to work upon. In the small intestine, however, he thought that the button might sometimes prove useful.

Mr. Eve, in reply, explained that by removing more of the convexity than of the concavity of the intestinal loop he had provided against the formation of a spur.

The President and Council of the British Medical Temperance Association have issued invitations to the ceremony on Thursday, May 18th, at 5 P.M. of unveiling a brass tablet to the memory of Sir B. W. Richardson, a former President, which has been put up at the London Temperance Hospital.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

H. R. SWANZY, F.R.C.S.I., President, in the Chair.

Thursday, May 4th, 1899.

CLINICAL EVENING.

TUMOURS OF IRIS.

MR. A. H. THOMPSON showed a microscopic section of a tumour from a case which had been shown at a previous meeting of the Society. The portion of iris containing the tumour was removed, and the patient now had V = $\frac{6}{9}$ in the eye. The tumour was probably a spindle-celled sarcoma.

Mr. TREACHER COLLINS showed a case in which the tumour occupied the upper inner part of the iris, and the lens was cataractous. The patient was a woman, aged 63, who had had a black spot in the eye since childhood. The piece of iris was removed and the cataract extracted at the same time. The growth consisted of large endothelial cells with sharply-defined nuclei. It resembled in structure pigmented moles of the skin, and was probably innocent.

Mr. JOHN GRIFFITH thought Mr. Thompson's case was a myoma from the rod-shaped character of the nuclei, and that Mr. Collins's case was a large round-celled sarcoma.

UNUSUAL FORM OF OPACITY OF CORNEA.

Mr. TREACHER COLLINS showed an example of this condition. It was present in both eyes, but was more marked in the left. It had much the appearance of a broken cobweb stretched across the cornea; the lines were in the corneal substance. They were possibly the tracks of old blood vessels after interstitial keratitis, but they were very wide for blood vessels, and did not extend to the periphery of the cornea.

Mr. JULER thought they were tracks of old blood vessels; there was a suspicion of scarring of the angles of the mouth which he thought made previous interstitial keratitis probable.

Dr. BREUER though they were the lines which were sometimes seen in the superficial punctate keratitis described by Fuchs.

Mr. SILCOCK suggested that they might be blocked lymphatic vessels which had resulted in bands of fibrous tissues.

Dr. HILL GRIFFITH asked if the possibility of the lines being due to a vegetable fungus had been considered.

VASCULAR FORMATION IN THE VITREOUS IN DIABETES.

Mr. ARNOLD LAWSON showed a patient who had been known to be diabetic three years; his sight had failed two years in the right eye and six months in the left. The right lens was opaque: in the left eye there was at first a vitreous haze which obscured the details of the fundus. As this cleared there was found a connective-tissue formation consisting of feathery tufts proceeding from a central stalk, richly supplied with blood vessels.

SLOUGHING OF CORNEA RAPIDLY FOLLOWING ON FRACTURE OF THE BASE OF THE SKULL.

Dr. LEDIARD showed a man, aged 38, who had been knocked down by an engine. When first seen he was semi-comatose; he had right facial paralysis, the eye remaining open, severe scalp wounds, and the escape of cerebro-spinal fluid from the ear; the fifth nerve was uninjured. Notwithstanding the care that was taken of him his cornea sloughed, and the eye had to be excised. The probable reason for the sloughing was the exposure of the cornea consequent on the facial paralysis, and the condition of semi-insensibility induced in the cornea by the partial coma.

PRIMARY CARCINOMA OF EYEBALL.

Mr. SIMEON SNELL (Sheffield) showed this specimen. The patient was a man aged 69. There was a history of an injury to the eye (cornea) fourteen years before. When first seen almost the whole of the cornea was involved in a nodulated, hard, irregular growth. Careful examination failed to disclose any growth elsewhere in the body. The eyeball was enucleated, the orbit cleared out, and chloride of zinc paste applied to the socket. The growth had perforated the globe posteriorly. Mr. Treacher Collins kindly examined the eyeball, and reported that the appearances of the growth were typically those of carcinoma, and that it originated within the globe, but in which structure it was impossible to say.

Mr. COLLINS said that it was formerly the opinion that growths primarily occurring in the eye were sarcomata or gliomata, but it was known now that carcinomata occurred starting from the tubular glands of the ciliary body: they might also start in the pigment epithelium of the iris and choroid; he thought Mr. Snell's case probably originated in the ciliary body.

Mr. SILCOCK had seen orbital tumours having a structure similar to the one in question: possibly these might be endotheliomata and not epitheliomata.

Mr. BRONNER remarked that as visceral carcinoma might exist for a long time without revealing itself, one ought to be cautious in accepting a carcinoma in the eye as a primary growth.

Mr. JESSOP asked whether there had been any recurrence.

CARCINOMA OF THE EYE SECONDARY TO THAT OF THE LUNG.

Mr. JOHN ROWAN showed a specimen of scirrhous cancer occupying the lower part of the fundus, and detaching the retina: its origin was in the glands or mucous membrane of the bronchi: the primary and secondary growths were similar in character.

TRAUMATIC PTOSIS.

Mr. SNELL showed a stereoscopic photograph of a case of traumatic ptosis.

PIECE OF GLASS LOCALISED IN THE EYE BY MEANS OF THE ROENTGEN RAYS.

Mr. MACKENZIE DAVIDSON showed this specimen. A fragment of a Florence flask, during a chemical experiment, went into the patient's eye. It was shown by the *x* rays quite clearly, but was less dense than metal in appearance. The only modification of method used in this case was that the rays were passed obliquely through the eye, so as to avoid bone as much as possible.

EYEBALL WITH FRAGMENT OF STEEL LODGED IN ITS COATS.

Mr. GEORGE MACKAY showed this specimen with skiagraphs. A traumatic cataract had been formed, which was removed, leaving the media clear. The position of the foreign body could be seen by the ophthalmoscope. As it appeared to be encapsuled it was not interfered with; after an interval of quiescence the vision failed, and the eye became irritable; the iris had a tawny brown colour. Removal of the foreign body by the magnet failed. After enucleation it was found fastened to the coats of the eye. In order to trace the parts of the eye discoloured by the rust of the iron Prussian blue was formed with it; the corneal epithelium and the filtration angle were the parts most widely stained. Descemet's membrane escaped.

SOLID OEDEMA OF THE EYELIDS.

Mr. ANDERSON CRITCHETT showed a case. The patient had erysipelas in 1894, followed by another attack later. Fulness of the lids followed; they were treated by pressure, puncture, and incision, without benefit: the mass had been excised by Mr. Higgins, but had recurred.

Mr. EYRE had photographed the same case five years before. At that time the upper lids were more swollen than the lower. He had seen 7 similar cases, all of them after erysipelas.

Messrs. FROST, SILCOCK, and MACKAY spoke of cases.

ARTIFICIAL EYES.

Mr. CRITCHETT also showed samples of Snellen's artificial eyes.

FILAMENTARY KERATITIS.

Mr. RAYNER BATTEN showed a woman, aged 29, who had had chronic conjunctivitis one year. A number of threads were seen hanging from the surface of the cornea near its edge, they were about 1 mm. long, and consisted of a twisted rope of epithelium. No vesicles were seen. They were symmetrical in the two eyes.

ORBITAL TUMOUR.

Mr. JULER showed a case. There was a history of proptosis two months. A fluctuating tumour was felt at the upper inner margin of the right orbit; dark blood escaped on tapping it; he thought it was a vascular sarcoma.

Mr. Lawford asked if the nose had been explored, as the case might possibly be a distended ethmoidal cell.

Mr. Lang had met with a similar case consisting of broken-down nævoid tissue.

OBSTETRICAL SOCIETY OF LONDON.

Alban Doran, F.R.C.S., President, in the Chair.

Wednesday, May 3rd, 1899.

Fibroid of the Broad Ligament weighing 44½ lbs. (20 kilos.) Removed by Enucleation: Recovery.

The President read a paper on this subject. The tumour seemed to be the heaviest of its kind on record. The patient was 28, and her last confinement was six years before operation. Shortly afterwards a tumour developed in the left iliac fossa; three years later it became impacted in the pelvis. Dr. Ward Cousins succeeded in pushing it into the abdominal cavity; this gave great relief, but the tumour grew rapidly, and albuminuria and anasarca set in. The catamenia remained normal throughout. The tumour grew in such a manner that the lower ribs were not stretched out, but pushed back behind it. In order to spare as much blood as possible, the ovarian and round ligament vessels were ligatured proximally and distally, the capsule divided between the ligatures, which were then tightened, and lastly the incisions in the capsule united, so that after its complete division horizontally, and the securing of the cervix uteri, the tumour was enucleated without loss of blood. The cut edge of the capsule was drawn together with a purse-string suture, its cavity being packed with iodoform gauze. The *serre-nœud* was left on the cervix as it answered well its purpose, and lay separated by the capsule and its packing from the peritoneal cavity. Though very weak for a few days, the patient did well. The packing was removed in forty-eight hours; the deep cavity soon shrank up. The author, after reviewing earlier tables prepared by Sänger, Bayard Holmes, and Lang, brought forward a table of 39 cases of "fibroid" (fibroma and myoma) of the broad ligament, with an analysis. In no fewer than 6 the patient was under 30 years of age, and in just as many over 50. Menstruation seemed unaffected, nor was flooding ever noted. In 2 cases, including the author's, there were renal symptoms, from pressure on one ureter. The growth was often rapid, but in Binaud's case, closely watched for two years, the tumour only attained the weight of 9 oz. Large tumours caused pain and discomfort, interfered with nutrition, but rarely proved painful. In 27 cases, including all under 20 lbs. in weight, the tumour was sessile, embedded in the folds of the broad ligament. In 11, possibly 12, the tumour was pedunculated; in 1 the pedicle was twisted. In 25 cases the weight was given. The tumour weighed over 40 lbs. in one, the case here related; between 30 and 40 lbs. in 2; between 20 and 30 lbs. in 2; between 10 and 20 lbs. in 10; between 1 lb. and 10 lbs. in 8; and under 1 lb. in 2. Of the 8 pedunculated cases, 6 or possibly 7 recovered from an operation resembling ovariotomy. Six out of 12 simple "enucleations" of sessile tumours died, but all 6 dated from before 1890. Vautrin, of Nancy, twice did panhysterectomy after enucleation, saving both patients. Pollosson, of Lyons, successfully enucleated the tumour, deep in the pelvis, from under the peritoneum ("paraperitoneal" method). In three severe cases the *serre-nœud*, or elastic ligature was applied to the cervix; all recovered. When the tumour was small and limited to the side from which it originated, it might sometimes be safely removed with its ovary and tube, the hypertrophied connective tissue uniting it to the uterus serving as a pedicle. When the tumour was large the removal of both appendages and amputation of the uterus was usually unavoidable. Retroperitoneal hysterectomy was probably the best procedure, if practicable. The chief duty of the surgeon in enucleation of broad ligament tumours was to avoid loss of blood. The patients were nearly always sickly and anæmic, although flooding did not always occur in this class of tumour, and they bore hæmorrhage badly. The author urged the method which he adopted as the best way of avoiding loss of blood. Pressure forceps on the distal side were untrustworthy.

Dr. Hubert Roberts read notes of a case of large retroperitoneal fibroid undergoing suppuration. The patient was a married multipara, aged 50. There was a history of an abdominal tumour for over 13 years. Menstruation ceased eight months ago, since when the patient had lost flesh and the tumour had increased in size. A large tumour (which, including the pus, weighed 38 lbs.) reached up to the ensiform cartilage. The fundus uteri could be felt just above the symphysis. The cervix could not be reached *per vaginam*. At the operation, performed by Mr. Meredith, adhesions were found between the tumour and the parietes and omentum. The tumour contained 13 pints of odourless pus; it was removed by enucleation together with the body of the uterus and the pedicle treated extraperitoneally. The patient nineteen days later was making an excellent recovery. The tumour grew entirely in the broad ligament and had only slight adhesion to the uterus.

Dr. Peter Horrocks asked what were the microscopical differences between a fibroma and a sarcoma. Certainly the rapid growth was very unlike that of a simple fibroma and suggested clinically at least some malignancy.

Dr. Ewen Maclean referred to a specimen of broad ligament myoma which he had removed and exhibited to the Society. The patient was 45 years of age and the menstrual function had been in all respects normal. Since the birth of her only child, some seven years previously, she had been conscious of a pelvic swelling and of "bearing down." During the last two years the tumour had increased much in size. A broad ligament myoma, weighing 14 lbs., was enucleated from the left side and its peduncular attachment to the upper part of the left side of the uterus ligatured and divided. Hæmorrhage due to the rapid retraction of the pedicle necessitated the removal of the uterus and its appendages. The patient made a good recovery.

Mr. Butler-Smythe asked what was the position of the uterus in the case reported by Dr. Roberts. In all the cases of intraligamentous tumours that had come under his own observation the uterus was pushed or drawn up high in front of the tumour, and in many cases that organ could be felt through the abdominal wall. He thought the intraperitoneal treatment was very suitable for such cases as those reported.

The President, in reply, noted 3 more cases of fibroid of the broad ligament. One was under Jacobs of Brussels and the other 2 under his own care. The first of his own cases was a fibrocyst weighing 8 lbs. 8 ozs. in a woman, aged 40. The cyst had been tapped and drained in a British colony. He removed the tumour by retroperitoneal hysterectomy; but the patient died in 53 hours; the kidneys were much diseased. The second tumour weighed 9 lbs. 13 ozs., and occurred in a woman aged 44. He removed it by the same operation as the other case, and the patient was now convalescent. He did not think the 44 lbs. tumour was clinically or pathologically malignant. Mr. Shattock reported it as fibrous, without any plain muscle cells.

Dr. Roberts, in reply, said that in the case reported the uterus was quite small and displaced forwards and upwards close behind the symphysis. He regretted that none of the Fellows could throw further light on the suppurative processes in degenerating fibroids.

Specimens.

The following specimens were shown: Mr. Purslow (Birmingham): (1) A Fœtus enclosed in the Amniotic Sac only; (2) Cyst of the Broad Ligament.—Dr. Galabin: Ruptured Tubal Pregnancy.—Dr. Addinsell: Ruptured Tubal Pregnancy.—Mr. Targett: Two cases of Bilateral Tuberculous Pyosalpinx.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Sir John Batty Tuke, M.D., President, in the Chair.

Wednesday, May 3rd, 1899.

Specimens.

Dr. R. Fleming showed specimens of: (1) Typhoid Ulceration of Intestine from a breast-fed child of 10 months; (2) Gumma of Brain; (3) Waxy Degeneration of Kidney and Liver.

The History and Clinical Features of a Recent Outbreak of Typhus Fever in Edinburgh.

Dr. Harvey Littlejohn and Dr. Claud B. Ker read a paper dealing with this subject. Dr. Harvey Littlejohn said that altogether there had been 82 cases, and of these over 20

occurred in children under 10 years of age. The chief mortality was in cases above 40 years. The infected district of the town was a small one, and practically all the cases were traced to direct intercommunication. A point of interest in regard to the infectiousness of the disease was the immunity enjoyed by families in tenement blocks where there was an infected household, so long as no direct contact with the patient occurred. Great variation was noticed in the infectiousness of the disease according as the immediate surroundings of the patient varied. Dirt and deficient ventilation greatly increased the risk of infection; while, under the opposite conditions, the risk from exposure to infection was comparatively slight. The experience of the Fever Hospital fully bore this out, as not one of the nurses engaged in the wards took typhus. The question of disinfection was referred to, and it was mentioned that there was little difficulty in securing freedom from further spread of the disease by ordinary means. Dr. Ker then dealt with the clinical features of the outbreak. After first giving a general account of the ordinary course of the fever he alluded particularly to the special symptoms of his own cases. He had been able to determine the exact incubation period in two instances only. In both it was exactly thirteen days. Another case was in quarantine seventeen days before developing the disease. The invasion period was studied in 11 cases taken from quarantine, and except in two instances the temperature rose very slowly, taking from three to four days to reach the acme. Vomiting was a more frequent prodromal symptom than was stated in the text-books. All the 79 cases but 2 had more or less well-marked rashes. Delirium was noted in three-fourths of the adults, and 3 men, all of whom subsequently died, had true delirium ferox. Subsultus tendinum was also a common symptom, and 6 cases showed twitching of the facial muscles, extending in 2 of them to actual choreic convulsions of the upper extremities. Incontinence and retention of urine were also of common occurrence. All the sharp cases suffered from hypostatic pneumonia. Complications and sequelæ were on the whole rare. There were in all 9 deaths, 7 of which occurred in men. An alcoholic history gave a very bad prognosis, and it also seemed as if a heavy body-weight, either from muscle or fat, was against the recovery of the patient. The total death-rate was 11.39 per cent., and increased progressively with age. Thus under 20 years it was only 2.8, between 20 and 40 13.3, while over 40 it reached the figure of 28.5 per cent. The wards were kept at a very low temperature, and the doors and windows left constantly open. Dr. Ker thought that this cold atmosphere took to a certain extent the place of cold baths, and that it had a controlling effect both on the temperature of the patients and on the incidence of the severer nervous phenomena. Stimulants had to be given in a very large proportion of the cases. A large number of the patients were children, and in most of them the fever ran a mild course. In duration it averaged only eleven days as against fifteen in adults. One or two young children had the usual prodromal symptoms and only a couple of days fever. While these cases, which all occurred in exposed persons isolated in quarantine, were not classified as typhus, it was suggested that they were probably in reality abortive cases of that disease. In all 16 nurses were exposed to the infection and not one of them took it. Great attention was paid to their general health and personal hygiene.

The paper was discussed by the PRESIDENT, Dr. JAMES CARMICHAEL, Dr. P. A. YOUNG, Dr. AFFLECK, Dr. JAMES, Dr. ARGYLL-ROBERTSON, and Dr. CHURCH; and Dr. HARVEY LITTLEJOHN and Dr. KER replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

F. W. KIDD, M.D., President, in the Chair.

Friday, April 21st, 1899.

EXHIBITS.

DR. JOHN CAMPBELL (Belfast) showed: (1) Carcinomatous Uterus removed by Vaginal Hysterectomy; (2) a Dermoid Cyst of the Ovary removed by Abdominal Section; (3) an Ovarian Cyst removed by Abdominal Section.—Dr. PUREFOY: A Case of Pyosalpinx.—Dr. GLENN exhibited a Pathological Specimen of Carcinoma of the Body of the Uterus, with Microscopical Sections of Secondary Nodules from the Lung, prepared by Dr. EARL.

TWO YEARS' WORK AT THE SAMARITAN HOSPITAL FOR WOMEN, BELFAST.

Dr. JOHN CAMPBELL read a paper on this subject. During 1897-98 forty-four intraperitoneal operations were performed in the Samaritan Hospital by the author, namely: 1. Twenty ovarian tumours, including 16 ordinary cysts, 3 dermoids, and 1 solid tumour. The patients' ages varied from 21 to 65. In 3 cases both ovaries were removed; in 4 one ovary was removed and the other resected. In 1 case a fæcal fistula was present for a fortnight, and in 1 phlebitis occurred in the left leg after puncture of small cysts in the corresponding ovary. All the patients recovered. 2. Diseases of the tubes were operated on in 3 cases. In 1 the tubes were catheterised; in another a four months' fœtus was removed from the right broad ligament; and in 1 a tumour of myomatous appearance was removed from the inner end of a tube, the outer end of which was dilated, and contained fluid like menstrual blood. 3. A fibro-cystic tumour independent of the tube and ovary, and not obviously connected with the uterus, was removed from the right broad ligament. It weighed 20 lbs. 4. Fibro-myomata of the uterus were operated on nine times. Four were abdominal operations, done by the intraperitoneal method; two were vaginal hysterectomies; one was amputation of a large subperitoneal fibroid; one was an enucleation after abdominal section; and one was an exploratory incision, in which the appendages could not be got out, and the patient could not stand panhysterectomy. The enucleation case died of shock; the others all recovered. 5. One case of cancer of the corpus and one of cancer of the cervix uteri was successfully removed by vaginal hysterectomy. 6. A case of prolapse and one of retroversion were treated by vaginal fixation, with good results in both cases. 7. Tuberculous peritonitis was incised and drained twice. The case in which there was much fluid appeared to be cured; the other was not benefited. 8. A hydronephrotic kidney and a tuberculous kidney containing abscesses were removed with success. 9. Gastrostomy for cancer of the œsophagus was done once with excellent result. The vermiform appendix was once removed. A cancerous cæcum was exposed with the view of making a fæcal fistula and excising the growth when the patient had recovered from the effects of the intestinal obstruction caused by the growth, but she died exhausted after the preliminary operation. The mortality of these 44 cases was $4\frac{1}{2}$ per cent., as good an average as could be expected, if operations on so many different abdominal organs were taken together.

The PRESIDENT thought that gloves should be used in operations only when they suspected that they could not render their hands completely aseptic. He did not agree with Dr. Campbell that all the dangers of chloroform were due to maladministration. When chloroform was administered guttatim he had seen no ill effects.

Dr. SMITH said he had practically given up drainage. He believed that after a few hours no drainage took place, since a layer of protective lymph was thrown out round the tube, which acted as a foreign body. Moreover, a solid drainage tube pressing against the rectum was capable of causing a fistula. The operation he preferred was retro-peritoneal hysterectomy, which gave excellent results.

Mr. M'ARDLE, referring to pelvic pain remaining after removal of the tubes and ovaries, said that nearly all the abdominal viscera reflected pain to the pelvis after laparotomy. It was not uncommon in gouty affections of the kidneys to have the pain referred to the pelvic region, and in many instances of spinal lesions the chief pains were pelvic. He strongly advocated the intraperitoneal method of operating, and considered drainage of the peritoneal cavity unnecessary, except where there was some intestinal lesion or some infection of the peritoneal cavity.

After remarks from Dr. MACAN and Dr. PUREFOY, Dr. CAMPBELL, replying, said he believed that sudden death during the administration of chloroform was generally due to the use of a too concentrated solution. With regard to drainage, it was quite true that it was useless after a few hours, but it was during those few hours that it was especially required. He considered the vaginal method of operating on fibroids the best when it could be done.

UTERINE CANCER AND ITS TREATMENT.

Dr. MORE MADDEN submitted his experience of the increasing frequency of malignant diseases of the uterus, and more especially of the various methods available in their treatment, as employed in his wards in the Mater Misericordiæ Hospital, Dublin, where during the past twenty-five years upwards of 100 cases of that kind had come under observation. Within the last six years there were 31 cases of uterine carcinoma and 12 instances of vulval or vaginal malignant disease, or 3 per cent. of the former in a total of 1,054 gynæcological cases. In the preceding five years there were 23 cases of uterine and 11 of vulval or vaginal malignant disease noted, and in his earlier fourteen years' service there a somewhat smaller proportion was observed. Confining himself now, however, to the last eleven years referred to, the general origin of uterine cancer in the cervix was shown in 47 of these 54 cases. Its connection with parturition or lacerations was evinced by its occurrence in 39 child-bearing women and in only 15 nulliparous or unmarried; whilst the predisposing influence of age was shown by the fact that 36 of these patients were from 40 to 55 years of age, 10 were beyond the latter period; 8 were under 40, and of these 1 was an instance of medullary carcinoma uteri in a girl only 16 years old. The writer laid special stress on the vital importance of the early recognition of this disease by local investigation as well as by microscopic examination of specimens removed by curetting in every instance of possibly adenomatous or cancerous disease of the uterus. He believed that disease to be primarily developed in the cervix in the vast majority of instances. Moreover, he held that it frequently remained localised there for a sufficient period to permit its complete and effectual cure by the timely amputation of the cervix, which, followed by the application of the actual cautery to the wound so produced, he regarded as the safest, most effectual, and reliable method of treatment in such cases. In exemplification of this the following facts were adduced from cases in which Dr. More Madden removed the cervix for cancer, and subsequently traced the after-history of the patient. In 31 instances in which the cervix was thus amputated there was no mortality consequent on the operation; in one of these, however, the disease returned in the uterus four months subsequently; in 5 cases it returned there or elsewhere within a year; in 2 within two years; in 1 within three years; and in 1 nearly four years after operation. But, on the other hand, in 10 cases there was no return within a period of four years, and in some there was no recurrence ten years after the amputation of the cervix; in 5 cases the information was limited to two years, and in 6 to one year, and indicated no return of cancerous disease within these periods. These results, immediate and remote, might be contrasted with those obtained by hysterectomy for cancer, whether by vaginal or abdominal methods. The writer's experience not only showed no direct mortality from the amputation of the cancerous cervix, but also showed that two-thirds of the patients so operated on were free from recurrence of cancer at the expiration of the subsequent periods mentioned. Could any better results, or any results as good, be claimed for hysterectomy under similar circumstances? Therefore, only in cases where cancer had distinctly originated in the fundus or body of the uterus, or in instances of carcinoma which had extended upwards from the cervix, and then merely as a palliative measure to relieve great suffering, and possibly prolong life for a little, did hysterectomy appear to him justifiable. In but one of the cases of the latter kind in which the writer was then forced to resort to hysterectomy, was the patient still alive and apparently well at the end of two and a-half years subsequently, in other remaining cases the disease recurred earlier in other organs. For the relief of pain in cases of inoperable uterine cancer, Dr. More Madden recommended conium and orthoform, and advised special caution in the use of morphine and opiates. To mitigate the fœtor of discharge he relied on terebenthene injections, peroxide of hydrogen, and a 1 per cent. solution of formalin. As local applications in open carcinoma he had experienced most benefit from the employment of celandine and methylene blue. Electrolysis, though recommended by others, had failed in his hands. Finally, he summed up his experience of the treatment of this disease, in hospital and private practice during more than a quarter of a century, by saying that up to the present the best possible prospect of the cure of uterine cancer rested, as a general rule, in its early detection and prompt removal by the cervical method described in this communication.

The PRESIDENT said there were many conditions which resembled the initial stage of uterine carcinoma. A microscopic examination was, therefore, always desirable. He had performed vaginal hysterectomy on seven patients for malignant disease. He knew that four of them, at least, still alive.

Mr. M'ARDLE said with reference to removal of the glands with the uterus and appendages, he had never yet seen thorough removal of the retroperitoneal glands. In operations for tuberculous disease of the vermiform appendix it was his custom to rip up the peritoneum and remove the glands involved.

Dr. SMITH said sufficient stress was not laid upon rectal examination for the purpose of determining infiltration of the surrounding tissues. He thought that the best chance for the patient was offered by the abdominal method of operating, if there was any doubt about the case.

Dr. PUREFOY said that when he recognised malignant disease in the uterus his inclination was to remove the whole organ.

Dr. MORE MADDEN replied.

LIVERPOOL MEDICAL INSTITUTION.

W. MACFIE CAMPBELL, M.D., President, in the Chair.

Thursday, April 27th, 1899.

RESOLUTION ON THE VACCINATION ACT.

THE HONORARY SECRETARY reported that the resolution adopted by the Institution had been sent to 100 medical societies; 48 replies had been received, as follows: 27 acknowledged receipt, 12 agreed with the resolution, 3 considered the time not yet ripe, 5 considered the resolution outside their sphere, and the Council of 1 society was watching the operation of the Act.

PULSUS PARADOXUS.

Dr. JOHN HAY read notes of three cases. In the first, the abnormal pulse condition was associated with the dyspnœa of acute bronchitis in a child aged 3, and was only a temporary phenomenon. The second was one of pericarditis with effusion, complicated by serous effusion into the right pleural cavity; the removal of this fluid improved the pulse condition, but the pulsus paradoxus again became well marked without a reaccumulation of fluid in the pleural cavity. The third case was one of reversed pulsus paradoxus, the arterial pulsation in the vessels of the right side of the neck and right arm disappearing during expiration. It was observed in a man suffering from aneurysmal dilatation of the arch of the aorta. The cases were illustrated by pulse tracings and charts of the chest conditions.

Dr. BRADSHAW considered that the anacrotic character of the pulse in the last case was due to the percussion wave being largely lost in its transmission through the sac of the aneurysm. It was followed by a slowly advancing tidal wave. The increased anacrotism during expiration was to be explained by increased interference with the passage of the tidal wave.

COLOTOMY.

Mr. FRANK T. PAUL exhibited a patient upon whom he had performed colotomy by a new method. The divided large intestine was conducted for some distance between the muscles of the abdominal wall and then brought to the surface. This allowed of efficient control by a light horseshoe truss.

GASTROSTOMY.

Mr. PAUL also read notes of a case of gastrostomy performed in the Kocher-Senn fashion.

Mr. THELWALL THOMAS spoke in favour of the "Franks" operation and exhibited a photograph of a man operated upon six months previously and who was now following his occupation. He saw objections to the "Senn" operation.

Mr. RUSHTON PARKER spoke.

REMOVAL OF UPPER EXTREMITY.

Mr. RUSHTON PARKER exhibited a boy whose right upper extremity had been almost totally avulsed by machinery,

necessitating the removal of the whole except a short piece of the clavicle. The subclavian artery had been torn across. The injection of saline solution into the veins acted very beneficially.

Case of Lupus under Treatment for Seventeen Years.

Dr. Whitford exhibited a patient who had been more or less under his care and treatment for lupus for a period of 17 years. The patient came from a very "tuberculous" family. Some of the scars, as the result of treatment, were elastic and almost like normal skin. The treatment had been scraping, with the application of caustic potash in sticks.

Acute Rhinitis causing General Infection.

Dr. Permewan related a case which had caused general infection of the system, and in which treatment of the nasal condition caused rapid subsidence of the fever.

Dr. Carter said that in all cases of apparently inexplicable fever the nasal cavities should be carefully examined. He illustrated this general statement by brief reports of several cases, in one of which recurring attacks of what was believed by the patient to be malarial fever were prevented by thorough antisepticism of the nostrils, though the attacks had been going on for years. In another case a married woman, aged 23, admitted to hospital on March 12th, 1896, with a temperature of 104.2°, and a history of illness of some months' duration, the fever at once began to decline after the use of nasal antiseptics, and in a few days completely subsided, and although she was retained in hospital for three weeks no recurrence took place. He had published reports of eight or ten cases of most serious and prolonged general illness of a very mysterious character that had come under his notice during the last twelve years, all of which were completely cured by thorough antiseptic treatment of the internal nares. Two of the patients were judged to be *in extremis* when the treatment was commenced, and a third had been continuously ill for eighteen months.

Dr. McDougall drew attention to the generally remarkable freedom from coincident constitutional disturbance of patients who were the subjects of extremely foul intranasal conditions. It was possible, however, that the regular use of the thermometer in these cases might reveal disturbances of the general health which would not otherwise be made obvious.

Rupture of Kidney: Secondary Operation: Recovery.

Dr. Clemmey said that the patient received a kick from a horse on the front of the abdomen on September 21st, 1898. The first symptoms of pain, collapse, retching, and hæmaturia were treated by fomentations and opium. On September 30th, owing to the temperature rising, and pain of a grinding character becoming more acute, the loin was opened, exposing the ruptured kidney. The rupture extended half way through the substance, right across the posterior aspect, and into the pelvis of the kidney. Smart bleeding controlled by ice and packing followed. On December 6th the tube was removed, and on April 13th the wound was healed. The patient had since followed his employment as a timber carrier. In 3 other cases of severe kidney injury with the ordinary symptoms of rupture no operation was required, rest, fomentations, ice, and opium being the treatment adopted. Whether secondary lesion of the kidney would follow in this case it was at present too soon to say.

Drs. Imlach and Given, and Messrs. Paul and Rushton Parker spoke.

This being the last meeting the President briefly reviewed the proceedings of the session.

British Laryngological, Rhinological, and Otological Association.—At a meeting on April 28th, Dr. J. Middlemass Hunt, in the chair, Mr. Lennox Browne reported that some doubt having been expressed as to the malignant nature of the case of Laryngeal Epithelioma of at least two and a half years' duration exhibited by him at the last meeting, he had removed a portion of the growth and submitted it to Mr. Wyatt Wingrave, who reported that it was a "diffuse papilloma undergoing slow malignant transformation." After remarks from Mr. Wyatt Wingrave and the President, Mr. Browne, in reply to Mr. Bark, said he did not propose any operative interference.—The President described a case of Hysterical Aphonia, following severe mental shock; this condition had lasted eleven years. All methods of treatment were tried in vain; but the voice returned suddenly six months ago after exposure to great excitement, and had remained normal ever since. Mr. Lennox Browne referred to cases of aphonia being called hysterical, but in which the aphonia was really a sign of early phthisis. Dr. Dundas Grant insisted on the difference between hysterical aphonia and shamming, describing a case of hysterical deafness which was so real that the patient acquired the art of lip-reading. Mr. Wyatt Wingrave also made remarks.—Dr. Abercrombie showed a case of Laryngeal Papilloma with apparent defect of the posterior end of the left vocal cord in a boy aged 9 years, the subject of nasal obstruction from hypertrophied tonsils and adenoid growths.—Dr. Dundas Grant showed a case of Asymmetry of Frontal Sinus revealed by operation. On making an opening in the position of the normal right frontal sinus, as mapped out by Chipault, he found that a bent probe introduced into the opening passed to the left side of the nose, in fact, had opened the left sinus, which extended abnormally to the right side. Another opening was made lower down, and the minute right frontal sinus was then entered.—Dr. Dundas Grant also read notes of a case of operation for Frontal Sinusitis in which a strip of gauze having been introduced instead of a drainage tube, the result was found to be unsatisfactory and the healing was very considerably delayed. Remarks having reference to the most efficient way of providing adequate drainage from the frontal sinus were made by Drs. William Hill and Dundas Grant, and Messrs. Bark and Lennox Browne.—Dr. Chichele Nourse showed a case of Empyema of Frontal Sinus treated through the infundibulum. The anterior extremity of the left middle turbinal having been removed, a probe suitably bent could be passed through the infundibulum into the sinus; threaded on this probe a rubber tube had been passed into the cavity of the sinus and left in position, through which treatment had been carried on almost continuously for three months with great benefit, though the discharge had not entirely ceased. Dr. Milligan drew attention to the danger of passing instruments through the infundibulum into the frontal sinus. Drs. Dundas Grant and Stoker, and Messrs. Bark and Lennox Browne also remarked on the case.—Mr. Wyatt Wingrave showed a case of "Black Tongue."—Mr. St. George Reid exhibited bacteriological specimens of Bacillus Pyocyaneus.—Dr. Dundas Grant showed: (1) Two cases of Radical Operation for Chronic Suppurative Otitis; (2) case of Atresia of Right External Auditory Meatus: (3) described a case of Traumatic Rupture of the Membrana Tympani.

Dermatological Society of Great Britain and Ireland.—At a meeting on April 27th, Dr. H. Radcliffe Crocker, President, who was in the chair, showed a woman, aged 48, with Dermatitis Factitia of six years' duration. The lesions, which were more or less angular in outline and in various stages of development, chiefly involved the abdomen, left arm, fronts of thighs, and, to a less extent, the face; the right arm and back were quite free. It was generally agreed that the lesions were due to some irritant.—Dr. Rufenacht Walters showed a case for diagnosis. The patient was a woman suffering from an eruption, which the exhibitor looked upon as a sebaceous eczema. The President considered that the condition was a sweat eruption.—Dr. Travers Smith brought a case for diagnosis, a young woman with Eczema of the left nipple. The condition started after suckling, and had been present seven months. She had not had any medical treatment. Dr. Travers Smith showed the case from the point of view of possible Paget's disease. The general opinion was that this could be safely excluded, and that it was a case of eczema which would get well under appropriate treatment.—Dr. Mouillot (Harrogate) gave an account of a severe Vesiculo-bullous Eruption which followed the application of tincture of arnica to the feet. The patient, a young man, was very ill when first seen. The hands were also involved, as the patient had applied the arnica himself. There were some lesions on the face where the hands had come in contact with it. The bullæ were well-marked on the soles. The President, Dr. Bowles, and Dr. Dale James gave their experience of the bad effects of arnica applications.

Anatomical Society of Great Britain and Ireland.—At a meeting held at Middlesex Hospital Medical College on April 28th, Professor Alex. Macalister in the chair, Mr. D. J. Armour, B.A., M.B., M.R.C.P., and Mr. Arthur Edmunds, B.Sc., were elected members. One of the chief features of the meeting was the contribution by various members of specimens, photographs, and observations on the form, size, and relationship of the human stomach, normal and abnormal. A paper dealing with the Stomach as found in fifty consecutive bodies was read by Drs. J. A. Berry and John Crawford (Edinburgh).—Professor Bryce, Professor Dixon, and Dr. Arthur Robinson showed several specimens of Abnormal Stomachs.—The President exhibited a specimen in which the Odontoid Process of the Axis articulated on one side with the Lateral Mass of the Atlas.—Dr. G. Elliot Smith read a paper on the Calcar Avis, showing it to be, not as supposed by Owen limited to the human brain, nor as by Huxley to the primate, but a feature of the mammalian brain.—Specimens of the Empty Bladder, hardened *in situ*, were shown by Professor Dixon.—Professor T. H. Bryce made the following contributions to the meeting: (1) A case in which a Sternalis, Sterno-clavicularis, and Chondro-epitrochlearis existed on the same side; (2) Duodenum presenting an Abnormal Flexure; (3) Brain showing an Unusual Disposition of the Convolutions of the Parietal Lobe; (4) Series of Sections of a Double Chick Embryo of Six Somites.—Professor Arthur Thomson exhibited a Model showing the manner in which he believed the hair was caused to curl naturally.

North of England Obstetrical and Gynæcological Society.—At a meeting held in Manchester on April 21st, Dr. Donald (President) in the chair, the following specimens were shown: By Dr. W. E. Fothergill: (1) Umbilical Cord with Knots, the child being born alive; (2) Two Months' Fœtus, with well-marked umbilical vesicle. By Dr. Lea: Acardiac Fœtus, with sections and photographs. By Dr. S. Buckley: Blood Cyst in Connection with the Fallopian Tube. By Dr. T. S. Martin: Two Ovarian Cysts, with hæmorrhagic contents. By Dr. Lloyd Roberts: Tubal Gestation, with intraperitoneal rupture, removed by abdominal section. By Dr. W. Walter: Uterus with Multiple Fibroids, removed by abdominal hysterectomy.—Dr. W. K. Walls described the labour in the case of a woman the subject of Uterus Bicornis. The right horn contained the placenta, and was strongly retroflexed into Douglas's pouch. The os uteri was high up behind the pubes, and reached with difficulty. A hand was found to present. Version was performed under chloroform, and the child delivered after replacing the right uterine cornu. During the puerperal period the left cornu also became retroflexed, causing much discomfort from piles. The symptoms were at once relieved by replacement. Remarks were made by Dr. Sinclair, Dr. Briggs, and the President; and Dr. Walls replied.—Dr. Sinclair read a paper on Malignant Adenoma of the Body of the Uterus, illustrating his remarks by four cases. Specimens and microscopic sections were also shown. Incidental reference was made to two cases of malignant œdema of the cervix, from which preparations were on the table. He mentioned several anatomical and clinical features of this form of malignant disease which seemed to differentiate it from carcinoma. Anatomically, it was not distinguishable by the microscope from the benign form; although there was a form of adenoma which from microscopic appearances might be confidently declared malignant. There were cases usually considered benign on microscopic evidence alone which were certainly also malignant. In support of this opinion sections were shown from a case which had been observed through the stages considered benign until extirpation had to be resorted to for a clearly malignant condition. Sections of the body in this case showed invasion of the muscle by the adenomatous growth. Clinically, the chief point dwelt upon was the more chronic course of malignant adenoma as compared with carcinoma. Some minor clinical differences were also said to exist.

West London Medico-Chirurgical Society.—At a meeting on May 5th, Dr. S. D. Clippingdale, President, in the chair, Dr. Charles Chapman showed specimens of: (1) Adherent Pericardium in a child; (2) Calcification of the Aortic Valves.—Mr. H. J. Paterson read a paper on the Use of Gas in General and Dental Surgery. After explaining that his object was to plead for a more extended use of nitrous oxide anæsthesia, he pointed out that although he used the single word "gas," he implied thereby that it was given with a suitable proportion of air or oxygen. It had clearly been brought out by Dr. Hewitt that gas should not be administered except in such combination. The advantages of gas were its safety, pleasantness, and freedom from causing after-effects. He contended that it was safe, provided asphyxial symptoms were avoided, to prolong nitrous oxide anæsthesia for one or more hours, and recorded a case in which anæsthesia was maintained by means of gas and oxygen for two hours and ten minutes. The patient was ready for his tea within half an hour of his return to the ward. There was no collapse whatever. Mr. Paterson expressed the view that the action of nitrous oxide was to prevent the elimination of carbon dioxide from the blood, so diminishing the oxidative processes of the tissues by process of "internal asphyxia." There was no evidence that prolonged administration affected the heart injuriously, provided asphyxia was guarded against, and any effect on the heart was due to neglect of this precaution. In giving gas the danger signs were readily observed and gradually developed, hence he had come to the conclusion clinically that for operations—long or short—nitrous oxide gas mixed with air, or better with pure oxygen, was the safest anæsthetic we possessed. Women as a rule took gas better than men. Heavy smokers, and more especially heavy drinkers, were bad subjects for this anæsthetic. The danger of passing from gas anæsthesia to chloroform was pointed out. He expressed the opinion that there were few operations which could not be performed under gas if desired, and many in which this anæsthetic was preferable either to ether or chloroform. Manipulating joints, pelvic examinations, excision of varicose veins, removal of lipomata, certain operations about the ear, operations of luxury, such as cure of varicocele or hernia, empyemata, cases of cellulitis in broken-down patients, acute diseases such as pneumonia, malignant endocarditis, were very suitable for this anæsthetic. Its use in cœliotomy was at present inadmissible on account of the difficulty of ensuring freedom from occasional retching movements, although this difficulty would probably be overcome. He strongly deprecated the use of gas as an anæsthetic during the removal of adenoids. Mr. Paterson next dealt with the question of prolonging nitrous oxide anæsthesia in dental practice, showing his new design of apparatus for administering gas through the nose. The results had been most encouraging, anæsthesia in one case having been kept up for ten minutes. He contended that this was the best method to administer gas for all dental cases, and would, he hoped, render the use of ether unnecessary. Two female patients were then anæsthetised by this method by Mr. Paterson, while Mr. Lloyd Williams performed prolonged operation upon the teeth. The demonstration was brilliantly successful. In the discussion which followed, Mr. Swinford Edwards, Drs. G. D. Robinson and Charles Chapman, and Messrs. Starling, Richard Lloyd, Lloyd Williams, McAdam Eccles, Bellamy Gardner, and Keetley took part.

Association of Registered Medical Women.—At a meeting on May 2nd, Mrs. Keith, L.R.C.P. and S., in the chair, Miss Vaughan, M.D., B.S. (Curator of the Museum, and Assistant Pathologist to the Royal Free Hospital) showed some Pathological Preparations fixed in Formalin, and mounted in glycerine, and read a short account of the process. She pointed out that one of the chief advantages of this method was the preservation of the colouring matter of the blood, which gave tissues a more natural appearance than when put up in spirit. Specimens of bile-stained liver were less satisfactory than the others, because so far all attempts to fix the colour of bile pigment had been unsuccessful.—The Secretary read a paper contributed by Miss Gough, M.B. (Hankow, China), entitled Rupture of the Uterus during Labour, based on cases she had seen in China, as well as at home. She drew attention to the great difficulties of dealing with such cases in China, where labour was often allowed to drag on for several days before help was sought, and urged the desirability of operative measures—hysterectomy preferably, whenever permission could be obtained.

West Kent Medico-Chirurgical Society.—The seventh meeting of the forty-third session, 1898-99, was held at the Royal Kent Dispensary, Greenwich Road, on May 5th. Dr. Morgan Dockrell, President, delivered his presidential address, taking as his subject General Health as a Factor in Skin Diseases. After the conclusion of the presidential address a very enjoyable smoking concert was held. Amongst the artistes who kindly gave their services were Messrs. Courtice Pounds, Carl Brandt, Walter Grace, F. H. Chieswright (vocalists), Charles Froude (musical sketches), H. Wharton Wells (piano), and Dr. Byrd Page (conjuring).

Peculiar Clot from a Case of Epistaxis.

With reference to an abstract of a communication to the Royal Academy of Medicine in Ireland, Section of Pathology, which was published under this heading in the British Medical Journal of April 29th, p. 1032, Dr. Ninian Falkiner (Dublin) writes: In order to make Dr. McWeeney's remarks consequent on my communication more intelligible, I venture to supply the following remarks: "That having some years ago made an analysis for the Academy of a remarkable rhinolith which was exhibited by Dr. McWeeney, Dr. Falkiner suggested that a clot such as he described remaining in the posterior nares might possibly become calcified in the course of time and become a rhinolith."

REVIEWS.

The Administrative Control of Tuberculosis. By Sir Richard Thorne, K.C.B., F.R.S., etc., Medical Officer to Her Majesty's Local Government Board, etc. London: Baillière, Tindall and Cox. 1899. (Demy 8vo, pp. 74. 3s. 6d.)

The publication of Sir R. Thorne's Harben Lectures in a volume is opportune, as the subject with which they deal is exercising the mind of politicians, medical men, and the general public throughout the civilised world. At the outset Sir Richard Thorne says: "I desire to consider how far it is practicable to control and prevent tuberculosis in the human subject by means of administrative measures. With that which merely happens to fall within the range of possibility, but which is obviously not within the range of practice, I do not intend to concern myself at length. I may, however, at times find it necessary incidentally to refer to measures which, though excellent in theory, must in my opinion be set aside as incapable of application." In this spirit the three lectures deal with tuberculosis as a communicable and a preventable disease, and, as the reader soon realises, the author, in addition to possessing an admirable scientific style, has a mastery of facts and an actual experience of the subject which can be possessed by very few. Sir Richard Thorne, to his knowledge acquired as Medical Adviser to the Local Government Board, adds that of a member of the Royal Commission on Tuberculosis. The first lecture discusses the statistics of Tuberculosis, and especially those dealing with the mortality from "all forms of tuberculosis," from "phthisis," and from "tabes mesenterica," compiled by Dr. Tatham. Milk from the tuberculous udders of diseased cows is, in the author's view, clearly responsible for the increased mortality among infants under 1 year of age. Compensation for confiscated tuberculous meat he condemns, but some scheme of compensation for the confiscated milch cow proved to be tuberculous and dangerous would, he believes, be "just and equitable." Measures with reference to the inspection of meat, both home and foreign, of slaughter-houses, and the housing of milch cows all receive attention, and other steps, such as the isolation of tuberculous cows, are commended to private effort.

In the third and last lecture the much-vexed question of the notification of phthisis is discussed. The lecture concludes as follows:

"Three administrative measures, therefore, deserve attention. First, the education of the public by physicians, health authorities, and others in the causes of tuberculosis and in the means for preventing its spread. Secondly, the provisions of means for the temporary isolation of persons suffering from phthisis in its various stages. And, lastly, certain corporate public health authorities might find themselves able to carry out as an experiment a system for the voluntary notification of phthisis, and even of all forms of tuberculosis in their districts."

The temporary isolation here referred to should, it is held, be voluntary, and, in fact, in every direction he looks more to private effort and intelligent action than either to actual legislation or an invocation of the present laws. The last suggestion is a concession to the demands of those who advocate compulsory notification, to which Sir Richard Thorne confesses himself opposed.

Whether the somewhat conservative views of the writer on various controversial points will eventually be accepted time alone must show. But this at least is certain—that no reader, medical or lay, will peruse these lectures without gaining valuable information, pleasure, and profit.

The Essentials of Chemical Physiology. By W. D. Halliburton, M.D., F.R.S. Third Edition. London: Longmans, Green, and Co. 1899. (Demy 8vo; pp. 200; 77 illustrations. 5s.)

In the present edition of this popular and useful textbook the main facts, theories, and methods of chemical physiology are brought up to date. New lessons on urinary pigments and crystallisation of albumen are added. The chapter on the proteids has been recast. The gluco-proteids and nucleo-proteids are discussed, and mention is made both of the new halogen compounds and of the protamines and their decomposition products. A valuable table is given showing the decomposition of the nucleo-proteids, while the relation of nuclein to uric acid is dealt with, and the most approved method of estimating uric acid fully described.

The chapters on the urine are of great practical utility. The student is warned of the fallacies which may arise in applying the sugar tests—from the presence of urates, creatinin, glycuronic acid. Attention is drawn to that rare but interesting condition, alkaptonuria. A capital coloured plate of the osazone crystals is appended.

There is little in this admirable book that calls for criticism. On page 28 a sentence has apparently dropped out of place, and on page 34 "Steward" should be read "Stewart." In the practical exercises Liebig's method of estimating urea might perhaps be omitted, and only one method given for estimating the total chlorides, phosphates, and sulphates in the urine. The more advanced methods could find a place in the appendix, so as to avoid overwhelming the mind of the student.

A figure of the hand centrifuge might be given, with a description of the method of determining blood corpuscles and urinary deposits by its means. Kühne's table of the proteid digestion products might, perhaps, be deleted, for it is one of the things which the student habitually learns like a parrot. A short chapter on osmosis, with simple practical exercises, would be a valuable addition; also the simple diagrams explaining the polarisation of light (in the polarimeter), which find a place in the author's larger work on *Chemical Physiology*.

An Elementary Textbook of Botany. By Sidney H. Vines, M.A., D.Sc., F.R.S. London: Swan Sonnenschein and Co. 1898. (Demy 8vo, pp. 628; 397 illustrations. 9s.)

This elementary textbook is an abridgment of the author's more comprehensive student's textbook, with alterations and simplifications intended to make it more suitable for elementary students. Though it represents what the author considers the minimum of information necessary for acquiring an elementary knowledge of botany, it appears to be a very bulky volume for a beginner. The condensation, too, has not tended to make the book very readable, as it has involved the crowding together of an enormous number of facts.

It is questionable whether a separation of the subject matter into morphology, anatomy, and physiology, when strictly adhered to as it is in this book, is the most suitable way of presenting it to an elementary student; his interest is more likely to be aroused when the somewhat dry facts of anatomy and morphology are combined with a consideration of the biological and physiological functions of the various organs. In the textbook before us, however, a rigid separation of the two parts of the subject is adhered to. Thus the tentacles of the sun-dew are mentioned and figured on page 48 in the morphological section, but it is not until

page 189 that the student learns what these tentacles are used for. Similarly the morphology of thorns is explained on page 27. On page 112 the student is enlightened as to the internal anatomy of sclerenchymatous cells, and he has to wait till he reaches page 171 before he learns that these thorns have a defensive function. This might have been added in a few words when first the thorns were mentioned.

In the recently translated textbook of Professor Strasburger the same division of the subject into morphology, anatomy, and physiology is adopted, but no such rigidity of treatment is observed. At the first mention of the tentacles of drosera and of the thorns of the hawthorn, and the prickles of the rose when their morphology is discussed, the function of these various organs is referred to, and this plan renders this latter textbook far more interesting to the beginner.

It is also unfortunate that the author has not seen his way to discuss or even allude to some of the vital problems of the biological sciences, such as the theory of evolution which lies at the root of all classification of plants and animals. The portion of the book dealing with the classification seems to be unnecessarily detailed for an elementary textbook. Altogether it seems unfortunate that the author has not made some more drastic changes in the arrangement and treatment of the subject matter, so as to adopt his useful student's textbook to the needs of elementary students.

THE NATURAL HISTORY OF DIGESTION. By A. LOCKHART GILLESPIE, M.D., Contemporary Science Series. London: Walter Scott, Limited. 1898. (Crown 8vo, pp. 427; 48 figures. 6s.).

THE aim of this book is an ambitious one. It seeks within a comparatively small compass to describe the food stuffs and the digestion processes in all the principal groups of the animal kingdom, and to include also digestion as it occurs in plants. Dr. LOCKHART GILLESPIE is to be congratulated on his success in carrying out this idea. The amount of information he has collected is great, and although it is not altogether well arranged in parts, it is presented in an interesting readable form. The chapters on the history of the subject are specially valuable. The work is illustrated with numerous figures, diagrams, and charts. The results of the author's industry will be valuable to students interested in the subject, to practitioners in search of practical hints, and to the public at large, for whom the book appears to have been specially written. It will be popular in the best sense of the term; it is pervaded by a healthy scientific spirit throughout, and the references to important monographs which are quoted will guide the earnest student to further study.

The figures have been selected with care, and some few are original. A micro-photograph of the gastric mucous membrane of the salmon is one to which the author draws particular attention; its principal value, however, consists in showing how inferior a badly-executed photograph is to a simple line drawing.

In reading through the book we have noted a considerable number of errors, most of which, however, are of a minor character. It is not possible here to give a complete list of these but the following are examples:—Maltose is described as being decomposed in the intestine into a mixture of dextrose and levulose; this mistake occurs more than once, though on p. 138 the constitution of maltose is correctly given. In relation to the subject of bile mucin, the discovery that this substance is in some animals a nucleo-proteid is wrongly attributed to Landwehr, and no allusion is made to Hammarsten's work in which he showed that in other animals, including man, true mucin is present. In connection with fat absorption, the doctrine that fat is absorbed in the form of small particles is still maintained; and though Dr. Gillespie appears to be acquainted with the work of Moore and Rockwood, for he quotes their paper in another connection, no allusion is made to their investigations, which confirm those made previously by Munk, and demonstrate clearly that the old theory of fat absorption must be abandoned.

Mistakes and important omissions, of which we have only given these few examples, considerably mar the usefulness of the book to the student. We hope, however, that the work will be thoroughly revised when the next edition appears. Its general tenor and main substance are so excellent, that a little more care will be well expended in making the book what it aims to be.

HANDBUCH DER KRANKENVERSORGUNG UND KRANKENPFLEGE. Herausgegeben von Dr. GEORG LIEBE, Dr. PAUL JACOBSOHN, Dr. GEORGE MEYER. Erster Band, II Abtheilung und I Lieferung. Berlin: August Hirschwald. 1898. (Roy. 8vo, pp. 183-758. M. 20 complete volume.)

IN this large octavo handbook of nearly 600 pages, we have an account of the special hospitals and institutions of Germany. Isolation hospitals and precautions against contagious disease form the subject of the first section. The construction of infectious hospitals is discussed, and the disinfection of the morbid products described in detail, lime water being recommended for the disinfection of fæces. The chapter closes with a table showing how each of the principal German towns has provided for isolation of the sick and the disinfection of bedding, clothing, etc., and in what classes of infectious disease. Provision for lung diseases is treated of in the next section. Plans of many of the popular sanatoria (*Volkheilstätte*) are given. A short chapter is devoted to institutions for syphilitic patients and for lepers.

Passing to the consideration of institutions for mental patients, the questions of the need for institution treatment and of the possibility of home treatment and of boarding out are considered, and the advantages of public and of private asylums contrasted. The arrangements and organisation of asylums are next referred to; and those at the Dziekanka Institute in the province of Posen are fully described. This contains 600 patients accommodated in as many as twenty detached buildings. The next section (from the pen of Dr. Wildermuth) treats of institutions for nervous diseases, for epileptics, and for idiots. The causes of nerve disturbances, the prophylaxis of nerve disorders, the principles of treatment, and hospitals for nervous disease are in turn discussed, and a retrospect of these last briefly given. The classification and distinctive treatment of various forms of epilepsy are set forth. It seems that in 1895 there were in the German Empire forty-four institutions for idiots, and in addition a large number of auxiliary schools for backward children. Institutions for dipsomaniacs are considered at length; special hospitals for women and children, for eye affections, and asylums for blind, deaf-mutes, cripples, and the infirm form the subjects of the closing chapters. The work is still incomplete, but when finished will give a very comprehensive account of the arrangements for the sick and afflicted in Germany.

DIE DARSTELLUNG KRANKHAFTER GEISTESZUSTAENDE IN SHAKESPEARE DRAMEN [The Representation of Insanity in Shakespeare's plays]. By Dr. HANS LAEHR, Berlin. Stuttgart: Paul Neff. (M.3.60.)

THIS book will appeal principally to those who are philosophically inclined. The subject is treated with the thoroughness characteristic of the Teutonic mind. Dr. LAEHR follows the example set by the various authors who have written on the subject in selecting Lear, Hamlet, and Ophelia as the three types which best afford material for discussion and examination. In dealing with Lear the author enlarges on the marvellous insight into human nature shown by Shakespeare. The manner in which the king's madness is developed from the onset, although to-day acknowledged to be typical, was in Shakespeare's time entirely misunderstood. Dr. Laehr points out that the king's loss of reason was not the result of his daughters' unkindness, though it was probably accelerated thereby. His decision to abdicate and divide his kingdom between his daughters Goneril and Regan, and the outburst of passion in which he cursed Cordelia and banished Kent, were in themselves evidences that the king's mind was unstable; this is shown later on in the play, where he cries out suddenly, in answer to the fool, "O let me not be mad; not mad, sweet heaven! Keep me in temper, I would not be mad." It was evident from this that the king's mind was failing. As his troubles thicken his mind becomes more and more obscured, until he is driven out from Gloucester's castle, weak

om want of food, and worn out by passion, and is then xposed to the fury of the storm. The association of mental nxiety with physical exhaustion finally turns the balance, nd we see that he is really mad. Visual hallucinations come on; he decorates himself with field flowers, and prates of philosophy.

Ophelia, a lovable, innocent girl, is content in her love for Hamlet. When she is warned by Laertes and Polonius that her love is not returned, her gentle spirit receives its first shock. She eats and sleeps little, so that with her, as in the case of Lear, mental worry is associated with physical exhaustion. After the death of her father she develops acute mania. Hamlet never loses control of himself; Shakespeare intentionally introduces sober speeches—generally to Horatio—in the middle of wild, incoherent utterances, so as to contrast his feigned madness with his true sanity. Dr. Laehr comes to the conclusion that Hamlet is not really mad; he was at times, however, just on the borderland.

Hamlet's starting for England is made coincident with his complete mental recovery. Before the voyage Hamlet has symptoms of commencing insanity; he is sleepless, has lost his appetite, is uncertain in his movements and undecided in purpose. The sea journey effects a complete cure. The scene in Ophelia's room, which many authors believe to be a true sign of insanity, Dr. Laehr regards as due to somnambulism. Hamlet being asleep the whole time.

L'Oreille—IV. Symptomatologie. V. Pathologie [The Ear—IV. Symptomatology. V. Pathology]. Par Pierre Bonnier, Paris. Paris: Masson et Cie. and Gauthier-Villars et Cie. (Crown 8vo, pp. 176 and 188. Fr. 3 for each part.)

These two handy little volumes are further contributions by Dr. Bonnier to the *Encyclopédie Scientifique des Aide-Memoire*, edited by M. Leaute, which contains monographs by a large number of eminent professors of medicine and biology. Dr. Bonnier is thus carrying his very thoughtful work on diseases of the ear to a completion. It is in the theoretical portions of the work that we feel that he is at his best. His faculty is essentially ratiocinative, and his discussions on the more abstruse questions in the physiology of the ear are on the whole more satisfactory than his clinical guidance. The latter is hardly adapted for the novice, as the details of manipulation are less fully described than their rationale. On the other hand the manner in which the subject is dealt with in this volume gives it the greatest interest, and it has that lucidity which is so characteristic of the writer's nationality.

Dr. Bonnier recommends that the mobility of the malleus should be tested by the use of a fine india-rubber tube applied against it and made to adhere by suction. The picture of this unfamiliar instrument would be extremely helpful. We confess that it seems less easy to manipulate than the exhausting speculum of Siegle, the weak point of which is, no doubt, that when the membrane is extremely atrophied and thinned, it does not draw the malleus out along with it, even though the bone still retains a certain amount of its natural mobility. As regard's Gellé's experiment, he considers it only of value when the effect on the hearing or on the equilibrium is very marked.

In addition to the grosser aural disturbance, he describes the less conspicuous ones of "auditory perversion," "echoacousis," "diplacousis," "auditory radiations" (as affecting the nervous system, the viscera, etc.), "fear of silence," "central repetition," etc. The sense of "direct subjective orientation" is elucidated by means of an admirable diagram (page 42) showing the connections between Deiter's nucleus and the cerebellum, oculomotor nuclei, semicircular canals, and Rolandic cortex. Disturbances of equilibrium he attributes to irritation rather than to inhibition of ampullary sensation. He follows the disturbances in the auditory system, notably in relation to vertigo, into the deeper nervous centres in a way that is extremely suggestive. The relation of Bright's disease is also full recognised.

The discussion of the pathology proceeds on much the same lines, and the author in his introduction states that he has not hesitated in this study to sacrifice completely the current data of clinical otology such as is to be found in the old and recent manuals. He discusses the various etiological factors in the production of diseases of the auditory organs, taking in sequence, heredity, sex, age, fatigue, overuse, seasons, climate, electricity, lightning, atmospheric pressure, concussion, compression, traumatism (fractures, etc.), digestive disturbances, and toxic agents. For the detection of fractures of the skull he advises the application of a powerful tuning fork on any part of the cranium, its vibration causing pain at the site of a fracture should such exist. Among the toxic agents he refers to quinine, which he believes to act upon the peripheral organs, producing ischæmia. He points out the pathological significance and the fact that the tortuous arteries of the labyrinth are at certain points separated from the labyrinthine cavity simply by their endothelial layers, which accounts for the readiness with which hæmorrhagic effusion takes place. He makes a curious statement to the effect that the symptoms of thrombosis and phlebitis of the sinuses are the symptoms of meningitis, and adds that the sign which would lead one to suppose the presence of a thrombosis of the sinus would be a bogginess of the mastoid region, extending often also to the temporal, and giving the idea of there being a big abscess in the sub-aponeurotic space. We can hardly subscribe to all this as a typical picture of the disease mentioned. Following the chapter on the general pathology comes one on labyrinthine affections in relation to the different organic systems—namely, circulatory, digestive, urinary, genital, and nervous, including in the latter meningitis, cerebral softening, or hæmorrhage, tabes, disseminated sclerosis, and others. He notes that Romberg's sign is very frequent in the subjects of labyrinthine vertigo, and finds no difference between its manifestations in this disease and in tabes dorsalis. The final chapter is singularly short when the great practical importance of complications affecting the ear in the course of general diseases, such as various fevers, diphtheria, mumps, tuberculosis, syphilis, gout, malaria, rheumatism, etc., is remembered.

Dr. Bonnier has allowed himself latitude to indulge in interesting and valuable *causeries* on these subjects which have the greatest fascination for himself, the consequence being that the work is exceedingly readable, and in parts highly original.

Traitement de la Syphilis. Par E. Gaucher, Professeur Agrégé à la Faculté de Médecine de Paris, Médecin de l'Hôpital Sainte-Antoine. Paris: Masson et Cie. 1899 (Roy. 8vo, pp. 36. Fr. 1.25.)

The author at the beginning of this short monograph, tells us that his object is to give, not all the different modes of treatment of syphilis, but only those which he himself has employed and found satisfactory. He divides the symptoms of the disease into the usual classical stages—primary, secondary, and tertiary. He does not advise cauterisation or excision of the primary lesion, but either the local application of iodoform or a 1 in 1,000 solution of corrosive sublimate. As soon as the diagnosis of the nature of the chancre is made, he recommends that general antisyphilitic treatment should be at once begun, as although it does not prevent the appearance of secondaries, it diminishes their severity. It is doubtful, however, whether such a diagnosis can be made with absolute certainty.

As regards the secondary period, he advises the administration of mercury by one of the three usual channels, and adds that the preparations used should be soluble, as "corpora non agunt nisi soluta." He is careful to point out that before the commencement of the mercurial treatment the urine should be tested for albumen, as, if this is found to exist, mercury should be given only in very small doses, and the patient should be constantly under careful supervision. This wise precaution is not infrequently overlooked. He also points out that the hygiene of the mouth should be carefully attended to, as, if this is not properly carried out, unpleasant complications are likely to ensue.

The duration of the treatment of course varies, but as a general rule, if given by the mouth or by subcutaneous injection, it ought to be continued for seven months during the first year, five months during the second, four months during the third, and two months during the fourth year. Iodide of

potash may be given along with mercury, or it may be given in the intervals during which the patient is not taking mercury. This is simply "la méthode des traitements successifs et intermittents" of Fournier, and more in vogue in France than in this country.

As regards the tertiary period he is in favour of "le traitement mixte," or the association of iodide of potassium with mercury.

The monograph, which concludes with some remarks about the treatment of parasyphilis and hereditary syphilis, contains nothing new about the treatment of syphilis, but gives a good summary of the subject.

Commercial Organic Analysis. By Alfred H. Allen, Second Edition. Vol. iv. Proteids and Albuminous Principles, Proteids or Albuminoids. London: J. and A. Churchill. 1898. (Demy 8vo, pp. 592. 18s.)

This volume completes the second edition of Mr. Allen's well-known work, which has occupied him for fourteen years. The subjects treated are those usually found in textbooks of physiological chemistry, so that with the exception of milk, the analysis of which is given very fully, the adjective commercial hardly applies to its contents.

The author is evidently a diligent student of physiologico-chemical literature, and it is as refreshing as it is unusual to find a chemist who is able to write intelligently on this branch of physiology.

The book can hardly be expected to replace the various textbooks of physiological chemistry as at present used by students; but it will do good service in teaching analysts and chemists, for whom it is specially written, the principles of a subject, their contempt for which they are as a rule at no pains to conceal.

In order to show the practical nature of the work, we may mention that it treats of the following subjects: The proteids and albuminoids, their classification and properties; eggs, blood, milk and milk products, meat, meat extracts; gelatine, glue, silk and other fabrics, hair, hair dyes, and a host of others. But as before stated, the book has a higher aim than to be a mere practical guide to the analyst; it seeks also to explain the principles on which such analysis rests, and gives a really admirable description of the portions of physiological science which have a chemical bearing.

Traumatic Birth Paralyses of the Upper Extremity. By H. Betham Robinson, M.S., F.R.C.S. Reprinted from the *St. Thomas's Hospital Reports*. London: J. and A. Churchill. 1899. (Demy 8vo, pp. 25. 1s.)

Traumatic birth paralyses of the upper extremity are by no means infrequent. A correct diagnosis in many—perhaps in most—of the cases has up to recent times been lacking. It is opportune, then, that the attention of surgeons should be especially called to these affections. Mr. Betham Robinson gives details of 17 cases that have been within his own immediate observation. An analysis of the series reveals some interesting facts. The position of the arm in all cases is quite typical. There is marked inward rotation of the humerus, with pronation of the forearm to such a degree that the palm of the hand looks outwards. The deltoid, supra-spinatus and infra-spinatus, teres minor, biceps, brachialis anticus, and supinator longus muscles are paralysed; so that the characteristic position of the arm is produced by the unbalanced action of their antagonists. Any alteration of sensation is, of course, in newly-born children impossible of recognition. When the deltoid has wasted there is prominence of the humeral head, which is drawn to the back of the glenoid fossa by the unopposed teres major and latissimus dorsi, the scapula being at the same time pulled forwards by the pectoralis minor. The extent of the paralysis may vary in individual cases. Jacquemier states that only the deltoid may be paralysed. Cases of extensive damage are unusual, but in three of Mr. Robinson's cases the affection was widespread.

With regard to the site of the lesion, opinions differ. Hœdemaker considered the upper trunk of the brachial plexus the site, and Berkhardt the fifth nerve immediately after its exit from the canal. Erb placed the lesion at his "motor point," where the fibres of the circumflex, musculo-cutaneous, and musculo-spiral are close together. Guillemot would seem to suggest that the lesion is in the anterior roots close to the spinal cord, but the question of anæsthesia is difficult or impossible to determine. The later researches of Herringham on the minute anatomy of the brachial plexus give support to Erb's theory.

The lesion doubtless occurs during the birth of the child, but, as Mr. Robinson points out, obstetricians have little or nothing to say upon the subject. It is instructive to learn that in the 17 cases recorded, in only one was the birth spoken of as "normal," and in this the child was "born in a caul," and both shoulders were affected. All the other cases had a definite history of the birth being tedious and difficult. In 11 the presentation was cranial, in 2 breech. In 1, a footling case, forceps were used to the after-coming head. In 1 case of version special trouble was met with in bringing down the arms, and 1 was a crossbirth. Of the 17 cases, 13 were girls. Mr. Robinson believes that in all his cases there was a common factor at work, which would explain the lesion however produced—namely, "traction on the neck, causing increased tension on the nerves entering the brachial plexus between the spinal cord and the clavicles." The prognosis, though bad, is not hopeless. Mr. Robinson, after employing massage and galvanism, "has had very fair recoveries."

The article, reproduced in pamphlet form, will well repay perusal. It is a thoughtful contribution to the very scanty literature of a subject the importance of which is perhaps not sufficiently appreciated.

Das Genus Sarcina. Von Dr. Med. Franz Casimir Stubenrath. München: J. F. Lehman. 1897. (Roy. 8vo, pp. 92. M. 3.)

Those who have been accustomed to look upon the sarcina organisms as comprising a somewhat limited group, including only those found in the stomach as described by Goodsir, in urine (Warburton Begbie), and sarcina pulmonum (Virchow), can scarcely realise that concerning this subject there has grown up a really considerable literature as evidenced by the fact that Dr. Stubenrath, before describing the genus sarcina in its morphological, biological, and pathological relations, refers to a literature of ninety-two papers contributed by eighty authors, so that it is not surprising to find a considerable difference of opinion as to the exact nature of the sarcina, differences which Dr. Stubenrath, following Grüber, in certain cases reconciles by describing a considerable number of species. With Professor Lehmann's approval he divides these organisms in the first instance according to their colour, thus forming five groups: (1) the colourless, under which are included the grey or greyish white, (2) the yellow, (3) the orange yellow, (4) the brown, and (5) the red sarcina. In the first group are three—S. alba, variabilis, and canescens. The yellow group is divided into S. flava, equi, and lutea, the last being divided into a typical form and a compact form. The orange yellow group contains one species only—S. aurantiaca. The fourth, or brown group, is composed of S. cervina, fulva, and pulmonum; whilst the red sarcinæ are the S. erythromyxa and rosea.

Whilst admitting that the sarcina is very closely allied to the coccus, Dr. Stubenrath maintains, apparently, that several of the so-called sarcinæ of other authors are really cocci, whilst a considerable number of others, to which special names have been given and certain characters ascribed, are nothing more than some one member or other of the groups which he describes. He is evidently of opinion that most of these organisms grow both in the air and anaërobically; that all of them with one exception, S. aurescens, produce acid when grown in milk where it has been possible to obtain a cultivation in this medium. Most of them liquefy gelatine, though two, the persicina and erythromyxa, leave the gelatine unchanged, whilst some others liquefy comparatively slowly. None of the sarcina described form spores, and one only, pulmonum, is ciliated. They produce lactic acid, and some of them also ammonia and indol. They give rise to cloudiness in fluids containing sugar such as beer, and apparently do not exert the slightest pathogenic effect either upon man or upon animals.

A long description of the culture and chemical character-

istics of the various organisms described as sarcinæ are given by the author, and those who take anything more than a general interest in the genus sarcina will find a number of new facts which will repay perusal of this pamphlet.

NOTES ON BOOKS.

THE seventh edition of Mr. F. J. GANT'S *Guide to the Examinations by the Conjoint Examining Board in England and for the Diploma of Fellow of the Royal College of Surgeons of England* (London: Baillière, Tindall, and Cox. 1899. Post 8vo, pp. 252. 5s.) has been revised throughout by Dr. Willmott Evans. The principles on which manuals of this kind are compiled is by no means sound either from an educational or an intellectual point of view. A glance through the pages of this *Guide*, which we must admit is the best of its kind, will show, however, that the fault lies more in the present system of medical education than in the authors of such publications. The student and also his teacher will naturally take as much interest in old examination papers as in anatomy, physiology, and the "higher" subjects as long as there is an examination to pass. The student has to be examined, therefore he seeks to know how he will be examined, and this *Guide* explains in full what very likely his teacher has constantly been explaining to him in part. This *Guide* is, perhaps, of more use to demonstrators and lecturers than to students. The former know best how to put it to good account.

Professor SILVANUS P. THOMPSON has written a preface for *Radiation; An Elementary Treatise on Electromagnetic Radiation and on Röntgen and Cathode Rays*, by Mr. H. H. FRANCIS HYNDMAN, B.Sc. (London: Swan Sonnenschein and Co., and New York: The Macmillan Co. 1898. Crown 8vo, pp. 307, 13 illustrations. 6s.) The volume contains most current facts and theories on the subject of radiations. The term is used in its widest sense and embraces the whole gamut of ethereal wave motions from magnetic waves above the lacuna to the rays known in the extreme spectral ultra-violet, such as the aluminium line 328. This method is excellent, for owing to the fact that only a small proportion of ether motions are capable of eliciting response in our sensorium, a comprehensive view is absolutely necessary for the student. The author introduces his subject by an elementary but rather scrappy consideration of the question of wave motion. This part of the book might with advantage have been made much richer in detail and in easy mathematical considerations, for to understand what follows it is absolutely necessary to have the clearest ideas as to what wave motion really is. Material vibrations are briefly reviewed in Part I, and in Part II, which commences on page 32, the main matter of the book is entered upon. The careful reader, even if he have very little special knowledge, will gain a very good general appreciation of the already known facts and of the general kind of present investigations. The book may be recommended to all who are working at the *x*-rays; for only by studying the erratic radiations in relation to other and better understood rays can any advance be made.

Drs. JOHN C. LESTER and VINCENT GOMEZ have published, under the title *Ear Records* (New York: J. W. and Geo. H. Hahn. 1898. Long form, demy 4to, pp. 175) a collection of sheets for taking notes of cases of ear disease. The scheme is little more than a translation of that devised by Rohrer, and published in his *Lehrbuch der Ohrenheilkunde*, the additions and subtractions being of comparatively slight importance, but on the whole the arrangement is rather clearer than the original one. Most of the possible symptoms are arranged in lists, and we presume that the intention is that those which are not present in the given case shall be scratched out with the pen. Every aid to accuracy is to be commended, and we feel sure that the aspirant to a knowledge of ear disease would increase his acquaintance with the subject very considerably by taking, say, 40 or 50 cases on these forms. The more experienced will probably prefer to make their records on plain sheets of paper, but even these might find it an advantage to use forms such as these. Among the items found in Rohrer and omitted by the present authors, we observe neurasthenia, snoring, the menopause, mastoid fistulæ and cicatrices, retraction, atrophy of the membrane, excessive mobility as shown by Siegle's speculum, as also the mobility of the ossicles, all of which are signs, symptoms, or important conditions in relation to diseases of the ear. The tables for recording the hearing power for tuning forks of different pitch are certainly superior to the original.

Excellent scientific work is in progress at Helsingfors, and many British institutions might take a hint from Finland. A recent volume of reports from Professor OTTO ENGSTRÖM'S gynæcological wards, *Mittheilungen aus der gynaekologischen Klinik*. Vol. II, Part I. (Berlin: S. Karger. Glasgow: F. Bauermeister. 1898. Roy. 8vo, pp. 112; 3 coloured plates. 4s.) includes only two papers, but they both represent solid original work. The first is entitled Observations on the Ætiology of Tubal Pregnancy, and includes clinical and microscopic reports of high value. The second is a really important scientific treatise on the Use of the Great Omentum for the Reparation of Damages to the Intestine in Abdominal Operations. All interested in abdominal surgery should read the results of experimental work which it contains. In a series of experiments Sundholm, the author, transplanted pieces of omentum, and in another series used an undetached flap of that peritoneal process, in both cases for the protection of damaged gut. With precautions familiar to the surgeon, a detached piece of omentum readily becomes adherent to intestine, injured or uninjured, and does not itself undergo atrophy to a marked degree. When the intestine is damaged, the omental graft not only guards it against perforation but also protects the exposed muscular coat, saving the latter from dangerous cicatrical changes. A flap of omentum undetached from its normal position and relations adheres very quickly to damaged or diseased intestine. On the other hand, it is slow to adhere when the serous coat of the intestine is intact and healthy. The omentum is never found adherent to healthy intestine, and these experiments show that it is hard to make it adhere widely even when fixed by a suture or two. We all know how readily it adheres to inflamed bowel. Mayo Robson and others have already made use of omentum for the protection and nutrition of abdominal structures. The coloured plates are highly instructive.

Although it is only a few years ago that Professor HAMMARSTEN'S book on physiological chemistry made its appearance in Swedish, the success it has met with is proved by the fact that already there have been three editions in German, and the authorised translation from the third German edition now before us is the second edition in English. The translation, which is published under the title, *A Textbook of Physiological Chemistry* (New York: John Willey and Sons; and London: Chapman and Hall. Royal 8vo, pp. 705, with spectrum plate. 17s.), has been admirably carried out as before by Professor MANDEL, of New York, and it is the third (1895) German edition which we now see in English dress. It is hardly necessary to say that the book, written as it is by a master in science, is admirable in every sense of the word. Its usefulness has been considerably increased by the insertion of references to all the original memoirs quoted. The book can hardly claim to be entirely up to date, for since 1895 workers at chemical physiology have been far from idle. Indeed, the subject is one in which the rapid advance which characterises all branches of physiology has been most marked. It therefore seems a pity that the important researches of the last three years should find no place in the present edition. The main groundwork of physiological chemistry, however, still stands, and for this the student and teacher cannot have a more trustworthy guide.

Professor C. POSNER'S small work *Therapie der Harnkrankheiten* (Second Edition; Berlin: A. Hirschwald; 1898; demy 8vo, pp. 162, 15 illustrations; M. 4) contains ten lectures on the Treatment of Urinary Diseases. The first five deal with acute and chronic urethritis, the complications and sequelæ. The other subjects included in the lectures are certain morbid conditions of the urine, new growths and calculus of the kidney and bladder, functional nervous affections, and urinary poisoning, together with an appendix of formulæ. It will of course be obvious that all these matters cannot be at all fully treated in a work of this size; indeed the various surgical measures referred to are enumerated rather than described; but the book contains a clear summary of the different methods of treatment in use at the present time, and will no doubt be of service to many practitioners and students.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

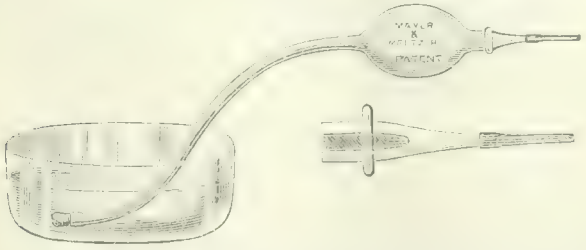
MEDICINAL AND DIETETIC PREPARATIONS.

Kronthal Mineral Water.—Three kinds of "Kronthal" water, respectively distinguished by red, blue, and green labels, are supplied by the Kronthal Company through Messrs. Schweppe. We have examined samples of the waters labelled red and blue. It is claimed for the former that it is a palatable, "highly mineralised" water, and for the latter that it is an excellent table water. The results of our analyses show that the waters contain very slight amounts of organic matter, so slight as to be without importance, and they may therefore be regarded as organically pure. The red label water contains a considerably higher amount of saline constituents than the blue label water, but in neither case are the amounts or the nature of these constituents such as not to justify the conclusion that the waters, which are very pleasant and palatable, are of excellent quality, and perfectly suitable for table use.

Liquorice Pellets and Wafers.—The liquorice preparations of the *British Pharmacopœia* are directed to be prepared from the root of the glycyrrhiza glabra cultivated in England. The cultivation of the plant is carried on chiefly in Yorkshire, and the town of Pontefract mainly engaged in the manufacture of liquorice. We have received specimens of liquorice pellets and wafers made by Messrs. Hillabys, Limited, liquorice refiners, Pontefract. These preparations are intended to be slowly dissolved in the mouth, and thus to obtain the demulcent and emollient effects of the liquorice. In judging of the purity of Messrs. Hillabys's liquorice pellets we have taken as a standard the extractum glycyrrhizæ of the *Pharmacopœia*, an extract obtained by exhausting the root with cold water, heating to 212° F., and then evaporating. We find that the pellets correspond in every way with the standard, and they are undoubtedly pure extract. The wafers have a very pleasant flavour, and possess more of the characters of a sweetmeat than the pellets.

MEDICAL AND SURGICAL APPLIANCES.

Aseptic Aural and Nasal Syringe for Self-Use.—Being impressed by the fact that as the ordinary nose syringe can only be filled through the nozzle, maintenance of its asepticity is almost impossible while the difficulties attending its self-use are so many, Mr. Wyatt Wingrave has designed, and Messrs. Mayer and Meltzer have constructed, a simple arrangement to ensure cleanliness of the syringe and facility



in self-use. The syringe consists of a conveniently-shaped ball fitted with a glass nozzle guarded by a valve, opening outwards, which prevents filling through that aperture. The reverse end is furnished with a length of rubber tubing guarded by a valve opening inwards, to permit filling by suction, on the principle of an enema. Cleanliness is further ensured by the use of a renewable short piece of soft rubber tubing on the nozzle, which further affords protection from injury when the user is not expert. The ball is stated to be more convenient for self-use than the piston form of syringe, since a patient can thoroughly irrigate his own ear, and at the same time has complete control over the current as regards force, quantity, and direction. It is equally serviceable as a nasal douche.

THE ROYAL SOCIETY.

THE large number of representatives of the Biological Sciences selected this year by the Council of the Royal Society for the distinction of F.R.S. will be noted with satisfaction, and we would particularly congratulate those members of our own profession who have been singled out for the honours. Appended are brief notices of the claims and published works of those who are distinguished in biology, using that word in its widest possible sense:

Charles Booth, merchant and shipowner. He has applied scientific methods to social investigation, exemplified by: (1) A Study of Changes in the Occupations of the People in England, Scotland, and Ireland, from 1841 to 1881 (*Journ. of Statistical Soc.*, 1886); (2) A Study of the Condition of the Aged Poor in England and Wales from Official Statistics and Extended Private Enquiry (*The Aged Poor*, Macmillan, 1894); (3) A Study of the Condition of the People of London, 1889 to 1899, in 12 volumes, of which 9 are already published (*Life and Labour of the People in London*, Macmillan).

David Bruce, M.B., Major Royal Army Medical Corps, eminent in pathology and bacteriology, has made important investigations relating to the nature and causes of Malta fever, and discovered the micro-organism which is the cause of that disease, and proved its nature by experiment. Has successfully investigated the endemic diseases of horses in Zululand, and proved the agency of the tsetse fly in producing it. Author of the following papers: Discovery of a Micro-organism in Malta Fever (*Practitioner*); Sur une Nouvelle Forme de Fièvre rencontrée sur les Bords de la Mediterranée (*Annales de l'Inst. Pasteur*); On the Epidemic of Cholera in Malta during 1887 (*Trans. Epidem. Soc.*); Report (to the Governor of Natal) on the Tsetse Fly Disease or Nagana (1897), and a previous report on the same subject; Ueber die Virulenzsteigerung des Cholera Vibrio (*Centralblatt f. Bacteriologie*, etc.).

Henry John Horstman Fenton, M.A.Camb., author of several papers on the action of hypochlorites and hypobromites on urea and other nitrogen compounds. Has made the remarkable discovery that hydrogen peroxide, although inactive alone, in presence of an iron salt at once oxidises tartaric and other similar acids, carbohydrates, etc., giving rise to very characteristic products—a discovery of special importance in connection with plant metabolism, which he has elaborated with particular skill and thoroughness. His results are described in the following papers: Oxidation of Tartaric Acid in Presence of Iron (*Trans. Chem. Soc.*, 1894); A New Method of Obtaining Dihydroxytartaric Acid, and the use of this Acid as a Reagent for Sodium (*ibid.*, 1895); New Formation of Glycollic Aldehyde (*ibid.*); The Constitution of a New Dibasic Acid resulting from the Oxidation of Tartaric Acid (*ibid.*, 1896); A New Synthesis in the Sugar Group (*ibid.*, 1897); Properties and Relationships of Dihydroxytartaric Acid, I and II (*ibid.*, 1898); The Oxidation of Polyhydric Alcohols in Presence of Iron (*ibid.*, 1899).

James Sykes Gamble, M.A.Oxon., F.L.S., Conservator of Forests, School Circle, N.W. Provinces, India, and Director of the Imperial Forest School, Dehra Dun, Fellow of the University of Madras, and *ex-officio* Fellow of the University of Allahabad, author of a List of *Trees, Shrubs, etc.*, of the Darjeeling District, Bengal (1st edit., 1877; 2nd edit., 1896); a *Manual of Indian Timbers*, published in 1881; a *Monograph of the Bambuseæ of British India*, 1896; also many papers on forestry and on botanical subjects in the *Indian Forester*, which he has long edited.

Alfred Cort Haddon, M.A., M.R.I.A., F.Z.S., Professor of Zoology, Royal College of Science, Dublin; Vice-President of the Royal Zoological Society of Ireland; Member of Council of the Royal Dublin Society, Anthropological Institute and Folk-lore Society. Has considerably extended our knowledge of the marine fauna of Ireland (*Proc. Roy. Irish Acad.*, 1886-87). Received a grant from the Royal Society and spent eight months (1888-89) in studying the marine zoology, geology, and ethnography of Torres Straits. Has made investigations upon British and Tropical Actiniaria (*Journ. Linn. Soc.*, xxi; *Proc. Roy. Dubl. Soc., 1885-92, Trans.*, 1889-92). Is the author of a memoir on The Air Bladder and Weberian Ossicles in Siluroid Fishes (with Professor Bridge) (*Phil. Trans.*, 1893); Report on the Polyplacophora collected by H.M.S. *Challenger* (Part XLIII, 1886); Notes on the Development of Mollusca (*Quart. Journ. Micros. Sci.*, 1882); and other papers on Marine Zoology. Has made a map and a geological survey of the Murray Islands, Torres Straits, which, with other geological observations, are published in the *Trans. Roy. Irish Acad.* in a joint memoir with Professor Sollas and Professor Cole. Has carried out extensive and detailed anthropological investigations on the mode of life, handicrafts, religion, and languages of the natives of Torres Straits (*Journ. Anthrop. Inst.*, 1891; *Proc. Roy. Irish. Acad.*, 1893; *Folk-lore*, 1890; *Internat. Arch. f. Ethnogr.*, 1892-93). Has organised a scheme for the systematic study of Irish Ethnography (The Ethnography of the Aran Islands; Studies in Irish Craniology—Part I, Aran; II, Inishbofin. *Proc. Roy. Irish Acad.*, 1893-94). Has made an elaborate study of the evolution and degeneration and geographical distribution of the Decorative Art of British New Guinea (Cunningham Memoir, *Roy. Irish. Acad.*).

Henry Head, M.D.Cantab., M.A., M.R.C.P., M.R.C.S., author of the following papers: Ueber positive und negative Schwankungen des Nerven Stromes (*Pflüger's Archiv*, 1887); Regulation of Respiration, Parts I—II (*Journ. Physiol.*, vol. x); On Disturbances of Sensation, with especial reference to the Pains of Visceral Disease (Part I, *Brain*, 1893, Part II, *Brain*, 1894).

Conwyn Lloyd Morgan, F.G.S., Professor of Biology and Geology, University College, Bristol, and Principal of the same College. Correspondent of the Academy of Sciences of Philadelphia and New York. As a geologist he has done a considerable amount of original work in Pembrokeshire and the Bristol district. His chief claim to scientific distinction, however, rests upon his careful experiments and observations on the habits, instincts, and intelligence of animals, and his critical study of the true biological significance of the facts and their bearing upon some of the most fundamental problems of organic evolution. The three volumes which he has published on these subjects are of very high merit. Author of the following memoirs: (1) *Animal Life and Intelligence*, 1890; (2) *An*

Introduction to Comparative Psychology, 1894; (3) *Habit and Instinct*, 1896; and of the following geological papers: On the Pebidian Volcanic Series of St. David's (*Quart. Journ. Geol. Soc.*, vol. xlvi, 1890; On the S.W. Extension of the Clifton Fault (*ibid.*, vol. xli, 1885); and twelve geological papers in the *Proc. Bristol Nat. Soc.*, 1884-90, and other local scientific periodicals.

Clement Reid, F.G.S., F.L.S., Geologist in the Geological Survey of England and Wales, and has served on the Staff since 1874. Awarded the Murchison Fund by the Council of the Geological Society in 1886. Has been Secretary and Recorder to the Geological Section of the British Association. Has added largely to our knowledge of the Lower Tertiary formations of the Isle of Wight and Dorset, the Pliocene deposits of Norfolk and the North Downs (including the fauna and flora of the Cromer Forest Bed), and the Glacial Phenomena of Norfolk and Sussex. To aid his researches he has made a special study of recent and fossil seeds (a subject previously much neglected) whereby much light has been thrown on the climatic conditions of later Tertiary times, and on the origin of the British flora. Author of Geological Survey memoirs on *Geology of the Country around Cromer*, 1882: *Geology of Holderness*, 1885; *Pliocene Deposits of Britain*, 1890; and revised Tertiary portion of *Geology of Isle of Wight*, 2nd ed., 1889. Also author of many original papers, including Dust and Soils (*Geol. Mag.*, 1884); Norfolk Amber (*Trans. Norf. Nat. Soc.*, 1884); Origin of Dry Chalk Valleys (*Quart. Journ. Geol. Soc.*, 1887); Geological History of the Recent Flora of Britain (*Ann. Botany*, 1888); Pleistocene Deposits of Sussex Coast (*Quart. Journ. Geol. Soc.*, 1892); Natural History of Isolated Ponds (*Trans. Norf. Nat. Soc.*, 1892); Desert or Steppe Conditions in Britain (*Nat. Science*, 1893); Eocene Deposits of Dorset (*Quart. Journ. Geol. Soc.*, 1896); Report on Relations of Palæolithic Man to the Glacial Epoch (*Hoxne Excavation*, Brit. Assoc., 1896).

Ernest Henry Starling, M.D., F.R.C.P., Joint Lecturer on Physiology, Guy's Hospital; Lecturer on Physiology, London School of Medicine for Women; distinguished as a physiologist; author of the following: Electromotive Phenomena of the Mammalian Heart (*Proc. Roy. Soc.*, vol. l. and *Internat. Journ. of Anat. and Physiol.*, vol. ix. with W. M. Bayliss); Innervation of Mammalian Heart (*Journ. of Physiol.*, vol. xiii, with W. M. Bayliss); Fate of Peptone in Blood (*Proc. Physiol. Congress*, Liége, 1892); Physiology of Lymph Secretion (*Journ. of Physiol.*, vol. xiv); Absorption and Secretion in Serous Cavities (with A. H. Tubby, *ibid.*, vol. xvi); Nervous and Capillary Pressures (with W. M. Bayliss, *ibid.*, vol. xvi); Mechanical Factors in Lymph Production (*ibid.*, vol. xvi); Action of Lymphagogues (*ibid.* vol. xvii); Vaso-constrictors of Portal Vein (with W. M. Bayliss, *ibid.*, vol. xvii); Intraventricular and Aortic Pressure Curves by a New Method (with W. M. Bayliss, *Internat. Journ. of Anat. and Physiol.*, vol. xi); Osmotic Pressures and Physiol. Problems (*Science Progress*, 1896); Absorption from Pleural Cavities (with J. B. Leathes, *Journ. of Physiol.*, vol. xviii); Production of Pleural Effusion (*Journ of Pathol.*, vol. iv); Absorption from Connective Tissue Spaces (*Journ. of Physiol.*, vol. xix); Ligature of Portal Lymphatics and Injection of Peptone (*ibid.* vol. xix); Absorption of Indigo Carmine from Peritoneal Cavity (*Proc. Physiol. Soc.* 1898); Arris and Gale Lectures, Physiol. of Lymph Formation, 1894; Causation of Dropsy, 1896; Pathol. of Heart Disease, 1897. Author of *Elements of Human Physiol.*, 3rd edition, 1897; of the following articles in Schäfer's *Textbook of Physiology*: Formation and Absorption of Lymph; Secretion of Urine; Special Muscular Mechanisms of Respiration, Alimentation, Micturition, etc. Editor of Metchnikoff's *Lectures on Pathology of Inflammation*. Joint editor of the collected works of L. C. Wooldridge.

Bertram Coghill Allen Windle, M.D., M.A., D.Sc.Dublin, Professor of Anatomy, Queen's College, Birmingham. Has devoted himself to the study of Human and Comparative Anatomy and Morphology; and has published the following works and papers on these and kindred subjects: (1) On the Embryology of the Short Muscles of the Manus and Pes of the Dog (*Proc. R. Irish Acad.*, vol. iii); (2) The Embryology of the Short Muscles of the Human Hand (*Trans. R. Irish Acad.*, xxviii); (3) On the Pectoral Group of Muscles (*ibid.*, xxix); (4) Teratological Evidence as to the Heredity of Acquired Characters (*Journ. Linn. Soc.*, xxiii); (5) On the Anatomy of Hydromys Chrysogaster (*Proc. Zool. Soc.*, 1887); (6) On Some Cranial and Dental Characters of the Domestic Dog (in conjunction with Mr. Humphrys, *ibid.*, 1890); (7) On an Abnormal Arrangement of the Large Intestine (*Journ. of Anat.*, vol. xx); (8) On Primary Sarcoma of the Kidney (*ibid.*, xix); (9) On the Condition of the Brain in a Case of Motor Aphasia with Deafness (*ibid.*, new series, i); (10) Man's Lost Incisors (*ibid.*, i); (11) Anomalies of Muscles and Nerves (*ibid.*); (12) Two Rare Tumours connected with the Teeth (*ibid.*); (13) The Myology of Erethizon Epixanthus (*ibid.*, ii); (14) On the Arteries forming the Circle of Willis (*ibid.*); (15) On a Teratoma from the Sphenoid of a Calf (*ibid.*); (16) On the Myology of Procyon Cancrivorus, and others of the Ursidæ (*ibid.*, iii); (17) On the Origin of Double Monstrosities (*ibid.*); (18) On the Flexors of the Digits of the Hand (*ibid.*, iv); (19) Ununited Epiphyses (*ibid.*); (20) On the Stylo-auricularis Muscle and Ligament (*ibid.*, v); (21) On the Occurrence of an Additional Phalanx in the Human Pollex (*ibid.*, vi.); (22) On Identical Malformations in Twins (*ibid.*); (23) Sacculation of the Human Stomach (*Proc. Birmingham Philos. Soc.*, v); (24) Myology of Midas Rosalia (*ibid.*); (25) Myology of Hapale Jacchus (*ibid*); (26) The Adductor Muscles of the Hand (*ibid*); (27) The Extensors of the Manus in the Ape (*ibid*, vi); (28) On Congenital Malformation and Heredity (*ibid.*); (29) Researches on the Maturation of the Ovum (*ibid.*); (30) Certain Malformations in Fishes (*ibid.*); (31) Investigations in Artificial Teratogeny (*ibid.*, vii); Extra Cusps on Human Teeth (*Anat. Anzeiger*, vol. ii); (33) Congenital Deficiency of Thumb (*ibid.*, iii); (34) Malformation of the Face (*ibid.*, iv); (35) Musculus Sternalis (*ibid.*); (36) The Human Skull (*Birmingham Med. Rev.*, vol. xviii); (37) Hermaphroditism (*ibid.*, xx); (38) Development of Intermaxillary Bone (*ibid.*, xxv); (39) *A Manual of Surface Anatomy* (London, H. K. Lewis, 1888); (40) *The Proportions of the Human Body* (London, Baillière, Tindall, and Cox, 1892); On the Myology of the Pneucephalous Fœtus (*Journ. of Anat. and Physiol.*, vol. xxvii, 348); On Certain Early Malformations of the Embryo (*ibid.*, p. 436); On some Conditions related to Double Monstrosity (*ibid.*, vol. xviii, p. 25); The Effects of Electricity and Magnetism on Development (*ibid.*, vol. xxix, p. 346); On the Myology of Dolichotis Patagonica and Dasyprocta Isthmica (*ibid.*, vol. xxxi, p. 343); On some Points in Comparative Myological Nomenclature (*ibid.*, vol. xxxi, p. 522); On the Anatomy of Macropus Rufus (*ibid.*, vol. xxxii, p. 119); On a Specimen of Bifid Clitoris (*Proc. Anat. Soc. Gt. Brit.*, 1893, vol. xxii); On the Cusps of the Aortic Pulmonary Orifices (*ibid.*, 1895, vol. iv); On the Double Malformations amongst Fishes (*Proc. Zool. Soc.*, 1895, p. 423); On the Myology of the Terrestrial Carnivora; Part I.: Muscles of the Head, Neck, and Fore Limb (*ibid.*, 1897, p. 370); On the Physical Characters of the Boys at King Edward's Schools, Birmingham, and at Certain other Public Schools (*Proc. Birm. Phil. Soc.*, 1862. 216); On the Physical Characters of a Group of Birmingham Pupil Teachers (*ibid.*, 1895, p. 97); Note on a Roman Pottery near Mancetter (*Proc. Soc. Antiq.*, vol. xvi. p. 404); On the Prehistoric Implements of Warwickshire and Worcestershire (*Birm. Arch. Soc. Proc.*, 1897); *Life in Early Britain: being an Account of the Early Inhabitants of this Island and the Memorials which they have left behind them* (London: D. Nutt. 1897).

CONTRACT MEDICAL PRACTICE.

The Coventry Public Medical Service.

The annual meeting of this service was held last week. There were present Mr. Faulder White (in the chair), Drs. Brown, Callaghan, Collington, Phillips, Rice, Soden, and Settle. The treasurer reported that the financial condition of the service was highly satisfactory. The general working also appears to proceed smoothly, and no complaints reached the secretary during the year. It would thus appear that a medical service of this nature can be worked on practical lines, and give satisfaction to the medical staff who have organised its working. The Committee also take every precaution, so that the benefits are reserved exclusively for genuine working people. It was reported that 2,800 members were enrolled during the year, bringing the total membership to 8,281. There are ten working members on the staff, and as the number under each is strictly limited, the Committee feel that there is no great danger of overcrowding, or lack of attention to individual patients.

The following officers were elected for the ensuing year: *President of Committee:* Dr. Haig. *Honorary Treasurer:* Dr. Callaghan. *Honorary Secretary:* Dr. Richardson Rice.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must include details of the precise character and objects of the research which is proposed and must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C.

Reports of work done by the assistance of Association grants belong to the Association.

Research Scholarships.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

Ernest Hart Memorial Scholarship.

The Council are also prepared to receive applications for a scholarship of £200 for the study of some subject in the department of State Medicine in memory of the late Mr. Ernest Hart.

Applications must be sent in writing on or before June 15th, stating the particulars of the intended research, qualifications and work done.

Forms of application for the scholarships can be obtained from the General Secretary.

Francis Fowke, *General Secretary.*

429, Strand, London, May 2nd, 1899.

The report of Professor L. Concetti on the summer colony of Roman children established in the Apennines at an elevation of about 2,000 feet above the city, shows that the change was very beneficial. Weight, height, and thoracic circumference all increased in every child, and in some cases the increase was very remarkable. The cost was at the rate of about 1s. 4d. a child per diem.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 13TH, 1899.

LIFE ASSURANCE AND VACCINATION.

II.

THE attitude of those insurance offices which make no difference between vaccinated and unvaccinated lives having been discussed in a previous article, the methods pursued by offices which have already in one fashion or another dealt with the difficulty may now briefly be considered.

In the first place, thirteen offices take the short way of having nothing to do with the unvaccinated. They do not receive them on any terms. Secondly, eleven offices accept them, but exclude death from small-pox or its sequelæ from the contract. Thirdly, five offices pay only the surrender value, or else return the premiums, in the event of an unvaccinated insurer dying from small-pox. One of the five, however, an American office, adds interest at 6 per cent. The fourth and fifth classes as given in the articles already published are essentially similar; they comprise twenty-five offices which either charge an extra premium or, what amounts to the same thing, add some years to the age of the unvaccinated, accepting an unvaccinated man, say, of 25 years at the same premium as a vaccinated man of 30 years. The amount of the extra charge varies greatly as between different offices; one, for example, adding twenty shillings premium for every £100 insured, while others add only half-a-crown. The sixth and seventh classes, including one office which "discourages" unvaccinated proposals, and five which treat each case on its own merits, need only be mentioned here.

Practically there are four methods for consideration: (1) Absolute refusal of unvaccinated lives; (2) exclusion of death by small-pox from the contract; (3) payment only of surrender values or return of premiums; and (4) insistence on extra premiums. All these methods fail in one important respect: they make no difference between persons primarily vaccinated in infancy and persons primarily vaccinated in later life, or revaccinated. While this is important for life offices it is even more important for sickness assurance societies or clubs. It is a generally accepted part of the doctrine of vaccination that a good primary vaccination gives protection against death for a much longer time than against attack, and life offices have only the risk of death to face, while sick benefit societies have to provide also against illness. Indeed, in very many cases the protection against death, though much diminished, probably never altogether disappears with advancing age.

Comparing the four methods, the first (refusal of unvaccinated lives) appears needlessly severe unless, indeed, for the general welfare of the country, the offices look on it as part of their duty to discourage antivaccination.

A great advantage of the second and third methods—one the exclusion of death by small-pox, and the other the return of premiums on the payment of surrender value only—is that the unvaccinated insurer would, so far as the sum insured is concerned, suffer for his neglect of vaccination only in the event of his being attacked by and dying of small-pox or its sequelæ. By the fourth or extra premium method, he is called on annually for an excess contribution to the funds of his life office, while by the second and third methods everything is contingent on death by small-pox. In a rough and ready fashion a distinction might by means of these two latter methods be instituted in the future between the once-vaccinated and the revaccinated. In the case of the unvaccinated, death by small-pox might be excluded from the contract, and in the case of persons who had been only primarily vaccinated, and that in infancy, death by small-pox might be met by return of the premiums or payment only of the surrender value. Looking to the large number of persons who are so careless as not to renew their protection against small-pox, it might take some courage on the part of offices to initiate a scheme like this, but insurers in other than industrial offices usually belong to a class sufficiently educated to see the force of such an arrangement. Moreover, in the case of a prudent man about to insure his life, nothing could well give him more confidence in the institution he proposed to enter than evidence of the determination of the directors to protect the interests of those of their members most willing to protect themselves.

There are, however, certain objections to the second and third methods which must not be overlooked. One is the possibility of questioning the cause of death, especially where, as one office points out in its letter to us, the sequelæ of small-pox are involved. But under the Notification Act, so far as the disease itself is concerned, this difficulty is minimised, and it is to be borne in mind that as to fatal small-pox, with which alone the life offices have to do, there is practically never any doubt. Where cases are treated in hospital, as almost all cases are, there is corroborative evidence, but for the purpose in hand we cannot exclude the possibility of vaccination falling into such neglect as to allow small-pox to spread to an extent with which no possible system of isolation hospitals could cope. But this question of diagnosis can arise so exceedingly seldom that it does not detract in any appreciable degree from the merits of the second and third methods. A much more serious difficulty is that in many instances a man assures his life as collateral security, and that a policy which in certain eventualities is liable to serious deduction, may for such a purpose be almost or altogether useless. That objection to these methods might often be insuperable, but as they are in actual operation in some offices, it is obvious that the objection does not always apply.

The fourth method (additions to the premiums charged) is free from this difficulty. As already noted, the unvaccinated insurer contributes an annual extra into the funds of the company or society, and the amount insured falls to be fully paid by the office, even if death result from small-pox. The question of the proper amount of extra charge would be a most interesting one for collective investigation by the actuaries of the various offices, but looking to the impossibility of foretelling the future of vaccination and revaccination in this country, and the consequent impossibility of measuring with any exactness the future risk of exposure of the unvaccinated and the once-vaccinated to death by small-pox, it is almost hopeless to expect that any accurate determination could be arrived at by the actuaries. If, however, the method of extra premiums is to be pursued, then, the extent of the risk being difficult or impossible to gauge, it will be wise for assurance offices to err on the safe side, and to charge such amounts as will make certain that the once-vaccinated shall not suffer on account of the unvaccinated, and that the revaccinated shall not suffer on account either of the unvaccinated or the once-vaccinated. As to the revaccinated, perhaps the simplest way would be to make a small reduction in their premiums below the normal charges, or else to give them special bonus advantages.

Looking to the fact that the second and third methods on the one hand, and the fourth method on the other, have their own advantages, it would probably be wise to offer the alternatives to unvaccinated proposers, and that indeed is already done by some offices, as a reference to our previous articles will show. If the proposer is willing to back his own chances of escape from small-pox death, and does not require his policy as a collateral security, he could be insured on the second and third methods without extra premium; otherwise he could have the offer of the fourth method; and failing these the office would fall back on the first method—refusal to accept the proposal.

It is not pretended that the suggestions here thrown out make any approach to finality. They regard the question primarily from the medical point of view, and skilled actuaries constantly occupied in life insurance work should, from their side, have much to say on the subject. It certainly calls for their most careful deliberation alike in the interests of their societies and of the public. Whatever may be doubtful one thing is certain, namely that, as a basis for any system which may be adopted or is already in operation, accurate knowledge of the exact vaccinal condition of every person offering himself for insurance should be obtained and recorded. Nothing short of an inspection of the arm by the medical examiner, and a statement of the number and area and character of the marks of vaccination and revaccination ought to satisfy any office.

In the meantime, the medical profession can do no more than call attention to the whole question, and endeavour to educate those of the public who come directly or indirectly within their sphere of influence by giving them the facts regarding the various societies and companies, and advising them to give due heed to these facts in their selection of a life assurance office.

EXPERIMENTAL PSYCHOLOGY.

I.

Until recent years psychology was by those familiar with natural science contemned as a study based upon introspection merely, and not possessed of that objective material upon which alone sound observation was possible. Its conclusions were vitiated by bias, since the psychologist was scanning his own mind, and possessed no method stronger than simple observation, since experiment and verification were impossible. Such was the prevalent opinion. Yet it was but an example of the power of words to mislead, for while men admired the advance of nervous physiology and praised its experimental methods, they did not recognise that it was in large part psychological in character, and implied the very science with which it was contrasted.

Since that time psychology has plucked up heart to claim her rights, and has established them, not by any novel procedure, but by elaboration of the old. That the cutaneous nerves were sensitive to pressure and to pain was not recognised as a psychological statement, and was entered to the account of physiology; but when elaborate experiment showed that the recognition of difference in pressure followed a remarkable law, and that the gradual increase of any sensation produced at first a rise of pleasure, which was then quickly followed by a rapid fall into pain, it became clear that more was involved than the physics of life, and that the laws of consciousness were the real object of the study. "The New Psychology," "Experimental Psychology," or "Psycho-physiology" are the names now given to much that was formerly allotted to physiology, and much is still written in physiological textbooks, even while their authors expressly disclaim the intention, which is plainly psychological.

If we divide the processes of mind into the afferent sensation and apperception, the central formation of ideas, and the efferent volition leading to muscular or mental action, we may ask how far have these already, and how far may they in the future, come within the range of experiment. The first division, especially the powers of sight, hearing, and touch, has hitherto had the lion's share. For instance, through a vast series of experiments it has been proved that perception of pressure increases not directly with the pressure, but in a definite proportion thereto, so that whether an ounce or a hundredweight be laid upon a part of the skin, the lowest increase that can be felt is a third of the original weight. Similarly, the least sensible difference in sound is a third of the original loudness, whereas difference of light can be appreciated which varies but one-hundredth in brightness. Again, the quality of light and sound, which makes so large a part of optics and acoustics, has a psychical as well as a mathematical side. Not only the limits of our appreciation, but the curious phenomena of colour vision and complementary colours, are examples of this. Simultaneous sensations react upon one another, as when we find that a tuning-fork sounded in the ear will render more acute the power of vision. Simultaneous similar sensations are few only, as is shown by exposing at once several objects, such as letters, to the eye by an electric flash, when it is found that only a few of them can be consciously seen. The shortest interval of time at which two sensations of light

can be distinguished as separate has been found to be about $\frac{1}{500}$ of a second, the longest time that we can appreciate as one is about 12 seconds.

The efferent processes are studied in the common experiment of the reaction time, but this involves the afferent and the central processes as well, nor can we as yet exclude these from the operation, though something has been done in this direction by proving that if the "subject" think more of the action to be performed than of the signal to be received, the reaction time is greatly reduced.

The central processes are studied by a variation of the same experiment; instead of a simple signal the subject is given a choice. He may be shown one of several objects, but is only to perform the required act on perceiving one of them, or is to do different things for each. The greatly increased reaction time is the measure of his mental processes. Memory, again, is not difficult to study; whereas feeling is probably beyond exact experiment altogether.

In these and similar ways a little knowledge has been gained of the conditions under which mental states proceed. There is a disposition on the part of those unskilled in the subject to form an exaggerated estimate of what has been accomplished. This is, in truth, extremely little. If we ask now the questions that have been asked for over two thousand years: How does the mind perceive? or, What is an idea or concept? we recognise that the advance toward an answer is infinitely small. Mr. Galton's "generic images" were an interesting attempt to form an idea of cerebral processes by chemical analogy, but nothing more. There is in America a fashionable craze for this sort of investigation, and a tendency to overrate its powers. But a sober estimation will convince us that if experimental psychology can ever answer such questions at all—which is at least doubtful—it can do so only in the very distant future.

THE INACCURACY OF THE *MEDICAL REGISTER*.

The fourteenth section of the Medical Act, 1858, is as follows: "It shall be the duty of the registrars to keep their respective Registers correct in accordance with the provisions of this Act and the orders and regulations of the General Medical Council, and to erase the names of all registered persons who shall have died, and shall from time to time make the necessary alterations in the addresses or qualifications of the persons registered under this Act; and to enable the respective registrars duly to fulfil the duties imposed upon them it shall be lawful for the registrar to write a letter to any registered person, addressed to him according to his address on the *Register*, to inquire whether he has ceased to practise or has changed his residence, and if no answer shall be returned to such letter within the period of six months from the sending of the letter, it shall be lawful to erase the name of such person from the *Register*; provided always, that the same may be restored by direction of the General Medical Council should they think fit to make an order to that effect." In the *Medical Register* for 1899 issued last week it is stated that during the last two years no fewer than 904 names have been removed from the *Medical Register* under the provisions of this section. It would, indeed, appear that there has been special activity in this direction recently, for the average number of names annually removed under this section during the 23 years for which statistics exist was 234. It is, therefore, all the more surprising to find upon the *Medical Register* for 1899 a considerable number of names of men who are known to have died during 1898. We do not pretend to have made a complete search, but we have taken a list of 234 names which happens to be easily available. The names are those of practitioners who died or notification of whose deaths was made during 1898, and it is disquieting to find that in no fewer than seventeen instances the name is retained in the *Medical Register* for 1899. The recent conviction of the man Rowland who, though possessed of no diploma himself, yet succeeded in representing himself to be a registered medical practitioner named Nugent shows that the risk of personation is real. That the retention of the names of dead men on the *Medical Register* must afford facilities for such nefarious practices is too obvious to need much comment. The maintenance of the accuracy of the *Register* is one of the prime duties of the General Medical Council and the profession has a right to ask that it should be discharged. How many names of dead men the *Register* actually contains we do not know; apparently nobody knows. If seventeen names out of a list of 234 deaths in a single year have been allowed to remain, probably the total is very much larger, for not only is the number 234 far from a complete list of deaths of registered practitioners in 1898, but also it seems reasonable to assume that there is an accumulation remaining over from previous years.

THE DOCTOR'S BURTHEN.

Like Mr. Kipling's "White Man," the doctor has to take up many a burthen that is not of his own imposing. To the *impedimenta* which he is thus bound to carry has been added of late a new claim on his energies. He is now called on to defend the cause of vaccination against the attacks of those who seek to indoctrinate the public with the *crambe repetita* of their discredited fallacies. It has been too much the habit to assume that these attacks should always be treated with silent contempt; but we must not forget that the press is now the most important means for the formation of public opinion, and that it is sometimes wise to answer a fool according to his folly. Two excellent illustrations of the good work which may be done through newspapers have recently come under our notice. The *Gainsborough News*, an old-established journal, with an influential circulation in the North-Eastern counties, has lately been publishing a series of papers by "A Gainsborough Medical Man" in defence of vaccination. It may not always be easy to induce provincial editors to give so much space to a discourse on Small-pox and the Influence upon it of Efficient Vaccination, but opportunities are by no means infrequent of helping the public to appreciate the case for vaccination by a well-considered reply to the numerous letters which the emissaries of the Antivaccination League are continually addressing to the press, especially in the provinces. A considerable number of such replies from medical men have of late appeared in various provincial journals, and they cannot fail to have had an excellent effect in counteracting the mischievous literature which the League so copiously diffuses. Another illustration of the same good work is to be found in the debates in which members of the profession have engaged with opponents of vaccination. Such a debate was lately held in Melksham, when Mr. Murray Gray gave a crowded audience the opportunity of hearing the fallacies of a notorious medical antivaccinist exposed. So effective, indeed, was the lesson thus given that it appears from an amusing correspondence published in the *Cleckheaton Guardian* between Mr. Farrow of that town and the gentleman in question, on the subject of a debate to which the former had been challenged, that the latter had found discretion the better part of valour, and

had declined to come to the scratch, a result which was largely due to the judicious firmness which Mr. Farrow displayed in framing the conditions of discussion. The obligation on the medical profession thus to educate the public in the cause of vaccination is threefold: first, because it is by the advice of the profession that vaccination has been adopted by the State; secondly, because it is only medical men who can handle the subject in a competent way; and thirdly, because the public look to them for guidance in the matter, and will reasonably complain if it be not given. It is well, therefore, that medical men should familiarise themselves with the controversial aspects of the vaccination question more than they have hitherto done, so that they may be thoroughly prepared to meet the insidious attacks to which they will be increasingly exposed, so long as the antivaccination organisation is as active as it is at present. We have no doubt that the Jenner Society will, on application to its Honorary Secretary, Dr. Bond of Gloucester, be glad to help in this good work anyone who needs its aid.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE election on July 6th will be remarkable, as there will be but two vacancies. Sir William MacCormac's eight years of office will terminate in July, but he maintains his seat on the Council for another year, in accordance with the provisions of the eleventh Section of the Charter, 15 Vic., that when a member is President he does not go out of office until the succeeding year. This exceptional provision has come into operation on three previous occasions. First was the case of Mr. Wormald, in 1866. Then, by a remarkable chance, the same occurred to Mr. Partridge, his immediate successor, and only two years later Mr. Cock came under the same privilege. On this occasion Mr. Jessop, of Leeds, retires, having held his seat for the full term of eight years, and the other retiring member is Mr. Ward Cousins, whose term as substitute member for the late Mr. Rivington (elected in 1891) now comes to an end. Mr. Cousins's case is rather hard. He was elected in 1895, so as to fill the place of Mr. Hulke, who had been re-elected in 1889. Thus he had served his term by 1897, when he was re-elected but came in fifth, following Messrs. Owen, Godlee, Howse, and Watson Cheyne. Hence, according to charter, Mr. Cousins had to take the shortest term of substitution, and must now retire once more, the late Mr. Rivington's eight years being now at an end. Mr. Cousins, though twice elected, will have held his seat four years only, or half an ordinary single term. There are no death vacancies. The election on Thursday, July 6th, will begin at 1.30 P.M. Blank forms of the requisite notice from a candidate, and of his nomination, may be obtained on application to the Secretary, and the same must be received by him, duly filled up, not later than Monday, June 12th. A voting paper will be sent by post to each Fellow of the College whose address in the United Kingdom is registered at the College, on Monday, June 26th, and Fellows will not be required to apply for voting papers. The method of marking the votes is perfectly simple, and fully explained on the paper. There is no proxy required.

POOR-LAW OFFICERS' SUPERANNUATION ACT, 1896.

THE desirability of some change in the law which was brought into operation by the passing of the Superannuation Act has now become apparent, and it is evident that until this Act is amended many cases of extreme hardship to Poor-law officials must occur. The passing of this Act was hailed with general satisfaction, but in practice it has not been found to work well. The weakest point is in Clause 12, which enacts that all contributions of officers in the Poor-law service towards superannuation shall be carried to and form part of the common fund of that union in which the contributor is then serving. From this "common fund," as it is termed, of each special union in England and Wales pensions must under the present law be paid as they become due. It necessarily follows that if, by any device, the liability to pay these pensions to any officials who have contributed towards superannuation can be averted, the common fund of such union would in the course of time become materially enriched. On the other hand, it is quite possible that in those unions where there happened to be a large percentage of old officials employed at the time of the passing of the Act the local funds might be seriously taxed by an unusual number of claims for pensions being made on them. There is, moreover, a further objection to the law in its present form, as it throws the whole burden of any pensions which become due on the funds of the union in which the officer is serving at the time he first claims his pension, and this even if the greater portion of his work has been done in other districts and under other local authorities. Boards of Guardians would naturally be reluctant to become responsible for pensions acquired under such conditions, and this would lead them to avoid appointing any official who may have had many years of previous service in another union, which could be reckoned towards an aggregation of pension when such became due. It is now believed that if a common pension fund could be established most of these objections, if not all, would be at once removed, and Poor-law guardians would again elect officers on their merits, without regarding the pensions they might subsequently claim. These faults in the Act have already been pointed out in this JOURNAL, and the Parliamentary Bills Committee of the Association have expressed the opinion that an attempt should be made as soon as possible to procure an amendment of the Act. It is defective in the respects indicated not only as it affects medical officers, but also all other officials. It is not likely that any amending Act would be passed unless made applicable to all ranks, and it therefore appears essential for the whole Poor-law staff of England and Wales to unite for the purpose of obtaining some fresh legislation. The question has been fully considered by the Council of the Poor-law Medical Officers' Association, and has by it been brought to the notice of the London Poor-law Officers' Association. At a recent meeting of that body the subject was well put forward by Dr. Major Greenwood, with the result that the following resolution was then passed:

> That, in the opinion of this meeting, the formation of a central fund for the payment of superannuation money is of paramount importance; that the system laid down by the recent Act whereby the burden of superannuation falls upon the district where the officer happens to be employed when he becomes entitled to the same is unsound and ought to be amended; and that the Council be requested to urge upon the Council of the National Association the necessity of amendment with the least possible delay.

A step has been made towards rectifying past errors, as the Council of the National Association of Poor-law Officers, numbering very many thousands of members, will now, it is hoped, take up this question vigorously. If it does, there is good reason to expect that the present law, faulty as it undoubtedly is, will not long remain without alteration. We shall look anxiously for some report of the action which this Association decides to take in reference to this very important matter.

THE EDUCATION DEPARTMENT AND ITS MEDICAL ADVISERS.

IT seems anomalous that a great department of Government, dealing with nearly eight millions of money annually and directing the educational destinies of some five millions of children, should be without the advantage of the services of a medical officer of its own. In some American States and in many European countries there is a regular service of medical men in connection with schools under

State control; and in this country local school authorities are gradually awakening to the desirability of having medical officers to whom they can refer questions affecting the health, mental or bodily, of children under instruction. Considering that in these days arrangements for the education of afflicted children—mentally defective, deaf, and blind—come within the sphere of the school authority, in addition to the hygienic and sanitary matters involved in the congregation of children in schools, it seems of importance that the central authority should be able to reckon on the guidance of someone who has had special experience in such departments of medicine. It is true, as Sir John Gorst stated in reply to a question by Dr. Farquharson (see BRITISH MEDICAL JOURNAL, p. 1119), that one of Her Majesty's Inspectors of Schools recently appointed has medical as well as arts qualifications, and that the Department have utilised him for the inspection of the instruction of the afflicted classes of children referred to; but it is to be hoped that the new Education Board will have a medical department of its own properly equipped. A clause requiring the appointment of an officially recognised medical officer might be inserted in the Bill now before the House. It is undignified and unsatisfactory that even in such matters as the superannuation of teachers and questions as to the physical fitness of pupil teachers the Education Department should have to borrow the services of medical officers attached to other departments.

"CONSTRUCTIVE MURDER."

MR. PITT LEWIS, Q.C., in an article on the law of "Constructive Murder" which appears in the May number of of the *Nineteenth Century*, having arrived at the conclusion that legislation on the subject is required, proceeds to state what in his opinion that legislation should be. It is not necessary to deal with the various arguments which have led him to this conclusion; it suffices to say that the principle appears to be that at present the judges differ amongst themselves as to what the law really is. That the conclusion is justified by the result of recent cases leaves no room for doubt, but it does not seem that the proposed remedy is an appropriate one. The suggestion is that the first section of the Bill should be declaratory of the law in its strictest sense as it now stands—that if a man in committing or attempting to commit a felony kills another, then from these facts arises an irrebuttable presumption of law that such killing was malicious and therefore murder. By the second section it is proposed that the jury may append a special finding to their verdict to the effect that the accused when he committed the act which led to the death of the deceased had reasonable ground for believing and did in fact believe that death would not result from the act, and that he used all reasonable skill, and all other means in his power to prevent it so resulting. It is further proposed to enact that after such special finding, and without prejudice to the royal prerogative as it now exists and is exercised, it should be lawful for, but not incumbent upon, the judge presiding at the trial, if he so thought fit, instead of passing sentence of death in the usual form, to simply order such sentence to be recorded in the manner and with the consequences mentioned in the Judgment of Death Act, 1823. The effect of this would be the same as if sentence of death had actually been pronounced in open court and the offender had been reprieved by the Court. It is also suggested that the judge might be empowered to mitigate such sentence of death to such a sentence of penal servitude or imprisonment as he might think fit. Without going into the question in any great detail, it may be said that the chief objections to the suggested Bill are that in the first place the prisoner would then, as now, be indicted for and convicted of murder when the real offence of which he is guilty would not be murder except in the eye and by a fiction of the law. In the second place it would impose upon judges the invidious task of deciding whether a convicted prisoner should be sentenced to death or not. The same difficulty would arise in getting juries to convict, when they would know that notwithstanding their special finding it would rest with the judge to decide whether the prisoner should be sentenced to death, or whether the sentence of death should be merely recorded against him. Further the right of a jury in criminal cases to return a verdict of "guilty" or "not guilty," without giving any reasons whatever for their decision, would be encroached upon. Again, if once the judge had exercised his discretion, and passed sentence of death on the prisoner, it would be extremely unlikely that any Home Secretary would interfere, and so the royal prerogative would practically be vested in the judges. Lastly the proposed legislation would tend to relieve juries of the great responsibility which is now cast upon them in trials for murder. Unsatisfactory as the state and administration of the law in these cases is at present, the proposals of Mr. Pitt Lewis would, it is to be feared, only render it and the procedure more intricate and confused.

MEDICAL PRACTICE BY LAY ASSOCIATIONS.

WITH reference to the case of Everton and others *v.* Longmore, decided in the Court of Appeal on Monday last, a report of which appears at page 1195, Dr. Major Greenwood writes: "The dictum of Lord Justice A. L. Smith as to public policy may be true enough, but his argument that because it had been stipulated that any breach of the agreement was to be regarded as damages to the extent of £200, therefore the Society had an interest in the performance of the covenant, is more plausible than convincing. The sum to be paid by the defaulter was far more in the nature of a penalty than for the purpose of compensating the Society for loss sustained; and Courts of Equity have frequently refused to recognise 'liquidated damages,' which in their opinion have only been introduced into covenants for penal objects. This decision is, I believe, the first in which a co-operative association, carrying on business as a physician and surgeon, has been allowed the same status in our courts as a registered medical practitioner, and it is another proof of the necessity of some such alteration of the law as that proposed by the Lord Chancellor's Bill now before Parliament. Few will sympathise with Mr. Longmore. If a practitioner consents to such conditions as those contained in his agreement with the Walsall Friendly Societies' Association, most of his brethren will not regret that he has been unable to utilise his connection with such a body as a means to start a practice in the neighbourhood. Behind all, however, is a question far more important to the profession than the success or otherwise of an individual practitioner—namely, that of the right of co-operative trading bodies to carry on by means of agents the practice of medicine and surgery."

THE CARE OF THE FEEBLE-MINDED.

THE wide interest which has arisen in connection with the care and training of persons mentally feeble is evidenced by the fact that meetings in support of institutions for their care and training were held recently in two important provincial cities. On May 2nd a meeting of the Lancashire and Cheshire Society for the Permanent Cure of the Feeble-minded was held at the Manchester Town Hall, under the presidency of the Lord Mayor. Miss Dendy, to whom this particular movement is due, pointed out the urgent necessity not only for making the best of these blighted beings, and preventing them from passing into the criminal ranks, but also to guard against the perpetuation of the evil by providing permanent cure. She announced contributions to her scheme to the amount of £1,750, though she would not be satisfied till she had obtained £20,000 to complete the scheme. On May 5th the annual meeting of the Homes of Industry for Feeble-

minded Girls, under the management of Miss Stacey, was held at the Council House, Birmingham, under the presidency of Dr. Shuttleworth. The report showed that the two homes near Birmingham contained 45 girls, and that of 46 girls who had left the homes after various periods of training, 11 were in service and 7 were living with friends. But these homes were mainly custodial, providing suitable work such as laundry work and mat and rug making, whereby the girls contributed to their own support. One home was for innocent feeble-minded girls, the others for those who had fallen simply through mental weakness. The chairman moved the adoption of the report, remarking on the excellent character of the work which he had witnessed at either institution, and drawing attention to the inadequate Poor-law accommodation for the mentally-deficient class, especially in the Midlands. The Lady Mayoress seconded the adoption of the report in a speech full of sympathy; and Mr. Joseph Sturge, a member of the School Board, referred to the special classes now established in four districts of Birmingham for deficient children. From the financial statement it appeared that the earnings of the inmates of the two homes amounted to £312 out of an aggregate income of £994.

PROMPTNESS AND PLUCK.

ON May 3rd, Dr. R. J. Burns, Surgeon to the Borough Police, Sunderland, was called to the police station to treat a man named Menzies, who, after drinking heavily for some time, had attempted suicide by drinking some rat poison which he had placed in a can of beer. Unfortunately Dr. Burns found the stomach pump out of order, but, not to be beaten, he passed the tube down to the patient's stomach and sucked up the contents with his own mouth. By this truly heroic method he withdrew a large quantity of the poison from the man's stomach, together with dense phosphorus fumes. The man seemed at first to be better, but died in the workhouse three days afterwards. Dr. Burns, who will receive the commendation of his medical brethren for his plucky action, is, we are sorry to learn, confined to his bed suffering from phosphorus poisoning, but is not in danger, and will, it is expected, be shortly restored to health.

THE LONDON COUNTY COUNCIL.

THE London County Council on Tuesday again discussed the housing question. It appears that in some of the East-end districts there has been a rise of weekly rentals in certain tenement houses, and although the valuer's report indicates that there has been no recent general rise in rents, yet numerous councillors representing districts as widely apart as St. George-in-the-East, Chelsea, Bow, and Poplar rose to testify to instances within their own knowledge where considerable rises have occurred. The Chairman of the Committee deprecated further discussion on the whole problem of housing until the Council was in possession of the new policy to be propounded by the Committee. The Council then passed to the consideration of the question of extinguishing the licence of a public house known as the Pitt's Head, at the corner of Old Street and Goswell Road. This house has come into the possession of the Council in connection with a scheme for widening Old Street. In accordance with the Council's past practice it was resolved by a majority of 2 to 1 to allow the licence to lapse. It is true that the ratepayers are thus charged with several thousand pounds by way of compensation, paid to the holder of the licence, and receive as a *quid pro quo* merely the satisfaction of knowing that the admittedly excessive number of publichouses in London is reduced by one. The most unsatisfactory feature of the policy of the Council is that inasmuch as the Council is not itself the licensing authority, it is open to the Justices of the Peace in Brewster Session to grant fresh licences in localities where the Council at great expense has extinguished existing licences. Doubtless this question will be dealt with by the report or reports of the Licensing Commission, the official publication of which may be shortly anticipated. It will be remembered that much of the opposition which the London Government Bill excited, especially within the County Council itself, was due to the fear that the so-called "suicide clauses" would have the effect of greatly reducing the power and importance of the Council as the central governing body for the metropolis. It now appears from the compromise offered by Mr. Balfour that the proposal to empower the Privy Council to transfer any or all the powers now exercised by the Council under the Building Act, 1894, to the new "municipalities" is to be surrendered. Further, we gather from the new clause framed by the Leader of the House that any transfer of power which will be exercisable will be reciprocal, that is to say, it may take place either from the Council to the local bodies, or from the local bodies to the Council. Moreover, it will require the agreement of a majority of the new bodies as well as of the Council before any transfer from the latter can take place. These concessions have materially facilitated the progress of the Bill in Committee.

"MAHAMARI."

IT will be remembered that it was stated recently that bubonic plague was endemic in Kamaon, a district on the northern frontier of India, and it was therefore suggested that the epidemic in Bombay might have been derived from this endemic area. A study of the records throws some doubt on this theory without altogether discrediting it. It appears that outbreaks of "mahamari," in which the patients suffer from enlarged glands, and during which rats die, are comparatively rare. Several years at least may elapse without any such outbreak. The last serious epidemic occurred in 1876-77, and for several years after that, although officers were employed to visit as far as possible every village each year, yet no case of the disease was found for four years in succession. Moreover, it usually begins in the highest parts of the British territory next to Tibet, where it is believed to be indigenous. This district is continuous with Yunnan, whence the plague spread to Canton and Hong Kong in 1893, so that it appears likely that the Kamaon outbreaks of plague originate in Tibet, and the disease is not constantly present or indigenous in Garhwal and Kamaon. A reported outbreak of so-called "sunjar," which is believed by some to be a mild form of plague, was investigated recently by Captain Leonard Rogers, I.M.S., but in this particular case the disease proved to be relapsing fever. The spirillum of that disease was found in the blood of a patient, while all the symptoms corresponded exactly with that disease. Moreover, as a result of inquiry, it was found that the people of these parts called any disease which was infectious and attended with a comparatively low mortality by the name of "sunjar," while those that were very fatal they called "mahamari." A typical outbreak of cholera was described by an old villager under that name, which is probably used to include typhus fever, which has been described in these hills. It is evident, then, that every outbreak which is returned as "mahamari" is not similar to plague. It must, moreover, be recollected that only the worst outbreaks are ever visited by a European medical man.

LEPROSY IN NEW SOUTH WALES.

ACCORDING to Dr. J. Ashburton Thompson's Report on Leprosy in New South Wales for the year 1897 (dated September 20th, 1898), a copy of which has just been received, 16 persons remained under detention at the Little Bay Leper Lazaret on January 1st, 1897. During the year under review 7 suspected cases were reported to the Board

of Health. After careful investigation, 2 were admitted to the Lazaret, and 1 was allowed to return to Queensland. The remaining 4 were found not to be lepers. During the year 3 deaths occurred, all whites. Two Chinese lepers were sent back to China. The expenses in connection with this shipment amounted to £210. The number of patients remaining at Little Bay on December 31st, 1897, was 13, 10 of these being whites. The total expenditure was £2,276, the actual working expenses amounted to £2,028, equal to £135 a year for each inmate. Three useful appendices accompany the report, which concludes with an account of the three new cases. The patient who elected to return to Queensland was a man, aged 60, who had no idea he was suffering from leprosy. It was apparently a case of the maculo-anæsthetic type. The second case was a Belgian, aged 54, who died (not from leprosy) a few months after admission. He had been a convict and resident in New Caledonia for several years. It is probable that he contracted the disease in that island, where leprosy has been steadily on the increase for the last fifteen years. According to Dr. Thompson New Caledonia is passing through an experience as severe as that of Hawaii after 1860. The remaining case was an American, aged 57, born of white parents (State of New York). He had been a sailor since 1856, and had visited the Hawaiian Islands at various times. In 1873 he was landed from his ship at Lord Howe Island, where he remained until he was reported as a leper and brought to Sydney. The account of this patient's case is of great interest, especially as regards the length of the latent period, namely, 27 years, if it be assumed he contracted the disease in Hawaii, or 20 years if acquired in Sydney, his headquarters from 1866 to 1873, during which period it is known there were white lepers under observation in that city. Lord Howe Island was apparently first settled in 1834 by some New Zealand colonists and Maori women. Whilst there, the patient lived in a hut which belonged to a negro, a native of Philadelphia, and his wife, a Kaffir from Cape Colony, the latter had also been to China. Both, however, are stated to have enjoyed good health. The alternatives as to origin are contagion from an unknown case on the island, where there are some 65 settlers, or some local condition of the place. This is only another instance of the difficulties in the way of positively tracing leprosy to its source, especially when the patient has been a roaming sailor.

HOSPITAL REFORM AT BRIGHTON.

The Brighton Committee of the Hospital Reform Association have issued a report signed by Mr. R. P. Hooper, M.A., chairman, and Dr. F. J. A. Waring, honorary local secretary, from which it appears that the committee have worked at the matter for years with some good result. On November 5th, 1897, at a public meeting held at the Athenæum Hall, Brighton, a committee was appointed, and the managers of the several local medical charities were invited to send representatives to the committee to endeavour to devise a scheme to remedy, if possible, the present great and demoralising abuse of medical charities by persons well able to pay for private medical attendance whose requirements dispensaries and hospitals were never intended to meet. But with the exception of the local branch of the Charity Organisation Society, and the Brighton, Hove, and Preston Provident Dispensary, several committees of the local medical charities declined to co-operate in the movement, which should be for the benefit of the institutions which they represent. The *Lancet* Commissioner reported in June, 1898, that in 1896 no fewer than 43,374 tickets for the hospitals were given out, the population of Brighton then amounting to 152,000. At the same time, 14,333 persons belonged to the provident dispensary, clubs, and medical aid associations, some of whom received hospital tickets, though most of them were attended by their club medical officers. Adding the patients in the asylum, fever hospital, and Poor-law Infirmary, it results that one-third of the population pays no medical fees. Since 1876, when the population of the town was only two-thirds of that of the present day, the number of members on the books of the provident dispensary was more than it was in 1896. The cause of this decreased support of an institution which endeavours to teach the people to be a little self-reliant is doubtless the ever-increasing hospital abuse. Evidently the hospitals and dispensaries of Brighton should agree to a wage limit to be applied rigorously by each institution, whilst they should support the local committee of the Hospital Reform Association in their endeavour to lessen the present abuse. From the most recent annual statements of the hospitals it appears that in 1898 there was a decrease in the number of external cases. Whether this was due to lessened sickness during the year, or to the application of some wage limit by the institutions in question is not apparent. It is to be hoped that the latter cause is at last making some way with the managers of the hospitals.

THE SANITARY CONDITION OF FLORENCE.

A fierce onslaught was recently made upon the Town Council of Florence because in rightly endeavouring to afford its population the protection of modern sanitation, it was feared that some of the picturesqueness which commonly implies insanitariness might be impaired. Well-meaning æsthetic persons sometimes seem to forget that Hygeia is not the goddess of the dead, but of the living. Now, in the columns of the *Morning Post* this same authority has been denounced by "A Sufferer" for its gross neglect of all sanitary measures. In the opinion of the writer Florence can only be described as "pestilential." No drinking water, no sewers! Cesspools which are emptied by a disgustingly offensive process! Brave words: but what are the facts? A death-rate from infectious diseases, according to the most recently-published annual statistics, of 3.07 per 1,000, during the corresponding period the London death-rate from infectious diseases was 13.42; a constant supply of excellent drinking water to most parts of the city, and as we believe without exception to all hotels, pensions, and other visitors' quarters; a complete system of "storm-water drains." It is true that cesspools continue and may be a source of danger if not properly cared for; but the municipality of Florence and several limited companies undertake the emptying of cesspools by a process which is described as both effective and singularly inodorous. Iron pipes are carried from the cesspool into an airtight drum-shaped iron or zinc cart, the joints being secured by screw collars. A little steam engine on wheels accompanies the carts. The drum is exhausted by the steam engine and the contents of the cesspools are thus drawn into it. Florence can therefore assert that it is not blind to its duty in sanitary matters. Visitors who take reasonable care not to drink polluted water or otherwise expose themselves carelessly to the risk of infection ought not to be in greater danger in the City of Flowers than in any other centre of population.

THE MORTALITY IN CHILDREN'S HOSPITALS.

This subject has formed the basis of some sharp but friendly criticism by Dr. Szalárdi, of Buda-Pesth, directed against the authorities of the Charité Hospital in Berlin. Both sides are represented in this controversy in the *Jahrb. f. Kinderheil.*, January, 1899. Szalárdi's contention is that the high mortality in the Berlin hospitals is due to the fact that the infants are not breast-fed. He boldly declares that artificial feeding is really responsible for the deleterious "hospital influence," and that the evil will not be eradicated until all the infants are breast-fed. Professor Heubner has been endeavouring during the last

few years to diminish the infant mortality at the Charité Hospital. Cleanliness forms the basis of his teaching. The nurse entrusted with the feeding of the child is not allowed to do anything else; she is strictly prohibited from cleansing the child's body or in any way coming in contact with the excreta. The building is a very old one, and this prevents the full realisation of Heubner's scheme. The amount of light and air is necessarily inadequate. The mortality, notwithstanding some reductions, reaches nearly 50 per cent. Szalárdi gives his experience of a foundling hospital in Buda-Pesth which was started by the "White Cross Society" twelve years ago. The building has 11 wards made to accommodate 70 children with their mothers. On the first storey there are 6 wards with 35 beds for healthy children, on the second storey 5 wards for children with various diseases. An epidemic of gastro-enteritis occurred once only during the twelve years. On this occasion the disease was introduced by an artificially-fed infant, and several deaths occurred in the same ward. The epidemic was cut short by isolation and strict antiseptic precautions. The death-rate in this Foundling Hospital never exceeds 5 per cent., but the comparison between a foundling hospital and a general hospital is scarcely fair. In the former each child receives separate attention, whereas in the latter three or four nurses have to do the entire work of a ward. There is an excellent system of providing for all illegitimate children in Buda-Pesth, even when the parents are unable to subscribe a farthing to their maintenance. There is nothing corresponding to this in Germany, and to this is due a great difference in mortality. Dr. Finkelstein admits that the care of the illegitimate children is really at the root of the whole matter. A large proportion of children admitted into the Charité are in a moribund condition, due to insufficient food. The gastro-enteritis from which they are suffering and from which they ultimately die tends to infect the other occupants of the ward. Dr. Finkelstein does not think it necessary that all children should be breast-fed. He believes that with improved hygienic surroundings hand feeding will be more successful. The isolation of cases of marasmus may become an important problem in the near future.

MEDICAL LONDON IN THE EIGHTEENTH CENTURY.

At a meeting of the Medical Society of University College, London, on May 10th, Dr. G. V. Poore delivered an interesting address on Medical London in the Eighteenth Century. Commencing with a general description of the medical education in vogue in the early part of the eighteenth century, he characterised the surgeons of that date as handicraftsmen and not scientific men. Among the duties of a surgeon apprentice in the navy were enumerated boiling the patients' gruel, arranging the hammocks, shaving the men, and haircutting. It was customary then for physicians to pursue their studies abroad, and Leyden was the favourite seat of learning for medical men to "enter on the physick line." Dr. Poore gave an amusing account of Radcliffe, who, he said, did not care a snap of the finger for "authority," and who went counter to a great many of the views then prevalent. Radcliffe was a wary Yorkshireman who refused the appointment of physician to William III, knowing him to be an invalid, with the result that instead of a fixed salary of £200 he made £1,200 in fees in one year. On one occasion when William III sent for him, Radcliffe sent back a message that if the King would give up going to Lord Bradford and getting drunk he would get better. Commenting on the famous collection of Sir Hans Sloane, Dr. Poore pointed out that it formed the nucleus of the British Museum, which was thus founded by an eighteenth century doctor. In tracing out the career of Richard Mead, the speaker described that worthy's dangerous experiments on snakes, and instanced him as a remarkable example of a physician who cast away dogma and searched after facts, taking nothing for granted and investigating everything *de novo*. Dr. Poore concluded by drawing attention to the three great medical advances made in the eighteenth century: the disappearance of scurvy, the decrease of poisoning by lead, and the introduction of vaccination. Referring to scurvy, Dr. Poore said that Dr. Church, President of the College of Physicians, considered that the constant use of cow dung in the pharmacopæias of former times, was explained by its therapeutic value in cases of scurvy. The detection of lead poisoning was due to Sir George Baker, who thus discovered the cause of the endemic colics all over the world—in Spain, in France, in Devonshire, and the so-called "dry belly-ache" of Central America. In regard to small-pox, the remunerative nature of this complaint to the medical profession of that day was well brought out by the fact that Dimsdale received £12,000 down and £500 a year for inoculating the Russian Royal family. An interesting print delineating some of the medical worthies mentioned was lent by Sir Henry Thompson for the meeting.

"A HINT TO CORRESPONDENTS."

The following paragraph is published in a recent issue of the *New York Medical Journal*. The correspondents to whom the editor of our contemporary appeals are not without representatives on this side of the Atlantic, and we venture to commend the hint to their attention: "It not infrequently happens that we receive letters, the nature of which suggests that they are intended for publication, but which we are obliged to ignore because the writers, either from ignorance of, or carelessness as to, editorial requirements, do not conform thereto; and consequently the publication of their letters would entail upon us an amount of additional labour which we do not feel disposed to undertake. As instances of such defects, we may mention the writing upon both sides of the page, which entails considerable additional trouble on either editor or printer; the habit of using abbreviations, which we distinctly object to as leading to ambiguity; and the omission of small words, such as pronouns, etc., from sentences, thus rendering them incomplete. Brevity, it is true, is the soul of wit; but it should be exercised in the condensation of thought, and not in the omission of small words which are necessary to the grammatical construction of a sentence. These items have to be corrected in the editorial office, and much unnecessary labour is thereby thrown on the editor; and further, if the letter, as not infrequently happens, is closely written on a small sheet of notepaper, it is often impossible to make such corrections legibly without re-writing the entire letter. We trust our readers will bear this in mind."

A NEW CLASSIFICATION OF MENTAL DISEASES.

A systematic classification of the so-called "mental" diseases or insanities, based upon adequate clinical and pathological grounds, and having a real and practical value, is still a desideratum. In the last number of the *Journal of Mental Science* (April, 1899) Dr. W. Lloyd Andriezen proposes a classification which claims to be based upon facts of clinical, etiological, and pathological import. Its author believes it to be a "natural one, and at the same time practically useful." It recognises five main groups of mental disease, namely: (1) Aphrenia, which includes the lower (vegetative) medium, and higher grades of idiocy; (2) oligophrenia, which includes the various grades (low, medium, and high) of imbecility, together with feeble-mindedness; and three other groups. The two groups just mentioned include the more grave or profound arrests or enfeeblements of cerebral (psychical) development with a parallel absence or enfeeblement of evolution of personality. The next group (3)—para-

phrenia — constitutes a different class, namely, a "degenerative" group in the sense of Marel and Magnan, and one characterised by irregular developments (anomalies and perversions) of brain and personality, and for a large part of which Maudsley proposed the description "insane deformities of mind." Following largely the teachings of the French School, this group is elaborately subdivided into two grades, namely, paraphrenia mitis and paraphrenia gravis. The former includes such mental types as eccentrics, cranks, mattoids, some kinds of revolutionists, mystics, etc., who, though not demanding the more vigorous and drastic measures of detention and asylum treatment—being often "borderland" cases—yet may "give rise to a considerable amount of social, political, and moral danger." The latter, paraphrenia gravis, includes eight main types, is tentatively subdivided, and includes such wide and varying conditions as *folie du doute*, dipsomania, moral insanity, congenital sexual perversion, paranoic, cyclic, and alternating insanity, and epileptic, hysterical, hypochondriacal, choreic, pubescent, and adolescent and other insanities. Class (4), phrenopathic, includes most of the insanities properly so-called. These insanities occur in brains of nearly complete development and of apparent previous health. Eight groups are here recognised, namely: (*a*) Vesanic type (mania, melancholia, stupor, and acute mental confusion); (*b*) toxic group (the various insanities of alcoholism, plumbism, morphinism, cocainism, etc.); (*c*) febrile microparasitic group (puerperal delirium, acute delirious mania, and the grave delirium of scarlet fever, of influenza, and of acute meningitis, etc.); (*d*) diathetic group (the insanities of myxœdema, acromegaly, diabetes, and syphilis); (*e*) chronic meningo-encephalitic group (general paralysis of the insane); (*f*) traumatic; (*g*) neoplastic and thrombotic; and (*h*) involutional groups (chronic cerebral atrophy, climacteric insanity, and senile insanity). The last group (5), lipophrenic, represents conditions of mental dissolution secondary to previous insanities, and includes, therefore, the chronic wrecks and remnants of previous disease, a widely-varied group with varying antecedents, but whose common feature is the one terminus to which they have all arrived.

THE FUTURE OF THE UNIVERSITY OF LONDON.

The Earl of Kimberley, who presided at the annual celebration of Presentation Day at the University of London on Wednesday, referred to the loss which the University had sustained by the death of Lord Herschell, and observed that he himself had become Chancellor at a moment when the University was about to be embarked upon a new career. The Act passed last year would transform the University, not by abolishing its duty to examine all comers, in which it had hitherto done most excellent work, but by so adding to it that it would, he hoped, become a great teaching university. Such an institution in the greatest city of the world might have a paramount influence in promoting the great work of secondary education. The Bill dealing with secondary education, which was passing through Parliament, did not effect much at first, but it would lay the foundation of a complete system, and bring secondary education under a general and satisfactory organisation. The influence of the University was of the highest importance in that direction. A remarkable change had gradually come over the system of education in the country generally, and the great changes which had taken place throughout the world especially in the advancement of science—were at last beginning to be understood. The old system of laying a good broad foundation would not be abandoned, but the larger cultivation of sciences and of those arts which had grown to be of such great importance should be added to it. To no country were these arts and sciences of greater importance than to Great Britain, for its future prosperity and its maintenance in the high position as the greatest manufacturing country depended upon neglecting none of the advantages which a sound education could bestow. The University in its new form would pay special attention to economic and commercial education. Already there existed the economic school founded by the County Council, and Mr. Passmore Edwards had announced his intention of bestowing £10,000 upon that institution. There was a sanguine expectation that it would have a special and close connection with the new University, which desired to bring together as far as possible all those various agencies provided for higher education in the metropolis. There was no nobler task, and he believed that there was a fair promise that success would be assured. In conclusion he said that the question of the housing of the new University had been referred to a conference composed of three members appointed by the University, three by the Government, and three by the Imperial Institute. That conference, of which he was a member, was not yet in a position to make a report, but it would shortly do so, when it would be for the Senate to decide.

MEDICAL PRACTICE BY COMPANIES.

Attention has on several occasions been called in these columns to the fact that the law as it at present stands allows companies to carry on the profession of medical practitioners. The text of the Bill introduced by the Lord Chancellor, which will render it unlawful for a company to carry on such a business, was published in the Journal of April 8th, p. 876. Another of these companies was registered on April 22nd by the name of "Dr. Bland" Company, Limited, the objects of which are "to carry on or practise the profession or business of medical doctors, physicians, surgeons, apothecaries, pharmaceutical chemists, dentists, midwives, dry goods, and patent medicine vendors." The registered offices of the company are in Ireland. Of the signatories to the memorandum of association, one is a physician and surgeon, five are pharmaceutical chemists, and one a mercantile clerk. If the Bill above referred to should become law, this company will be prohibited from carrying on the major portion of the business for which it is formed.

MALARIA IN GREAT BRITAIN.

It is well known that ague was very prevalent in certain parts of England a few generations ago, and it is well known also that it has greatly diminished. Has it altogether disappeared? There seems to be a very general impression that it has not, though the few inquiries we have been able to make have failed to bring to light any positive evidence of recent cases. We shall be glad to hear from any member of the profession in the United Kingdom who has personal knowledge of cases of ague occurring in persons who have never been out of the country. If there be in any district residents who have been attacked by ague for the first time within the last twelve months, a study of the insect life there might result in throwing great light on the theory of the etiology of malaria which regards certain species of mosquito as the extracorporeal hosts of the hæmatozoon.

A MEDICAL BILL IN THE ISLE OF MAN.

The Committee of the House of Keys, which, as was stated last week, has heard evidence as to the Medical Bill for the Isle of Man, has reported to the House, and the report has been adopted. The medical witnesses, both for and against the Bill, were agreed that it was not a complete measure, and did not go far enough, yet the Committee, with one dissentient, recommended that the Bill should be passed as it stood. "Whilst giving due weight to the opinion expressed as to its insufficiency, they considered it would

be well to give the Bill a trial before attempting a measure far in advance of the existing law in England. According to the evidence, however, an improvement in the law would be effected by the introduction of a Bill on the lines of the Apothecaries Act in England, and the Committee would therefore suggest the advisability of the introduction of such a measure for the consideration of the House." Surely this is a very lame conclusion; if something "on the lines of the Apothecaries Act" is desirable, this is not going "far beyond the existing law in England," and the something should have been embodied in this Bill instead of being left to make confusion by the enactment of two separable measures which may eventually be found to conflict with one another. The recommendation seems to imply a want of grasp of the question; the Apothecaries Act involves the principle of prohibition of practice, though with certain qualification; this Committee endorses the desirability of following its "lines," and yet refuses to introduce clauses having that effect in their general Medical Bill.

THE COLONIAL NURSING ASSOCIATION.

Mrs. Chamberlain is showing an enthusiastic interest in the cause of the Colonial Nursing Association. An appeal has been made by Mrs. Chamberlain on behalf of the Association for the sum of £5,000 to place the work of the Association on a sound and durable financial basis. The object and aims of this society are most excellent, so that there should be no difficulty in raising so modest a sum. The object is to supply funds necessary to send nurses to the Crown Colonies and Protectorates of the Empire. The Association carefully selects the nurses, pays their passage out, and guarantees their salary. It arranges conditions and terms of service, and furnishes the applicants with all information on the subject. Wherever possible the expenses are provided locally, and the residents in the Colonies are expected to find the funds requisite as soon as the initial difficulties have been surmounted. The movement, it need scarcely be said, has the cordial support of the Colonial Office. Reports from the Colonies where the system has been for some time at work have been most satisfactory, and the rapid increase in the demand for the services of the nurses has now exceeded the modest funds at the disposal of the Association.

THE PASTEUR INSTITUTE IN INDIA.

The main business which was transacted by the Central Committee of the Pasteur Institute at Simla last month was to pass a resolution asking Government for an annual grant equal to the average cost during the last three years of sending soldiers bitten by rabid animals to Paris; to inform the Home Department that if this grant be given the Central Committee would establish an antirabic institute if the Government would allow the services of one of its officers to take charge thereof, and to invite the secretaries in the home and military departments to become members of the Committee. The surgeon to the Viceroy (Lieutenant-Colonel Fenn, R.A.M.C.) has joined the Committee, the other members of which are Surgeon-General Harvey, General Sir A. Gaselee, Q.M.G., and Mr. Holderness, I.C.S. The secretary is Colonel Bamber, I.M.S.

THE BRAIN OF HERMANN VON HELMHOLTZ.

In the *Zeitschrift für Psychologie* of March 7th, Professor David Hansemann, of Berlin, published a report of his examination of the brain of Hermann von Helmholtz. The great physicist died of apoplexy on September 8th, 1894, at the age of 73. The circumference of the head was 59 centimetres, that of the skull 55 centimetres. The breadth of the skull was 15.5, and its length 18.3 centimetres. The cephalic index was therefore 85.25, showing a broad head. Helmholtz's head was about equal in size to that of Bismarck, and rather smaller than that of Wagner, both of whom had big heads. On the other hand, Darwin's head was only 56.3 centimetres in circumference. The weight of the brain, with its blood, was 1,700 grams, without the blood 1,440 grams, being about 100 grams heavier than the average human brain. The sulci were very deep and well marked, especially in those parts of the brain which Flechsig has shown to be concerned in associations. The frontal convolutions in particular were deeply cut by very numerous sulci. Helmholtz, like Cuvier, was somewhat hydrocephalic in youth. It has been maintained by Perls, and also by Edinger, that hydrocephalus in early life may be an advantage, inasmuch as it enlarges the skull and gives the brain space for growth. Hansemann appears to be of the same opinion.

DINNER TO THE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS.

The house-surgeons of St. Thomas's Hospital who held office during the period in which Sir William Mac Cormac was actively connected with the hospital and school, will entertain him at a dinner to be given at the Café Royal on Wednesday, May 24th, in honour of his third year of tenure of the position of President of the Royal College of Surgeons. The whole number of past house-surgeons of the period amounts to 130; of these 13 are dead, and 20 are abroad in various parts of the world. Of the remainder scattered over the United Kingdom it is hoped that all will be present, as co-operation in the scheme has been practically unanimous. The chair will be taken by Mr. G. C. Franklin, of Leicester, as senior house-surgeon on the list.

BEQUESTS TO DUBLIN HOSPITALS.

The Vice-Chancellor of Ireland had before him last week the case of the executors of the will of the late Mr. James Weir, who died some months ago, leaving, among other sums, about £120,000 to Dublin hospitals. The case came before the Court to have a declaration as to the rights of certain claiming institutions to be regarded as hospitals. The will confined the distribution to hospitals in Dublin and its "vicinity." The eligibility of almost all the applicants was established, including the National Hospital for Consumption in co. Wicklow. The executors, who are three in number, have absolute power to distribute the fund in the proportions they may deem right.

The annual *conversazione* of the Medical Society of London will take place on Monday, May 15th. The annual oration will be delivered at 8.45 by Mr. Alban Doran, who has chosen for his subject Shakespeare and the Medical Society.

The one hundred and seventeenth Harveian Festival will be held in the Hall of the Royal College of Physicians of Edinburgh on Friday, June 2nd, when the President, Dr. Alexander Crum Brown, will deliver the Harveian Oration on Dr. John Mayow.

A discussion on Preventive Inoculation for the Production of Artificial Immunity will take place at the meeting of the Royal Society on Thursday, June 8th. The discussion will be opened by Professor Haffkine, who is at present in this country on leave. He will deal especially with preventive inoculations in bubonic plague, cholera, and enteric fever.

The service dinner of the Indian Medical Service will take place this year on Thursday, June 8th, at 7.45 P.M., at the Hotel Cecil. The chair will be taken by Surgeon-General Sir William Guyer Hunter, K.C.M.G., Honorary Surgeon to the Queen. Further particulars can be obtained from Mr. P. J. Freyer, F.R.C.S., 46, Harley Street, W.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENTS.]

Seats for Shop Assistants (Scotland) Bill.—The motion for the second reading of this Bill in the House of Lords last week gave rise to a dramatic surprise. In the Commons the measure had had an uneventful and prosperous passage, and no one anticipated for it a sudden and disastrous shipwreck in the Lords. Lord Shand began with a mild protest against the second reading, and then the Prime Minister fell upon the unfortunate measure with all his power of destructive criticism. He frankly said he had no knowledge of the Bill—in fact was ignorant, till the moment of his attack, that it had passed the Commons, but he nevertheless brought about its rejection on the ground that it required more examination. "Standing up and sitting down we have hitherto trusted to the instincts of humanity, believing that people could manage them for themselves." So argued Lord Salisbury, and the Bill was lost. Many members in the House of Commons know that this is not a matter which shop assistants can manage for themselves. It is a subject which the medical profession has examined and has decided that much evil is wrought by long standing on the part of young shop women. There is, therefore, a good deal of dissatisfaction with Lord Salisbury's interference with the Scotch Bill, and, as there is a Bill now before the House of Commons applying to England and Ireland, its promoters will press it forward and extend it to Scotland. They hope in this way to remedy the mischief done by the loss of the Scotch Bill in the House of Lords. Sir John Lubbock tried to get a second reading on Tuesday, but the Bill had to be postponed for the Government to consider the position, and has been put down for Friday.

Vaccination and Small-pox were the subjects of questions by Sir William Priestley and Mr. Webster. The former elicited from Mr. Chaplin the statement that the number of vaccinations performed since the new Act came into operation on January 1st has been in excess of that for any corresponding period in recent years in several localities where there had been a great amount of default. The case of Ipswich was mentioned as a place where in 1897 and 1898 the average number of quarterly vaccinations was only 33, whereas in the first quarter of the present year the number vaccinated was 198. It was also true that in some cases children exempted by certificate of conscientious objection had since been vaccinated. In reply to Mr. Webster, the President of the Local Government Board referred to the outbreak at Hull, and stated that 26 cases had been admitted to hospital. Of these 19 had been vaccinated and none had died; 7 were unvaccinated and 4 had died. In Hull 20 per cent. of the children had been left unvaccinated during the last five years.

The Law of Constructive Murder.—The Home Secretary stated last week that, in his opinion, the law of constructive murder requires amendment, but that it is so difficult a task that the Government cannot introduce a Bill, or give facilities to a Bill, this session. In the meantime, the opinion of Her Majesty's judges has been invited on the matter.

Preservatives in Food.—The President of the Local Government Board has decided to appoint a Departmental Committee to inquire into the use of preservatives in food.

The Health of the Gibraltar Garrison was the subject of a question this week, and it appears that during the five years ending in 1897 the admissions for venereal disease averaged for each year 290 per 1,000, as against 152 at Malta, and 170 in the United Kingdom. The average daily number in hospital was 28.3 per 1,000, as against 13.5 at Malta and 15.0 at home.

The Infectious Disease (Notification) Act (1889) Extension Bill passed its second reading in the House of Lords on Tuesday last on the motion of Lord Thring.

The Imbecile (Training Institutions) Bill is a measure introduced by Mr. Round to exempt from rates registered institutions for the care of idiots and imbeciles. There is a good deal of sympathy with the object of the Bill, but it involves a principle which is hardly likely to receive the approval of the Government.

The Midwives Bill came on again last Monday for second reading, but was postponed till Tuesday, May 16th. The fortunes of the Bill depend on the next week, as if it fails to be read a second time before Whitsuntide its chances are lost for the session.

Cattle Diseases.—In reply to a question, Mr. Long gave on Monday last some interesting figures on the amount of money expended in the suppression of cattle diseases. In the five years 1894-95 to 1898-99, £188,400 and £510,000 were received from Parliamentary grants and local taxation accounts towards the suppression of pleuropneumonia, foot-and-mouth disease, and swine fever. The net expenditure incurred during the same period of five years was £20,500 for pleuropneumonia, £1,100 for foot-and-mouth disease, and £724,000 for swine fever.

The Food and Drugs Bill still draws together a large attendance at the Standing Committee on Law. The Committee stage is, however, rapidly drawing to a close, and will be concluded during the present week. The chief subjects of contention have been the margarine clauses and the penalties. The 10 per cent. of butter fat proposed by the Government as the maximum permissible in margarine has been retained after a lively discussion. There was a strong attempt made to reduce the proportion to 6 per cent., but it was defeated, as was also an attempt to leave out the clause altogether. An attempt to prohibit the colouring of milk was also defeated. The penalties under the Bill have been made more severe by the addition of a subclause enacting that when the Court so decided a third offence should be punishable by imprisonment, with or without hard labour, for a term not exceeding three months. Some members made an earnest attempt to carry an amendment to compel the person convicted under the Bill to advertise and publish his own conviction. This was defeated on a division as the majority felt that undue severity might imperil the administration of the law. The question of accepting the invoice as a warranty is the only other point which excites much controversy.

The London Government Bill has made unexpected progress this week in consequence of several concessions on the part of the Government. The ninth clause was reached on Tuesday, and as the House will sit next week till Friday, and so an extra day be gained for the Committee on the Bill, there is a prospect that the measure will be well advanced before the Whitsun holidays.

Vivisection.—The following question was asked on Tuesday by Mr. Paulton:

Whether certificates were issued to persons holding licences under the Cruelty to Animals Act, 1876, allowing them to make experiments on living animals without anæsthetics, except during the initial operation; whether during later stages of the experiment the holder of such certificate would be at liberty, should he so desire, to keep the animal alive without the further use of anæsthetics for the purpose of conducting observations and dissections; and whether he still adheres without qualification to his former official statement that certificates of exemption from the compulsory use of anæsthetics are only given for such operations as inoculations or hypodermic injections, which are of a comparatively painless character.

Sir M. W. Ridley, the Home Secretary, said in reply: The nature of the certificates referred to would be more accurately described as follows: Under the terms of Section III, Subsection 3, of the Act certificates are granted, the effect of which is to exempt the holder from the obligation to kill the animal experimented upon before it recovers from the influence of the anæsthetic, when killing the animal would necessarily frustrate the object of the experiment, and provided that the animal is killed as soon as that object is attained. I would add, with reference to the second paragraph, that the sole use of the certificate is to authorise the keeping alive of the animal after the influence of the anæsthetic has passed off for the purpose of observation and study. I should certainly not allow any certificate involving dissections or painful operations without the fresh use of anæsthetics. The statement mentioned in the third paragraph, to which I adhere without qualification, had reference to a different class of certificates from those just dealt with—namely, certificates granting total exemption from the compulsory use of anæsthetics.

NOVA ET VETERA.

THE ROYAL CURE FOR THE KING'S EVIL.

In the report of the last quarterly comitia of the Royal College of Physicians, published in the BRITISH MEDICAL JOURNAL of May 6th, it was stated that a gold angel piece of the time of Charles the Second, which had been used by that monarch for the cure of the king's evil, had been given to the College by the widow of the late Dr. C. J. Hare. Some account of the curious form of unqualified practice of which the coin in question is a record may therefore be of interest.

THE ORIGIN OF THE CUSTOM.

The power of healing scrofulous sores by the touch was believed for centuries to be inherent in the sovereign of this realm, the virtue being imparted to the royal hand when it was anointed with the holy oil. The miraculous prerogative was traced by historians to Edward the Confessor, who reigned A.D. 1041-1066. The first mention of it is found in the account of the life of that sovereign written by Ailredus (Aelred), Abbot of Revesby.[1] A young woman suffering from unsightly masses of enlarged and ulcerated glands in the neck was bidden in a dream to go to the palace and beg the king to lay his hand upon her. The effect of the royal touch was such that, to the wonder of the beholders, the skin broke, a quantity of "worms" was discharged, the swelling vanished, and the patient was freed from pain.

UNDER WHICH KING?

On the other hand, French writers (as, for instance, Du Laurens or Laurentius, "*De Mirabili Strumas sanandi vi*," Parisiis, 1609) maintained that this gift of healing belonged only to the kings of France, and that it was first manifested by Clovis, who discovered his power accidentally when he caused the disappearance of a painful chronic swelling in the neck of his follower Lanicetus by laying his hand upon it. The matter was the occasion of much angry controversy between English and French authorities, each denying the claims of the other side, whilst impartial foreigners like Vigo allowed that both sovereigns possessed the power. But the Clovis legend was evidently felt to be rather a crux by the English champions. John Browne, "Chirurgeon in ordinary" to Charles the Second, the author of a quaint work entitled *Charisma Basilicon, or the Royal Gift of Healing Strumaes or King's Evil Swellings by Contact or Imposition of the Sacred Hands of our Kings of England and of France given them at their Inauguration*, though staggered by the superior antiquity of "the first of the French Kings . . . Clodovæus, who lived in the 300 year and upwards after Christ" (a needless stretch of chronological generosity by the way, as Clovis was not born till A.D. 465) with true British pluck refuses to own defeat. Going back to a period, as to the precise date of which he is judiciously vague, he argues that "it is very probable that our kings in the earlier times of the Church did receive these great and wonderful gifts from God himself, and did exercise the same in their dominions: and it was then an old saying that the Kingdom of England was the Kingdom of God." Thus it would appear that Providence which, according to the Bishop of Calcutta and the orators of Exeter Hall, makes the care of this country its particular charge, undertook that sacred burden at a period much more remote than they would have us believe. As for the French King, he only got the gift of healing at secondhand, or indeed as a loan from the English monarch:

> The French King (whose whole provinces were evermore subject to the jurisdiction of our kings of England) did only borrow His sanative and salutiferous Faculty from the Primitive Power of our English Kings under whose Government most of the French provinces were once subjected.

If "Clodovæus" lived half a dozen centuries before Edward the Confessor, some kind of set-off against this awkward circumstance is found in the fact that it could be said of St. Louis that "his cradle was more than 160 years after the coffin of our Edward the Confessor." John Bird, in his *Ostenta Carolina*. London, 1661, p. 46, triumphantly quotes a French writer—Tagantius—as admitting[2] the claim of Edward the Confessor to be considered the first sovereign who exercised the gift of healing scrofula by the touch of his hand.

[1] *De Vitâ et Miraculis Edwardi Confessoris.*

[2] *Inst. Chirurg.* Lib. I.

THE CONFESSOR'S HEALING TOUCH.

Shakespeare (*Macbeth*. Act IV, Scene 3) thus described how the "most pious Edward" wrought the miracle of cure. The doctor says:

> There are a crew of wretched souls
> That stay his cure: their malady convinces
> The great assay of art; but at his touch,
> Such sanctity hath Heav'n given his hand.
> They presently amend.

In reply to Macduff, who asks, "What's the disease he means?" Malcolm says:

> 'Tis called the evil:
> A most miraculous work in this good king;
> Which often, since my here-remain in England,
> I have seen him do. How he solicits Heaven.
> Himself best knows: but strangely visited people,
> All swoln and ulcerous, pitiful to the eye,
> The mere despair of surgery, he cures:
> Hanging a golden stamp about their necks,
> Put on with holy prayers: and 'tis spoken,
> To the succeeding royalty he leaves
> The healing benediction.

INTRODUCTION OF THE TOUCH PIECE.

From casual references met with in the old chronicles it may be gathered that Henry I, Edward II, Edward III, Richard II, Henry IV, and Henry VII gave sufferers the benefit of whatever virtue lay in the royal touch. It should be stated to the credit of Henry VII, who is generally said to have had a decided leaning to that "good old gentlemanly vice" avarice, that he was the first to give a piece of gold to those whom he touched, thus initiating the custom of which the "touch piece" now in the Royal College of Physicians, is a relic.

A TOUCHSTONE OF LEGITIMACY AND ORTHODOXY.

Good Queen Bess also laid her maiden hands on the necks of the scrofulous, in which she showed herself politic as well as philanthropic, for the possession of the gift was held to be a proof of rightful sovereignty as well as of theological truth. To quote Richard Wiseman:

> Which gift that it was not taken away upon our departure from the Church of Rome, we have not only our daily experience to testifie but also the confession of Doctor Harpsfield, a great divine of the Romish perswasion, who, after he hath in the *Ecclesiastical History of England* described at large the miracle wrought by the Confessor, doth add *Quam Strumosis Sanandi admirabilem dotem in posteros suos Anglorum Reges ad nostra usque tempora transfudisse et perpetuasse merito creditur.*

Wiseman clearly knew nothing of the "continuity" theory, or he would not have thought it necessary to appeal to the testimony of a Popish writer.

One of Elizabeth's bishops, Tooker, may however perhaps be claimed as an early adherent of the "continuity" doctrine, for he instanced the acknowledged virtues of the royal touch as a proof of the truth of the reformed Church. But this argument exposed him to a damaging flank attack from the ingenious Smitheus, who invited Tooker to explain how acceptance of the marvels wrought by the royal touch was to be reconciled with the Protestant teaching as to miracles.

Of the effects of Elizabeth's touch, let her surgeon, William Clowes, bear witness. In his book, *A Right Frutefull and Approved Treatise for the Artificiall Cure of that Malady called in Latin Struma, and in English the Evill, cured by Kinges and Queenes of England*, while discussing with such scientific insight as he possessed the effect of applications of "olde dryed goat's dung" mixed with honey and vinegar, is careful to allow the superiority of the royal cure, "the experimentall proof whereof," he says, "I have oftentimes seen effected" (p. 9). Clowes, it may be noted, shows no patriotic jealousy of the thaumaturgic powers of the French King. He says elsewhere:

> Now heere it is further noted that Vigo doth not promise or warrant alwaies and to every one a certaine absolute cure, but doth (as I and many others also have done) aver the praise and dignity thereof unto Kings and Queenes of England and of France. Indeede I have oftentimes read and I have also been credibly enformed by Master Frances Rasis and Master Peter Lowe, two of the French Kinges Chyrurgians that the French King doth also cure many strumous people, onely by laying on of his hand, and saying, "God make thee whole, the King toucheth thee!" or [with a somewhat profane inversion of the order of precedence] "The King toucheth thee, the Lord make thee whole."

THE MERRIE MONARCH AS A WORKER OF MIRACLES.

The Stuarts exercised the royal privilege of working miraculous cures much more freely than their predecessors.

Charles I touched a large number of persons, and Wiseman relates that when the king's fortunes had fallen so low that he could not give gold touch-pieces, silver and even copper was employed as a substitute. This depreciation of the currency did not, however, interfere with the efficacy of the remedy.

Charles II touched several thousands of people every year; in 1682 alone he performed the rite eight thousand five hundred times. An account "*of the Persons touched by His Sacred Majesty King Charles the Second for the cure of the King's Evil from May 1660, taken from a Register kept by Thomas Haynes Esq., Serjeant of His Majestie's Chappel Royal,* gives the *summa totalis* from the date mentioned to the end of 1664, and again from 1667 to 1668 as 92,107. Browne, therefore, had good reason for declaring that "Our gracious King doth excell his ancestors therein." Perhaps in that stormy period, after Cromwell had, in old Auchinleck's phrase, "gar'd Kings ken they had a lith to their craig," it may have been felt necessary to impress on the people whose faith in kingship had been rudely shaken the preternatural powers conferred on the Lord's Anointed. Browne adds that the method had been tried by "the late Usurper Cromwell," but without success.

THE RITE.

The operation was performed with much solemnity, and the ceremony usually took place on a Sunday. Browne gives the following account of the rite:

The tickets being delivered out His Majestie does generally appoint his day of Healing, of which the Chirurgeon is to acquaint those who are to be Touch'd, the which for the most part does happen on Sundays or other Days, it matters not which, the effects of his Cure being as good at one time as at another. The Day being Come, before his Majestie doth approach to his Royal Chair, which is generally after Morning Prayers, the Chief Officer of the Yeomen of the Guard doth place the Sick People in very convenient order for their approaching the King without trouble or noise; The which done His Majestie enters his Royal chair uncovered, at whose beginning there are generally two chaplains attending: One of which reading the Ceremonies appointed for this Service, His Majestie all the while being surrounded by his Nobles and many other Spectators. The Sick and Diseased People being kept back by the Chirurgeons till the appointed time, where after having made three Obeisances, they do bring them up in Order. The chief in waiting delivering them one by one to the King to be Touch'd, the which done, the other him or her from him, and this method is used throughout the whole number which comes to be healed.

The whole method is as followeth:—The Chaplain thus begins: The Gospel written in the 16th Chapter of St. Mark at Verse 14. Jesus appeared unto the eleven as they sat at meat, and cast in their teeth their unbelief and hardness of heart, because they had not believed them which had seen that he was risen again from the dead. And he said unto them, Go ye unto all the world, and preach the Gospel to all creatures; he that believeth and is baptized shall be saved, and he that believeth not shall be damned: all these tokens shall follow them that believe. In my name they shall cast out devils, they shall speak with new tongues, they shall drive away serpents. And if they drink any deadly thing, it shall not hurt them. They shall lay their hands on the sick and they shall recover. The which saying is continued between every healing of His Sacred Majesty, till all the sick be touch'd by him; the which being finished, he begins the following part.

So when the Lord had spoken unto them he was received into Heaven, and is on the right hand of God. And they went forth and preached everywhere, the Lord working with them, and confirming the Word with miracles following.

The which done he begins the Gospel written in the first chapter of St. John, verse the first. In the beginning was the Word and the Word was with God, and God was the Word; the same was in the beginning with God, all things were made by it, and without it was nothing made which was made: in it was life, and the life was the light of men, and the light shined in the darkness and the darkness comprehended it not. There was sent a man from God whose name was John, the same came as a witness, to bear witness of the light, that all men through him might believe. He was not that light but was sent to bear witness of that light.

Here the Chirurgeons come up the second time, making their three Obeisances as formerly, when the Clerk of the Closet on his knees doth deliver to the King his gold remedy strung upon a white silk Ribband: and when these following words come to be read, the King puts over the gold.

That Light was the true Light which lighteth every man which cometh into the World.

This running through the whole course of the Ceremony, which words are continually repeated between every one which receives the gold. This being finished * * * * * *[3] His Majesty having by my Lord Chamberlain, or in his absence the Vice-Chamberlain and two other Nobles, brought up the Linnen and the Basin and Ewer to wash his Hands, He takes leave of the people, and they joyfully and thankfully do everyone return home praising God and their good King: and when this method is apparent to all men, and carries in it the greatest truth imaginable, what man of Sense, Religion, or Honesty can there be which shall dare deny the truth and efficacy thereof?

Evelyn, in an entry in his diary under July 6th, 1660, describes the ceremony as follows:

His Majesty began first to touch for ye evil, according to custome thus: Sitting under his state in the Banqueting House, the chirurgeons cause the sick to be brought or led up to the throne, where they kneeling, ye King strokes their faces and cheeks with both his hands at once, at which instant a chaplaine in his fermalities says: "He put his hands upon them and healed them." This he said to everyone in particular. When they have been all totched, they come up again in the same order; and the other chaplaine kneeling, and having an angel of gold strung on white ribbon on his arme delivers them one by one to His Majestie, who puts them about the necks of the touched as they passe, while the first chaplaine repeats: "That is ye true light which came into ye world." Then follows an epistle (as at first a gospel), with the liturgy, prayers for the sick, with some alteration, and then the Lord Chamberlain and the Comptroller of the Household brings a basin, ewer, and towel for his Majesty to wash.

One wonders what Charles thought of it all. But he played his thaumaturgic part with becoming gravity, as we learn from Pepys, who was present at the ceremony on April 13th, 1661, and has the following reference to it in his *Diary:*

Went to the Banquet House, and there saw the King heal, the first time I ever saw him do it, which he did with great gravity, and it seemed to me to be an ugly office and a simple one.

THE TESTIMONY OF THE CHIRURGEONS.

But though Pepys in the privacy of his shortened diary might treat the royal miracles with scant respect, His Majesty's Chirurgeons unite with one voice in proclaiming the marvels of healing wrought. In his *Treatise of the King's Evil,* Richard Wiseman, Serjeant-Surgeon to Charles II, testifies as follows:

I myself have been a frequent eye-witness of many hundred of cures performed by His Majestie's hand alone, without any assistance of chirurgery—and those, many of them such as had tyred out the endeavours of able chirurgeons.

He even goes out of his way to declare that similar causes were wrought by the blood of the Royal Martyr:

After whose Decollation by the inhumane Barbarity of the Regicides, the reliques of that were gathered on chips and on handkerchiefs by the Pious Devotes; nor did their faith deceive them.

The most loyal Serjeant-Surgeon even apologises for mentioning the methods of treatment devised by medical art, but pleads the example of other writers, pointing out that it is "no more than the French King's chirurgeons have done before us, or than old Mr. Clows did in Queen Elizabeth's days."

Wisemen however admits that the royal chirurgeons made a careful selection of patients for the royal healer, choosing such as were approaching puberty, and showed a tendency to recovery.

John Browne, the "Chirurgion in Ordinary," delivers his testimony with a still more fervid loyalty:

And because I have been oft conversant and attending at many of these laudable operations, having waited on his Sacred Person both at publick and private Healings as one of his meanest Chirurgians, where I have seen many thousands of poor souls touch'd and cured by his Sacred Hand (and as a more particular account hath lately been given in, that he hath healed above 6,000 the very last year), I am obliged both by duty and Conscience to give my faith to his Royal Touch seeing the daily and innumerable effects thereof, many of which as if amazed at the speedy farewell of their diseases have immediately been cured to admiration even in the Presence, before they have got out of the Banqueting House at White Hall where his Majestie doth most usually heal; and some although brought in lame and blind, they have within a very little and short space of time, recovered their Limbs and gained their Sight.

The courtly Chirurgion adds:

I do humbly presume to assert that more souls have been healed by His Majestie's Sacred Hand in one year than have ever been cured by all the physicians and chirurgeons of his 3 Kingdoms ever since his happy Restauration.

He calls as a witness in support of his assertions his brother, Mr. James Molins, one of the Majestie's Chirurgeons, a man of as Great Reason and Judgment as of Art and experience, etc., etc. Browne devotes a chapter to resolving the doubts about this curative method made by Atheists, Sadducees, and ill-conditioned Pharisees; but as we do not admit that we belong to any of these categories, and as honest Browne becomes tedious as well as confused in his argument, we need not follow him through it.

Further testimony as to the therapeutic effects of the Royal touch is borne by John Bird in an opuscule bearing the following portentous title: "*Ostenta Carolina or the Late Calamities of England, with the Authors of Them: The Great Happiness and Happy Government of King Charles II Ensuing Miraculously foreshewn by the Finger of God in two Wonderful Diseases, the Rickets and King's Evil, wherein is also shown and Proved I. That the Rickets after a while shall seize no more children, but quite vanish through the Mercy of God, and by means of Charles II: II. That King Charles II is the last of Kings which shall so heal*

[3] The rest of the service—Gospel, antiphonies, prayers, and benediction is omitted.

the King's Evil Delivered by the Hand of the Lord upon his unworthy servant and His Majestie's Subject John Bird, and by him made Publicke for the Glory of God, Honor of the King, and Comfort of the People of God, London, 1661."

Alas for Bird's prophetic soul! The most ingenious exegesis cannot save his credit. In spite of the happy Government of the virtuous Charles rickets has not vanished, but still seizes not a few children. Nor was Charles the last sovereign of this realm who touched for the king's evil.

The Gold Cure.

Here, perhaps, a brief digression may be allowed. In reading of the thousands of sufferers who flocked to Whitehall to be touched it is impossible to avoid the reflection that the exercise of the Royal prerogative in this particular matter must have been a heavy charge on the exchequer. Macaulay[4] estimates the cost at £10,000 a year. Hence the Royal chirurgeons were very strict in the examination of applicants, and in keeping the registers, for to many people the gold was the essential part of the treatment. Many were such convinced believers in this form of metallotherapy that they were anxious to have the process repeated. Browne checked their enthusiasm by proposing that if a second visit were considered needful they should bring their own gold. Nor was this the only way in which the charity of the Royal healer was abused. Browne says:

There are another set of People who makes it their study to cheat the King of his gold, who having been touched and received their gold are ready to sell and part with it; and were not this true and very commonly put in practice, without all question, His Majestie's touching Medals would not be so frequently seen and found in Gold Smiths Shops.

The Later History of the Royal Touch.

In James the Second's hands the enormous practice of his predecessor appears to have fallen off somewhat. This may have been due to difficulties in regard to religious belief, for it was not every one even in those days that had the theological versatility of the Vicar of Bray. Still a considerable number had sufficient faith in James—or in his gold—to lead them to seek the favour of his touch. On one occasion he is said to have touched some eight hundred sufferers in the Choir of Chester Cathedral.

William the Third laughed at the thing as "a silly superstition." Only once could he be induced to go through the form, when he said to the patient, "God give you better health, and more sense!" But his enlightened spirit was not properly appreciated, for Macaulay says:

The parents of scrofulous children cried out against his cruelty; bigots lifted up their hands and eyes in horror at his impiety; Jacobites sarcastically praised him for not presuming to arrogate to himself a power which belonged only to legitimate sovereigns; and even some Whigs thought that he acted unwisely in treating with such marked contempt a superstition which had a strong hold on the vulgar mind: but William was not to be moved, and was accordingly set down by many High Churchmen as either an infidel or a Puritan.

Queen Anne was the last sovereign of England who touched for the king's evil. Among those upon whom she laid her hand was Samuel Johnson. Let Boswell tell the tale:

His mother, yielding to the superstitious notion, which, it is wonderful to think, prevailed so long in this country, as to the virtue of the regal touch; a notion which our kings encouraged, and to which a man of such enquiry and such judgment as Carte could give credit, carried him to London, where he was actually touched by Queen Anne! Mrs. Johnson, indeed, as Mr. Hector informed me, acted by the advice of the celebrated Sir John Floyer, then a physician in Lichfield. Johnson used to talk of this very frankly, and Mrs. Piozzi has preserved his very picturesque description of the scene as it remained upon his fancy. Being asked if he could remember Queen Anne, "He had" (he said) "a confused but somehow a sort of solemn recollection of a lady in diamonds, with a long black hood." I ventured to say to him in allusion to the political principles in which he was educated, and of which he ever retained some odour, that his mother had not carried him far enough; she should have taken him to Rome."

Johnson, as all readers of his life know, was all his life a Jacobite.

In a copy of Browne's book, which has been so often referred to—*Charisma Basilicon*—now in the British Museum, there is a MS. note to the following effect:

Dr. Johnson left the original touch piece that Queen Anne hung round his neck at the time of Her Majesty's touching him to Dr. Taylor, Prebendary of Westminster. At his death he left it to the Duke of Devonshire, in whose possession it now is (1798).

The service remained in the Book of Common Prayer till 1719. Prince Charles Edward, the "Young Pretender," is said to have touched some persons in 1745. Thomas Carte in his *History of England*, published in 1747[5], states that to his certain knowledge, the Pretender had cured the scrofula, and argued therefrom that the healing virtue was transmitted in the true line of succession independently of any unctions. The Cardinal Duke of York ("Henry the Ninth") is also said to have touched for the king's evil.

[4] *History of England*, ch. xiv.

HOSPITALS AND GENERAL PRACTITIONERS.

A special meeting of the Council of the Charity Organisation Society was held at the Royal United Service Institution on May 8th, to consider the adoption of the second annual report of the General Committee for the formation of a Central Hospital Board for London, and a report on general medical practitioners and hospitals. In the absence of Sir James Crichton Browne the chair was taken by General the Right Hon. Lord Methuen.

The Chairman, in calling upon Mr. Loch to read the report of the General Committee, said that he had always been in favour of more organisation in hospitals, and questioned the value of many of the small hospitals. In his opinion the Prince of Wales's Hospital Fund had not that representative character which was advisable. The Prince of Wales's Fund trod a little bit on the toes of the Hospital Saturday and Sunday Funds, and any step would be regretted that in any way diminished the usefulness of those two funds.

Proposed Central Hospital Board for London.

Mr. Loch read the General Committee's report, which announced that they had adopted a policy of postponement and observation, waiting to see the development of the new arrangements in connection with the Prince of Wales's Fund and the Central Hospital Council for London. Four chief points were considered—the representation of the Central Hospital Board, inspection of the hospitals, grants, and the formation of a fund consisting of bequests, legacies, and foundation grants, and the plan had in some of its main features been adopted. It was noted that the Prince of Wales's Fund was not managed by hospital representatives. A system of inspection had been set on foot. The Prince of Wales's Fund had received large grants, but, like the Hospital Sunday and Saturday Funds, or any hospital, drew contributions from whatever source they could be obtained, and already there was a diminution in the receipts of the Hospital Sunday Fund. It was impossible to conclude that the Prince of Wales's Fund had not reduced the income of individual hospitals. In regard to payment by hospital patients, a plan had been adopted of imposing a small charge of threepence to out-patients and casualties. Very great objection was felt to these proposals on the part of members of the medical staffs of hospitals and others. The report concluded by the expression of a hope that a union of the three funds would be formed, and that, acting in conjunction with them, the Central Hospital Council, which perhaps on its own initiative might enlarge its borders on representative lines, might become the Central Hospital Board outlined in the draft scheme of 1897.

Sir William Broadbent moved the adoption of the report, and said that it began by stating that the Executive Committee have thought it well to adopt the policy of postponement and observation. This did not mean simply inaction, nor that the influence of the Association had ceased to be felt. They might or might not take to themselves the credit of the establishment of the Central Hospital Council or of the establishment of inquiries in respect of hospitals. The fact was that these things had been from the first advocated by the Association. The Central Hospital Council did not, it is true, carry out by any means the full purpose of the Central Hospital Board. The hospitals represented were those only to which medical schools were attached, where certainly one might say that the minimum of abuse prevailed, and where certainly the out-patient departments were of the greatest utility, not only for the poor but also for the purpose of the instruction and training of medical students. The Central Hospital Board was doing good work, but better work would be done, and a larger area of influence opened, if the smaller

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hospitals were represented. Pressure could not be brought upon these small hospitals by means of a body on which they were totally unrepresented. The entire object of the Central Hospital Board was that all hospitals and interests being represented, the Central Board would not be looked upon as an enemy nor as imposing conditions but would be accepted by every hospital over which the authority of the Central Board extended. He hoped that on its own initiative the Central Council might become the Central Hospital Board outlined in 1897. He believed he was right in saying that it did not matter to the Association how, or in what hands, or by whom, the objects of the Association were carried out, all that they wanted was that this work should be efficiently done. One of the greatest advantages which he had looked for from the establishment of this Central Hospital Board was that there would be in every district around each hospital a sort of census taken of the medical institutions so that some kind of co-operation should be brought about. There should be a working together of the hospital as the great centre, with the provident dispensary and with every kind of medical institution which was really doing good work. They should be all brought into co-operation. Those patients who had shown independence by subscribing to provident dispensaries should not find it more difficult to get hospital advice than others who manifested no desire whatever to help themselves in obtaining medical advice. The system of visiting hospitals was in active operation, and was working most satisfactorily. At St. Mary's Hospital, with which he had the honour to be connected, the inquiry officer called attention to cases which seemed to be unsuitable, doing nothing on his own responsibility, his reports coming before a small committee, the attitude of which was entirely sympathetic, and which resented any kind of injury to the feelings of the really deserving poor. In this way a check had undoubtedly been given to the improper use of hospitals. On inquiry it was found that about one case in forty proved to be unsuitable. These inquiries probably exercised a deterrent effect, and unsuitable patients, knowing that inquiry would be made, ceased to go to those hospitals where there was an inquiry officer. Here, however, came in one of the defects of this partial inquiry system; these unsuitable patients, on finding they could not go to the large hospitals, went to the smaller ones. It was, however, a very great advantage to have inquiry officers, and the reform was really due to this fund. He hoped that it would be found to form an efficient check to certain forms of abuse in medical charities. An attitude of observation had to be exercised on other bodies, and as the report showed, it was mainly the Prince of Wales's Fund which had engaged the attention of the executive committee. He would regret if it were concluded from the criticism of the fund that there was any kind of hostility on the part of the Association to the Prince of Wales's Fund. It was not the case that there was any hostile attitude. It was simply the business of the committee to analyse and examine carefully whatever was going on in medical charities. Personally he thought that money should not be collected by the detestable method of street collection, and he hoped that the Hospital Saturday Fund, which had abolished that plan of collection, would not suffer. The future work of the committee was indicated in the last paragraph of the report, and it was hoped that a union of the three Central Hospital Funds would bring their work into co-ordination, and that there would be no danger of interfering with each other in the collection of money or in their ways of distributing money. He hoped most heartily that any apprehension which might be entertained that the Prince of Wales's Fund would in any way trench upon the Hospital Saturday or Sunday Fund would be found to be baseless. It was too soon to draw conclusions, but the possibility was present, and they must keep their eyes open, for all these agencies might be dipping their bucket into the same well. The great object of the Prince of Wales's Fund was that sections of the community should be appealed to which up to the present had not been reached by other agencies. It was hoped and expected that that would be the special aim of the Prince of Wales's Fund, and that its agency would be increasingly valuable to the hospitals.

Mr. BOND, M.P., seconded the resolution.

Brigade-Surgeon-Lieutenant-Colonel MYERS considered the scheme was not representative, and was liable to fall into the management of a clique.

Sir WILLIAM BROADBENT did not think that the last speaker had mastered the scheme. He contended that it would be impossible for it to get into the hands of a clique. By carrying out the scheme a long step would be taken towards suppressing the small hospitals.

The motion was then put and carried.

REPORT ON GENERAL PRACTITIONERS AND HOSPITALS.

Dr. KNOWSLEY SIBLEY, in proposing the adoption of the report on general practitioners and hospitals, drew attention to the abuses which existed. The report stated that the General Committee for the Promotion of a Central Hospital Board for London had issued certain questions to 270 general practitioners, together with the following series of suggestions for the better administration of out-patient and casualty departments.

NOTE.—*These suggestions are made after consultation with medical men who have had considerable experience in general practice, with the object of ascertaining what methods would seem suitable and sufficient to the great body of general practitioners, and might be urged upon hospital authorities as likely to satisfy their legitimate demands.*

1. It is admitted that the numbers of cases attending the casualty departments of London hospitals have increased with excessive rapidity of late years, while there has also been an increase in out-patients.

2. It is admitted that among the casualty cases are many of a trivial nature, and many that could be dealt with satisfactorily by general practitioners, and for which medical aid at a hospital is unnecessary. In the out-patient department there are usually many similar cases.

3. It is suggested, as to casualty cases, that the adoption of the following rules would be advantageous to the poor, to the hospital, and to the general practitioners:

That all casualty cases be seen by a medical officer of the hospital, and that he be authorised to select out of them cases (1) that are urgent and require immediate treatment, and (2) that should, in his opinion, be retained for purposes of medical education or science, and that these only be attended to.

That the remaining cases be referred in general terms to medical men in the neighbourhood or to a reputable and approved provident dispensary.

Thus, while all cases would be seen, only those that might fairly be called casual or urgent would be attended to. The growth of the casualty departments would thus be checked, and the numbers of casualty patients reduced greatly.

4. For similar reasons it is suggested as to out-patients:

That all out-patients cases be seen by a medical officer of the hospital, appointed specially for the purpose, and that he be authorised to select cases out of them to be attended to in the out-patient department, subject to the following conditions:

(1) That members of friendly societies, provident dispensaries, and others referred to the hospital with a note from the general practitioner who has been attending them, should have first consideration and be attended in the out-patient department.

(2) That cases of obvious destitution or cases already in receipt of Poor-law relief should, after they have been seen, be referred to the Poor Law, unless they should be retained for educational purposes or on the ground that they require special hospital treatment.

(3) That the cases selected for each medical officer in the out-patient department should be limited to 15 or 20 new cases a day, as may be determined by the medical officers of the hospital.

(4) That other cases, in which out-patient treatment at a hospital is not necessary for recovery, should, after first treatment, be referred in general terms to medical men in the neighbourhood or to a reputable and approved provident dispensary.

(5) That all cases be reserved for the consideration of the staff in the out-patient department which, whatever their circumstances may be, are required for the purposes of medical education and science.

(6) That all out-patient cases, except cases referred by general practitioners ((1) above) and cases obviously destitute or in receipt of Poor-law relief; ((2) above), be seen by a thoroughly trained almoner, with a view to a fuller consideration of the case from the standpoint of general charity.

5. It is suggested further, as worthy of consideration, whether in the medical out-patient department it would not be better that no drugs should be given, but prescriptions.

Replies were received from 72 medical men, all of whom with one exception thought that the development of the out-patient and casualty departments at hospitals was prejudicial to their interests, especially: (1) By treating patients who can afford to pay the small fees asked for in most localities, or who could join the medical clubs or provident dispensaries; (2) by the absence of adequate inquiry into the social circumstances of the patients; (3) by the treatment of trivial complaints, and (4) by depriving general practitioners of those cases, the treatment of which would be of service to them in maintaining their professional proficiency. It is said in several of the replies that the competition between the hospitals and the general practitioners is the greatest where "fees" are charged at the former; and it is suggested that

the members of the hospital medical staffs should be salaried.

Dr. Macnaughton-Jones seconded the resolution, and quoted instances of hospital abuse.

Dr. Lorrimer Hart, Dr. Mander, Dr. Rotheroe, and Dr. Jones having addressed the meeting, the resolution was adopted.

The meeting terminated with the usual vote of thanks to the Chairman.

THE PREVENTION OF TUBERCULOSIS.

Chelsea Clinical Society.

The second of two special meetings was held on April 25th in the Jenner Institute of Preventive Medicine, Chelsea, to discuss recent investigations relating to the treatment of tuberculosis; Dr. Foster Palmer, President, was in the chair.

After some introductory remarks from the President, Dr. C. T. Williams read a paper on Climatic Treatment. Although a great advocate of the open-air treatment, he did not agree with those who said that consumption could be treated anywhere in England as long as it was carried out; or that sending people away for climatic treatment was quite unnecessary. Climatic treatment could be more easily and probably more effectually carried out in the dry climate of a place like Egypt, where life in the open air was the natural thing, than in the moist climate of England or Wales. The great virtue about the open-air treatment was that it could be practised in England, though not so well as in a great many countries, and was available for persons who were unable to go abroad. He showed tables of 800 cases that had been under his own observation, showing that high altitudes did wonders. The patients generally returned having gained in bodily vigour and weight; the chest measurement was increased, sometimes 3 or 4 inches, and the breathing was more or less pure. He had had some patients under observation ten years, and the greater number of higher-altitude cases had done well. With sea-voyage cases the results were not so lasting, and if a patient went to an English health resort it was necessary to do so for many winters, whereas two years in higher altitudes was as a rule sufficient.

Dr. J. E. Squire said the female children of tuberculous parents were more often affected than the male, whereas the opposite was the case with the offspring of non-tuberculous parents, the former contracting it at home, the latter outside. It was necessary to keep people as much as possible away from the sources of infection and look after their general hygienic condition. Notification was difficult, but he thought registration of tuberculous individuals might be useful and enable us to have some supervision over those patients that would not adopt proper preventive measures. With regard to sanatoria no scheme of prevention could be considered complete which did not provide for the removal of early cases that could be cured and advanced cases that were a source of danger to those around them.

Dr. S. H. Habershon discussed the treatment of tuberculosis in detail, and Dr. F. R. Walters then spoke on sanatoria. He said the object of treatment in them was not to detain the patient until he was cured, but to keep him during the critical stage of his illness, and train him to continue that treatment under his own medical man. There were three important reasons why patients should be treated in sanatoria: First, all places were not equally suitable for the treatment of pulmonary tuberculosis, as consumptives could not be properly treated in this country, or in densely-populated places, or where they were exposed to cutting winds. Secondly, there was need of constant supervision, especially in the active stages when systematic treatment and rest was needed, and complications required to be met as soon as they arose. Thirdly, both time and money were saved, and better results obtained by treating numbers of consumptives in the same place. Sanatoria, like hospitals, had certain structural arrangements that facilitated nursing the acute cases and watching the convalescent ones, for even if the disease was quiescent, patients were not all intelligently tractable, but often required checking and supervision. In conclusion, he submitted that treatment in sanatoria was rational; it was a combination of all the hygienic and medical methods which were available; it was perfectly safe for all concerned, and gave the patient the best chance of recovery.

A discussion followed, and Drs. Williams and Squire replied.

PROPOSED CONSULTING INSTITUTE IN BIRMINGHAM.

It will be remembered that some five or six months ago Mr. Arthur Chamberlain brought forward a scheme to establish an institute in Birmingham where the skilled opinion of physicians, surgeons, and specialists could be obtained by the working classes, at what was termed "a reasonable price." Very little has since been heard of this scheme, but it has been under the consideration of a Subcommittee of the Birmingham Hospital Saturday Fund for the last two months, and at the annual meeting of the fund on Monday last, a report was presented setting out a scheme for carrying out Mr. Arthur Chamberlain's suggestion. The scheme was as follows:

That rooms should be taken in a central position, and two consultants, a physician and a surgeon, should be engaged for one year certain, at a salary of £500 per annum each. The estimated expenditure for the first twelve months is £1,500. Mr. Chamberlain estimates that 20 consultants per day might be obtained, which would yield an annual income of £3,000, and leave, after payment of all expenses, a considerable profit. Eventually it was considered better to take an extremely pessimistic estimate, and allow only for two consultations per week, which would yield only £300 per annum, and leave a deficit of £1,200. If such a loss or any loss was incurred, the Committee had to consider how it should be met. At this stage the Committee had to consider how desirable it was, in the interest of the subscribers to the Hospital Saturday Fund, that the scheme should be carried out. On this point, having regard to the strongly-expressed opinions when the subject was before the Board of Delegates, they felt that only one conclusion was possible, namely, that such an institution would be of incalculable benefit to the working classes. Whilst allowing that a loss may occur, yet, having regard to the present conditions of the medical profession and the hospitals in this city, the Committee believe that, not only will the institution be self-supporting, but that a surplus will accrue for the development of the movement. They, therefore, recommend that the Hospital Saturday Fund should take two-thirds of the responsibility attending the experiment, Mr. Chamberlain taking the remaining third; that the management of the institution should be vested in a committee of nine members, six of whom should be appointed by the Hospital Saturday Fund, and three nominated by Mr. Chamberlain. The Committee are prepared to give the experiment their cordial support, and believe the Board of Delegates will bestow a great benefit on the working classes of the city by assisting in the consummation of Mr. Chamberlain's excellent plan.

In moving the adoption of the report, Mr. Garner stated that the fee suggested was half a guinea, not to include medicine, and that the hours would be fixed to suit the habits of working men. One of the delegates pointed out that a salary of £500 a year would not secure the services of a man whose advice they could rely on with confidence, and Dr. Saundby expressed the opinion that the scheme was based on a misunderstanding of the medical profession. A delegate asked how they could get two men who would discharge the duties of specialists in all diseases. After some further discussion the scheme was adopted by a large majority.

There seems to be really no end to the schemes for exploiting the medical profession to the advantage of various funds, companies, and institutions. Although the promoters of this scheme have thought it prudent to make provision in case of failure, they distinctly state that they anticipate not only that it will be self-supporting, but that a surplus will accrue for the development of the movement; that is to say, a profit will be made out of the fees of patients who will consult the two gentlemen whom it is proposed to appoint to the new institution. It is argued that there are among the lower middle and the wage-earning classes a certain proportion who are not in a position to pay the ordinary fees of consultants, and who are yet not suitable candidates for a medical charity. This proposition may be unhesitatingly admitted, but at the present time there is, we believe, no difficulty as a rule in inducing a consultant of experience to consent to render his services at a reduced fee upon the request of a general practitioner under whose care the patient may be. At the same time it is no doubt true that a large number of such persons, either unwilling to incur the personal obligation or desirous of economising the reduced fee, find their way into the out-patient departments of hospitals, particularly of special hospitals, and this is a difficulty deserving of consideration. But it will be generally felt that the scheme proposed in Birmingham has so many unsatisfactory features, that, far from remedying it cannot but tend to increase, the

abuses which already exist. The defects of the scheme, regarded both from a general and local point of view, have been forcibly set out in the following letter by Dr. Saundby, which was published in the *Birmingham Daily Gazette* on Wednesday:

83A, Edmund Street, Birmingham, May 9th, 1899.

SIR,—I think more public attention should be given to the details of the scheme for the consulting institute adopted by the Hospital Saturday delegates at their meeting Monday evening. Briefly, as already reported, it is proposed to hire consulting rooms, and engage two so-called "consultants," a physician and a surgeon, at a salary of £500 per annum each. The meeting was informed that there would be no difficulty in getting highly-qualified and clever young men for these salaries.

I felt bound to tell the meeting that, in my opinion, the scheme was quite illusory, and that it was based upon ignorance of the conditions of medical practice. A physician or surgeon who desires to practise as a consultant requires, in addition to good abilities and those good qualifications which are the stamp of good abilities (1) special knowledge gained by prolonged study of particular groups of diseases, so that he becomes more or less an authority upon such cases; or (2) special skill acquired by the constant practice of certain operative or manipulative procedures. The former qualification has more to do with the equipment of a consulting physician and the latter with the equipment of a consulting surgeon, but without either it is only a pretence to speak of a man as a consultant. It is futile to take merely a clever and well qualified young man and call him a consulting physician or surgeon. If he is to get the confidence of the medical profession and of those patients who are going to pay him what is for them a relatively large fee, he must possess something more than the knowledge and skill which such a young and recently qualified man could have. There are in every quarter of this town medical practitioners who were, when they started, highly qualified and clever young men, but they elected to earn their living as general practitioners. Anyone of these is well qualified to give all that the Consulting Institute could afford, and I have no doubt, under existing circumstances, would give it for five shillings, and certainly for half a guinea, to anyone who would consult them.

But there is another point to which I think attention should be drawn. The meeting was told that for half a guinea the patient will receive an opinion, advice, and a prescription. So far as the work of a physician is concerned this would be sufficient, and let us hope that an average number of cures would result, but how could this possibly be satisfactory in the work of a surgeon? In the majority of surgical cases some operative procedure would have to be undertaken, and in most instances (for it is implied that trifling cases would not find it worth while to pay this fee) this operation would be of a more or less serious kind, involving the administration of an æsthetic, the presence of a nurse, and some prolonged after-treatment. Who is to do this? Is it to be done by the "consulting surgeon," and if so, where? Does a working man's home, or do a working man's resources, permit him ordinarily to provide suitable surroundings for the due management of a surgical case? If not, it seems that the case requiring operation will after all have to go to the hospital, where they will have to go through just what we were told this Consulting Institute is being started to prevent, and in addition the patient will be 10s. 6d. the poorer.

How little those who have formulated this scheme appreciate the training which forms a consultant may be gathered when I say that one of them naively asked "Why was a doctor any the better for sitting for ten years behind a brass plate reading novels in his consulting-room?" This is the impression of the way in which the early probationary years of a consultant are passed. One would have thought that gentlemen most of whom have had something to do with the management of our medical charities would know that a consultant's training consists of years of hospital work and experience, without which he would claim in vain such a position.

The Birmingham consulting physicians, and still less the consulting surgeons, certainly have nothing to fear from the proposed competition, and if I have ventured to criticise the scheme it has been because I felt it to be my duty to point out its illusory character to men who are being asked to invest their money in it. Cheap consultants already exist in the town, and do not succeed in securing the whole of the practice. Nor at the proposed fees can these so-called consultants be serious competitors with the general practitioners who, as already said, would gladly do the work for half the price.

There is only one other aspect of the matter to which perhaps I ought to allude. It is impossible to tell how this institute will be managed, but it is clear that it is intended to make it if possible a paying concern, and therefore the medical profession will watch carefully the methods by which it carries on its business. We shall certainly expect the medical officers employed by it to have the same regard to the rules of professional propriety which govern the rest of the profession. I daresay everything will go on well, but one cannot help regarding with some distrust an institution started with such an open avowal of the intention of the founders to make it a financial success, and so little consideration for the medical profession with whose business it proposes to compete.

I am, yours faithfully, etc.,

ROBERT SAUNDBY.

The scheme appears to have been sprung upon the profession in Birmingham without any discussion or adequate consideration on their part, and we trust that the promoters will still see the advisability of conferring with the profession in the locality on the matter.

NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION AND OTHER FORMS OF TUBERCULOSIS.

THE first statutory general meeting of this Association was held at 20, Hanover Square, on May 4th, under the chairmanship of the EARL OF DERBY.

The Honorary Secretary (Dr. STCLAIR THOMSON) read the Organising Committee's report showing the comprehensive character of the work undertaken. The movement was an eminently public one and its aim was to enlist the sympathy and co-operation of all classes of the community. To carry this out the methods proposed were threefold: (1) The education of public opinion and the stimulation of individual initiative; (2) the influencing of Parliament, County Councils, Boards of Guardians, Chambers of Agriculture, and other public authorities on matters relating to the prevention of tuberculosis; (3) the establishment throughout the kingdom of local branches of the Association to be affiliated with the central office. The number of members amounted already to 1,252. Thanks also were due to the medical profession throughout the country, for chiefly through the action of medical societies twenty-five branches had been formed or were in course of formation in the following centres: York, Huddersfield, Ipswich, Carlisle, Warwick, Plymouth, Bristol, Bournemouth, Dublin, Belfast, Glasgow, Dundee, Toronto, Keswick, Leicester, Kendal, Chelmsford, Darlington, Sheffield, Nottingham, Londonderry, Stockton-on-Tees, Bath, West Wilts, and Oxford. As it was felt that it was highly desirable that the medical profession should assist in helping to initiate and guide this movement, a special letter was addressed to the medical staffs of the general and chest hospitals throughout the United Kingdom (about 2,000 in all) inviting them to join the Association. The Association had also co-operated with the Royal Agricultural Society by distributing leaflets on Tuberculosis in Dairy Stock.

Mr. MALCOLM MORRIS, the Honorary Acting Treasurer to the Organising Committee, submitted a satisfactory report on the financial position of the Association. The Association started, after deducting liabilities, with a balance in hand of about £600. Donations of £100 for three years were announced from Lord Derby, Sir James Blyth, Sir John Brunner, M.P., and Mr. Speyer. Mr. Malcolm Morris said the erection of sanatoria was on a separate financial basis to that of the Association. To arouse public interest it was thought best to publish a journal, and to carry this out the income must be increased to at least £2,000 a year for the next few years, and of this amount they were already assured of £1,100. Mr. Malcolm Morris concluded by announcing that on the preceding day 21 medical ladies had joined the Association through the instrumentality of Mrs. Garrett Anderson.

The CHAIRMAN in moving the adoption of the reports and the election of thirty gentlemen suggested by the organising committee for election on the first council, said that everyone must be well satisfied with the progress already made. H.R.H. the Prince of Wales had contributed valuable assistance at the inception of the Association, and that meeting marked a distinct point in their existence, as it was the first statutory general meeting which it was necessary to be held within four calendar months of the registration of the memorandum of the Association as a philanthropic body. Otherwise it would have been advisable that a longer time should have elapsed, since there was a difficulty in the first instance in persuading people to join the committee or to take an active part in the affairs of the central body. Those who at that time were alone able to take action found themselves obliged to propose for election at that, their first meeting, those persons who they felt sure would be able to attend.

There had not been an opportunity of bringing in from various other branches more than a limited number into the first council, but it was hoped others would join later.

Sir William Broadbent seconded the resolution, and said that the Council had of necessity been composed mainly of persons resident in London. Letters had been received suggesting that representatives from the different branches should be on the Council, but difficulty arose because very few of these branches had arrived at a stage of complete organisation. He hoped that there would be some conference of representatives from all parts to discuss the affairs of the Association. The function of the central body would be to co-ordinate he work of the different branches.

Mr. John Ryle hoped that the Council would not lose sight of the fact that an occasional mild dose of legislation might be of advantage in the furtherance of the objects of the Association.

The motion was carried unanimously.

The following form the Council:

Sir William Broadbent, Bart., M.D., F.R.S.; Sir James Blyth, Bart.; Sir George T. Brown, C.B.; Sir James Crichton Browne, M.D., F.R.S.; Sir John T. Brunner, Bart., M.P.; Sir Alexander Christison, Bart., M.D.; Sir Ernest Clarke; Professor W. H. Corfield, M.D.; F. W. Burton-Fanning, M.D.; Robert O'Brien Furlong; Sir Robert George Wyndham Herbert, G.C.B.; G. A. Heron, M.D.; Alfred P. Hillier, M.D.; Constantine Holman, M.D.; Edward Hulse; John Langton, F.R.C.S.; Professor John McFadyean, M.B., C.M.; Hector W. G. Mackenzie, M.D.; Right Hon. Sir Herbert Maxwell, Bart., M.P.; Isambard Owen, M.D.; Right Hon. Cecil T. Parker; R. W. Philip, M.D.; James Pollard, J.P.; Vivian Poore, M.D.; Arthur Ransome, M.D., F.R.S.; C. Rube; Harold Swithinbank; Dawson Williams, M.D.; C. Theodore Williams, M.D.; Sir Frederick Wills, Bart.

Dr. Clifford Allbutt, in proposing a vote of thanks to the Organising Committee, said that as a nation we had not kept our leading position in the work of sanitation, and he did not think that we could mend our present position. Much work had been done in Germany, France, and the United States which had left us behind. We had lost the lead and now followed others. He advocated the establishment of Chairs of Comparative Pathology.

Dr. Church, President of the Royal College of Physicians of London, in seconding the vote of thanks, said that the movement was not one in which the profession alone were interested, or in which the profession should take a leading part; their duty was to direct public interest.

Dr. Theodore Williams said that Dr. Allbutt's remarks about England falling behind and following instead of leading showed that the speaker had ignored the great work England had been doing in the last fifty years. Perhaps the Germans had got ahead of us in some trifling points, but a country like England that had reduced the death-rate of tuberculosis by two-thirds had no reason to be ashamed.

Sir James Crichton Browne, replying to the vote of thanks, said the Association had awakened the public to the magnitude of the evil of tuberculosis, and a great work lay before it.

The meeting ended with a vote of thanks to the Chairman, proposed by Sir William Broadbent and seconded by Sir Ernest Clarke.

THE INTERNATIONAL TUBERCULOSIS CONGRESS IN BERLIN.

The Congress which has been promoted by the Central German Committee for the establishment of sanatoria for pulmonary diseases will assemble in Berlin on Tuesday evening, May 23rd, when a reception will be held at the Royal Opera House (Kroll) in the Königplatz.

The Congress will meet in the Reichstag buildings, and the first general meeting will be held in the Chamber itself at 11 A.M. on Wednesday, May 24th. After the conclusion of the opening ceremony and the delivery of addresses of welcome, the Congress will proceed at once to the discussion of the first subject on its programme—the dissemination of tuberculosis. This will be introduced by Dr. Köhler, the Director of the Imperial Health Office in Berlin, who will make some general remarks on the subject with reference to the importance of tuberculosis as a disease affecting the welfare of nations. He will be followed by Dr. Krieger, of Strassburg, who will deal with the relation between the general conditions of life and the spread of the disease; Dr. Gebhardt, of Lübeck, who will discuss tuberculosis in connection with compulsory insurance; and Dr. Schjerning, the Chief Medical Officer of the German War Office, who will speak on tuberculosis in the army. The last subject of the day, tuberculosis in domestic animals in relation to the spread of the disease in man, will be introduced by Dr. Bollinger, Professor of Pathology in the University of Munich.

In the evening the municipality of Berlin will give a reception to members of the Congress from 7 to 9, and after that there will be an assembly in the Exhibition Park.

On the second day of the Congress, Thursday, May 25th, meetings will be held both in the morning and in the afternoon. The morning meeting, which will be presided over by Professor Koch and Professor B. Fraenkel in succession, will be devoted to the discussion of the etiology of tuberculosis. Professor Flügge (Breslau) will deal with the relation of the tubercle bacillus to the disease, Professor C. Fränkel (Halle) with the modes in which it is disseminated, Professor Pfeiffer (Berlin) with mixed infection, and Professor Loeffler (Greifswald) with heredity, immunity, and predisposition. In the afternoon the discussion will be on subjects connected with prophylaxis. Dr. Roth (Potsdam) will deal with general measures, Professor Heubner (Berlin) with the prevention of disease in childhood, Dr. Kirchner (of the Cultus-ministerium, Berlin) with the question of marriage, Professor Rubner (Berlin) with the hygiene of houses and workshops, Professor von Leube (Würzburg) with hospitals, and Professor Virchow with food. In the evening there will be a performance in the theatre.

On Friday morning, May 26th, the Congress will meet to discuss the treatment of tuberculosis under the presidency in succession of Professor v. Ziemssen (Munich) and Professor von Schroetter (Vienna). The subject will be introduced by a paper on the curability of pulmonary tuberculosis by Professor Curschmann (Leipzig). He will be followed by Professor Kobert (Rostock), who will deal with medicinal treatment, including that by inhalation; by Professor Brieger (Berlin), who will discuss the treatment by tuberculin and similar remedies. Sir Hermann Weber will deal with the general subject of climatic treatment including sea-voyages, forest air, etc., while Dr. Dettweiler (Falkenstein) will discuss treatment by hygienic and dietetic means and in sanatoria. In the afternoon the members of the Congress will have an opportunity of visiting the municipal homes for tuberculous patients at Malchow and Blankenfelde, the Red Cross People's Sanatorium at Grabowsee, near Oranienburg, or the sanatorium of the Berlin-Brandenberg Sanatorium Society at Belzig. In the evening there will be a promenade concert in the Exhibition Park.

On the last day of the Congress, Saturday, May 27th, the morning will be devoted to a discussion of sanatoria under the presidency in succession of Herr Gaebel, president of the State insurance department in Berlin and of Dr. Dettweiler (Falkenstein). Professor v. Leyden (Berlin) will sketch the history of the movement for the establishment of sanatoria, the financial aspects of such undertakings will be considered by Herr Meyer (Berlin), their relation to sick clubs by Herr Friedeberg (Berlin), their construction by Herr Schmieden (Berlin), their furnishing and internal arrangements by Herr Werner (Berlin), and provision for the families of patients and for discharged convalescent patients by Dr. Pannwitz also of Berlin.

Members of the Congress pay a subscription of 20 marks. The general secretary of the organising committee of the Congress is Dr. Pannwitz, and the offices are at Wilhelm-Platz 2, Berlin, W.

THE PLAGUE.

The Mecca Pilgrimage.

We are indebted to Dr. E. D. Dickson, of Constantinople, for the following note:

The Mecca Pilgrimage of this year has been accomplished without any manifestation of plague amongst the pilgrims, notwithstanding the free intercourse which existed between Jeddah and Mecca. The ceremony on the extensive plain of Arafat, which constitutes the Haj, or act of pilgrimage, took place on Thursday, April 20th, and the Curban Baïram, the day on which thousands of sheep are immolated, occurred on Friday, April 21st. Only two cases of plague are said to have occurred at Mecca in two persons who had gone there from

Jeddah, and both of them are well. The cases of plague at Jeddah are few, and limited to the inhabitants of that town. I believe plague has never, as far as our knowledge goes, broken out in Mecca, and when it has appeared in Jeddah it has always shown itself in a sporadic form. The prophet Mohammed declared that the Holy City of Mecca would never be smitten with plague. Cholera, however, appears to have been unknown to him, for it has ravaged the Holy City several times within my own memory.

LITERARY NOTES.

Messrs. Sampson Low, Marston, and Co., will shortly issue a *Handbook of Medical Gymnastics*, by Dr. Anders Wide, Director of the Gymnastic Orthopædic Institute at Stockholm. In addition to the ordinary Swedish drill exercises, which are treated fully in the first part, Dr. Wide has written a section describing the successful treatment of numerous ailments of the muscles by means of appropriate exercise. There are nearly 100 illustrations in the book.

In the current number of *Janus* (April 15th-May 15th) Dr. E. T. Withington gives some instances of the therapeutic use of brain substance in the olden time. According to the *Pharmacopœia Londinensis* of 1691, Spiritus cerebri hominis, or spirit of man's brains—the brain of a young man slain—is a noble antepileptic, and may be given in doses of 1 to 4 scruples. Moreover, the brain of a rabbit, a "fearful but fruitful creature," is credited with antidotal properties against poison.

Major John Ritchie, R.A.M.C., begins an interesting paper on the Fevers of West Africa in the May number of the *Glasgow Medical Journal* with the following quotation:

> O fierce dark land, unconquered still,
> Though doomed to our behest,
> *How long ere thou hast drank thy fill*
> *Of the blood of England's best?*

The two lines here italicised have an appropriateness probably unsuspected by the poet in view of recent theories as to the part played by the mosquito in the production of malaria.

In the March number of Ιατρικη Προοδος (*Medical Progress*) a Greek medical monthly ably conducted by Dr. J. Foustanos of Syra, Dr. G. Lambrinopoulos of Vytina quotes a passage from Lycus, an ancient commentator on Hippocrates, as showing that nutritive enemata are not, as is generally supposed, a purely modern invention. Lycus recommends for conditions in which there is a strong aversion from food τρόφιμοι κλυστῆρες of farinaceous and amylaceous substances, decoctions of barley, wheat, etc. Dr. Lambrinopoulos suggests that although there is no diastase in the rectum, some saccharification of the starch might be produced by the microbes which are present there in great number and variety. The reference to the passage is given as follows: *Œuvres d'Oribase*, par Bussemaker and Daremberg, tome ii, p. 245.

The following anecdote may fitly find a place here. It is doubtless apocryphal, a fact which may perhaps be held to excuse its libellous character. A pompous old physician, being introduced to Dumas, said with something of Olympian condescension, "You produce tragedies, don't you, young man?" The dramatist modestly replied, "I do—like you. Only *your* tragedies are bound in oak."

Another story, though it has still less claim to be considered either medical or literary, may perhaps find favour, or at least tolerance here, for its own sake. A countryman who was present at the opening of the Pasteur Institute at Lille a few weeks ago, was heard to express surprise that the Ministers of Agriculture and of the Colonies were chosen to preside at the function. It was pointed out to him that those two great officers of the State were the most appropriate for the purpose, as the work of the Institute was so largely concerned with cultures and colonies.

The *Revista Ibero-Americana de Clinicas Medicas* is the title of a new Spanish quarterly journal issued under the auspices of the well-known surgeon, Dr. Federico Rubio. Among the original papers contained in the first number are New Facts and Old Hypotheses on the Thyroid Apparatus, by Dr. Gomez Ocaña; an Account of the Anthropological Laboratory of the Medical Faculty of Madrid, by Dr. Federico Oloriz; a report of J. Ferran's Investigations on Tuberculosis, by Dr. Duran; and Data for the Structural Study of the Visual Cortex of the Human Cerebrum, by Professor Ramon y Cajal. The new periodical is well edited, well printed, and well illustrated, and is altogether highly creditable to all concerned in its production.

In *La Chronique Médicale* of April 15th some details are given of the career of Jacques Grévin, a French physician of the sixteenth century, who was also a poet and a dramatist. He was born in 1538, the son of a draper at Clermont. Immediately after taking his degree in Arts, he produced a comedy, *La Trésorière*, which was played before the King and the Court. While studying medicine, two other plays by him were acted, and he produced a number of poems, among them being an epithalamium in honour of the wedding of Mary Stuart and the French Dauphin. He graduated Bachelor of Medicine at Paris in 1560. About the same time he turned Protestant, and paid a visit to England, where he was received with marked favour by Queen Elizabeth. Grévin paid her with a delicate piece of poetical flattery. On returning to Paris a few months later, he published his dramatic works in book form, with a portrait in his academic robes as a frontispiece. He was admitted a doctor regent in 1562. Besides politico-theological pamphlets, we find him publishing comments on Vesalius, disparaging the therapeutic virtue of antimony, writing a treatise on poisons (which he dedicates to Queen Elizabeth). He was, in fact, an indefatigable scribbler. By-and-by the theological atmosphere of Paris seems to become uncomfortably hot for him, and he accepted an invitation to become physician to Margaret of France, Duchess of Savoy, who made him a Councillor of State. He died at Turin at the age of 32.

THE LONDON SCHOOL OF TROPICAL MEDICINE.

The Right Hon. Joseph Chamberlain, Secretary of State for the Colonies, took the chair on Wednesday evening at a festival banquet at the Hotel Cecil, London, to promote the establishment of the London School of Tropical Medicine and the enlargement of the Branch Hospital of the Seamen's Hospital Society at the Royal Victoria and Albert Docks. The banquet was very largely attended, among those present being the Secretary of State for War, the Belgian Minister, the Japanese Minister, the Marquis of Lorne, Lord Lister, the Lord Chamberlain, Lord Strathcona and Mount Royal, Lord Loch, Viscount Duncannon, Lord Justice Vaughan Williams, and the Agents-General for Natal, Victoria, South Australia, Queensland, Western Australia, and Tasmania.

After the usual loyal toasts had been given by the Chairman and duly honoured,

The Marquis of Lorne gave the toast of "The Army, Navy, and Reserve Forces," in a sympathetic speech, in the course of which he referred to the great services which their medical officers had rendered in the past to the forces serving abroad in tropical climates.

The toast was acknowledged by Admiral Sir Anthony Hoskins on the part of the Navy, who recalled some historical instances of the terrible ravages which tropical diseases—especially yellow fever and malarial fevers—had in past times made among the naval forces serving in tropical climates in the past. Much had already been done to diminish the severity of these ravages; he anticipated that the foundation of the London School of Tropical Medicine would render it possible still further to diminish these pestilences in the future, and indicated the prevalence of fever in the Mediterranean as a subject demanding attention.

Lord Lansdowne in replying for the Army more particularly thanked Lord Lorne for his reference to that branch of the service to which the Queen had recently given the style and title of the Royal Army Medical Corps. Tropical diseases were really the most formidable enemies which the army had to face, and he therefore felt the deepest interest in the success of the movement for the establishment of a tropical school of medicine, an interest which was shared by the whole army. In the Tirah campaign the admissions into hospital had been, in round numbers, 1,000 for wounds and injuries, but 11,000 for fever and dysentery, while the deaths had been from wounds and injuries about 100, from disease about 600.

The toast of "The Houses of Parliament" was given by Mr.

W. Garland Soper, and acknowledged by Lord Loch, who referred to the good work being done by the Colonial Nursing Association, and on the part of the House of Commons by Sir William Priestley, who dwelt on the necessity for the establishment of a school where young medical practitioners going to tropical countries could obtain instruction as to the nature and practical experience in the treatment of diseases which were so fatal in those climates.

The Chairman, in proposing the toast of the evening, said that the object which had brought them together was one upon which all parties would be agreed. All would agree that the territories under the control of Great Britain should be wisely, honestly, and justly administered in the interests of the immense population that had come under our influence. In the discharge of this great obligation, the heaviest perhaps ever thrown upon a single nation, the country had to rely upon the courage, the energy, and above all upon the character of those who were lent and whom unfortunately the nation were often called upon to give to the service of dependencies. The Empire contained something like 300,000,000 coloured people living mostly in tropical climates. The country had always found, and he believed could continue to find men well qualified for the task of administration, but there was an obligation laid upon the country to see that every precaution was taken to prevent this splendid material from being wasted owing to the neglect of precautions which might save their lives or extend their usefulness in the great work of civilisation and government. The greatest enemy was not the hostility of savage chiefs, nor the influence of barbarous customs, nor even the physical difficulties of countries in which primæval Nature still held full sway, but it was rather the insidious attacks of disease which weakened where it did not kill, and shortened the lives or spoiled the careers of many of the ablest and most energetic of those who represented the empire in these dependencies. He was painfully impressed with the tragedies which were being enacted, tragedies which cut off young men of great promise at the outset of their career, or struck down experienced administrators in the midst of their usefulness. Where these diseases did not kill they weakened the services by constant illness, disorganising the administration, and preventing anything like continuity of policy owing to frequent breaks necessitated by impaired health and strength. To make clear the history and origin of these diseases, and, if possible, to find a cure for them, it was necessary to extend their study, and to create a school of trained practitioners and investigators, so that in future scientific research might go hand-in-hand with practical medicine. Mr. Chamberlain then referred to the work done by the Colonial Nursing Association founded by Mrs. Pigot, the wife of a most able colonial official. Turning to the question of scientific investigation, he said that owing very largely to the sympathy of Lord Lister, to whom and to Professor Michael Foster he desired to express the gratitude of all interested in the matter, the Colonial Office had been able to enlist the aid of the Royal Society in the appointment of a special commission to investigate the origin and causes, and possibly to find a cure for malarial diseases and blackwater fever, perhaps the most deadly of all tropical diseases. After making themselves acquainted with previous researches in Italy and with the results of the inquiries and experiments of Dr. Ross in India, the members of the commission had proceeded to Blantyre, where they would make a lengthy stay, after which they would continue their work on the West Coast of Africa, where these diseases appeared in their most virulent form. But in addition, there was needed a school of tropical medicine, and he desired to express his gratitude to the medical adviser of the Colonial Office, Dr. Patrick Manson, to his predecessor, Sir Charles Gage Brown, to Dr. Rowell and to many other distinguished medical men through whose advice in the first place, and through whose practical labour afterwards the institution of such a school had become a possibility, and in fact might almost be said to be already a success. Mr. Chamberlain said that he had been glad to learn from the response to a circular letter issued by the Colonial Office that many of the principal schools of medicine in the United Kingdom would in future give special attention to the study of tropical diseases, so that it was reasonable to hope that in the future a much larger proportion of medical men would have a knowledge of the theory of the origin and treatment of these diseases. But something more was needed in the shape of practical experience. By the scheme which had been proposed the accommodation at the Branch Hospital of the Seamen's Hospital Society at the Victoria and Albert Docks would be increased to fifty beds, and there was reason to believe that these would always be filled with acute cases of tropical disease. Therefore when this enlargement had been completed, and when the necessary school buildings had been erected, the course of procedure would be as follows: The Colonial Office and the other great offices which had dependencies in the tropics under their charge, would give a preference, in their selection of medical officers for those colonies and dependencies, to the gentlemen who had gone through a course of special study in connection with the subject of tropical diseases in one of the great medical institutions of the country. This course of study might extend over two or three years, and might be given in any of the medical institutions of the United Kingdom. After that study had been completed, and the necessary certificates and degrees had been conferred, it would be expected of the candidates selected that they should take advantage of tropical schools of medicine and practically learn the treatment of disease where it was possible to do so. In the first instance the London school would supply that requirement. It might be that hereafter—probably at no distant date—in Liverpool and elsewhere centres might be found where there was an equal supply of material for demonstration and instruction, and in that case it might not be necessary to require that this last stage should be gone through, and the student might be able to complete his service previous to appointment in the institution in which he had received his education. But the scheme which he had commended to them was something beyond this. If sufficient funds were forthcoming, a central museum and library would be provided, and travelling scholarships would be founded to enable those qualified to undertake such investigations to pursue researches in the various tropical countries. The whole scheme had been widely welcomed and cordially approved. The India Office, the Foreign Office, and the Colonial Office had all welcomed it. The Imperial Government had made a large contribution, and the Colonies chiefly concerned had willingly responded to the appeal made to them, and several of them had voted larger sums than those which had been asked. The King of the Belgians, the enlightened head of a great tropical State, had shown his interest by a handsome subscription, and had promised to take advantage of the facilities which the school would give. Imitation was the sincerest form of flattery, and he was rejoiced to see that no sooner was the plan of the London school matured than the citizens of Liverpool, with an energy and liberality which always characterised them, had hastened to create a similar school. Their co-operation was welcomed as would be that of all others who took a similar course, for there could be no question of jealousy. He hoped that the Liverpool school would always keep in close touch with that in London, and would share in the investigations and discoveries. The more numerous the labourers the earlier and the more plenteous would the harvest be, and he thought there was good right to expect a a bountiful and beneficent harvest. When the achievements of science in the prevention of disease were recollected, there was no reason to despair that in time something might be done to lessen the unhealthiness of the most unhealthy tropical countries. A man who could successfully grapple with that foe of humanity and find a cure for malaria, who would make the tropics livable to white men, who would reduce the risk of disease to something like an ordinary average, would do more for the British Empire than the man who added a new province to the wide dominions of the Queen.

The toast, which was enthusiastically received, was acknowledged by Sir Donald Currie, Vice-President of the Society.

Mr. Chamberlain, rising again, announced that the Belgian Minister had become a subscriber to the fund and that Sir Henry Burdett had promised £300 a year for three years for the establishment of a travelling scholarship.

Lord Lister then gave the toast of "The Empire," and paid a warm tribute to the enlightened interest which Mr. Chamberlain had shown in the study of the means of the prevention of disease whether of man or of animals which so seriously interfered with the prosperity of many Colonies. He had

shown himself determined to grapple with these evils. He had in the first place enlisted the assistance of the Royal Society in the investigation of the tsetse fly disease so fatal to herds in South Africa, and next of rinderpest, with results so satisfactory that already some 700,000 head of cattle had been saved in the South African colonies. More recently he had invited the co-operation of the Royal Society in sending a scientific expedition to Central Africa to study malaria and blackwater fever. The labours of Ross, of the Indian Medical Service, and of Manson, who had served in the Colonial Medical Service had brought great and important accessions of knowledge. Malarial and other diseases so prevalent in the tropics were not seen in general hospitals in this country. A school for tropical diseases was therefore necessary. Two things were necessary for such a school—first, an ample supply of patients, and there was already such a supply, for many cases came to the Port of London and needed treatment; and, secondly a medical school where men could be trained to understand and to treat these diseases. He had been glad to take part in the inauguration of such a school in Liverpool a short time ago, and this scheme for a school in London had his warmest sympathy. With increased facilities for instruction at home and for investigation abroad, he felt that it was justifiable to look forward with hope to the future. The matter was of immense importance to the British Empire, and it was therefore appropriate that the toast which had been entrusted to him should appear on the list. The toast was acknowledged by Lord STRATHCONA AND MOUNT ROYAL, and by Sir PHILIP O. FISH, Agent-General for Tasmania.

The "Health of the Chairman" was proposed by Sir DONALD CURRIE, who expressed the gratitude of those concerned in the administration of the Seamen's Hospital Society to Mr. Chamberlain for the interest he had taken in the project for establishing a school of tropical medicine, and for the admirable speech in which he had described and commended the objects its promoters had in view.

Mr. CHAMBERLAIN briefly acknowledged the compliment, and the proceedings came to end with a final announcement by the Secretary, Mr. Michelli, that the total subscriptions received in connection with the festival was £15,800.

THE NEW VACCINATION ACT IN OPERATION.

THE CAPITATION FEE.

E. S. N.—According to an official reply of December 14th, 1898, the Local Government Board "are disposed to think that the public vaccinator's offer to vaccinate is intended to be made after the child has attained four months, and before it has attained six months, and that the names of children who have attained six months on January 1st next, should not be included in the list to be sent by the vaccination officer to the public vaccinator." The vaccination officer should not have included the 100 children in his official list to the public vaccinator. As we have before maintained, if any of these 100 were successfully vaccinated, Article 3 (2) of the Order should be held as entitling the public vaccinator to the fee in question as well as to the fee for successful vaccination.

THE GUARDIANS AND THE LOCAL GOVERNMENT BOARD ON THE FEES OF PUBLIC VACCINATORS.

THE situation to which our correspondent draws attention is unfortunately being reproduced in various parts of the country. The Local Government Board has shown itself desirous to be scrupulously just in balancing the claims of the ratepayers and of the public vaccinators, and we may take it for granted that, if the Local Government Board has objected to the fees proposed by the guardians on the ground of their inadequacy, any medical man who accepted lower fees would put himself in a most unfortunate position, both with the Local Government Board, with his professional brethren, and with the Board of Guardians also, who, if they take a stand such as is indicated, would not hesitate to treat him with as scant courtesy as the one whose place he took.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

SHROPSHIRE AND MID-WALES BRANCH.—The spring meeting will be held at the Salop Infirmary, on Tuesday, May 16th, at 3 o'clock. —H. WILLOUGHBY GARDNER, Swan Hill, Shrewsbury, Honorary Secretary.

DUNDEE AND DISTRICT BRANCH.—It has been arranged to hold the annual meeting of the Branch in University College, Dundee, on Friday, May 26th, at 3 P.M. There will be a Clinical Congress at 4 P.M., and the annual dinner will take place in the evening. Applications for membership of the Branch should be sent to Dr. BUIST, Honorary Secretary, Annfield House, Dundee, without delay.

MIDLAND BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Derby on Thursday, June 15th, and not as previously announced. It is proposed to hold a discussion on the Local Distribution of Cancer in the area of the Branch. Members who can contribute to the discussion, or who have any other matters of scientific or professional interest to bring forward, are requested to communicate as early as possible with FRANK M. POPE, 4, Prebend Street, Leicester, Honorary Secretary and Treasurer.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of this District will be held, by kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, May 18th, at 8.30 P.M. The chair will be taken by Dr. St. Clair B. Shadwell, Vice-President of the District. Dr. Stephen Mackenzie will give a Demonstration of Cases of Skin Disease. Visitors are invited.—C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.—The annual meeting of this District for the election of officers and the District Committee, and to consider the report to the Council, will be held on Wednesday, May 17th, at 111, Sinclair Road, West Kensington Park, W., at 5 P.M., by kind permission of the Vice-President.—THOMAS DUTTON, M.D., 13, Holland Park Avenue, W., Honorary Secretary.

SOUTH EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of this District will be held at the Kent and Canterbury Hospital on Thursday, May 25th, at 3 P.M.; Dr. Parsons, Hon. Treasurer of the British Medical Association, in the chair. At 4 P.M. the Very Rev. the Dean of Canterbury has kindly consented to conduct the members over the Cathedral. The annual dinner will take place at the County Hotel, at 6 P.M. Charge, exclusive of wine, 7s. Members intending to dine are particularly requested to communicate with the Honorary Secretary by May 23rd, so that adequate arrangements may be made. A seat at the dinner table will be reserved for each member of the dinner club. All members of the South Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—THOS. F. RAVEN, Barfield House, Broadstairs, Honorary District Secretary.

GLOUCESTERSHIRE BRANCH.—The annual meeting of this Branch will be held at Barnwood House, Gloucester, on Tuesday, May 16th, at 4 P.M., by the kind invitation of the President. Agenda: Election of Officers for 1899-1900; Mr. Ellis will propose a donation of £3 3s. towards the Jenner Society; any other business. At the close of the meeting there will be afternoon tea, after which members will find facilities for playing tennis, and for going round the buildings and grounds with Dr. Soutar. There will be dinner at 7 P.M. at the New Inn Hotel, Gloucester.—S. T. PRUEN, Sherborne Lodge, Cheltenham, Honorary Secretary.

EAST ANGLIAN BRANCH.—Preliminary Notice.—The annual general meeting of the East Anglian Branch will take place at Colchester on Thursday, June 29th, under the presidency of Dr. E. L. Feen. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting, will communicate at once with Dr. Barnes, Eye. Members desirous of nominating candidates for election as officers of the Branch under By-law 9 must send their nominations to Dr. Barnes, so as to reach him not later than June 7th.—EDGAR G. BARNES, M.D., Eye, MICHAEL BEVERLEY, M.D., Norwich, THOMAS CARR, M.D., Braintree, Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE spring meeting of this Branch was held at Newport on May 2nd. The PRESIDENT, Dr. T. Wallace (Cardiff), was in the chair, and there were about forty members present, and several visitors.

Luncheon.—The Newport Medical Society kindly provided luncheon for members on their arrival.

Confirmation of Minutes.—The minutes of the previous meetings at Aberdare and Swansea (Clinical) were read and confirmed.

New Members.—Messrs. F. Robson (Port Talbot), A. F. Dixon (Cardiff), W. J. Greer, J. Howard Jones, and H. B. Seddon (Newport), were elected members of the Branch.

Resolution as to Dinner.—A resolution was moved by Dr. TATHAM THOMPSON:

That in future dinner shall be provided only at the annual meeting.

This was carried.

Eastern Valley Medical Association.—A deputation from the Eastern Valley Medical Association was received, and the Branch was addressed by Dr. MULLIGAN and Dr. ESSEX. After some explanation and discussion the following resolution was proposed, seconded, and carried unanimously:

That this Branch of the British Medical Association, having heard a statement of the Eastern Valley Medical Association, in explanation of the recent action taken by them, with a view of increasing their remuneration from the collieries, and the consequent resignation of Dr. Bowker from his appointment, offers its cordial support to them in the course they have taken. The Branch strongly condemns, as being unprofessional, the action of any medical man who would apply for a vacancy brought about as the result of members of the Eastern Valley Medical Association endeavouring to obtain a revision of their scale of fees.

Notice of Motion.—Dr. BROOK gave notice of the following motion for the annual meeting;

That an additional meeting be held annually, at which medico-ethical questions shall be exclusively discussed.

Antitoxin in Diphtheria.—Dr. TREVOR JONES read a paper on Diphtheria treated by Antitoxin. He had notes of 555 cases with a death mortality of 24. All laryngeal cases received from 4,000 to 8,000 units in one initial dose, followed by the same quantity in six or seven hours if there was no improvement. Pharyngeal cases received 1,500 to 3,000 units. He remarked that if tracheotomy had to be performed, it added greatly to its success, by giving a large initial injection.

Medical Aid Associations.—Dr. GARRETT HORDER read a paper on Medical Aid Associations and Family Clubs, with special reference to the touting system. A resolution was carried to the following effect:

The attention of the members of the South Wales and Monmouthshire Branch of the British Medical Association having been called to the methods pursued by certain industrial insurance companies which combine medical aid work with ordinary life insurance, hereby express an opinion that it is inimical to the public weal and to the interests of the medical profession to give services to such companies in the furtherance of medical aid, and that they are further of opinion that the holding of such appointments should be declared by the General Medical Council as infamous conduct in a professional sense. That copies of the resolution should be sent to the General Medical Council, and to the direct representatives of the profession on that Council; also to the Council of the British Medical Association and to the secretaries of the Branches.

Communications.—Dr. A. SHEEN showed photographs of (1) Malignant Disease of Glands of Neck; (2) Ravages of Syphilis in a Married Woman; (3) Spina Bifida (high up); (4) Thyroid Cyst Removed by Incision across the Neck.—Mr. CORNELIUS GRIFFITHS gave notes of a case of Abscess of the Liver. The patient was a ship's engineer, aged 37. He had had dysentery and malarial fever, and had been a free drinker. A large perihepatic abscess was opened in the epigastrium, and the left lobe of the liver was occupied by a large abscess. Pus was sweet, creamy, and only slightly brown. No communication could be found between the two cavities. Pus reaccumulated behind the liver, and the abscess was opened and drained. Antistreptococcic serum was included in the treatment. Patient died from exhaustion a month after first operation.—Dr. MARSH showed tumours, and microscopical specimens of (1) Fibrocystic Sarcomata of both Ovaries in a girl of 24—recovery; (2) also of Soft, Glandular-celled Carcinoma of left Ovary in a patient aged 47—recovery: no recurrence so far.—Dr. PATON gave notes of seven recent cases of Compound Fracture of the Skull, with special reference to a case of cerebral abscess occurring five weeks after a compound fracture of the frontal bone. Pus lay 1½ inch below the surface. It was evacuated, and recovery resulted.—Papers promised by Messrs. Sheen, Garrod Thomas, Brook, Lynn Thomas, and Bassett for want of time were postponed to the next clinical meeting. The papers and cases elicited good discussions.

Votes of Thanks.—On the motion of Dr. SHEEN, seconded by the PRESIDENT, a cordial vote of thanks was passed to the Newport members for their reception of the Branch. This concluded a well-attended and most successful meeting.

SOUTH-EASTERN BRANCH: NORTH KENT DISTRICT.

THE October meeting of this District was held at Bromley on Thursday, October 6th, 1898, Dr. SCOTT (Bromley) in the chair. Nineteen members and guests were present.

Confirmation of Minutes.—The minutes of the Beckenham meeting were read and confirmed. It was decided that the next meeting of the District be held at Orpington, and that Mr. Shannon be asked to take the chair thereat.

Conjoint Meeting of Kent Districts.—A letter from Mr. Cooper, the Honorary Secretary of the West Kent District, was read suggesting that as Mr. Victor Horsley had kindly consented to give an address at Rochester on the duties of the General Medical Council, a conjoint meeting of the three Kent Districts should be held on that occasion, and asking the North Kent District to co-operate. The Honorary Secretary was directed to write accepting Mr. Cooper's invitation.

New Members.—The annual report showed an increase in the membership of the District; also stated that Dr. Holt (Bromley) and Mr. F. Sturges (Beckenham) had been elected members of the Branch Council at the general annual meeting of the Branch.

Communications.—Dr. BARRY BLACKER gave an interesting demonstration on the X Rays.—Dr. HOLT showed a case of Amputation of the Arm.—Dr. TENNYSON SMITH read a paper on Tubal Pregnancy, with notes of five cases treated at the Cray Valley Cottage Hospital, and suggested that these cases must be more common than is usually supposed; also that many of the cases treated as hæmatoceles were probably broad ligament hæmatoceles due to the rupture of tubal pregnancy.

Annual Dinner.—The annual dinner was held in the evening.

CORRESPONDENCE.

THE PHARMACY BILL AND COUNTER PRESCRIBING.

SIR,—The Pharmacy Bill, 1899, does not seem to have caused as much interest among medical men as the Medical Bill has amongst chemists. The reasons are easily understood: the majority of medical men are so much engaged in their own work, so accustomed to leaving their interests largely with the General Medical Council, and so ignorant of the real position of the chemist, that a Bill of this description could easily be passed without its full significance being recognised until too late.

Dr. Fielding-Ould, in the BRITISH MEDICAL JOURNAL of April 29th, has very ably criticised this Bill, but there are one or two other points of great interest to the profession that ought to be considered. In the last issue one of the publications from the office of the *Chemist and Druggist* (a trade, not an official, journal) was reviewed, showing clearly how necessary it is that some steps should be taken to protect the public against counter prescribing.

That this is a great and growing evil all admit, the only consideration being how it can best be checked. No doubt a number of articles have appeared lately in the trade press that are not likely to smooth the road very much, but there has also been much misapprehension, and that ought to be easily rectified. Chemists are to-day threatened with a very serious opposition. It is proposed to allow capital to take the place of qualification. They are asking that their qualification should be a reality, not a farce, and they ask our support. Experience has taught us how dangerous it is to have potent drugs distributed without adequate safeguard. This safeguarding under the proposed law is only apparent, not real, and in case of accident the law would be all in favour of the unqualified company. The competition would be unequal, for how could a company be charged with such a crime as manslaughter, for instance? The question of the prescribing chemist will have to be faced by the profession, and if we have to face both chemists and vested interests of capital the task will be doubly large.

The competition that chemists have to face to-day compels them to do what they know is illegal; they cannot escape it; counter prescribing is far more common with these companies than with respectable chemists. Chemists do not prescribe because they like to quack, but because outsiders are usurping their functions. I should like to see the profession actively supporting them in their endeavours to raise pharmacy to a proper level, to help them to rid themselves of their quacks, and then we could not only ask, but require, them to expunge our quacks from their own ranks.—I am, etc.,

Blackburn, May 8th. R. CUNLIFFE, M.B. and C.M.

SIR,—Counter prescribing, which you so strongly condemn in the BRITISH MEDICAL JOURNAL of May 6th, is beyond doubt fraught with danger to the public, discredit to the prescribing chemist, and, herein perhaps lies the sting of the offence, loss of profit to the medical profession. Granted. But the offence must be laid to the charge, not of the druggist, but of the medical practitioner who, while he for the most part repudiates the title yet usurps the functions of the apothecary. Retail chemists themselves would be the first to acknowledge that their legitimate province is to dispense the prescriptions of physicians, and if we would leave to them the exercise of this function would probably be glad enough to abandon counter prescribing as their share of the bargain.

So long, however, as the vast majority of medical practitioners dispense their own prescriptions so long will the druggist prefer the pleasant and easy profit to be made by counter prescribing to an honest but somewhat precarious livelihood wrung out of the discount on patent medicines and toothbrushes. Under the present circumstances chemists look upon dispensing physicians as rivals and natural enemies, and being fully equipped by elaborate and costly examinations for the handling of drugs and the dispensing of medical prescriptions, but getting no prescriptions to dispense (for even consultants make a practice of communicating their prescriptions to the family medical attendant instead of directly to the patient) are not unnaturally led to do a little offhand and easy prescribing on their own account. So long as the medical practitioner is in effect a rival apothecary trading under the prestige of a learned profession, the retail chemist will jealously guard his counter patients from the clutches of his rival; but the physician who *bonâ fide* gives open prescriptions to his patients which can be dispensed by any qualified druggist is regarded by the druggist as a member of a superior and scientific profession, untainted by trade methods, whose prescriptions are a constant source of gain to the tradesman, and whose goodwill he fears to alienate by courses of which the physician might disapprove. Hence he will not hesitate to refer to the physician those customers who need professional advice, including many who but for this intervention would have tried to do without it.

I hold strongly that the function of the physician is to advise and take fees for so doing; that in being interested directly or indirectly in the sale of drugs we lower the dignity and impair the usefulness of our profession; and I further maintain, and am prepared to prove, that the functions of a pure physician or surgeon as distinct from an apothecary can be made applicable to practice even among the very poor, and even if necessary to contract practice.—I am, etc.,

Reginald Farrar, M.A., M.D.Oxon., etc.

Stamford, May 9th.

Sir,—Nearly all questions of importance are many-sided and anyone who desires to understand them rightly must not confine his attention to one aspect only. Your correspondent, Dr. R. Fielding-Ould, has presented to your readers one aspect of the Pharmacy Laws as affecting companies; will you kindly allow me to indicate some others?

Let us assume for one moment that your correspondent's interpretation of the Pharmacy Act is correct, and that the Act would require that a company should employ one chemist only, and not one chemist for each shop. Is your correspondent aware that a large number (probably hundreds) of chemists' shops are at the present time under the management of unqualified persons? Such is the fact, and these shops belong, not to companies, as might be supposed, but to individual chemists. Now, either the law permits this to be done, or it is done in defiance of the law. If the law permits it, chemists will continue to own half-a-dozen shops each, or more, with only one chemist to supervise them all. Why is the danger to the public appreciably reduced when the capital invested in such businesses belongs to an individual chemist and not to a company? If, on the other hand, it be an illegal proceeding, why does not the Pharmaceutical Society, which is charged with the execution of the law, put a stop to this lawbreaking on the part of its supporters? Is it because the danger arising therefrom is regarded as being so nearly non-existent that it is not necessary to enforce the observance of the law? This can hardly be the case, for, if your correspondent can point to a single shop belonging to a company which is not under the management of a fully-qualified chemist, he has only to mention it to the Secretary of the Pharmaceutical Society to ensure his prompt and vigorous action. I do not believe that he can find such a shop anywhere in Great Britain. Your correspondent uses the word "cover." Allow me to point out that, if the word be in any case applicable to the chemists' trade, it may be much more suitably applied to a chemist who owns a number of shops and employs only unqualified men, than to a company every one of whose shops is under the management of one or more duly-qualified chemists, each one of whom could carry on business on his own account if he chose to do so. So much for the safety of the public when dealing with companies as compared with chemists.

But I think that your correspondent is mistaken in his interpretation of the Bill, and that the intention is that a fully-qualified manager should be employed at each shop. Not to labour that point, I may say that drug companies would not object to such a provision of the law provided that it was made to effectually apply to individual chemists and their shops, as it obviously ought to do. It may be said that the law as it at present stands does not require companies to keep qualified managers. If that be correct, so much the more to the credit of the companies who have always employed them in the past and will do so in the future, and so much the greater the necessity for the Lord Chancellor's Bill. The opposition to a law requiring them to employ qualified managers does not come from companies, as it might be expected to do if they wished to evade the law.

Your correspondent fears that "the protection conferred by the last Pharmacy Act is likely to be distinctly curtailed" by this Bill. Is there a single word in the Bill of the nature of curtailment of protection to the public? Reference is made to "inflated dividends." This is rather amusing when we recall the dividends paid by many drug companies. If the profits of chemists were no greater than the dividends of companies, they would scarcely be considered as "inflated profits." Moreover, if big profits were sufficient to condemn a class of traders to extinction, the days of the high-priced chemists must surely be numbered.

I entirely agree with your correspondent that companies (like individual traders) have primarily a financial object, and it is for this very reason that they can suitably supply the capital required for carrying on a chemist's business. This aspect of the subject is admirably presented in a paragraph of your leading article of April 8th. "Such companies (for carrying on the medical profession) really have no legitimate reason for existence, for ..... the incorporation and registration of limited liability companies have primarily a financial object. These formalities are designed to protect the shareholder's capital. In the conduct of medical and dental practice there is no risking of capital in trading operations, and, therefore, no need for limited liability; in fact, there cannot be said to be any function for capital at all."

It is for this reason, doubtless, that the Lord Chancellor has dealt so differently with the medical profession and the chemist's business, and for the same reason both Bills are receiving general support. The case would be far otherwise if chemists were included with the medical profession, for such a Bill would meet with strenuous opposition, not only from the great stores and drug companies, but also from a large section of the public. After all, chemists exist for the good of the public and not the public for the benefit of chemists.

Companies number their customers by millions, and their wonderful popularity is due to the real advantages which they give. They remove the dread of receiving an extortionate chemist's bill, which has often prevented people from calling in the doctor when he really should have been consulted; and, inasmuch as "counter prescribing" is almost unknown in the shops of companies, their customers are induced to consult a properly-qualified medical man instead of the chemist.

Perhaps I ought to remind your readers that during the last twenty years many men have devoted the best part of their lives to developing chemists' businesses belonging to companies under the law as it at present stands, and that many hundreds of thousands of pounds have been invested in such businesses. To suddenly declare them to be illegal and to confiscate all this property would be such a monstrous injustice as could not be paralleled in recent times.—I am, etc.,

Borough Road, S.E., May 9th. William Day.

NURSING HOMES IN ROME.

Sir,—In justice to the existing English nursing institutions in Rome, I write to correct two errors made in the article entitled "Anglo-American Nursing Home in Rome," published in the British Medical Journal of April 29th, page 1050. One of these is "that no place exists [in Rome]..... in which patients can obtain care and skilled nursing." The writer

then goes on to say that "it is true nunneries and sisterhoods take in cases of illness, but the good sisters *are untrained, and display some jealousy of trained interference*." The first part of this sentence is correct, but the part which I have italicised is certainly misleading, inasmuch as the good sisters are not all untrained. On the contrary, most of them (I am now speaking of the English sisters, as I know nothing definite about the non-British nursing sisterhoods in Rome) have been not only well trained, but have also had a large experience in hospital and private nursing.

We have in Rome three English nursing institutions—namely, that of the English Nursing Sisters, Miss Watson's, and Miss Irving's. The first is a Catholic nursing sisterhood, which was established here in 1882, and which has done excellent work in Rome for the past seventeen years, as a large number of British and foreign medical men, and many hundreds of patients can testify. It is true that formerly many of the sisters had had no regular hospital training, but for all that they were not by any means incompetent nurses. Now, however, almost all of them are hospital trained and certificated nurses. They have a semi-detached house with a small garden in the healthiest part of Rome, where they receive non-infectious cases of disease, and they also nurse patients at their homes, and in the hotels and pensions. They admit patients irrespective of their religion, and due care is taken that the sisters do not interfere in any way with the religious belief of any patient.

Miss Watson's Home has been in existence for a few years, and is also situated in the healthiest part of Rome, very near to that of the English Nursing Sisters. Miss Watson receives a few resident patients, and her nurses, who are hospital trained and experienced, also nurse patients in their homes, etc.

It is necessary to say little about Miss Irving's Institution, inasmuch as it is now being developed into the "Anglo-American Nursing Home." It is only fair to add, however, that many of the residents, including laymen and medical men, believe that there is no need for such a development, excepting, perhaps, for two months in the year; and besides, they think it is not just that the youngest of these institutions should be partly supported by voluntary aid and none given to the older ones.

As regards the case of typhoid fever mentioned in the article, I can only say that I positively know it was not nursed by the English Nursing Sisters. Indeed, I cannot understand how it was admitted into any of the "nunneries" in Rome, inasmuch as they are not permitted legally to receive infectious cases.—I am, etc.,

Rome, May 4th. JOHN J. EYRE.

"CLIMATE AND THE CURE OF CONSUMPTION."

SIR,—In the BRITISH MEDICAL JOURNAL of May 6th you publish a letter from Dr. Douty upon "Climate and the Cure of Consumption." It seems to me a great pity that cold water should be thrown upon the open-air treatment as carried out in England. We are at least forty years behind our Continental neighbours in this matter, and yet at our tardy commencement of this line of rational treatment an Englishman at Davos discourages the idea on the score of climate. Dr. Douty gives excellent statistics from Davos, which he compares favourably with those from Falkenstein, but he makes no mention of Nordrach. I very much question whether he could beat the records from Nordrach, and yet the climate of Nordrach differs as much from that of Davos as does our English climate.

If it be so essential to have an Alpine climate, why does Dr. Walther obtain the excellent results that we hear of? To my mind the answer is that these results are not due so much to climate as to the great amount of food given, the daily supervision, and the isolation, which latter it is impossible to ensure at Davos. The fresh pure air, be it Alpine or any other, simply means freedom from re-infection, and this is the first essential. I repeat that it is the over-feeding and not the climate that gives Nordrach the first place amongst the Continental sanatoria.

I have been to Nordrach, Falkenstein, Rupertstein, and Hohenhonnef, and have also visited several sanatoria in our own country, and I am convinced that the open-air treatment can be carried out with as good results in England as at Nordrach or Davos. I have watched patients in England gaining from 4 to 8 lbs. in a week with simultaneous improvement in the physical signs and symptoms. Anyone who has any knowledge of the sanatorium treatment as carried out in this country will bear me out in these statements.

I do not wish to deny that the climate and altitude of Davos may be more advantageous to certain individual patients than our English climate, but I do most emphatically say that the vast majority of tuberculous patients who now go abroad would do quite as well in England. In a few years' time we shall be in a position to disprove all statements to the contrary.—I am, etc.,

CHRISTOPHER BRAINE-HARTNELL, M.R.C.S., L.R.C.P.

Cheltenham, May 6th.

SIR,—There seems to be one fallacy at least in the statistics quoted by Dr. Douty, of Davos, in the BRITISH MEDICAL JOURNAL of May 6th, in favour of the high-altitude treatment of consumption. Cases of phthisis complicated by tuberculous affections of the larynx are not often sent to Alpine resorts, which by fairly general consent are deemed prejudicial to them. The prognosis of such cases, as is known—and they constitute a considerable proportion of those under treatment in certain lowland sanatoria—is *cæteris paribus* relatively unfavourable. Would not this circumstance, in a measure at all events, account for the lower percentage of "cures" in the latter?—I am, etc.,

J. HOME ROSS, M.B., F.R.C.P.Ed.

Bishop Stortford, May 8th.

THE VEILED OPERATOR.

SIR,—With reference to the discussion at the meeting of the British Gynæcological Society, and especially to Mr. J. W. Taylor's remark that the sponges, hands, and breath were the chief septic agents, perhaps I may say that for nine months I have used a veil after the proposal of Mikulicz, of Breslau. It is made of the gauze or muslin of which the compresses are made, and is slung on a tape, which is tied behind the head over the ears.

I find that it causes no inconvenience and does not interfere with breathing or talking. For those surgeons who intend to discard drainage as much as possible, and who bear in mind the frequency of incision hernia after abdominal section, this veil may not appear so funny as it does to others. In vaginal coeliotomies the operator's breath is very directly impinged on field of operation.—I am, etc.,

Edgbaston, May 7th. FRED. EDGE.

OBITUARY.

DR. OCTAVIUS JEPSON, who died suddenly on May 5th at Elmfield, Sydenham, at the age of 66, received his medical education at Edinburgh. He became M.D.St. Andrews, M.R.C.S.Eng., and L.S.A.Lond. in 1858, and thereafter devoted himself chiefly to practice in lunacy. He was at one time Assistant Medical Officer of the County Asylum, Hanwell, Middlesex; Resident Medical Superintendent of St. Luke's Hospital, London; and Medical Superintendent of the City of London Lunatic Asylum at Stone, Dartford, Kent. The funeral took place at Stone.

We regret to have to record the death, at the age of 33, of Mr. ARTHUR HOPE REINHARDT, M.R.C.S., L.R.C.P., and L.S.A. He received his medical education at the Yorkshire College, Leeds, and the London Hospital. At the time when he was taken ill he was in active practice in Holloway. Up to a fortnight before his death he appeared to be in excellent health, but he then began to suffer from an attack of typhoid fever and death occurred on May 6th from cardiac failure. The body was cremated at Woking.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. E. P. Le Sourd, of Paris, for many years editor of the *Gazette des Hôpitaux*, aged 64; Dr. G. M. Herzenstein, sometime lecturer on medical geography and statistics in the Military Medical Academy of St. Petersburg; and Dr. Rafael Cowley, of Odero, Professor in the Medical Faculty of the University of Havana.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: ROBERT T. GILMOUR, Surgeon, to the *Herald*, May 1st; JOHN STODDART, Surgeon to the *Vernon*, May 1st.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN H. A. BERRYMAN is placed on half pay from February 28th, and not as stated in the *London Gazette* of March 21st.

Captain CLEMENT S. ROBINSON, half pay, is placed on retired pay, April 7th. He was appointed Surgeon-Captain, February 2nd, 1884, and was placed on half pay, April 7th, 1894. During the campaign in the Soudan in 1885 he had medical charge of the 1st Battalion of the Berkshire Regiment, and was present in the reconnaisance to Hasheen on February 1st, in the engagements at Hasheen and the Tofrek zereba, and at the destruction of Temai (medal with two clasps and Khedive's bronze star); he was also in the operations of the Soudan Frontier Field Force in 1885-6.

Lieutenant-Colonel R. D. BENNETT retires on retired pay, May 10th. He was appointed Assistant-Surgeon October 1st, 1868, became Surgeon March 1st, 1873, Surgeon-Major October 1st, 1880, and Surgeon-Lieutenant-Colonel October 1st, 1888. He was in the Ashanti War of 1873-4, and was present in the engagements at Dunquah and Abrakrampa, receiving the medal for the campaign.

Captain R. E. KELLY, M.D., is promoted to be Major, May 10th. His first commission dates from July 28th, 1886.

Captain A. F. TYRRELL, at present serving in the Punjab, is directed to officiate as Personal Assistant to the Principal Medical Officer Punjab Command, from March 20th, vice Captain G. B. Stanistreet, who has been granted seven months' leave out of India on private affairs.

THE OPERATIONS IN THE SOUDAN.

THE *London Gazette* of May 5th publishes the report of Lieutenant-Colonel D. F. Lewis, who had been despatched with a force of Egyptian troops against Ahmed Fedil's army in the cataract south of Rosaires, on the White Nile. On December 26th, 1898, Lieutenant-Colonel Lewis attacked and completely defeated the forces of Ahmed Fedil, inflicting great loss upon him, and taking 2,000 prisoners. Colonel Lewis thus writes of the Senior Medical Officer: "Captain Jennings, R.A.M.C., showed great gallantry and devotion, dressing the wounded as they fell under a fire the quality of which is vouched for by the casualty return."

MEDICO-LEGAL.

MEDICAL CHARGES.

ON April 18th, at the Southport County Court, Dr. Edward Ball, physician and surgeon, sued the executors of the late Mr. Thos. Platt for the sum of £53 9s. 6d., being his charges for professional attendance on the deceased from August 3rd to September 7th, 1898. The *Southport Visiter* gives a full report of the trial. From this it would appear that Dr. Ball was in constant attendance at all hours of the day and night; that most of the visits required a considerable time to be spent with the patient, as an operation had to be performed; and the doctor's charges were 7s. 6d., 10s. 6d., and 21s., according to the time of the day or night. The estate left by the deceased was close upon £10,000.

For the defence it was urged that the charges were excessive; that the plaintiff ought to have assessed them according to the rental of his patient's house (the deceased occupied a small house at a rental of £28 per annum), or in accordance with the scale laid down in *Smith's Medical Diary*. The jury very promptly brought in a verdict for the whole amount claimed, and were about to add a rider apparently to express sympathy with the doctor, but were cautioned by the judge not to explain their verdict.

Dr. Ball is to be congratulated on his success, and the case is instructive, as showing that a medical man is not bound down to any hard-and-fast scale of fees for his services. A doctor—as was contended by the plaintiff—often had "to cut his coat according to the cloth." It often happened that a poor patient could not pay the fee he was entitled to, and it was necessary to take what he could get; but this was no reason why the well-to-do should shirk their obligations. He rightly scouted the notion suggested by the opposing counsel that a well-to-do man, who chose to live in a small house and in a mean way should for that reason claim to pay no more than those who were compelled to do so through necessity. He also properly rejected the contention that he was in any way bound by scales of fees laid down in such books as *Smith's Medical Diary*.

Over and over again it has been shown that there can be no strict uniformity in medical fees, and the courts have almost invariably been on the side of members of our profession, when the evidence has proved that their claims under all the circumstances of the case were not unreasonable.

BOGUS MASSAGE ESTABLISHMENTS.

AT the County of London Sessions, Clerkenwell, before Mr. McConnell, Chairman, on May 4th, Thomas William Hill Wilson, described as a nurse, Eva Graham, nurse, Minnie Harrington, manicurist, Nellie Terry, manicurist, and Mabel Thompson, pleaded "Guilty" to an indictment for keeping a disorderly house in Jermyn Street, and Wilson pleaded "Guilty" to a second count for having kept a similar house in Portland Street. Mr. Marshall Hall, Q.C., and Mr. A. Gill prosecuted on behalf of the Vestry of St. James's, Mr. Hutton appeared for Wilson, and Mr. Randolph for three of the other prisoners.

Mr. Hall said that Wilson, who described himself as Dr. Wilson—a title to which he had no right—carried on a business at the house in Jermyn Street ostensibly as a massage establishment. There was no doubt as to the real nature of the business, which appeared from the dispositions, but he did not intend to go into them. The evidence showed what had been going on since January, and as much as £1,500 net profits had been paid into Wilson's account since that date. It was impossible to find language to express one's disgust for a creature who lived on women in this way. The business carried on by Wilson at the house in Portland Street was of a similar nature.

Mr. Hutton having addressed the Court on behalf of Wilson,

Mr. McConnell said that the Court felt it their duty to inflict a punishment on Wilson unusual in these cases, namely, twelve months' imprisonment with hard labour. The women would be released on their entering into recognisances to come up for judgment if called upon.

At the same court Annie Lavender Ross, Eleanor Turner, Louie Watson, Nellie Wilson, and Adelaide Sloan were indicted for keeping a disorderly house in Cork Street. Mr. Marshall Hall and Mr. A. Gill appeared for the prosecution; Mr. Gill, Q.C., and Mr. Hutton appeared for Ross; Mr. Avory for Wilson; Mr. Matthews for Sloan; and Mr. B. Hopkins for Turner. Nellie Wilson and Sloan pleaded "Not Guilty," and the other prisoners "Guilty."

Mr. Hall said this was a similar establishment to the last. It had formerly been kept by Ross and recently purchased by Miss Sloan who, it was said, had paid £1,500 for it in the belief that it was a *bonâ-fide* massage business. He was also told that Ross had repaid a substantial portion of the purchase money which went to show that Miss Sloan's account was a true one. Therefore he did not intend to proceed against her further. With regard to N. Wilson he did not think it would be in the public interest to go into all the evidence in this unsavoury case for the sake of getting a conviction, as it was not likely that the court would punish her. No evidence was offered against Sloan and Wilson and they were formally acquitted.

Continuing, Mr. Hall said the case of Ross was very different to that of the man Wilson in the previous case, for after having been warned by the vestry she had sold the business to Miss Sloan, but at the same time she had returned as manageress. Mr. McConnell ordered Ross to enter into recognisances in £100 and find one surety in the same amount to come up for judgment if called upon. Watson and Turner were discharged on their own recognisances.

MEDICAL PRACTICE BY LAY ASSOCIATIONS.

IN the Court of Appeal, before Lord Justice A. L. Smith, Lord Justice Vaughan Williams, and Lord Justice Romer, the case, Everton and others *v.* Longmore, was argued on May 8th. It appeared that the plaintiffs were the trustees of the Walsall Amalgamated Friendly Societies' Medical Association, and by an agreement made in 1894 the defendant had been appointed medical officer of the Association. By the terms of the agreement it was provided that for three years after the termination of his appointment the defendant would not practise his profession as a medical man either as a principal or as an assistant in or within a radius of five miles of the town of Walsall. The defendant terminated the appointment in March last, since which date the plaintiffs alleged he had practised in breach of his agreement. An action was commenced claiming an injunction, and an order was made by Mr. Justice Phillimore restraining the defendant until the trial of the action from practising in the town of Walsall or within a distance of five miles.

From this order the defendant appealed and Mr. Disturnal on his behalf argued that the covenant was void, because being in restraint of trade it was not reasonable, having regard to the interests of the persons in whose favour it was made. The society not having been formed for the purpose of trade had no interest in the performance of the covenant.

Mr. McIntyre, for the plaintiffs, was not called upon to argue.

Lord Justice A. L. Smith said the covenant was not unreasonable or contrary to public policy. By the terms of the agreement the parties had assessed the damages for any breach of the covenant at £200, and this was sufficient to show that the society had an interest in the performance of the covenant.

Lords Justices Vaughan Williams and Romer concurred and the appeal was dismissed.

THE RATING OF A "QUACK DOCTOR."

FROM the report in the *Manchester Evening News* of May 8th it appears that Thomas Clarke, an old man described as possessing a wooden leg and a crop of luxuriant black hair, and who takes advantage of the latter possession by the sale in the market grounds of South-East Lancashire of an oleaginous "hair restorer," was summoned for disorderly conduct on the Tommyfield market ground, but he put in no appearance.

From the evidence it appeared that the defendant had been rated as a "quack doctor" on the 5s. scale instead of the 1d. per foot scale for hand sellers, and that he protested against this and created a disturbance. It was decided that the proper toll was 1d. per foot and that the Corporation had no right to charge him 5s. The Bench, however, imposed a fine of 5s. and costs.

We presume that the market inspector considered the calling of a "quack doctor" to be of such a lucrative nature that he was justified in charging the higher scale permitted by the market regulations, but it is a little curious that the status of a "quack doctor" should have obtained special recognition even for the purposes of market rating.

CONTRACTS NOT TO PRACTISE.

VICTIM.—If B. by misrepresentation induce A. to accept terms which are afterwards not carried out, the contract might be held to be void. We must remind our correspondent that his question is one entirely of private interest, and that he had much better consult a solicitor.

BOND.—In the first case mentioned it does not appear from our correspondent's statement that any bond was given at all, and the assistant would therefore be legally free to practise. In the second case the bond appears to be perfectly good and enforceable. The principle which rules cases of this kind may be briefly stated as follows—namely, any agreement, by bond or otherwise, by which a person is altogether restrained from any profession or business, is void; but an agreement which merely partially restrains a man from carrying on his profession is good, provided that it is not unreasonable, and is supported by a proper consideration.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,719 births and 3,616 deaths were registered during the week ending Saturday last, May 6th. The annual rate of mortality in these towns, which had declined from 23.1 to 17.7 per 1,000 in the five preceding weeks, further fell to 16.5 last week. The rates in the several towns ranged from 9.8 in Derby, 10.6 in West Ham, 10.9 in Cardiff, and 13.1 in Blackburn, to 19.8 in Salford, 20.3 in Manchester, 20.6 in Liverpool, and 22.3 in Plymouth. In the thirty-two provincial towns the mean death-rate was 16.9 per 1,000, and exceeded by 0.9 the rate recorded in London, which was 16.0 per 1,000. The zymotic rate in the thirty-three towns averaged 1.5 per 1,000; in London the death-rate was equal to 1.5 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.0 in Manchester, 3.1 in Salford, 3.2 in Bolton, and 3.7 in Burnley. Measles caused a death-rate of 1.2 in Salford, 2.2 in Manchester, and 2.6 in Bolton, and whooping-cough of 1.2 in Salford, 1.7 in Oldham, 1.8 in Birkenhead and in Preston, and 2.1 in Burnley. The mortality from scarlet fever and from whooping-cough showed no marked excess in any of the large towns. The 57 deaths from diphtheria in the thirty-three towns included 21 in London, 6 in Leicester, 5 in Leeds, 5 in Sheffield, 4 in Birmingham, and 3 in West Ham. Two fatal cases of small-pox were registered in Hull, but not one in London or in any of the thirty-three towns; and no small-pox patients were under treatment in the Metropolitan Asylum Hospitals on Saturday last, May 6th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,144 and 2,131 at the end of the two preceding weeks, had risen again to 2,139 on Saturday last, May 6th; 219 new cases were admitted during the week, against 163, 189, and 226 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 6th, 1,107 births and 564 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.1 and 21.1 per 1,000 in the two preceding weeks, declined to 18.5 last week, but was 2.0 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 12.8 in Leith and 14.9 in Aberdeen to 18.3 in Edinburgh and in Paisley and 20.1 in Glasgow. The zymotic death-rate in these towns averaged 1.7 per 1,000, the highest rates being recorded in Aberdeen and Dundee. The 284 deaths registered in Glasgow included 14 from measles, 2 from scarlet fever, 2 from diphtheria, and 5 from whooping-cough. Eight fatal cases of whooping-cough were recorded in Edinburgh and 2 of diphtheria in Aberdeen.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

A MEETING of Convocation was held at the University Building on May 9th. Mr. H. E. Allen, LL.B., B.A., was reappointed Clerk of Convocation.

THE LATE CHANCELLOR.

Professor A. HENRY, LL.B., moved a resolution expressive of the regret entertained by Convocation at the loss sustained by the University through the death of its Chancellor, Lord Herschell. He detailed the occasions and various capacities in which the late Chancellor had devoted time and energy to the work of the University. Finally, the resolution requested the Chairman to forward a copy to Lady Herschell, with the sympathy of the House with her and the family of the late Chancellor in their great loss.

Dr. SILVANUS THOMPSON, F.R.S., seconded the resolution, which was carried unanimously.

THE UNIVERSITY AND THE IMPERIAL INSTITUTE.

In reply to Dr. SILVANUS THOMPSON, Mr. E. H. BUSK, M.A., the Chairman of Convocation, stated the present position of affairs respecting the rumoured removal of the University to the Imperial Institute. He said that in the ordinary acceptation of the term negotiations with that object were not in progress. There had been a communication from the Government requesting that a conference might take place between three representatives of the Treasury, three representatives of the University, and three representatives of the Imperial Institute—nine persons in all—who were to inspect the buildings and the grounds belonging to the Imperial Institute at South Kensington, and to consider whether those premises either were suitable or could be made suitable for the headquarters of the University in any way; and, if so, it was thought that the Government might enter into an arrangement with the authorities of the Imperial Institute which would enable them to make a proposal to the University. The nine representatives were duly appointed; they had inspected the building, but they had not yet reported.

REPORT OF STANDING COMMITTEE.

Dr. H. F. MORLEY, D.Sc., presented the report of the Standing Committee and moved its reception. This resolution was also carried unanimously. Dr. Morley then moved a resolution requesting the Senate to adopt for the matriculation examination a scheme of subjects which was in complete accordance with the scheme unanimously adopted by the meeting of delegates from the Board of Studies in the Faculty of Arts.

Mr. J. HALL, B.A., seconded.

Miss L. E. WALTER, B.Sc., moved an amendment to the effect that there should be two papers for general elementary science and that candidates should be required to take up only one instead of two of the five languages referred to in the scheme.

Mr. H. C. TRAPNELL, LL.B., seconded.

Mr. R. W. HINTON, B.A., thought that if a subject was down for examination the examination therein should be thorough. Candidates should specialise in science after passing the matriculation examination. The only safe way of examining in science was to take the candidate into the laboratory and see how he went about his work.

Sir ALBERT ROLLIT said he thought the Senate was guilty of a mistake in permitting a curriculum which dispensed with the necessity of a modern foreign language.

A MEMBER said it was a distinct hardship that the science students of India had to learn Latin, a "culture language," when they had already learned one "culture language," Sanskrit.

Sir PHILIP MAGNUS, B.A., B.Sc., said that of the three schemes, he thought that of the Senate was the best, as it left to the student to say in what direction he wished to specialise, whether a modern language, an additional science, or a classical language. He believed that students intended for a commercial career would choose a modern language.

Mr. HEBER L. HART, LL.B., and Mr. J. E. H. COTTON urged that boys should learn languages at school, and science afterwards.

Dr. SILVANUS THOMPSON said that besides schoolboys, there were other persons who later in life came up to the matriculation examination. Education in London of recent years had made enormous strides in regard to music and science. German was unfortunately almost neglected, but ought to be put on a level with Latin. German was the language of science, and was as good for training the mind as Latin.

The amendment was lost.

Another resolution to the effect that the examination in general elementary sciences should be confined to two out of the three subjects in the schedule was also lost.

Miss M. M. ADAMSON, B.Sc., moved an amendment, which was seconded by Professor J. SULLY, M.A., and carried. The scheme thus settled was in the following form:

That the Senate be respectfully requested to adopt for the Matriculation Examination the following scheme of subjects: (1) Latin (two papers); (2) English (two papers); (3) mathematics (two papers); (4) any two of the following five languages: Greek, French, German, Sanskrit, Arabic; (5) and one of the following five sciences: Elementary mechanics, elementary chemistry, elementary sound, heat, and light; elementary magnetism and electricity, and elementary botany.

The Standing Committee for the ensuing year was appointed. All the candidates nominated in the Faculties of Law, Medicine, and Science were appointed; and the following four of the six nominated in the Faculty of Arts—namely, Messrs. T. Ely, R. W. Hinton, G. A. Howell, and W. B. Odgers.

The House was counted out at 7.15 before any further business had been transacted.

UNIVERSITY OF CAMBRIDGE.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.—The following candidates have passed this examination:

Part II—H. F. Bassano, M.A., Trin.; G. Browse, M.A., Cla.; H. N. Clarke, B.A., Trin.; S. E. Dore, B.A., Joh.; F. H. Ellis, B.A., Cai.; J. H. Fryer, B.A., Christ's; H. A. Gaitskell, M.A., Cla.; J. R. Garrood, B.A., Joh.; K. R. Hay, B.A., Cai.; J. E. Helm, B.A., Magd.; R. J. Horton-Smith, M.A., Joh.; F. R. Hunt, B.A., Trin.; J. H. Kemp, B.A., Cla.; E. K. Le Fleming, B.A., Cla.; T. A. Mayo, B.A., Cla.; H. F. Parker, B.A., Emm.; S. E. Reid, M.A., Joh.; F. A. Rose, B.A., Joh.; C. D. Somers-M.A., Pemb.; F. G. Stacey, B.A., Joh.; F. W. Sumner, B.A., Joh.; J. H. Tallent, B.A., Joh.

Part I.—R. G. Abercrombie, B.A., Cai.; W. L. Ascherson, Non.-Coll.; F. A. Bainbridge, B.A., Trin.; H. P. Bradley, B.A., Cai.; W. P. S. Branson, B.A., Trin.; W. E. Burnand, Jes.; J. P. Candler, B.A., Corp. Chr.; A. E. Carver, M.A., Cla.; H. Edmondson, B.A., Cla.; H. St. C. Elliott, Trin.; F. H. Ellis, B.A., Cai.; F. C. Eve, B.A., Emm.; L. S. Gaskell, M.A., Christ's; T. Gillespie, B.A., Joh.; D. G. Hall, B.A., Emm.; E. W. Hedley, B.A., King's; A. Killick, B.A., Down; J. E. Linnell, B.A., H. Selw.; T. Manners-Smith, M.A., Down; H. N. Matthews, B.A., Joh.; W. H. Maxwell, B.A., Trin.; J. A. Nixon, B.A., Cai.; S. V. Pearson, B.A., Emm.; A. C. Peason, B.A., Sid. Suss.; J. H. Philbrick, B.A., Trin.; J. G. Taylor, B.A., King's; B. R. B. Truman, B.A., Trin. H.; R. A. Walker, B.A., Cla.; R. F. C. Ward, B.A., Joh.; D. P. Watson, B.A., Trin.; L. Wilkin, M.A., Pemb., W. M. Willoughby, B.A., Cai.

Mr. J. B. Hall, M.A., of Pembroke, has passed the examination for the Degree of M.C.

PATHOLOGY.—Professor Woodhead's inaugural lecture on the Relations of Pathology to Modern Medicine will be given at 2.30 P.M. on May 23rd in the Anatomical Theatre.

SCIENCE SCHOLARSHIPS.—Two groups of Colleges, including ten in all, will hold examinations for entrance scholarships in natural science of the value of £80 and under on November 7th. Further particulars may be learned from the tutors.

UNIVERSITY OF EDINBURGH.

MEDICAL PRELIMINARY EXAMINATION.—The following statistics relate to the Medical Preliminary Examination held in April last:

In English	74	passed and	37 failed
,, Mathematics	66	,,	58 ,,
,, Latin	69	,,	52 ,,
,, Greek	23	,,	7 ,,
,, French	57	,,	24 ,,
,, German	7	,,	7 ,,

These figures afford no indication of the number of students qualified to enter the Faculty of Medicine under the new regulations, because the majority of the students now entering the University are exempted from the Preliminary Examination by "leaving" and other certificates.

MEDICAL NEWS.

THE annual dinner of the Royal Institute of Public Health will be held at the Hotel Cecil on Wednesday, June 7th, at 7 P.M., when the Harben Gold Medal will be presented to Lord Lister. Further particulars can be obtained from Mr Henry C. Jones, Honorary Secretary, 197, High Holborn, W.C.

PROFESSOR W. WHITLA (Belfast) has been elected as Honorary Member of the Pharmaceutical Society of Great Britain by the Council, who by this graceful act "desired to show its appreciation of the great value of the work he had done in the branches of knowledge embraced in the educational objects of the Society."

THE new buildings of the Royal London Ophthalmic Hospital, better known as the Moorfields Eye Hospital, which have been erected in the City Road about a mile from the old site will be opened by the Duke and Duchess of York. Provision is being made for 40 additional beds and for a much larger out-patient department.

THE SPANISH PHARMACOPŒIA.—The Spanish Royal Academy of Medicine has named Drs. Juan Manuel Mariani, Simon Hergueta, Juan Ramon Gomez Pano, Joaquin Olmedilla, and José de Pontes to be members of the Committee charged with the preparation of a new edition of the Spanish *Pharmacopœia*. The last (which was the sixth) edition of the *Pharmacopœia* appeared in 1884.

LONDON POLYCLINIC.—We are informed that an inaugural dinner in aid of the Foundation Fund will take place at the Trocadero Restaurant on Wednesday, June 14th. The chair will be taken by Sir John Lubbock, who has already been promised the support of many influential gentlemen. Music will be provided by the band of the Royal Army Medical Corps.

ON Tuesday last a successful dance was held at the Empress Rooms in aid of the funds of Westminster Hospital. The ball was under distinguished patronage, and was attended by about 480 people. The music was provided by the string band of the Royal Engineers, and the condition of the floor and the catering were all that could be desired. The honorary secretaries were Mr. H. C. Barlow and Dr. Marett Tims.

THE FRENCH HOSPITAL AND DISPENSARY.—The thirty-first annual dinner on behalf of the funds of this institution took place on May 6th at the Hotel Cecil, M. Paul Cambon, the French Ambassador, in the chair, supported by the Lord Mayor and Sheriffs and by many members of the *Corps Diplomatique*. The Chairman said he had himself had an opportunity of inspecting the hospital and had been greatly impressed by the ample provision for the care of the sick. He also spoke in terms of commendation of the Convalescent Home which had been recently opened at Brighton in connection with the hospital. The Italian Ambassador responded to the toast in French. He pointed out that the Hospital received not only French sufferers, but sufferers of all nationalities. The Lord Mayor also responded to the toast, which he thought tended to promote feelings of amity and good fellowship between the two peoples. During the evening subscriptions and donations were announced amounting to £3,200.

MEMORIAL TO DR. JOSEPH O'DWYER.—A committee of over forty physicians, representing sixteen different medical societies of New York, and including representatives of the two medical schools of that city, has been formed for the purpose of doing honour to the memory of Dr. Joseph O'Dwyer, to whom is due the successful introduction of intubation into medical practice. It is proposed to raise a fund of £6,000, the interest of which shall support two O'Dwyer Fellowships in Pediatrics, open to competition by physicians who graduate in the United States, and to be held by the successful competitors for a period of two years. During this period they must furnish satisfactory proof of their engagement in original research work to a committee of five, one of whom shall be appointed by the President of Harvard University, one by the Dean of the Johns Hopkins Medical School, one by the Provost of the University of Pennsylvania, one by the President of the University of Chicago, and one by the President of the New York Academy of Medicine.

SPECTROSCOPIC PHOTOGRAPHY.—Sir Norman Lockyer has lately been experimenting very successfully with flexible film, with the idea of adapting it to spectroscopic photography. The large concave Rowland grating, which he uses for his solar spectroscopic photographs, gives a spectrum 30 inches long. The focal plane of this grating is of necessity considerably curved, and it is obviously impossible to get a sharp photograph of the whole spectrum on a glass plate. This difficulty is got over by the use of a flexible film, which can be bent to the curvature of the field. The Kodak Company has sent us a print of one of Sir Norman's photographs taken in this way. It is 30 inches long, and shows the arc spectrum of iron with a comparison spectrum of the sun from wave length 3,600 to 5,200. Whether films of this kind will be useful for physiological work has still to be tested; the investigation of the photographic spectrum of the blood pigment, and its derivatives and allies, has within recent years in the hands of Professor Gamgee, F.R.S., given most interesting results.

RECEPTION HOME FOR INEBRIATES.—Some curiosity has been excited by an official notice that the Home Secretary had certified as an inebriate reformatory for females certain lands and buildings at Horfield, Gloucestershire, to be used as a reception house for the Brentry Inebriate Reformatory for the accommodation of 25 females for a period of not longer than four weeks. The explanation is, however, very simple. Brentry is a large place, and is capable of sufficient extension to accommodate a larger number of patients; but as the alterations are not completed, the managers wished some other place to relieve possible congestion during the period of architectural changes. They accordingly applied for a certificate for Horfield; but the Home Office authorities did not consider the situation and environment of Horfield suitable for a permanent certificate. The Home Office, however, offered to give a temporary certificate on condition that patients were to be retained at Horfield only for the first four weeks of their time, and at the conclusion of that period were to be transferred to the certified reformatory at Brentry in the usual way.

MEDICAL DEFENCE UNION.—The following officers of the Union have been reappointed for the current year:—*President:* Dr. W. S. A. Griffith, F.R.C.P. *Treasurer:* Dr. J. A. Masters, M.R.C.P. *Honorary Secretary:* Dr. Campbell Pope, F.R.C.S. *General Secretary:* Mr. A. G. Bateman, M.B. The following members have been elected Vice-Presidents of the Union, and together with the executive officers and elected members form the Council of the Union: Mr. Gunton Alderton, L.R.C.P., Mr. C. A. Ballance, F.R.C.S., Dr. Edgar Barnes, Dr. James Barr, M.R.C.P., Mr. James Bisshop, L.R.C.P., Mr. A. H. Dodd, L.R.C.P., Dr. Lovell Drage, Mr. Samuel Evans, J.P., L.R.C.P., Dr. W. A. Elliston, J.P., Dr. J. S. Ferris, Mr. E. Climson Greenwood, L.R.C.P., Dr. W. P. Herringham, F.R.C.P., Surgeon-General C. M. Jessop, M.R.C.P., Dr. J. A. Masters, M.R.C.P., Dr. Arthur Luff, F.R.C.P., Dr. C. H. Milburn, Mr. Marmaduke Sheild, F.R.C.S., Dr. Frederick Nicholls, Dr. Edward Nix, Dr. Reginald Pratt, Dr. F. A. Purcell, Dr. Prior Purvis, Dr. Walter Rigden, Dr. R. Saundby, F.R.C.P., Dr. F. J. Wethered, F.R.C.P. Application forms, reports, and all information concerning the Union can be obtained from the General Secretary at the registered offices, 4, Trafalgar Square, W.C.

MEDICAL VACANCIES.

The following vacancies are announced:—

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer; unmarried. Salary, £100 per annum, with board and apartments. Applications to the Secretary by May 15th.

BEDFORD COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum, with apartments, board, lodging, and washing. Applications to the Secretary by May 15th.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Appointment for six months. Apartments, complete board and washing provided, and honorarium at the rate of £12 12s. per quarter. Applications, endorsed "House Physicians," to the Treasurer, Bridewell Hospital, New Bridge Street, E.C., by May 15th.

BIRKENHEAD BOROUGH HOSPITAL.—(1) Senior House Surgeon. Salary, £100 per annum, with board, lodging, and washing. (2) Visiting House Surgeon. Salary, £75 per annum, with board, lodging, and washing. Applications to the Chairman of the Weekly Board by May 23rd.

BIRMINGHAM: MASON UNIVERSITY COLLEGE.—Professor of Pathology and Bacteriology. Applications to the Secretary by May 31st.

BIRMINGHAM: QUEEN'S HOSPITAL.—(1) House-Physician. Appointment for one year. Salary £50, with board, lodging, and washing. (2) An Obstetric and Ophthalmic House Surgeon. Appointment for six months. Salary £10, with board, lodging, and washing. Applications to the Secretary by May 24th.

BIRMINGHAM PARISH.—Assistant Resident Medical Officer at the Workhouse Infirmary. Salary, £100 per annum, with furnished apartments, rations, coals, gas, laundry, and attendance. Applications, on forms provided, to the Clerk to the Guardians, Parish Offices, Edmund Street, Birmingham, by May 15th.

BIRMINGHAM: ROYAL ORTHOPÆDIC AND SPINAL HOSPITAL.—Honorary Surgeon. Applications marked outside, "Application for Post of Honorary Surgeon," to the Honorary Secretary, 9, Bennett's Hill, Birmingham, by June 1st.

BUXTON: DEVONSHIRE HOSPITAL.—House-Surgeon and Assistant House-Surgeon. Salaries, £100 and £50 per annum respectively, with apartments, board, and washing. Appointment for twelve months, but eligible for re-election. Applications to the Secretary by May 20th.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Resident House-Surgeon. Salary £65 per annum, with board, lodging, and washing. Applications to the Secretary by June 10th.

DUBLIN: MERCER'S HOSPITAL.—Resident Medical Officer. Applications to the Registrar by May 30th.

EPPINGHAM UNION.—Two District Medical Officers. Salaries £44 per annum, and the usual extra medical fees. Must reside within the districts. Applications to the Clerk to the Guardians, Northrepps, Norwich, by May 17th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road.—Senior Resident Medical Officer. Salary, £70 per annum, with board and washing. Applications to the Committee of Management by May 20th.

HULL ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £40 per annum, with board and lodging. Applications to "Chairman, House Committee," by May 16th.

KENSINGTON DISPENSARY, Church Street, W.—Vacancy on Honorary Medical Staff. Applications to Mr. T. W. O. Wheeler, Honorary Secretary, 138, Kensington High Street, W., by June 5th.

LEEDS: GENERAL INFIRMARY.—One House-Surgeon and one House Physician, for twelve and six months respectively. Board, lodging, and washing provided. Applications to the Secretary to the Faculty by May 17th.

LEEDS: YORKSHIRE COLLEGE.—Junior Demonstrator in Pathology. Salary £120. Applications to the Registrar of the College.

LIVERPOOL STANLEY HOSPITAL.—Honorary Assistant-Surgeon. Applications to the Honorary Secretary by May 16th.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.—Lecturer in Physics. Applications to the Secretary, 8, Hunter Street, Brunswick Square, W.C.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Remuneration at the rate of £50 per annum, with residence, board, and washing. Applications to the Secretary by May 20th.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Ophthalmic Surgeon and an Honorary Assistant Physician. Applications to the Secretary by May 20th.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—(1) Female House-Physician and House-Surgeon. Appointment for six months. (2) Two Female Assistant Anæsthetists. Appointment for one year; (3) Four Female Clinical Assistants (qualified). Appointments for one year. Applications to the Secretary by May 24th.

NORTH STAFFORDSHIRE INFIRMARY AND EAR HOSPITAL, Hartshill, Stoke-upon-Trent.—Assistant House-Surgeon. Board, apartments, and washing provided. Applications to the Secretary by May 15th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Assistant Resident Medical Officer. Salary at the rate of £30 per annum. Appointment for six months, when eligible for election to Senior post (salary, £50). (2) Dental Surgeon, must be L.D.S. Applications to the Secretary by May 30th.

ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Salary, £60 per annum, with rooms, commons, and washing. Applications to Mr. W. A. Garrard, Chatham House, Rotherham.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Election to the Court of Examiners. Applications from Fellows to be sent to the Secretary by May 31st.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months, when re-election is required. Salary at the rate of £100 per annum, with furnished apartments, board, and washing. Applications to the Secretary by May 16th.

ROYAL ORTHOPÆDIC HOSPITAL, 297, Oxford Street, W.—House-Surgeon and Registrar. Salary, £60 per annum, with partial board and residence. Appointment for six months, but eligible for re-election. Applications to the Secretary by May 20th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Clinical Assistants. Appointments for six months. Applications to the Secretary by May 27th.

ST. ANDREWS UNIVERSITY.—Professor of Pathology. Application to the Secretary of the University by June 21st.

ST. MARYLEBONE GUARDIANS.—Non-Resident Assistant Medical Officer for Dental purposes at the Schools at Southall. Salary £50 per annum. Applications to the Clerk to the Guardians' Offices, Northumberland Street, Marylebone Road, W., by May 15th.

ST. PETER'S HOSPITAL FOR STONE AND GENITO-URINARY DISEASES, Henrietta Street, W.C.—House-Surgeon. Appointment for six months, but eligible for re-election. Salary, at the rate of £100 per annum, with board, lodging, and washing. Applications to the Secretary by May 31st.

ST. SAVIOUR'S UNION.—Dispenser at the Infirmary, East Dulwich Grove, S.E. Salary, at the rate of £120 per annum, with dinner and tea daily. Applications, on forms provided, to the Clerk, Union Offices, John Street West, Blackfriars Road, S.E., by May 20th.

STOCKPORT INFIRMARY.—Junior Assistant House Surgeon. Salary, £2 per mensem, with board, washing, and residence. Applications to the Secretary by May 16th.

TIVERTON UNION.—Medical Officer and Public Vaccinator for the Halberton and Sampford Peverell Districts. Salary £50 per annum, and fees. Applications to the Clerk by May 15th.

TOXTETH PARK WORKHOUSE AND INFIRMARY.—Senior Assistant Medical Officer. Salary, £125 per annum, with board, washing, and apartments. Application to the Clerk of the Guardians, 15, High Par Street, Liverpool, by May 24th.

UNIVERSITY COLLEGE, LONDON.—Jodrell Professorship of Zoology. Applications to the Secretary by June 5th.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—Assistant Resident Medical Officer, unmarried. Salary, £80 per annum, with board and lodging in the Hospital. Applications to the Board of Management, 34, Craven Street, Charing Cross, by May 19th.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fifth Assistant Medical Officer. Salary £100 per annum, increasing to £150, with board, etc. Applications to the Medical Superintendent by May 16th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House Governor and Secretary, unmarried or widower. Salary, £170 per annum, with board, washing, and residence. Applications to the House Governor and Secretary by May 20th.

MEDICAL APPOINTMENTS.

ARDAGH, V. L., M.D., appointed Medical Officer for the Stogumber District of the Williton Union

ASHWIN, R. H., M.B.Lond., M.R.C.S., L.R.C.P., appointed Medical Officer for the Second Market Weighton District of the Pocklington Union. (Correction.)

BAYS, James, M.D.Lond., appointed a Visiting Medical Officer to the Albany General Hospital, Grahamstown, Cape Colony.

BYRNE, P. Kevin, M.D., B.S., B.A.Lond., appointed Medical Registrar to the London Temperance Hospital.

CHADBURN, C. N., M.R.C.S., L.R.C.P., appointed House Surgeon to the Swansea Hospital.

DERAVIN, E. A., M.B., B.S.Melb., appointed Clinical Assistant to the Chelsea Hospital for Women.

ELLIOTT, F. P., M.B., C.M., appointed Medical Officer, Walthamstow Dispensary.

ENGLISH, Evelyn A. W., M.B., C.M.Edin., appointed Medical Superintendent of the Midland Sanitorium, Leicester.

HAYWARD, A. E., M.R.C.S.Eng., appointed Medical Officer for the Teignmouth District of the Newton Abbot Union.

HUDSON, F. H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer to the Workhouse and the West District of the Buntingford Union.

KENNAN, R. H., M.B., B.Ch., appointed Assistant Surgeon to Sir P. Dun's Hospital, Dublin.

KENNEDY, W. G., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the Fourth District of the Salford Union.

LOUD, F., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Fifth District of the Lewes Union.

MUIR, J. C., M.B., B.C.Camb., appointed Junior Assistant Medical Officer at the Crumpsall Workhouse, Manchester.

PARRY, Edward James, M.R.C.S., L.R.C.P., L.S.A., appointed House-Surgeon to the Victoria Hospital for Children, Chelsea, S.W.

POWER, John D., L.R.C.P., L.R.C.S.Edin., L.F.P.S Glasg., appointed House-Surgeon to the North Infirmary, Cork, *vice* Richard P. Byrne, B.A.R.U.I., L.R.C.P., L.R.C.S.Edin., resigned.

RICE, M. W., M.D.Edin., appointed Medical Officer for the Gedney Hill District of the Holbeach Union.

ROBINSON, Thomas, L.R.C.P.Lond., M.R.C.S., D.P.H., appointed Medical Officer of Health for Leicestershire.

STEPHENS, E., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Ilminster Urban District Council.

DIARY FOR NEXT WEEK.

MONDAY.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Mr. Lennox Browne: Difficulty of Swallowing.

Medical Society of London, 8.30 P.M.—Annual Conversazione. Oration by Mr. Alban Doran on Shakespeare and the Medical Society.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. G. L. Cheatle: The Management of Certain Minor Operations.

TUESDAY.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Ferrier: Disseminated Sclerosis.

Chelsea Clinical Society, Parish Hall, Pavilion Road, Sloane Square, S.W., 8.30 P.M.—Annual Meeting.—Business: (1) To receive report of Council; (2) to receive Secretary's report; (3) to receive Treasurer's report; (4) to elect officers for the next session.

Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. H. Campbell: Hysterical Paralysis and other Hysterical Manifestations.

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Dr. H. E. Durham: Infections from Unsound Meat (illustrated by lantern slides). Dr. J. Ritchie: The Relation of Chemical Composition to Germicidal Action. Card specimens will be shown by Dr. Garrod, Dr. Lazarus Barlow, Dr. Rolleston, and Mr. T. Lister. At 9.30 P.M.: Annual General Meeting for the election of officers for the ensuing session; report of Subcommittee on Pseudo-tuberculosis; reports of Morbid Growths Committee on Mr. Barker's, Mr. S. Boyd's, and Dr. C. D. Green's specimens.

WEDNESDAY.

Hospital for Consumption, Brompton, 4 P.M.—Mr. E. J. Godlee: Some Cases of Actinomycosis.

Royal Microscopical Society, 20, Hanover Square, W., 7.30 P.M. Exhibition of Pond Life.

Royal Meteorological Society, 70, Victoria Street, Westminster, S.W., 4.30 P.M.

St. John's Hospital for Diseases of the Skin, 49, Leicester Square.—Dr. Eddowes: Psoriasis.

THURSDAY.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Frederick Batten: On Muscular Atrophy.

London Temperance Hospital, 3 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

Harveian Society of London, 8.30 P.M.—Dr. Caley: Considerations as to the Etiology and Significance of Dilated Heart.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Dr. Dundas Grant: Examination of the Ear.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Abercrombie: Demonstration of Medical Cases.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. G. L. Cheatle: The Management of Certain Minor Operations.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

AIRD.—On the 6th inst., at Thornbank, Wallington, Surrey, the wife of T. W. Aird, M.D., of a son.

FIELD.—On Sunday, May 7th, at Friern Lodge, 449, Lordship Lane, Dulwich, the wife of Frederick A. Field, L.R.C.P.Lond., M.R.C.S.Eng., of a son.

HILL.—On the 29th April, at 1, Merton Road, Wimbledon, the wife of R. A. Lowder Hill, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES.

HANCOCK—SWEET-ESCOTT.—On April 19th, at the parish church, Leigh, Worcester, by the Rev. W. Escott, rector, and father of the bride, assisted by the Rev. L. R. Hancock, brother of the bridegroom, and the Rev. E. P. Rowlands, William Albert Hancock, F.R.C.S.Eng., of Wivelscombe, Somerset, to Margaret May Sweet-Escott.

JULL—STEWART.—On November 12th, 1898, at Guildford, Western Australia, Martin Edward Jull, Under-Secretary for Public Works, W.A., son of the late Thomas Jull, of Horsham, Sussex, to Roberta H. M. Stewart, M.B., C.M., elder daughter of the Rev. R. Stewart, of Lisbon.

WILLS—TUBBS.—On May 2nd, at Emmanuel Church, Plymouth, by the Rev. Robert Thompson vicar of Longcott, assisted by the Rev. The O'Shea, and the Rev. W. J. Leigh-Phillips, Walter Kenneth Wills, M.A., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., to Kathleen Isabella, youngest daughter of Charles Foulger Tubbs, of Beechfield, Plymouth.

DEATHS.

EADIE.—On May 2nd, at West Coker, Yeovil, Somerset, John Eadie, M.D., aged 42.

EUSTACE.—On May 4th, at his residence, Elmhurst, Glasnevin, Dublin, John Eustace, M.D., J.P., aged 73.

MACCARTHY.—Dennis Augustus MacCarthy, M.D.St Andrews, F.R.C.S.Edin., suddenly, on May 1st, at West Allington, Bridport, Dorset, in his 66th year.

PAGET.—On the 7th inst., at Litchfield Lodge, Hereford, Clara, widow of Sir George E. Paget, K.C.B., M.D., F.R.S., of Cambridge, in her 74th year.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 5. *Operations.*—1 p., Tu., 2.30; o.p., F., 2.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1 p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45 o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30: Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

MEMBER would be glad to hear of any neat boot for remedying a shortening of 2 inches following excision of the hip. Can any fellow member give experience of the O'Connor extension system?

RUSTICUS asks to be recommended an institution where a girl, aged 6 years, congenitally unable to feed herself or walk, would be taken care of and trained for a moderate weekly payment.

C. would like to know if the popular idea that Jews are not afflicted with cancer is correct? If so, what is the supposed cause of this exemption?

M.D. asks for advice in the treatment of the following case: A.W.M., a baker, aged 39, had influenza five years ago, since when he has had gastric crises at short intervals, which generally commence at 2 A.M. The patient wakes up suddenly and cannot go to sleep again. About half an hour afterwards violent retching sets in, with a rolling sensation or heaving of the stomach, gradually getting worse, but rarely vomiting. Patient also has lightning stitching pains in one or both legs, coming on in the evening, and lasting for twelve hours. The pains sometimes precede and sometimes follow gastric attacks. The patient is better now than he was two years ago. After the attack is over he is able to follow his employment delivering bread (he cannot stand heat of ovens). There is no ataxic gait, and his eyesight is excellent. No history of syphilis. Morphine by hypodermic injections is the only drug found to relieve spasm.

IXION, who is thinking of taking up cycling, asks for information on the following heads: (1) best build of machine; (2) best tyres: (3) best brake; (4) best saddle; (5) most suitable lamp.

*** We cannot undertake to say which are the best types, but Mr. E. B. Turner, F.R.C.S., to whose articles in the BRITISH MEDICAL JOURNAL a few years ago our correspondent refers, sends the following suggestions: (1) Humber (Beeston), Elswick, Rover, Swift; (2) Scottish, Palmer, or Dunlop; (3) Bowden; (4) Brookes B. 28, size 3; (5) any lamp of Lucas or other good maker. The acetylene lamp gives the best light but is not yet quite perfect.

WORK ON PUBLIC HEALTH.

M.O.H. asks what is the best reference book on Public Health for use in connection with his office?

*** Our correspondent might obtain *A Treatise on Hygiene and Public Health*, edited by T. Stevenson, M.D., F.R.C.P., and S. F. Murphy; 3 volumes. London: J. and A. Churchill. 1892-94. 80s.

CLAIM FOR MEDICAL ATTENDANCE UNDER EMPLOYERS' LIABILITY ACT.

COUNTY PRACTITIONER, to whose first enquiry we replied in the BRITISH MEDICAL JOURNAL of April 29th, p. 1075, writes a second time stating his case more fully, and asks whether he can by any means obtain any fees for the certificates he gave the patients in question, and further, whether he, as district medical officer, has any claim on the guardians for the attendance on these two patients?

*** We believe that any attempt to recover fees for such certificates would be futile: these fees should have been asked for, and paid for, when the certificates were given. At that time the money would doubtless have been forthcoming. Our correspondent does not seem to have any claim on the guardians for attendance, unless he has entered into some special contract with that body.

HOME FOR EPILEPTIC.

W. S. would be glad to know of any medical man's home, or small institution or nursing home, where an epileptic and partially paralysed and idiotic girl would be received, kindly treated, and her intelligence developed, and where she would be taught how to read, etc.; of which instruction she is quite capable. Her friends, who belong to the middle class and are well off, would be willing to keep her a maid nurse to attend entirely to her physical wants.

ANSWERS.

BETA (Stirling).—Our correspondent would do well to bring the matter before the Local Government Board, Edinburgh.

J. A. H.—"Facial massage" consists, we are informed, simply of steaming the face and then kneading it.

W. H.—The letter is an example of the kind of communications from antivaccinators which certain newspapers are in the habit of admitting

G.H.M.—We think our correspondent was well advised in declining the proposal.

F.R.S.C.—Probably the accommodation required would be obtained at any nursing home. It would be difficult to select any particular establishment for recommendation.

M.B., M.R.C.S.—The offices of the Society for Psychical Research are at 19, Buckingham Street, Adelphi, London, W.C. The Assistant Secretary, Mr. Edward T. Bennett, would no doubt supply full information.

A. L. C.—We are not aware of the existence of any established custom which would preclude our correspondent from charging fees for attending an infirmary nurse temporarily residing with her father, who is not a member of the medical profession.

ALPHA writes: If "Country Member" requires a private home at a moderate rate for his case of peripheral neuritis, I can strongly recommend one: The Elgin Nursing Institution, 258, Elgin Avenue, Maida Vale.

FLEET-SURGEON.—(1) and (2) Our correspondent will probably find the following useful: *Health in the Nursery*, by H. Ashby, M.D. (London: Longmans Green and Co. 1898. 3s. 6d.); Chavasse's *Advice to a Mother on the Management of her Children*, 15th Edition, by G. Carpenter, M.D. (London: J. and A. Churchill. 1898. 2s. 6d.); *Development of the Child*, by Nathan Oppenheim (London and New York: Macmillan and Co. 1898. 5s.). If "Fleet-Surgeon" writes to the Secretary of the National Froebel Union, 4, Bloomsbury Square, W.C., asking for a list of the books they recommend for study, he will have an abundant choice of books about physical and other exercises for little children. (3) *Our Schools and Colleges*, vol. i, Boys, 8th Edition (London: Simpkin Marshall and Co.).

THE M.D. BRUSSELS.

C. D. H.—The M.D. Brussels may be obtained after examination by registered medical practitioners who are admitted to the final examination, on the presentation of their diplomas at Brussels. The fees amount to £22, and the examinations take place in November, December, February, May, and June. The time that must be spent at Brussels is about a fortnight. We are told that a practitioner who is fairly well up in his professional subjects, if he gives about six months' special reading in his spare time will have a very good chance of success. If our correspondent requires further information he should refer to the Honorary Secretary of the Brussels Medical Graduates' Association, Dr. Major Greenwood, 243, Hackney Road, N.E.

NOTES, LETTERS, Etc.

AN APPEAL ON BEHALF OF DR. COOKE.

MR. E. STANMORE BISHOP, F.R.C.S. (3, St. Peter's Square, Manchester), and Dr. J. C. EAMES (Barnfield House, Stoneclough, near Manchester) write: Many thanks for your insertion of our appeal in the JOURNAL of April 29th, p. 1060, on the part of Dr. Cooke, who died on May 2nd, leaving a wife and three small children to make some sort of fight with the sad circumstances in which, poor fellow, he had to leave them. Fortunately his wife is one of those whom it is a pleasure to help, since she is ready and willing to do her utmost. If only the profession to which her late husband belonged will give her a start, we believe she will succeed in keeping his young children and herself. But we ought to do this quickly, or the chance will be lost. *Bis dat qui cito dat.* We are happy to acknowledge already in addition to the amounts mentioned last week the following received from:

	£	s.	d.		£	s.	d.
J. E. Prestwich, Esq. ...	5	0	0	Dr. Duncan Mackay ...	0	10	6
Dr. J. C. Eames ...	5	0	0	Dr. Rogers	1	1	0
Mrs. J. C. Eames ...	5	0	0	Dr. Domett Stone ...	1	1	0
T. B. Lord, Esq. ...	5	5	0	Dr. Holdsworth Davies ...	0	10	6
Dr. Sayers	2	0	0	"Peter," on behalf of my three children ...	0	5	0
Dr. Kershaw ...	1	1	0				
Dr. Gordon Black ...	1	1	0	A. B.	1	1	0
Mr. Corsham Corner ...	0	10	6	H. W. Beedham	1	1	0
Dr. Andrew Fyfe ...	0	10	6				

To all of whom, on behalf of the widow and orphans, our sincerest thanks are due.

THE SUPPORTERS OF THE MIDWIVES BILL.

MR. ROWLAND HUMPHREYS, L.R.C.P. Lond., Honorary Secretary, Midwives Bill Committee (12, Buckingham Street, Strand, W.C.), writes: With reference to the extraordinary advertisement which recently appeared in the *Daily Mail*, and which is noticed in a correspondent's letter in the BRITISH MEDICAL JOURNAL of April 29th, may I be allowed to state that immediately on this advertisement being brought to my notice, I wrote to the Editor of the *Daily Mail* pointing out that the statements therein contained were neither correct nor in accordance with the provisions contained in the Bill? My letter was, however, not inserted, though I believe the advertisement has not again appeared. The statements contained in the advertisement in question are, I must point out to your correspondent, merely reflections of those erroneous views which have been advanced by medical opponents of the various Midwives Bills, and which were not only refuted before the Select Committee of the House of Commons, but have been repeatedly controverted since then. I know of no grounds for the misstatements except the erroneous views referred to. The term "registered women," I may state, should only be applied to qualified registered medical practitioners in the sense used in the advertisement.

LOCUM TENENS AND AGENTS' FEES.

ANOTHER JUNIOR PRACTITIONER writes: I can fully endorse "Junior Practitioner's" complaint about agents' fees. Surely a central inter-hospital bureau might be formed for the purpose of introducing assistants and *locum tenens*. If medical men will not combine, and persist in retaining their unbusinesslike habits, they must expect to be exploited by middlemen who are men of business and not philanthropists.

UNSINKABLE BOATS.

DR. HORACE DOBELL (Parkstone Heights, Dorset) writes: Will you grant me a few lines of your valuable space just to claim priority for the suggestion of "small air-tight cells" as a substitute for cork and other materials in lifebuoys, ships' mattresses, etc., for the saving of life at sea, and other purposes? My attention has been called to a paragraph in the *Times*, April 29th last, headed "Unsinkable Boats," describing an "invention" by Mr. E. S. Norris, late M.P., which appears to be essentially the same as mine. A complete specification of my invention is lodged at the Patent Office, dated "December 20th, 1888, No. 17,535," which, I think, completely sustains my claim to priority. My professional engagements in 1888-9 prevented me from carrying my idea further than "provisional registration" (long since expired), and I am very glad to see it now promoted by Mr. Norris, who has my best wishes for success in bringing the invention into practical use.

NATIONAL ASSOCIATION FOR PREVENTION OF CONSUMPTION.

MR. JOHN RYLE (London) writes: Permit me to supplement the few remarks I made at the meeting of this Association. We assume the part of educators in a branch of sanitary science; we have a population of many million pupils: for our object to be achieved the Council should bear in mind that there must be a fairly large army of teachers: in other words, that the success of the Association will be in proportion to its numerical strength. At present the number of members is very small. Let those who can, and especially the Press, help to largely increase it. Among the many noble-minded men in the medical profession it is not too much to expect that there may be found a sufficient body of voluntary instructors.

LETTERS, COMMUNICATIONS, Etc., have been received from:

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BOOKS, Etc., RECEIVED.

Handbuch der Anatomie und vergleichenden Anatomie des Centralnervensystems der Saugetiere. Von Dr. E. Flatau und Dr. L. Jacobsohn. I. Makroskopischer Teil. Berlin: S. Karger; and London: Williams and Norgate. 1899. 22s.

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SHAKESPEARE AND THE MEDICAL SOCIETY.*

Being the Annual Oration delivered before the Medical Society of London.

BY ALBAN DORAN, F.R.C.S.,

President of the Obstetrical Society of London; Surgeon to the Samaritan Free Hospital.

MR. PRESIDENT AND GENTLEMEN,—"Present fears are less than horrible imaginings," so that I feel a sense of relief now that I am really about to deliver this Oration. When the Council informed me last summer that I was selected Orator I felt "most admir'd disorder," like Macbeth's guests. I held then, as I still hold, the office of an Ariel to the Society, being "correspondent to command" to foreign parts, and I had just heard curses both loud and deep follow my proposal that the indexing of our valuable *Transactions*, which I have for long maintained to be desirable, should be undertaken—but by somebody else. "Something too much of this," however, as Hamlet said to Horatio. I was selected. I thank the President, Council, and Society for the honour which they have conferred upon me, and, like those humble people, the players in *A Midsummer Night's Dream*, my "true intent is all for your delight."

The choice of a subject rendered me "perplex'd in the extreme," like Othello. Still it is right that I should dwell upon it. "Little shall I grace my cause in speaking for myself," but, as Ulysses says in *Troilus and Cressida*, "One touch of Nature makes the whole world kin." Most of you have had or will have to choose a theme for an address. At first I thought of Medicine a Noble Profession, but, like Troilus, "I cannot fight upon this argument, it is too starv'd a subject for my sword." Lectures on this lofty theme are usually "full of wise saws and modern instances." I will follow Richard the Third's advice to Queen Elizabeth of York when she alluded to the asphyxiating of the princes in the Tower, and harp not on that string. As to questions where I might speak after some experience, they set me thinking of statistics of abdominal operations, till I felt, like Lewis in *King John*, that to you they would be "as tedious as a twice-told tale vexing the dull ear of a drowsy man." Some of you may say, like Francisco in *Hamlet*, "For this relief much thanks." I soon put aside all thoughts of deciduoma malignum as my subject; had I selected it you would have found me "tedious," like Polonius, Dogberry, and Verges.

At length I bethought me of the Bard of Avon. His observations upon human nature can be fitted to anything human in any age, collectively or individually. So I decided to apply his wisdom to the ways and doings of our Society and profession. It happens, as you all know, that our President opened this hundred-and-twenty-sixth session with some instructive remarks on a precious MS. work in our library, the diary of a Vicar of Stratford-on-Avon, who lived there not long after Shakespeare's death and recorded certain facts and traditions about the Bard. Allow me, then, to conclude the session with a little more about him. I expressed my intent to our President, as the conspirators communicated their plot to Brutus, for "that which would appear offence in us, his countenance, like richest alchemy, will change to virtue and to worthiness." Our President, like the King in *Hamlet*, wished last autumn to know something about the "argument," lest there should be any "offence in't." I replied that I had not even begun the "argument," but that there would be "no offence i'the world," and thus I won his approval.

In awarding due praise to Dr. Bucknill, Dr. John Moyes, of Largs, and others who have written systematic works on Shakespeare and medicine, I must add that their method is not suited for the present oration, nor need I discuss their subject in a general sense, as has been done by Mr. Lemuel Griffiths, of Clifton, in an excellent address published in the fifth volume of the *Bristol Medico-Chirurgical Journal*. Nor, on the other hand, need I weary you with a string of Shakespearian samples laboriously extracted from Bartlett's *Familiar Quotations*, or from Cowden Clarke's *Concordance*, or from some so-called "beauties" of Shakespeare. Let us see how far the poet's thoughts suits our case.

This Society, as a society, encourages us to speak, and conference, says Bacon, maketh a ready man. We are more or less obliged to talk about what we understand, and the circumstances of a meeting are not such as make men timid. Hence in our discussions we see none of that painful nervousness shown by the student at an oral examination or by the dinner guest unexpectedly called on to reply to a toast. The victim feels like banished Norfolk in *Richard the Second*:

> And now my tongue's use is to me no more
> Than an unstringed viol or a harp,
> Or like a cunning instrument cas'd up,
> Or, being open, put into his hands
> That knows no touch to tune the harmony,
> Within my mouth you have engaol'd my tongue,
> Doubly portcullis'd with my teeth and lips.

On the contrary, in a Society like ours, though high oratory is perhaps not conspicuous, many of us speak trippingly on the tongue, and few, if any of us, saw the air with our hands, but we use all gently. In discussion we appear to acquire and beget a temperance that may give it smoothness. Let us trust that we rarely, if ever, speak more than is set down for us by the limits of our subject, a defect less to be excused than "gagging," its homologue on the stage, which Hamlet, whose language I am borrowing, condemns as villainous, showing a most pitiful ambition in the fool that uses it; nor, as the Duke in *Measure for Measure* would say, do we think the man of safe discretion that does affect it.

Let us consider ourselves first as doctors, for of such are the Fellows of this Society. Shakespeare puts us forward both as authorities and breadwinners. There are unqualified practitioners in his plays; thus Richard II, when trying to reduce Bolingbroke and Norfolk's mental temperature, says, "this we prescribe though no physician." The black sheep, the Calibans of our profession, are not of our fold; we leave the Prosperos of the Colleges and the General Medical Council to deal with them. We encourage these worshipful authorities, as the host of the Garter encouraged Falstaff about his followers: "discard, bully Hercules; cashier: let them wag; trot, trot." Of a certain odious professional crime, we may say, as Stephano says of a misdeed of Caliban's, "There is not only disgrace and dishonour in that.....but an infinite loss."

The doctor in Shakespeare's plays is placed favourably before the audience. Jokes at the expense of medical men teem in French and English comedies of a later age. Molière was right in condemning the medical education of his time, and in reminding us that patients want to be cured.[2] Thirst for fees is never made an attribute of the doctor in Shakespeare's plays. Macbeth's physician alludes to profit, but in respect to a shady patient, and when fearing personal danger. "Were I from Dunsinane away and clear, profit again should hardly draw me here." In the generation after Shakespeare, according to the researches of the late Dr. Creswell Rich of Liverpool, there were those who considered that whilst, of course, we must practise, we are no longer "doctors" when we cure for money. A medical bard of the days of the Commonwealth embodied this idea in a clever rhyme:[3]

> *Doctors* or *Teachers* they of *Physick* are
> (Whether by Pen they do it or in Chair
> With lively Voyce), that teach the way to know
> *Man's Nature, Health* and *Sickness*, and do show
> *Diseases, Cause* and *Cure*. But they who spend
> Their Life in *Visits* and whose Labors end
> In taking *Fees* and giving Paper-scrowls
> FACTORS of Physick are; and none but *Owls*
> Do count such *Doctors* that *no Latin* know
> From which that Name did to our Language flow.

This epigram appears at the end of the preface in a copy of Riverius's *Practice of Physick*, and is signed "W. R. Doctor, and Factor of Physick, from my study at Montpelier, July 1st, 1653." Most of us in these days are like this forgotten Dr. W. R., and the distinction which he applies to himself is quite reasonable and inoffensive.

I cannot avoid dwelling awhile on the two noble doctors in *Macbeth* and *King Lear*, though many have already spoken of them in medical addresses. One delivers a speech among the most beautiful in the bard's plays, and that is saying a good deal.

For some reason Lear's medical attendant is styled a "phy-

*The quotations throughout this address are taken from Dyce's Text.

sician," Macbeth's "a doctor of physic." Lear's is made the more successful of the two. Of course there is no question of history in *King Lear*. In the days of British kings there was no such thing as a King of France, and absolutely no political homologue to a Duke of Burgundy. Nor did Shakespeare create this physician to typify the medicine man of ancient Celtic Europe. Such a task was beyond his knowledge and power even if suited for dramatic treatment. Shakespeare clearly makes Lear's physician like to a doctor of his own times. It seems to me that the reason why Lear's doctor is made better than Macbeth's is purely dramatic, and not a direct way, independent of the plot, of demonstrating that one doctor of repute may be more skilled than another in closing the eye of anguish and ministering to a mind diseased. Shakespeare felt that we want to see the deeply-wronged Lear kindly treated, whilst dramatic morality demands that Macbeth's doctor should remind the usurper that our profession cannot cure guilty consciences.

Cordelia consults the physician about her sire's delirium:

> What can man's wisdom
> In the restoring his bereaved sense?
> He that helps him take all my outward worth.

She did not run her court physician on club principles. He was worthy of his hire in her generous opinion. His reply is a fine speech:

> There is means, Madam:
> Our foster-nurse of Nature is repose,
> The which he lacks; that to provoke in him,
> Are many simples operative, whose power
> Will close the eye of anguish.

Like one of our past Presidents, Mr. Knowsley Thornton, he believed in narcotics in treatment. Though medicinal herbs were called "simples," the mixtures made up from them were highly complicated. Still less can we apply such a term to the narcotics and hypnotics of to-day. I have closed the eye of anguish with diethyl-sulfone-methyl-ethyl-methane, and find it sometimes superior to dimethyl-methane-diethyl-sulphone. Trional and sulphonal certainly sound better. A more serious matter in respect to the very unsimple nature of modern chemical compounds is that multiplicity of synonyms just indicated. We hear of inquiries as to trying the effects of a little analgesine or even some phenazone on a patient who cannot tolerate antipyrin.

Lear's physician gets his patient to sleep. Afterwards, he wakes the King so that the old man may see that his beloved, misunderstood daughter is tending him. The doctor prescribes music, preferring it apparently to brandy and milk, or a new patent food. Anyhow, the rest has restored Lear's faculties. "I am a very foolish fond old man, four score and upward, not an hour more nor less," says the King. The doctor has succeeded.

Macbeth's medical adviser has a patient who has incited her husband to murder his guest. She is supposed to be sinking, just like "the grand conspirator, Abbot of Westminster" in *Richard the Second*, from "clog of conscience and sour melancholy." The doctor deliberately tells Macbeth that his wife is "not so sick.....as she is troubled with thick-coming fancies, that keep her from her rest." The usurper replies, "Cure her of that," and makes a well-known speech. Several purely medical critics consider that the doctor is meant to show want of tact when he says "Therein the patient must minister to himself." I believe, however, that a purely dramatic and moral idea runs through this consultation. There must be no help for the wicked—nothing but care, ruin, and death for the guilty couple. Just as the doctor, among other characters, must comfort Lear, who deserved to be comforted, so he must fail to comfort Macbeth and his wife, who had forfeited the sympathies of humanity. From our point of view no doubt the doctor was unwise in saying that "therein the patient must minister to himself." Such a remark offends people, and it is natural that Macbeth should reply, "Throw physic to the dogs!" We know how a patient ministers to himself, in respect to so material an act as making his own poultice. But I believe that this was not Shakespeare's idea. He meant that the doctor, like the usurper's officers and men, could not ward off the pangs of conscience and the coming ruin of the King and Queen. The apparently tactless remark was meant to be conscience speaking through the doctor's mouth, and conscience is not supposed to possess the tact of a Court physician.

Later remarks of Macbeth to his physician simply imply desperation. If he could cure Scotland by physic, the usurper would applaud him to the very echo that should applaud again. But Macbeth was not criticising physic; he knew that his country could only be cured by being purged of himself, its real disease.

Let us mark that Timon of Athens, another desperate man abuses doctors when he says to the thieves:

> Yet thanks I must you con,
> That you are thieves profess'd; that you work not
> In holier shapes: for there is boundless theft
> In limited professions.....
> ..... Trust not the physician;
> His antidotes are poison, and he slays
> More than you rob.

No reader of Shakespeare thinks that our profession is here attacked. The passage is meant to show the blindness of judgment bred by disappointment. The use of the doctor for dramatic purposes is evident here and nearly, though not quite, as evident in *Macbeth*. In neither is there any satire directed against medicine.

There is also an English doctor in *Macbeth*. In a passage which always puts me in mind of our clinical evenings he relates to the Scottish exiles how Edward the Confessor cures the "king's evil:"

> There are a crew of wretched souls
> That stay his cure: their malady convinces
> The great assay of art; but, at his touch
> Such sanctity has heaven given his hand,
> They presently amend.

Prince Malcolm adds:

> ..... Strangely-visited people,
> All swoln and ulcerous, pitiful to the eye,
> The mere despair of surgery, he cures.

Here the Bard is really glorifying Edward the Confessor, the last Englishmen by family who ever sat on the throne. Then follows a remark which simply means that the rulers of England in Shakespeare's time clearly had sanction from Heaven as well as from earth:

> ..... Tis spoken,
> To the succeeding royalty he leaves
> The healing benediction.

The doctor is made a prophet to play up to the loyalty of an audience already loyal to "Eliza and our James," and to make those sovereigns figure as Heaven-sent successors to a national hero whose memory was deeply revered.

Shakespeare never meant to hold up this English doctor to ridicule because he admitted that scrofula was the mere (complete) despair of surgery. It remained so till very recent days, and some of its forms still "convince the great assay of art." Cancer and certain other diseases still defy us. Let us study them all the more earnestly. Like the watchman in *Romeo and Juliet*, "we see the ground whereon these woes do lie; but the true ground of all these piteous woes we cannot without circumstance descry." We much watch hard cases, and the Medical Society does so. "Strangely visited people .....pitiful to the eye," are what we collect for our clinical evenings. Our aim is that they should be no longer pitiful to the eye, and that their visitation should not remain strange, but be made easy to understand and overcome. Do we succeed? We can say, Yes! Let us look at the records of the Society twenty years ago. Cases were written about which nobody would bring forward now, for we all understand much more about them. Sufficient information is to be found in our textbooks.

Cornelius, the physician in *Cymbeline*, is placed in an entirely favourable light. But just as the Bard did not create the two doctors in *Macbeth* in order to satirise medicine, so he did not mean Cornelius to glorify our profession. The character is part of the dramatic machinery devised to protect Imogen against her enemies. Dr. Butts, an historical personage, is not represented in his professional capacity in *Henry VIII.* Dr. Caius is held up to ridicule, but as a comic foreigner, an elderly wooer, not as a doctor.

In *All's Well that Ends Well* the court physicians fail to cure the King of France's thoracic fistula, but the plot turns on the success of the heroine who uses a remedy introduced by a deceased doctor—her own father. It would be interesting to know how the fistula was closed. Helen's "receipt" seemed, according to Boccacio, to be purely herbal (*polvere di certe erbe*

utile a quella infermità),[4] so that there was no drainage, still less excision of a rib. In the original story we are distinctly told that the fistula (*fistola*) was thoracic (*ne petto*).

Shakespeare's attitude to surgery now claims our attention. The surgeon held a very low social position in the sixteenth century. He is sent for in *Romeo and Juliet* and in *Othello*. In *Twelfth Night* Sir Toby Belch says: "Sot, did'st see Dick surgeon, sot?" Nowhere is the surgeon exalted, yet there are numerous allusions to surgery, and much of the general wisdom in Shakespeare's plays especially applies to surgery. Often is the surgeon, like the captive Richard II, a sworn brother to grim necessity. We must be prompt when surgical interference is clearly indicated. "Our doubts are traitors, and make us lose the good we oft might win by fearing to attempt," as Lucio says in *Measure for Measure*. "Present" or immediate surgical assistance must often be administered, like "present medicine" in King John's case, "or overthrow incurable ensues." Like Richard III, we have heard that "fearful (that is, timid) commenting is leaden servitor to dull delay," which is dangerous when we have hæmorrhage or strangulated hernia to deal with. On the other hand, the surgeon must not trust too much in novelties. They soon come to his hearing, as in the case of Richard II; for York asks John of Gaunt: "Where doth the world thrust forth a vanity (so it be new, there's no respect how vile) that is not quickly buzz'd into his ears?" Too many novelties prove to be devoid of the merit of originality. What seems new is too often assumed to be new without scrutiny, so deeply does any apparent innovation fascinate us. "All, with one consent," says Ulysses, "praise new born gawds, though they are made and moulded of things past."

We must not forget that the fame of a surgeon may sanction a novelty on insufficient grounds. An able operator is naturally admired. His followers imitate him in the operating theatre, where he is probably their superior. They usually go a step further and support his practical work on the ground of scientific theories which have never entered his head. He is in the position of Antonio and Sebastian in the *Tempest*, when they say, in respect to their conspiracy:

> For all the rest,
> They'll take suggestion as a cat laps milk,
> They'll tell the clock to any business that
> We say befits the hour.

Hence, when the "business" is the drying of the peritoneum with sponges, his disciples find that sponging is the best means of avoiding sepsis. When the drainage tube is said by the great operator to "befit the hour," forthwith that appliance is found, on scientific evidence, to be an absolute necessity as a guard against deadly germs. Then comes a gentleman who practises flushing of the peritoneum with saline solution. At once experimenters demonstrate that the drainage tube is a dangerous conveyor of sepsis, and that it is the bounden duty of every surgeon to reject it and adopt the new practice. Those who will not take suggestion as a cat laps milk are "but as the cuckoo is in June, heard, not regarded," as Henry IV said when he scolded his son.

A surgical Ulysses is justified in being shy about enthusiasm for new operations, especially when he knows that the knife can be dispensed with. He rightly condemns those who "tax our policy and call it cowardice; count wisdom as no member of the war; forestall prescience and esteem no act but that of hand." Novel operative measures as reported too often lack after-histories. "Striving to better, oft we mar what's well," says Albany; and when his wife protests, he adds, "Well, well, the event!" In Goneril's case "the event" or after-history was disastrous, but Shakespeare did not omit to include it in his report.

In the recognised fields of operative surgery, however, we cannot have too much courage, experience, and practice. Surgical cowardice is far worse than over-zeal for surgical innovations. While we must not let our surgical instincts induce our reason to argue in favour of operating when we are not sure that the case may not do without it, we at the same time must never allow timidity to urge us to refrain from the knife when we know that it offers the patient the best chance of recovery. We must be specially brave and conscientious in this respect when the case is specially dangerous, otherwise a fatal termination, should we decline to operate, may be a greater opprobrium than death following an operation which we know to be our duty. As Greig Smith most righteously taught, we must try to save other people's lives even if we ruin our own statistics, otherwise those statistics will come under Touchstone's "lie circumstantial." "Of all the wonders that I yet have heard, it seems to me most strange that men should fear," said Cæsar. This certainly should apply to operating. Custom will make it in us a property of easiness, till we become less and less like the gravedigger in *Hamlet*, to whom Horatio applied this expression.

These observations on surgery refer to the surgeon in abstract. They demonstrate sources of error ineradicable from human nature. There can be no individual surgeon of experience who has never placed in a new operation or in the teaching of others confidence which has proved to be ill-founded, and who has never wished that an operation which he has been obliged to perform under desperate circumstances had not fallen to his lot. "Who calls out on pride that can therein tax any private party?" says Jacques. As with satires on pride, so it is with criticism on the inherent weaknesses of man as a surgeon. Such criticism "taxes," that is to say condemns, no "private party," no individual surgeon. It concerns us all, and so we must never cease to strive alike against the abuse of our zeal and the promptings of our fear.

Let us turn now to our library. Prospero said, "My library was dukedom large enough," and certainly Dr. Allchin, our retiring Librarian, has ruled his duchy well. Like Shakespeare, we do not rely too much on books. Iago complains that Cassio only knows the bookish theoric, mere prattle without practice. Biron, in *Love's Labour's Lost*, carefully distinguishes between study and books:

> Study is like the heaven's glorious sun,
> That will not be deep search'd with saucy looks;
> Small have continual plodders ever won,
> Save base authority from others' books.

We certainly all agree with Biron. Compared with personal observation—

> Other slow arts entirely keep the brain;
> And therefore, finding barren practisers,
> Scarce show a harvest of their heavy toil.

We go further than Biron meant, we study men as well as women. Our fellow-creatures are the books, the arts, the *academes* that show, contain, and nourish all the world. We also investigate morbid structures and *post-mortem* appearances. As Northumberland says on hearing the rumour of Bolingbroke's return, "Even through the hollow eyes of death I spy life peering," an expression which recalls to our minds "*nec silet mors*," the beautiful motto of a sister society, the Pathological. Books are a means, not an end. Yet means are wanted and we have a fine stock. A good clinical report is like a good picture, "it tutors Nature; artificial strife lives in these touches, livelier than life," as the poet in *Timon of Athens* remarks. A certain amount of experience renders authorship almost a duty. "The fire i' the flint shows not till it be struck," and the experience of an earnest worker may never show beyond the limits of his practice or his hospital till it is committed to paper.

This duty of making public all useful medical knowledge leads us to think of the most prominent features of our Society, our papers, and our discussions. We all feel as Ulysses did when he upbraided Achilles for not coming to the meetings of the Grecian heroes, where the discussions, we must admit, were of more general interest than ours:

> No man is the lord of anything
> (Though in and of him there be much consisting)
> Till he communicate his parts to others;
> Nor doth he of himself know them for aught
> Till he behold them form'd in the applause
> Where they're extended.

Most assuredly no man can feel that his knowledge and experience are of any definite value for the relief of disease or for the advancement of science until he communicates them to others, as he can do at our meetings, and sees what reception or "applause" is accorded to them here where they are made public or "extended." Good papers are based on observation and experience, "set in a notebook, learn'd and conn'd by rote," like Cassius's faults or a neurotic patient's account of his own symptoms. As Antonio says in *The Two Gentlemen of Verona* (one of whom was not a gentleman), "Experience is

by industry achieved and perfected by the swift course of time." Once that experience is gained, the writing of a paper becomes easy, for we write best about what we know best, and therefore like best. "No profit grows where is no pleasure ta'en," says Tranio in *The Taming of the Shrew*, and "to business that we love we rise betime and go to't with delight," like Mark Antony. The great advantage of a society like ours is, as I have already observed, that it obliges us to confine our observations to matters about which we have some knowledge and experience. Never, I trust, do we forget that we should all listen a great deal more than we speak and write, so that we may profit by the collective knowledge and experience of the multitude of counsellors in the Society. Like Gloster, our younger colleagues must not be easily won to our requests for papers. Nevertheless they too should communicate their parts to others after they have learnt here how to do it. Parolles in *All's Well that Ends Well* says to Helena when she defends spinsterhood, that to speak on the part of single life "is to accuse your mothers, which is most infallible disobedience." On the same principle, for our junior brethren to speak in favour of abstention from papers, and to defer indefinitely their maiden speeches is to accuse their elders, which we cannot but think "most infallible disobedience." Of a junior amongst us we may say, as was said of Proteus's proposed travels, that it "would be great impeachment to his age in having"—read no papers—"in his youth."

A good paper cannot always be free from justifiable criticism, which none the less may offend those of an opposite opinion. Yet Goneril spoke truth when she said, "All's not offence that indiscretion finds and dotage terms so." We all, even if still young, tend to dote on our own conclusions and theories, and never like to find them supplanted, but they must in their turn give way to others, just as they once supplanted earlier teaching. Even an apologetic sentence to this effect, in a new paper, only irritates us, just as the King deeply offended Hamlet by reminding him that if he had lost his father, "that father lost, lost his." As Mephistopheles says to the medical student in Goethe's *Faust:*

> Grau, theurer Freund, ist alle Theorie
> Und grün des Lebens goldner Baum.

In truth every theory is born old and grey, and life is ever young and green. Let us not think that our own theories are immortal, but let us rather imitate the modesty of Dr. Samuel West, who concluded his third Lettsomian Lecture with the following words: "On a subject so full of difficult and contentious questions I cannot expect that my views will commend themselves to all. Yet defined opinions challenge criticism, and criticism tends to advance knowledge."[6] We all know how well Dr. West, like Buckingham, left nothing fitting for his purpose untouched or slightly handled in debate.

In reference to another, our *Transactions* show that we always "speak brotherly of him," not in the spirit of Oliver who wanted his brother Orlando's neck to be broken. The truth we speak never seems to lack gentleness, nor time to speak it in; in short, we are more polite than my Lord Sebastian. Nevertheless, we may chide away a friend by opening his eyes to an error, just as Prince Arthur chid away a friend when, on the contrary, his eyes were in danger of being put out.

Closely associated, both in a literary and a scientific sense, with the preparation of papers is the question how far we can rely on foreign authorities. We can understand our own teachers, and we know how much weight can be attached to the opinion of a living British authority as we can easily become acquainted with the man, we can judge of him by his appointments, and he communicates his ideas in our own tongue. The same is not the case with the author of a foreign monograph or clinical sketch, the value of which it is important to estimate before we quote it. Foreign opinions should never be taken from a translation in abstract. We must translate the original, or induce a friend who knows the language to translate it for us. In short, owing to the excellent work done abroad "the tongues," as Shakespeare would say, are indispensable. Don Pedro, in *Much Ado About Nothing*, assures Beatrice that Benedick "hath the tongues," an accomplishment socially advantageous to a Renaissance gallant, but a necessity to us who write papers for the Society. Our last volume shows that we own our indebtedness to the foreigner. It is indeed meet that we should do so. The Fellows of our Society are not in the habit of quoting without acknowledgment. Let us remember a significant scene in *The Two Gentlemen of Verona*. Valentine enters a forest "on the frontiers of Mantua," where "certain outlaws" make him stand and deliver. He expresses a desire to join their band. One outlaw says, "Have you the tongues?" Valentine's reply being in the affirmative, another robber exclaims enthusiastically, "This fellow were a king for our wild faction." We know only too well that "certain outlaws" of literature, known as plagiarists, make free use of foreign authors without being too ready to acknowledge them. But I do not think that any Fellows of our Society belong to that "wild faction."

There is another advantage in a Society like the Medical. It teaches us command and management. We have a President and Council to govern us, for

> The heavens themselves, the planets and this centre,
> Observe degree, priority, and place,
> Insisture, course, proportion, season, form,
> Office and custom, in all line of order.

"What with our council we have done," as Richard II says, we all know.

Sometimes a specially distinguished gentleman obliges us by ascending our rostrum. This session was thus favoured by Sir William Broadbent.[7] We may assure him, as the Lords assured the King of France in *All's Well that Ends Well* that "our hearts receive your warnings." But Gloster's heart in *King Lear* conducted itself ill in the face of difficulties.

> His flaw'd heart—
> Alack! took weak the conflict to support!—
> Twixt two extremes of passion—joy and grief
> Burst smilingly.

Yet Loison's recent statistics of wounds of the heart[8] show that in prose, if not in poetry, that organ stands a great deal, and will even allow needles to be thrust into it and then pulled out by the surgeon. Herein Fortune, as Antonio would say, shows herself more kind than is her custom.

In conclusion, if we ever feel momentary doubts about the real value of our Society, and if others ask what "good" is to be got out of papers and discussions, it must be remembered that such a sentiment is unwholesome and akin to the thought that all medical research and progress is an illusion. It is a sentiment pardonable in Macbeth and Timon of Athens when driven to desperation, but unworthy of sober-minded doctors. "Contempt," says Carlyle, "is a dangerous element to sport in; a deadly one if we habitually live in it." What though there seem but little in any one paper or discussion, what if even the new method for healing the sick which it advocates should prove less satisfactory on further trial than its author expected? What if a weighty scientific monograph show but little, considering the time and labour spent on its preparation? The same objection applies to the clinical and surgical labour and to the microscopic and laboratory work which these productions faithfully register. The same objection has been raised in regard to all great efforts. As Agamemnon says:

> The ample proposition that hope makes
> In all designs begun on earth below
> Fails in the promised largeness.....Why, then
> Do you with cheeks abash'd behold our works;
> And call them shames, which are, indeed, naught else
> But the protractive trials of great Jove
> To find persistive constancy in men?

"In the reproof of chance," adds Nestor, "lies the true proof of men." "Wise men," says Queen Margaret of Lancaster, "ne'er sit and wail their loss, but cheerly seek how to redress their harms." If a colleague can show us better results and demonstrate any scientific error we have made, let us thank him and cheerily seek the sources of the fallacies which have misled us. Then it shall go hard, as Shylock would say, but we will better the instruction.

After all, I am sure that it is seldom that we feel doubts about the value of our work. Papers and discussions make us articulate, as Carlyle would say, our yet more important researches so beneficial to science and humanity. Matters of detail may seem tedious, but "most poor matters point to rich ends," as Ferdinand in the *Tempest* was bound to admit. We feel, when labouring for our liege lady Medicine, as he felt

when working for his Miranda. For my own part, "the mistress which I serve quickens what's dead, and makes my labours pleasures."

We who make up the Medical Society are members of an essentially active profession, and while we remain in our prime let us do our best here actively. For age, like infancy, is mostly passive, or, as Edgar reminds us in *King Lear:*

> Men must endure
> Their going hence, even as their coming hither;
> Ripeness is all.

NOTES AND REFERENCES.

[1] *Diary of the Rev. John Ward, A.M., Vicar of Stratford-on-Avon*, extending from 1648 to 1679. The Society's Library possesses a copy of the same, printed and published by Colbourn of Great Marlborough Street in 1839 (long out of print). Mr. Sidney Lee's valuable work, just published, throws much light on Shakespeare's later associations with Stratford. [2] "Ce qu'il y a de fâcheux auprès des grands, c'est que, quand ils viennent à être malades, ils veulent absolument que leurs médecins les guérissent," *Le Malade Imaginaire*, Act ii, Scene 6. [3] BRITISH MEDICAL JOURNAL, vol. ii, 1883, p. 1103. Arthur Creswell Rich, M.B.Lond., died in May, 1888, and an obituary notice will be found in the JOURNAL, vol. i, 1888, p. 1091. I do not know what has become of the copy of Riverius's book which contains this remarkable epigram. I suspect that Dr. Rich modified the spelling, which (except "voyce" for "voice") seems too modern for 1653. Dr. Rich was for several years special Liverpool correspondent to the JOURNAL. [4] Boccaccio, *Decameron*, giorn. iii, Nov. 9, Martinelli's edition, 1762. [5] Boccaccio, *loc. cit.* Dr. Bucknill, in *The Medical Knowledge of Shakespeare*, quotes the passage, which shows that the Italian author spoke of a thoracic fistula. Dr. Moyes (*Medicine and Kindred Arts in the Plays of Shakespeare*) traces Shakespeare's version to an intermediate tale by Painter, where it is distinctly stated that "the French king had a swelling *on his breast*, which by reason of ill-cure was grown to be a *fistula*." I have added above Boccaccio's specification that the receipt was a powder of certain herbs. From what I can make out, the King was probably the Dauphin Charles, who was a youth of 16 in 1353 when the *Decameron* was published. When a child he had a long illness and an abscess discharged under his arm. I find that his chronicler, Christine de Pisan, states that Charles remained sickly and subject to feverish attacks all his life. All sorts of nostrums were tried, it appears. In 1380, when he was Charles V of France, the fistula ceased to discharge and he died within a fortnight. Boccaccio may refer to an earlier case, but there was probably much talk when he wrote the story about the Dauphin's illness, so that he chose thoracic fistula as the particular disease which Helena managed to cure. [6] BRITISH MEDICAL JOURNAL, March 11th, 1899, p. 583. [7] "The Conduct of the Heart in the Face of Difficulties," BRITISH MEDICAL JOURNAL, January 14th, 1899, p. 85. [7] "Des Blessures du Péricarde et du Cœur" *Revue de Chirurgie*, January 10th and February 10th, 1899.

A SERIES OF CASES OF ARTHROTOMY FOR THE RELIEF OF PAIN, AND FOR REMOVAL OF SYNOVIAL FRINGES, LOOSE BODIES, AND FIBRO-CARTILAGES.

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I PROPOSE first to describe briefly several cases in which incisions were made into the wrist joint for the relief of pain, and with the ulterior hope that the progress of the disease might be arrested. My attention was first directed to arthrotomy for the relief of pain by the following case:

A woman had arthritis of the left wrist-joint. The disease had lasted for at least two months, and was accompanied with extreme pain. The cause of the arthritis had never been exactly ascertained, but my own belief is that it was due to some pyæmic infection. When the patient came under my observation she was very ill and had to keep her bed. Her temperature was raised at night, and her sleep bad on account of the pain. The wrist-joint had been kept completely at rest, but with no good result. It is clear that the wrist-joint was acutely inflamed, with considerable effusion into it. The muscles of the forearm and of the hand were wasted. The slightest pressure on the front, back, or sides of the joint caused exquisite pain. I thought at the time that in all probability the fluid was purulent, and I advised that an incision should be made to let it out, with subsequent irrigation and drainage. This was done in my presence. As far as we could judge, about 3 teaspoonfuls of fluid ran out. This was not purulent, but consisted of turbid synovial fluid. The synovial membrane was very much swollen and inflamed, but the articular cartilages were intact. The joint was washed out with antiseptic lotion and an indiarubber drainage tube inserted, and a dressing and splint applied. I was greatly struck by the way in which the pain was immediately relieved. Hardly any complaint was made after the operation. Within a week the drainage tube was removed, in another fortnight or less the wound was healed, and shortly afterwards passive movements were begun. When last I saw this patient—about three months after the operation—her wrist-joint had almost recovered, and she could use her hand at meals and in dressing herself.

The next case was a patient under my care at the Great Northern Central Hospital.

A married woman, aged 35, who was seven months pregnant, had had for three weeks an acute arthritis of the left wrist, with a high temperature at night attended with extreme pain. There was slight grating when the joint was moved, particularly towards the ulnar side. As the pain seemed intolerable and was not relieved by opiates, I thought it best, in spite of the pregnancy, to perform arthrotomy. On September 21st, 1894, under an anæsthetic, a vertical incision 2½ inches long, was made into the dorsum of the joint, passing betwixt the extensor tendons. The joint contained hardly any fluid, but the little which ran out contained minute flakes of lymph. The cartilages were intact. The joint was washed out with perchloride of mercury lotion, 1 in 2,000, a drainage tube was inserted, and a dressing of iodoform gauze and a splint was applied. On September 24th she said that the pain was quite relieved, the drainage tube was removed, and the wound shortly afterwards healed. At about the time of her confinement she disappeared from my observation, but she had ceased to wear a splint, and the joint seemed to be on the way to recovery.

In another case arthrotomy was performed for the relief of pain under the following circumstances:

A man, aged 30, jarred his left wrist-joint while striking a violent blow. Inflammation of the wrist-joint followed, which in spite of rest and most careful attention progressed. After several months the wrist-joint presented the usual features of tuberculous arthritis. This diagnosis was likewise suggested by the fact that he had had hæmoptysis, and there was dulness over the apex of the lung. The condition of the wrist seemed not quite hopeless, and a long period of rest afforded some prospect of cessation of the disease and the possibility of some amount of recovery. But it was clear, however, that the man was suffering intolerable pain. Therefore, encouraged by the result of other cases, I made a longitudinal incision about 2½ inches long into the dorsum of the wrist-joint. This allowed some starch-like fluid to escape. The synovial membrane was found to be inflamed and swollen. It seemed to me that the carpal bones had been prised apart by the inflamed synovial membrane. There was some erosion of the edges of the articular cartilages. Histological examination showed that the disease was tuberculous. A drainage tube was inserted and the wound sutured. This operation gave immediate relief from the pain, which never returned. The drainage tube was removed in 48 hours, and within 3 weeks the wound was healed. This operation was performed in the early part of 1896, and since that time the patient has been kept under observation.

On August 10th, 1896, his general health had improved. The wrist was painless, and the swelling of the synovial membrane had subsided until some of the bony points could be felt. The joint was rigid, however, and there was considerable wasting of the muscles of the forearm, but he was beginning to regain the use of his fingers, and was wearing a leather splint.

In November, 1896, the joint was quite painless although there was still considerable swelling, which felt exceedingly hard. It seemed evident that the progress of the disease had been arrested, and the joint promised to become firmly ankylosed.

Two years after the operation no alteration had taken place in the joint, which was perfectly quiet. The movements of the fingers, although much improved, were still far from perfect. However, there was no reason to be dissatisfied with the result when one considers that either amputation of the forearm or total excision of the wrist-joint had at one time seemed to be impending.

This case seems to me to furnish some clue to the intolerable pain which attends arthritis of the wrist-joint. The various small bones which enter into the formation of this joint are closely held together by dorsal, palmar, and interosseous ligaments. There is no loose capsule, so that any inflammatory effusion within the joint must soon acquire considerable pressure. Moreover, the inflamed synovial membrane may easily be squeezed between the bones, which are with difficulty thrust apart. Doubtless these are factors in producing the intolerable pain which is caused by even a small effusion of fluid, and which the patient feels when the radius and ulna or the carpal bones are squeezed together.

Arthrotomy was also performed for the relief of pain under the following circumstances:

A middle-aged woman, who appeared to enjoy excellent health and was thin and active, had suffered for four years from a severe pain in the right wrist-joint. Of late this had prevented her writing and earning her living. On examination, it was found that the pain was worse during pronation and supination, and was very acute when the lower ends of the radius and ulna were squeezed together. This pointed to disease of the inferior radio-ulnar articulation, which was confirmed by the slight swelling over the back of the head of the ulna, in the exact position of the membrana sacciformis. Pressure at this point was acutely painful, and, moreover, the inferior radio-ulnar and the other carpal joints moved freely without pain. For four years all kinds of treatment had been tried, and it was clear that something radical would have to be done to relieve the pain, if not to cure the disease. A longitudinal incision was therefore made over the back of the radio-ulnar joint, and the posterior radio-ulnar ligament was divided and the membrana sacciformis opened. A little turbid synovial fluid escaped. The synovial membrane was inflamed, thickened, and probably tuberculous. The margins of the articular cartilage of the head of the ulna were slightly eroded. I removed the head of the ulna because it seemed clear that osteitis was in progress. All the thickened synovial membrane was excised. The triangular fibro-cartilage was not interfered with, and the rest of the wrist-joint was left intact. The incision was closed without drainage. The pain ceased after the operation. The wound healed by first intention, and she was shortly afterwards able to write and to resume her occupation. The operation was performed in December, 1895; in January, 1897, she was quite well and entirely free from pain. In April, 1897, she complained, but only for a very short time, of a pain in the joint of the pisiform bone.

This comprises all the cases that I have had in which

arthrotomy has been performed purely for the relief of pain. I need not say that on very many occasions I have had to perform arthrotomy in cases of acute septic arthritis in which pain has been present, but obviously under these circumstances the operation is not performed for the relief of the pain, but to give exit to septic or purulent fluid.

ARTHROTOMY WITH REMOVAL OF INFLAMED AND ELONGATED SYNOVIAL FRINGES.

I now propose to refer to quite a different type of disease affecting the knee-joint:

A married woman, aged 30, came under my care on account of her left knee-joint. For about six years she had had repeated attacks of synovitis, which occurred whenever she walked for a mile or two, or when any unusual effort was made with the limb. Of late the swelling and inflammation of the joint had been almost continuous, but was said to have subsided during a period of absolute rest. When I saw her she was lying in bed with the knee-joint completely extended. There was very little wasting of the muscles of the calf or thigh. The temperature of the joint was slightly raised. It contained fluid, and swollen synovial fringes could be felt, especially around the lower end of the femur. Although no loose body had been discovered in the joint, nevertheless as she was unable to perform her household duties, and threatened to become a chronic invalid, it seemed reasonable to explore it, and endeavour to ascertain the cause of the repeated attacks of synovitis. It was opened by an incision down the outer side of the patella and ligamentum patellæ. No loose body could be found in any part, although all the pouches both above the patella and in the regions of the condyles were thoroughly searched. The joint contained about half an ounce of synovial fluid, and all the synovial fringes, especially along the edge of the ligamenta mucosa and alaria, were inflamed, swollen, and greatly elongated, many to at least five or six times the usual size. The rest of the synovial membrane was inflamed, but not markedly thickened. The cartilages were healthy, except at the edges, where in places they were slightly thickened, which may have been the commencement of the formation of osteophytes. The cartilage had been slightly absorbed where the fringes of the ligamenta alaria had been in contact with it. I proceeded to systematically remove all the enlarged synovial fringes by seizing them with forceps and cutting them off with a pair of curved scissors. The incision allowed this to be done properly throughout the outer half of the joint, but to get at the inner the ligamentum patellæ was divided. The whole of this proceeding was attended with very little hæmorrhage, and such as there was was readily staunched with a little hot lotion. The ligamentum patellæ was united with five or six buried sutures of stout silkworm gut. The incision into the joint was then closed in the usual manner, and an indiarubber drainage tube was inserted, and a dressing applied. The limb was placed upon a Macintyre splint. On the night of the operation some pain was complained of, but not afterwards. The drainage tube, which was put in to give exit to blood and synovial effusion, was removed at the end of forty-eight hours, and the wound healed by first intention. The operation was performed on August 15th, 1898. I saw the patient again in May, 1899. She was then able to walk about, and to perform her household duties. She said the knee was better than it had been for years. The movements were good and painless. The ligamentum patellæ had united. The joint contained no fluid, but I thought that the synovial membrane was still a little swollen.

I wish to make two remarks upon this case. First, it is to be greatly regretted that the fringes were not submitted to proper histological examination. I requested that one should be made, but unfortunately they were destroyed in error. Little is known about the pathology of this so-called villous synovitis. I came to the conclusion, however, that the disease was not tuberculous, and not at all like osteo-arthritis. Secondly, as regards the way in which the joint was opened; the transverse incision through the ligamentum patellæ did not give a good exposure of the whole interior of the joint, and afterwards I found that the ligamentum patellæ was not very easy to suture. Its fibres tear apart, and permit the sutures to draw, and it is not very easy to get the cut surfaces into exact apposition. On the whole, I am inclined to think that it would have been better to have sawn through the patella. Arthrotomy was also performed for the removal of a synovial fringe under the following circumstances, although an exact diagnosis was not made, but something could be felt projecting at the inner side of the ligamentum patellæ.

The patient, a girl aged 17, three months before had sustained an injury to her right knee whilst trying to get upon a horse. Since then the joint had suddenly given way on several occasions, and this had been followed by effusion, and some discoloration of the skin, which suggested extravasation of blood. The projection at inner side of the ligamentum patellæ was exceedingly tender and to my mind was rather more painful than a displaced semilunar cartilage. When the joint was opened it was found to be a part of the internal alar ligament, much thickened and elongated, and cartilaginous-looking at its edge. It had to be pulled from betwixt the condyle of the femur and the tibia, and there seemed little doubt but that it was the cause of the trouble. This fringe was cut off with a pair of scissors, and the slight bleeding was easily arrested without the use of any ligatures. The joint was closed in the usual way. A speedy recovery ensued, but I have hitherto been unable to learn the ultimate result.

ARTHROTOMY IN CASES OF CHRONIC OSTEO-ARTHRITIS.

In cases of osteo-arthritis it not unfrequently happens that the synovial fringes detach themselves after having become laden with cartilage or bone. The usual results follow. The patient is apt to be suddenly thrown to the ground when a loose body slips between the articular surfaces and an attack of synovitis then ensues. Sometimes the pedicle of the enlarged fringe elongates so that it has a considerable range of movement and can sometimes intrude betwixt the articular surfaces and thus the same effects are produced as if the fringe had been actually loose. My earlier operations upon these cases of osteo-arthritis were performed with some degree of trepidation. It seemed reasonable to suppose that a good deal of stiffness might follow, especially as the operation necessitated a period of complete rest, and this foreboding was partially realised in one of the cases.

A lady, aged 70, who was under the care of my friend Dr. Malcolm, had advanced osteo-arthritis of her knees with considerable lipping of the cartilages, and in the right some loose bodies. Of late these had frequently got between the articular surfaces, and a few weeks before the operation she had been thrown down whilst walking downstairs: latterly she could not walk downstairs at all without the joint locking and an attack of synovitis resulting. An incision was made into the joint parallel to the edge of the patella, two loose bodies were extracted, and two others with long peduncles were cut off the femur and removed. The operation was performed on April 29th, 1896, and on May 7th the old lady was walking about without any catching or stiffness of the joint.

Another patient, who was under the care of Dr. Kisch, was also operated upon for the removal of pedunculated cartilaginous fringes due to osteo-arthritis. In this case a large pedunculated fatty growth of the synovial membrane was likewise taken away. Both knee-joints gave evidence of considerable osteo-arthritis. Enlargement of the fringes, lipping of the edges of the bone, and grating on movement were very marked. In addition loose bodies could be felt in the right knee and seemed to disappear under the patella, where they occasionally got nipped. In consequence the joint was very insecure and on several occasions it had given way in the midst of traffic, so that the lady had nearly been run over. An incision was made along the outer side of the right patella and two pedunculated cartilaginous fringes removed from the upper condyle of the femur. The pedicles were so long that they easily passed beneath the patella, and they could probably have passed between the tibia and the femur. The joint was thoroughly explored with the finger, no more cartilaginous bodies were discovered, but only the fatty growth in the outer recess of the suprapatellar pouch. The growth was removed with scissors. The operation was followed by little pain and only a slight attack of synovitis. Within a month she was walking about with exceedingly good movement in the joint and entire freedom from the giving way or insecurity.

On October 24th, 1896, I operated on an elderly man to find a loose body which could occasionally be felt, but it was so difficult to secure that for some days before the operation we were quite unable to find it. The knee-joint was opened by an oblique incision into the superior internal synovial pouch. At first the loose body could not be found, but was felt at last near the outer side of the external condyle. It slipped about with such facility that the finger chased it about the inside of the joint, where it kept catching in various pouches. However, the operation was followed with hardly any pain or discomfort, and by only a very slight attack of synovitis. The wound was dressed on November 8th, and was found to be healed. There was hardly any fluid in the joint, and in a very short time the patient returned to his work.

Whilst operating on this and other cases I have been rendered sceptical as to the truth of the statement which is often made that the knee-joint will contain more fluid when it is flexed that when it is extended. I myself have found it almost impossible to get my finger into the flexed knee because the extensors are so exceedingly tight. On the other hand, when the joint is extended it is quite easy to pass the finger around its interior, except of course behind the condyles. Moreover, when the knee is extended blood and fluid are apt to collect within it, but are easily squeezed out by forcibly flexing the joint.

The last case was one in which the operation of an osteo-arthritic joint was followed by stiffness.

The patient was a stout middle-aged woman with marked osteo-arthritis of both knees, especially of the left. The enlarged synovial fringes were easily felt. She gave the usual history of the left knee-joint suddenly giving way with a subsequent attack of synovitis. The pain was referred to the outer side of the patella, where a loose body could be felt. A longitudinal incision was made into the joint half an inch from the patella, and a loose cartilage three-quarters of an inch in diameter and one-third of an inch in thickness was removed. It was attached to the inner edge of the external semilunar fibro-cartilage by a long pedicle which had to be cut through. It is clear, however, that the joint contained many inflamed, elongated, and enlarged synovial fringes. The operation was done on October 28th, 1893, and the wound was dressed on November 6th, when, although the joint was perfectly quiet, and the upper part of the wound healed, nevertheless there was slight suppuration at the lower end of the wound. This necessitated a rather longer sojourn in bed and the limb to be kept longer upon the splint. However, the splint was removed and massage begun on November 24th, rather less than a month after the operation, and she went home on December 18th. She walked better than when she came in, and she had no pain. Nevertheless, there was a degree of stiffness in the joint, which, in my opinion, greatly detracted from the result. Of course it is most important to know when this is likely to occur before the operation is undertaken. Therefore it is not uninteresting to note the kind of joint I had to deal with. Before the operation the left knee was hot and measured one inch more in circum-

ference than the right. The left patella was irregular, and half an inch wider than the right. There was marked lipping of the femur and tibia. Movement was nearly painless except in extreme extension, which probably nipped the loose body. All movements were attended with much grating. Thus it is clear that this was a case of osteo-arthritis in which there was a very great tendency to the growth of osteophytes. I saw this patient some months after she had left the hospital. She walked about and did her household duties, but attempts to move the joint caused considerable pain. Unfortunately she possessed little fortitude, and had a decided repugnance to any form of treatment which caused the slightest pain. She was advised to have an anæsthetic and manipulation such as is usually applied to joints that are stiff from osteo-arthritis, but for domestic reasons she was unable to have this done.

Evidently operations are to be avoided in cases of osteo-arthritis of this description. Should an operation be required on account of derangement with subsequent effusion it might be better never to put the limb upon a splint and to commence movement at the earliest possible moment.

Arthrotomy for Excision of Internal Semilunar Fibro-Cartilage of the Knee.

I now propose to refer to some cases in which the knee-joint has been opened for removal of the internal semilunar fibro-cartilage for various derangements. The first has already been described.[1]

I had a message from the patient four years after the operation to tell me that he considered the knee-joint to be perfectly well. Unfortunately I have been unable to see him recently, but two years and a-half after the original operation he was under my care for another complaint, and with the exception of the scar the joint was normal; he stated that he never had to consider it, and that it was as good as the other. The semilunar fibro-cartilage had been displaced at football; afterwards it was wont to get displaced under all kinds of circumstances. No projection could be felt, but the internal semilunar fibro-cartilage seemed rather loose. When the joint was opened it was found that its anterior extremity had been broken away from its attachment in front of the spine of the tibia, and the outer edge torn from the tibia by rupture of the coronary ligament, so that its anterior end projected and moved about freely within the joint. This part of the fibro-cartilage looked crumpled up, and there was nothing to prevent it from becoming caught between the femur and tibia. All this detached portion was cut off with scissors, and the remaining part was sewn down to the upper end of the tibia with a strong twisted silk suture.

I have mentioned the case because the history is carried down to four years after the operation.

The following case has never been published before.

On April 19th, 1894, I opened the left knee-joint of a young gentleman under the following circumstances. Some months before, whilst in British Columbia, he noticed that something occasionally slipped within the joint, which became for the time locked and useless. This accident was followed by an attack of synovitis. He might have been content to endure his condition, but one day he was shot out of a canoe into the Fraser river, and as soon as he began to swim the knee-joint became locked, and he said that he was very nearly drowned. By flexing his knee and rotating it he could make a projection appear at its inner side. By continued flexion and by manipulation with the thumb this could be pushed back with a click. The knee-joint was opened on April 19th, 1894, with the usual longitudinal incision; the front part of the internal semilunar fibro-cartilage had been detached from the tibia, and projected between the condyles of the femur. It was seized with pressure forceps, dragged as far as possible out of the joint, and cut off with a pair of sharp-pointed curved scissors. As far as could be judged, at least the anterior two-thirds of the fibro-cartilage were excised. The joint was closed in the usual way with four or five fishing-gut sutures. It was dressed on April 26th, when the stitches were removed. This was followed by slight gaping of the skin incision, so that in all subsequent cases I have been rather more cautious in removing the sutures. I have never removed them before the eighth or tenth day, and then only taking out alternate sutures. However the wound rapidly healed without suppuration, and he was walking about within a month. In June he was dancing and riding, and in September he wrote to say that he considered himself quite cured. He returned to British Columbia, but came back in February, 1897, very nearly three years after the operation. With the exception of the scar the knee-joint was normal. He led a most active life, and stated that he considered the joint as good as the other, and quite perfect despite the absence of the fibro-cartilage.

I have since removed the internal semilunar fibro-cartilage in two other cases. In both of these it appeared as though a great elongation of the coronary ligament permitted it to slip forward, so that its thick posterior edge got betwixt the condyles of the femur and the tibia. One of these cases was unusual from the fact that the patient was a female in whom such derangements seem to be rare. However she followed the vocation of prison wardress, so that she was more exposed to violence than females usually are. She had attacks of locking and pain for many years: pressure upon the internal semilunar fibro-cartilage caused great pain. At the operation it was found to be exceedingly loose and displaced forward, so that its anterior two-thirds were cut away. I myself should have preferred to have removed the whole cartilage, but I cannot honestly say that I have quite succeeded in accomplishing this, and have not found out any way of dragging the whole of the posterior part away from the back of the tibia where it is attached. In this case the movements of the joint were not recovered quite as rapidly as usual, and full extension was painful for some weeks. I could not help thinking that the piece of cartilage which had been left behind might have had something to do with this. Under nitrous oxide gas the movements were quite free and perfect. On December 12th, 1898, she came to report herself. She had returned to her duties. She said her joint never slipped or locked, and the movements were perfect, and she walked without a limp. I have recently seen this patient. Although she can run downstairs, she says the joint "sticks half-way" if she walks down. It is, however, gradually improving.

I have recently operated upon a gentlemen whose internal fibro-cartilage was also displaced, with great elongation of the coronary ligaments. The operation was so recent that I am unable to give any account of the ultimate result.

Reference.
[1] *Clinical Society's Transactions*, vol. xxvii, 1894, p. 133.

ON LATERAL CURVATURE OF THE SPINE: ITS PREVENTION AND TREATMENT.

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III.

The two papers on this subject already published deal with four deviations of the pelvis, and with the means proper to correct them; some, though not a large, proportion of parents are astute enough to observe these conditions while still nascent, careful enough to forebode the possibility of resultant evil, and to seek advice that may enable them to prevent it. Many, on the contrary, do not notice the malpostures, or, if they do, regard them erroneously as simply harmless tricks which the child will "grow out of," and therefore they let matters go on till curvature more or less marked disturbs this ill-founded security. Thus it has fallen to my lot to have seen many cases in varying degrees of pelvic deviation (simply) of commencing and of advanced curve. These compared and contrasted with one another present several series of connected clinical observations showing the development from pelvic deviations of lumbar, total, and S-shaped curves. The relationships between the different forms of the former and of the latter is as follows:

1. *Permanent Pelvic Obliquity* produces primarily a lumbar curve, convex towards that side on which the pelvis is lowest—that is, towards the side of the shorter limb; the curve is commensurate with the degree of pelvic slope, and remains, if this be small, simply lumbar; if it be considerable, the curve encroaches pretty high into the dorsal region, even it may after a time develop into an S-curve, while strongly marked obliquity, such as is shown in Fig. 1 of my previous paper, is followed pretty quickly and certainly by that last-named form of curvature.

2. *Habitual Obliquity* does not produce more than a lumbar or a long and gradual total curve.[1] This depends not only on the fact that such obliquity is less severe than many cases of the permanent variety, but also on its greater inconstancy and variability.

3. Amesiality causes curvature in a direction contrary to the pelvic deviation—that is, pelvic amesiality to the right is accompanied by curvature to the left, and *vice versâ*, it is usually total *ab initio*. After a time, especially if the pelvic defect be strongly marked, this curve also assumes the S-form, but the change is delayed, although when it sets in it is rather rapid.

4. The curves produced by pelvic version are in a different category, and here I must correct and apologise for a blunder in the first paper of this series, which to me is unaccountable, unless it occurred in compressing while copying the second paragraph of that MS. The statement there is that version of the pelvis is followed by lumbar or total curve; it should of course have been double or S-shaped curve. The explanation of this fact, as corrected, is not far to seek. Version (let me assume it to be to the left) connotes twisting of the spine, that is, save for a compensating posture now to be described, of the whole figure which thus stands slantwise on the feet; but

no one, neither child nor adult, would long maintain such posture; if she do not either instinctively or by care for her appearance modify it, parents or other surroundings will correct her—that is, will cause her to put the upper part of figure square to her line of station. She effects this not by putting the pelvis straight, but by rotating the upper on the lower vertebræ. Thus it comes about that the lower part of the spine—that is the lumbar—is rotated to the left, the upper part to the right, and the curves of course follow the directions of the rotation. Hence curvatures due to pelvic version are not only more immediately S-shaped, but also more severe than other forms of curve. Moreover the difficulty of treatment and, up to the present, its frequent want of success, is due to the fact that hitherto this mode of pelvic deviation has not been recognised, and no measures have been employed save by myself, for its correction. This insuccess may be one of two kinds. The deformity may yield much too slowly and slightly to measures applied to the back alone; or it so far yields that both patient and surgeon, satisfied with the progress, deem that some relaxation of treatment may be allowed, probably too the patient stretches this permission to the utmost. Then when return to care takes place complete or almost complete recurrence of the malformity is found, simply because pelvic deviation, the source of the whole trouble, having been ignored, must from its very nature reproduce the evil it originally caused. Therefore, in now passing on to the treatment of spinal curvatures due to pelvic malpostures, it must of course be understood that they are always to be accompanied by those measures for rectifying pelvic deviations which are described in my last paper,[2] for it is manifestly impossible to straighten a column and to keep it straight while the physical conditions about its basis are such that balance can only be secured and maintained by curves or twists of the superimposed edifice.

I must, moreover, premise that unless the patient have come under treatment very soon after the commencement of curvature, certain spinal muscles and ligaments—that is to say, those in the concavity—will have become contractured, while those in the convexity are lengthened and in their action enfeebled. Hence cure is, even in somewhat slight cases, very much protracted, in severer cases impossible, unless the shortened structures be stretched by some external force, for they not only act as tie beams to the arch, but also as mechanical impediments to the action and remedial exercise of parts subtending the convexity. The quickest and to the patient the least irksome method of effecting this object is that which some years ago[3] I introduced under the name of "rachilysis." This, having been fully described elsewhere, need in this paper be only mentioned by name; and the same remark applies to other of my devices—namely, to the sloping seat, the lateral sling, the respiratory and certain other exercises. But of late years I have added some more potent, and in their application more specialised, measures, to be used in combination always with the measures for rectifying any coexisting pelvic deviations, as well as in some cases with the other devices, which are not abrogated but augmented by the following proposals.

The horizontal erector exercise is very potent in cases more especially of lumbar or of simple total curve. Its object is to again call into activity the muscles on the convex side—namely, according to our usual choice of example, the left—of the spine. Although in somewhat later stages their behaviour is by no means alike, yet the anatomical difference between lumbar and total curves implicates only a few dorsal vertebræ, the former never ending abruptly at the topmost bone of the loins, but involving also the three, sometimes even the four, lowest dorsal vertebræ; while the latter form encroaches further upward; the fifth dorsal being usually the most aberrant part of the column, the bones above forming the return limb of the curve. Whatever vertebræ are affected by the lateral deviation are also rotated; therefore, being pushed back by the retrocession of the transverse processes, the parts on the convex side—that is, to the left of the spinous processes—form a rounded protuberant ridge, which the observer must not be misled into mistaking for the bulge and projection of an acting muscle. On the contrary, the muscles on this convex side are weak and flaccid; therefore the surgeon's aim is to exercise and strengthen the left to the exclusion of the right erector spinæ, an object which is perfectly attained by the following device.

The patient is to lie on the end of a couch, or failing a convenient one, across a bed, so that the upper part of the figure projects beyond the edge of the mattress, upon which rest the



Fig. 7.—Left erector exercise.

two anterior superior iliac spines; in other words, that edge falls very little below the level of the umbilicus. In this position the patient supports her trunk more or less horizontally, by both hands resting on the floor. A cushion, thick according to the severity of the case, is placed under one side of the pelvis (according to our postulate on the left), an attendant putting her hand on the lower limbs about the neighbourhood of the calves, presses them down sufficiently to prevent overbalancing, and the patient lifts her hands from the floor, either clasping them behind her head or folding the arms across her chest; and taking care to keep her trunk approximately horizontal, maintains the position until some fatigue is felt, then replaces her hands on the floor, and repeats the manœuvre two or three times, according to her strength, length of back, etc. The cushion under the left side of the pelvis is absolutely essential; its value is this: if without it the patient goes through these manœuvres the muscles on both sides of the spine are called into equally strong action: but by raising the left innominate bone, and with it of necessity that side of the whole body, an extra proportion of the work, according to the thickness of the cushion, is relegated to the left erector spine. Anyone can convince himself of this by letting a youth of either sex go through the exercise barebacked, first without and then with a cushion, and noting the bilateral action of the erectors in the one, and the unilateral contraction in the other posture. Moreover, if he choose a subject with moderate curvature he will see that the exercise will completely straighten, or if the cushion be pretty thick, say 2½ or 3 inches when compressed by the body weight, will even reverse the curve, a point of great importance and advantage, since the patient is by her own muscular power redressing, or more than redressing, the morbid curve. She may even learn, by studying under surgical direction her muscular sense, how she may do this entirely, or partly, in the erect posture; herein great aid is afforded by the plumb line as described in my last paper. All total and lumbar curves, save the most severe, yield with considerable celerity to this exercise, combined with the methods enumerated some paragraphs ago, and also in the more marked cases with rachilysis. Provided, and this is essential that she be docile and assiduous enough to overcome, by the means given in my last paper, the evil habit of standing with deviated pelvis.

But when the curvature is double or S-shaped, more especially if it be due, as it usually is, to pelvic version, this exercise is unsuitable, may, indeed, be injurious until the vertebral torsion have been to a great degree overcome; and be it remembered that in such cases the degree of torsion is great in proportion to the amount of lateral deviation. This has to be taken into account even in rachilysis, the patient being turned, in right dorsal convex curve, much more to the left, letting the upper lanyard pull the right rib-angles forward rather than to the side. Moreover, the following method of untwisting the spiral coils of the spine should be enjoined.

Names for these various devices seem for purposes of reference necessary, and I would propose calling the following two postures aphelic (ἀπὸ ἕλιξ) positions.

The first is to be done, according to severity and bodily vigour, once, twice, or even three times a-day, of course not nude, but divested of any even slightly stiff corset. The annexed photograph from the patient, depicted in Fig. 4 of



Fig 8.—First aphelic position.

my first paper, was thus taken; she was lying on a rug upon the floor; on a slight scaffold erected above her was a hole in the plankage vertically above her hip; the camera, lens downward, was placed over this hole, through which the birdseye view of the recumbent figure was with some difficulty obtained. To rightly assume this posture, the patient is to lie on her left side, draw up the knees so that the thighs are at about a right angle with the trunk, and is especially to see that the right knee does not project further forward than the left one (herein the figure is a little wrong), thus ensuring against the pelvis rolling over to the front; she then so twists her chest and shoulders that those parts lie as much as possible on their front aspect. At first sight, it might be supposed that this would increase the left torsion at the loin, but in practice this is found not to be the case; the twist caused by the position does not extend below the tenth dorsal vertebra; yet, when a left convex lumbar curve is strongly marked, I place a short rather protuberant cushion on that side, immediately above the iliac crest. If the patient have a pretty plainly-marked consecutive cervical curvature, which of course must be to the left, she is not to put her head in the position shown in the figure, but is so to turn it that it lies on the left cheek; this is a little, but only a little, more exacting. Certain patients can go to sleep at night, at all events for a time, with the body twisted as above depicted; others, and this seems to depend partly on more or less irritability of the heart and of the digestive organs, cannot do so. These, however, especially if young and flexible, are generally able to fall asleep in the second position, as here shown. The twist, or rather the untwist, of the spine is the same; but the patient lying on her right side rolls the upper part of the figure over, so that it lies as much as possible on the back. This is less potent than the first position, but if the patient can fall thus quietly to sleep, it is in mere gain of time a valuable addition.

It is impossible for anyone, until he has employed this method, to form any idea of the changes in form immediately produced by this position; nor would I believe them until I had verified them on a great number of patients. Moderate right convex curves as a rule become straight, or even deflected in the opposite direction; the backward projecting right ribs no longer form, together with the scapula, a projection, but rather a wide shallow depression, while the flattened, perhaps even hollow, left shoulder rounds itself out almost to its proper form. One category of patients, however, resist these benefits—namely, those whose unfortunate backs have been stiffened by the use of iron cages (spinal supports), but this recalcitrance can be pretty quickly overcome by directing a nurse or other attendant, while the girl is in the first position, to press with her hands the protruding right shoulder down towards the couch or floor on which she lies. The first essential of any rational treatment must be to eliminate this artificial stiffness, which of course quite prevents the natural and salutary play of muscles.

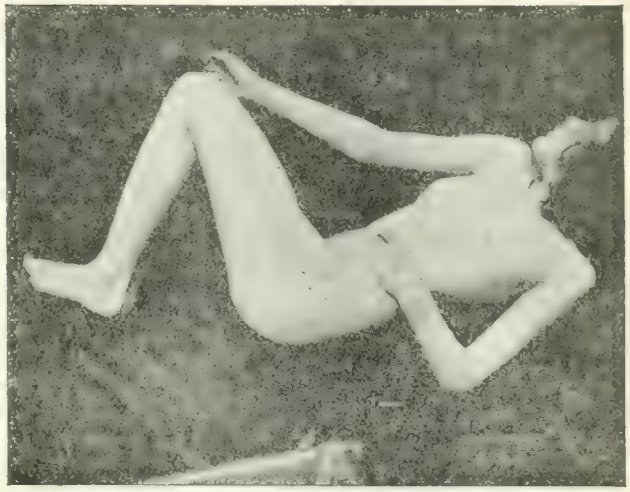


Fig. 9.—Second aphelic position.

In 1887 the Clinical Society nominated a Committee to consider the "question of lateral curvature of the spine," and in the following year its Report was published,[1] which, although somewhat vague, indicates pretty clearly that the Committee considered "the various methods of treatment at present in vogue" yielded unsatisfactory results—a conclusion which, unless it could be refuted, points to a serious defect or blemish in this department of surgery. Imbued with the feeling that the belief of the Committee could not be altogether repudiated, I set myself to investigate the conditions which even in moderate cases are obstacles to cure. In the course of this work I soon observed the till then undetected deviations of the pelvis (amesiality and version), not merely coexisting with but preceding and inducing lateral curvature. From this point the next step is inevitable, namely, that in order to cure a spine, crooked because its foundation is awry, we must eliminate the sideways slant or twist of that basis. It being self-evidently useless, even if it were possible, to straighten by gymnastics of whatever nationality, by iron cages, by violent manual pressure, or by any other means, a spine which, according to the simple laws of balance and gravitation, cannot by any possibility stand straight upon a foundation whose one-sidedness or twists have been overlooked and neglected. It is this gap in our knowledge (hitherto) of lateral curvature which has led to the stigma that the Clinical Society's Committee pointed out, and which the writer believes these three short communications will permanently remove.

NOTE AND REFERENCES.

[1] Hysterical spinal curvature, a not infrequent addition to this particular pelvic deviation, must be excepted. [2] BRITISH MEDICAL JOURNAL, January, 21st, 1899. [3] *The Causes and Treatment of Lateral Curvature*, 1895. [4] *Clinical Society's Transactions*, vol. xxi, p. 301.

THE INTERPRETATION OF SKIAGRAPHS.

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THE interpretation of skiagraphs is somewhat difficult, partly because structures familiar enough in the dissecting room are portrayed in unfamiliar relations, and partly because it is not always borne in mind that the image produced is practically a shadow, and subject to the same distorting influences as shadows. The less the ratio between the distance of the bone from the sensitised plate, or fluorescent screen, and the dis-

tance of the focus tube from the same, the more is the shadow enlarged; and the nearer the bone to the plate the sharper the outline of the shadow. The aim of the skiagrapher, therefore, is to get the bone as near to, and the tube as far from, the plate as may be. In practice, however, so much power is lost by removing the tube to a distance that in skiagraphing dense and thick parts it is generally kept near, and sharpness has to be sacrificed, to some extent, to penetration.

In no part of the body are mistakes more likely to be make than in considering skiagraphs of the pelvis and hips. At the Congress of the German Society of Surgery at Berlin in April, 1898, Hofmeister showed a number of skiagraphs of one normal pelvis from various points of view which gave various false appearances of deformity of the pelvis and femurs. It is, however, not necessary to go to the trouble of producing arrays and to the expense of large plates in order to show the form of the images which would be produced in various relative positions of focus tube, skeleton, and plate. Exactly similar images may be produced by means of a small lamp, the bones in question, and a sheet of paper. In this way the shadows from which the annexed illustration was photographed (with the exception of A) were produced. They were all taken from the same normal left femur of an adult; A is from an outline of the upper end of the bone which was laid with the posterior surface of its head and its lesser trochanter resting on the paper. To insure accuracy, the pencil was held in the pencil-holder which was described in the *Lancet* of April 29th, 1893.



Fig. 1.—Shadows of upper end of femur, left; A, Outline (actual size) filled in; B, Not rotated; C, Rotated out about 40 degrees; D, Rotated in about 30 degrees; E, Light over a point of body 9 inches above hip joint and 10 inches from surface (equivalent to hyperextensions); F, Flexed about 45 degrees.

In B, C, D, and F the relative positions of light, femur, and paper were such as would probably occur in skiagraphing an adult pelvis when, as is usually the case, shadows of both hips are desired for purposes of comparison. In such a case the tube is usually placed over the middle line, between the hip-joints, and at a variable distance from the plate, which may fairly be estimated as 12 inches, the plate lying under the supine body of the patient. The most posterior part of the head of the femur would in a well-developed adult be about 3 inches or more from the plate. The shaft of the femur from which these shadows were formed was therefore held vertically in a tube-holder, the nearest part of the head of the bone being 3 inches from the paper. The light was placed 3 inches horizontally inwards from the innermost part of the head of the femur—this may be assumed to be about the average distance of the bottom of the acetabulum from the middle line—and 12 inches from the surface of the paper. The paper itself was in all cases fixed flat against a wall. The resulting shadows were outlined with a pencil and afterwards blacked in before they were photographed. The shadows resemble the images that would be seen on looking at the plate with the film surface towards one.

In B the bone was neither rotated in nor out. A comparison with A shows it to be enlarged, as all the shadows are, and slightly distorted owing to the obliquity of direction of the rays casting the shadow. In C the femur was rotated outwards about 40 degrees. The neck appears much shortened, and the angle between it and the shaft much increased. A similar appearance is very often seen in skiagraphs. In D the femur was rotated inwards about 30 degrees. In F it was not rotated, but inclined as if flexed 45 degrees. In E the bone and paper were in the same relative positions as in B, but the light was moved upwards and outwards, so that it was 9 inches above the head of the femur, and 10 inches horizontally from the plane of the paper. This corresponds to a position about over the eighth costal cartilage in the nipple line.

In the paper above mentioned, Hofmeister stated that the angle of the neck with the shaft of the normal femur might be made to appear as small as 90 degrees by alterations of the relative positions of light, plate, and skeleton. The shadow shown at E, however, is the nearest approach to such an appearance that could, I think, be unintentionally produced by even the most careless or inexperienced skiagrapher. It is easy to test the truth of the above statements in five minutes with the help of a night light (or other small bright source of light) a femur, and a sheet of white paper pinned against the wall.

A point of interest in skiagraphs of the pelvis in children is the evidence of the presence of the Y-shaped cartilage in the acetabulum, which shows in a print as a clear space. This marks the position of the cotyloid cavity, and it will be seen that the head of the femur when normally in joint lies almost entirely below this cartilage.

Hofmeister has pointed out that in skiagraphing both hips with a view to obtain information as to the angle between neck and shaft, if the patient be supine with the plate underneath him, the thighs should be rotated inwards in order to obtain a result that will not mislead. Even thus the shadow will be somewhat distorted (see D in figure), for although the plane of the head and neck may be at right angles to the path of the rays, the dry plate will be oblique. Moreover, in coxa vara rotation inwards is often impossible, and the limb strongly rotated outwards. In such a case it would seem to be better to skiagraph each hip separately, with the patient prone or supine as seems most convenient, placing the tube so that the rays shall pass perpendicularly to the posterior or anterior surface of the neck, and placing the plate as nearly as possible parallel to that surface.

REMARKS ON LARYNGEAL GROWTHS IN YOUNG CHILDREN.

Being the concluding portion of a Post-Graduate Address at the Eye, Ear, and Throat Infirmary, Edinburgh.

By G. HUNTER MACKENZIE, M.D.

The subject of laryngeal growths in young children is one to which I wish next to direct your attention, because in the first place the complaint is not uncommon, and secondly on account of the line of treatment which I intend to recommend to you being alike different and simpler from that usually followed. I am fortunately able to present to you a case upon which, in the first place at least, my remarks will be based.

The patient, a girl aged 17 months, has suffered from increasing huskiness for about one year. From the date of birth until she was from 4 to 5 months old, she is represented as having a perfectly clear voice; of this her parents have no doubt. At this age, and apparently without any exciting cause, it was noticed that when she cried her voice was slightly husky; this huskiness has never disappeared, but on the contrary has slowly and gradually become more marked, and now you distinctly recognise that a considerable degree of it is present. You will also notice that some respiratory stridor can be detected, not so much when the child is quiet and at rest as when she cries and struggles. No history of any hereditary tendency to disease can be elicited, and the child has not at any time suffered from serious illness.

Such, in short, is the history of the case. What are the conditions giving rise to these symptoms, and how can they be diagnosed? In a child of such tender age as the one now before you I do not think it necessary to make use of direct or indirect laryngoscopy, which in either case would require

to be "forced." The development of the symptoms as already detailed plainly points to the larynx and to the presence of growths on the vocal cords as the seat and cause of trouble. In elder children the laryngoscope may be used, or the supraglottic area of the larynx may be palpated with the finger tip, and by one or other or both of these means the growths may be seen or felt. But, apart from these methods, the diagnosis can be arrived at by a process of exclusion, for there is nothing which can produce the above train of symptoms in a young child but the presence of warty growths on the vocal cords. True, a somewhat persistent variety of huskiness may be induced by a form of dry laryngitis (laryngitis sicca), but its degree varies from time to time according as the secretion is got rid of, and the oro-pharynx and naso-pharynx usually participate in the trouble. Then the huskiness dependent upon attacks of ordinary inflammation is of a transient nature, and has not the persistent and slowly-progressive character of that associated with and dependent upon the presence of growths. In the later stages the gradual supervention of laryngeal stridor and dyspnœa is very characteristic.

We have, then, to deal with a case of growths on the vocal cords, at first affecting vocalisation only, but ultimately producing respiratory symptoms also. So far as I have been able to make out, this condition may arise at three different periods of child life. In the first place, it may be there at birth; in the second place, it may be detected for the first time at any period up to about the sixth month of life with no appreciable exciting cause; and in the third place it may occur as a sequela of one of the exanthemata at any age up to about the fifth or sixth year. As to the frequency of these periods of commencement, I am of opinion that congenital cases are less common than the others, which appear to be about equal in their frequency of occurrence.

It is to the treatment of these cases of growths in children that I wish more particularly to direct your attention. I may mention that similar growths occasionally develop in or invade the trachea, and some authorities assert that they then appear to have a syphilitic character. Such, however, is not the case with the laryngeal variety, for it does not respond in the slightest degree to antisyphilitic remedies. Nor, as others maintain, does the internal administration of arsenic affect it. Of the local application of alcohol I have had no experience, but it is right that you should know that it has of late been highly recommended by very competent authorities.

It is to surgery that we must turn for successful treatment. When respiratory difficulty and embarrassment ensue, as they do in every case sooner or later, relief must be given by intubation or tracheotomy. The former operation is inadmissible for reasons which will be presently stated. Tracheotomy, therefore, must be performed for purely palliative purposes in the first instance. Should another operation be subsequently performed for the removal of the growths, and, if so, what is its nature?

There are two methods by which the direct removal of the growths may be attempted, without or after tracheotomy—removal *per vias naturales*, or by thyrotomy. Now you may take it as an axiom that both these operations, though still practised by some surgeons, are inadmissible in young children, for the simple reason that direct interference with, or mechanical irritation of the growths is almost always followed by rapid recurrence. For example, it is not uncommon to find in the medical journals records of cases in which thyrotomy has had to be repeated every few months, and one case has been published in which the surgeon performed this operation seventeen times within a period of three years for rapid recurrences. That is, if I may so phrase it, the "grosseat" case that I have come across, but several examples, to which I can refer you, have been recorded, in which the performance of thyrotomy has been necessitated three or four times within the year on account of recurrences, the result being a more or less permanent affection of the voice and a stenosis of the larynx. Then the mortality in young children after thyrotomy has been found to be exceptionally high. As regards endolaryngeal treatment, in the first place I am very sceptical of its being able to be carried out in such very young children as in the patient brought before you to-day; in the next place it usually involves a prolonged series of operations; and, lastly, it is very frequently followed by recurrences. Intubation appears to have a somewhat similar irritative effect upon the growths, and, moreover, the tube is difficult of retention, and its use is consequently unsuited for a class of cases in which it may require to be kept *in situ* for a prolonged period.

The important point, and one which I wish to impress very deeply upon you, is that tracheotomy in this disease is not only a palliative but also a curative operation.

What is the order of events after its performance?

First of all, the breathing is relieved, and as time wears on we find in the next place that the growths, now freed from the irritation of coughing and phonation, gradually lose their vitality, and become detached from the vocal cords, without any tendency to recur. If we take care to have the expectoration and secretion from the windpipe, more especially when the tube is removed for cleansing purposes, preserved and examined, we shall readily detect the presence of the growth or growths, and I now show you a number of them obtained in this way. These were collected during a period of about six months by the mother of one of my patients, aged 3 years. Doubtless several growths, or pieces of growths, escaped detection.

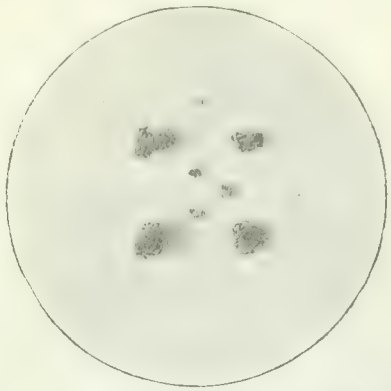


Fig. 1.—Papillomatous growths spontaneously detached from vocal cords after tracheotomy. Photograph, natural size.

The largest piece in the collection having been used for microscopical examination is not represented; it proved to be a papilloma, as these cases usually are.

You will no doubt expect me to give you some idea as to how long the growths take to separate, and when the tracheotomy tube may be removed. I used to allow at least one year, but latterly I have found six months sufficient, and I think that, in the great majority of cases, the latter period of time will be found quite long enough. A case has been recorded in which the growth had separated, and the voice became normal in one month; others, again, have required from three to four years. An important point to which attention has not previously been directed is that the success of this method of treatment is more marked, and the time during which the tube requires to remain in the trachea is shorter, in the case of "virgin" growths than with those which have been irritated by previous intralaryngeal treatment or by thyrotomy.

Meanwhile, whoever is in charge of the patient should keep a sharp look-out on the expectoration and laryngo-tracheal secretion, and preserve any growths which may come away, for upon the size and number of those depends, to a certain extent at least, the length of time during which the tube should be worn. If the growths separate freely before six months have expired, I should be inclined to remove the tube correspondingly early. Its removal, I may add, is always objected to by the child, who finds it difficult to return at once to the normal method of breathing, and one or two short reinsertions may be necessary, but these should not lightly be had recourse to. After the permanent removal of the tube, there may be some slight occasional recurrence of the laryngeal stridor and dyspnœa, especially when the child is annoyed and made to cry, but there is no recurrence of the growths. Subsequently the voice gradually recovers without further treatment, and I have seen vocalisation return to such

degree of purity as to lead anyone who did not know the history of the case to conclude that nothing had at any time been amiss with it. Some huskiness—gradually decreasing, however—may remain for a year or longer.

In the case which I have to-day brought under your notice, I propose to perform tracheotomy, but not until the respiration is more markedly affected than it is at present. I shall then allow the tube to remain in the windpipe until the growths have separated, which I feel almost certain will take place within the year.

NOTES ON A CASE OF ABSCESS OF THE LUNG SUCCESSFULLY TREATED BY DRAINAGE.*

By J. W. CRERAR, M.B.,
Maryport.

The diagnosis and treatment of abscess of the lung are perhaps not so simple as to make the record of another case either commonplace or superfluous.

A boy, J. P., 9 years of age, was seen on March 2nd, 1898. He was suffering from pneumonia of the right lung. The percussion dulness of the right base became more marked in a day or two, but no fluid was present, as was proved by puncture. In the course of 8 or 10 days he was apparently quite convalescent. He was not seen again until April 1st, when it was at once evident that he was profoundly ill. His mother stated that "he had been failing" for the previous fortnight. He was extremely emaciated; his skin was dry and harsh to the touch, and of a dull yellow grey colour; his pupils were widely dilated, and his expression anxious. The photograph (Fig. 1) taken at this time well illustrates his appearance. He had a harassing cough, but no expectoration. His temperature on this day was 99° F., and his pulse 134.

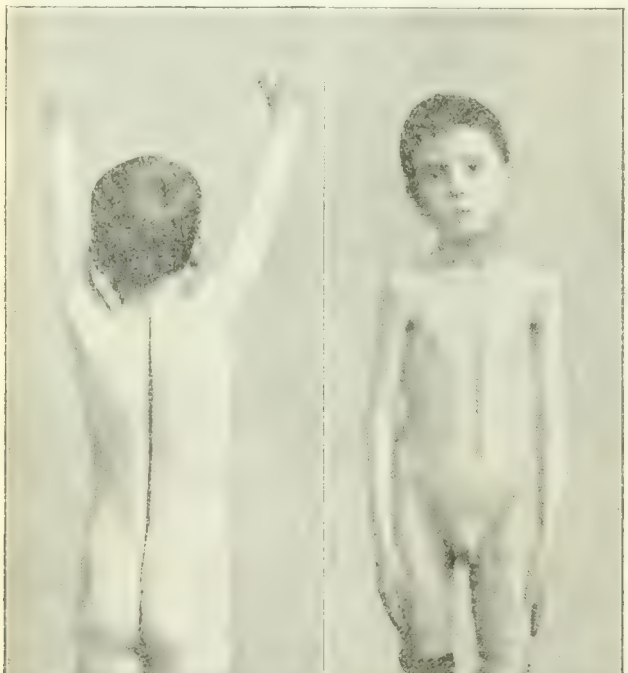


Fig. 2.—J. P., July 22nd, 1898, 4½ months after operation: note scar and good thoracic contour.

Fig. 1.—J. P., April 1st, 1898, before operation.

On April 3rd his temperature was 103° F., his pulse 144, and his respirations 36 in the minute. The right side of the thorax did not move freely, and over the nipple measured 27 cm., as compared with 25 cm. on the left. Anteriorly, there was no abnormal percussion dulness except towards the axillary line, where a dull area joined the liver dulness. The left margin of the heart extended just beyond the nipple line. The liver was not depressed. The respiratory murmur on the right side was puerile, with an occasional rhonchus. There was no cardiac murmur. Posteriorly, percussion gave an impaired note over the whole right side, which became absolutely dull from the level of the fifth dorsal spine to the base. Vocal fremitus was present all over the right side. Auscultation revealed well-marked bronchovesicular breathing above the level of the fifth spine, with bronchophonic vocal resonance. Below that level the breath sounds were more distant, and were almost lost from the level of the eighth spine. The vocal resonance was ægophonic over the greater part of the base. A sharp, squirting, systolic murmur was present over an area, about an inch in diameter, just internal to the vertebral border of the scapula, opposite the fifth spine, the significance of which was not apparent. Examination revealed no abnormality on the left side.

The diagnosis of empyema was made. Early operation was deemed imperative, and on the next day, April 4th, I performed the following operation, assisted by Dr. Bannerman. A large needle of a serum syringe was introduced upwards and backwards through the seventh intercostal space in the posterior axillary line, and pus was at once found. A portion of the eighth rib, 4 cm. in length, was resected. The pleura was thin, and did not bulge; it was punctured with dissecting forceps but no pus appeared; the opening was dilated, and a finger introduced to explore. The pleural cavity was healthy, smooth-walled, and limited by adhesions above. The needle was passed through the upper adhesions, but no pus was drawn off. It was then introduced through the skin over the seventh space, and pus was again struck. Evidently the case was one of localised empyema or one of abscess of the lung. To guard against the risk of infection of the lower pleura, the cavity of the wound was stuffed with sterilised gauze. Through the previous skin incision extended backwards below the angle of the scapula, 4 c.cm. of the seventh rib, and 5 c.cm. of the sixth rib were then resected. The pleura which "underlaid" the sixth rib was bulging and yellow, but no pus escaped on puncture. The needle was then passed repeatedly in various directions without result, until at last pus was struck by puncturing the bed of the seventh rib-fragment, the needle being directed inwards and slightly forwards. The needle was left in as a guide, was followed by dissecting forceps, and the wound dilated. Considerable pus and dark blood clot flowed out, with free bubbling of air. A finger was introduced into the cavity which was found to be rather smaller than a tangerine orange, and to have soft, ragged walls. During these latter manipulations bloodstained mucus was expectorated. A short rubber tube was placed in the abscess cavity, and the lower pleural wound freshly stuffed. The skin incision was mostly stitched up. In the very weak condition of the child, shock was considerable, and hypodermic injections of ether was administered during the operation, and an enema of bovril and whisky given at its close. On reflecting that, next to the shock, the great risk in the case was the danger of septic infection of the lower pleura, and thus of possible superadded empyema, I removed the skin sutures and left the wound open, to allow of accurate plugging of the lower pleural opening. Also, for fear of the drainage tube causing ulceration of any pulmonary vessel which might be in the walls of the cavity, the tube was replaced by sterilised iodoform gauze, which was the dressing employed throughout the course of the case. When the wound was being dressed air whistled and bubbled loudly in the abscess cavity. Fortunately the abscess proved to be single. Nothing eventful marked the future history of the case. The lower pleural wound was healed by May 31st, and by June 21st the child was completely cured. In the pus from the abscess cavity there was a quantity of alveolated elastic tissue, and many pneumococci and a few staphylococcus groups.

I may be allowed to indicate some points of special interest with regard to the diagnosis and treatment of the case: (1) That while a diagnosis of empyema was come to, this was in face of the fact that vocal fremitus was present throughout the right side, whereas in empyema, so far as my experience goes, the loss of vocal fremitus, along with the presence of percussion dulness, is the most constant and trustworthy sign of fluid in the pleural cavity of children. (2) That no pus was expectorated previous to the operation, and thus the diagnosis was rendered more difficult. When the gauze stuffing was removed at the "dressings" during the first few weeks some blood-stained muco-pus was usually expectorated. (3) That the systolic murmur, whose presence was noted internal to the right scapula before the operation, was found on subsequent examination, during the progress of the case, to have disappeared. The significance of this murmur was not evident, but in all probability, as the area of the murmur lay close to the site of the abscess, it was due to the bending or tension of a large pulmonary vessel by pressure of the abscess. In a similar case the discovery of such a murmur might assist in the proximate localisation of the abscess.

With regard to treatment, the case illustrates (1) the value of a large easily-manipulated syringe and exploratory needle—in this case a serum syringe—as a preliminary to rib excision, and, unless the diagnosis is beyond all doubt, as it often cannot be, the needle should be left in as a guide to the subsequent steps. Mr. Godlee[1] adversely criticises even this large form of simple syringe, and expresses his preference for the bottle aspirator. The smaller needle certainly does run the greater risk of blocking, but the simple manœuvre, which I first learnt from Mr. C. W. Cathcart, of having some sterilised fluid in the syringe before puncturing, which can be expelled to clear the needle if necessary, to some extent meets this objection, while the greater manageability of the simple syringe in the perhaps numerous attempts to hit the suspected abscess gives it a distinct advantage over the bottle aspirator. (2) The value of sterilised gauze plugging in preventing infection. (3) The superiority of gauze stuffing over the use of a drainage tube in the treatment of abscess of the

* Read before the Border Counties Branch of the British Medical Association.

lung, in that there can be no eroding pressure on any large vessel, and also because it is not liable to extrusion, as so frequently happens with drainage tubes in thoracic surgery.

Fortunately the lung was adherent to the costal pleura, and thus what might have been a very difficult operation was much simplified. Finally, although the consideration is of quite secondary importance, one need not in children, as the later photograph (Fig 2) (taken July 22nd, four and a half months after operation) illustrates, be deterred from excising considerable portions of ribs by the fear of future deformity, an observation which strictly applies also to the surgical treatment of empyema.

REFERENCE.

1 BRITISH MEDICAL JOURNAL, January 21st, 1899, p. 133.

A MODIFICATION OF NEISSER'S DIAGNOSTIC STAIN FOR THE DIPHTHERIA BACILLUS.

BY ALFRED C. COLES, M.D., B.Sc. (Public Health),

Medical Officer of Health to the Urban Sanitary District, Winton, Bournemouth.

Now that the Klebs-Loeffler bacillus has been universally regarded as the cause of diphtheria, it is of extreme importance that the physician shall be able to recognise it with certainty.

Unfortunately the bacillus, although it possesses certain morphological characteristics, has, unlike the tubercle bacillus, no definite staining reaction, and in films stained by the ordinary methods it is sometimes very difficult to distinguish it from the so-called pseudo-diphtheria bacillus.

The usual method of staining as recommended in the textbooks is to stain for two or three minutes in Loeffler's methylene blue solution. I find that by this means the contour or general outline of the bacillus is well defined, but the granules contained in its interior are masked by the deep colour. In order to bring out the internal structure more clearly staining for a few seconds in carbo-thionin solution has sometimes, especially in older cultures, very clearly demonstrated the terminal granules, which often show well-marked metachromatism as well as the involute forms.

Staining in very weak solutions of carbo-fuchsin shows the sheath and the contained granules even better than methylene blue; but none of these stains—at least in my hands—have proved sufficiently diagnostic, especially in films of membrane.

Neisser[1] has somewhat recently introduced a new method of double staining the bacillus, which is regarded as diagnostic.

The method has been described in the BRITISH MEDICAL JOURNAL, 1889, ii, p. 599, by Dr. Hewlett as follows:

1. One gram of methylene blue (Grubler's) is dissolved in 20 c.cm. of alcohol (96 per cent.), and mixed with 950 c.cm. of distilled water and 50 c.cm. of glacial acetic acid.

2. Two grams of benzoin are dissolved in 1,000 c.cm. of boiling distilled water, and the solution is filtered. Coverglass specimens prepared from fresh serum cultures are stained in No. 1 for 1 to 3 seconds, rinsed in water, counterstained in No. 2 for 3 to 5 seconds, washed in water, dried and mounted in Canada balsam.

So treated, the diphtheria bacillus appears as a slender longish rod, stained brown, and generally containing granules of a deep blue or inky tint. There are usually two granules, situated at the poles; occasionally a third at the middle of the rod.

The value of Neisser's stain has been borne out by Fraenkel.[2]

Having had the opportunity of seeing a slide so stained, I tried to get similar results from a pure culture of the diphtheria bacillus, and found that although occasionally successful, more frequently I met with failure. To anyone who has experienced the difficulty of double staining—say the leucocytes of the blood with eosin and methylene blue—this is not surprising. I therefore regarded Neisser's method as most unreliable in cases in which one has to determine the presence or absence of the bacillus.

My friend, Mr. F. Tanner, of Bournemouth, after experiencing similar failures, suggested modifying Neisser's method by treating the films with a solution of iodine after staining with methylene blue. The following is the method which we have found to give absolutely constant and reliable results:

1. The films from a culture or membrane are spread on slides or cover glasses, preferably the former.

2. They are fixed in the ordinary way by heat or by immersion for a few minutes in equal parts of ether and absolute alcohol.

3. Stained in Neisser's acid methylene blue (the formula given above) for 10 to 30 seconds.

4. After washing they are immersed in Gram's iodine solution or Weigert's modification (namely, iodine 1, potas. iodid. 2, water 200) for 10 to 30 seconds.

5. Again, thoroughly washed in water and stained in the vesuvin solution (formula as above, or preferably double this strength) for 10 to 30 seconds.

6. Dried and mounted in Canada balsam.

We have found that the exact time for immersion in these three solutions seems of little importance, except as regards the depth of colour, but half a minute in each gives good results.

The diphtheria bacilli thus stained appear as slender rods of a yellowish-brown colour, each containing a granule at both ends, with sometimes one in the centre. The granules are always contained in, and appear somewhat larger than, the bacilli. They are said to be oval, not round; but as far as I can determine they are perfectly round.

This modified method, like the original process, is extremely useful in films from a culture, as by its means no granules are demonstrable in the pseudo-diphtheria bacillus. I have also succeeded in films made from the membrane or from swabs of the throat in cases of the disease, but here a difficulty may arise from the resemblance that fragments of certain forms of leptothrix bear to the Klebs-Loeffler bacillus.

The ordinary form of leptothrix is never likely to be confused with the diphtheria bacillus, but small pieces may appear as narrow short rods having round granules of a bluish-black colour at their extremities, and in a film made from a swab taken from the throat a single bacillus may be either leptothrix or the diphtheria bacillus. If a group of eight or ten bacilli about the same size are seen together the case is almost certainly one of diphtheria.

Two cocci placed some distance apart may, when stained by Neisser's original method, appear somewhat like a diphtheria bacillus; but if one remembers that the granules are never found free, and that the fact that the cocci—even if they retain the methylene blue—are separate, no difficulty will be experienced.

REFERENCES.

1 *Zeits. f. Hyg.*, 1897, p. 443. 2 BRITISH MEDICAL JOURNAL EPITOME, January 22nd, 1898.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

NEUROTIC ULCERS OF THE MOUTH.

IN connection with Dr. Sibley's interesting paper on this subject, may I venture to suggest the possibility that the affection may be due in some cases to a perversion or partial failure of the thyroidal functions? Cracks and fissures of the tongue have often been observed in myxœdema, and an elderly patient of mine suffered at intervals from a burning pain in the tongue for years before being put on thyroid treatment. Singularly enough, the day after Dr. Sibley's article appeared a lady of 40 years consulted me about profuse menstruation, and she stated that during the last period she had had a burning pain in the tongue and roof of the mouth, with swelling of the lower eyelids and the lips, so that she had even experienced a temporary difficulty in speaking. I believe there may be symptoms of thyroidal disease long before the development of general myxœdema, and that there may even be cases in which the latter never appears at all. It is impossible to enter at length into the question; but numerous circumstances related by Dr. Sibley, especially in connection with the stomatitis which he describes, seem to me very significant; indeed, it is probable that the state of the tongue and parts of the mouth in two of his cases was really due to a localised, if temporary and recurrent, myxœdema.

Turning now to Dr. Jacobi's cases, for the reference to which I beg to thank Dr. Sibley, this view of the pathology receives further confirmation. The first case he describes occurred in a man who, though fairly well developed, had no whiskers, no hair on the pubes nor in the axilla, whose sexual organs were those of a child of ten years, and who had great difficulty in

keeping himself warm, and was fatigued on the least exertion. In my opinion this man was of a type of constitution bordering on the cretinous, and thyroid treatment was plainly indicated and would probably have acted like a charm. One of Kopp's cases referred to by Jacobi bears a very interesting resemblance to one I have described as an acute affection of the mouth in an early stage of myxœdema.[1] True, in the latter, there may have been an exciting cause at work in the irritant action of the primula obconica, but I regard this as of secondary importance. The bearing of this on treatment is obvious; thyroid medication seems indicated in such cases, and a very brief trial would settle the question.—I am, etc.,

Partick, Glasgow. ROBERT KIRK, M.D.

IN connection with Dr. W. K. Sibley's interesting paper on chronic ulceration of the mouth, published in the BRITISH MEDICAL JOURNAL of April 15th, I wish to bring forward a further case bearing out what Dr. Sibley says.

W. H., aged 36, married 16 years; was the mother of five children. Her general health had been good, and there was no trace of syphilis or tuberculous disease. In 1886 she had a great deal of trouble, and has been in a constant state of anxiety and worry ever since. The chronic ulcerations in the mouth commenced ten years ago. The attacks usually last from three to six weeks, or longer, and the intervals during which she is quite free are seldom of more than a few weeks' duration. The ulcers are circular or somewhat elongated, varying in size from that of a small pea up to as large as a sixpence. The margins are raised and hard, and in the early stages there is an areola of injected mucous membrane. The floor of the ulcers is of a greyish colour. There are also distinct areas of scar tissue perceptible in the mouth, marking the site of former ulceration. The ulcers attack principally the gums and the inner surface of the lips and cheek, but they are not uncommon on the tongue, and I have seen them as far back as the fauces. The patient herself volunteered the statement that her mouth was always worse at the times when she was most worried, and no doubt this is the chief factor in the etiology of the disease.

I have found local treatment of very little service. Nitrate of silver is of no value in this case. I have tried a variety of stimulating applications, but of late I have been content with giving a sedative mouth wash, and applying a solution of cocaine previous to taking food.

Staveley, Chesterfield. ARTHUR COURT, M.B.

DISLOCATION OF THE HEAD OF THE FIBULA BY MUSCULAR ACTION.

A YOUNG muscular man was carried into my surgery from a football match. He said that when in the act of making a vigorous kick at the ball he suddenly felt great pain on the outside of the right leg below the knee. He could not straighten it, but managed to limp for a short distance. On examination the tendon of the biceps was found tense, the leg partially flexed, with the head of the fibula displaced posteriorly. It had obviously been thrown back from the articulating surface on the tibia. On making extension and counter-extension the head of the bone slipped into its place without much difficulty. It was then bandaged tightly over a layer of cotton wool, and, though he still had considerable pain, he was able to walk with help. On further examination the heads of the fibulæ were found to be very large, and projecting unusually prominently from his being very bow-legged. He thought that this accident must have happened to him once before, as he had experienced the same pain in rising from a position of extreme flexion of the legs.

This is a very rare dislocation. Boyer and Sanson have each recorded a case in which it was due to direct violence. Muscular action was apparently the cause in this case; the sudden extreme flexion of the leg by the hamstrings, followed by the external rotatory action of the biceps on the head of the fibula, were the active causes. The bow-legged condition, with the large size of the fibular head and the former dislocation, probably all acted as contributory causes in producing the result.

Middlemarch, Anstruther. ROBERT T. FERGUSON, M.D.

[1] *Lancet*, March 4th, 1899.

BULLOUS DERMATITIS DUE TO IODOFORM.

MRS. L., a monthly nurse, while attending a case of puerperal septicæmia eight years ago, suddenly developed an acute bullous dermatitis of both hands, especially affecting the fingers, large bullæ being in the finger clefts and smaller water blisters extending as far as the wrists. She was thought to be suffering from an erysipelatous attack due to infection from the patient's discharges, but there was little or no constitutional disturbance, and the eruption was not quite like erysipelas. Iodoform had been introduced into the vagina of the patient she was nursing, but a connection between the two did not occur to us. Some months later she had a similar attack while nursing a patient for whom I had ordered iodoform ointment to be applied to a lacerated perineum. Some months later still an exactly similar attack, where I had again ordered iodoform ointment, opened my eyes to the true cause. For years I carefully avoided ordering iodoform for any case she was nursing, but recently, having been called to a case of incomplete abortion, after scraping out the uterine contents I introduced a small quantity of iodoform into the uterus. Mrs. L. was nursing a case close by, and without thinking of the iodoform I had used I asked her to administer a mercurial douche. She did so, and a few hours later developed a bullous dermatitis, not so severe as on the previous occasion, but with large bullæ between the fingers, some of which were filled with blood-stained serum, and a few smaller vessels on the backs of the hands. This last attack was particularly interesting, on account of the extremely small amount of iodoform with which she could have been in contact. The attacks have always yielded fairly soon to lead and opium lotion, although the burning pain has been for a few days very severe.

ARNOLD H. WATKINS, M.D., M.R.C.S.

Kimberley, South Africa.

EPIDEMIC ACUTE PNEUMONIA.

I HAVE recently had under my care a series of nine cases of acute pneumonia. The patients were men from 17 to 30 years of age, who lived near one another; in fact, two were brothers living in the same house. In all there was a marked initial rigor, as the patients put it, "we took it out of a shivering of cold;" within a short time the temperature rose above 103° F., and in two of the cases above 105° F.; and with only slight falls in the morning it remained high for some days. Herpes about the mouth and the alæ of the nose was present in seven of the cases. Influenza was very prevalent, and at first I was inclined to look on the cases as influenza, but the physical signs of consolidation of the lung appearing, with the characteristic "rusty-coloured" sputum, malar flush, rapid breathing, quick and weak pulse, and severe pain in the side, convinced me that the patients were suffering from primary lobar pneumonia. The cases were of an uncommonly severe type, with a tendency to heart failure. One of the patients, aged 25, with a tuberculous family history, succumbed on the tenth day of the disease, the others recovered rapidly and are now following their occupations, little or nothing the worse. The treatment adopted was frequently-repeated small doses of quinine, digitalis, and strychnine, with small quantities of stimulants every two hours and local applications to the chest.

The epidemic nature of the disease, the marked initial rigor, and the continued high fever, with the more or less insanitary condition of all the dwellings, all suggest that pneumonia must be regarded as an infective fever, and that the lesions in the lung bear a similar relation to the disease as the ulcerated patches in the intestinal tract have to enteric fever.

P. J. HAMILTON. M.B., B.Ch.R.U.I.,

Ardara, co. Donegal. Dispensary Medical Officer.

INSURANCE MORTALITY AND ALCOHOL.—Last year's returns of the United Kingdom Temperance and General Provident Institution appear to confirm the preceding 57 years' testimony as to the superior longevity of the abstaining assured. In the general section the expectancy was 411 claims for £106,686, and the actual claims 373 for £101,240. In the temperance section the expectancy was 380 claims for £100,414, and the actual claims 247 for £64,550.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WOMEN'S HOSPITAL, MELBOURNE, VICTORIA, AUSTRALIA.

A CASE OF HYDATID MOLE.

(By FRANK A. NYULASY, M.B., Ch.B., Honorary Surgeon to the Hospital.)

IN the BRITISH MEDICAL JOURNAL of September 17th, 1898, I briefly recorded the notes of an interesting case of hydatid mole, and curiously enough on the very day the JOURNAL containing the report reached me a second case came under my notice at the hospital, and as it enabled me to observe one point (as to the size of the uterus) that I had not the opportunity of doing in the previous case a brief account is presented by way of contrast. The notes of the history are supplied by our late House-Surgeon, Dr. Docker.

Mrs. H., aged 29, 5-para, was admitted on November 19th, 1898. Her last menstrual period ceased on July 30th. For four weeks she has had a little vaginal bleeding, at times passing large clots. There have been slight abdominal pains for a day or two, but no movements have been felt. On examination the uterus was found extending an inch and a-half above the umbilicus; no fœtal parts could be felt or heart heard. *Per vaginam* no presenting part could be felt and the internal os was closed. On November 22nd at 9 P.M. the hæmorrhage became more profuse. The external os was found dilated to the size of a shilling, and a good deal of cystic material was removed by the finger. Barnes's bag was introduced into the cervix and a drachm of ergot given by the mouth. At 2 A.M. the bag was expelled and following it a large mass of cysts. Chloroform was then administered and the uterus emptied. The patient made a practically uninterrupted recovery.

In this case the remarkable disproportion between the size of the uterus and the known duration of pregnancy at once created strong suspicion of hydatid mole. The absence of fœtal parts and of fœtal heart sounds strengthened the suspicion. Symptoms not being urgent active interference was not immediately called for.

The first patient was a single primipara, aged 20 years, the second was a married multipara, aged 29 years. The first patient suffered from acute anæmia and staphylococcal infection, the second had neither the one nor the other. Microscopically the moles showed the usual lowly-organised structure of myxomatous tissues. No fœtus was found in either case.

CHILDREN'S HOSPITAL, NOTTINGHAM.

A CASE OF VOLVULUS IN AN INFANT: LAPAROTOMY: RECOVERY.

(Under the care of LEWIS MARSHALL, M.D.)

[Reported by W. MCKAY, M.B., House-Surgeon.]

G. K., aged 5 months, was brought to the hospital at 1 o'clock on Wednesday, March 8th, his mother stating that he was suddenly seized with pain on the preceding Saturday at noon. This pain continued, and vomiting followed early the same evening. His bowels had acted well a few hours before the onset, and he was in perfect health at that time, but no motion or flatus had been passed since. Enemata brought away nothing but blood and slime. Blood was passed frequently, and sometimes in "large quantities." He had been continuously fed from the breast, but he always vomited immediately afterwards. His face was pinched and pallid, his legs were drawn up, and his belly was distended. The pulse could scarcely be felt. Any attempt at palpation of the abdomen gave pain, and it was quite impossible to obtain any information in this way. The vomited matter was not fæcal. Mucus slightly tinged with blood exuded from the anus, and nothing was to be felt *per rectum*. The child was at once sent into the ward, and soon after its arrival there a message came to say it had "ceased to breathe." From this conditions it rallied after the application of warmth, etc.

At 3.15 P.M. $\frac{1}{30}$ gr. of strychnine was given hypodermically, and shortly afterwards a laparotomy was done under chloroform. An incision through the right rectus muscle below the umbilicus was made of sufficient length to admit two fingers. Search was rapidly made for an intussusception in the common positions, but nothing was found. In the right inguinal region a piece of intestine was felt and brought to the surface. This was found to be small bowel, and to be much injected and twisted on its mesentery. The misplacement was rectified, and the abdomen quickly closed. So bad was the child's condition that a second injection of strychnine was given ($\frac{1}{150}$ gr.). On recovering from the chloroform, its expression was much better, and further improvement quickly followed. The bowels acted at 7 P.M., the stool being yellow and copious.

From this time a steady improvement occurred. On the eleventh day after the operation all dressings were removed, the wound being cicatrised.

REMARKS BY DR. MARSHALL.—This case is of interest because of the rarity of volvulus in a child and the improbability of a favourable issue, even when done early, in so young an infant. Judged by the history, the case appeared to be clearly one of intussusception, but as it was quite impossible to discover a tumour, and examination *per rectum* being negative, we determined to open the abdomen without delay, the child's condition being apparently hopeless. The hint as to the giving of strychnine was gleaned from Mr. D'Arcy Power's Hunterian Lectures in 1897, and to its use the successful issue may be largely attributed.

It is noteworthy that, although early vomiting, bleeding, and mucus *per anum* are asserted never to occur in volvulus, they were all present in this case. Our case shows very clearly, therefore, how difficult it is under the conditions enumerated to differentiate between intussusception and volvulus. This should lead to earlier operation than is usual in these cases.

CHRISTCHURCH HOSPITAL, NEW ZEALAND.

RUPTURE OF A CANCEROUS STOMACH DURING OPERATION.

(By P. CLENNELL FENWICK, M.B.Lond., M.R.C.S., L.R.C.P., Surgeon to the Hospital.)

A MAN, aged 48, came to the hospital on account of vomiting. He stated that eight days previously, while at work, he was seized with an attack of sickness. Since then the vomiting had continued, and the bowels had not acted.

On admission, the patient did not look particularly ill, the pulse was good, there was no pain, the bowels moved after an enema, and the only serious symptom was the obstinate vomiting. The vomit was black, but not fæculent. The tongue was pale, but fairly clean. The temperature was normal.

The abdomen was flaccid, but not tender. There were some small, hard, subcutaneous nodules the size of a pea in the gastric region. The area of the stomach was increased in size and tympanitic, and splashing sounds could be elicited. In the region of the pylorus there was an ill-defined tumour apparently fixed. Pyloric obstruction was diagnosed, and as the vomiting continued it was decided to make an exploratory incision. The stomach was found distended and adherent to the surrounding structures. In the region of the pylorus was a mass of hard new growth, which extended into the duodenum and backwards behind the stomach. The intestines were empty.

Removal of the growth being impossible, it was determined to perform gastroenterostomy, and a portion of the jejunum was drawn up and held against the anterior surface of the stomach. The first row of fixation sutures were put in, and the incision was about to be made when a sudden gush of gastric contents appeared from the under surface of the liver. On passing the finger gently upwards it was discovered that a large circular opening, surrounded by a mass of friable tissue, existed on the posterior surface of the stomach close to the pylorus. Any attempt to define and close the rupture was hopeless, owing to the many adhesions and the friability of the tissues, so that the operation was reluctantly abandoned. Death occurred thirteen hours later.

I am indebted to Dr. Liddell, who performed the necropsy, for the following notes: On the posterior surface of the stomach, close to the pyloric orifice, there was a large, deep ulcer an inch in diameter, surrounded by a mass of scirrhus

cancer, which extended over the posterior surface and passed backwards over the duodenum and pancreas. The stomach was adherent to the liver at the site of the ulcer. The rupture occurred at this position and passed through the pyloric opening, extending for half an inch into the duodenum.

The interesting points in this case appear to be:

The absence of pain or any symptoms till eight days before the operation, while the extent of the growth indicated that it had been present for some months.

The ulcer did not rupture previously probably because of the adhesions between the stomach and the liver. One would have thought that the constant strain occasioned by the vomiting would have precipitated the catastrophe.

Although there was a large gastric ulcer, there was no indigestion or pain, and wasting had not set in till quite recently.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. Payne, M.D., President, in the Chair.

Tuesday, May 16th, 1899.

Report of the Committee appointed to Consider the Nomenclature of the Conditions sometimes described as Pseudo-tuberculosis.

I.

The term "pseudo-tuberculosis" has been applied to several distinct morbid processes which agree with one another only in the fact of producing in the tissues small nodular masses which have been consider to resemble "tubercles." Amongst the various morbid processes which have been so demonstrated are the following:—(*A*) A number of bacterial infections caused by bacilli and cocci of various species. As examples of such may be mentioned: (1) A case of pseudo-tuberculosis in man described by Du Cazal and Vaillard (1891). In this case a number of caseous tubercles were found on the peritoneum and in the pancreas. From these lesions a bacillus, differing from the tubercle bacillus of Koch, was isolated. This bacillus was not pathogenic for guinea-pigs, but produced in rabbits a condition comparable with that occurring in man. (2) Zoöglœa pseudo-tuberculosis of the guinea-pig and rabbit ("*tuberculose zoögléique*"). This condition was first described by Malassez and Vignal (1883); it resulted in the animals named after inoculation with portions of a nodule from the forearm of a child who had died with a tuberculous meningitis. The tubercle bacillus of Koch could not, however, be identified in the nodule in question. The first two series of rodents inoculated presented nodules in which a coccus with distinctive characters was found. In the third series of inoculations the tubercle bacillus of Koch was found in addition to the characteristic coccus. The exact nature of the conditions in these particular cases must therefore remain doubtful. Chantemesse (1887) produced a zoöglœa pseudo-tuberculosis of a similar kind in guinea-pigs by introducing into the peritoneum small portions of cotton wool through which had been filtered the air of a hospital ward in which there was a number of phthisical patients. Nocard (1889), Zagari (1890), and Parietti (1890) described zoöglœa pseudo-tuberculosis in the guinea-pig occurring respectively after inoculation with the sputum of a cow which was suspected of tuberculosis, as a natural disease, and after inoculation with cow's milk. Eberth (1885) had also recorded two such cases occurring naturally in the guinea-pig. (3) Zoöglœa pseudo-tuberculosis of fowls, described by Nocard (1885). (4) Bacillary pseudo-tuberculosis of rodents. Charrin and Roger (1888), and Dor (1888) described this condition in the guinea-pig, and Eberth (1885) in the rabbit. Legrain (1891) described a similar condition occurring in the rabbit after inoculation with sputum from phthisical patients. (5) Pseudo-tuberculosis of the ox. Courmont (1889) isolated from some nodules on the pleura of a cow a bacillus, differing from the tubercle bacillus of Koch, which produced a pseudo-tuberculosis in the guinea-pig. Luboletti (1894) has also described a bacillary pseudo-tuberculosis occurring in calves. (6) Pseudo-tuberculosis of the horse, described by Pfeiffer (1889). The bacillus isolated produced a pseudo-tuberculosis in the hare, the rabbit, the guinea-pig, and mice. (7) Pseudo-tuberculosis of mice, described by Kutscher (1889). This disease occurred naturally in some mice; the bacillus isolated was not pathogenic for either the guinea-pig or rabbit. (8) Pseudo-tuberculosis of sheep, described by Preisz and Guinard (1891), by Preisz and Norey (1893), and by Turski (1897). The bacillus isolated by these writers was pathogenic for both the rabbit and guinea-pig. (9) Pseudo-tuberculosis of swine described by Galli Valerio (1896), by Terni (1896), and by Deleidi (1896). (*B*) *Blastomycosis:* Gilchrist and Stokes have adopted a somewhat similar nomenclature in describing a case of "pseudo-lupus vulgaris" caused by blastomyces. (*C*) *Streptotrichosis:* Amongst streptothrix infections the following have been described: Pseudo-tuberculosis (cladothria) by Eppinger. (Note: The fungus causing this disease was classed by Eppinger amongst the cladothrices; it is now recognised as a streptothrix (S. Asteroides): pseudo-tuberculosis hominis streptothricia, by Flexner. (*D*) *Aspergillosis:* Infection by aspergillus fumigatus was described as a pseudo-tuberculosis by Dieulafoy, Chantemesse, and Widal, and other authors have used the same term as descriptive of the pathological results of infection by certain mould fungi. (*E*) *Protozoal Infection:* Gilchrist and Rixford have described a case of "protozoan or coccidioidal pseudo-tuberculosis." (*F*) Pathological conditions resulting from the presence of higher animal parasites in the lungs. Hartenstein refers to a condition resulting from the presence of echinococcus in the lungs of cattle as a pseudo-tuberculosis; and nodules ("*Wurmknötchen*") brought about by the presence of the eggs of strongylus vasorum in the lungs of cats (Laulanié, 1884), and in the lungs of horses, cattle, sheep, and dogs by the eggs or larvæ of nematode worms have been described as "verminous pseudo-tuberculosis."

II.

We think that confusion has arisen from the employment of the word "tubercle" in two senses: (1) as a general anatomical term for a small nodule, (2) in a specific sense for the nodular lesions of the disease produced by the tubercle bacillus of Koch.

III.

We think that the word should no longer be used as a general anatomical term, but if used at all it should be only as a designation of the nodular lesions produced by the tubercle bacillus. To prevent ambiguity, however, we suggest that all lesions having the form of "tubercles" should be called generally "nodules," those produced by Koch's bacillus being distinguished as "tuberculous nodules"; and that the nodules produced by other causes should be distinguished by a prefix indicative of their cause, if known, as for example, "glanders nodule," "aspergillar nodule"; or, if their cause is not known, by some distinctive designation not involving any reference to the word "tubercle." We further suggest that the diseases themselves (as distinguished from the lesions produced) should when possible be designated in accordance with the plan indicated in headings (*B*), (*C*), (*D*), "blastomycosis," etc. The term "pseudo-tuberculosis" would then become superfluous, and ought in our opinion to be discarded altogether.

J. F. Payne, Chairman.
J. McFadyean.
S. G. Shattock.
J. W. Washbourn.
G. Sims Woodhead.
A. G. R. Foulerton, Secretary.

Infections by Unsound Meat.

Dr. Herbert E. Durham made a communication on this subject, observing that it was possible that cases of illness from eating unsound meat might sometimes be due simply to the presence in it of sterile products of bacterial activity. Of this, however, he did not think that satisfactory evidence was adducible. The majority of recorded cases had been shown to be due to the bacillus enteritidis. The results of two outbreaks had already been recorded by the speaker, namely, at Hatton and Chadderton, Oldham. He had since examined two additional outbreaks, at Surbiton and at Salford. He showed tables giving the results ob-

tained by testing the serum of the patients about eight weeks after their illness, upon a variety of cultures of the bacillus enteritidis. Many of these serums gave positive reactions of diagnostic importance, in that they clumped the bacillus in comparatively high dilutions. The conclusion was that the fever from which the patients suffered was caused by a variety of the bacillus closely resembling those that he might name the Hatton and Günther. The reactions given with typhoid bacilli (1 to 100) were negative, though a positive reaction ensued on mixing 1 drop of the blood serum with 9 of the typhoid broth culture, showing that the latter dilution was too small to furnish a reliable criterion. A case was cited which clinically appeared to be typhoid, though the serum reaction proved negative throughout the course of the disease; one of the later samples of serum (when tested 1 to 9) gave a positive result with typhoid culture and the Günther variety; but since these bacilli did not react mutually the result was of no diagnostic importance. From an outbreak of illness at Atherton, due to eating pickled tongue, no positive result was obtained with the blood serum and a large number of varieties. The author's observations had been confirmed by de Nobele, both in regard to the relative strength of reaction towards different varieties of B. enteritidis, and the fact that by insufficient dilution an erroneous diagnosis of typhoid might be made. As to the life of the B. enteritidis outside the body nothing was at present known. The animals from which poisonous meat was obtained had in many cases been found to be suffering from infection with this bacillus; in many cases there had been septicæmic diarrhœa in calves, or puerperal infection in cows. The bacillus enteritidis group included the hog-cholera bacillus, the B. psittacosis, the pseudo-tuberculosis bacillus, and the B. typhi murium. Of the last named, cultures were sold for the purpose of killing field mice; it remained to be seen whether disastrous results accrued to the human subject from this cause. The outbreaks of mouse typhoid and the pseudo-tubercle of guinea-pigs in laboratories were possibly due to infection of food. For the present the question as to the source of the bacillus in cows, calves, and pigs must be left unanswered.

Dr. J. W. Washbourn remarked that the alkaloidal poisons or ptomaines were not the real poisonous products of bacteria. In meat poisoning it was most probable that the cause was an infection as distinguished from a chemical intoxication. Dr. Durham had stated that a dilution of 1 in 20 was unreliable in testing for typhoid; nevertheless this dilution gave a positive result in what were typhoid cases, and failed to give a result in what were clinically not typhoid.

Mr. A. Foulerton did not regard such examples of poisoning by unsound meat as infections, but as intoxications. Dr. Durham had assumed that the positive reaction of the serum and bacillary culture proved a bacillary disease to be concerned, whereas a toxæmia might lead to the same reaction. In proof of this he cited the fact that the antityphoid serum of the horse produced the reaction, though it was produced, not by the infection of the horse with typhoid bacilli, but by means of the toxin only. The results in the human subject were too rapid to justify the belief that they depended upon the growth of a pathogenic bacillus. Moreover, the degree of poisoning bore a proportion to the amount of poisonous meat ingested. Of this the speaker cited illustrations. The symptoms of gastro-intestinal irritation might arise within three or four hours. In no case had Gärtner's bacillus been isolated from the blood during the lifetime of the patient; to its presence in the tissues after death he did not attach much importance, as he believed that he had found it in the organs of subjects who had died from various causes.

Dr. Durham, in reply, stated that the serums of 70 patients he had examined as controls did not clump cultures of the B. enteritidis. As to the amount of dilution to be adopted in serum reactions, he did not attach so much importance to this alone as to making the test with different races of a particular form of bacillus; he himself began with 1 in 100, and afterwards increased or diminished this according to circumstances. He hardly thought that B. enteritidis could be a commonly distributed organism in the human subject as Mr. Foulerton seemed to believe. As pointing to the poisoning being an infection, he cited a case where a veal pie partaken of on one day produced no results, whilst those who ate of it on the following became affected with the symptoms of irritant poisoning.

Chemical Composition in Relation to Germicidal Action.

Dr. James Ritchie detailed an extended series of observations upon this subject. He dealt with the killing, not the inhibiting, power of different solutions. He did not use definite percentages, but compared the action of the different substances by their molecular moieties, using "normal" solutions. Again, it was necessary not only to use aqueous solutions, but to add these to a watery suspension of the microbes. The organism with which he experimented was the typhoid bacillus; young cultures were carefully removed from the surface of the agar medium, the suspension in water being filtered through glass wool to remove any clumps naturally present. The general rule was that the metals with the highest atomic weight possessed the highest germicidal property, though to this there were exceptions; acids, for example, acted more powerfully than their salts. As regards organic acids they were germicidal in proportion to their chemical "avidity." The salts of organic acids were more effective as their molecular weight increased. The action also of the halogens, chlorine, bromine, iodine increased as their molecular weight, and the same rule held for the alcohols.

Card Specimens.

Dr. A. E. Garrod: Fibrosis of Lung.—Dr. Lazarus-Barlow: Stricture of Bile Duct in a boy with congenital syphilis.—Dr. H. D. Rolleston: Columnar-celled Carcinoma of the Tail of the Pancreas.—Mr. T. D. Lister: (1) Tuberculous Gastric Ulcer; (2) Duodenal Ulcer in Melæna Neonatorum; (3) Acute Ulcerative Colitis.—Dr. J. H. Drysdale: Tuberculosis of Inferior Vena Cava.—Dr. H. Lediard: (1) Pin in the Appendix Vermiformis; (2) Congenital Fibroma in Neck of a Child.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Friday, May 12th, 1899.

Right Colotomy for Chronic Colitis.

Dr. Hale White and Mr. Golding-Bird contributed a paper on three additional cases. The object was to give the colon absolute rest. Case I.—The patient was a lady, aged 36, seen with Dr. A. E. Taylor. She had had membranous colitis twenty years with latterly great pain, and almost complete inability to take food. She was wasted, anæmic, and a complete invalid, unable to take any exercise. The whole colon was tender to pressure. On May 13th, 1896, the first stage of right lumbar colotomy was performed, the bowel being opened six days later. The patient did uninterruptedly well, was relieved from pain, and gained in strength. In May, 1897, the artificial anus was closed. In November, 1898, the patient said she was perfectly well, she ate ordinary food, took outdoor exercise, and was about to learn to ride a bicycle. Case II.—The patient was a woman, aged 31. In September, 1896, she began to have abdominal pain, and soon, because of the pain, gave up taking solid food. Her illness continued until her admission into Guy's Hospital, under Dr. Pye-Smith, in December, 1897, when she was found to be passing membrane. She was then very anæmic and weak, and was suffering severely. As she became worse, in spite of all medical treatment, the first stage of right lumbar colotomy was performed March 3rd, 1898, the bowels being opened on March 8th. She remained four months in the hospital, and when she left she was in perfect health, and had remained so up to the last time she was seen. It was proposed to close the artificial anus this spring. The patient was averse from hurrying, as she was so well in her present condition. Case III.—The patient, a man aged 35, had been in the tropics and Egypt. Eight years ago he had had diarrhœa with bleeding. This had continued on and off till his admission to Guy's Hospital. He had suffered much from abdominal pain. He had been treated in hospitals medically without any success. He was admitted into Guy's Hospital in November, 1898. He had continuous diarrhœa, had lost control over the bowels, was very wasted, anæmic, and had the appearance of a man who had not much longer to live. As he

was becoming worse, on December 31st, 1898, the first stage of a cæcotomy was performed, and the bowel was opened five days later. He gained much flesh and colour, quite lost his abdominal pain, and left the hospital at the end of February feeling well enough to work, and in May reported himself as very well. He was now of good colour, and plump. Dr. Hale White and Mr. Golding-Bird referred to their previously published case, two other English cases, and the German case. They pointed out that all *a priori* argument was in favour of a right colotomy for chronic disease of the colon, for it secured absolute rest for that structure, and the cases now brought forward showed clearly that the colon was not necessary for the maintenance of perfect health. They recommended palliative or curative right-sided colotomy for severe and otherwise hopeless examples of the following diseases: (1) Intractable membranous colitis; (2) all forms of chronic ulceration of the colon that had resisted medical treatment, and which were obviously otherwise incurable. Most cases of very chronic dysentery were probably to be cured without colotomy; (3) cases of idiopathic dilatation of the colon. The colotomy must be right-sided, and colotomy was preferable to cæcotomy, for when the latter operation was done fluid fæces escaped from the artificial anus, and this gave rise to much trouble; while, further, it was difficult to prevent some fæces passing on into the colon. In the three cases of membranous colitis reported it was interesting to observe that the formation of membrane ceased directly the bowel was stitched to the skin, and before it was opened. Its formation appeared to be reflexly inhibited, and this was of importance as pointing to a largely neurotic element in the cases, a view which was supported by the fact that membranous colitis was most common in women, that all the patients operated upon had been women, and all had a history of pelvic troubles. The authors believed that it was not necessary to wash out the bowel from the artificial to the natural anus, and they considered that more experience was needed before deciding upon the time for which the artificial anus should be left open, but it should certainly not be less than six months.

The President said he had a case under his care at the present time in which he proposed to open the colon for this disease. He asked whether from the point of view of surgical treatment any distinction was drawn between membranous cases and those of mucous colitis. He also asked whether there had been any difficulty in closing the opening in those cases in which it had been kept open for several months.

Dr. Hingston Fox mentioned the case of a gouty woman, 48 years of age, who was under his treatment for chronic colitis. She had hæmorrhage from the bowel for some time, which was attributed to hæmorrhoids. In August last she took to her bed with severe hæmorrhage and frequent motions containing much mucus and pus. Enemata and local treatment caused much irritation. The symptoms ultimately subsided very rapidly after the sphincter had been forcibly stretched by Mr. Charters Symonds, and she was well for some months, but lately there had been some return of symptoms.

Mr. Norman Dalton asked where the methods had ever been tried in cases of acute ulcerative colitis?

Mr. Charters Symonds said that in the case mentioned by Dr. Hingston Fox he had been led to dilate the sphincter because the disease appeared to be localised in the lower end of the rectum, and he mentioned another case in which there was hæmorrhage from the rectum in which examination revealed nothing abnormal, and in which the symptoms ceased after dilatation of the sphincter. He thought right colotomy was better than left, and mentioned a case in which he regretted that he had chosen the left operation. The patient was a man 60 years of age, who had had four attacks of hæmorrhage from the bowel. There was a hectic temperature, with signs of ulceration. A left inguinal colotomy was performed and the lower part of the bowel washed out with temporary relief, but the bowel contracted and the artificial anus could not be closed. At the necropsy many nodules of new growth could be seen on the wall of the intestine, and Mr. Symonds thought that longer relief would have been given if the ascending colon had been opened.

Mr. W. J. Walsham asked what method was adopted for closing the wound.

Dr. Hale White, in reply, said that the degree and not the variety of colitis was the guide as to surgical treatment. He did not know of any cases of acute ulcerative colitis which had been treated by this method.

Mr. Golding-Bird, in reply, said that he had not met with difficulty in closing the wound. He used the same method which had been employed by Laurie, freeing the bowel round for three-quarters of an inch, and then uniting the raw surfaces by Lembert sutures. Cases of acute ulcerative colitis were seldom recognised. He mentioned one case in which a girl, who was admitted for supposed painful anal fissure, died with symptoms of acute colitis and subacute peritonitis, and after death most extensive ulceration of the whole colon was discovered.

Empyema of the Maxillary Sinus.

Dr. StClair Thomson recorded a case undoubtedly of two years' and probably of seven years' duration, with persistent cough and regularly recurring headache, which was completely cured in eight weeks by simple drainage through a tooth socket. He said there had lately been a tendency to disparage the method of treatment through the alveolar border, which was first employed by Cowper as long ago as 1698. Indeed, some practitioners held that this method was futile in cases of long standing. He quoted a case in which he had diagnosed the empyema two years before the patient was operated on, and in which the history pointed to the presence of pus in the antrum of Highmore for possibly seven years. During this period the patient had suffered from chronic cough, which had resisted every treatment. She had also for more than four years had what she described as a frightful headache, lasting three days, and regularly recurring with the cessation of menstruation. The maxillary sinus was opened with a drill through the alveolar border; a spiral (Ellis) drainage tube was inserted; and the cavity was washed out once daily with a simple alkaline lotion. At the end of a month the liquid came through quite clear, and doubtless treatment might then have been discontinued. For the sake of security the washing-out was continued at decreasing intervals for another month, when the drainage tube was removed and the opening allowed to close. The patient's cough entirely ceased, the headaches never recurred, and the cure was confirmed by observation nine months afterwards. This case suggested that in all cases of empyema of the maxillary antrum—especially where there was already a hollow tooth socket—this simple method of treatment should be tried before having recourse to more severe operative measures. The opening was easily made; the patient was able to carry out the treatment at home; and it did not prevent a larger operation later if the suppuration proved intractable. The case also showed that a long history of empyema did not necessarily show that the case would resist cure by this easy method.

Chronic Empyema of the Maxillary Sinus.

Mr. T. Mark Hovell and Mr. Frederic Eve brought forward a paper on cases illustrating the pathology and treatment of this disease. The paper demonstrated that chronic antral empyema was frequently associated with the formation of papillary outgrowths from the lining of the cavity so abundant in some instances as to fill it. These could only be effectually dealt with by free opening of the cavity and removal of the growth, and even then they sometimes recurred. Antral suppuration was sometimes the earliest symptom of malignant disease commencing in that cavity. In six consecutive cases related, numerous papillary growths existed in three, a large polypus in one case, granulation in one case, and in only one instance was the lining membrane of the cavity natural. In the three cases presenting well-marked papillary growths suppuration had existed for periods varying from five months to three years, while in a patient with polypoid growth the discharge from the nostril had existed for two or three years. The pus contained streptococci in three cases in which a bacteriological examination was made. Treatment consisted in freely opening the antrum through the canine fossa so that the cavity could be inspected and the growths removed; and in two instances a counter opening was made through the inner wall of the antrum at the level of the floor of the inferior meatus. The cavity was first packed with iodoform gauze, and afterwards treated with antiseptic irrigation. In one case the growths recurred, and the antral wall was again scraped.

The three patients whose antra contained papillary growths had previously been treated by tapping through the alveolus and the insertion of a tube, without improvement. All the patients were cured except one, who was greatly improved. It was pointed out that antral growths would tend to increase the mischief by causing retention of pus owing to the blocking of the orifice into the nostril, or such a small opening as could be made through the alveolus. The only treatment likely to be effectual was, therefore, free exposure of the cavity and removal of the growths. Bare pieces of fangs projecting through the floor should be sought for. The seventh case related was that of a gentleman, aged 57, in whom antral suppuration was the earliest symptom of malignant disease in that cavity. On opening the antrum it was found to be filled with carcinoma, the existence of which had not previously been suspected. Subsequently the superior maxilla was successfully removed.

Sir Felix Semon thought it well that attention had again been called to the treatment of these cases of empyema of the sinus by simple removal of a tooth and drainage through the alveolus, as there was a tendency amongst the younger rhinologists to adopt more heroic methods. Most of the cases were due to dental trouble. In the smaller number of cases in which papillary outgrowths existed, opening and scraping, as performed by Mr. Eve and Mr. Hovell, were required, but the simpler treatment by drainage alone should be first tried.

Mr. Charters Symonds agreed that alveolar drainage should always be the first step. He had recently been quite successful after fourteen days' treatment in a case that had lasted eighteen months. Where drainage was unsuccessful in long-standing cases the antrum should be opened, and another opening made in the inner wall below the inferior turbinated bone, to enable the cavity to be properly washed out.

Mr. W. J. Walsham quite agreed with Sir F. Semon and Mr. Symonds in their remarks. He had by simple drainage cured a case in which the disease had existed for five years. In another case he had communicated with the dentist, who stated that when the tooth was removed only two of the three fangs came away. The antrum was then opened, and the empyema found to be due to a fang lying loose on the floor of the cavity, whence he removed it.

Dr. StClair Thomson, in reply, said that the interesting paper by Mr. Hovell and Mr. Eve tended to confirm his thesis that the simpler method should be tried first. For he understood that it was Mr. Hovell's practice to try the alveolar drainage in all cases, and that it was only in the resistant cases that he sought the co-operation of Mr. Eve for the canine operation. It would be interesting to know the proportion of cases in which Mr. Hovell had found this necessary. As to how long it was wise to persevere with this simple method, he had himself known of cases which had healed up after having to continue it for eighteen months. On the other hand, there were many patients in whom the secretion of pus continued, but who were so content with the daily washing out of the antrum that they declined further measures.

Mr. Eve, in reply, said that many of their cases were going about with tubes in their mouths for antral drainage, who were so comfortable that they declined to have anything further done. The cases which Mr. Hovell and he had brought forward represented the minority in which the simple procedure did not effect a cure. Only then did they have recourse to any other treatment.

HARVEIAN SOCIETY OF LONDON.

Peyton Beale, F.R.C.S., Vice-President, in the Chair.

Thursday, May 4th, 1899.

A Series of Cases of Arthrotomy for the Relief of Pain and for the Removal of Synovial Fringes, Loose Bodies, and Fibro-cartilages.

Mr. C. B. Lockwood read a paper on this subject, which is published at p. 1205.

Mr. Howard Marsh pointed out the important part played by tension in the causation of pain as a symptom of many joint affections, and agreed that in many instances this was best treated by a free incision into the joint, just as was done for the relief of tension in other parts. The value of the cautery for the relief of pain, as in early hip disease, was also often very striking. Mr. Marsh fully agreed with Mr. Lockwood as to the difficulty of obtaining a free view of the interior of the knee by an incision dividing the ligamentum patellæ, and had also found the subsequent suture of the ligament not always quite satisfactory. He had therefore come to regard transverse division of the patella as a more efficient method of fully exposing the interior of the knee. With regard to the diagnosis of dislocation of the internal semilunar fibro-cartilage, it was pointed out that this must usually be founded upon circumstantial evidence, and although the cartilage sometimes definitely projected, or there might be tenderness over it, such symptoms were often absent. In some cases in which dislocation of a semilunar cartilage was diagnosed, as for instance after football injuries, it was quite likely that the symptoms might depend upon a thickened synovial fringe which occasionally became engaged between the articular surfaces. Mr. Marsh had operated in about forty cases for the removal of the internal semilunar fibro-cartilage; in all the result had been satisfactory, and in none had any impairment of the function of the joint been recognisable. In a few instances the affection had been met with in women, and twice in children under 10 years of age. In operating Mr. Marsh was in the habit of drawing the fibro-cartilage well forwards and dividing it far back, but thought that complete removal of the cartilage would be very difficult. He thought that the most common condition found in these cases was a loosening of the cartilage along its margin, and more or less fibrous degeneration.

Mr. Herbert Allingham had operated in 50 cases for one or another of the various conditions mentioned in the paper. The series included 18 cases in which the internal semilunar cartilage was excised and 13 in which the displaced cartilage was sutured in position; 11 cases in which loose cartilages and 3 in which osteophytes were removed; in 1 case a hypertrophied alar ligament was removed; in 1 case of chronic rheumatism the joint was drained; and in 3 cases, although nothing definite was found to explain the symptoms, the latter were relieved by arthrotomy. In the treatment of a dislocated semilunar cartilage Mr. Allingham had come to the conclusion that excision was to be preferred to fixing the cartilage by suture. He only recommended operation when treatment by rest, and failing that by movement and massage, did not relieve the symptoms. In two cases the operation had been followed by a stiff joint. In the speaker's opinion the most satisfactory view of the interior of the knee was by longitudinal division of the patella through an incision beginning at the upper part of the joint and continued down into the ligamentum patellæ.

Mr. W. J. Walsham had during the last eighteen months or so operated upon about twenty cases of the kind under discussion without any mishap. He insisted upon the importance of careful preparation of the patient before operation, and thought it very advisable to keep the knee fixed on a splint for a week, if possible, beforehand. He strongly advocated transverse division of the patella as the best means of freely exposing the knee-joint, and referred to a case in which by this means he had removed a large loose body which was very deeply seated between the condyles of the femur and only occasioned very vague symptoms. A case was also mentioned which showed that the Roentgen rays might be of service in showing the presence of a loose body in the knee. Mr. Walsham agreed that the symptoms of a dislocated semilunar cartilage were often not as described in the textbooks and might consist of little more than a crack or snap during the movement of the joint. In the treatment of such cases after operation he advised that movement should be commenced at the end of a fortnight, and that the patient should be allowed to walk at the end of three weeks.

Mr. Jackson Clarke referred to the case of an athletic man who for four years had had pain in the knee-joint. The symptoms, which began in a sprain received whilst playing golf, were so severe that at first it seemed likely that the joint would require to be opened. Mr. Clarke, however, first tried the effect of a support that prevented lateral and rotary movement at the knee. This measure proved completely successful, and enabled the patient to play football, polo, and other vigorous games. At the end of a year the apparatus was left off, and the patient had no further trouble.

Mr. RAYMOND JOHNSON mentioned a case in which suppuration in the knee-joint followed an operation for the removal of a semilunar cartilage. He at once drained the joint by free lateral incisions, and recovery followed with a fair degree of movement. He believed the infection of the joint took place from the skin, and was, in part, accounted for by the fact that at the time of the operation there was still a good deal of fluid in the joint. It was certainly much safer in these cases to delay operation until the attack of synovitis had subsided. A question was asked as to the nature of some cases of diffused villous synovitis, in which no definite evidences of osteo-arthritis were present. The speaker also referred to the comparative rarity of the origin of loose cartilages in the joints as the result of detachment by injury of a portion of the articular surface.

The CHAIRMAN congratulated Mr. Lockwood upon the success with which he had followed up such a considerable series of cases. The long villous processes found in the synovial membrane of some cases of rheumatoid arthritis were microscopically identical with the villous processes normally found in the rabbit's knee, and which had masses of mucoid material projecting from them.

Mr. LOCKWOOD replied.

BRITISH GYNÆCOLOGICAL SOCIETY.

H. MACNAUGHTON-JONES, M.D., President, in the Chair.

Thursday, May 11th, 1899.

SPECIMEN.

DR. HERBERT SNOW showed a specimen of large Mammary Intracystic Sarcoma.

TREATMENT OF GONORRHŒAL SALPINGITIS.

Mr. J. W. TAYLOR (Birmingham) read a paper on this subject, in the course of which he laid down the following propositions: (1) That a large number of women who are suffering from tubal disease have been at some time or another exposed to the infection of syphilis as well as of gonorrhœa; that these undoubtedly show marked improvement after a prolonged course of mercury and iodides, and in the course of this treatment, unless acute pyosalpinx intervenes (in which case medicine is useless), it is the rule rather than the exception for all gross physical signs of disease to slowly and permanently disappear. (2) That many cases in which there is no history of syphilis, including cases in which there is the unmistakable history of gonorrhœa, pure and simple, as the sole cause and starting point of tubal disease, do similarly improve and get permanently well under the same course of treatment, provided always that the disease stops short of acute pyosalpinx and its dangerous complications. (3) That acute pyosalpinx is peculiarly liable to occur, in the first place, on the left side of the body, and its special severity is probably due to secondary infection from the rectum. That such cases, whenever possible, should be treated by free incision of the posterior vaginal fornix, by thorough exploration and emptying of all pus cavities from the pouch of Douglas, and by iodoform gauze drainage. That this is far preferable to the older operation of removal of the appendages, which is not only much more dangerous, but is peculiarly liable to be followed by fæcal fistula, an operation-sequel sometimes worse than death itself. (4) That such cases of mixed infection and acute suppuration, treated by operative evacuation of the pus, with or without removal of the appendages, do sometimes not only recover, but remain permanently well without further treatment, the acuteness of the inflammation appearing to terminate the process of infection. In other cases the recovery is not so complete, relapses are met with, and these cases should be followed up by a course of specific treatment, the beneficial result of this being often immediately manifest when the wound tissues are unhealthy and the healing is delayed. (5) That occlusion of the tubes and peritubal adhesions consequent on gonorrhœal salpingitis have no direct specific causation, and must be regarded rather as secondary mechanical results of the local peritonitis, which has been caused by salpingitis. Their absorption and disappearance will not therefore be secured by the cure of the gonorrhœa, and sterility may persist, although gonorrhœa may be entirely eradicated from the system. (6) That in gonorrhœa of the pelvis there will probably remain a residuum of intractable cases, particularly cases of complication with other diseases, such as fibroids of the uterus. That in these cases operative removal of the organs affected will still be required, and that vaginal hysterectomy, whenever possible, with or without removal of the appendages, is not only the most rational operation in theory, but is productive of the best final results.

DOUBLE PYOSALPINX.

Dr. JOHN CAMPBELL (Belfast) read a paper on a case of double pyosalpinx in which one of the tubes contained 19 ounces of pus; removal; recovery. The case presented several features of interest independent of the size of the tubes—namely, the absence of pain, the almost entire absence of adhesions, and the absence of anything in the history which would explain the origin of the pus. The patient was aged about 27, married 10 months, had never been pregnant, and menstruated regularly, with only occasional pain. She was well nourished and plethoric. Both breasts contained secretion. The larger tumour extended to within two fingers' breadth of the navel and was more prominent on the left. The uterus was retroverted with the larger movable tumour above it, and the smaller fixed one below and to the right of it. The larger tube was aspirated before removal and contained 19 ounces of pus. The smaller was removed entire and contained about 3½ ounces. Both ovaries were much enlarged, firm, and tough, and were resected. The patient now enjoyed good health and menstruated regularly.

In the discussion on these papers, Mr. A. FOULERTON said that he examined 16 consecutive cases of pyosalpinx, and found the gonococcus in 2 cases, the bacillus coli in 2, the staphylococcus albus in 2, the streptococcus in 1, and the tubercle bacillus in 2. According to various statistics published since 1889 the contents of the tubes were sterile in 60 per cent. of cases, the gonococcus was found in 20 per cent., and other micro-organisms in the remaining 20 per cent. In the last group the infection had no doubt been primarily gonorrhœal, and there had been a secondary invasion by the bacillus coli or the tubercle bacillus. In the sterile cases the probable explanation was that they were cases of old standing, in which the germs originally present had died out from lack of nourishment, or from the toxic effect of their own excretory products. The treatment of gonorrhœa in women was too often the treatment of vaginitis alone. Really, a primary gonorrhœal vaginitis did not occur; the primary affection was urethritis or cervicitis, the vaginitis being secondary. Thus, in 489 cases of vulvo-urethritis, the gonococcus was present in 66 per cent., but in cases of vaginitis it was found only in 7 per cent. In 104 cases in which Schultze found the gonococcus in women, it was present in the cervix in just 75 per cent.; consequently the treatment of the cervix was most important in cases of early gonorrhœa.

Remarks were also made by Dr. TRAVERS, Mr. C. RYALL Dr. R. H. HODGSON, Dr. GEORGE ELDER, Dr. ARTHUR GILES, and the PRESIDENT; and Mr. TAYLOR and Dr. CAMPBELL briefly replied.

EDINBURGH OBSTETRICAL SOCIETY.

J. HALLIDAY CROOM, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, May 10th, 1899.

SPECIMENS.

THE following were shown:—Professor SIMPSON: Dermoid Ovarian Tumour.—Dr. J. W. BALLANTYNE: Frozen sections of (1) Iniencephalic Fœtus; (2) Anencephalic Fœtus: (3) Fœtus with Retroflexion of Spine.—Dr. LAMOND LACKIE: Cystic Ovaries and Ovarian Tumour.—Dr. W. FORDYCE: Ovarian Tumour with Twisted Pedicle removed from Insane Patient.—The PRESIDENT: (1) Cystic Ovary removed for "Mittelschmerz"; (3) an Ovarian Tumour, with reference to the after-history of the patient.

FATAL CASE OF ŒDEMA GLOTTIDIS OCCURRING DURING PREGNANCY.

Dr. LUCAS (Dalkeith) read this paper. The woman, a 9-para, aged 42, had always enjoyed good health. When first seen she was complaining of sore throat, some difficulty in swallowing, and an irritating cough. Breathing was natural,

pulse soft, and temperature normal. Pressure over the larynx caused slight pain. Naked-eye examination of the pharynx showed nothing abnormal. The following day respiration was accelerated, inspiration was prolonged, and the cough was croupy and metallic. The larynx was bulging, but no glands in the neighbourhood were implicated; urine quite normal. Calomel was given and the steam kettle was used. On the third day symptoms were aggravated. The pulse was now rapid and small, temperature was 101.6°, and the patient was seriously ill. Arrangements were made to do tracheotomy, but the patient refused the operation, and died early on the fourth day. No *post-mortem* examination was allowed.

The PRESIDENT, Professor SIMPSON, Dr. T. R. RONALDSON, and Dr. J. W. BALLANTYNE made remarks; and Dr. LUCAS replied.

PUERPERAL HYPERPYREXIA.

Dr. J. LAMOND LACKIE read this paper: Mrs. O., aged 36, with five children, all delivered by forceps owing to a contracted brim, was attended by him in her sixth labour. On first seeing the patient the cervix was found to be very deeply torn. Labour was terminated by forceps. On the fourth day the temperature went up to 105°. As the discharge was fœtid an intrauterine douche was given and 15 grs. antipyrin. Two hours later, however, the temperature was 109°, and the patient delirious with rapid feeble pulse. By the ice pack the temperature was gradually brought down to 103°, when the use of ice was suspended. The temperature continued falling till it reached 99.5, and the patient seemed well. For twenty hours she remained so, with a temperature of from 100° to 101°. Then she had another rigor and the temperature went up to 110° and the patient was apparently dying. Under similar treatment the temperature was reduced and the patient restored to consciousness. In the meantime intrauterine antiseptic douches were given every four hours. Twenty-four hours later Dr. Lackie, from a certain amount of restlessness, and especially a wandering fitful movement of the eyes, predicted another rise of temperature. This came on shortly after, the temperature rapidly rising after a rigor to 112°. The patient was comatose, and a fatal issue was expected at any moment. The ice pack was again used. Antipyrin was given by rectum, and an antiseptic vaginal douche was administered, when there came away a large slough and a great quantity of foul-smelling discharge. The temperature then fell to 104°, and the patient became again conscious, and stimulants were freely given. The following day the temperature was normal, but it was found that there was a large cervico-vesical fistula. After this, as a result of systematic douching, the temperature fell to normal, and the patient quite recovered. The fistula was successfully operated on. Dr. Lackie considered the case one of severe sapræmia, there being no evidence of septicæmia or pyæmia. He attached special importance to the restlessness and deceptive expression of "well-being" as indicative of the onset of hyperpyrexia. He had previously noted it in three cases. He thought that the ice pack was preferable to the cold bath in cases of hyperpyrexia, as it involved no strain on the heart which the movement of the patient to the bath necessitated. He also noted that in hyperpyrexia the temperature should be reduced by active measures to only a point midway between the highest recorded and that to which it was desirable it should fall, experience having shown that after antipyretic treatment was suspended the temperature continued to fall just as much after as during the application of ice or the use of the cold bath.

The PRESIDENT, Dr. RONALDSON, Professor SIMPSON, Dr. J. W. BALLANTYNE, and Dr. FORDYCE made remarks; and Dr. LAMOND LACKIE replied.

LABOUR COMPLICATED BY SLIGHT PELVIC CONTRACTION.

Dr. HAIG FERGUSON contributed observations on labour complicated by a minor degree of pelvic contraction in primiparæ and multiparæ. He recounted the case of a non-rachitic flat pelvis in a lady now aged 33, whom he had attended in all her five confinements. The conjugata vera in this case measured 3½ inches. All the labours were at full time; all were vertex cases, and in none was there any malposition. The heads were all large, but none unduly so; nor was ossification unduly firm in any of them. The uterine contractions were in all the labours vigorous and regular, nor was there any appreciable deviation in the axis of the uterus. The membranes ruptured early in all except the first labour; but the cervix was on all occasions soft, and offered no obstruction. Notwithstanding these points of similarity between the five successive labours, there were considerable differences. In the first two labours the head engaged at the brim either before or shortly after labour commenced; and the labours were comparatively easy. In the last three, on the other hand, there was difficulty owing to failure of the head to engage at the brim. The third and fourth children were born dead; the fifth was stillborn, but easily resuscitated. Dr. Ferguson deduced the conclusion that in such cases forceps should be applied as soon as the cervix had fully dilated, in order that the head might be got past the brim where the only real difficulty occurred. Traction ought be long continued and gentle in order to give the fœtal head time to mould to the somewhat contracted pelvic bones.

Professor SIMPSON and Dr. J. W. BALLANTYNE made remarks; and Dr. HAIG FERGUSON replied.

PERITONEAL EFFUSION IN THE FEMALE.

Dr. W. FORDYCE read notes of two cases recently operated on by Professor Simpson, which showed micro-photographs and microscopic preparations of the peritoneum in either case. Case A was one of tuberculous peritonitis occurring in a girl aged 13, who had complained of pain in abdomen for two months, and had noticed abdominal enlargement for five weeks. The pain was not constantly present, but recurred several times during the 24 hours. There had been amenorrhœa for two months. The patient was a well-developed, plump, apparently healthy-looking girl, but there was a mass of enlarged cervical glands. There was a slight evening rise of temperature—100.2°. The physical signs of the abdomen were those of free fluid in the peritoneal cavity. On vaginal examination considerable matting of the pelvic organs could be felt, and there was an irregularly-shaped deposit on the right side. The lungs were quite healthy. The diagnosis of tuberculous peritonitis was confirmed on abdominal section, when the peritoneum was found studded with greyish tubercles, much thickened and very vascular. These tubercles were specially numerous over the uterus and appendages, which were matted together in a tuberculous inflammatory deposit. After drawing off the fluid the peritoneum was flushed with a boracic solution, and then carefully dried and the abdomen closed. There had been reaccumulation of the fluid about three months after the operation, necessitating tapping, but Dr. Fordyce hoped for an ultimate cure, as he had seen one case previously where after operation the fluid reaccumulated, and only after three subsequent tappings did it finally permanently disappear. The microscopic preparation and microphotographs from this case showed the characteristic granulation tissue of tuberculous inflammation in which were numerous very large multinucleated giant cells, in one of which a tubercle bacillus was present. The second case was that of a nullipara, aged 28, who had been previously operated on in June, 1898, when the abdomen was found much distended with a bloodstained fluid, and the pelvic organs matted together in a firm new growth which was supposed at the time to be malignant in nature. There were at this time no nodules on the peritoneum. Shortly after operation the fluid reaccumulated and had to be tapped. After this the patient steadily improved and gained in strength and weight, and was free from pain and discomfort for six months, when she again came under treatment as the abdomen was much enlarged. Apart from the abdominal swelling the patient's general appearance and condition had not much changed; there was, however, a hernia along the line of the old incision in the abdominal wall. With a view to cure the hernia, and at the same time evacuate the fluid, the abdomen was again opened. The whole of the peritoneum of the abdomen, visceral and abdominal, was now found covered with small indurated tubercles. The fluid was again blood-stained. A piece of the peritoneum was excised and prepared for microscopic examination, and a section was now shown under the high power. The pathological change was chiefly a new connective tissue formation and scattered through this were numerous large irregular colloid masses which Dr. Fordyce considered to be due to the agglutination and subsequent colloid degeneration of several

cells. No giant cells or tubercle bacilli were found. He thought that the case was probably after all one of tuberculous disease and that the peritoneum was undergoing some inflammatory reaction as a result of the first operation. This inflammatory reaction he stated was, according to Manotti and Bariochi from their experiments on dogs and rabbits, the most important factor in the cure of tuberculous peritonitis following abdominal operation. This inflammatory reaction of the peritoneum greatly increased its absorptive power, prevented further infection, vascularised the tuberculous nodules, and finally promoted their absorption and transformation into connective tissue. The points in favour of such a theory in this case he considered were: The age of the patient (28) the absence of any very marked pain such as one would expect to find associated with pelvic malignant disease: the slight evening rise of temperature; the quiescence of the disease and improvement in the patient's general condition after the first operation; and finally the appearance of section of peritoneum under the microscope, which was certainly not indicative of malignant disease.

Professor SIMPSON and Dr. J. W. BALLANTYNE made remarks; and Dr. FORDYCE replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

J. M. PURSER, M.D., President, in the Chair.

Friday, February 24th, 1899.

PNEUMOCOCCAL SEPTICÆMIA WITH ULCERATIVE ENDOCARDITIS CONSECUTIVE TO CROUPOUS PNEUMONIA.

Dr. MCWEENEY communicated this observation. The patient, a man aged 37, was admitted on December 5th, 1898, to the Mater Hospital, under the care of Dr. Murphy, with right apical pneumonia. Crisis occurred on the ninth day, and was attended with a good deal of collapse. Ten days afterwards the patient was allowed up one evening, and got very weak. On January 1st an aortic systolic murmur developed which became very loud; the patient became prostrate and delirious, the temperature curve assumed a pyæmic type, and death ensued on January 5th. Pneumococci with typical capsules were in the blood of every organ examined. The other *post-mortem* results were, briefly: Pericardium universally obliterated by recent adhesions, parietal layer being readily stripped off; myocardium of auricles soft and friable like wet blotting-paper. Right posterior cusp of aortic valve presented a mass of vegetations as big as a cherry—colour greyish-green where not covered with clot; behind this the cusp perforated, hole would admit an ordinary pen handle. Grey hepatisation of most of the right lung. Spleen twice the natural size, infarcted throughout. Embolus in primary branch of splenic artery, fibrinous, crammed with pneumococci.

HODGKIN'S DISEASE.

Dr. J. B. COLEMAN read a communication on the subject of Hodgkin's disease, and related a case. A labourer, aged 50, had enjoyed good health up to eleven weeks before his death. He gave no history of alcoholism or syphilis. Glandular enlargements first appeared in the left cervical and axillary regions. On admission to hospital, three weeks before his death, he was somewhat emaciated, but not anæmic; skin dry and scurfy; pulse and temperature normal; all the superficial glands were considerably enlarged, and there was evidence of enlargement of the thoracic and abdominal glands also; the glands were soft, freely movable, and painless; spleen was easily palpable and liver dulness increased. Examination of the blood showed hæmoglobin and red cells normal, the white cells 11,200 per cubic mm.; 40 per cent. of the white cells being lymphocytes; the blood contained no micro-organisms. The patient rapidly became more and more prostrate and died with symptoms of toxæmia eleven weeks from the onset. The necropsy disclosed universal enlargement of the superficial lymphatic glands, as well as of the mediastinal, retroperitoneal, and mesenteric glands; adenoid nodules were present in kidneys, spleen, liver, and intestines; the spleen was greatly enlarged, and growing from its capsule, as well as from that of the liver, were large masses of adenoid material; below the liver the retroperitoneal glands were enlarged and massed into a tumour, which surrounded the aorta and involved the adrenals. Cultural and inoculation experiments were carried out with the assistance of Dr. McWeeney with negative results. Dr. Coleman mentioned the arguments in favour of Hodgkin's disease being of an infective nature, and pointed out that numerous observers had found micro-organisms in the diseased glands. He also contrasted the disease with leucocythæmia, and said that Cohnheim regarded Hodgkin's disease as an aleukæmic *Vorstadium* of leukæmia, whilst numerous observers had noted the transition of the one disease into the other.

Dr. MCWEENEY and Brigade-Surgeon-Lieutenant-Colonel BURKE made remarks; and Dr. COLEMAN replied.

EPITHELIOMA OF LIP IN A YOUTH.

Mr. G. JAMESON JOHNSTON read the notes and exhibited microscopical sections of a case of epithelioma of the lip in a youth 18 years of age. The case had been reported in the BRITISH MEDICAL JOURNAL in October, 1898, and the report elicited several communications doubting the diagnosis. The microscopical appearances were so obvious to him that he proposed merely to submit the specimens for the examination of the members of the Academy.

BREAST CONTAINING NEW GROWTH REMOVED FROM YOUTH 18 YEARS OLD, WITH MICROSCOPIC SECTIONS.

Mr. JOHNSTON also exhibited the left breast of a male patient containing a new growth in the left upper quadrant, about the size of a large walnut, radiating processes of the growth extended in every direction into the gland substance; the consistence of the mass was quite firm, and, to naked-eye examination, very like scirrhus. It had been steadily growing for three months in spite of medical treatment, causing some slight discomfort, not actual pain: there was no retraction of the nipple or dimpling of the skin; the glands along the lesser pectoral were palpable before operation. No history of injury could be obtained. The whole breast and connective tissues and glands along the pectoralis minor were removed. The wound healed by first intention at the present time (twelve hours after operation). No recurrence could be seen nor any enlarged glands felt. Microscopical examination showed the growth to be mainly fibrous tissues, with what appeared to be a few short columns of gland cells here and there. Mr. Johnston felt a difficulty in classifying the growth, and asked for expressions of opinion as to whether it should be described as chronic inflammatory, fibro-adenomatous, or otherwise.

Dr. A. C. O'SULLIVAN thought that no one could doubt that the first section was a squamous cancer.

Dr. E. H. BENNETT said that there was a similar case of epithelioma of lip in a youth of 18 described in Pott's works.

Dr. E. J. MCWEENEY considered the epitheliomatous nature of the lip tumour most typical. The breast tumour appeared to him to be chiefly fibromatous, if not exclusively so.

Mr. G. J. JOHNSTON, in reply, said that, although he felt very much inclined to agree with Dr. O'Sullivan from his description of the structure of the breast tumour, still he was not inclined to accept his naming it a fibro-adenoma. This tumour was absolutely non-encapsuled. He doubted if the tumour of the lip recorded by Pott as epitheliomatous was really epitheliomatous in the absence of pathological investigation like that of the present day.

SARCOMA OF THE SUPRARENALS AND SECONDARILY OF THE LUNG.

Dr. J. MAGEE FINNY showed the left lung and the right and left suprarenals, which were the seat of sarcoma, with microscopical sections of the lung made, and explained by Dr. O'Sullivan, lecturer in pathology, Trinity College, Dublin. The patient was a man of 66 years, who was admitted to Sir Patrick Dun's Hospital in October, 1898, suffering from great prostration and cough, and pain in the left side. The only well-marked signs he showed were those of encysted left pleural effusion, without displacement of the heart, and on exploration the diagnosis was confirmed and the fluid found to be bloody. This character and his constitutional cachexia made the diagnosis to be cancerous pleurisy. The patient's colour was very dark, but without the characteristics of Addison's melasma, while the sputum was free from tubercle bacilli, and the urine from albumen. Death from exhaustion took place on March 20th, 1898. The morbid specimens showed the left suprarenal to be con

verted into a mass of bloody sarcoma the size of a goose's egg; the natural tissue of the gland was obliterated, and the sarcoma, which was unencapsuled, rested on and partly invaded the top of the left kidney, and was in intimate relation to the renal vein; from this vein a branch passed directly into the sarcoma. The right suprarenal was also converted into a sarcoma of a similar character, but it was the size of a small hen's egg. The left pleura was greatly thickened and rough, and contained a quantity of bloody exudation which was strictly encysted, as had been mapped out during life; the layer of pleura pulmonalis was equally thick, and completely separated the effusion from the pulmonary tissue. The centre of the lower lobe of the left lung was a mass of soft broken-down sarcoma, which seemed to pass at different depths into the surrounding healthy lung tissue. The microscopical character of sections of the left kidney and of the lung showed sarcoma of a mixed character, and, what was most remarkable and strange, a number of giant polynuclear or myeloid cells, containing as many as twelve or fourteen nuclei, and resembling exactly those found in sarcoma springing from the periosteum or ends of bone. The case presented therefore the rare peculiarity—not unknown in the life-history of sarcoma—of reproducing cells of connective tissue type, which was not that of the matrix from which it grew, inasmuch as there was a complete absence of any bone disease. The other point of interest lay in the sequence of the diseased organs. From the rarity of sarcoma being a primary disease of the lungs, and the frequency of the suprarenals being the first affected, it was not improbable, as Dr. O'Sullivan suggested, that the disease originated in the connective tissue or vessels of the left adrenal, that by the open vein it passed through the left renal vein into the circulation, and directly affected the right adrenal, and by embolic infarction it found its final resting-place in the substance of the left lung. The most careful examination failed to show any extension from the adrenals to or through the diaphragm.

Dr. E. J. McWEENEY said the curious thing seen in the section was the presence of enormous giant cells, entirely like the myeloid cells of bones.

SPECIMENS.

Dr. E. J. McWEENEY (for Dr. COLE BAKER) showed a Melanotic Sarcoma of Choroid.—Dr. KNOTT demonstrated an extensive series of Pathological Fibulæ and Patellæ. Dr. E. H. BENNETT made remarks; and Dr. KNOTT replied.

ULSTER MEDICAL SOCIETY.

J. A. LINDSAY, M.D., ex-President, in the Chair.

Thursday, May 4th, 1899.

CASES.

DR. CALWELL showed two cases of Psoriasis occurring in mother and son.

ACUTE PERICARDITIS.

Dr. DEMPSEY read a paper on this subject, with illustrative cases. His first case was that of a publican, aged 30, admitted to hospital with acute rheumatism and a presystolic apex *bruit*. On the eighth day of illness acute pericarditis set in, followed by large effusion. Double pleuropneumonia followed. The treatment consisted chiefly of leeching and the administration of salicylate of soda. The patient made a good recovery. A point of interest in the case was the fact that the crescendo presystolic *bruit* present at the beginning of the case was changed to a diastolic *bruit* diminuendo in character. This was probably due to weakening of the heart muscle. A second case, a male, aged 23, presented a right basic pneumonia with a large pericardial effusion. The heart sounds were almost inaudible. The symptoms being very urgent, it was decided to perform paracentesis pericardii. The site of the puncture was the fifth left interspace, 1¾ in. from the sternum; 14 ounces of blood-stained serum were withdrawn by the aspirator, with decided relief. Left pleural effusion set in and the pleura was twice tapped, forty ounces and sixty ounces of fluid being removed on two occasions. Further accumulation of fluid occurred, but the patient objected to further tapping and gradually sank. The relief obtained by the paracentesis pericardii was marked, and after the operation the heart sounds became clear and remained so to the end. If pleural effusion had not set in the patient would probably have recovered. A third case was that of a clerk, aged 25, admitted with acute rheumatism and endocarditis. *Bruit de galop* was present. On the ninth day of the rheumatic attack acute pericarditis occurred. In this case, also, double pleuro-pneumonia followed upon the pericarditis. The treatment adopted was the administration of calomel and salicylate of soda, with leeching. The patient made a lingering recovery. Dr. Dempsey thought paracentesis pericardii should be performed in all cases in which the quantity of fluid was so great as to place the life of the patient in imminent danger, and also in cases where the slow absorption of a large effusion might lead to serious enfeeblement of the heart.

Dr. CALWELL, Dr. M'CAW, and the CHAIRMAN made remarks upon the paper; and Dr. DEMPSEY replied.

ACUTE CIRCUMSCRIBED CUTANEOUS ŒDEMA.

Dr. DONNAN read notes of a case. The patient, a young lady, first noticed a small spot on the cheek, near the angle of the mouth. The swelling rapidly increased and in two or three hours the whole face became affected. There was some dyspnœa. When first seen the upper eyelids were as large as plums, tense and œdematous. The face was generally swollen, especially the cheeks and lips. The tongue was enlarged and the floor of the mouth raised into folds. The tonsils could not be seen. The uvula was as large as a gooseberry. The next morning the eyelids and the uvula alone remained affected, although the whole face still remained stiff. The patient felt giddy. The urine was free from albumen. The following day she felt perfectly well, except that the eyelids were not quite normal for another day. Quinine, magnesia, and soda were the drugs administered. The patient had had two former attacks, which seemed to be associated with disorder of digestion. Acute circumscribed cutaneous œdema was closely allied to urticaria. It was one of that group of angio-neuroses, the terminals of which were exophthalmic goître and Raynaud's disease. The group included hay asthma, migraine, Nothnagel's angina pectoris, urticaria, and certain forms of menorrhagia.

GASTRIC TETANY.

Dr. DONNAN also read notes on a case of gastric tetany. The patient, a married woman, aged 71 years, after some days of vomiting and dyspeptic symptoms began to feel tingling in the hands, and shortly afterwards the spasms commenced. The arms were in the typical position of tetany, elbows flexed and adducted to sides, wrists flexed and turned outwards, thumb flexed and adducted into palm. The feet were extended and the whole trunk rigid. The pulse was 108 and the temperature normal. Retching continued until the evening. The patient died rather suddenly thirty-four hours after the seizure. She was quite conscious until the end. There was complete anuria for the last twenty-four hours, so it was impossible to say whether there was any albuminuria; calomel, bromide of potassium, and chloral were administered. Dr. Donnan did not approve of washing out the stomach in these cases as recommended by Dr. Trevelyan.

Dr. MORROW, Dr. CALWELL, Dr. DEMPSEY, Dr. M'CAW, and Professor BYERS made some remarks upon these cases; and Dr. DONNAN replied.

BELFAST BOARD OF GUARDIANS AND CONSULTING FEES.

A resolution was passed condemning the recent action of the Belfast Board of Guardians in limiting the fee of any consultant called in to assist the dispensary medical officers to one guinea. These cases were usually operative, and hitherto the fee had been two guineas.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

EDWIN LEE, M.R.C.S., President, in the Chair.

Friday, May 5th, 1899.

PRIMARY ABSCESS OF THE KIDNEY.

DR. STEWART related this case. On June 28th, 1898, Mrs. H., aged 35, consulted him about pain in the left side and a slight cough. Nothing was found in the chest pointing to disease of lung or pleura. She was seen again on July 1st, when she

still had intense pain. The cough was relieved, but there was a temperature of 102°. He attended her until the 8th, when she was so much better that he ceased visiting her. On the 22nd he saw her again, as the pain had returned; there was shivering, profuse night sweats, and a temperature of 103°. Up to within a month of first seeing him she had enjoyed excellent health, the only thing noteworthy being that she only menstruated once every six months. On examining the chest he could detect nothing distinctive, but on examining the abdomen he found a tumour occupying the left hypochondriac and lumbar regions. It extended well into the loin, and bulged out the loin considerably when pressed up. It was smooth, and felt solid, no fluctuation being detected. It was tender when pressed between the hands, and rounded at its lower free end, no thin edge being felt such as one would find even in the largest spleen. It extended to within 1½ inch of the mesial line, and below to the level of the iliac crest. There was a band of resonance running over the front of the swelling. He took it for a case of pyonephrosis, although there was never any pus in the urine. That, however, he believed was due to blocking of the ureter, a view which seemed to be confirmed by the quantity of urine passed daily, which never exceeded 18 to 22 ounces. On August 9th he laid bare the kidney by the usual oblique lumbar incision, and even when the kidney was exposed no fluctuation could be detected. A trocar was passed in, and pus found at a depth of a quarter of an inch. The pus collected measured 16½ ounces. The patient made a good recovery.

CHRONIC INVERSION OF THE UTERUS.

Dr. HELLIER read notes of a case of chronic inversion of the uterus treated six months after labour by Aveling's repositor; it was reduced in about forty-eight hours. A full report will be published.

GOUT.

Dr. BAIN (Harrogate) read a paper containing an experimental contribution to the study of gout.

CASES, SPECIMENS, ETC.

The following cases, pathological specimens, etc., were shown: Dr. ALLAN (1) a Skull showing Hypertrophy from a patient who had suffered from tuberculosis, (2) a Brain after Concussion, and (3) Sequestra from an old Compound Fracture of the Leg.—Dr. BARRS (1) an unusual case of Tuberculous Ascites, and (2) Tubercle Bacilli from a Pleuritic Effusion. Cover-glass preparations made from the centrifugalised deposit showed numerous tubercle bacilli.—Mr. LITTLEWOOD (1) a Perforated Gastric Ulcer treated by excision of the ulcer and closure of the peritoneum (patient and specimen shown); (2) Chronic Suppuration in the Vermiform Appendix produced by a needle.—Mr. HERBERT ROBSON an Anencephalous Monster. The pregnancy had lasted ten months, and labour had then to be induced on account of distress produced by hydramnios. There was a face presentation. Under chloroform labour was terminated with much difficulty, but not until the crotchet had been inserted into the base of the skull, and the body drawn out by this means. There was considerable *post-partum* hæmorrhage and shock, but the patient was making a good recovery. The total amount of liq. amnii collected was 20 pints.—Dr. TREVELYAN (1) a case of Bulbar Paralysis with Right Hemiplegia; (2) a case of Aortic Disease in a child aged 11. There was no history of acute rheumatism, but articular pains had been complained of. The brother of this patient died suddenly two or three weeks previously from mitral disease. In his case there had been previous rheumatic fever; (3) a case of Lupus of the Larynx in a girl aged 19. There were scars of old lupus of the face; (4) a case of Deformity of the Palate in a child, probably due to congenital syphilis. The uvula was absent and the entrance through the fauces would only admit the end of the little finger. The epiglottis was also involved.

ANNUAL MEETING.

The annual meeting of the Society was held at the close of this the last ordinary meeting. The annual report and balance-sheet were presented and passed. The membership of the Society now stands at 340, and the average attendance at the meetings has been 60.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing year: *President:* Professor C. J. Wright; *Vice-Presidents:* Dr. Gordon Black (Harrogate) and Dr. A. G. Barrs. Mr. Edwin Lee (Dewsbury), Dr. Mouillot (Harrogate), Dr. Wardrop Griffith, Dr. H. G. Clarke (Doncaster), Mr. B. G. A. Moynihan, and Mr. Secker Walker took the place of the six retiring members of the Committee. *Honorary Secretaries:* Dr. E. F. Trevelyan and Mr. Lawford Knaggs.

IPSWICH CLINICAL SOCIETY.—At a meeting on May 11th, Mr. S. O. EADES, President, in the chair, Dr. HOYLAND showed three young patients with Mitral Disease, to illustrate the marked contrast in general physical development met with in the subjects of cardiac lesions.—Mr. FRYER showed a man with marked Aortic Regurgitation, the cardiac murmurs being loud over a very large area. There was marked pulsation of the carotids, and Mr. Sinclair found distinct pulsation of the retinal arteries alternating with venous pulse. The patient was at work, and enjoyed good health. Mr. Fryer also showed the Suprarenal Bodies from a case of Addison's Disease, in which the pigmentation was very slight. The left suprarenal was diseased.—The PRESIDENT showed a case of Chronic Dry Eczema.—Mr. J. R. STADDON showed a man with a Rounded bony-hard Prominence on the Right Posterior Wall of the Pharynx. He considered the case was one of disease of the cervical vertebræ, probably the result of previous caries.—Dr. VINCENT (through Mr. CORFE) showed (1) A woman with an Abdominal Tumour, in which an exact diagnosis could not be arrived at; it was probably either an omental growth or a uterine fibroid; (2) a case of (?) Chronic Meningitis; the patient had deep, scar-like furrows in the scalp adherent to the cranial bones; he suffered from insomnia, and had had maniacal attacks: the condition was probably of specific origin, and was improving under iodide.—Mr. BROGDEN read notes of a case of Diphtheria, in which he had used antitoxin. The attack was a mild one, but twelve days after apparent recovery a rash, resembling that of scarlet fever appeared, with rapid pulse and high temperature. The patient was very ill, much more so than during the primary attack of diphtheria. Mr. Brogden was inclined to ascribe the second illness to the antitoxin. The diagnosis of diphtheria had been verified bacteriologically.—Dr. BROWN showed the Appendix removed from a case of Recurring Appendicitis. The operation was one of great difficulty owing to the solid matting together of the cæcum, omentum, and intestine. The patient made an excellent recovery.—Mr. HOSSACK opened a discussion on the present epidemic of Influenza. He referred to the striking effects on the cerebro-spinal system; to the period of incubation which appeared to vary; to the slow pulse and subnormal temperature met with, and to the good effect of antiseptic treatment in restoring pulse and temperature to normal. Amongst the sequelæ met with he had seen 6 cases of intractable urticaria, and had also seen jaundice.—Dr. BROWN mentioned that the Clinical Research Association was now prepared to verify the diagnosis of influenza by a bacteriological examination of the sputum. He mentioned a case in which acute diabetes followed influenza. Although the patient appeared to be *in extremis* he recovered rapidly under strict treatment. He enjoyed good health for some years, but diabetes recurred and the patient died. A similar case had been recorded. These cases suggested the question as to why diabetes, occurring as a sequela of influenza, should be more amenable to treatment than when it occurred independently as it certainly seemed to be in these two cases. A good discussion followed, in which Mr. STADDON, Mr. FRYER, Dr. FOWLER WARD, Mr. PRIDMORE, Dr. WARD, and Mr. SINCLAIR took part.

FORFARSHIRE MEDICAL ASSOCIATION.—At a meeting on May 3rd, Dr. MACKIE WHYTE, Vice-President, in the chair, Professor KYNOCH showed a Uterus removed by vaginal hysterectomy for cancer of the cervix.—Dr. BUIST showed drawings of a liver from a case of Acute Yellow Atrophy and of microscopic sections of it. He quoted statistics of cases in several hospitals of acute yellow atrophy and the relative frequency of its occurrence in cases of pregnancy,

which he considered was not necessarily a factor in this disease. The disease was considered from the histological and also the clinical side. The multiplication of bile ducts was often only an apparent increase. He quoted a case he had under his care which simulated acute yellow atrophy of the liver, but proved to be toxæmia from internal obstruction. Professor KYNOCH and Drs. FOGGIE and M'VICAR spoke on the probable cause of the disease. Dr. BUIST briefly replied that cases published showed it to be due to some toxic substance whose nature was not yet discovered.—Professor STALKER communicated a case of Severe Anæmia following Menorrhagia, in which there were convulsions and exaggeration of the deep reflexes in the upper and lower extremities, bilateral sacral bedsore, double optic neuritis. In less than a week improvement commenced; the exaggeration of the deep reflexes improved first in the lower extremities. The hallucinations which had existed disappeared; the optic neuritis disappeared and the patient was steadily improving. Dr. M'GILLIVRAY spoke on the optic neuritis, and corroborated what had been said on its disappearance.—Dr. MACKIE WHYTE read a paper on the cases of Chronic Tuberculous Peritonitis that had been under his care in the Dundee Royal Infirmary during the last five and a-half years. They were 18 in number: 9 were dead, 1 was in a hopeless condition, and 1 had recovered completely. The single case in which laparotomy had been performed had died, and though most of the cases seemed unsuitable for operation when admitted, still it was thought it might be more frequently tried. Most of the cases lived four months and a-half on an average after the worst of symptoms, 2 for one year and a-half or two years. Family tuberculosis was present in 7. In 3 cases there were marked pleuritic symptoms, and in 3 old tuberculosis of the lungs. The principal signs and symptoms were reviewed, and various points in the diagnosis and treatment were discussed. Professor STALKER also spoke on the subject.—Mr. GREIG then continued his communication on Two Years in the Surgical Out-Patient Room of the Infirmary. In it he discussed the cases of kyphosis and scoliosis. He pointed out the difficulty of treatment of these cases in the surgical out-patient department, and recommended that if the plaster-of-paris jacket were used it should be combined with the dorsal position as being likely to afford more support to the spine. Tuberculous disease of bones, lupus, tuberculous adenitis, and tuberculous arthritis were then successively considered. Short details were given of the cases of rheumatic arthritis, osteo-arthritis, and several varieties of congenital deformities, for example, retained testis, cleft palate, nævus, and congenital tumour of sterno-mastoid.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting held on April 18th, Dr. BERRY (President) in the chair, Dr. EURICH gave a Microscopical Demonstration.—Mr. HALL showed (1) a Small Dermoid Cyst of the Ovary in which there were three cavities: the first contained hair, the second teeth and bone, and the third a mucoid fluid; (2) a Calculus removed six months after Lithotrity.—Dr. KERR showed a case of Optic Neuritis following Measles.—Dr. RABAGLIATI showed the Pelvic Organs with some Intestine removed *post mortem* from a patient who had suffered from a fæcal fistula following pelvic abscess.—MR. WILMOT showed a patient suffering from Acromegaly.—Dr. METCALFE read a paper on the Operative Treatment of Uterine Cancer. While admitting that there was a very large body of modern opinion in favour of complete hysterectomy, he cited Schroeder, Sir John Williams, and others, who advocated supravaginal amputation, and pointed out that the immediate mortality from hysterectomy was higher than from supravaginal amputation, while the recurrence rate was no lower. Dr. Metcalfe described the distribution of the pelvic lymphatics, and expressed the opinion that it was impossible by vaginal hysterectomy to remove the whole of the diseased area, together with the lymphatic glands, and consequently that if the disease had spread beyond the limits of the uterus, recurrence was probable after either hysterectomy or amputation of the cervix. Drs. RABAGLIATI, WOOD, HALL, and ALTHORPE discussed the paper; and Dr. METCALFE replied.—Mr. MIALL read a paper on Contagion from an Historical point of view. Disease was considered transmissible, in very early times, by charms and ceremonies some of which were still extant. Ideas of cleanness and uncleanness, which were almost universal among primitive peoples, also involved the idea of contagion which prevailed at the dawn of history in Egypt, Persia, and Greece. In India inoculation for the small-pox was practised by the priests still earlier. Thucydides records the contagious character of the plague at Athens B.C. 430, and about the same time Hermippus, the comic poet, mentioned the itch as transmissible. Aristotle had no doubt of the contagious nature of the plague. But the strictly medical writers in Greece before the Christian era ignored contagion. They accounted for epidemics by noxious airs, influences of celestial bodies, eclipses, tidal waves, earthquakes, famine, wars, and other causes affecting many at the same time. Aretæus was the first medical author who recognised contagion; this was in the second century A.D. Lucretius first used the term "contagion," which soon acquired a technical meaning. He was followed by Virgil, Ovid, Livy, and most Latin authors, except the medical writers. The latter did not allude to the subject till we came to Cœlius Aurelianus, though the Greeks had long adopted the notion. It was possible to identify bubonic plague in the sixth century A.D., when it pervaded the Roman empire, eastern and western, for fifty years. The belief in contagion was gradually placed on a firmer foundation. There were three lines of thought in ancient times in regard to epidemics—the idea of contagion, that of the patient's susceptibility, and that of a common cause for epidemics. These three theories still contended with one another.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At a meeting on April 26th, Dr. ALEX. MILLER, President, in the chair, Dr. JOHN H. TEACHER delivered a lecture on William Hunter, Anatomist, with demonstration of preparations from the obstetrical series of the Hunterian Museum. Though nowadays William Hunter's reputation rested on his great work of obstetric anatomy, *Hunter's Gravid Uterus*, and the share he had in reforming the practice of midwifery in England, it was to anatomy and to the organisation and reformation of medical education that his zeal, talents, and fortune were chiefly devoted. The revolution which he effected in the teaching of anatomy by the establishment of full systematic courses of lectures, and of facilities for dissection by students, and his view as to the importance of anatomy and what a teacher of it should aim at were briefly set forth. Dr. Teacher traced the early part of Hunter's career and the circumstances which chiefly determined its direction—the friendship with Cullen, which turned him from theology to medicine; the kindness to him of James Douglas, anatomist and accoucheur, which determined him to settle in London; his leanings towards the practice of surgery; his ambition to teach anatomy, and the means by which he made himself fit to do so. In regard to the last, Dr. Teacher referred particularly to his early anatomical writings, his studies in Paris in the winter of 1743-44, regarding which information had been obtained from papers preserved in the Hunter Museum, and his second visit to the Continent in 1748. Hunter's first opportunity of teaching came in 1746, in the form of an invitation from a "Society of Naval Surgeons" to give a course of lectures on operative surgery; to this they asked him to add a course of anatomy. Out of this course arose the famous Great Windmill Street School of Anatomy. The circumstances which turned Hunter from surgery to midwifery were then indicated, and his practice as a physician and accoucheur (and anatomist) was illustrated by giving an account of his diary of attendance on Queen Charlotte, preserved in the Hunterian Museum, and by quotations from his midwifery lectures relative to puerperal fever, bleeding in pregnancy, the forceps, and craniotomy. The meeting concluded with a demonstration of specimens from the obstetrical series of the Hunterian Museum, illustrating the anatomy of the placenta, and William Hunter's discoveries relative to the nature of the decidua and the independence of the fœtal and maternal circulations. The demonstration closed with an exhibition of the beautiful dissection of the gravid uterus in the fifth month, figured in the portrait by Sir Joshua Reynolds, and which was of special interest as being from the case in the investigation of which William Hunter discovered the till then unrecognised condition of retroversion of the gravid uterus.

REVIEWS.

Albuminuria and Bright's Disease. By Nestor Tirard, M.D., F.R.C.P., Physician to King's College Hospital, etc. London: Smith, Elder and Co. 1899. (Demy 8vo, pp. 362, 15 illustrations. 12s. 6d.)

This is a welcome contribution to the literature of renal disease. Written mainly from the clinical standpoint and based upon the author's own experience, its practical value is enhanced by the ease and simplicity of its style and the clearness of its illustrations.

As the title implies, the subjects of the work fall into the main categories. The first four chapters treat of albuminuria in general, together with hæmaturia, chyluria, hæmoglobinuria, and renal casts. The principal diseases of the kidney form the subject of the next ten, while the last three are respectively devoted to uræmia and the diagnosis and prognosis of albuminuria. Dr. Tirard classifies albuminuria first into renal and extrarenal. The principal forms of the latter—bladder and urethral affections—having been mentioned and dismissed, the former are subdivided into the varieties occurring with and without definite structural change of renal tissue. Where no such change is present the cause may be mechanical or hæmatogeneous, or, thirdly, may belong to the type known as functional intermittent or cyclical. It is interesting to note that Dr. Tirard joins with Dr. Clement Dukes in deprecating the tendency to apply the term "physiological" to this form, particularly when it occurs in young adults. The general account of albuminuria is based upon the admirable classification already quoted, and includes an ample statement of the principal pathological conditions leading to the appearance of albumen in the urine. The chapter on casts is interesting, and there are some judicious critical remarks as to their prognostic value.

The sections relating to diseases of the kidney proper are systematically arranged. Originality in their description is hardly to be expected or, indeed, desired, but whoever consults the book can be assured of a thorough account of each division of the subject embodying modern views. Treatment is considered at the end of each chapter, and is hence brought into relation with the pathological and clinical descriptions of the condition to which it refers. Some account is given of certain affections touching the border line of surgery, such as renal calculus, hydronephrosis, and suppurative nephritis, and this certainly helps to give completeness to the book.

The discussion of the pathology of uræmia includes an adequate and well-balanced summary of the principal theories which have been put forward concerning this still somewhat mysterious complication. In the chapters on diagnosis and prognosis, more particularly the former, Dr. Tirard is at his best, and it is here especially that his large experience cannot fail to be of value to the reader concerned with insurance work.

The utility of the work is distinctly enhanced by a very complete series of plates: the majority of these are reproduced from the author's own drawings, and convey a faithful idea of the common pathological changes in the kidney. The four beautiful representations of ocular changes are by Mr. Stanford Morton, who has succeeded in hitting the exact colour of the fundus with an accuracy which we do not remember to have seen surpassed. The book is admirably produced, and we cordially congratulate Dr. Tirard on his success in a field so closely associated with the name of his friend and master, the late Sir George Johnson. We can confidently recommend it alike as a textbook for those commencing to study the subject, and as a work of reference for practitioners wishful to refresh their knowledge.

The American Yearbook of Medicine and Surgery. Under the general editorial charge of Dr. George M. Gould, assisted by a large number of collaborators. London: The Rebman Publishing Company, Limited. 1899. (Royal 8vo, pp. 1102. 38s.)

The *American Yearbook of Medicine and Surgery* is the youngest of the annuals, but it is the biggest of them all. This is due to the act that it covers a larger field than any similar work in the English language. It is, in fact, what it described on its title page as being—"a yearly digest of scientific progress and authoritative opinion in all branches of medicine and surgery, drawn from journals, monographs, and textbooks of the leading American and foreign authors and investigators."

Dr. Gould and his collaborators with extensive view survey medical literature from China to Peru, and whenever they find anything worth preservation, they act on the admirable precept of Cap'n Cuttle, and "make a note of it." The wonder, therefore, is that the book is not even much larger than it is, for the number of medical journals is infinite, and of the making of books there is no end. Dr. Gould says in the preface that "each year adds to the enormous difficulty of condensing the results of the advances made in all departments of medical science within the limits set in previous volumes;" he is all the more to be congratulated on the successful manner in which the difficulty has been overcome.

Death has deprived Dr. Gould of one of the most eminent among his collaborators, Professor William Pepper. There is still, however, in the list of contributors a considerable number of names which Fame has wafted across the Atlantic, and all the collaborators are, as appears by their titles and appointments, of a professional position that is a guarantee of their fitness for the task which they have undertaken.

Of the work itself there is naturally not much to be said. It comes to us not with the timid tentativeness of a first appearance, but with the confidence of a favourable reception begotten of past success. This *Yearbook* has already made an excellent reputation for itself, and that reputation is fully maintained by the present issue. It belies the old Greek proverb that a big book is a big evil. This book, in spite of its bigness, is a boon to all practitioners who wish—as all should wish—to keep abreast of the progress of medical science in the many directions in which it is now so rapidly advancing. We cannot honestly say that we like the fashion of its outer garments, which are sicklied o'er with the pale cast of a watery blue that shows still poorer by contrast with the flaring red of the edges. But the book hath that within it which passeth the show of its exterior.

Ringworm in the Light of Recent Research: Pathology, Treatment, Prophylaxis. By Malcolm Morris. London, Paris, and Melbourne: Cassell and Co., Limited. 1898. (Roy. 8vo, pp. 150, 23 illustrations. 7s. 6d.)

This work is an expansion of a paper read by the author at the International Congress of Dermatology held in London in 1896. As is known to everyone who has followed recent research on the parasitology of the skin, the sweet simplicity of the unicist theory in regard to the fungus of the ringworm has in the last few years been transformed into a bewildering complexity by the researches of M. Sabouraud. The doctrine of the distinguished French investigator might almost be formulated as *Quot capita tot fungi*. Even this comprehensive formula does not embrace the whole of the new learning in regard to ringworm, for, in addition to the varied flora of the head, the eyebrows, the beard, the body have each, it would appear, their own distinct and several parasites. The complexity of the subject is increased by variations in the geographical distribution of the fungi, each tribe having a sphere of influence of its own, so that observations made in one country, or even in one city, do not necessarily hold good for another. Mr. Malcolm Morris has made microscopical examinations and cultural experiments on a series of cases under his own care, and his results deserve special consideration owing to the fact that he used a method of staining which has given excellent results. From his preparations microphotographs of remarkable clearness and beauty were made by Mr. Andrew Pringle and shown at the London Congress of Dermatology and at the annual meeting of the British Medical Association at Montreal, where they excited great admiration; they are reproduced in this work. Mr. Morris's researches have led him to the conclusion that there are but two varieties of ringworm parasite which concern the clinician. Of these one is a small-spored fungus (microsporon Audouini) which attacks the scalp in children, giving rise to a form of the disease extremely refractory to

treatment. The other is a large-spored fungus or trichophyton which attacks the body, and sometimes the scalp, and is comparatively easy to deal with.

The clinical appearances of ringworm as it affects different parts of the body, the relations of the fungi to the lesions, the complications and the course and termination of the disease are fully described. The diagnosis and prognosis are discussed in a separate chapter. Considerable space is devoted to treatment, all the methods which have been recommended by recognised authorities being set forth in detail, and judicially estimated in the light of the author's own experience. The parasiticide on which Mr. Morris places most reliance is chrysarobin, which, however, he does not offer as a specific. He insists that each case must be dealt with in accordance with its peculiar features. The practitioner should, he says, carefully feel his way, trying one remedy after another until he hits on that which appears to meet the requirements of the case, and using that only so long as it serves its purpose.

In a concluding chapter on prophylaxis, Mr. Morris suggests that in crowded districts, special schools, or in less populous parts, special classrooms, should be provided in which children suffering from ringworm may continue their education without risk of spreading the disease. In Paris a school of this kind attached to the Hôpital Saint-Louis has been in existence for some years, and in Rome there is a similar institution. In both the results are said to be very satisfactory.

Of Mr. Morris's work as a whole, it may be said that it is a monograph of great value, in which the present state of knowledge regarding the etiology of ringworm is presented in a lucid and readable style, and with a skilful use of literary perspective. The essential points are shown in sharp relief, while those of less practical importance are given in sufficient detail to enable the reader to appreciate the bearings of the numerous researches that have been made by different workers in recent years. The part relating to treatment is particularly helpful, inasmuch as the principles on which the various methods described are based are carefully explained.

Le Rachitisme, sa Pathogenie. Par Dr. Albert Delcourt Brussels: Henri Lamertin. 1899. (Roy. 8vo, pp. 104).

In this thesis the author publishes the results of some remarkable experiments on animals which, although they will require further confirmation, are of very considerable interest and appear to throw additional light on the obscure pathology of rickets. Since the first description of rickets by Glisson in the seventeenth century the pathology of few diseases has been so much discussed or presents so many widely divergent views. Very contradictory results have also been obtained by experimental methods.

The author has wisely contented himself with a concise, though quite sufficient, summary of the views held as to the pathology of rickets. He agrees with Babeau that much of the confusion which has resulted from the varying results obtained by experimental research lies in the fact that sufficient importance has not been attached to the stage of the disease in which the investigations have been made. The early or gravescent stage attended by elimination of lime salts in excess, is quite distinct from later periods in which the deformities occur from softening of the bones thus produced, but in which no such elimination of lime salts is found.

The author repeated the experiments of Heiss and Baginsky to ascertain the effects produced on young animals by lactic acid, and shows that it caused a marked increase in the amount of lime salts excreted. After death no typical rachitic lesions were found, though the bones were lighter, and contained less lime salts than normal. He found that the same held good for the lactic acid bacillus.

He next investigated the action of potassium salts, which are present in far greater amount in cow's milk and the mixed diet of infants, than in mother's milk. The results obtained were striking. The administration of potassium phosphate to young animals caused a marked increase in the amount of lime salts in the excreta, and the typical macroscopical and microscopical evidences of rickets were produced. These results were not attained by the corresponding sodium salts. These experiments are remarkable, and certainly seem to make it probable that an excess of potassium salts may cause rickets, though the explanation given by the author, based on Bunge's observations on the action of potassium salts in causing an increased excretion of sodium salts in the urine, and on the varying amounts of potassium and sodium salts taken by the herbivora and carnivora respectively, is one that requires much further investigation.

Dr. Delcourt intends to make further experiments as to the part played by the sodium salts in the tissues in the process of ossification in cartilage, and these may throw further light on the questions at issue.

Although incomplete in the point referred to, the results recorded are of distinct value, and are well worthy of attention from those interested in the pathology of rickets.

NOTES ON BOOKS.

In reviewing the first edition of Dr. McFarland's work on *Pathogenic Bacteria*, we drew attention to the fact that in consequence of certain limitations it had some advantages over other books of its kind, but that these were necessarily accompanied by corresponding disadvantages. In the second edition (London: Henry Kimpton. 1898. Demy 8vo, pp, 498, 134 illustrations. 16s.) Dr. McFarland has so extended the scope of his work that many of the disadvantages are removed, and he has succeeded in improving his book to such an extent that it may now be said, as he claims, to "fulfil the double purpose of a systematic work upon bacteria and a laboratory guide." The book in its present form is more than a third larger than it was, and a considerable addition has been made in the number of illustrations. New chapters have been added dealing with the bacteriology of whooping-cough, mumps, yellow fever, hog cholera, and swine plague; describing the bacillus aërogenes capsulatus and the proteus vulgaris, and explaining the methods of determining the value of antiseptics and germicides, and of determining the thermal death-point. Additions to several other chapters, however, have been made, and a description of Koch's new tuberculins is given; some of the added illustrations are amongst the best in the book. Taking the work as a whole, and with the exception that the references given are perhaps somewhat too meagre, certainly as regards number, and that they appear to deal only with comparatively recent work, it may be looked upon as an exceedingly comprehensive and well-thought-out manual from which to study the morphology and biology of the pathogenetic bacteria.

We have received the second and final volume for 1896 of the Reports on General Pathology and Pathological Anatomy of Man and Animals, published by Drs. O. Lubarsch and R. Ostertag, under the title of *Ergebnisse der allgemeinen Pathologie und pathologischen Anatomie des Menschen und der Thiere* (Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1898. Roy. 8vo, pp. 873. 25s. 6d.). The authors state in their preface that this volume is to be looked upon as completing not only the first volume of that year, but also the issues for 1894-5. It includes diseases of the air passages by Drs. H. Suchannek and Eppinger; diseases of the urinary organs in man by Dr. L. Jores; diseases of the generative organs—in the male by Dr. Finger, in the female by Drs. A. Gessner and H. W. Freund, and in animals by Drs. Eber and Künnemann. A summary of contributions to the diseases of the mouth and intestinal tract is given by Drs. A. Koerner and A. Schmidt. Dr. H. Dexler deals with the pathology and pathological anatomy of the central and peripheral nervous system in animals. The section upon diseases of the eye and ear are by Drs. Axenfeld, Grunert, Donalies, and Matte. Finally, in an addendum malignant tumours and cysts in animals are treated of by Dr. M. Casper. The method followed is to give a list of recent literature of the subject, with full references; and then a reasoned summary embracing the views therein contained. Such a work as this entails upon the collaborators an immense labour, but its value as a book of reference can hardly be exaggerated.

THE PREVENTION OF TUBERCULOSIS.

SHEFFIELD.

A MEETING was held in the Cutlers' Hall, Sheffield, on May 10th for the purpose of establishing a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. The chair was taken by the Lord Mayor, who had on his right Sir William Broadbent, Bart., Chairman of the Organising Committee of the National Association, and on his left Professor Clifford Allbutt. Among those present were Dr. Dyson, Dr. Burgess, Dr. Porter, Dr. Overend, Dr. Hunt, Dr. Wilks, Dr. Gwynne, Dr. Sinclair White, Dr. Young, Dr. Tristan (Retford), Dr. G. M. Rae, Dr. H. W. Graham Lander (Hathersage), Dr. Hatherley (Mexbrough), Dr. Robertson (Medical Officer of Sheffield), Dr. Martin, Dr. A. J. Hall, Dr. Scott (Handsworth), Dr. Cochrane, Dr. Keeling, Dr. Johnston, Dr. Tusting Cocking, Dr. Kaye (Medical Officer of the West Riding), Dr. Hislop (Medical Officer of Knaresborough), Dr. Robinson (Medical Officer of Rotherham), Dr. Kite, Messrs. Simeon Snell, M. Leach, A. Reckless, R. J. Pye-Smith, G. F. Lockwood (Chairman of the Sheffield Hospital Committee), C. Belk, C. E. Vickers Gething (Chairman of the Mansfield Sanitary Committee), Professor Hicks (Principal of the Sheffield University College), Professor Denny, and the Mayors of Chesterfield and Harrogate. Dr. Burgess (Local Honorary Secretary) explained that the Duke of Norfolk regretted his inability to attend, but accepted with pleasure the presidency of the Sheffield Branch of the National Association. Letters had been received from the Archbishop of York, the Duke of Portland, the Earl of Scarborough, the Earl of Wharncliffe, and many others.

After the Lord Mayor had explained the objects of the meeting,

Sir William Broadbent then addressed the meeting. Having sketched the origin, progress, and objects of the National Association, he said it only completed its organisation when its first statutory meeting was held in the previous week under the presidency of the Earl of Derby as a society registered under the Board of Trade. It was becoming known that consumption was not the incurable disease it had long been considered to be, that the open-air method of treatment was more successful than anything previously known, and that the disadvantages of this climate were not sufficient to neutralise the virtues of this open-air treatment. The real originator of the present movement was Mr. Malcolm Morris, though it was quite true that medical officers of health all over the country in different parts and in different degrees, were agitating for the notification of the disease, and were pointing out the dangers of its spread in milk. Certain names stood out in this respect: the medical officer for the West Riding; Dr. Kay; Dr. Niven of Manchester, and Dr. Newsholme of Brighton; Dr. Vachell; Dr. Grimshaw; Canon Rawnsley, who was known as one of the poets of the Lake District; Professor Delépine of Manchester; and other pioneers in this movement. The starting of the National Association was, however, due to Mr. Malcolm Morris, who devoted a number of the *Practitioner*, of which he was editor, to the subject of tuberculosis, and in consequence a meeting was called, which was attended by a considerable number of medical men in London. They were fortunate later in enlisting the sympathy, the approval, and the co-operation of the Prince of Wales, who called the meeting at Marlborough House, which was reported in every important paper, and called forth leading articles on the subject. That single meeting advanced the work of the Association by twenty years. The object of the Association was, of course, quite clear from the first. It was to interest and inform the public mind, to excite attention to the fact that consumption was preventable and curable, and to prepare the public mind for the teachings of the medical profession on the important subject. They had, of course, to combat the fatalistic idea that consumption was simply the development of hereditary tendency, which medical science was almost incompetent to deal with when it was once developed. As it was contemplated to form a branch in Sheffield, it would perhaps be well to state the relationship which was expected to exist between the branches and the central Association. There was no idea whatever on the part of the central Association of exercising any kind of command over the branches. The relations would be very like those which existed between the Mother Country and the Colonies. Perfect autonomy was to be left to the branches, and to enlist as many persons as possible the subscription of members was fixed at the low sum of 5s. a year. All the central Association asked for was 1s. to meet sundry expenses. The sole function of the central Association would be that of co-ordination. It had been asked that the different branches should be represented by delegates on the central body. When nominations for the central Committee had to be made, it was impossible to have representatives from branches because the branches did not exist; but it was intended that in the course of the coming year there should be a conference from all parts of the kingdom to determine on the representation of localities and other questions which would of necessity arise. It was also intended to have a monthly or quarterly journal which would link the different branches together. The Association, of course, had not escaped criticism and objections. They were told that they were creating a panic in the country; but the Association would in reality minimise the panic which had already taken possession of certain minds by pointing out that it was only through expectoration that consumption could be passed from one person to another, and that this could be prevented. Another criticism was that they were usurping the function of the family medical man. These objections did not come from the family doctor himself, nor from the people who were best qualified to speak in the name of the family doctors, who saw most of them in consultation. The best answer was a meeting like that which had been called by the profession in the neighbourhood. Everywhere where a branch had been called it had been through the members of the profession, who realised that by the action of the Association they were being helped to impress on their patients the facts relating to the spread of consumption. Another small objection was that the matter ought to have been left to the College of Physicians. If the College had taken it up, he, for one, would have been ready to co-operate, but it did not, and the very men who told them that they should have left it to the College would have been the men to throw water on the proposal if it had gone before the College. He would not take note of other objections of a similar kind, but they had been met with other criticisms. Enthusiastic officers of health and enthusiastic members of the medical profession not occupying such positions asked why compulsory notification of consumption was not advocated, as well as the compulsory test of milch cattle by tuberculin, and the destruction of animals found with the disease, with compensation to be provided out of the public funds. He confessed that he was dismayed at the idea of the difficulties which would arise if they attempted anything like compulsory notification of consumption and the treating of it as a contagious disease on the same lines as scarlet fever and the like were treated. That was not the place to discuss the difficulties which would arise by such action being taken. Neither municipal nor health authorities, nor Parliament, nor statesmen, nor the public were prepared for the notification of the disease with the consequent action upon it. By all means let the certificate of death by consumption be the notification, and let that be acted upon by the disinfection of the rooms in which patients had died of consumption. Let there be notification of cases of consumption which were treated at public institutions, and let this be followed by a search for the cause of the disease; by insisting on ventilation, cleanliness, disinfection, and all other measures which tended to prevent the disease; and if there were any zealous medical officers of health who could organise a system of notification, compulsory or otherwise, they would only be too ready to encourage them. They believed that they were preparing the way for the medical officers, and making their work in convincing municipalities easier. So with regard to the compulsory testing of cattle by tuberculin and the slaughter of animals found diseased, neither the Chancellor of the Exchequer nor municipal bodies were prepared to find money for compensation. Meanwhile, although no compulsory work of that kind had been insisted upon, it was being done a great deal through the influence of the Association voluntarily. Public spirited and farsighted farmers had tested their cattle and had eliminated those that were diseased, and many districts and

towns were now perfectly safe from tuberculosis through milk by the action of dairy farmers. Action of that kind was gradually removing the necessity for anything like compulsory testing of cattle. Another criticism directed against them was that by insisting too strongly on the curability of consumption they were losing sight of predisposition to disease. His answer was that the disease was preventable, and that its predisposing cause was a low state of health, such as might be inherited or induced by overcrowding, the stuffy air of ill-ventilated rooms, dirty, dark and damp dwellings, bad or insufficient food, intemperance and infectious fevers or other illnesses. Their medical ancestors were not altogether fools when they concluded that consumption was due to hereditary tendency, and they would be very foolish if they ignored the facts which led them to that conclusion. It was quite true that there was such a thing as family predisposition to consumption, although a good deal of what was supposed to be the evidence of that family predisposition was capable of explanation. But much more important was the fact that the tendency to consumption might be acquired as the result of ill-ventilated rooms, overcrowding, squalor, dirt, and last, but not least, drink. In more ways than one drink would tend to the production of consumption. It was not merely that a man who indulged in drink predisposed himself to its attacks, but what he spent in drink was taken out of the general income of the family, the family was more or less impoverished, the children were less well nourished, and in that way they had an indirect, as well as direct, predisposition to consumption and, indeed, to all other forms of disease. Every movement which was good in itself did good, not only directly but indirectly, and every part of the work of that Society was beneficial. Its whole operations constituted an addition to that general stream of tendency which made for health and righteousness. The work of the Association was mainly preventive in the way he had described, but it was also important there should be provision for the open-air treatment. They did not pretend to say that the treatment would have all the success in this climate that it had, say, in the Engadine and other parts of Switzerland; yet the success was such as to be extremely encouraging.

Professor Clifford Allbutt said it must not be forgotten that before the bacillus was heard of, or at any rate before it became a practical factor in the affairs of mankind, a considerable reduction in the death-rate from consumption had been made on broad sanitary lines. He thought Sir William Broadbent had very wisely warned them that if in the pursuit of the bacillus—which was very profuse in itself—they forgot what general preventive medicine had done, or slackened their endeavours along those lines of preventive medicine, they might be risking the foundations of the superstructure they were trying to raise. They must remember that a great deal had been done in reducing the consumption death-rate in this country by draining the subsoil, by ventilation, by improved general drainage, by enormously improving the food of the people, and so forth. There was one danger which was beyond their control, a danger which all social reformers regretted, and that was the tendency of people in the country to flock into the large towns, crowding out other people for wages which, though nominally somewhat larger, were relatively smaller. That was a fashion which was deeply to be regretted. No doubt the rural population would find it out in time, but meanwhile the misery that was caused by this crowding of people altogether injured the health. Very fortunately man was not exceedingly susceptible to tuberculosis. He proceeded to emphasise the importance of getting people to discover new items of knowledge. There were plenty of people who would willingly pursue those studies if they were enabled to do so, and on this point he instanced what the German and the American universities were doing. In the United States he was struck by the foresight of the American people in ungrudgingly placing the princely resources in the way of laboratories, and every possible appliance which money could buy at the disposal of the students, in the certainty that one or other would discover something which would make the cost of these things a mere feather in the balance. They must, he insisted, remember their solidarity with the animal creation in respect to disease. For, remembering how the disease of anthrax was carried to mankind, how the poison of rabies was spread and diphtheria was carried, they would see the importance of the knowledge of diseases of animals, and how their study would throw light on our own, to say nothing of the economic advantage of agricultural science of preventing the disease of animals. They should strive to establish in the Northern Universities a chair of comparative pathology for the study of diseases, not merely in man, but in animals and even in plants, because they must remember that these bacilli were of vegetable growth.

Dr. Dyson moved the first resolution:

That a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis for Sheffield and District be and is hereby formed.

They needed a local association to understand their local needs, environments and causes. Sheffield was not so black as it was painted. The reduction in mortality in the prevention of tuberculosis generally for the whole of England for five years was 39, and for Sheffield 42, and the reduction in consumption and phthisis for the whole country 45, whereas for Sheffield it was 50. In regard to the remark made by Professor Allbutt, he reminded the meeting that they had recently very handsomely equipped a laboratory for bacteriological research by the help of one of their most generous citizens which he felt sure would do a great deal to assist in the investigation of that disease. They had in these matters to educate the people to study the milk supply, and the smoke supply, and the moors. A great deal had been said in criticism of the bleak moors of the Derbyshire hills, but he still hoped the Committee would have some food for reflection and consideration as to whether the upland Derbyshire moors might not be of some service to them. He hoped they might all live to see this disease reduced to zero.

The Mayor of Chesterfield (Mr. B. Douglas) seconded the resolution, which was carried.

Alderman W. R. Carter moved:

That the management of such branch for the first year be entrusted to the following officers: President: The Duke of Norfolk; Vice-Presidents: The Lord Mayor of Sheffield, the Local Members of Parliament, Earl of Wharncliffe, Lord Edmund Talbot, Viscount Milton, the Master Cutler, Sir Frederick Mappin, M.P., Sir Alexander Wilson, Sir William Leng, Sir Sir Charles Skelton, Sir Henry Stephenson, Sir Henry Watson, the Vicar of Sheffield, and Dr. Keeling. Executive Committee: The Lord Mayor of Sheffield, the Mayors of Doncaster, Chesterfield, Rotherham, Retford, and Barnsley, Dr. Dyson, Dr. Kaye, the Chairman and Vice-Chairman of the Health Committee, the Chairmen of the Weekly Board of the Royal Infirmary, Royal Hospital, Jessop Hospital for Women, and Children's Hospital, the Chairman of the Board of Guardians of Sheffield and Eccleshall, the President of the Sheffield Medico-Chirurgical Society, Alderman Franklin, Messrs. H. K. Stephenson, Herbert Hughes, Frank Mappin, Willoughby Firth, Bernard Firth, Thomas Ellin, Charles Belk, the Revs. Alfred Pearson, Folliott Sandford, and Mr. H. H. Oakley, Mr. R. J. Pye-Smith, Dr. Porter, Dr. Hunt, Dr. Gwynne, Dr. Garrard, Dr. Alfred Robinson, Mr. Abson, Dr. Wearne Clarke (Chesterfield), Dr. Crawford (Worksop), Dr. Hallowes (Doncaster), Dr. Thompson (Retford), with power to add to their number. Treasurer: The Sheffield Banking Company. Honorary Secretary: Mr. Percival Ellison Barber, and that the annual subscription be fixed at a minimum sum of 5s., and that the officers be subject to re-election at each annual meeting.

Mr. G. F. Lockwood, chairman of the Royal Hospital, seconded the resolution, which was carried.

The customary votes of thanks brought the meeting to a close.

HALIFAX.

On May 12th there was held at the Halifax Workhouse a conference of representatives from various Yorkshire Poor-law Unions to discuss the question of erecting a joint hospital for the treatment of consumptive cases. The chair was occupied by Mr. Josiah Wade, Chairman of the Halifax Board of Guardians, who explained that the conference was called as the outcome of an interview between the Halifax Guardians and their medical officer (Dr. Dolan), who had taken a great interest in the subject of the treatment of consumption. Dr. Dolan had again and again pressed on the Halifax Board the necessity for isolation, and it was decided to call a conference to see if something could not be done to eradicate that dreadful scourge. Dr. Dolan urged that one thing in connection with pulmonary phthisis had been clearly demonstrated, namely, that it was an infectious disease, and that isolation in treatment was necessary. In the Halifax Workhouse he had 27 patients suffering

from consumption. He pointed out that the accredited open-air and dietary treatment which had now come to the front was no new system. It was put into operation and tested as far back as 1859. The disease was spread to a great extent by contamination, and unless complete isolation was determined on and provided for, it was impossible to carry out regulations designed to keep consumptive patients apart from the others. He felt confident that while they had done much in the treatment of pauper consumptives in workhouses they ought to have done more for poor consumptives outside. The Halifax Union were providing a large workhouse hospital at Skircoat Green, and it might be said, Cannot you set apart a portion of that establishment for your treatment of consumptives? He assured them that it was not possible to do any such thing. The open-air isolated treatment required specially constructed—lightly, even flimsily constructed, in some parts—airy dwellings, and on a site at a sufficient altitude above sea level. Something would have to be done in workhouses in the way of removing consumptive inmates from the general wards. In his opinion the whole of the work and expense which his suggestions involved, ought not to be borne by the Poor-law authorities alone. He thought that their municipalities ought to see whether something could not be done in the way of improving the sanitation of the masses, for that was one method of combating the disease.

Mr. T. A. Guy (Bradford) said that whilst he could not agree entirely with all that had been stated, he knew that his own Board would certainly do something in the matter, whether other guardians in the West Riding did anything or not. He believed that this crusade against phthisis was bound to be successful.

Dr. McCandlish (Leeds) said that in Leeds they had a large number of common lodging-houses, the occupants of which were continually changing; something should be done there in the way of closer supervision. In their infirmaries, too, the number of cases of phthisis bore an enormous proportion to other forms of disease. The medical side of the question was of the utmost importance. Anything that could be done as the results of that conference would receive the hearty co-operation of the Leeds Board.

After some remarks from Mr. Charles Fitton (Chairman of the Huddersfield Board), Dr. Ainley suggested that a number of small establishments as sanatoria would be far preferable to one large hospital. He also regarded early notification of the disease as an important item in combating it.

Dr. Munro (Bradford) expressed similar views.

At the close of an interesting discussion, to which Dr. Dolan replied, Mr. F. H. Bentham submitted the following resolution:

That inmates of workhouses suffering from phthisis should be treated elsewhere than in workhouses and in workhouse infirmaries: and this conference suggests that the Boards of Guardians represented should earnestly consider the question with a view to such combination or otherwise, for the provision of isolated hospitals for the treatment of phthisis as the Boards may hereafter agree upon.

This was seconded by Mr. J. W. Hodgson, and carried unanimously.

NOTTINGHAM.

Dr. T. Davies Pryce, President of the Nottingham Medico-Chirurgical Society, and Drs. T. O. Brookhouse, H. Handford, and W. B. Ransom, Physicians to the General Hospital, Nottingham, have published a strong appeal calling the attention of the public to the need that exists for a sanatorium for the treatment of consumption in persons of limited means within the county of Nottingham. In Nottingham, they point out, out of every 1,000 deaths over 100 are due to consumption of the lungs or other organs, and in the large country district surrounding the city, known as the Basford Rural District, and stretching from Annesley on the north to Gotham and Bradmore on the south, the proportion is but little less (94 per 1,000). After referring to the results of the open-air treatment and to the movement for the prevention of tuberculosis that is spreading over the country, they go on to say: Feeling that the need of the consumptive poor is not less in our town and county than elsewhere, and that neither our hospitals nor the convalescent homes founded by the generosity of Sir Charles Seely suffice to meet this need, the Nottingham Medico-Chirurgical Society appointed a committee to take preliminary steps in arousing public interest in the matter, and, if possible, to call a public meeting, with the object of founding a sanatorium within the county, which shall do what can be done to cure those suffering from this saddest of diseases, and to educate them in the mode of life which shall maintain their health in the future. Matters have progressed satisfactorily, and it is hoped that a meeting of influential persons in both town and country will shortly be convened. His Grace the Duke of Portland, Lord Lieutenant of the county, has most kindly promised to preside, and the Mayor, Mr. Fraser, as head of the city, has offered his support. With such a cause and under such auspices we feel no doubt that the movement will be a success, and that we shall no longer in Nottingham be, as we are now, so far behind most other civilised countries, or the more intelligent and public-spirited counties of Great Britain.

NORTHAMPTON.

A meeting of the medical men of Northampton and its neighbourhood was held at the Infirmary, Northampton, on April 11th, to consider the question of the prevention of tuberculosis. Dr. Buszard was in the chair, and the following gentlemen were present: Messrs. Thompson, Lawrence, Moxon, Terry, Hodgson, Evans, Orr, Meyrick Jones, Harrison Forster, Cropley, Wainwright, Chamberlain, Stone Crookshank, Linnell, Kingcombe, Freeman, Jones, and Buszard. Letters of apology for non-attendance were read from Messrs. Audland, Milligan, Cogan, Dryland, Wilkinson, and Hyde. Dr. Buszard opened the meeting with a short speech, after which the following resolution was proposed by Mr. Evans:

That this meeting considers that some steps should be taken to arouse public opinion on the subject of tuberculosis in this neighbourhood.

Mr. Wainwright seconded the resolution, which was carried *nem. con.*

Dr. Jones next proposed:

That this meeting is in favour of a branch of the National Association for the Prevention of Tuberculosis being formed for Northampton and its neighbourhood.

Dr. Jones dwelt on the advantages to be derived from the establishment of sanatoria.

The resolution was seconded by Mr. Forster and carried unanimously.

Mr. Cropley proposed and Mr. Stone seconded:

That the following Committee be formed to take the necessary steps to carry out the resolution just passed, namely, the Infirmary Physicians and Surgeons, the Medical Officers of Health for the borough, the Medical Officers of Health for the county, the President-elect of the South Midland Branch of the British Medical Association, Dr. Harding, and Messrs. Forster, Kingcombe, and Hodgson; the last-named to act as Secretary *pro tem.*, and that the Committee have power to add to their number.

A vote of thanks having been passed to Dr. Harding for organising the meeting, and to Dr. Buszard for presiding, which Dr. Buszard briefly acknowledged, the meeting terminated.

EDINBURGH.

A Subcommittee of the Public Health Committee of Edinburgh Town Council has had a conference with the Subcommittee of the Edinburgh Parish Council on the question of the prevention of consumption. The deputation from the Parish Council included the chairman, Mr. Councillor Richard Clark, Dr. Peel Ritchie, and Mr. Campbell Irons, along with Mr. Ferrier, the inspector; while that from the Town Council comprised Bailie Pollard, the convener, Bailie Mackenzie, Judge Gulland, Sir Andrew MacDonald, Messrs. Brown, Menzies, Forbes Mackay, and Waterston. Bailie Pollard presided over the conference, which was private.

ITALY.

A National League against Tuberculosis has been formed in Italy on the initiative of Professor De Giovanni. Branches of the League have already been formed in various places. At a meeting of the Royal Medical Academy of Genoa held on April 20th, Professor Maragliano, President, in the chair, it was unanimously decided that the Academy should join the League, and should form a Ligurian Committee for the purpose of arranging a plan of campaign.

THE prizes and certificates at King's College, London, will be distributed by Professor R. C. Jebb, M.P., on July 12th.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders and Postal orders should be made payable to the British Medical Association at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 20TH, 1899.

RURAL DEPOPULATION.

The scarcity of agricultural labour is a recognised feature of the times which does not require any corroboration from official documents, but in a recent address to the Norfolk Chamber of Commerce, a full report of which was published in the *East Anglian Daily Times*, Mr. Rider Haggard has stated clearly and convincingly the proofs of the great dislocation of the rural population and the injurious effects it has had upon farm labour. He points out that the present conditions of agricultural employment are deplorable from two different points of view—the economic and the patriotic. There is the loss to the farmer, who cannot get his work done; and the injury to the nation in the loss of the "bold peasantry, its country's pride, which once destroyed can never be supplied."

Although we may hesitate to characterise this centripetal movement of the population as a sign of a degenerative social change like deferred marriage, divorce, suicide, or the growth of the tramp element, it certainly does not tend towards the improvement of "the national health and physique." There can be no possible objection to the farmers calling upon the Government to come and help them; but the obvious remedy is to make it worth the peasant's while to stay at home, and if possible to recall him there, by offering him as good a home and wages as he can obtain by migrating to the town or emigrating to a colony.

The social philosopher will not be content with regarding this dearth of rural labour merely in its economic aspect. The question arises whether it is merely the result of a displacement of the population, or whether it is not also an effect of depopulation. It would be very foolish to close our eyes to the change in sentiment during the last generation, which no longer finds its expression in the words "Happy is the man that hath his quiver full of them." The growth of the general population of the country is being arrested by the operation of three causes, all of them more or less voluntary—deferred marriage, decreased number of marriages, and diminished fertility of marriage. These causes must tell in country as well as town life, but it is possible that the effects may be greater under the prevailing conditions of rural life. In these circumstances the varying incidence of these three causes of depopulation in town and country becomes a matter of considerable interest.

There is no proof that there is a greater increase of delayed marriage in the rural than in the manufacturing counties; but it was stated in the Registrar-General's report for 1896 that the result of the general increase in the age of marriage during the last twelve years had been to increase the proportion of marriages at ages over 30 years by 94 per 1,000. The proportion of marriages among minors has shown an unbroken decline from the years 1873-4, when the marriage-rate was at its maximum. At that time, in 1,000 marriages, 84 males and 227 females married under age; in 1897, 51 males and 170 females. The districts in which the proportion is lowest are Devonshire, Herefordshire, Shropshire, Rutland, Westmorland, and North Wales (those in which it was lowest in previous years) and in the rural counties generally.

The general annual marriage-rate of the country fell irregularly from 17.6 per 1,000 of the population in 1873 to 14.2 in 1886. It has so far been responsive to prosperous times as to have risen to 16.0 in 1897 and 16.2 in 1898, but this increase is not proportionate to the unprecedented prosperity of the country. The marriage-rates of the rural counties have been and still remain much lower than those in manufacturing counties in 1897, the greatest difference being between 19.3 in Warwickshire, and 12.3 and 12.6 in the counties of Rutland and Oxford respectively. The decline in the marriage-rate since 1873 is not so pronounced in the rural as in the industrial counties; but there are other factors to be taken into consideration—for example, the greater illegitimacy of the rural counties, and the different age-constitution of their population.

The main factor in producing depopulation and overpopulation is, of course, the birth-rate. There has been a general fall from its maximum in 1876 to its minimum in 1898 of 19 per cent. This fall in the birth-rate has been out of proportion to and has outlasted the fall in the marriage-rate. The local incidence of this fall has varied widely, from a maximum amount of 42 per cent. in Oldham, and 39 in Swansea and Bradford, 24.9 in Derbyshire, and 24.5 in Lancashire, to 20.2 in Sussex, 17.5 in Hampshire, 13.3 in Devon, and 10.5 in Cornwall, but there is no district without some fall.

These depopulating influences are less strong in the rural counties than in those which are manufacturing and industrial, but considering the circumstances of the rural districts it would not have been surprising if they had been altogether absent. The immediate effects are shown upon the age-distribution of the population and the school attendance, but the remoter results are likely to tell upon the country as well as the town, and with more mischievous results. Instead of the former great abundance there is now a great dearth in towns of young people, male and female, seeking employment, relieved at first by the increased employment of females. Young persons in manufactures and offices expect to earn, and do earn, their living at 18. This must react upon country life and employment, and make the attractions of town life more irresistible. This assumption is confirmed by the diminution in emigration, which has fallen from 413,288 in 1882 to 213,280 in 1897.[1]

[1] See Registrar-General's Sixtieth Annual Report (Table, page 33.)

It may be asked how far are the effects of this apparent exodus of the rural population intensified by other and less obvious causes. The answer is that the depletion of the country districts of men and women in their prime, through impoverished surroundings and the absence of a living wage, is accompanied by a failure in the supply owing to the lessened fertility of the past twenty-five years, and though the evidences of this are not visible to the same extent in the rural districts as in manufacturing and industrial centres, its results are more disastrous in an already depleted population, while the corresponding enrichment of the position of young people in the towns enhances the attractions to migrate thither.

EXPERIMENTAL PSYCHOLOGY.

II.

A vast amount of labour has been devoted by the Psychical Research Society to phenomena of what we may call, if not abnormal, at least unusual, psychology, upon which strict observers of the usual, such as Wundt, are apt to be extremely severe. The main idea of this Society, that mind can act upon mind without the intervention of matter, which runs through their hypothesis of telepathy, clairvoyance, and apparitions, is not in itself so absurd as common sense is apt to think. If we examine the law of gravitation or of chemical attraction, which common sense thinks so manifestly true, we find in them a similar absurdity. We believe that every molecule, and every free atom is spatially separated from its neighbour by some substance that is not material in any ordinary sense. Yet we believe that these can act upon each other through this immaterial space. That matter can thus act upon matter at a distance has seemed to philosophers inconceivable at the very time that they acknowledge that the fact must be so. The case of mind is not more inherently impossible than this. The difficulty lies in proving the premisses. Time after time the Society has discovered fraud in its subjects or inaccuracy in its evidence, and if a certain amount remains that they accept, they are still unable to answer the objection that these, too, may be only cases of imposture or error hitherto undiscovered.

Research in the confessedly abnormal, such as the hypnotic or hysterical, is valid only within narrow limits. For it is impossible to accept the judgments of such persons about their own mental states. And they can therefore occupy no higher place for research than animals, in whom we judge of internal processes by outward acts alone. To accept a hypnotic's explanation of his own thought or action is never justifiable, and is usually a manifest absurdity.

Much has been written upon animals, and even upon insects. But here the further difficulty enters that in explaining their outward acts we are liable to credit them with human minds, of which we have no proof. This anthropomorphism runs through the writings of most observers of animals, and renders many of them ridiculous. There is little to be got out of the animal mind but what we ourselves unconsciously put into it.

Something is being done in the study of classes and races. MacDonald, for instance, has given rather interesting tables of varying sensibility to pain. In his early experiments (1895-1896) which were made on 1,412 individuals, he found that women are more sensitive to pain than men; that American professional men are more sensitive than American business men; that the labouring classes are much less sensitive to pain than the non-labouring classes; that the women of the poorer classes are less sensitive than those in more comfortable conditions; that the wealthy classes, in general, are more sensitive than the poorer classes, and that the left hand is more sensitive to pain than the right hand. These results are generally confirmed by a more recent series of experiments in which MacDonald used a "temple algometer," designed by himself. The instrument was pressed against the temple of the subject until a disagreeable sensation was caused, the amount of pressure being registered on a scale arranged for that purpose. In each case the least sensibility of pain was noted. Mr. MacDonald's observations extended over a great variety of social conditions and ages, including in all 899 persons. Of these some were public school girls, others private school girls, boys in public schools, university women, washerwomen, business women, and self-educated women.

One of the conclusions at which he arrived was that in general the sensibility to pain decreases as age increases. The left temple, like the left hand, is more sensitive than the right. This, it may be pointed out, is in opposition to the results of experiments made by Van Biervielt who found the left side less sensitive than the right, the vision of the left eye the less acute, and the left ear the more dull of hearing.

Mr. MacDonald found that girls in private schools, who are generally of wealthy parents, are much more sensitive to pain than girls in the public schools. It would appear that refinement and luxury tend to increase sensitiveness to pain. This also accords with previous measurements, which showed that the non-labouring classes were more sensitive to pain than the labouring classes. University women were more sensitive than washerwomen, but less sensitive than business women, but there did not seem to be any necessary relation between intellectual development and pain sensitiveness. Self-educated women were more sensitive than business women. This greater sensitiveness of self-educated women may, he thinks, be due to the overtaxing of the nervous system of the former in their unequal struggle after knowledge. The girls in public schools are more sensitive at all ages than the boys. On the whole Mr. MacDonald's measurements go to show that women are more sensitive to pain than men, and that, as Shakspeare put it long before instruments of precision were used to test sensation, "The hand of lesser employment hath the daintier sense."

The prevailing weakness of psychologists is to talk in terms of cerebral physiology; they had better stand on their own ground. It adds nothing to, indeed detracts from, the strength of a mental analysis when the author tries to explain it in terms of nervous action. Professor James, a notable sinner in this matter, boldly claims that causality in mind is only thus conceivable. The plea is probably not true, while the practice is confusing and misleading. The student goes away with the idea that the mental process is easily understood, and is parallel to a

certain form of radiation in the brain cells, whereas the cellular actions have been invented simply to explain the mental. Recent investigation into cerebral action has, on the other hand, been far too obviously coloured by a wish to explain mental processes. All this makes psychology merely a quack physiology. The true science has plenty of legitimate practice before it, and should confine itself thereto.

THE BIRMINGHAM CONSULTING SCHEME.

As was shown in our last issue the medical profession in Birmingham has been brought face to face with a new development of the movement to deprive us of our independence, and to work the profession for the benefit of capitalists. In their resistance to it they will, we believe, have the sympathy of the profession at large. The scheme, however, is such a pretentious sham that it has little chance of success.

The idea is to get two young men fresh from a successful student's course, to give them £500 a year apiece, and to call them consultants—the one a consulting physician, the other a consulting surgeon. The promoters propose that persons unable to pay ordinary fees for consultations should go to a house to be taken by the Saturday Fund for the purpose, and pay half a guinea to the Fund for the privilege of seeing one or other of the Fund's salaried "consultants."

The scheme could never have been conceived by anyone who had taken the trouble to consider what a consultant is and how he is made. Why are consultations desired under ordinary circumstances? Is it not because the patient or his medical adviser believes that the consultant by prolonged concentration of his energies on the study and observation of a certain department has gained special experience in the diagnosis of diseases which fall within its range, and special skill in the use of the best means for their cure or alleviation?

A man becomes a consultant by one of two processes. Either he begins life as a general practitioner, and, discovering special aptitudes for some particular department of medicine and surgery, gradually specialises and becomes in the course of years known as a specialist. Very many of the most successful consultants of the present and past have been evolved in this way. Or, soon after entering the profession, he becomes an officer of a general hospital to which a medical school is attached. For him a long period of service in subordinate posts in the hospitals, and of teaching in the medical school, takes the place of the period passed in general practice by the other type. One of the speakers at the meeting in Birmingham, of which some account was given in the British Medical Journal of May 13th, appeared to suppose that a young man who looked forward to becoming a consultant by this route passed his time in reading novels behind a brass plate. Could any idea be more absurd? It is the sort of notion we should expect from the young person in her first novel. Let any practitioner look back to his student days and remember the life of hard work for small pay lived by the demonstrator of anatomy, the surgical registrar, or the medical tutor. As a reward they had opportunities of observing large numbers of patients, of watching the treatment in the medical wards, of witnessing the operations, and perhaps of assisting in them; or, if they chose, of devoting some part of their time to a special study of the diseases of the eyes, the throat, the skin, the nervous system, etc.

Such a man is fortunate if at the end of a long period of probation it begins to become recognised that he possesses special knowledge and skill in the subject to which he has devoted himself. But the young Birmingham consultants, who are to spring like twin Minervas from the head of a very modern Jove, are to be prepared, between them, to "consult" on any or all the diseases and injuries to which flesh is heir.

A correspondent who is a general practitioner expresses the opinion that the proposal may eventually do good by bringing home to consultants the fact that there is a growing disposition on the part of philanthropists or men of business to exploit the medical profession for the benefit of their pet scheme or for the dividends which may be earned. The sentiment is not perhaps altruistic, but it is natural enough, for there is no doubt that general practice has been severely injured by schemes of the nature indicated. Anything which would have the effect of making the whole profession feel the unity of its interests would be good.

As a matter of fact, however, it is at least doubtful whether this Birmingham scheme will do established consultants any pecuniary injury. It will at most deprive them of a few fees. It may relieve the hospitals of a few cases; but it is to be feared that the real losers will be the general practitioners. The man who has half a guinea to spare, instead of going twice or thrice to the general practitioner, will pay it to the Saturday Fund for a "consultation," under the erroneous impression that he is getting something better than he can get from a general practitioner.

It will be seen with regret that Mr. Garrett Horder has sent a letter to the local press, the effect of which must be to convey the impression that the medical profession in Birmingham is not heartily supported in its opposition to the scheme by the medical profession elsewhere. We have a right to expect union and mutual support. This is the essential condition of success in the struggles which the profession has to face at the present time. We believe the consultants and general practitioners in Birmingham are quite united, and that with perhaps a single exception they are prepared to make common cause. The interference of outside persons who might be expected to look on with sympathetic interest, or, at all events, to abstain from taking part against their professional brethren, is to be deprecated.

A MODEL CHILDREN'S HOSPITAL.

Mr. Clinton Dent and the Committee of the Belgrave Hospital for Children are to be congratulated on their successful meeting at the Mansion House, reported in another column. It may be taken as setting the seal of public approval on their proposal to transfer the hospital to Kennington, and to carry it on there on a reformed basis. For nearly thirty years expression has been more or less constantly given in these columns and elsewhere to the deep dissatisfaction which prevails among medical men with the administration of too many of our hospitals. Associations have been formed to point out abuses and sug-

gest remedies, a Committee of the House of Lords has issued a comprehensive report on the subject, the Charity Organisation Society has done what it could, and our own Association has been very far indeed from being silent with regard to it. Yet up to the present it must be confessed that very little which is practical has been done to check abuse or carry out the various proposals for reform. Now for the first time a hospital committee is found courageous enough to pledge itself to the following programme of reform, which we take from one of its official documents: "The hospital will be reconstituted on a reformed basis, thus: (1) Stringent precautions will be taken against abuse of the charity. (2) A wage limit will be fixed. (3) Only the children of the really poor will be eligible for treatment. The part payment system will not be adopted. (4) The number of out-patients will be rigidly limited. (5) The casualty department will be restricted to cases of urgency only. (6) Registers will be kept of all patients, with the means and occupations of the parents. Free access will be given to these registers. (7) The hospital will co-operate with the local practitioners, in order to ensure that the above principles shall be fully carried out. The Executive Committee have already received gratifying assurance of assistance from the local practitioners. (8) Under suitable restrictions, local practitioners will be enabled to obtain a consultation opinion on cases brought by them. A different wage limit will be fixed in such cases, and no treatment given." It will be seen that these regulations, if faithfully carried out, as we doubt not they will be, strike at the root of the chief abuses which have been so long complained of—the abuse of charities by well-to-do people, the overcrowding of out-patient and casualty departments, and the injury done to outside practitioners. We wish the hospital every success in its new sphere, and shall watch its progress with the greatest interest, feeling confident that when the experiment has once been successfully tried, there will be many useful lessons to be learned by other institutions from this, the first children's hospital which has been established in London on an entirely satisfactory basis.

TROPICAL DISEASES IN THE WEST INDIES.

WE learn from the *Port of Spain Gazette* that Professor Crookshank, who has recently visited the West Indies to inquire into the tropical diseases occurring there in man and animals, and also into the bacteriological diseases of the sugar cane and cocoa tree, after a visit to the fine Colonial Hospital in Trinidad, made some remarks on its organisation. It showed, he said, on all sides evidence of capable administration by an efficient and zealous medical and surgical staff. Listerian principles were observed, the ventilation of the wards was admirable, and the attention to general sanitation satisfactory. He drew attention, however, to certain improvements which might be effected in the distribution of wards, and urged the need for a more complete classification of the patients. He thought it was inadvisable to admit cases of leprosy and venereal disease. He then pointed out the splendid opportunities which existed for the investigation of the cause and the means of prevention of tropical diseases, and referred to the interest which the subject had excited in England, where arrangements were being made to give a training in tropical diseases and in the modern methods of treatment and prevention of infective diseases to medical men who intended to practise in the tropical colonies. In England opportunities existed for studying imported cases of tropical disease, and a training could be given in the bacteriological methods of investigation. In the Colonial Hospital in Trinidad tropical diseases were found in all stages, so that opportunities for investigation were abundant. The equipment of a bacteriological laboratory, and the appointment of a medical officer of health who had made a special study of these subjects, and was prepared to devote his time to preventive medicine and bacteriological research, were matters which he hoped would receive the attention of the Colonial Government and the unanimous support of the public. It is felt that the appointment of a medical officer of health and bacteriologist at Port of Spain is not merely a matter of local concern, but would have the advantage of promoting the movement for the better study of tropical diseases. It would also be of advantage to the Island of Trinidad as a winter resort.

TOUCHING FOR THE KING'S EVIL.

WE have received from Dr. Henry Barnes, of Carlisle, a copy of a paper contributed by him to the *Transactions* of the Cumberland and Westmorland Antiquarian and Archæological Society in 1894, which we much regret we had not the opportunity of referring to in the article on the Royal Cure for the King's Evil, which appeared in the last number of the BRITISH MEDICAL JOURNAL. Tracing the growth of the legend which ascribes the first exercise of the gift of healing scrofula by touch to Edward the Confessor, Dr. Barnes points out that the possession of this miraculous gift is not mentioned in the Bull of his Canonisation which was issued by Pope Alexander III, about a century after the King's death. In regard to the origin of the touchpiece, of which he gives a number of illustrations, he says that Raymond Lully, the alchemist, made gold in the Tower for the Kings of England from Edward I to Edward III. This gold "was the purest angel gold, and the coins were called angels because the reverse side was impressed with the figure of an angel." The admirers of Falstaff will remember that when the Fat Knight was taxed with being the "Prince's ill angel," he triumphantly refuted the charge by declaring that: "Your ill *angel* is light." The gold made in the Tower was, on account of its superior purity, used as the healing gold in the rite of the touch. In the time of Henry VII the angel noble was the smallest gold coin in circulation, and it was in this reign that the ritual service was first instituted. The touchpiece had on one side the Archangel Michael overcoming the dragon, and on the other side a ship on the waves. The coins of the period generally bore some religious inscription, and the angel had *Per Crucem Tuam, Salva Nos Christe Redemptor.* The angels of Mary and Elizabeth bore *A Domino factum est istud, et est Mirabile.* Those of James I and Charles I are smaller; the inscription on the former is *A Domino factum est istud;* that on the latter *Amor populi præsidium Regis*—a striking example of historical irony. After the Restoration the touchpieces were of less pure gold. They bear round the angel the legend *Soli Deo Gloria.* There are no touchpieces of William or Mary. The Old Pretender had two, both of silver and of Italian workmanship. Those of the Young Pretender are very rare. Several touchpieces were shown in the Stuart exhibition, one being of copper, and eight-tenths of an inch in diameter. Obv.: An open hand issuing from the clouds, touching one of a group of four bearded heads, with the legend *He touched Them.* Rev.: Crown, beneath it rose and thistle entwined, with the legend *And they were healed.* The medal is not perforated, and Dr. Barnes is doubtful if this kind of token was used at the healing services. The Rev. W. Sparrow Simpson, F.S.A., has collected a series of services used "At the Healing" by different sovereigns. It is published in the *British Archæological Journal*, vol. xxvii, p. 871. Dr. Barnes says that in France there is some evidence that the touch was in use in the time of Philip I, and it continued till 1776; Louis XVI on his coronation in 1775 having touched 2,400 persons. We are sure that Dr. Barnes will be interested to learn that, on May 21st, 1825, Charles X solemnly touched 121 scrofulous patients in the Saint-Marcoul Hospital, his Surgeon in Ordinary, Dupuytren, being present on the occasion in his official

character. The name of Saint Marcoul recalls the tradition that it was through his intercession that Clovis was supposed to have received the gift of healing scrofula. In Poitou the power of healing scrofula by touch is at the present day believed to belong to seventh sons, who are called Marcou, after the saint. Dr. Barnes tells us that the same belief still lingers in such widely-separated districts as Cornwall and the North-Western Highlands of Scotland. In France the gift of curing diseases by touch was believed to be a hereditary possession in certain noble families which claimed descent from Saint Marcoul. It has been profanely suggested that Saint Marcoul was credited with a special power against scrofula for no better reason than that his name is something like *écrouelles*.

THE SMALL-POX OUTBREAK IN HULL.

WE learn that the outbreak of small-pox at Hull has been localised. The majority of cases have been of a mild character. The spread of the disease appears to have been due to communication between friends and relatives of the infected families. Special house-to-house inspections are being made in the vicinities; bills of precaution have been distributed in the city, and by the canal boats and lodging house inspector to the canal boats plying to and from the port, and to the common lodging houses. Special attention is being directed by the port sanitary authority to the inspection of shipping arriving and departing. The medical officer of health, Dr. J. Wright Mason, has reported that since March 2nd, 1899, 37 cases of small-pox have been admitted into the city small-pox hospital. The cases admitted from the city numbered 31, and there have been 4 deaths—a male, aged 55 years, unvaccinated; a female, aged 28 years, unvaccinated; a male, aged 38 years, one indifferent mark of vaccination; and a male, aged 45 years, unvaccinated; 14 patients have been discharged convalescent, and 13 remain in the hospital. Six cases have been admitted from the port with 3 deaths in girls, aged 6 years, 3½ years, and 16 months respectively, all unvaccinated; 1 patient has been discharged convalescent, and 2 remain in hospital. It thus appears that all the fatal cases, with one exception, were unvaccinated. The port cases are traced to the steamship, *Port Darwin*, which left Alexandria on April 2nd. On April 4th one of the passengers, a male, aged 28 years, sickened with small-pox. He died on April 9th, and was buried at sea on the same day. Previous to small-pox being detected three of six children, passengers on board, were sleeping in the same cabin as the deceased. On arrival at Hull on April 23rd the children, who were all unvaccinated, together with one of their sisters were found to be suffering from small-pox and removed to the hospital. The steward of the vessel, who had been attending the deceased and the children, was also suffering from small-pox and removed to the hospital. He had two good marks of vaccination. The mother of the children, her daughter, and sister were removed to the hospital for isolation and revaccinated. Her infant daughter, aged 16 months (unvaccinated) was also removed to the hospital for isolation and vaccinated. The infant developed small-pox on April 25th after admission into the hospital. The mother had three good marks of vaccination (primary); her daughter three good marks; and her sister two good marks. The latter stated that she had suffered from small-pox when 10 years of age. The ship's crew, numbering twenty-two, were, with the exception of three conscientious objectors, revaccinated on the date of arrival; the ship was disinfected and the names and addresses of the crew were taken and forwarded to the medical officers of health of the various destinations to which they departed.

SAUSAGES AND CAT'S-MEAT.

THE mystery surrounding the nature of the ingredients of sausages has for ages been a target at which humorists have aimed their shafts, and the individual endowed with the average amount of caution exhibits a genuine distrust of them unless they are made by those who are judged to be, like Cæsar's wife, above suspicion. We should imagine that the recent action against a sausage vendor of Hackney will not tend to diminish the serious doubts which are so generally entertained as to the invariable wholesomeness of the sausage. According to the evidence brought before the magistrate, a wholesale sausage manufacturer was under an agreement with a cat's-meat salesman to receive those carcasses which were judged to be too good for cat's-meat or too valuable for boiling down for soap and candles. The particular meat which was judged too good for cat's-meat, and was accordingly sent by the cat's-meat salesman to the sausage maker (on whose premises it was seized) was, according to the evidence of the medical officer as reported in the *Daily News*, beef from an animal which, in the opinion of the medical officer of health had not been slaughtered, and had probably died of disease; some of it had begun to decompose. Both defendants were convicted, and fined £50 or two months' imprisonment, and the magistrate is reported to have said that if it had been a second offence he would have imposed a term of imprisonment without the option of a fine. The case seems to warrant a word on behalf of the "harmless, necessary cat" for whom the meat was judged to be too good. It is certainly necessary that we should protect ourselves in every way against the undoubted risks of consuming unwholesome or diseased food, but is it not also desirable to protect cats and dogs? Seeing the intimate relations which exist between those animals and the members of almost every household, it is surely desirable to keep them as healthy as possible by giving them wholesome food.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

THE annual dinner of the Society took place on May 16th at the Hôtel Métropole. The President, Mr. Walter Hills, occupied the chair, and was supported by Dr. W. S. Church, Sir Walter Foster, M.P., Sir Dyce Duckworth, Mr. Thomas Bryant, Professor Michael Foster, Sir J. Crichton Browne, F.R.S., and over 200 members and guests. After the toast of "The Queen," the President proposed "The Houses of Parliament." Sir Walter Foster replied, and said that he was lost in admiration of men who entered the House of Commons when he thought of the money they had to spend to enter it and to remain there, and of the hard work required of those who were diligent in their attendance. The Pharmaceutical Society had many friends in the House of Commons. They must, however, maintain their organisation and keep their membership at a high level, in order to influence the decisions of the House. "The Corporation of the City of London" was proposed by the Chairman; and Colonel and Sheriff Probyn, a member of the Society, who replied, said that the Corporation afforded splendid opportunities of education in science, art, music, and literature. He considered that pharmaceutical chemists, a highly educated class, were most inadequately remunerated for their services. Mr. G. T. W. Newsholme, of Sheffield, the Vice-President of the Society, proposed "The Medical Profession." Dr. Church, in reply, said that the members of his profession generally were animated by high motives, as was shown by their attempts to prevent the spread of disease as well as to cure their patients. The drugs of to-day, whether manufactured on this or the other side of the Atlantic, were dainty preparations, whilst they were reputed to cure nearly all the ills to which flesh is heir. Every morning the physician's table was laden with drugs of all kinds, many of which were probably better fitted for the waste-paper basket than for a patient's stomach. Purity and portability were the characteristic of the best drugs of to-day; points of the highest importance to medical men every-

where, who owed a deep debt of gratitude to pharmacists also for the assistance given in the production of the *British Pharmacopœia*, especially by Professor Attfield, without whose help that volume could never have gained the great success it had achieved. The toast of "Science" was proposed by the Chairman, and acknowledged by Professor M. Foster, who said that in science the individual disappeared; scientists were part of a great machine which worked in and through them. Pharmacy furnished a conspicuous example of the benefit of science. The majority of drugs formerly used had now been discarded. The modern drug went "straight to the spot" One result of his own name being still in the *Medical Directory* was that his maid-servants never had any difficulty in kindling the kitchen fire, so many were the advertisements he now received. Science was great, but greater still were its needs. His own great University was a pauper in the public newspapers, and it would be well if some millionaires could be found to help the new University of London. Dr. Bernard Dyer proposed "The Pharmaceutical Society of Great Britain, and the Health of its President." The School of Pharmacy was one of the best in the world; the laboratory was the first of its kind to be opened, and the Society last year expended over £3,000 in relieving its indigent members. The President said that the medicinal delicacies daily delivered in such large quantities to the members of the medical profession were not sent by the Pharmaceutical Society, though possibly those sending them might be members of the Society. He was proud of the work the Society had now carried on for more than fifty years. He concluded by proposing "Our Guests." Sir J. Crichton Browne replied, and said that such gatherings hastened the halcyon days when the dispensing doctor and the prescribing chemist would, like the dodo, be both extinct. The better educated the pharmacist, the less disposed was he to prescribe, and the more scientific the medical man the less was he inclined to make up his own drugs. He did not believe there were illicit commissions between the members of the two professions. It was high time, he thought, that carbolic acid was scheduled as a poison and its sale put under control. Sick persons who could pay should not be able to obtain medical advice at any hospital for nothing; or, having obtained the advice for nothing, they should then be charged for their medicines by the hospital, a system which he had heard had now been actually begun.

OBJECTIONABLE METHODS OF ADVERTISEMENT.

A CORRESPONDENT in another column draws attention to the growth of the custom among the manufacturers of pharmaceutical and dietetic preparations — especially American firms—of sending samples of their goods to medical men all over the country. Our correspondent, as it seems to us, rather strains the facts to make a point, for it is hardly reasonable to contend that the receipt of a sample or a pocket-book unsolicited and undesired can be considered to be a secret commission. Such free distributions are, of course, of the nature of advertisements simply, but the growth of this mode of advertising is, if we may judge from communications we have received, looked upon as a nuisance by many of the recipients of these bulky parcels. Not long ago one of our correspondents was awakened by the explosion of a sample bottle which had found its way into his bedroom, and another had the misfortune to blow up his cook, not metaphorically, but literally. Another correspondent complains bitterly that his feelings have been outraged by the receipt of a pamphlet recommending some drug enclosed in a wrapper bearing a reduced reproduction of a well-known picture defaced by a gynæcological note in the corner. We have communicated with the artist, who in reply expresses the hope that no one will believe that he could be a party to any such publication of his picture "for any possible consideration." He expresses a very definite opinion as to the conduct of the company which has put his picture to this base use, but it seems doubtful whether he has any legal redress. No doubt transatlantic advertisers deluge the medical practitioners of this country with these pamphlets, pictures, and samples from business motives. It is therefore not unreasonable to hope that they may in time see that the methods resorted to frequently defeat their own ends by exciting feelings of irritation or disgust.

THE LONDON COUNTY COUNCIL.

AT its meeting last Tuesday the London County Council passed a recommendation of its Housing Committee to proceed with the erection of two more blocks of artizans' dwellings on the old Millbank prison site, which was acquired for that purpose. The dwellings will cost £75,620, and the whole of the 17 blocks, when completed, will house some 4,300 persons. The original proposal was to allot 141 square feet of floor space for living rooms, and 102 square feet for bedrooms, but we understand the plans have been modified in the direction of giving larger sitting-room accommodation at the suggestion of the Home Secretary. The Health Committee reported a case of the seizure of food unfit for human consumption, which Dr. Alexander of Poplar had reported to the District Board. The carcass of a cow, full of tuberculous lesions, had been in part sold, and the remainder contained masses of tubercle in the forequarters, while the liver was reported to be "full of abscesses, and as it was cut through the pus came out." The need of further supervision of slaughterhouses is the obvious moral to which the Committee's report points. The Council also consented to find a site on the area it has cleared in Clare Market for a branch of the work which the new teaching University for London will take up. Mr. Passmore Edwards has munificently provided a sum of £10,000 for a school of economics and commercial education. The *locus* of the new University is still a matter of discussion, and the proposal to house it at the Imperial Institute is encountering some opposition. Much will doubtless depend upon how far the University will conduct teaching under its own immediate supervision, and how far it will federate existing teaching institutions. As the statutes of the Commissioners are now being formulated, we shall soon have an opportunity of gauging the trend of their opinion.

THE TUBERCULOSIS PROBLEM IN THE UNITED STATES.

THIS problem is dealt with by Dr. S. A. Knopf in a recent number of the *North American Review*. That the problem is one which urgently calls for solution is evident from his estimate that of the seventy million people now living in the United States, ten millions will die of tuberculosis unless something is done to prevent such a consummation. He states that one of the best American authorities on the subject, Dr. F. W. Smith, of the Tuberculosis Committee of the State Board of Health of New York, has expressed the opinion that the first great step towards the prevention of tuberculosis in man should be to stamp out the disease in cattle. Many of the most distinguished American physicians and sanitarians who have studied the question hold the same belief. But the suppression of tuberculosis in cattle is still a "far cry" in the United States, as appears from the following facts, which we give on the authority of Dr. Knopf. There are fourteen States which have laws and regulations with regard to cattle, and in which circulars are issued for public instruction in regard to tuberculosis in man. These are California, Colorado, Connecticut, Iowa, Maine, Massachusetts, Michigan, New Jersey, New Hampshire, New York, Pennsylvania, Rhode Island, Virginia, and Wisconsin. There are two, to wit, Minnesota and South Dakota,

where there are bovine laws, but where apparently nothing is done to stop the spread of tuberculosis in man. One (Tennessee) which has bovine laws which it cannot enforce for want of funds, and where, so far, the Board has only issued circulars on the prevention of tuberculosis in man and beast; two (the District of Columbia and Oklahoma Territory) which have a law prohibiting the sale of tuberculous milk, but do nothing else for the prevention of tuberculosis in man or beast; and eight, to wit, Delaware, Indiana, Kentucky, Louisiana, New Mexico Territory, Ohio, Texas, and West Virginia, which issue circulars concerning tuberculosis in man, but do nothing in regard to beasts. There are nine States, namely, Alabama, Arkansas, Illinois, Kansas, Maryland, Mississippi, North Carolina, North Dakota, and South Carolina, where nothing is done for the prevention of tuberculosis. There are seven, namely Georgia, Idaho, Montana, Nebraska, Oregon, Utah, and Wyoming, which have no Board of Health. Lastly, five States (Florida, Missouri, Nevada, Vermont, and Washington) deigned no reply to Dr. Knopf's inquiries. To letters addressed to the health officers of forty of the largest cities of the States he received twenty-nine answers; in one third of these it was stated that nothing at all had been done in the matter of the prophylaxis of tuberculosis. These facts show that as a nation our cousins across the Atlantic are no better protected against tuberculosis than ourselves. Dr. Knopf calls upon the United States Government to take into its own hands the task of stopping the spread of tuberculosis through the bovine race. The Board of Health of New York has endeavoured to enforce the registration of all tuberculous cases, but the great majority of the medical profession has opposed any attempt in that direction as untimely. The solution of the problem proposed by Dr. Knopf is that "the whole matter of preventing the spread of tuberculosis must for ever be educational work on the one hand, and on the other the work of the State and municipal authorities." If any Government, he says, is in earnest in its endeavours to combat tuberculosis effectually, besides its regularly enforced laws against tuberculosis in man through sanitary regulations and public instruction, it must take upon itself the care and treatment of the curable and incurable cases of tuberculosis among the poor and those of limited means.

THE INEBRIATES ACT IN LONDON.

MR. FRANCIS, the magistrate at the South-Western Police Court, in remanding a woman who had been repeatedly convicted of drunkenness, is reported to have said that under the new Inebriates Act the only home available for the reception of such persons was at Glasgow, but that the authorities there were unable to receive cases from London "because the London County Council had refused to subscribe to the funds." We have made inquiry, and find that the statement attributed to the magistrate is incorrect. In February the Council at once proceeded to consider the new Inebriates Act which came into force in January, and a very interesting report was submitted by the General Purposes Committee, dealing in detail with the new powers conferred on the Council. It appears the Council may, if it pleases, establish an inebriate reformatory, or contribute to the cost of the establishment of such institution, or defray the whole or part of the expenses of detention of any person in any certified inebriate reformatory. It is estimated by the Home Office that about 100 men and 200 women would be likely to be dealt with under the Act in London during the first year. Hitherto accommodation for habitual drunkards has been provided by philanthropic, religious, and other private associations; but several municipal bodies are now considering the propriety of establishing or subsidising reformatories and placing them under public supervision. We are informed that the London County Council has been in communication with Lady Henry Somerset in reference to her experience at the Retreat at Duxhurst, prior to deciding to erect a reformatory of its own. A Special Committee is now considering the preparation of a scheme to submit to the Council after the Whitsuntide recess, which we understand will deal fully with the whole question.

DEATH OF DR. JOHN MOIR, OF EDINBURGH.

WE regret to report the death of the oldest practitioner in the city of Edinburgh, Dr. John Moir, on Sunday, May 14th. He had attained the great age of 91. He took the Licence of the Royal College of Surgeons of Edinburgh in 1827, the degree of M.D. of Edinburgh in 1828, and he was admitted a Fellow of the Royal College of Physicians in 1837. In the days of the giants of the Edinburgh School he was one of the leading obstetricians. If Sir James Simpson was unable to undertake a confinement he almost always suggested Dr. John Moir. Dr. Moir was a man of singular simplicity, frankness, and honesty. He was without guile and the modern self-seeking spirit. Therefore, he had many friends, and was able to wield an enormous influence in Edinburgh. He was the "Father" of the Royal College of Physicians of Edinburgh. He was deeply interested in medical missions, and was the sole surviving original director of the Edinburgh Medical Missionary Society.

THE TRUTH ABOUT THE PLAGUE IN INDIA.

"TRUTH will out," says the proverb; and now, after many days it has come out about the plague in India, the channel being a gentleman whom we regret to be unable to describe more particularly than as "a medical practitioner of Bombay." This Daniel come to judgment was good enough to draw up a statement of his views for the edification of the Special Commission. The document is to the following effect: "I do not think it [the plague] was imported in Bombay from Hong Kong or anywhere else. I attribute three sources of causes of outbreaks of plague in Bombay: (1) The predisposing cause was the Bombay Municipality; (2) the exciting cause was the Nature herself; (3) the aggravating cause was the Plague Committee." Nothing could be more terse or more definite. The document is indeed a model; the writer knew what he wished to say, and said it in the fewest possible words. If everyone who has views about the plague, or anything else, would take him as an example, at least in the matter of brevity, it would be a relief to the groaning press.

THE SURGERY OF THE SUPRARENAL CAPSULE.

ABDOMINAL surgery seems to grow ever bolder, and the great strides which it has made since 1860 do not seem to have brought it to the limits of the resources of science and art. Ovariotomy and hysterectomy have been generalised, and putting aside the surgery of the gall bladder, spleen, stomach, and intestines, much has been done of recent years for the surgical relief of tumours of the pancreas, urachus, mesentery, and retroperitoneal connective tissue. Dr. Otto Ramsey, of the Johns Hopkins University, has just published in its Hospital *Bulletin* a monograph on 67 cases of primary malignant tumours of the suprarenal capsule. In only 5 cases was the tumour removed by operation, and he published 3 as original, 2 being under the care of Dr. Howard Kelly, 1 under Dr. Finney; all 3 were performed in the Baltimore Hospital. Of the remaining 2, 1 was under Roberts, of Philadelphia, and ended fatally, and 1 under Mr. Knowsley Thornton, and recovered. The latter surgeon reports a second case, also successful, which, in Dr. Ramsay's opinion, represents an aberrant suprarenal gland in the substance of the kidney. Of the Baltimore cases, 2 died; one patient was a woman, aged 64, the other a man more than ten years younger. The tumour in each case

was an alveolar sarcoma. In Dr. Howard Kelly's successful case the patient was a woman, aged 53. The abdomen was opened in the median line; the right kidney lay in the front of the tumour; the peritoneum was stripped off, and tumour and kidney removed as in nephrectomy. The vessels gave trouble, as the vein was short and had to be tied very near the vena cava. Before the operation there was slight discoloration of the skin; this was disappearing when the patient was discharged convalescent. All the three Baltimore cases are described in full, and there are two fine drawings of the tumour successfully removed—a fibro-myxosarcoma, 5 inches broad and over 4 inches in vertical and antero-posterior measurement. A study of the 67 recorded cases of primary malignant disease of the suprarenal capsule shows that diagnosis is impossible in many, and difficult in all, cases; that the skin changes familiar in Addison's disease are rather the exception than the rule; that the tumour seems more frequent in the male than in women, and that they are extremely malignant. Operation gives the only hope of relief, and has been successful in two out of five operations, though even in these the prognosis is serious from the great frequency with which both glands are involved, and the tendency to early metastases. The principal difficulties in the operation are the friability of the tumour, the great tendency to hæmorrhage, and the frequency of adhesions.

MEDICAL SOCIETY OF LONDON.

THE annual *conversazione* which concludes the business of the session of the Medical Society was given in the Society's Rooms in Chandos Street on Monday evening last, when a large number of Fellows and their friends assembled to listen to the oration (following a reception by the President, Mr. Edmund Owen) delivered by Mr. Alban Doran, who took for the theme of his discourse "Shakespeare and the Medical Society." The oration, which is published at page 1201, was listened to throughout with the greatest interest, interrupted only by rounds of applause as his apt quotations from the works of the great dramatist afforded him opportunities of exercising the pungent wit with which he is known to be so singularly gifted. This part of the business wound up with a vote of thanks, proposed by Dr. Thorowgood and seconded by Sir William Dalby. Thereupon the meeting became a *conversazione*, properly so called. This afforded the customary opportunity for friends to meet and discourse *de omnibus rebus et quibusdam aliis* under the soothing influence of a choice selection of music rendered by the Bijou Orchestra, which was ensconced among the verdure at the foot of the stairs.

IRISH POOR-LAW NURSES.

THE Local Government Board of Ireland has issued a circular in which they state that they have opened a register for properly trained nurses who will be eligible for appointment in the workhouse infirmaries throughout the country. The guardians are not, of course, bound to select from the register. They may appoint nurses who are not on this list, but who possess the required qualifications. But the commissioners' scheme is a good one as it will enable candidates to be assured beforehand of their eligibility; and the guardians will have the guarantee that nurses whom they select from the register are qualified for their work.

ROYAL UNIVERSITY OF IRELAND.

AT a meeting of Convocation of the Royal University in Ireland held last week Dr. Walton Browne, surgeon to the Royal Infirmary, Belfast, was elected by 320 to 204 one of the representatives on the Senate in opposition to Dr. Stephen O'Sullivan, Professor of Surgery, Queen's College, Cork, who has been a senator for nine years. The contest was promoted by a number of graduates in Belfast, who wished to show in this way their dissent from Mr. Balfour's opinion on university education in Ireland, and they regarded Dr. O'Sullivan as not sufficiently in accord with their views. The contest is considered by a large body of the graduates to have been unfortunate, because in the first place it has deprived Queen's College, Cork, of a Convocation member on the Senate; and, secondly, because a religious element has been introduced. An association of Catholic graduates has now been formed in order, among other objects, to add to the Convocation electorate, and it is feared that the religious views of candidates will in future largely influence the result of the elections.

THE "SPINAL ANIMAL."

THE meeting of the Royal Medical and Chirurgical Society on Tuesday, May 23rd, at 8.30 P.M., will be devoted to an address by the Marshall Hall Prizeman, Dr. C. S. Sherrington, F.R.S., Holt Professor of Physiology in University College, Liverpool. He has chosen for his subject "The Spinal Animal," and the address will, it is understood, embody a review of his own researches on the spinal cord. It will be illustrated by diagrams and lantern slides.

THE EDINBURGH UNIVERSITY CLUB OF LONDON.

THE May dinner of the Club was held at the Holborn Restaurant on May 10th, and a large number of members and guests were present. Sir Joseph Fayrer, Bart., was in the chair, and in a highly eulogistic speech, presented, in the name of the club, to Deputy Surgeon-General W. G. Don, M.D., the retiring Honorary Secretary, a very handsome silver tray and tea-kettle, bearing the crest of the University and the following inscription: "Presented by the University Club of London to Deputy-Surgeon-General William Gerard Don, M.D., in recognition of his great and highly-valued services as Honorary Secretary during a period of 16 years. May, 1899." The club, of which His Royal Highness the Duke of Edinburgh and Saxe-Coburg Gotha is President, is in a very flourishing condition, having nearly 500 members. Its objects are to promote social intercourse between graduates and other *alumni*, and further the interests of the University.

A PROVIDENT DISPENSARY AND NURSING ASSOCIATION.

DR. JAMIESON B. HURRY has published an interesting little pamphlet with the above title. He points out the necessity of skilled nursing as an adjunct to medical attendance in the homes of the working classes, and shows how it may be obtained on the co-operative system by small regular payments, added to those subscribed for medical attendance. Dr. Hurry estimates that the cost of skilled nursing would be met by an addition of from 1s. to 1s. 6d. per annum to the 4s. to 5s. per annum paid by the member of a friendly society for his medical treatment, but at the same time the number of members belonging to the society must average about 4,000. Dr. Hurry's scheme is no doubt an excellent one, and could its advantages be restricted to those unable to pay the usual professional fees, would meet with little opposition. The danger arises from the abuse of such systems, which in proportion as they are successful tend more and more to attract members who do not require the pecuniary relief which they are intended to afford. So that what should properly be a concession on the part of members of the profession to the necessities of the poor, becomes a means of cheapening their services all round.

THE new wing of the Hayes (Middlesex) Cottage Hospital was opened by Lady Hillingdon on May 15th. The extension is the outcome of the Hayes Queen's Diamond Jubilee commemoration scheme.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The Local Government (Scotland) Act (1894) Amendment Bill, introduced by Mr. Alexander Cross, is practically a single clause Bill for placing parochial medical officers in a position of greater security as regards arbitrary dismissal. By the Act of 1894 they are protected against interference by the Parish Council as regards their duties and emoluments without the consent of the Local Government Board, and this Bill proposes the same safeguards as regards dismissal from office. It is backed by Sir Charles Cameron, Sir Walter Foster, Sir William Priestley, Sir William Arrol, Dr. Farquharson, and Mr. Nicol.

The Sale of Food and Drugs Bill passed through the Grand Committee on Friday, May 12th, with a good many amendments. One of the most important was the qualification of Clause 17 enacting "that an invoice shall be deemed to be a warranty without the addition of express words of guarantee." This was carried against the Government by 20 to 16. The new clauses added dealt with the definition of food and penalties for obstructing or bribing an inspector. Food was defined to "include every article used for food or drink by man, other than drugs or water, and any article which ordinarily enters into or is used in the composition or preparation of human food, and any flavouring matters and condiments." An attempt to fix a standard for milk at 3½ per cent. of butter fat was defeated. When the Bill comes before the House on report considerable discussion is promised, and new clauses are already placed upon the paper defining margarine, forbidding its coloration to imitate butter, setting up a Committee of Reference, and dealing with many other points. The report stage will probably not come on for some three or four weeks.

Unqualified Dispensers were before the House last week on a question asked by Major Rasch. The question suggested a doubt as to the infrequency of accidents caused by the employment of these dispensers, but the Vice-President of the Council maintained the opinion expressed by the Executive Committee of the General Medical Council that accidents are very rare from this cause in the surgeries of medical men.

The Public Health Acts Amendment Bill is a measure on which the Town Clerk of Wolverhampton has spent much time. It seeks to include in a Public Act many of the clauses introduced into private Bills under the sanction of the Police and Sanitary Committee. The Bill was read a second time on the understanding that it should be referred to a Select Committee. The Committee is nearly completed, and the Bill has a fair chance of becoming law this session after the Committee have reported.

The Companies (Medical Profession) Bill, which has been introduced by the Lord Chancellor in the House of Lords, has excited some opposition, and will not be pressed forward for a little time. The corresponding Bill, dealing with pharmacists, is drawn on much narrower lines, and hence difficulty has arisen from a desire on the part of some to make the measures more alike.

The Isolation Hospitals (Amendment) Bill is a measure to amend and extend the Act of 1893, by giving district councils and joint Boards power to transfer to county councils any hospital provided under the Public Health Act, 1875, or any local Act, and to empower county councils to raise the necessary funds for structure and establishment expenses on the security of the county rate. Lord Lichfield moved the second reading of the Bill on Tuesday, and gave the experience of his own county (Staffordshire) as strongly supporting the necessity for some such measure, as the Local Government Board had decided against action by county councils under the Act of 1893. Lord Harris, on behalf of the Government, gave the Bill a qualified support, and the second reading was carried on the understanding that the Committee stage was deferred till after Whitsuntide.

The Parish Councillors (Tenure of Office) Bill, after an unopposed career in the Commons, now awaits a third reading in the House of Lords. It provides that parish councillors shall hold office for three years instead of one year, and that the next election shall be on April 15th, 1901, and every third year thereafter. This amendment of the law will save the expense of annual elections and secure more continuity for the work of parish councils.

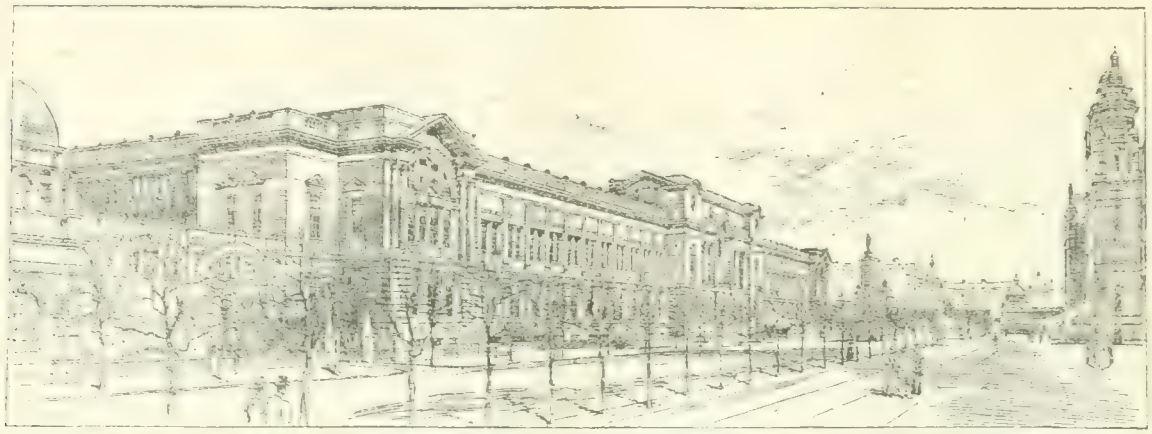
The New School of Tropical Medicine will not at present undertake the analyses of arrow poisons as suggested by Mr. Hedderwick. The Secretary for the Colonies thinks the expense would be undesirable at present, as only one instance of the use of poisoned arrows in West Africa has been brought to his notice.

Post-mortem Examinations in Scotland were the subject of a question on Tuesday by Sir William Priestley, who elicited from the Lord Advocate the following regulations: No person except the medical men instructed to conduct the necropsy is allowed to be present at a *post-mortem* examination except with the consent of Crown counsel or on the order of the sheriff. Crown counsel may, in their discretion, sanction the presence of a medical man who has attended the case or in the interests of the accused, but this is done only on condition that he is to be present merely as an onlooker, and is not to interfere in any way with the Crown examination. No formal intimation is given that a necropsy is to be held, but in all cases where any person is in custody on suspicion of causing death a necropsy is made as a matter of course, so that an accused person or his advisers cannot be in doubt as to the necessity of making immediate application for permission to send a medical man to witness the necropsy if they so desire it. The quarter to which application should be made is the Procurator-Fiscal, whose duty it is in all cases of urgency to communicate by telegraph with the Crown Agent for the instructions of Crown counsel. If an independent *post-mortem* examination is desired it can be made after the Crown examination.

The Midwives Bill was postponed on Tuesday night till May 31st, the Derby day.

The Commons Committee on the Derwent Water Bills has hinted pretty strongly first to the towns supporting and opposing the Derby Bill, that some scheme agreed to by all, whether for a joint board or a partition of the gathering ground would be favourably regarded, and later that it would be difficult to persuade them that Sheffield should be entirely precluded from participation in the waters rising round the Peak. Much of the evidence heard so far has dealt with estimates of population for periods some years hence, but some interesting questions affecting the water-giving possibilities of the Bunter beds were raised. In the committee room were to be seen along with engineers and municipal magnates, distinguished geologists and many medical officers of health. Some of the latter, as Dr. Barwise, Dr. Boobbyer, and others were directly interested in the Derby Bill, while the medical officers of Salford, Manchester, Leeds, Glasgow, and some other places found their way in occasionally from other committee rooms. Probably the adjournment over the Whitsuntide holidays may enable the promoters of the various schemes to come to an agreement. In any case, those watching the proceedings will be glad of an opportunity of breathing a purer air than that of an ill-ventilated committee room.

A meeting of the Childhood Society for the scientific study of the mental and physical condition of children will be held at the Sanitary Institute, Margaret Street, W., on Friday, June 2nd, at 5 P.M., when Dr. G. E. Shuttleworth will open a discussion on "The Education of Children Feebly Gifted Mentally under the Care of Guardians." He will be followed by three Poor-law guardians, Mrs. Burgwin, Miss Lidgett, and Mrs. Warner. The chair will be taken by Lord Egerton of Tatton.



First sketch of the proposed Royal College of Science, South Kensington. View from Imperial Institute Road.

THE UNIVERSITY OF LONDON AND THE ROYAL COLLEGE OF SCIENCE.

The Victoria and Albert Museum, the first stone of which the Queen laid on Wednesday afternoon, is part of a larger scheme which will have a great influence on the teaching of science in London, and may not be without an effect on the future development of the University of London and on medical education.

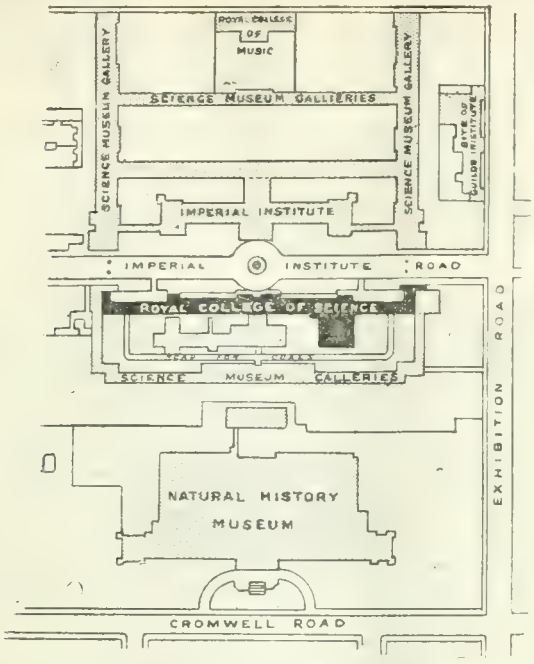
As is well known the Government has proposed that the University of London should be removed to the Imperial Institute, and for some time the project has been under the consideration of delegates of the Imperial Institute, of the Treasury, and of three representatives of the University—Lord Kimberley, Sir Henry Roscoe, and Sir Joshua Fitch. Lord James of Hereford, on taking the chair for the first time as Chairman of the governing body of the Imperial Institute on Tuesday last, frankly admitted that the financial position of the Institute was most unsatisfactory, and that it would be impossible for it to continue on its present footing. He said that the Institute possessed a very great area of accommodation which it would no longer need, but which could be devoted with very little adaptation to the purposes of the University of London: in return for this accommodation the Institute would receive from the Government very substantial assistance. Further he indicated that the Government were prepared to take steps to afford commercial intelligence to the Colonies, one of the chief functions which the Institute had originally proposed to itself to discharge, and that direct negotiations had been entered into with the object of placing the Institute in the hands of the Government.

The plain English of Lord James's rather mysterious utterances would appear to be that the Government have decided to take over the building of the Imperial Institute in the name of the Crown. When the suggestion to remove the London University was first made there was a not unnatural feeling aroused that the step was contemplated in order to rescue the Imperial Institute from its financial embarrassments, but a further consideration of all the circumstances puts a somewhat different complexion upon the matter. The buildings of the Imperial Institute are to become Crown property as the buildings of the London University now are, and the Crown, it is understood, are prepared to offer the University the eastern wing of the Institute building. The University would then be, as now, a tenant under the Crown, and the fact that a colonial commercial museum, and possibly a commercial school or faculty, would exist in the western wing need not necessarily detract from the academic dignity of the reconstructed and enlarged University of London.

The London School of Economics and Political Science, under the direction of Professor Hewins, has been in existence for four years, and has been remarkably successful. Students pass through a three years' course, and the list of lecturers includes some very distinguished names. Its temporary home is in Adelphi Terrace, where it has lecture rooms, class rooms, and a library of some 10,000 volumes. Sir Philip Magnus, in an article recently published in *Nature*, wrote: "The growing importance of the study of economic science in its relation to international trade and commerce, and the success of the attempt to establish in London a special high school for the teaching of the subject will be regarded as justifying the University of London Commissioners in recommending the addition of a Faculty of Economics to the other faculties of the University; and it may reasonably be hoped that the present school will in the near future be greatly developed, and become more closely associated with the new University." Sir Philip Magnus adds arguments in favour of locating such a faculty in the Imperial Institute, buildings which already contain well-arranged collections of Indian and colonial products and a chemical laboratory which carries on the examination and analysis of foreign products, work which would form an essential feature in the programme of a school of commerce. The London County Council has offered, under certain conditions, to allocate to the maintenance of a school of economics and commerce a yearly sum of £2,500, being a part of its promised contribution to the funds of the University.

Moreover, the University in its new home would not be an isolated institution lost in the mazes of the Horticultural Gardens, but one of a magnificent series of institutions all doing work more or less intimately related to the proper functions of a university. As will be seen from the accompanying block plan, it is proposed at no distant time that the whole area extending northward from the new Natural History Museum to the Albert Hall should be covered with buildings for the accommodation of museums and colleges. Immediately north of the Natural History Museum we have the Science Museum Galleries; then the new buildings to be erected for the Royal College of Science; then the Institute, containing on the east the University of London, and on the west the Imperial Institute, and possibly the proposed Faculty of Economics and Political Science; then the Science Museum Galleries, with secondary galleries to east and west; and then the Royal College of Music, while the City Guilds Institute, fronting on Exhibition Road, flanks the Science Galleries on the east. The new buildings for the Royal College of Science, which are to be erected to the north of the present Science Museum buildings, will be strictly devoted to educational purposes; the right wing will be occupied by the physical, the left by the chemical department, and laboratories and lecture theatres in the rear will be in direct connection with the present Science Museum. The Science Library, now in the South Kensington Museum, will be transferred to the College.

The new buildings of the Royal College of Science, which will directly face the existing buildings of the Imperial Institute, will be of the same length, and the general character of the proposed elevation will be gathered from the accompanying sketch, for the use of which we are indebted to the Editor of *Nature*. It is, however, proposed to erect a screen of buildings at each end, connecting the College with



Block Plan of Science Buildings, etc

the Institute, so that between the two a large enclosed space or court will be formed, and perhaps ensure some greater degree of academic quiet than would be obtainable under present conditions. The sum of £800,000 was provided last year by the Chancellor of the Exchequer for the new buildings at South Kensington. Of this amount £500,000 is assigned for the completion of the Art Museum, the first stone of which the Queen laid on Wednesday. The remaining £300,000 will be devoted to the Science buildings, and as it is proposed to start work at once there is a reasonable expectation that the new buildings of the College of Science and the Museums will be approaching completion in four or five years' time.

THE PEACE CONFERENCE AND AMBULANCE WORK AT SEA.

The Russian Proposals.

Among the subjects to be discussed by the International Peace Conference, which opened at the Hague on Thursday, there are two propositions which directly affect the conditions of naval warfare; these are the fifth clause which proposes to apply to naval warfare "the stipulations of the Geneva Convention of 1864, on the basis of the articles added to the Convention of 1868"; and the sixth "to neutralise ships and boats employed in saving those overboard during or after an engagement." It is impossible yet to form any definite opinion as to the practical outcome of the Conference, but it is thought by many that the chief results will be in reference to these two clauses, and it will therefore be interesting to indicate briefly what arrangements have been proposed for dealing with the wounded after a great naval engagement. So far as this country is concerned these, it must be admitted, are at present very imperfect.

It is, indeed, to be feared that even on land the arrangements for voluntary medical aid would be made hurriedly, and at first, no doubt, there would be many defects, although money, men, and material would be forthcoming in abundance. The initial difficulties on land would soon be overcome, for the voluntary aid is already more or less organised, and is being still further centralised by the formation of a British Central Committee of the Red Cross, which consists of representatives of the National Society for Aid to the Sick and Wounded in War, the St. John Ambulance Association, the Army Nursing Reserve, and the War Office. In addition to these bodies, there are the members of the Volunteer Medical Staff Corps and the trained officers and men of each volunteer regiment, in which the surgeons are keen and know their work. There exists in these bodies the nucleus of a comprehensive and far-reaching system of voluntary help—men, material, and money—for our land forces.

Ambulance Work Afloat.

At sea, however, it is very different. There is at present no central committee to act as the official channel by which offers of help in time of war can be made to the Admiralty. Yet assuredly such voluntary assistance will be needed as urgently after a great sea fight as after a battle on land. Two years ago the sixth International Conference of Red Cross Societies, held at Vienna under the presidency of Count Franz Falkenhayn, discussed the application of the articles of the Geneva Convention to naval warfare, and the part which the Red Cross Association should take in succouring shipwrecked and wounded seamen. The Italian Red Cross Association submitted a series of articles defining the nature and limits of the work of the Red Cross Associations in naval wars. The chief suggestions were:

That all vessels intended for the purpose of rendering aid to the sick and wounded at sea should be called "Red Cross ships" and painted white, no matter what their nationality, with a red cross on the bows and stern.

That they should be fully equipped with the latest improvements in boats, electric light, medical and surgical requirements, etc., and should have a high rate of speed and be able to go to sea at all seasons.

That the name and description of each "Red Cross ship" should be communicated to the other States by the Government to whom it belongs.

That the ships should be manned by a crew under the command of a captain appointed by the Minister of Marine, and that the hospital services should be under a delegate of the Red Cross Association, the former having complete control over the movements and destination of the ship, and the latter over the medical and surgical details.

That in naval battles near the coast, smaller boats, steam yachts, etc., might be permitted to succour the wounded under the Red Cross flag (yellow with a red cross). They need not be painted white, but would still be called "Red Cross ships," although their neutrality would only be observed in battles within 12,000 metres from the coast. The *personnel* should have an identical uniform for all nations, and should wear the international brassard of neutrality.

That the medical *personnel* of hospital ships belonging to the regular military or naval services as distinct from those belonging to the Red Cross Voluntary Aid Associations should also be considered neutral.

That Red Cross ships should not be permitted to save ships, but only the crew of ships, and would not be authorised to attempt salvage of wrecked material, or to carry letters or orders, or to help the movement of ships going into action, even if the enemy were not in sight.

That Red Cross ships should not hoist their national ensign in the presence of opposing fleets or ships.

That they should be permitted to enter the zone of fire only when they were signalled for to aid a ship in danger of sinking or on fire, the power to signal for help being left exclusively to the commander of the ship in distress.

That all shipwrecked or wounded persons taken on board should be landed at the nearest port, and that all such persons would engage upon their honour to take no further part in the war.

The Austrian Red Cross Ships.

Major Macpherson, R.A.M.C., the British delegate at the Conference, states in an appendix to the Army Medical Department Report for 1897, upon the authority of Dr. Löw, that the Austrian Red Cross Association has maintained for some years past and equipped a hospital ship for succouring the sick and wounded at sea, independently of any International Convention. The project was formed by the Ladies' Association of Istria at Trieste, one of the local branches of the Austrian Red Cross Society. The hospital ship was instituted for the sea transport of sick and wounded belonging to the Austro-Hungarian navy and army from port to port, or from a fleet at sea to land. The Austro-Hungarian Lloyd Steamship

Company and the Government co-operate with the Red Cross Association in instituting and maintaining the ship. The Company place gratuitously at the disposal of the Association a moderate-sized vessel capable of being fitted with 100 hospital beds, keeps it ready for sea, and maintains and pays the ship's crew, including the engineers and cooks. The Association maintains the necessary medical and surgical equipment, while the State supplies the medical *personnel*—namely, two naval surgeons, two non-commissioned officers as ward masters, twelve hospital orderlies, and a non-commissioned officer as accountant, with a retired naval officer to represent the Admiralty, and also as delegate of the Red Cross Association. The Inspector-General of Voluntary Aid Services (a War Office official) selects and appoints the latter, who will be responsible for the services performed, and generally administer discipline on board. The State also pays the expenses of dieting the sick and wounded, as well as all damages to the vessel during its employment in time of war or as a hospital ship. At other times the Austro-Hungarian Lloyd Steamship Company keeps it in a state of repair. The ship is exempt from payment of harbour dues in any of the Austro-Hungarian ports, but pays the customary dues at foreign ports.

MOBILISATION.

The Red Cross hospital ship, like all other Red Cross institutions, is under the command of the Inspector-General of voluntary aid to the sick and wounded and the procedure on mobilisation or partial mobilisation is as follows:

The Inspector-General, at the request of the Minister for War, issues an order to the Ladies' Association of Istria to prepare and equip the hospital ship for the particular service required, the ship for mobilisation purposes being berthed in Trieste harbour, and the nature of the equipment being dependent upon whether the service is evacuation of the sick from ships at sea or of the sick from hospitals on shore at any port. When the ship has been fully equipped the Ladies' Association notifies the military commandant at Trieste, who is the director-general of transports. It is then taken over by a staff officer of the Navy and it is at the disposal of the military and naval authorities at headquarters.

THE "GRAF FALKENHAYN."

A vessel named the *Graf Falkenhayn* after the first president of the Austrian Red Cross Association has recently been given to the society by Baron van Reinelt who has devoted a sum of 50,000 florins towards its maintenance in time of peace. The new steamer, which has an estimated speed of nine knots, has an isolated wing for infectious cases, two bathrooms and all the modern hygienic requirements, with four lifeboats and two disjointable rafts.

During the recent Spanish-American war a similar ambulance ship was fitted out by the United States under the Red Cross regulations, but the merit of establishing the first permanent naval ambulance in Europe appears to belong to Austria.

NEED OF AMBULANCE SHIPS FOR THE BRITISH NAVY.

Such an ambulance ship might well be provided for the British Navy. It would have to be a national gift at first, but if the ship were once obtained it could soon be officered and served by volunteers. There is no doubt that it would prove a most useful departure, for even our hospital ships cannot be said to have as yet passed beyond the stage of experiment or improvisation, and they have been used mainly in connection with expeditions ashore. We have no ambulance ship, so that of this kind of medical aid to sailors Great Britain would seem to have had no experience.

Our hospital ships hitherto have been converted warships or liners. In the Ashanti campaign of 1873 H.M.S. *Victor Emanuel*, a wooden screw-steam line-of-battle ship built in 1855 was converted into a hospital ship at an estimated cost of £38,000. In 1885 the P. and O. Co.'s steamer *Ganges* was fitted for a similar service with the expeditionary force to Suakim, and so rapidly were the necessary structural alterations and additions carried out that the ship was ready for sea in twelve days. During the Ashanti campaign of 1895-6 the P. and O. steamer *Coromandel* was chosen as a hospital ship, and again many changes had to be made before she was fit for invalids.

A new departure was made in the Soudan expedition last year when the *Mayflower*, one of the largest and swiftest stern-wheelers on the Nile, was equipped to carry 52 patients, and made three voyages from Assouan to Cairo,[1] the expense being defrayed by the Red Cross Society.

The experience gained in these and other campaigns has shown that it is most desirable to construct special hospital ships. Steamships built for commerce or for purposes of offence lend themselves badly to the needs of the sick. The large number of men who are invalided annually from India and from other stations would give full occupation to them in times of peace, whilst their services would be invaluable in war.

The first essential is that all decks for the sick should be above the water line, for it was noted in the Suakim expedition that the water in the harbour rose to a temperature of 90° F., and it was consequently impossible to keep the wards on the lower deck cool until the ship was sent out into the open sea. The engines should be of sufficient power to drive the ship at a considerable speed, but they should be placed far aft, so that the central part of the ship may be available for wards. There should be a minimum height of 8 feet between the decks, and one large ward should occupy each of the three upper decks. Every ward should accommodate 30 patients, with a superficial area of 60 feet for each patient, that is to say the wards should measure 60 feet in length by 30 feet in breadth. Special attention should be devoted to perfect the ventilation, both by natural and mechanical means, and in every case punkahs must be fitted to be worked by machinery. The closets should be placed close to the decks, so that there may be no excuse for not getting rid of excreta at once, whilst the cooking galley ought to be on the uppermost covered deck, and should be provided with a "lift" to distribute the diets as quickly and as conveniently as possible.

SECRET COMMISSIONS.

THE following correspondence explains itself. It will be seen that the Committee of the London Chamber of Commerce are unable to bring forward any evidence to substantiate the serious charges against the medical profession contained in their report. So far as appeared from that report these sweeping charges made in general terms rest upon the assertions of "a pharmaceutical chemist" and of "an optician, jeweller, and silversmith." The London Chamber of Commerce professes its inability to furnish "detailed evidence in support of the statements contained in the report." That being so, we can only express astonishment that the Chamber should have put forward statements which it admits itself to be unable to support by evidence.

[Copy.]

British Medical Association,
429, Strand, London, W.C.
April 13th, 1899.

SIR,—I forward to you subjoined herewith copy of resolution passed at a numerously-attended meeting of the Council of the British Medical Association held in the Council Room on Wednesday, May 12th, Dr. Robert Saundby, LL.D., President of Council, in the chair.

I am,
Yours faithfully,
FRANCIS FOWKE.
General Secretary.

THOMAS F. BLACKWELL, Esq.,
Chairman of the Council,
London Chamber of Commerce,
Botolph House,
Eastcheap, E.C.

Resolved: That the attention of the Council has been drawn to grave general accusations impugning the probity of the medical profession in the matter of receiving secret commissions, and that the Council call upon the London Chamber of Commerce to substantiate such accusations, in order that the Council may be in a position, should such practices exist,

[1] BRITISH MEDICAL JOURNAL, vol. i, 1899, p. 172.

emphatically to condemn them as a grave breach of professional good conduct, and inconsistent with the membership of the British Medical Association.

[Copy.]

The London Chamber of Commerce,
Botolph House,
Eastcheap,
London, E.C.,
10 May, 1899.

Francis Fowke, Esq.,
General Secretary,
British Medical Association,
429, Strand, W.C.

SIR,—I beg to acknowledge receipt of yours of the 13th ulto., enclosing copy of resolution passed at a numerously-attended meeting of the Council of the British Medical Association on the 12th ultimo. In reply, I am instructed to say that the Secret Commissions Committee regret that it is unable to furnish you with the detailed evidence in support of the statements contained in the Report to which your Council takes objection. I am to point out that it was essential for the success of such an inquiry as the Chamber of Commerce undertook that the proceedings should be private, and that, for reasons which are obvious, the names of persons giving information should not be disclosed (see Par. 3 of the Report and "Note" at foot of p. 6).

At the same time the Committee believe that the information received by them fully justifies the statement made in the Report that the practices referred to do exist in the medical profession, but to what extent they exist it is impossible to estimate accurately.

My Committee are gratified to learn that your Council is prepared to condemn the practices referred to as grave breaches of professional good conduct and inconsistent with the membership of the British Medical Association, and probably the public and repeated announcement of this fact will have a national influence wherever the practice exists.

I am,
Sir,
Yours faithfully,
KENRIC B. MURRAY,
Secretary.

PENSIONS IN THE ASYLUM SERVICE.

IT is the opinion of most that the passage of the Lunacy Bill without a proper pension clause will be the loss of a great opportunity. Sooner or later the just claims of asylum officers will have to be recognised, for sooner or later the "masses," on whose votes county councils are formed, will appreciate the fact that the securing of the best class of attendants by proper treatment is intimately connected with the comfort and best interests of their insane relatives and friends who form the population of county asylums.

Of the 101,972 insane patients of all classes known to the Commissioners in Lunacy on January 1st, 1898, 75,720, or more than three-fourths, were pauper patients in asylums of one sort or another. This question is likely to arise: Why, if some counties find it to their advantage to pay and pension their asylum staff in a liberal spirit, should not all counties do the same?

Those counties which have the most enlightened views have set the standard, and when the question does arise it may be presumed that those who are by personal ties most interested in the welfare of patients will see that all proper steps are taken to level up to that standard.

The Lord Chancellor withdrew his support of assured pensions this year in face of the opposition of the Marquis of Ripon and Lord Kimberley. They both objected to the discretion of county councils being limited, forgetful of the fact that it is already limited in one direction—as to the maximum. It is a little hard to understand why the fixing of a minimum should be thus objected to, seeing that the minimum proposed, namely one-sixtieth, is the lowest in any of the public services. A pension granted on any lower scale would come near to an absolute evasion of the intentions of the Acts permitting pensions to be given.

A principal reason given was that the County Councils Association, as representing county councils, had pronounced against assured pensions. Apart from the question how far in this matter the Association does really represent the councils (a question the answer to which can at best be only doubtful in view of the fact that a majority of councils approve the liberal pensions awarded by their visiting committees), the Association is by no means unanimous. Last year its Parliamentary Committee approved the satisfactory provisions then contained in the Bill, but the Executive Committee by a small majority rejected them.

It may be thought that the certain giving of a pension may lead to early resignations; but this is prevented by the provisions in the Lunacy Acts which require that in the absence of bad health an officer cannot retire till he or she is 50 years of age.

A statement was made by Lord Ripon that the West Riding had some years ago raised the pay of its asylum officers in consideration that no pensions were to be given on their retirement, and that the enactment of a compulsory pension scale would be an injustice to the ratepayers of this county. It is clear that in such a case injustice could be obviated by giving officers a choice whether they would go on under present arrangements or come in under the new system. In the latter alternative the payments would be submitted to some readjustment, which could be easily effected by actuarial valuation. Such a choice is already given to Poor-law officers.

But the statement itself requires close examination before it can be admitted to have the value placed on it by Lord Ripon. An arrangement of this sort is a species of "contracting out" which is not only against the spirit of the times, but is specifically forbidden in various Acts regulating the relations between employers and their servants. Even if it should happen that a just balance is struck by the compromise, the most valuable result of a pension is lost to the employers, namely, the retention in service of officers trained by and at the expense of the employers. When the opportunity of better employment occurs there is nothing to prevent an officer resigning his post to take it up, and he goes away with a needless and wasted amount of the ratepayers' money in his pocket. Only years of experience accumulated after training can make the most valuable officers, and the latter should at all cost be kept for the service of the asylums. Inexperienced officers can do much harm and cause much expense in retarding or diminishing the chance of recovery by injudiciousness.

In the Lunacy Report of 1898 the Commissioners made several entries as to the duration of the attendants' services. For instance: "Their duration of service is satisfactory; as many as 43 having over five, and 26 over two but under five years' service." This is out of a total of 101. In the county where this asylum is situated the total police force in 1897 was 99; of this number 1 was pensioned and 1 dismissed—total, 2. In all England and Wales (exclusive of the metropolis), of a force in 1897 of 26,752, there left by resignation, dismissal, death, etc., 1,721—or 1 in 15. In the metropolitan area 1 in 19 were similarly removed. In the metropolitan area, also, of 15,452 officers, 11,418 had over five years, and 2,232 over two but under five years' service. The immense disproportion revealed by these figures in the relative duration of service shows that the asylum service is either too exacting or the prospect of pension is too little to allow of a length of service at all comparable with that of the police.

In either case a certainty of pension would tend to correct the tendency to leave. The fact that good pensions are often given to asylum officers is not sufficient for prudent men. They want a certainty, and it is the prudent men who, looking to the future, are likely to do their duty and to do it in a manner that will not allow of any risk of loss of prospects. The imprudent men are those who take up the service, and leave it without consideration and often without care.

It is certain that a duration of service which the Commissioners in Lunacy can only call satisfactory by comparison with the average, would be deemed to be most unsatisfactory in the police force, and would lead to inquiry at once. The public unfortunately has little knowledge of asylum service.

The actual facts connected with the pay of the West Riding Asylum officers are worth consideration. The pay is certainly above the average of other asylums, and it advances quickly, but both in Lancashire and London the pay is better for male and female attendants, and in both pensions are given, as a

matter of course, to all who by merit and time of service qualify themselves. But in all these three areas the police pay is above the average, and it is permissible to think that high wages in both classes of service are required to entice candidates from taking up other work in those areas.

Lord Kimberley argued that as, with the exception of certain subsidies granted by the Government, the whole of the cost of the asylums is borne by the rates, it would be unfair if the persons who bore the cost had not some control over the asylums. The subsidy in question is 4s. a week, or more than two-fifths of the cost of maintenance for each pauper lunatic. This very same argument applies both to the police and Poor-law officers who are absolutely entitled to certain pension under Acts of Parliament. The cost of asylum, of police and union administration is borne in very much the same proportion in each case by the Exchequer Contribution Account, the balance being made up from local rates. The fact that Government does make such a handsome contribution to the cost of asylums is a strong argument in favour of its interfering to prevent injustice being done not only to employees, but also to the patients, and in the end to the ratepayers.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE members who retire in July are Mr. Jessop (Leeds), who has served the full term, and Mr. Ward Cousins, who was elected as substitute for Mr. Rivington (elected in 1891 and since deceased) until this year. Both Mr. Jessop and Mr. Ward Cousins intend to offer themselves for re-election. There are no death vacancies. As we have already explained, Sir William Mac Cormac, whose term of eight years has expired, does not retire, as he at present holds the office of President.

The Council of the Royal College of Surgeons:

President.—Sir William Mac Cormac, Bart.; C, (1) 1883, (2) 1891, P, since 1896.
Vice-President.—Mr. Pick; C, (1) 1888, (2) 1896.
Vice-President.—Mr. Marsh; C, (1) 1892 (substitute), (2) 1894.
Other Members of Council.—Mr. Bryant; C, (1) 1880, (2) 1888, (3) 1896; P, 1890-92.
Sir Thomas Smith, Bart.; C, (1) 1880 (substitute), (2) 1884, (3) 1892.
Mr. Macnamara; C, (1) 1885, (2) 1893.
Mr. R. Harrison; C, (1) 1886, (2) 1894.
Mr. Willett; C, (1) 1887, (2) 1895.
Mr. Howse; C, (1) 1880, (2) 1897.
Mr. Langton; C, (1) 1890, (2) 1898.
Mr. T. R. Jessop; C, 1891.
Mr. Tweedy; C, 1892.
Mr. H. Morris; C, (1) 1893 (substitute for Mr. Beck), (2) 1898.
Mr. Mayo Robson; C, 1893.
Mr. J. Hardie; C, 1894.
Mr. Ward Cousins; C, (1) 1895 (substitute for Mr. Hulke till 1897), (2) 1897 (substitute for Mr. Rivington till this year).
Mr. Alfred Cooper; C, 1895 (substitute for Mr. Durham till 1900).
Mr. Butlin; C, 1895
Mr. Treves; C, 1895.
Mr. Davies-Colley; C, 1896.
Mr. E. Owen; C, 1897.
Mr. R. Godlee; C, 1897.
Mr. Watson Cheyne; C, 1897 (substitute for Mr. Oliver Pemberton until 1901).
Mr. Cross: C, 1898.

The following list shows the proportional representation of metropolitan medical schools, of special hospitals in London, and of the provinces:

St. Bartholomew's	5
Guy's	3
King's	1
London	1
Middlesex	1
St. George's	1
St. Mary's	1
St. Thomas's	1
University College	2
Westminster	1
Total number of members of Council attached to London Schools	17
Members attached to special hospitals in London	2
Provincial members	5*
Total	24

* Leeds 2, Bristol 1, Manchester 1, Southsea 1.

Last year Mr. Mitchell Banks, of Liverpool, did not seek re-election, but Mr. Langton and Mr. Morris were re-elected, and Mr. Cross, of Bristol, elected for the first time. Hence the proportional representation of the London schools to each other and to the provinces remained absolutely unchanged, whilst the provinces are still represented by 5 members. This year 1 member from Leeds and 1 from Southsea retire.

THE PLAGUE.

PREVENTIVE PLAGUE INOCULATIONS AT BROACH.

IN September, 1898, plague broke out in Broach, and during December, January and February, spread into all parts of the city. The Parsi Punchayet of Broach having been much impressed by the results obtained by Haffkine's preventive inoculation in Hubli and Dharwar in the Southern Deccan, and in Mora and Damaun in Guzerat, determined to introduce the system into Broach. For this purpose the Punchayet, which is a charitable Board, engaged the services of Dr. B. Sorabshaw, a well-known practitioner of the place, who inoculated some 1,572 inhabitants. This, together with 398 inoculated by other medical men, made a total of 1,970 out of an estimated average population of 27,000. The report mainly confines its attention to the effect of these inoculations on the Parsee community, which is estimated as averaging 1,843 persons during the period in question. Out of the 1,843 Parsees 1,080 were inoculated, and the results stand as follows: Among the 1,080 inoculated there were 2 cases, one of which died and the other recovered, while among the 763 non-inoculated 9 persons were attacked with plague, of whom 5 died. If the inoculated Parsees had suffered in the same proportion as the uninoculated they should have had 12 cases and 7 deaths, instead of 2 cases and 1 death. The figures give a reduction in cases of 83.3 per cent. and in deaths of 71.42 per cent. A fact worth recording is that of 809 inoculations amongst the large Hindu population, no fewer than 90 were among tailors, who formed a community of 225 persons living together under similar conditions. The incidence of plague on the 225 was as follows: Among the 135 not inoculated there were 10 cases and 6 deaths, and among the 90 inoculated there was not a single case of plague. The Parsi Punchayet is naturally highly pleased with the result, and it is to be congratulated on its enterprise in so promptly availing itself of the protective value of the inoculations.

THE PLAGUE COMMISSION.

Since returning to England the members of the Plague Commission have been engaged in eliciting information from medical officers who have retired from India and settled at home.

Surgeon-General Cleghorn declared that it was impossible to overcome the prejudices of the people of India in regard to corpse inspection, and that a correct death registration was well-nigh impossible.

Colonel Richardson stated that there was very little opposition to such measures as evacuation of houses, isolation of the sick, etc., if a really strong local man possessed of individuality and tact, and capable of winning the confidence of the natives, was at the head of affairs. He believed plague could be eradicated if the authorities obtained early information of the infection of a district and immediately acted upon it.

Dr. W. J. Simpson, F.R.C.P., late Health Officer, Calcutta, stated that the first suspected case of plague occurred on October 18th, 1896; and diplobacteria were found in the blood in this case. Dr. Simpson described several other cases of glandular enlargement and fever in which the plague bacilli were found. He acknowledged that several competent observers denied that the cases he mentioned were plague; but from a careful study of the subject he held that the cases he originally considered to be plague really were so.

THE CLINICAL SOCIETY OF LONDON.—The Council will propose Sir Richard Douglas Powell, Bart., M.D., as President of the Clinical Society at the annual meeting on May 26th. Mr. Howard Marsh will be proposed as Treasurer in succession to Dr. W. M. Ord, and Mr. Charters Symonds and Dr. Percy Kidd as Honorary Secretaries. The annual report refers to the death of Sir William Jenner, an original member, and President in 1875-76, and to the great success of the clinical meetings, the average attendance at which has been 86.

THE HUNTER FUND.

We are requested by the Committee of the Hunter Fund to publish the following appeal:

The members of the Committee are: Alfred George Bateman, M.B., Major Greenwood, M.D., LL.B., Barrister-at-Law, Rivers Willson, Ph.D., L.S.A.Lond. (Treasurer), G. Jackson, F.R.C.S.Eng., M. Cursham Corner, M. and L.S.A.Lond., Joseph Smith, President Society of Members R.C.S., M.R.C.S., L.S.A., D.P.H.Camb., R. Reginald Sleman, M.A.Camb., L.S.A.Lond.

Appeal.

The Committee earnestly desire to draw the attention of members of the medical profession to the sad case of Dr. Herbert Kingsley Hunter, who died suddenly on July 19th, 1898, at Gamlingay, at the early age of 30, leaving a widow totally unprovided for.

The Committee think that this case specially calls for the support of the profession, not only to relieve the sad condition of the widow, but also to serve as an expression of opinion on their part against the treatment Dr. Hunter received, and which there is only too good reason to believe led to his fatal attack.

The facts are briefly as follows: A few years ago Dr. Hunter, after receiving his medical education in this country, went to Pennsylvania with his wife, with the intention of settling and practising there. He entered as a student at Jefferson's College, Philadelphia, a recognised State University, and after passing through the ordinary curriculum graduated as "M.D."

Shortly afterwards, owing to domestic reasons, he was compelled to return to England, and to take steps to qualify himself to practise in this country. Accordingly, he acquired the diploma of the London Society of Apothecaries, and, having become a registered medical practitioner, bought a practice at Gamlingay, in the county of Cambs. He soon became popular, and had every chance of a prosperous career, but local jealousy had been excited, and complaints were made against him before the General Medical Council, (1) that he called himself "Dr." on the strength of an American degree, (2) that he made use of the style "Physician and Surgeon," being only a Licentiate of the Apothecaries Society.

In consequence of representations from the General Medical Council, Dr. Hunter agreed to make no further use of his degree, and innocently asked the Council what title he should use to indicate he was lawfully qualified to practise medicine and surgery. That body refused to advise, and Dr. Hunter thought the matter was at an end. Great was his consternation when one day he received a summons to attend before the Petty Sessions at Caxton in consequence of a prosecution instituted by the General Medical Council. So profound was the shock that he was taken ill the same day with cardiac symptoms, from which he had never before suffered.

At the Petty Sessions he was convicted by the justices of "wilfully and falsely" styling himself a "physician"; but at this stage the Apothecaries' Society intervened on his behalf, and appealed to the Divisional Court of Queen's Bench. It may be stated, however, that all the cost of the trial before the magistrates had to be defrayed by Dr. Hunter himself, and the whole matter tended greatly to injure his practice, for it was reported throughout his neighbourhood that he was an American quack: the action of the General Medical Council could not but appear to corroborate popular rumour that he was an unqualified practitioner.

Before the appeal came on in London Dr. Hunter, returning home after a hard day's work, had a recurrence of the symptoms which had first manifested themselves on the receipt of the original summons, and died quite suddenly. A report was immediately circulated that he had committed suicide; but Mrs. Hunter acted promptly by sending at once to Cambridge for medical assistance, and a *post-mortem* examination annihilated the cruel libel.

The result of the trial before Lawrance and Channell, J.J., is well known, and until the decision there given is reversed, or fresh legislation has abrogated it, it would appear that medical men, lawfully qualified to act in every respect as surgeons and physicians, may be prosecuted and fined for calling themselves such. The decision is a far-reaching one, for not only are all licentiates of the Apothecaries' Society subject to this penalty, but medical and surgical graduates of our universities are equally involved. For if there is any meaning in the decision of the Divisional Court, it is that the titles "Physician and Surgeon" are at law rigidly restricted to Fellows, Members, and Licentiates of a College of Physicians or Surgeons respectively.

Under these circumstances, it seems to the Committee that important principles are at stake, affecting the well-being of a large portion of the profession: and that the Hunter Fund is deserving of every possible support, if for no other reason than as a practical protest against the present iniquitous state of the law as shown by the recent trial at the Royal Courts of Justice.

The following further subscriptions have been received by Mr. Rivers Willson (Treasurer), 42, Wellington Square, Oxford:—

	£	s.	d.
Amount previously acknowledged	33	1	6
J. Noble Bredin, Esq., Potton, Beds	1	1	0
Dr. S. Nesfield, Old Trafford, Manchester ...	0	10	0
Robert T. Jenkins, Esq., Oxford	1	1	0
Randle Harper, Esq., Vienna	0	5	9
Rivers Willson, Esq., Oxford	2	2	0
Total	38	1	3

LITERARY NOTES.

Canon Harford (Dean's Yard, Westminster) writes to us as follows: May I be allowed to make a suggestion in your columns respecting one who, though not a Doctor of Medicine, practised as a most successful physician during the reign of King Edward III, and who ranks as the first Englishman that won European reputation for high skill as a surgeon? I mean John of Arderne, whose treatise on the removement of fistula is said not only to show great surgical knowledge, but to anticipate those special qualities which in later times have characterised the English school of surgery. The suggestion I would make is that he either himself translated what is known as the *Greater Guido* of his celebrated contemporary Guy de Chauliac, or caused a translation (of which MSS. copies, more or less perfect, still exist in the British Museum and elsewhere) to be made. A chief reason for considering such an event to be highly probable is that John de Arderne is known to have been in France with the English Princes, and is said to have been present at the battle of Crecy (1345). Would he not therefore naturally have visited Avignon and the celebrated practitioner there who was physician to three successive Popes, and who has given an account of the Black Death which ravaged that town in 1348? If we look to the opening words of Arderne's treatise on fistula, written in 1370, we find mention made of "the pestilence which was in England in the year of our Lorde 1349." His style of writing is very lucid, and the English translation from Chauliac's Latin, written in 1363, although apparently made but a few years afterwards, is remarkable for its clearness, the language being less rough than that of Wycliffe as seen in his translation of the Bible made between 1370 and 1385. I feel that I must not carry "owls to Athens," or I would point out what many of your readers know well, that John of Arderne was high in favour with the Black Prince, who was a noted promoter of medical art, who gave him a grant of land in Connaught; or, that nearly three centuries after his time, namely, in the seventeenth century, Sir Theodore de Mayerne esteemed his writings so greatly that he copied them out with his own hand. But I venture to draw attention to the high probability of Arderne having been the translator of the *Greater Guido*, and I would also quote what has already been written in *National Biography* concerning him: "That a small portion only of his works has been printed is probably the reason why this first of English surgeons has not occupied a more prominent place in the history of medicine." Might not the same remark apply to Guy de Chauliac, for centuries the greatest authority upon surgery in Europe?

Reference was made not long ago in this column to a very fine illuminated MS. of an English translation of Guy de Chauliac's famous treatise on surgery, which from the style would appear to be the work of a contemporary. The sugges-

tion thrown out by Canon Harford that the English translator was no less a person than John of Arderne is ingenious, and one would fain believe it to be true. It is by no means improbable, for the translator was clearly not only a competent surgeon but a master of English. The artistic finish of the MS. makes it probable that it was an *édition de luxe*, prepared for some great personage such as John of Arderne would be likely to be brought into contact with. But positive evidence is lacking.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL.

MEETINGS of the Council will be held on July 12th and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

DUNDEE AND DISTRICT BRANCH.—It has been arranged to hold the annual meeting of the Branch in University College, Dundee, on Friday, May 26th, at 3 P.M. There will be a Clinical Congress at 4 P.M., and the annual dinner will take place in the evening. Applications for membership of the Branch should be sent to Dr. BUIST, Honorary Secretary, Annfield House, Dundee, without delay.

MIDLAND BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Derby on Thursday, June 15th, and not as previously announced. It is proposed to hold a discussion on the Local Distribution of Cancer in the area of the Branch. Members who can contribute to the discussion, or who have any other matters of scientific or professional interest to bring forward, are requested to communicate as early as possible with FRANK M. POPE, 4, Prebend Street, Leicester, Honorary Secretary and Treasurer.

SOUTH EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of this District will be held at the Kent and Canterbury Hospital on Thursday, May 25th, at 3 P.M.; Dr. Parsons, Hon. Treasurer of the British Medical Association, in the chair. At 4 P.M. the Very Rev. the Dean of Canterbury has kindly consented to conduct the members over the Cathedral. The annual dinner will take place at the County Hotel, at 6 P.M.; charge, exclusive of wine, 7s. Members intending to dine are particularly requested to communicate with the Honorary Secretary by May 23rd, so that adequate arrangements may be made. A seat at the dinner table will be reserved for each member of the dinner club. All members of the South Eastern Branch are entitled to attend these meetings, and to introduce professional friends.—THOS. F. RAVEN, Barfield House, Broadstairs, Honorary District Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Bolton on Wednesday, June 21st. Members wishing to contribute any papers, show cases, or make any other communication, should write to the Secretary before May 31st. Applications for membership should be addressed to Dr. BARR, 72, Rodney Street, Liverpool, Honorary Secretary.

EAST ANGLIAN BRANCH.—Preliminary Notice.—The annual general meeting of the East Anglian Branch will take place at Colchester on Thursday, June 29th, under the presidency of Dr. E. L. Fenn. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting, will communicate at once with Dr. Barnes, Eye. Members desirous of nominating candidates for election as officers of the Branch under By-law 9 must send their nominations to Dr. Barnes, so as to reach him not later than June 7th.—EDGAR G. BARNES, M.D., Eye, MICHAEL BEVERLEY, M.D., Norwich, THOMAS CARR, M.D., Braintree, Honorary Secretaries.

SOUTH-WESTERN BRANCH. The annual meeting of this Branch will be held on Wednesday, June 14th, in the Board Room of the North Devon Infirmary, Barnstaple, at 3 P.M., when Dr. Montgomery will resign the chair to Dr. Mark Jackson, who will deliver an inaugural address. The Branch Council will meet at 2.40 P.M., and will afterwards present their annual report to the meeting. Luncheon, by kind invitation of the President-elect, will take place at 1.30 P.M., at the Imperial Hotel, Barnstaple, and the annual dinner will be held at the same place, at 6.30 P.M., at which the Mayor of Barnstaple will be present. Tickets (exclusive of wine) 6s. After the meeting, tea will be served in the Board Room of the North Devon Infirmary. In the evening the Mayor of Barnstaple will hold a reception at the Athenæum, invitations to which will be issued to all members of the Branch. The Barnstaple Club will be open to members of the Branch for the day. On Thursday, June 15th, the Barnstaple members have kindly arranged an excursion by train to Ilfracombe, thence by coach along the coast to Lynton, and back by the Lynton-Barnstaple Railway. This, however, cannot take place unless the number can be made up to sixteen. The Hon. Secretary will be glad if members will inform him at once whether they will be present at (1) the luncheon, (2) the dinner, (3) the excursion, so that further arrangements may be made.—H. W. WEBBER, M.S., 4, Woodland Terrace, Plymouth, Hon. Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at the Grand Hotel, Tynemouth, on Wednesday, May 31st, at 4 P.M., to be followed by dinner at 6 P.M. All members of the medical profession in the district are cordially invited.—T. BEATTIE, M.D., 26, Ellison Place, Newcastle-upon-Tyne, Hon. Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Medical Institute, Birmingham, on Thursday, June 22nd, at 3.30 P.M. The chair will be taken by the President, Mr. Vincent Jackson, and an address will be given by the President-elect, Mr. Bennett May. The annual dinner will take place at the Grand Hotel, at 6.30 P.M.—WILLIAM F. HASLAM, 54, Newhall Street, Birmingham, Hon. Secretary.

STAFFORDSHIRE BRANCH.—The third general meeting of the session of this Branch will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 25th. The President, Dr. McAldowie, will take the chair at 5.30 P.M. Agenda:—Minutes of last general meeting. Ballot for new members. Correspondence. Exhibition of living cases. Papers:—Dr. J. A. Codd: The Use of Electric Mains for Medical Purposes. Dr. E. Deanesly: Excision of Urethra for Impermeable Stricture. Exhibition of pathological specimens, etc. A meeting of the Ethical Committee will be held at the conclusion of the above business. Dinner at 7.30, charge 5s.—F. MILNES BLUMER, Stafford, Hon. Secretary.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The annual meeting of this District will be held at the Evelina Hospital, at 3.45 P.M., on Thursday, May 25th. The election of officers for the ensuing year will take place. Cases of clinical interest from the wards of the hospital will be shown and demonstrated on by members of the staff.—THEO. B. HYSLOP, Bethlem Royal Hospital, S.E.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—The next meeting of this District will be held at the Medical Library, 5, Pembroke Road, Portsmouth, on Friday, May 26th, at 4 P.M. Members proposing to exhibit patients or specimens, or to read papers, are requested to communicate with C. C. CLAREMONT, M.D., 57, Elm Grove, Southsea, Honorary Secretary.

EDINBURGH (FIFE AND LOTHIANS) BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians, Edinburgh, on Thursday, June 1st, at 5 P.M. Intimation of business should be made six days before the date of meeting to either JAMES HODSDON, M.D., 6, Chester Street, Edinburgh, or R. W. PHILIP, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

A MEETING of the Branch was held in Aberdeen on April 11th, Professor OGSTON in the chair.

New Members.—Dr. Brodie Brown (Evie, Orkney), and Dr. J. H. S. Walker (Queen's Road, Aberdeen) were unanimously admitted members of the Branch.

Communications.—Dr. ASHLEY W. MACKINTOSH read a paper on a case of Fracture-dislocation of the Spine.—Dr. R. G. MCKERRON read notes of a case of Decidual Endometritis associated with over-distension of the amniotic sac.—Dr. SCOTT RIDDELL showed specimens of Intussusception, Malignant Goître, Appendix from case of Relapsing Appendicitis, Movable Body from Knee-joint, Suprapatellar Lipoma and Cystic Ovary.

DORSET AND WEST HANTS BRANCH.

THE annual meeting of this Branch was held at Blandford on May 10th under the presidency of Mr. GEORGE WILLIAM GRAHAM. Forty members and visitors were present.

Vote of thanks to Retiring President.—A cordial vote of thanks was given to the retiring president (Dr. Allan McLean) for his efficient services during his term of office.

Branch Council.—The following gentlemen were elected to fill the vacancies on the Branch Council: Dr. George William Batterbury, of Wimborne, Mr. George Williamson Daniell, of Blandford, and Dr. John Comyns Leach, of Sturminster Newton.

Representative on Association Council and Parliamentary Bills Committee.—Mr. C. H. Watts Parkinson was re-elected the

representative of the Branch on the Council of the Association and on the Parliamentary Bills Committee.

New Members.—The following were elected members of the Branch: Dr. Frank Oliphant Bell, of Wareham, and Mr. Cæsar Hawkins, of Swanage.

Summer Meeting.—It was resolved that the summer meeting should be held at Swanage on July 19th if the railway accommodation be suitable, failing this, at Christchurch.

Communication.—A communication from the Worcestershire and Herefordshire Branch of the Association with copies of resolutions against the Vaccination Act, 1898, was read and cordially approved of.

Midwives Bill.—Mr. PARKINSON made a statement respecting this Bill and was requested to continue his opposition to the same in the Council of the Association.

Discussion.—A discussion on Carcinoma was opened by the PRESIDENT, and taken part in by Dr. MOORHEAD, Dr. DYER, Mr. MAHOMED, Mr. EWENS, Dr. LAWTON, and Mr. CURME.

Communications.—Dr. GREVES: Notes of 2 cases of Gall Stones, with remarks on diagnosis and treatment.—Mr. PARKINSON: (1) a Patient with Scleroderma; (2) one with Congenital Abscess of Anus, successfully operated upon by Dr. Ramsay.—Dr. LAWTON: Four cases of Diabetes, treated by uranium nitrate.—Dr. LAWRIE: Notes of (1) a Fibroid Tumour of the Uterus, undergoing malignant degeneration; (2) a case of Ectopic Pregnancy. Specimens of (1) Fibroid Tumour of Uterus, with pyosalpinx removed by subperitoneal hysterectomy; (2) Fibroid Tumour of Uterus, with ovarian cystoma removed by subperitoneal hysterectomy; (3) Fibroid Tumour of Uterus, removed by myomectomy.

Dinner.—The members dined together at the Crown Hotel.

SOUTH-EASTERN BRANCH: NORTH KENT DISTRICT.

THE March meeting of the District was held in the Church Rooms, Orpington, on Thursday, March 2nd, Mr. SHANNON in the chair. Twelve members were present. The minutes of the Bromley meeting were read and confirmed.

Next Meeting.—It was decided to hold the next meeting of the District at Beckenham on Thursday, May 4th, and that Dr. Randell be asked to take the chair thereat.

Communications.—Mr. SHANNON read a paper on Recent Experience with Diphtheria Antitoxin. Drs. MAUDE, HOLT, CROMBIE, and SMITH took part in the discussion which followed.—Mr. ARBUTHNOT LANE read a paper on Some of the Conditions which result from Boots.—Dr. EDWARDS read a paper on a Common Mistake.—Messrs. DOWN BROTHERS gave a large display of Surgical Instruments.

Tea.—At the end of the meeting the Chairman entertained the members and guests to tea.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

THE last meeting of the session was held at the Tottenham Hospital on May 10th, Dr. MORTON in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The officers for the next session were elected as follows:—*Vice-President:* Dr. T. Morton. *Representative on Branch Council:* Dr. Hugh Woods. *Honorary Secretary:* Dr. Macevoy. *District Committee:* Drs. and Messrs. C. F. Bailey, A. H. Cook, F. Greaves, E. C. Kingsford, W. Cubitt Lucey, Dysart McCaw, Hooper May, A. Ogier Ward.

Night Terrors.—Dr. L. GUTHRIE read a paper on Night Terrors, Idiopathic and Symptomatic, with Associated Diseases in Children. He adopted the classification of Silvermann into idiopathic and symptomatic, while commenting on the difficulty in some cases of drawing sharp lines of demarcation between these groups. He differed from Dr. Coutts's view that night terror could be differentiated from nightmare in the way he had suggested; age, the presence of visual hallucinations, memory of the attack, etc., were only subtle factors upon which no reliance could be placed in classification. Dr. Guthrie discussed the importance of myopia, migraine, asphyxia, labyrinthine disturbances, night sweats, fever, hip disease, calculus, etc., either in precipitating attacks of night terror or intensifying the manifestations of it. He especially emphasised their bearing on treatment. Idiopathic night terror could be broadly differentiated from the symptomatic variety by its being induced by trivial causes, by its inveteracy, and rebelliousness to means of treatment. The subjects of idiopathic night terror were generally children afflicted with timidity, shyness, self-consciousness, and neurotic. The importance of carefully searching in every case for sources of irritation, overpressure, unsuitable environment, uncongenial occupation, etc., was especially dwelt upon. The paper was illustrated by notes of interesting cases coming under the author's notice. In addition to removal of the cause, Dr. Guthrie relied upon sedatives such as paraldehyde and bromides, and general measures directed to improving the general health in the treatment of night terrors. The paper was subsequently discussed.

Votes of Thanks.—Votes of thanks were passed to the lecturer for his lucid and fascinating paper, and to the hospital authorities for their hospitality.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Annual Report of the Medical Officer of Health.—Variation in the Death-Rate: Tuberculosis, Small-Pox, and Vaccination.—Alcoholism.—The Sanitary Staff.—Meeting of Governors of University College.—Lecture by Major Ross on Malaria and the Mosquito.—Presentation to Miss Cradock.

THE annual report of the Medical Officer of Health for 1898, just published, is an octavo volume of 215 pages, and contains, in addition, several large plans and tables. The main points are summarised in a preface, which indicates a steady advance of the city in sanitation, and by inference in the general comfort and prosperity of the people. Owing to the length of time which has elapsed since the census was taken the present population cannot be determined with accuracy, but the Medical Officer of Health estimates it at 668,645, which is about 35,000 in excess of the Registrar-General's estimate. The latter estimate is arrived at by a kind of "dead reckoning," and is founded on the assumption that the increase of population during the present decade takes place at the same rate as it did during the ten years before the last census. This method has led to very erroneous conclusions in former years, and the figure obtained by it is likely to be much further from the truth than that arrived at by Dr. Hope, which is based on a number of considerations such as the natural increase based on the ratio of births and deaths, the number of citizens on the roll, and the number of inhabited houses. Taking Dr. Hope's estimate of the population as the basis of calculation, and deducting the deaths of persons who have come from other places to be treated in the Liverpool hospitals, the mortality last year was 22.2 per 1,000, which, with one single exception (1896), is the lowest ever recorded in Liverpool, and represents a reduction of 1 per 1,000 below the average of the four years since the extension of the city boundaries.

In the area of 20 square miles which is occupied by the City it might be supposed that very different rates of mortality would be found and, as a matter of fact, while in the Exchange District the death-rate is as high as 36.9, in the incorporated district of Toxteth it is as low as 9.9, a rate which compares favourably with some of the most salubrious districts in the kingdom. It is a most encouraging feature of the deduction which is observed in the death-rate that it is by far the most striking as regards the mortality from causes against which the efforts of the authorities have been most directed, and in this connection the value of prompt removal of cases of zymotic diseases to hospital becomes strikingly apparent. As regards tuberculous diseases there is a most gratifying improvement during the last thirty years. Thus in the decennium ending 1875 the annual average death-rate from all forms of tuberculosis was 403.8 per 100,000; for the decennium ending 1885 it was 349.8; for that ending 1895 it was 309.8; and for the years 1896-98 it was only 256.1. Dr. Hope utters a solemn note of warning as to the consequences which will ensue if the population should take advantage of

recent legislation in such a way as to neglect systematic vaccination.

It is a deplorable fact that, in spite of the general improvement in the death-rate, there is an increase in the number of deaths from excessive drinking. The increase is, however, strictly localised, and, as might be expected, is intimately associated with squalid and insanitary surroundings. In this connection an interesting comparison is instituted between the crowded and squalid Exchange district and the recently incorporated semirural district of West Derby, both of which have a population of approximately 42,100. Of the deaths in Exchange district, 3.2 per cent. were certified as due to excessive drinking, a figure which is more than five times the proportion so certified in the West Derby district. On the other hand, the poverty of the former district is indicated by the fact that 40 per cent. of the total number of deaths among the inhabitants took place in workhouses and hospitals, while of the deaths in the latter district only 15 per cent. occurred in public institutions.

The various officials connected with the sanitary administration of the city, including the recently-appointed female sanitary staff, have worked most efficiently during the year, and have paid upwards of 74,000 visits to courts and alleys, visits which in nearly every case led to some steps being taken to improve the sanitary conditions present; and many thousand dwellings were officially inspected. As regards the housing of the people, demolition of insanitary property on a large scale is taking place every year, and new houses, chiefly in the outlying localities, are being erected. Thus in 1898 810 houses were taken down and 1,977 were erected. About 12,000 persons are still housed in cellars.

At the last meeting of the Court of Governors of University College it was announced that a large increase had taken place in the number of art and science students, while the number of medical students showed a slight falling off; but there had been a considerable increase in the entrances to the medical school, a fact which seems to indicate that it is gaining ground in the estimation of the public and the profession. The Principal states that plans had been prepared for the extension of the medical school, which would probably cost about £20,000, of which sum about one-fourth was not yet subscribed. He also expressed the hope that the sum of £25,000 which was needed for the new physics laboratory would soon be raised. It was also announced that Mr. William Alexander, Surgeon to the Royal Southern Hospital, had generously offered a Fellowship or Studentship in Pathological Science, of the value of £100 a year, for five years at least.

At a recent meeting of the Biological Society, Major Ross, the newly-appointed Lecturer on Tropical Diseases, delivered a most lucid and interesting address on the relations of the malarial parasite to the mosquito. The various steps by which Major Ross arrived at his conclusions were given in such a way that his hearers were able to enter fully into the spirit of the inquiry, and the lecture was enthusiastically received by the audience, which consisted not only of the members of the society, but of many of the leading members of the medical profession in Liverpool, and of the commercial community who are interested in matters concerning the diseases of the tropics.

Miss Cradock, whose resignation of the post of medical officer to the employees of the Post Office after nearly fifteen years' service was announced in the JOURNAL of May 6th, has received a handsome present of silver plate from those who have been under her care, accompanied by a letter expressing their high appreciation of the services which she has rendered.

BIRMINGHAM.

The New University: Mr. Carnegie's Gift and Advice: The Views of the Promoters: Further Donations.

LESS than a year ago at a meeting held in Birmingham the scheme for a new Midland university to be called the University of Birmingham was started. Mr. Chamberlain, in his speech delivered on that occasion, said the promoters aimed at £250,000 as a minimum to endow the university. Such a sum was then thought by many to be unattainable. But in less than twelve months the sum is nearly all promised, and the Committee only require about £10,000 to make the endowment fund a quarter of a million. Some few weeks ago an anonymous donor made the generous offer of £25,000 through Mr. Chamberlain on the condition that the rest of the £250,000 was subscribed. This same donor, who still desires to remain anonymous, has during last week increased his offer to £37,000, made under the same conditions. At the same time Mr. Chamberlain announced the receipt of a letter from Mr. Andrew Carnegie, the American millionaire, in which he offered to give no less a sum than £50,000 towards the same object and under the same conditions. In his letter to Mr. Chamberlain Mr. Carnegie says: "If I were in your place I should recognise the futility of trying to rival Oxford and Cambridge, which, even if possible, would be useless. These twin seats of learning have their missions and fulfil it; but Birmingham should make the scientific the principal department, the classical subsidiary. If Birmingham were to adopt the policy suggested, taking our Cornell University as its model ..... and give degrees in science as in classics, I should be delighted to contribute the last £50,000 of the sum you have set out to raise to establish a scientific department ..... Let this gift, therefore, be considered as only a slight acknowledgment of a debt which Pittsburgh, the greatest beneficiary of your steel inventions, can never hope to repay."

At a meeting of the Canvassing Committee of the University held under the chairmanship of Alderman Clayton, votes of thanks were passed to these most generous donors. The Committee also stated in their resolution "That it was intended from the outset of their labours that in the new university, while providing for liberal culture in all its aspects, there shall be no mere copying of older institutions, but that special attention shall be given to scientific training and research, and that the new university shall be stamped with a character peculiarly adapted to the requirements of modern industrial necessities and progress."

Several other handsome donations were announced at the same meeting, and since then £2,000 more has been promised, leaving only £10,000 before the minimum sum of £250,000 is reached. This sum, it is confidently hoped, will be reached at the next meeting of the Committee.

SHEFFIELD.

The Prevention of Tuberculosis.—Medico-Chirurgical Society.—Hospital Saturday.—Jessop Hospital for Women.

THE meeting held here on May 10th to promote a local branch of the National Society for the Prevention of Consumption and other forms of Tuberculosis (a report of which is given at p. 1228) was an unqualified success. The meeting was the outcome of action taken by the Medico-Chirurgical Society. The Lord Mayor was approached, and lent most willing assistance. In his name invitations were issued to leading citizens, to neighbouring corporations, sanitary authorities, county councils, and other public bodies in different parts of Yorkshire, and the adjoining counties of Derbyshire and Notts. The response to his lordship's invitation was most hearty, and resulted in a meeting of something like a thousand people who assembled in the historic Cutlers' Hall to hear addresses from Sir William Broadbent, Professor Clifford Allbutt, members of the profession in the city and prominent laymen. It was intimated that the Duke of Norfolk had consented to become President of the proposed local branch. It was, however, somewhat unfortunate that urgent duties at the House prevented the attendance of the local members of Parliament, and that the Derwent Water Bill, which was before a Committee of the House of Commons, rendered the attendance of the Master Cutler, the Mayor of Rotherham, and several others impossible. On the other hand the Lord Mayor had with him on the platform, in addition to the citizens and medical practitioners of Sheffield and the surrounding districts, the Mayors of Chesterfield and Harrogate, representatives from the sanitary authorities of Worksop, Mansfield, etc., the Chairman of the Sheffield Health Committee, the Medical Officers of Health for the West Riding, Huddersfield, Knaresborough (rural), Rotherham, Sheffield, and many other places. The outcome of the meeting was the formation of a local branch of the National Association for the Prevention of Consumption.

The Sheffield Medico-Chirurgical Society took the opportunity of the visit of Sir William Broadbent and Professor Clifford Allbutt to the city to entertain them at dinner before they addressed the meeting to which reference has been made above. The response of the members was so unexpectedly large, considering the early hour of the dinner (6 P.M.), and the short time even that hour permitted before the time of the meeting (8 P.M.), that the room engaged for the purpose was not large enough to accommodate all who desired to be present, and the issue of tickets had therefore, for some days before the date fixed for the dinner, to be stopped. As it was, about 90 sat down. Dr. Burgess, the President of the Society, was in the chair, and in most felicitous terms proposed the health of the two principal guests. The Lord Mayor was also a guest of the Society.

The first returns for Hospital Saturday, which was held on April 30th, exceed the final returns for last year, but it is doubtful whether the total sum will ultimately be much larger than the amount collected in previous years.

The Jessop Hospital for Women has received a grant from the Town Trustees of £2,500 towards its building fund. The hospital is particularly fortunate in its appeal to the public, for it has now obtained more than the sum originally asked for.

CORRESPONDENCE.

THE HOSPITAL REFORM ASSOCIATION.

SIR,—At a time when the medical profession in this city has to contend with a very powerful organisation, and when in order to influence public opinion it is essential that we should present an unbroken and undivided front, I regret to say that Mr. Garrett Horder has thought fit to send the subjoined letter to the local press. I sincerely trust that such mischievous interference will be disavowed by the Council of the Hospital Reform Association, as that body cannot expect to have the confidence of the profession if it allows its secretary to play the free-lance in this way. I would particularly draw attention to Mr. Garrett Horder's statement that he "can hardly sympathise with the sentiments expressed by some of the leading consultants in Birmingham." This statement without a word of explanation is of course impossible to be met, but it has the effect of conveying to the Birmingham public that the views expressed by my colleagues and myself are not supported by Mr. Garrett Horder as representing the Hospital Reform Association, and I call upon him to state before his professional brethren and not in a lay paper in what respect he disagrees with the views which have been put forward by the consultants in Birmingham upon the proposed Consulting Institution.

I do not care to discuss any of the points Mr. Garrett Horder raises, but I should like to remind the profession that the subject of hospital reform was taken up first in Birmingham, and that at the present time I have upon my table a report upon the out-patients at the General Hospital which is receiving our most careful attention, in order to show that we do not require the assistance of Mr. Garrett Horder in our local affairs.

Truly, the saying, "That a man's enemies are those of his own household" is always being illustrated in the medical profession. I am glad to say that with the exception of Mr. Lawson Tait, not one member of the profession here has given public encouragement to the new scheme. It remained for Mr. Garrett Horder, the Secretary of the Hospital Reform Association, to give to the Birmingham public this exhibition of the want of union which exists among us.—I am, etc.,

Birmingham, May 16th. ROBERT SAUNDBY.

HOSPITAL REFORM ASSOCIATION.

To the Editor of the *Daily Post*.

SIR,—You may not, perhaps, consider it altogether out of place if I make a few remarks about the proposed "consultative institution." I may premise my remarks by stating that the Council of the Hospital Reform Association have definitely stated in their recommendations "That some provision should be made outside the hospitals for people who are in a position to pay a reduced fee, but are not in a position to pay the ordinary fee of a specialist." It is well known, Sir, that a larger amount of abuse exists in special hospitals and in the special departments of general hospitals than in what may be termed the ordinary departments of medicine and surgery.

My council have fully recognised the difficulties of providing special advice at a tariff below the one recognised by the profession, and, after much consideration, have suggested that it might be deemed desirable for consulting physicians and surgeons to establish in large towns an institution where people of moderate means could obtain advice at a reduced fee. It was thought essential that that advice should only be obtained at a reduced fee when the patients produced a letter from their ordinary medical attendant stating their inability to pay the ordinary fees of consultants. I venture to say that such a scheme would meet with the approval of the profession generally.

With respect to the mode of working the institution in Birmingham, I am of opinion that the main objection to it is the proposition to pay the medical men a definite sum per annum, irrespective of the amount of work they will be called upon to perform. As Dr. Leslie Phillips has remarked, this "farming out" of medical men's services is highly objectionable, and ought not to be countenanced for one moment. I can hardly sympathise with the sentiments expressed by some of the leading consultants in Birmingham. If they had taken a stronger position with regard to the abuse of their hospitals they would undoubtedly have been able to persuade the managers to adopt more stringent measures for restricting the benefits to those who really stood in need of them. Unless I am much misinformed, the two institutions which are most abused are the General Hospital and the General Dispensary.

It may be as well to remark that, although our hospitals do furnish the public with some very able consultants, yet it is not necessary to be attached to a hospital to be able to treat patients quite as efficiently and quite as successfully as members of the medical staff are able to do.

Cardiff, May 13th. T. GARRETT HORDER.

THE PHARMACY BILL AND COUNTER PRESCRIBING.

SIR,—Dr. Reginald Farrar states that practice even amongst the poor can be carried on without dispensing of medicines on the part of the medical man. This is a question of great interest to the general practitioner, and, as one who would be only too glad to be relieved of the drudgery of dispensing, I should be glad to hear how he proposes to arrange matters. My own custom is to give a prescription to patients who are evidently in comfortable circumstances, and to supply medicines to poor patients; but I am aware that my prescriptions have been used without my sanction for illnesses subsequent to the one for which the prescription was given, and it is impossible for me to know to what extent this goes on. I am of opinion that it is almost impossible for chemists to avoid a certain amount of prescribing for slight ailments, but there can be no doubt that the practice is much abused.—I am, etc.,

May 15th. G. P.

SIR,—There are few general practitioners who, after a long day's work, would not be thankful if Dr. Farrar's suggestion that doctors should dispense advice and chemists medicine could be carried out. How well, and with what benefit to their patients the time spent in dispensing, both for those who require medicine and those who do not, might be occupied in reading up recent advances in medicine and surgery, in more frequent visits to hospitals, and in giving more time to difficult cases, we all know. What chance is there of carrying out this excellent idea? Not the slightest in the present disorganised state of the profession. Will the club patient pay me 4s. a year for advice and the chemist double as much for medicine (for no sane-minded chemist would undertake the contract for less), when my neighbour round the corner will offer him both advice and medicine of the highest class for the same price. I can imagine his blank look of astonishment and disgust when he has come to me for a "bottle" and I send him away with a scrap of paper.

Union, for which we have been waiting so many years, is the only remedy which will effect this and many other much-needed reforms. The rank and file of the medical profession has been sweated and exploited by clubs, companies, and medical aid associations for many years, and now I see that the consultant is to be attacked. Birmingham, with its world-wide notoriety for "Brummagem" goods, is now going to add to its other novelties two "Brum. consultants." I view this development with hope, as the consultant, hitherto apathetic as to the wishes and wants of the general practitioner, may now be willing to throw in his lot with us and endeavour to procure that union the want of which has done so much to lower the profession in the eyes of the public. No union will ever be effective until some body like the British Medical Association takes the matter in hand and becomes to the medical profession what the Law Society is to the legal profession.

To return to dispensing: if Dr. Farrar can, as he says, make his scheme workable for club practice, I am sure the profession will be much indebted to him.—I am, etc.,

Warsop, Mansfield, May 15th. E. S. NUTTING.

SMALL-POX AND SANITATION IN GLOUCESTER.

SIR,—My attention has been drawn to an article in the BRITISH MEDICAL JOURNAL of May 6th, in which my trustworthiness of statement is called in question. The charge is based upon two apparently contradictory statements made upon two separate occasions. The first before the Royal Commission in November, 1891, and the second before the City Council in 1897.

Upon the first occasion my remarks were largely based upon conclusions drawn from official statements made by the medical officer of health for Gloucester, and from death-rates supplied for some years by him which the census of 1891 showed to be fictitious, and which were corrected subsequent to my evidence. In the report of the year 1890, prior to my examination, the population was estimated at 44,365 with a recorded official death-rate of 15.2 per 1,000. When corrected by the census of 1891 it was found the population should have been only 39,161 with a death-rate of 20 per cent. We had been lulled into a false security.

That Gloucester has always been a particularly "clean" town is perfectly correct. The streets have invariably been well kept.

Our failure has been the water supply, and my remarks upon this subject (Q. 18,267) have not been quoted by your leader writer. As our medical officer of health points out in his report for 1898, "The water supply failed in 1890 to 1891."

In the epidemic years 1895-6 we had a water famine, and our new and abundant supply only reached the city at the close of the epidemic. The result of this failure was that neither house drains nor sewers could be properly flushed; this was particularly noticed in the added districts in the southern parts of the city where the street manholes were peculiarly offensive, and had to be closed by order of the sanitary committee, and in numerous instances in that—the small-pox area—house drains became blocked and a general insanitary condition resulted.

A new sewerage scheme has since been carried out through the greater part of the small-pox district. Miles of sewerage pipes have been taken up and new ones relaid, and a largely increased fall obtained at a cost of some thousands of pounds.

To show what has been done as regards dwellinghouses, the recent report of our medical officer of health states: "During 1898 we have been able to do the largest amount of sanitary work ever done in the city. In the preceding year a large amount was accomplished, but the year just gone surpasses it by almost 900 defects remedied. This is in a great measure due to the fact that owners of property know now that they will be followed up until the work is completed."—I am, etc.,

GEORGE NEWMAN,
City Councillor and Member of the Sanitary Committee.

Gloucester, May 12th.

*** When Mr. Newman said to the Royal Commission, "Yes, Gloucester is a very clean town," he was replying to the question, "Have you had any sanitary activity in Gloucester?" He can hardly expect the public to believe that when he wished to impress upon the Royal Commissioners that Gloucester was a "clean" town he only meant that the streets were well swept. The streets were mentioned neither in the question nor the answer, and the "Yes" referred to sanitary activity. He did not volunteer to the Commission any information regarding water, but in answer to direct questions he said that the town had been very short of water, and that the drainage was between thirty and forty years old. Yet, notwithstanding his knowledge of these facts, when he was asked at the same sitting of the Commission, "And have sanitary matters been attended to much more of late years?" he would not admit that even in earlier years there had been neglect, but insisted, "I think we have always been well abreast of sanitary improvements." Thus, in 1891, small-pox being absent, he did not consider either antiquated drainage or very deficient water supply as at all inconsistent with his claim that the town was active and well advanced in sanitation, and he pointed triumphantly to the fact that in such a town, when small-pox was imported, it failed to spread in spite of neglect of vaccination; but when small-pox did come he had to find some reason or other for its spread, and he has apparently selected water and drainage, the very things he thought so little of before.

THE ETHICS OF SAMPLE TAKING.

SIR,—Recently I received, in common with every other member of the profession, a sample of meat juice of the nominal value of 9s., which had been sent out by a certain American firm. As there are some 30,000 medical practitioners in these parts, of whom each one presumably gets a 9s. sample, we may expect, in face of the recent discussions on secret commissions, to have the lay press declaring that one firm alone spends over £13,000 in bribing doctors.

Another doubtful gift is a pocket book which most of us receive annually from a well-known firm. I have no idea what the cost of this may be, but one pays about 6s. for a like book at the stationer's. Now if we continue to accept these books, surely the lay press will have some cause for saying that presents to doctors form a heavy item in the expenditure of manufacturing chemists.

I humbly submit that to accept offerings such as these, in view of the present feeling in the matter, must be made incompatible with membership of the British Medical Association.—I am, etc.,

North Earl Street, Dublin, May 13th. J. C. MCWALTER.

AMENDMENT OF THE MEDICAL ACTS.

SIR,—I notice that Mr. Victor Horsley, in commenting on my letter on this subject, draws attention to one paragraph in it of secondary importance, and omits to notice one of primary consequence. I would invite Mr. Horsley's attention to this question. Does he think that Section XL of the Act of 1858 is sufficient to purge the profession of those persons who, not having any registrable qualification, call attention in their bills, advertisements, and circulars to the fact that they are not registered, and that they have no connection with any schools, colleges, universities, and licensing bodies whatsoever? If he does so believe, I venture to think he will not get any lawyer to agree that such an advertising quack can be successfully prosecuted under Section XL, and, if that be so, is it not plain that the point I raised is not (as Mr. Horsley maintains) one merely technical, but one which goes to the very root of the matter—the sufficient protection both of the public and *bonâ-fide* practitioners in medicine and surgery?—I am, etc.,

Glasgow, May 9th. R. P. LAMOND,
Member of the Faculty of Procurators of Glasgow.

SYPHILITIC DISEASES: THEIR PREVENTION, STUDY, AND TREATMENT.

SIR,—My attention has been drawn to a statement made by Mr. C. F. Marshall in the BRITISH MEDICAL JOURNAL of May 6th to the effect that the female patients of the London Lock Hospital were treated as "criminals and outcasts." Such a statement as this is calculated to cast discredit on the medical staff, governors, and other officials of the institution; and as one of the senior surgeons and formerly a house-surgeon, I give it the most emphatic denial. If Mr. Marshall's statement were correct, this hospital would be a most undesirable one with which to be associated. I have only to add that Mr. Marshall during the past year made three applications for election on the staff of the institution.—I am, etc.,

J. ERNEST LANE, F.R.C.S.,
Surgeon to the London Lock Hospital.

Queen Anne Street, W., May 16th.

THE EPILEPTIC COLONY AT CHALFONT.—The Duke and Duchess of York will visit Chalfont St. Peter on June 22nd to open four new homes at the colony of the National Society for Employment of Epileptics. The new homes comprise two for children, one for men, and one for cases requiring special care, and will increase the existing accommodation of the colony by nearly 100 beds. The cost of building the new homes has been defrayed by Mr. Passmore Edwards, Mr. Frederick Greene, and Mrs. Dearmer, but the cost of the necessary furniture and equipment has as yet been only partially provided.

THE SANITARY INSTITUTE.—At an examination for inspectors of nuisances held by this institute in London on May 5th and 6th, 87 candidates presented themselves, of whom 40 were certified as competent to discharge the duties of inspectors of nuisances under the Public Health Act, 1875. At the same time 9 candidates presented themselves for examination in practical sanitary science, and certificates were granted to 3.

OBITUARY.

HENRY BENDELACK HEWETSON, M.R.C.S., F.L.S., F.Z.S.,

Ophthalmic and Aural Surgeon to the Leeds General Infirmary.

We regret to announce the death of Mr. Bendelack Hewetson, which took place in Hull on Saturday, May 15th. Mr. Hewetson's health had at times been a cause of anxiety to his friends for some years past, but symptoms of renal disease only became more threatening during the past three or four months. He went to his country residence at Easington, near Hull, at the beginning of March, with the hope of improving the state of his health. Here, however, he steadily became worse, and died in coma a fortnight after having been removed to Hull.

Mr. Hewetson was born in Beverley in 1850, but his family removed to Leeds a few years later, so that he was educated at the Leeds Grammar School. He entered at the Leeds School of Medicine in 1868, and went through his curriculum with success, obtaining his diploma in 1873. He further supplemented his studies at Guy's Hospital, London, and at Moorfields Ophthalmic Hospital. When he returned to Leeds he became an assistant to Mr. Pridgin Teale, and here, again, he had further opportunity of increasing his knowledge of the more special branch of medicine to which he subsequently gave his whole attention.

In 1883 Mr. Hewetson was appointed Honorary Surgeon to the Leeds Public Dispensary, but resigned this post a few months later on being appointed Honorary Ophthalmic and Aural Surgeon to the Leeds Infirmary, in place of Mr. R. P. Oglesby, deceased. At one time or another he also held the appointments of Ophthalmic and Rural Surgeon to the Yorkshire Institution for the Deaf and Dumb, and Honorary Surgeon to the Reynaud Hospital, Willingham.

He was President of the Otological Section at the annual meeting of the British Medical Association in Newcastle in 1893. Here he undoubtedly rendered considerable service by advocating in his opening address further otological instruction in the medical curriculum.

Mr. Hewetson devoted much attention to the study of ophthalmology and otology, and attained a very considerable success in private practice. He was one of the earliest to recommend peritomy in certain cases of interstitial keratitis. Among his contributions to medical literature the following may be mentioned: *The Human Eye in Perfection and Disease*, 1882; *The Relation of Sick Headache and Ocular Defects*, 1885; *The Localisation of certain Forms of Headache and Sick Headache*, 1897; *The Treatment of Deafness arising from Nasal Stenosis by Dilatation*, and many other papers and writings.

Mr. Hewetson's interests were by no means limited to more strictly professional subjects. He was a most enthusiastic collector of objects of art and of natural science. He filled on two different occasions the office of President of the Leeds Naturalists Club, and this scientific association is under a debt of gratitude to him for the deep interest which he took in its welfare. His travels in various parts of the world, often undertaken primarily for the benefit of his health, always resulted in a collection of practical scientific information to be communicated to the scientific societies of which he was a member. It is not too much to say that there is hardly a branch of natural science in which Mr. Hewetson did not at one time or another take some active interest.

The death of Mr. Hewetson has removed from Leeds a many-sided and in some ways a remarkable figure. The disappearance of a man of considerable natural gifts, of great energy and of enthusiasm, and of many interests, must always leave a gap difficult to fill. The news of his death has been received with regret by a wide circle of friends, and much sympathy is felt with Mrs. Hewetson and family in their bereavement.

The funeral took place at Scarborough on May 17th in the presence of many friends, including representatives of the Leeds Infirmary, and other scientific societies to which the deceased belonged.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have lately died are Dr. Giovanni Inverardi, Professor of Obstetrics and Gynæcology in the University of Padua, aged 45, and Dr. Th. von Hessling, sometime Professor of Anatomy and Histology in the University of Munich, aged 83.

GEORGE GEDDIE, M.D.Edin., L.R.C.S.Edin.,

Garmouth, Morayshire.

Dr. George Geddie died on May 6th at the age of 61 from valvular disease of the heart. He had been failing for some time. He was born in the village of Kingston, near Garmouth, where for over forty years he has been not only a medical practitioner of distinguished worth and influence, but the sterling friend of those among whom he was born and did his life's work. He was the ideal type of the fine old country doctor. He was interested in all that made for the comfort, the happiness, the pleasure of those among whom his lot was cast. No one came to him in vain. His death, therefore, was the cause of profound sorrow. All felt that they had lost a true friend, and that the loss was irreparable. Not only as the doctor of these two villages was Dr. Geddie noteworthy, but in things social he was a great help, and in questions of local family history, in genealogy of the county families, in reminiscences of the district, his splendid memory made him an acknowledged authority.

His medical position was characterised by talent, by great modesty, by the high esteem of his medical brethren. He graduated at the University of Edinburgh in 1855, and in the same year took the Licence of the Royal College of Surgeons of Edinburgh.

He did much to promote the early progress of volunteering, and rose to the rank of Major. He was a Justice of the Peace for his native county, a member of the Speymouth School Board, and a prominent Elder in Garmouth Free Church.

He leaves behind him a widow, two sons, and three daughters. One of the sons is in the medical profession in Australia.

UNIVERSITIES AND COLLEGES.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An extraordinary Comitia was held on May 11th; Dr. W. S. Church, President, in the chair.

Admission of Fellows.—The following Members were admitted to the Fellowship of the College: William Vicary Snow, M.D.Lond., Bournemouth; Henry Handford, M.D.Edin., Nottingham; Herbert Ritchie Spencer, M.D.,Lond.; Wilfred James Hadley, M.D.Durh.; Cyril Ogle, M.B.Oxon.: William Halse Rivers Rivers, M.D.Lond., Cambridge; William John Ritchie Simpson, M.D.Aberd.; Percival Horton-Smith, M.D. Camb.; Sydney Arthur Monckton Copeman, M.D.Camb.; Arthur Ransome, M.D.Camb., Bournemouth.

Croonian Lectures.—The President announced that the subject of the Croonian Lectures to be delivered this year by Professor Bradbury, M.D., of Cambridge, was Sleep, Sleeplessness, and Hypnotics.

International Congress on Venereal Disease.—On the nomination of the President, Dr. Radcliffe Crocker was appointed to represent the College at an International Conference on the Prevention of Venereal Diseases to be held at Brussels, September 4th to 8th.

The Laboratories.—Upon the motion of Dr. J. F. Payne, a report from the Laboratories Committee was received and adopted. The report stated that the Committee had appointed Dr. Cartwright Wood Superintendent of the Bacteriological Department. Dr. Wood's duties would include the preparation of diphtheria antitoxin and the testing of antitoxic serum sent to the laboratories.

Gifts to the College.—Communications were received (1) from Miss Roberts, offering for the acceptance of the College, a portrait of her uncle, the late Sir William Roberts, M.D., painted by Mr. G. F. Watts, R.A.; (2) from the executors of the late Dr. C. J. Hare, announcing a bequest by him of £500, free of legacy duty, for the College Endowment Fund. The best thanks of the College were unanimously accorded for these graceful and highly-valued gifts.

Memorial Statue to Sir Thomas Browne.—A letter from Sir Peter Eade was read, with reference to a Memorial Statue of Sir Thomas Browne, which it is proposed to erect by sub-

scription in Norwich. Sir Frederick Bateman, M.D., as representing the local committee, spoke in warm approval of the scheme, and upon the motion of the Treasurer the sum of fifteen guineas was voted as a subscription towards the Memorial Fund.

Tuberculosis Congress.—A letter was received from the Lord President of the Council with reference to an exhibition of appliances used in connection with the sick, to be held in connection with the forthcoming Congress on Tuberculosis at Berlin.

Dr. Arbuthnot.—Permission was granted for a photograph to be taken of the portrait of Dr. Arbuthnot in possession of the College, for illustrating a *Cyclopædia of Literary Biographies*, to be published by W. and R. Chambers, of Edinburgh.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on May 11th, Sir William Mac Cormac, Bart., K.C.V.O., President, in the chair.

College Centenary.—It was determined that the date of the celebration of the College Centenary should be left open.

Election of Member of the Court of Examiners.—Mr. A. Pearce Gould was elected in the vacancy occasioned by the retirement of Mr. Jeremiah McCarthy. Mr. Henry Morris was elected a member of the Board of Examiners in Dental Surgery in the vacancy arising from the retirement of Mr. Jeremiah McCarthy.

Judgment of the Court of Appeal.—A letter was read from Mr. Ernest J. Wilde, reporting that the judgment of the Court of Appeal respecting the appeal of the College against the decision of Justices Wright and Channell regarding the assessment of the College to Corporation Duty was delivered on that day, with the result of the appeal being dismissed with costs. The judgment of Lord Justices A. L. Smith, Collins, and Romer was read. A letter of May 8th was read from Mr. Ernest J. Wilde, stating that he was very decidedly of opinion that it would not be wise to appeal to the House of Lords. The subject was referred to the Finance Committee.

Congress on Tuberculosis.—A letter was read from Mr. A. W. FitzRoy, Clerk of the Privy Council, forwarding a copy of a letter addressed by the German Ambassador to Lord Salisbury, and transmitted by Lord Salisbury to the Lord President of the Council, intimating that in connection with the forthcoming Congress at Berlin on Tuberculosis, it is proposed to hold an exhibition of an international character in the rooms of the "Philharmonie" at Berlin between May 20th and June 18th, and asking that the attention of institutions in England interested in the subject may be called to the undertaking.

The Corporate and Medical Reform Association.—A letter was read, dated May 3rd, from the above Association, forwarding a copy of a memorial to the General Medical Council "on the subject of illegal certificates of proficiency in departments of medicine, surgery, and midwifery," and other documents relating thereto, and asking the Council to move their representative "to support the due discharge of its functions by the General Medical Council and the law as now established." The subject was referred to Mr. Thomas Bryant, the representative of the College on the General Medical Council, to take such action as he should think fit.

UNIVERSITY OF CAMBRIDGE.

LONG VACATION COURSE.—The Vice-Chancellor (Dr. Hill) and Dr. Barclay-Smith will hold a class in Practical Histology during the Long Vacation, beginning on July 4th.

NEW APPOINTMENTS.—The General Board propose the establishment of new lectureships in Physical Anthropology and in Palæozoology, and improved stipends for the reader in botany, the lecturers in experimental psychology and in organic chemistry, and the curator in zoology. The new professorship of Agriculture has now been formally established.

MEDICAL DEGREES.—At the Congregation on May 11th the following degrees were conferred: *M.D.*: Francis Villy, M.A., St. John's. *M.B. and B.C.*: S. B Reid, M.A., St. John's; A. F. MacCallan, B.A., Christ's. *B.C.*: H. N. Clarke, B.A., Trinity; J. R. Garrod, B.A., St. John's.

HONORARY DEGREE.—The following is the speech delivered at the Congregation on May 11th by the Public Orator in presenting Professor Kowalevsky for the honorary degree of Doctor in Science:

Russorum ab imperio maximo legatus ad nos subito advectus est vir illustris, qui investigandi rationes novas inter primos secutus, animantium formas quasdam inferiores ex alia in aliam paullatim mutatas identidem indagavit; qui in confinio inter genera vertebris instructa et vertebris carentia iampridem moratus, Amphioxi speciem ambiguam pr. nus explicavit; qui larvae denique Ascidianae cum vertebrato animalium genere affinitatem imprimis indicavit. Atqui, ne talium quidem virorum præceptis attonitus, larvæ illius degeneris propinquitatem reformidabit homo non terrestris tantum sed etiam caelestis originis conscius, qui angelis paullo minor, gloria et honore est coronatus, super oves et boves, super feras omnes, super volucres et pisces, super omnia quae maris per vias pererrant, a Deo constitutus.

Duco ad vos Zoologiae Professorem Petropolitanum, ALEXANDRUM KOWALEVSKY.

UNIVERSITY OF EDINBURGH.

An examination for a Vans Dunlop Scholarship in Physics, Chemistry, and Anatomy (£100 tenable for three years) was recently held. The result has just been announced. Mr. Thomas Peebles and Mr. G. H. Skinner are bracketed equal. The former gentleman was a pupil of George Heriot's School.

The following candidates have passed the examinations of this University as undernoted:

First Professional Examination.—R. T. G. Aickin, G. C. Anderson, W. W. Anderson, F. L. Atkinson, J. Bentley, W. F. Brayne (B.A.), E. C. Brown, E. E. Cassady, K. S. Clark, E. L. Colby, J. H. Connolly, W. A. Cowan, C. H. Craig, H. Curwen, A. Dangerfield, H. S. Davidson, D. E. Derry, T. S. Dick-Cleland, F. H. Dickson, F. C. Drew, H. N. Fletcher, L. Fourie, E. G. Fraenkl, H. S. Gaskell, A. C. Geddes, A. Gillespie, E. G. Girdwood, W. L. M. Goldie, A. M. Gurney, E. I. Hall, C. R. F. Hartley, C. H. Houghton, J. H. Jones, J. M. Kirkness, W. S. Laidlaw, V. Langmore, A. W. B. Loudon, H. MacCormac, I. M. MacRae, J. M'Turk, W. E. Marshall, S. A. Moore (B.A.), A. B. Morgan, E. G. Morton, E. Muir, C. H. Muller, W. S. Pillans, H. Porter, A. F. Rabagliati, E. M. Reece, W. R. Reid, W. J. D. Robertson, D. Sandler, D. J. Scott, F. W. S. Shepherd, G. D. Sloan, J. A. Small, A. B. Spence, Amelia Sutcliffe, E. J. Taylor, J. P. du Toit, L. Turiansky, R. Veitch, G. J. Wentzel, F. A. Wille, C. H. Winch, and W. D. Wright.

Second Professional Examination.—D. M. Aitken, J. F. Allan, C. M. Anderson, R. V. C. Ash, A. A. Ayton, R. T. Baillie, A. C. Begg, R. A. Belilios, J. H. M. Bell, R. J. Bradley, A. Brown, E. E. Brown, G. M. Brown, J. Brownlee, R. W. Buchanan, H. Buist, E. P. Calder, R. A. Cameron, S. M. D. Campbell, C. C. Choyce, P. T. Copeland, G. G. Cumming, B. M. Cunningham, W. H. Dickinson, M. S. Dickson, W. E. C. Dickson, B.Sc. (with distinction), H. Dodgson, J. W. Duffus, J. M. Dupont, J. R. Edward, R. S. Ellis, B. G. Forman, Catherine Fraser, S. Garvin, R. A. Glegg, R. M. Grant, A. L. Gurney, A. R. Hallam, A. M. Hamilton, R. A. J. Harper, E. R. Henderson, D. C. Henry, C. W. Howe, A. Hunter, M.A., A. E. Hunter, C. E. P. Husband, W. Hutchinson, E. M. Inglis, E. M. G. Jayne, G. A. Jolly, A. C. Keay, J. P. Kennedy, G. I. Lecesne, W. Lee, C. H. Lindsay, S. Lyle, J. G. M'Bride, L. T. M'Lintock, C. B. M'Conaghy, J. B. M'Cutcheon, W. Macdougall, Elizabeth M'Elney, P. F. M'Farland, G. M'Farland, A. F. M'Kay, J. M'Kenzie, H. J. C. M'Laren, K. D. C. Macrae, W. Mair, M.A.; A. M. Malcolmson, G. R. Mill (with distinction), W. Miller, J. G. Mitchell, D.Sc. (with distinction); J. Morrison, D. Munro, J. G. Munro (with distinction), A. C. Murray, G. S. Murray, A. D. Nimmo, D. A. Ogilvie, J. H. C. Orr, W. Paterson, S. G. Peill, C. E. Pepper, G. Ferriera, H. G. Pesel, L. W. Pole, E. J. Portcous, W. G. Porter, E. T. Potts, W. H. Prentice, H. St. J. Randell, W. Ritchie, H. M. Roberts, G. C. I. Robertson, J. S. E. Robertson, M. W. Robertson, C. W. Salesby (with distinction), J. D. Sancr, M. C. C. Seton, T. B. Shaw, M. W. Smart, M. M. Smith, Kate Southon, B. A. Spence, G. C. Strathairn, D. Sunderland, P. Telles, G. L. Thompson, E. C. Thomson, J. P. Thorne, G. R. Turner, E. J. Tyrell, E. A. Walker, A. S. Watson, A. G. Waugh, P. Weatherbe, E. Wells, T. S. B. Williams (with distinction), A. J. Williamson, F. E. Wilson, J. Woods, and T. B. Unwin.

Third Professional Examination.—R. Affleck, T. H. W. Alexander, C. H. Allen, J. D. Anderson, M. S. Anderson, H. Bishop, A. B. Black, O. C. Bradley, L. P. Brassey, J. M. L. Brown, M.A.; A. Brydon, G. F. Buist, G. B. Butt, H. E. Arbuckle, B.A.; J. Asbury, B. H. S. Aylward, A. J. Baird, S. A. Ballantyne, M. C. Beatty, J. H. Bell, R. A. Cameron, J. P. Campbell, M. Campbell, G. S. Carmichael, J. P. Cassels, V. P. A. Coghill, W. P Cormack, J. Craig, T. A. Davies, W. Eadie, R. S. Ellis, J. S. Enslin, E. Ewart, D. C. L. Fitzwilliam, A. Fleming, Catherine Fraser, A. Frew, W. E. Frost, Y. Fukuda, J. S. Geikie, J. C. Gilchrist, W. Girdwood, P. S. Haldane, G. H. Hanna, F. Hardie, N. E. Harding, H. Harris, D. Heron, Eleanor Hodson, K. W. Hogg, H. J. Hoile, L. J. Hood, F. F. C. Jagger, E. B. Jamieson; J. G. S. Jamieson, M.A.; M. Johnston, J. C. Kennedy, F. K. Kerr, S. M. de Kock, L. Laurie, R. G. Leach, A. C. Lennie, G. Lowther, R. J. M'Clelland, C. B. M'Conaghey, J. G. M'Dougall, S. L. M'Elderry, W. E. M'Farlane, A. C. N. M'Hattie, J. H. M'Kee, A. J. MacKenzie, D. S. MacKnight, H. J. Maclaren, H. J. M'Lean, D. M. MacLeod, J. M. A. Macmillan, A. M'Nab, G. W. P. Maitland, A. A. Martin, H. Mason, F. C. Matthew, E. T. Melhuish, J. B. Milne, J. Miskeily J. Munro, F. Myers, H. C. Nixon, J. C. Parker, N. Patterson, C. B. Paul, John Pender, M. C. Pepper, J. B. Primmer, J. R. Prytherch, S. Rattray, O. L. Rhys, C. M. Richardson (with distinction), D. J. Roberts, G. A. P. Ross, J. Ross, M.A., R. A. Ross (with distinction), W. C. Ross, A. J. Ryle, A. S. Sandeman, T. B. H. Scott, W. S. Scott, E. T. Selkirk, J. F. Selkirk, H. D. Shepherd, T. S. Shepherd, S. R. Sibbald, F. D. Simpson, W. Sloss, J. A. Smale, C. B. Snow, G. B. A. Speirs, A. D. Spence, E. R. Sproull, T. G. Stewart, C. P. Strong, M. A. Swan, J. H. Thornley, A. Trotter, C. S. Vartan, W. Wallace (with distinction), A. G. Watson, N. S. Wells, G. D. Whyte, F. M. Wigg, A. W. Wilson, M. R. Wilson, T. J. G. Wilson, A. M. Wood (with distinction), and G. Wright.

UNIVERSITY OF DURHAM.

AT the Convocation, held on Saturday, April 29th, the following degr were conferred:

Doctor in Medicine.—B. Addenbrooke, M.B., B.S.Durh.; A. Baker, B.A.Paris, M.B., B.S.Durh.; N. Bennett, M.B., B.S.Durh.; C. H.

Bryant, M.B., B.S.Durh.; R. L. Daly, M.B., B.S.Durh. (*in absentia*); W. R. Dix, M.B., B.S.Durh.; H. Francis, M.B., B.S.Durh.; J. P. Sparks, M.B., B.S.Durh.

Doctor in Medicine (*Practitioners of Fifteen Years' Standing*).—T. W. J. Allen, M.R.C.S., L.R.C.P.; F. A. N. Bateman, M.R.C.S., L.R.C.P., L.S.A.; W. Fearnley, L.R.C.S.Edin.; W. T. Freeman, M.R.C.S., L.R.C.P.; W. M. Jones, M.R.C.S., L.S.A., D.P.H.; A. Lane, M.R.C.S., L.S.A., F.R.C.S.Irel.; H. C. Lawrence, M.R.C.S., L.R.C.P.; S. S. Lessey, M.R.C.S., L.R.C.P.; T. Lettis, M.R.C.S., L.S.A.; L. P. Mark, M.R.C.S., L.R.C.P., L.S.A.; W. Slater, M.R.C.S., L.S.A.; F. T. Thistle, M.R.C.S., L.R.C.P.

Bachelor in Medicine.—E. C. Bailey, L.S.A., King's College, London; J. W. H. Boyd, College of Medicine, Newcastle-upon-Tyne; R. T. Brown, M.R.C.S., L.R.C.P., Guy's Hospital; T. P. Cann, College of Medicine, Newcastle-upon-Tyne; H. E. Davison, College of Medicine, Newcastle-upon-Tyne; H. W. Dudgeon, M.R.C.S., L.R.C.P., Guy's Hospital; Selina Fitzherbert Fox, London School of Medicine for Women; J. A. Hartigan, College of Medicine, Newcastle-upon-Tyne, and Trinity College, Dublin; L. F. Hemmans, College of Medicine, Newcastle-upon-Tyne; D. Hethcote, College of Medicine, Newcastle-upon-Tyne; E. Inman, College of Medicine, Newcastle-upon-Tyne; S. P. Johnson, Mason College, Birmingham; J. McConnell, College of Medicine, Newcastle-upon-Tyne; H. R. C. Newman, M.R.C.S., L.R.C.P., University College, Bristol; G. B. Picton, College of Medicine, Newcastle-upon-Tyne; B. C. Stevens, M.R.C.S., L.R.C.P., L.S.A., St. Thomas's Hospital; A. W. Tuxford, St. Mary's Hospital; R. H. Vincent, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; T. B. Watson, College of Medicine, Newcastle-upon-Tyne.

Bachelor in Surgery.—E. C. Bailey, L.S.A., King's College, London; J. W. H. Boyd, College of Medicine, Newcastle-upon-Tyne; R. T. Brown, M.R.C.S., L.R.C.P., Guy's Hospital; T. P. Cann, College of Medicine, Newcastle-upon-Tyne; H. E. Davison, College of Medicine, Newcastle-upon-Tyne; H. W. Dudgeon, M.R.C.S., L.R.C.P., Guy's Hospital; Selina Fitzherbert Fox, London School of Medicine for Women; J. A. Hartigan, College of Medicine, Newcastle-upon-Tyne, and Trinity College, Dublin; L. F. Hemmans, College of Medicine, Newcastle-upon-Tyne; D. Hethcote, College of Medicine, Newcastle-upon-Tyne; E. Inman, College of Medicine, Newcastle-upon-Tyne; S. P. Johnson, Mason College, Birmingham; J. McConnell, College of Medicine, Newcastle-upon-Tyne; J. Milligan, College of Medicine, Newcastle-upon-Tyne; G. B. Picton, College of Medicine, Newcastle-upon-Tyne; B. C. Stevens, M.R.C.S., L.R.C.P., L.S.A., St. Thomas's Hospital; R. H. Vincent, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; T. B. Watson, College of Medicine, Newcastle-upon-Tyne.

Bachelor in Hygiene.—B. Addenbrooke, M.D., B.S.Durham; W. H. Rowell, M.D., B.S.Durham.

The diploma in Public Health was conferred on Mr. J. C. Davies, M.R.C.S., L.R.C.P., L.S.A.

THE ROYAL UNIVERSITY OF IRELAND.

A MEETING of the Senate was held on Thursday, May 11th, at 11 o'clock, Sir Thomas Moffett, Pro-Chancellor, in the chair.

New Member.—A communication was received from the Clerk of Convocation notifying the election of Dr. T. Walton Browne, of Belfast, as a member of the Senate.

Death of the Vice-Chancellor.—A resolution was adopted recording the regret of the Senate at the death of the late Right Hon. C. T. Redington, Vice-Chancellor of the University. The election of Vice-Chancellor was postponed to next meeting.

Sir Gabriel Stokes.—An address of congratulation was adopted to Sir George Gabriel Stokes, Bart., LL.D., Sc.D., upon attaining his fiftieth year as Lucasian Professor of Mathematics at Cambridge University.

The Conjoint Board in England.—A communication was received from the Conjoint Examining Board in England intimating that such alterations had been made in their regulation as would place the medical students of this University upon the same footing as regards the examinations of that Board as the medical students of other Universities.

The following exhibitions and honours have been awarded at the recent examinations:

Second Examination in Medicine.—W. Phillips, B.A., Queen's College, Belfast, Exhibition of £15 and Second-class Honours.

Third Examination in Medicine.—J. O'Leary, Queen's College, Cork, Exhibition of £30 and First-class Honours; D. McMordie, B.A., Queen's College, Belfast, Exhibition of £20 and Second-class Honours.

M.B., B.Ch., B.A.O. Degrees Examination.—J. W. D. Megaw, B.A., Queen's College, Belfast, Exhibition of £40 and First-class Honours; R. Steen, Queen's College, Belfast, Exhibition of £25 and Second-class Honours.

THIRD EXAMINATION IN MEDICINE.—The Examiners have recommended that the following be adjudged to have passed the Examination

Upper Pass.—J. G. Anderson,* Queen's College, Galway; J. Gorman,* Catholic University School of Medicine; A. G. Heron,* B.A., Queen's College, Belfast; O. E. Jackson, Queen's College, Belfast; J. C. McCarroll, Queen's College, Belfast; D. McMordie,* B.A., Queen's College, Belfast; J. O'Leary,* Queen's College, Cork.

Pass.—W. Barkley, Queen's College, Belfast; J. P. Brady, Catholic University School of Medicine; F. C. Bullen, Queen's College, Cork; J. S. Cargin, Queen's College, Belfast; M. Crowley, Catholic University School of Medicine; F. Garland, Catholic University of Medicine; T. J. Hartigan, Catholic University School of Medicine; J. P. Higgins, M.A., Queen's College, Cork; R. Kennedy, Queen's College, Belfast; P. Kerley, Catholic University School of Medicine; S. McClure, Queen's College, Belfast; J. McCrea, B.A., Queen's College, Belfast; J. A. Mills, B.A., Queen's College, Galway; J. Park, Queen's College, Belfast; C. Peacock, Queen's College, Belfast; H. C. Quirke, Mason College, Birmingham; H. B. Smith, Queen's College, Belfast; W. J. Thompson, Queen's College, Belfast.

Candidates marked * may present themselves for the further Examination for Honours.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT the monthly meeting of the College held on Friday, May 5th, the following gentlemen were admitted as Fellows: J. B. Coleman, M.D., F. C. Martley, M.D.

At a stated meeting of the College held on Friday, May 12th, the following registered medical practitioners were duly admitted (after examination) Licentiates in Medicine and Midwifery respectively:

Licentiates in Medicine.—G. H. Brand, L.S.A.Lond., G. Cole-Baker, M.B., B.Ch., B.A.O.Univ. Dublin, J. J. M'Grath, L.R.C.S.I., L.A.H., J. C. M'Walter, L.R.C.S.I., L.A.H.

Licentiates in Midwifery.—G. Cole-Baker, M.B., B.Ch., B.A.O.Univ. Dublin, A. H. Hardcastle, L.S.A., J. J. M'Grath, L.R.C.S.I., L.A.H.

Sir John Banks, K.C.B., the Senior Fellow, presented to the College an engraved portrait of William Butler, M.D.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

DENTAL EXAMINATION.—The following gentleman having passed the necessary examination, has been admitted a Licentiate in Dental Surgery of the College:

Mr. W. F. Crosse.

The following gentlemen have passed the primary part of the examination for the Licence in Dental Surgery:

Mr. A. L. Harrison, Mr. D. L. Rogers, Mr. J. R. Small, Mr. G. M. Sterling, and Mr. G. N. Tate.

CONJOINT BOARD IN IRELAND.

FOURTH PROFESSIONAL EXAMINATION.—Candidates have passed this Examination as undernoted:

In all Subjects.—W. C. Croly, P. S. O'Reilly.

Completed the Examination.—E. S. Barnard, G. Carroll, W. M. Jones, G. Kennedy, T. F. O'Connor, R. W. Orpen, E. E. Roberts, J. Sinclair.

In Medicine.—J. J. Cormack, A. Gill, C. G. Jones, J. F. C. Meyler.

In Surgery.—C. G. Jones, J. L. Jones, T. F. Loughrey, J. A. Martin, R. A. O'Donovan.

In Midwifery.—J. L. Jones, J. F. C. Meyler, J. F. Smyth.

In Ophthalmology.—C. G. Jones, J. L. Jones, J. A. Martin.

In Mental Disease.—C. G. Jones, J. L. Jones, T. F. Loughrig.

In Forensic Medicine, etc. (Four Years.)—G. W. T. Clarke, J. F. C. Meyler, J. W. Shortt.

Mr. F. C. Martley, Dr. J. J. Harding, Dr. J. D. McFeely, and Dr. S. W. Wilson have passed the Examination in State Medicine, the first named with honours.

In addition to those whose names have been already published, the following have passed the Third Professional Examination: J. W. Clarke-Bayliss, G. C. L. Kerans, T. P. Cormac (misprinted P. P. Cormack).

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

AT the monthly meeting of the Faculty on May 1st, Dr. John Dougall of St. Mungo's College was appointed Examiner in Medicine and Materia Medica for the Dental Diploma.

ERRATUM.—In the Pass List of the Conjoint Board for Scotland in the BRITISH MEDICAL JOURNAL of May 6th, p. 1135, the tenth name in the Final Examination should be E. Hepworth Alton, and not as printed.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE BELGRAVE HOSPITAL FOR CHILDREN.

A MEETING was held at the Mansion House on May 12th in furtherance of the committee's proposal for the transference of the hospital to Kennington, and its reconstitution on a reformed basis. The Duke of Westminster, who presided in the unavoidable absence of the Lord Mayor, briefly narrated the history of the hospital from its starting thirty years ago in two small houses in Belgravia, in which some admirable work was done in spite of the unsuitableness of the premises to hospital requirements. When it became a question of rebuilding the committee found that the district they had supplied could be covered by the Victoria Hospital for Children (in which his Grace was also interested), while South London was very inadequately supplied with children's hospitals. A very suitable site had been secured at Kennington which was surrounded by a poor population. They had already about £5,000 in hand, but wanted a great deal more, about £50,000.

The Bishop of Rochester, in moving the first resolution declaring the urgent need for increased hospital accommodation in South London, pointed out that while South London contained about one-third of the population of London, the hospitals for children numbered but two on the south side as against eleven on the north of the Thames. South London had not in its midst either the City or the West-end, and was very much "out of sight, out of mind." Some of its districts, especially those near the river, yielded to none elsewhere in conditions prejudicial to children's health. The infant mortality in Newington, on the south side, as compared with Stoke Newington on the north, was as 1·3 to 108 per 1,000. He held that the whole community shared with the parents the responsibility of children being brought up under such conditions.

The Rev. B. Snell, who seconded, heartily welcomed the advent of the hospital to South London.

Dr. Farquharson, M.P., as an old officer of the hospital, moved a resolution approving generally of the scheme for the transfer of the hospital and its future management, and expressed his pleasure at hearing that the local practitioners were prepared to give it their support.

The Hon. Evelyn Hubbard, M.P., seconded.

Mr. Clinton Dent, who supported the resolution, said one unique feature of the new hospital was that they did not propose that it should go seriously into debt. It would restrict its purpose to those who really needed hospital assistance. The out-patient department would be strictly limited, and they meant to keep it so restricted. Another novel

feature was that they were going to work with, and not against, the general practitioner.

The resolutions were carried unanimously, and the proceedings terminated with votes of thanks to the Lord Mayor and the Chairman.

EYE AND EAR HOSPITAL, BRADFORD, YORKSHIRE.

THE annual report for the year 1898 states that 6,033 new patients were admitted; of these 5,224 suffered from diseases of the eye, and 809 from diseases of the ear. The number of attendances was 16,600. The number of major operations performed was 748, including 77 extractions of senile cataract and 20 operations on the mastoid process. The number of in-patients admitted was 740; the average daily number of in-patients was 25. The expenditure for the year was £2,190. During the year several important structural alterations have been made. The operating theatre has been enlarged and improved; a pathological department has been founded and fitted up; a sitting room and three additional bedrooms for the nursing staff have been added; the electric light and an improved heating apparatus were introduced throughout the building; the library has been considerably enlarged. The practice of the hospital and the library are open free to all members of the medical profession. Patients sent by medical men are admitted without any further recommendation.

LUNACY CHANGES IN SCOTLAND.

IN consequence of the promotion of Dr. John MacPherson, Medical Superintendent of Stirling District Asylum, Larbert, to a Commissionership in Lunacy, a vacancy occurred in the asylum named. This has now been filled by the transference of George M. Robertson, M.B., C.M., F.R.C.P.E., from the position of Medical Superintendent of the District Asylum, Murthly, Perthshire, to Larbert. Dr. Robertson is a graduate of Edinburgh University, was Gaskell Prizeman in 1890, and Medallist 1892. He was formerly a resident physician in the Edinburgh Royal Infirmary, and was Senior Assistant Physician at the Royal Asylum, Morningside, Edinburgh, at the time of his appointment to Murthly Asylum. He has made numerous important contributions to the literature of psychological medicine, on melancholia, on hypnotism at Paris and Nancy, on the use of hypnotism among the insane, on the formation of subdural membranes (pachymeningitis hæmorrhagica), on an epidemic of influenza in the Edinburgh Royal Asylum, etc.

Dr. Robertson's place at Murthly has been filled by the Perth District Lunacy Board, by the appointment of Lewis Campbell Bruce, M.D.Edin. (Gold Medalist), M.R.C.P.E., at present the senior assistant physician at the Royal Edinburgh Asylum at Craig House. Dr. Bruce was assistant medical officer to the Derby Borough Asylum, and has made various contributions to the literature of his special department of medicine, for example, The Delusions and Temperaments of the Insane, A Case of Dual Brain Action, Effect of Thyroid Feeding on some Forms of Insanity, Dual Brain Action and its relation to Certain Epileptic States, and The Home Treatment of Senile Insanity.

Dr. L. C. Bruce's position as senior assistant at the Craig House has been filled by the promotion of Charles Cromhall Easterbrook, M.A., M.B., C.M., who has been a president of the Edinburgh Royal Medical Society, a resident physician and surgeon in the Edinburgh Royal Infirmary and in the Royal Maternity Hospital, Edinburgh, and in the Edinburgh City Hospital, and till now assistant physician in the Royal Asylum of Edinburgh.

SUSSEX COUNTY HOSPITAL.

ON May 13th the formal opening took place of new dormitories for the nurses of this institution, Sir Henry Harben, an ex-President of the hospital, presided. After a short ceremony of dedication by the Vicar of Brighton, assisted by the chaplain of the hospital, and a few remarks by Sir Henry Harben on the value of trained nurses, and on the importance of providing them with proper accommodation, the building was declared open by Lady Louise Loder. The new nurses' quarters have been erected in a large field on the north side of the hospital. The field is on a higher level than the hospital, and a bridge has been made from the first floor to give access to the field, a long covered way extending from the end of the bridge to the new building. The building has four floors, and contains a sick room, 3 day rooms, 50 separate bedrooms, service room, box room, 3 linen rooms, 4 bath rooms, and the usual offices. The separate bedrooms are 12 feet 6 inches by 7 feet 6 inches in area. The whole is lighted by electricity and warmed by hot water, with separate boilers for service and warming purposes. There is a main central staircase and two outside iron staircases as fire escapes. The cost, including bridge and approach, is about £5,000. The architect is Mr. F. T. Cawthorne, of Brighton.

RICHMOND LUNATIC ASYLUM, DUBLIN.

THE governing body of the Richmond Lunatic Asylum, Dublin, at its last meeting before dissolution adopted a resolution expressing its warmest acknowledgments of "the devoted and inestimable services rendered to the institution, to the Board, and to the public by the Medical Superintendent, Dr. Conolly Norman—a physician of the highest eminence and skill, and an administrator of conspicuous ability and foresight. The lasting improvements effected throughout the asylum, in its discipline and management, in the kindly and unceasing care of the patients, and in the elevation of its tone as a humane and charitable agency have been primarily owing to the worthy and painstaking efforts of Dr. Norman. His enlightened and advanced views have won the commendation of the most eminent authorities on asylum care and treatment, and in the face of unexampled difficulties he has brought the asylum to be a reflex of a high conception of humane principles for the relief and assuagement of suffering."

DONEGAL DISTRICT ASYLUM, LETTERKENNY.

THE Board of Governors of the Donegal District Asylum, at their last meeting, passed a minute placing on record their appreciation of the efficient services rendered by the officers of the institution. The minute stated that Dr. Moore, who has been resident medical superintendent for nine years, had earned the confidence of the Board by his judicious management, skilful treatment, and maintenance of good order; that Dr. Martin, who had been assistant medical officer for nearly three years, had shown a deep interest in the work, and had contributed not a little to the present satisfactory condition of the asylum; and that to Dr. Carre also, who had been for twenty-four years visiting and consulting physician, the present satisfactory state was largely due. References were also made to the good services of the clerk, the storekeeper, and the matron.

MEDICO-LEGAL.

PROSECUTION UNDER THE APOTHECARIES ACT: VERDICT FOR THE DEFENDANT.

AT the Pontefract County Court on Wednesday, May 10th, Judge Raikes and a jury heard an action in which "Dr." Tempest, of Priory Glen, Pontefract, was sued by the Medical Defence Union for a penalty of £20 under the Apothecaries Act of 1815. Mr. Eldridge was for the prosecution and Mr. Schultess-Young, barrister-at-law, defended. Defendant being in Wakefield Gaol, in default of payment of a fine of £20 imposed some six weeks ago by the Pontefract Borough Bench, on a summons for "pretending to be a doctor of medicine," was unable to appear, and the case was conducted in his absence. The former proceedings, it should be mentioned, were at the instance of the General Medical Council.

Mr. Eldridge stated that the Act under which the proceedings were taken enacted that any person practising as an apothecary must be registered after examination, and fixed a penalty of £20 to be imposed upon any person who practised illegally. Unfortunately the statute did not define the word "apothecary," but it had been held by Mr. Justice Cresswell that it was a person who professed to judge of internal diseases by the symptoms and applied himself to cure them by medicine. He would call witnesses to show that defendant had done this on several occasions.

Evidence was called which showed that persons had waited upon defendant, and that, after feeling their pulses and looking at their tongues, he had supplied them with medicine, though none of the witnesses had taken it.

A witness, named Ann Collins, of Knottingley, admitted that she had been sent by Mr. Eldridge to the defendant.

Mr. Schultess-Young, in defence, dwelt upon the fact that before the jury could give a verdict against his client, they must be satisfied that he had "attended, advised, and furnished medicine" to persons. He argued that the witnesses in each case had told defendant their ailments, and that he had simply acted within his rights as a registered chemist in giving them medicine. He did not think that the mere examination of anyone's tongue or the feeling of the pulse could be described as diagnosing internal diseases by their symptoms. He commented at length upon the fact that no evidence had been adduced that defendant had even dispensed drugs, and the medicine must have been the most harmless possible.

The jury retired to consider their verdict, and, after an absence of a little over half-an-hour, returned a verdict in defendant's favour.

Mr. Schultess-Young asked for costs on the higher scale, which his Honour allowed.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,637 births and 3,876 deaths were registered during the week ending Saturday last, May 13th. The annual rate of mortality in these towns, which had declined from 23.1 to 16.5 per 1,000 in the six preceding weeks, rose again to 17.7 last week. The rates in the several towns ranged from 11.1 in West Ham, 12.2 in Gateshead, 12.9 in Norwich, and 13.1 in Swansea, to 22.9 in Wolverhampton, 24.9 in Manchester, 25.6 in Liverpool, and 26.8 in Salford. In the thirty-two provincial towns the mean death-rate was 18.6 per 1,000, and exceeded by 2.2 the rate recorded in London, which was only 16.4 per 1,000. The zymotic rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.7 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.7 in Leicester, 3.2 in Burnley, 3.5 in Manchester, and 3.8 in Salford. Measles caused a death-rate of 1.7 in Salford and 2.1 in Manchester; scarlet fever of 1.1 in Bradford; and whooping-cough of 1.4 in Burnley, 1.6 in Plymouth and in Hull, 1.7 in Cardiff, and 1.8 in Birkenhead. The mortality from "fever" showed no marked excess in any of the large towns. The 82 deaths from diphtheria in the thirty-three towns included 40 in London, 8 in Leicester, 5 in Liverpool, 4 in West Ham, 4 in Leeds, and 3 each in Salford, Burnley, and Sheffield. One fatal case of small-pox was registered in Hull, but not one in London or in any other of the thirty-three towns; and no small-pox patients were under treatment in any of the Metropolitan Asylum Hospitals during last week. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,144, 2,131, and 2,139 at the end of the three preceding weeks, had further risen to 2,210 on Saturday last, May 13th; 259 new cases were admitted during the week, against 189, 226, and 219 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 13th, 1,072 births and 565 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.1 and 18.5 per 1,000 in the two preceding weeks, was again 18.5 last week, and was 0.8 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 11.8 in Perth and 13.7 in Greenock to 19.1 in Glasgow and 22.2

in Dundee. The zymotic death-rate in these towns averaged 1.8 per 1,000, the highest rates being recorded in Aberdeen and Glasgow. The 270 deaths registered in Glasgow included 20 from measles, 3 from diphtheria, 2 from whooping-cough, and 2 from "fever." Two fatal cases of scarlet fever and 3 of whooping-cough were recorded in Edinburgh, and 4 of measles in Aberdeen.

ZYMOTIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal zymotic diseases in London during the first or winter quarter of this year. The fluctuations of each disease and its fatal prevalence, as compared with that recorded in the corresponding periods of recent years, can thus be readily seen.

Small-pox.—No fatal case of small-pox was registered in London last quarter, the corrected average number in the corresponding periods of the ten preceding years being 8; 3 small-pox patients were admitted into the Metropolitan Asylums Hospitals during the quarter, and 1 remained under treatment at the end of March last.

Measles.—The deaths referred to measles, which had been 238 and 265 in the two preceding quarters, further rose to 386 during the three months ending March last, but were little more than half the corrected average number. Among the various sanitary areas of the metropolis measles showed the highest proportional fatality in St. Pancras, Clerkenwell, Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, Mile End Old Town, and Lee.

Scarlet Fever.—The fatal cases of this disease, which had been 108 and 139 in the two preceding quarters, declined to 96 during the three months under notice, and were as many as 120 below the corrected average number in the corresponding periods of the ten preceding years. Among the various sanitary areas this disease was proportionately most fatal in Fulham, St. Pancras, Rotherhithe, Lee, Woolwich, and Plumstead. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 2,146, 2,425, and 2,883 at the end of the three preceding quarters, had declined to 2,272 at the end of March last. The number of new cases admitted into these hospitals, which had been 2,802, 3,060, and 3,795 in the three preceding quarters, declined to 2,880 during the three months ending March last.

Diphtheria.—The deaths referred to diphtheria in London, which had been 360 and 511 in the two preceding quarters, declined to 472 during the three months under notice, and were 56 below the corrected average number. Among the various sanitary areas this disease showed the highest proportional fatality in Fulham, Limehouse, St. Saviour Southwark, St. George Southwark, Newington, St. Olave Southwark, Bermondsey, and Lewisham. The number of diphtheria patients in the Metropolitan Asylums Hospitals at the end of March last was 1,159, against 971, 1,024, and 1,239 at the end of the three preceding quarters; 1,085 new cases were admitted during last quarter, against 1,648, 1,768, and 2,241 in the three preceding quarters.

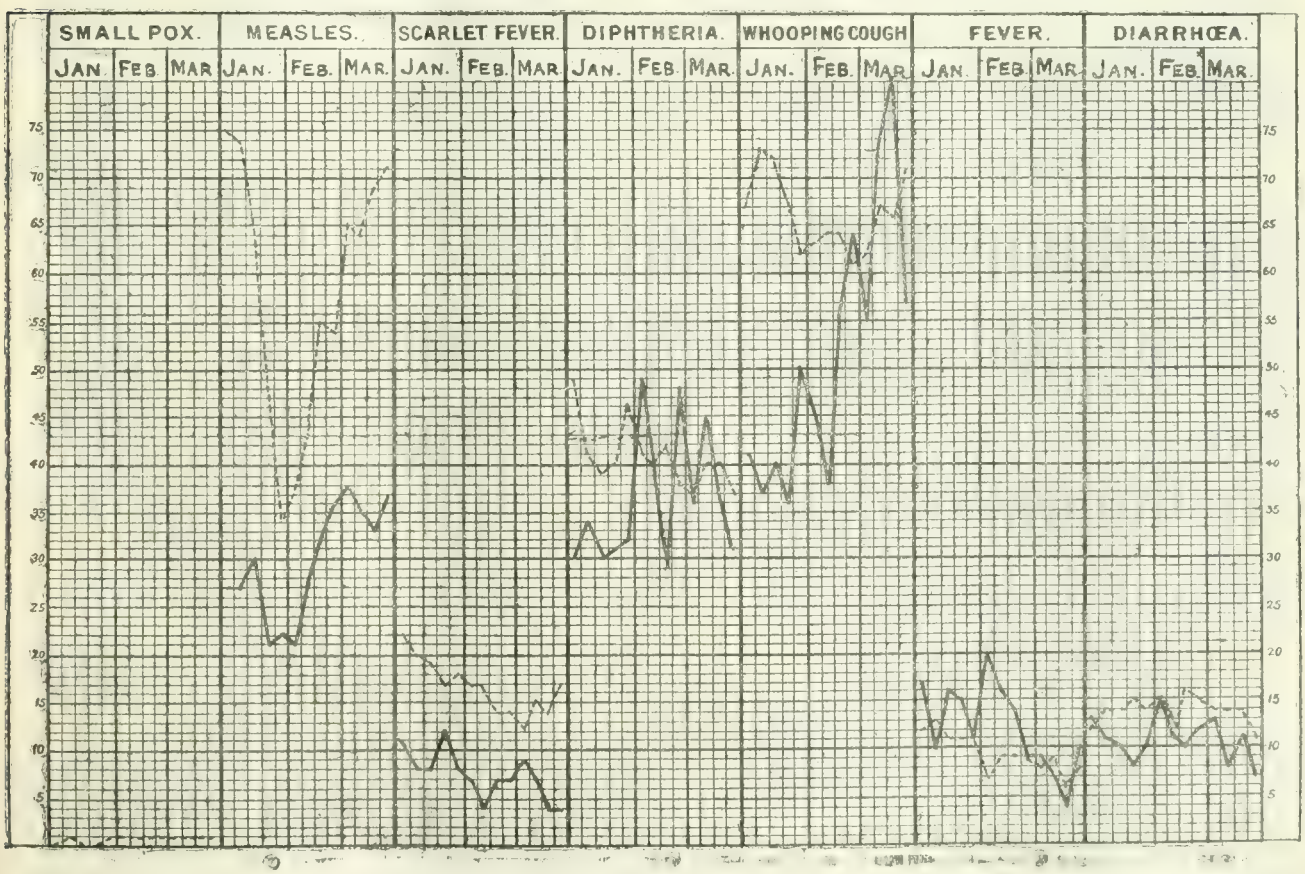
Whooping-cough.—The fatal cases of this disease, which had been 673, 430, and 240 in the three preceding quarters, rose again to 681 during the three months ending March last, but were 178 below the corrected average number; among the various sanitary areas whooping-cough was proportionally most fatal in Paddington, Hammersmith, Chelsea, St. Pancras, Holborn, St. George Southwark, Newington, and Rotherhithe.

Fever.—Under this heading are included deaths from typhus, enteric, and simple and ill-defined forms of continued fever. The deaths referred to these different forms of "fever," which had been 73, 122, and 296 in the three preceding quarters, declined to 158 during the three months ending March last, but were 35 above the corrected average number. Of these 158 deaths, 2 were certified as typhus, 155 as enteric fever, and 1 as simple continued fever. Among the various sanitary areas the mortality from "fever" was highest in St. Margaret Westminster, St. James Westminster, St. Giles, Clerkenwell, St. Luke, Bethnal Green, St. George-in-the-East, and Greenwich. The Metropolitan Asylums Hospitals contained 148 enteric fever patients at the end of March last, against 32, 155, and 255 at the end of the three preceding quarters; 338 new cases were admitted during last quarter, against 133, 281, and 531 in the three preceding quarters.

Diarrhœa.—The 139 fatal cases of diarrhœa registered in London during the three months ending March last were 40 below the corrected average number; this disease showed the highest proportional fatality in St. Martin-in-the-Fields, Holborn, Clerkenwell, St. Luke, St. Saviour Southwark, and St. Olave Southwark sanitary areas.

In conclusion, it may be stated that the 1,932 deaths referred to the principal zymotic diseases in London during the first or spring quarter of this year were 737, or nearly 28 per cent. below the average number in the corresponding periods of the ten preceding years, 1889-98. The mortality from "fever" showed an excess, while that from each of the other principal zymotic diseases was below the average. Among the various sanitary areas the lowest zymotic death-rates were recorded in Plumstead, St. George Hanover Square, Stoke Newington, St. Giles, Westminster, and Hampstead; and the highest rates in St. Saviour Southwark, Holborn, St. Pancras, Chelsea, St. George Southwark, Newington, and Clerkenwell.

DEATHS FROM ZYMOTIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1899.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years, 1888-97.

DEDUCTIONS FROM VACCINATION FEES TOWARDS SUPERANNUATION FUND.

District Medical Officer and Public Vaccinator writes to express surprise that his last cheque for vaccination was paid in full (without deduction for superannuation). He asks for information, as he had previously paid superannuation percentage on the vaccination fees, and he has been under the impression that the vaccination fees were to be regarded as part of his salary as a district medical officer.

*** Our correspondent has evidently been under a wrong impression. A district medical officer is not necessarily a public vaccinator, and when he is so the duties of the two are quite distinct A public vaccinator is not even an officer holding a Poor-law appointment at all, but is a contractor to do certain professional work with the guardians and this contract can be determined by either party at a month's notice. It follows that public vaccinators cannot claim superannuation under the Act of 1896, and consequently that the fees they earn are not subject to any deduction by the passing of this Act. The clerk committed a mistake in making any deduction from the vaccination fees. All deductions so made in the past ought to be returned.

MEDICAL CERTIFICATES FOR PAUPER LUNATICS.

R. D. B. writes: A person in poor circumstances but not a pauper in receipt of relief becomes insane and requires to be sent to an asylum. The relatives call to their aid the services of the relieving officer. Is the relieving officer supposed to get the parochial medical officer or the usual medical attendant to sign the lunacy certificate?

*** When a case of this description is passed on to the relieving officer, he becomes responsible for the Lunacy Law being carried out, and it is his duty to bring the case to the notice of a magistrate, who can then call upon any medical practitioner he likes to certify as to the mental condition of the patient. The relieving officer is not supposed to select anyone for this service.

SPECTACLES AND TRUSSES FOR PAUPERS.

F. B. H. C. (a District Medical Officer) writes to ask whether a Board of Guardians has authority to request a relieving officer to supply spectacles or trusses to persons in receipt of parish relief when under the care of the medical officer, and if such appliances are unsuitable, whether the relieving officer would be liable for any injury in consequence thereof.

*** We believe Boards of Guardians have the power to direct relieving officers to supply both spectacles and trusses. If these are afterwards found not to be suitable, the medical officer should report this fact to the guardians. It does not seem probable that a relieving officer could be held liable for any injury resulting from either spectacles or trusses as supplied by him being unsuitable.

EXEMPTION FROM PAYMENT OF EXTRA MEDICAL FEES.

Sap. writes to say that he was appointed district medical officer in a provincial union nine months back, and that he is now called upon by the guardians to sign a contract by which he resigns all claim for extra medical fees, even for midwifery, and he is informed that in his union Art. 177 of the Consolidated Order has been suspended with the sanction of the Local Government Board. He asks our advice as to the signing of this contract.

*** This is an old grievance, and it is a great pity that it should so frequently crop up. The Article (177) in question is as follows: "No salary of any district medical officer shall include remuneration for operations and services of the following classes, but such operations and services shall be paid for by the guardians according to the rates specified in this article." This language is sufficiently clear, and why the Local Government Board allows any Board of Guardians to evade its requirements has to us always been a mystery. If a list of unions which are allowed to avoid the payment of extra medical fees were in existence, candidates who took the precaution to consult it would not be misled; but we are not aware that such a list exists. We are afraid our correspondent will do no good by refusing to sign the contract put before him.

ROYAL NAVY AND ARMY MILITARY SERVICES.

HONOURS FOR THE SOUDAN CAMPAIGN.

The following decorations have been conferred by the Khedive of Egypt, and have received the approval of the Queen, upon the undermentioned officers in recognition of their services in Egypt and the Soudan during the recent campaign: The Order of the Medjidieh of the 2nd Class upon Surgeon-General William Taylor, C.B., M.D., Medical Staff; the order of the Medjidieh of the 3rd Class upon Lieutenant-Colonel A. T. Sloggett, R.A.M.C.; the order of the Osmanieh of the 4th Class upon Captain P. H. Whiston, R.A.M.C.; the order of the Medjidieh of the 4th Class upon Captains J. W. Jennings and H. P. Dunn, R.A.M.C.

ROYAL NAVY MEDICAL SERVICE.

Inspector-General of Hospitals Sir Henry Norbury, K.C.B., Director-General of the Medical Department, has been placed on the retired list of his rank on attaining the age of 60, but will retain his present appointment until he reaches 65; or beyond that age at the discretion of the Admiralty.

Surgeon Edward D. J. O'Malley, has been appointed to the *Dido*, May 11th, and Surgeon Henry W. M. Rees to the *Duke of Wellington*, May 11th.

ARMY MEDICAL RESERVE.

Surgeon-Captain E. A. Hughes, having resigned his commission in the Volunteer forces, ceases to belong to the Army Medical Reserve, May 3rd.

Surgeon-Lieutenant-Colonel Thomas Cayzer resigns his commission, May 10th.

Surgeon-Captain D. L. Anderson is promoted to be Surgeon-Major, May 10th.

Surgeon-Captain C. H. Gough, Derbyshire Yeomanry, is promoted to be Surgeon-Major, May 17th.

Surgeon-Lieutenant A. Phillips is promoted to be Surgeon-Captain, May 17th.

THE VOLUNTEER MEDICAL STAFF.

The annual dinner of the Volunteer Medical Staff took place at Limmer's Hotel on May 10th, and was attended by representative medical officers from various parts of the kingdom. In the unavoidable absence of Major-General Trotter, who had promised to preside, his place was ably filled by Colonel O'Farrell, R.A.M.C., the Principal Medical Officer of the Home District. Several commanding officers of London Volunteer regiments were present, including Colonel Edis (Artists), Colonel Sir Howard Vincent (Queen's Westminster), and Lieutenant-Colonel Daniell (West London), and there were numerous other guests. After the usual loyal toasts Sir Howard Vincent proposed "The Volunteer Medical Association"; Brigade-Surgeon-Lieutenant-Colonel Danford Thomas proposed "The Visitors," which was responded to by Colonel Edis; and the toast of "The Chairman" was proposed by Surgeon-Captain Harper. During the evening several songs were contributed by Surgeon-Major Marshall, Surgeon-Captains Bourke and Ryan, and others, and a very pleasant evening was spent.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From	To
Surgeon-General W. S. M. Price	Bengal	Egypt.
Colonel J. Fraser, M.D.	—	York.
Lieutenant-Colonel R. G. Thomsett	—	Belfast.
,, ,, W. A. May	Bengal	Cork.
,, ,, W. W. Kenny, M.B.	—	Dublin.
Major A. Keogh, M.D.	—	Chatham.
,, D. Wardrop, M.B.	Devonport	Okehampton.
,, E. R. Cree	Portsmouth	Gosport.
,, T. P. Woodhouse	Punjab	Colchester.
,, T. R. Lucas, M.B.	Devonport	Pembroke D'ck
,, W. C. T. Poole, M.B.	—	,,
,, H. H. Johnston, M.B.	—	Cork.
,, M. Dundon, M.D.	Madras	Malta.
,, J. M. Irwin, M.B.	—	Curragh.
,, B. M. Skinner	Home District	Hounslow.
,, A. Baird, M.B.	—	Devonport.
,, W. H. Johnson, M.B.	Colchester	Landguard Frt
,, S. E. Duncan	Holywood	Londonderry.
,, A. O. FitzGerald	Madras	Cork.
,, S. R. Wills	Bombay	Chester.
,, C. H. Melville, M.B.	—	Aldershot.
,, J. G. Black, M.D.	Gibraltar	Belfast.
,, D. M. O'Callaghan	Crete	Malta.
,, J. Donaldson	Malta	Madras.
,, B. H. Scott, M.D.	—	Portsmouth.
,, D. Stiell, M.D.	Crete	Malta.
,, R. C. Thacker	—	Dublin.
Captain W. S. J. Graham	—	Bury.
,, E. M. Pilcher, M.B.	Bengal	Woolwich.
,, S. H. Withers, M.B.	,,	Dover.
,, N. Tyacke	—	Chester.
,, J. Hennessy, M.B.	—	Curragh.
,, F. A. Symons, M.B.	Devonport	Tregantle.
Lieutenant S. A. Archer	—	Gravesend.
,, L. Addams-Williams	Crete	Malta.
,, M. M. Lowsley	,,	Nestle-on-Tyne
,, H. P. W. Barrow	Aldershot	Dublin.
,, J. E. Hodgson	,,	Hounslow.
,, L. E. L. Parker	Netley	Aldershot.
,, J. G. Gill	Canterbury	,,
,, G. W. G. Jones	Colchester	,,
,, W. B. Winkfield	Hounslow	,,
,, T. C. Lauder, M.B.	Aldershot	Curragh.
,, J. W. Leake	—	Aldershot.
,, H. S. Taylor	Woolwich	,,
,, G. M. Goldsmith, M.B.	Aldershot	Chester.
,, R. H. Lloyd	,,	Netley.
,, D. Harvey, M.B.	,,	Lichfield.
,, J. M. Sloan, M.B.	,,	Maryhill.
,, N. J. C. Rutherford, M.B.	,,	Strensall.
,, G. J. A. Ormsby, M.D.	Woolwich	Aldershot.
,, L. Humphry	Gosport	,,
,, R. S. Rodger, M.B.	Dover	,,
,, W. W. Scarlett	Aldershot	Woolwich.

Captain E. McK. Williams has assumed command of the C Company at the Depôt and Training School at Aldershot.

Lieutenant-Colonels P. B. Tuthill, M.D., and J. Stevenson, retired pay, have assumed medical charge of the troops at Chichester and Berwick-on-Tweed respectively.

Surgeon-Lieutenant-Colonel J. M. Percival, 3rd Battalion the Sussex Regiment, has relinquished the medical charge of the troops at Chichester.

Lieutenant-Colonel E. A. Roche has been granted increased pay under Article 362 of the Royal Warrant.

MEDICAL NEWS.

Successful Vaccination.—Mr. A. Grosart L. Smith, Public Vaccinator for the Crick District of the Rugby Union, has received the Government grant for efficient vaccination.

Dr. Ernst Küster, Professor of Surgery in the University of Marburg, has been elected a life representative of the University in the Prussian House of Lords.

The State Children's Aid Association has addressed a memorial to the President of the Local Government Board asking him to take steps to stop the astonishing custom which allows the children in the Poor-law schools at Sutton to beg from persons going to and coming from the Derby by road or rail. It is said that the money thus gathered amounts to about £200 a year. It is used to give the children a holiday, but it is urged that it is within the powers of the Local Government Board not to surcharge the managers should they decide to vote the sum necessary for this purpose and so save their charges from this degrading training in the art of begging.

Presentations.—Mr. Hugh Frazer Hurst of Newcastle-on-Tyne, has recently received two presentations on the occasion of his leaving Walker. One was from the Boilermakers' Society on March 6th at the Walker Mechanics' Institute, which was crowded on the occasion. Mr. R. Knight, the General Secretary of the Society, on behalf of the members presented Mr. Hurst with a handsomely framed illuminated address and gold albert chain, also a gold bracelet for Mrs. Hurst. Mr. Knight said that Mr. Hurst had been in their midst for twenty-two years, and they were very sorry he was leaving. Mr. Hurst thanked the donors for their handsome gifts. On April 29th a public testimonial subscribed for by the people of Walker was privately handed to Mr. Hurst. It consisted of a silver tea service, salver, cake basket, pair of *entrée* dishes, and a purse of gold; also a gold brooch and chain for Mrs. Hurst.

A Medical Dog Show.—On Saturday, June 3rd, a dog show will be held at the London (Royal Free Hospital) School for Women, for the benefit of the school building fund. Qualified practitioners, members of the teaching staffs of the medical schools, and medical students are invited to exhibit. The Committee has made arrangements to include as eligible dogs belonging to the families and relations of all members of the profession. The show, which has been licensed under the Kennel Club, will open at 1.30 p.m., when the judging commences, and visitors will be able to remove their dogs on the closing of the show at 7 p.m. The schedule comprises 26 classes, and offers three prizes in each class, as well as a large number of "special prizes" given by persons interested in the undertaking. A prize is offered also by the *Ladies' Field* for the best dog exhibited by a child of a medical practitioner. A number of owners have promised to exhibit champion dogs, *hors concours*. Entries will be received up to May 25th inclusive, and schedules and entry forms may be obtained on application to the Honorary Secretaries at 8, Hunter Street, Brunswick Square, W.C.

Medical Sickness and Accident Society.—At the last monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society, the current accounts presented showed that the operations of the Society were more than usually active, and, as is usual in the spring of the year, the sickness claim list was heavy. The annual report for the year 1898 was discussed, and the figures contained in it were satisfactory. During the year the Sickness Fund has been increased by nearly £5,000, the Management Fund by £800, and the Investment Reserve Fund by over £1,400. A moderate increase has also taken place in the Annuity and Life Assurance Funds, although for some years past no new business has been transacted in these two branches. Although the Sickness Fund has largely increased, the amount paid from it to the members in 1898 as sickness benefit (£6,169 12s.) is the greatest that has been distributed in any year of the Society's operations. Accompanying the annual report is one on the quinquennial valuation made by the Secretary, Mr. F. Addiscott, F.I.A., and certified by the consulting actuary to the Society, Mr. George S. Crisford, F.I.A., actuary to the Rock Life Assurance Company, and a public valuer under the Friendly Societies Act. Although made on a very stringent basis this valuation shows that the Society possesses a surplus of between £6,000 and £7,000. In 1894 the surplus then announced was distributed as a cash bonus to the assured, and if the members decide to apply the present surplus in the same manner it will allow, as on that occasion, of a cash bonus equal to 10 per cent. on the total sickness premium paid during the quinquennium. These reports will be presented to the members at the annual general meeting of the Society, to be held on May 24th, at 5 p.m, at the House of the Medical Society of London, 11, Chandos Street, Cavendish Square, London, W. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Petroleum Lamp Accidents.—We have received from Mr. Braxton Hicks, the Secretary of the Coroners' Society, a communication with regard to petroleum lamp accidents. Mr. Hicks points out that some years ago the annual report of the Coroners' Society contained a reference to this matter. The report was to the effect that in consequence of the number of deaths from the explosion or upsetting of petroleum lamps the Coroners' Society considered that there should be an inquiry into the causes of such fatalities, independent of the question of various classes of oil, and the opinion was expressed that the character of the lamps now commonly sold was the cause of the majority of these fatalities. Many of these lamps, which could be bought for a penny, were made of glass or thin china, and had no appliance to prevent the oil from running out or the vapour from issuing into the flame. In 1896 the Coroners' Society issued a circular to all coroners, asking particulars of deaths resulting from lamp accidents during the years 1894 and 1895. Exclusive of the county of London 59 coroners reported that in those years 149 fatal cases occurred, and that in nearly every case it was ascertained that the lamps were defective in construction, inasmuch as they allowed a direct communication between the oil or vapour and the lighted wick. Between July, 1890, and December 31st, 1895, 118 fatal cases occurred in London, involving the loss of 133 lives. Of these more than 90 per cent. were due to defective burners. In the year ending March 31st, 1896, 44 lamp accidents occurred, involving loss of life to 45 persons; the majority of these were also due to defective burners. During the year ending March 31st, 1897, there were 33 fatal accidents from defective burners, involving the loss of 40 lives. During the year ending March 31st, 1898, 33 fatal accidents occurred, involving the loss of 36 lives. A very large number of these accidents were due to what is known as the "penny gum-bottle lamp." For these reasons the Coroners' Society have earnestly called upon Parliament to restrict the sale of lamps obviously dangerous to life, and to request the Home Office, or other Government department, to fix a standard of safety under which no mineral oil lamp can be sold or placed upon the market. At the meeting of the London County Council on Tuesday, a question was asked with reference to the letter from which we have quoted, and the Chairman of the Control Committee said that the Council had always been of opinion that raising the flash-point of petroleum oil was the best way of preventing lamp accidents, and it was to be hoped that the Government would introduce a Petroleum Bill this session, having for one of its objects the raising of the flash-point to at least 100° F. He understood that Mr. Hicks's letter represented only his individual opinion, and not that of other London coroners.

MEDICAL VACANCIES.

The following vacancies are announced:—

ARMAGH DISTRICT LUNATIC ASYLUM.—Assistant Medical Officer; unmarried, and over 32 years of age. Salary, £100 per annum, with furnished apartments, rations, fuel, light, washing and attendance. Applications to the Resident Medical Superintendent by June 8th.

BIRKENHEAD BOROUGH HOSPITAL.—(1) Senior House Surgeon. Salary, £100 per annum, with board, lodging, and washing. (2) Visiting House Surgeon. Salary, £75 per annum, with board, lodging, and washing. Applications to the Chairman of the Weekly Board by May 23rd.

BIRMINGHAM: MASON UNIVERSITY COLLEGE.—Professor of Pathology and Bacteriology. Applications to the Secretary by May 31st.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Ophthalmic Surgeon. Applications to the Medical Committee, Children's Hospital, Steelhouse Lane, Birmingham, by June 7th.

BIRMINGHAM PARISH.—Assistant Medical Officer to the Workhouse Infirmary. Appointment for one year, but renewable. Salary, £100 per annum, with furnished apartments, rations, coals, gas, laundry, and attendance. Applications, on forms provided, to the Clerk to the Guardians, Parish Offices, Edmund Street, Birmingham, by May 29th.

BIRMINGHAM: QUEEN'S HOSPITAL.—(1) House-Physician. Appointment for one year. Salary £50, with board, lodging, and washing. (2) An Obstetric and Ophthalmic House Surgeon. Appointment for six months. Salary £10, with board, lodging and washing. Applications to the Secretary by May 24th.

BIRMINGHAM: ROYAL ORTHOPÆDIC AND SPINAL HOSPITAL.—Honorary Surgeon. Applications marked outside, "Application for Post of Honorary Surgeon," to the Honorary Secretary, 9, Bennett's Hill, Birmingham, by June 1st.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board. Applications to the "Chairman of the Committee," by July 15th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon to the Western Branch; unmarried. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary, Queen's Road, Brighton, by June 6th.

BRISTOL GENERAL HOSPITAL.—House Surgeon. Salary, £120 per annum, with board, residence, etc. Applications to the Secretary by May 26th.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Resident House-Surgeon. Salary £65 per annum, with board, lodging, and washing. Applications to the Secretary by June 10th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Second House-Surgeon. Appointment for six months. Salary at the rate of £30 per annum, with board and residence. Applications to the Secretary by June 3rd.

DUBLIN: MERCER'S HOSPITAL.—Resident Medical Officer. Applications to the Registrar by May 30th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician. Appointment for six months. Board, residence, etc., are provided, and an honorarium of £25. Applications to the Secretary by June 10th.

EDINBURGH: CRAIGLEITH POORHOUSE AND HOSPITAL.—Medical Officer. Salary, at the rate of £80 per annum, with board. Applications to A. Ferrier, Clerk, Parish Council Chambers, Castle Terrace, Edinburgh, by June 1st.

GLAMORGAN COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £130, rising £10 a year to £150, with board, lodging, and washing. Applications to the Medical Superintendent by May 29th.

GREAT NORTHERN CENTRAL HOSPITAL.—Junior House-Physician. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Applications to the Secretary by June 12th.

HOSPITAL FOR DISEASES OF THE SKIN.—Assistant Physician or Assistant Surgeon. Applications to the Secretary, 52, Stamford Street, Blackfriars, S.E., by May 25th.

JERUSALEM: BRITISH OPHTHALMIC HOSPITAL.—Assistant Surgeon for remainder of present year. Honorarium of £100. Passage out and home paid. Applications to R. Gofton Salmond, Honorary Secretary, 73, Cheapside, E.C.

KENSINGTON DISPENSARY, Church Street, W.—Vacancy on Honorary Medical Staff. Applications to Mr. T. W. O. Wheeler, Honorary Secretary, 138, Kensington High Street, W., by June 5th.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.—House-Surgeon; unmarried. Salary, £140 per annum, increasing to £170, with rooms in the Infirmary and attendance. Applications to the Secretary before June 1st.

LEEDS: YORKSHRE COLLEGE.—Lecturer on Practical and Operative Surgery. Applications to the Registrar.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £100 per annum, with board and residence. Applications to the Secretary, 34, Moorfields, Liverpool, by May 23rd.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Salary, £55 per annum, with board and lodging. Applications to the Secretary, Myrtle Street, Liverpool, by May 27th.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Honorary Anæsthetist. Applications to the Medical Board by June 1st.

LONDON THROAT HOSPITAL, 204, Great Portland Street.—House-Surgeon for six months. Applications to the Honorary Secretary, Medical Committee, before June 1st.

MANCHESTER ROYAL INFIRMARY.—Clinical Assistant for the Barnes Convalescent Hospital, Cheadle. Appointment for six months. Honorarium of £25, with board and residence. Applications to the Chairman of the Medical Board, Royal Infirmary, Manchester.

NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—(1) Female Physician to Children's Out-Patient Department. Appointment for five years. (2) Female House-Physician and House-Surgeon. Appointment for six months. (3) Two Female Assistant Anæsthetists. Appointment for one year. (4) Four Female Clinical Assistants (qualified). Appointments for one year. Applications to the Secretary by May 24th.

NORTH-EASTERN HOSPITAL FOR CHILDREN.—(1) Surgeon. (2) House-Surgeon. Appointment for latter for six months, with salary at the rate of £50 per annum. Applications to the Secretary, 27, Clement's Lane, Lombard Street, E.C., by June 15th.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead.—Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of £30 per annum. Applications to the Secretary by May 31st.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Assistant Resident Medical Officer. Salary at the rate of £30 per annum. Appointment for six months, when eligible for election to Senior post (salary, £50). (3) Dental Surgeon, must be L.D.S. Applications to the Secretary by May 30th.

READING: ROYAL BERKS HOSPITAL.—Assistant Surgeon. Applications to the Secretary by May 27th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Election to the Court of Examiners. Applications from Fellows to be sent to the Secretary by May 31st.

ROYAL EAR HOSPITAL, Frith Street, Soho, W.—Non-Resident House-Surgeon. Appointment for six months. Honorarium at the rate of £24 per annum. Applications to the Honorary Secretary before June 3rd.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Clinical Assistants. Appointments for six months. Applications to the Secretary by May 27th.

ST. ANDREWS UNIVERSITY.—Professor of Pathology. Application to the Secretary of the University by June 21st.

ST. PETER'S HOSPITAL FOR STONE AND GENITO-URINARY DISEASES, Henrietta Street, W.C.—House-Surgeon. Appointment for six months, but eligible for re-election. Salary, at the rate of £100 per annum, with board, lodging, and washing. Applications to the Secretary by May 31st.

SALFORD ROYAL HOSPITAL.—Two Honorary Medical Officers for the Pendleton Branch Dispensary. Applications to the Secretary at the Hospital by May 27th.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon and Assistant House-Surgeon. Salary £100 and £50 per annum respectively, with board, lodging, and washing. Applications for the former to the Secretary by May 31st; and for the latter to the House-Surgeon at once.

TOXTETH PARK WORKHOUSE AND INFIRMARY.—Senior Assistant Medical Officer. Salary, £125 per annum, with board, washing, and apartments. Application to the Clerk of the Guardians, 15, High Par Street, Liverpool, by May 24th.

UNIVERSITY COLLEGE, LONDON.—Jodrell Professorship of Zoology. Applications to the Secretary by June 5th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House Governor and Secretary, unmarried or widower. Salary, £170 per annum, with board, washing, and residence. Applications to the House Governor and Secretary by May 26th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to the Chairman of the Medical Committee by June 5th.

MEDICAL APPOINTMENTS.

ANTROBUS, Edmund, M.D.Edin., D.P.H.Camb., etc., appointed Medical Officer to the Malvern Rural Hospital.

GARD, H., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Northern District of the Parish of Devonport.

GLOVER, W. K., M.B., Ch.B.Aberd., appointed Medical Officer for the First "A" District of the Dartford Union.

GREENWOOD, F. E., M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Children's Hospital, Birmingham.

GUY, John, L.R.C.P., M.R.C.S., appointed Assistant Medical Officer to the Leeds Union Infirmary.

KIRKBY-THOMAS, L., M.R.C.S., L.R.C.P., appointed Resident Surgical Officer to the Children's Hospital, Birmingham.

MORT, Frank, M.B., appointed a Clinical Assistant to the Chelsea Hospital for Women.

MOORE, J. W., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Miles Platting District of the Prestwich Union.

NASH, James T. C., M.B., C.M., D.P.H., appointed an Assistant in the Bacteriological Department of King's College, *vice* Dr. Wilkinson, D.P.H., resigned.

OLIVER, Herbert S., L.S.A., appointed Medical Officer of Health to the Romney Marsh Rural District Council.

PARKER, W., L.R.C.P., M.R.C.S., appointed Medical Officer for the Schools of the Parish of St. Mary, Islington.

PARRY, W. H., M.B., C.M.Glasg., appointed Medical Officer for the Llanrwst District of the Llanrwst Union.

PRICE, J. A. P., B.A.Oxon, M.D.Lond., appointed Surgeon to the Royal Berks Hospital, Reading.

STONE, F. W. S., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the Kelston and Northsoke District of the Keynsham Out-Relief Union.

WRIGHT, P. P., L.R.C.P.Lond., appointed Medical Officer for the Upper Holloway East District of the Parish of St. Mary, Islington.

WYLIE, Andrew, M.D., appointed a Clinical Assistant at the Chelsea Hospital for Women.

KING'S COLLEGE HOSPITAL.—The following appointments have been made:
House-Physicians.—J. C. Briscoe, M.R.C.S.Eng., L.R.C.P.; G. A. Roberts, M.R.C.S., L.R.C.P.
Assistant House-Physician.—W. D. MacMullen, M.R.C.S., L.R.C.P.
House-Surgeons.—R. R. Moull, L.S.A.; A. R. C. Parsons, M.R.C.S., L.R.C.P.; E. S. Crispin, M.R.C.S., L.R.C.P.
House-Accoucheur.—L. D. Saunders, M.R.C.S., L.R.C.P.
Assistant House-Accoucheur.—C. E. Fenn, M.B.Durh., L.R.C.P.
Surgical Registrar.—R. M. Cowie, M.R.C.S., L.R.C.P.

DIARY FOR NEXT WEEK.

TUESDAY.

Royal Medical and Chirurgical Society, 8.30 P.M.—Dr. Sherrington, F.R.S.: (Marshall Hall Prizeman): An Address on "The Spinal Animal."

Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Fletcher Beach: Mental Disorders in Children.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Ormerod: Hysteria.

WEDNESDAY.

Hospital for Consumption, Brompton, 4 P.M.—Dr. Green: Hæmoptysis.

THURSDAY.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, 4.30 P.M.—Annual Meeting. Mr. Jonathan Hutchinson will read a paper and open a discussion on Diseases of the Nails, with special reference to their significance as symptoms. Cases will be exhibited in an adjoining room, also Drawings, Microscopical Preparations, etc.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Mr. Wallis: Demonstration of Surgical Cases.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Dr. Dundas Grant: Diagnosis and Treatment of Obstructive Deafness.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Mr. Bernard Pitts: Demonstration of Selected Cases.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. H. Lloyd Williams: Treatment of Fractured Jaw.

FRIDAY.

Clinical Society of London, 8.30 P.M.—Annual General Meeting. Election of officers for Session 1899-1900. Papers: Mr. H. R. Robinson: Acute Intestinal Obstruction caused by an Adherent Vermiform Appendix forming a Band associated with Fœtal Arrangement of the Peritoneum. Dr. Colcott Fox: A case of Generalised Hæmorrhagic Erythema in Bright's Disease. Mr. H. Allingham: A case of Aneurysm of the Subclavian Artery; Ligature of the First Portion of the Vessel followed in Thirty-eight Days by the Removal of the Aneurysm. The patient will be shown.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

APPLEYARD.—On April 8th, at Umtali, Rhodesia, the wife of F. E. Appleyard, M.B., B.C.Cantab., Surgeon to the British South African Company's Hospital, of a daughter.

RODDIS.—On May 11th, at Snettisham, Norfolk, the wife of T. E. E. Roddis, M.B.Edin., of a daughter.

SHEARER.—On May 11th, at 94, Melbourne Road, Leicester, the wife of T. Pitcairn Shearer, L.R.C.P.&S.Edin., of a son.

STEAD.—On May 9th, at Moor Lodge, Hawkhurst, Kent, the wife of Dr. C. C. Stead, of a daughter.

MARRIAGES.

FAGGE—METCALFE.—On May 10th, at Christ Church, Lancaster Gate, by Canon T. P. Monnington, assisted by the Rev. H. H. Wilford, Charles Herbert Fagge, M.S., F.R.C.S., of 22, St. Thomas's Street, S.E., son of H. W. Fagge, of Lutterworth, to Beatrice Dora, youngest surviving daughter of the late Michael Metcalfe, of Sydney, N.S.W.

GUEST—DAYUS.—April 5th, at St. Edward's Church, Dorrington, Salop, by the Rev. E. F. Wayne, M.A., Vicar, assisted by the Rev. A. H. Britton, M.A., Rector of Frodesley, Herbert Merrick Guest, B.A.Camb., M.R.C.S., L.R.C.P., second son of the late Rev. James Merrick Guest, M.A., to Constance Mabel, only daughter of Charles Dayus, M.R.C.V.S., Dorrington House, Dorrington.

DEATH.

GRIMBLY.—May 14th, at The Grange, Summertown, Oxford, Richard Grimbly, M.R.C.S., formerly of Banbury, Oxon., aged 84.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.
CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.
CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.
CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.
CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.
CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.
EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.
GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.
GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30: Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1: Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.
HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.
KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30: Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.
LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.
LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.
LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.
METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.
MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.
NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.
NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.
NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.
ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.
ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.
ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.
ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.
ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.
ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2
ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2; Abdominal Section for Ovariotomy, F., 2.
ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.
ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.
ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.
ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.
ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.
SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.
THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.
UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.
WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.
WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

HOUSE-SURGEON asks if there is any home where a hydrocephalic child, aged 8 (unable to walk), of poor parents, could be admitted free of charge.

STUDENT asks for information as to the opportunities for and cost of post-graduate study in Göttingen, especially with regard to midwifery and gynæcology, and surgery.

W. A. asks for advice in the treatment of a corn situated over the last joint of the fourth toe which, in spite of hollow plasters, hot bathing at night, and poulticing is most painful, although the horny centre has been carefully pared.

M. D. is consulted by the unmarried daughter of an intimate friend as to her health, and he finds on examination that she is pregnant. What is M. D.'s duty in this case?

*** It is very difficult to advise, but it seems to us that our correspondent's duty is to tell the patient the nature of her condition and to try to persuade her to be candid with her friends.

RECURRENT SNEEZING AND NASAL CATARRH.

A MEDICAL CORRESPONDENT who suffers from the following symptoms asks for advice: Periodical attacks of coryza, sneezing, and nasal catarrh, following slight influenza some months back. He never had hay fever, although the attacks resemble it. In the early morning when the temperature is low they immediately come on, but directly the thermometer rises they disappear, only again to come on when cold is experienced. A chronic nasal intonation of voice is left, but no stenosis. Douching with warm soda salts, local applications of boric acid and lanolin, and full doses of quinine internally have been tried for some time, but without benefit.

SOUTH AFRICA.

W. R. asks for information on the following points: (1) Climate of different parts of South Africa. (2) Cost of living in large towns. (3) Opportunities for practice as oculist.

*** (1) Our correspondent might consult an article on Climate of South Africa, by Dr. A. P. Hillier, in the June number of the *Practitioner*, 1898, and *South Africa as a Health Resort*, by A. Fuller, M.B., C.M. Sixth edition. London: Union Steamship Company. 1898. Price 1s. (2) Rather high. (3) The communities are as a rule not large enough to make special practice very successful.

WORKMEN'S COMPENSATION.

M., who has received the following communication from a co-operative society, asks for advice in fixing the rates:

"Our Society, having adopted a scheme for compensating employees in case of accident, my Committee are desirous of ascertaining if you would give them a condition for examining cases of accident, and reporting thereon, and in case of them being unable to come to your surgery, you would be required to visit them at their residence, namely: 'Here follows a list of places, including the centre in which our correspondent lives, and other places 1½, 5, 6, and 8 miles distant.] They would like your conditions to be stated in the form of so much per visit and examination, and so much for each examination for those who are able to attend at your surgery."

*** We are advised that the basis for estimating the fees claimed should be the charge made by M. for an ordinary professional visit at the given distance, with perhaps an addition of, say, 10 per cent. for extra responsibility entailed because the examination is made under special circumstances which call for a high degree of caution. Fees for examinations at the surgery might be estimated in the same manner. If the number of examinations which might be expected by undertaking such examinations be large, there would be nothing necessarily unprofessional in agreeing to do such work at a somewhat lower rate, but the above basis is the only one likely to afford any just criterion for fixing a scale of charges.

ANSWERS.

T. O'C. R.—The address of the Medical Defence Union is 4, Trafalgar Square, London, W.C., and the annual subscription is 10s.

ANTI-QUACK.—We are advised that there is in Scotland no legal remedy for the practice complained of.

P. V. H.—It would be contrary to the custom of the profession for a practitioner starting in a neighbourhood to send cards stating his qualifications, etc., and his intention to start practice to various people in the locality.

HOSPITAL FOR PAYING PATIENT.

A. writes, in reply to "Country Member": The Mineral Water Hospital at Strathpeffer might possibly be suitable for the case of peripheral neuritis. Patients pay 10s. per week, and are mostly of the working or poorer classes. If the case is likely to receive benefit by a four to six weeks' course application should be made to the House Committee, or to J. Tregelles Fox, M.R.C.S., etc., Medical Officer and Hon. Secretary, Nicolson Mackenzie Memorial Hospital, Strathpeffer Spa, N.B.

NOTES, LETTERS, Etc.

SIR FELIX SEMON requests us to state that an article concerning himself, which appeared in a recent issue of *M. A. P.*, was published without his knowledge and consent.

ERRATUM.—In the annotation on the Care of the Feeble-Minded, in the BRITISH MEDICAL JOURNAL of May 13th, page 1175, column 2, line 5 from bottom, for "cure" read "care."

CORRECTION.—The name of the stove mentioned by DR. A. M. ROBERTS (South Norwood) in his communication on the use of heat in the treatment of arthritis, published in the JOURNAL of May 6th, page 1140, is the "Instra," and not the "Justice" stove as printed. Messrs. D. Blair and Co., 47, Cannon Street, E.C., are the makers.

A CAUTION.

DR. LESLIE PHILLIPS (The Crescent, Birmingham) writes: I am informed that a man giving the name of Whittingham is writing begging letters and calling on my medical friends in London, freely quoting my name as a recommendation. Such use of my name is entirely unauthorised by me.

AN APPEAL ON BEHALF OF DR. COOKE.

DR. J. C. EAMES (Barnfield House, Stoneclough, near Manchester) writes to acknowledge the following additional subscription received on behalf of this fund:

K. W. M. £1 1 0

A DECIMO-DUODECIMAL SYSTEM.

DR. A. CORDES (Geneva) writes: In my communication headed as above, which appeared in the BRITISH MEDICAL JOURNAL of May 6th, page 1140, I wish to make the following corrections: In Line 9, after "multiplication" add "and division;" in lines 10 and 12 instead of "120" read "744;" in line 19, instead of "10 times" read "series of numbers;" and in lines 11 and 12 erase the "twos." The errors are mine.

THE BRITISH NORTH BORNEO PUBLIC MEDICAL SERVICE.

WE regret to understand that a good deal of dissatisfaction exists among the officers of the North Borneo Public Medical Service owing to recent changes in the pay and privileges of these officers. It would seem that the directors had been led to believe that by keeping a monopoly of the sale of drugs in the hands of the company a sufficient profit would be realised to pay the expenses of the medical establishment, and that when this result was not realised they reduced the salaries of the medical officers. In addition to this there seems to be a desire on the part of the directors to compel the medical officers to pay over to the company a share of the medical fees obtained by them in private practice. They are also required to give their services free to all Government officials, gaols, and hospitals, and to manage the aforesaid drug trade for the Government. Assuming the facts to be correctly stated, we have here a peculiar position of things which is hardly likely to work satisfactorily, and we trust that the directors of the company will see their way to making better arrangements.

BRONCHITIS EXCITED BY SULPHUROUS ACID.

MR. JOHN SPURWAY, M.B. (Merstone, Tring) writes: J. K., aged 59, a man subject to slight attacks of asthma, but at the time in good health, was on March 21st fumigating a house with sulphur in the usual way, after a case of scarlet fever. Instead of leaving the room immediately after lighting the sulphur, unfortunately he remained for some time endeavouring to stop the cracks of a badly-fitting door. He was thus exposed for some minutes to the fumes of sulphurous acid gas. It produced rapidly symptoms of acute bronchitis. On the next day he remained away from work, and was treated with an expectorant mixture, followed by hot poultices.

This treatment at first produced free expectoration and some relief; but he soon grew rapidly worse, and developed capillary bronchitis of a sthenic type. He was cyanosed, his breathing very laboured, and his pulse hard and strong. His temperature varied from 100° to 102.2° F.

He obtained some temporary relief from the use of a tent bed, with a bronchitis kettle containing tinct. benzoin co., 3j to the pint, whilst a capsule of amyl nitrite and the addition of mj doses of a 1 per cent. solution of nitroglycerine to his mixture, seemed to relieve his breathing for a time. But in spite of good nursing and constant care he still got worse, and died on March 29th, the eighth day of his illness. No doubt the SO_2 was the exciting cause of the bronchitis which thus ended fatally.

The case is interesting as showing the danger associated with the use of SO_2 as a disinfectant, although when used carefully and with due precautions that danger is reduced to a minimum. It also speaks in favour of other disinfectants, such as formalin (formaldehyde), and chinosol.

FOMENTATION IN UTERINE INERTIA.

DR. F. GOWER GARDNER (Warwick) writes: I can endorse Mr. Wharton's statement in your issue of May 6th as to the value of this proceeding. I was recently called to a multipara at 5 A.M. The membranes had ruptured at 1.45 A.M. and liquor amnii had been draining away all that time, but there had not been a single pain. The os was fully dilated. I directed the nurse to apply hot fomentations to the abdomen and the result was highly satisfactory, the pains recommenced at once and the child was expelled in ten minutes or less.

BICYCLE TYRES.

W. R. G. writes: Mr. Turner, in his answer to "Ixion," makes no mention of Fleuss tyres. After a trial of other patterns these have proved themselves so satisfactory in country practice, that I venture to send a few notes to "Ixion" and others who may still be in doubt as to the best tyres. Since punctures will always occur at the wrong time, the tyre most easily manipulated must be the best for the busy man. In the Fleuss, after very slight practice, no mending should take more than fifteen minutes, while in the vast majority of punctures the single tube has this additional advantage, that a simple pumping up will carry you many miles, only quite a large nail rendering immediate attention necessary. As to durability, my back tyre ran well over 3,000 miles on all sorts of roads and in all seasons before it was necessary to replace it, and my front one is still going well with practically no signs of wear at over 4,000; this, I am informed, is the general average life of other patterns. They work best when pumped up hard, thus leading to the only disadvantage I have found in them, that on an uneven road when riding fast the vibration is greater than on the double tubes, in which there is somewhat more of an absorptive action for obstacles than in the single tube Fleuss.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Mr. J. R. Ambler, Chester; Messrs. Allen and Hanburys, London; Mr. E. H. Alton, Monaghan; Miss Arkell, London; E. F. Armour, M.B., Edinburgh Aymard's Steriliser Company, Ipswich; Alpha. **B** Mr. A. Bance, Enfield; Dr. W. S. Barnes, George Town, Demerara; Messrs. D. Blair and Co., London; Mr. W. L'H. Blenkarne, Worthing; Dr. T. Beattie, Newcastle-on-Tyne; Dr. O. A. Browne, London; Mr. W. M. Beaumont, Bath; F. M. Blumer, M.B., Stafford; Mr. G. A. H. Barton, Morchard Bishop; Mr. W. H. Beverley, Scarborough; Mr. V. E. Barrow, Ufculme; B. A., Darm; F. Beach, M.B., London; Dr. J. Barr, Liverpool; Dr. W. Bain, Harrogate. **C** L. M. F. Christian, M.B., Stockport; Dr. C. C. Claremont, Southsea; Miss M. M. Chadburn, M.B., London; T. M. Callender, M.B., Sidcup; Catarrh; Capt. R.A.M.C.; Professor E. M. Crookshank, London; Dr. A. C. Coles, Bournemouth. **D** Dr. A. Duke, Cheltenham; Dr. A. Dennison, Leeds. **E** Mr. F. H. Edmonds, George Town, Demerara; Enquirer; H. L. Evans, M.B., Goring-on-Thames. **F** F. H. B. C.; Fees; Mr. J. T. Fox, Strathpeffer Spa; Mr. W. A. Frost, London; Dr. J. Finlayson, Glasgow; Dr. T. Fisher, Clifton; A. Fraser, M.B., Manchester; Mr. W. T. Freeman, Reading. **G** Dr. L. Grant, Edinbane; Mr. M. L. A. Gataka, Weston-super-Mare; A. Gregor, M.B., Sutton-on-Trent; Glasgow Obstetrical and Gynecological Society, Secretary of, Glasgow; W. R. Groves, M.B., St. Ives, Hunts; G. P.; Dr. A. E. Giles, London; Mr. F. G. Gardner, Warwick; Mr. G. P. Gaskell, London. **H** House-Surgeon; Mr. J. T. Hartell, Willenhall; Dr. J. D. Hayward, Liverpool; Mr. H. Holmes, Pontefract; Mr. W. F. Haslam, Birmingham; W. H. Horrocks, M.B., Bradford; Dr. T. Hincks, Hay; H. Hodgson, M.B., Blisworth; Mr. A. D. Humphrey, Kurseong; T. B. Hyslop, M.B., London; G. Halley, M.B., Dundee; Dr. A. E. H. C. Hallen, London; Dr. G. Halket, Glasgow; J. B. Hall, M.B., Bradford. **J** Mr. H. H. Jennings, London; Dr. G. T. Jackson, New York. **K** Dr. R. H. Kennan, Dublin; Dr. G. W. Kendall, Holyhead. **L** Mr. R. P. Lamond, Glasgow; Messrs. Lynch and Co., London. **M** Mr. W. H. D. Mence, St. Ives, Hunts; Mr. G. H. Makins, London; Mr. E. J. Muybridge, Kingston-on-Thames; Dr. H. J. Maceroy, London; Medico; H. D. McCulloch, M.B., Delhi; T. Massie, M.B., London; Mr. J. C. McWalter, Dublin; W. Murray, M.B., Birmingham; Mr. W. J. D. Mulford, London; Dr. A. W. Mackintosh, Aberdeen; Dr. E. E. Moore, Letterkenny. **N** Mr. G. Newman, Gloucester; E. S. Nutting, M.B., Warsop; Mr. C. H. Newby, Portsmouth. **O** Mr. E. A. Onyon, Eye; Old Subscriber. **P** P.M.O.; Dr. T. D. Poole, Wolverhampton; Dr. F. L. Phillips, Birmingham. **Q** Mr. E. Quayle, Urmston. **R** Rusticus; Dr. C. Ruata, Perugia; Dr. R. Reece, London; Mr. F. A. Rouget, Mauritius; Dr. G. Rankin, London; Dr. A. M. Roberts, London; Mr. T. O'C. Redmond, Dublin; Mrs. F. Rye, London; J. S. Riddell, M.B., Aberdeen. **S** Mr. A. G. L. Smith, Crick; Sir F. Semon, London; Mr. R. R. Sibbitt, Coventry; Sap.; Dr. F. W. Smith, Harrogate; Mr. G. Stead, Walsall; W. W. Sinclair, M.B., Ipswich; Student; H. B. Smith, M.B., Bradford. **W** Dr. H. Walsham, London; Mr. T. E. Williams, Talgarth; Dr. F. R. Walters, London; W. A.; Dr. A. A. Warden, Paris; Mr. W. R. Williams, Clifton; Dr. F. Willcocks, London; H. W. Webber, M.B., Plymouth; Mr. T. H. Williams, Oswestry; Mr. H. R. Wilson, London; Dr. T. Wright, Washington, co. Durham; Dr. F. J. Waldo, London; W. R.; Dr. G. C. Walker, Southport, etc.

BOOKS, ETC., RECEIVED.

Some Diseases of the Rectum and Anus. By Sir William Thomson, F.R.C.S.I. London: Sir I. Pitman and Sons. 1899. 2s. 6d.

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REMARKS

ON

PROPER AND IMPROPER BURIAL, WITH AN EXAMINATION OF THE CLAIMS MADE FOR CREMATION.

BY SIR FRANCIS SEYMOUR HADEN, F.R.C.S.ENG.,

THE present communication is intended to be in no way controversial. In 1875—nearly a generation ago—it will be recollected by some and necessarily forgotten by many, that I wrote certain letters to the *Times* in deprecation, alike, of the serious but readily removable abuses which disfigure our cemeterial system, and of the dangerous and wholly insufficient resources of cremation as a suggested substitute for it. To-day, without the least intention of reviving a discussion which, in the face of combination, the attractions of the advertisement, and the methods of the newspaper, I have found to be useless, I do nevertheless desire—and that in the columns of a press which is alone competent to deal with the subject on its technical side—to leave behind me such an epitomised version of my share in the matter as I care to be permanently identified with.

I had hoped to be able to do this without any reference whatever to the statements which cremation relies upon to advance its interests. I have not found that possible. Some sort of visible connection between the statements made on one side and the other has proved to be necessary to an intelligible comprehension of either of them, and this all the more that, while some of my own have been both written and printed, others of them, though written and sent to the press, have not as yet been permitted to see the light. I have therefore taken care to preface each pronouncement of my own by the cremationist statement which called it forth, and of course to reverse the order of precedence when the fact happens to have been the other way.

I may also state that my object in choosing the present moment for this final record of my views has been the delivery by Dr. G. V. Poore of the Milroy Lectures, and their reproduction both in the BRITISH MEDICAL JOURNAL and *Lancet*. For some such summary of the scientific aspects of the case—though hardly expecting it to come in my own time—I have in a sense been long waiting. I had, of course, not seen the lectures or had any knowledge of the form they would take; and if, now that I have seen them, I find myself venturing to take exception to certain details of terminology which appear to me to impair their value, I may say at once that such details in no way affect the authority of their conclusions, with which it will be seen I am heartily in accord. Nor am I, I trust, unduly elated to find those conclusions, while confirmatory of my own views, altogether out of harmony with the alarming pronouncements of the *Times*.

I have nothing, however, to say against the *Times*. My relations with it have been of the very best all my life, and they are not likely to alter now because it happens to have changed its editor and the editor the views of the paper.

THE CASE FOR CREMATION.

On January 12th, 1875, I wrote in the *Times* as follows:

"Interment, the apostles of cremation tell us, in substance if not in terms, and speaking of it in its most comprehensive sense, is repulsive in idea, costly and ineffectual in fact, horrible in practice, a vilification of the dead, and a danger to the living. In a variety of publications which have excited much attention, they denounce not any particular mode of interment or any palpable abuses which they recognise as having crept into the practice to discredit it, but the practice itself. They take no notice of the fact that the dead are little more than nominally buried, and that, by the interposition between them and the earth that should resolve them, of such media as wood, lead, brick, and the like, interment as a principle is rendered all but nugatory and as a practice deprived of its *raison d'être*. Finally they leave it to be inferred, since they give us no hint to the contrary, that the evils thus created are *inherent in the principle of interment, and upon this inference and upon no other ground found their recommendation of cremation.*"

THE CASE FOR PROPER BURIAL.

"The case for earth burial may be thus summarised:

1. The natural destination of all organised bodies that have lived and that die on the earth's surface is the earth.

2. The evils supposed to be inseparable from the principle of interment are independent of that principle and of our own creation.

3. The source of these evils is to be found, not in the burial of the dead, but in the unreasoning sentiment which prompts us to keep them unburied as long as possible, and then to bury them in such a way that the earth (or rather the air) can have no access to them.

4. The principle of burial supposes the resolution of the body by the agency of the earth to which we commit it, and that the earth is competent to effect that resolution, and to effect it innocuously.

5. To seek to prevent the beneficent agency of the earth by enclosing the dead in imperishable coffins, brick graves, and and vaults is in the highest degree irrational, since it engages us in a vain resistance to an inevitable dispensation, and has led us to accumulate in our midst a vast store of human remains in every stage and condition of decay.

6. Unwarned and undeterred by the magnitude of the evils we have thus ourselves created, we are still engaged in extending and perpetuating them.

7. Were the dead only properly buried, not one of those evils would have any existence, not a single dead body would remain to encumber the soil, and a quantity of land of incalculable value, now hopelessly alienated, would be liberated for purposes of hygiene or of utility.

8. The remedy for such evils is, therefore, not in cremation, or in any of the alternatives that have been proposed for burial, but in a sensible recognition of, and a timely submission to, a well-defined law of Nature, and, since some of these alternatives are dangerous, in legislative action to enforce the provisions of that law.

9. The claim that earth has upon its dead, no less than that which the dead have upon the earth, is in short a proposition too obvious to merit discussion. To understand it we need only consider the properties with which the soil at our feet and everywhere at our disposal has been endowed; that it is the most potent disinfectant known, and the readiest of application, and that, by a combination of forces inherent in it which might well appear contradictory but for the wonderful purposes they are destined to effect, it is resolvent and reformative as well; that that which under the influence of the air was putrefaction, in the earth is resolution; that which was offensive becomes inoffensive; that which was mere decay a process of revivification. To question the competency of the earth, thus endowed, to effect the resolution and conversion of its dead, or to fail to perceive and profit by that competency, would pass comprehension if habit had not taught us to shut our eyes to it, and if the advocates of cremation had not stepped in to tell us that we may improve upon it."—*Times*, January 12th, 1875.

STATEMENT BY THE "TIMES."

On December 22nd, 1897, the *Times*, in a leading article in favour of cremation, wrote as follows:

"By the act of interment," says Sir Henry Thompson, "we literally sow broadcast through the land innumerable seeds of pestilence which long retain their vitality, many of them destined at some future time to fructify in premature death or ruined health to thousands."

SIR SEYMOUR HADEN'S ANSWER TO THIS.

My commentary on this remarkable statement was in these terms:

If this statement is true, the whole cosmical fabric on which our knowledge of the world we live in rests must be untrue, and the earth, instead of the resolvent and disinfectant of all forms of organic decay accruing in the course of Nature to its surface no better than a mine at our feet charged with the elements, not of our well-being but of our destruction.

Our now established habit of stamping out cattle plague without fear of its recrudescence by simply burying its infected carcasses in shallow trenches with or without quicklime, must be regarded as a myth; and the stay of the Great Plague itself (never to return by casting any number of its uncoffined victims into pits extemporised in the open streets for the purpose), but an historical figment.

STATEMENT BY SIR CHARLES CAMERON.

On August 19th, 1898, in a second leading article, as if to

justify the extraordinary statement to which I have referred, the *Times* drew attention to a recent pronouncement made at Dublin by Sir Charles Cameron (also a member of the Cremation Society) to the following effect: That it had been borne in upon him that the infection both of diphtheria and typhoid fever was in some way or other connected with the soil.

SIR SEYMOUR HADEN'S ANSWER TO IT.

To this I replied, October 3rd, 1898, in a letter (which, however, was *not inserted*) as follows: "That as far as I knew there existed no ground whatever for any such statement; that by common consent typhoid fever owed its convection to overcrowding, filthy surroundings, squalor, starvation, and the actual contact of one poor unwashed, fever-stricken skin with another—in a word, to infection, or contagion, or both;" and if I had seen at the time Dr. Poore's Milroy Lectures, I might have added of diphtheria: "(1) That its bacillus had not as yet been recovered from the soil; (2) that out of thirty collected examples of soil from areas likely to be infected, not a single *bacillus typhosus* had been found in one of them; (3) that, according to Koch and Loesner, it had, in fact, never yet been found outside the human body; and (4) that, so far from being found in the earth, 'virgin soil' so-called was fatal to it."

All infectious diseases, I declared, divide themselves into two great groups or classes—one which derives its origin from surface water as a carrier of the morbific agent; the other from actual contact of one case with another in the open air. Again, the first of these classes is itself subdivisible into two distinct types of disease—one which depends on putrescent vegetable exhalations from marsh lands, and which includes within it all those forms of febrile disturbance known as malarial; the other which, like cholera and choleraic diarrhœa, depends on the actual introduction into the intestinal canal, by means of surface water, of the *dejecta* of patients affected with the same disease. Burial, therefore, four feet below the soil can have nothing whatever to do with any of those forms which constitute, as I have said, the first class of infectious disease. The second, and by far the larger class again, and which comprises small-pox, measles, whooping-cough, typhus, scarlet fever, diphtheria, etc., owes its propagating power to the actual contact or close contiguity in the open air of one patient with another. That class, therefore, has no connection with either soil or water, and being wholly independent of even the surface of the earth, can have even less to do with burial than the first class. To lump these two classes together, therefore, as, to help cremation, is now being done, is, to begin with, a scientific solecism of the most glaring kind, and, seeing how perfectly well known the superficial method of their propagation is, to suggest that they are spread when buried below the surface is a statement to all appearance in the nature of a direct appeal to popular ignorance and credulity. The zymotic death-rate, in fact, has nothing whatever to do with burial, only two out of the seven diseases which comprise it having ever been shown to depend in any way whatever either on soil or water.

THE "TIMES" AGAIN.

Meanwhile, as if determined not to give up its unsupported statement of December 22nd, 1897, the *Times* on April 12th, 1898, printed a letter from Sir Henry Thompson which contained the following story:

THE STORY OF THE BURIED COW.

Pasteur's success in dealing with anthrax is known to all..... Pasteur proved that the earthworms brought up the spores and not the bacilli themselves, which soon disappear from the buried corpse after the event. These spores long retain their vitality, and unless the body is cremated or is buried in a large quantity of quicklime, the disease will sooner or later appear when a favourable nidus presents itself. Pasteur examined the *surface* mould at the spot where two years before a cow, dead of anthrax, had been buried at the depth of seven feet, and observed germs which by inoculation produced anthrax in a guinea-pig. *This is an illustration, and amply suffices here, as one among the various ways in which "innumerable seeds of pestilence are sown broadcast through the land,"* a sentence characterised by my critical friend as "inflated phraseology," but it has at least the merit of being strictly true.

SIR SEYMOUR HADEN'S COMMENTARY ON THIS STORY.

"Pasteur did not 'prove' that earthworms brought up from a depth of 7 feet the spores of anthrax: (1) because worms do not commonly burrow to such a depth; and (2) because the buried bacilli of anthrax do not live long enough in the earth to form spores. The bacilli here referred to, like mosses, fungi, and other plants of low organisation require for their growth carbon and nitrogen; water also and a certain temperature are necessary for the maintenance of their vitality. Like plants, also, by the disintegration of organic combinations containing nitrogen, they produce certain chemical products, and, as *fungi*, assist fermentation. They vary, too, as to the amount of atmospheric air they require, some of them, like the bacteria of *anthrax*, being unable to maintain their vitality without it, and some being able to do with little (the so-called aërobic and anaërobic bacteria of Pasteur). Like other plants, again, some are reproduced by spores, or seeds. When, by a linear arrangement of their primitive cells, bacteria grow like rods, they are called, as every one knows, bacilli. Anthrax is a bacillus of this kind, and being, like *bacillus septicus*, what is called anaërobic, dwindles and dies when deprived of air. If therefore the body of an animal which has died of anthrax is buried entire—that is, without being opened, the bacilli which characterise this form of disease die with it, and notwithstanding statements to the contrary, not only die with, or very shortly after, it, but are incapable of reproduction in an active form. *The infection of anthrax cannot, in fact, as cremationists declare, be spread when so buried. When therefore it has been reproduced in fields in which cattle infected with the disease have grazed, died, and been buried, the fresh outbreak is owing not to the buried carcass but to the spores which have been left by the dejecta of the infected animals upon the surface of the field in question.* Both Klein and Koch are fully agreed as to this, and Koch, in addition, has proved by direct experiment [1] that the spores of anthrax are not, as Pasteur has stated, taken up by earthworms and deposited on the surface by their castings; and that the spores of anthrax bacilli, when mixed with earth in which worms are present, are not taken up by these creatures at all. Klein, indeed, carries these statements further, and says: "If bacilli grow in the depths of a fluid medium—in a medium, that is, but scantily supplied with air—they do not form spores, and at length degenerate, and, as the fluid dries up, this degeneration goes on till, finally, nothing is left of them but their *débris. Such bacilli, of course, are quite innocuous when introduced into the tissues of animals, or into fresh nourishing media.*" [2] Those, therefore, who have followed me in this statement—a statement examined, re-examined, and confirmed by the most eminent men to whom I have submitted it (and, as I have since understood, admitted by Pasteur himself)—will see how little reliance can be placed on the *reports spread broadcast through the land* by the advocates of cremation that by the act of interment we shorten human life!" [3]

CREMATION AN ENCOURAGEMENT TO CRIME.

I now, and I trust for the last time, come to that part of the subject which no cremationist if he can help it is willing to hear mentioned, which the newspapers engaged in the cremationist propaganda are careful not to discuss, and which, whatever the momentary success which may attend (or appear to attend) the agitation of the question, will assuredly, sooner or later, provoke the repressive action of the law.

On April 25th, 1893, in his evidence before a Select Committee of the House of Commons, nominally on "Death Certification," but really largely employed to advance the interests of cremation, Sir Henry Thompson made the following admission (Q. 1125, 1139), namely: that, *out of 393 bodies which he had up to that time burnt, he had thought it prudent, in "four or five cases," to take out and preserve the stomach, kidney, spleen, and a portion of the liver.* Why? He had previously told the Committee that cremation, *as he practised it*, involved little or no risk, and the Committee, as is proved by their report, had believed him. Why, then, these precautions? Well might one of its members ask (1377, 1378) whether, if such an admission were "*known*" (*sic*), it would not put an end to cremation altogether! I ask, Is it known? Have the votaries of cremation the least idea of any such proceeding as a condition precedent to a participation in its benefits? Is it duly set forth as such in the *Manual of Modern Cremation*, which they are invited to depend upon as their guide? Has it occurred to them that, in submitting the bodies of their friends and relatives to be thus dealt with, they have one and all more or less identified themselves with these four or five suspected cases, and that the day may come when, in the cause of justice, it may be necessary to obtain the names of those who thus figure as possible homicides? Why, again, confine these precautions to the detection of poison, as if poison were the only weapon of the murderer? And *cui bono*, when, having burnt the body, a stab in the back or a knock on the head, or a ligature round the neck, is beyond the possibility of discovery? And, again, if in the early part of 1893, 4 or 5 suspicious cases out of 393 had already been burnt, how many more, may I ask, has it been considered prudent to put under lock and key since then, when the number burnt amounts to 1,283? Is it possible that any Government in its senses, on the Report of a Committee composed largely of cremationists, that with the special precautions taken by Sir Henry Thompson "there was little probability that cases of crime would escape detection; still, that inasmuch as such precautions were purely voluntary, *they ought in the interests of public safety to be enforced by law.*" Have they been enforced by law? Has the smallest notice been taken of this formal recommendation of the Committee? None whatever. The destruction of evidence still goes on. That such a thing can be done with impunity by a self-constituted private society would, if it were not a fact, be deemed incredible, and as such I respectfully bring it to the notice of the Home Secretary. Nor, having once embarked in so hazardous a business, do I blame the Cremation Society for taking adequate precautions against "accidents." But are they adequate? How can they be? That the Cremation Society

has all along been fully conscious of the risks it was running is proved by its own offer to make a *post-mortem* examination of every body it burnt. Why did it withdraw that offer, and adopt instead of it the disembowelling process I have described? By what process of ratiocination is it now satisfied with a certificate (given it may be by the murderer, as in the case of Dr. Cross and Mr. Palmer), and "verified" by a stranger to the case who, being called in to see the body, has nothing to go by but what the possible murderer chooses to tell him? That such a certificate is not worth the paper it is written upon is certain, and that it would be so regarded would appear by the evidence given before the Committee by Mr. Braxton Hicks the well-known coroner. My own evidence on the point is, meanwhile, as follows:

EVIDENCE OF SIR SEYMOUR HADEN.

3631. "And that (exhumation) you think, would be a protection against crime?—*I think it would be the best protection you could get against crime.*"

3632. "Then you would still have the body to be exhumed if necessary?—*Yes, certainly.*"

3633. "And on that account you would not approve of other methods of doing away with the body other than "earth-to-earth" burial?—*I should approve of no method of doing away with the body except such a method as admitted of its exhumation.*"

3634. "If portions of the viscera were retained, say the stomach and its contents, and portions of the liver and portions of the kidneys were retained, and the body cremated, would that meet your purpose?—*Certainly not; no such retention of those viscera would be sufficient, Poison, for instance, is not always found in the stomach and primary organs of digestion*"—nor, I might have added, is poison the only, or even the most frequent, resource of the murderer.

3635. "It would probably be in the liver or the kidneys, would it not?—*It might be and it might not.*"

3636. "You want the whole body, you think?—*I mean that it may be necessary to examine other organs than those you indicate. Such ultimate organs and tissues, that is to say, as are capable of retaining the poisonous agent.*"

3655. "You would not go so far as to require a *post-mortem* examination in every case?—In the case of *proper burial* I would not require a *post-mortem* examination. *In the case of every other method of disposing of the body I would absolutely require a post-mortem examination, and something more than a post-mortem examination—a medico-legal post-mortem examination.*"

3656. "You consider that would be absolutely necessary?—*Yes. I say that every attempt to destroy a body without such an inquiry would, in my opinion, be a criminal act.*"

3657. "Your opinion is, I think, that earth burial in the way we have referred to is also better from a sanitary point of view?—Quite so. *In a sanitary point of view it is perfect.*"

3658. "And does not in any way, you think, tend to spread infectious disease?—*Absolutely in no way whatever. Any state to the contrary is a statement which is not warranted by fact.*"

CONCLUSIONS.

The conclusions I have arrived at, therefore—many of them, I may say, forced upon me—are as follows:

1. That, owing to the one-sided statements put forth by the Cremation Society, a very general impression has been created that there is only one kind of burial, and only one remedy for it—cremation—a statement which is entirely misleading.

2. That this belief has been greatly assisted by the systematic suppression on the part of an influential portion of the press of all effectual answers to the cremationists' statements, and that in this way the country has become flooded with these unopposed fallacious statements.

3. That the Government, as represented by the divided authority of the Home Office and the Local Government Board and the London County Council, is equally to blame for allowing the abuses I have pointed out to go on, and is, therefore, to that extent responsible for the cremationist agitation.

4. That burial, as at present carried out in coffins which prevent the resolution of the body, is equally a reproach to the intelligence of the country, and to the Government which permits and even prescribes such a practice.

5. That to make the practice of burial perfectly harmless, and to do away with all excuse for cremation, nothing more is necessary than to take the whole management of cemeteries out of the hands of the undertaker and the speculator, and to make it a matter of State or municipal regulation.

6. That while the earth, properly used, is capable of disposing of any number of dead bodies, and of disposing of them insensibly and with advantage both to its own substance and to the air above it,[1] the practice of cremation, on a scale large enough to have even the slightest influence on burial either as a rite or as a custom, supposes the necessity not of one but of many furnaces, the use of which in or near towns no municipal authority would for a moment permit, and which, even in the open country, would cause such a consumption and carbonisation of pure air as to render (changes of wind considered) a large area in the neighbourhood of such vomitoria uninhabitable.

7. That the cremationist statement, as reported in the *Times*, that burial, however conducted, is "a propagator of infection and a cause of increase in the zymotic death-rate," is not only untrue but abundantly disproved by expert evidence from all parts of the country.

8. That there is no definite statistical evidence to show (*a*) that the general death-rate, or (*b*) the zymotic death-rate, or (*c*) the death-rate from any group of diseases, or (*d*) the death-rate from any single disease, zymotic or otherwise, has ever been affected by burial, even under the present objectionable conditions.

9. That the further statement, made in the *Times*, as to the number of exhumations practised and of murders discovered by them, is absurdly incorrect, unless Palmer's 6 cases are counted as 1, De Trouville's 7 as 1, Higgins and Flannigan's 10 as 1, Cotton's 20 as 1, Dr. Brouardel's 445 as 1, and so on.

10. That the statement in *Modern Cremation* (pp. 61, 62) which allows the reader to infer that, though "exceedingly rare in this country," it cannot be altogether denied, that premature burial is *possible*, *while* "*with cremation no such catastrophe could ever occur*," is fairly disposed of by the following question put to six of our most distinguished physicians and surgeons and their answer to it:

"As hospital physicians and surgeons of extended experience, has it ever occurred to you to see a case of so-called suspended animation or trance which, in your opinion, could be mistaken for death; and do you think, the present state of our knowledge and resources considered, that the occurrence of such a case, or of such a mistake, can be regarded as possible?"

"In reply to this question we desire to say that no case of the kind it suggests ever presented itself to any of us, and to express our confident belief that the dread of the possible occurrence of such a case is without support in the medical experience of this country; and further, that the signs of death are as certain after a few hours' suspension of the vital functions as they can be after many days.

"It would, we feel, be a matter of regret, and an indication of a low state of public intelligence, if the groundless fears to which our attention has been directed by Mr. Seymour Haden should hinder, for a moment, the adoption of an improvement in our social system, the importance of which cannot be overrated.

"GEORGE BURROWS, M.D.,
"President of the Royal College of Physicians.
"WM. FERGUSSON.
"WILLIAM W. GULL, M.D.
"WILLIAM JENNER.
"JAMES PAGET.
"THOMAS WATSON, M.D.

"London, March 13th, 1875."

12. That the destruction, therefore, by cremation, of all demonstrable evidence of the cause of death—of all such evidence, that is to say, as is only to be obtained by the exhumation of the body—is a danger to society, and an arbitrary act on the part of an irresponsible body of persons, which ought to be at once made the subject of competent investigation, and, if its dangerous character is recognised, to be declared illegal.

13. It would seem, in fact, that what is wanted is not a Bill to regulate cremation—which, on the contrary, *as a measure of public safety ought rather to be at once declared a misdemeanour*—

but a Bill to regulate and ensure *safe and proper burial*, which Bill, to be effectual, should, besides dealing with the whole subject of cemeterial management, contain the following provisions:

(1) For burial within the earth as the only legal mode of disposing of a dead body.
(2) For a limitation of time beyond which it should be illegal to keep a dead body unburied.
(3) For the illegality of strong coffins, brick graves and vaults, and of all contrivances having for their effect to retard resolution, and to confer on the dead a tenure, practically illimitable, of the soil which is necessary to the purposes of the living.

THE MILROY LECTURES.

The importance of these lectures as the first utterance of the kind in affirming by the aid of personal observation and collected facts the principles for which I have been contending for so many years, and as dissipating the fallacies which for too long a time have been allowed to possess the uneducated ear, is so considerable that I can do no less than accord them a distinguished place in the final record I am now making. If in his evident desire to be judicially fair Dr. Poore has somewhat attenuated the value of his own observations by giving undue prominence to those of others, this cannot be chargeable upon him as a fault. It is enough for the purpose of this record that he tells us in correction of the speculations of Sir Charles Cameron, of Dublin, that the bacillus of diphtheria like that of enteric fever has never yet been found in the soil; that the discovery of hæmatozoa in the blood has opened to us a new view of malaria as something altogether different from a soil disease; that the plague bacillus has never been met with beneath the surface; that it is not in the earth but in the air that we must chiefly expect to find the morbific particle (whatever that may be), and in the surface water, which is its readiest carrier to the soil, and, it may be, a little, but only very little, below it; that the *dejecta* of the patient, and the germs of anthrax and of tetanus, though found to have attained a lodgment within the particles of the earthy mass, form no part of its substance, and lose all their virulence when once there. In a word, that the enteric fever referred to by Sir Charles Cameron, so far from having its *nidus* in the soil, is, as I have stated, far more likely to have its origin in the actual contact, under conditions of filth and overcrowding, of one fever patient with another.

AD TERRAM.

For myself, however—and I am not sorry to have an opportunity of making the statement here—I am disposed, in the absolute belief which I have in the soil as the final correctant of every form of organic decay—and even of disease—accruing, in the course of Nature, to its surface, to go farther than Dr. Poore, and invest it with supreme power as such universal correctant—as the chief factor in the great cosmical design, in short—for this great purpose. Never, surely, was the cremationist farther at sea than when, in pursuance of his aims, he assumed the contrary, and, with the aid of the *Times*, went out of his way to proclaim it *urbi et orbi*. "*By the act of interment we literally sow broadcast through the land innumerable seeds of pestilence, which long retain their vitality, etc., destined at some future time to fructify in premature death or ruined health to thousands!*" Such is the statement which, in presence of a world's population which is ever-increasing, and an individual duration of life which is ever-extending, the public is seriously invited to believe, as if—for it means nothing less—the earth and its inhabitants were thriving on disease.

I can, in fact, see nothing more probable than that, as water, in the shape of rain, is chiefly concerned in cleansing and washing the germs of disease out of the air, so the earth, as the natural filter of such water, is the ultimate cleanser and disinfectant of both. In a word, that its beneficent office in this respect is the very opposite of the malevolent office which is imputed to it by the advocate of cremations.

Here, however, I find myself under the necessity of parting company (though only for a moment) even with Dr. Poore, seeing that, though we arrive at the same conclusions, we get at them by the aid of materials, which are not the same, and by means of a language which does not convey the same thing to the educated ear. The point is an important one, because much of our misunderstanding of the power of the earth as a disinfectant has arisen out of it, and no small amount of capital hostile to its pretensions on this score has been manufactured out of it.

In his first lecture, for instance, Dr. Poore expressly tells us that when he speaks of earth he means *humus*—that is, of the earth of his kitchen garden, which is heavily laden with animal matter—while I have been making my experiments in the comparatively hungry soil of the park land which surrounds this house. In other words, while he has been burying animal matter in animal matter, I have been burying it in earth which nearly approaches the condition of what is called "virgin soil." The results obtained by us are consequently not the same. My reason, however, for taking note of the difference is that while his proceeding represents "interment" in its worst form, mine represents it in its best; his in the form which I have especially condemned, and which is in fact made the groundwork of the cremationist objection to burial; mine in the form in which burial ought to be, and might be, carried out if cemeteries were only properly managed.

The language, again, which he employs, and which is that only too commonly used by the bacteriologist, is from my point of view objectionable because it encourages the popular belief that the body, even when properly buried, instead of re-entering the atmosphere insensibly and in every way inoffensively, is beset by a sort of nondescript borderland saprophytic fauna whose office it is to devour it—a reading which the cremationist of course goes out of his way to encourage, and which is really materially helped by the use of such terms as "the living earth" to signify nitrification, and of such a word as "hatched" to signify the germination of the saprophyte, which, I take it in common with Dr. Poore, is at best an organism little higher than the lichen or the fungus. Nor am I attaching too much importance to a carelessness of terminology which I believe began with Pasteur, because, while it imposes upon the popular ear, it is not without its effect even on our own—an effect which, in fact, is demonstrable. When Dr. Poore, for instance, digs down into the humus in which he has buried a rabbit and finds it "full of earwigs," even he derives, *ipso facto*, a sort of warrant for his terminology; while I digging into my own graves, which I do once a year to determine the progress of nitrification and finding nothing of the kind, not unnaturally take exception to it. I have also another reason for objecting to it in the fact that seventeen years ago, when bacteriological science was comparatively young, I wrote a letter to a late very distinguished friend on the subject which, though only half serious, will even now bear repetition.

38, Hertford Street, Mayfair.
December 18th, 1882.

MY DEAR GULL,

I am glad to observe that what I have called the bacterial bugbear is beginning to moderate its pretensions as a general alarmist. Not that I disbelieve in "germs" and other entities equally occult and speculative, which by a pretty free use of Pasteur's term are being employed to shake our faith in the plan pursued by Nature for the resolution of dead matter since the world began. All I say is that, without being in a position either to affirm or deny the existence of these aggressive germs and the harm they are said to do, I should like to hear something of the friendly germs and the good they do. If it should come to be proved, which is possible, that the great operations of Nature, destructive as well as constructive, are carried on by germs, all I can say is that I am prepared to think as highly of germs as I do of chymical action, or of any other of those forces, physical or vital, by which Nature is pleased to work. I object, however, to their employment as missiles. I object to hear them spoken of as if they were creatures which prey upon us, and to have them hurled at us as Nemesis for our misdeeds, when, really, all we know about them is that the work they do is very like the work of ferments such as the yeast plant and other vegetable products of a similar character. I will be bound to say that if, at this moment, we canvassed public belief upon the point we should find nine-tenths of it in terror of all microbes not as plants but as predacious animals, the more formidable that they are invisible to all but the expert, and that—if we swallow them, as perforce we must—it is in the hope that by doing so we sterilise them—which, in fact, in nine hundred and ninety-nine cases out of a thousand I fully believe we do.

Yours,
F. SEYMOUR HADEN.

The reappearance of this letter in connection with the Milroy Lectures reminds me, however, of another thing which has amounted to a profession of faith with me for many years, and which I observe has not escaped the acumen of Dr. Poore

—the recognition, I mean, of the inherent power of the individual to resist, against the heaviest odds, the convection of disease—a power evidently immeasurably greater than that either of the *soi-disant* omnipresent microbe or of the artificial bacillus, however carefully it may be cultivated. I cannot but think, with every respect for the praiseworthy efforts of the bacteriologist to track the morbific particle to its lair, and to master it there with its own weapons, that room still exists for a larger faith in those provisions of Nature for our individual protection than we are altogether willing to accord to them. If it is really a fact that, with every drop we drink and every mouthful we eat, we are taking in enough of the active principle of disease to destroy a regiment, and that, notwithstanding, we not only escape infection but are perpetually diminishing the zymotic death-rate, I find myself, with Dr. Poore, obliged to accord a far greater value to this beneficent endowment of personal immunity than is commonly conceded to it.

NOTES AND REFERENCES.

[1] *Miltheil. a. d. k. Gesundheitsamte*, 1881. [2] Klein, *Micro-organisms and Disease*, ch. xi, pp. 155, 156, Macmillan, 1886. [3] Haden, Congress of Hygiene and Demography, London, 1891. [4] It is to be remembered in this connection that as all things which have lived die and return to the earth, so the amount of decay which the earth is thus continuously and insensibly disposing of is exactly equal to the whole sum of life which is present upon its surface. [5] Since writing the above I see an announcement in the BRITISH MEDICAL JOURNAL of March 25th, that "at no distant period" and possibly by means of a limited liability company it is proposed to erect a completely equipped crematorium in the near neighbourhood of London.

A CLINICAL LECTURE
ON
SOME CASES ILLUSTRATING THE SURGERY OF THE STOMACH.

Delivered at University College Hospital, May 6th, 1899.

BY ARTHUR E. BARKER, F.R.C.S.,

Professor of the Principles and Practice of Surgery and Professor of Clinical Surgery at University College; Surgeon to University College Hospital.

DURING the last few months it has fallen to my lot to have to do surgically with a group of cases of stomach disease which have taught me much, and it appears possible that a brief review of them may be of use to you. They arrange themselves as follows:

1. Gastrocolic gastroenterostomy, uneventful recovery
2. " " " "
3. " " " death
4. " " uneventful recovery
5. " " " "
6. Pylorectomy "
7. Perforated gastric ulcer "

These are consecutive, and include all the gastric cases in which I have operated completely during the period named. Two other cases were admitted under my care in a moribund condition from perforated ulcer. In one I simply let out the abdominal gases to give immediate temporary relief; in the other the patient died within an hour of admission untouched.

Glancing at the gastroenterostomies in the first place, they were all done for carcinoma of the pylorus on patients of 55, 49, 29, 52, and 55 years of age respectively. The first two have already been briefly recorded elsewhere, and I will only say of them now that when last heard of they were well,[1] and No. 2 had increased his weight from 8 st. 6 lbs. to 12 st. 4 lbs., and was following his calling in comfort. No. 3 made a perfectly uneventful recovery until the eleventh day, when he was seized with a sudden pain in the abdomen; the pulse was rapid, but the temperature did not rise but rather fell until death, which occurred the next (twelfth) day. The necropsy revealed a peritonitis of low intensity with a small amount of turbid fluid in the flanks and some in the pelvis. The surgical registrar, after the most careful search, failed to find any perforation. The gastroenterostomy opening was firm, perfectly watertight, and all that could be desired. The button lay in the stomach. The only suggestion which the surgical registrar could make in regard to the cause of the sudden peritonitis was that it had perhaps started from a patch of congested colon which was found at the spot at which the latter would be likely to lie upon the button. His theory was that the compression of the colon between the abdominal wall and the button, as the latter rested on the vertebral column, had inflamed the coats of the viscus and thereby allowed of the passage of the septic organisms through its coats. This may be so; but I think the cause of the peritonitis must be admitted to be still doubtful. It does not, however, appear to have started from the anastomosis itself in any way.

In Case IV the only complication in an otherwise perfect convalescence was an aggravation of some bronchitis, from which the patient suffered at the time of operation. He had not passed the button when he left the hospital at the end of five weeks, but seemed to be none the worse for its sojourn. But yesterday he returned saying that it was giving him much trouble in the rectum, and I removed it with my finger. It had, therefore, been in the bowel forty-three days.

Case V made a perfectly straightforward recovery except for some stitch abscesses, and passed the button on the tenth day. In all these cases Murphy's button was employed, and gave considerable satisfaction. It was retained in one case, but appeared to give no inconvenience. In the four remaining cases it was passed on the fourteenth, twelfth, tenth, and forty-third days respectively. In all 5 cases posterior gastroenterostomy was employed (or, as it is perhaps better named, retrocolic gastroenterostomy), and contrasting them with half a dozen cases in which I have done the anterior operation of Woelfler I must say that the retrocolic seems to be preferable. At first sight it looks the more difficult procedure, but I cannot say that it appears to me now to be so after the experience of these cases. And the condition *qua* the emptying of the stomach without kink of the intestine is undoubtedly superior to that resulting from the anterior operation. When done with the button it takes but a short time, and there is not the same likelihood of the latter falling back into the stomach as when the opening is made in the anterior wall of the organ. But whether the use of the button is in all respects a distinct gain I confess appears to me still an open question. In the hands of a surgeon who has become familiar with its use, and also with the best methods of simple nature, I do not think there will be much difference in the time spent over the two methods: and undoubtedly the presence of such a large foreign body in the intestine or stomach is, to say the least of it, undesirable. In one case, as I have told you, it caused at all events much pain in the rectum, and in another it may possibly have been the cause of death. But this is not all. The largest button which can be used with safety in the jejunum leaves an opening which has been known to contract subsequently to a dangerous extent, while in the case of simple lateral anastomosis by suture the opening can be made as large as desired. Probably an incision of 2 inches is the best length for both stomach and intestine if the opening is to be large enough to allow of a certain amount of subsequent contraction.

In Case V, as you have seen, I performed pylorectomy five weeks after the gastroenterostomy. The patient is now, seventeen days after operation, before you, and gives every hope of a good recovery. She is eating solids with relish, and is steadily gaining the ground lost before the operation. I was induced to remove the pyloric end of the stomach in this case by the fact that at the first operation I found a very limited carcinoma of the pylorus with no adhesions and very little glandular infection. And as there was now a new gastroenterostomy opening of five weeks' standing from the stomach into the jejunum, which was working well, I felt that the simple removal of the end of the stomach and closure of the opening of the latter and of the duodenum without the lengthy and delicate operation of adaptation of the divided viscera to one another would not make too large a demand upon the patient's resources. Again, the patient and her husband were very anxious for the removal of the growth, and I knew from a study of the results of a large number of other operations that the duration of life after successful pylorectomies, even where recurrence ultimately takes place, is incomparably longer, as a rule, than where relief has been given by a gastroenterostomy. It is too soon to decide in this case whether recurrence will be early or late, but this much I have learned, namely, that to remove the end of the stomach when gastro-

enterostomy has been previously done is relatively easy and fairly rapid. In this case it took an hour and ten minutes, which I consider reasonable when we recall the fact that many successful pylorectomies without the previous operation have lasted over two, or even three, hours.[2]

But whether it will ever become the rule to do a gastro-enterostomy as a preliminary to pylorectomy is quite another matter. I fancy that this is hardly likely to be the case. A patient who has gone through the first operation, and feels well, will find it difficult, I imagine, to face the second and more severe operation in time to really benefit himself. But it is quite possible that posterior gastroenterostomy may come to be combined with pylorectomy in one sitting as indeed is practically done in Kocher's method—which has given such good results (8 cases, no deaths) or including his last series 23 cases with 2 deaths.

The last of these 7 cases is this patient, now strong and quite well, who was brought here over two months ago in an almost desperate condition from a perforation of the stomach, which had taken place at the base of an ulcer eighteen hours before I operated on her. This is the tenth case of this condition in which I have sutured the stomach, and is the fourth I have saved by the operation. This is a small percentage of recoveries, but when we consider the nature of the lesion and the delay which usually takes place before the cases are placed in our hands, it is, at all events, encouraging. The case now before you is briefly as follows:

E. B., aged 24, a domestic servant, had suffered from indigestion for twelve months, which became much aggravated during the last week. She had vomited occasionally after food for the last twelve months, but never blood.

Onset.—On February 26th, 1899, at 8 P.M., a sudden sharp pain was felt in the epigastrium. Vomiting began soon after, and lasted all night and up to admission into University College Hospital at about 12.30 P.M. on the next day. All this time pain was intense. The last solid meal, consisting of mutton, potatoes, and parsnips, was taken at 1 P.M. on February 26th, and only a cup of tea at 5 P.M. The perforation therefore occurred seven hours after the last solid meal.

Condition on Admission.—February 27th. There was intense abdominal pain; breathing was shallow; pulse 120, temperature 102.2°. There was little distension, but great rigidity and tenderness. Liver dulness was gone in the front, but was normal in the nipple line.

Operation at 2 P.M., eighteen hours after the perforation. Median incision was made and the left rectus transversely divided. No gas escaped on opening the peritoneum. The liver was glued to the stomach and colon by lymph, which came away in large flakes. On releasing the stomach from the liver and drawing it forward a hole the size of a goose-quill was found in the middle of the anterior surface. There was a large quantity of fluid round the spleen and in the flanks, less in the pelvis. After cleansing the whole abdomen with sponges and sterile gauze the hole in the stomach was closed with two rows of silk stitches by Lembert's method. After a final cleansing of the whole abdominal cavity the abdominal wound was nearly closed, strips of iodoform gauze being left in various directions for drainage. An apron of omentum had been previously thrown up over the line of suture in the stomach. The patient bore the operation well, and the pulse was 140 on removal to bed. The patient was fed by the mouth from the second day on.

After-History.—From this time improvement was steady. The upper part of the abdomen was soon quiet, and except for several stitch abscesses in the transverse wound, there was but little discharge. But in the lower part of the abdomen there was distension on the tenth day, and the temperature rose to 102.8° and the pulse to 158. The next day the pulse was 132 and the temperature 102.4°. I now felt sure that there was some localised collection of pus deep in the pelvis, and hoped it would burst into the vagina or rectum. On March 22nd there was blood-stained discharge from the vagina with fall of temperature, and this went on for some days. The mucus and pus began to come away from the rectum. With this the fever disappeared, and the general condition improved greatly. Until now the patient looks healthy and fat, and is eating plenty of solid food in considerable variety, and is getting up daily.

A few years ago all these cases would have been left to die without any surgical interference, but now we have reached a point at which we can hope for relief from operation in quite a large group of gastric lesions. I have so recently [3] lectured upon the subject of stomach surgery that I need not enumerate all these again; but taking only the utterly hopeless cases of gastric carcinoma and perforation from those just referred to, you may easily see that when the surgeon is appealed to in time much may be done in many cases at all events. There are, of course, risks, but without wishing in any way to minimise these, I should like to say that, after an extensive study of the best consecutive series of such operations, I have satisfied myself that they are not so great as to forbid surgical interference. If we take the best results of the last few years from gastroenterostomy, we shall find that the mortality from the operation is probably under 10 per cent. The history of all great operations teaches us that their mortality has always steadily declined as diagnosis, technique, and after-treatment have improved hand in hand. Improvement in one alone will not very materially alter our statistics. It is only when all together become more perfect that we see the latter grow better and better. It is here that the physician, who is almost invariably the first to see cases of gastric carcinoma, can do so much. The diagnostic powers of our physicians are splendid; and when they have been reassured as to the risks of surgical procedures, I feel certain they will hesitate less to place these cases in our hands, and ultimately we shall be called to them not when they are already moribund, as has been hitherto too frequently the case, but at a time when the risks are comparatively small and the relief of suffering great. For, after all, it is hard to imagine a more painful kind of death than that of slow starvation, to which most of these wretched cases are infallibly doomed unless a successful surgical operation is performed. But even in the hands of the best physicians such cases are hard to diagnose in many cases, at all events in their early stages. But here again a knowledge of the fact (for a fact it is beyond question) that a small exploratory incision carries with it hardly any risk at all while it clears up the diagnosis at once will help enormously. The nature of the pyloric obstruction, the presence or absence of adhesions, the infection of glands can all be ascertained through an incision only large enough to admit of one or two fingers being introduced, an incision which can be made under local analgesia if desired.

In any doubtful case of pyloric obstruction, which is a condition as a rule easily diagnosed, there ought to be no hesitation as to such an exploratory incision, which is almost certain to heal without the slightest trouble if not carried further. And if this hesitation be generally overcome, not only will many patients be relieved of a terrible dread with practically no risk, but the mortality of the palliative operation of gastroenterostomy for the more serious cases will be enormously reduced, and the results of the radical operation of pylorectomy will be immensely improved.

One of the most important—and at the same time most difficult—functions of the surgeon in all serious operations is undoubtedly the selection of cases; and this in the instance of gastric carcinoma is almost impossible unless he is allowed to see it at a very much earlier stage than has hitherto been the case. Of course, selection will not exclude error, but it will reduce it very materially, and only those surgeons who have had the opportunity of making such a selection of cases from a large number which they have seen have hitherto had encouraging results. Let me give an instance of what I mean. I shall take the experience of one who has furnished us with one of the best consecutive series of pylorectomies yet recorded; and I cannot help thinking that his results have been as much influenced by the careful selections he has made for operation from a very large number of cancers of the stomach, as by his undoubted mastery of the technique of the operation. Professor Krönlein, of Zurich, to whom I refer, has recently placed on record all his pylorectomies, without exception, up to date. Of these—24 in number—he lost 3 out of the first 4, and only 2 out of the last 20. But what makes his record of particular value, to my mind, is the fact that he gives a review of all the cases of carcinoma of the stomach, without exception, which during the same period have been placed in his hands for operation. This gives us an opportunity of judging as to about the proportion of cases of the kind which may be considered by a competent observer to be within the range of operations as they come to us at present. Writing in 1896 he says that his whole experience of gastric carcinoma placed in his hands for operation consisted of 67 cases. Of these, 26 were considered, for one reason or another, unsuited for any operation.

In 22 an exploratory operation alone was done, and nothing further; all recovered from the operation. In 4 gastroenterostomy was completed, and in 15 pyrolectomy. There were, therefore, only 19 cases considered suitable for any palliative or remedial operation out of 67, a very small proportion, you will say; but how many of these 48 not relieved might have been kept alive and in comparative comfort by an earlier surgical interference is not known, but probably a considerable number. For Professor Krönlein's success in those cases in which he performed pylorectomy has been very considerable, and has probably been greatly influenced by this careful selection. Writing in 1898 he records 24 consecutive cases of

removal of carcinoma of the stomach, all that had been done by him at the time. Out of the first 4, as I have told you, he lost 3, while out of the last 20 only 2 had died; in other words, he has only lost 2 cases of pylorectomy since the year 1888 out of 20 cases. Considering that in the history of all great operations the first cases are always defective both as regards diagnosis and technique, his figures give, I venture to think, a good omen for the future. And when we look to the ultimate results of this group of cases alone we have also reason for encouragement. Two cases died between the first and second month of pneumonia and paralysis of the heart; 8 died of recurrence, 2 in the third year after operation, 4 in the second year after operation, 2 in the first year after operation, an average duration of life of 507 days; 8 cases were alive at the time of writing, without obvious recurrence, 2 in the fourth year after operation, 6 in the first year after operation, and 1 had obvious recurrence. If these results are compared with those of cases left to themselves or treated by gastro-enterostomy the contrast is striking. The 7 cases who refused operation show an average duration of life of 209 days; the 19 who were declared beyond the reach of operation 77 days, and 19 cases on whom only an exploratory operation was done an average of 139 days, an average duration of 110 days for the cases traced up to the time of death=36. This shows pretty well the gain to those who were operated on, and yet died ultimately of recurrence, without counting those who are still alive with no apparent disease.

But, besides these cases of Krönlein there are, of course, many others to which I could refer you, in which the duration of life after operation was even longer, and in which a microscopical examination of the parts removed left no doubt as to the carcinomatous nature of the growth. Kocher, for instance, records a case alive and well nine years after pylorectomy for carcinoma.

Next to the early recognition of the condition of the stomach, for which an operation may be required, and an early decision as to whether or not the latter is admissible (which is a matter only to be determined after considerable experience), the next most important factor in success is the whole technique of the operation. This is a very large point, and admits of considerable difference of opinion in regard to detail. But there are several points of general principle upon which all surgeons of experience are agreed, and these you will do well to bear constantly in mind, whether you are acting as principals or assistants in such operations.

In the first place, in all cases in which the stomach is to be operated on a careful preparation of the patient is necessary. This not only includes the thorough cleansing of the abdomen externally but also of the stomach internally. The latter must be washed out several times for a couple of days before operation—except, of course, in cases of perforated gastric ulcer. Each washing ought not, however, to be carried to the extent of exhausting the patient. In the case of pylorectomy before you it was done only a couple of times, the last being only just before operation.

The next point of principle is the saving of time in the operation on patients already depressed by the disease and its consequences. This may be promoted in various ways. Those who assist can help by a little foresight, as well as those who actually operate. From the moment the first incision is made to the last stitch, we ought to aim at saving every possible second of time. And remember that this is of importance not only in reducing the immediate effects of shock, but also in exposing the wounded parts and abdomen for as short a time as possible to the injurious effect of germ-laden air. Again, shock may be minimised by gentle, if rapid, handling of the viscera. This is most important where we are handling the stomach so close to the great nerve plexus of the abdomen. Again, in manipulating the viscera, we must be careful, while securing asepsis, to avoid all overstimulating of serous surfaces with chemical antiseptics. Probably nothing has more contributed to the success of operations on the alimentary tract within recent years than the use of sterilisation of the materials, instruments, etc., introduced into the abdomen, rather than chemical antiseptics, which are now well recognised as capable of adding greatly to the shock of operations.

The next most important matters are the stitching, clamping, and closing of the divided viscera without loss of time or blood, and without escape of their contents. To consider all these in detail would lead me too far now, and I can only say that the keynote of them all is thoroughness without loss of time. They must all be thought out beforehand, and seen whenever possible, and there should be no hesitation at any moment as to what is to be done.

Finally, the after-treatment of these patients is of the utmost importance. They must be kept warm from beginning to end, and if there is any prostration saline solution must be transfused either subcutaneously or into a vein, or both. It may also be necessary to inject brandy or ether subcutaneously. Rectal feeding is the rule with all my abdominal sections, and also enemata of hot water every four hours. But besides all this, patients may be fed by the mouth from the first moment after operation unless vomiting is severe. In the present cases the first food has consisted of white of egg beaten up with a little brandy and an equal part of water. Of this fluid they have had ʒij every two hours at first, and then every hour; a day or two later double the amount, and then milk. At the end of ten days they have been the better for pounded fish and meat, and then a little vegetable cautiously. The patient before you is now—on the seventeenth day—having as much food as she expresses a desire for, and is able to sit up in bed. She is putting on flesh quite visibly, and I hope she may be up and about by the end of next week.

It is, I think, plain in this case that the technique and after-treatment have been adequate. But, at the same time, I can see many points in the operation as it was done in which I should make improvements in the future, both as regards protection against contamination by the contents of the viscera and in saving of time. I have very little doubt that in another uncomplicated case I could do the two operations of retrocolic gastroenterostomy and pylorectomy in one sitting in the same time that was required for the pylorectomy alone. That this case was placed in my hands so early and in an uncomplicated stage I owe to the ability of my old house-surgeon, Mr. J. H. Cook, who lost no time, and so probably saved the patient's life.

Notes and Reference.

[1] No. 1 has died since this lecture was delivered; his doctor tells me that he died of asthenia, and without pain or other distress during the 7½ months lived since the operation. [2] This patient is now out of bed in the fourth week after operation, and is eating practically what she likes without pain or discomfort and with regular action of the bowels. [3] *Lectures on Surgery of the Stomach*, 1898.

ON OPERATIONS FOR GASTRIC HÆMORRHAGE AND PERFORATION:

WITH AN ACCOUNT OF A SUCCESSFUL OPERATION FOR PERFORATING GASTRIC ULCER.

By A. H. TUBBY, M.S.Lond., F.R.C.S.,

Assistant-Surgeon to the Westminster Hospital; Surgeon to the Evelina Hospital.

Before deciding to operate for severe and recurrent hæmatemesis, the question must always arise, Will the chances of the patient's recovery be improved by the operation or not? It is quite likely that the surgeon will not be called in until all the usual medical measures have been tried and have failed, and then the probability of the success of the operation is lessened by the feeble condition of the patient. It is remarkable, too, how many cases recover under medical care from very severe hæmorrhage, and the possibility of such taking place in any individual case must always influence the question of surgical interference; but when, as in the first case quoted hereafter, all the usual remedies have been applied and the hæmorrhage continues, then the surgeon must act.

Case 1. *Very severe Hæmorrhage from a Gastric Ulcer; Operation; Entire Arrest of the Hæmorrhage; Death from Exhaustion Ten Days after Operation.*—J. F., aged 27, was admitted into Westminster Hospital on September 13th, 1898, under the care of my colleague, Dr. Donkin, for severe gastric hæmorrhage. He had had good health until the end of August, when he began to suffer from nausea and "heaving," but without vomiting. On September 13th he felt faint and sick. He took some whisky and water, and suddenly brought up a large amount of blood, when he was at once taken to the hospital. The usual medical remedies were applied, but on September 16th he again vomited much blood. Of this 30 ozs. were caught and measured. On September 20th he vomited 40 ozs., and on September 21st 20 ozs., so that he must have lost at least one-third of the total weight of the blood in his body, and probably much more, as no estimate of the first hæmorrhage only a part of the second was obtained.

He was transfused on September 20th with normal saline solution, and again on the next day. On this day, the 21st, Dr. Donkin asked me to attempt some surgical measure for arrest of the hæmorrhage. When I saw the patient he was practically moribund, but after transfusion of 2 pints of normal saline solution into the arm and injection of 1 pint of normal saline solution with 2 ozs. of brandy into the rectum, and the subcutaneous injection of 3 minims of liquor strychninæ, he slightly rallied. But so grave was his condition that it did not seem advisable to have him removed from the bed and the operation was done there. The abdomen was opened and on touching the stomach he again vomited blood and stopped breathing, but with artificial respiration and another injection of liquor strychninæ he rallied slightly and the operation was proceeded with. No suspicious spot was found on the anterior wall of the stomach, so the abdominal wound was enlarged, the stomach and great omentum turned upwards and the under-layer of the transverse mesocolon torn through so as to reach the posterior aspect of the stomach. On this there was noticed a spot which was thin in the centre and indurated peripherally, while radiating from it were four or five thrombosed vessels. At this stage the patient again became collapsed, but was brought round. There was therefore no time for elaborate measures such as attempting to ligature the arteries separately by under-running them with a curved needle. A portion of the stomach wall corresponding to the whole extent of the ulcer was pinched up into a fold and a continuous purse-string suture was passed through the base of this fold approximating mucous membrane to mucous membrane, so shutting off what was believed to be the bleeding spot from the rest of the stomach cavity. The suture was applied near the pylorus and 1 inch from the lesser curvature. The abdomen was filled with normal saline solution and closed. He rallied from the operation. He vomited on the 23rd, but there was no blood in the vomit. It was therefore presumed that the ulcer had been secured. But his general condition gave rise to serious anxiety. At no time did the pulse fall below 150 per minute and the heart sounds were characteristic of extreme loss of blood. His temperature remained subnormal. He continued in the same feeble condition until September 30th when he died, nine days after the operation and seventeen days after the first onset of hæmorrhage. The *post-mortem* examination showed that the ulcer had been secured. When the stitch was liberated a large eroded vessel with a clot in its lumen was found. There was a second ulcer about 2 inches away from the first, but no hæmorrhage had apparently arisen from this, since the stomach cavity was quite free from blood and no altered blood was found in the intestine. So far, then, as the immediate result of the operation for hæmorrhage was concerned it was a success.

CASE II. *Symptoms of Perforation of the Stomach: Death from Hæmorrhage.*—On August 31st, 1898, I was asked by Dr. W. Southey Wright, of Carshalton, to see Mrs. K., aged 31. There was a previous history of occasional dyspepsia, but the patient had never vomited blood, and it had never seriously inconvenienced her. On August 29th Dr. Wright was called to her on account of intense and sudden pain in the left hypochondriac region. He found her considerably collapsed, and retching somewhat. She was put to bed, hot bottles applied to the feet, a little ice given her to suck, and a rectal enema containing opium was ordered. On the next day he found the abdomen full, tense, and tympanitic. But towards evening, that is, of the 30th, she became very much better in every respect. The pain disappeared, the abdomen lost its fulness, and she expressed herself as being comfortable. When I saw her on the afternoon of August 31st her condition appeared to be favourable, her colour was good, the pulse 78 and of good volume, the temperature normal, the respiration unembarrassed, the abdomen in no way distended, with no undue dulness at any spot. She complained of a little tenderness on pressure in two regions—in the left iliac fossa and the left hypochondrium; but this was not at all marked. Her menstrual period was overdue for two days, and it seemed that her symptoms might equally well be assigned to a hæmatocele, as there was decided fulness above and to the left of the os uteri. It was decided, however, to continue rectal feeding, and to take all the precautions usual in cases of acute gastric ulcer. On Friday, September 2nd, I received an urgent message as the patient was collapsed again; the abdomen had become distended and tympanitic, and her condition was alarming. When I arrived she was in an extreme state of collapse, and although the liver dulness was not lost, I suspected that a small perforation had occurred. It seemed advisable to operate forthwith, although it appeared unlikely that a successful result would follow. The abdomen was opened in the middle line above the umbilicus, and search was begun for the perforation. At the moment of touching the stomach she retched and brought up a very large quantity of black clotted blood. Her breathing ceased, and all efforts to restore her were unavailing. No *post-mortem* examination was permitted, and so it was only possible to surmise what had occurred.

It seemed probable that there was an ulcer in the stomach, the floor of which was at one spot of extreme thinness; that on the first occasion of the collapse, on August 29th, a minute perforation had occurred which became temporarily sealed after the careful treatment adopted, or perhaps that the ulcer had perforated into the lesser sac. Somewhere about the margins of the ulcer there may have been a large vessel which gave way on September 2nd, or a second ulcer may have been the cause of the hæmorrhage.

Three facts stand out prominently: The onset of the illness was with symptoms such as are usually associated with perforation; an apparent recovery took place after the first onset of symptoms; and the immediate cause of death was gastric hæmorrhage.

Looking back on the case, one feels that if an operation had been performed on August 31st, when Dr. Wright and I first saw her together, her life might have been saved. But it is open to doubt if many surgeons would insist upon operating with a pulse of 78, normal temperature and respiration, no fulness of the abdomen, and no general distress.

The case is a notable example of what may be termed the "latent period" of this condition. After the acute onset the symptoms subside, and there seems to be no imminent danger. This period lasts twenty-four to forty-eight hours, and is then followed by the acutest possible symptoms, and then an operation is often too late. There can, however, be no doubt that in the hands of an experienced surgeon, an exploratory laparotomy is almost without risk, and if it be suspected that we are face to face with a "latent period," exploration must be undertaken.

The complications of gastric ulcer, so far as the surgeon is concerned, are progressive dilatation of the stomach, general weakness of the patient, severe or repeated hæmatemesis and perforation. Unfortunately, an ulcer which is severe enough to perforate is also sufficiently severe to open up large vessels in the floor, so that it must always happen that a certain number of cases apparently successfully operated upon for perforation will during the first month die of hæmatemesis, either from hæmorrhage from the site of the perforating ulcer or from a second ulcer. Hæmatemesis may be severe and repeated, yet not necessarily such as to enforce the surgical rule to find the bleeding spot and stop the flow of blood at that spot. For cases of this less urgent description there are several courses open. Direct resection of the stomach wall and the ulcer is not always advisable or possible. If, however, a small ulcer, which is easily found with one finger inside the stomach, be present, and if it be readily accessible, resection and suture may be carried out. But more often it is better to enclose the ulcer by putting in a continuous puckering suture of silk, or to quilt with fine silk the whole surface of the ulcer with a number of parallel sutures placed closely side by side. In cases of ulcers at the pylorus, gastroenterostomy is undoubtedly the best measure, and Doyen[1] "considers that it cures by abolishing the reflex spasm of the pylorus, which is the chief factor in causing dilation, hæmatemesis, and perforation. It permits the ulcer to heal spontaneously; it does more perfectly what is accomplished by abstention from food by the mouth."

But there is another class of cases of hæmatemesis of which Case I is an example where it is not possible to carry out any prolonged procedures, and the question arises, Is it justifiable to interfere surgically in any way? I am strongly of opinion that the local success in this case should encourage us to repeat the operation on another occasion. As to the preparation of the patient in such cases, he should undoubtedly be transfused before the operation and the apparatus should be kept ready in case of collapse during it. It is also valuable to fill the peritoneal cavity with normal saline solution at the close of the operation on account of the well-known absorbing power of that serous cavity. Ether and strychnine should also be ready for subcutaneous injection. The ulcer may sometimes be found by palpation from without the stomach. Indeed, in many cases of urgency it is the only admissible method. If time and the condition of the patient allow, the stomach wall should be opened and the finger inserted to verify the localisation of the ulcer. But it is evident that it cannot always be possible. The method of dealing with the vessels is rather difficult to decide upon. If time had permitted I should have ligatured the vessels separately. With this there is always the theoretical risk of necrosis of the stomach wall—theoretical because there is no reliable statement on the subject. Failing separate ligature of the vessels, it would be advisable to quilt the stomach wall and the ulcer by several parallel continuous sutures and if time presses exceedingly, the simplest suture is the one which was adopted in Case I.

CASE III. *Acute Perforation of Gastric Ulcer: General Peritonitis: Operation on the Third Day: Recovery from Perforation: Death on the Twenty-third Day after Operation from Hæmorrhage.*—A. N., aged 17, was admitted into the Westminster Hospital, under the care of Dr. Hebb, on January 1st, 1899. For the past two months she had had pain in the back and left shoulder. On the evening of December 31st the pain suddenly became worse while she was at her work. On admission to the hospital her abdomen was tense and very tender, but she was not markedly collapsed; in fact, the general condition was fairly good. On January 3rd, when seen by me, the liver dulness had entirely disappeared, the abdomen was full and tympanitic, and I decided to operate at once. The usual incision was made above the umbilicus, and it was noticed that there was early peritonitis, and gas in the peritoneal cavity, but no food could be found in it. It was necessary to enlarge the incision transversely towards the left side, and on gently pulling down the stomach some adhesions between it and the liver were separated. The perforation was then discovered. This was clean cut, oval in shape, three-quarters by half an inch in dimen-

sion, and situated on the anterior wall near the lesser curvature, and about 1 to 1½ inch from the cardiac orifice. The stomach wall was inverted, and an attempt made to stitch it by Lembert sutures. These held very badly, as the stomach wall for some distance around the ulcer was softened. The great omentum was then turned up, and a large patch stitched with interrupted sutures over the floor of the ulcer. The portion of omentum included in the stitches measured about 2 inches in diameter. The stomach wall with the attached omentum was then folded and stitched. The abdomen was irrigated with warm saline solution, and a large drainage tube was left in at the outer extremity of the transverse portion of the incision. About sixty Lembert sutures were put into the stomach and omentum, and the operation lasted nearly two hours. I received valuable assistance from my colleague, Mr. Spencer. For two or three days her condition fluctuated considerably, but it was always low. On January 7th, four days after the operation, it was noted that the abdomen had become flaccid. At this time severe diarrhœa set in, so that she could not retain the enemata, and it was necessary to feed her by the mouth with very small quantities of meat-juice and beef-tea. On the 13th she was not so well, but the diarrhœa had become somewhat less. On the 21st inst. she had a sharp attack of hæmatemesis, and also passed blood by the bowel. This attack seemed to be due and certainly followed the taking of a little hard-boiled yolk of egg which I allowed her. On January 26th she had another severe attack of bleeding, and died at 10.45 P.M. At the *post-mortem* examination it was found that the perforation was firmly closed, but the bleeding had come from the outer margin of the gastric ulcer, which was at such a distance from the site of perforation that it had not been included in the stitches.

Case iv. *Gastric Ulcer: Perforation: Operation Twenty-eight Hours afterwards: Recovery.*—Miss C., aged 21, was seen by me on October 28th, 1898, in consultation with Dr. B. N. Dalton, of South Norwood. She had previously had some dyspeptic symptoms, but had never vomited blood. On October 27th, somewhat late in the afternoon, she had a sensation of cramp in the stomach, and took some hot tea for its relief. The pain immediately became worse, and she attempted to vomit. Dr. Dalton, who saw her very shortly afterwards, suspected that a gastric ulcer might have given way. She was seen by him the next morning, the 28th, and he, finding that the liver dulness had gone, diagnosed perforation. She was seen by Dr. Newton Pitt in consultation with Dr. Dalton on the afternoon of the 28th, and he fully concurred in the propriety of immediate operation, which was carried out the same evening. Just before the operation her pulse was 108, her temperature 99.2°, her respirations 28, and mostly costal, but the abdomen still moved. Her face was slightly drawn, but of fair colour, and she was not markedly collapsed. There was no great degree of abdominal distension. She complained of severe pain on touching the upper segment of the left rectus, which was firm and rigid. On the whole her condition was decidedly good. The operation was begun at 11 P.M. by the usual median incision. On opening the peritoneum gas escaped. On the anterior wall of the stomach some lymph was found just below the cardiac orifice of the stomach. From a spot in the centre of this patch, after pressing on the stomach, gas and fluid escaped. There was at this point a minute ill-defined perforation, situated 1½ inch below the cardiac orifice of the stomach, and 1 inch below the lesser curvature in the anterior wall. On more carefully examining the stomach in this position a large indurated ulcer could be felt about the size of half-a-crown, or perhaps larger, and there could be clearly seen in addition to the perforation three other doubtful spots which looked as if on the point of giving way. There was no food free in the peritoneal cavity, and there was no peritonitis. At first an attempt was made to infold a portion of the stomach wall, but it was soon seen that if sufficient of the wall were taken up so as to include the ulcer and give healthy tissue firm enough to hold the stitches little or no lumen would be left to the stomach at that spot. The fold plan was, therefore, abandoned, and the great omentum was turned up and a thick vascular portion of its free margin selected. This was laid over the whole ulcer so as to cover it and the stomach wall for half an inch beyond. A row of interrupted sutures was then put in about half an inch from the free margin of the omentum and across the base of the flap, taking care not to include all the blood vessels. A second set of sutures united the free margin of the omentum and the stomach wall, and another row was placed across the base of the first with the same precautions as to the vessels. The time occupied in suturing was considerably over one hour, and the total duration of the operation was two hours and a quarter. The breathing became very faint at times, so that the anæsthetic had to be stopped and brandy given hypodermically. Before the abdomen was closed the cavity was washed out with warm normal saline solution, and a considerable quantity was left in. A glass drainage tube was put into the abdominal wound and the remainder of it sewn up. The patient's recovery was slow but regular, with the exception of vomiting three or four times on the second day after the operation. No opium nor morphine was given, but some bismuth salicylate was administered by the mouth, with occasional teaspoonfuls of hot water to allay thirst. At the end of January of this year she went away to Hastings, and on March 5th she noticed some irritation about the wound, and a piece of silk made its appearance. This, no doubt, was the continuous suture with which the peritoneum was sewn up.

From the surgical point of view perforating gastric ulcer may be either acute, occurring into the general peritoneal cavity, or chronic, in which adhesions have time to form, giving rise to a localised abscess bounded by the neighbouring viscera and adherent peritoneum. The mode of procedure of course differs in these two classes of cases. The diagnosis of acute perforation is not, as a rule, difficult, unless the early symptoms be comparatively slight and the latent period well marked, as in Case ii. The previous history of the case, and the lightning-like onset of exceedingly severe symptoms, are sufficient to arouse something more than suspicion. The diagnosis is confirmed by the localisation of pain to the upper segment of the abdomen, the rapid onset of peritonitis, and the disappearance of liver dulness. If one waits for further symptoms the opportunity of saving life is gone. The all-important question here is one of time, and statistics show that of cases treated surgically within the first twenty-four hours over 40 per cent. recover, but that cases left till the third day are all but hopeless. There are many difficulties which confront the surgeon in dealing with these cases: among them are the finding of the perforation, its accessibility, suturing in a cramped and obscure corner of the abdomen, the softened state of the stomach walls for some distance round the ulcer, and the cleansing of the peritoneal cavity from food. These may be overcome by gentle and systematic searching of the whole surface of the stomach with the help of two trained assistants, a good light, together with persistent care in putting in all the sutures, and thorough irrigation of the peritoneal cavity with normal saline solution and efficient after-drainage. It is not always enough to merely drain from the front, but large drainage tubes should be passed through the loins avoiding the kidneys, if much of the gastric contents have escaped. There should be no haste to remove these. It seems to be always a good plan to reinforce the wall of the stomach at the ulcerated spot by grafting omentum on to it; it makes assurance doubly sure.

Reference.
1 Greig Smith, *Abdominal Surgery*, Fifth Edition, vol. i, p. 568.

ON THE SURGICAL TREATMENT OF UTERINE CANCER AND ITS RECURRENCES.

By Dr. THEODOR LANDAU,
Berlin.

A serum for carcinoma which actually benefits the patient has not yet been found. Up to the present time there can be no doubt that of all methods the surgical still yields the best results, and the earlier the stage of the carcinoma when attacked the better. Therefore, it is the desire of our time to make the diagnosis as early as possible, and not only to extirpate the macroscopically diseased parts but also to remove as much as possible of the neighbouring lymph vessels and glands. That is well proved by the now recognised procedure of removing mammary carcinoma. At first only the diseased portions of the mamma were removed; then we removed the entire gland; next was added the extirpation of the neighbouring axillary glands. To-day we remove in addition the pectoral fascia, and even sometimes the entire thickness of the sternal portion of the pectoralis major. And why these more and more radical methods? Because the permanent results have become better in proportion as the operations increased in extent. Likewise similar tendencies are observed in regard to operations for carcinoma of the uterus.

Whoever has had the opportunity of observing the development and course of carcinomata of the various organs easily recognises that every organ has, so to speak, its cancer characteristic, both as regards its histological structure and also in regard to its tendency to metastasis. Thus we may say that carcinoma of the uterus has a marked tendency to remain local; so that the patients are destroyed much more frequently by the uterine cancer itself or by direct spread to neighbouring organs than by metastasis. This especially holds good for carcinoma of the body of the uterus. The course of the disease is usually the following: at first cancer is confined to the womb, then the pelvic connective tissue and its lymph vessels become involved; then it spreads to the vagina, rectum, bladder, ureters, and peritoneum, and affects the lymphatic glands and distant organs only very late, and after large portions of the parametrium have been destroyed. This is readily proved by the *post-mortem* findings in death occurring from uterine cancer or after its extirpation; it is daily shown by clinical observation that most cases of inoperable carcinoma are such, not because of metastasis in distant organs, but because we fear that bladder, ureters, and intestine may be injured by the operation.

The study of the recurrence gives a further support to the above claim. Whether we assume that the recurrenee is only the growth of foci that have been left behind, or that it is

another new formation of carcinoma like the first, we have almost invariably the tendency to local recurrence in or around the scar. But a third point seems to me to support the view that uterine carcinoma is essentially a local disease; it is proved by observation that those operative methods by which the entire broad ligament is excised or necrotised, even in far advanced cases of carcinoma of the uterus, yield permanent results which are relatively splendid when compared with methods which attack the cancerous uterus alone. From these considerations, it follows generally that uterine cancer is adapted especially for surgical treatment.

In a paper read in 1893,[1] I summed up our principles and indications for the extirpation of the carcinomatous womb to consist in this—that the indication for removal depends solely and alone on the technical conditions present, that is to say, that if we are able by any method to totally extirpate the carcinoma in and around the uterus, the attempt should always be made.

From large experience, we recommended as a method by which the entire internal genitals, together with the entire broad ligaments, can be extirpated *per vaginam*. This is effected with the aid of clamps, not with ligatures, because with the crushing and necrotising effects of the clamp upon the tissues grasped, we can extend the operation to regions which the ligature cannot reach or where it must remain ineffectual. This method especially enables us to extirpate by the vagina approximately every carcinoma which is limited to the uterus. If the carcinoma has already spread to the vagina, then during the course of vaginal hysterectomy the posterior vaginal wall can be removed in its whole extent. When the anterior vaginal wall is affected, the bladder should be examined with the cystoscope, an instrument absolutely necessary to the modern gynæcologist. When the carcinoma has spread to the parametria and the uterus is not greatly enlarged in size, vaginal total extirpation is technically possible and therefore indicated. And lastly, in a case of carcinoma of the uterus complicated with tumours or inflammatory troubles of the adnexa, with the proper technique, vaginal hysterectomy can be performed and completed. Only when the enlargement of the uterus caused by the cancer itself or by complication with myoma is so great that not even with the aid of vagino-perineal incisions can the parts be brought out *in toto* through the vagina, is ventral hysterectomy superior to the vaginal method. But such cases of cancer complicated by great size of the uterus are very rare compared with the numerous cases which allow of vaginal extirpation.

In presenting the results of these operations during the last five years, it is clear that the permanent results can be the only criterion of the value of a surgical method in the treatment of an otherwise incurable disease. A method which shows 100 per cent. of recoveries from the operation and yet does not prolong life would be a delusion; a method, however, which gives a small mortality and also cures a surprisingly great percentage of patients, forces the surgeon to adopt it. It is self-evident that the strictest criteria must be used in the construction of statistics; among other things, only such cases should be included where the pathologist can demonstrate carcinoma in the extirpated specimen.

My results are as follows: Of 123 cases operated on under the above-described indications, 8 died from the operation; in 48 the operation was done more than five years ago; of these, 13—that is 27 per cent.—have remained well. In other words, with the operation of vaginal hysterectomy performed according to my method, we can count on permanently curing about 1 woman in 4. According to the observations of Bouilly and others, which coincide with my own, we may be sure of a permanent cure if at the end of five years no recurrence takes place. Quite a number of these cured cases presented complications—some with spreading of the carcinoma to the vagina and appendages, others with inflammatory or purulent affections of adnexa or peritoneum. Occasionally fibroid or ovarian tumours complicated the operation. Therefore the fact is established by these statistics, obtained with all possible precautions, that the vaginal radical operation with clamps furnishes excellent permanent results.

I desire now to speak of another means of improving the permanent results, namely:

THE SYSTEMATIC REMOVAL OF RECURRENCES.

This was first suggested by Rosenstein. He presented, in a meeting of the Berlin Medical Society on February 16th, 1898, a healthy woman on whom he had performed extirpation of the uterus for carcinoma of the cervix in August, 1893. In February, 1895, he found in the abdomen, 3 to 4 cm. above the left Poupart's ligament, a hard, immovable, ovoid tumour of the size of a small apple, and above this, deep in the pelvis, a round resistance. Rosenstein removed this glandular recurrence by means of an incision like that in use for ligation of the external iliac artery. Since then, that is three years after the second operation, the patient has remained well.

The following similar case I report from my own experience. The patient, now 37 years old, was operated on June 11th, 1895, by the vaginal operation, for a cauliflower carcinoma. In November, 1897, there was no sign of recurrence. In March, 1898, the patient presented herself again. Her health had failed; she looked pale and cachectic. In the site of the former smooth scar in the vault of the vagina could be felt hard, knob-like prominences, anteriorly a rigid, cone-shaped body projected into the vagina about the thickness of the little finger and the length of an almond; behind this, especially to the left, there were wart-like, irregular, friable masses which bled considerably during the examination. There could be no doubt that since last examined a circumscribed local recurrence had developed in and around the scar.

On March 10th I performed the radical removal of the recurrence. To obtain the freest possible access, and to be able to operate extensively and safely in healthy tissues, I commenced the operation with a deep vagino-perineal incision starting at the junction of the middle and lower third of the left labium majus, going around the rectum in a semicircle and ending at the tip of the coccyx. Without encountering serious hæmorrhage, the left ischio-rectal fossa was separated up to the level of the vaginal vault. After the left lateral wall of the vagina had been cut in its whole extent, the entire field of operation was in full view. An incision was made around the carcinomatous excrescence $1\frac{1}{2}$ cm. from the edge of the visibly diseased parts. Separation from the base of the growth was easy on the right side, and on the posterior vaginal wall. To the left and anteriorly it was extremely difficult, on account of the close proximity of the bladder wall, which was marked by an introduced catheter. Only after I had entered the peritoneal cavity from the left was I able to separate completely and cut away the infiltrated masses from the bladder wall. To the right came into view loops of small intestine, some of which were firmly adherent to the vaginal vault. After they had been separated, the complete excision of everything that looked diseased could be finished.

The excised mass was about the size of a hen's egg. There remained in the peritoneum a slit about 6 to 8 centimetres wide, the extreme left point of which ended in the vagino-perineal incision. This slit was shortened by several catgut sutures, and the lateral vaginal wall was also sewn with catgut. A strip of gauze was introduced from the vagina into the peritoneal cavity. A thick drainage tube was placed from the perineal incision to the deepest part of the wound. The skin around was united with catgut. The drains (tube and gauze) were removed on the fifth day; everything progressed smoothly; the patient got up on the thirteenth day and was discharged on the fifteenth with completely healed wound.

As can be understood from the history and the specimens, this was not a case of metastasis in the glands, but of recurrence in the scar and around it. Such attempts to remove local recurrences after extirpation of the uterus for cancer are almost unknown in literature. I can mention only Winter, who reported a similar case in 1893.[2] My purpose in making this report is to call the attention of surgeons to the fact that if recurrence takes place after total extirpation of the genitals, it is possible to attack it radically with prospects of success.

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[1] *Transactions* of the German Society for Gynæcology, vol. v. [2] *Zeitschrift f. Geburts. und Gynäk.*, vol. xxvii, p. 149.

THE friends of Dr. Nicholas Senn, Professor of Surgery in Rush Medical College, have put forward his name as a candidate for the Republican nomination for Governor of Illinois in 1900.

AN EXPERIMENTAL INQUIRY INTO THE QUANTITY OF VOLATILE ACIDS IN THE STOMACH.

BY

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Of late years the chemistry of the stomach has come to play a very important part in the diagnosis of the different forms of disease that are loosely designated as dyspepsia. Most of the researches, however, have been more or less confined to estimating the quantity of hydrochloric acid, and very little has been done in the quantitative analysis of the organic acids that are formed under certain pathological conditions. It is known, however, that under pathological conditions, even when free hydrochloric acid is entirely absent, the acidity of the stomach may be very great, entirely owing to the formation of volatile acids.

It therefore appeared to be of some interest to make an investigation into the quantity of volatile acids present in the apparently normal stomach contents. Before this research could be carried out it was necessary to find out some method by which the volatile acids could be more or less easily estimated. In the past lactic acid has been that principal organic acid which has drawn the attention of investigators in this line of medicine.

To estimate the volatile acids, however, Hermann Strauss[1] introduced a method by which fresh, unfiltered gastric contents were poured into large sterilised fermentation tubes. These were placed in an incubator at 37° C. for twenty-four hours. The proportional amount present was estimated as follows:

One or more bubbles of gas: very slight fermentation.
Tube filled to one-fifth with gas; slight fermentation.
Tube filled between one-fifth and one-half; moderate fermentation.
Tube filled between one-half and three-quarters; much fermentation.

It is obvious that this method is not very accurate; at the same time, Strauss considered it accurate enough for ordinary clinical work. G. Hoppe-Seyler[2] believed this method to be misleading, for the gastric contents are under totally different conditions from the normal, and are removed from such modifying influences as the gastric secretion, saliva, and mucus. The other method which has been introduced for the estimation of volatile acids is Töpfer's which was the one advocated by G. Hoppe-Seyler. It consists in titrating the filtered gastric contents with a decinormal solution of sodium hydrate, various indicators being employed. Experimentally we have found this method does not yield very accurate results, for control analysis of the same substance yielded quantities which did not tally with great accuracy. Moreover, the method does not take into consideration the acid phosphates that are normally present in the stomach.

For some six years there has been employed in the Pathological Chemistry Department at University College a method which has yielded very satisfactory results when controls are done, and is sufficiently easy for clinical work. The following is a description of the method with some of the results obtained in apparently normal gastric contents:

Method for Estimating Total Volatile Acids in the Gastric Contents.

Gastric contents were in all cases obtained by means of the ordinary soft stomach tube one hour after the patient had taken Ewald's test breakfast. A certain quantity—preferably about 25 c.cm.—of unfiltered gastric contents are poured into a distillation flask; about 100 or more c.cm. of water are then added, and a current of superheated steam is driven through the flask, and a small flame is placed underneath it. The steam, raising the contents to boiling point, drives off the volatile acids, which distil over through a condenser into an Erlenmayer containing about 10 c.cm. of a decinormal solution of sodium hydrate. After about thirty minutes the Erlenmayer is removed, and after the addition of a few drops of neutral litmus solution the sodium hydrate solution is titrated with a decinormal solution of sulphuric acid. The quantity of decinormal sodium hydrate neutralised by the volatile acids is thus obtained. Multiplying the number by four, if 25 c.cm. of gastric contents were taken, will give us the per centage of volatile acids in the gastric contents. This method is somewhat similar to the method employed originally by von Mering and others, in which the gastric contents with water are distilled, and when boiled down to about one-third fresh water is added, and again boiled to a third, and this process repeated some four or five times, the volatile acids being collected in a titrated sodium hydrate solution.

By von Mering's method possibly the same accuracy can be obtained, but when it was employed by one of us it was not found to be extremely accurate. In our method is the danger, as in von Mering's, that on heating the gastric contents not only the volatile acids will be distilled over, but possibly some of the organic matter, as proteids or fat, may be broken up by the superheated steam, and lead to a too high quantity of volatile acids. At the same time even if this is the case, the quantities broken up when control analyses are done, are equal.

For the purpose of showing the accuracy of this method we here give results of four analyses taken at random (Table I),

TABLE I.—*Showing the Accuracy of the Method Employed for the Quantitative Estimation of the Volatile Acids, and the Total Percentage Volatile Acidity Expressed in C.cm. of $\frac{1}{10}$ N. Na OH.*

1	3.6	2.8 control.
2	3.2	2.8 ,,
3	7.0	7.5 ,,
4	7.0	7.0 ,,

two being with small quantities of volatile acids and two with large. To determine how the volatile acids vary under apparently normal conditions, thirty-six examinations were made on apparently normal individuals; that is to say, patients who were free from all stomach symptoms.

TABLE II.—*Showing the Amount of Volatile Acids in 36 Analyses in which the Stomach Contents appeared normal.*

Total percentage Volatile Acidity expressed as C.C. of 1 to 10 N NaOH.

1	2.00	10	4.0	19	5.00	28	6.40
2	2.20	11	4.0	20	5.00	29	6.40
3	2.40	12	4.2	21	5.00	30	7.50
4	2.40	13	4.4	22	5.25	31	7.50
5	2.89	14	4.7	23	5.25	32	7.50
6	3.00	15	4.8	24	5.50	33	9.13
7	3.00	16	5.0	25	5.75	34	10.30
8	3.20	17	5.0	26	6.00	35	11.00
9	3.25	18	5.0	27	6.30	36	11.00

In Table II the analyses are placed together, graduating them from the lowest amount to the highest, and it is seen that the percentage of volatile acids varies from 2 to 11 c.cm. of decinormal sodium hydrate. It would therefore seem to follow that in the normal stomach there is a certain amount of fermentation going on which leads to the evolution of volatile substance, since the diet and the period after taking food in all cases were the same.

The next question to decide was whether the quantities of volatile acids found in these thirty-six analyses were influenced by anything in the chemistry of the stomach.

The method employed for the estimation of the hydrochloric acid was that of Prout-Winter, by which it is possible to estimate not only the free hydrochloric acid, but also that combined with the proteids, and the hydrochloric acid present as salts. Other methods which have been introduced for this work, such as Töpfer's, have in our hands not proved nearly so accurate. To show the accuracy of this method the following results (Table III), obtained in

TABLE III.—*Showing the Accuracy of the Prout-Winter Method.*

No.	Total HCl.	Free HCl.	Proteid HCl.	Mineral HCl.
1	0.32	0.020	0.23	0.070
	0.31 (control)	0.010 (control)	0.23 (control)	0.070 (control)
2	0.32	0.020	0.25	0.030
	0.32 ,,	0.020 ,,	0.24 ,,	0.050 ,,
3	0.30	0.006	0.27	0.025
	0.28 ,,	0.006 ,,	0.25 ,,	0.025 ,,
4	0.32	0.004	0.27	0.050
	0.31 ,,	0.007 ,,	0.27 ,,	0.040 ,,

four analyses taken at random from our notebook, are given. By other methods we have used we have never obtained any results that so closely tallied.

In the next experiments, not only is the total (free) proteid and mineral hydrochloric acid separately given, but as both the hydrochloric acid loosely combined with the proteids and that in the free state are capable of acting in digestion, these two are given together in a separate column. As far as the the volatile acids are given, this acidity is expressed in c.cm. of one-tenth normal sodium hydrate solution.

In Table IV the examination of normal gastric contents in which the motility of the stomach was proved to be normal, shows (in group A) those cases in which the volatile acidity was less than 5 c.cm. We see that the volatile acidity really varied from 2 c.cm. to 4.8 c.cm., and the total hydrochloric acid, as well as the free and combined, varied very considerably.

In the next group, B, comprising eight experiments, the volatile acidity was more than 5 c.cm. Here were also great variations, from 5.5 c.cm. to 11 c.cm. of volatile acids being

TABLE IV.—*Normal Gastric Secretion and Motility.*

Group A.—Results of Nine Examinations in which the Volatile Acidity was below 5.

	Total HCl.	Free HCl.	Proteid HCl.	Mineral HCl.	Proteid + Free HCl.	Volatile Acidity in c.cm. $\frac{1}{10}$ N. NaOH.
1	0.350	0.026	0.270	0.050	0.296	2.0
2	0.320	0.020	0.245	0.050	0.265	2.2
3	0.320	0.020	0.240	0.060	0.260	2.4
4	0.340	0.006	0.260	0.070	0.266	2.4
5	0.315	0.020	0.265	0.020	0.285	3.0
6	0.315	0.015	0.230	0.070	0.245	3.2
7	0.360	0.022	0.260	0.080	0.282	4.0
8	0.325	0.037	0.245	0.040	0.282	4.7
9	0.305	0.000	0.270	0.045	0.276	4.8
Average	0.328	0.019	0.254	0.055	0.273	3.2

Group B.—Results of Eight Examinations in which the Volatile Acidity was above 5.

	Total HCl.	Free HCl.	Proteid HCl.	Mineral HCl.	Proteid + Free HCl.	Volatile Acidity in c.cm. $\frac{1}{10}$ N. NaOH.
1	0.320	0.007	0.280	0.0350	0.287	5.5
2	0.325	0.010	0.260	0.0400	0.270	5.5
3	0.275	0.030	0.218	0.0370	0.248	6.4
4	0.285	0.007	0.220	0.0550	0.227	7.5
5	0.335	0.015	0.265	0.0500	0.280	7.5
6	0.305	0.006	0.255	0.0400	0.261	7.5
7	0.290	0.006	0.260	0.0250	0.266	10.3
8	0.310	0.004	0.235	0.0650	0.249	11.0
Average	0.305	0.012	0.249	0.0430	0.261	7.6

present; but only on two occasions was there more than 7.5. The hydrochloric acid, however, also showed a tendency to fluctuate. If the average of the two groups be compared it will be seen that the volatile acids have an average of 3.2 in the first case, and 7.6 in the second. It would seem that when the quantity of hydrochloric acid is high, the quantity of the volatile acids tends to be low. This is well brought out on comparing the free hydrochloric acid or the free and proteid together so that one would be led to believe from these averages that deficiency of hydrochloric acid tends to cause an increased formation of volatile acids in the stomach, agreeing with Hoppe-Seyler and Bunge. We now turn to a group in which the chemical composition of the stomach contents was found practically normal, belonging to slightly neurotic persons who suffered from no gastric symptoms whatsoever, yet the gastric motility was distinctly diminished, so that the stomach, instead of emptying itself after Leube's test meal in from four to six hours, took from seven to eight or even nine hours. Here again the table is divided into two groups, one in which the volatile acid is below 5 and the other in which it is above 5.

TABLE V.—*Normal Gastric Secretion: Motility Diminished.*

Group A.—Results of Five Examinations in which the Volatile Acidity was below 5.

	Total HCl.	Free HCl.	Proteid HCl.	Mineral HCl.	Proteid + Free HCl.	Volatile Acidity in c.cm. $\frac{1}{10}$ N. NaOH.
1	0.319	0.016	0.167	0.136	0.183	2.8
2	0.285	0.011	0.176	0.099	0.187	3.0
3	0.280	0.007	0.160	0.110	0.167	4.0
4	0.329	0.033	0.186	0.109	0.219	4.2
5	0.348	0.041	0.182	0.124	0.223	4.4
Average	0.312	0.022	0.174	0.115	0.196	3.7

Group B.—Results of Five Examinations in which the Volatile Acidity was above 5.

	Total HCl.	Free HCl.	Proteid HCl.	Mineral HCl.	Proteid + Free HCl.	Volatile Acidity in c.cm. $\frac{1}{10}$ N. NaOH.
1	0.390	0.020	0.250	0.120	0.27	5.20
2	0.319	0.011	0.207	0.101	0.218	5.75
3	0.276	0.016	0.168	0.092	0.184	6.30
4	0.379	0.020	0.254	0.105	0.274	9.13
5	0.390	0.020	0.270	0.100	0.290	11.00
Average	0.351	0.017	0.229	0.104	0.247	7.47

In Table V (Group A) the results of five analyses are given, and it is seen that the volatile acidity varies from 2.8 to 4.4 c.cm. of 1 in 10 normal sodium hydrate—that is to say, an average of 3.7—very closely corresponding with what we found in the cases of normal motility. In Group B, showing the result of five analyses with an acidity above 5.0, we find that it varies from 5.2 to 11.0 c.cm., yielding an average of 7.47. On comparing these averages, we find that in this case the lowest volatile acidity corresponds with the smallest amount of total hydrochloric acid, and is apparently contradictory to the former results (Table IV).

In Table V, with an average volatile acidity of 3.7 c.cm., the total hydrochloric acid is only 0.312, while with an average volatile acidity of 7.47 it was no less than 0.351. At the same time, when one compares absolutely free hydrochloric acid one finds that the smallest volatile acidity occurs with the largest amount of free hydrochloric acid—0.022 as against 0.017. So that, although at first sight this table seems contradictory to the other, this is not quite the case. In both groups the volatile acids vary in proportion to the amount of free hydrochloric acid.

TABLE VI.—*Delayed Motility Due to Migraine.*

	Total HCl.	Free HCl.	Proteid HCl.	Mineral HCl.	Proteid + Free HCl.	Volatile Acidity in c.cm. $\frac{1}{10}$ N. NaOH.
1	0.330	0.010	0.270	0.050	0.280	16.0
2	0.310	0.014	0.235	0.065	0.249	11.0
3	0.335	0.015	0.265	0.050	0.280	8.0
4	0.345	0.042	0.225	0.080	0.267	6.0
Average	0.330	0.020	0.249	0.061	0.269	10.0

Before concluding we desire to give in the following table the results of four observations on a stomach which had been frequently examined previously, and found that its secretion and motility were normal. On these four occasions when

there was some nausea and migraine it was found that the motility of the stomach was very markedly delayed.

In this case (Table VI) we see that although the stomach contents, as far as hydrochloric acid was concerned, were practically normal, the volatile acidity on the contrary was very markedly increased; in fact, the average was not less than 10, and in one examination the volatile acidity was as high as 16. We thus see that in a normal stomach during an attack of migraine, when the motility, no doubt from purely nervous causes, is delayed without any corresponding diminution in either the quantity of the free or proteid hydrochloric acid, there is a distinct increase in volatile acids.

In conclusion we can now briefly consider what appears to have been brought out. In the first place there is a method of estimating the volatile acids that is sufficiently simple, and at the same time accurate, as to be of value in the quantitative analysis of the stomach contents for clinical purposes.

The possible fallacy of the breaking up of proteids, etc., by the superheated steam leading to an increased quantity of volatile acids over that which ought really to be found, can apparently be negatived, in that in the first place the diet in all cases was exactly the same, and the period of time allowed after the tea and toast had been taken being exactly the same, one would expect, all things being equal, the amount of proteids would not vary very much, and in the next place, which is well borne out in Table I, the method yields results in the four control analyses, given in the table, which correspond so closely that for all purposes of comparison they are similar.

It is seen that the apparently normal stomach contains a certain amount of volatile acids, but so long as the quantity of free hydrochloric acid secreted by the stomach is sufficient and the gastric motility is not interfered with, this quantity averages not over 3.2. If, however, the free hydrochloric acid is decreased from any cause, even in spite of the motility being normal, the volatile acidity averages 7.6.

When we turn to cases in which the gastric secretion is apparently normal, although the motility is diminished, we find here that with a small excretion of hydrochloric acid the average is 3.7 of volatile acids, that is slightly higher than the average with normal motility, while when the free hydrochloric is low the volatile acids average 7.47.

In a case of migraine, where the chemical composition of the stomach is little altered as far as hydrochloric acid is concerned; in consequence of delayed motility there was a tendency to an increase in volatile acidity. So that these experiment with a more accurate method of estimating the volatile acids than others that have been employed, confirm the results of G. Hoppe-Seyler, etc., that the quantity of free hydrochloric acid influences the quantity of volatile acid in the stomach. The practical value of this in the treatment of stomach cases is, therefore, too apparent to need any comment.

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CASE OF MALIGNANT ŒDEMA: AMPUTATION AT THE THIGH: RECOVERY.

By J. MALCOLM MASON, M.D., D.P.H.Camb.,
Otaki, New Zealand.

In a recent number of the British Medical Journal Drs. Tubby and Wright gave a most instructive account of a disease which they rightly say is nowadays very rare, namely, malignant œdema. They state that as they could not obtain any antitoxin for malignant œdema they decided to use the antistreptococcic serum, and they say "it is difficult to explain the *modus operandi* of the injections of the antistreptococcic serum except on the supposition that the presence of the streptococcus is essential to the rapid development of the bacilli of malignant œdema." I would suggest that the antistreptococcic serum had little or nothing to do with the happy ending of their case. For when one bears in mind the characteristics of the bacillus of malignant œdema, that it is an anaërobic organism, we can at once see that in free oxygen we have an antidote to its growth, the value of which is far greater than can be that of any antitoxin. The fact that the bacillus was not found in the discharge on the gauze is not to be wondered at, because, as they state, it does not usually appear in the blood till some fifteen or twenty hours after death; moreover, the wound, I take it, had been carefully washed with an antiseptic solution.

Case I.—A healthy boy, aged 11, fell off a truck at a brickyard; the wheel of the waggon passed over his right leg in such a way that all the soft parts were peeled off the tibia from the ankle to the knee, and the freshly-cut tissues seem to have been rubbed along the surface of the ground. The boy was carried some three miles from the scene of the accident to my house. He was almost unconscious from loss of blood and shock when I saw him. The wound was carefully washed with 1 in 2,000 perchloride solution and the parts brought together by wire sutures. Constant irrigation was applied; but within twenty hours the foot showed signs of gangrene, which spread up the leg most rapidly. Dr. Anson saw the case with me about eight hours later, and by that time the skin was quite brown and emphysematous, and crackling could be felt as high up as the eighth rib on the right side. The boy was quite collapsed and unconscious. The limb was much distended with gas, and as the stitches were cut through the characteristic smell of malignant œdema was very apparent. An hour was allowed to elapse in order to see if any amelioration of the symptoms would take place; then amputation was decided upon, not with much hope of saving his life, but rather that he should not die without something being done. There being a small patch of uncoloured skin on the inner aspect of the thigh, I at first thought of doing an amputation at the hip; but, as there would not have been sufficient sound tissue to cover the wound, we decided to simply cut away the dead part, and I amputated about 2 inches above the knee. As indicating the condition of the parts, I may say that there was not the slightest bleeding, and I did not require to tie any vessels. The boy passed a bad night, and on two occasions seemed about to die, but the free exhibition of brandy by the bowel pulled him through. Within ten hours the emphysema disappeared from the chest and abdomen, and three days later, with the help of Dr. Anson, I did an amputation 2 inches higher up, in order to get a good flap. There was rather free bleeding at the second operation, but the boy made an uninterrupted recovery, with this exception, that the ligature on the femoral cut its way through, and I had to tie it higher up. He is quite well now, and has a very good stump.

In the fact that the bacillus is an anaërobic organism lies one of the great difficulties of cultivating it unless we have an apparatus by which pure hydrogen can be poured over the colony. I managed to raise a weak colony by sinking pieces of tissue deep in the nutrient media to which I added some glucose to act as an absorber of the oxygen. A small portion of this was injected into two guinea-pigs with the result that death took place in about 48 hours, with all the symptoms of malignant œdema. A solution was made of the soil from the place of the accident, and a portion of this was injected over the inside of the thigh of another guinea-pig. This again caused death in 44 hours, with the usual *post-mortem* signs of malignant œdema. The fact that we had to deal with an organism which can only thrive in the absence of oxygen accounts fully for the great and immediate benefit which resulted from the removal of the dead part of the limb and the consequent exposure of the stump to pure air. Reasoning back, I should advise the free use of hydrogen peroxide in the treatment of such a case, because the liberation of free oxygen would be offering the bacillus of malignant œdema the very set of conditions under which it cannot exist.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THE DANGERS OF CHLOROFORM NARCOSIS.

It is a decided mistake to think that death or threatened death from chloroform must always be from the same cause, as a matter of fact this is not so. When lecturing upon this subject in Queen's College it is my custom to include under the "dangers" of anæsthetics six heads:

1. Sudden death at the beginning of inhalation ascribed to "irritation of the peripheral nervous system, accumulation of CO_2 in the blood, and stoppage of the heart." Bartholow says that in his opinion it is due to the fact that the first chloroform inhaled which reaches the cardiac ganglia paralyses them, they being in an abnormal state of susceptibility from certain undefined causes.

2. Epileptiform syncope, described by Richardson. Death in this case is due to tetanic rigidity of the respiratory muscles, prior to muscular relaxation, consequently interfering with the pulmonary circulation, with venous engorgement and stoppage of the heart. In this case respiration ceases before the heart beat.

3. Paralysis of the respiratory muscles, which occurs during complete relaxation of the muscles, and is due to want of action of the respiratory centre. Again respiration ceases first.

4. Paralysis of the heart from too concentrated a chloroform vapour. The motor ganglia are paralysed and the heart ceases suddenly to act, the indications being sudden stoppage of the heart, paleness of the face, and dilatation of the pupil whilst respiration continues.

5. Death from depression of the functions by chloroform and the shock of the operation or accident requiring operation. This may occur during full anæsthesia, but may be the result of imperfect anæsthesia. Dr. Lauder Brunton reminds us that:

In very many cases of so-called death from chloroform during operations we find it noted as a matter of surprise that death should have occurred as the quantity of chloroform given was so small. The reason that death occurred probably was because the quantity of chloroform given was so small. Had the patient been completely anæsthetised the risk would have been very much less. The reason why imperfect anæsthesia is so dangerous is that chloroform does not paralyse all the reflexes at the same time. A very large proportion of the deaths from chloroform occur during the extraction of teeth, and we may take this operation as a typical one in regard to the mode of action, both of the sensory irritation and of the chloroform. When a tooth is extracted in a waking person the irritation of the sensory nerve produced by the operation has two effects: (1) It may, acting reflexly through the vagus, cause stoppage of the heart and a consequent tendency to syncope. (2) It causes reflex contraction of the arterioles, which tends to raise the blood pressure and counteract any tendency to syncope which the action of the vagus may have produced. In complete anæsthesia all these reflexes are paralysed, and thus irritation of the sensory nerves by the extraction of the teeth has no effect either upon the vagus or upon the arterioles. In imperfect anæsthesia, however, the reflex centre of the arterioles may be paralysed while the vagus centre is still unaffected. The irritation caused by the extraction of the tooth may then cause stoppage of the heart, and there being nothing to counteract the tendency to faint, syncope occurs, and may prove fatal.

6. Death from suffocation due to vomited matter, or blood getting into the trachea.

VICTOR G. L. FIELDEN, M.B.,
Anæsthetist to the Ulster Hospital for Children and Women, Belfast.

LUMBAR COLOTOMY FOLLOWED BY THE PROTRUSION OF A POLYPUS.

M. W., aged 64, widow, applied to me on March 21st with advanced rectal cancer (cylindroma), which had evidently existed several years. The upper part of the rectum was deeply fixed, and all but occluded by a hard brawny mass.

On March 24th lumbar colotomy was performed. Four days afterwards the bowel spontaneously opened close to one of the silk sutures, and the aperture was soon enlarged by the fæces. Two days later a pedunculated growth larger than a cherry, with a stalk which must have been at least an inch long, was found resting on the skin. It was removed and the peduncle ligatured. Microscopically it shows the abnormal proliferation of Lieberkühn's follicles, characteristic of rectal malignancy. The patient is doing well, has fair control over the evacuations, and has ceased to pass any *per anum*.

Though clinically of no importance the above incident is unusual. There had been no symptoms of the condition apart from the ordinary ones of cancerous deposit. The polypus must have been attached to the colon, near the junction of the transverse and descending portions, where the opening in lumbar colotomy usually takes place. This constitutes the conspicuous advantage of that operation over the inguinal method, apart from the greater safety of the former. By dragging down the bowel as low as possible before suturing, an efficient spur is obtained and the rectum shut off. By separating the muscle fibres around instead of cutting, good muscular control of the new anus is ensured.

Gloucester Place, W. HERBERT SNOW.

SUBCUTANEOUS RUPTURE OF HYDROCELE.

MAY I be allowed to add the following to the recorded cases of the above comparatively rare accident?

A slater and plasterer, aged 48, had both a hydrocele and a scrotal hernia on the right side. The hydrocele was of at least six years' duration, and had been tapped several times. A truss had been worn for the hernia for about three years. The last tapping of the hydrocele was three years ago, and it had become very full.

On April 3rd the patient was plastering the wall of a room, and, in reaching to a point below the scaffold, his truss pressed upon the top of his hydrocele. He felt something burst, but without great pain. On examining himself he found that the swelling in his scrotum had disappeared, and that his penis was œdematous. He finished plastering the wall, and then came to me. I prescribed a purgative, rest in bed, and lead lotion. The swelling of the penis had almost disappeared next day. He stayed in bed three days, but, contrary to my advice, returned to work in a week.

There is some fluid in the hydrocele now, but it has not reaccumulated as it did after tapping.

DUNCAN J. MACKENZIE, M.D.,
Glossop. Hon. Surgeon Wood's Hospital.

TREATMENT OF SCARLET FEVER WITH SODIUM SALICYLATE.

FOR the past few years I have been in the habit of treating scarlet fever patients by means of sodium salicylate added to their mixtures, with such promising results as to almost make this into a routine method. So far I have met with no untoward effects. Especially have I thought it beneficial in instances where other members of the patient's family have developed rheumatism after scarlet fever, or where there has been marked swelling of the tonsils, or vague forms of late rise of temperature. When procurable I always prescribe the salt that is physiologically pure.

Wolverhampton. T. DOBSON POOLE, M.D.

A COLOUR-BLIND MYOPIC RAILWAY SERVANT.

A YOUNG man presented himself some time ago and gave the following history: He said he had always been a little near-sighted, but about five years ago he was accepted as a railway porter. Soon after, his vision having been tested, he was passed as a signalman. On examination now V. $R._{\frac{6}{6}}-2Sp.=\frac{6}{9}$. $L._{\frac{6}{6}}-1Sp.=\frac{6}{9}$. Tested with Holmgren's wools, he was found to confuse reds, greens, greys, and browns. There was no evidence of retrobulbar neuritis, and he was a very moderate smoker. He is conscious of his defect, and dreads dismissal. When he was "examined" by the superintendent a few weeks previously he was told that there was something wrong with his eyes, and that he had better have them seen to, as possibly in five years' time, when his next "examination" was due, he might not pass.

Comment on this case is unnecessary, for signalmen whose vision is one-sixth of the normal are not uncommon, and colour blindness complained of by a man in the out-patient room is presumptive evidence that he is a railway servant.

Bath. W. M. BEAUMONT.

POISONING BY THE APPLICATION OF BELLADONNA PLASTER.

I THINK it well to mention that I have also attended a case of belladonna poisoning a few weeks ago. A clergyman procured an ordinary perforated belladonna plaster from a chemist and applied it to his back, after first rubbing the skin freely with a towel. In a few hours he could not read and was delirious all night. I was sent for early in the morning and found him with well-marked symptoms of atropine poisoning, and picking up "snakes" and other animals from his bed. Finding he had a plaster on, I removed it, but it was many days before he was able to read or do any mental work.

Christ's Hospital, E.C. H. ALDERSMITH.

TREATMENT OF NOCTURNAL INCONTINENCE OF URINE.

I FIND antipyrin the most satisfactory drug for general use in functional nocturnal incontinence of urine in children. It soon gives obvious good effects, often in striking contrast to the doubtful results from such drugs as belladonna, pichi, and rhus aromatica. My use is to give one nightly dose say of 8 or 10 gr. for a boy 7 years old, and gradually increase. I have continued to do this for a period of four months without production of an exanthem or other bad symptom. As the habit appears to be broken or modified a course of arsenic may be added, pushing it if well borne. In one lad, aged 7, who had suffered since infancy, and whose incontinence occurred several times each night, the amendment was so marked that after a month's treatment (10-gr. nightly doses) he entirely escaped for a period of five weeks. Of course, any reflex cause must be treated, phimosis, oxyurides, etc. Scolding

children, or even appearing to unkindly blame them for this trouble, has a most evil effect on their buoyancy of temperament and character.

Leslie Phillips, M.D.,
Surgeon, Birmingham Skin and Urinary Hospital.

STRANGULATION BY A SOLITARY BAND: OPERATION: RECOVERY.

W. J., aged 20, a heavily-built farm labourer, came on August 10th complaining of pain in the belly and a feeling of nausea. He had felt uncomfortable for two days, his bowels being last open on August 8th. On August 11th he was sick and restless, and in a good deal of pain referred to the umbilicus. His temperature was normal, respirations 20, somewhat shallow, and pulse 90. He had passed flatus during the night but no fæces. A large plain water enema was given; the major part was retained the returned portion being tinged yellow. He was given nepenthe ℥v every four hours. At 7 A.M. on August 12th, the pain was more severe, the vomiting incessant but not fæcal, and no flatus had passed; the pulse 114, of fair strength and not wiry. The peristaltic movements of distended coils of intestine were seen under the abdominal wall. The belly was round and prominent; there was no dulness, but a spot of slight tenderness just below the umbilicus.

At 2 P.M. the pulse was 116, the temperature 99°, and the respirations 20. He was sweating and weaker but not at all collapsed. After consultation with my partner, Dr. Wilson, the abdomen was opened in the middle line, and distended coils of small intestine bulged out. A band was felt on the anterior abdominal wall just to the right of the incision, in front of which was a loop of small intestine (ileum). This band was followed up, and felt to terminate about 1½ in. above the umbilicus, where it merged into the round ligament of the liver. It was tied at the junction with the round ligament and cut through; it was also attached to the belly wall, about 1 inch below and 2 inches to the right of umbilicus for about ½ inch by adhesions easily broken down. Beyond this adhesion the band became much smaller and rounded into a cord, which went down behind the junction of ileum and cæcum; no trace of appendix was seen. About an inch above its termination it was twisted in a loop, through which a double coil of small intestine had slipped and become tightly constricted. The band was cut through at its inferior attachment, and the gut which was not adherent freed. The total length of the band was 15 ins. The abdomen was closed in the usual way. The vomiting ceased immediately and did not return, and flatus was passed the same afternoon.

The bowels opened naturally on the third day and the stitches were removed on the 6th. The recovery was uninterrupted, and there have been no attacks of pain or constipation since.

The previous history was very indefinite, but for two years the patient has been subject to attacks of bellyache and constipation, accompanied by nausea and vomiting. The attacks varied in severity, lasting from one day to seven days. They had always given way to purgatives, and he attributed that to indigestion as they came on more frequently if he ate very much or drank cold things. He did not remember any blow or injury to the abdomen.

Haverfordwest. Y. H. Mills, M.B.Lond., F.R.C.S.Eng.

University of Vienna.—The total number of students registered in the University of Vienna during the winter semester recently ended was 6,697. Of these 1,382 were ordinary, and 260 extraordinary students of medicine. There were, besides, 654 entered for special courses, of whom 102 were Americans.

The report for 1898 of the Yarrow Convalescent Home, at Broadstairs, established for the children of middle-class people who are in reduced circumstances, has just been issued. The Home has accommodation for 50 girls and 50 boys, who are admitted between the ages of 4 and 16, and 4 and 14 respectively. The steady progress of the institution is indicated by the increased number of children admitted each year since its opening in August, 1895. For the seventeen months ending December, 1896, the number admitted was 661, for the twelve months ending December, 1897, the number was 601, and for the twelve months ending December, 1898, the number was 947.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE ESSEX HOSPITAL: COLCHESTER.

A CASE OF STONE IN THE BLADDER WHICH HAD FORMED AROUND AN ORDINARY PIN AS ITS NUCLEUS.

(Under the care of Dr. B. H. Nicholson.)

[For the report of the case we are indebted to Percy D. Barker, M.R.C.S., L.R.C.P., House-Surgeon.]

S. H., a strong, healthy lad, aged 17 years, was admitted into this hospital on February 6th, complaining of pain in the lower part of the abdomen, greatly aggravated by riding in a cart or jumping about. He suffered also from pain at the end of the penis, and frequency of micturition with sudden cessation of the stream. These symptoms had persisted on and off for a period extending over three years. On admission a sound was passed, and two stones were quite easily detected. The urine was alkaline, of normal specific gravity, and contained a deposit of phosphates but no blood.

The bladder was washed out daily with a warm boracic solution, and on February 10th Dr. Nicholson performed suprapubic cystotomy, and removed the two stones, which are shown in the photographs to be three-quarters of their natural size. The urine being still alkaline, it was deemed advisable to insert a drainage tube into the bladder. This was left in for a week and the wound allowed to granulate. The patient made an uninterrupted recovery.

Upon making an examination of the two calculi, which were composed of phosphates, it was found that in the centre of the larger and mushroom-shaped stone was an ordinary pin, the point being enveloped by the larger end, the stem of the



Fig. 1.



Fig. 2.

pin forming the stalk, whilst the head was enclosed in the smaller end of the stone. The patient denies all knowledge as to how the pin found its way into the bladder, but says that five years ago he was operated upon for an abscess in the abdomen, the scar of which is plainly visible slightly above and to the right of the umbilicus.

This case appears to be especially interesting from (1) the possibility of the pin having in the first instance been swallowed, afterwards perforating the intestine, and setting up the abdominal abscess for which the patient was operated upon five years ago; (2) the extreme rarity of an ordinary pin forming the nucleus of a vesical calculus.

American Medical Association.—The American Medical Association will hold its annual meeting this year at Columbus, from June 6th to 9th. Among the subjects proposed for general discussion are Specialism in Medicine; Advertising and the Medical Profession; and the Medical Service of the Army and Navy.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. Bryant, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, May 23rd, 1899.

The Spinal Animal.

Professor C. S. Sherrington delivered the Marshall Hall Lecture on this subject. He said that Marshall Hall considered the spinal cord to be a series of functional or physiological segments, as distinct from its anatomical segments. The lecturer referred to what he termed the fractionated capacity of the spinal cord, particularly for the maintenance of reflex action in its segments. For instance, in the case of lemulus, the whole of the nervous system corresponding with brain might be removed without interfering with the automatic movements, particularly those of respiration, represented in the spinal cord; co-ordination alone being abrogated. He referred to similar reflexes persisting in the vertebrate cord after its separation from the brain, for example, the wagging movements of the tail in the monkey.

A typical spinal segment he defined as consisting of two groups of root cells, the anterior and posterior, the dorsal group containing cutaneous, muscular, and visceral afferent cells, the anterior containing skeletal, vascular, and visceral cells. The peripheral distribution of the cutaneous afferents was zonal in shape, with an overlapping of adjacent areas. The apparent irregularity in this distribution of the sensory fields in the limbs was only apparent, the zonal arrangement being really maintained. He illustrated the limb fields by the striping of the tiger and the zebra.

He had been unable to find any spot in the skin of the monkey that was not supplied by two overlapping roots, but the degree of overlapping varied in different parts of the body; for example, part of the pinna of the ear was supplied by three roots, and so was a portion of the hand.

The visceral and vascular root cell afferents came from the sympathetic, and the cells themselves were undoubtedly in the spinal ganglion; for example, the tenth root contained contributions from the kidney and the liver. In one ramus communicans 160 nerve fibres had been counted. The situation of the referred pains investigated by Dr. Head threw light on the actual source of the sensory fibres for any segment. He alluded to Haller's division of the parts of the body into those which feel and those which do not feel—for example, the liver being an absolutely insensitive organ. In the present day of anæsthetics painful impressions were not in evidence, but reflex changes connected with the blood vessels, particularly changes in blood pressure were observed instead. In respect to the liver no fewer than ten roots had fibres passing from it.

The muscular afferents, comprising afferents proceeding from the joints and tendons, were then discussed; the ending of some of the afferent nerve fibres being the muscle spindles, the pathology of which had been investigated by Dr. Batten. The motor nerve cells of the spinal segment innervated a zone of muscles passing half way round the body. But in the limb plexuses the arrangement was more complex, yet by means of the Wallerian degeneration the same zonal arrangement could be tracked down. Each individual muscle was innervated by more than one nerve root, and particularly the muscles at the periphery of the limbs. The different afferent nerve fibres from a muscle always corresponded with the segmental cells of the motor neuron to the muscles. He illustrated this canon by the nerve mechanism of the knee-jerk, both motor and sensory central mechanisms being in the same segment or segments. The intraspinal position of these elements was clear as regards the dorsal or afferent cells, being the intervertebral ganglion, but the grouping of the ventral or efferent cells was not so obvious. The motor filaments drained the particular level of the cord at which they took their exit, showing that their intraspinal course was horizontal. There was the passage of fibres of one filament to several muscles, that is, each muscle had motor cells scattered through a long extent of the spinal cord.

If the central end of a divided posterior root were stimulated—for example, in the dorsal region—the first contraction with a minimal stimulus appeared in its own zonal segment. The first to reply were the upper portions of some of the abdominal muscles. The muscles of the opposite side were not affected until very late, but on increasing the stimulus there was a spread to the musculature of the adjacent segments rather earlier towards the tail than the head side, as shown by Dr. Page May, there being but a slight barrier of resistance between each pair of segments. In regard to the muscles of the limbs, on stimulating any one of three afferent filaments a reflex contraction could be made to appear in one corresponding muscle. That there was a certain amount of overlap in the visceral afferents he illustrated by the nerve supply of the iris, but the subject as a whole was at present too speculative to allow of discussion. Many of the spinal reflexes were said to be purposive, but the purpose of any reflex referred alone to the segment of the body with which it was connected and not to the individual.

The spinal cord might be looked upon as the representative of the organic functions of the body and apart from the influence of the special senses. The cutaneous sense represented in the spinal cord had several principal foci—for example, stimulation of the tip of the ear, the tip of the tail, the perineum, the palm and sole evoked a disproportionate amount of movement as compared with the other parts of the skin. He threw out the suggestion that there was a rudimentary muscular sense located in the spinal cord. No spinal reflex movement was ever an inco-ordinate movement. If amphioxus were divided into three parts, each portion swam the right side up, and if inverted corrected its position; the amputated ray of a starfish, if placed on its back, rectified its position—facts suggestive of a kind of topical consciousness.

In conclusion, he referred to the condition of spinal shock. A paralysis from this cause in the monkey might be produced in profound degree, but this did not obtain in the invertebrate animals. It did not, however, seem to be more intense in the monkey than in the frog, if gauged by the vesical and anal functions, but there was an enormous difference in the implication of the skeletal muscles, suggesting that evolution had modified these muscles rather than those of the organic functions.

HARVEIAN SOCIETY OF LONDON.

H. E. Juler, F.R.C.S., President, in the Chair.

Thursday, May 18th, 1899.

Considerations as to the Etiology and Significance of Dilated Heart.

Dr. H. A. Caley read a paper on this subject. Before discussing the etiology of pathological dilatation of the heart he alluded to dilatation under physiological conditions of the circulation. Reference was made to the work of Roy and Adami, Starling, and others, with a view to showing that, whilst within certain narrow limits the dilatation induced by some exertion might be a mechanical advantage in relation to the ventricular output, these limits were soon passed and the dilatation was then an evidence of heart fatigue. This might be induced prematurely by the strain to which the heart muscle was subjected being excessive, or by the heart muscle itself being out of condition, but was especially easily produced if both factors were combined, and under such circumstances a condition which was in the first instance physiological might very readily pass into dilatation which was definitely pathological. The important principle in relation to dilatation under physiological conditions of the circulation was that the liability to its occurrence depended upon the inter-relation between (1) the element of increased mechanical strain tending to increase of intraventricular pressure; (2) the condition of the myocardium at the time being. In respect to dilatation under pathological conditions, the element of mechanical strain as a factor in its causation was first considered. The principal causes of increased intraventricular pressure were referred to, and it was pointed out that in addition to the primary effects of the increased strain owing to alterations in the physical condition of the heart, certain additional factors had to be considered, more especially the consequences of increase of residual blood in the ventricles, and the effect of tension on a muscular sphere or spheroid like the ventricle. Variations in the coronary circulation and the relation between the blood pressure in the systemic circuit and that in the coronary area must also be borne in mind. Dilatation, in the causation of

which myocardial weakness was the primary and predominant factor, was then considered, reference being made to the dilatation of acute specific diseases, with or without actual myocarditis, to fatty and other forms of degenerative senile myocardial weakness, the dilatation of nervous and general debility, of severe forms of anæmia, and that due to toxic causes, such as alcohol and tobacco, and probably also to toxic substances present in auto-intoxication of gastro-intestinal origin. The differences in the degree of dilatation from these various centres were discussed, and stress was laid on the fact that in relation to prognosis the degree of dilatation must always be considered in conjunction with the condition of the heart muscle with which the dilatation was associated. Whilst chronic dilatation might be due to increased strain alone, or to primary myocardial weakness alone, in the most severe forms of dilatation both factors were frequently combined and the principle enunciated in connection with physiological dilatation was similarly illustrated in pathological dilatation—namely, that the essential point was the inter-relation at the time being between the element of mechanical strain and the condition of the myocardium. Even in cases in which the element of increased mechanical strain was the chief factor in the causation of the dilatation, its late developments were often traceable to the supervention of myocardial changes. The latter part of the paper was devoted to the significance of the dilatation. Just as physiological dilatation (beyond certain narrow limits) was an evidence of heart fatigue, pathological dilatation was an evidence of heart overstrain, past or present, and frequently the precursor of heart failure. In disease, as under physiological conditions, it was broadly true that the heart's power of doing work was in inverse ratio to the degree of dilatation, but the greater the degree of deviation from the comparatively simple conditions of a healthy heart dilated by excessive strain, the less could reliance be placed on the degree of dilatation as, *per se*, a gauge of the severity of the lesion. In order to estimate with any approach to accuracy the significance of any given case of dilatation, attention must be given to the degree of dilatation, the condition of the myocardium with which the dilatation was associated, its precise etiology (with especial reference to the relation of the cardiac dilatation to the general health, and the relative importance of the mechanical and myocardial factors in its production), the extent to which the dilatation interfered with the work of the heart in relation to the general circulation, and the degree of recuperative power, as evidenced by the course of the case and the effects of treatment. A broad view on lines such as these was essential if the extremes were to be avoided of making too much or too little of any given case of cardiac dilatation.

Dr. Alexander Morison protested against the tendency of many physiologists of the present day to regard the muscular element as the predominant factor in sustained rhythmical action, and considered that both clinical experience and pathological investigation, rudimentary as the latter still was, pointed to the important *rôle* played by the nervous system in such cases.

Dr. John Broadbent considered that the myocarditis which so frequently accompanied endocarditis, and not the actual lesion to the valves, was responsible for the initial dilatation, from which the heart might entirely or only partially recover. Subsequently, as the valves in the process of repair became puckered and deformed by cicatricial contraction of the granulation tissue on their surface, the effects of the valvular lesion became pronounced, and led to fresh dilatation of the heart, followed by hypertrophy, which constituted a measure for estimating the extent of the valvular lesion. It was important, therefore, not only to enjoin absolute rest after an attack whilst the heart was recovering from the initial dilatation due to accompanying myocarditis, but subsequently to insist on great care and moderation in exercise, at a later period when compensatory changes called forth by the valvular lesion were taking place. Otherwise undue and permanent dilatation with excessive hypertrophy might ensue.

Dr. G. A. Sutherland asked whether dilatation was ever present without hypertrophy. Dilatation must be either an active or a passive process as regards the cardiac muscle. A passive dilatation in cardiac failure implied that the blood could be pumped through the arterial and venous systems by the left ventricle in a weakened condition, and yet remain under sufficient pressure to dilate the ventricle. It was difficult to accept such an explanation on physical grounds, as venous engorgement and cardiac syncope would appear to be a more likely result. Active dilatation on the the other hand might be the calling into play of some reserve power in the heart which by greater expansion and more rapid action was enabled to carry on the circulation. As compensation was often fully established under these conditions he thought that dilatation might be looked on as a conservative process, and one not necessarily to be interfered with medicinally or otherwise, although it was recognised that over-action of the heart was present, and that a breakdown must occur in the course of time.

Dr. Poynton agreed with Dr. Sutherland as to the difficulty in many cases of explaining dilatation of the heart upon mechanical considerations. In rheumatism dilatation might be very marked, and the clinical symptoms comparatively slight, whereas in other conditions the clinical symptoms might be very severe and the dilatation slight. Microscopic examination of the heart walls sometimes showed extensive myocardial disease with little dilatation and sometimes the reverse. In rheumatism he thought it probable—a view also held by Dr. Lees—that the marked dilatation was dependent upon a special and peculiar action of the rheumatic toxin upon the cardiac muscles. The difficulty and complexity of the question of cardiac dilatation was illustrated by the case of a young man about 24 years of age, who having been "out of sorts" for some days went for the first row of the season "in a four-oar to shake it off." On landing after this exertion he vomited, and later in the day was seen by a doctor who found that his heart was extremely rapid, his pulse-rate being about 200 to the minute. He was admitted under Dr. Cheadle to St. Mary's Hospital in this condition and died two or three days afterwards, the heart acting to the end at this extraordinary rate. The necropsy showed mitral valvulitis and old pericarditis. The dilatation was quite moderate. In this case there were two factors: a damaged heart and a mechanical strain, both, one would have thought, tending to extreme dilatation, rather than a condition of tachycardia with little dilatation. It was important to get a definite idea of the meaning of fibrous changes in the heart wall, for sometimes they were brought forward to account for dilatation and sometimes they were given as an explanation of its absence. Those fibrous changes which arose in connection with the vessels were, he thought, essentially reparative, and an evidence of Nature's reaction, however imperfect, to morbid processes. The valve deformities of rheumatism were thus an evidence of reaction to the toxic process rather than evidence of the active effects of the toxæmia.

Dr. Bezly Thorne also spoke.

Dr. H. A. Caley, in reply, remarked that practically we could only estimate alterations in the cardiac nervous mechanism by noting any alterations in the frequency and rhythm of the heart beat, and by estimating, as far as possible, the amount of contractile vigour which the heart muscle possessed. In reply to the question as to whether slight degrees of dilatation might not be beneficial, it was pointed out that just as a slight degree of dilatation under physiological conditions might be a mechanical advantage, so a corresponding degree of dilatation under pathological conditions might likewise be advantageous, provided that it was accompanied by sufficient vigour of the heart muscle, with or without actual hypertrophy. This had been referred to in the paper as strictly compensatory dilatation.

Diseases of Myocardium.

Dr. Poynton exhibited microscopic specimens illustrating various diseased conditions of the myocardium. The sections were taken through the left ventricle and papillary muscles, and in one case the aorta. They showed the general fatty changes that might occur in severe rheumatic morbus cordis, the extreme myocardial disease that might occur in some cases of alcoholism, and the severe and active changes that might be found in the heart wall in acute aortitis without demonstrable affection of the coronary vessels. The explanation of the con-

tion in these cases of aortitis was in all probability that a process analogous to that in the aorta had taken place in the heart wall itself.

EPIDEMIOLOGICAL SOCIETY.

H. FRANKLIN PARSONS, M.D., F.R.S., President, in the Chair.

Friday, May 19th, 1899.

TYPHOID FEVER IN THE NETHERLANDS.

DR. R. H. SALTET, Professor of Hygiene in the University of Amsterdam, read a paper on Enteric Fever in the Netherlands, illustrated by maps and statistical tables, graphic and numerical. The country, he said, was divided into seven provinces, and subordinated to the provincial councils were those of the 1,123 municipalities which, with populations ranging from 200 to half a million, were alike constituted of elected members, presided over by a burgomaster nominated by the Crown. These were the sanitary authorities, but the only official medical advisers were seven appointed by the government, and one by the municipality of Amsterdam, on whom devolved not only the supervision of the public health, but the work of registration of births and deaths, the inspection of asylums, and the control of the medical profession. The census was decennial, but since, besides the prompt registration of births and deaths, every change of domicile was notified to the local authorities, the population of every district was always known with considerable accuracy. The causes of deaths, classified under 34 headings, which had been unchanged since 1875, were certified by the medical man in attendance, or in the absence of such by one appointed by the local authority, to hold an inquiry, and in cases of a suspicious character, after a judicial investigation. Notification of infectious diseases had been obligatory since 1872, but was not complete, for many practitioners did not believe in the communicability of typhoid fever, and some connived at the concealment of cases occurring in houses of business. Typhus, typhoid, and so-called continued fever were not strictly distinguished, some old-school practitioners applying these names to severe, mild, and doubtful cases respectively. Allowing for those of typhoid which were not notified, the total deaths returned under the three descriptions represented approximately the true mortality from enteric fever. Dividing the period 1875-95 into four quinquennia and taking the death-rate per 100,000 population in each, he proceeded to inquire first whether the causes of the decline in the mortality from typhoid fever were no other than the better social and sanitary conditions that had tended to lower the general death-rate of the country. This did not appear to be a sufficient explanation, for while the general death-rate had declined by 14 per cent., and that from tuberculous diseases by 16, the reduction in the typhoid death-rate had been no less than 63 per cent. Next, as to the aggregation of population in towns: while the urban death-rate was always somewhat higher than that of the rural districts, it had fallen by 20 per cent. as against 12 in the country, and that from typhoid by 72 and 60 per cent. respectively. It was worth consideration that, though crowding favoured the spread of infection, the residents in towns enjoyed many material advantages and better medical attendance. Thirdly, could any relation be traced between the water supplies and the prevalence of fever? The water question in Holland was a perplexing one. The most flourishing part of the kingdom lying below the sea level, with the subsoil permeated by salt water, the population had recourse to rain water stored in tanks, but in dry seasons fell back on the polluted water of the canals and dykes: while elsewhere the towns found an unlimited but questionable supply in the rivers, and only on the higher lands could good drinking water be had from wells. Gradually, however, towns and rural communes with an aggregate population equal to 28.5 per cent. of the whole, had been furnished with good public supplies drawn from wells, and Rotterdam, with other towns comprising 12.5 per cent. of the population, with filtered river water. Amsterdam, Haarlem, and the Hague obtained their supplies from wells in the range of sand dunes skirting the sea coast. But no appreciable difference was noticed between the two classes, for the general death-rate had fallen 19 per cent. in those supplied with ground water, and 23 per cent. in those with filtered river water, the fall in the typhoid death-rates having been 63 and 54 per cent. respectively, but in the latter it had been considerably lower from the first. Since river water seemed more exposed to pollution than that from wells, it was possible that the lower mortality among the population using it might be partly owing to the greater cleanliness attainable with the more abundant supply of water. Fourthly, there was the influence of the soil, to which attention was first drawn by Pettenkofer, though its nature was still obscure; in the Netherlands the higher and drier provinces were, with the exception of Groningen, poor and thinly peopled, the rich pasture land and flourishing centres of trade being for the most part below or little above the level of the sea. While, however, enjoying many favourable social conditions, these districts suffered from the disadvantages of an absence of running streams, the rivers so-called being shut up within locks, and of the instability of the peaty soil which precluded the erection of substantial buildings even with the aid of piles driven into the clay beneath, while the disposal of sewage and factory waste was beset with difficulties. The general death-rate in the low-lying rural communes, which was formerly higher than in the more elevated, had shown a greater improvement, but that from typhoid fever had declined almost equally in both. On the whole a fall of 72 per cent. in the typhoid mortality among the urban, and of 60 per cent. in the rural population seemed to suggest that while sanitary improvements had operated equally throughout, the progress of medical science, the benefits of which were enjoyed to a greater extent by the inhabitants of the towns, was a factor the influence of which was far more powerful than was commonly supposed.

MR. SHIRLEY MURPHY said that the great reduction in the mortality from typhoid fever of late years had in England and Germany been naturally ascribed to the introduction of better water supplies and sewage disposal, but after listening to Dr. Saltet's able examination of the possible factors, he could not but think that a partial explanation might be found in a diminished infectivity, in accordance with Dr. Whitelegge's doctrine of cyclical variations in virulence, the results of which would obviously be most evident in large towns, where the density of the population offered greater opportunities for infection. He had long held that medical men were apt to underestimate the infectiousness of typhoid fever, though they did not in this country deny it, nor did their belief interfere with its notification.

Professor NOTTER remarked that the stationary character of the population of the Netherlands would favour their acquisition of a degree of immunity; in India the extreme susceptibility of Europeans recently arrived was notorious, as was the rapid increase of resistance with each year of service or residence. Our notions of the action or influence of "soil" were as yet very crude and vague, but in India it was found that a soil temperature over 60° F., and moisture short of saturation—15°, for example—were the most favourable conditions, but that during the rains, when the soil was nearly saturated, the fever ceased. Extreme organic pollution of the soil seemed also to oppose the growth of the bacilli.

Dr. THEODORE THOMPSON, while admitting the decline of virulence, had no fear of the recurrence of the mortality of twenty years ago, but remarked that this reduced mortality was not to be observed everywhere, nor did the prevalence of the disease appear to be in constant relation to the pollution of the soil.

Dr. CHRISTOPHER CHILDS wished that there were more opportunities of comparing the phenomena of these diseases in different countries under differing conditions. Dr. Robertson had proved the ability of the bacillus to maintain its vitality in the soil for indefinite periods and under all conditions of temperature—a fact that might account for sporadic cases appearing throughout the year. But his experiments required confirmation, as did those of Dr. S. Martin, since having been carried out in the laboratory they did not take account of the conditions of the natural soil.

Dr. WASHBOURN remarked that the lower mortality indicated a lessened virulence but not necessarily a lesser prevalence, which notification alone could prove. As to acquired immunity, it was not impossible that they might some day be able by agglutinative methods to measure the susceptibility of the individual.

The PRESIDENT had no doubt as to the lessened virulence in

this country, the decline of the mortality having far exceeded that of the prevalence. The conditions of town populations, being naturally more unfavourable, afforded greater scope for improvement than those of rural communities. The popular recognition of the importance of precautions against the spread of infectious diseases generally was greater in the southern than in the northern counties.

Dr. WILLOUGHBY asked whether the lecturer had used the expression "ground waters" in the strict sense of the German word, for, unless the wells were sunk through the tertiary clays into the underlying beds, they might very well be less pure than those of some rivers.

Dr. SALTET, replying, explained that the wells were mostly 100 to 150 feet deep in the superficial sand only, though as remote from habitations as possible, while the river waters were subjected to sand filtration under regulated pressure and velocity. Typhoid fever in the Netherlands was mostly sporadic, epidemics being rare, and the better recognition of the disease was seen in the lessening proportion of cases returned as *febris continua*. He was acquainted with the experiments referred to, but did not consider them conclusive, for Dr. Robertson had used sterilised earth only, and Dr. Martin, though he had shown moderately polluted soil to be more favourable to the growth of the bacilli than virgin earth, had employed none but pure cultures, whereas under natural conditions other bacteria were always present, and might exert an influence, favourable or otherwise, on the development of the bacillus of typhoid.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Sir JOHN BATTY TUKE, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, May 17th, 1899.

CASES.

MR. JOHN SHAW MCLAREN showed: (1) A boy, aged 7, on whom he had, three weeks before, operated for Congenital Torticollis. He mentioned two points of interest: (*a*) The operation, instead of the subcutaneous tenotomy, was the now more usual "open" myotomy, and the result was perfect without the use of apparatus except adhesive plaster and bandaging; (*b*) the case showed well the asymmetry sometimes seen, the distance from eye-commissure to lip-commissure being about a quarter of an inch less than on the affected side. (2) A lad on whom he had operated about eight months before for Ruptured Bladder, caused by a cart falling on him. The rupture was extraperitoneal, being near the urethra. The diagnosis was made from swelling above the pubes, pain, and the passage of small quantities of blood and urine by the urethra and by the catheter; the injection test failed. Instead of attempting to stitch the wound, he made a counter-opening in the perineum and drained below and above the pubes. The convalescence was protracted, but the parts were now normal again. (3) A man, aged 70, from whom he had removed a Papilloma (non-malignant) of the Bladder. The only symptom was the occurrence, once, of a severe hæmaturia, which soon passed away. The cystoscope made the diagnosis of tumour easy. The bladder, at the operation, was distended with air from a cycle-pump instead of fluid. The incision was the vertical one, which gave ample room, though the position of the tumour was a difficult one. (4) A patient with untreated Pott's Fracture with marked displacement of the external malleolus backwards, and dislocation backwards of the foot, most of the astragalus lying well behind the tibia. Two skiagraphs were shown.—Mr. F. M. CAIRD showed two patients whom he had brought before the Society about three years ago. One was a man, aged 68, after the removal of the Pylorus for Carcinoma. The other, aged 53, had undergone at that time Gastroenterostomy, since the dimensions, adhesions, and associated glandular involvement of a pyloric carcinoma put excision out of the question. Eighteen months after operation he returned in good health suffering from ventral hernia at the site of the laparotomy. On having this rectified no trace of the inguinal growth could be discovered, and the pylorus was found lying in a mass of soft adhesions. Although no doubt was entertained at the primary operation of the malignant nature of the case it was presumably malignant. He now enjoyed perfect health.—Dr. AFFLECK showed (1) a boy, aged 14, with Diabetes Mellitus in a very acute form. There was reason to believe that the disease had existed for only about eight weeks, and the symptoms were advancing rapidly. The urine varied from 150 to 250 ounces per diem, and the sugar kept pretty constantly at about 34 grs. per ounce. The patient presented the characteristic phases of the disease in a very typical manner. Treatment had made no impression on the progress of the case. (2) A man, aged 42, with Diabetes Mellitus, which had lasted for at least two years, but was now advancing rapidly. The amount of urine and of sugar were very nearly the same as in the case of patient No. 1. This case was complicated with optic atrophy and with well-marked peripheral neuritis. (3) A boy, aged 16, with Diabetes Mellitus, which had lasted for about four years. The amount of urine varied from 400 to 600 ounces per diem, the specific gravity of which was scarcely 1001. There was urgent thirst. The patient had a very diabetic appearance, but he had not emaciated, but was rather increasing in weight. All the usual remedies had been employed without effect.—Dr. C. W. MCGILLIVRAY showed two cases of patients upon whom he had operated successfully for Perforated Gastric Ulcer during the past few months. In the one case the patient only commenced to suffer pain the day previously, and was taking all food well, and was walking about five hours before the operation. She was wonderfully little collapsed, and yet at the time of the operation the whole abdomen was full of sero-pus; Douglas's pouch alone contained more than a pint. The perforation was on the anterior wall, at the cardiac end and under the lesser curvature. The second case had been ill for years, with severe pain, vomiting, and indigestion. The perforation occurred at 5 in the afternoon; the operation was performed at 11 the next forenoon. In this case absolutely the whole abdomen was full of pus. The stomach was hour-glass in shape, with a cardiac and pyloric pouch. The perforation was at the lesser curvature in the middle of the contraction, which was least indurated. It would hardly admit the forefinger. The difficulty was to close the perforation without further diminishing the calibre of the constriction. This was done as in pyloroplasty by means of a longitudinal incision sutured vertically, which closed the aperture at the same time, and did away with the hour-glass constriction. Both patients recovered without a bad symptom, and were now quite well, and had neither pain nor indigestion.—Dr. ALEXANDER JAMES showed (1) a case of Cirrhosis of the Liver, with abdominal and thoracic effusions communicating; (2) a case of Hemichorea.—Dr. W. ALLAN JAMIESON showed: (1) A case of Macular or Trophoneurotic Leprosy in its very early stage; the patient was a boy, aged 8, born in British Guiana, of healthy Creole parents; as an infant and up to the age of two years, he slept with a native nurse, who was discovered to have an ulcer on her leg, which was pronounced by an experienced doctor to be leprous; she returned to Tobago, her birthplace, and nothing further could be learned of her history; two years since the boy, a well-grown, sturdy child, began without any distinct prodromal symptoms to show faint maculæ on his face, at first only perceptible to his mother, whose anxieties had been aroused, one appeared on the ear, but had faded; there were now quite a number of pale-brownish spots, which became a dull lilac hue on exposure to cold, on the chin, cheeks, forearms, and legs; there were also some brown stains on the trunk, some with a white spot in the centre, and some white dots without any pigment; also on the right side of the nates a circular area closely resembling a patch of morphœa: no true anæsthesia could be detected, but there was a distinct dulling of sensation on some of the maculæ and in the centre of the brown stains; there was no thickening of the ulnar nerve, but the hands were large and somewhat swollen: (2) two patients, both women aged about 30, one with Lupus of the central portion of the Face, the other with late Hereditary Syphilis of the same region, showing how very closely the latter disease could simulate the former.

SPECIMENS.

Dr. WILLIAM RUSSELL showed: (1) Two specimens illustrating one of the Unusual Positions of Vermiform Appendix; (2) specimens from a case of Perityphlitis not originating in the appendix.—Dr. R. A. FLEMING and Dr. WELSH gave an exhibit of various Pathological Specimens.—Dr. GEO. GIBSON showed Pictures, Skiagraphs, and Casts from a case of Acrome-

galy.—Mr. F. M. Caird showed: (1) A Nodule of Scirrhus from the Breast of a patient on whom excision of the mamma had been performed nine years ago; several small recurrent nodules had also been removed on previous occasions; (2) specimen of Malignant Fibroid of the Uterus removed by Panhysterectomy after the method of Kelly; (3) a Large Cystic Tumour of the Testicle.—Mr. Cathcart showed a specimen of Multiple Gastric Ulcer.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of State Medicine.

H. C. Tweedy, M.D., President, in the Chair.

Friday, April 28th, 1899.

Room Disinfection, with Special Reference to the Use of Formic Aldehyde.

Drs. Littledale and Kirkpatrick read papers on this subject. Dr. Littledale said experiments on the efficacy of formalin vapour were carried out in a room of 28 cubic metres content, with no opening into it but the door, and 10 gr. of formalin tabloids were vaporised in an "alformant" lamp. The yellow air coccus, coli communis, staphylococcus pyogenes albus, bacillus typhosus, pus, sputum, and putrid urine were the test objects exposed. Threads were steeped in emulsions of these various objects, wrapped in filter paper and lint, or concealed in the pocket of a coat or between the leaves of a book, or exposed quite open to the vapour. All the objects freely exposed were quite incapable of growing on nutrient media after a nine hours' exposure to the formalin, but concealment in a coat pocket or between the leaves of a book seemed quite sufficient to prevent their being acted upon to any degree, as all bacteria so exposed were not at all or only slightly hindered in their growth. The sputum was openly exposed on cover glasses, on which it had been let dry in the oven at 37° C., and after exposure for nine hours no growth took place in broth for two days—that is, until the surface layer digested off, and the deep surface was exposed, as could be seen by the shaggy appearance of the layer on the cover glass. Everything in the dried pus, which was openly exposed on gauze, was killed, except a leptothrix. Agar tubes of definite dimensions were inoculated over a sloped surface for a known distance and exposed just immediately after inoculation, and after the experiment were kept at 37° C. Growths appeared in these tubes, but not over the whole length of the "smear," only the lower part furthest from the opening of the tube and terminating to a sharply-defined horizontal line, as appeared to be the case whatever form of generator was used, as most investigators had had similar experiences. No inoculation experiments were undertaken on animals. Dr. Kirkpatrick said the apparent need for an efficient yet easily applicable mode of room disinfection was perhaps most marked in dealing with such chronic infectious diseases as tuberculosis. Such a method could practically only be obtained by means of gaseous disinfectants. Experience, however, had shown that the methods which until recently were employed for this purpose were very unsatisfactory. The author proceeded to examine critically those in most common use—that is, sulphurous acid, chorine, and bromine. The experiments of Koch were quoted to support his conclusion. As regards the first of these, for practical purposes it was useless. As regards the two latter, Drs. Fischer and Proskauer had proved that to apply them efficiently was quite as difficult as to disinfect with germicidal solutions. The possibility of efficient room disinfection by means of formic aldehyde generated by Messrs. Zimmerman's "alformant" was then considered. Experiments by various authors were quoted to show what had already been done, and the apparatus was described in detail. It appeared that this process was very much simpler than any other of the modes of gaseous disinfection considered, while it was superior to any of them in point of efficiency. These conclusions would justify a very much more extended trial of this mode of disinfection than had hitherto been made, and lead us to expect that great practical good was likely to result to both patients and attendants from its use.

Drs. Ninian Falkiner and Knott and the President made remarks; and Drs. Littledale and Kirkpatrick replied.

Cancer in Ireland.

Dr. Martley read a paper on this subject. After contrasting the deaths from cancer in Ireland and England—the former rate being roughly only 70 per cent. of the latter—he illustrated by maps its very unequal incidence in different localities, the parts most affected being the east of Ulster, Dublin, and Carlow. In conclusion he moved a resolution that the Academy should appoint a committee to investigate the distribution of the disease in Ireland.

Dr. T. W. Grimshaw, in seconding the resolution, remarked that the maps which were before them showed that cancer was prevalent in the most Anglicised parts of the country; for example they might look at Carlow, which they knew to be an old English colony, and Dublin, containing a large proportion of the population of English descent. Registration had not been as long in vogue in Ireland as in England, and consequently the returns were less reliable, as they had often to trust to memory for the ages of middle-aged people.

Dr. J. W. Moore explained the preponderance of cases in Dublin and Belfast by the fact that in country districts the doctors were often reluctant to give cancer as a cause of death, owing to the existing dread of the disease, on account of its hereditary nature; also the diagnosis of cancer was usually verified in the city hospitals by a necropsy, which was not the case in the country: in addition Dublin and Belfast received cancer patients from all parts of the country.

Dr. Knott also spoke.

The resolution was adopted by the meeting.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Pathological and Clinical Section.

Jordan Lloyd, F.R.C.S., President, in the Chair.

Friday, April 28th, 1899.

Election of Officers.

The following officers were elected for the ensuing session:—*President:* Henry Eales, M.R.C.S. *Honorary Secretaries:* J. H. Clayton, M.B., and T. Sydney Short, M.D.

Hydatid of Lung.

Mr. Gamgee showed a patient who had been the subject of hydatid cyst of the upper part of the right lung. The treatment had been incision and drainage of the cyst without any resection of ribs. About 2 pints of fluid came away at the time of operation. The parietal and visceral layers of the pleura were adherent, and so the general pleural cavity was not opened. The patient made a good recovery.

Trichorrhexis Nodosa.

Dr. Killick Millard showed a rare affection of the hairs of the scalp in a child, believed to be a variety of the disease first described by Kaposi as trichorrhexis nodosa. The patient, a boy, aged 7 years, was suffering from a number of patches on the scalp, the hairs in these places being dry, lustreless, and readily pulling out, and the skin being scurfy, but showing no tendency to eczema. Under the microscope the affected hairs showed alternate swellings and contractions, the latter being the most marked feature. There was no tendency towards breaking off, or of fraying out to produce the so-called "interlocked brushes" appearance. The bulb was markedly atrophied. No fungus or other parasitic growth could be detected. The affection had persisted for twelve months, and had gradually got worse. The treatment adopted had been the application of such ointments as ung. sulph., ung. hydrarg. ammon., and ung. hydrarg. ox. flav. No cause for the disease could be discovered, either constitutional or local, the child's health being otherwise good. No other member of the family was affected.

Papillomata of Larynx.

Dr. Lamb showed a case of multiple papillomata of the larynx, upon which he had operated. The patient, a married woman, aged 33, had been unable to speak, except in a hoarse whisper, for twenty-one years, ever since an attack of measles. Her general health was bad; she was thin, weakly, and at

times suffered from attacks of dyspnœa, lasting a few days. In the summer of 1898 she had an attack so severe that her life was only saved by the prompt performance of tracheotomy and artificial respiration by her medical attendant, Dr. Beilby, of Bromsgrove. When the larynx was examined shortly afterwards the false cords and arytenoid folds were seen to be swollen and œdematous. This swelling subsided somewhat for a time, but the false cords remained much enlarged, and gradually assumed a characteristic papillomatous aspect. There was also a projection from the posterior wall. As the suggestion of thyrotomy was not favourably entertained, Dr. Lamb removed the false cords with the galvano-caustic snare, thus bringing into view a broad fringe of subglottic papillomatous growth. This was removed with the curette, and concentrated lactic acid applied to the base, which consisted in parts of extremely tough leathery tissue, presumably hypertrophic. Adduction of the cords was very imperfect for some time after the mechanical obstacle had been removed, but latterly the patient had recovered a fairly good voice. For the last three months treatment had consisted in the occasional application of 10 per cent. salicylic acid in alcohol. In spite of this, some recurrence had taken place at the anterior commissure and at one spot below the glottis. It was hoped that this tendency might be overcome without resort to thyrotomy. The general health had greatly improved.

Irregular Ataxia.

Dr. Douglas Stanley showed a female child, aged 2½ years, who possessed no sense of vision. The child was born at term, and the labour was natural. When some months old she had convulsions. The mother observed that she never at any time seemed to take notice of objects or persons, nor did the patient ever learn to stand alone or speak. Examination showed that although the pupils were reactive there seemed to be no visual power. There was marked nystagmus, chiefly rotatory. The reflexes, though present, were feeble. The patient seemed unable to stand. The probability of a congenital malformation was discussed. Dr. Stanley also showed a male patient, aged 7½ years, who suffered from inability to walk except in a jerky uncertain manner. There was indistinctness of speech, nystagmus, and exaggeration of tendon jerks. The case was considered to be one of insular sclerosis.

Trephining for Head Injury with Convulsions.

Mr. Morrison showed a girl, aged 2, whom he had trephined for convulsions occurring immediately after a severe injury of the head, with hemiplegia.

Lumbar Nephrectomy for Pyonephritis and Perinephritic Inflammation.

Mr. Barling showed this specimen from a woman aged 48. A large tumour occupied the right loin, and anteriorly extended to the umbilicus in the middle line, and downwards to an inch below the crest of the ilium. There was no pus or abnormal constituent in the urine, and the diagnosis lay between a kidney with plugged ureter and a distended and suppurating gall bladder. The former diagnosis having been made the organ was removed through the loin, and though the peritoneal cavity was widely opened in the separation of the organ a good recovery followed. There was no cause evident for the suppuration in the kidney, but the probable explanation appeared to be calculus which had escaped and lodged in the ureter.

Lumbar Nephrectomy for Secondary Hæmorrhage following the Removal of a Renal Calculus.

Mr. Barling showed this specimen removed from a boy aged 17. There was a typical history pointing to stone in the kidney, and the calculus was removed by an incision through the substance of the kidney at its lower end, the incision radiating from the pelvis towards the external border of the organ. The kidney tissue was cut through because the stone was so impacted in the calyx that it could not be brought down into the pelvis for removal. The bleeding from the incised kidney was very free, but it readily ceased on the application of four deep catgut sutures, which closed the incision, and at the end of 48 hours there was no longer any blood in the urine. The lumbar wound healed in a few days, but on the eighth day after the operation a large quantity of blood reappeared in the urine. This severe hæmorrhage continued uninterruptedly for 16 days except for two short intermissions when the ureter was plugged with clot. The patient was so reduced and anæmic from the hæmorrhage that it was considered dangerous to let him go on longer, and the kidney was removed by reopening the former incision. The clamps were removed on the fifth day, and the patient made a good recovery. At the operation it was found that the surfaces of the incision in the kidney had healed completely, and that the hæmorrhage came from a vein about the size of a radial vein, which ran just beneath the mucous membrane of the pelvis in the long axis of the organ, and which had been incompletely divided at the time of the operation.

Empyema of Antrum.

Dr. Lamb showed an anatomical preparation illustrating the spontaneous cure of empyema of the maxillary antrum. The points were (1) A carious second molar tooth, firm in the socket; (2) a depressed and pitted cicatrix occupying the whole length of the middle meatus, but most marked at its anterior part just below the middle turbinal, evidently the result of a localised chronic atrophic rhinitis; (3) projecting upwards from the floor of the antrum a cylindrical tube of bone about 3 mm. in length and the same in diameter. This tube led down into the top of the socket of the palatal fang of the carious second molar. When the antrum was opened this little tube was completely covered with mucous membrane, and was sticking up like a peg into the cavity of the antrum. The carious molar had been roughly filled with amalgam, packed in on the top of some cotton wool. The suggested interpretation was as follows: (1) Dental caries causing purulent infection of the antrum, and leading to the establishment of (2) chronic empyema which lasted probably for years, overflowing in the usual way through the ostium maxillare into the middle meatus, and causing a local atrophic rhinitis, as evidenced by the depressed and pitted cicatrix; (3) the formation of a carious opening in the floor of the antrum, and the drainage of the cavity through this opening and the fang or socket of the carious molar; during this process new bone was deposited round the opening, and the little bony tube was gradually built up; (4) the cure of the empyema, the covering of the end of the tube with mucous membrane, and the filling of the tooth.

Sarcoma of Vagina.

Mr. Smallwood Savage showed a microscopical specimen of a portion of a vaginal growth. The patient, aged 60, had had a thin blood discharge for eight months, and on examination there was a sessile tumour on the posterior wall of the vagina, and situated about three-quarters of an inch from the vulva, which was the size of a tangerine orange, soft, friable, and bleeding readily. The surface of the tumour was ulcerated. The cervix and upper part of the vagina were quite free. The patient was much blanched when seen, and died a fortnight later. The microscopical section showed round and oat-shaped cells.

Panhysterectomy.

Dr. Purslow showed two fibroid uteri removed by panhysterectomy. The first specimen was taken from a woman, aged 37, mother of one child, married, but separated from her husband, and earning her living as a cook. She was sent to Dr. Purslow by Dr. Irvine, of Selly Oak, on account of having had frequent attacks of retention of urine and of abdominal pain, due to the presence of a fibroid tumour the size of a cocoanut. These symptoms had been increasing in severity and had compelled her to give up her situation, and she was very anxious to have something done. At the operation the bladder was found, although empty, to extend to the summit of the tumour, 1 inch below the umbilicus, the tumour having developed in the anterior wall of the uterus and carried up the bladder in its growth. The patient made a good recovery, and has now resumed her employment. The second specimen was taken from a single woman, aged 39, who had suffered severely from menorrhagia for about two years, and was very weak and anæmic. The uterus was enlarged by a fibroid to the size of a fœtal head. This patient made a good recovery and was now back at work. In both operations, which were performed in the Queen's Hospital, the patient was first placed in the lithotomy position and the cervix separated as far as possible from its connections from below; a volsella

was left on the anterior lip as a guide in the second stage of the operation, which was performed through an abdominal incision.

TUMOUR OF SCAPULA.

The PRESIDENT showed part of the left scapula removed from a lady, aged 25. She had been under treatment for supposed lateral curvature of the spine, an error in diagnosis explained by the backward projection of the lower angle of the scapula caused by the presence of the tumour on its central aspect. The prominent scapula had been noticed for more than a year and was increasing. On careful examination, by lifting the scapula away from the ribs the growth could be felt by the examining fingers. The tumour was removed by T-shaped incision—the vertical limb over the inner border of the bone, and the horizontal over its spine. The muscles were cut through from behind quite close to the bone, which was then divided just below the spine with a Hey saw. Bleeding was very free. The tumour was almost as large as the palm of an adult hand, somewhat circular in shape and nearly an inch in thickness, and was probably a chondro-sarcoma.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At the meeting on May 10th, Dr. A. J. HARRISON in the chair, Mr. J. LACY FIRTH showed a patient with Cervical Ribs.—Mr. PAUL BUSH showed a patient with Displaced Scapula.—Dr. W. H. NEWNHAM showed a specimen of Intraperitoneal Hysterectomy.—Dr. T. FISHER showed: (1) Pancreas containing Calculi; (2) Malignant Growth of Cæcum; (3) Sarcoma of Ileum; (4) Fibrous Myocarditis; (5) Lungs with Broncho-pneumonia breaking down into cavities.—Dr. B. ROGERS showed microscopic slides of Liver Disease.—Dr. E. STACK showed a series of Kidney Specimens.—Dr. W. H. NEWNHAM read a paper on Removal of one Ovary, with cases.

BIRKENHEAD MEDICAL SOCIETY.—The annual meeting was held on May 5th; Dr. H. NAZEBY HARRINGTON, President, in the chair. The annual report and Treasurer's statement of accounts were read and passed. The following office-bearers were elected for the ensuing year:—*President:* H. Nazeby Harrington, M.R.C.S., L.R.C.P. *Vice-President:* Joseph Blood, M.A., M.D. *Treasurer:* James Pinkerton, M.D. *Secretary:* W. Leask, M.B., C.M. (Prenton Road West). *Librarian:* S. Wilkinson, M.R.C.S., L.R.C.P. *Council:* A. H. Butcher. L.R.C.P.&S.E.; W. R. Floyd, B.A., M.B., Ch.B.; J. H. Fardon, M.R.C.S., L.R.C.P.; R. O. Morris, M.A., M.B., C.M.; L. D. Temple, M.D. The next monthly meeting will be held in October.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—The following office-bearers have been appointed for the next year:—*President:* Mr. Henry E. Clark. *Treasurer:* Dr. R. Barclay Ness. *Editorial Secretary:* Dr. W. R. Jack. *General Secretary:* Dr. W. K. Hunter.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—The following have been elected office-bearers for the next year:—*President:* Dr. Thomas Barr. *Vice-President:* Mr. Henry E. Clark. *Treasurer:* Mr. Henry Rutherfurd. *Editorial Secretary:* Dr. G. H. Edington. *Secretary:* Dr. L. R. Sutherland.

REVIEWS.

TWENTIETH CENTURY PRACTICE OF MODERN MEDICAL SCIENCE. Edited by THOMAS L. STEDMAN, M.D. Vol. XV. Infectious Diseases. London: Sampson Low, Marston and Co. 1898. (Roy. 8vo, pp. 658. 21s.)

THE present volume continues the account of the infectious diseases, and contains descriptions of influenza, plague, glanders, and other diseases that come under this heading. Actinomycosis, pyæmia, and septicæmia are also included, but as they are not quite on the same footing as the previously-mentioned diseases, inasmuch as they are less prone to pass from one individual to another, or infectious in the ordinary sense of the term, it might perhaps from the point of view of nomenclature have been better if the word infections had been substituted for infectious diseases. This, however, is a detail, and in no way affects the value of the articles with which the reader is presented.

Professor Finkler, of Bonn, has contributed what is probably the best account extant of influenza. The description of the discovery of the influenza bacillus is extremely interesting, and, like the whole of his article, is extraordinarily complete. In some remarks on chronic influenza, which is especially likely to supervene in phthisical subjects, and thus to lead to a dangerous mixed infection, the suggestion is made that it might have been influenza that caused the rapid aggravation of symptoms observed in cases of phthisis after the injection of tuberculin in 1890-91. The existence of congenital immunity against influenza is considered doubtful, but observations from Grasser's clinic at Bonn are brought forward to show the value of quinine in preventing the disease.

Typhus fever is fully described by Professor Licéaga, who had ample opportunity of observing the disease in Mexico in the great epidemic of 1893. He gives a chart for eighteen years, showing that the incidence of the disease is greatest in the early months of the year. Catching cold was established as a cause in just over 50 per cent. of the cases. The plague is appropriately entrusted to Drs. Kitasato and Nakagawa, of Tokio. The bacilli, described respectively by Yersin and by Kitasato, are quite distinct, and not, as is generally assumed, identical. It is manifestly of importance that one or other should be definitely established as the genuine cause so as to allow of preventive inoculation being instituted on a rational basis.

Dr. F. S. Bellins contributes well-considered accounts of anthrax and of glanders, while foot-and-mouth disease in man is fully described by Dr. Ismar Boas, of Berlin. A brief account of actinomycosis is given by Professor Ponfick, of Breslau, whose name is closely associated with the pathological study of the disease. It is greatly to be regretted that the article is not more complete, as it is one to which the reader would naturally turn for reference. Under the heading of treatment there is no mention of the successful effects of potassium iodide.

After a careful description of rabies from the pen of Professor Keirle of the Pasteur Department, Baltimore, the concluding article is reached. In it Drs. J. McFadden Gaston, senior and junior, deal with septicæmia and pyæmia in a manner which can only be described as inadequate. It cannot but be a matter of regret that the really high standard of the present instalment of the *Twentieth Century Practice of Medical Science* is not maintained throughout.

LA GOUTTE. I. Essai de Pathogénie Morphologique. Par DANIEL CRITZMAN. Paris: Masson et Cie. (Cr.8vo, pp. 174. Fr. 3.)

THIS work is one of the publications of the *Encyclopédie Scientifique des Aide-memoire*, published under the direction of M. Léauté. In it the author deals solely with the theory of gout, and sets himself to prove that "gout is a renal affection occurring in persons hereditarily predisposed, and the intensity of which is proportional to the extent of the anatomical lesion of the kidney." According to this view, in the words of the author, "the kidney is the corner-stone of the pathogenical edifice of gout, uric acid being the cement." Further, "the whole factor which influences the formation of uric acid is the absorbable nuclein which exists in the food," while the "whole factor which influences the excretion of uric acid is found in the epithelial cells which line the convoluted tubes of the kidney." Again, on page 14 he says, "The morbid history of gout is governed from beginning to end by the biological state of the renal apparatus. All the events which it registers are the effects of a cause hitherto unrecognised: chronic inflammation of the kidney; so that, if the urinary filter remains intact throughout the life of a potentially gouty person, we shall never see a crisis of gout occur, with its following of misery and pain. Uricæmia remains like a threatening enemy ready to invade the organic territory if the sentinel who watches at the frontier of the kidney fails or relaxes his vigilance."

Having laid down these propositions with sufficient clearness, the author proceeds in the second chapter to give

briefly the history of the physiological chemistry of uric acid, and proves to his own satisfaction that uric acid has its whole origin in the nuclein of the food, although he has to admit that Stadthagen found that a dog fed on nuclein showed no increased secretion of uric acid, and that these results have been confirmed by Gumlich. He seems satisfied with the explanation that "nucleins introduced into the economy by the digestive tract perhaps undergo in the stomach modifications rendering them inapt for the formation of uric acid," as if it was not a question of uric acid being formed from the food (*vide supra*), which necessarily is introduced by the stomach, and not hypodermically, as in the experiments, which showed an exaggeration of the elimination of uric acid, and upon which he relies unduly. He succeeds better in showing the parallelism which exists between leucocytosis and the elimination of uric acid. The author does not admit that the seat of the formation of uric acid has been satisfactorily proved, but he believes that the process takes place in the blood itself, or in those organs where the white corpuscles are destroyed. He explains the disappearance of uric acid after the extirpation of the liver by the presence of large quantities of lactic acid, which in his opinion prevents the formation of uric acid. He points triumphantly to what he calls "la sagesse populaire," which has "demonstrated the efficacy of lemon juice in large doses against the most violent attacks of gout," to prove, or shall we say to give an air of probability to, this explanation.

In the next chapter he discusses the various theories of gout, including the most recent ones of Pfeiffer and Haig. Respecting the views of the latter writer he says that "his conclusions would be very useful if in order to accept them it was not necessary to adopt propositions established *a priori* and insufficiently demonstrated in the end." He considers that the exact relation of uric acid and urea, stated to exist by Haig, lacks confirmation, and that the influence of the ingestion of acids upon the precipitation of uric acid is far from demonstrated.

The author thinks that the primary localisation of gout is sufficiently explained by the theory of external injury, although he gives no new facts or arguments in support of this view. In his opinion the theory of gout does not require increased production of uric acid. It is quite sufficient if there be a cause for its accumulation in the system, and this cause he finds in the state of the kidneys. He says that the gouty kidney is well known, but that the mistake has hitherto been made of regarding it as the consequence instead of the cause of gout. He points out that if uric acid is formed in the liver, spleen, or muscles, in order to get to the kidney it must come through the blood, and he contends that the experiments of Weintraud and von Jaksch have proved that the normal blood never contains uric acid. This is a strained deduction from the work of von Jaksch, which only shows that the quantity of uric acid in normal blood is very small, not that it does not exist. When we reflect upon the small total quantity of uric acid excreted in twenty-four hours in health, the actual percentage present in the blood must be exceedingly small, and this is all that von Jaksch allows, so that the author is not justified in concluding that in health uric acid is not one of the constituent elements of the blood. But in gout there is admittedly a great increase of the amount of uric acid in the blood and at the same time a diminished excretion from the kidney. In these circumstances the author desires us to see an excess of the secretory function of the kidney, by which this organ forms much more than its normal amount of uric acid, while at the same time its eliminative or excretory function is greatly reduced. These two alternatives, by which one function is exaggerated and the other depressed, are alike attributed to "chronic inflammation of the kidney"! He further admits that after the attack of gout the quantity of uric acid eliminated is greatly augmented, and this increased excretion is the work of the same kidneys which a day or two before were stopped up by inflammation! It is very difficult to recognise "an inflammation of the kidney" which behaves so strangely.

The author thinks that he finds in saturnine gout some support for his theory of the renal origin of the disease. According to him it is only when there is chronic disease of the kidneys that gout supervenes, and he thinks that it is only when abuse of alcohol is added to lead poisoning that gout is observed. But this is directly contrary to the statistics which he cites, and to the experience of Christison and Warburton Begbie, who have pointed out that among working men lead poisoning is common enough in Scotland, but that gout, in spite of the national addiction to whisky, is very rare. Moreover, Warburton Begbie's two cases of saturnine gout well illustrate the real point, as these men, unlike the generality of their class at that time, were beer drinkers. The other statistics quoted by the author do not sustain his view, for everybody would admit that gout is comparatively rarely met with in lead poisoning whereas kidney mischief is common; nor can it be said to be true, as the author suggests, that 10 per cent. represents with equal accuracy the relative frequency of gout and kidney disease in lead poisoning. While renal lesions are frequently met with in the dead bodies of persons who have suffered from gout, we do not think that the author has at all sufficiently established his doctrine that the sole and efficient cause of gout is chronic nephritis. How does he explain the absence of gout among the great majority of persons suffering from chronic Bright's disease? The bodies of women when examined *post mortem* frequently show marked traces of inflammatory changes in the kidneys resulting from very well-known causes, yet gout is certainly rare in the female sex. Whatever relation there may yet be shown to be between the formation of uric acid in the kidney, it is certain that the pathogenesis of gout cannot be explained so simply as Dr. CRITZMAN would have us suppose.

CONTRIBUTIONS TO CLINICAL MEDICINE. By T. M'CALL ANDERSON, M.D. Edited by JAMES HINSHELWOOD, M.D. Edinburgh and London: Young J. Pentland. 1898. (Royal 8vo, pp. 426, 28 illustrations. 10s. 6d.)

THIS volume is based upon Dr. M'CALL ANDERSON'S long experience as a hospital physician and clinical teacher. Some of the lectures, papers, and cases found in it have already been published, but they are collected here in a very handy volume.

Under general diseases Dr. Anderson begins with a paper on the febrile state, and comments upon the dangers of neglecting it and the best means of controlling it. The great value of the application of cold is duly recorded, but the reaction which has recently taken place against the use of antipyretic drugs is perhaps hardly sufficiently emphasised. The chapter upon the treatment of myxœdema is one of much interest, as it covers a period before and after the introduction of the thyroid treatment. The great benefit of thyroid treatment is illustrated by a characteristic case. Other subjects treated of in this section are less common syphilitic affections, various forms of anæmia, the gravity of diabetes in early life, malignant pustule, and hæmidrosis.

Under nervous diseases there are chapters upon the treatment of epilepsy and chorea with large doses of antipyrin, upon spinal irritation, intracranial tumours, miscellaneous cases, and syphilis of the nervous system. Perhaps the most interesting is the chapter last named. Dr. Anderson certainly appears to have had here a greater measure of success in treatment than is usually obtained. The details of some 32 cases, including both cerebral and spinal disease, are given, and almost without exception improvement, generally considerable, or even amounting to cure, is recorded. In 3 cases with a syphilitic history, and described as having symptoms resembling those of tabes, great improvement was noted under mercurial treatment. The author emphasises the value of mercurial treatment, especially by inunction, in later syphilis.

Among circulatory diseases aneurysm receives much attention, both in regard to the variability of its symptoms and its treatment. Other subjects dealt with here are vascular obstruction, malignant endocarditis, the value of nitroglycerine in angina pectoris and of cascara bark (cortex erythrophlœi) in cardiac dilatation with passive congestion.

A very interesting chapter on the curability of acute phthisis will be found under respiratory diseases. It is illustrated by several cases, and the treatment is given in full. Among the chapters on digestive diseases an analysis of 35 consecutive cases of gastric ulceration will be found. Recovery from tuberculous peritonitis is illustrated by several

cases mostly observed at a time prior to the treatment by abdominal section. The volume closes with eight chapters dealing with the various aspects of renal disease.

Dr. M'Call Anderson's very practical and interesting book certainly deserves attention not only from his past students, but also from a much wider circle of readers.

FRY'S LAW OF VACCINATION. Seventh edition. By A. F. VULLIAMY, Clerk to the Ipswich Board of Guardians. London: Knight and Co. 1899. (Demy 8vo, pp. 180. 7s. 6d.)

IN editing the seventh edition of Fry's *Law of Vaccination*, the author, whose practical experience has made him well equipped for the task, confers a boon upon those whose duty it is to carry the Vaccination Acts into effect. Many changes have taken place since 1875, when the last edition was published, and numerous decisions in the Courts have rendered it necessary to revise and enlarge the sixth edition. The work is not solely devoted to the discussion of the technicalities of the statutes. In addition to the text of the Vaccination Acts, as commented upon by the author, with useful notes and references to cases, there will be found an introduction containing a short history of the vaccination question, embodying the experience of recent years.

This concise summary of the vaccination movement is augmented by a reference to the report of the Royal Commission of May, 1889. The author concludes his introduction with a short epitome of the facts and figures upon which the Commission founded their report.

Dealing next with the Acts 1867-1871, the sections which were repealed last year are not omitted, but are printed in italics, and the notes which were previously subscribed are also inserted. The author has not only mentioned the more important cases which have arisen since 1875, but has amplified the notes, and thrown more light upon the various sections.

In his notes and opinions upon the Act of 1898 Mr. VULLIAMY appears to have not only commented upon all the difficulties which have arisen up to the present, but to have tackled all the questions which are likely to arise. The notes to the conscience clause are very full and complete, an explanation being offered of nearly every word of that celebrated section.

The text of the Local Government Board Order of October 18th, 1898, is set out in full, with notes of explanation where necessary. It appears that a child of 11 years of age may apply to be revaccinated whether its parents consent or not. It is fortunate that the memorandum issued by the Local Government Board in December, 1898, was published in time to find a place in the book. It would appear to be the opinion of the Local Government Board that the fees agreed to be paid by the guardians should be large enough to defray the expense of abortive visits to the homes of children. All the repealed Vaccination Acts as well as the obsolete orders of the Local Government Board are omitted, but the directions of that body to guardians of places where small-pox is epidemic, and the Registrar-General's circular to registrars are both retained.

In the last chapter the author sets out in language as simple as possible an outline of the duties and responsibilities of those for whom the book is primarily intended, namely, the vaccination officers and public vaccinators, "whose slightest mistake," to use the author's words, "is likely to be taken advantage of by a society whose object is to bring discredit upon vaccination." Lists are given of the various books, etc., with which these officials should be supplied, and useful hints are furnished as to how to keep them in proper order. Tables of statutes cited and cases referred to are separated from an excellent index of the other subject matters.

LES PARALYSIES GÉNÉRALES PROGRESSIVES (Progressive General Paralyses). Par le Dr. M. KLIPPEL. Paris: Masson et Cie. 1898. (Royal 8vo, pp. 35. Fr. 1.25).

THIS monograph by Dr. KIPPEL belongs to the excellent medico-chirurgical series brought out under the direction of Dr. Critzman. Dr. Kippel divides the subject into the following groups: (1) A primary general paralysis, inflammatory in nature, and which constitutes the classical picture of the disease; (2) a secondary general paralysis associated with other lesions; here the inflammatory process above referred to is engrafted upon these other lesions; (3) a general paralysis degenerative in nature and sometimes due to specific lesions. The last group includes alcoholism with the syndroma of general paralysis, cerebral syphilis with symptoms of general paralysis, and other forms. They are sometimes classed as "pseudo" general paralyses. The author then discusses the morbid anatomy, symptoms, diagnosis, and prognosis of these forms. Sections are also given to: (*a*) General paralysis of the spinal variety; (*b*) associated lesions in the viscera; (*c*) etiological and pathogenetic conclusions; and finally (*d*) the treatment. The methods of dealing with the subject differ from those usually found in British textbooks, but the monograph provides much useful and instructive reading. It would appear that there may at times still be great difficulty in distinguishing between the forms, even after they have been described as here in detail. The suggestion of even the possibility of successful treatment by intracranial injections after trephining seems to be almost if not quite visionary.

THE SANITATION OF BRITISH TROOPS IN INDIA. By E. CARRICK FREEMAN, Captain R.A.M.C. London: The Rebman Publishing Company. 1899. (Crown 8vo, pp. 112. 2s.)

THIS excellent and unpretentious little book may be commended to all Indo-Europeans, whether civil or military. Although concerned mainly with the hygiene of the British soldier, it will also prove useful and instructive to all Europeans in India, since it sets forth, in untechnical language the broad principles of sanitation in that country. What will most strike the older generation of men conversant with Indian life in reading this book will be the marvellous advance made by scientific medicine during the past two or three decades in everything that relates to the origin, causation, and diffusion of epidemic diseases in India.

Forty years ago such diseases as cholera and typho-remittent (then undistinguished from enteric fever) were supposed to arise *de novo* from occult, unponderable atmospheric agencies, and were equally mysterious in their mode of spread as in their origin. But even then there were those who refused to believe in the spontaneous origin of such diseases, and contended for an undiscovered specific cause for each class of morbid phenomena.

Captain FREEMAN, in ten short chapters, admirably condenses the present state of knowledge regarding the biology of the micro-organisms which cause the more serious diseases which attack the European in India, and shows that a study of their life-history gives us the best means of compassing their destruction and preventing their dissemination. These matters are discussed under general conservancy, food, water, and milk supply, barracks, bazaars, etc. He brings out pretty clearly that in a contest with disease in India one of the most difficult problems is the inveterate ignorance, indifference, and prejudice of native employees in the carrying out of sanitary measures. The most perfect food, water, and conservancy may be utterly spoilt by the simple disregard for personal cleanliness in the natives employed. Under this head he shows that the filthiness of sweepers, and the dirtiness of cooks, bakers, butchers, milkmen, water carriers, etc., are most potent factors in the dissemination of disease; such is the danger, for instance, in the despised but indispensable sweepers carrying germs in their dirty persons, clothes, and brooms, that no sweeper employed in latrine duties should ever be employed in sweeping out a bungalow or barrack, much more a cookhouse. It may be that the higher native castes have had from time immemorial some inkling of such a danger, for they will not allow a sweeper to come near, much less to touch their food.

To all such bacteriological questions the recent work and teaching of Professor Hankin have given a powerful impulse in India. If the sanitary measures and precautions advocated by Captain Freeman were, or could be, carried out, we should soon have a very different tale of the health of Europeans in India.

General Physiology: an Outline of the Science of Life. By Max Verworn, M.D., Ph.D., Professor of Physiology in the University of Jena. Translated from the second German Edition by F. S. Lee, Ph.D., Adjunct Professor of Physiology in Columbia University. London: Macmillan and Co.; and New York: The Macmillan Company. 1899. (Demy 8vo, pp. 615, 285 illustrations. 15s.)

When this book first appeared in Germany we noted in the British Medical Journal its powerful and philosophical tone, and the immense impetus it would be likely to give to the study of the cell as the basis of all attempts to unravel the riddle of life. The book has met with an enthusiastic reception; it is so different from all other textbooks of physiology, and in many instances sheds new light on previously ascertained facts. Professor Verworn must be heartily congratulated on the result of his painstaking work and his luminous exposition of physiological facts and theories.

Most fittingly he dedicated the book to Johannes Müller, the father of modern physiology, and the great exponent of the comparative method of studying that subject. Throughout the volume he bears in mind the theme he so eloquently expounds in the opening chapter, that our knowledge of the external world is derived solely from our own mental conceptions. All attempts to explain the psychical by the physical must fail. The actual problem is precisely the reverse; it consists not in explaining psychical by physical phenomena, but rather in reducing to their psychical elements physical and physiological phenomena. This monistic view, it need hardly be added, excludes all vitalistic theories, the revival of which in recent years is a retrograde step.

That such a book should have remained without an English translation has been a puzzle. The task has, however, now been accomplished, and to Professor Lee we tender our congratulations on the successful fulfilment of this duty. The book in its English dress retains the charm of the original in a most striking way, and it deserves to have an ever-widening circle of readers.

Atlas de Microbiologie. D'après les dessins de M. Christ. Doctoroff, ou d'après des photographies. Avec texte explicatif par E. Macé, Professeur d'Hygiène à la Faculté de Médecine de Nancy. Paris: J. B. Baillière et Fils. 1898. (Roy. 8vo., 60 coloured plates with letterpress. Fr. 32.)

It might appear from the numerous atlases that have been offered to the public of recent years that the publication of such a work as that now before us is superfluous. Such an opinion, however, will soon be set aside by anyone who takes the trouble to go carefully through the numerous plates of this admirable atlas; an atlas which we think every bacteriologist will find essential, not only for purposes of instruction, but also for reference. It is certainly the best collection of illustrations that has yet appeared; the text, however, is somewhat scanty.

Excellent as are most of the plates, a few are by comparison and contrast distinctly disappointing. This is a criticism which applies especially to those in which an attempt has been made to depict in colour the naked-eye appearances of diseased organs, whilst a few of the potato and agar culture drawings are somewhat crude, with this slight exception the illustrations are admirable: those of tuberculosis and typhoid being especially good, whilst the naked eye appearances of bacillus coli and of certain of the water organisms are as near perfection as anything we are likely to obtain. The microscopic appearances are presented with an accuracy of detail and at the same time with a clearness and general truth that cannot be too highly commended.

The first part deals with the bacillus of tuberculosis, anthrax, diphtheria, streptococci and staphylococci, typhoid and coli bacillus, pneumonia, bacillus of glanders, of blue pus, cholera, the Finckler and Metchnikoff vibrios, certain of the cladotrices, and a few of the more common water organisms.

The second fasciculus contains a number of other drawings of the diphtheria bacillus, Friedlaender's pneumo-bacillus, Pasteur's *vibrion septique*, bacillus of symptomatic anthrax and of leprosy, pneumococcus, diplococcus of cerebral meningitis, micrococcus tetragenus, bacillus lactis aërogenes, the bacilli of fowl cholera, rouget, pneumo-enteritis of the pig and mouse, septicæmia and colour-producing organisms, including the cladotrices. Actinomycosis and madura foot and *farcin du bœuf* are fairly well illustrated. There is an exceedingly good plate illustrating phagocytosis and cellular inclusions. These drawings have all been collected from various sources, but they are thoroughly typical and should be very useful.

The third fasciculus deals especially with some of the more recently-described organisms, but also with a number of the well-known and typical groups. The organisms of plague, influenza, and of various forms of mammitis of animals, micrococcus prodigiosus, the proteus group, bacillus megaterium, bacillus subtilis, a number of the colour-producing and fluorescing bacilli, spirilla, leptothrix, sarcina, bacillus of yellow fever, a number of organisms found in the skin, the zoöglea of pseudo-tuberculosis, the mother of vinegar, and moulds and yeasts. A special plate is devoted to the hæmatozoa of birds, of malaria in the human subject, and of frogs. On the last plate, one of the best in the whole *Atlas*, are depicted some very good preparations of the coccidia found in rabbit's liver.

La Nephrite des Saturnins. [The Kidney Lesions of Lead Poisoning.] Par Le Dr. H. Lavrand. No. 13 Suite de Monographies Cliniques sur les Questions Nouvelles. Paris: Masson et Cie. 1899. (Roy. 8vo, pp.40. Fr.1.25.)

The author has had considerable experience of lead poisoning among the workers in the white lead factories at Lille, and is fully cognisant of the results of previous workers in connection with this important trade disease. After a short note on the history of plumbic nephritis, as indicated in French publications, Dr. Lavrand considers his subject under the following seven headings: Pathology, Symptoms, Etiology, Clinical Observations, Albuminuria, Diagnosis, and Treatment.

A point specially investigated by the author is the excretion of iron by the skin of patients suffering from lead poisoning. When such a patient takes a sulphur bath the skin darkens, and it has generally been assumed that this is entirely due to sulphide of lead. The author has established the fact, however, that iron is eliminated by the skin in acute lead poisoning, and that this depends on the rapid anæmia produced in that affection. Though an important sign of acute plumbism it is not pathognomonic, inasmuch as it is found in other rapid anæmias. Lead is chiefly eliminated from the body by the liver through the bile and not by the skin, for although a sulphur bath may at first produce some deposit of lead sulphide on the skin in addition to ferric sulphide, after repeatedly washing the surface no more lead is found on the skin, while the iron is still observed.

The author's observations as to albuminuria are interesting; he has never observed it in acute or subacute cases of plumbism, and in 19 patients attacked with various affections due to lead, such as colic, myalgia, and encephalopathy, albuminuria was never found in 41 examinations. It is also noteworthy that in acute or subacute plumbism the kidneys are practically healthy. Encephalopathy therefore appears to be directly due to lead itself, and not to be a uræmic manifestation. The kidney lesions due to lead are the result of long-continued action of the poison, and may be disposed to by exposure to cold, alcohol, and essence of turpentine. Under the heading of treatment it is stated that iodide of iron or phosphide of zinc delay the development of threatened symptoms. The morbid lesions produced are fully described, the vessels, glomeruli, and tubules are all affected, but the author does not believe, as was thought by Lancereaux, that the changes in the kidney are secondary to arterial lesions; he regards them as independent of each other.

In conclusion, the influence of lead on the kidneys has certainly not been exaggerated in this compact monograph, while the large amount of information it contains will make it a useful source of reference.

NOTES ON BOOKS.

Housing of the Labouring Classes, a lecture by Mr. PETER FYFE, F.R.S.E., Chief Sanitary Inspector, Glasgow, has been printed by order of the Corporation. The lecture, which is amply illustrated, is one of the most valuable and practical contributions which has been made to the literature of this very difficult subject. Mr. Fyfe calculates that with ground at 30s. a square yard, charged with 3 per cent. interest, and a four-storey block of houses built thereon, with the most scrupulous regard for economy, at 4½d. per cubic foot of contents, the money being borrowed, on the security of the rates, at 2¾ per cent., a sufficient allowance being made for depreciation and contingencies, a labourer could be provided with a sanitary and comfortable house of 2,000 cubic feet at a weekly rent of 2s. 5½d., the equivalent of 9¼ per cent. on a weekly income of 26s. 6d., or 12 per cent. on a wage of 20s. 6d.

Small Accumulators: How Made and Used (edited by PERCIVAL MARSHALL, A.I.M.E. London: Dawbarn and Ward. Cr. 8vo, pp. 62. 6d.) is the first of the *Model Engineer* series of popular scientific handbooks for amateurs and students. It is fully illustrated, and will prove of distinct service to those having to use accumulators. This little book consists of only 62 pages, and the matter is well condensed. The first chapter deals with the theory of the accumulator; then follow, in Chapters II and III, directions how to make a 4-volt and a 32-volt accumulator, a description of the various types and how to charge them, and their varied applications. The volume concludes with a useful glossary of technical terms.

It is some years since the last edition of NEUBAUER and VOGEL'S well-known guide to the qualitative and quantitative analysis of urine, *Anleitung der qualitativen und quantitativen Analyse des Harns*, was published (Wiesbaden: C. W. Kreidel; and Glasgow: F. Bauermeister. 1898. Royal 8vo, pp. 883, 55 woodcuts and 4 plates. 17s. 9d.). To Dr. H. HUPPERT has again fallen the task of editing this the tenth edition. A book which has been so long before the scientific world needs no further recommendation; it is, in fact, a monumental work both in quantity and quality. The advance in knowledge is shown by the fact that it has been found necessary to add fifteen new chapters. The remainder of the work has been largely rewritten, and all new original researches are included. In all cases the references are given to the journal or other publications in which they appeared.

Mr. WILLIAM H. BENNETT, Surgeon to St. George's Hospital, has reprinted his address *On Varix and Thrombosis*, delivered at the inaugural meeting of the Nottingham Medico-Chirurgical Society last year (Longmans, Green, and Co. 1898. Demy 8vo, pp. 53, 12 illustrations. 3s. 6d.). It will be found an instructive and readable contribution on a subject which, it must be confessed, has of late failed to excite very much interest. Notwithstanding the frequent occurrence of varicose veins in all classes of patients, and the careful study of this affection by able and experienced authors, its pathology remains obscure, and the results of operative treatment open to doubt. If Mr. Bennett does not add much to our knowledge of the causes of varix he lays down some really valuable rules as to treatment. His views as to the prospects and indications of operative interference of the disease in both simple and complicated forms should not fail, if carefully studied, to promote much improved, though less ambitious, results.

Dr. H. A. HARE'S work on *Practical Diagnosis* (London: Henry Kimpton. 1899. Roy. 8vo, pp. 624, 204 engravings and 13 coloured plates. 21s.) has entered upon a third edition in a space of little more than two years, so that it has undoubtedly supplied a want. It is intended as a companion volume to the author's textbook on *Practical Therapeutics*. The two divisions of the book consist respectively in a description of the signs which indicate the presence of disease and in the interpretation of prominent symptoms. The numerous illustrations add much to its value. The two indices which were present in the first edition have been wisely combined into one so as to obviate confusion. The information in this book is thoroughly practical and up to modern requirements, and it is couched in language at the same time simple and clear.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

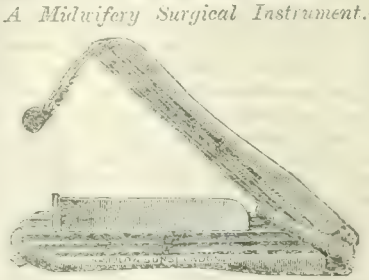
Prepared Cocoa.—We have examined a sample of prepared cocoa submitted to us by Messrs. Abram Lyle and Sons, of Mincing Lane, and sold under the name of "Lyle's Soluble Cocoa." The results of our analysis show that the sample was a well-made prepared cocoa of very good quality and entirely free from added starch and sugar.

Barley Malt with Cream.—A mixture of malt with cream, prepared by Messrs. Evans, Gadd, and Co., of Exeter, and called "ambrosia," has been submitted to us for examination. It is stated to be a mixture of barley malt with pure Devonshire cream, and the makers claim that it is an efficient and pleasant substitute for cod-liver oil. The results of our analysis show that the sample had the composition of a mixture of malt and cream, free from chemical "preservatives." The fat present amounts to 20.07 per cent. The preparation, which is very pleasant to the taste, appears to be worthy of attention.

MEDICAL AND SURGICAL APPLIANCES.

New Vaccinating Pins.—The glass-headed vaccinating pins issued by the Association for the Supply of Pure Vaccine Lymph (12, Pall Mall East) are probably known to many of our readers. By an ingenious modification of the glass head these are now issued charged with glycerinated calf vaccine sufficient for a single vaccination. Mr. Thomas Bond reports very favourably of their use in revaccinating the police of the A division, 51 insertions giving 51 typical vesicles. The activity of the lymph was tested in the primary vaccination of a child 3½ years old, with the most satisfactory results. The "C.P.P.," or charged pin-point, costs 6d.; on orders under 1s., postage 1d. extra.

A Midwifery Surgical Instrument.—Dr. E. Magennis of Lurgan has designed the instrument shown in the accompanying drawings, and describes its use as follows: (1) The instrument by cutting and at the same time compressing both the cut ends of the umbilical cord will supply the place of the scissors and ligatures now used in midwifery practice.



It is neat, handy, and easy of application. (2) By the old method of ligaturing, the accoucheur, after tying with the first thread, stripes the umbilical cord along, and then requires someone to hold and compress at the particular place to which he has driven the blood while he applies the second ligature; if he did not do this the moment the umbilical cord is cut the blood spurts over the bedclothes, etc. (3) When the clamp is applied the accoucheur is at liberty to attend to either the mother or child. (4) If the accoucheur is not satisfied that the ends are sufficiently compressed, the application of the clamp makes the tying quite easy and clean. The instrument is used as follows: When pulsation in the cord has ceased it is to be placed between the blades of the clamp, resting on the plain side, the knifed side is then pressed firmly down, and the catch retains it in position. Messrs. Arnold and Sons, London, are the makers.



NOVA ET VETERA.

MEMORIA TECHNICA MEDICA.

Do medical students of the present day, when in fear of being reduced to the condition of the featherless biped which illustrated Plato's definition of man, use the mnemonic incantation "Salasap," or recall the vexatious conduct of a certain Timothy, or seek the good offices of that helpful firm, unknown where merchants most do congregate, "Timmus, Farlington and Co."? Albert Smith, who closely studied the physiology of the London medical student of the early Forties, has something to say about "phrenotypies," which less classical authorities call "tips." He makes particular mention of a student "of a melodious and harmonic disposition" who, when grinding for the "Hall," conceived the idea of learning the whole of his practice of physic by setting a description of the diseases to music. This ingenious youth had a song of some hundred and twenty verses which he called "The Poetry of Steggall's Manual." This he set to the tune of the "Good Old Adam and Eve." A line or two of the verse dealing with "hæmoptysis" will suffice by way of specimen. After an enumeration of the symptoms,

> A sensation of weight and oppression in the chest, Sirs,

etc., the treatment is described as follows:

> In treatment we may bleed, keep the patient cool and quiet,
> Acid drinks, digitalis, and attend to a mild diet.
> Sing hey! sing ho! we do not grieve
> When this formidable illness takes its leave.

In these days the tune of the "Good Old Adam and Eve" is probably as utterly forgotten as *Steggall's Manual*, and the modern student would find the rude devices of a prescientific age of doubtful help in presence of the *diræ facies* which glower on him from behind the examination table. The "tip" of to-day is a monster of such fearful mien that the very sight of it might make even the most resolute stagger in the attempt to learn it. As an example, we may refer to a little book that has recently swum into our ken, and which bears the innocent-looking title—*Diagnostik der wichtigsten Nervenkrankheiten in mnemotechnischer Behandlung*. The author, Dr. Friedrich Fuchs, is Professor of Medical Physics in the University of Bonn. His idea is to represent each symptom of a disease by a single syllable; the syllables are then grouped into words, and the words into sentences, which are arranged "rhythmically." For instance, the word "lanpapurom" in its constituent syllables expresses the cardinal symptoms of tabes: thus *lan* stands for lancinating pains; *pa* for absence of the patellar reflex; *pu* for inequality of pupil; and *rom* for Romberg's symptom. This is simple enough, but to help us to recollect the whole symptomatology of the disease we are asked to get by heart the following delectable distich:

> **Lanpapurom prigurxanhypolei**
> **Ganglag opoc bladas kritro appil.**

By this we are supposed to recall that besides the symptoms represented by lanpapurom, there are paræsthesiæ (*pri*); girdle sensation (*gür*); anæsthesiæ (*an*); hyperæsthesiæ (*hy*); polyæsthesiæ (*po*); anomalies in the conduction of sensations (*lei*); ataxic gait (*gang*); loss of sense of the position of the limbs (*lag*); atrophy of the optic nerve (*op*); paralysis of the oculo-motor and other cranial nerves (*ve*); functional disturbances of the bladder (*bla*); intestinal and sexual disturbances (*das*); crises (*kri*); trophic, vasomotor, and secretory disturbances (*tro*); apoplectiform (*ap*); and epileptiform (*pil*) seizures.

Basedow's disease is mnemonically summarised in the followed elegant triplet:

> **Pulstrumextrem graefinstellvi**
> **Hautirucaldros dysvompoldi**
> **Sychinsschwinko maghyschorpil.**

We are sure that these words contain all that is known about exophthalmic goitre; but, as Mr. Weller senior said of marriage, is it worth while going through so much to learn so little?

If the student finds that he is apt to forget the causes of headache, he has only to fortify his memory by storing in it the following lines:

> **Hertraum neuraug infe**
> **Mina simal hypan.**
> **Masthy sklepil urdi**
> **Helmadaralnitox**
> **Rheumos mentu tumab.**

That blessed word "Helmadaralnitox" has in itself more than all the virtues of "Mesopotamia." It is as musical as the βρεκεκεξ βρεκεκεξ κοάξ κοάξ of Aristophanes's frogs, and is onomatopoetic to the extent of causing a headache as severe as any that it could serve to describe.

If we wish to guard ourselves against the risk of forgetting the causes of neuritis, we need only apply to Professor Fuchs, who provides us with the following sweet anti-oblivious antidote:

> **Scharmal tysidin vargelfec**
> **Alni plumcuding merkotex**
> **Rheuma cargidi traumfert.**

We are, as our German friends not infrequently remind us, an unmusical people, and the rhythm of some of the other forms of incantation might pass unperceived by our dull ears had we not the author's assurance that it is there. But Professor Fuchs is justly proud of his neuritis tercet, which, he says, may be sung to the air of *Die Lindenwirthin*.

Besides his gift of rhythm the Professor is a humorist. He does not however agree with his brother artist, Tammas Haggart, the humorist of Thrums, that "a humorist doesna tell whaur the humour comes in." Professor Fuchs, with a fuller sense of his responsibilities, expressly calls attention to the suggestive resemblance between "plumcuding" in the lines above quoted and plumpudding. He also reveals the latent comicality of the word "gräfinstellvi" in the lines about Basedow's disease, regretfully admitting however that this excellent "pass of pate" as one of Shakespeare's humorists would have called it, came to him by accident.

But Professor Fuchs reserves the finest effort of his inventive faculty for hysteria, which is forcibly, if somewhat cryptically, characterised as follows:

> **1. Sydolhypri ansen partaxcontrac kloterytirem**
> **hallethsomklop.**
> **2. Einampolchrom pulangglophar spinovinchnies**
> **resphontussing stonnugluienk.**
> **3. Norvomtorob pololsaldros vasblut weakstim.**

We must leave readers who combine a thorough knowledge of neurology with a perfect familiarity with German to rede the riddle of this scientific Volapük for themselves. The *sesquipedalia verba* look as if by the polyphlœsbœan sound of their syllables they might be an effective exorcism in the worst cases of hysteria.

There is a famous story of a criminal who was offered the alternative of going to the galleys or reading Guicciardini's *History of Italy*. After a short trial of the history he chose the galleys. If a man were offered the choice between hard labour and Professor Fuchs's *Memoria Technica*, he would certainly have a better chance of retaining his sanity if he chose the former. The *Memoria Technica* might perhaps be reserved for the punishment of doctors who advertise or are otherwise guilty of lapses from a high standard of professional conduct.

Another modern instance of *memoria technica* applied to things medical may be mentioned here. *First Aid in Rhyme* by H. A. D., is a leaflet sent us some time ago by the author, a physician, who has described the signs of inflammation, the position of rest for a limb, the treatment of burns and scalds, bleeding, fractures, dislocations, etc., in verse as a help to the memory of learners. The cause and treatment of sprains and strains are set forth as follows:

> Stretch a muscle—cause a strain;
> Stretch a tendon—cause a sprain.
> They differ little as you perceive.
> Warmth and moisture both relieve.

On epileptic fits, the Bard of First Aid delivers himself to the following effect:

The Fits most commonly we meet
In church or walking in the street
Are easily known by any sceptic—
With BITTEN tongue are Epileptic.
Remove the patient from all harm;
Unloose tight clothes, there's no alarm;
The head lay low, just raise the feet,
And place a gag between the teeth.
Convulsions ceasing, he will sleep,
While careful watch o'er him you keep.

It has never happened to us to meet fits in church or walking in the street, but anyone, sceptic or other, whom so strange an adventure may befall will have no difficulty in recognising them from the description just quoted.

LITERARY NOTES.

Les Projectils de Guerre et leur Action Vulnérante is the title of a work by Drs. Nancier and Laval, which will be published very shortly in Paris.

A new monthly periodical devoted to biological sciences is shortly to appear in Italy. The title will be *Revista di Scienze Biologiche*, and it will be edited by Enrico Morselli in collaboration with E. Haeckel, J. Lubbock, C. Richet, G. Cattaneo, F. Delpino, G. Fano, B. Grassi, C. Lombroso, L. Luciani, A. Mosso, F. Todaro, T. Vignoli, and Paolo Celesia. The objects of the publication will be (1) To offer to the public original memoirs; (2) the prompt announcement of new scientific facts or summaries of new ideas; (3) extracts from biological works published in Italy or elsewhere; (4) to stimulate and direct the scientific investigations, the solution of which constitutes nowadays the chief object of biological science.

The *Scalpel* makes the startling announcement that at the meeting of the Medical *(sic)* Association to be held at Bristol this year, the address in surgery will be delivered by Mr. Greig Smith. The Society for Psychological Research will doubtless be particularly interested in the appearance of that distinguished surgeon at the meeting in question, and it may confidently be predicted that his address will make a sensation. But it is to be hoped that the event will not become a precedent. If the illustrious dead are to make a practice of delivering addresses at congresses, how are the living to find the opportunity to which they may justly think themselves entitled of witching the world with noble oratory? "Spooks" are all very well in their proper place, but their remarks, as collected by serious inquirers, are not generally either enlightening or edifying.

The first volume of the *Encyclopædia Medica*, particulars of which have already been given in the BRITISH MEDICAL JOURNAL, will, it is announced, be published in June. The articles in the volume extend from "Abdomen" to "Bone." To mention only a few of the subjects, Abortion is treated of by Professor A. R. Simpson; Actinomycosis by Professor Sheridan Delépine; Adolescent Insanity by Dr. T. S. Clouston; Aërotherapeutics by Dr. Theodore Williams; Albuminuria and Albumosuria by Dr. R. Maguire; Amputations by Professor John Chiene; Angina Pectoris by Dr. Lauder Brunton; Aphasia by Dr. Byrom Bramwell; Appetite by Dr. Saundby; Ascites by Dr. H. P. Hawkins; Beri-beri by Dr. Patrick Manson. The work is published by Messrs. William Green and Sons, Edinburgh.

Progressive Medicine is the title of a new "quarterly digest of advances, discoveries, and improvements in the medical sciences," of which the general editor is Dr. Hobart Amory Hare, and the publisher in this country is Mr. Henry Kimpton, of Holborn. The contents of the first volume, which has recently appeared, are: Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza, by Dr. W. S. Thayer, Assistant Professor of Medicine in Johns Hopkins University, Baltimore; Surgery of the Head, Neck and Chest, by Dr. J. Chalmers Da Costa, Clinical Professor of Surgery in the Jefferson Medical College, Philadelphia; Diseases of Children, by Dr. A. D. Blackader, Professor of Pharmacology and Therapeutics, and Lecturer on Diseases of Children in McGill University, Montreal; Laryngology and Rhinology, by Dr. Logan Turner, Assistant to the Lecturer on Laryngology in the University of Edinburgh; Otology, by Dr. Robert L. Randolph, Associate in Ophthalmology and Otology of Johns Hopkins University, Baltimore; and Pathology, by Dr. Ludvig Hektoen, Professor of Pathology in Rush Medical College, Chicago.

According to *Literature*, in Mr. Lewis Melvill's forthcoming Life of Thackeray there will appear some unpublished reminiscences of the author of *Vanity Fair*, from the notebook of the late Dr. J. M. Cookesley, of Boulogne-sur-Mer, who was Thackeray's medical adviser in that town. Dr. Cookesley was a descendant of the Dr. Cookesley of Devonshire who found the boy Gifford at the cobbler's stall, and at his own expense sent him to Oxford to be educated. The Boulogne Dr. Cookesley was the father of Mrs. Patchett Martin, the translator of Count de Segur's "An Aide-de-Camp of Napoleon" and of Gyp's "Mariage de Chiffon."

Dr. P. Triaire has recently had placed in his hands by one of Laënnec's descendants the original agreements between the discoverer of auscultation and his publishers relative to his great work, *De l'Auscultation Médiate*. For the first edition the publishers covenanted to pay the author at the rate of 60 francs a sheet of sixteen octavo pages; for the second edition at the rate of 50 francs a sheet. The first agreement is dated April 29th, 1819. By a second agreement, dated January 13th, 1824, Laënnec enters into a contract to incorporate a projected separate treatise on the heart into a second edition of the work on auscultation; the payment was to be 6,000 francs (£240), payable in two instalments. By a third agreement, dated March 2nd, 1830, some time after Laënnec's death, his cousin, Dr. Mériadec Laënnec, undertakes to prepare a third edition, with notes, for £80. The Academy of Sciences awarded Laënnec a prize of £120 for the first, and another of £200 for the second edition of his work. When it is borne in mind that the book in question changed the whole face of medicine, and profoundly affected the hygienic destiny of the human race, the profits of the author can hardly be considered excessive. Two further editions of the *Traité de l'Auscultation* have since appeared; a fourth, with notes by Andral, published in 1836; and a fifth, known as the "Faculty's Edition," which is simply a reissue of the 1836 edition, and which was published in 1879.

Like most pioneers Laënnec was not appreciated by his contemporaries at anything like his real value. Broussais laughed at his work on Auscultation as a romance, and Eusèbe de Salle, one of the most distinguished medical writers of his day, delivered himself as follows in the *Journal des Savants* in 1829, ten years after the appearance of the *Traité de l'Auscultation*:

> People have gone mad over novelties which were announced in a guise less sincere and less seductive; it was permissible for doctors, a methodical race not prone to infatuation, to arm themselves with stethoscopes and to intoxicate themselves during whole hours with the new world of sensations which struck upon their ears. Alas! it must be owned that world was a mere chaos; the spectators drugged with a full dose of good faith or imagination saw all kinds of things in it; others, somewhat sceptical, rubbed their eyes and saw nothing; lastly, some made out will-o'-the-wisps, but so slight, so fugitive, so pale, that the patience of a Chinaman or the life span of a Methusaleh would be needed to reduce them to certain constant types. Laënnec had the patience of a Chinaman, and if his life was short, his atrabilious and monomaniacal imagination was capable of excavating into an artesian well the narrowest idea on which he laid hold. But what is one to think of the assured confidence with which the throng of collectors of observations to-day write down: "Crepitant *rale*," "pectoriloquy," "metallic tinkling," "ægophony," as folks used to write "pulse 85; bilious vomiting; so many stools?" etc.

This is the great discovery as seen by a contemporary. The "superior person" is in all ages and countries a "constant type." He is conservative by nature and resents originality as revolutionary.

In the article on the Royal Cure for the King's Evil, which appeared in the BRITISH MEDICAL JOURNAL of May 13th, it should have been stated that the date of John Browne's *Charisma Basilicon*, from which the description of the rite was taken, is 1684. The full title of the work may be given as a curiosity: *Charisma Basilicon, or the Royal Gift of Healing Strumaes or King's-Evil Swelling by Contact or Imposition of the Sacred Hand of our Kings of England and of France, given them at their Inauguration. Shewing the Gift itself and its Continued Use, Declaring all Persons Healed thereby without any respect either to the Age, Sex, Temper, or Constitution: with the Manner, Form, and Ceremonies thereof, and Divers General Rules for the Meanest Capacity to find out the Disease. The best expedient to prevent poor People from Unnecessary Journeys. The whole concluded with above Sixty Admirable*

Cures performed with and without Gold by His Majestie's Benediction, by his late Majestie's Precious Blood and the like. Browne was also the author of a treatise in which scrofula was discussed from a more mundane if not more scientific point of view. This, which was also published in 1684, bears the formidable title, *Adenochoiradelogia, or an Anatomick-Chirurgical Treatise of Glandules and Strumaes, etc.*

Another quaint work on the subject of the royal touch for scrofula is entitled Χειρεξοχη: *The Excellency or Handywork of the Royal Hand, by Thos. Harris, London: MDCLXV.* A manuscript note in a copy of this book in the British Museum states that "this Dr. Harris was Burgess for St. Albans in the Parliament of 1661. His father, old Harris there Chirurgeon, bought up all the copies and burnt them." The work, which is dedicated, "To the Most Puissant and Illustrious Prince, James Duke of York and Albany," is a strange compound of extravagant loyalty and superstition. One can well believe that it was distasteful to "old Harris," who was probably a Roundhead, for its folly, not less than for its pestilent politics.

A writer in the *St. Paul Medical Journal* for May, speaking on the familiar text that new things are not always new, says:

> It is well known that inoculation for small-pox was practised in very ancient times, but I doubt if many are familiar with the fact that actual vaccination, for the introduction of which Edward Jenner has justly been called one of the greatest benefactors of humanity, was practised many centuries before the Christian era. Dr. Michea (quoted by Buret in *Syphilis in Ancient and Prehistoric Times*) gives the following translation of the Sanskrit text of an ancient Hindu medical work, *Sacteya Grantham*: "Take the liquid of the pustules of the cow's teat, or from the arm of a human being, between the shoulder and the elbow; place it upon the point of a lancet, and introduce it in the arm at the same place, mixing the fluid with the blood; the fever of variola (*Bhadvidee*) will be produced. This disease will be mild like the animal from which it is derived; it need not cause fear, and requires no remedies; the patient may be given the food he desires. The pustule is perfect when it is of a good colour, filled with a clear liquid, and surrounded by a red circle."

The writer does not seem to be aware that this subject is fully discussed by Baron in his *Life of Dr. Jenner*. Baron took great pains to get at the truth, and his inquiries showed that, in order to overcome the prejudices of the natives of India, several well-meaning persons had recourse to a pious fraud. In Madras an eminent Sanscrit scholar composed a poem on vaccination which was written on old paper, and "found" when the psychological moment had arrived—to the admiration of every one not in the secret. In Bengal similar forgeries were perpetrated, the end being held to justify the means. The following passage from Baron (vol. i, p. 558) seems to indicate the source of the story repeated by Buret:

> A native physician of Barelly put into the hands of Mr. Gillman, who was surgeon at that station, some leaves purporting to contain an extract of a Sanscrit work on medicine. This work is said to be entitled *Sud'ha Sangreha*, written by a physician named Mahadeva, under the patronage of Rájá Rájasin'ha. It contained a chapter on Masúrica or Chickenpock.
>
> Towards the close, the author appears to have introduced other topics; and immediately after directing leeches to be applied to relieve bad sores, he proceeds thus: "Taking the matter of pustules, which are naturally produced on the teats of cows, carefully preserve it, and before the breaking out of small-pox make with a fine instrument a small puncture (like that made by a gnat) in a child's limb, and introduce into the blood as much of that matter as is measured by a quarter of a ratti. Thus the wise physician renders the child secure from the eruption of the small-pox."
>
> This communication was shown to Mr. Colebrooke and Mr. Blaquiere, both eminent Sanscrit scholars, and they both suspected that it was an interpolation. The first-named gentleman further adds that the original work, from which the extract purports to have been taken, was not exhibited to anyone well versed in Sanscrit. I believe I may further add that Mr. Colebrooke made inquiries whilst in India which fully satisfied him that no original work of the kind ever had existence. Sir John Malcolm has also been kind enough to ascertain that no such book is to be found in the library of the East India Company. From these statements it must be apparent that the well-meant devices of those who attempted to propagate vaccination in India have led to the belief that the practice was known to the Hindus in earlier times.

Messrs. J. and A. Churchill have now ready a new (fourth) edition of Dr. Hale White's *Materia Medica*. The third edition was sold out in little more than ten months. The same firm have just published an *Introduction to the Study of Materia Medica*, designed for students of pharmacy and medicine, by Henry G. Greenish, F.I.C., F.L.S., Professor of Materia Medica and Pharmacy to the Pharmaceutical Society of Great Britain. The work contains 213 illustrations.

The formal opening of the Horton Manor Asylum, Epsom, will take place on June 3rd, at 3 P.M.

NURSING AT THE CAMBERWELL INFIRMARY.

The Infirmary Buildings.

Camberwell Infirmary stands in Havil Street, which also contains the old workhouse. The situation is open, and at the back is a large vacant space which has been bought by the guardians, with the intention, as we understand, of erecting a new infirmary. The plans have been prepared, and when the building is completed Camberwell will be second to none in its infirmary. Special attention will be paid to the treatment of phthisical patients. The present period is unpleasantly transitional in regard to both building and nursing staff.

The medical superintendent, Dr. Keats, readily complied with a request to see the infirmary. It consists of three blocks built at different periods, an instance of the "patching" so dear to the heart of the guardian of the past. The older portion, consisting of two oblong blocks, was opened twenty-three years ago, a time when hospital architecture was not at its best; the newer block, which is circular, was opened nine years ago. The infirmary is certified for 332, but, as is usually the case, the wards were overfull. When we take into consideration that the nearest general hospitals are St. Thomas's and Guy's it is easily understood that this infirmary must serve as the hospital for a very large district; in fact a majority of the cases on both medical and surgical sides required full hospital treatment. The really chronic medical and surgical cases are in the sick wards of Constance Road and Gordon Road workhouses; at Constance Road also are the probationary wards for lunatics, and the lying-in wards.

The Wards.

The wards hold 28 beds each, 8 beds at one end being set apart for the more serious cases. This arrangement is necessitated by the fact that there is only one nurse to each ward, with such assistance as can be rendered by one or two paid scrubbers drawn from the class that would otherwise be in the receipt of outdoor relief. There was a large proportion of acute cases on both male and female sides on the day of the visit, and how the one nurse accomplished her task was a problem. The offices are grouped together at one end of the ward; in some instances bath, closet, and sink are placed in one room, without any partition to screen the bath, and where this method does not prevail the several offices are small, dark, and inconvenient. The soiled-linen basket and the ash bucket find a place on the landing of the "fire staircase" outside, whilst at the other end of the ward is the ward kitchen. A central staircase between the blocks divides them into male and female portions; the rooms in the space between are severally servants' cubicles, nurses' recreation rooms, and nursery. A disused ward had been converted into a small operating room.

The Circular Block.

The wards here are designed for 25 beds, and the offices are better planned. Here also, however, there was the same difficulty in nursing for lack of sufficient staff, so the more acute cases were placed in a lower ward. In the old workhouse there was an isolation ward for such cases as could not be placed in the general wards, and another ward for certain cases which required the services of a male attendant. The children from the parish are brought into the infirmary for treatment, and are placed in the nursery or among the adults. We understand that the necessity of placing them with the adults will cease with the new infirmary, in which there will be provision for children's wards.

The Nurses' Quarters.

The rooms for nurses are both clean and comfortable. Unfortunately they are very scattered; a few cubicles are in the old workhouse, and the rest are at the top of each block. The large rooms at the top of the oblong blocks are curtained off into cubicles with all necessary furniture, and in the circular block the nurses have the use of rooms originally intended for small wards. The drainage is condemned throughout the old buildings, but the nurses have baths and all other necessary offices made as convenient as possible for them. It is intended to build a nursing home, and we understand that this portion of the plans will be put in hand first.

Indeed, it is most necessary if the best class of nurse is to be attracted to the work.

THE NURSING STAFF.

The selection of the female officers should be in the hands of a trained matron, who, in conjunction with the medical superintendent and after he has approved the candidates, should present them to the Committee for appointment. Instead written applications and testimonials are scrutinised by the Chairman of the Committee and the clerk, and then the selected candidates are interviewed by and appointed by the Committee; the medical superintendent and matron have no voice in the matter. It is like sending a captain to sea with a crew chosen by a secretary and Board of directors—there may be mutiny, there must be discontent and inefficiency. The nurses are under a superintendent nurse, and there is a night superintendent nurse.

This question is of such extreme importance, primarily for the efficient nursing of the sick, but also for the successful training of nurses for the workhouse infirmary, that we trust that it will have the fullest consideration of the Board. Camberwell, with its new infirmary, may become a foremost training school for nurses; but a probationer who has her career before her, and who has an earnest desire to secure efficient training resulting in a certificate of real value to her, will be little disposed to risk her future on the uncertain foundation of selection by a Committee which lacks the skill to discriminate between the fit and the unfit.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION

List of Presentations of Books, &c.

Presented by the AUTHORS:
Barnes (W. S.) and Fowler (J. F. S.). British Medical Annual. 1899.
Cathcart (C. W.). Catalogue of the Museum of the Royal College of Surgeons, Edinburgh. Vol. v. 1893.
Mapother (E. D.). Papers on Dermatology and the Allied Subjects. 1899.
Medical Officer to Local Government Board. Twenty-seventh Annual Report. 1898.

Presented by Messrs CHARLES GRIFFIN AND CO.:
Journal of Anatomy and Physiology. Vol. 33. 1898-99.

Presented by C. HOLMAN, Esq., M.D., London:
Bastian: Paralysis from Brain Disease. 1875.
Beale (L. S.). Kidney Disease. 1869.
Brinton. Diseases of the Stomach. 1854.
Ferrier (D.). Localisation of Cerebral Disease. 1878.
Smith (E.). Clinical Studies on Diseases of Children. 1870.
Tanner. Clinical Medicine. 1876.
Tanner. Diseases of Infancy. 1870.
Wilde. Aural Surgery. 1853.
And other volumes, chiefly duplicate New Sydenham Society volumes.

Presented by HENRY MEADOWS, Esq., M.B., Leicester:
The Pharmaceutical Journal. 1871-1884.

Presented by the NEW SYDENHAM SOCIETY:
Helferich. On Fractures and Dislocations. 1870.

Presented by GEORGE PERNET, Esq., M.R.C.S.:
Report on Leprosy in New South Wales. With an Appendix. 1893.

Presented by Messrs. SIMPKIN MARSHALL.
Braithwaite Retrospect of Medicine. Vol. 118. December, 1898.

Presented by W. JOHNSON SMITH, Esq., F.R.C.S.:
Reports of the Seamen's Hospital, Greenwich, 1881-1898.

Presented by the EXECUTORS OF THE LATE A. HAMILTON TAYLOR, Esq., M.B., Willesden:
BRITISH MEDICAL JOURNAL. 1882-1894.
Eve (P. F.). Remarkable Cases in Surgery. 1857.
Harvey (A. H.). First Lines in Therapeutics. 1871.
Malgaigne. Médecine Opératoire. 1874.
Smith (Noble). Atlas of Anatomy. 1880.
And other duplicate volumes.

Presented by the WAR OFFICE, S.W.:
Army Medical Department Report. 1897.

Presented by the EDITOR OF THE BRITISH MEDICAL JOURNAL:
Anderson (T. McCall). Contributions to Clinical Medicine. 1898.
Bell (J.). Notes on Surgery for Nurses. 1899.
Bennett (W. H.). On Varix. 1898.
Bianchi (A.). On the Phonendoscope. 1899.
Edinburgh Royal College of Surgeons. Catalogue of Pathological Specimens. Vol. 2.
Freeman (E. C.). The Sanitation of British Troops in India. 1899.
Garrandeau. Des Péricardites. 1898.
Hare (H. A.). Practical Diagnosis. 3rd edition. 1899.
Knopf (S. A.). Les Sanatoria—Traitement et Prophylaxie de la Phtisie Pulmonaire. 1895.
Lückes (N. C. E.). General Nursing. 1898.
Paget (S.). Essays for Students. 1899.
Sersiron (G.). Les Phtisiques Adultes et Pauvres en France, en Suisse, et en Allemagne. 1898.
Sutton (J. B.). Treatment of Uterine Myomata. 1898.
Taylor and Wells. Manual of Diseases of Children. 1899.
Veley (V. H. and L. J.). Micro-organisms of Faulty Rum.
Verhandlungen des Congresses für innere Medicin. 1898.
Vulliamy (A. F.). Fry's Law of Vaccination. 7th edition. 1899.
And other volumes.

Transactions and Reports have been received from the following bodies:
American Climatological Association, Transactions. Vol. 14. 1898.
American Gynecological Society, Transactions. Vol. 23. 1898.
American Ophthalmological Society, Transactions. 1898.
American Orthopedic Association, Transactions. Vol. 11. 1898.
Dublin University Calendar. 1899.
Edinburgh Obstetrical Society, Transactions. Vol. 23. 1898.
General Medical Council. Minutes for 1898.
Pharmaceutical Society Calendar. 1899.
Philadelphia Pathological Society, Transactions. Vol. 1. 1899.
Public Health Society, Reports. 1873-1893.
Royal Academy of Medicine in Ireland, Transactions. Vol. 16. 1898.
St. Bartholomew's Hospital, Reports. Vol. 34. 1898.
St. Thomas's Hospital, Reports. Vol. 26, with an Index to Vols. 1-25. 1898.
Victoria University Calendar. 1899.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must include details of the precise character and objects of the research which is proposed and must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C.

Reports of work done by the assistance of Association grants belong to the Association.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

ERNEST HART MEMORIAL SCHOLARSHIP.

The Council are also prepared to receive applications for a scholarship of £200 for the study of some subject in the department of State Medicine in memory of the late Mr. Ernest Hart.

Applications must be sent in writing on or before June 15th, stating the particulars of the intended research, qualifications and work done.

Forms of application for the scholarships can be obtained from the General Secretary.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, May 2nd, 1899.

SANITARY PROGRESS IN MONACO.—Dr. Vivant, of Monte Carlo, in a communication read to the Société de Médecine Publique et d'Hygiène Professionelle de France summarises the progress in public sanitation in the Principality of Monaco during the last ten years. He deals with the subject under five heads: (1) Sanitary Legislation.—This includes notification of infectious diseases, among which are reckoned pulmonary phthisis and tuberculosis in all forms, and strict regulations for the isolation and disinfection of houses and clothing of patients. (2) Drainage.—The sewerage systems in the districts of Monaco, Monte Carlo, Les Moulins, and La Condamine are fully explained. (3) Water Supply.—This is derived from three sources; chemical analysis of the water from each showed it to contain only a minimum amount of organic matter; and bacteriological examination specially made for the bacillus typhosus and bacillus coli communis showed the absence of pathogenic organisms. (4) Meat Inspection.—All meat killed at the abattoirs or imported into the Principality is subject to strict inspection by veterinary experts. (5) The author refers also to the installation of the electric light and the electric tramways: and the appointment of a Commission to supervise the erection of all new houses, so that plenty of air and sunlight is provided for. He remarks, in conclusion, on the rarity of cancer, pulmonary phthisis, and osseous and articular tuberculosis in the native born.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders and Postal orders should be made payable to the British Medical Association at the General Post Office, London.

British Medical Journal.

SATURDAY, MAY 27TH, 1899.

THE CERTIFICATION OF CAUSES OF DEATH.

THE sixtieth annual report of the Registrar-General for England, dealing with the national statistics, embodies important facts on the certification of causes of death. It is satisfactory *in limine* to find that there is some improvement in the extent to which the causes of death are medically certified, the total percentage of uncertified deaths having declined from 3.08 in 1888 to 2.06 in 1897. This is all the more satisfactory inasmuch as it is not entirely explained by the increase in deaths the causes of which were certified by the coroner after an inquest, from 5.59 to 6.25 per cent. in the same period. It is evident, therefore, that there has been a perceptible diminution in the number of patients dying in the absence of skilled medical attendance. The residual figures, however, leave ample scope for dissatisfaction, and reveal a state of matters which compares very unfavourably with the facts in France and Germany.

During 1897 6.25 per cent. of the deaths occurring in England and Wales formed the subject of coroners' inquests; 0.26 per cent. having been notified to the coroner were registered as certified, and 1.57 per cent. having been similarly notified were registered as uncertified. There remained 0.49 per cent. of uncertified deaths, which were registered without any notification to the coroner. It is evidently these last in connection with which reform is most urgently required. That the proportion under this head varies so enormously in different counties, is a sufficient indication that reform is not only necessary but practicable. Thus, while under this last head only 0.01 per cent. occurred in Kent, 0.02 per cent. in London north of the Thames, and 0.08 per cent. in Surrey, the percentage increased to 0.73 in Berkshire, 0.76 in Norfolk, 0.78 in Shropshire, 0.79 in Cornwall, 0.82 in Huntingdonshire, 1.25 in the North Riding of Yorkshire, 1.27 in Durham, 1.32 in Bedfordshire, reaching a maximum of 1.95 in North Wales, and 2.23 in South Wales. The preceding examples indicate that, as a general rule, the proportion of uncertified deaths is greatest in sparsely populated counties, as might have been anticipated.

When we pass on to the next heading—namely, deaths which have been notified to the coroner, and have in accordance with his recommendation been registered as uncertified, without a formal inquiry being made, we find the most anomalous variations. The percentage of such deaths, for instance, is 1.06 in Sussex and 3.12 in Kent; it is 1.28 in Bedfordshire and 2.46 in Northamptonshire; it is 3.04 in Essex and only 0.60 in Wiltshire; it is 0.70 in South Wales and 2.39 in North Wales, and so on. Evidently there is no relation between the numbers under this heading and those already considered where deaths are registered as uncertified without notification to a coroner. The explanation is perhaps to be found in the different methods of payment of coroners adopted in different counties. If this be correct, it is important in the public interest that payment of coroners should be made on some system that will not make it to their interest to keep down the total number of complete inquests. On what other hypothesis than that suggested can the anomalous fact be explained, that in the part of London north of the Thames the percentage of deaths registered as uncertified after having been notified to the coroner is only 0.11, while in London south of the Thames the percentage is as high as 1.03?

The accuracy of the supposition above thrown out is supported by the percentages of total deaths in which inquests were held. Thus in London north of the Thames these formed 10.53 per cent. of the total deaths, in London south of the Thames only 7.28 per cent. Similarly in Sussex they formed 6.46, and in Kent 5.63 per cent. of the total deaths, and so on.

There remains another heading which is of great interest to the medical profession. This consists of deaths which are "registered as certified" after having been notified to the coroner. This class of case is well known to every medical practitioner. A patient who has not recently been under the doctor's care dies suddenly from apoplexy. The doctor in order to save the relatives from the inconvenience and publicity of an inquest writes a letter to the coroner, which is accepted by him as satisfactory. This method of procedure can be regarded as entirely satisfactory only when the doctor's opinion is based upon a necropsy, and he should be paid a fee at the public expense in respect of this necropsy. This would in fact constitute the medical practitioner a medical assessor to assist the coroner in deciding whether a coroner's inquest be necessary, and would form, in a very large proportion of cases, a more economical and a very much more efficient inquiry than the perfunctory coroner's inquest in which economy is attempted by not ordering a necropsy to be made.

The figures under the last heading are again very suggestive. Thus, while in London north of the Thames 0.04 per cent. of the total deaths are "registered as certified after notification to the coroner," in London south of the Thames they form 0.46 per cent. In Kent the percentage is 0.13, in Sussex 2.19, and so on. Is the medical profession so much less reliable in London north of the Thames than in London south of the Thames, or in Kent than in Sussex, or is there some other reason to explain the extraordinary discrepancies displayed above? The figures briefly summarised above irresistibly suggest the necessity for a Government investigation of, and reform in respect of, the methods under which coroners act, so as to ensure uniformity of action on their part throughout the country, and secure that an exact medical inquiry, including a necropsy, should be made in every case in which a medical practitioner is not in a position to sign a death certificate.

Such a Governmental investigation would necessarily include the question of the proportion of uncertified deaths in which unqualified persons were giving "medical" aid before death. Although attendance by unqualified practitioners of various sorts probably does not explain fully the anomalous figures already quoted, it accounts for a certain proportion of them, and no inquiry into the subject and no new regulations would be satisfactory which do not have regard to this point.

SURGICAL SHOCK.

Up to the beginning of the present century the term "shock" had no place in surgical literature. The condition was, of course, a recognised one, but little or no attempt was made to understand or explain its manifestations. The word "shock," however, is so strikingly appropriate that it has found a place in other languages than ours.

Some of the earliest writers, among whom William Clowes, surgeon to Queen Elizabeth, and Wiseman, surgeon to Charles the Second, may be mentioned, attributed the symptoms of shock to the irritation produced by some foreign body present either in the wound or in the blood. The first adequate description of the condition was given by John Hunter in 1784. In the sense in which the word "shock" is now used it has been traced to James Latta in 1795. In 1826 Travers in his work "On Irritation," wrote: "Although the fact of death ensuing upon injuries of parts not essential to life, even when unattended by hæmorrhage, and upon operations not usually esteemed hazardous, has not escaped observation, writers and teachers seem to have contented themselves with the bare statement of it."

The subject is one of the most interesting and one of the most important to the surgeon of to-day. The interest is testified to by the quite remarkable number of speculations by the leaders in their art which have been given to the world, and its importance is admitted by all. It is safe to say, however, that neither the elucidation of the cause nor the treatment of the condition has materially advanced during the century that has elapsed since Hunter wrote. Shock is still the terror of the surgeon. It has, in all the major operations at least, to be reckoned with, and it is in many cases an unknown quantity and therefore the more to be feared.

The two chief theories which have been, and still are, held as to the nature of "shock" may be called the "vascular" and the "nervous." Of the former view Fischer is the most acceptable exponent. He recalls the well-known Goltz experiment, wherein the frequently-repeated blows upon the abdomen of the frog produce not only a temporary cessation of the heart but also a vasomotor paralysis. This affects both arteries and veins, and results in the heart receiving but a small proportion of the blood normally passing into it at each diastole. Fischer's view, then, is that there is an "intravascular hæmorrhage," a collection and stagnation of an excess of blood in the abdominal veins. This he considers a sufficient physiological explanation of shock. Schneider expanded Fischer's theory, and held that the vasomotor paralysis involved the whole vascular system. The heart then fails in its attempt to force the very much smaller quantity of blood which it receives into a vascular system, the capacity of which is very largely increased. Mansell Moullin, while approving the views of Fischer and Schneider, considers them insufficient, and adds "shock is an example of reflex paralysis in the strictest and narrowest sense of the term, a reflex inhibition probably in the majority of cases general, affecting all the functions of the nervous system and not limited to the heart and vessels only."

The arguments against the views of Fischer are, however, neither few nor of small account. If this theory were correct the signs of hæmorrhage and of shock should be the same, but as every surgeon is aware they differ in certain essentials. Groeningen in repeating the experiments of Goltz was unable to demonstrate an anæmia in the peripheral vessels, and in rabbits dying from shock he found the abdominal vessels empty. If Calabar bean be administered prior to the experiment the possibility of over-dilatation of the abdominal vessels is removed, yet the symptoms of the shock are produced. On the other hand, the dilatation of these vessels alone produced experimentally does not cause shock, nor symptoms closely related thereto.

The influence upon the heart alone has been held by some authors to be paramount. Savory, in the most eloquent contribution to this subject, says death from shock "is the result of a sudden and violent impression upon some portion of the nervous system, acting at once through a nerve centre upon the heart and destroying its action," and again, "the heart is powerfully affected through the nervous system and its action is arrested."

The second theory may be called, for want of a better name, the "nervous." It dates back to Sir Astley Cooper, who attributed death from shock to either direct or indirect action on the nervous system. Verneuil concludes that shock is "a series of phenomena more or less sudden following a traumatism of the anatomical elements, tissues, or organs characterised by a temporary excitation or depression of the function of the parts injured, and provoking changes anatomically comparable to those one observes normally in the stages of activity and of repose.' Groeningen, who has elaborated this theory most exhaustively, believes that shock is due to a swift overwhelming of the whole spinal cord by a sudden intense stimulation received from the periphery. The greatest disturbance created in a nerve centre by the receipt of an impulse from the periphery occurs when that impulse is of maximum intensity and of minimum duration, and the disturbance then created "overflows" into neighbouring centres, and in a similar manner exhausts them. Warren quotes the observations of Hodge upon the alterations in nerve cells at rest and in fatigue, wherein it is demonstrated that metabolic changes similar to, and strictly comparable with, the changes observed in gland cells occur. It is suggested that "in this profound functional disturbance similar changes may be found which may gradually disappear after an interval of rest."

The most recent, and perhaps the most elaborate and exhaustive study of this subject has been published by Dr. George W. Crile,[1] in an essay which was awarded the

[1] *An Experimental Research into Surgical Shock*, by George W. Crile, A.M., M.D., Ph.D., Professor of the Principles of Surgery and Applied Anatomy in the Cleveland College of Physicians, etc. Philadelphia: J. B. Lippincott Company, 1899.

Cartwright Prize for 1897. A series of 148 experiments upon animals was made, and, briefly, the following conclusions were attained. Surgical shock is mainly due to impairment or breakdown of the vasomotor mechanism. In the fatal cases of shock, and in the conditions of most profound shock there is either total paralysis of the vessel walls, or its equivalent. The heart is not exhausted, and it is proved, on sound experiment and apt and scholarly reasoning, not to be the principal factor in the production of shock. The influence of hæmorrhage upon shock is very marked. So far as treatment is concerned, there is very little that is new to criticise, but it is interesting to receive assurance that the two most common remedies in use—strychnine and saline infusion—are the most satisfactory. Small doses of strychnine and small infusions of saline solution frequently repeated produced the most beneficial results and the most sustained effects. Aqueous extract of the suprarenal capsule of the sheep was tested. There was, upon its administration, an immediate and marked rise in blood pressure, but the pressure was not at all sustained, and the fall was as rapid as the rise. The blood in shock is insufficiently supplied with oxygen, and an increased supply of oxygen is urgently demanded. The observations made as to the relative tendency to the production of shock shown in various regions proved most interesting. In operations upon the extremities, if performed bloodlessly, and if the nerve trunks had been subjected to "a cocaine block," no shock could be produced. The afferent impulses are unable to pass the block, and amputation of a leg caused "no more effect than did cutting the hair." In severe axillary and chest operations there was a marked tendency to respiratory failure. In abdominal procedures, if the omentum was made to cover the viscera, thereby preventing direct contact with them, there was much less shock. In operating upon the gall bladder and liver it was necessary to be cautious as to traction, on account of the great fluctuation in blood pressure caused by mechanical interference with the large venous trunks. The most dangerous abdominal area was in the region of the duodenum, pylorus, and gall bladder, the least dangerous in the pelvis. The severity of shock induced in abdominal operations is in direct ratio to the distance from the pelvis. In intrathoracic operations the slightest contact with the heart or large veins caused the most profound alterations in blood pressure; the arteries are not so sensitive. A marked fall in blood pressure was noticed in operating upon the genital organs, but a cocaine "block" prevented the transmission of the afferent sensations.

"THE LAW OF PROFETA."

THE question of the immunity to syphilis of the healthy children of syphilitic parents is one of importance and interest, but is also one attended by almost insurmountable difficulties in the way of either proof or refutation. Dr. George Ogilvie has recently published an exceedingly able and exhaustive paper,[1] in which he deals with this question and the so-called "law of Profeta." This "law," Dr. Ogilvie urges, is merely a theory, and one supported by no proofs hitherto adduced. Whatever credit may be due to the original author of it he shows belongs by right of priority to Behrend rather than to Profeta. In 1884 Diday christened this "law" by Profeta's name, and thus expressed it: "A healthy child born of a syphilitic mother runs no danger of contamination when suckled by her." The compass of this "law" since Diday's time has been considerably extended, and the terms in which it now generally appears are: The healthy offspring of syphilitic parents are immune to syphilitic infection. In this comprehensive form no distinction is made between the particular parent who had suffered from the complaint, or no importance is attached to the stage the disease had reached at the times of conception. According to Finger, who is supported by other eminent authorities, this immunity may be "truly inherited," and can be transmitted to the fœtus direct "through the germinal cells, ovular or spermatic."

It is difficult to conceive by any theory how immunity can be conveyed through the spermatic cells, and Dr. Ogilvie concludes "that on the whole the part of the so-called 'law of Profeta,' which refers to paternal syphilis, is a theoretical cobweb swept away by everyday practical experience." Equally little can be said in favour of the view that immunity to the offspring may be conveyed through the ovular cells.

The question, however, as to whether immunity can be bestowed on the fœtus *in utero* by the blood of a mother who has either had syphilis herself, or who has borne syphilitic offspring by a tainted partner, is not so easily disposed of. Dr. Ogilvie is no doubt right when he states that no direct proofs are forthcoming in favour of such immunity, but a negative proof, that such children are not susceptible to syphilis, is proverbially hard of accomplishment. One of his chief arguments is that the safety of the infant may mainly rest on the fact of the mother having reached a stage in her syphilis when she is unable to transmit, rather than on an assumed immunity on the part of her offspring. In this direction it may, perhaps, seem to many that he lays too much stress on the rarity of inoculable lesions on the mother's breasts, to the exclusion of other and more common modes of infection apart from that by suckling. He quotes and discusses cases in which mothers have infected their healthy infants soon after birth. It is noteworthy, however, that all but one, if not all, of these cases occurred with mothers who were infected with syphilis after conception. Now, cases of mothers who bear seemingly healthy infants, and who afterwards present secondary syphilitic lesions presumably, to say the least, inoculable, are no doubt rare, but are certainly not rarer than cases of post-conceptional syphilis. That Dr. Ogilvie, in his wide researches, should not have been able to discover a single definite case of infection of an infant by a mother belonging to the former class, is surely some evidence in favour of the now prevalent opinion that the healthy infants of mothers infected before conception are immune to syphilis. That such immunity is only temporary is no proof of its never having existed. It is incontestable that the subjects of inherited syphilis, who are surely immune in early life, can contract the disease in adult years. Dr. Ogilvie is careful not to deny immunity on the part of the infant concerned, his sole contention being that at the

[1] *British Journal of Dermatology*, February and March, 1899.

present time it has not been proved to exist. His paper is a valuable addition to a difficult subject, and well worth careful perusal if for no other reason than that on almost every page he exposes some fallacy or weak reasoning on the parts of many who have been accepted as authorities on syphilis.

PLAGUE IN EGYPT.

THERE are reports from various sources to the effect that plague has reached Egypt. Cases are reported not only from Alexandria, but also from Ismailia, a calling port in the Canal, and from Zagazig, an inland town. There is no official confirmation as yet, however, in regard to the latter, though there seems little doubt concerning the fact of the disease being in Alexandria. If, however, there were only a suspicion of the presence of plague in Egypt, the Egyptian Government and the British authorities ought to take immediate steps to deal with it. If even a few cases of plague have occurred, which seems unquestionable, full administrative and executive powers ought to be given to the local sanitary authorities, and an ample staff of medical men sent to Egypt to assist the authorities. It may be remembered that we gave similar advice when the news of the outbreak of plague reached us from Bombay. The advice was not followed until too late. There can be no excuse now considering our past experience, and the sooner Egypt is placed under medical supervision the greater is the chance of staying the disease. The exact nature of the sanitary measures which should be taken must, of course, be determined by experts on the spot, but it is evident that neither men nor money must be grudged if the threatened epidemic is to be grappled with effectually. Medical sanitary inspectors should be freely distributed over the whole of Lower Egypt; ample executive powers ought to be bestowed upon them, and a free hand given them as to evacuation, isolation, disinfection, etc. It would be well were the British Government to take the initiative in this matter and send at once, at fewest, 25 medical men to Egypt, to be placed under the direction of the present capable head of the sanitary work in Egypt. In 1883 the offer of the British Government to send doctors to Egypt to deal with the epidemic of cholera was at first refused by the Egyptian Government, and when it was too late the Egyptians besought them to come. The presence of plague in Egypt is not a local matter; it concerns the whole of the Eastern Hemisphere, and the question of expense at the present stage should not be taken into consideration. Plague *can* be stayed in its progress; given men, money, and power, it can be more effectually dealt with and stamped out than can perhaps any other known disease.

SIGHT TESTS IN THE MERCANTILE MARINE.

THE Board of Trade Annual Report for 1898, issued recently, will once more excite regret that the authority to which is entrusted the examination of the eyesight and colour sight of our mercantile marine, still perpetuates a policy which is productive of much cruelty and injustice to individuals. During last year, of 4,103 candidates examined in form vision, 24 failed; while of 4,080 examined in colour vision 34 failed, but as one in each category passed on appeal, the total number of failures was 23 in form and 33 in colour, a percentage of 0.56 and 0.81 respectively. The case of successful colour appeal is so typical of Board of Trade methods that it may well be recited. G. M. B. was examined at Aberdeen on May 9th, 1898, and failed by the local examiners as colour blind. He appealed from this decision, and on May 27th, after examination by another set of examiners, was passed by them as colour perfect. Thus we are confronted with the alternative. Either a colour-blind person attained to a perfect perception of colour in the space of eighteen days, an occurrence hitherto unrecorded, or another blunder was made by the examiners. The plan adopted by the Board of Trade authorities in this special case of not recording the results of the wool matching at Aberdeen, as is done in every other case, is unworthy of any public body. We would ask the Board of Trade to enlighten us as to this extraordinary omission. Further, in 1896, of 12 rejected candidates who appealed, 5—nearly one half—passed! How many of the 28 candidates who failed in colour last year (1898), but who had not the money or the heart to appeal, are the victims of incompetent examiners? Again and again have we pointed out the hardships inflicted by the present methods of the Board of Trade on a deserving body of men, and our detailed criticism in 1897[1] is as true to-day as when originally written. So far we regret to say no Parliamentary voice has been raised to expose the injustices then revealed, and we still ask, Is it impossible for a Government office to rectify the errors of its officers, and compensate in some way the victims whose careers they have damaged?

MEDICAL ETHICS.

THE appointment of a Committee by the Medical Councils of Bavaria to draw up a code of medical ethics, to which reference was made recently, and the appearance of Dr. Ziemssen's book, *Die Ethik des Arztes*, show a quickening interest in this subject on the part of the medical profession in Germany. Dr. Ziemssen's book is avowedly based on Dr. Styrap's *Code of Medical Ethics*; for several pages it is a literal translation. The term "ethics" in these codes is stretched to include (1) points of etiquette, (2) principles of trades unionism, (3) the altruistic precepts of the moral law. The desire for the definitions of a code is due chiefly to competition. As the profession becomes crowded, elaboration of the rules of conduct becomes necessary to prevent its members from jostling each other. Under the stress of still keener competition, the difficulty in the way of members making a living to the legitimate exercise of their profession increases, and the desirability both of excluding illegitimate competition and of preventing downward competition among legitimate medical practitioners becomes accentuated. It must, however, be acknowledged that the rise in the status and tone of the profession which has taken place in the last quarter century or less, and the gradual development of *esprit de corps* has also had a great deal to do with the increased interest taken in medical ethics. Dr. de Styrap's book deals largely with the claims of the moral law in the domain of medicine, and, while not neglecting questions of etiquette, treats of them incidentally and omits the trades union views altogether. Dr. Ziemssen's code is practically de Styrap's with the moral reflections left out, that is, he regards "ethics" as synonymous with "etiquette." The code drawn up by the Medical Councils of Bavaria deals partly with the subject of etiquette, but more especially with the principles of trades unionism as applied to the medical profession. Judging by the two German codes, the difference between English and German professional etiquette would seem to be slight. Ziemssen makes no reference to partnerships, and the Bavarian code objects to a practitioner selling a practice or drugs. In other respects the codes could be used in this country.

CONSUMPTIVES ON THE EAST COAST.

SOME little time ago we drew attention to observations in the report of the Medical Officer of Health for Felixstowe as to the amount of sunshine on the East Coast, and the possibility of utilising chosen sites for the open-air treatment of consumption. Dr. J. E. O'Connor, the Medical Officer of Health for Lowestoft, in his annual report for 1898, recently received, directs attention to the

[1] BRITISH MEDICAL JOURNAL, 1897, i, pp. 292, 343, 537.

comparatively low death-rate from phthisis, which was 0.49. The mean death-rate from phthisis in Lowestoft for ten years was 0.88. Two of the deaths from consumption in 1898 occurred among visitors, so that the corrected total for the year was 11, and the corrected phthisical death-rate 0.42. The Medical Officer of Health states that during five years only six deaths have occurred among a large number of phthisical visitors. Eight of the deaths from consumption occurred in the North Ward, where there is a stratum of boulder clay. Lowestoft possesses a subsoil which is generally dry and sandy, a low relative humidity, and, it is said, the lowest rainfall in England. It can therefore afford an exceptionally dry climate for these islands. The records given in the report as to the duration of bright unclouded sunshine only deal with the last six months of 1898, but they show a large number of hours even in October. The climate of Lowestoft, therefore, like some other places on the East Coast, presents conditions known to be inimical to the proliferation of the specific organism which causes the disease—conditions which permit of patients leading an open-air life. Mr. Glaisher's report on the Meteorology of England shows that the three towns which enjoyed the most equable temperature during the last quarter of 1898 were Ventnor, Eastbourne, and Lowestoft. As shown by relative humidity and rainfall, Lowestoft was the driest of these places. These natural advantages may, if wisely utilised, prove to be of great use in the treatment of certain cases of consumption.

THE PROPOSED AMENDMENT OF THE MEDICAL ACTS.

WE are informed that at a meeting of the Royal College of Surgeons of Edinburgh held on May 16th, 1889, it was resolved that no opposition shall be made by the College to the proposed application to Government by the General Medical Council for the enactment of more extensive penal and disciplinary powers. The proposals referred to have reference to the acquisition of powers to remove a name from the *Medical Register* for a limited period, and to prevent the use of titles by a person whose name has been removed from the *Register*.

THE BRITISH BATH AND THE BRITISH BLOOD.

THE New York *Public Health Journal* has recently been moved to pronounce that "Americans, especially New Yorkers, are naturally the cleanest people in the world." Charles Lamb, seeing a temperance demonstration pass with bands playing and banners flying, was heard to say, "You are sober, perhaps, but why make such a fuss about it?" In the same spirit we venture to say to our New York friend: "You may be clean—naturally—but why defy the world on it?" And why in particular—we ask more in sorrow than in anger—with an aggressiveness which suggests some doubt as to the strength of your position, go on to declare that the naturally clean New Yorkers are "cleaner than the much self-praised English who take their morning cold 'tub' less to clean themselves than to cool their always overheated blood"? Our contemporary, with his poet's eye in a fine frenzy rolling, sees John Bull with fiery face and burning skin, rush to his tub, and make the water boil with the heat of his blood. One wonders why so much trouble should be taken to ensure a hot-water supply in our bath rooms; an ice-making apparatus would seem to be more appropriate. While thanking our American contemporary for the useful light he has thrown on the British constitution physically considered, we may, perhaps, be allowed to hint that, if the morning tub be a corrective of overheated blood, the use of it might with advantage be adopted by some American journalists. Of course we suggest this purely as a therapeutic measure. People who are "naturally" clean cannot be supposed to need the bath for any other purpose. We gather from the New York *Public Health Journal* that the average inhabitant of that great city is like Walker, "the Original," whose skin (according to his own theory) was so healthy that it cleansed itself without the help of water.

THE DEBT OF THE PUBLIC TO THE MEDICAL PROFESSION.

DR. W. W. KEEN, of Philadelphia, devoted his oration delivered at the celebration of the centenary of the Medical and Chirurgical Faculty of Maryland, U.S.A., to the thesis that the profession had done much for the community, and that there is, therefore, an obligation on the part of the public to recognise this debt. First, the medical differs from all others in that it is the only profession which is self-destructive. Although it lives by disease, it endeavours, in co-operation with the intelligent public, sanitary engineers, and legislators, to abate it. Amongst the pestilential diseases which have been thus largely abated or caused to disappear altogether are plague, which in former centuries devastated Europe, but is now limited wholly to peoples who are only semi-civilised, amongst whom sanitary laws are not understood. Moreover, Haffkine's inoculation with sterilised cultures of the bacillus had rendered whole communities almost immune. Cholera showed a very similar record. The comparative freedom of Altona from the disease, whilst Hamburg suffered in 1892, because the inhabitants of Hamburg drank the unfiltered water of the Elbe, whereas those of Altona drank it after filtration, was mentioned; and with regard to yellow fever Dr. Keen remarked that before the occupation of Cuba the United States could only erect a defensive wall against the disease, whereas they could now prevent it in its home. Scurvy, which formerly decimated armies and rendered navies useless, had been banished since crews had been furnished with vegetable food of various forms. Typhus fever was now nearly banished; and typhoid fever, wherever a good water supply and proper sewerage were provided, had almost disappeared. In respect to the prevention of all the foregoing diseases the greatest preacher of righteousness had been the doctor. Small-pox owes its abolition wholly to the physician. It formerly attacked every class of the community, and its ravages were so fearful that it had been estimated that 60,000,000 persons died from small-pox in the eighteenth century. Since 1796 deaths from small-pox have become few wherever vaccination has been properly carried out; so that probably Edward Jenner has been the greatest benefactor that the world has ever known. The discovery of the bacillus of tuberculosis by Koch had already, in the course of a few years, been of great service in arresting that disease. Diphtheria has been largely robbed of its terrors by the use of antitoxin—a great boon, seeing that diphtheria has not yielded to improved sanitation. This saving each year of thousands of lives was entirely the result of laboratory work. The mortality from hydrophobia likewise had been lessened by the splendid laboratory researches of Pasteur. The discovery of the trichina, and of the fact that heat killed the worm, had rid the world of this pest. By means of laboratory researches, too, certain animal diseases, as anthrax, cattle plague, chicken cholera, swine fever, hog cholera, and actinomycosis, had been brought under control, and herds and flocks themselves, as well as human beings, greatly benefited. Such facts showed that medicine had made great progress. The benefits of anæsthesia and antiseptic surgery were next reviewed. Before October, 1846, all the more modern deliberate, careful, painstaking operations involving minute dissection amid nerves and blood vessels, were absolutely impossible. One of the immediate results of the introduction of ether anæsthesia was an immense increase in the number of surgical operations performed. The names of Morton, Warren, and Simpson should be blessed by a suffering

world for their splendid gift. No less great a boon to mankind had been Lord Lister's introduction of antisepsis. Lister has banished erysipelas, tetanus, gangrene, and blood poisoning in its various phases, which before his day were the constant attendant of every surgeon. It is computed that Sir Spencer Wells by his first 1,000 ovariotomies added 20,000 years to human life. Under antiseptic precautions he would have so added 30,000 years. The mortality from compound fractures in pre-antiseptic days was 60 per cent.; it was now perhaps not over 3 per cent. In fact, modern surgery had been revolutionised by anæsthesia and antisepsis. The amount of time and the value of the services given to the poor by the rank and file of the profession was almost beyond compute. How, Dr. Keen asked, shall the public pay this great debt? We do not ask dollar for dollar, but may we not expect a scriptural tenth? Not for our pockets, but for our hospitals; not to minister to our own ease and enjoyment, but to equip our libraries and laboraties for enlarged and better work; not for our own homes, but for our colleges, to furnish us with the means for better teaching; in a word, not for ourselves, but for humanity, to whose service our lives are dedicated.

INFLUENZA IN PAST TIMES IN FRANCE.

According to Dr. Cabanès, the first mention of an epidemic of *grippe* in France is found in the *Chronique des Frères Mineurs*, under the date August, 1239. A physician of the fourteenth century—Valesco de Tarente—records an epidemic of "catarrh" which occurred at the time he obtained the Licence in Medicine at Montpelier in 1387; "it was so general that hardly one-tenth of the population escaped—almost all the old folk died of it." About a century later Etienne Pasquier relates that almost all "Messeigneurs du Parlement" were ill with a feverish cold caused "by an airborne pestilence which has prevailed." Such a coughing, he says, was there on all sides in the Parliament House that the clerk, who was himself attacked at eight o'clock, could hardly make a correct report . . . . Neither physicians nor anyone else could say what the ailment was. But the superstitious, less enlightened and more positive, pronounced decidedly that it was a divine punishment and vengeance on all those who had sung a certain very loose *vaudeville* which was then fashionable, and they persuaded the people of this so firmly, that those who had recovered asked the others jestingly, "Have you got it? Oh, faith, you must have sung the song." The disease was then known by the names of *tac* and *horion*; in the fifteenth century it was called *coqueluche* from *coqueluchon*, a hood. Pasquier mentions another name by which it went. "About a fortnight before the feast of St. Remigius," he says, "there fell an evil corrupt air, whence came a very bad disease which was called the Dando. When folk met they asked each other, 'Have you not had the Dando?' If the answer was 'No,' straightway the other said, 'Then take good care of yourself, for you are sure to have a taste of it.' And indeed," he adds, "every one 'petit ou grant, femme ou effent,' was smitten." In the eighteenth century influenza is referred to by Lancisi, physician to Pope Clement XI, by Hoffmann, Morgagni, and many others. In 1733 Jussieu, the famous botanist, made it the subject of his inaugural thesis. The epidemic which he describes lasted five years almost without interruption, and caused a very large number of deaths. The disease was then playfully called *la folette*, because it ran like a mad thing from north to south, from east to west. At the opera, instead of the ordinary refreshments *pâte de guimauve* was sold to the audience. King Louis the Well-beloved had *la folette* so badly that he became thin and haggard; so ill was he, indeed, that his loyal subjects *more suo* suspected that the influenza was complicated with a less respectable disorder. The *grippe* became so domesticated among the people that it was put on the stage; the curious may find in the *Recueil de Ballets et de Mascarades depuis 1614 jusqu'en 1751*, a ballet entitled "Les Grippez à la Mode," and there is still extant a *comédie épisodique* of doubtful authorship entitled *La Grippe*. The leading character in this piece is a physician celebrated for his skill in treating the disease, who, we regret to say, takes advantage of the situation to sell a nostrum, the only recommendation of which is its harmlessness. Voltaire had the *grippe* in 1743, and made the literary world ring with the noise of his coughing. Later in the century there was a very severe epidemic which lasted four years. In 1776 a physician offered a considerable sum as a prize to anyone who could prove that he had escaped the disease; there was no claimant. In the same year the musical service at Notre Dame had to be given up on the Epiphany, as all the singers were voiceless. The same cause prevented the performance of Bach's *Amadis des Gaules* at the opera. In 1803 Paris was again severely visited, the epidemic being remarkable on account of the large number of notable persons carried off.

THE LONDON COUNTY COUNCIL AND MEDICAL RESEARCH.

We understand that the Technical Education Board of the London County Council is co-operating with the Asylums Committee in offering a scholarship of £150 a year, tenable for two years, to students (preferably qualified medical practitioners) of either sex, to enable them to carry out investigations into the preventable causes of insanity. The scholar will conduct the researches in the Pathological Laboratory attached to Claybury Asylum, under the direction of Dr. F. W. Mott, F.R.S., the Pathologist to the London County Council Asylums. An account of the Claybury Asylum Laboratory was given in the British Medical Journal of February 18th, from which it will be seen that, thanks to the enlightened liberality of the Council, it is thoroughly well equipped and affords every facility for the study of the pathology of insanity. A scholarship similar to that now announced has been held during the past two years by Dr. J. O. W. Barratt, who has made valuable original investigations into the causes of insanity, several of which have recently been published. Dr. Barratt has resigned the scholarship in consequence of his appointment as Pathologist to the Wakefield Asylum. We have much pleasure in directing attention to this scholarship, which is a further evidence of the interest taken by the London County Council in the advancement of medical science, and of its readiness to help in its furtherance. Candidates should apply to the Secretary of the Technical Education Board, 116, St. Martin's Lane, W.C., not later than Wednesday, June 7th.

THE VEILED OPERATOR.

The bacteriologists have discovered that the beard is without doubt guilty of harbouring septic germs. Dr. Hübener, of Breslau, has experimented on several of his bearded colleagues, passing a slide bearing a film of agar-agar two or three times over and through the beard. Out of 26 cases pyogenic cocci were thus obtained in 11; in 3 the staphylococcus pyogenes aureus in small groups; in 8 the staphylococcus pyogenes albus in great abundance. Experiments were tried by Professor Flügge—a man with a beard standing for ten minutes close over an agar plate without a cover, and then standing for the same time close to another agar plate with his beard covered with a mask of folded muslin. The difference in the number of germs thus obtained was extremely trifling. Nevertheless Hübener believes that he has contrived a more perfect beard-guard. A frame of the kind seen in the simpler chloroform masks is covered with sterilised muslin, and held to the face by a metal bar passing

[1] *Centralbl. f. Chir.*, No. 11, 1899.

over the ears, as in a pair of spectacles. It covers the mouth and nostrils, and some of the muslin hangs below it and is tucked under the beard and fixed with pins to the collar of the operating jacket. Dr. Hübener finds his mask very effective. He repeated Flügge's experiments, and on this occasion the agar plate remained sterile in 6 out of 18 experiments with bearded surgeons. In the remaining 12 he assures us that only a few insignificant "colonies" were obtained. We fear that if this mask be adopted here, certain well known opponents of antiseptics will laugh at the beards of their colleagues, an act which in the East is considered derogatory. Garré recommends that the operator should not wear a mask, but keep his beard moist in sublimate solution during an operation. This practice, however, is very uncomfortable, spoils the beard, and appears to act imperfectly as a guard against sepsis. Several foreign operators, it would appear, habitually wear beard masks. Theoretically, shaving would seem the safest course if Hübener's earlier experiments indicate a constant condition.

THE CONNECTIONS OF THE FRONTAL LOBE OF THE BRAIN.

Ever since Flechsig's publication of his work dealing with "Association Centres" in the Brain (*Gehirn und Seele*, 1895) attention has been drawn towards this region of the prefrontal lobe, and experimental investigations regarding its connections with the rest of the encephalon have been undertaken by various workers. Bianchi had published (in *Brain*, 1896) some results obtained with the brains of monkeys and of dogs. In a recent number of the *Monatschrift für Psychiatrie und Neurologie* Rutishauser gives the results of a research conducted in von Monakow's laboratory to determine the connections of the prefrontal lobe with the rest of the encephalon. The method was to excise the prefrontal lobe in front of the anterior branch of the fissure of Sylvius for about half an inch in length anteroposteriorly. The resulting degeneration in the brain was then traced in the hemispheres and basal ganglia step by step backwards in serial sections stained with carmine. Some of the degenerations thus observed could be traced through the crura cerebri and as far as the pons, where they ceased. In the anterior part—nearest to the plane of section—degenerated fibres were seen in the genu and rostrum of the corpus callosum. These were commissural fibres. Other degenerated fibres were seen in the basal white substance immediately underlying the anterior end of the corpus striatum. This constituted a basal bundle of fibres. Others passed into the septum lucidum. On the lateral and superior aspects of the brain there could not be traced any degenerated fibres in the cortex or in the immediate subcortical region. In sections taken further back the basal bundle occupied the internal capsule in its ventral part, lying between the head of the caudate and the putamen of the lenticular nucleus. When the level of the anterior commissure was reached the majority of these fibres passed dorsalwards over the commissure, occupying a position between the second lenticular segment and the body of the caudate nucleus. A few isolated fibres passed on the ventral side of the commissure. Traced further back it was found that of the dorsal fibres a portion turned up dorsalwards and entered the anterior tubercle of the thalamus, while the rest of the dorsal, together with the ventral fibres, passed into the regio subthalamica. The dorsal fibres passed into (1) the chief subnucleus, (2) the median subnucleus, and (3) the ventral subnucleus of the anterior tubercle. In sections further back, other fibres of the dorsal group were seen to enter (4) the middle commissure, (5) the dorsal segment, and (6) the ventral segment of the middle thalamic nucleus. Degenerated fibres also entered (7) the fornix, and can be traced back as far as the lyra. The ventral capsular bundle retained its integrity longest, and passing through the regio subthalamica on the ventral side of the corpus Luysii, entered the cerebral peduncle, and ultimately terminated (8) in the pons. The results obtained were summarised as follows: (1) That between the cortex of the prefrontal lobe and certain parts of the thalamus there is a corticofugal connection by means of projection fibres, as shown by the method of secondary degeneration; (2) the nuclei of the thalamus receiving these fibres are (*a*) the anterior nucleus, and (*b*) the middle nucleus, these nuclei and their segments (before mentioned) being supplied *viâ* the inferior thalamic peduncle; (3) fibres also pass into the knee and rostrum of the corpus callosum, and partly into the septum lucidum and fornix longus; (4) an important projection bundle passes to the pons *viâ* the crus cerebri, to form therein a connection with the cerebellum, as Flechsig pointed out long ago; (5) the prefrontal lobe as investigated by the carmine method does not show connections with the rest of the cortex in the monkey's brain, and therefore its function as an "association centre" in the sense adopted by Flechsig is doubtful for the monkey's brain. The older views of Burdach, Meynert, and von Monakow, which teach that it gives off projection fibres, are also confirmed by this research. A further investigation into Marchi's method would be a desideratum to trace more minutely the course of the degenerated fibres before Flechsig's view of association fibres is accepted or not.

PERIODIC PREVALENCE OF BERI-BERI.

An instance of the apparently spontaneous periodic decline of an epidemic disease before any actual prophylactic measures had been adopted is afforded by statistics of beri-beri among the German military forces stationed in the Malay Archipelago. Beri-beri claimed a far larger number of victims than either war or malaria from 1873-1897. A diagram showing the periodic curve taken by the disease is published in a recent issue of the *Therapeut. Monatshefte*. It appears that prevalence of the disease amongst Europeans was steady from 1873-1884, in the latter year a sudden rise in the number of cases took place and was maintained until 1888, when the disease showed a tendency to decline. The curve, however, did not resume its normal level (that is, before 1884) until 1897. The sudden cessation of the disease was so marked that a sanatorium which had been specially erected in 1897 for the treatment of Europeans had not a single case in the wards. Disinfection was found to be quite inefficient in coping with the disease. Many prophylactic and dietetic measures were proposed. Mountain air was suggested by some, and the prohibition of rice as a food supply by others. Before any of these plans could be carried into execution the periodic decline of the disease had commenced. At the time of the report there were no fresh cases amongst Europeans. The disease was much more severe amongst Asiatics. The rise in the periodic curve began six years before the European; it reached a much greater height, and took longer to subside.

TRANSPLANTATION OF THE HUMAN OVARY.

Glass reports a case of much interest in the New York *Medical News* for April 29th. A woman, aged 39, had undergone double oöphorectomy two years previously for a somewhat indefinite condition. The menopause came on promptly and the sexual instinct soon disappeared. Mental depression, flushings, giddiness, palpitations, and anæmia gradually set in. The uterus was retroflexed and fixed. The patient begged for relief and on May 11th last year the uterus was fixed to the abdominal wall. It happened that Dr. Glass had under his care at that date a young married woman with contracted pelvis. Sloughing and almost complete atresia of the vagina had been the result of a protracted second stage of labour. An operation was performed and the vaginal canal fairly restored. As future

childbearing was very undesirable the excision of one tube and one ovary, for the prevention of conception, was practised on May 14th. At the same time the first patient was placed on the operating table; the vagina and connective tissue down to the cervix was incised and then the cervix stripped up to the peritoneum with the finger. The serous membrane was raised from its attachment up to the normal level of the ovary. Oozing was checked with compresses soaked in hot salt solution. The ovary just removed from the other patient was anchored in position by closing the canal through which it was introduced by two tiers of fine cumol catgut. The vagina was lightly packed with gauze. Recovery was uninterrupted. Sixteen days after the operation menstruation occurred, after an interval of two years. It did not recur until December, and appeared for the third time in February. Eight months after the transplantation the patient had regained her mental and nutritive equilibrium, the anæmia had disappeared, and she appeared healthy in every respect. Evil results from complete oöphorectomy are too well known; in cases where all has gone well after that operation some ovarian tissue has probably been left behind, for, as Christopher Martin has shown, there is physiologically no difference in a woman that has two ovaries, one ovary, or only a fraction of an ovary. Conception is, of course, impossible when the tubes are removed, but the ovary or part of an ovary remaining influences the general organism as much as though both ovaries remained. Glass not only took an ovary from the second patient and gave it to the first, but also left the second with one ovary, lest the consequences of an artificial menopause should appear. It is implied that the tube left behind in the second patient was tied or divided, otherwise the aim of the operation in her case—the prevention of conception—might be defeated.

A TEETOTALLER'S TIPPLE.

Oliver Wendell Holmes once wrote a song with appropriate alternative readings, which made it capable, according to the occasion of its use, of serving as a Bacchanalian lyric or as a teetotal hymn. But Dr. E. Cutter, Professor of "Clinical Morphologies" (a subject almost as awe-inspiring to the uninitiated as Chinese metaphysics) is the Anacreon of the water jug. In a dithyrambic effusion entitled: I have my Tipple Too—which, though not new, has but lately come to our knowledge—he sings the manifold virtues and excellences of water. Of that seductive beverage we are told:

> It downward peristalsis makes
> Drank hot before the meals;
> It routs the gas in stomach aches
> And thus wind colic heals.

It is recorded that Xantippe, doubtless driven to fury by the badgering of Socrates, clinched a forcible argument by emptying a domestic vessel over his head, whereupon that most aggravating of philosophers merely said: "After thunder there generally comes rain!" Dr. Cutter's experience, however, appears to be that the thunder follows the water. But the subject is much too serious to be treated lightly. Have those misguided folks who drink alcohol any notion what they do? Let them be warned by the Professor of Clinical Morphologies:

> How few who know that thus they make a brewery—
> A brewery within!
> Outside or in yeast plants will wake
> The spirits found in gin.

Dr. Cutter's metre is a trifle irregular but this may be due to an overdose of inspiration. Does not Horace hint that this was why Pindar *numeris fertur lege solutis*? With regard to the remarkable pathological formation hinted at by the Professor, however, we venture to point out to him that there are persons so far lost to shame that they would probably deem the possession of "a brewery within" a subject of self-congratulation. The teetotaller's tipple on the other hand is:

> An inside bath to wash
> Out bile, slime, yeast and useless waste;
> To keep the stomach sweet and fresh
> And appetite with zestful taste.

Further:

> The eructations after drinking
> My tipple does not make,
> But sets the unstriped muscles kinking,
> To belch those gases forth.

When visited by the poetic *afflatus* in this form, the teetotaller can hardly be a pleasant companion. Dr. Cutter does not like his tipple tepid

> Since lukewarm water serves to turn
> The peristalsis up.

He takes his

> .....tipple grand
> Hot if I can: cold, if I must;
> And to this I mean to stand
> Until my clay returns to dust.

The teetotaller's tipple may be as excellent in its effects in "dissolving the gravels from the blood," "removing the crystals from the lungs," "dispersing irritations," "dissipating congesting blood," "relieving stases," etc., as it is said by the Professor to be. But if we are to judge by the verses written under its inspiration, it has what Dr. Cutter himself would call a "paretic maudling" effect on the brain.

THE INFECTIVITY OF TYPHOID URINE.

Dr. Wyman Richardson of Boston, U.S., has made some interesting clinical and bacteriological researches which show that urotropin is a urinary antiseptic in typhoid fever.[1] He confirms the statement that the urine of typhoid patients may contain the specific bacillus in enormous numbers, and that it may remain in that excretion for weeks or even years and constitute a danger to the patient, possibly causing cystitis or orchitis, and a peril to the public health. In 9 cases in which the bacilli were found in the urine urotropin never failed to remove the organisms, and in 7 their disappearance was permanent. In 1 case the omission of the urotropin was followed on three separate occasions by the return of the specific germs to the urine, a fourth course was permanently successful. A course during which 60 gr. of urotropin are given is usually sufficient to remove the typhoid bacilli; but exceptionally as much as 200 or 300 gr. are required. Dr. Richardson insists that all typhoid cases should receive 30 gr. of urotropin daily for 10 days as convalescence approaches, beginning with the third or fourth week; for it is impossible without bacteriological investigation to tell whether the patient's urine contains typhoid bacilli. Probably equally good results could be accomplished by the administration of about 10 gr. daily throughout the disease. The typhoid bacillus was found in the urine in 14 out of 66 cases of typhoid fever; 11 were subjected to special treatment. Of these, 2 received salol alone, and in 1 the bacilli disappeared; 1 case received salol at first with negative results. Urotropin was then substituted for the salol and the bacilli disappeared almost immediately; in 8 more cases the same result followed the administration of urotropin from the first. In 8 out of the whole 9, 60 gr. or less sufficed; 1 case required 200 gr. to remove the organisms; 7 cases were under observation for 7, 9, 13, 14, 17, 19, 43, and 66 days respectively after the administration of the urotropin was stopped, and no bacilli reappeared. Dr. Richardson had previously ascertained that the typhoid bacilli were practically always associated with albuminuria and the presence of casts, but that the converse was not invariably true. He proposed irrigation of the bladder, but that method is open to objection in typhoid fever, though he found sublimate efficient; boric acid was not reliable. A

[1] *Journal of Experimental Medicine*, January, 1899.

patient who had been treated five years previously in the Johns Hopkins Hospital for typhoid fever recently came under the care of Dr. Harvey Cushing. Ever since convalescence he had been subject to dysuria. Investigation showed that he was suffering from cystitis, and the typhoid bacillus was obtained in pure culture from his urine. Thus typhoid urine should be disinfected like typhoid stools, and according to Dr. Richardson's important researches the necessity for such disinfection and supervision does not cease with the fever, but must be kept up often for weeks, and sometimes for years.

THE JOINT AFFECTIONS OF GONORRHŒA.

THE various forms of joint disease associated with and dependent upon gonorrhœa are dealt with in a small pamphlet recently published by Dr. Erich Bennecke, assistant in Professor König's clinic in Berlin.[1] The classification adopted is that suggested two years ago by Professor König himself, and is pathological rather than clinical. Four varieties are recognised: (1) hydrops, (2) the serofibrinous form, (3) empyema, (4) phlegmonous inflammation. It is asserted that in all cases the clinical picture is in direct proportion to the pathological change. The phlegmonous form is by far the most frequent, then comes the first form, hydrops. Between December, 1895, and the end of 1897 56 cases were observed; 18 were men, 38 women. The ages of the men varied from 22 to 54 years, of the women from 15 to 42 years. The following is the statement made as to the frequency of the affection in the various joints. The knee was affected 31 times (17 right, 14 left); the hip 8 times (3 right, 5 left); the ankle 9 times (4 right, 5 left); the foot 6 times (1 right, 5 left); the shoulder 4 times (3 right, 1 left); the elbow 10 times (2 right, 8 left), the wrist 6 times (1 right, 5 left); the fingers 4 times (1 right, 3 left). No other joints were ever found implicated. In 54 patients then 78 joints were affected. The upper extremity was the seat on 24 occasions, the lower extremity on 54. Monarticular affections occurred in 39 patients, 2 joints were affected in 11 patients. Of the 39 monarticular cases the knee was affected 17 times, the elbow 7 times, and the hip 7 times. In the 17 polyarticular cases the knee was affected 14 times, and in 10 of these the affection was bilateral. In only one patient had the gonorrhœal discharge ceased when symptoms appeared. In 40 of the cases the onset was sudden, and the early progress rapid. The effusion in the joint was examined from 27 patients. Gonococci were found 8 times. The inference is that the joint affection is probably the result of mixed infection. The treatment adopted in most cases was perfect rest, and the liberal application of tincture of iodine to the affected joint until vesication was produced. In some cases an intra-articular injection of 8 c.cm. of a 5 per cent. solution of carbolic acid was used. All the cases showed a marked tendency to chronicity, and to the formation of adhesions in the interior of the joint, resulting in ankylosis.

OVARO-HYSTERECTOMY IN DOMESTIC ANIMALS.

ABDOMINAL section seems much in favour with veterinary surgeons under certain circumstances. Mr. Golding, Mr. Hobday, and others have advocated and practised the removal of the uterus and ovaries for difficult labour in bitches and cats. Summarising 15 cases, which have been consecutive and not in any way picked out, Mr. Hobday expressed the opinion that if the patient be not too weak ovaro-hysterectomy is well worth consideration in the early stages of dystocia and in cases where a small bitch has been lined by a large dog. The operation saves animals which have become pregnant after difficulties in previous labours. If antiseptic precautions be rigidly carried out the prospects of a successful termination are excellent. Out of the whole 15 cases 9 made good recoveries. All the 3 animals that died had become weakened through prolonged and difficult labour, 2 were emaciated and the operation only performed as a last resource, and in the remaining 1 death was fully accounted for by the fact of a ligature having become displaced and several other complications having ensued afterwards. Most of the 9 that recovered have been traced up to the present time and are in excellent health. Mr. Hobday adds an instructive after-history to the case of a fox terrier operated upon in July, 1898. The entire ovaries and the whole of the uterus (which at the time of operation contained four puppies), as far as half an inch below the juncture of the horns and body, were taken away, yet at the end of last year the patient was distinctly in œstrum. Copulation, however, was not allowed by the owner on account of the risk of injuring the bitch. Mr. Golding, the *Veterinary Record* informs us, has used chinosol (1 in 500) as the antiseptic in the last 6 cases, boiled silk or sterilised catgut for ligature of the body and cornua of the uterus and orthoform and collodion as the usual application to seal the abdominal wound. The experience of these veterinary authorities is of considerable interest to us. The continuance of œstrum after complete removal of both ovaries should be noted by abdominal surgeons. Humanitarians may see that animals share directly in some of the benefits of modern scientific surgery. Even with regard to vivisection the disadvantage is not all on the side of what certain kindly persons politely term "dumb brutes."

THE STUDY OF TROPICAL DISEASES IN THE UNITED STATES.

IN carrying out their resolve to take up the "white man's burden" in Cuba and the Philippine Islands, the United States are about to follow the example set by this country in the provision of special instruction in tropical diseases. The Johns Hopkins University will, it is announced, establish a course of lectures, to be given in the coming autumn, with laboratory work in tropical pathology and sanitation. The course will be under the direction of Professor William Osler.

VARYING CONDITIONS OF THE NEURON UNDER STIMULATION AND REST.

PROFESSOR HEGER, of Brussels, gives an account of experiments made on animals to determine the conditions of the brain cells during various conditions of rest and stimulation,[1] some account of which had been given by him at the International Congress of Physiology held during August 23rd to 26th last at Cambridge. (1) In animals decapitated during the waking state, and without being at the same time subjected to excitation or intoxication, the cortical neurons show dendrites of normal and even calibre, and with abundant epidendritic granules or appendices. This, therefore, is the normal condition, and it is found in the dog, rabbit, mouse, guinea-pig, dormouse, marmot, and bat. (2) In non-hibernating animals decapitated during sleep produced by anæsthetics (ether, chloral, chloroform, or morphine) there are found: (*a*) a retracted or contracted condition of the cell-body, due to the prolonged action of the anæsthetic; and (*b*) a general moniliform condition of the cell-processes, together with a diminution, and in places a disappearance, of the epidendritic granules. These altered neurons resume their normal aspect after elimination of the anæsthetic. (3) In hibernating animals decapitated during hibernal sleep there is a general moniliform condition of the nerve-cell processes, and this appearance is uniform in all regions of the brain. The epidendritic granules are present in very great number, and are well marked, and cover all the dendrites, sometimes even close to the cell-body. (4) In non-hibernating animals

[1] *Die gonorrhoische Gelenkentzündung, nach Beobachtungen der chirurgischen Universitätsklinik in der kgl. Charité zu Berlin.* Von Dr. Erich Bennecke. Berlin: 1899. August Hirschwald. (Demy 8vo, pp. 52. M 1 20.)

[1] *Journal of Physiology*, February 27th, 1899.

which have died from exposure to cold, the processes of the brain cells present a marked moniliform appearance in certain regions, and the epidendritic granules persist in moderately large numbers, notably in the neighbourhood of the varicosities or swellings. (5) In animals that have died after much suffering, one finds in a large number of cells not only a very marked moniliform condition of the cell-processes and a disappearance of the epidendritic granules, but a partial dislocation of the processes and a deformation of the cell-body. (6) An important property of the cerebral nerve-cell is its variability in reaction as regards its cell-body, its processes, and its epidendritic granules. Changes in all three portions may coexist or occur separately under different conditions, the further significance of which is important, and demands investigation.

MEDICO-LEGAL ASPECT OF RUPTURE OF AORTA.

SUDDEN death from rupture of the aorta is well known as a matter of high interest in medico-legal practice. It is usually due to a fall, a violent effort, or a fit of passion suddenly disturbing the circulation. As these accidents are often due to another person engaged in a quarrel, or worse, with the patient, the gravity of this necessarily fatal lesion is evident. Dr. Perrin de la Touche and M. Vallon lately brought a very typical case before the notice of the Société de Médecine Légale; it is reported at some length in the *Progrès Médical* for April 22nd. One evening a woman was struck in the face by her drunken husband. He awoke next morning and found her dead at the foot of the bed. There was a contused wound on the right side of the face, also subcutaneous ecchymosis of the left eyelid, and subconjunctival ecchymosis of the left eye. On the left cheek were several bruises, clearly traced to the patient's fall forward on the floor when she died. There was subpericranial hæmorrhage at the vertex and subperiosteal hæmorrhage on the anterior aspect of the sternum. No other evidence of violence was found on the surface of the body. The cerebral arteries were highly atheromatous. The pericardium was full of blood, and a T-shaped rent was discovered in the ascending aorta immediately above the valves. The whole ascending and transverse part of the aortic arch was extremely fragile through advanced atheroma. Dr. de la Touche concluded that sudden death was due to the violent emotion caused by the blow, rupture of the degenerate aorta being the result of the sudden strain on the circulation. The local lesions on the face caused by the blow and the injuries due to the subsequent fall on the ground were too trifling to cause death or to play any direct part in the fatal result. Fortunately for justice, rupture of the aorta under such circumstances would always necessitate a *post-mortem* examination, which would reveal it if not already diagnosed. When, however, no second party is associated with the patient's death injury, the wounds caused by a death-fall (as in this case) might mislead a practitioner. Even a big scalp wound thus produced might be hastily assumed to cover a non-existent fracture of the cranium.

MR. W. H. PREECE, C.B., F.R.S., will be the President of the eighteenth Congress of the Sanitary Institute to be held in Southampton from August 29th to September 2nd.

THE Committee of Management of the Consumption Hospital, Brompton, have received from Sir Theodore Martin the sum of £2,500, for the purpose of naming a ward in the hospital to the memory of Lady Martin (Helen Faucit).

VACCINATION IN THE UNITED STATES ARMY.—By order of General Miles, all recruits accepted for the United States army not already protected will be vaccinated before leaving a recruiting station for a rendezvous, regiment, or post. This will apply also to recruits enlisted at military posts or camps. Vaccine will be supplied by the surgeon-general of the army. The fee for vaccination of a recruit by a civilian physician not in Government service is fixed at 50 cents.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENTS.]

The London Government Bill passed through Committee before the House of Commons adjourned for Whitsuntide. Its passage was greatly shortened by Mr. Balfour's concessions to the London members, and especially to the London County Council. The work of the Council as the central authority will now be much less interfered with than it was under the Bill as introduced, and the powers of the Privy Council as regards the boundaries and constitution of the new boroughs have been remarkably lessened. These new municipalities will now to a large extent correspond with the Parliamentary areas. The schedule originally named 13 areas as boroughs, and left the rest of the metropolitan district to be divided by Commissioners under the Privy Council: now the number of named boroughs has been about doubled, and it looks as if there would be about 30 municipalities. Most of the questions of sanitary and Poor-law interest were ruled out of order in Committee, but the report stage is sure to raise many questions of interest, not the least exciting of which will be the eligibility of women to act as councillors and aldermen. Mr. Balfour promised that the report stage should not be taken before June 5th.

The Oysters Bill was read a second time in the House of Lords last week before the House rose for the Whitsuntide recess. Lord Harris moved the second reading in an interesting speech, in which he traced the growth of knowledge as regards the relation of oysters with typhoid fever from 1890 onwards. He referred to Sir Charles Cameron's paper in that year on the possible origin of typhoid fever from oysters contaminated in Dublin Bay. It was shown how the suspicion had been strengthened step by step, till the inquiry made by the Local Government Board in 1894 completed the evidence in support of this source of the disease. The evidence in favour of legislation was, as the speech showed, overwhelming, and many of those engaged in the oyster trade would welcome the Bill as a means of removing suspicion from their beds. The Bill empowers county councils to test the water in which oysters are laid, and to prohibit the removal of oysters for ten days if the water is found to be contaminated. Dr. Klein found in his researches that the oysters kept in typhoid-contaminated water harboured the bacillus from four to sixteen days after removal. The owner could appeal against the action of the county council to the Local Government Board, and if the county council failed to act the central authority could do so. The Committee stage will be taken in the whole House, but will not be hurried on, in order that the Bill may be carefully considered.

The Infectious Diseases Notification Act (1889) Extension Bill has passed through Committee in the Lords, and the third reading has been put down for June 1st, the first day the Upper House meets after the recess.

The Feeble-minded Children are to have a Bill introduced soon for the purpose of providing for their education in accordance with the recommendations of the Departmental Committee. The Bill is drafted, and now only awaits the decision of the Government as to its date of introduction.

Tuberculosis in Cattle was the subject of a question by Mr. Channing on Friday, May 19th, who wanted to know whether there was proper inspection of the carcasses slaughtered at Deptford. The President of the Local Government Board seemed to think the inspection was thoroughly done, and pointed out that tubercle was very rare in animals so killed, only two cases having been found last year among the many thousands slaughtered.

The Inebriates Acts Amendment Bill is blocked by Mr. Pickersgill, who has given notice that he will move an amendment declining to proceed with the Bill until the means have been provided for putting into operation the Inebriates Act, 1898. The hon. member no doubt wishes to put an end to the present state of things, which allows a man to be sentenced to detention in an inebriate asylum, and then sets him at liberty because neither the State nor the local authorities will provide a place of detention.

THE INTERNATIONAL TUBERCULOSIS CONGRESS IN BERLIN

[From our Correspondents.]

THE ORGANISATION OF THE CONGRESS.

THE International Congress of Tuberculosis promoted by the Central German Committee for the establishment of Sanatoria for Pulmonary Diseases was formally opened on Wednesday morning, in the Chamber of the Reichstag.

The arrangements for the Congress, which is under the patronage of the German Empress, have been carried out by a large Committee, of which the Duke of Ratibor and Professor von Leyden are Presidents, and the invitations issued by this Committee have met with a ready response, not only throughout the German-speaking countries but also elsewhere, so that altogether the members of the Congress number over 2,000 persons. Of this number 112 are delegates from foreign countries. Among those who represent Great Britain in various capacities are Professor Sir Thomas Grainger Stewart (President of the British Medical Association, and representing the Senatus Academicus of the University of Edinburgh,) Dr. P. H. Pye-Smith (nominated by the Royal College of Physicians of London on the invitation of the Lord President of the Council), Sir Hermann Weber, Mr. Malcolm Morris, Mr. C. Rube, and Dr. A. P. Hillier (nominated by the Prince of Wales, President of the National Association for the Prevention of Consumption), Sir Herbert Maxwell, Bart., M.P., F.R.S., Dr. A. Crombie (nominated by the India Office), and Bailie Pollard (representing the Corporation of Edinburgh). Austria-Hungary sends a large number of official representatives, including Professors Weichselbaum and Paltauf (of Vienna), Pribram and v. Jaksch (of Prag), and Korányi (of Buda-Pesth). The French official delegates include Professors Brouardel, Nocard, Proust, Grancher, Cornil Metchnikoff, and Dupuy, and Dr. A. J. Martin, Inspector-General of Sanitation in Paris. Among the delegates from the United States is Dr. von Schweinitz, and two representatives of the American Medical Association, Dr. A. J. Banker, of Columbus, Indiana, and Dr. John Kolmer, of Indianapolis. Italy is represented by, among others, Professors Simonetta (Siena) and Maragliano (Genoa). The Russian delegation is headed by Professor Botkin and includes one lady, Frau Dr. Pawlowskaja, of St. Petersburg. Holland sends three delegates, Belgium eight, Japan the same number, Persia three, including Dr. Müller, honorary physician to the Shah, Sweden four, headed by Dr. von Printzsköld, president of the Swedish commission on sanatoria for consumption; Norway four, Switzerland five, headed by Dr. Schmid, director of the Swiss health department; Servia sends two official delegates, while the Argentine Republic, Bulgaria, Denmark, Guatemala, Mexico, Monaco, Montenegro, Nicaragua, Portugal, and Spain are each represented by one official delegate.

On May 23rd the Emperor received the Duke of Ratibor, who reported the arrangements made for the reception of the Congress. The Emperor showed a great interest in the Congress, and expressed a desire that the foreign delegates should be presented to him, and it has been arranged that this ceremony shall take place on Sunday, May 28th. The Emperor also issued invitations to the Opera on Thursday evening. Prince zu Hohenlohe, the Chancellor, has also displayed a great interest in the Congress, and has invited the members to a garden party on Thursday, May 25th.

LADIES' COMMITTEE.

A Committee, under the presidency of Princess Elisabeth zu Hohenlohe, has made arrangements for the benefit of ladies accompanying members of the Congress. These arrangements include visits to various schools, museums, nursing institutions, and model dairies, as well as numerous social entertainments and a visit to Potsdam and its palaces.

THE PRELIMINARY CEREMONIES.

THE PLACE OF MEETING.

AT an early hour on May 23rd the Bureau of the Congress, situated in the magnificent pile of Parliament Buildings, was the scene of considerable activity. Members of the Congress, grave and grey professors, foreign delegates, and less official persons thronged the anterooms and corridors of the vast buildings, for the nonce given up to a branch of public service which is subservient to science. In the Wandelhalle, or Lobby, it was interesting to see the German army surgeons in their bright blue uniforms, making out tickets for the reception, and distributing the first batch of Congress literature in the shape of pamphlets, views of sanatoria, lists of members, etc., to their civilian colleagues fresh from their laboratories and consulting rooms, and dressed in every form of *mufti*, the latitude, both in hats and dress, being much wider among medical men in Berlin than in London. At the central bureau a military officer presided, and the entire administration of the Congress affairs was characteristic alike of the widespread German military system, and the Imperial auspices under which the Congress was conducted.

The exterior of the Parliament Buildings is solid and impressive. The glittering dome and colossal equestrian figures are fit emblems of a young and vigorous empire, and that the building should have been given up almost entirely for the purposes of the Congress was both an honour to science and a worthy expression of the fact that to science—and especially to that portion of it which deals with the relief of suffering humanity—Germany is prepared to accord an honourable, full, and cordial support. H.R.H. the Prince of Wales has, by becoming President of the National Association for the Prevention of Tuberculosis, set his hand magnanimously to the plough in England.

THE FIRST RECEPTION.

The reception announced on the programme to take place in the Opera House on Tuesday evening was held at the Parliament House. It was of an unofficial character, but the Duke of Ratibor and Professor von Leyden received the visitors in the Rotunda, which is the central portion of the Wandelhalle, and many other distinguished men were present. Among these were Baron von Knesebeck representing the Empress, Count Schoernburg representing the Chancellor Prince zu Hohenlohe, Director Köhler, General-Artzt Grasnick, Professors Heubner and Fränkel, Drs. Dettweiler and Hess of Falkenstein, Sir Herbert Maxwell, Mr. Malcolm Morris, Mr. C. Rube, and Sir T. Grainger Stewart. Many ladies graced the function with their presence, and the various magnificent rooms of the Reichstagshaus were brilliantly lighted and thrown open to the visitors. The large panel paintings and deep rich wood carvings of the library were greatly admired. Music was provided by an excellent military band, which fulfilled Goethe's dictum that the source of music should always be concealed, by being placed high up in a gallery of the Rotunda. The walls of the Rotunda were covered with plans and diagrams of several of the more celebrated sanatoria. Refreshments—provided by the State—were liberally served in the dining rooms of the Reichstag.

Among the plans of sanatoria displayed were those of Falkenstein in the Taunus, of Driver's Institution at Reiboldsgrün in Saxony, of that founded by Dr. Brehmer at Görbersdorf in Silesia, of the sanatoria at St. Blasien and Bad Rehburg, of Dr. Weicker's Institution at Görbersdorf; and of numerous public sanatoria supported by benevolent societies, invalid and old-age institutions, and communal organisations. The plans illustrated the various systems which might be followed in the construction of sanatoria for the working classes. The institution of the Frankfort Convalescent Society at Rupertshain, built on the model of Dettweiler's sanatorium, was typical of many, while

that of the Red Cross at Grabowsee showed a mixed system in which light transportable single-roomed barracks designed for use in war were employed in combination with permanent pavilions. Drawings of the people's institutions erected by Herr Georgi at Königreich in Saxony, at Albertsberg near Auerbach, and the institution founded by him at Carolastein, were also shown, as well as plans of the lung sanatorium of the Berlin-Brandenburg Sanatorium Association, and the Samuel Bleichröder foundation at Kirchenforst. The institutions founded by the city of Berlin at Malchow and Blankenfelde also were illustrated. The People's Sanatorium Society of Munich showed the plans of a sanatorium about to be built at Krailing, near Planegg.

WEDNESDAY'S PROCEEDINGS.

[*Berlin, May 24th.* *By Telegraph.*]

In glorious summer weather the Congress was opened this morning in the Chamber of the Reichstag. The Empress and suite entered a few minutes after 11, and were received in silence by the whole company standing. The Chamber was filled to its utmost capacity, and fully 1,500 members and delegates were present.

Count POSADOWSKY, Minister of the Interior, made an impressive speech, remarking that the presence of the Empress was a guarantee of success.

The DUKE OF RATIBOR welcomed the visitors.

The BURGOMASTER OF BERLIN then stated that inasmuch as Berlin had been taking steps against the spread of tuberculosis for years, the Congress was one of special interest to the city. He hoped the foreign delegates would take away with them pleasant recollections of the city and its people.

Professor WALDEYER, Rector of the University, said practical measures had been rendered possible by the laborious scientific researcher Pasteur, and of Koch.

Professor BROUARDEL, of Paris, who spoke in French, deplored the death of Pasteur, and congratulated Germany on having her best men still living.

Sir T. GRAINGER STEWART, who spoke in English, referred to the great part taken by the Prince of Wales in the prevention of tuberculosis. Discussing the open-air treatment of phthisis, he said that it was now found that cases could be treated satisfactorily in England, in spite of rain and west and east winds.

Representatives of Italy, the United States, Austria-Hungary, and Russia also spoke; after which the SECRETARY of the Congress stated that over 2,000 members had been enrolled.

Professor VON LEYDEN gave a brief address; and the DUKE OF RATIBOR thanked Her Imperial Majesty for her presence, whereupon the company rose and cheered.

At the conclusion of the ceremony a resolution was carried to send a telegram of congratulation to Queen Victoria on her eightieth birthday.

The arrangements for the convenience of delegates and members are excellent. On Wednesday evening a brilliant reception was given in the Town Hall by the Burgomaster of Berlin.

THE DISSEMINATION OF TUBERCULOSIS.

The first subject on the programme was introduced by Dr. KÖHLER, the Director of the Imperial Health Office in Berlin, who gave statistics as to the prevalence of the disease and the mortality which it produced in Europe. England, Belgium, the Scandinavian countries, and Italy showed the lowest mortality from tuberculosis, and Russia and Austria the highest. Naples, Buenos Ayres, and London had the lowest mortality from consumption of the large civilised cities of the world, Moscow, St. Petersburg, Vienna, and Buda-Pesth, the highest. While there was no evidence that elevation above sea-level had any effect upon the incidence of the disease, it was more prevalent in towns and industrial districts than in country districts. Finally, he pointed out that tuberculosis caused a larger number of deaths between the ages of 20 and 30 than any other disease. Dr. Krieger, of Strassburg, read a paper on the relations between the general condition of life and the spread of tuberculosis; Dr. Gebhardt, of Lübeck, on the prevalence of the diseases among the industrial population under the compulsory insurance scheme in force in Germany; Dr. Schjerning, the Chief Medical Officer of the German War Office, on tuberculosis in the army; and Professor Bollinger, of Munich, on the risk of infection through domestic animals, especially by the use of unsterilised milk and butter.

THE NURSING EXHIBITION.

On Saturday, May 20th, the Sick-Nursing Exhibition (Ausstellung für Krankenpflege) was opened with elaborate ceremony. The German Empress, unfortunately prevented from appearing by indisposition, was represented by one of her Court officials. Dr. Bosse, the Cultus Minister; Herr von Gossler, the War Minister, with several under-secretaries of State and ministerial "Geheimräthe" represented the Prussian Government. The head-mayor, Dr. Kirschner, magistrates, and town councillors were delegated by the municipality of Berlin; the Princess Elisabeth Hohenlohe sat at the head of the ladies' committee, and many distinguished medical men and several general army surgeons were present.

A hymn having been first sung by a special choir,

Professor v. LEYDEN (President of the Organising Committee) addressed the assembly on the art of sick nursing, which he said was in our day recognised as a most important factor in therapeutics. He sketched its history, and dwelt on the progress achieved within the last ten years. He explained the arrangement of the exhibition, a large portion of which was devoted—in view of the Tuberculosis Congress—to the care of consumptive patients.

Surgeon-General Dr. SCHJERNING spoke next, as President of the "Jury," and after him the chief Mayor, Dr. KIRSCHNER, as the representative of the city of Berlin. He said that the Berlin municipality was conscious of its great responsibilities as regards the care of the sick; that it disposed of no fewer than 9,000 beds, of which nearly all were constantly occupied; that a new hospital, a new lunatic asylum, a new lung sanatorium, and enlargement of existing buildings were either in course of erection or planned.

Dr. BOSSE then, in the name of the Committee, declared the Exhibition open, adding the hope that part of it might remain as the nucleus of a permanent museum for sick nursing apparatus.

Of the Exhibition itself it is not too much to say that (thanks to the strict selection exercised by the Committee or "jury") there is hardly an uninteresting exhibit. Sensational novelties of course are not to be looked for, the object of the Exhibition being chiefly to show the general public what sick nursing has achieved in our day, the important position it occupies in medicine, and the stake held in it by trade and industry. Anyone experienced in such things can imagine the array of beds of this system and of that—the fully-equipped ambulance tents, the tropical hospitals, the "Liegehallen" furnished with every kind of *chaise-longue*, the model kitchens, the rational clothing, the hygienic washing stands and waterclosets, the food preparations, the baths, the inhalers, the spittoons, the ventilators, the disinfecting apparatus, etc., with which the large and the smaller halls of the "Philharmonie" building, its foyer, broad corridors, and courtyard are filled. All is well arranged; there is no crowding, and every exhibit can be seen and examined without discomfort.

A great share in the credit of this successful arrangement must be given to the indefatigable secretary of the exhibition, Dr. Martin Mendelsohn, who has long been devoted to the cause of sick nursing, and on whom the title of "Professor" was bestowed by the Emperor through Dr. Bosse before the opening of the exhibition.

PROPOSED INEBRIATE REFORMATORIES.—Under the auspices of the Lord Provosts of Glasgow and Dundee, organised efforts are being made to establish certified inebriate reformatories for both sexes in both these populous cities.

AMERICAN DERMATOLOGICAL ASSOCIATION.—The American Dermatological Association will hold its twenty-third annual meeting at Philadelphia on May 30th and 31st and June 1st under the presidency of Dr. J. A. Fordyce, of New York. A general discussion on the *Rôle* of Pus Organisms in Diseases of the Skin will be opened by Dr. G. T. Elliott and Dr. T. C. Gilchrist. Among the communications promised are the following:—Epithelioma as a Sequence of Psoriasis and the probability of its Arsenical Origin, by Dr. M. B. Hartzell; and Imperfect or Deficient Urinary Secretion as observed in connection with certain Diseases of the Skin, by Dr. L. D. Bulkley.

THE PREVENTION OF TUBERCULOSIS.

Dundee.

A meeting of citizens, convened by the Lord Provost of Dundee to consider the propriety of establishing and maintaining a sanatorium for the treatment and cure of consumption, was held in the Town Hall on May 22nd.

The Lord Provost said that Dundee had taken an early and an earnest part in approaching the subject theoretically, and that day they had been called together to consider a generous offer made by a leading citizen for the purpose of endeavouring to put their theories into practical operation. They were aware that ex-Provost Moncur had come forward and offered to provide and equip a sanatorium for consumptives, and also to provide free of expense the ground whereon to build it.

Dr. Alexander Campbell read the following letter which he had received from ex-Provost Moncur:

"Dear Dr. Campbell,—If the meeting to-day resolves that, in the event of a sanatorium containing 30 beds being provided free of expense, it will engage to see the work carried out, and arrange for its future management and maintenance, then I undertake to hand over to the treasurer of the new organisation without any delay the sum of £10,000, which I think would be sufficient to erect, equip, and purchase a site for the institution. While the maintenance of a sanatorium would be no light matter, still, considering the urgent need of such an institution in Dundee, and the certainty that it would command generous support from all classes in the community, I trust there will be no hesitation in launching the scheme."

Dr. Campbell said it was proposed that sufficient ground be acquired on which a sanatorium should be erected for the accommodation of from 30 to 40 patients; and it be constructed on the latest and most approved principles, furnished and equipped with all modern appliances, and completed ready for occupation. The building was expected to cost between £5,000 and £6,000, the furnishing and equipping nearly £1,000, leaving a balance quite sufficient to procure a site. How this institution was to be maintained was for the meeting to decide. It would be advisable, however, in addition to free patients, to make provision for the admission of patients who were able to pay board in whole or in part.

Dr. Sinclair moved a cordial vote of thanks to ex-Provost Moncur for his munificent gift, and also that a committee be appointed to consider the whole question of the maintenance of a sanatorium and report.

Principal Mackay seconded the motion, which was carried.

Dr. J. W. Miller, after adding his tribute of thanks to Mr. Moncur for his generous gift, proposed the formation of a committee. He hoped the attainment of the sanatorium would not interfere with the intention which had been expressed by the sanitary authorities to seek to get powers by which they would be able to build a hospital for the reception of incurable cases. It was clearly a public duty to provide against infection and the spread of infectious disease at the expense of the rates. He moved the appointment of the following Committee: Ex-Provost Moncur, Lord Provost M'Grady, Sir John Leng, M.P.; Sir Thomas Thornton, Sir James Low, ex-Lord Provost Mathewson, ex-Lord Provost Hunter, ex-Provost Ballingall, Lord Dean of Guild Robertson, Bailie Doig, Councillors Elliot and Barrie, Rev. Dr. Colin Campbell, Rev. Dr. Patrick, Rev. James Campbell, Rev. Canon Holder, Principal Mackay, Dr. Alexander Campbell, Dr. Sinclair, Dr. MacEwan, Dr. J. W. Miller, Dr. Stalker, Dr. Templeman, and Messrs. Alexander Henderson, A. J. Buist, R. B. Sharp, W. Kidd, I. J. Weinberg, J. Robertson of Elmslea, J. C. Robertson, James Logie, Fulton Spiers, Edward Cox, J. Key Caird, A. D. Grimond, A. M. Grimond, Alexander Gilroy of Craigie, A. B. Gilroy, Walter Shepherd, David Thomson, James Guthrie, James Combe, Edwin Scrymgeour, and James Kyd, inspector of poor. Five to form a quorum; the Lord Provost Convener, and the Town Clerk Honorary Secretary. Mr. Alexander Henderson seconded. The motion was agreed to, and the Committee as named was appointed.

After the meeting a gentleman, who is desirous that his identity should not be disclosed, intimated to Dr. Sinclair, one of the members of the Committee, that he was prepared to subscribe £500 annually for five years to be applied annually towards the maintenance of the proposed sanatorium. The probable annual charge is spoken of as representing a sum between £1,200 and £1,500. Assuming the lowest figure as the likely cost, a capital fund of £40,000 would be required. To raise this sum is a project that is not seriously entertained, but it is believed that public generosity may be trusted to provide special donations, together with substantial annual subscriptions.

MEMORIAL STATUE TO SIR THOMAS BROWNE.

The Committee formed some months ago to raise a fund for the erection of a memorial statue to Sir Thomas Browne, whose place in English literature and thought is witnessed by the enduring fame of his *Religio Medici*, is now in a position to make the following appeal to the medical profession:

"The Committee begs permission to appeal through your columns for the support of the medical profession to the above memorial. Sir Thomas Browne in his day occupied the highest position in his profession, and is confessedly one of the greatest and most eminent of our English writers and philosophers. Yet he stands almost alone amongst these as having no permanent public memorial.

"The movement to erect a statue of him in Norwich, where he resided for forty-six years, and where he was buried, has received most influential support, both medical and general, and it now includes that of the London College of Physicians and of its President.

"The sum of about £400 has so far been subscribed, and further contributions are now solicited towards the estimated £1,000 or £1,200 required.

"Donations to the fund will be gladly received by either of the Honorary Secretaries, Dr. Bensley or Mr. Charles Williams, of Norwich; or by the Acting Secretary, Mr. F. R. Eaton, King Street, Norwich."

The appeal is signed by Sir Peter Eade, Chairman of the Committee, and the other members of the Executive Committee are: The Mayor of Norwich, the Sheriff of Norwich, Sir Frederic Bateman, M.D., W. T. Bensley, LL.D. (Honorary Secretary), M. Beverley, M.D., W. Cadge, F.R.C.S., Henley Curl, G. C. Eaton, Sir Charles R. Gilman, the Dean of Norwich, Professor Stuart, M.P., I. M. Wade, George White, and Edward Wild.

Sir Thomas Browne lived and practised as a physician in Norwich for forty-six years, and died there in 1682. It is therefore very appropriate that that city should take the lead in raising a memorial to his memory, and should claim the honour of finding a site. We are glad to learn that a most suitable position for it has been suggested in the Haymarket, near the site of the house in which he resided for so many years and the church of St. Peter Mancroft in which he was buried.

The first list of subscriptions contains the following among other subscriptions:

	£	s.	d.		£	s.	d.
The Royal College of Physicians of London ...	15	15	0	Sir Frederic Bateman, M.D.	5	5	0
The Earl of Leicester, K.G. (Lord Lieutenant of Norfolk)	5	0	0	W. Cadge, F.R.C.S. ...	10	0	0
The Mayor of Norwich ...	10	0	0	Sir Peter Eade, M.D. ...	10	0	0
The Lord Bishop of Norwich	10	0	0	The Dean of Norwich ...	5	5	0
The Sheriff of Norwich ...	5	5	0	M. Beverley, M.D. ...	5	5	0
The Master of the Rolls ...	2	2	0	The Bishop of Thetford ...	2	2	0
Robert Barnes, M.D. ...	50	0	0	Sir Harry Bullard, M.P. ...	5	5	0
				F. S. Stevenson, M.P. ...	5	5	0
				S. Hoare, M.P.	5	5	0
				Bishop Fisher	2	2	0

THE BRITISH DENTAL ASSOCIATION.

The annual meeting of the British Dental Association took place on May 20th, 22nd, and 23rd at Ipswich, under the presidency of Mr. J. Howard Mummery (London).

Valedictory Address.—The retiring President, Mr. W. A. Hunt (Yeovil), in his valedictory address referred to the appointment of Mr. C. S. Tomes as a member of the General Medical Council, to the Bill introduced by the Lord Chancellor extending the same restriction to companies as are at present enforced against individuals in the practice of dentistry, and to the proposal made by the two schools of dental surgery in London to obtain the recognition of dental surgery in the new scheme for the reconstruction of the London University.

President's Address.—Mr. Mummery, in the course of his address, observed that the establishment of the Odontological Society, the passing of the Dentists Act, and the foundation of the Dental Association were landmarks in the history of the dental profession. Referring to a proposed application to the University of London Commissioners, he said that while

it was felt that the recognition of dentistry was desirable in common with other specialities, the establishment of another diploma might not be an unmixed blessing. The public were beginning to learn the value of the diploma L.D.S., and a multiplication of diplomas would only tend to bring about a condition which was already found to be disadvantageous in medicine.

International Dental Congress.—Dr. Sauvez and M. Jules Choquet of Paris were introduced as delegates from the Organising Committee of the International Dental Congress to be held in Paris next year. They extended a cordial invitation to the British Dental Association to send delegates to the Congress. After some discussion a small Committee was appointed to take steps for the representation of the British Dental Association at the Conference.

Annual Report.—Mr. W. B. PATERSON, F.R.C.S. (the Hon. Secretary) presented the annual report, in the course of which the hope was expressed that all members would be ready when the proper time came to secure the support of Members of Parliament to the Companies (Medical Profession) Bill introduced by the Lord Chancellor.

Mechanical Dentistry.—Papers on this subject were read by Mr. B. NEALE (Birmingham), and Mr. W. B. PEARSALL (Dublin), and led to a prolonged discussion, which turned especially upon the relative merits of the practical training in mechanical dentistry in British and American dental schools.

Microscopical Section.—In the Microscopical Section the PRESIDENT (Mr. J. J. Andrews, of Belfast) delivered an inaugural address on Dental Caries and its association with Micro-organisms. The address was illustrated by lantern slides and microphotographs. Subsequently Mr. GOADBY (Leytonstone) read a paper on Micro-organisms in Dental Caries, which was discussed by M. CHOQUET, Mr. L. WILLIAMS, and others.

London University and Dental Degrees.—On the last day of the meeting a prolonged discussion took place on a series of propositions brought forward by Mr. G. CUNNINGHAM (Cambridge) directing the Hon. Secretary to transmit a petition to the University of London Commission on behalf of the British Dental Association praying that a degree or degrees should be granted in dentistry by the University of London. Finally an amendment moved by Mr. SMITH TURNER directing that no further action in the matter should be taken was adopted.

The School Dentists' Society.—A meeting of the Schools Dentists' Society took place on May 20th. The PRESIDENT (Mr. Sidney Spokes) in an address, referred to the importance of the care of the teeth in the young, and said that the School Dentists' Society had been founded practically on the same lines as the Medical Officers of Schools' Association. In the discussion which followed it was stated that owing to the action of the naval authorities in rejecting boys for defective teeth, Poor-law authorities who sent boys into the navy, had begun to show themselves anxious that attention should be given to the matter.

The Annual Dinner.—The annual dinner of the British Dental Association took place on Monday evening, May 22nd, in the Council Chamber of the Ipswich Town Hall, when the chair was taken by the President, Mr. HOWARD MUMMERY. After the usual loyal toasts and that of "The Mayor and Corporation of Ipswich" had been given and acknowledged, Dr. W. A. ELLISTON of Ipswich proposed the toast of "The British Dental Association." He observed that down to the middle of the present century the dentistry of the country was mainly carried out by medical practitioners, and that it was only since 1860 that a special profession of dentists had come into existence. The change had indeed taken place remarkably rapidly, and Dr. Elliston traced the steps which led up to the passing of the Dentists Act in 1878. He expressed the opinion that the dental profession should be directly represented on the General Medical Council, and in conclusion appealed to dental surgeons to give their services to hospitals and dispensary work, so that the poor of the country might benefit by their skill. The toast was acknowledged by Mr. J. SMITH TURNER, who stated that many dentists were giving a large amount of time and attention to hospital and dispensary work. He expressed high approval of the aims of the School Dentists' Society, and thought that the recognition of the importance of dentistry by naval and military authorities and other public bodies was a great step in advance. The PRESIDENT then gave the toast of "The Medical Profession," which was acknowledged by Dr. R. K. CASLEY of Ipswich. The toast of "The Guests," given by Mr. A. F. PENRAVEN, was acknowledged by M. JULES CHOQUET, who expressed his acknowledgment for the reception extended to the French delegates, and repeated the invitation to attend the meeting in Paris. His speech, which was received with great applause, was followed by the singing of the *Marseillaise* with much enthusiasm.

THE PLAGUE.

THE PILGRIMAGE.

WE are indebted to Dr. E. D. Dickson of Constantinople for the following notes upon the immunity to plague fortunately enjoyed by the pilgrims to Mecca this year:

Ten thousand pilgrims have up to the present moment (May 16th, 1899) passed through Jedda on their way homeward. No manifestation of plague has been noticed on any of them, nor on any of the pilgrims still remaining in Jedda. Nor has any case of it been observed at Mecca, Arafat and Mina, excepting the two cases imported from Jedda and which recovered on arrival at Mecca. No sanitary measures worth mentioning were taken at Mecca, nor any precautions at Jedda, beyond sweeping the streets and isolating to some extent persons suffering from plague. It is not therefore thanks to any sanitary measures to which this immunity from plague can be attributed, but to the refractory character of Jedda and Mecca to the development of plague. Plague, as Dr. Dickson has maintained all along, has never, he believes, manifested itself in Mecca, in Kerbala, nor in Bassora, and only in the form of sporadic cases in Jedda.

INDIA.

The news from all parts of India is to the effect that plague is declining everywhere. The wet season has now fully set in, and the south-west monsoon prevails. During this period malarial fevers abate, and sickness generally, with the exception of intestinal troubles, is as a rule lessened. From Karachi it is reported that cholera is rife, as many as 160 persons dying of the scourge daily for the past two or three days. It is significant that although the death-rate for cholera far exceeds that of plague when at its worst there is no scare. It is a new disease which causes scare, even though it is far less virulent.

EGYPT.

It was officially announced in Cairo on May 21st that a case of plague died in Alexandria on May 17th. Three cases have subsequently been notified. The two patients first attacked were Greeks, but it is not known how they became infected or whence they came.

The Greek Government have received information that 3 cases of plague have been discovered at Alexandria, and from Paris it is reported that 2 fresh cases of plague and 2 deaths have occurred there. Two deaths from plague are also reported from Ismailia, and from Zagazig. Most of these reports come by way of Athens and Paris, but as yet we are without official information from the Egyptian Government since May 21st. How alarming these rumours are, and how fraught with danger to the north of Africa and to Europe, it is scarcely necessary to state. Athens has already imposed quarantine upon all vessels arriving from Alexandria, and the Board of Health in Egypt has decided to impose regulations against arrivals in Port Said from the same port. Steamers calling at Alexandria, and proceeding to Port Said, are subject to ten days' quarantine from the date of departure, and passengers from Alexandria wishing for transit through the Canal, must inform the Sanitary Office two days in advance, in order that the latter may be able to take measures for escorting them. Should European ports on the Mediterranean shore impose a ten days' quarantine on arrivals from Alexandria, and possibly Port Said, it will lead to a very serious dislocation of traffic.

WEST COAST OF AFRICA.

A report that a disease which by the French authorities is termed "yellow fever," but by the English "plague," has broken out on the Ivory Coast, West Africa, may, it is to be hoped, prove unfounded. Either of the two diseases is sufficiently alarming if anything like an epidemic prevails, but whilst we are conversant with the fact that yellow fever has occurred in the past in West Africa, we have no previous knowledge of plague there. It is, perhaps, advisable to withhold speculation as to how plague—if it is plague—reached a region so seemingly remote from its seat of present activity. We have been made acquainted with the statement that true plague prevailed in the interior of Eastern Africa by Koch, but that the disease should have traversed the continent without being recognised or referred to seems well night an impossibility.

HONG KONG.

An increase in the number of plague cases is officially reported from Hong Kong. During the past week 87 fresh cases occurred and 70 deaths. It will be observed that with the advance of hot weather the plague is increasing in Hong Kong. This is in keeping with previous experience in that colony, for it was in May and June of 1894 that the epidemic of plague reached its maximum. There has been a scarcity of water in the colony during the spring months of the present year, as there was in 1894, and it is to be hoped that when the rainy season really sets in the epidemic will abate.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL.

MEETINGS of the Council will be held on July 12th and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting will be held at the Hotel Cecil on Tuesday, June 20th, at 6 P.M. The members will dine together at 7 P.M., Mr. Thomas Bryant, President-elect, in the chair.—H. BETHAM ROBINSON. J. W. WASHBOURN, Hon. Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The annual meeting of this District for the election of officers will be held at the Royal Forest Hotel, Chingford, on Thursday, June 8th, at 6 P.M., followed by the annual dinner of the District at 6.30. The meeting arranged for June 1st is postponed to next session.—C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—Preliminary Notice. —The annual meeting will be held at Malvern on Thursday, June 29th. Members having papers to read or communications to make are requested to communicate with the Honorary Secretary at an early date.—GEO. W. CROWE, M.D., Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held at the Kyle of Lochalsh on the forenoon of Wednesday, June 14th next. By the generosity of a member, a special train will be run from Inverness to suit the convenience of members and their friends. Particulars will be given by circular.—J. W. NORRIS MACKAY. M.D., Honorary Secretary, Elgin.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Derby, on Thursday, June 15th, at 2.15 P.M., Mr. E. M. Wrench, F.R.C.S., President-elect, in the chair. After the transaction of the usual business, and the delivery of the President's address, a discussion will take place on the Local Distribution of Cancer in the area of the Branch. Information is desired on the following points: (1) The frequency of cancer in any district; (2) whether it is more common on high or low ground; (3) whether it is on the increase in any district; (4) any instance of two or more cases of cancer in any house. The following, among others, are expected to take part in the discussion: Dr. H. Handford, Dr. W. B. Ransom, Mr R. G. Hogarth, Dr. G. H. Milnes, Mr. J. Acton Southern, Dr. E Mansel Sympson, Dr. E. N. Nason, Dr. Astley V. Clarke, Dr. R. Sevester, Mr. J. Tubbs Thomas, Mr. C. J. Bond, and Dr. F. M. Pope. Mr. C. J. Bond will show a patient from whom he removed the Gasserian Ganglion by the Krause-Hartley operation. Mr. T. Henderson Pounds will read a short paper on the Extirpation of the Cancerous Uterus by the Abdominal Route, with five successful cases. The President-elect will be glad to see members who come from a distance at luncheon at the Midland Hotel, at 1.0 P.M. The annual dinner will be held at 6 P.M.; tickets 7s. 6d., exclusive of wine. Place of dining to be subsequently announced. Those wishing to attend the meeting and dinner are requested to send notice to Mr. J. Acton Southern, 50, Friar Gate, Derby, before June 5th.—FRANK M. POPE, Leicester, Honorary Secretary and Treasurer.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Bolton on Wednesday, June 21st. Members wishing to contribute any papers, show cases, or make any other communication, should write to the Secretary before May 31st. Applications for membership should be addressed to Dr. BARR, 72, Rodney Street Liverpool, Honorary Secretary.

EAST ANGLIAN BRANCH.—Preliminary Notice.—The annual general meeting of the East Anglian Branch will take place at Colchester on Thursday, June 29th, under the presidency of Dr. E. L. Fenn. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting, will communicate at once with Dr. Barnes, Eye. Members desirous of nominating candidates for election as officers of the Branch under By-law 9 must send their nominations to Dr. Barnes, so as to reach him not later than June 7th.—EDGAR G. BARNES, M.D., Eye, MICHAEL BEVERLEY, M.D., Norwich, THOMAS CARR, M.D., Braintree, Honorary Secretaries.

SOUTH-WESTERN BRANCH. The annual meeting of this Branch will be held on Wednesday, June 14th, in the Board Room of the North Devon Infirmary, Barnstaple, at 3 P.M., when Dr. Montgomery will resign the chair to Dr. Mark Jackson, who will deliver an inaugural address. The Branch Council will meet at 2.40 P.M., and will afterwards present their annual report to the meeting. Luncheon, by kind invitation of the President-elect, will take place at 1.30 P.M., at the Imperial Hotel, Barnstaple, and the annual dinner will be held at the same place, at 6.30 P.M., at which the Mayor of Barnstaple will be present. Tickets (exclusive of wine) 6s. After the meeting, tea will be served in the Board Room of the North Devon Infirmary. In the evening the Mayor of Barnstaple will hold a reception at the Athenæum, invitations to which will be issued to all members of the Branch. The Barnstaple Club will be open to members of the Branch for the day. On Thursday, June 15th, the Barnstaple members have kindly arranged an excursion by train to Ilfracombe, thence by coach along the coast to Lynton, and back by the Lynton-Barnstaple Railway. This, however, cannot take place unless the number can be made up to sixteen. The Hon. Secretary will be glad if members will inform him at once whether they will be present at (1) the luncheon, (2) the dinner, (3) the excursion, so that further arrangements may be made.—H. W. WEBBER, M.S., 4, Woodland Terrace, Plymouth, Hon. Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at the Grand Hotel, Tynemouth, on Wednesday, May 31st, at 4 P.M., to be followed by dinner at 6 P.M. All members of the medical profession in the district are cordially invited.—T. BEATTIE, M.D., 26, Ellison Place, Newcastle-upon-Tyne, Hon. Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Medical Institute, Birmingham, on Thursday, June 22nd, at 3.30 P.M. The chair will be taken by the President, Mr. Vincent Jackson, and an address will be given by the President-elect, Mr. Bennett May. The annual dinner will take place at the Grand Hotel, at 6.30 P.M.—WILLIAM F. HASLAM, 54, Newhall Street, Birmingham, Hon. Secretary.

EDINBURGH (FIFE AND LOTHIANS) BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians, Edinburgh, on Thursday, June 1st, at 5 P.M. Intimation of business should be made six days before the date of meeting to either JAMES HODSDON, M.D., 6, Chester Street, Edinburgh, or R. W. PHILIP, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of this District was held at Tunbridge Wells on May 11th. The chair was taken by Mr. J. B. FOOTNER.

Cardiac Failure.—Dr. DE HAVILLAND HALL read a paper on this subject. He quoted Bichat's tripod of life—the heart, the lungs, and the brain—but pointed out that the ultimate cause of death was heart failure. After a brief consideration of the factors engaged in the circulation of the blood, he grouped the causes of heart failure into (1) those dependent on failure of the heart to contract with sufficient force; (2) insufficient quantity of blood in the cavities of the heart. Under 1 (*a*) Changes in the heart muscle itself, either as a part of a general condition, anæmia, cancer, wasting diseases, fevers, poisons, or from local causes, calcification of coronary arteries, changes secondary to hypertrophy. (*b*) Interference with the innervation of the heart; mental emotion, shock, blows on the epigastrium, toxins, especially those of diphtheria and influenza. (*c*) Valvular disease: At first there was an effort at compensation, but sooner or later hypertrophy gave place to dilatation. (*d*) Changes in the blood vessels, as in atheroma. Renal disease under 2. Sudden loss of blood, also cases in which, owing to some shock to the nervous system, the vascular area of the abdominal viscera might become dilated, so as to be capable of holding nearly all the blood of the body. A similar condition might take place after paracentesis in cases of ascites. From a clinical point of view cases of cardiac failure might be divided as follows—(1) acute, syncopal, or anginal; (2) chronic. Dr. Hall gave a short description of the symptoms and treatment of the acute forms of heart failure, but he devoted most of the time to the consideration of chronic failure. He defined the condition as a gradual inability on the part of the heart to propel its contents onwards as a result of failing compensation. He took as a typical example the state of affairs brought about in a

labouring man who had suffered from mitral regurgitation, and he gave an account of the gradual development of the symptoms due to back pressure of the circulation. He commented on the remarkable way in which the symptoms of back pressure varied in different people—in one the lungs are chiefly affected, in another the liver, etc. He directed attention to the great difference in response to treatment between those whose breakdown came as the result of over-exertion and strain, and those who lead a life of less physical but greater mental activity. In respect to treatment, Dr. Hall mentioned rest in the first place. In severe cases absolute rest in bed was required. In regard to diet he considered that it should not be of too fluid a nature; a dry diet often gave very good results. The labourer and the City man required a very different dietary in heart failure. The beneficial effect of alcohol was over-estimated, and the quantity administered was too often greatly in excess of the amount needed. Tea, coffee, and tobacco required to be used with great caution. Therapeutically, digitalis still maintained the first place. After considering the physiological action of digitalis, Dr. Hall stated that the indications for the use of digitalis were to be deduced from symptoms rather than from physical signs. He described in some detail three fatal cases following its use in patients suffering from atheromatous arteries, fatty heart, and aortic regurgitation respectively, and he pointed out the risk of giving the drug in these cases. He had found benefit from the addition of trinitrine to the digitalis mixture, especially in cases of mitral stenosis. He regarded strophanthus as being especially indicated in cases in which a very rapid action was required, in elderly people, and in instances of cardiac failure in pneumonia. The remedies he most relied on in imminent cardiac failure were strychnine subcutaneously and the inhalation of oxygen. Dr. Hall laid great stress on the excellent results he had obtained in the insomnia of heart disease by the use of morphine (gr. $\frac{1}{10}$ to $\frac{1}{6}$) in combination with atropine (gr. $\frac{1}{150}$ to $\frac{1}{120}$). He also pointed out the good effect produced by the action of 3 grs. of calomel, and he commented on the advantages of local and general bleeding in heart disease. He regretted that time would not permit him to discuss the treatment of heart failure by passive exercises and massage, resisted movements (the Schott method), hill climbing (the Oertel system), and baths.

Cases and Specimens.—Mr. H. MYDDELTON-GAVEY read a paper on Possible Errors of Diagnosis in Ophthalmic Cases, and showed the following cases: (1) A young man with Absence of Canaliculi on Right Side, probably from infancy. (2) A small boy with Congenital Dislocation of Lens. Lens had been needled and was nearly absorbed. (3) An epileptic patient on whom he had operated, with good results, for Double Cataract.—Mr. LAMMIMAN showed: (1) Two Calculi, weighing respectively $\frac{1}{4}$ lb. and 196 gr., removed by suprapubic lithotomy from an old man who had suffered from symptoms of stone since infancy; the patient made a good recovery, and is now working as a farm labourer. (2) Two Biliary Calculi, of 400 and 230 gr. weight, removed from an elderly woman who died a few days after the operation from intestinal obstruction due to a band of adherent omentum.—Mr. FOOTNER showed: (1) About 100 Calculi, removed suprapubically from bladder of an old man with enlarged prostate; lithotrity had been thrice performed, the last occasion being seven years before the suprapubic operation. (2) A young woman with Exostosis of First Rib projecting into Posterior Triangle of Neck.

SOUTH-EASTERN BRANCH: NORTH KENT DISTRICT.

The May meeting of this District was held in the Council Chamber of the Urban District Council, Beckenham, on Thursday, May 4th, Mr. F. STURGES in the Chair.

Confirmation of Minutes.—The minutes of the Rochester meeting were read and confirmed.

Next Meeting.—It was decided to hold the next meeting of the District at Bromley, in October, and that Dr. Codd be asked to take the Chair thereat.

Nominations to Branch Council.—Drs. Holt and Sturges were again nominated for the Branch Council, and the Hon. Secretary was directed to write to the members of the District not present at the meeting to that effect. Dr. A. Tennyson Smith was re-elected Hon. Secretary.

Communications.—Dr. ASHLEY BARRETT read a paper on Methods of Relieving Trouble from Impacted Wisdom Teeth, which gave rise to some discussion.—Dr. ALEX. MACGREGOR, of the North London Hospital for Consumption and Diseases of the Chest, read a very able paper on The Bacteriology and Treatment of Phthisis. In dealing with the bacteriology, he drew attention to the fact that chronic pulmonary tuberculosis is a complex morbid process, or "a mixed injection," and, amongst other microbes, spoke of the micrococcus tetragenus, which he believed shared largely in the destruction initiated by the tubercle bacillus. In dealing with prognosis, he showed that the course of pulmonary tuberculosis is powerfully influenced by the presence of other micro-organisms than tubercle bacillus. In treatment, after dealing with general hygiene, open-air treatment, and exercise, he spoke of chinosol, which he has used with very gratifying results in over 100 cases.

Tea.—At the end of the meeting the Chairman entertained the members and guests at tea.

NORTH OF IRELAND BRANCH.

THE spring meeting of this Branch was held in Belfast on April 27th. Dr. HENRY O'NEILL (President) occupied the chair, and forty-one members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Communications.—Dr. E. C. THOMPSON (Omagh) called attention to the recent circular of the Local Government Board regarding the Nursing of Workhouse Hospitals, and proposed a resolution, which was referred to a subcommittee.—Dr. JAMES MOORE read a paper on the Suprarenal Capsules and their Relations to the Sexual Organs, which was discussed by Drs. MCCONNELL, MCFARLANE, LYNASS, and O'NEILL.—Dr. DARLING and Dr. CECIL SHAW gave an account of a rare case of Tumour of the Eyelids, and showed photographs and sections.—Mr. T. S. KIRK showed a large Cystic Kidney successfully removed from a child, and read notes of the case.—Mr. ROBERT CAMPBELL described and showed photographs of a case of very large Occipital Meningocele successfully treated by operation.—Dr. JOHN CAMPBELL showed (1) A Dermoid Cyst of the Ovary; (2) Cancer of the Anterior Rectal Wall removed by Kraske's method; (3) an Ovarian Cyst; (4) a Fibroid Tumour removed by extraperitoneal hysterectomy; (5) a Fibroid Tumour undergoing degeneration removed by intraperitoneal hysterectomy; (6) Cancer of the Uterus removed by vaginal hysterectomy; (7) two Tubo-ovarian Tumours and a Vermiform Appendix removed from the same patient.

The late Dr. O'Hara.—Dr. JOHN CAMPBELL called attention to the memorial which was being subscribed for to the late Dr. O'Hara, a vice president of the Branch.—Drs. JAMES WALLACE, DEMPSEY, CECIL SHAW, and O'NEILL commended the matter to the sympathies of the members.

New Members.—The following new members were elected: J. G. Clokey, M.B., Crumlin Terrace, Belfast; Robert Reid, L.R.C.P. & S.Edin., Jordanstown, Whiteabbey, co. Antrim; S. J. Magowan, M.B., Glenarm, co. Antrim; Wm. Orr, M.B., Omagh; T. H. Brownrigg, L.R.C.S. & P.Edin., Nevira, co. Down.

GIBRALTAR BRANCH.

AN ordinary meeting of this Branch was held on May 11th in the Colonial Hospital. In the absence of the President, Surgeon-General CATHERWOOD, the SECRETARY moved that Colonel MCNAMARA take the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following office-bearers of the Branch was elected for the year 1899-1900: *President:* Colonel McNamara, C.B., P.M.O. *Vice-President:* Dr. Joseph Patron. *Secretary:* Dr. Julius Abrines. *Treasurer:* Major Franklin, R.A.M.C. *Representative of the Branch on the Council of the British Medical Association:* Dr. W. Turner. *Representative of the Branch on the Parliamentary Bills Committee:* Dr. J. Errington Ker. *Branch Council:* The President, Vice-President, and Treasurer (*ex officio*), Dr. Oman, Colonel Cogan.

Vote of Thanks.—A vote of thanks was passed to Dr. Turner

for the manner in which, since the establishment of the Branch, he had conducted the office of Secretary.

New Members.—The following gentlemen were elected members of the Branch: Dr. Joseph Patron, Colonel Cogan, and Captain Cooper (Grenadier Guards).

Ordinary Meetings.—It was suggested by Dr. OMAN, and approved by the meeting, that the ordinary meetings of the Branch should be held on the first Thursday of every quarter.

Exhibition of Cases.—Major FRANKLIN showed a case of Recurrent Chorea, in a girl aged 12, induced originally by fright.

Contributions.—Captain COOPER read notes on a case of Obscure Affection of the Shoulder-joint and Scapula, resulting in Ankylosis, and exhibited the patient.—Dr. W. TURNER contributed Remarks on Paroxysmal Insanity, with Special Reference to their Medico-Legal Bearings.—Dr. JOSEPH PATRON introduced a discussion on The Use of Issues and Cauterisation in the Treatment of Affections of the Heart, Lungs, and other Viscera.

HONG KONG AND CHINA BRANCH.

A MEETING of this Branch was held at the office of Drs. Harrigan, Stedman and Rennie on February 15th, Dr. J. M. THOMSON, President, in the chair. The following were present: Staff-Surgeon Barnes, R.N., Surgeon Beadnell, R.N., Dr. Bride, Captain Bewley, R.A.M.C., Surgeon Dartnell, R.N., Colonel Evatt, R.A.M.C., Dr. Gibson, Staff-Surgeon Home, R.N., Dr. Harston, Dr. Jordan, Surgeon Meikle, R.N., Surgeon Pickthorn, R.N., Dr. Rennie, Surgeon Robinson, R.N., Surgeon Reid, R.N., Surgeon Rock, R.N., Dr. Stedman, Dr. Levan, Surgeon Stenhouse, R.N., Major Whilty, R.A.M.C., Dr. Francis Clark (Secretary).

Confirmation of Minutes.—The minutes of a meeting held on January 24th, 1899, were read and confirmed.

Scurvy in the Navy and Merchant Service.—An interesting paper—mainly historical—on Scurvy in the Royal Navy and Mercantile Marine was read by Surgeon BEADNELL, R.N., of H.M.S. *Powerful*, and was followed by a discussion in which Staff-Surgeon BARNES, R.N., Staff-Surgeon HOME, R.N., Surgeon STENHOUSE, R.N., Surgeon REID, R.N., Dr. BRIDE, Dr. HARSTON, Colonel EVATT, and the PRESIDENT took part.

The Etiology of the So-called Manila Fever.—A paper on this subject was read by Surgeon ROBINSON, R.N., H.M.S. *Rattler*, who held that the disease was purely malarial in origin, although some of the symptoms closely assimilated those of enteric fever. The paper was discussed by Staff-Surgeon BARNES, R.N., Surgeon ROCK, R.N., and Surgeon BEADNELL, R.N.

Vote of Thanks.—The meeting closed with a vote of thanks to the readers of the papers.

SPECIAL CORRESPONDENCE.

PARIS.

Paying Patients in Hospitals.—Illegal Practice by a Priest.—Cremation.—Friendly Societies and the Hospitals.—The New School of Medicine.

THE Superior Council of Public Assistance has decided that hospitals ought to admit paying patients under the following circumstances only: In cases of serious operations when the patient cannot be operated on at home; travellers not belonging to the Commune who are taken ill with a contagious disease.

The tribunal of Sens after three sittings has condemned a priest to pay £20 and costs for practising medicine illegally. The *abbé* is the director of the Sens Orthopædic Institute. The medical man whose name was used to "cover" the practice of the institution has been sentenced to forty-eight hours' imprisonment and to pay a fine of £4. The *abbé* will escape imprisonment by the application of the First Offence Act (Loi de Bérenger).

The Cremation Society held its general meeting a few days ago. Dr. Bourneville, who was in the chair, stated that the number of incinerations in Paris in 1897 were 4,197, and in 1898 4,513. A new crematory has been constructed at Rouen; others are about to be established at Marseilles and Havre.

At a meeting of the Superior Council of the Public Assistance, the question of treating gratuitously the indigent members of the Mutual Help Societies in hospitals was discussed. These societies claim that their indigent members should be received in French hospitals without the "Societés de Secours Mutuels" being called upon to pay for them. The Superior Council decided that the claim could not be admitted.

The Paris new School of Medicine, which was commenced in 1877, will be finished for the opening of the Exhibition of 1900. The classes have not been interrupted during the construction of the new School. As the new lecture rooms and laboratories were finished the old ones were abandoned, and the classes and researches were carried on under more favourable conditions. In 1884 the first set of buildings in the Rue Hautefeuille was finished and occupied. In 1893 the chemical and pharmacological lecture rooms and laboratories were installed there. In 1888 the library was removed to the block of buildings in the Boulevard St. Germain. In 1889 the superb suite of rooms now occupied by the Dean of the Paris Faculty, the secretary, and the officials was finished. The new School of Medicine exceeds the limits of the old. One part of it stands on historic ground. Marat's bedroom was exactly over the room which is now the Dean's library.

HONG KONG.

College of Medicine for Chinese, Hong Kong.—The New "Hinterland."—Bubonic Plague.—Small-pox.—Rinderpest.

ON March 23rd an interesting ceremony took place, when His Excellency Sir Henry Beake presented diplomas to Ho Nai Hop and Chan Kun Shing, on completion of their five years' training in Western medicine at the College of Medicine for Chinese, Hong Kong. There was a large attendance of the public, and speeches were made by the Governor, Mr. Stewart Lockhart, the Colonial Secretary, and others.

Arrangements are being made for applying the medical and sanitary laws already existing in Hong Kong to the new territory lately acquired by Britain. Dr. J. C. Thomson has been appointed Medical Officer and Medical Officer of Health to the Kowloon extension, and Dr. Ho Nai Hop has been appointed to assist him.

In the beginning of March a few cases of plague occurred, and now (April 22nd) the number seems gradually increasing. For the week ending April 15th, 10 cases are reported, with 4 deaths.

There have been a few sporadic cases of small-pox, 4 cases occurring during the week ending April 15th. Vaccination is becoming more popular with the Chinese in Hong Kong, the more intelligent bringing their children willingly.

Rinderpest broke out in one of the farms, and many of the cattle had to be killed.

CHICAGO.

A Great Drainage Canal for Chicago.—Food Adulteration.—Dr. Nicholas Senn's War Correspondence.—Small-Pox.

IN connection with the opening of the great drainage canal, which will carry to the Illinois River, and thence on to the Mississippi River, practically all of the sewage of Chicago, a bacteriological examination of the running water in the canal is to be systematically made at various stations. This examination will be conducted by State chemists, and will be thorough in every particular. It is designed to establish by this procedure the effect of rapid movement, dilution with large volume of pure water, and free oxidation upon the sewage of a large city.

The question of food adulteration is being investigated by a senatorial Committee. A State law against food adulteration was passed by the last Legislature, but has not yet been enforced. The question is becoming a serious one from the view-point of the effect of cheap and deleterious substances upon the health, not so much, it may be, of strong adults, as upon the weak, and upon children and infants. The evil is probably no more prevalent here than elsewhere under inefficient laws, or no laws of restriction at all. The investigation Committee above-named is learning from the sworn statements of witnesses that almost every manufactured food product is adulterated, or is capable of being adulterated,

largely by inferior and often harmless substances, but too frequently by materials that are known to be positively damaging to the bodily tissues.

Dr. Nicholas Senn, who was Chief Surgeon of the United States Volunteers, and chief of the operating staff with the army in the field during the late Spanish-American war, has gathered into a volume entitled "War Correspondence" a series of interesting letters written while in the service. The letters are racy, and picture faithfully the life of an army medical officer during the trying and exciting times of army formation and campaigning.

There are now about half-a-dozen cases of small-pox in the isolation hospital, the largest number the hospital has contained for a number of years. There is no fear as to any general outbreak, as rigid vaccination and revaccination has been carried out during the past winter especially. The Health Department of Chicago is fully awake to the necessity and value of preventive measures in the matter of small-pox; and there are practically no objections in the way of thorough general vaccination.

BRISTOL.

The Lean Library Bequest.—The Question of Site.

Among the legacies left by the late Mr. Stuckey Lean was one of £50,000 towards the foundation and sustentation of a reference scientific library for the city, and the important question is now being raised, Who is to manage the fund, and whether any of the existing libraries should participate? There exists in Bristol an excellent reference library housed under the same roof as the museum, and the Museum Committee appears to think that they should have a share of the gift, an opinion which is not shared by most of those interested in the disposal of the money, or by those who wish to have a useful central scientific library. As a matter of fact, Mr. Lean made his will before the museum was part of the city property, so that the claim of the Museum Committee seems to be weak, and it is evident that the new library will be under the care of the Libraries Committee.

These matters are, however, not of so much importance to the general public, or the scientific portion of it, as the site. To place a library of purely scientific nature, particularly if it be a reference one, in the city, would be to make it of very little value for those most engaged in scientific teaching, as well as those who are learning the many subjects grouped under the word "Science" in or about Clifton. Several excellent sites could be found near the University College, the institution which leads the way in scientific teaching and thought in Bristol. Efforts are being made in this direction, but at present the matter seems to be in the hands of the Libraries Committee. It is to be hoped they will take counsel with those in a position to judge what site would be best, and also, when the place is opened, appoint some persons engaged in scientific teaching on the committee of management, otherwise it is quite possible that what ought really to be a valuable gift may be made of no effect.

Mr. Lean also bequeathed £1000 each to the Bristol General Hospital, the Bristol Hospital for Sick Children, and the Weston-super-Mare Sanatorium.

LIVERPOOL.

Appointment of a Bacteriologist to the Parish Infirmary.—Recent Appointments at the Stanley Hospital.

For some time past the medical officers to the Parish Hospital have been in the habit of sending specimens requiring a bacteriological examination to Professor Boyce, who has kindly supplied them with a report without charge. Dr. Robertson and Mr. W. Alexander have, however, represented to the vestry that it was only just that some provision for the performance of this necessary work should be made at the expense of the ratepayers. Owing to the proximity of the Thompson-Yates laboratories to the workhouse, it was considered inexpedient and unnecessary to erect a special laboratory, and so the vestry have agreed to appoint Professor Boyce as bacteriologist at an annual salary.

Mr. A. A. Hawkins-Ambler, Senior Surgeon to the Samaritan Dispensary, has been appointed Assistant-Surgeon to the Stanley Hospital, in succession to Mr. Dun, who has resigned, and Dr. W. B. Warrington, of University College, has been appointed Pathologist to the same institution.

CORRESPONDENCE.

AMBULANCE SHIPS IN THE BRITISH NAVY.

Sir,—May I be allowed to point out that some of our old ironclads of the *Audacious* type would make admirable hospital ships? They are high between decks, and remarkably steady at sea. I well remember one night off the coast of Japan, when quietly sipping our wine after dinner, someone came down from on deck, and remarked, "You chaps don't seem to be aware that it's blowing a hurricane." There was hardly any motion to be felt in the ward room. The upper battery of these ships is admirably suited for convalescents.

Being ironclad there would be considerable protection from stray shot, and being of light draught they could get away into shallow water when needed.—I am, etc.,

H. Beale Collins,
Surgeon, R.N. (retired).

Kingston-upon-Thames, May 20th.

THE HUNTER FUND.

Sir,—In forwarding my mite to the above fund as a mark of sympathy and indignation, I venture to offer the following comments on the case as viewed from a distance.

In the first place, Dr. Hunter had the misfortune to be a graduate of one of the first American universities—namely, Philadelphia—the medical curriculum of which is taken at Jeffreson College, and is recognised by the Conjoint Board in England as "a medical school and hospital at which the curriculum of professional education may be completed."

The injustice attaching to this count lies in the argument that because some so-called universities in America in past years issued diplomas on payment of fees after a totally inadequate course of study, that therefore all American diplomas are of the so-called "bogus" type. This is false logic, and in the case of American universities is untrue; for those who know anything of the recognised American medical schools (such as those of the New York, Philadelphia, Harvard, Michigan, and California Universities, and the Medical School of Chicago) will rank them among the first European schools, and their *alumni* as worthy and enlightened colleagues.

If it is true, as stated in the "appeal,"[1] that "it was reported throughout Dr. Hunter's neighbourhood that he was an American quack," such report must be regarded as a cruel trick, whether it originated in wilful misrepresentation or in criminal ignorance.

That a man who is legally qualified to practise medicine may neither prefix "Dr." to his name nor affix "physician" after it, is one of those regular inconsistencies which no Continental practitioner can fathom. Would the title "medicine man" meet the case of the L.S.A., or would the practitioner so styling himself be liable to prosecution for assuming a title which might mislead the public as being descriptive of a special branch of the profession? Will some colleague venture?—I am, etc.,

Stuart Tidey, M.D.Lond., M.R.C.P.Lond.,
L.S.A.Lond.

Florence, May 21st.

PERSONATION BY UNQUALIFIED ASSISTANTS.

Sir,—Will you allow me space to caution medical practitioners against employing alleged qualified assistants until those seeking employment can produce certificate of registration from the General Medical Council and diplomas? There are cases of undoubted personation in existence now, unqualified men using and taking the names of duly qualified practitioners—I need hardly say, without the knowledge and consent of the latter. I have just come across such a case, the third within a short space of time, and trust that steps may be taken to prosecute the offender.—I am, etc.,

A. G. Bateman,
General Secretary Medical Defence Union.

4, Trafalgar Square, W.C., May 24th.

[1] British Medical Journal, May 20th.

BRITISH MEDICAL BENEVOLENT FUND.

SIR,—For some time past I have had few bundles of clothing for women or children, and have now six names on my list for women and nothing to forward. I shall feel obliged if you will give this place in the BRITISH MEDICAL JOURNAL, and allow me to point out the great eagerness with which so many welcome the clothing I send them, and their gratitude on receiving it.

I can always make use for clothing sent me with some wear in it. Articles without only cumber up our small house, and are of little or no use. We have always to remember that the bulk of our applicants have been well nurtured, and that however poor, it is unkind to offer or send coarse or really worn-out clothes. Such is no true charity.

I can always place to advantage clothing in fair condition, men's, women's or children's; and no one who has not experienced it has any conception how old garments may be changed to new by needy anxious fingers, and save much expense to the recipients. And what pleasure the looking over and sizing an unexpected parcel gives!

Trusting in the sympathy of the profession, I am, etc.,

16, Upper Berkeley Street, W., May 24th. EDWARD EAST.

VACCINATION IN THE ITALIAN ARMY.

SIR,—In his most elaborate paper on Vaccination in the Italian Army, published in the BRITISH MEDICAL JOURNAL of April 29th last, Dr. Livi has made several substantial mistakes that I hope you will allow me to correct. It is not a question of interpretation of facts, but of error of facts themselves.

There is a by-law in our army which prescribes that as soon as the recruits join their regiments they must be directly vaccinated, but it happens that sometimes some nine or ten days elapse before they are vaccinated, exactly as Dr. Livi asserts (p. 1019). But we must remember that when there are some cases of small-pox in the town, or other menace of small-pox, they are always directly vaccinated. The period of incubation of small-pox is admitted to last from twelve to fourteen days. This does mean that all the soldiers who are attacked by small-pox before being vaccinated, took the disease at their homes, and made their journey while it was in incubation. For this reason such cases of small-pox have nothing to do with the army; these recruits took the disease with the degree of risk that existed at their homes, and not with the degree of risk existing in the army.

This observation has a great importance, for Dr. Livi, in order to calculate the proportion of the soldiers attacked by small-pox before being vaccinated in the army, and that of the attacked ones after they have been vaccinated, made a mistake almost incomprehensible. He has calculated that during the period 1882-97 the number of soldiers not vaccinated has been 2,838, and as the number of the soldiers attacked by small-pox before being vaccinated was 226, he directly admits that these 226 cases of small-pox derived from the calculated 2,838. But as the 226 recruits attacked by small-pox took the disease at their homes, and the 2,838 recruits not vaccinated have nothing to do with the diseased ones, being arrived to their regiments in perfect good health, it is evident that between the two classes of men there is no more relation than exists between the attacked of small-pox in the Italian army and the population of London. Nevertheless, Dr. Livi made use of this relation for determining that, while in our army the vaccinated soldiers were attacked by small-pox in the proportion of 3.9 every 10,000, the not vaccinated were attacked in the proportion of 49.6.

By this and similar facts we can explain how it happens that many have no faith at all in statistics, because they say whatever you wish.

Now look what true Italian statistics say about small-pox and vaccination in the Italian Army. I quote the statistics of the period 1882-97 as the one preferred from Dr. Livi for having its data all uniform. Here nothing is calculated, and every figure represents a fact which really happened.

The conclusions that we must draw from these very simple figures are the following:

1. The death-rate in soldiers not vaccinated at the corps and attacked by small-pox (226) has been 10 per 100, while the death-rate in soldiers duly vaccinated at the corps has been 2.4 per 100. But this great difference, I am sorry to say, cannot be attributed to vaccination, for the following reasons: The 226 cases of small-pox in non-vaccinated soldiers happened all in men who took the disease at their homes just when they had to leave for their regiments, and they had to sustain the fatigue of the journey while they had small-pox in incubation. Not only, but, for reacting against the sorrow of being obliged to quit their families for three years, our conscripts have the habit to drink a good deal before their departure. These facts explain, I think, the difference of the high death-rate between this class of cases in comparison with the low death-rate of the other class of cases, which cases happened in soldiers in their barracks, who were directly and properly treated by a good staff of medical men as soon as they were attacked. Besides, during the period 1867-78 the number of cases of small-pox has been 3,619 with 358 deaths in soldiers all properly vaccinated—that is, a death-rate of 9.9 per 100. This is another proof that vaccination has

Small-pox and Vaccination in the Italian Army during the period 1882-97.

Year.	Average Strength.	Number of Vaccination.			Cases of Small-pox in Soldiers vaccinated at the Corps.				Cases of Small-pox in Soldiers not Vaccinated at the Corps.		Cases of Small-pox without Statement.	
					Cured.		Died.					
		Total.	With		Vaccinated with		Vaccinated with					
			Good Results.	Bad Results.	Good Results.	Bad Results.	Good Results.	Bad Results.	Attacked.	Died.	Attacked.	Died.
1882	189,506	199,952	55,164	54,788	26	43	0	0	2	0	6	0
1883	192,881	133,091	77,904	55,187	20	41	0	1	7	1	3	0
1884	206,263	95,432	54,627	40,805	28	45	2	1	13	1	3	0
1885	203,406	189,599	111,696	77,903	45	80	1	4	52	4	18	0
1886	204,428	139,571	75,004	64,567	82	95	6	3	56	9	11	2
1887	212,898	130,884	79,474	51,410	80	69	0	0	26	3	20	2
1888	209,918	128,350	79,559	48,791	109	65	7	2	16	1	5	0
1889	218,917	111,390	56,232	55,158	87	53	0	1	19	2	7	2
1890	221,384	48,569	26,078	22,491	39	23	0	2	1	0	9	2
1891	220,714	196,096	125,247	70,849	23	22	1	9	12	0	0	0
1892	213,307	17,620	9,573	8,050	14	10	0	0	0	0	0	0
1893	214,430	118,898	79,805	39,093	25	7	0	0	4	1	0	0
1894	194,670	177,388	118,272	59,116	26	9	0	0	10	1	0	0
1895	202,915	90,975	60,915	30,060	30	3	0	0	3	0	4	1
1896	204,382	66,582	43,094	23,488	31	9	0	0	4	0	2	0
1897	204,312	116,676	80,454	35,222	27	7	0	0	1	0	0	0
Total...	3,314,340	1,870,076	1,133,098	736,078	692	581	17	14	226	23	88	9

nothing to do with the low death-rate in the soldiers properly vaccinated during the sixteen years 1882-97.

2. During the sixteen years 1882-97 the soldiers vaccinated with "good results" have been attacked by small-pox in the proportion of 6.1 every 10,000; the soldiers vaccinated with "bad results" were attacked in the proportion of 7.8 per 10,000. The slight difference cannot be attributed to vaccination, because if we consider only the last five years, 1893-97, we find that the proportion in the first has been 3.6 and only 1.8 in the second; so that we must conclude that the proportion of the attacked in soldiers with good results and in those with no results at all is at least the same.

3. The death-rate in the soldiers attacked with small-pox, although they had been vaccinated with good results, has been 2.45 per 100; the same proportion in the soldiers vaccinated with no results at all has only been 2.40 per 100.

All vaccinists say that if vaccination does not "catch" no "immunity" has been conferred. Professor Bizzozero, of the University of Turin, the greatest sustainer of vaccination in Italy, before he knew the statistics of our army, attributed the number of cases of small-pox of our soldiers to the fact that "vaccination in them did not 'catch'; so that it could not confer the immunity against the disease."

Accepting this theory, which is the most adopted one, we can say now that small-pox attacks with the same frequence men in whom immunity was conferred and men to whom immunity was not conferred, and kills both classes at least in the same proportion.

But there is something more. As our soldiers stop under the army for three years, the strength during the years 1892-97 having been 3,314,340, the number of vaccinations should have been one-third of it (1,104,780); but it was instead 1,870,076. This difference is accounted for by the fact that, as soon as in a town there is a case of small-pox all the soldiers resident in that town are revaccinated. Now, for obtaining that England be vaccinated in the same proportion of our army, she should perform 18 millions of vaccinations every year, and then she would be protected at the same degree of our army, degree which is measured by the following facts: During the three most terrible years of epidemics that we had in Italy since official statistics are published, the three years 1887, 1888, and 1889, the death-rate for small-pox in our people having the same age of the soldiers (20, 21, and 22 years) has been 21 per 100,000, and it has been 27.7 during the worst year (1888). In our army the same death-rate during the nine years 1867-75 has been 20 per 100,000, and 61.3 during the worst year (1871). This means that if England performed 18 millions of vaccinations every year, she would be protected against small-pox in such a degree which would allow nine uninterrupted years of epidemics, with 6,000 deaths for small-pox every year.

There is another consideration which has a certain relation with vaccination and small-pox in the Italian army. Our young men are obliged by the law to go under the army at the age of 20, so that the greatest part of them pay this tribute to the State. The consequence is that after the age of 20 years men are by far better vaccinated than women, and after the age of 20 small-pox should kill less men than women. I wished to ascertain if this is true, and here are the figures giving the number of deaths for small-pox in men and women before and after the age of 20 during our great epidemical years 1887, 1888, and 1889.

	1887.		1888.		1889.		Totals.	
Deaths.	M.	W.	M.	W.	M.	W.	M.	W.
Before the age of 20...	5,997	5,983	7,340	7,353	5,625	5,631	18,972	18,968
After " " ...	2,459	1,810	1,990	1,418	1,296	863	5,749	4,091

Just the opposite that one should expect considering the greater protection of vaccination. All the following years till the last known (1897) give the same results.

I had care to send to you these facts, which everyone can appreciate as he thinks better, and I hope that, for love of truth, you will publish them in the British Medical Journal.—I am, etc.,

Charles Ruata, M.D.,
Professor of Materia Medica in the University of Perugia, and Professor of Hygiene in the Royal Agricultural College.

Università di Perugia, Laboratorio di Materia Medica, May 10th.

THE PHARMACY BILL AND COUNTER PRESCRIBING.

Sir,—I fail to see any argument in what is said (for instance by Dr. Reginald Farrar, in the British Medical Journal of May 13th) that because many doctors dispense their own drugs therefore chemists have a grievance against them, and show it by prescribing "across the counter" for their customers. I contend that it is no more *infra dig.*, nor improper, for a medical practitioner to dispense his own prescriptions than for a surgeon to use his own lancet. Nay, more than this, I consider it is very often most unsatisfactory to write prescriptions and not supply the medicines from one's own surgery.

I will give some of my reasons:

1. Everyone nowadays, liking to get things as cheaply as they possibly can—many patients, after being prescribed for by their medical adviser, rush off to the cheapest chemist, or possibly to "the stores," with the probable result that inferior drugs (or an inferior preparation of such drugs) are put into the medicines thus supplied. This causes discredit to the medical adviser by the prescription not doing the good that it otherwise might be reasonably supposed to do.

2. Drug preparations are doubtless sometimes made of different strengths, and therefore a patient going to one chemist at one time, to another at another time, may get a stronger dose of a lethal drug, such as nux vomica, opium, etc.

3. Doctors not infrequently have merely to give a placebo, not perhaps "only coloured water," but something equally harmless. An indiscreet chemist—and I know personally that such a thing has occurred—may "round" on the doctor, thereby gaining him, most unfairly, discredit with the patient, whilst the patient's faith—a very valuable item in many cases—thereby suffers. I remember Dr. Moxon, in his introductory address at Guy's Hospital in 1868, making this valuable remark, that we (the medical students) should early learn "to create in our patients faith—the greatest of tonics, and hope—the best of stimulants." That was a short, but pithy and pregnant, sentence, which I have never forgotten.

I wish there were no worse things done by some members of "our noble profession" than dispensing our own prescriptions. That is "a mere fleabite" to the underselling one another, the touting for patients, the backbiting our co-practitioners, which, alas, is far too common in a profession which should be, "like Cæsar's wife, above suspicion."—I am, etc.,

W. L'Heureux Blenkarne, L.S.A., M.R.C.S.,
Formerly Surgeon to the Leicester and Leicestershire Provident Dispensary.

Worthing, May 12th.

P.S.—There is yet another reason for dispensing one's own prescriptions—it is not always a good thing for patients, especially nervous and hysterical cases, to know what they are taking.

CONSUMPTIVE PATIENTS IN SOUTH AFRICA.

Sir,—May I be allowed to add the testimony of my experience—personally a fortunate and happy one—to that of those who have been warning all consumptives, except those fairly robust, in an early stage, not too dependent on comforts, and with sufficient means to live without working for at least a year in a country where living will cost at least half as much again as at home, against South Africa as a health resort? My reasons are: (1) The climate of the coast districts is useless; (2) upon the inner tablelands living is very expensive and rough; meat is tough, and mutton is known as "365," because it appears on the table every day of the year. In winter, when grass is scarce, fresh milk is often difficult and butter impossible to obtain, the Danish variety in a tin costing 2s. 6d. a lb. Nursing is seldom to be had for love or money. If a man—the country is altogether unfit for women—cannot come to table he must starve. I knew a man in one of the best hotels up-country keep himself alive through an attack of influenza on biscuits which he bribed niggers passing in the street, on to which his door and window opened, to bring him from the store at the street corner. As for remunerative employment the competition of the consumptive population forces down the wages of any work open to them. Board at £7 a month is mere misery. I should be sorry for anybody trying it at less than £10.—I am, etc.,

Reigate, May 17th. F. Wyatt-Smith, M.B., B.C.

OBITUARY.

JOHN MOIR, M.D.Edin., L.R.C.S.E., F.R.C.P.E.,

Honorary Physician to the Royal Maternity Hospital, Edinburgh.

When next the Clerk of the Royal College of Physicians of Edinburgh calls the roll he will omit the name that has for eight years stood first upon the list. The voice is silent that through two generations was wont to answer "Here" to the call "Dr. Moir."

James Moir, a naval surgeon, had been taken prisoner in the Napoleonic wars, and his wife shared his exile in France when his son John was born at Verdun on April 6th, 1808. After an exchange of prisoners had been effected in 1814 James Moir entered on general practice in Edinburgh, and as his house in Park Place was in close proximity to "Park House," which was then the home of the recently-established Maternity Hospital, Professor Hamilton associated him with himself in the service of that institution. Thus it came about that when his son began to study medicine he was from the very outset of his career made specially familiar with midwifery. John became a Licentiate of the Royal College of Surgeons in 1827, and in 1828 he took the degree of M.D. in the University. The title of his thesis, dedicated to Professor Hamilton and his father, was *De Febre Intermittente*. It ended with these characteristic words: *Quid enim præclarius Deove similius esse potest, quam dolores brevis ævi leniores facere, et vitam humanam producere?*



He began early to take an active part in assisting Professor Hamilton and his father, not only in the management of the lying-in women, but in the training of the nurses and the teaching of the students in the Maternity Hospital. By-and-by he became more closely connected with Professor Hamilton in his work in the University. He aided him in the preparation of his lectures and of his published writings, and when the Professor fell ill and died soon after the commencement of the winter session 1839-40, Dr. John Moir conducted the class throughout the remainder of the session. When Sir James Simpson was appointed to the vacant chair Dr. Moir and he worked harmoniously together as Maternity physicians throughout Simpson's professoriate. In 1843 Dr. Ziegler was assumed as a colleague, and at later dates Drs. Cumming, Dunsmure, Graham, Weir, Charles Bell, Keiller, Campbell, Matthews Duncan, among others, were associated with him on the staff. After he resigned the office of Ordinary Physician he remained in connection with the hospital as Honorary Physician, and as a member of the Board of Directors took an interest in its affairs, and continued to render valuable service to the end of his days. As student, medical officer, and director, he was connected with the Maternity for the long period of three-quarters of a century, and rarely has an institution been served with such wisdom, skill, and whole-hearted devotion.

He was the last survivor of the band who in 1840 founded the Edinburgh Obstetrical Society. For many years he was one of the most constant attendants at its meetings, took an earnest part in all its work, was elected President in succession to Sir James Simpson, and in 1892 was made an Honorary Fellow. So recently as during the last session he interested the Fellows by reading a paper giving the results of his very remarkable successes in the induction of premature labour; and members of the British Medical Association who attended the Obstetrical Section at the meeting of the Association in Edinburgh last summer, will remember how the sturdy nonagenarian advocated his favourite operation in preference to symphysiotomy. Some carried away with them copies of his paper, which had shortly before been published in the *Transactions* of the Edinburgh Obstetrical Society, and reprinted in pamphlet form.

Whilst his early association with Professor Hamilton led him to take a special interest in midwifery, and to take a foremost place amongst those who practised that department, he was a well-equipped and successful general practitioner, and was the much-loved and trusted family doctor among a wide circle of the foremost citizens of Edinburgh. He was President of the Medico-Chirurgical Society in 1865, and of the Royal College of Physicians in 1868, and was for many years the Medical Adviser of the North British and Mercantile Insurance Company. The esteem in which he was held by his professional brethren was constantly shown by the frequency with which they relied on his help when sickness invaded their homes, or when, more happily, they awaited a new arrival. He never thought of sparing himself in caring for others, and long after he had won a footing in the highest ranks of society he continued to attend poor women who, though no longer able to offer adequate remuneration, yet seemed to him to have a claim upon his skill. This was the outcome not merely of a very generous and unselfish nature, but of very clear Christian conviction. In conjunction with James Millar, Benjamin Bell, Robert Omond, and others, under the presidency of Dr. Abercromby, he founded the Edinburgh Medical Missionary Society, which for more than half a century has conferred countless benefits on the sick poor of the city, and has been the training ground of quite a host of physicians and surgeons, both men and women, who, in the service of missionary societies of all denominations, are spreading the blessing of Christianity and civilisation through all quarters of the globe.

To tell all the associations that won the sympathy and substantial support of Dr. Moir would be to enumerate nearly all the philanthropic and evangelical societies in Edinburgh. But besides that he guided and encouraged his daughters in their fruitful work in the slums, and gave his sons to be pioneers in the enterprise of the African Lakes Company to establish a commerce around Lake Nyassa that makes an end of slavery; he gave much of his time and of his means to further the mission work of his church at home and abroad. He had early learned the value and comfort of the practice of

"systematic giving." He wrote articles and pamphlets to show that before we apply any portion of our income to personal uses it is required of us to set apart a tenth for sacred purposes, and though he was the most modest and retiring of men, he often took occasion in the Assembly of the Free Church, to impress his views on its ministers and elders. He had been a member of the Assembly for more than fifty years, and the appearance of his venerable figure on the opening day was wont, in recent times, to be greeted with a burst of applause.

In a sermon preached on Sunday evening, March 12th, the Moderator of the Free Church of Scotland (the Rev. Dr. Whyte, Free St. George's, Edinburgh) thus referred to Dr. Moir: "You may have been in the Assembly when Dr. John Moir rose to make his annual appeal for his scriptural and all-enriching method of laying by us in store, according as God in His goodness to us has prospered us. The moment the wise old saint rises the clerks look at the clock; the front seat reminds him how much business is on the table; the house empties, and all manner of indecent interruptions are heard. But let not his children blush for the noble old man's reception. They will yet see the Assembly garnishing his sepulchre. Like many more of God's servants, he has lived before his time, and the church, in this respect, has not been worthy of him." This reference to his action on a question regarding which he felt keenly, gave the old man, then so near his end, great pleasure. "The Assembly garnishing his sepulchre" was prophetic.

The death of Mr. George John Hinnell, of Bury St. Edmunds, occurred suddenly at his residence in that town on April 28th. He was born there in 1823, and educated at the Grammar School, and received his medical training at King's College Hospital, London. He matriculated at the University of London in 1845, and became L.S.A. in 1848, and M.R.C.S.Eng. in 1849. He was an assistant for some time at Tamworth, and House-Surgeon to the Stockport Infirmary, and he commenced practice in Bury about 1855. He was a District Medical Officer in the Thingoe Union for forty years, and Surgeon to various friendly societies. He had an extensive practice, and was held in much esteem by all classes of the community. He leaves a widow, two sons, and three daughters. His second son, Dr. J. S. Hinnell, had been for several years in partnership with him. Mr. Hinnell did his professional work as usual up to the date of his death, which was due to syncope.

The senior member of the profession in Paddington, Mr. William Thorn, died on May 4th at his residence in the Harrow Road, at the age of 80. He was educated at St. George's Hospital, and became L.S.A. in 1840. He practised in Paddington for more than half a century, until, in fact, about a year ago, when his strength began to fail him. He was a kindly man, and benevolently disposed towards the poor; and was for some years a member of the Paddington Vestry. He published some years since papers on cases of cerebral andspinal disorders, and hysterical paralysis, and he was author of a work entitled, *The Thorn Tree: A History of the Lost Tribes of Israel.*

Surgeon-General Robert Cockburn, who died on April 30th, entered the Bengal Medical Service as assistant-surgeon in January, 1847. He was in military employ with various regiments from April, 1847, to January, 1850, and then in civil employ in the North-West Provinces until January, 1857, when he was appointed to the medical charge of the Mussoori for two years. In 1859 he was reappointed to civil employ in the North-West Provinces, and subsequently held various military charges. He was promoted to be surgeon in September, 1860, and was in medical charge of Cawnpore levy and the 43rd regiment of native infantry to March, 1852, when he became officiating Civil Surgeon in Allahabad. In 1863 and 1864 he was in medical charge of the 39th and 9th regiments of native infantry, and in the latter year was appointed Civil Surgeon to Benares. He acted for a short time as Deputy-Surgeon-General of Hospitals of the late Benares circle for a few months in 1867, in which year he was promoted to Surgeon-Major. He was promoted to Deputy-Surgeon-General in August, 1874, and retired in 1879 with the rank of Surgeon General. The most important charges which he held were those of the Civil Surgeoncy of Benares, and of Deputy-Surgeon-General of the Bengal Residency for five years 1874-79. He was deservedly popular and held in high esteem. He was in his 70th year at the time of his death.

Mr. Joseph Thomas Cooke, L.R.C.S., L.R.C.P.Edin., of Radcliffe, Lancashire, died at Buxton on May 2nd. He studied at the Edinburgh University, and after obtaining the qualifications of the Colleges of Physicians and Surgeons of Edinburgh, worked steadily as an assistant in Northumberland, and finally settled at Radcliffe, near Manchester, where he practised for about six years. Early in 1897 his health failed, and he was advised to take a six weeks' cruise in the Mediterranean. When ten days out, and nearing Tunis, he contracted pleurisy, which proved to be the commencement of the disease which caused his early death. On his return he visited Ventnor, where he rapidly improved, and was able to resume his work towards the end of 1897. This improvement, however, lasted only a few months, and he was again compelled to relinquish his practice, and was advised to take a sea voyage as surgeon on board one of the Ocean Steamship Company's boats voyaging to the East Indies. After eighteen months, however, he finally broke down, and was completely incapacitated for work. Early in April last he removed to Buxton, where he died of advanced phthisis and exhaustion at the early age of 35 years, leaving a widow and three young children aged respectively 10, 7, and 5 years, absolutely unprovided for. An appeal on behalf of his family made by Mr. E. Stanmore Bishop and Dr. J. C. Eames, was published in the British Medical Journal of April 29th, p. 1060.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. George Assaky, Professor of Gynæcology in the Medical Faculty of Bucharest, aged 44; Dr. Simon Samuel, Professor of General Pathology and of the History of Medicine in the University of Königsberg, aged 66; and Dr. Joao Baptista de Sá e Oliveira, Demonstrator of Forensic Medicine in the University of Bahia, author of important works on anthropology and other scientific subjects, and some time member of the constituent assembly of his State.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

Major, whose tour in the West Indies expires December, 1900, wishes to exchange home for full tour or with an officer recently home. Apply to Highlander, care of Josiah Payne, Bridgetown Club, Barbados.

ROYAL NAVY MEDICAL SERVICE.

The undermentioned gentlemen who competed on the 8th May and following days at Examination Hall, Victoria Embankment, for appointment as surgeon in the Royal Navy have been granted commissions:

Name.	Marks.	Name.	Marks.
H. M. Hart-Smith, B.A., M.B.	2,538	T. Marles-Thomas	1,953
S. H. Woods, B.A., M.B.	2,451	A. W. Nourse	1,901
P. T. Sutcliffe, M.A., M.B.	2,451	J. H. Jones	1,878
J. P. H. Greenhalgh, M.B.	2,203	A. H. Prichard	1,826
L. A. Baiss	2,179	H. L. Geoghegan, B.A., M.D.	1,804
C. R. Nicholson	2,172	A. J. Laurie	1,804
J. T. M. McDougall	2,096	S. J. Haylock	1,687
E. T. Burton	2,066	J. E. Powell	1,685
R. Hughes	1,992	J. N. Robertson, M.B.	1,643
G. M. O. Richards	1,968	J. H. Lightfoot	1,632
N. J. Roche	1,959	P. G. Williams	1,612

The following appointments have been made at the Admiralty: Howard Todd, Fleet-Surgeon, to the *Renown*, undated; Samuel Keays, Fleet-Surgeon, to the *Renown*, May 25th, for the *Ramillies*, undated; Charles E. Geoghegan, Fleet-Surgeon, to the *Nile*, May 25th; John L. Thomas, Staff-Surgeon, to the *Endymion*, June 8th; Robert Hardie, M.B., Staff-Surgeon, to the *Astræa*, June 15th; Eric D. Macnamara, B.A., Surgeon, to the *Endymion*, June 8th; Godfrey Taylor, B.A., M.B., Surgeon, to the *Astræa*, June 15th; Walter J. Bearblock, Surgeon, to the *Cambridge*, May 23rd; George E. Duncan, Surgeon, to the *Renown*, May 23rd; George G. Borrett, Surgeon, to the *Pembroke*, May 23rd.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant-Colonel C. A. Patten, having resigned his appointment in the Volunteers, ceases to belong to the Army Medical Reserve, May 24th.

INDIAN MEDICAL SERVICE.

The three remaining extra pensions due to the Indian Medical Service officers this year have been allotted to Lieutenant-Colonels D. N. Martin (Bengal), E. Fawcett (Madras), and C. T. Peters (Bombay), from the date each retires.

The drain upon the Indian Medical Department has recently been heavy, and the establishment is at present much under strength. Twenty-eight officers have been lent for special military duties, and thirty-two are on special plague work, while more than a hundred have taken advantage of leave, which was only reopened quite recently.

Major L. T. Young, M.D., Bengal Establishment, has retired from the service, April 15th. He was appointed Surgeon, October 1st, 1881, and Surgeon-Major, October 1st, 1893. He was with the Akha Expedition in 1883-84.

The retirement from the service of Lieutenant-Colonel W. H. Thornhill, M.D., Madras Establishment, which has been already reported in the British Medical Journal, is post-dated to April 9th.

Surgeon-General R. Harvey, M.D., C.B., D.S.O., Director-General, is about to take three months' leave. Surgeon-General L. D. Spencer, C.B., M.D., Principal Medical Officer, Punjab, officiates. Whilst on leave Surgeon-General Harvey will take the opportunity of visiting the Pasteur Institute at Paris, and also Amsterdam in connection with sewage questions.

Surgeon-Lieutenant-Colonel E. Bovill, M.D., Bengal Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from August 19th, 1898. His first commission bears date October 1st, 1872.

Lieutenant-Colonel D. N. Martin, M.D., Bengal Establishment, in charge of No. 37 Native Field Hospital, Malakand Force, is permitted to retire from the service from May 1st, 1898. He joined the department as Assistant-Surgeon, October 1st, 1869, and became Brigade-Surgeon-Lieutenant-Colonel, February 28th, 1898. He was in the Afghan war in 1879-80, receiving the medal, and with the Mahsood Nuzeeree Expedition in 1881.

THE YEOMANRY AND VOLUNTEER RIFLES.

Surgeon-Lieutenant R. G. Nesbitt, 1st Cornwall (Duke of Cornwall's) Artillery, Western Division Royal Artillery, is promoted to be Surgeon-Captain, April 29th.

Surgeon-Lieutenant-Colonel J. Cook, M.D., 3rd Middlesex Artillery, has resigned his commission, April 29th; he retains his rank and uniform.

Surgeon-Lieutenant R. O. Bowman, M.D., 1st Volunteer Battalion the King's Own Royal Lancaster Regiment, also resigns his commission, April 29th.

Surgeon-Captain Roger Bullock, from the 2nd Volunteer Battalion the Royal Warwickshire Regiment, is appointed Surgeon-Captain in the Warwickshire Yeomanry, May 3rd.

The undermentioned officers have resigned their commissions, from May 3rd:—Surgeon-Lieutenant A. J. Mackintosh, M.B., 1st Ayrshire and Galloway Artillery; Surgeon-Captain J. H. Blakeney, 1st Worcestershire and Warwickshire Artillery; Surgeon-Captain R. G. Roberts, M.B., 1st Volunteer Battalion the King's Liverpool Regiment; Surgeon-Lieutenant D. Edwards, M.B., 5th Volunteer Battalion the South Wales Borderers

The following are appointed Surgeon-Lieutenants in the respective corps specified, dated May 3rd:—James B. Robertson, M.B., 1st Ayrshire and Galloway Artillery; Arthur Y. Pringle, 2nd Essex (Harwich) Volunteer Artillery; Richard Brodie, 1st (Ross Highland) Volunteer Battalion Seaforth Highlanders; Frederick C. Wallis, M.B., 14th Middlesex (Inns of Court) Rifles.

Surgeon-Lieutenant V. J. Blake, M.B., 5th (Isle of Wight, Princess Beatrice's) Volunteer Battalion the Hampshire Regiment, is promoted to be Surgeon-Captain, May 3rd.

Surgeon-Captain Herbert M. Ramsay, late Scots Guards, is appointed Surgeon-Captain in the 14th Middlesex (Inns of Court Rifles), May 3rd.

Surgeon-Lieutenant-Colonel C. W. Thorp, 2nd Volunteer Battalion the Lancashire Fusiliers, is promoted to be Brigade-Surgeon-Lieutenant-Colonel on appiontment as Senior Medical Officer to the Lancashire Volunteer Infantry Brigade, May 3rd.

Surgeon-Lieutenant-Colonel Henry Colgate, M.D., 2nd Sussex Artillery, has been awarded the Volunteer Officers' Decoration.

Surgeon-Lieutenant H. Williams, Southern Nottinghamshire Yeomanry, is promoted to be Surgeon-Captain, May 2nd.

Mr. Edmund N. Close is appointed Surgeon-Lieutenant in the 1st Hampshire Artillery (Southern Division Royal Artillery), May 10th.

Surgeon-Lieutenant Henry Fulton, 1st Hampshire Engineers, resigns his commission, and is appointed Second Lieutenant (supernumerary), May 10th.

Surgeon-Lieutenant J. L. London, M.B., 2nd Volunteer Battalion the Cameronians (Scottish Rifles), is promoted to be Surgeon-Captain, May 10th.

Mr. David Walker is appointed Surgeon-Lieutenant in the 3rd Volunteer Battalion the Duke of Wellington's West Riding Regiment, May 10th.

Surgeon-Lieutenant-Colonel C. A. Patten, 2nd Volunteer Battalion the Duke of Cambridge's Own Middlesex Regiment, has resigned his commission, retaining his rank and uniform, May 10th.

Mr. Israel J. E. Renshaw, late Surgeon-Captain the Manchester Companies Volunteer Medical Staff Corps, is appointed Acting-Surgeon to the 1st Cadet Battalion the Manchester Regiment, May 10th.

Surgeon-Lieutenant E. Kingscote, M.B., Wiltshire Yeomanry (Prince of Wales's Own Regiment), is promoted to be Surgeon-Captain, May 17th.

Surgeon-Lieutenant J. F. Hall, M.B., 3rd Volunteer Battalion the Queen's (Royal West Surrey Regiment), resigns his commission and is appointed Second Lieutenant, May 17th.

Brigade-Surgeon-Lieutenant-Colonel C. P. Skrimshire, 1st (Brecknockshire) Volunteer Battalion the South Wales Borderers, has resigned his commission, May 17th; he retains his rank and uniform, but vacates his appointment as Senior Medical Officer to the South Wales Volunteer Infantry Brigade.

Mr. William F. Brook is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Welsh Regiment, May 17th.

Mr. Charles A. Marrett is appointed Surgeon-Lieutenant in the 1st Tower Hamlets Rifles, May 17th.

THE VOLUNTEERS.

Surgeon-Lieutenant J. Keeffin, 1st Hampshire Engineers, is promoted to be Surgeon-Captain, May 24th.

Surgeon-Lieutenant-Colonel E. F. Hall, M.D., 2nd Lancashire (the St. Helen's) Engineers, has resigned his commission, retaining his rank and uniform, May 24th.

Mr. Reginald C. Gayer is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Royal Fusiliers (City of London Regiment), May 24th.

Surgeon-Lieutenant J. M. Phillips, M.D., 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment, has resigned his commission, May 24th. He retains his rank and uniform.

Mr. Albert Ehrmann is appointed Surgeon-Lieutenant in the 22nd Middlesex Rifles, May 24th.

Surgeon-Lieutenant J. A. Wilson, M.D., 3rd (the Blythswood) Volunteer Battalion the Highland Light Infantry, is promoted to be Surgeon-Captain, May 24th.

Surgeon-Lieutenant-Colonel P. E. Hill, 1st Volunteer Battalion the South Wales Borderers, is promoted to be Brigade-Surgeon-Lieutenant-Colonel on appointment as Senior Medical Officer to the South Wales Volunteer Infantry Brigade, May 24th.

VOLUNTEER MEDICAL STAFF CORPS.

Mr. Brooke H. Smith is appointed Quartermaster to the London Companies, May 10th.

Captain W. B. Leishman, R.A.M.C., has been appointed Professor of Pathology at the Army Medical School, Netley.

PIERSHILL BARRACKS, EDINBURGH.

During the discussion of the Army Estimates in the House of Commons Mr. Buchanan called attention to the insanitary conditions of these barracks. Recently an article has appeared in the *Edinburgh Evening News* pointing to conditions which indicate the need of sanitary improvements. It has become a question whether in case of a proposed extension of the barracks in the present area there will not be considerable risk to the health of the occupants.

THE HEALTH OF QUETTA.

Allusion was made in British Medical Journal of April 1st to the alarming mortality from enteric fever at this station—that is, 74 deaths of British soldiers in the six months ending December 31st last. Major-General Sir Wm. Galbraith commanding has proceeded to Simla mainly for the purpose of urging on the Commander-in-Chief the urgency of the measures proposed for minimising the risk of enteric fever in the Quetta garrison which a Committee of experts submitted six months ago, but which are now, it is said, hanging fire because of changes in the Bombay staff. The season when enteric fever usually prevails is rapidly approaching, and unless sanitary reform is immediately undertaken the prospect is not one to contemplate calmly.

INCREASE IN THE INDIAN MEDICAL SERVICE.

An increase of three appointments to the cadre of the Indian Medical Service has been sanctioned by the Secretary of State for India, to enable the Agency surgeons to be posted to Eastern Rajputana States and Bundelkund, and of Malwa surgeons to Deoli and Gilgit has also been sanctioned.

THE FOOD OF THE MAN-OF-WAR'S-MAN.

There can be little doubt that there is widespread dissatisfaction in the navy regarding the dietary of sailors. It seems pretty clear that the quantity is insufficient and the quality indifferent, and thus scarcely adequate for the preservation of health and strength, particularly in trying climates. The meat ration suffices for the midday meal, but leaves nothing over for another and later repast like supper. Practically the bare naval service ration does not do more than supply one nourishing meal in the twenty-four hours, for after the afternoon tea there is no good meal until the next day's breakfast. The complaints are against the inferior quality of the salt pork and salt beef, the hard biscuit, and the monotony of diet at sea. Good fresh pork and mutton might be issued twice a week to relieve the monotonous six days' beef. Latterly, in home waters, a mutton ration has been issued once a week. The issue of fresh bread more frequently is absolutely necessary. A naval and military contemporary states that many seamen spend as much as thirty shillings a month upon eatables from the canteen. The consideration of this important subject is closely associated with recruiting for our navy.

THE NEW BADGE OF THE R.A.M.C.

Disappointed writes: Let me draw attention to the trumpery appearance of the newly-approved badges for field corps, collar badges and buttons, which are all of the most commonplace description, except in price, which is very high. No officer would object to pay a proper price for a good article—say, silver gilt, instead of gilt brass. The sealed pattern should be at once seen to and a good article secured.

*** A better-looking article might probably be made for the money.

SENIORITY IN INDIA.

P. M. O. says it is quite true that Surgeon-General Taylor is junior in date of rank to one under him. Your suggestion that he issues orders "by order" would, of course, cover such orders; but would seniority

not come in in the inspection of hospitals? Sir George Luck and Sir George Wolseley, both Major-Generals, have the rank of Lieutenant-General conferred on appointment to commands in India. Why not give Surgeon-General Taylor the local rank of Lieutenant-General?

*** This question of seniority in India does not seem to be new; we have been informed that it has long been the rule, written or implied, that the Surgeon-General with the Commander-in-Chief in India, takes rank before all others in his department, and that even his substitute, or *locum tenens*, whatever his rank or seniority, does that also when the Surgeon-General is absent from any cause from headquarters.

PROMOTION IN THE HIGHER RANKS OF THE R.A.M.C.

HOPEFUL advocates promotion by selection at twenty years to the rank of lieutenant-colonel. The number in the rank should be limited to those actually required for the more important posts; unless this is done the corps will shortly be glutted with officers of the rank, as it now is with majors. The latter rank is indeed discredited enough already by those in it being called upon to perform mere routine duties, which in other branches fall to captains and subalterns. Promotion under Article 362 of the Royal Warrant (late brigade-surgeon) should be strictly and fearlessly by selection, which would safeguard the administrative ranks against incompetence. Such selection would stimulate zeal, and impart a spirit of healthy emulation.

*** The existing automatic promotion after so many years to the ranks of captain, major, and lieutenant-colonel in the R.A.M.C. comes, of course, from a previous order of things in the Medical Staff. It was a condition in the formation of the corps that existing pecuniary rights and prospects should not be radically interfered with; to enforce, retrospectively, so to speak, stringent new rules of promotion would be a breach of faith. At present promotion is denied to those who are considered unworthy through lack of ability, zeal, or character, and that is not a new rule. Inequality in the proportion of fixed officers in the R.A.M.C. as compared with other corps is unavoidable under existing conditions; and, indeed, the line of demarcation in the duties of the corps is less, from their very nature, than in other purely military corps. The separation of medical executive duties is a matter of much administrative difficulty, but the delegation of mere routine duties to senior officers should, of course, be avoided if at all possible. We certainly advocate distinct, clear, and fearless selection from the ranks of lieutenant-colonel to the two next steps above it. It would seem desirable that those so passed over should at once be retired.

MEDICO-LEGAL.

Replies in this column are limited to questions affecting the legal interests and privileges of the medical profession at large. The column is not to be used as a medium for affording legal advice in private or personal matters as to which the applicant ought to consult his own solicitor.

ALLEGED VACCINATION ASSAULT.

IN the case Thomson *v.* Devon, the pursuer, J. L. Thomson, was some time ago a prisoner in Duke Street Prison, Glasgow. He was there vaccinated by Dr. Devon, medical officer of the prison, and he claimed £500 as damages on the ground that the vaccination constituted an assault. The case was originally heard at great length by Sheriff Fyfe, who thereafter issued an interlocutor assoilzieing the defender from the conclusions of the action and finding him entitled to expenses. The pursuer appealed to the Sheriff-Principal, who has now given his decision, in which he adheres to the judgment by Sheriff-Substitute Fyfe, and allows further expenses against Thomson. The question was whether the pursuer consented or did not consent to the operation. In the latter case there would have been a technical assault, though the question of the amount of damages would still have had to be decided.

It was contended for the pursuer that he was led to suppose that his vaccination by the defender was part of the prison discipline, to which he had no choice but to submit, and various authorities were cited to emphasise the distinction between submission to authority on the one hand and consent on the other. On the question of fact the Sheriff-Principal agreed with the Sheriff-Substitute that the pursuer was not under the delusion that the operation was required by the rules of the prison, and that the defender had made no representation to him to that effect. The colour the pursuer sought to give the case was that he thought he was going to be shackled, but there was no other prisoner to whom he could be shackled.

The pursuer stated that he was afraid to open his mouth in presence of the doctor and to object to the operation as he would have wished to do; but such an attitude of mind was not consistent with his having previously had a friendly talk with the doctor as described by himself. The explanation offered by the pursuer had struck the Sheriff-Substitute at the time he was making it as "very like an after-thought of his own, or an outside suggestion."

The Sheriff-Principal was of opinion that no assault in law had been committed by the defender, and that he was therefore entitled to be assoilzied.

POST-MORTEM EXAMINATIONS IN SCOTLAND.

IN the BRITISH MEDICAL JOURNAL of May 20th was given in full the reply of the Lord Advocate (Mr. Graham Murray) to Sir William Priestley, who had asked a question in the House of Commons with regard to the practice in Scotland as to the making of *post-mortem* examinations; and whether, when in criminal cases a necropsy was ordered by the Procurator-Fiscal, an independent medical man could be present on behalf of any person who might be accused or suspected of causing the death. In reply, the Lord Advocate remarked that on application to the Procurator-Fiscal, and with the consent of the Crown Agent, a medical man on behalf of any accused person might be present at the necropsy, but that if an independent examination was desired, it could be made after the Crown examination was completed. This latter suggestion would be of little or no use, if a complete *post-mortem* examination had already been made, and in fact would not be required if the medical representative of an accused person were present at the necropsy, when we presume every opportunity would be afforded him for examination and observation.

PAYMENT FOR POLICE CALLS.

R. B.—There seems to be no appeal from the chief constable's decision. It is quite true that if our correspondent lived in the Metropolitan Police District he would be entitled to a certificate for payment when called in by the police; even there, however, it is recognised that if the patient's friends are willing to pay, they should be encouraged to do so. The fact that the person attended to had been a former patient of his no doubt led the police to suppose that our correspondent would look to her husband to pay his fee.

CORONER AND MEDICAL WITNESS.

N. A. B. inquires as to the powers possessed by coroners with regard to the calling or not calling of medical witnesses, and as to the payment of fees to the medical officers of workhouses and workhouse infirmaries. He also sends us newspaper cuttings containing an account of an inquest, and also a letter written by him in answer to certain observations of the coroner, made at the termination of the inquest, and reflecting upon our correspondent.

*** Without going into the details of the case, we would suggest that if possible medical men should endeavour to keep on good terms with the coroners in the district in which they live and practice. Coroners, like judges and other persons, are but human beings after all, and in the use of their discretion, which is very necessary in the discharge of their special duties, they may not always exercise it kindly or wisely, and thus controversy and friction are caused, which only by concessions on both sides can be mollified or prevented. Undoubtedly the coroner does possess very summary powers of jurisdiction, and as soon as his court is open he has all the powers of a judge, and he can issue his warrants for contempt of court, compel all witnesses he may consider necessary to attend and give evidence, and the police at the court are there to maintain order and to execute his warrants. Of course all medical men, like other witnesses, should be properly summoned to attend the Court if they are required, and the witnesses should be prepared to state all they know, and to answer all questions that may be asked by the coroner, jury, or counsel, without argument as to the necessity of their presence or value of their evidence.

Medical men, with certain exceptions, are paid a fee for attendance, and an extra fee for making a *post-mortem* examination if ordered by the coroner. The statute law which provides for this also says that the medical officers of public hospitals and infirmaries, whose duty it may have been to attend deceased persons who have died in such institutions, and upon whom an inquest is held, shall not receive the usual fees for giving evidence, etc. This has always been a sore point with the medical officers in question, but as long as the law remains as it is, coroners and county councils, municipal authorities and auditors have no option in the matter. Before taking action against the coroner to recover a fee, the medical man should be well advised, and if he is a member of the Medical Defence Union, no one will do this better than its secretary or solicitor, who have had considerable experience in such cases. The jury, as well as the coroner, have power to call medical evidence, and if the coroner declines the jury can request the coroner to do so, and refuse to give a verdict until they are satisfied as to the cause of death. The coroner's court is to all intents and purposes a court of emergency, and long notices for the attendances of witnesses cannot always be given. In country places the constable acting for the coroner very often only warns the witnesses and jury, instead of giving each a written or printed notice, the forms which are provided in the schedules to the Coroners Acts. Where the warning has been effectually given, understood and acknowledged, the non-attendance at the inquest, unless unavoidable, might be considered a contempt of court, even if the absentee had not been served with an actual summons in writing. In London and many other places it is the custom always to give notice by summons on the usual printed forms, and this of course is the most satisfactory method of procedure.

We can hardly conceive that the question of whether the witness is paid or not would influence the coroner in the calling of medical evidence, for the coroner, as regards payment of fees, is only an executive officer, and incurs no personal loss one way or the other. He is responsible for seeing that the ends of justice are satisfied, and that the jury have placed before them such evidence, medical and otherwise, as will enable them to arrive at a correct verdict, in accordance with the oath administered to them. In conclusion, we should advise our correspondent to consider carefully all the matters of

grievance which he entertains, and make them the subject of comment at one of the Branch meetings of the Association, of which no doubt he is a member, and then a presentment might be made to the coroner in such a way as would relieve the individual member from the unpleasantness of a personal protest. The coroner would reply in writing, and probably all differences of opinion would be amicably settled.

CERTIFICATION OF DEATH.

M.B.CANTAB., M.R.C.S., attended for over a fortnight an old lady who was suffering from a fracture of the femur, supposed to have been caused by a fall. A few days before death she had an attack of cerebral hæmorrhage and died in a state of coma. Our correspondent then gave a certificate of the cause of death as follows: "Fracture of the femur, cerebral hæmorrhage, coma." This was taken by the friends to the registrar, and the body was interred. The coroner afterwards heard of the death, made inquiries, and decided not to exhume the body.

*** The question arises whether under the circumstances the medical attendant should have withheld the certificate and at once informed the coroner or advised the friends to do so. Doubtless this would have been the wiser and usual course, as it is the duty of the coroner to inquire into all cases in which death has been caused or accelerated by injury, and on the face of the certificate given such appears to be the fact. It is no part of the duty of the medical man to determine whether the injury was accidental or otherwise, this being the special province of the jury to decide after hearing evidence on oath at the inquest. Under the provisions of the Registration of Births and Deaths Act it is the duty of the medical attendant who shall have attended a deceased person during his last illness to give a certificate stating to the best of his knowledge and belief the cause of death, unless he has a reasonable cause for withholding the same. In the case under consideration there was a reasonable cause for delaying the issue of the certificate unto the coroner had decided as to the necessity of holding an inquest or otherwise. It is laid down in *Jervis on Coroners' Law* that "it is the duty of those about the deceased to give immediate notice to the coroner or his officer," and the medical attendant may not unreasonably consider himself as one of them. We would advise in similar cases that a concise statement of facts should be sent to the coroner or his officer before giving a certificate, and then all responsibility will be removed from the medical attendant.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

MEDICAL SCHOOL BUILDINGS.—The State Medicine Syndicate have made a grant of £1,000 towards the cost of the new Medical School, in which it is proposed to provide accommodation for teaching and examinations in sanitary science.

EXAMINERS.—Mr. B. Pitts, Professor Chiene, Professor Watson Cheyne, and Mr. Golding-Bird have been appointed Examiners in Surgery; Dr. Cullingworth and Dr. Barbour Examiners in Midwifery; Dr. D. B. Lees, Dr. D. MacAlister, Dr. Sidney Martin, and Dr. Mitchell Bruce, Examiners in Medicine for the ensuing academical year.

UNIVERSITY OF EDINBURGH.

THE CHAIR OF PHYSIOLOGY.—Saturday, May 20th, was the last day for receiving applications for the vacant Chair of Physiology in the University of Edinburgh. The following is the closed list of candidates:—1. Dr. E. W. W. Carlier, Lecturer on Experimental Physiology and Histology, and Senior Assistant to the late Professor Rutherford in the University of Edinburgh. 2. Dr. Diarmid Noël Paton, Superintendent of the Research Laboratory of the Royal College of Physicians of Edinburgh; Lecturer on Physiology in the School of Medicine of the Royal Colleges, Edinburgh, and in the Edinburgh School of Medicine for Women; Professor of Physiology in the Royal Dick Veterinary College, Edinburgh; and Examiner in Physiology for the Royal College of Physicians, Edinburgh. 3. Professor Edward Waymouth Reid, Professor of Physiology in University College, Dundee, and St. Andrews University. 4 Professor Ed. Albert Schäfer, Jodrell Professor of Physiology in University College, London. 5. Professor E. N. Stewart, Professor of Physiology and Histology in the Medical School of the Western Reserve University, Cleveland, Ohio. 6. Professor William Stirling, Brackenbury Professor of Physiology and Histology, Owens College, Manchester. 7. Professor T. P. Anderson Stuart, Professor of Physiology in the University of Sydney, New South Wales. The date for making the appointment has not yet been fixed. In the Annual Statistical Report of the University of Edinburgh, recently laid on the table of the House of Commons, the salary of the Professor of Physiology for the year 1897-98 is set down as £1,734.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.

THE following gentlemen, having passed the requisite examinations, have been duly elected ordinary Fellows of the College: J. B. Hall, M.R.C.S.Eng., L.R.C.P.Lond., etc.; C. W. Donald, M.B., C.M.; E. W. S. Carmichael, M.B., C.M.; R. B. Purves, M.B., C.M.; J. H. Gough, M.R.C.S.Eng., L.R.C.P.Lond.; J. W. McBrearty, L.R.C.S.E.; W. A. Milligan, M.B., C.M.; H. J. F. Simson, M.B., C.M.; and C. B. Rossiter, L.R.C.S.E.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

MESSRS. D. KENNEDY, J. M. Redington, and L. T. Whelan have been admitted Fellows of the College, and Messrs. J. F. L. Keegan, T. J. Nicholl, W. G. T. Posnett, and J. White have passed the Primary Examination for the Fellowship.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, May, 1899.—The following candidates passed in:

Surgery.—G. H. Bedford (Section II), Guy's Hospital; P. Cator, St. Bartholomew's Hospital; T. A. E. Fawcett (Section II), Leeds; A. Killick (Sections I and II), Cambridge and London Hospital; D. V. Lowndes (Section I), Westminster Hospital; A. Orme (Section I), London Hospital; V. S. Partridge (Section I), Charing Cross Hospital; W. Sisam (Section II), Birmingham; J. M. Twentyman (Cambridge and King's College Hospital; R. Le G. Worsley (Section II), St. George's Hospital and Durham.

Medicine.—E. L. D. Dewdney, King's College Hospital; R. F. Ellery (Section I), St. Bartholomew's Hospital; T. A. E. Fawcett (Section II), Leeds; A. Orme (Section I), London Hospital; O. C. Sibley, Middlesex Hospital; W. Sisam (Section II), Birmingham; H. E. Weston (Section I), St. George's Hospital.

Forensic Medicine.—E. L. D. Dewdney, King's College Hospital; S. H. Longhurst, Guy's Hospital; A. Orme, London Hospital; O. C. Sibley, Middlesex Hospital; H. E. Weston, St. George's Hospital.

Midwifery.—T. Burdekin, University College Hospital; A. F. Carlyon, Middlesex Hospital; W. J. H. Hepworth, London Hospital; T. E. Holman, Guy's Hospital; H. N. Horton, Middlesex Hospital; A. Killick, Cambridge and London Hospital; W. Sisam, Birmingham; F. J. Waldmeier, London Hospital.

The diploma of the Society was granted to Messrs. E. L. D. Dewdney, T. A. E. Fawcett, S. H. Longhurst, W. Sisam, J. M. Twentyman, and R. Le G. Worsley.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,700 births and 3,842 deaths were registered during the week ending Saturday last, May 20th. The annual rate of mortality in these towns, which had been 16·5 and 17·7 per 1,000 in the two preceding weeks, declined again to 17·6 last week. The rates in the several towns ranged from 9·8 in Croydon, 13·6 in Huddersfield, 13·8 in Bristol, and 13·9 in Portsmouth, to 21·7 in Wolverhampton, 23·8 in Plymouth, 23·9 in Norwich and in Liverpool, and 24·6 in Manchester. In the thirty-two provincial towns the mean death-rate was 18·4 per 1,000, and was 2·1 above the rate recorded in London, which was 16·3 per 1,000. The zymotic rate in the thirty-three towns averaged 1·6 per 1,000; in London the rate was equal to 1·0 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were 3·1 in Salford and in Blackburn, 3·4 in Leicester, 4·0 in Swansea, and 4·6 in Burnley. Measles caused a death-rate of 1·1 in Nottingham and 1·8 in Manchester; scarlet fever of 1·4 in Norwich and in Burnley; and whooping-cough of 1·0 in Plymouth, in Gateshead, and in Huddersfield, 1·1 in Cardiff, 1·2 in Blackburn, and 1·8 in Burnley. The mortality from "fever" showed no marked excess in any of the large towns. The 69 deaths from diphtheria in the thirty-three towns included 24 in London, 9 in Leicester, 7 in Sheffield, 6 in Swansea, 5 in Salford, and 3 in Leeds. One fatal case of small-pox was registered in Hull, but not one in London or in any other of the thirty-three towns; and only one small-pox patient was under treatment last week in the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had increased from 2,131 to 2,210 at the end of the three preceding weeks, had declined to 2,161 on Saturday last, May 20th: 211 new cases were admitted during the week, against 226, 219, and 259 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 20th, 999 births and 581 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18·5 per 1,000 in each of the two preceding weeks, rose again to 19·0 last week, and was 1·4 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 10·2 in Greenock and 12·8 in Paisley to 20·5 in Glasgow and 22·2 in Leith. The zymotic death-rate in these towns averaged 2·0 per 1,000, the highest rates being recorded in Glasgow and Leith. The 290 deaths registered in Glasgow included 17 from measles, 5 from scarlet fever, 2 from diphtheria, and 2 from whooping-cough. Six fatal cases of whooping-cough were recorded in Leith, 2 of diphtheria in Dundee, and 2 of "fever" in Edinburgh.

PUBLIC VACCINATION AND DISTRICT MEDICAL OFFICERS.

A PUBLIC VACCINATOR wishes to ask if there is any possibility of his appointment as district medical officer (he is non-resident) being cancelled should he deem it necessary to decline the fees offered under the new Vaccination order. Such an eventuality was more than suggested at a recent conference with the Guardians of the Union under which he acts. Will the Local Government Board not protect him?

*** As the duties of a public vaccinator are altogether distinct from those of a district medical officer, the appointment held by the latter though a temporary one, ought not to be in any way endangered by our correspondent failing to arrange terms for vaccination. But he must be the best judge as to whether this is likely to be the case or not. Should he not be re-elected district medical officer for this, or any other cause it is impossible to say what course the Local Government Board would take.

MEDICAL NEWS.

The Continental Anglo-American Medical Society, following the precedent set last year, will hold a lunch during the annual meeting of the British Medical Association at Portsmouth for members of the Society. Further particulars will be announced later.

Vaccination in the Army.—The Secretary of State for War has decided that the unvaccinated wife or family of a soldier cannot be allowed to be brought into contact with the troops or with other families of soldiers in such a way as to jeopardise their health. They cannot, therefore, be allowed to live in barracks, nor will they be conveyed to any foreign station at the public expense.

A Municipal Reformer.—The Guardians of the South Dublin Union were specially summoned recently to consider a motion by Mr. J. Byrne. He moved that the Mansion House should be converted into a hospital for the use of the working classes, and that the Lord Mayor's salary should be devoted to its support. The motion was seconded, but it was denounced by the meeting and finally when a division was taken the proposer was the only supporter.

Edinburgh Royal Infirmary Residents' Club.—The annual general meeting of the club will be held in the Royal Hotel, Edinburgh, on Friday, June 9th, at 6.30 P.M., when the Secretary's and Treasurer's reports will be presented. The fifth annual dinner will be held on the same day at 7.15 P.M., when Professor Chiene, the President of the club, will take the chair. Members intending to be present are requested to send their names to the Secretary on or before June 5th.

Mr. H. L. Raphael, who died suddenly at Newmarket on May 11th, made in 1898 the munificent gift of £20,000 towards the building of a new nursing home for the nurses of Guy's Hospital, to be called the Henriette Raphael Home, in memory of his wife. Unfortunately, he lived only to see the beginning of this scheme. The site acquired for the purpose adjoins the present hospital grounds. The completion of the scheme cannot be reached for some time to come; meanwhile, temporary nursing accommodation has been provided.

The Consumption of Quinine in the United States.—According to the New York *Medical Record*, it has been estimated that during the past year more than 125,000,000 gr. of quinine have been consumed by American soldiers suffering from various types of Southern fevers. The official figures of the Treasury Bureau of Statistics show that there were imported last year into the United States 1,539,056,750 gr. of quinine. As there were practically no exports of the article, this means something like 20 gr. for every man, woman, and child in the country.

Dr. J. L. Vanderstraaten, the Principal of the Ceylon Medical College, was entertained at dinner by Dr. Allan Perry, Principal Medical Officer, before his departure from the colony. On the same occasion the opportunity was taken to welcome Dr. Harvey Hilliard, the new Registrar. The Chairman, after the usual loyal toast, proposed the health of Dr. Vanderstraaten, and referred to his services in terms of high praise. Dr. Vanderstraaten, after thanking those present, among whom were included the Lecturers of the Ceylon Medical College, welcomed Dr. Hilliard to Colombo, and wished him a long, prosperous, and useful career.

French Congress of Medicine.—The fifth French Congress of Medicine will be held this year at Lille under the presidency of Professor Grasset, of Montpellier. The formal opening of the Congress will take place on Friday, July 28th. The following are the questions proposed for discussion: (1) The Forms of Myocarditis (to be introduced by Professor Renant, of Lyons, and Professor Huchard, of Paris): (2) Adenitis and Leukæmia (to be introduced by Professor Denys, of Louvain, and Professor Sabrazès, of Bordeaux): (3) The Establishment of Tolerance in regard to Drugs (to be introduced by Professors Simon, of Nancy, and Professor Heymans, of Ghent).

The Advantages of Open-air Life.—During the recent mobilisation at the Cape the percentage of sick was only 3, and half of this was due to blistered feet. In fact the number of admissions in proportion to strength was much below what it ordinarily is in barracks. This, the P.M.O. remarks, "is the more extraordinary having regard to the severe conditions under which the manœuvres were conducted, the increased exertions the men were called upon to make, the changed circumstances from life in barracks to living in the open air, exposed to great heat during the day and equally severe cold at night, with only the protection of one blanket and a great coat. It might have been expected that these extremes of heat and cold would be the causes of pneumonia, bronchitis, and other chest affections, as well as rheumatism, more especially as there was an extremely heavy dew on the nights when the wind dropped; but such was not the case. There was not a single case of any form of chest affection, and one case only of rheumatism in a man who previously suffered from this disease."

The British Medical Temperance Association.—A brass tablet to the memory of Sir B. W. Richardson was unveiled on May 18th at the London Temperance Hospital, Hampstead Road. Professor Sims Woodhead, who occupied the chair, mentioned that the Association now had 484 medical men as members, and a still larger number of student associates. Mrs. Woodhead unveiled the tablet, which bore a memorial portrait, and the following inscription: "In memory of Sir Benjamin Ward Richardson, Knt., M.D., LL.D., F.R.S., F.R.C.P., who died on Nov. 21st, 1896; for 17 years the honoured and esteemed President of the British Medical Temperance Association, and for 4 years Senior Physician to this hospital. This tablet is placed here by Members of the Association, with the sympathy and by the kind permission of the Board of the London Temperance Hospital in affectionate remembrance of his invaluable services to the cause of temperance."

Life Assurance Congress.—The Organising Committee of the International Life Assurance Congress, which, as announced in the British Medical Journal some time ago, is to be held in Brussels from September 25th to 28th, has received a large number of applications for membership from the principal countries of Europe and from the United States. The questions proposed for discussion are the following: (1) The Admissibility of Syphilitics (to be introduced by Dr. Bayet); (2) Traumatic Neuroses (by Dr. Crocq); (3) Alcoholism from a Life Assurance Point of View (by Dr. De Boeck); (4) Certain Skin Affections Considered from a Life Assurance Point of View (by Dr. Dubois-Havenith); (5) Anthropometry in Relation to Life Assurance (by Dr. Houzé); (6) The Admissibility of Glycosurics (by Dr. Le Bœuf); (7) Radiography in Regard to Life Assurance (by Drs. Maffei and Hannecart); (8) Neurasthenics who May be Accepted, and those who May Not (by Dr. Mahillon); (9) Tuberculous Heredity from a Life Assurance Point of View (by Dr. Meyer, of Metz); (10) The Examination of the Heart for Insurance Purposes (by Dr. Moritz, of St. Petersburg); (11) The Utility of a Universal Pharmacopœia (by Dr. Poëls); (12) Medical Statistics (by Dr. Thompson, of London, Dr. Poëls, and others); (13) Medical Secrecy and Assurance Companies (by Dr. J. Van Geuns, of Amsterdam); (14) The Early Diagnosis of General Paralysis (by Dr. R. Verhoogen); (15) The Continuity of Morbid Conditions Throughout Life (by Dr. Verriest); (16) Fraud in Regard to Life Assurance (by Dr. Weill-Mantou, of Paris); (17) The Admissibility of Albuminurics (by Dr. Wybauw). All communications should be addressed to Dr. Poëls, 2, Rue Marie-Thérèse, Brussels.

The St. John Ambulance Association in Stockport.—A special meeting of the Committee formed for the purpose of furthering the work of the St. John Ambulance Brigade was held at the Church Club, Stockport, on May 5th. The deputation appointed by this Committee having reported that Mr. Ferns declined to call a meeting of the Committee of the Stockport Centre of the St. John Ambulance Association as requested by the Committee, it was unanimously resolved that "This Committee do adjourn until July 7th, 1899, to give an opportunity for a settlement of the differences existing between Mr. Ferns and the Medical Society, failing which this Committee will proceed to form an independent ambulance society." This resolution was communicated to Mr. Ferns, the Honorary Secretary of the Local Centre, who stated in reply that it was incorrect to

say that he had declined to call a meeting of the Committee of the Centre. The Chairman of the Centre on April 28th said to a deputation that he did not see that any good object would be gained by calling a meeting of the Committee at the present juncture, the matter in question having been referred by the Central Executive Committee in London to the President of the Centre who had put himself in communication with the Stockport Medical Society.

"A CURE FOR CONSUMPTION."—One of our daily contemporaries, echoing reports which have found their way into the Italian newspapers, publishes a long telegram from Rome announcing that Professor Cervello, of Palermo, "has discovered a rapid and absolutely efficacious cure for tuberculosis." Signor Florio is said to have invested three million lire in a large sanatorium and a factory for the manufacture of the disinfectant which is stated to be the essential part of the cure. The treatment is to cost the patient about 50 lire a day. This is admitted to be "somewhat expensive," but it is excused on the ground that "the disinfectant is difficult to produce." Dr. Cervello, who by the way is Professor of Materia Medica and Pharmacology in the University of Palermo, we are told, "has invented an instrument in which formalina is made to give off a gas." Can this be our old friend formalin? Formalin is a solution of formic aldehyde (40 per cent.), and has been widely employed as a disinfectant for various purposes for some years. It has been in use as a remedy for consumption in this country for two years or more, and five or six months ago Dr. Murrell made a report to the Scientific Grants Committee of the British Medical Association (BRITISH MEDICAL JOURNAL, January 28th, 1899, p. 202), in which he related some encouraging results from the use of formic aldehyde inhalations.

THE TUBERCULIN TEST IN LIFE ASSURANCE.—There seems to be a tendency in the present day to increase the range and severity of the medical examination for life assurance. For the simple forms in use when a medical examination was first started about fifty or sixty years ago have been substituted forms of the most elaborate description and requiring a detailed report on every organ in the body. Quite a new departure, however, has been suggested by some American physicians. It has been seriously proposed that, in view of the mortality arising from consumption, applicants should submit to the tuberculin test. One American examiner writes: "Insurance is a too well-established necessity for this addition to the examination to work much hardship to the agent by making it more difficult to secure applications, as few men who really want insurance will object to the extra annoyance when assured that it will be followed by no risk or ill result." He goes on to say that he has several times employed this measure in applications for large policies where the family history was suggestive and the physical signs not satisfactory. Whatever may be done on the other side of the Atlantic, we very much doubt whether applicants for assurance in this country would submit to so stringent a test. It is possible that an applicant who would otherwise be declined might, if he knew of the test, suggest its application in his case, in the hope of its yielding a favourable result; but we cannot believe its general adoption is likely to be sanctioned by the directors even if it were proposed by the medical adviser.

MEDICAL VACANCIES.

The following vacancies are announced:—

ARMAGH DISTRICT LUNATIC ASYLUM.—Assistant Medical Officer; unmarried, and over 22 years of age. Salary, £100 per annum, with furnished apartments, rations, fuel, light, washing and attendance. Applications to the Resident Medical Superintendent by June 8th.

ASTON UNION.—Resident Assistant Medical Officer for the Workhouse at Erdington. Salary, £130 per annum, rising annually to £150 per annum, with furnished apartments, rations, washing, etc. Applications to the Clerk to the Guardians, Union Offices, Vauxhall Road, Birmingham, by May 31st.

BATH: EASTERN DISPENSARY.—Resident Medical Practitioner. Salary, £130 per annum, with furnished apartments, coals, gas, and domestic attendance. Applications to Colonel F. V. Eyre, R.A., Honorary Secretary, Rockville, Lansdown, Bath, by June 1st.

BEDFORD COUNTY HOSPITAL.—House-Surgeon; under 27 years of age. Salary, £100 per annum, with apartments, board, lodging, and washing. Applications to the Secretary by June 2nd.

BETHNAL GREEN BOARD OF GUARDIANS.—Second Assistant Medical Officer at the Workhouse and Infirmary, Waterloo Road, Victoria Park, N.E. Salary at the rate of £80 per annum, with rations, furnished apartments, and washing, and £3 in lieu of beer. Applications, on forms provided, to the Clerk to the Board, Bishop's Road, Victoria Park, N.E., by June 1st.

BIRMINGHAM GENERAL DISPENSARY.—Two Resident Locum Tenens, for about two months. Salary, 4 guineas a week, without board. Applications to the Secretary by June 2nd.

BIRMINGHAM: MASON UNIVERSITY COLLEGE.—Professor of Pathology and Bacteriology. Applications to the Secretary by May 31st.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Ophthalmic Surgeon. Applications to the Medical Committee, Children's Hospital, Steelhouse Lane, Birmingham, by June 7th

BIRMINGHAM PARISH.—Assistant Medical Officer to the Workhouse Infirmary. Appointment for one year, but renewable. Salary, £100 per annum, with furnished apartments, rations, coals, gas, laundry, and attendance. Applications, on forms provided, to the Clerk to the Guardians, Parish Offices, Edmund Street, Birmingham, by May 29th.

BIRMINGHAM: ROYAL ORTHOPÆDIC AND SPINAL HOSPITAL.—Honorary Surgeon. Applications marked outside, "Application for Post of Honorary Surgeon," to the Honorary Secretary, 9, Bennett's Hill, Birmingham, by June 1st.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board. Applications to the "Chairman of the Committee," by July 15th.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £70 per annum, with board, residence, and washing. Applications to the Secretary by May 29th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon to the Western Branch; unmarried. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary, Queen's Road, Brighton, by June 6th.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum, with furnished apartments, board, and washing. Applications, endorsed "Assistant House-Surgeon," to the Secretary.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Resident House-Surgeon. Salary £65 per annum, with board, lodging, and washing. Applications to the Secretary by June 10th.

CARDIFF UNION.—Assistant Medical Officer for the Workhouse. Salary, £100 per annum, with rations, apartments, attendance, and washing. Applications to the Clerk, Queen's Chambers, Cardiff.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Second House-Physician. Appointment for six months. Salary at the rate of £30 per annum, with board and residence. Applications to the Secretary by June 3rd.

DUBLIN: MERCER'S HOSPITAL.—Resident Medical Officer. Applications to the Registrar by May 30th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician. Appointment for six months. Board, residence, etc., are provided, and an honorarium of £25. Applications to the Secretary by June 10th.

EDINBURGH: CRAIGLEITH POORHOUSE AND HOSPITAL.—Medical Officer. Salary, at the rate of £80 per annum, with board. Applications to A. Ferrier, Clerk, Parish Council Chambers, Castle Terrace, Edinburgh, by June 1st.

GLAMORGAN COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £130, rising £10 a year to £150, with board, lodging, and washing. Applications to the Medical Superintendent by May 29th.

GREAT NORTHERN CENTRAL HOSPITAL.—Junior House-Physician. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Applications to the Secretary by June 12th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Medical Registrar and Pathologist. Honorarium 50 guineas. (2) Surgical Registrar. Honorarium £40. (3) House-Surgeon. Appointment for six months. Salary, £50, with board and residence. (4) House-Physician. Appointment for six months. Salary, £20, with board and residence. (5) Assistant Physician; must be F. or M.R.C.P. Lond. (6) Anæsthetist. Appointment for one year. Honorarium, £15 15s. Applications to the Secretary by June 13th.

KENSINGTON DISPENSARY, Church Street, W.—Vacancy on Honorary Medical Staff. Applications to Mr. T. W. O. Wheeler, Honorary Secretary, 138, Kensington High Street, W., by June 5th.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.—House-Surgeon; unmarried. Salary, £140 per annum, increasing to £170, with rooms in the Infirmary and attendance. Applications to the Secretary before June 1st.

KING'S LYNN: WEST NORFOLK AND LYNN HOSPITAL.—House-Surgeon. Salary, £80, rising to £100, per annum, with board, residence, and washing. Applications to the Chairman at the Hospital by June 9th.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Honorary Anæsthetist. Applications to the Medical Board by June 1st.

LONDON COUNTY ASYLUM, Claybury, Essex.—Junior Assistant Medical Officer, between 23 and 30 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications on forms provided to be sent to the Clerk of the Asylums Committee, 6, Waterloo Place, S.W., by May 31st.

LONDON THROAT HOSPITAL, 204, Great Portland Street.—House-Surgeon for six months. Applications to the Honorary Secretary, Medical Committee, before June 1st.

MANCHESTER: VICTORIA DENTAL HOSPITAL.—Honorary Anæsthetist. Applications to Mr. C. E. Marshall, Secretary, 33, Barton Arcade, Manchester, by June 10th.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer for the South-Eastern Fever Hospital, New Cross, S.E. Unmarried; not more than 35 years of age. Salary, £160 the first year, rising to £200, with board, lodging, attendance, and washing. Applications, on forms provided, to be sent to the office of the Board, Norfolk House, Norfolk Street, Strand, by June 1st.

NORTH-EASTERN HOSPITAL FOR CHILDREN.—(1) Surgeon. (2) House-Surgeon. Appointment for latter for six months, with salary at the rate of £50 per annum. Applications to the Secretary, 27, Clement's Lane, Lombard Street, E.C., by June 15th.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead.—Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of £30 per annum. Applications to the Secretary by May 31st.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Assistant Resident Medical Officer. Salary at the rate of £30 per annum. Appointment for six months, when eligible for election to Senior post (salary, £50). (2) Dental Surgeon, must be L.D.S. Applications to the Secretary by May 30th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Election to the Court of Examiners. Applications from Fellows to be sent to the Secretary by May 31st.

ROYAL EAR HOSPITAL, Frith Street, Soho, W.—Non-Resident House-Surgeon. Appointment for six months. Honorarium at the rate of £24 per annum. Applications to the Honorary Secretary before June 3rd.

ST. ANDREWS UNIVERSITY.—Professor of Pathology. Application to the Secretary of the University by June 21st.

ST. PETER'S HOSPITAL FOR STONE AND GENITO-URINARY DISEASES, Henrietta Street, W.C.—House-Surgeon. Appointment for six months, but eligible for re-election. Salary, at the rate of £100 per annum, with board, lodging, and washing. Applications to the Secretary by May 31st.

SCHOOL BOARD FOR LONDON.—Medical Officer for the Shaftesbury Training Ship at Grays. Salary commencing at £100 per annum, rising to £150. Applications to the Clerk, School Board Offices, Victoria Embankment, S.E., by June 7th.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House-Surgeon. Appointment for six months. Honorarium £10, with board and rooms. Applications to the Secretary by June 6th.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon and Assistant House-Surgeon. Salary £100 and £50 per annum respectively, with board, lodging, and washing. Applications for the former to the Secretary by May 31st; and for the latter to the House-Surgeon at once.

UNIVERSITY COLLEGE, LONDON.—Jodrell Professorship of Zoology. Applications to the Secretary by June 5th.

VICTORIA HOSPITAL FOR CHILDREN.—House-Physician. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary at the Hospital, Queen's Road, Chelsea, S.W., by June 17th.

VIRGINIA WATER: HOLLOWAY SANATORIUM.—Senior Assistant Medical Officer. Salary commencing at £300 per annum, with board, lodging, and washing. Applications to the Medical Superintendent by June 8th.

WAKEFIELD: WEST RIDING ASYLUM.—Fourth Assistant Medical Officer. Salary, £100 per annum, increasing to £150, with furnished apartments, board, washing, and attendance. Applications to the Medical Director at once.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.— House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to the Chairman of the Medical Committee by June 5th.

MEDICAL APPOINTMENTS.

ALCOCK, G. H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Pinchbeck District of the Spalding Union.

ANDREWS, Henry Russell, M.O.Lond., M.R.C.S., L.R.C.P., appointed Obstetric Registrar and Tutor to the London Hospital.

ASPINWALL, J. F., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Marsden District of the Huddersfield Union.

DAVEY, S., M.R.C.S., L.R.C.P., D.P.H Lond., appointed Medical Officer of Health to the Urban District Council of Caterham.

DUNCAN, Alex., M.B., C.M., D.P.H., reappointed Clinical Assistant to the Chelsea Hospital for Women.

FEATHERSTONE, G. W. B., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Radnorshire District of the Hay Union.

GREY-EDWARDS, C., B.A., M.B., B.Ch., appointed Medical Officer for the No. 1 Anglesey District of the Bangor and Beaumaris Union.

HAWKINS-AMBLER, G. A., F.R.C.S.E., appointed Assistant-Surgeon to the Liverpool Stanley Hospital.

JACKSON, T., M.D., appointed Medical Officer for the First Division of the Greystoke District of the Penrith Union.

MACKAY, Sutherland, M.D.St.And., D.P.H., R.C.P.Edin., appointed Physician to the new Infectious Diseases Hospital of the Kirkcaldy Town Council.

MALINS, H., M.B., C.M.Edin., appointed Assistant Medical Officer at the St. Marylebone Infirmary.

MATHEW, C. P., L.R.C.P Lond., M.R.C.S.Eng., appointed Medical Officer for the Tregony District of the Truro Union.

NEAVE, Edward F. M., M.B., Ch.B.Edin., appointed House-Physician to the Hospital for Women, Soho Square, London, W.

PAINE, H., M.D.Toronto, L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Bampton Urban District Council.

POWNE, L., M.R.C.S.Eng., L.S.A., reappointed Medical Officer for the Shobrooke and Newton St. Cyres District of the Crediton Union.

READ, B. T., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Odiham District of the Hartley Wintney Union.

TODD, G. D., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Selby District and the Workhouse of the Selby Union.

YONGE, Eugene S., M.D., appointed Honorary Assistant Physician to the Manchester Hospital for Consumption and Diseases of the Throat, *vice* W. Milligan, M.D., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Abraham: Diagnosis and Treatment of some Diseases of the Skin. (Lecture I).

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Mr. Lennox Browne: Tuberculosis and Allied Conditions.

TUESDAY.

Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: Neurasthenia.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Sir W. Gowers: Epilepsy.

WEDNESDAY.

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr. Morgan Dockrell: Eczema.

Hospital for Consumption, Brompton, 4 P.M.—Dr. Maguire: Mitral Regurgitation.

THURSDAY.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Abraham: Diagnosis and Treatment of some Diseases of the Skin. (Lecture II).

British Balneological and Climatological Society, 20, Hanover Square, W., 4 P.M.—Dr. Ivor Murray: Scarborough as a Health Resort in Phthisis. Dr. Shirley Jones: Treatment of Neuralgia by the Droitwich Brine Baths.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Dr. Dundas Grant: Diagnosis and Treatment of Nerve Deafness.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. William Hunter: Pathological Demonstration

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. W. S. Colman: Demonstration of Selected Cases.

FRIDAY.

Laryngological Society of London, 20, Hanover Square, 5 P.M.—Cases and Specimens will be shown by Drs. Permewan, St Clair Thomson, Jobson Horne, Scanes Spicer, Herbert Tilley, William Hill, Messrs. De Santi, E. Lake, and others.

West London Medico-Chirurgical Society, West London Hospital, W., 8.30 P.M.—Clinical evening. Cases will be shown by Mr. C. B. Keetley, Dr. L. Dobson, Mr. R. Lake, Mr. L. A. Bidwell, Mr. McAdam Eccles, and others.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

BARCLAY-SMITH.—On May 20th, at 57, Bateman Street, Cambridge, the wife of E. Barclay-Smith, M.D., of a daughter.

LUSK.—At Rowson House, New Brighton, Cheshire, the wife of T. Gibson Lusk, M.B., C.M., of a daughter.

POLLARD.—On May 1st, at Tollesbury, Bearwood Road, Birmingham, the wife of W. H. Pollard, M.B., of a son.

SANDWITH.—On May 15th, at Cairo, Egypt, the wife of F. M. Sandwith, M.D., M.R.C.P., of a daughter.

MARRIAGES.

BOASE—DRYSDALE.—At Essequebo, British Guiana, on May 4th, by the Rev. Father Smith, William George, Government Medical Officer, British Guiana, eldest son of late Lieutenant-Colonel Boase, R.M.L.I., to Marie, youngest daughter of the late James Drysdale, of St. Lucia.

COCKILL—BEET.—On May 18th, at the College Chapel, Richmond, Surrey, by the Rev. W. Ernest Beet, B.A. (brother of the bride), Thomas Treffry Cockill, M.R.C.S., L.R.C.P., younger son of the Rev. W. R. C. Cockill, of Clevedon, to Josephine Mary, only daughter of the Rev. Dr. and Mrs. Agar Beet, of Richmond.

GERMAN—JONES.—May 17th, at St. Thomas's, Seaforth, Liverpool, by the Rev. R. F. G. Smithwick, M.A., Vicar, assisted by the Rev. E. R. Tarbuck, B.A., Vicar of St. Paul's, Warrington, Arthur William German, L.R.C.P.Lond., M.R.C.S.Eng., of 296, Kensington, Liverpool, to Alice Hannah, eldest daughter of the late Hugh Jones, Tudor Villa, Seaforth.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F.S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 3; Surgical, daily, 1.30: Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Laryngx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 3; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Opthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F. 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Tu., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu., F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M., F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

ENQUIRER lives where water is very hard. He has a tendency to gout, and wishes to hear of an apparatus to produce 8 gallons of distilled water daily.

DR. HAMMERSLEY (Leek) desires to hear (1) of a school for a mentally deficient girl, aged 10 years: it must not be very expensive: and (2) of a home for an insane lady (quiet) who can pay £1 per week.

J. N. M. asks whether there is any hospital where a poor patient suffering from tabes dorsalis, with almost complete loss of power in the lower limbs—who could pay little, if anything—could be admitted.

ANSWERS.

PHYSICIST.—Our correspondent's questions should, we think, be addressed to a physicist.

G. T. G.—*Medical Partnerships, Transfers, and Assistantships*, by G. B. Stocker and W. Barnard (London: Stevens and Sons. 8s. 6d.) is probably the book referred to.

MEDICO.—We have no information beyond that contained in the number of the *New York Medical Journal* to which our correspondent refers. We are not in a position to express an opinion as to the interpretation of the law in India.

W. H. P. (Kent).—Particulars as to some of the patent medicines so called, as to which our correspondent inquires, will be found in a pamphlet entitled *Patent and Quack Medicines*, by Joseph Tillie, M.D., F.R.S.E. Edinburgh: Macniven and Wallace, 1893, price 2d.

A.B.—A Committee of the General Medical Council has been sitting for some time past, and has held conferences with the representatives of friendly societies. Only short interim reports have been issued, but it is expected that a fuller report will be presented at the next session of the Council.

ALPHA.—We are unable to state whether the Homes advertised in the BRITISH MEDICAL JOURNAL receive chronic inebriates. The Homes mentioned in our columns are: The Dalrymple Home, Rickmansworth, Herts; Capel Lodge, near Folkestone; Dr. James Stewart's, Dunmurry, Clifton, Bristol; Aston Hall, Sutton Coldfield, Warwickshire; Tower House, Westgate-on-Sea; Kingswood Park, Bristol; High Shot House, St. Margaret's, Twickenham; Tower House and Melbourne House, Leicester; Dr. J. M. Hobson's, Glendalough, Morland Road, Croydon; Dr. Barcroft's, Amesbury House, Wilts; West Highlands Home, 352, JOURNAL Office; Vergmont Sanatorium, West Derby, Liverpool; the Royal Victoria Homes, Bristol; Northlands, 10 and 12, North Street, Old Wandsworth; and the South Hall Sanatorium, Hemel Hempstead.

RECURRENT SNEEZING AND NASAL CATARRH.

DR. B. ADDY (Birkdale) writes, in answer to a question in the BRITISH MEDICAL JOURNAL of May 20th, page 1259, to recommend pot. iodidi sod. salicyl. liq. arsenicalis, and dec. sarsæ co. as a remedy. "Boroline" (B. W. and Co.) he finds good as a local application.

T. C. D. recommends a trial of 1 minim of carbolic acid in 1 ounce of decoct. cinchonæ flav. ter die.

M.R.C.S., L.R.C.P., L.S.A., writes: I have found the inhalation of pure sanitas oil (about 5ss. dropped on a handkerchief) twice daily for 5 to 10 minutes, to have quite cured me of this troublesome affection, from which I had suffered for two or three years, and for which I had tried innumerable local applications without success. At first the oil will produce a good deal of dryness in the throat and eyes, but after a few days this will pass off. In my own case I stopped the inhalations in about three weeks, and have had no recurrence for six months.

THE TREATMENT OF CORNS.

A SYMPATHETIC SUFFERER recommends, in reply to query by "W. A." in the BRITISH MEDICAL JOURNAL of May 20th on the treatment of a troublesome corn, Unna's salicylic acid plaster mull, a piece of which large enough to cover the corn should be fixed *in situ* firmly with a strip of rubber adhesive plaster round the toe, and left for forty-eight hours. The corn should then be soaked in hot water and scraped with the nail or other blunt instrument, and if necessary a dressing reapplied until the horny centre comes out entire. Another good application is collodium salicylicum. See *Squire's Companion*, p. 46, new edition.

MEDICAL ETIQUETTE.

T. E. W.—With respect to the difference between W. and H., which has been referred to us, we are of opinion that as it was represented to H. that the case was an urgent one and the patient in danger, he was justified in attending after he had communicated with W. and W. had replied that he was unable to come. We further think that, considering the same circumstances, he was justified in supplying the necessary remedies at once; but we certainly agree with him in thinking that he should have written to W. at once giving his opinion of the case and the treatment which he found it necessary to adopt. He might have very well done this before he left the house, leaving it for the friends of the patient to deliver the note. H. seems perfectly aware of his fault in this respect, and has sent a written apology, and has called upon W. with the intention of making a further explanation. We therefore think that W. would have been well advised, especially in consideration of the fact that H. is a young man who has only recently graduated, to have accepted his apology and proffered explanation as sufficient.

PARISH MEDICAL OFFICERS IN SCOTLAND.

LEX.—The Local Government (Scotland) Act Amendment Bill (No. 2), introduced by Mr. Alexander Cross, will have the hearty support of everyone who is acquainted with the nature of the injustice which it is intended to remedy. The matter was referred to at the meeting of the Parliamentary Bills Committee on March 28th, 1898, when a resolution was unanimously adopted supporting the Bill, and authorising the Chairman to arrange for a deputation to wait upon Lord Balfour of Burleigh, to further the passing of the Bill. At the meeting of the Parliamentary Bills Committee on April 19th, 1898, a resolution was adopted requesting the Council of the British Medical Association to petition in favour of the Bill. At a special meeting of the Parliamentary Bills Committee on February 3rd, 1899, a resolution was passed inviting Mr. Cross to introduce a Bill into the House of Commons on the basis of the "Bill to amend the Local Government (Scotland) Act," and authorising the Chairman to sign on behalf of the Committee a petition which was being presented to Lord Balfour of Burleigh. At the meeting of the Parliamentary Bills Committee on April 11th, 1899, a letter was read from the Scottish Poor-law Medical Officers' Association, thanking the British Medical Association for its efforts to secure the Scottish Poor-law medical officers the right to appeal against dismissal to the Local Government Board in Edinburgh.

MEDICAL BULLETINS AND ADVERTISING.

M.D.CANTAB.—We agree with our correspondent in regretting the publicity given to the names of members of the profession who happen to be in attendance upon persons in whom the public and consequently the newspapers take special interest. Medical practitioners could do a great deal to prevent their names being published in connection with such cases, but in the case of patients who themselves live in and by the glare of publicity this often requires a good deal of foresight. There is undoubtedly too much indirect puffing permitted by medical practitioners who attain to a moderate degree of professional standing. Such things as biographical notices or interviews with portraits occasionally appear in weekly newspapers, minor magazines, etc., and there is no doubt at all that, in many instances at least, such notices could not appear had the subjects of them not given their approval. In an article which was published on March 5th, 1898, we drew attention to these points and expressed the opinion that it is the duty of the licensing bodies to check these practices and that if the powers possessed by those corporations are insufficient the General Medical Council should intervene. We also pointed out that many of these cases might be brought before the notice of the Branch of the British Medical Association to which the offender belongs or of the General Practitioners and Ethical Committee of the Association. In flagrant cases the Association should no doubt exercise its power of expulsion after due representation and remonstrance had failed.

NOTES, LETTERS, Etc.

THE HUNTER FUND.

MR. RIVERS WILLSON (Treasurer) (42, Wellington Square, Oxford) writes to acknowledge the receipt of the following further donations:

	£	s.	d.
Amount previously acknowledged	38	1	3
Dr. A. E. Sansom, 84, Harley Street, W.	1	1	0
A. W. F. S.	0	10	0
Dr. T. M. Allison, Newcastle-on-Tyne	0	10	6
Mr. E. S. Tylee, B.A., Balliol College, Oxford (non-medical)	0	5	0
Dr. J. D. Windle, Southall	0	10	6
Mr. C. Biddle, Merthyr Tydfil	0	10	6
Dr. W. Gayton, Fleet Road, Hampstead...	1	1	0
Mr. Frank Boxall, Rudgwick, Sussex	2	2	0
Dr. A. Douglas Cowburn, 31, Barkston Gardens, S.W. ...	1	1	0
Total	£45	12	9

LARGE CHILDREN.

DR. W. M. MORISON (Annfield Plain, co. Durham) writes: On April 7th, 1895, I delivered a 17-para of a male child that weighed 14 lbs., and measured 21½ inches in length. The labour was natural and easy, but for the three months previous to birth the mother suffered very much from pressure symptoms, severe dyspnœa, especially at night, preventing her from lying in the recumbent position, and necessitating the door to be open however inclement the weather. In the earlier stage of her pregnancy she had severe and frequent hæmorrhage from the uterus, which was rather difficult to control. All her other children were of ordinary size at birth, and one following—the eighteenth—was the same.

SCHOOL BOARD FEES.

DR. C. E. H. CORNELIUS HALLEN (Burdett Road, E.) writes: After reading the paragraph "Education Department and its Medical Advisers" in the BRITISH MEDICAL JOURNAL of May 13th, I thought an experience I had a few weeks ago might be interesting.

I was asked by the medical officer of the School Board for London to examine and forward a report as to a child's state of health, etc. For this I was offered the sum of 2s. 6d (two shillings and sixpence) as fixed by resolution passed at Board meeting, January 21st, 1897. Surely this fee was not suggested by the medical officer. It is hardly necessary to add that I declined this highly remunerative piece of work, and trust other members of the profession will do likewise in similar cases.

A CASE OF LARYNGEAL OBSTRUCTION: RECOVERY AFTER INJECTION OF DIPHTHERIA ANTITOXIN.

MR. E. LAURIE-ROBINSON (Guernsey) writes: I first saw A. M., a girl, aged 12, on January 31st. She gave the following history: That she had had a cold all the week before, but was so well on January 29th that she proposed returning to school on January 30th; but on that morning she lost her voice and was slightly oppressed in breathing. I found the temperature 100.4°, and that she was suffering from slight laryngeal obstruction. The throat looked perfectly healthy, and there was no albumen in urine. She was at once placed in a tent, and a steam kettle ordered to be kept going night and day. On February 1st the temperature was 99.2°; the throat looked healthy, and there was less distress

of breathing. On February 2nd, the laryngeal dyspnœa was decidedly worse (temperature 99.6°). I asked my partner Dr. F. Carey to see her; he agreed that there was nothing to be detected on examining the throat. On seeing her again in the afternoon I found her worse, so much so that I got ready the instruments to perform tracheotomy if it should be required. Then, as there were some cases of diphtheria about, I injected 4 c.cm. Schering's diphtheria antitoxin at 4 P.M. I saw her again at 8 P.M., and found her breathing quite quietly, and was shown a complete cast of the trachea and larger bronchial tubes, some 8 inches in length, which she had brought up after a severe struggle at about 7 P.M., just three hours after the injection of the antitoxin. From that moment the child improved steadily. I injected antitoxin 4 c.cm. once a day for the two following days, and she brought up shreds of membrane for about four to five days. She had a slight attack of bronchitis, but was never in any real danger from it. Albumen appeared in the urine for the first time on February 3rd, the day after she brought up the large piece of membrane: this disappeared about three weeks from the beginning of her illness. About five weeks from the commencement of the attack she had some slight paralysis of the soft palate. I presume that this was a case of primary tracheal diphtheria, as the throat gave no clinical signs of disease. I think that this case teaches one or two lessons: one is, the great power of the antitoxin, as the large cast was detached, and the child placed practically out of danger in three to four hours after the first injection. Another lesson I have learnt is this: that given a case of apparently simple acute laryngitis which does not yield in a reasonable time to the inhalation of steam, and especially if cases of diphtheria are known to be anywhere near, to inject the diphtheria antitoxin, as it cannot do any harm, and may, as in this case, save a life.

THE PREVENTION OF TUBERCULOSIS.

DR. F. RUFENACHT WALTERS (Welbeck Street, W.) writes: Permit me to correct a mistake in your brie report of my address on Sanatoria to the Chelsea Clinical Society on April 25th. I am reported to have said that "consumptives could not be properly treated in this country." This is quite opposed to my opinion, and I am certain I said no such thing. My argument was that if all parts of this country are not equally suitable for the treatment of consumptives, and there are advantages in the combined treatment of numbers, then such treatment should be carried out in special hospitals or sanatoria in properly chosen situations rather than in the midst of a large town or city.

A CARD.

CEARTAS writes: Enclosed herewith I send you a "professional" card which has been circulated in the town and neighbourhood by a member of the medical profession who has recently settled here with the intention of engaging in general practice. I need not say that the method of securing patients proposed in this card is entirely new in this district, and is unhesitatingly condemned by the local medical men. The following is a reproduction of the card enclosed:

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FOR
———— AND NEIGHBOURHOOD.

DR. ———.
———. ———— ————.

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3s.	...	...	Per Quarter.
11s. 6d.	...	...	Per Year.

Payable in Advance.
Subscriptions taken at the Surgery on
Saturdays between the hours of 7 and 9 P.M.
Midwifery Fees, 12s. 6d.,
To include Vaccination with Pure Calf Lymph.
Young Men over 18, 1½d. per Week.

Patients to Provide their own Bottles.

Surgery Hours:
9.30 to 10.30 A.M., 7 to 9 P.M.

*** We entirely agree with our correspondent in condemning such a method of seeking to obtain practice, and we regret very much to find we have almost every week to hear of and to condemn some new instance of advertisement by members of the medical profession.

GONORRHŒAL SALPINGITIS.

MR. ALEXANDER G. R. FOULERTON (Bacteriological Laboratory, Middlesex Hospital) writes: In the BRITISH MEDICAL JOURNAL of May 20th, I am reported (p. 1220) as having said, during the discussion on gonorrhœal salpingitis at the British Gynæcological Society on May 11th, that in cases of salpingitis the tubes were "sterile in 60 per cent. of cases, the gonococcus was found in 20 per cent., and other micro-organisms in the remaining 20 per cent. In the last group the infection had no doubt been primarily gonorrhœal, and there was a secondary infection by the bacillus coli or the tubercle bacillus." I cannot accept responsibility for this statement as to the tubercle bacillus. What I did say was that probably some of the cases included in the last group were primarily due to a gonococcal infection, but that there had occurred a secondary infection by some other micro-organism, notably by bacillus coli communis. I did not say anything as to tubes primarily infected by the gonococcus being specially liable to subsequently become infected by the tubercle bacillus.

HYPODERMIC INJECTION OF QUININE IN MALARIA.

CAPTAIN, R. A. M. C., writes: With reference to the query re hypodermic injection of quinine, in your issue of 13th inst., I would like to say that during my whole tour of 5½ years in India I never once met an officer of the Army Medical Staff who had ever given quinine hypodermically to British troops. There seems to be an impression that the use of the drug in this manner is forbidden, owing to the fact that many years ago two or three cases of tetanus occurred after hypodermic injections of the drug. I never met anyone who could show me any printed regulation on the subject. Civil surgeons use it freely on natives, and I have heard of some regimental surgeons who have treated native soldiers with the drug hypodermically. It seems a pity that it is not given more frequently in this manner in bad cases of malarial fever, for there can be no question of its efficacy; and, as far as I could see, its administration by the mouth in these cases was of very little use. What a saving of quinine there would also be, for 25-40 gr. are quite common daily doses out there. I once produced total deafness, lasting three weeks, in a girl of 10 years after hypodermic injection of 5 gr. of the citrate of quinine.

PICRIC ACID IN SUPERFICIAL BURNS.

DR. ARTHUR DENNISON (Burley, Leeds) writes: I am pleased to be able to support Dr. Ian Macdonald's recommendation of the use of picric acid in burns, and am also pleased to be able to call his attention to the fact that the treatment is well known in England, and I have systematically used it for nearly four years. Dr. Thiéry, of Paris, strongly recommended it, I believe, in 1895. This was recorded in the BRITISH MEDICAL JOURNAL of January 18th, 1896. It was again taken up by D'Arcy Power in September, 1896, in the BRITISH MEDICAL JOURNAL. Dr. Souter, of South Australia, again supported the treatment in the JOURNAL of January, 1897.

LETTERS, COMMUNICATIONS, ETC., have been received from:
A Mr. C. Abbott, Liverpool; Dr. H. R. Andrews, London; Dr. J. Althaus, London; Dr. B. Addy, Southport; Another G P.; W. E. Alston, M B., Wheathampstead. **B** Mr. L. A. Bidwell, London; Mr. J. H. Blakeney, Birmingham; Dr. W. L. Bell, Lowestoft; Dr. W. Brain, Harrogate; Mr. J. P. Bush, Clifton; Mr. W. R. Bates, Ilkley; Mr. C. W. J. Brasher, Bristol; Mr. R. Bruce, Milford-on-Sea; Professor J. B. Bradbury, Cambridge; Messrs. R. Boyle and Son, London; Busy G P.; J. W. Batterham, M.B., St. Leonards-on-Sea; Messrs. Burroughs, Wellcome and Co., London; A. G. Bateman, M.B., London; Dr. R. Broadbent, Leicester. **C** Mr H. Cripps, London; Mr. H. B. Collins, Kingston-on-Thames; Mr. G. W. Crowe, Worcester. **D** Dr. A. Duke, Cheltenham; Dr. R. B. Duncan, Bradninch; Dr. V. Dobroklonskij St. Petersburg; Mr. S. Davey, Caterham. **E** Dr. J. C. Eames, Stonecliough; Mr. H. L. Evans, M.B., Goring-on-Thames; W. McA. Eccles, M.B., London; Enquirer; Sir P Eade, Norwich. **F** Fellow Countryman; F.R.C.S.Edin.; E. R. Fothergill, M.B., Roche; Dr. B. Foster, St. Paul, Minn.; Mr. A. G. R. Foulerton, London; L. G. Fraser, M.B., North Shields. **G** Dr. W. F. Gibb, Paisley; Mr. W. Garnett, London; Mr. H Goodwyn, Bovey Tracey; Mr. C. Grey-Edwards, Beaumaris; Mr. G. T. Gifford, Darwen. **H** Mr. G. F. Herbert, Christchurch; J. B. Hall, M.B., Bradford; Dr. T W. Hime, Bradford; Dr. S. Hyde, Buxton; Mr. A. R. Henchley, Blagdon; Mr. G A Hawkins-Ambler, Liverpool; Mr. P. H. V. Hammersley, Leek. **I** Dr. F. Isdell, London. **J** J.D., Mr H. H. Jennings, London; R. Johnson, M.B., London; J.N.M.; Mr. M. H. Judge, London; Mr. E. K. Johnstone, London. **K** Mr. C. W. Krohne, London; Mr. S. K. Kabraji Bombay. **L** W. Leask, M.B., Birkenhead; Lex; Lieutenant; Dr. R Livi, Rome. **M** M.D.Cantab.; Member B.M.A.; Mr. W. Marriott, London; M.B., C.M. Aberd.; Maternity; Mr. C. J. Morton, Walthamstow; Dr. C. F. Marshall, London; Dr. D. J. Mackenzie, Glossop; M.R.C.S., F.R.C.P., L.S.A.; Mr. F. C. Melhado, London; Mr M. MacLaren, St. John, N.B. **N** R. A. Neilson, M.B., Cardiff; North East; Dr. R. T. Nichols, Ilford. **O** Mr. H. O'Hara, Melbourne. **P** Protene and Co., London; Mr. R. N. Partridge, London; Physicist; Mr T. A. Palm, Wigton; Public Vaccinator; Mr. R. D Pennefather, London; Picture; Paris. **R** Dr. H. B. Robinson, London; Dr. C. M. Rogerson, Huddersfield; Mr. H. M. Rainsford, London; Mr. J. Robertson, Edinburgh; A. D. Roe, M.B., London. **S** Mr. G. W. Simpson, Lamberhurst; Dr. R. B. Selby, Port William; Dr. S Sunderland, London; Mr. S. N. Scott, Plymstock; Mr. P. L. Sclater, London; Dr. J. O. Symes, Clifton; Mr. D'A. Sugden, Bundaberg; Mr. E. A. T. Steele, Southend-on-Sea; Dr. D. W. Samways, Brides-les-Bains; Student. **T** Mr. P. J. Tombs, Droitwich; Mr T. Thatcher, Bristol. **V** Mr. D. E. Vanderstraaten, Plymouth; Mr. T. F Vaisey, Winslow. **W** Dr. R. Willson, Oxford; F. Wyatt-Smith, M.B., Reigate; Mr. A. J. Winter, Swaffham; Dr. L. A. Weatherly, Bath; Mr. R. Williams, Liverpool; Dr. H W Williams, Guilsborough; Dr. F. W. Willcocks, London; Mr. E. L. Walford, London. **Y** Dr. E. S. Yonge, Manchester; etc.

BOOKS, ETC., RECEIVED.

Man, Past and Present. By A. H Keane, F.R.G.S. Cambridge: University Press. London: C. J. Clay. 1899. 12s.

Anatomischer Atlas der geburtshilflichen Diagnostik und Therapie Von Dr O. Schaefer. Zweite Auflage. Munich: J. F. Lehmann. 1899. M. 12.

The Use of Lead Compounds in Pottery, from the Potters' Point of View. By W. Burton, F.C.S. London: Simpkin, Marshall, Hamilton, Kent and Co. 1899. 1s.

Lord Lister and Surgery. By R Turner, M.A., M.D., F.R.C.S. London: H. J. Glaisher. 1899. 1s.

Hygiène de l'Allaitement. Par Dr. H. de Rothschild. Paris: Masson et Cie. 1899.

The Elements of Vital Statistics. By A. Newsholme, M.D., F.R.C.P. Third edition. London: Swan Sonnenschein and Co. 1899. 7s. 6d.

The Serum Diagnosis of Disease. By R. C. Cabot, M.D. London: Longmans, Green and Co. 1899. 7s. 6d.

The Psychology of Reasoning. By A. Binet. Translated from the second French edition by A. G. Whyte, B.Sc. London: Kegan Paul, Trench, Trübner and Co. 1899. 3s 6d.

*** In forwarding books the publishers are requested to state the selling prices.

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REMARKS
ON
CLIMATE AND SEA VOYAGES IN THE TREATMENT OF TUBERCULOSIS.

Read before the International Tuberculosis Congress in Berlin.

BY SIR HERMANN WEBER, M.D., F.R.C.P.,
Consulting Physician to the German Hospital, London, and the Royal National Hospital for Consumption, Ventnor.

AT the International Medical Congress at Berlin in 1890, I had the honour of introducing the discussion on the Climatic and Hygienic Treatment of Pulmonary Tuberculosis. On that occasion I expressed my opinion that climatic treatment by itself was insufficient in most cases; that careful supervision and guidance of the patient by the doctor was necessary, and that, therefore, treatment in special establishments was to be preferred in the majority of cases, whilst for poor patients it was urgently required.

In the present Congress you have appointed me to introduce the discussion on climatic treatment. My opinion, gentlemen, is now more decided than at the former Congress, for I hold that climate is really important, but is insufficient unless there be careful medical supervision and hygienic and dietetic guidance. Obeying your directions, I shall endeavour in a short survey to explain what share climate can take in the treatment of tuberculosis. I will divide my rapid summary under four heads:

1. Climates of mountains and high altitudes.
2. Inland climates of low elevation, including those of forest, of deserts, and of Egypt.
3. Climates of the coast and of small islands; Sea voyages.
4. Short indications for the use of different climates in different cases of tuberculosis.

I. CLIMATES OF MOUNTAINS AND HIGH ALTITUDES.

The differences are great between the various localities which are grouped together under this heading. Whilst in the tropics an elevation of 1,800 to 3,000 metres over the sea is necessary, in the latitudes further from the equator (46° to 54°) an elevation of 400 to 500 metres is generally sufficient. When the surroundings of a place are much higher than the place itself, the effect of high altitude is in many respects diminished; the effect is increased when the surroundings are lower.

You know, gentlemen, that in former years the prevailing opinion was that consumption was more likely to be cured in warm health resorts than in cold ones, and you know also how scanty were the grounds for this opinion. You are aware that in Lima, the capital of Peru, about 12 degrees south of the equator, consumption is especially frequent, and runs a rapid and fatal course; but that patients, if they go early enough into the neighbouring Peruvian Andes, at an elevation of 2,500 to 3,000 metres above sea level, mostly get better. For the recognition of this fact we are chiefly indebted to the late Dr. Archibald Smith, who for thirty years exercised the medical profession, partly in Lima itself, and partly in the silver mines of Cerro de Pasco, nearly 4,000 metres above the sea. The custom of sending consumptives from the hot coast of Lima to the cool altitudes of the Andes is supposed to have existed from "unknown times." Although I myself have never been in Lima, yet by chance correspondence with the coasts of Peru and Chili, I have had the opportunity of confirming this fact in a series of patients.

In Europe we have mostly given the late Dr. Hermann Brehmer, of Goerbersdorf, the credit of having ascertained the influence of mountain climate in pulmonary consumption; but a recent excellent work by Geheimrath Bernhard Schuchardt,[1] in Gotha, shows that others did this before Brehmer, and that foremost amongst them Brockmann, in an excellent contribution[2] to Holscher's *Annalen* in 1843, proved the favourable influence of a stay in the Upper Harz in regard to the prevention and cure of scrofula and tuberculosis, and that soon afterwards C. F. Fuchs,[3] though unacquainted with Brockmann's publication, made similar communications. Brockmann wrote in 1843, Fuchs in 1851, and the first edition of Brehmer's book on chronic pulmonary phthisis appeared in 1857, preceded by a similar work in 1856.

The main characteristics of high altitudes are: (1) low atmospheric pressure; (2) small amount of the absolute and relative humidity; (3) low temperature in the shade; (4) great warmth of the sun; (5) great amount of light; (6) rarity of clouds; (7) the purity of the air, especially in regard to microbes, to which the bright sunlight and free access of air are antagonistic.

The physiological effects of high altitudes are: (1) amplification of the respiratory movements; (2) strengthening of the muscles of respiration; (3) strengthening of the heart and circulation; (4) increase in the amount of watery vapour and carbonic acid given off from the lungs; (5) increased activity of the skin; (6) increase of appetite and of the amount of food taken, improvement of the digestive functions; (7) improvement in the quality of the blood, and in the nutrition of the organs, particularly of the lungs; (8) increased activity of the nervous system.

We may say that mountain climates are highly stimulant and tonic, but require a certain power of resistance on the patient's part.

It is difficult to ascertain exactly the results of treatment. I myself could follow out the further progress of only a relatively small number of cases. In 144 patients only have I statements on the later condition. Of these 144 patients I have noted cure in 36; in 56 there was improvement in the local signs and in the general nutrition; in 52 cases there was either no improvement, or deterioration, or death within the first three years of the treatment. Only the smaller portion were treated in special sanatoria; in the remaining larger portion the medical supervision varied very much. The results would doubtless have been much better if the patients had placed themselves under stricter medical guidance, as they were advised. In many cases as a consequence of false steps relapses occurred which confined the patients for weeks and months to their bed or their room, and prevented recovery (which had previously seemed probable) from taking place. In 7 cases, however, recovery seemed nearly complete when through some mistake, mostly over-exertion, a deterioration set in, which afterwards led to the fatal termination. I must, however, add that Dr. C. Theodore Williams,[4] of London, records better results in his great experience than I do. Dr. Lucius Spengler's[5] results published from his experience in Davos between 1887 and 1890 are also more favourable. Still more satisfactory, however, are the results which Dr. Turban[6] has obtained in his sanatorium at Davos (66.1 per cent. of absolute and relative recovery), that is, obtained by an association of high Alpine climate with sanatorium treatment.

In regard to the prevention of tuberculosis by high altitudes, my results are decidedly better. In 40 cases of children from tuberculous families, education in the mountains, with good diet and plenty of fresh air, has had a favourable result, and only in 4 of these cases has tuberculosis under unfavourable conditions afterwards developed. Seaside places have likewise a prophylactic action, but so far as I can conclude from my experience, they have a greater influence against the so-called typical scrofulous conditions than against pulmonary tuberculosis, whilst with high altitudes the reverse is the case. Amongst the elevated localities of which I have experience, I give certain places in the Peruvian Andes the preference over all others; especially Jauja and Huancayo, about 3,000 metres above sea level, and the rather less elevated Quito near the equator. The advantages are—the great dryness and rarefaction of the atmosphere, the strong insolation, the medium temperature and equability of the temperature, which, day and night, summer and winter, is said to vary only between 14° and 18° C. The great drawback, especially for Europeans, is the long, tiring, and costly journey.

The Rocky Mountains, in the United States of America, contain likewise many good, but mostly not yet developed, places. The best arrangements for medical treatment are afforded by Colorado Springs, Manitou, and Denver, the two first over 1,800 metres, the last about 1,500 metres above sea level. These places are much less equable in their climatic features than are the localities mentioned in the Andes; in this respect they resemble much more the High Alps of

Switzerland; the Rocky Mountains are, however, somewhat drier and warmer than Davos and St. Moritz, and also more windy. Denison, Solly, and C. T. Williams have reported on these places. Private sanatoria have as yet hardly been established in the Rocky Mountains, but are better represented in the lower North American mountains; and the excellent sanatorium in the Adirondacks, under Dr. Trudeau's management, offers an example which deserves to be copied. The flourishing Climatological Association of North America will, it is to be hoped, encourage the foundation of many sanatoria.

In the Swiss Alps all of you are acquainted with Davos, Arosa, St. Moritz, Wiesen, Leysin, Montana, and Les Avants. I shall, therefore, not consider these localities further, nor the places on the relatively lower German mountains; the latter are rich in sanatoria, which will probably be reported on by the opener of the discussion on sanatorium treatment.

In France the Société des Sanatoria de France is endeavouring to develop climatic treatment more extensively in the inland, whilst an analogous society does the same for the coast, and to this subject we will come back later. The Trespoey Sanatorium near Pau, and the Durtol Sanatorium in the Auvergne are already opened.

The highlands of South Africa thirty or forty years ago were valued as unfailing climates, but experience has limited their reputation. Their disadvantages are the great heat and dryness in summer, the frequent alternation in winter of great heat in the daytime with great cold in the night time, and the frequency of wind and dust. However, of 21 cases, I have had 7 lasting recoveries amongst patients in the first stage of pulmonary tuberculosis; these patients settled there later, and occupied themselves or still occupy themselves with agriculture. Dr. Symes Thompson[7] and Dr. Hillier,[8] of London, have given us information on these regions.

Bloemfontein, Alliwal North, Kimberley, Burgersdorp, Pretoria, Beaufort West, and Cradock belong to the best known places in the more elevated regions (1,300 to 1,500 metres). Regular sanatoria are not yet developed. Harrismith, in the Drakenberg range, if it had a sanatorium, would be of the greatest utility for the extensive less elevated regions of the south-eastern coast of South Africa, and particularly for the not very hygienic but otherwise flourishing coast towns.

II.—Inland Climates of Low Elevation, including those of Forests, of Deserts, and of Egypt.

Like all of you, I have seen many cases of recovery on level land and even in large towns, but the proportion of recoveries to the number of patients was small. The recoveries have been chiefly in persons who spend much of their life in the open air and take sufficient food, especially milk, for instance, in the case of gardeners and those employed in agriculture and landowners, but also in bakers who deliver the bread, and in Black Forest clockmakers who carry their clocks about for sale and who have exchanged their work in shut-up rooms for work in the open air. The proportion of recoveries was certainly greater at places with shelter from wind, much sunlight, and medium temperatures, such as Pau, Gardone-Riviera, Arco, Meran, Montreux, Lugano, Locarno, and Pallanza; but repeatedly at these places also well-founded hopes of recovery have been destroyed by too long walks, by exciting games of cards in smoky rooms, and by other harmful factors.

In the question of the influence of forest on the soil and the air of a locality, Ernest Ebermeyer[9] has made a valuable study, but our knowledge of the effects of forest in cases of tuberculosis is very limited. In general one may say that in a forest the ground (on the average for a year) is some degrees colder, and that the ground and the air are somewhat moister; the difference between day and night temperatures is less; the movement of the air is diminished; rain is more frequent; there is less light, and the amount of ozone in the atmosphere is increased. These characteristics are less marked in forests of pine than in forests of deciduous trees, and in the latter are less in winter than in summer, when the trees are in foliage. There are, however, other modifications in the atmosphere of forests which cannot be exactly estimated—possibly changes in the energy of the oxygen due to the vital processes taking place in the leaves—and which exert a refreshing influence. There are also exhalations from the trees to be taken in account, especially in pine forests, where the aromatic substances in the air may possess an antiseptic influence. Then the protection from wind should be considered, which is felt not only in the forest itself, but likewise in the neighbourhood. It is therefore important to have a wood, especially of pine, in the direction from which the general cold winds come. From cold local winds also a forest not rarely affords shelter. Thus one may observe on mountain declivities, when the upper part of the slope is covered with trees, that the tender plants and shrubs below the wood are thereby sheltered from the cold air, which during the night moves downwards from the summit, whereas similar plants growing at an equal height, but at a spot not protected by forest, are frozen. From what has been said I should not be in favour of erecting sanatoria in level dense forests of deciduous trees, for the greater moisture of the soil (Bowditch and Buchanan) and the diminution of light cannot act favourably. However, on the slope of a wooded mountain, when there is a clear space with free access of air and light, a forest may constitute a favourable element in the climatic condition, especially when the trees are pines.

In regard to desert climate, it is an old observation that the inhabitants of deserts, the Bedouins, as long as they live in tents, remain free from consumption, but that amongst those of them who live in houses the disease is not very rare. My own inquiries in Egypt and on the peninsula of Sinai led to similar conclusions. From Bedouins who accompanied me on an excursion to Mount Sinai I learned that as long as they travel no cases of consumption occur, but that some of their relatives who seek a livelihood in Cairo, Suez, and Alexandria die of phthisis. I have made similar observations amongst other wandering tribes who do not live in the desert. Several times in Asia Minor I have met with wandering bands of Turkomans; for instance, near ancient Sardis, the capital of the Lydian monarch Crœsus, I met a large horde, consisting of strong men and women, quite free from phthisis and likewise healthy in other respects. They told me by means of my interpreter that members of their horde who had obtained employment in Smyrna and Constantinople had died there of consumption. Possibly therefore the immunity from phthisis depends not merely on desert climate, but on life in the open air in thinly-populated districts.

The characteristics of the climate of the desert are purity of the air, its richness in ozone, great warmth of the sun, abundance of light, dryness, and great rarity of rainfall. The disadvantages are the violent winds, mostly accompanied by dust, which not only obscures the sun like a dense fog, but gets into the clothes, penetrates into closed rooms, and is deposited on articles lying there. These dust storms are not limited to the periodical khamseen (chiefly in March and April), but occasionally blow for one to three days at any time of the year. Another disadvantage is the absence of shelter, so that one is obliged to have tents and servants, which necessitate great expenditure. One is therefore seldom in a position to test the advantages of the desert, but in individual instances I have seen great benefit derived from it. If sanatoria were to be established near desert stations, the cost for each person would be much diminished.[10]

Egypt is a term which, though often employed in climato-therapeutics, includes very different climates. Egypt is best considered after deserts, because the localities of which therapeutic use is made owe their characteristics mainly to their proximity to the desert. The features which they have in common during the winter months are: (1) Plenty of sunshine; (2) a clear sky in general; (3) a moderately high temperature, with considerable variation between day and night; (4) a low degree of humidity and rarity of rain; (5) a comparatively aseptic air in the thinly-peopled districts, an advantage which is wanting in the crowded districts of Cairo. The disadvantages are: (1) The well-known strong dust winds; (2) the short duration of the medical season; (3) the return in spring to places with great climatic change; (4) the long journey; (5) the absence of sanatoria. Moreover, the constancy of the meteorological features is by no means so complete as it is reputed to be. It is said that amongst health resorts it is only in Egypt that one may depend on settled weather. After two long visits to Egypt I cannot confirm this belief. Cases for which Egypt has advantages are those complicated with albuminuria, with emphysema,

and with frequent attacks of bronchitis; cases with tendency to diarrhœa are to be excluded.

Of the places resorted to by invalids, Cairo is still unhygienic, and only the Ghezireh Palace, which is outside the town and now a large hotel, can be recommended. Mena House, about 18 kilometres from Cairo, situated at the edge of the desert, close to the Great Pyramids, is only suitable from the end of December to about the end of March; before this time the neighbouring delta is still flooded, and afterwards the heat is too great. Helouan, with its well-known baths, which can be reached by a short railway journey from Cairo, is probably at present the best place, because it lies quite in the desert, and can be used during the longest period, from the middle of November to the middle of April. Luxor is a very interesting place to stop at; it consists of hotels and the unhygienic dwellings of the ordinary population. Assouan, the most southern of these places, has much of the exhilarating influence of desert climate, but is very windy, and, owing to the heat, has only a short season—from the beginning of December to about the middle of March. As yet there are no sanatoria anywhere. The patients and the European and American doctors who send invalids to Egypt trust too much to the mere climate without supervision by the medical man, and thus many lives are lost. If there were suitable sanatoria the Egyptian climate could be made good use of. One could prolong the season if one were to erect a sanatorium near Alexandria, preferably at Ramleh, where many patients could stop perfectly well till about the end of May. Inseparably connected with the climatic idea of "Egypt" is the Nile voyage, which can either be made on private ships—the so-called *dahabiyehs*—or on the passenger steamboats, which latter are provided with a doctor. The greatest care is required on these steamboats; colds are very often contracted. The wind is often very violent; a draught can hardly be avoided; the temperature on different parts of the ship—that is, in the sun or in the shade—is always unequal. Private ships are expensive, and the invalid should always have a doctor.

III.—Climates of the Coast and of Small Islands: Sea Voyages.

Amongst coasts and islands there are, first, the more humid and warm climates, such as Madeira, the Canary Islands, Mogador, Tangier, Cadiz, the West Indian Islands, the Peninsula of Florida, and the coast of Georgia and South Carolina, which can be termed sedative, or even relaxing. Formerly, when cold was feared and warmth was regarded as specially beneficial, these climates were much employed, but now they are much less so, though the islands of Madeira and Teneriffe are suitable for some cases of pulmonary tuberculosis with irritable weakness of the constitution.

Secondly, we have the drier climates with moderate warmth during winter. Amongst these the localities on the Western Riviera are especially popular; they are characterised by the great warmth of the sun, abundance of sunshine, dryness of the air and moderate amount of rainfall, and may be termed stimulant or exciting. Special caution is required on account of the great difference between the temperature in the sun and the temperature in the shade, on account of the sudden fall of temperature before and at sunset, and on account of the frequency of strong winds with dust. Allied to these climates are those of the Eastern Riviera and of Sicily (Palermo, Taormina, Acireale, Catania), but there is less shelter from cold winds. Algiers and Ajaccio may likewise be compared to them, but they are somewhat moister, and Ajaccio is nearly quite free from dust.

You will understand that on these localities and on many similar ones I must not enter more fully. There is a great want of suitable sanatoria, and the majority of patients trust too much to the climate, and often only seek medical guidance when it is too late. My results here are still less favourable than in the case of mountain climates, but, with careful supervision of the patients, would be similarly much improved. I can likewise not stop to speak of the English seaside places, which have a moderate degree of humidity and a lower winter temperature. You are aware that till recently well-to-do English, including medical men, showed a great disinclination towards treatment in closed establishments, and that sanatoria and hospitals for the treatment of the poor, though they were not quite so lacking as in other countries, were yet insufficient to meet requirements, but you know also that the struggle against tuberculosis has seriously commenced in England, that to the sanatoria which already exist many new ones will soon be added, and that for those also who possess private means a few establishments have recently been founded.

Of great value are the places on the North Sea and the English Channel in the treatment and prevention of scrofula. They are likewise useful for the prevention of pulmonary consumption in cases of hereditary disposition, but, in my experience, not to the same extent as mountain climates are.

Ocean voyages are not rarely recommended because the following characteristics are attributed to them: (1) Purity of the air; (2) slight range of temperature; (3) abundance of light; (4) constant movement of the air; and (5) mental rest. However, if one examines the conditions of an ocean voyage more exactly, one finds that these advantages are not always completely presented. For instance, the purity of the air is limited almost entirely to the deck, and is generally wanting in the sleeping cabins and the saloons; the pleasant movement of the air is often transformed into a violent storm, whilst in the zones of calm the reverse is the case; the temperature does not vary much from day to day, but on a long sea voyage the oppressive heat of the tropics has to be supported. Hence the treatment of a serious illness on a sea voyage is rendered difficult by the bad air of the small cabins. I must not pause to discuss the advantages and disadvantages of the different kinds of ships—sailing ships, steamships, wooden ships, iron ships, mixed kinds of ships. Moreover, in respect of the choice between different voyages, I must limit my remarks to mentioning that, to obtain the full effect, one of the longer voyages must be selected, one which lasts about six to sixteen weeks, without including the time spent on land between the voyage out and the voyage home. The best for patients are the voyages to Australia and New Zealand around the Cape of Good Hope (not Cape Horn on account of the great cold), and that to the Cape of Good Hope itself, which in suitable cases may be combined with a stay of several months on the highlands of South Africa.[1]

Of my observations on the influence of sea voyages in pulmonary tuberculosis, I will only give those which relate to the voyages just mentioned, and which lasted from six weeks to seven months. In 70 cases there were 34 showing improvement, 18 showing little change, and 18 showing deterioration. The great majority of the cases were in the first or commencement of the second stage; only 7 were in the third stage.

From what I have observed I would give it as my opinion that sea voyages can do good service in a certain number of tuberculous cases, but that in most such cases other climatic and hygienic methods of treatment exercise at least just as good an influence. If, however, persons of strong constitution, who like sea voyages, develop phthisis under the influence of overwork or mental worry, long sea voyages are to be preferred to all other methods of treatment. A decided advantage of sea voyages is that patients are much more protected from excesses than at many well-known health resorts. Permanent weakness of constitution, very decided tendency to sea-sickness, unalterable dislike of monotonous diet constitute contra-indications. Some practical remarks are contained in the article Ocean Voyages in Phthisis, by Dr. Parkes Weber, in the *Practitioner*, June, 1898, p. 662.

It would be an advantage if there were well-arranged medical ships, a kind of "sea sanatoria," both for long voyages and for short ones—for instance, in the Mediterranean and to the West Indies during winter, and in the North Sea during summer: but this will be hard to arrange without great cost to the patients. In the case of rich persons I have for many years recommended—often with very favourable result—the use of yachts for climatic and hygienic purposes, generally with a medical attendant. Sea voyages can be recommended for prophylactic use against scrofula and also against tuberculosis. Amongst sailors and seafaring persons there is less phthisis than amongst soldiers of the same age on land. Out of 18 boys of very tuberculous families, whom I advised to enter the navy, only 2 became consumptive, whereas amongst their brothers and sisters who chose learned, mercantile, or sedentary occupations, the number of deaths from phthisis was at least three times as great.

IV.—BRIEF INDICATIONS FOR THE USE OF DIFFERENT CLIMATES IN DIFFERENT CASES OF TUBERCULOSIS.

1. It is very difficult to formulate exact rules, partly because tuberculosis occurs in such various forms and with such various complications, partly because the constitutions of the affected individuals are very different. In all our medical work we consider the constitution at the same time as the disease, and in tuberculosis we have to do this very particularly, in the apparently slight cases as well as in the severe ones. First of all, we must be clear as to whether we have to do with a strong or a weak constitution. This is often difficult to tell at first sight, because a naturally strong person may be so lowered in health—partly by the disease itself, partly by preceding unfavourable conditions—that he may seem to have a weak constitution.

In deciding this matter the family history often helps us, not only as to whether the family is free from tuberculosis or not, but still more as to whether the patient belongs to a long-lived or to a short-lived family. If he belongs to a long-lived family, we may suppose that he possesses a strong constitution, even if other members of his family have died of tuberculosis. If he belongs to a short-lived family, we generally have to deal with an originally weak constitution, even if no member of his family has died of tuberculosis. This kind of hereditary tendency—to a long or to a short life—is very important in regard to prognosis and treatment. Another hereditary tendency, which points to a considerable power of resistance, is that towards gout, which to a certain extent is antagonistic to tuberculosis.

Amongst other circumstances which can guide us in forming an estimate of the power of resistance, the personal history may be mentioned. Those persons who from youth up always feel better, are more energetic, can eat better, and put on weight in warm weather, but in cold weather become less capable of work, generally belong to the class of weak constitutions, whereas those who have always done better in the cold possess stronger constitutions. Patients who from childhood onwards have always had high fever with every slight illness, and have recovered with difficulty, and who always have moist hands, must generally be reckoned amongst the weak, erethic constitutions—a conclusion which is mostly confirmed by the colour of the skin and mucous membranes, the general appearance, and the weak and irritable action of the heart. If we have come to the conclusion that the patient has a weak constitution, we must be guarded in recommending high altitudes and long sea voyages, and give the preference to warm, sunny, and sheltered places, such as Beaulieu and Mentone on the Riviera, and Pau; sometimes Madeira and Teneriffe may likewise be recommended. On the other hand, in strong, somewhat torpid constitutions mountain climates are to be preferred, and occasionally also long sea voyages. In these cases one can do much by keeping them continuously in the open air, by good feeding, and by regulated exercise.

In regard to the following indications the constitution has always to be considered:

2. In cases with limited disease at one or both apices, without or with an only slight amount of fever, nearly all climates can be made use of, but especially high altitudes and sea voyages if the constitution is a strong one.

3. Cases with limited local disease and high fever must be at first treated in their houses or in the neighbourhood of their homes.

4. Cases with extensive disease of one lung or of both lungs, without fever or with only slight fever, are more difficult to advise. In the majority of these cases treatment at an only moderate elevation, or at warm seaside localities, deserves the preference.

5. In advanced disease with fever long journeys should be avoided, and, if possible, neighbouring sheltered health resorts, together with careful supervision, should be recommended.

6. In progressive tuberculosis with scattered foci in both lungs and much fever sheltered localities near the patient's home, or the home itself, are probably the best places.

7. In cases of chronic, slowly progressive phthisis I have seen, on the whole, better results from warm winter resorts, and sometimes from sea voyages.

8. Quiescent cases with extensive damage or cicatrisation are generally better off at only slight elevations, such as Meran or Arco or Montreux or Badenweiler, or on the Riviera or in Egypt.

9. Cases with albuminuria without fever should avoid high altitudes, and select dry places like Egypt or the Riviera.

10. The complication of moderate diabetes does not exclude the use of high altitudes, but the latter are injurious in cases with advanced diabetes and emaciation. Similarly, high altitudes should be avoided in cases where the tuberculosis is secondary and the diabetes the primary affection.

11. Chronic cases with much catarrh require places with as little wind as possible, such as Pau and Arcachon, and, in England, Bournemouth; but in the case of young persons places of high elevation with little wind need not be excluded, and are often even to be preferred.

12. High altitudes are contraindicated in chronic cases with extensive emphysema; these cases require warm winter resorts, such as Madeira, the Canary Islands, Pau, or places with pine woods, like Arcachon and Bournemouth.

13. When asthma is a complication, in persons whose idiosyncrasies in regard to localities are unknown, no certainty in the choice of climates is possible; but in the majority of relatively young persons high elevations should be preferred, whilst in older persons moderately warm localities at only slight elevations should be selected, such as Grasse (near Cannes) or Montreux, or Locarno, or Meran, or places amidst pine woods (like Arcachon and Bournemouth).

14. In all climates for the treatment of tuberculosis selection of the dwelling-house is of great importance; it should get much sun, should be sheltered from winds and free from dust, and should be built on dry ground; it should be removed from stagnant water and swamps, and from the impure air of factories and similar drawbacks.

15. For the prevention of scrofula and tuberculosis all healthy climates can be used, as long as a good diet and plenty of time in the open air can be obtained; but high altitudes and marine climates have advantages—the former rather against pulmonary tuberculosis, the latter (including sea voyages) more against scrofula.

16. The cure of tuberculosis during the early stages is possible in all healthy climates; some climates, however, have advantages for various cases over the other climates; for instance, notably those of high altitude. But climate by itself without careful medical supervision is generally insufficient. The patient's blind reliance on the climate often leads to errors, to aggravation of the disease, and to death. For the majority of patients, therefore, treatment in sanatoria should be preferred, but for the treatment of the poor it is a necessity. The erection of numerous sanatoria for the people is therefore a national requirement for the cure, the prevention, and extermination of tuberculosis.

NOTES AND REFERENCES.

[1] Zur Geschichte der Anwendung des Hoehenklimas (Gebirgsklimas) behufs Heilung der Lungenschwindsucht (Lungentuberculose), *Jahrb. d. Königl. Akad. gemeinnütziger Wissenschaften zu Erfurt*, neue Folge, Heft. xxiv, 1898. [2] Der Oberharz, ein Schutzt-und Heilort für tuberculöse Schwindsucht, Holscher's *Annalen für die gesammte Heilkunde*, 1843. [3] Das Verhältniss der Krankheiten in senkrechter Richtung von der Küste der Nordsee bis zum Rücken des Thüringer Waldes, *Janus, Central-Magazin*, Gotha, 1851 and 1853. [4] The Treatment of Pulmonary Tuberculosis by Residence at High Altitudes, *Practitioner*, June, 1898, p. 633. [5] Zur Phthisiotherapie im Hochgebirge, *Fortschritte der Krankenpflege*, 1893. [6] *Beiträge zur Kenntniss der Lungen-Tuberkulose*, by Dr. K. Turban, 1899, p. 154. [7] On the Elevated Health Resorts of the Southern Hemisphere, *Med.-Chir. Trans.*, 1873. [8] The Climate of South Africa, *Practitioner*, June, 1898, p 649. [9] *Die physikalischen Einwirkungen des Waldes auf Luft und Boden*, Aschaffenburg, 1873. [10] The latest communication on the climate of the desert is Dr. F. M. Sandwith's Desert Climate for Lung Tuberculosis, *Practitioner*, June, 1898. [11] On all these points see Dr. Faber's work on the Influence of Sea Voyages on the Human Body, and its Value in the Treatment of Consumption, *Practitioner*, 1876, vols. xvi and xvii, and 1877, vol. xix. See also Dr. W. S. Wilson's *The Ocean as a Health Resort*, second edition, 1881. Some notes are likewise contained in my article Zur therapeutischen Verwerthung von Seereisen, *Zeitschrift für diätetische und physikalische Therapie*, 1899, vol. iii, Part I.

CREMATION IN GERMANY.—The number of the adherents of cremation in Germany appears to be rapidly increasing. According to statistics recently published there are at present 37 cremation societies in the German empire, with an aggregate membership of 37,600. At the beginning of last year there were only 20 such societies, with a membership of 12,000.

THE PARASITE OF MALARIA IN THE TISSUES IN A FATAL CASE OF BLACKWATER FEVER.

By GEORGE THIN, M.D.

DR. KERR CROSS, before his recent return to British Central Africa, conferred with me regarding the severe types of malarial fever that prevail there, particularly in regard to blackwater fever and the obscure points connected with its etiology and pathology. As a result of our conversation he sent me last summer the organs from a fatal case of blackwater fever, and it is the appearances which I observed after careful examination of these organs that I shall now describe.

In order that the bearing of these observations may be appreciated by those who are not familiar with the most recent literature on the subject, it will be useful to preface my description by a brief statement of the present opinions held regarding this disease.

Blackwater or hæmoglobinuric fever is common in some parts of Africa, but in Europe, according to Laveran, it is only frequent in Greece. Cases also occur in Italy, Sicily, East Coast of tropical America, New Guinea, Java, and India. Wherever it occurs it will be found that many of the ordinary cases of malarial fever are of a severe and pernicious type. In 307 cases of pernicious fever observed in Athens, Pampoukis noted 156 cases of hæmoglobinuric fever, of which 35 were fatal. It has been usually considered to be a special or aggravated form of pernicious malarial fever, from which it differs by the occurrence of hæmoglobin in the urine, and by the changes in the blood and kidneys. The colouring matter of the blood rapidly diminishes after a short duration of the malady. The urine is dark red or ruby red, and in the sediment there is found, according to Plehn, swollen epithelium of the kidney tubules, scales of hæmoglobin, crystals of hæmatodin, tube casts with particles of pigment adherent, and white blood corpuscles, but no red corpuscles. Clinically, in addition to the fever, the characteristic symptoms are vomiting and jaundice, so much so that at one time the disease used to be mistaken for yellow fever.

The belief that blackwater fever is a form of malaria has, however, been rudely disturbed by a communication of Dr. Koch's opinions in his recently published *Reise-Berichte*. The result of his observations in East Africa led him to believe that blackwater fever is due to quinine poisoning. After describing a case in detail, he remarks that in this particular case there could be no question of the malady having any relation to tropical fever, or of its being other than a case of quinine poisoning; and states that of 14 other cases which he observed the facts render it highly probable that they also were to be regarded as caused by quinine. Still, he is careful to add that, although he had not come across a case of blackwater fever in which quinine poisoning could be excluded, he would not go so far as to maintain that every case of blackwater fever was due to quinine. He suggests whether, in cases in which quinine can be excluded, some other substance taken in food or drink may not have had a similar effect.

The question raised by Koch is one of the highest practical interest. Tomaselli has firmly established the fact that quinine in certain cases acts as a poison, and, notwithstanding that it is the sovereign remedy for malarial fevers, in certain persons it dare not be given, even although they are the subjects of a severe malarial attack. It is a matter of experience that there are countries in which quinine is frequently given, and in very large doses, without causing hæmoglobinuria. Abundant evidence of this is forthcoming. Laveran, in the last edition of his *Paludisme*, a work which not only contains an account of the author's valuable original observations, but gives such a complete summary of the present state of our knowledge of malaria that it may be considered as an indispensable textbook on the subject, states that quinine in some patients may give rise to hæmoglobinuria, but that this cannot explain attacks in patients who have never taken quinine, and that hæmoglobinuria is rare in countries in which, as in Algeria, quinine is largely used. I can add my testimony to the effect that large doses of quinine may be given in certain countries for malarial affections of the less severe type without the occurrence of a single case of blackwater fever. It is clear, therefore, that there is much yet to be learned on this subject, and that to arrive at something like a sound conclusion regarding the mutual relations of quinine, pernicious malarial fevers, and hæmoglobinuria, careful clinical observation is required. An excellent foundation for this clinical study will be found in Dr. Plehn's recently published *Kamerun Küste*. In that volume histories of no fewer than 40 cases of blackwater fever are given. A more complete abstract of these cases than it is possible for me to give here is much to be desired, although a reference to the work itself, and to the unabridged record, is indispensable to anyone who wishes seriously to study this subject.

In 30 of these cases it is quite evident from the history that the attack of hæmoglobinuric fever was due to quinine, the attacks mostly occurring about two to three hours after its administration, the dose being usually about 1 gram. In 6 of these 40 cases it is not mentioned whether quinine had been taken before the attack of hæmoglobinuria. In the remaining 4 cases the statements go to show that it occurred without quinine having been taken. The quinine was given either after malarial fever, without blackwater having already existed, in order to check the attacks, or as a prophylactic when malarial fever was threatened. It is a remarkable fact that in no fewer than 21 of these cases, after the patient was free from fever, quinine was administered, usually in about three to four days after recovery, without any relapse of the blackwater fever, showing that in these cases the combination of malarial fever and quinine produced hæmoglobinuria, but without the malarial fever the quinine alone was powerless to produce it, even in the same patient.

In 17 of the 40 cases Dr. Plehn specially mentions that he found parasites in the blood. Morphologically and as regards size the parasite which he describes seems to be the same as the parasite described by Captain Duggan R.A.M.C., in the Sierra Leone cases (which were not cases of blackwater), and which I afterwards found in sections of the brain of the West Coast cases. In some of the cases it is distinctly mentioned that certain examinations of the blood did not show parasites. This is easily accounted for. The parasites are not always found in every stage of the fever in the peripheral circulation, and there is no doubt that in many of the cases in which the symptoms of blackwater were due to quinine the drug had killed the small ring-shaped parasite that would otherwise have been found. Whilst the observation of the parasite is positive evidence of its presence, the failure to detect it in certain examinations does not show that there had been no parasites in the case.

Dr. Cross writes to me that the portions of organs which he sent me were from the case of a young man who was brought to him in a very low condition of health, and suffering from hæmoglobinuria. He treated him with pig's bile and quinine. On the fourth day of the fever the urine cleared up and became quite normal. In the temperature chart which was enclosed in Dr. Cross's letter it is seen that the highest temperature recorded was 104° F. on February 18th at 12 noon. At 2 P.M. it had gone down to 102° F., at 8 P.M. it was down to 100° F. The temperature afterwards remained subnormal until February 26th, when it went up to 99.6° F., and then slowly rose to 101° F. immediately before death on February 27th. The patient suffered all through his illness from a very marked low form of delirium, with distressing hiccough; and throughout its duration, from February 18th to February 27th, vomiting was a marked symptom. (In the treatment of cases of blackwater fever, in which he has had great experience, Dr. Kerr Cross considers that in some cases he has seen decided benefit from the administration of pig's bile.) Dr. Cross forwarded to me specimens of the brain, liver, kidney, and spleen in alcohol.

My previous study of the organs in fatal cases of pernicious fever from Africa (all of which had been sent from Sierra Leone and none of which were from cases of blackwater fever) had led me to expect much pigment in the spleen and liver and many parasites in the brain. I was, therefore, much surprised in examining the organs from this case of blackwater fever to find on my first examination that there seemed to be no pigment in the spleen and liver, and an apparent absence of parasites in the brain. This made me at first inclined to believe that I was dealing with tissues from a patient who,

although he had died from blackwater fever, had not suffered from malaria at the time of his death. The question suggested itself to me whether, after all, hæmoglobinuric fever was really a form of malaria. A further careful study, however, led me to change my opinion, and, after a time, I satisfied myself that the patient was suffering from malarial fever at the time of his death, and that he had been suffering from it for some time previous to his death.

Brain.

Describing the changes in the organs *seriatim* I begin with the brain. The vessels in the first portion of the brain which I used for making sections were empty of blood, but after cutting some other pieces I came on parts in which there were capillary vessels and small veins containing blood corpuscles, and in these sections I had no difficulty in staining and demonstrating unmistakably the parasite of malaria.

Morphologically, and as regards size, the parasites do not seem to differ from those I had studied in the fatal cases from Sierra Leone, which I have described and figured in vol. lxxxi of the *Medico-Chirurgical Transactions*. In studying one section, for example, I have noted that in a small capillary cut obliquely I saw four red corpuscles lying together, each of which contained a parasite. The largest of the parasites contained three distinct points deeply stained with borax blue. It measured a thousandth of a millimetre (0.001 mm.). Another, without any separate points visible, measured 0.00075 mm. The stained elements of the two remaining parasites measured about 0.00075 mm.

In considering these measurements, it is necessary to remember that they possibly apply only to the nucleolar element of the parasite, and allowance must be made for the shrinking that had taken place during the long time the tissue had lain in spirit. In the same preparation I noted a transverse section of a vein, in which I counted more than a dozen small parasites, each in a red corpuscle, and in one of the red corpuscles there were two parasites, and in a longitudinal section of a vein I again counted more than a dozen small parasites as shown by a stained nucleolar element. This was the stage in which most of the parasites observed were found. I only found one sporulating body in the sections I examined. It consisted of four very distinct spores; and an appearance that indicated imperfect staining of a fifth. It measured 0.0025 mm. At the time of this man's death, therefore, there was a generation of parasites in the early stage living in the blood vessels of his brain, although he had had no febrile temperature for eight days.

Spleen.

As I have already remarked, in a fatal case of malarial fever we generally expect to find in the spleen abundant evidence of malarial pigment, usually shown as fairly large spheres, in the large white corpuscles in the vessels in that organ. This abundant appearance of pigment was wanting in the spleen in this case, and a cursory examination might have led to the conclusion that there was no pigment present. More careful examination, however, led to the discovery of a fair number of cells containing very minute granules of pigment of a slightly greenish tint. These were more frequently found in and around the veins than elsewhere. Dr. Nabarro, late of University College, who was kind enough to search the specimens for me, noted a considerable number of points in which these pigment-bearing cells were found. The reason of their not at once meeting the eye is that the pigment is in small granules, and not as a rule accumulated in spheres of any size.

Liver.

In the liver also there was at first an apparent absence of pigment, but again a more careful examination discovered its unmistakeable presence. Such pigment as was observed was found in certain groups of the liver cells, and in white corpuscles in the capillaries. In many parts of a field of the microscope no pigment could be found in the liver cells, but here and there pigment-bearing groups were found. As in the spleen, the pigment is in very fine particles, which, although distinctly black in colour, have associated with them a greenish tint, similar to that seen in the pigment-bearing cells in the spleen. The particles of pigment which are inside the cells of the liver are found sometimes arranged in threads inside the cell, sometimes grouped in a circular form. The particles are irregular in shape, but with a length and breadth approximately similar. On an average they measure about 0.001 mm. Pigment-bearing leucocytes in the capillary network were not present in large numbers, and what prevented their being noticed on a first examination was the condition in which the pigment was present in them. The pigment was black in colour, in small rounded particles mostly having a diameter of not more than from 0.0005 mm. to 0.0015 mm. The largest clump of pigment I saw only measured 0.0015 mm. Two or three of these spheres were sometimes seen in one leucocyte.

Kidney.

The condition of the kidney is deserving of special description. Many of the tubules were little altered, but in some the epithelial cells had undergone considerable degeneration. What early arrested my attention was the fact that scattered here and there in the sections some of the tubules were found to contain peculiar granular masses which took on special staining. Some of these masses consisted entirely of very small round bodies which took on special colouring with certain dyes, and at first sight looked very like clusters of micrococci. Indeed it was only after a considerable observation and study that I satisfied myself that they were not micro-organisms, and that I was able to trace their genesis. They were a peculiar product of the disintegration of the epithelial cells. The epithelial cells lining the tubules first become indistinct in their contours, very slightly granular in appearance, and take on eosin staining more deeply than the apparently unaltered cells of the surrounding tubules. The nuclei then cease to stain well, appearing as vacuoles with slightly methylene blue-stained contours. In the next stage the nuclei cease to stain, but the individual epithelial cells can still be made out, taking on a deeper eosin staining, but still in their proper position lining the tubules. The cells are next found lying in masses in the tubules, then they begin to agglomerate into a reddish mass in which no nuclei are visible, and the outlines of the epithelial cells are either very indistinct or not to be seen at all. This mass finally takes on a granular character, and in its ultimate stage is composed of a great number of minute rounded granular bodies of very similar size, simulating, as I have already remarked micrococci to a considerable extent, taking on the eosin stain of the compound methylene blue and eosin solution, and the picric acid stain of picrocarmine. It is remarkable that the tubules affected in this way are in a great minority. They are frequently surrounded by large numbers of tubules in which no morbid appearances are to be observed, although in some of these apparently normal tubules one cell may be noticed looking slightly larger than the others, and beginning to take on the red stain more than its neighbours.

I observed in a transverse section of one tube some cells still in their places, but parts of the wall of the tube denuded of the epithelium, and lying in the tube a rounded epithelial cell, granular in character, with a nucleus almost detached and only stained in the circumference. Immediately near it was a more pyramidal-shaped epithelial cell, finely granular and deeply stained, with no nucleus. This cell was lying quite free in the centre of the tubule. The degeneration of the epithelial cells was clearly marked by their taking on the eosin stain.

In other parts of the same section the majority of the tubules were diseased, showing deeply-stained detached epithelial cells lying in their centres, and the walls of the tubules were either entirely or partially denuded. Two tubules were to be seen lying side by side. In one all the epithelial cells were granular and deeply stained with eosin, misshapen, and partly broken down; while in the other tubule, only separated from it by the limiting membrane, most of the cells could be seen unaltered with only a few of them beginning to show degeneration.

The chief features to be noticed about this degeneration are that all parts of the kidney are not equally affected, and that in some parts comparatively few tubules are diseased, whilst in others many of them are affected. The process is fairly uniform in any selected tubule, the destruction of the epithelial cells taking place almost simultaneously in the walls

of that one tubule. There is an absence of the clear, homogenous, serous-looking exudation which is often found in degenerative disease of the kidney.

The description which I have given of the histological appearances shows that a case of blackwater fever, diagnosed and observed by Dr. Kerr Cross, a physician of great experience in this disease, was a case of malaria. The parasites found are morphologically indistinguishable by me from those found in fatal cases of West African fever in which there were no blackwater symptoms.

The peculiar distribution and the small quantity of pigment seen in the liver and spleen I was at first disposed to consider as distinctive of blackwater fever, as they contrasted so much with the comparatively large black masses of pigment found in the previous West African cases, and, as I have already stated, they led me to believe, in the first instance, that there was no pigment present, but since I examined Dr. Kerr Cross's blackwater case I have examined the organs from a case of pernicious malarial fever from the neighbourhood of Sierra Leone, sent me by Major Wilson, R.A.M.C., which was not a blackwater case. Here the usual parasites were found in the brain in this case, but the small particles and scant quantity of pigment in the liver and spleen resembled the appearance presented by the blackwater case. Nor can any radical distinction be made in connection with the changes in the ordinary pernicious cases (not blackwater) in which considerable destruction and disintegration of the epithelium of the kidney tubules are present. The changes found in the kidney of the blackwater case were of an analogous nature. In both cases the epithelium had been acted on destructively by a toxin generated in the fever. In the blackwater case this toxin would appear to act with greater virulence, and, in some way not yet explained, this virulence seems to be increased by the presence of quinine in the blood. The spontaneous cure of blackwater fever, which often occurs, is very possibly associated with the virulence of the toxin, which acts destructively on the parasite. In that case the parasite would be killed by its own secretion.

In this case of blackwater fever the brain was the only organ in which the parasite was found; in this respect resembling the 5 cases of fatal Sierra Leone fever (none of which were blackwater fever) which I have examined. The presumption is very great that the parasite is the same. There is absolutely no evidence for the supposition that blackwater fever is due to a special form of parasite. It is much more likely that the same species of parasite varies in its poisonous power according to place and time, analogous to what is already known regarding the action of the parasite of tertian fever.

ADDITIONAL OBSERVATIONS ON THE FUNCTION OF THE SUPRARENAL GLAND.

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It may be well to recapitulate in a sentence or two previous results. In 1894 the observations I published in the British Medical Journal were briefly: (1) that many red corpuscles are destroyed in the gland; (2) that the medulla is the essential portion and secretes a specific substance which is visible in the veins. Shortly afterwards, Schäfer and Oliver announced that the pressure-raising constituent of the gland was only present in the medulla, and this would *prima facie* seem to confirm the view I brought forward. But while I have not the slightest reason to alter my original view of the medulla, it remains to be seen whether the discovery of an active principle by Schäfer and Oliver lends any support to it.[1]

When engaged in a research on the chemical physiology of the gland in 1896-7, having special reference to this active principle, I submitted, in a short report to the Laboratories Committee, that this substance was not pyrocatechin, as Mühlmann and others had asserted, but that the reactions I obtained pointed to its alkaloidal nature.[2] Quite recently Dr. John J. Abel, of Johns Hopkins, in an elaborate paper, arrives at the same conclusion.[3] He has separated the substance in the form of a benzoate. The base, or, in other words, the active principle of the suprarenal, he has further isolated in the form of a light-grey powder whose percentage composition is expressed by the formula $C_7H_{13}NO_3$.

For the purpose of trying its effects on the blood pressure I used the aqueous extract of the medulla.[4] The only point in these experiments I need bring forward is this: When the extract was injected into a vein which had been clamped as high up as practicable, on releasing the vein after a few minutes, a marked diminution of pressure was recorded as compared with that produced by injection into the free vein. In the case of the lower limb, six experiments on this point were made, both by clamping the limb itself in its upper part, and also the particular vein with the above result. Although not altogether free from disturbing factors, these experiments would indicate that the pressure-raising substance undergoes a process of destruction in the blood. I also found, as Schäfer pointed out, that extract and blood mixed *in vitro* and allowed to stand for some time, in no way impairs the activity of the substance, but of course this is no parallel with the case of circulating blood.

It is alleged by Schäfer that this active principle is beneficial, and is probably stored away in the muscles. But that it is destroyed, not only in the blood but in the organs, and more especially in the liver, receives unequivocal support in some remarkable experiments by P. Langlois. He found:

1. That maceration of suprarenal extract with hepatic tissue lessens its activity more so than maceration with any other organ.

2. That injection of a weak extract into the mesenteric vein remains without effect, although the same dose injected into the general circulation gives a notable elevation of pressure.

3. That in an animal under the influence of the capsular extract the blood of the hepatic vein is less rich in the active principle than the vein of any other organ.

4. That the suppression of the hepatic circulation causes a prolongation of the period of hypertension.[5]

Langlois's conclusions are that the liver chiefly, but also the blood and other organs, rapidly destroy this substance. And, if this be so, can it be regarded as the main constituent of the internal secretion?

Result of Extirpation of the Gland.

For these experiments I used dogs and cats.[6] One gland was first removed. The cats soon recovered, and remained perfectly well and active. In two months' time the remaining gland was removed from one cat; in another, the remaining gland was crushed and left *in situ*. The former cat died in twenty-four hours, and the latter on the second day. In the interval I had made some excisions of the gland in dogs at the Brown Institution, which, however, did not result successfully. Shortly afterwards Professor Rose Bradford informed me that it might be advisable to leave the animals for some time longer after excision of the first gland, as in the case of a dog, one of whose suprarenal glands he had extirpated, death occurred quite suddenly in about three months (or from two to three months) afterwards. I accordingly excised one of the glands in each of two fresh cats, but they were quite well and active five and a-half months afterwards. The other glands were then removed, and the animals died in about thirty-six hours after the operation. Similar results have been obtained by other observers after excision of both glands.

After the second gland is removed, the animal lies on its side in a state of intense weakness, has a peculiar drowsy look, and refuses to move. In one of the animals I happened to see death supervene, which was preceded by convulsions.

Post-mortem Examination.

First it may be remarked that no hypertrophy of the remaining capsules was apparent. Indeed, in one case, it seemed reduced in size; but in another there was a suspicion of enlargement, and the blood vessels round the organ seemed dilated. In all four animals two phenomena were very apparent: (1) A very great hypertrophy of the thymus gland, (2) a considerable enlargement of the spleen. One thymus measured 5 inches long, 1 inch broad, and ½ inch thick. Pieces were hardened and subjected to microscopical examination. The most striking feature was an excessive vascularity of the medulla; otherwise the alveoli were enlarged

and the nuclei very prominent. The concentric corpuscles seemed unaltered.

REMARKS.

It is very difficult indeed to affirm what may be the precise significance of this hypertrophy of the thymus. It might be merely an ordinary result of disturbed blood relationships, such as is found under various circumstances, and in other lymphoid tissues. On the other hand there is no reason why it should not be specially compensatory to the loss of the suprarenal, and mean a performance of suprarenal work.[7] If so, it would be instructive from one point of view, seeing that thymus extract is antagonistic, as regards its effects on blood pressure, to suprarenal extract. As regards the spleen its enlargement suggests increased hæmolytic function.

The main point to be decided is as to the nature of the active principle in the medulla. Is it a normal secretion or is it a poisonous product separated by the gland? Now, when it is considered that extirpation of the remaining gland was so rapidly succeeded by toxæmia and death, we certainly cannot argue from any other analogies that the mere deprivation of a normal secretion would explain this. Furthermore, when it is considered that the substance (if indeed it does pass into the circulation at all, as it has not been demonstrated in the suprarenal vein) produces its characteristic effects in such minute quantities, the likelihood is still less that its absence should be responsible for death in thirty-six hours. The results of Langlois's experiments, already mentioned, support this view. On the other hand, the symptoms certainly suggest the rapid accumulation of a toxic agent in the system. And it is not in the very least likely that this toxic agent should exist in the blood as a vaso-constrictor, as Schäfer actually founds upon. As a result of its decomposition by the suprarenal gland, a vaso-constricting substance may well be formed having the properties of an alkaloidal poison. The pigmentation of Addison's disease and the chromogenic properties of the suprarenal further point to a constituent of (effete) hæmoglobin as the toxic agent.

In conclusion, the available evidence goes to show that the suprarenal acts by destroying deleterious substances, and also by furnishing a material to the blood. As the work seems to be done by the medulla, there is considerable ground for regarding the vaso-constricting substance as evidence of the former function. That a small quantity of this substance passes into the circulation with the specific secretion has not been proved, and, even if it did, its speedy destruction puts any special nutritive action out of the question. The auto-intoxication sufficiently explains the intense weakness and other symptoms which suprarenal treatment does not influence, as would be expected if absence of the vaso-constricting substance was the cause.

NOTES AND REFERENCES.

[1] BRITISH MEDICAL JOURNAL, May 5th and October 14th, 1894, and also July 4th, 1896. [2] The details of this work I hope to publish elsewhere. [3] *Johns Hopkins Hospital Bulletin*, September-October, 1898. [4] I must here express my great indebtedness to Messrs. Burroughs, Wellcome, and Co., who kindly placed at my disposal an almost unlimited supply of sheep's suprarenals. [5] *Archiv. de Physiol.*, January, 1898, page 24. [6] The gland is easily and quickly removed by the lateral operation, and without any appreciable loss of blood. [7] Might I here make the suggestion of trying the effect of thymus feeding in Addison's disease?

FOUR UNUSUAL CASES OF HERNIA.

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THE surgeon who has to operate upon many cases of strangulated hernia finds his appreciation of the subject increase as his experience widens. The following cases not only illustrate some of the rarer varieties or complications of hernia, but also present several features of general interest.

CASE I. *Acquired Inguinal Hernia with Hour-glass Constriction of the Sac.*—T. B., aged 69, the subject of an old irreducible, acquired, inguinal hernia on the right side, was admitted into hospital on September 6th, 1896, after some 8 or 12 hours' vomiting and abdominal pain of sudden onset. The hernia, which contained much omentum and some bowel, was not tense, and had a marked impulse on coughing. The symptoms being very urgent, it was decided to explore the tumour, as its reduction even under the anæsthetic (ether) was impossible. The hernia proved to be one with hour-glass constriction of the sac. The upper compartment, which extended for a couple of inches below the external ring, was opened and no constriction at the rings was found. The bowel, however, was nipped by a narrowing of the sac lower down, and could not be withdrawn until this constriction had been divided from above. The intestine was congested, but not otherwise damaged. In addition to this congested loop the sac contained a large mass of omentum adherent to its walls. Its pedicle as it traversed the upper sac was long, thin, and inconspicuous. The bowel was returned into the abdomen, the omentum removed, the sac ligatured at the external ring and taken away, and the operation concluded in the usual manner. Fourteen hours and a half later the patient died from rapidly-increasing embarrassment of respiration, which began soon after his recovery from the anæsthetic. At the necropsy there was found red hepatisation of the bases of both lungs, but no sign of bronchitis. There was, in addition, carcinoma of the pylorus and interstitial nephritis. There can be no doubt that the ether was the exciting cause of his death.

The pathology of hour-glass constriction of the sac receives unequal and sometimes scant notice in the textbooks. Mr. Birkett in Holmes's *System*[1] speaks of it only being met with in congenital inguinal hernia, and there can be little doubt that a considerable proportion of these cases are associated with a patent funicular process. The constriction in the body of the sac is said to mark the point where the tunica vaginalis propria funiculi meets the tunica vaginalis of the testis. But it is equally certain that hour-glass constriction of the sac is met with in acquired inguinal hernia. Thus, in my case, the sac stripped off the testis and its tunica vaginalis in quite the ordinary way, confirming the opinion as to its acquired character which the conspicuous position of the testis on the surface of the swelling had suggested. Recently Mr. Tubby[2] has recorded another case in which there can be little doubt (though it is not definitely stated) that the hernia was acquired. Here also the lower sac contained omentum, and had probably done so from the beginning, and strangulation seems to have resulted from a recent slipping through the constriction of a loop of intestine.

These two cases are best explained by Hunter's supposition that the original neck of the sac is pushed down from above.[3] The tendency of the original neck to descend is facilitated not only by pressure from above, but also by the weight of the herniated omentum dragging it downwards. The two varieties differ also in another way. In the acquired hernia with hour-glass constriction due to downward displacement of the original neck of the sac, the inferior division has been occupied from the commencement, whilst the upper portion is a formation of a much later date. But in the congenital condition the upper sac has been the first receptacle of the extruded abdominal contents, and the escape of a portion of them into the lower chamber may be long delayed. Perhaps this is the explanation of a difference of external contour. Mr. Birkett points out that the hernial tumour as well as the sac is shaped like an hour glass, but in the case of T. B. the constriction in the sac could not have been detected easily, if at all, by its outward appearance; nor is such a peculiarity alluded to in Mr. Tubby's case; indeed, from the description it would appear to be certainly excluded.

CASE II. *Strangulation under a Band in an Inguinal Hernia.*—B. C., aged 61, had had a hernia for 12 years, for which he had worn a truss till three months before admission. Then increasing pain made him discard it, and in the interim the swelling gradually grew larger. On March 9th he was admitted after twenty-four hours vomiting associated with a painful increase in the size of the tumour. The rupture—a right inguinal one, and acquired—was as large as a melon, and not very tense, though on deep and firm pressure there was a sensation as if a buried portion were more resistant than the rest. There was a distinct impulse on coughing, and after a hot bath and taxis the hernia was considerably diminished in size, and the pain was eased; under these circumstances, and in the belief that the hernia was only obstructed, it was decided to wait, but the next day the local conditions were unchanged. The patient had had no sleep, and taxis again failed. With Mr. Ward's approval the hernial tumour was explored. Normal small intestine was found filling the upper part of a sacculated cavity, and in places slightly adherent to the wall. Behind this lay a portion of small intestine firmly adherent to the inner side of the sac, and from the mesentery belonging to this coil a thick strong band passed to an attachment on the outer side. Beneath this band a coil of intestine 12 inches long had slipped and become strangulated. Its colour was purple, but the constriction was not severe, and had left no marked indentation upon the bowel. The band was divided, the contents of the sac returned into the abdomen, and a radical cure completed. The patient was relieved, and made an excellent recovery.

Impulse on coughing, usually absent in strangulated hernia, was present in both the foregoing cases. Its absence is usually held to point to strangulation, and its presence may make a surgeon hesitate as to the propriety of operating, or lead him to suspect the existence of an obstruction elsewhere. It is well, perhaps, to be reminded occasionally that a portion of the contents of a hernia may be strangled and yet an impulse be communicated by the unaffected coils or omentum contained within the tumour.

CASE III. *Interstitial Femoral Hernia: Properitoneal.*—On December 31st, 1896, I operated upon A. W., aged 39, for acute intestinal obstruction of six days' duration. The patient, who had been sent from Kendal in Westmorland, was in bad condition and of a dusky hue, and beyond relieving the vomiting and the obstruction the operation appeared to have no effect in hastening or delaying his downward course. Death took place about twelve hours after the operation. From the condition found at the operation the diagnosis of a reduction *en bloc* of a right femoral hernia seemed to admit of no question. A strangled loop of small intestine was found protruding through an opening in the peritoneum close to the femoral ring. The loop lay completely free within the boundaries of the abdominal space, though outside the general peritoneal cavity. After its liberation the finger introduced through the aperture easily found and entered the right femoral ring. In opposition to this diagnosis was to be set the fact that the patient denied any remembrance of a swelling in either groin, and though a thin man, nothing unusual could be detected externally.

The *post-mortem* examination revealed quite a different condition. An empty sac occupied the right femoral canal, but close to its peritoneal orifice a diverticulum was found lying between the horizontal ramus of the pubes in front and the peritoneum behind. It was in this diverticulum that a loop of small bowel had been caught, and the constriction had taken place at the neck, not of the diverticulum, but of the main sac from which the diverticulum arose. Instead of a "reduction *en masse*," the condition was one of interstitial hernia, a variety usually met with in the inguinal region, and a much rarer complication of a femoral rupture. But this was not all. On the left side also there was found an empty femoral sac, whose neck was not closely fitted to the boundaries of the ring, but lay somewhat loosely in the abdomen a few lines from the femoral aperture. Its orifice would admit a pencil.

There were thus two well-formed femoral sacs in a patient who not only gave no history of a rupture, but could never remember any swelling in the groin. There could be no doubt, however, that these had been acquired, for when removed the constriction that existed at the necks showed that at some time they must have been distended. It is equally certain from the loose connection that existed between the neck of the sac and the femoral ring that the sac on the left side had not been recently occupied, whilst this peculiarity probably explained the formation of an interstitial hernia on the right side. A portion of bowel could easily be conceived as entering the mobile portion of the sac internal to the fixed boundaries of the ring, but its mobility would make it difficult for the loop to penetrate the distal fixed portion of the sac. As a consequence, the distension of an included loop would lead to an enlargement of the proximal portion of the sac, and by its one-sided expansion to the formation of a diverticulum placed between the peritoneum and the parietes—in other words, to the condition known as interstitial hernia.

CASE IV. *Inflamed and Strangulated Congenital Umbilical Hernia.*—In January, 1899, I was asked by Dr. F. J. Coleman to see an infant 4 days old, who had at birth a protrusion of intestine into the umbilical cord for about 1½ to 2 inches. This was irreducible, and the cord was ligatured beyond it. On Monday the covering of the swelling looked to be drying up, but on Tuesday morning its surface was greenish-yellow, and evidently on the verge of sloughing. The neck, which was formed of skin, was inflamed preparatory to the formation of a line of demarcation. The swelling had increased considerably in size, and was as big as a tangerine orange, and an impulse was thought to be present. Except for the local condition, the child was apparently perfectly well. In the evening, with the assistance of Dr. Coleman and Mr. T. M. Nicholson, I opened the sac by a median incision, beginning in the abdominal wall just above the tumour. The coverings of the rupture were infiltrated with pus. There was no fluid in the sac. The cæcum was enucleated from the sloughy coverings with some difficulty owing to firm adhesions, and the adherent appendix was ligatured and cut off. The bowel was of a deep reddish, purple colour, and so much thickened that a deep tear which took place in separating adhesions did not open its lumen. Though pulled out nearly an inch, the junction of the small intestine with it was not clearly seen. The broad neck of the swelling had evidently interfered with the return of the venous blood, and had produced a broad groove upon the gut, above which the bowel was of natural colour and appearance. The sloughing coverings were cut away, and the ring enlarged upwards to permit the return of the swollen cæcum. The wound was then closed. Recovery was delayed by suppuration in the wound and by convulsions, but when last heard of, four weeks after the operation, the child was quite well.

In this case the strangulation of the hernial contents was induced by their inflammation. After ligature the umbilical cord sloughed down to its attachment to the abdominal wall, showing that its arterial supply was derived from the placenta. The coverings of a congenital umbilical hernia, therefore, are sure to slough, and in doing so they must excite inflammation in the adjacent parts. Here it led to adhesions, and later, to an inflammatory swelling of the cæcum. As the walls of the bowel increased in size the circulation became gradually obstructed by the neck of the swelling, but either this constriction had not lasted long enough to produce an effusion of fluid, or the adhesion of the bowel to the sac had been sufficient to prevent such effusion taking place into the sac. The onset of strangulation was a late incident, and this no doubt was the explanation of the absence of symptoms previous to the operation.

The statistics of Macdonald[1] are strikingly in favour of operation. Of 31 cases 12 were treated by compress and bandage, and 9 died, 19 were treated by laparotomy, and 2 died. No doubt the time of election for operation is before necrotic changes have begun in the coverings, but even then a satisfactory result may be hoped for, as the inflamed gut, when reduced, will quickly become adherent, and will shut off the wound from the abdominal cavity. In this case it was difficult to see how recovery could have taken place spontaneously except by sloughing or ulceration of the cæcum and the formation of a fæcal fistula.

REFERENCES.

[1] Vol. ii, p. 801, 1883. [2] BRITISH MEDICAL JOURNAL, October 9th, 1897, p. 968. [3] Macready, *On Ruptures*, p. 92. [4] Treves's *System of Surgery*, vol. ii, p. 728.

THE CYSTOSCOPE IN SURGERY.*

By W. THELWALL THOMAS, F.R.C.S.,

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WHEN blood appears in the urine we should not rest satisfied with merely naming the condition "hæmaturia," but should endeavour to discover the source of the hæmorrhage. The appearance of the urine will not give much assistance; neither will the presence or absence of clots, nor the presence or absence of pieces of growth, since clots appear alike in hæmorrhage from the kidney and bladder when growths are present, and villous fringes may come from either organ. Our only trustworthy source of information is the cystoscope, which enables us to ascertain if the source of the bleeding is in the bladder, whether hæmaturia is present at the time of the examination or not. In the case of hæmorrhage from a kidney growth it is necessary to examine during an attack, in order that we may see bloody urine, or pure blood issuing from the mouth of the ureter.

In some cases of renal growths hæmaturia may be the only early sign; the kidney may not be appreciably enlarged. In a case recently operated upon the left kidney was explored and removed merely on the cystoscopic evidence, and the cancerous kidney weighed only 4¾ oz. Malignant disease of the kidney is so rapid in its growth that, if any real good is to be expected, operation must be undertaken early. Moreover, villous growths of the bladder do not always shed pieces early, and if they are allowed to grow for months or years they tend to spread over the whole bladder wall, eventually making its interior look like a Turkey carpet, when total removal is impossible. I would go so far as to urge that cystoscopic examination becomes necessary when a patient has had more than one attack of "blood in the urine." The proceeding is so simple and so devoid of risk when proper precautions are taken that there need be no hesitation in resorting to it. An anæsthetic is not required, and the proceeding is no more irksome to the patient than the passage of a bougie. If this were done in every case of hæmaturia instead of continuing the administration of so-called hæmostatics by the mouth, much suffering would be avoided and valuable time saved. In all the cases of removal of a kidney I have relied on the cystoscope for evidence as to the presence and condition of the other kidney, observing the rate of flow of urine from the ureters and its appearance, and in no case was the peritoneum opened to allow of manual examination of the kidneys before proceeding to nephrectomy. Four recent cases of bladder tumour are here appended, in which the diagnosis of the position and nature of the tumours was made by means of the cystoscope. Two of the cases had suffered for years, and had large quantities of astringent medicine with but little effect, and in the other two a state of profound

* Read before the Lancashire and Cheshire Branch of the British Medical Association.

anæmia resulted from loss of blood before a positive diagnosis was made.

CASE I.—J. McD., aged 38, sent by Dr. Valentine, Earlestown. Blood first appeared in the urine in January, 1897. He was free from hæmorrhage until April, when clots appeared at frequent intervals until July. The urine was repeatedly examined for portions of growth, with a negative result. He lost a large quantity of blood, and became very weak. In July examination with the cystoscope revealed a growth springing from the bladder wall, half an inch above the right ureteral orifice, and a small villous fringe growing beside it. The larger growth was pedunculated, its colour was a brilliant pink, and each small sprout on its surface was translucent. On July 10th suprapubic cystotomy was performed, and the growths were readily removed through a Ferguson's speculum introduced into the bladder. Two glass drainage tubes were left in, and removed on the third day. The suprapubic wound closed slowly. A small quantity of urine escaped for a month. Microscopically, the growth proved to be a simple papilloma. On December, 1898, there were no signs of recurrence. The patient soon regained his usual health, and returned to his employment.

CASE II.—E. H., aged 42, patient of Dr. R. T. Hughes, Birkenhead. For twelve months she had noticed a brown sediment and blood in the urine and had been under medical treatment. There was seen on cystoscopic examination a little to the left of the opening of the left ureter, an oval depressed area, blackish green in colour three-quarters of an inch long by half an inch wide; this sloughy ulcer was surrounded by a fringe of sessile papillomatous nodules, bright pink in colour and not ulcerated. On September 18th, 1897, the urethra was dilated, and with the finger the fringe was felt to be suspiciously hard. It was removed by curved scissors and the base of the ulcer was scraped. After washing out the bladder with hot boracic lotion re-examination showed the area level and apparently free from growth. The patient was returned to bed wearing a pad of wood-wool tissue to catch the urine. Next morning the pad was dry, and a catheter introduced allowed 22 oz. of bloodstained urine to escape. It was necessary to use the catheter once subsequently; at other times she passed urine naturally, so that notwithstanding the extreme dilatation of the urethra it recovered its tone almost immediately. She was sent after nineteen days to a convalescent home. Microscopically the tumour exhibited marked alveolation and was probably cancer. She improved wonderfully in health, put on weight, and went actively about until September, 1898, when hæmorrhage again occurred and on examination recurrence of the tumour was noted. This was removed by suprapubic operation on October 24th, 1898. The wound quickly healed giving for the time freedom from pain and hæmorrhage.

CASE III.—W. W., aged 31, was examined on July 11th, 1898. Three years previously he began to have hæmaturia, which recurred at intervals during eighteen months, when a small piece of "jelly" was passed. Bleeding then became constant. During micturition the stream would at times suddenly stop for a moment, causing great pain in the penis and perineum. He was very anæmic and unable to follow his employment. On July 11th a branching villous growth situated above and to the left side of the orifice of the left ureter was seen, swaying about on a single stalk. On July 21st, with the assistance of Dr. Tisdall, the growth was removed through a suprapubic opening. A small artery was cut through in its base, but by seizing it with a pair of long artery forceps and withdrawing the Ferguson's speculum, the vessel was tied with chromic acid gut. Glass tubes were introduced for drainage and removed after forty-eight hours. On the fifteenth day a little urine leaked suprapubically, so a catheter introduced through the urethra was tied in the bladder and left in for three days, when sound union occurred. On the nineteenth day he left the nursing home. On January, 1899, he was found to be quite free from bladder trouble, and following his ordinary employment.

CASE IV.—Mrs. R., aged 58, sent by Dr. Fox Jackson, Ulverston. when seen in August, 1898, had had hæmaturia for two years; large clots of blood were repeatedly passed. On August 17th a large and almost sessile growth was seen by the cystosope to be growing from the fundus of the bladder, having sloughy surface and irregular margins. The urine was highly ammoniacal and bloody; it contained also pus and fibrinous shreds. She had not lost flesh during the previous two years, so that, although its appearance suggested malignancy, we hoped it might prove to be a simple tumour. On August 23rd by suprapubic cystotomy a large mass of soft, sloughy, putrid growth was removed. The base of the tumour was somewhat indurated. Twenty-four hours afterwards the urine was highly ammoniacal, and phosphates were deposited in a thick crust on the glass drainage tube. The bladder was washed with a watery solution of chinosol—1 in 1200, every hour, and after 24 hours all decomposition had ceased. The wound rapidly healed, and the patient returned home after three weeks. In February, 1899, she had gained a stone in weight. There was, however, recurrence of the hæmaturia, and on examination a flat mass of growth was seen on the old operation area, so that the outlook is not hopeful.

The main object of this paper is to urge the importance of early examination of the bladder in all cases of hæmaturia.

TWO CASES OF EXTREME DILATATION OF THE SIGMOID FLEXURE: COLOPEXY: RECOVERY.

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THE two following cases are related as examples of what is believed to be a rare event in such an extremely common condition as constipation. The first case was under the care of Doctor Alfonso Masi, of the Military Hospital, Buenos Ayres, and the second came under my care. In no work within our reach can we find any allusion to the subject of localised sacculated dilatation of the colon as the result of a state of chronic constipation.

Owing to such dilatation and the consequent accumulation of fæcal matter, the condition of both patients was one of extreme gravity, as evidenced by the repeated attacks of intestinal obstruction and the high degree of anæmia.

CASE I.—C. A., aged 28, for the last four years had suffered from constipation. At the beginning of 1897 he began to notice that his motions contained blood, and that their form was tape-like. As on rectal examination there was only found a very vague sense of fulness behind the bladder, his symptoms were considered to be due to a stercoraceous tumour, and consequently he was given daily enemata of half a litre of olive oil, abdominal massage, and appropriate dietetic treatment. He had the constancy to continue with this treatment during three months, during which period his condition became greatly improved. At the end of three months the bowels were acting daily, but on occasions the fæcal matter would take the form it had previously assumed; consequently the diagnosis of constipation had to be abandoned. In spite of finding the posterior part of the bladder to be distinctly more accessible than formerly, and the complete disappearance of the sense of fulness, it was considered probable that the symptoms were due to cancerous ulceration of the large intestine.

Laparotomy was therefore performed on February 2nd. The large intestine was first explored and was found free from lesion from the cæcum to the sigmoid flexure. On introducing the hand in the pelvis, behind the bladder was found a dilated coil of intestine about the size and shape of the stomach. Pressure on this had no effect in reducing its size, but on lifting it out of the abdomen it was found that its contents were at once dislocated into the rectum, and that the tumour was the last part of the sigmoid flexure, enormously dilated. Its surface presented numerous streaks similar to the "distension cicatrices" of the abdomen of a multipara, a sign that it had been even more dilated and had contained at one time a large quantity of fæcal matter. As a matter of fact, it was seen that a movement of the bowels could alone be produced when the dilated part of the gut was filled to the level of the orifice which communicated with the rectum, for the muscular coat of the dilated intestine was incapable of any contraction owing to its atrophied state. Enormously dilated veins crossed the meso-sigmoid, which indicated the obstruction to the circulation and sufficiently explained the hæmorrhages of the last few months. Colopexy was then performed, as offering no risk to the patient, in preference to excision of the sac. This was united to the abdominal wall at the level of the iliac fossa with silk sutures. His convalescence was uninterrupted. After a dose of castor oil on the second day he had daily one or two motions, normal and abundant, to his great satisfaction, as for many years he had never defæcated in this manner.

CASE II.—F. S., aged 42, had suffered for the last eight or ten years from constipation, and in an aggravated form for the last twelve months. During this last period his only food had been thin soup and cocoa, due to his desire to diminish in every way the quantity of fæcal matter. In the month of March, 1897, he had an attack of intestinal obstruction, unaccompanied by vomiting, severe abdominal pain, but with the tongue dry and parchment-like. These attacks subsequently became more frequent and severe, and were generally ushered in by vomiting, which never became of a stercoraceous character. On palpation of the abdomen a tumour was found in the right hypogastrium, at the level of the insertion of the right rectus muscle: it was globular, smooth, and painless, and presented a considerable resistance. By the rectum the tumour was also felt, descending as far as its second part. On making firm pressure with the finger an indentation could be made in the tumour, which persisted afterwards. It was impossible to dislocate the tumour from the pelvis. The treatment employed consisted in the administration of large enemata, cascara sagrada, Hunyadi Janos water, and enemata of olive oil, with the result that the patient obtained a period of relative comfort, which quickly disappeared on abandoning the treatment; and the tumour acquired greater mobility, abandoning at times the pelvis completely, as was proved by rectal examination, and appearing high up in the hypogastrium, with great relief to the patient. However he never had a satisfactory movement of the bowels, never passing any fæcal matter, only what he termed "washings." As the symptoms of obstruction appeared, it was decided to performed laparotomy.

On July 19th laparotomy was performed. On opening the peritoneum the sigmoid flexure at once appeared, enormously dilated, and having lost all its sacculated character. The small intestine seemed to be somewhat atrophied. The pelvis was found to be completely occupied by a large tumour, which impeded the passage of the hand into the cavity. By means of traction on the dilated colon it was found possible to lift it up, when it was discovered to be an enormous dilatation of the last part of the sigmoid flexure. Its peritoneal covering was normal, although somewhat thickened, and the tumour was not adherent. Its consistency was solid, but it could be indented. An effort was now made to express its contents into the rectum, but in spite of employing a moderate pressure it was found impossible. One or two alternatives then remained, either to suture the dilated intestine in an elevated position to the abdominal wall, or to incise it, remove its contents, and return it anew to the abdominal cavity, and the former plan was chosen. The intestine was sutured in an elevated position to the centre of the abdominal wound, which was closed above and below it. After the operation the patient expressed himself as very much relieved, until 48 hours after, when vomiting supervened. The bowels had not been opened since the day of the operation, and this once effected the vomiting disappeared. On the eighth day it was found that the fæcal mass had fallen, until it was within reach of the finger. By the aid of enemata, the lithotomy spoon, and the finger, it was found possible to dislodge it. Its volume would be approximately three-quarters of a litre, and it had lost its fæcal smell. Up to August 10th he defæcated only after an enema, the motions being semi-liquid, and in other cases badly formed, but obviously of recent formation. The tongue was now quite clean. On August 3rd the abdominal wound was closed, local anæsthesia being induced by means of Schleich's method. During the following night the patient was much inconvenienced by the retention of gases, but was relieved by the introduction of the rectal tube, and more

efficiently by a dose of castor oil. The wound was healed by August 10th, and on that day the first spontaneous evacuation of the bowels took place. He was discharged on August 31st cured.

Cahier[1] in his monograph on acute intestinal obstruction ignores completely the existence of such a condition, and Treves, in his work[2] on *Intestinal Obstruction*, refers to tumours produced by the accumulation of fæcal matters, and observes that when they are situated in the descending colon or in the sigmoid flexure they are formed generally of scybala, a proof that even in his vast experience he has not met with a similar case. This author indicates a sign of much importance in the differential diagnosis of these tumours, that they give to the fingers the sensation of a mass of putty. In the second case this sign placed beyond all doubt the diagnosis, but could not be applied to the first case, as there was no tumour to be discovered on palpation. It is worthy of note that in both cases the site of the tumours was identical, in the last portion of the sigmoid flexure, a position very little subjected to external pressure. In the second case the diagnosis was made of a "pedunculated" dilatation of the intestine, because on several occasions it could be demonstrated bimanually that the lesser cavity of the pelvis was completely free, and at such times that the tumour could be detected above the pubes. The second case also illustrates a disadvantage in the method of Schleich in those laparotomies where it is of the first importance that the functions of the bowels be not retarded. The meteorism produced by the morphine in the injection caused the keenest suffering to the patient.

At the present date, March 1st, 1899, both patients are enjoying good health, having overcome their obstinate constipation.

REFERENCES.

[1] *Les Occlusions Aigües de l'Intestin*, par le Dr. Cahier. Paris: 1896. [2] *Intestinal Obstruction*, by F. Treves. London: 1890

FIBROUS STRICTURE OF THE RECTUM.

By W. H. HORROCKS, M.B., F.R.C.S.,
Honorary Surgeon to Bradford Royal Infirmary.

FIBROUS stricture of the rectum, unaccompanied by ulceration, is not a common affection, and it is difficult to treat it satisfactorily. It occurs more commonly in women than in men. The situation of the stricture especially considered is from 1 to 2 inches from the anal margin, where the levator ani slings the rectum. The stricture is usually a narrow one, but in some cases the strictured part is an inch or more in depth. Such strictures have been attributed to the fibrous thickening in the sheath of the levator ani, caused by long-continued reflex spasm of that muscle. The originating irritation is usually some piles or an ulcer about the anus. Dr. Reider attributes it to syphilitic infection of the pudendum, which sets up endophlebitis and periphlebitis of the rectal veins, which carry away the blood from the pudendum.

The usual treatment by passing bougies is very painful, and affords only temporary relief. Forcible dilatation is a dangerous and unscientific method. It is dangerous because the stricture yields at its weakest part, which may lead to laceration and infection of the peritoneum. It is unscientific, as the tear when healed leaves the patient in much the same condition as before the operation. The method here advocated is so simple, and in two cases was so satisfactory, that there seems no reason why it should not come into general use.

It consists in a vertical division at the part most removed from the peritoneum. The vertical is converted into a transverse slit, and the margins stitched together. To do this the stricture must be within reach, and it is an advantage if the mucous membrane above the strictured part is loose and healthy.

The following are notes of one of the cases so treated:

History.—M.F., a housewife, aged 55, was admitted to the Bradford Infirmary on June 9th, 1898. She had suffered from rectal trouble for more than twenty years. Fifteen years before admission bougies had been passed, the treatment being followed by some temporary relief. Her condition had become gradually worse. For six months before admission she had been in constant terror, the dread of obstruction of the bowel and distension of the abdomen alternating with the acute pains on passing a motion. Her condition had become one almost bordering on insanity, her mind being constantly directed to her rectal trouble. The patient was otherwise in fairly good health, the other organs being sound.

Condition on Admission.—There was some excoriation of the skin about the anus. A tight stricture was felt an inch from the anal margin, so narrow that it admitted the index finger with difficulty. The stricture was about a quarter of an inch in depth, the rectum being fixed at this spot, but above the stricture the rectal mucous membrane was loose and healthy. No scars were noticed on the pudenda or above the anus.

Operation.—On June 10th, under E.C. mixture, the sphincter ani was thoroughly stretched, and the stricture brought well into view. A blunt-pointed bistoury was passed through the stricture, which was divided vertically opposite the sacrum. The length of this incision was about an inch and a half. With the fingers the stricture was now stretched until the vertical cut became transverse. The two margins were stitched in this position with chromic gut sutures. After that operation the narrowed part readily admitted three fingers.

After-History.—The wound healed without trouble, but the patient could not be convinced that the stricture was not present, although the bowels were opened freely and naturally. After remaining some days in hospital she returned home, still believing there was a rectal stricture, although the bowels were moved daily. Eventually she became so insane on this point that she was transferred to the Menston Asylum.

The simplicity of this method, which is an application of the operation of pyloroplasty to rectal strictures, is a great advantage in treating suitable cases. There seems no reason to doubt the permanency of the cure. The ending of this patient in an asylum shows what a serious impression is made on the minds of those suffering from this distressing trouble.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

NASAL TREATMENT IN ASTHMA.

I WAS somewhat surprised, during the very interesting debate on Asthma in Relation to Disease of the Upper Air Passages, at the Laryngological Society on May 5th, to find that no speaker, with the exception of Dr. Dundas Grant, laid special stress on the very frequent presence of the gouty diathesis in the asthmatic. I venture to suggest that it is not impossible that some of the failures related may be due to neglect of that factor.

Somewhat of a sceptic as regards the value of nasal treatment in asthma, my conversion was brought about by means of what appeared to be a typical case of gouty asthma, most severe attacks frequently alternating either with eczema or articular gout. Persistent gout treatment under the guidance of several eminent physicians and at various spas had failed to give more than temporary relief; but since the fortunate discovery and thorough removal of several nasal polypi four years ago there has been no real attack of asthma.

In a letter received last week the patient says: "Although wonderfully well, I find that if I neglect my precautions regarding dietary there is at once a tendency to irritation in the nose and to slight difficulty of breathing." This case, in addition to a number of others working out on similar lines, makes me think that there is frequently a double source of irritation present.

Another circumstance which has arisen in five cases has impressed me a great deal. All were treated by skilled operators; in three cases polypi were removed; in two there was radical treatment of hyperæsthetic patches on the nasal mucous membrane; but in all recurrence of asthma took place after a very little time. They came under bath treatment for gout which was followed by the use of a carefully-planned dietary, devised with a view to aiding uric acid elimination. There was in each case more or less improvement in the asthma, but there was much left to be desired. I referred them to rhinologists, and in every case the nasal lesions were found to have recurred; removal of these was followed by relief so extraordinary as to amount to a practical cure, and although from one to three years have elapsed, all these patients have remained well except one, who from time to time takes fits of dietetic unrighteousness.

A possible explanation is that, as in almost all cases of this type, there is a marked failure to excrete the normal amount of uric acid by the kidneys (examination of the twenty-four hours' urine by the Gowland-Hopkins process always showing a decrease of from 10 to 30 per cent.) there may be an attempt at vicarious elimination by the nasal mucous membrane, or at any rate to deposit in a part whose vulnerability has become increased. A certain amount of irritation may thus be set up leading to the renewed growth of polypi, etc. Careful observation has convinced me that, as in gouty asthma, the

condition of the nasal cavities should not be ignored, so in asthma with marked nasal symptoms, the gouty factor ought not to be disregarded.—I am, etc.,

Buxton. Wm. Armstrong.

PYREXIA AFTER DELIVERY.

I notice in the British Medical Journal of March 25th, p. 733, a discussion in the Dublin Rotunda report in which Dr. Purefoy regrets the occurrence of a number of cases with raised temperature for which he could assign no cause. Up till about two years ago we had the same experience in this hospital. Almost every case had a rise of temperature, usually to 100° F., but often to 101° and 102°, lasting for a week or ten days after delivery. Of course in a certain number of these there was something tangible to account for the rise, as mammary troubles, in a few cases adherent placenta, and in two cases the severe operative interference of craniotomy. Still in by far the greater proportion there was nothing which could be blamed. Everything possible was tried to stop this succession of febrile cases; the labour ward and its furniture were repeatedly scrubbed and disinfected, the most rigid antisepsis was observed in the conduct of the labours, and antiseptic douches were even ordered to be used for the fortnight following confinement. All was of no avail.

About two years ago, while delivering midwifery lectures to the nurses, it struck me that the cause might be found in the nursing arrangements as it could not be found in the medical, and on making inquiry I found a very likely source of contamination in the diapers. These, as I daresay is the rule in most parish hospitals, were simply a larger size of the napkins in general use in the house, and were washed in the ordinary way along with the others in the laundry. I directed the head nurse that after receiving these diapers from the laundry she should have them boiled in a weak carbolic solution (1 to 100), and keep them separate. Since that time I am glad to say that these puzzling temperatures have ceased, and the only rises we have had can all be accounted for. I do not know how the diapers are looked after in the Rotunda, but if it is not already done, it might be worth while for Dr. Purefoy to see for himself that they were properly sterilised, and not trust to makers' labels.

Paisley Parochial Hospital, N.B. John A. Graham, M.B.

FOUR CASES OF BERI-BERI ON BOARD SHIP.

The following were singled out as cases of beri-beri from a mixed crowd of 210 Chinese deck passengers who embarked at Singapore. The disease was present when they came on board, and the history obtained was through the Chinese compradore, who interpreted. All were males from beri-beri endemic centres. In all cardiac murmurs and albuminuria were absent.

Case I, a labourer, aged 25, was anæmic and badly nourished. The duration of his illness could not be ascertained. There was anæsthesia below both knees, and firm œdema over the lower thirds of both legs. The left leg showed more œdema than the right, and the left calf was exquisitely sensitive to pinching. Walking was impaired from weakness of the legs. Numerous coarse crepitations were heard over both lungs. The pulmonary second sound was accentuated and the cardiac rhythm irregular. There was marked breathlessness. The condition became aggravated, and when last seen the patient was very cyanotic.

Case II, aged 40, had been ill for two months; he was pale and flabby. The œdema was softer than in the above case and was more general, the feet and legs being worse than the hands. Anæsthesia was noted in the legs and in the finger tips. During walking, which was slow and unsteady, he shuffled along from inability to raise his feet from the ground, and caught hold of objects for support. The œdema diminished and the gait improved while he was under observation.

Case III, a tally clerk, aged 25, had been ill six months and had to be carried aboard. He was said to have been improving. The œdema was general and considerable. The patient was weak and unwieldy. Improvement was rapid, and at the end of the voyage, about five days, he was able to walk about, although slowly, yet without support. The œdema had gone, except from the dorsum of the left foot. His muscles were much wasted.

Case IV was a Chinese fireman on the ship. Three weeks after leaving Singapore the condition was first recognised. He was 20 years of age, strong, and well developed, and complained of weakness of the legs and vague pains in the peroneal and calf muscles. He had noticed this for several days, and on examination anæsthesia and œdema over both tibiæ were present. The œdema increased for several days, and then remained stationary. He was then lost sight of, but it was ascertained that he had become much swollen and suffered from palpitation and dyspnœa. Four weeks later no trace of illness could be found on him.

W. S. Malcolm, M.B., C.M.,

Dundee. Late Surgeon O.S.S.Co.

SECOND ATTACKS OF SYPHILIS.

In the British Medical Journal for April 22nd Mr. Mansell Moullin reports a case of reinfection in syphilis, and truly remarks that second attacks of syphilis are more common than is usually believed. The following 5 cases are probably cases of second attacks, and Mr. Buxton Shillitoe, who has kindly given me permission to publish them, agreed in the diagnosis.

I. A. N. was admitted to the Lock Hospital in November, 1897, with a primary sore on the clitoris, general adenitis, and secondary affection of the tongue. In March, 1896, she was in the same hospital with tertiary ulceration of the vagina.

II. A. H. was admitted in September, 1897, with condylomata: she had been in the hospital two years before with primary and secondary syphilis, which had cleared up under treatment.

III. A. S. was admitted in November, 1897, with an ulcerated primary chancre of the labium and inguinal adenitis. Five years before she was in hospital with secondary syphilis.

IV. M. C. was admitted in March, 1897, with an indurated chancre of the right nympha and inguinal adenitis. Four years previously she was in hospital with secondary syphilis.

V. E. M. was admitted in August, 1897, with an indurated chancre of the right labium. She had old perforation of the hard palate, and had been treated for syphilis four years previously.

In order to diagnose reinfection in syphilis with certainty, it is of course necessary for the patient to pass through two attacks of secondary syphilis. In the above cases this was only definite in the first case. The second case might possibly have been one of relapsing condylomata. The other 3 cases left hospital before any secondaries appeared, and were lost sight of, so that they must be regarded as "not proven." However, Mr. Shillitoe and myself both agreed that they were true second attacks, the intervals of five and four years being too long for Fournier's "relapsing chancres." In my opinion most of the latter cases are really second attacks. The notes of the above cases are reliable, since the patients were treated at the Lock Hospital for each attack of syphilis.

Finsbury Square, E.C. C. F. Marshall.

OBSTINATE HICCOUGH.

To the numerous suggestions for the relief of this affection, I may be permitted to add one which I learnt from my friend, the late Dr. Carnelley. In my hands, as in his, it has proved instantaneously effectual. This is the administration of half a drachm of ext. ergotæ liquidum. The case in which I used it was that of a young man engaged in business, but with great difficulty, as he was unable to speak five words without being interrupted by a hiccough. This had continued for some hours, when I saw him casually. On my suggestion he sent for a draught containing 2 drachms of ext. of ergot and 1 drachm of sodii bicarb., to be taken in four doses at half-hour intervals. He, however, only took one dose, as he did not hiccough once after it.

West Bridgford. H. E. Belcher.

DISLOCATION OF THE RADIO-CARPAL JOINT.

I notice that in your issue of April 29th, Dr. J. D. L. Macalister records a case of dislocation of the radio-carpal joint as being the 31st recorded case, according to Professor Helferich's work on *Fractures and Dislocations*. If the injury is such a rarity, I may mention that I had a case last week, in a weakly lad aged 14, who at the Liverpool School for Blind Children fell off a see-saw, and in attempting to save himself fell on his outstretched right hand. At first sight the distortion appeared to be like that in a Colles fracture, but it was soon evident that the styloid processes of the radius and ulna were in their proper position, and that the carpus was dislocated backwards on the radius. There was no crepitus, and reduction was easily effected by extension on the hand.

Liverpool. J. C. M. Given, M.D.Lond.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

DARLINGTON HOSPITAL.

CASE OF TETANUS TREATED BY INTRACEREBRAL INJECTION OF ANTITOXIN: RECOVERY.

[Under the care of JAMES LAWRENCE, M.D., and JOHN HARTLEY, F.R.C.S., Surgeons to the Hospital.]

(Reported by F. H. LAWSON, L.R.C.P., M.R.C.S., House Surgeon.)

J. P., aged 20, a farmer's son, well-nourished, but rather anæmic, was admitted under the care of Dr. Lawrence on January 19th, 1899, suffering from a gunshot wound of the foot. On the previous day he had let fall a loaded shot gun, which exploded, one charge entering the inner side of the right foot. There was found a deep, gaping hole, the size of a florin, over the inner side of the base of the first right metatarsal bone. There was also considerable swelling of the sole over the metatarsal bones. The wound was very offensive, but the pain was slight. The temperature was 103° F.

Pieces of leather, stocking, and wad, together with fragments of shattered bones and several shot, were removed from the wound, which was freely irrigated with mercuric chloride solution every six hours.

January 20th. The temperature was 100° F. At 11 A.M., under chloroform, Dr. Lawrence opened up the wound, and made a free longitudinal incision into the sole, removing more fragments of stocking, wad, and leather and shot. Most of the shafts of the first and second metatarsal, together with the outer part of the internal, and most of the middle cuneiform bones being loose and in fragments, were removed. The cavity was thoroughly scraped, and very freely flushed with solution of mercuric chloride. The wound was dressed with iodoform gauze.

On January 21st the temperature was 99.4° in the morning. In the afternoon there was much pain, and in the evening the temperature was 104.2°, and there was localised gangrene of the sole over the heads of the fourth and fifth metatarsal bones. The temperature then sank, though it remained usually a degree or two above normal until January 26th, when the slough separated, exposing the fourth and fifth metatarso-phalangeal joints. On the afternoon of this the eighth day after the injury the patient complained of some difficulty in swallowing. On the morning of the 27th there was rigidity of the masseters, digastrics, and recti abdominis. Risus sardonicus was marked when the patient spoke, and swallowing and articulation were somewhat difficult. Chloral hydrate gr.xx with pot. brom. gr.xv were given every three hours.

On January 27th the condition was much the same, except that there was some retraction of the head, and the neck muscles were rigid.

On January 28th, Dr. Lawrence having unfortunately been disabled by an accident, the case was transferred to Mr. Hartley. At 10.30 A.M., the scalp having been shaved and cleansed, an antero-posterior incision an inch in length was made on each side, the centre of which corresponded to a point, as indicated by Major D. Semple, M.D., in the BRITISH MEDICAL JOURNAL of January 7th, 1899—namely, the centre of a line joining the external angular process of the frontal to the centre of another line drawn over the vertex from one external auditory meatus to the other at right angles to the sagittal suture. This spot is well in front of the fronto-parietal suture. The bone was perforated by means of a small drill, and 2½ c.cm. of antitetanic serum were injected slowly and deeply into each frontal lobe, ten minutes being allowed for each injection. The wounds were sutured with gut and dressed with alembroth gauze. The pupils were equal, and of moderate size before injection. During the injection on the left side, which was done first, the left pupil contracted to two-thirds of its previous size, and remained so. In drilling the right hole the drill penetrated the brain accidentally to the depth of half an inch, the right pupil immediately dilated, but during the right injection it gradually narrowed, though at the close, and for some hours after, it still remained slightly wider than the left. The wound of the foot was very thoroughly swabbed with a 10-volume solution of hydrogen peroxide; a boric fomentation was applied; and 20 c.cm. of antitoxin were injected beneath the skin of the abdomen. The patient had a severe general spasm immediately after the injection, and three or four while recovering from the chloroform. In the evening he expressed himself as feeling better than before the operation. The trismus was less marked.

On January 29th the foot was irrigated with hydrogen peroxide, and 15 c.cm. antitoxin were given subcutaneously. The patient was perspiring freely.

On January 30th he slept well, and was still sweating. The muscles of the jaw, neck, and abdomen were rather more rigid; 10 c.cm. of antitoxin were given subcutaneously.

On January 31st he was still sweating freely; there were some slight spasms of the jaw and neck; the rigidity was unaltered, but there was less difficulty in swallowing.

On February 1st he was still sweating; the spasms had increased, the muscles of the abdomen were more rigid; 10 c.cm. of antitoxin were injected subcutaneously, and 20 minims of a 1 in 20 watery solution of carbolic acid were injected subcutaneously three times a day. The spasms were less for several hours after each injection.

On February 2nd he was sweating very freely and the spasms were increasing. The bromide and chloral were stopped; 72 minims of a 1 in 20 carbolic lotion were injected in four doses, and appeared to give decided relief; 10 c.cm. of antitoxin were given hypodermically.

On February 3rd the spasms were recurring every few minutes, but they lessened after the injection of morphine (gr. ¼). He was sweating very profusely. There was an erythematous rash everywhere. He had gr. 1½ of morphine, subcutaneously, in divided doses, and ♏ 14 of a 1 in 20 carbolic lotion were injected every 6 hours. The pulse was 132, and the temperature 102° to-night.

On February 4th the abdomen and back were absolutely rigid; he had great difficulty in taking nourishment, as swallowing caused spasm of the neck, back, and abdomen. He complained of dimness of sight. The sweating was enormous. He was restless and excited; gr. 1½ morphine were given during the day. The temperature and pulse rate were still high.

On February 5th, condition much the same. The injections of antitoxin were discontinued, but three injections of morphine (gr. ⅓) were given.

On February 6th the spasms were increasing, the muscles being more rigid. He complained of great dimness of sight and of severe pain in the back and chest. He was very restless. There was no heart murmur, but the pulse was soft, small, and rapid. Every four hours ♏ 24 of a 1 in 20 carbolic lotion were injected subcutaneously.

On February 7th he was very restless; the spasms were severe. There was delirium like that of delirium tremens. Between the spasms the masseters seemed rather less rigid. The treatment was as before.

On February 8th the pulse was rather less rapid and the temperature lower, but otherwise the condition was much the same.

On February 10th the spasms were distinctly less, but the delirium continued, and he was very restless.

On February 12th and 13th he was delirious and restless, but the tetanic symptoms were much improved.

On February 14th the spasms were very slight, and he was more sensible.

On February 16th there was no rigidity or spasm, and he was quite sensible.

On February 19th he was allowed to sit up.

On April 2nd the patient appeared to be in very good condition, although he was still slightly anæmic. There was a superficial, slowly-healing ulcer in the sole.

REMARKS BY DR. LAWRENCE AND MR. HARTLEY.—Although in this case the disease was not very acute in its onset or early stages, the man at one time was most dangerously ill; indeed, for two days there appeared to be but small hope of his recovery. The intracerebral injection was undoubtedly useful, but in another case we think it would be well to get the dried serum and use it of double strength, as was done

by Major Semple in his successful case. Subcutaneous injection of the serum seemed useless, and at last positively harmful, the spasm increasing after each of the later doses. Bromide and chloral appeared at first to diminish the spasm, and the carbolic acid certainly did so to a considerable extent. But at the worst neither carbolic acid lotion nor chloral had any appreciable effect, and we had to rely chiefly on morphine. During the latter half of the illness the spasm was most severe in the right leg and thigh, starting from the injured foot. The frequent and free syringing of the wound with hydrogen peroxide was here undoubtedly valuable, the application being usually followed by remission of spasm for one to two or more hours. Fortunately liquid nourishment was as a rule taken largely, though slowly and with difficulty. From 3 to 4 ounces of brandy were given daily during the height of the disease. The successful issue of the case is, we think, largely due to the zeal and thoroughness of Mr. F. H. Lawson, the house-surgeon, and to the excellent and untiring nursing the patient received.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Friday, May 26th, 1899.

Acute Intestinal Obstruction, caused by an Adherent Vermiform Appendix Forming a Band associated with Fœtal Arrangement of the Peritoneum.

Mr. H. Betham Robinson described the case of a female child, aged 7, admitted into St. Thomas's Hospital in March, 1898, with a history of a week's constipation and occasional attacks of vomiting, then becoming constant and dark brown in colour. She had a pinched appearance; pulse 110, respirations 38 per minute, and temperature 96.8°, but without any marked collapse. There was acute pain in the belly about the umbilicus. Her abdomen moved with respiration, and was not rigid. There was, particularly, distension in the middle line above the umbilicus, and coils of small bowel were distinctly defined. There was comparative dulness on the left side. There had been no rectal discharge, and no lump was to be felt there. It was doubtful whether she had passed flatus for the last few days. The abdomen was opened in the middle line, and a quantity of fluid with a few lymph coagula escaped. The small intestine was so extremely distended that exploration was impossible until the intestine was tapped and 3 pints of fluid were removed. In the right flank there was no colon, and on the left side the colon was absolutely collapsed, which condition was traced along the transverse colon. To the left of the mid-line above the umbilicus a mass was felt which proved on examination to be a loop of small intestine close to the cæcum strangulated under a band formed by the tip of the vermiform appendix being coherent to a caseous mesenteric gland. Beyond the obstruction the intestine was completely compressed, whereas the small intestine on the proximal side was very dilated. The cæcum and the whole of the ascending colon retained their primitive peritoneal investment, so that they could, and had, passed freely over to the left side. The appendix was separated and the intestine released. The child's condition was so bad as to require infusion. She did not rally at all after the operation, and died very shortly. At the necropsy it was found that not only were the ascending colon and cæcum freely movable, but the third part of the duodenum had a mesentery.

Dr. F. H. Hawkins (Reading) suggested that the adhesion might be due to a former appendicitis.

Mr. Robinson, in reply, said that the specimen showed no indication of appendicitis; moreover, the caseous gland was the undoubted factor in the adhesion of the appendix.

Hæmorrhagic Erythema with Bright's Disease.

Dr. Colcott Fox related the case, and showed drawings of the case of a woman, aged 61, who had suffered from bronchitis and acute nephritis, probably supervening on old mischief. She left the infirmary, but returned a fortnight later (January 5th) with injected and swollen fauces, some erythematous macules on the face, and a few petechiæ on the legs. On January 10th a generalised eruption made its appearance, of an erythematous macular type, slightly raised with a tendency to rapid centrifugal extension. The eruption varied in size from a pinpoint to a finger nail, but tended to become confluent, forming patches and sheets. The colour was a vivid red, ineffaceable by pressure. The smaller lesions were dotted with distinct hæmorrhagic puncta, and the large older ones acquired a well-defined purple border inclosing bluish-red centres. The palms and soles were diffusely involved, but the fingers and dorsal surfaces were at first unaffected. The skin of the fingers, wrists, toes, and feet was œdematous. The joints of the wrists and hands were tender and painful. By January 12th the eruption had become almost universal, and looked at first glance like severe purpura. Over the abdomen the maculæ were mostly small and erythematous, and not nearly as hæmorrhagic as elsewhere. The face was sallow and the forehead covered with a morbilliform eruption. The lips were swollen and blood-stained, and there were a few purpuric spots on the gums and palate. After a brief pause the lesions became increasingly hæmorrhagic and even more confluent. On the 15th a recent retinal hæmorrhage was detected. On the 16th melæna occurred, and the patient died on the 17th. Before death the hæmorrhage was still increasing in the skin. *Post mortem* a good deal of congestion of the lungs was seen, with intense injection of the mucous membrane of the trachea, bronchi, stomach, colon, and especially of the jejunum and ileum, where it was hæmorrhagic. There was no endocarditis. The kidneys were small, red granular with a narrow cortex and adherent capsule. Microscopical examination of the affected portions of skin revealed distension of the lymph spaces and the blood vessels of the papillary layer with a moderate cell infiltration. The sheaths of the larger horizontal vessels were, however, densely infiltrated with cells. There was apparently no plugging of the vessels, and no micro-organisms were discovered. Dr. Fox observed that the eruption appeared to correspond clinically with the roseola of Willan rather than with erythema multiforme. He observed that one was familiar with cutaneous hæmorrhage as a complication of or even in lieu of the characteristic eruption of infective diseases such as variola and measles, and it was equally recognised that in erythema multiforme there was a special tendency to the exudation of blood-stained fluid, and even blood itself, which might completely mask the essential eruption. Hæmorrhage into the slighter roseolar forms of eruption was, however, rare. He added that in his experience the appearance of this kind of eruption in patients suffering from Bright's disease usually heralded approaching dissolution. They had been of two types—either the roseolar type of Willan, or of the morbilliform type. He mentioned the case of a woman who, two or three days before her death from granular kidney, became covered with a copious eruption of dusky erythematous macules the size of the finger nail, closely simulating the roseolar syphilide. He had also seen several examples of a copious generalised morbilliform eruption, terminating in profuse desquamation.

The President remarked that the case would be a valuable supplement to those recently brought before the Society by Dr. S. West.

Aneurysm of the Subclavian Artery Treated by Ligature of the First Portion, Followed in Thirty-eight Days by Removal of the Aneurysm.

Mr. H. Allingham showed a man, aged 25, a sailor, admitted February 20th, 1899, who three years before had noticed a swelling above the right clavicle which had gradually increased in size, especially during the twelve months preceding admission. On admission he exhibited a pulsatile expansile swelling in the right supraclavicular region between the sterno-mastoid and trapezius muscles, about the size of a tangerine orange. There was characteristic systolic *bruit* with delay and diminution of the right radial pulse. He ligatured the subclavian artery on the cardiac side of the tumour, using a kangaroo tendon ligature immediately external to the origin of the vertebral artery. Recovery was complete, no pulsation being perceptible in the tumour or in the radial artery until March 4th, when some slight beating was detected in the aneurysm. This continued, and the sac became distinctly smaller and harder. The patient was

anæsthetised when it was found that the tumour, although pulsating, did not expand, and it was decided to watch the case for a time before proceeding to more radical measures. On March 28th it was noted that the aneurysm was increasing in an upward direction, and that there was decided palpable and visible pulsation. On April 8th the whole length of the clavicle was exposed and the greater part removed. The aneurysm was carefully exposed, springing from the upper and anterior aspect of the vessel. Silk ligatures were applied above and below and the sac removed. During the dissection the transversalis coli artery was wounded as it crossed the tumour, and some few fibres of the brachial plexus were divided, the lower cord of which was adherent to the sac above. Some difficulty was experienced in separating the subclavian vein, which received a slight tear that was closed by a lateral ligature. The patient rapidly recovered, and was now about, using his right arm with comfort. Section of the aneurysm showed that its cavity was largely occupied by firm clot, the blood passing into it from the subclavian and out posteriorly by what appeared to be the profunda cervicis. A careful examination of the arm was made on May 5th, and it was found that the pulsation was present in the brachial, best marked in the antecubital space, and also in the radial at the wrist. The ulnar was not felt. The hand and fingers were pallid, and somewhat colder than those of the opposite limb, but this condition was improving daily. He remarked that little or no difficulty was experienced in applying the ligature to the first portion of the subclavian artery, as it was approached from below, and the dissection was made from the region of the second portion, thus the large veins and nerves crossing the seat of ligature were not even recognised.

Mr. Stanley Boyd observed that these cases were so rarely successful that the author deserved to be congratulated. He had been struck by the fact that the pulsation had returned very soon after ligature of the first part of the artery. That appeared to be common after proximal ligature for aneurysm of the third part of the subclavian, and constituted a strong argument in favour of excising the sac. With free exposure of the aneurysm it ought not to be more difficult to put a ligature round the artery at the start than later, and that had, indeed, been done on at least three occasions. He said the result in this instance after complete removal was interesting, and it would be interesting to note whether the shoulder dropped in the future more than it did at present—in fact, at present there was no drooping to speak of. Another interesting point of view was the reason why hæmorrhage was so very common after ligature of the first part of the subclavian. The subclavian had been stated to be the thinnest artery in the body, and in any case one of the great difficulties was to arrange the artery comfortably after ligature, as there was always such a large gap left.

Sir Dyce Duckworth mentioned the case of a patient under his care with aneurysm of the subclavian, whom he had placed on a restricted diet, giving large doses of iodide of potassium. Mr. Howard Marsh had seen the patient, and was of opinion that it would be a very suitable case for this operation; but, inasmuch as the aneurysm was becoming smaller and consolidating, it was decided not to interfere for the present.

Mr. Charters Symonds related a case of aneurysm of the second portion of the subclavian in which he had attempted to ligature the first part. It was situated underneath the clavicle but the whole posterior triangle was filled with a pulsating swelling which extended to the sterno-mastoid. He proceeded to apply a ligature to the first part on the plan suggested by Ballance and Edmunds. On exposing the artery by splitting the sterno-mastoid, and on cleaning it, on passing a needle from below there was a furious rush of blood, which ceased on his withdrawing the needle. On reintroducing the needle the rush of blood recurred. He therefore tied the innominate and common carotid on that side at the same time, and so far the case had done well. The curious thing happened that the whole of the sac separated, but the patient recovered with a fairly useful arm. He asked whether the author had divided the head of the sterno-mastoid muscle.

The President thought the fact that the author had used kangaroo tendon for the first ligature and silk for the second, was rather ominous. He had never himself ligatured the first part of the subclavian for aneurysm, but he had had two examples of malignant disease of the clavicle in the centre, and he had removed almost the entire length of the bone. In both cases a very good result had followed, with no impairment in either of the limbs. If, therefore, it was thought desirable to remove that bone it might be done without hesitation.

Mr. H. Allingham, in reply, said that he had freely divided the sterno-mastoid an inch above the clavicle, afterwards uniting it by sutures. By so doing, the inner border of the scalenus anticus was easily exposed, and there the artery was found pulsating, and a ligature could readily be passed around it. He had used kangaroo tendon for the first ligature in deference to the advice of his colleagues, but on the second occasion he had preferred sterilised silk, as this was what he was in the habit of using. Before the operation he had tried to find out what would be the result of removing the bone, but had not been able to get any information on the subject.

Annual General Meeting.

The report of the Council, which was read by Dr. J. K. Fowler (Senior Secretary), showed that the Society now numbered 577 ordinary members and 17 honorary members; 20 ordinary members had been elected during the year. The Society had lost by death Sir W. Jenner, Bart., an original and honorary member, President in 1875-76, and 6 ordinary members, whilst 5 ordinary members had resigned. The average attendance on "clinical evenings" had been as high as 86. It was proposed from the chair that the report be received, adopted, and entered on the minutes. This was carried unanimously.

The Treasurer's statement of accounts was explained by Dr. W. M. Ord, the Treasurer. It showed a balance of £224 on current account, and of £600 invested in Consols. Dr. Ord moved that the statement be received, adopted, and entered on the minutes. Sir Dyce Duckworth seconded the resolution, which was carried *nem. con.*

Election of Council.—The officers and Council, proposed by the Council for election, were all elected. The following is the list, namely:—*President:* Sir R. Douglas Powell, Bart., M.D. *Vice-Presidents:* S. Coupland, M.D., J. F. Goodhart, M.D.; L. W. Sedgwick, M.D., A. Pearce Gould, M.S., J. H. Morgan, H. W. Page, M.C. *Treasurer:* F. Howard Marsh. *Council:* A. T. Davies, M.D., J. K. Fowler, M.D., A. E. Garrod M.D., W. J. Mickle, M.D., J. A. Ormerod, M.D., J. F. Payne, M.D., J. J. Pringle, M.B., H. D. Rolleston, M.D., Harrington Sainsbury, M.D., R. Percy Smith, M.D., J. C. Uhthoff, M.D., W. H. Battle, J. Berry, M.S., Stanley Boyd, B.S., L. A. Dunn, M.S., F. S. Eve, Stephen Paget, G. H. Makins, T. P. Teale, F.R.S., G. R. Turner. *Honorary Secretaries:* Charters J. Symonds, M.S., Percy Kidd, M.D.

Votes of Thanks.—Thanks to the retiring President for his valuable services were proposed by Sir D. Duckworth and Mr. H. B. Robinson, and carried unanimously. Mr. Langton acknowledged the vote, and stated that he had not missed a single meeting of the Society or of the Council during his term of office. Mr. J. Warrington Haward proposed and Dr. Longhurst seconded a vote of thanks to the retiring vice-president, Mr. Walsham, which was passed *nem. con.* The President proposed a very hearty vote of thanks to the treasurer, Dr. Ord, who was retiring after ten years' good service. Dr. J. K. Fowler seconded the resolution, which was carried with applause, it being also resolved that the vote be printed in the next volume of the Society's *Transactions*. Dr. Ord acknowledged the vote. Mr. Boyd proposed a vote of thanks to the retiring members of the Council; this was seconded by Dr. Pringle, and carried unanimously. A very cordial vote of thanks to the retiring senior secretary, Dr. J. K. Fowler, for his valuable services to the Society during his term of office was proposed by Mr. J. D. Malcolm, seconded by Dr. F. H. Hawkins (Reading), endorsed by the President, carried with applause, and briefly acknowledged by Dr. J. K. Fowler.

The session then ended.

Glasgow Eastern Medical Society.—The following have been appointed office-bearers for next year:—*President:* Dr. W. L. Muir. *Vice-President:* Dr. David Young. *Treasurer:*

Dr. Robert Wilson. *Seal Keeper:* Dr. Wm. Park Porter. *Secretary:* Dr. John Patrick. *Reporting Secretary*: Dr. J. Wainman Findlay.

PATHOLOGICAL SOCIETY OF MANCHESTER.

R. B. Wild, M.D., President, in the Chair.

Wednesday, May 10th, 1899.

Unilateral Pulsus Paradoxus and Indurative Mediastino-Pericarditis.

Dr. Thomas Harris exhibited a specimen of indurative mediastino-pericarditis from a case where during life there had been a pulsus paradoxus, which was marked in the arteries of the left arm only. The pericardium was totally adherent, and there was a marked increase of the fibrous tissue in the mediastinum, with matting of the various structures there, and firm pleuritic adhesions. There was no evidence that the adhesions were such that during inspiration the left subclavian would be more dragged upon than the right subclavian or innominate artery. It was considered, however, that the most probable explanation of the unilateral pulsus paradoxus lay in the greater length, and the narrow lumen of the left subclavian artery as compared with the length and lumen of the innominate artery; that adhesions in the mediastinum would be likely to have a greater effect during inspiration on the narrow subclavian, and would be more likely to cause a kinking of that vessel than would adhesions between the chest wall and the innominate artery.

Primary Sarcoma of Sigmoid Flexure.

Dr. Arnold W. W. Lea showed the specimen, along with microscopic sections, from a case of primary sarcoma of the sigmoid flexure occurring in a child aged 3 years. No symptoms were present until ten days before death. Acute peritonitis suddenly developed with the formation in a few days of an intraperitoneal abdominal abscess. The abdomen was opened and fæcal matter with pus evacuated. Extensive growth was found in the region of the sigmoid, and the finger entered a large perforation of the bowel. The child died two days later. *Post mortem* the abscess was strictly localised; no general peritonitis. The growth was diffuse and polypoid, involving the whole circumference of the gut for about four inches. There was no evidence of obstruction. The glands in the meso-sigmoid were much enlarged; secondary masses in liver; other organs normal. Microscopically the growths were composed of small round cells. Sarcoma of the colon was exceedingly rare, but from the few published cases appeared to be usually of the spindle-celled variety.

Teratoma in Lesser Peritoneal Cavity.

Dr. Wylie showed a congenital abdominal tumour removed by operation from the lesser peritoneal cavity of a child aged 5 months. It consisted in part of imperfectly-developed viscera, and two limb buds projected from the tumour mass.

Pathology of the Fœtal Vesicles.

Dr. Fothergill showed a fœtus and cord in which, through unusual persistence of the umbilical vesicle, that structure was peculiarly well seen. By means of microscopic sections he demonstrated within the fœtus and in the cord the stalks of the allantois and the umbilical vesicle, and pointed out the way in which slight abnormalities in the involution of these stalks produced various lesions such as patent urachus, dilated urachus, Meckel's diverticulum, and fæcal umbilical fistula. Intussusception and volvulus were said to be secondary occasionally to persistence of the stalk of the umbilical vesicle. In discussion it appeared that several members had seen cases of fatal intestinal obstruction caused by a fibrous band stretching from the umbilicus to a Meckel's diverticulum, and representing the same structure.

Card Specimens.

Dr. F. W. Eurich: (1) Angio-sarcoma of Sternum; (2) Carcinoma of Heart secondary to Primary Growth from the Diaphragmatic Pleura.—Dr. E. S. Yonge: Hypertrophied Tonsil with papillomatous outgrowths.—Mr. E. Stanmore Bishop: (1) Pyosalpinx, (2) Suppurating Fibroid.—Dr. A. W. W. Lea: Abscess of Ovary with chronic hæmorrhagic salpingitis.—Dr. F. R. Mallett: Vesical Calculus weighing 12½ ozs. removed by suprapubic cystotomy.—Mr. W. P. Montgomery: Strangulated Hernia with perforation of the small intestine.

MANCHESTER THERAPEUTICAL SOCIETY.

D. J. Leech, M.D., F.R.C.P., President, in the Chair.

Wednesday, May 24th, 1899.

Palliative Treatment of Paralysis Agitans.

Dr. R. T. Williamson made a communication on this subject, in which he pointed out that frequently patients suffering from paralysis agitans were under observation only a comparatively short time, so that it was difficult to form an opinion of the action of drugs. At present it must be acknowledged that medicine was powerless to check the progress of the disease, and all that could be done was to make the patient's life more tolerable. The trembling and the constant restlessness of the muscles were very troublesome to the sufferer, who was often tempted to think that even death would be a release. Dr. Williamson believed, however, that something could be done to improve the patient's condition. It was of the greatest importance to secure sound sleep, as a restless night was quite sufficient to make the symptoms much worse on the following day. Sulphonal or whisky and hot water at bedtime were often useful in this connection. The bed should not be too soft. Though whisky at bedtime helped sleep and did good, alcohol taken during the daytime seemed to increase the trembling, and strong tea and coffee were said to have the same effect. Needlework or writing often seemed to diminish the trembling. Holding the arms above the head for some time might also cause the tremblings to cease for a while. A warm bath had often a good effect. The patient's living room should be well ventilated and not too warm. Dr. Williamson laid great stress on the value of systematic open-air treatment; carriage drives were very advantageous, and railway journeys were often beneficial. As regards drugs, he had tried strychnine, arsenic, potassium iodide, potassium bromide, Calabar bean, gelsemium, cannabin tannate, etc., without any good result. Morphine hypodermically certainly gave relief, but this treatment was very objectionable in a disease of such a chronic course. Morphine or duboisin by the mouth seemed to have little effect. Hyoscine was the only drug which had been found really useful, and Dr. Williamson felt certain of its power to relieve many of the troublesome symptoms of paralysis agitans. He gave it, at first, in pill form in doses of $\frac{1}{250}$ to $\frac{1}{150}$ gr., but found these small doses useless. He now prescribed $\frac{1}{4}$ gr. hyoscine hydrobromate in ℥ vj of chloroform water, the dose of the mixture being two teaspoonfuls, corresponding to $\frac{1}{75}$ gr. of hyoscine hydrobromate. The dose might be increased to $\frac{1}{75}$ gr. In these doses hyoscine seemed to diminish the tremblings and the restlessness of the muscles and the uneasiness, and no bad effects had been observed. After some weeks the drug seemed to lose its good effect, when it was best to stop it for a time; on recommencing with it the good effect was again obtained.

Dr. Leech stated that he had seen two cases of paralysis agitans, in which the symptoms had been favourably influenced by hyoscine. In regard to its administration, he had no hesitation in giving $\frac{1}{100}$ gr. to $\frac{1}{75}$ gr. by the mouth, but $\frac{1}{75}$ gr. given hypodermically might produce alarming symptoms.

Artificial Calamines.

Dr. Wild showed some samples of preparations which he had made in order to find, if possible, a substitute for calamine, as such a substitute would be of great value in the treatment of facial skin affections by ointments or lotions. He had experimented with zinc oxide as a basis and with zinc carbonate, finding the latter give much better results. Carmine was not very suitable as a colouring matter, giving a bluish tinge, and tending to separate from the zinc carbonate on making a lotion. Jeweller's rouge—pure oxide of iron, Fe_2O_3, which was the colouring matter of real calamine—gave very good results. Armenian bole gave more yellowish-tinted preparations, but these were very suitable for some purposes. Dr. Wild exhibited 2 per cent., 5 per cent., 10 per cent., and 20 per cent. mixtures of jeweller's rouge, and with Armenian bole with zinc carbonate. He believed the artificial calamine was preferable to the natural, as precipitated zinc carbonate was finer and softer than the best elutriated calamine.

Valsols and Vasogens.

Dr. Wild exhibited some proprietary preparations bearing these names. The basis was said to be oxygenated hydrocarbons, which had a remarkable power in dissolving medicaments, and which were stated to allow rapid absorption on rubbing these compounds into the skin. With some drugs, such as iodoform and menthol, the vasogen or valsol mixtures were able to form emulsions with water. Sulphur, iodine, guaiacol, creosote, ergotin, mercury, and many other drugs could be made up with these compounds, and their remarkable chemical and physical properties pointed to their being valuable bases, particularly in dermatological practice.

North of England Obstetrical and Gynæcological Society.—At a meeting held at Leeds on May 19th, 1899, Dr. Donald (President) in the chair, the following specimens were shown: Dr. Hellier: (1) Fallopian Tube with chronic salpingitis; (2) Uterus with acute puerperal inversion.—Dr. Braithwaite: (1) Parovarian Cyst; (2) Cystic Ovary.—Professor Wright: A Ring Pessary retained for twenty-three years.—Dr. Gemmell: Uterus removed for epithelioma of the cervix.—Dr. Croft: (1) Series of specimens and microscopic sections of Gynæcological interest; (2) Sarcoma of Uterus following hydatid mole; (3) Fœtal Monstrosities.—Dr. Hellier read notes of a case of Chronic Inversion of the Uterus, successfully reduced by Aveling's repositor. The labour was instrumental, but no hæmorrhage or signs of inversion were noted at the time. On the fifth day the uterus was found at the vulva completely inverted. This was reduced by the medical man in attendance, but some months later, as menstruation was excessive, an examination was made, and the uterus again found completely inverted. Taxis under ether having failed, Aveling's repositor was applied. This effected complete reduction within fifty-one hours. It was, however, necessary to give the patient an anæsthetic to remove the cup of the repositor, which had become incarcerated in the cervix. Remarks were made by Dr. Young, Professor Wright, Dr. Lea, and the President.—Dr. Braithwaite read a paper on a Method of Treating some cases of Amenorrhœa by Mechanical Irritation of the Uterus with an Intrauterine Stem. He advised that in certain cases of suppressed menstruation in which all other remedies failed to bring on the flow a vulcanite stem should be introduced. Suitable cases were those in which the patient was suffering from symptoms such as flushings, headaches, and signs of plethora. The treatment was of no value unless there were distinct menstrual molimina. It was of no use in cases of infantile uterus. The introduction of a stem was also contraindicated in the presence of flexions of the uterus, endometritis, or inflammation of the appendages. In some cases Dr. Braithwaite had succeeded in establishing typical menstruation, in other cases only a single flow of blood lasting a few days. The stems might be worn for some months, and Dr. Braithwaite had never seen any harm arise from their use. In many cases great benefit resulted. Remarks were made by Dr. Hellier, the President, Dr. Rabagliati, Dr. Young, Dr. Gemmell, and Dr. Wright.—Dr. Swailes read notes of two cases of Umbilical Hæmorrhage. Case I. A feebly-nourished child, born of healthy parents. The cord came away on the fourth day and the navel appeared normal. On the tenth day bleeding commenced, and continued in spite of local applications and ligatures. The child became jaundiced and the urine was of high colour. The hæmorrhage proved fatal two days later. No *post-mortem* examination was obtained. Case II. A well-developed infant, born of healthy parents. Slight jaundice appeared on the fourth day. Two days later hæmorrhage came on. Various styptics were applied, and finally hare-lip pins were used. The bleeding, however, continued, and the child died on the fourteenth day. *Post mortem* the umbilical vein was patent up to the liver, but nothing else abnormal was found. There were no signs of infection. Remarks were also made by Dr. Hellier, Dr. Wright, Dr. Braithwaite, and Dr. Lea.

Dermatological Society of Great Britain and Ireland.—At the annual meeting, which was held on May 25th, Dr. H. Radcliffe Crocker, President, in the chair, many interesting cases were shown by the President, Dr. A. Eddowes, Mr. Shillitoe, Dr. P. S. Abraham, and Dr. T. D. Savill. Various drawings and microscopical specimens were exhibited by the President, Mr. Jonathan Hutchinson, Dr. Stowers, and by others.—The President read an address on the Influence of the Individual on the Character of and Development of Diseases of the Skin.—Mr. Jonathan Hutchinson read a paper and opened a discussion on Diseases of the Nails, with special reference to their Significance as Symptoms. The President, Dr. Galloway, Dr. Stowers, Mr. Pernet, Dr. Stopford Taylor, Dr. Savill, and others joined in the discussion.—The annual dinner took place at the Café Royal, and the President was supported by, amongst many others, Dr. S. F. Payne, Mr. Jonathan Hutchinson, Dr. F. Roberts, Dr. de Havilland Hall, Dr. Stopford Taylor, and Dr. Henry Waldo.

West Penwith Medical Society.—At a meeting on May 10th, the President (Dr. J. B. Montgomery), who was in the chair, announced that he had received an invitation to represent the society at the International Congress in connection with the Paris Exhibition of 1900.—The President then read a paper embodying reminiscences of his practice, enumerating his experience of bleeding and leeching, and the results of the introduction of the clinical thermometer, of chloroforming, of hypodermic medication, of the laryngoscope and of the ophthalmoscope.—Mr. Palemon Best read a paper on a case of Puerperal Septicæmia occurring in his practice, attended with phlegmasia, bedsore, abscesses in thigh, and mania, with severe symptoms, ending in recovery.—Mr. C. S. Jago read a paper on a case of Meningitis in a lad of 11 years, following on suppurative disease of the right middle ear, discharging through a perforated tympanic membrane. The patient ultimately died suddenly after a brief unconsciousness attended by strong convulsions. Dr. H. M. Montgomerie mentioned that he had seen the case, in consultation with Mr. Jago, and confirmed the diagnosis. In reply to Mr. W. S. Bennett, Mr. Jago said that a *post-mortem* examination had not been made.—Dr. H. M. Montgomerie showed the following specimens: (1) Typhoid Ileum and Cæcum; (2) Tuberculous Knee-joint; (3) Tuberculous Ankle-joint; (4) Appendix with Concretion taken therefrom; (5) Undescended Testicle in opened inguinal sac.

REVIEWS.

Die Behandlung der Tuberculose mit Zimmtsäure [The Treatment of Tuberculosis with Cinnamic Acid]. Von Dr. Albert Landerer of Stuttgart. Leipzig: F. C. W. Vogel. 1898. (Roy. 8vo, pp. 315. With 26 microphotographs, 2 woodcuts, and numerous tracings. M. 12.)

Anweisung zur Behandlung der Tuberculose mit Zimmtsäure [Guide to the Treatment of Tuberculosis by Cinnamic Acid]. Von Dr. Albert Landerer of Stuttgart. Leipzig: F. C. W. Vogel. 1899.

Some ten years ago attention was called to the value of balsam of Peru as a means of arresting the degeneration of tubercles and promoting their encapsulation and cicatrisation. The cases brought forward at the time did not meet with much attention and even excited some ridicule. The idea was not entirely dropped and observations continued to be published from time to time, recording some amount of success by means of inhalations of oil of cinnamon. Believing in the value of the cinnamic acid contained in the Peruvian balsam, Dr. Landerer returned again to the method of direct injection into the veins during the year 1896. As a reply to certain hostile critics who stigmatised his methods as "secret," he has set forth in the large volume before us not only his results in detail, but a clear exposition of the observations made on artificially tuberculised rabbits as well as on the patients who adopted his treatment. The emulsion which he used must be prepared with more than ordinary care, but when thus prepared it may be used without fear of unpleasant results. Intravenous injections have been repeated as many as fifty times in the same vein at the same spot without giving rise to irritation. Many of the inoculated rabbits made good recovery under the treatment, and were destroyed by chloroform at different stages of convalescence for pathological purposes. The micro-

scopic examination of the lesions showed that at many points where caseation might have been expected, none was taking place, but that a slow process of encapsulation was proceeding around the tuberculous nodules. The prevention of degeneration and consequent softening, with all its attendant evils, is thus the object which the author claims to have attained by this method. Details are given of a large number of clinical cases, which are classified as early, advanced without fever, and advanced with fever. In the first class the proportion of good result appears to be high, and in the second class it is doubtful whether any other method of treatment could show better figures. Even in the third class there are a few striking cases of relief, but the majority of the cases in this class were obviously beyond the reach of any treatment. As in all special forms of treatment for consumption, the successful cases are those in which the patients were most persevering, and in a "cure" lasting over several months, the hygienic surroundings of the patient must be more or less influenced for the better. That the persistent introduction of an antiseptic drug into the veins must exercise some antiseptic effect in the lungs is probable, and Dr. Landerer's book is well worthy of consideration by all who can induce their patients to undergo treatment by continued intravenous injections.

As a supplement to his larger work on this subject, Dr. Landerer has issued a short monograph in which all the salient and practical points are put concisely before the reader. He claims that the intravenous injections of the acid produce a general leucocytosis and an aseptic inflammatory process around the tuberculous nodule leading to the formation of new connective tissue and interstitial pneumonia in the immediate neighbourhood of each focus of disease. For each injection he employs a solution of sodium cinnamate in water, or 0.7 per cent. saline fluid of 1 per cent. to 5 per cent. strength. The dose may vary from 1 to 5 mg., and may be administered every second or third day. The statistical tables show a very large measure of success, not only in cases of pulmonary tubercle, but in that of other organs also. The treatment is continued until all active signs and symptoms have subsided for four weeks. The whole course may vary from three to six months, or may be interrupted for a while and resumed later. Many of the cases were treated without special hygienic supervision, and their improvement may reasonably be attributed to the treatment alone.

"CATAPHORESIS," OR ELECTRIC MEDICAMENTAL DIFFUSION AS APPLIED IN MEDICINE, SURGERY, AND DENTISTRY. By W. J. MORTON, M.D. New York: American Technical Book Co. 1898. (Roy. 8vo, pp. 272, 76 Illustrations. $ 4.00.)

THIS beautifully printed and bound book will long remain a standard work on the subject of which it treats. Dr. W. J. MORTON begins with a summary of the history of electrical osmosis, and then proceeds to its application in medical practice. He devotes separate sections to the physics and physiology, to the electrical apparatus, and to the practical details of the various processes in which electric osmosis is of service. The one which has the widest application is the introduction of cocaine through the skin for producing local anæsthesia. A 10 per cent. solution of the pure alkaloid in guaiacol is recommended for this purpose. There are many minor operations in which this method of inducing local anæsthesia has advantages over general anæsthetics, and it is also more convenient than the injection of the drug locally.

The osmotic introduction of drugs into the regions round gouty joints is also dealt with, and Dr. Morton further considers the electrolysis of tumours and nævi by means of soluble electrodes, that is, of electrodes which become corroded during the passage of the current, and deposit their metallic salts in the part under treatment. Soluble electrodes usually take the form of needles of copper or of zinc. When copper needles are plunged into a nævus and connected to the positive pole of the battery, a greenish zone can be seen to form round the needles during the progress of the operation. The effect of the deposited copper salts is to enhance the destructive action of the current, and caution is therefore necessary until practice has made the operator familiar with the amount of reaction to be expected. No permanent discoloration of the skin seems to result, and in certain forms of nævi the use of "soluble" metallic electrodes presents decided advantages.

LES GLYCOSURIES NON DIABETIQUES. [Non-Diabetic Glycosuria]. Par GERMAIN ROQUE. Paris: J. B. Baillière et Fils. 1899. (Cr. 8vo, pp. 92. Fr.1.50.)

IT is well known that glycosuria may occur in the course of many diseases and pathological conditions. Information upon this subject is to be found ordinarily in textbooks, but still there is good reason for the publication of an essay dealing solely with this subject, on the understanding that it contains statements which are true in fact, and so much the better if it also contains new observations.

We are afraid that the work before us cannot be said to fulfil either of these conditions. While singularly wanting in evidence of personal experience, it seeks to put things in a light which is altogether misleading. The author holds that glycosuria as a symptom is completely distinct from the disease diabetes. He does not believe that a symptom can transform itself into a disease, or that glycosuria can become diabetes mellitus. He admits "that it is not possible to deny the pathogenic influence of gout, of carbohydrate and saccharine articles of diet, of digestive troubles, of nervous maladies, etc., in the causation of glycosuria and diabetes," but he says: "it is not a transformation of the glycosuria, but a new disease which occurs at a certain time, and is expressly created by the same etiological factor" (page 77). Again (page 79) he says: "I do not believe in the existence of hepatic diabetes of glycosuric origin, and I shall continue to think that diabetes supervening in a glycosuric patient is not an aggravation of the primitive symptom, but a new morbid entity, depending upon the same etiological cause." In the absence of any pathologico-anatomical characteristic diabetes is not susceptible of a very rigid definition, but when we find glycosuria giving rise to derangements of nutrition, and threatening health and life, we call the disease diabetes. When it is transitory, or an unimportant symptom of some other disorder, we call it glycosuria, and we are in the habit of seeing cases which at first could not be called diabetes, but their course earns for them that name.

The author finds the greatest difficulty in establishing the distinction between what he calls glycosuria and diabetes, but after admitting this difficulty he goes on to say: (p. 75) "I do not wish to be understood to withdraw what I have established respecting the existence of the above-described clinical types. I am persuaded that there is gouty diabetes, alimentary or nervous diabetes, and diabetes of pregnancy, and that none of these diseases should be confounded with gouty, digestive, nervous, or puerperal glycosuria. I am convinced that in many cases the diagnostic evidence is sufficient to distinguish clearly the two morbid species, but I admit that there are mild cases of diabetes which resemble glycosuria. The diagnosis is difficult in spite of all the enumerated signs, but there is one of capital importance, that is the ultimate result—glycosuria is benign and curable, while diabetes sooner or later leads to organic decay and cachexia. Glycosuria is specifically distinct from diabetes. It has not the same evolution, it does not carry with it the same prognosis, yet in certain cases the symptoms may be very much alike, and their differentiations may be difficult." This is, of course, begging the question.

The author only describes gouty, digestive, nervous, traumatic, and puerperal glycosuria, and leaves out of account the very numerous cases seen after infectious diseases, surgical sepsis, diphtheria, erysipelas, anthrax, boils, abscesses, malarial fever, syphilis, and in the course of malignant disease.

His description of glycosuric urine, on page 14, is somewhat peculiar. According to this account, the quantity is not increased, and yet in another place it is admitted to be as much as three or four litres, that is to say, 90 to 120 ounces; that the colour is light or straw-yellow, although in gouty glycosuria it is very often high-coloured; that it is limpid and strongly-refracting, although in the same condition it is often turbid with urates; that there is no increase of density, and that the sugar is always present in small quantities, although

in some of the most undoubted cases of transitory glycosuria the quantity present may be very considerable, and the specific gravity in consequence high; that the reduction of copper is incomplete, although when sugar is present in even 1 per cent. the reduction of copper is complete; and lastly, that the urine contains leucin and tyrosin, a statement which certainly needs confirmation.

On page 20, speaking of the glycosuria of obesity, he makes the extraordinary statement that in what the French call "*diabète gras*" the diabetes actually makes the patient fat; and he contrasts this with the glycosuria of obesity, where the alteration in the urine is the consequence of the accumulation of fat. On pages 36, 37, and 38 he labours to prove that the use of saccharine and amylaceous articles of food is a frequent cause of glycosuria, but his facts are of a most haphazard kind and many of the statements doubtful. For instance, he says that Dr. Tholozan speaks of the extreme frequency of glycosuria in Persia, but in a letter from Dr. Tholozan to the present writer he expresses the opinion that glycosuria is less frequent in Persia than in Europe. Again he quotes Christie upon the frequency of diabetes in Ceylon, and attributes this to the diet of the people consisting chiefly of carbohydrates, but diabetes in Ceylon is prevalent not amongst the poorest class, but amongst the well-to-do natives, and is as common amongst the Mohammedans and descendants of the Dutch colonists, who eat flesh, as amongst the Hindus, who do not. Again he quotes Cantani for the statement that diabetes or glycosuria is very common amongst the negroes employed upon the sugar plantations, but in Mauritius and British Guiana, where the people are chiefly employed on the sugar plantations, the disease is very rare. It is true the people there are chiefly East Indian coolies, but in the United States of America the disease is so rare among the negroes that Dr. Tyson of Philadelphia has never seen a case in anyone of that race.

In referring to the glycosuria of alcoholism (page 46), he makes the somewhat extraordinary statement that in most diabetic dietaries "l'interdiction de l'alcohol figure en première ligne."

In spite of the author's view that glycosuria always tends to recovery, he finds it necessary to recommend the most energetic treatment, including strict antidiabetic diet, and the employment of all the drugs in use against diabetes, but we suppose it is by a slip of the pen that on page 81 he advises to relieve thirst by "malt extract diluted with water."

We have quoted so much in order to show how thoroughly untrustworthy the book is, and we can only express our regret that an essay on a subject of some interest should be disfigured by such grave faults.

UEBER TEMPERENZ ANSTALTEN [Temperance Institutions]. Von A. SMITH. Würzburg: A. Stuber. 1899. (Crown 8vo, pp. 70. M.0.60.)

THIS interesting and suggestive pamphlet appears at an opportune time. The author contends that it is mainly through its action on the heart that the evil effects of alcohol on the nervous system are produced. Sooner or later, in acute as well as in chronic cases, in all who drink to, what is for them, excess (even though the excess does not manifest itself by any of the ordinary symptoms of intoxication), the heart becomes dilated, and remains so long after the immediate effects of the alcohol have passed off. The author believes that changes in the size of the heart, imperceptible to ordinary percussion, can be ascertained by the use of the phonendoscope combined with Bianchi's "friction technique."

He urges that to treat any case of alcohol poisoning successfully, it is as necessary to treat the cardiac condition as it is to enforce total abstinence. Until the heart returns to the normal the patient is not to be regarded as cured, for until the brain receives adequate nourishment it will continue to give rise to the particular sensations which incite the patient to drink. The craving for alcohol is kept up by a dilated heart.

The author here overstates his case. There are too many persons with dilated hearts who have no particular desire for alcohol, and too many alcoholic patients who, long after their restoration to apparently complete health, find even the taste of an alcoholic beverage enough to rouse once more the desire to drink to excess, for it to be admitted that a dilated heart is the principal factor in causing or keeping up a craving for alcohol.

Still, whatever the relative importance of damaged nerve cell and flabby heart muscle may be, the part of the "vicious circle" which, in practice, can be attacked most easily is certainly the circulatory apparatus. In this connection the author's observation is interesting that, during the treatment of persons addicted to the use of morphine, each reduction in the quantity taken was followed both by the ordinary feelings of distress and by a temporary dilatation of the heart.

While there are a good many institutions at which well-to-do persons can be treated, the author advocates a large increase in the number of similar institutions available for the poor, and gives valuable hints as to the lines on which such establishments must be conducted. Dr. SMITH's opinion of their value may be gauged by his somewhat optimistic statement that "with proper treatment there is hardly any disease which can be cured so certainly as so-called.....dipsomania." He does not touch on the question of how to prevent relapses on the part of patients who have been "cured," nor on the thorny subject of prophylaxis.

LE MYXŒDÈME (Myxœdema). Par le Dr. THIBIERGE. Paris: Masson et Cie. 1898. (Royal 8vo, pp. 32. Fr. 1.25).

IN this monograph, which belongs to the medico-chirurgical series appearing under the direction of Dr. Critzman, the author divides the subject into: (1) Spontaneous myxœdema of the adult; (2) infantile myxœdema; (3) operative myxœdema; and (4) endemic myxœdema or cretinism. In infantile myxœdema the functions of the thyroid body are suppressed during the period of the development of the individual. Typical cases justify the name of myxœdematous idiocy. Under endemic myxœdema the author observes that mere enlargement of an organ does not necessarily imply increased function, for such enlarged organs may be physiologically inert if the glandular element has been destroyed and replaced by a pathological tissue. After describing the individual forms, Dr. THIBIERGE deals with the diagnosis, pathogeny, and treatment of the affection as a whole. He thinks that iodothyrin is not the only active substance of the thyroid body, although it is the one which has been best studied. The question of the accessory thyroids or parathyroid glands is also discussed. Here the author states that they have not exactly the same significance in man as in animals. Attention is drawn to the untoward symptoms sometimes attending thyroid treatment. Dr. Thibierge's monograph contains an interesting and clear account of a subject of much importance.

MANUAL OF FIRST AID. By J. A. AUSTIN, M.D. London: Sampson Low, Marston, and Co. 1898. (Crown 8vo, pp. 216, 65 illustrations, 3s. 6d.)

THIS, the latest addition to the first-aid manuals, appears to be in no way inferior to its numerous predecessors; indeed, it goes more into detail than many of them. It is intended not only for a textbook to be used by those attending a course of lectures, but is written in a style calculated to encourage an ordinary reader to go through it and keep it at hand for reference in case of emergency.

The first two chapters are devoted to the object and method of instruction, and the next eight to elementary details of anatomy and physiology. Then follow eight chapters describing the ordinary accidents of daily life and the best way to deal with them. The next two chapters indicate the various methods of applying bandages and splints, and the different ways of moving injured persons with the least possible discomfort to the sufferer and the least labour to the helper, and the various precautions to be observed in these operations are duly referred to. In the last chapter the action of the more common poisons is described, and a few useful practical hints as to what should be done to combat their effects are given.

The book is carefully written, and the illustrations are good, and those who select it as their guide may rely on the advice given.

Die Neurologie des Auges: Ein Handbuch für Nerven- und Augenärzte. [The Neurology of the Eye: A Handbook for Neurologists and Ophthalmologists.] Von Dr. H. Wilbrand and Dr. A. Saenger. Vol. i, pt. 1. Wiesbaden: J. F. Bergmann, and Glasgow: F. Bauermeister. (Royal 8vo, pp. 306. 63 illustrations. M. 6.)

The scope of this work, as announced in the preface to the portion now published, is to present a description of the physiological and pathological conditions of the several structures of the eye from a neurological standpoint. In carrying out their object the authors further aim at placing before the reader the pertinent facts gleaned from all the available literature relating to each of the subjects and arranging the matter in such order as to enable him readily to estimate the diagnostic meaning of any morbid symptom in which he is interested.

Among the subjects included in the first two chapters are the surface anatomy, the sensory innervation of the conjunctiva, and the shape and size of the palpebral fissure as dependent upon conditions apart from affections of the levator and orbicularis muscles. The lid reflexes, the associated movements of the lids and eye, and spasm of the levator palpebræ are the subjects of the next three chapters. The remainder of the book (more than two-thirds) is concerned with ptosis in some of its manifold relationships. The thorough treatment accorded to each subject is especially conspicuous in this last, the most difficult, section of the book; in each subdivision the differential diagnosis is considered very fully, and a tabulated epitome of the cases is given.

Respecting the oculomotor nucleus, the authors show that the latest researches tend to upset much that has been written concerning the constitution of the nucleus itself, and the position of the centres for the individual eye muscles. In a case of uncomplicated congenital bilateral ptosis they found aplasia of the right large-celled lateral segment and of the left Edinger-Westphal's cell group; they conclude therefrom that the fibres for the levator palpebræ originate in those nuclei. Their own observations agree with those of recent writers, who maintain that the upper branches of the facial nerve do not arise from the oculomotor centre.

In Part 2 of the first volume the chapter on ptosis will be concluded; spasm and paralysis of the orbicularis muscle, the conjunctiva, cornea, and lachrymal secretion will be the other subjects. Vol. ii is to be devoted to the pupils. The retina, optic nerve, hemianopsia, and functional nervous disorders are to be treated in Vol. iii; and ocular muscle derangements are to form the subjects of Vol. iv. The whole treatise is to be completed within the next three years.

Judging from the standard of this instalment, the work will be an invaluable aid to diagnosis, and a very convenient guide to most of the literature. The illustrations are exceptionally good.

NOTES ON BOOKS.

The Danish Tourist Society have issued a convenient pocket guide to *Copenhagen and its Environs*, which contains a plan of the city, with an inset of the coast immediately to the north, and a sketch plan of Denmark. The text gives, arranged in a convenient form for ready reference, the information usually to be found in guidebooks—lists of hotels and restaurants, descriptions of the principal sights of the city, and an excellent table showing at a glance the days and hours on which the various public buildings are open. The English of the text is intelligible, though it stands in need of skilled revision. The same Society issues also a well-illustrated pamphlet giving some account of the climate, sights, and amusements of Copenhagen, and of the route there *viâ* Harwich and Esbjerg. This pamphlet, entitled *Copenhagen, the Capital of Denmark*, is published at the price of 2s., and, like the guide, can be obtained in this country from Messrs. Simpkin, Marshall and Co. The best time to go to Copenhagen is probably June or July. The town itself is beautiful and interesting, and many agreeable excursions can be made from it, especially by water.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

Malt Extract.—An analytical examination of a sample of the "Exonia" malt extract prepared by Messrs. Evans, Gadd, and Co., of Exeter, shows that the sample was a very good pale malt extract, having a high degree of diastasic power. It is a carefully prepared extract of excellent quality, and is deserving of attention.

Chocolate-Coated Tablets.—Messrs. Parke, Davis, and Co., manufacturing chemists, 21, North Audley Street, London, W., have sent samples of compressed tablets coated with chocolate. These chocolate-coated tablets are not all compressed simple powders, but many are compound in their composition. They have a very tempting appearance, and can be kept in the mouth for some time before any taste of the ingredients can be perceived. We find that when they are placed in warm water they quickly break up.

Carbolic Acid Soloids.—Messrs. Burroughs, Wellcome, and Co., Snow Hill Buildings, E.C., prepare a compressed form of carbolic acid intended for the ready preparation of antiseptic solutions. These soloids are coloured in order to distinguish them from compressed drugs intended for internal use, and when dissolved they form yellowish-green solutions. These soloids are put up in corked glass tubes. They are more convenient and safer to carry than liquefied carbolic acid, and the solutions are as quickly prepared, the soloid dissolving at once when placed in water. A soloid acid carbolic 60 grains when dissolved in three-quarters of a pint of water yields approximately a 1 per cent. solution. Soloids containing 20 grains of carbolic acid are also made.

Tabloids.—We have received specimens of a compressed tabloid containing 2½ grains each of pulv. ipecac. co. and bismuth subnitrate, prepared by Messrs. Burroughs, Wellcome, and Co., Snow Hill Buildings, E.C. We find that when they are placed in water they commence at once to disintegrate, and in a short time are reduced to a fine powder.

Acoine.—Messrs. Burgoyne, Burbidges, and Co., 12 and 16, Coleman Street, London, E.C., have sent a specimen of acoine, a new synthetical compound possessing anæsthetic properties similar to those of cocaine. It does not appear that acoine has been tried in ophthalmic practice or by the surgeon, but experiments made upon dogs at the Dresden Veterinary College show that acoine does not give rise to any of the symptoms of poisoning which may be caused by cocaine. In large doses it exerts a corrosive action on the stomach and intestines, and may thus cause death. In a concentrated form it is objectionable on account of this corrosive action, but in weak solutions it may perhaps be used in place of cocaine.

Airol.—Airol is a chemical compound of gallic acid, iodine, and bismuth, introduced some years ago as a substitute for iodoform. It occurs in the form of a greenish-grey powder, almost odourless, tasteless, and unaltered by light. Exposed to moist air it gradually changes into a red powder, a more basic oxyiodogallate containing less iodine. Airol is insoluble in ordinary solvents, and by the action of boiling water it is rapidly decomposed, being converted into the above-mentioned red compound. With water and glycerine it forms an emulsion which preserves its colour for a certain time. Mixed with soft paraffin, vaseline, or anhydrous wool fat, a permanent ointment can be made. The results of the use of airol have recently been given by Dr. L. V. Lesser, in a paper read before the Medizinische Gesellschaft, at Leipzig.[1] In this paper the author states that having experimented with a large number of iodoform substances, he has found airol only to be satisfactory; he has employed it for nearly three years in place of iodoform in almost all operative and other wounds. The sample of airol we have examined has been prepared by Hoffmann, La Roche and Co., Basle.

[1] *Deut. med. Woch.*, No. 1, 1899.

VACCINATION IN INDIA.

THE REPORTS FOR 1897-98.

WE have received eight reports relating to vaccinations performed during the year ending March 31st, 1898, in Bengal, the North-West Provinces and Oudh, the Punjab, the Presidencies of Madras and Bombay, the Hyderabad Assigned Districts, Assam, and Burmah. These reports are drawn up for the official year because the main bulk of the work is done during the cold season, and a report for the calendar year would cut the proceedings in two and compel officers to devote to drawing up statistics time which is far more usefully spent in directing and inspecting operations. The system now in force in India is to submit a full report every fourth year, and for the intervening two years to prepare tabular statements and short comments. The reports for 1897-98 belong to this latter class.

THE AMOUNT OF VACCINATION.

The main results for the year are summarily displayed by the following table:

Province.	Population.	Number of Successful Primary Vaccinations.	Number of Infants under 1 Year Successfully Vaccinated.	Percentage of Success in		Number of Operators.	Cost of each Successful Case.
				Primary Vaccination.	Revaccination.		
							A. P.
Bengal	70,832,144	2,195,509	508,615	98.04	69.69	3,701	1 3
N.-W. Provinces and Oudh... ...	47,146,033	1,182,395	551,113	93.74	68.20	866	1 8
Punjab ...	20,724,940	596,391	475,929	94.40	60.77	305	2 2
Madras... ...	35,651,577	1,067,319	329,629	92.0	81.0	824	3 0
Bombay ...	22,701,942	626,170	503,795	91.90	58.41	435	6 10
Hyderabad Assigned Districts	2,897,040	91,677	73,534	96.4	30 0	44	2 0
Assam	5,634,158	269,364	55,574	98.84	92.05	240	1 8
Burmah ...	8,146,855	383,748	109,977	94.56	61.38	167	2 9

The year was a very unfavourable one for vaccine progress. The people were unsettled by famine and plague, the births were fewer, and many of the children unfit from inanition and sickness to undergo vaccination. The vaccinators were largely employed on plague and famine duties, and the superior officers withdrawn for frontier and other work. Under these circumstances, the decreased number of operations performed in several provinces is not to be wondered at.

THE HISTORY OF VACCINATION IN INDIA.

The figures shown in the foregoing table, which may be accepted as fairly reliable, indicate an insufficient amount of vaccination, and especially of infant vaccination. Vaccination was introduced into India in 1804 *viâ* Constantinople, Bagdad, and Bombay. At first its practice was limited to presidency towns and civil stations and their neighbourhood, and success depended largely on the personal influence of civil officials. Prejudices and the interested opposition of inoculators had to be overcome. There are no indications in these reports that either of these obstacles occasion much trouble now, but apathetic resistance to change is encountered in India even where active resistance has disappeared. In the early days of vaccination the squad or locust system was much in favour. Gangs of vaccinators, properly organised and under European control, swept over definite areas and vaccinated every man, woman, and child not already protected by small-pox or inoculation. Fresh ground was taken up every cold season and the old fields of work revisited after the lapse of a few years. During the hot and rainy seasons the vaccinators were withdrawn to the hills, and kept the lymph alive for the winter campaign. This was the system initiated by Dr. Frank Pearson in the North-West Provinces, and it gave a great impetus to vaccination.

THE PRESENT SYSTEM.

Now it has been superseded by the fixed or localised system under which vaccinators are entertained by district and town authorities, and are assigned each a separate and definite territory in which work is perennially carried on, and the unprotected are systematically and, if possible, exhaustively dealt with. Gangs are still maintained in some provinces for emergent work connected with small-pox outbreaks. Vaccinators are also located at dispensaries and employed by native States, factories, tea gardens, etc. The introduction of local self-government into Indian administration has rendered these more systematic arrangements possible, and it only remains to develop and extend them until vaccination is placed within easy reach of all and becomes a universal habit. Originally Government paid entirely for vaccinators, but local bodies now largely share the burden, and in Bengal and Assam recourse has been had to a system of licensing vaccinators, which consists in teaching inoculators how to vaccinate, assigning to them definite tracts for practice, and allowing them, in consideration of submitting to supervision and rendering returns, to charge moderate fees for their service. The old guild of inoculators has, in fact, been turned into a guild of vaccinators.

ARM-TO-ARM VACCINATION.

In the early days human lymph was exclusively employed. It was obtained from England in tubes, and on ivory points, then cultivated on the hills, and transmitted to the plains in the same way. Arm-to-arm vaccination was resorted to under the gang system and became the rule everywhere.

CALF LYMPH.

Latterly animal lymph has been extensively introduced. Calves are bought, or hired, or given, and are either carried about as vaccinifers or used in depots to supply lymph in quantity, which is mixed with glycerine, lanoline, or vaseline, and distributed. These means of supplying animal lymph are more or less on their trial, and the results obtained by the use of lymph pastes are stated not to have been so good as those yielded by the pure article taken from the child or calf; but the reports show that the use of animal lymph is on the increase, and that its employment tends to facilitate work and remove prejudice.

THE PROPORTION OF SUCCESSES.

It will be observed that the ratios of successful vaccination vary considerably in different provinces. Much of this variation is probably due to different methods of computation, and more uniformity and perhaps stringency of check are desirable. The value of inspection of work and verification of returns is fully realised by Government authorities, and there is also a frank admission of the need of both.

THE COST OF VACCINATION.

The cost of vaccination also varies very much. This depends on the circumstances of each province and largely on the amount of work done by each operator, which is inversely proportionate to the difficulties and opposition encountered. The Bengal system of licensing inoculators obviously diminishes the cost per case materially as compared with provinces where no such system prevails.

VACCINATION AND SMALL-POX.

An attempt is made in these reports to compare the degree of vaccine protection with small-pox mortality in districts and towns. Some facts are stated which indicate that the better protected have less small-pox than the worse. But the question is one which cannot be satisfactorily settled by such data, the problem being complex and demanding special and discriminating inquiry and study.

COMPULSORY VACCINATION.

The application of laws rendering vaccination compulsory is extending. Laws were at one time enacted prohibiting inoculation. They do not appear to be necessary in these days and no mention is made of them in these reports. It is difficult in the absence of exhaustive birth registration to work a compulsory system of vaccination, but the attempt has been made in a large number of Indian towns, and with attention and perseverance it will no doubt succeed: but it would be very satisfactory if from time to time and in different localities a census were taken of children and adults, indicating the proportion among those inspected who were protected either by small-pox or vaccination. Vaccine census of this description would also be a valuable test of the thoroughness of vaccine work.

NOVA ET VETERA.

JOHN SHELDON, ANATOMIST AND SURGEON
(1752-1808.)

AMONGST a collection of pencil drawings of medical worthies purchased by the Royal College of Surgeons of England at Christie's in July last, is one which purports to be John Sheldon. Like all the portraits in this collection executed by George Dance, the head is represented in profile, an unsatisfactory form of likeness, but the features depicted appear to be reconcileable with those of the large oil painting now in the Curator's office at the College, which was painted by A. W. Devis, and presented by Sheldon's widow in 1821.

In the catalogue of the oil paintings, etc., possessed by the College, which was drawn up by Mr. Hallett, some particulars of Sheldon's life are given, from which the following are partly borrowed: He was born in 1752, became a Fellow of the Royal Society in 1784, and died in 1808. His education commenced by apprenticeship to Watson, at whose school in the Tottenham Court Road he was first pupil and afterwards teacher. Those were stormy times for the student of anatomy, and this school was ultimately wrecked by a mob. Subsequently Sheldon was associated with William Hunter in teaching at the Windmill Street School, and in 1777 he opened a private anatomical theatre in Great Queen Street, Lincoln's Inn Fields. A prospectus of his lectures is still extant, bound into a volume of tracts, in the Library of the Royal Medical and Chirurgical Society. In this he announces his intention of giving five courses of twenty lectures each, embracing anatomy, physiology, surgery, and comparative anatomy, for the whole of which the fee was to be 10 guineas. Anyone paying this sum was to be constituted a perpetual pupil. He also offered facilities for dissection and for instruction in other branches of medical science, and was willing to give private instruction to any who might desire it. At the foot of his prospectus he advertises for a house pupil or apprentice "whose situation will be attended with singular advantages."

This prospectus bears no date, but from its perusal the impression is left that Sheldon was desirous of devoting himself to scientific investigation and to teaching rather than to practice. He, however, became surgeon to the Medical Asylum in Welbeck Street, and in 1786 was appointed surgeon to the Westminster Hospital. But his health broke down; he resigned in 1788 and removed to Exeter, where in 1797 he was appointed surgeon to the Devon and Exeter Hospital. But it seems probable (*vide infra*) that he must have returned for a time to London after first leaving it; the pencil portrait by Dance is dated 1793, and the oil portrait appears to be that of a man much older than 36—the age at which he first broke down; moreover, Dance was the architect of the existing building in Lincoln's Inn Fields, which was erected in the first years of this century.

Sheldon succeeded to William Hunter as lecturer on Anatomy to the Royal Academy in 1782, and was the author of an important work on the lymphatics; he was the first to point out that, in order to get relaxation of the extensor muscles, and so good approximation of the fragments in cases of fractured patella, it was essential that the thigh should be flexed upon the body, so that he was apparently the originator of the inclined-plane treatment of these fractures; he also edited some of Lieberkühn's works. His style was lucid, and his published writings stamp him as probably having been an excellent teacher.

Such are the bare facts of his life, but a more living picture of the man has come down to us in the pages of Faujas St. Fond, a French *savant* devoted to geology and mineralogy, who visited this country about 1790. Owing to the disturbances of the French Revolution, in which many of his friends perished, he did not publish his memoirs, *Voyage en Angleterre et en Ecosse*, until 1797.

St. Fond brought with him letters of introduction to many of the leaders of science of the day: to Sir Joseph Banks, John Hunter, Dr. Lettsom, Watt, Priestley, Sheldon, and others. The gossiping minutiæ with which his pages abound give to his book an enduring interest long after its scientific value has been effaced by the lapse of time. He regrets that he missed seeing John Hunter, who was absent from town, a regret which posterity may well share, for he paints John Sheldon for us with a skilful touch. He tells us that one must have seen and known Sheldon to appreciate aright his passion for study; animated by the fire of his character the English gravity was not evident, and his vivacity—which to some might appear extreme—was balanced by most estimable qualities. But, St. Fond adds, we must not look, in a man so possessed by enthusiasm for work, for that same evenness of temperament that pertains to men cast in a more ordinary mould.

St. Fond spent many mornings inspecting Sheldon's collections of rare objects and of anatomical preparations, but what interested him perhaps the most was a sort of mummy which occupied a conspicuous place near to the bed in the anatomist's bed room. A kind of table of mahogany, the top of which opened with a hinge, contained an inner case of cedar wood, covered by a sheet of glass, beneath which lay the nude body of a girl of 20, with beautiful brown hair. The glass was lifted, and he was made to admire the suppleness of her arms, of her breasts, and even of her cheeks, and the perfect preservation of the rest of the body. It had been thus preserved without opening the case at all for five years, but when shown to St. Fond it had already been opened several times. He notes that already the flesh was beginning to dry too much, and the muscles were too strained, which gave to the face, though it still retained the traces of great beauty, a drawn expression which partly effaced the sweetness of her features.

To preserve the body it had been many times injected with a saturated solution of camphor in strong spirit, to which a little turpentine had been added, and the skin had been rubbed with finely-powdered alum. The viscera had been removed and steeped in spirit to which camphor and resin had been added, and subsequently treated with alum and replaced. With a view to imparting more of the colour of life to the face the carotids had been injected with a coloured fluid; the body was then laid on a film of quicklime and the box hermetically sealed. Impelled by curiosity, St. Fond inquired who she had been that Sheldon had thus bestowed such pains upon her preservation, and was told that she had been a mistress whom Sheldon had tenderly loved, but who had succumbed to consumption. He had attended her through her long illness, and shortly before her death she had desired that he should embalm her body and keep it near to him.

St. Fond, as he tells us, rather wished that he had not heard this, for he esteemed it a somewhat ghoul-like procedure to make "*de sang froid*" an anatomical demonstration of the object of one's tenderest affections, and he thought of the ancient Egyptians, who, whilst ready to avail themselves of the services of embalmers, were given to stoning them at times. Yet he comes round to thinking that Sheldon did not deserve such harsh treatment, for he was good and sympathetic, and the courage of his act must not be set down to cynicism, but rather to a self-control not incompatible with sensibility. But Sheldon afterwards married, and the poor mummy was banished. It found its way to the College of Surgeons, where it now is in a back room, alas, no more with any semblance of life, but shrunken and as hard as a board, the skin of the arms, neck, and chest quite white, but the face, where apparently the colour injected has remained, a dull red, all the more ghastly for its colour, and the long brown hair is beautiful no more. What an irony of fate, that the gratification of the poor girl's dying wish should have had no better result than that her last resting-place should be the lumber room of a great museum!

Then, with renewed interest in the man, one goes back to his portrait to find a strongly marked but fine face, in wig and pigtail, with, especially in the profile, features perhaps a little suggestive of eccentricity, but with not a trace of hardness.

A SPECIAL appeal signed by the Duke of Westminster has been issued on behalf of the West London Hospital. The object is to raise a sum of £60,000 to complete the alterations and extensions which will eventually raise the accommodation for patients to 250 beds and cots, and provide a more suitable home for the nurses, and better administrative offices.

THE LEICESTER BOARD OF GUARDIANS ON VACCINATION.

THE Leicester Board of Guardians have declined to appoint a vaccination officer in place of one who has resigned, and on being pressed to do so by the Local Government Board have explained their reasons for declining in a memorial to the Board. As this memorial has been printed and circulated by the guardians before any reply had been received from Whitehall, and as the position which Leicester has assumed in the vaccination controversy is an interesting one, there can be no impropriety in examining the justification with which the guardians seek to cover their inaction.

The memorial stands, it may be said, on two legs—a historical and an argumentative—each of which is intended to support the other. The historical portion of the memorial sets forth, in a form that is not open to serious criticism, the origin, progress, and, as the guardians think, the causes of the disaffection against the vaccination law which Leicester has exhibited for so many years. It takes us back to the passing of the Act of 1867, and the guardians allege that they commenced prosecutions against defaulters even before it was compulsory on them to do so.

There is one phase of the history of vaccination in Leicester which the guardians have not thought it necessary to include in their historical summary. They appear to attribute the feeling which has undoubtedly been created in Leicester against vaccination entirely to the indignation caused by wholesale and indiscriminate prosecutions. While it may be admitted that there may be a good deal of truth in this assumption, and that more discretion on the part of the guardians in the early days of the administration of vaccination might have saved a good deal of trouble in after years, yet there have been other and potent influences at work in Leicester, without which it would never have assumed the prominent position it has occupied in the anti-vaccination crusade.

The case which the antivaccinators of Leicester submitted to the Royal Commissioners on Vaccination, with its discussion, fills more than 243 closely-printed foolscap pages, to say nothing of numerous tables and diagrams. Of these, no fewer than 165 are taken up by the evidence of Mr. J. T. Biggs, whose hand is to be traced in most of the antivaccination documents that have emanated from Leicester, and who, if he has not been the actual Coryphæus of the antivaccinist movement generally, has played no small part in it. It is noteworthy that Mr. Biggs, who was some years ago a member of the Leicester Board of Guardians, when he did yeoman's service in stiffening their backs to ignore their duties under the Vaccination Acts, but who had for some time retired from the position, has lately returned to the Board, apparently to perform the same office again. It is only doing bare justice to him to admit that, notwithstanding other conditions which made for antivaccination in Leicester, it is very doubtful whether the agitation would have ever obtained the dimensions it has done had it not been for his untiring activity. But he was not alone. He had the support, and indeed the active assistance of a number of colleagues, amongst whom may be specially mentioned the late Mr. P. A. Taylor, for some time M.P. for Leicester, who for years carried on the fight against vaccination in the House of Commons, as cricketers say, "off his own bat." What Mr. Biggs has accomplished for the antivaccination cause in Leicester has been done for it in other towns by similar enthusiasts, in most cases manufactured by the same unwise zeal in prosecuting defaulters which distinguished the Leicester guardians.

There were, however, other conditions which materially helped the agitation, if, indeed, they did not form the real foundation on which it rested. Reference has been made to the claim of the Leicester Guardians that they at first carried out the compulsory provisions of the Vaccination Acts with great energy. This claim is well founded; Mr. Biggs, in his evidence before the Royal Commissioners, stated that he himself had been summoned five times as a defaulter, and that on three occasions his goods had been distrained on. This was quite enough to invest him with the halo of martyrdom, and accounts for the fervour with which he has so pertinaciously withstood the public vaccinator. But it is only fair to add that all the Leicester witnesses of any position who appeared before the Commissioners, including several ex-Mayors and other leading citizens, agreed in their opinion that it was to the indiscriminate character of these prosecutions that the steady growth of the feeling against vaccination in the town was largely due.

By the operation of these and other influences the soil was well prepared for the great antivaccination demonstration which was held in Leicester in 1885. This was called a National Conference, and it not only helped to give cohesion to the antivaccinist movement throughout the kingdom, but justified Leicester in claiming to be its Mecca.

There is only one other remark that it seems necessary to make before leaving this section of the memorial. It might have been thought that at the time this continued assault on vaccination was taking place at Leicester some counter-effort would have been made by those who, from their official position, if for no other reason, may be supposed to be competent to defend it. But there is no evidence of any such effort. The antivaccinators seem to have had it all their own way. It may be that the question of compulsion had become so hopeless at Leicester that the difficulty of eliminating it from the discussion paralysed all effort to put the claims of vaccination in their proper light.

The conscience clause has only nominally removed this difficulty, if, as is asserted by the guardians, there are 70,000 unvaccinated children in the town; for it would be hopeless to expect a fair hearing for the claims of vaccination so long as the large body of recalcitrant parents whom this number of children may be taken to represent are virtually pledged to resist it. For some years past the Leicester Board of Guardians have had occasional conflicts with the Local Government Board, the last stage of which—so far, at any rate, as vaccination is concerned—appears to have been at length reached. Had Mr. Chaplin insisted on taking vaccination altogether out of the hands of Boards of Guardians, and on putting the medical portion of its administration into the hands of sanitary authorities, and entrusting the legal portion to a competent and independent official, he would have avoided the difficulty in which he now finds himself. But he allowed himself to be over-ridden by his colleagues, and he has now to choose between another ignominious capitulation and a hard fight with the Leicester guardians.

The only other portion of the memorial of the Leicester guardians that calls for any comment is the plea they bring forward in justification of their inaction on the ground that the health of the town has not deteriorated in consequence of non-vaccination. Indeed they aver that the contrary is the case, as they say that the general death-rate has fallen from 27 per 1,000 in 1872 to only about 17 per 1,000 for the last ten years. The guardians do not venture to allege, as has been done before, that the decrease, especially in infant mortality in Leicester, which has also been conspicuous, is attributable to non-vaccination. The inaccuracy in the second case would be scarcely greater than the fallacy in the first.

The other argument, as to the actual experience of Leicester in small-pox since it began to neglect vaccination, is touched with a delicate hand. The Local Government Board are offered the curious information that when small-pox has occurred in Leicester "it has usually (*sic!*) been imported," and, of course, "always by vaccinated persons from well vaccinated districts." But we hear nothing about the attack of 113 unvaccinated children at Leicester out of 357 persons of all ages in 1892-3, nor of the death of 15 of them in an epidemic of an admittedly mild type, only 4 other fatal cases having occurred. Those who drafted the memorial probably felt that in referring to this phase of the question they were skating over very thin ice. To use their own phrase, "these matters require clearing up."

THE Congress of the Royal Institute of Public Health will be held in Blackpool from September 21st to September 26th, under the presidency of the Marquis of Lorne. There will be four Sections: (*a*) Preventive Medicine and Vital Statistics, (*b*) Chemistry and Meteorology, (*c*) Engineering and Building Construction, (*d*) Municipal and Parliamentary. Conferences will also take place of medical officers of health, veterinary surgeons, sanitary inspectors, and port sanitary authorities, and a conference of ladies on domestic hygiene.

HOSPITAL REFORM ASSOCIATION.

We have received the following report of Council for the year 1898:

The past year as compared with the previous one (1897) has been rather uneventful. At the same time, work has been accomplished which will, it is hoped, bear fruit in the future. The meeting of the Association (which was held by kind permission of the Council of the British Medical Association) in Edinburgh was, it must be confessed, rather a disappointing one with regard to the number of men who attended it. Several very practical papers were read, and good reports of them appeared in the Scotch papers. It is doubtful whether it is wise to hold a meeting when the annual meeting of the British Medical Association is in progress. That Association has to crowd so much work in such a limited amount of time that it is hardly to be expected that men will give much attention to any business not connected with the British Medical Association. It may be as well to consider whether a meeting in London during the autumn months would not prove more beneficial to the objects of our Association. We were also disappointed in not adding more members to our roll.

Every effort was made by your Honorary Secretary to interest the various charity organisations and the hospital authorities in the work of the Association, but with little result. From a minute investigation of the reports of the Scottish hospitals it must be apparent that there is quite as much need for reform in Scotland as there undoubtedly is in England and Wales. In the three principal towns—namely, Edinburgh, Glasgow, and Aberdeen, it is manifest that the number of medical charities is far too great, and that the proportion of out-patients to the population is a very high one.

The case of the Irish hospitals was also brought under notice by a paper read at the Annual Congress of the Royal Institute of Public Health, which met at Dublin in the autumn of last year. The Irish system of medical relief differs very materially from the systems adopted in the sister countries. In one respect the hospital system in Dublin is much easier to investigate than is the case either in Edinburgh or London. In addition to the very exhaustive and elaborate reports issued by the Committee of the Hospital Sunday Fund, you have at your command reports issued by the Governmental Board and by the Hospital Committee of the Dublin Corporation. It may be mentioned that the Dublin hospitals are more fortunate than those in Scotland and England, as they receive subsidies amounting to many thousands of pounds annually from the Government. The county infirmaries in Ireland are mainly kept up by a county rate.

The subject of Hospital Reform was also brought under the notice of the members of the Sanitary Institute at Birmingham. The thanks of the Association are due to the Council of that institute for reprinting the paper read by your Hon. Secretary in the journal of that institute.

The future work of the Association is a subject which claims your careful consideration. It might be deemed desirable to bring prominently forward such questions as

(1) Payments by Patients.
(2) Provident Dispensaries.
(3) The "Inquiry" System.

As there is to be an Ethical Congress in Paris next year, and as Hospital Reform is one of the subjects set down for discussion, the Council are recommended to appoint delegates without delay.

The Council have received with much regret the resignation of Dr. Ward Cousins as Chairman. The services Dr. Ward Cousins has rendered to the Association since its establishment can hardly be overestimated, and it is only fitting that the record of these services should be placed on the minutes.

The financial position of the Association is more satisfactory than it was at the end of the year 1897. This improved condition is entirely due to the liberal donation of £50 by the Council of the British Medical Association. The Association had at the end of 1897 a balance in hand amounting to £8 14s. 7d., but there were several outstanding liabilities. At the end of 1898 the balance in hand amounted to £31 1s. 1d., and the total liabilities amounted to £31, so that practically the Association began the present year with a "clean sheet."

The Council has resolved that the following gentlemen act as delegates to the Ethical Congress at Paris—Drs. David Walsh, Lovell Drage, and T. Garrett Horder.

It was also resolved that Dr. Ernest Snape and Dr. W. Knowsley Sibley act as a subcommittee to investigate the mode of making investigation into the patients' circumstances by the inquiry offices at the metropolitan hospitals.

It was also resolved that a letter be sent to Dr. Ward Cousins accepting his resignation with regret, and thanking him for his services to the Association.

THE MEDICAL SICKNESS AND ACCIDENT SOCIETY.

The sixteenth annual meeting of this Society was held in the rooms of the Medical Society of London, Chandos Street, W., on May 24th. The chair was taken by Dr. de Havilland Hall, the Chairman of the Society. Among those present were Dr. A. S. Gubb, Dr. Walter Smith, Dr. F. J. Allan, Dr. J. Pickett, Dr. Knowsley Sibley, Mr. Brindley James, Dr. J. B. Ball, Dr. J. C. Williams, Dr. Percy Jakins, Dr. Leonard Grant, Dr. Miller, Dr. Barkwell, Dr. Clibborn, Dr. Owen, Dr. Culling, Dr. Bateman, Dr. Freeland, Dr. Rainsford, Dr. Cahill, Dr. Evans, and Dr. W. W. Hall.

The Chairman said that on the eightieth anniversary of their beloved Sovereign's birth he was only expressing the wish of all present in hoping she might yet be spared many years to rule over her people, for whom she had done so much. As medical men they ought to be especially grateful for the example she had set in her relations with the medical profession. He congratulated the Society on the year's work, on the smooth manner in which their business was carried on, and on the regular attendance of the Executive Committee. The Society was steadily growing. During its fifteen years' work it had paid over £40,000 in sickness benefits, and, including the present surplus, returned over £10,000 in cash bonuses. By economy of working a considerable surplus had been produced in the management fund, and a special reserve had been created to cover any fluctuation in the value of the investments. The valuation had been based on the low rate of 2½ per cent., and a special reserve created against chronic sickness, the relief of which was in his opinion one of the most important functions of the society. There was a trifling surplus in the life assurance fund and an insignificant deficit in the annuity fund, and he felt sure that the Society had acted wisely in ceasing to undertake fresh business of this kind and in obtaining better terms for the members by acting as agents for the Rock Life office. With regard to the suggestion that the surplus should be applied to the extension of the sickness benefit from age 65 to 70, he read figures showing that it would be quite insufficient for this purpose and pointed out that the increase of average sickness after age 65 was much greater than was generally recognised. For any such extension a separate fund would have to be formed and the necessary contributions to it would be of considerable amount. He concluded by expressing the thanks of the Society for the aid they received from the medical press, and in particular from the British Medical Journal and the *Medical Press and Circular*, and hoped that in this way the membership would be increased till it reached a total of at least 5,000.

The report was unanimously adopted, and the distribution of a 10 per cent. bonus agreed to and proceedings closed with a vote of thanks to the chairman.

The late Miss Emma Charrington of Englefield Green, has by her will bequeathed £500 each to the London Hospital and the Surgical Aid Society.

Victoria Hospital for Consumption, Edinburgh.—A two days' sale of work in aid of the funds of the Victoria Hospital for Consumption and Diseases of the Chest was held in the grounds of the institution on Friday and Saturday, May 26th and 27th. General Wauchope opened the sale. The aim of the management is to extend the hospital to 100 beds, in place of the now existing 76. £200 was taken on the first day.

THE INTERNATIONAL TUBERCULOSIS CONGRESS IN BERLIN

[From our Correspondents.]

SPEECH BY SIR T. GRAINGER STEWART.

THE sittings of the Tuberculosis Congress, which was opened under such auspicious circumstances on May 24th, continued to be crowded and enthusiastic. The various representative speakers who opened the proceedings, some of whom were mentioned in the telegraphic summary, were brief but eloquent, and were extremely well received. Their short addresses in German, French, and English emphasised the cosmopolitan character of the Congress at the outset, and were the best evidence of the world-wide interest the question of the prevention of tuberculosis has aroused. In addition to the speakers referred to, Maragliano, who spoke in German, represented Italy, and Kurz von Dubrow, Austria. Hungary was represented by Professor Koranyi and Russia by Bertenson. For the foreign delegates, of whom there was an extremely large number, seats were reserved at the federal council tables which stand on a sort of rostrum. The first foreign delegate to speak was the representative of the United States of America. After him came Professor Brouardel, who spoke in French; his congratulations to Germany on the fact that her best men in science were still living were cordially received. England was well served by Professor Sir THOMAS GRAINGER STEWART, who spoke as follows:

Your Imperial Majesty, Mr. President, my Lords, Ladies, and Gentlemen,—I feel it a great honour that I should be called upon to speak on behalf of the representatives of my country on this occasion, although I am well aware that there are some who might much more adequately have discharged the duty. When one thinks among others of my friend Sir Hermann Weber, who, although a German by birth, has won such distinction among us that he has received the honour of knighthood at the hands of our most gracious Queen, of whom our whole empire thinks with such affection, respect, and gratitude to-day—when one thinks of him one feels that he might well have been asked to speak our congratulations, but I am assured that he has declined to undertake the duty, and so I obey the call of the Committee. I do so the more willingly because of the close links which have long connected the University which I represent and the great University of Berlin. It has for very many years been customary for graduates of Edinburgh to come to this city in order to sit at the feet of the great leaders of medicine here; and so forty years ago it was my privilege, after studying at home under Goodsir and Syme and Simpson and Christison and Hughes Bennett, to come here and enjoy the instructions of the great masters of Berlin. Even then we all listened with delight to the teaching of Virchow, of von Graefe, of Schönlein, of Traube, of von Langenbeck, and of others whose fame was in all lands. These were great men in Berlin in those days; but I return to it with like pleasure now, for there is no need to dwell merely on the praises of the past. I am not one who is prepared to take up the attitude of those who

> Klagten wie alles besser
> Gewesen zu unserer Zeit.

No; with men like our President, von Leyden, and Koch, and so many more, and with my old master, Virchow, to whom I owe so much, still in the midst, I can turn here with new hope of instruction and suggestion in regard to the mighty war to which the world is awaking against tuberculosis, the most deadly enemy of our race. In the name, then, of England and Scotland and Ireland and the British Empire, I desire to offer our respectful congratulations on the auspicious opening of the Congress, and we pledge ourselves that no effort shall be wanting among us to bear our part in the great campaign on which the whole world is entering. In our country as here we are profoundly in earnest, and as here, the highest in the land are lending their influence and giving their help, so with us, not merely the members of our profession, but H.R.H. the Prince of Wales, and leading statesmen and philanthropists are cordially co-operating in this great crusade. One fact I should desire to mention is that in many parts of our island the open-air treatment of consumption is being carried out. Even in Edinburgh, where we are not unfamiliar with rain and mist and east wind, the open-air treatment is carried out in the Victoria Hospital as it is on the beautiful slopes of the Taunus, and with results which appear as satisfactory as those of Dr. Dettweiler and the other workers in German sanatoria. Again I wish for the Congress the most eminent success.

SCIENCE AND PRACTICE.

His speech was most cordially received, and Professor Hirschberg afterwards remarked that Professor Grainger Stewart had taught the Germans by his speech to realise how well they understood English; in fact the Congress was cosmopolitan if not, as some sticklers for accuracy have argued, strictly international. One result has been that, though there was but one official language—German—there was much friendly mutilation of various languages. Science has had a chequered career. In ancient days it was a garden pastime of Greek philosophers, in the Middle Ages it endured persecution and martyrdom, to-day it is recognised in high places, and has at its shrine wealth and rank, Princes and Emperors. On Wednesday the Council Chamber of one of the proudest Assemblies in Europe was placed at the disposal of science, and an Empress presided over a great gathering, at which a single department of science was the sole subject of consideration. Looking back even a generation the change is a great one, and the public honour now done to this branch of human knowledge, which for so long was held in but poor estimation, is significant. If it means anything, does it not mean this, that the world is beginning to realise that the brightest light which is offered for the guidance of suffering and toiling humanity is largely derived from the laboratories of science? However, be that as it may, the acme of the triumph of medical science was attained on Friday. The Kaiser sent the Congress a telegram. The Kaiser's telegrams are historic, and this one was read to the assembled company standing. Along with good wishes for the success of the work of the Congress it expressed the hope that the Congress might help to suppress that terrible scourge, tuberculosis.

Though many of the papers read in the various sections of the Congress were of great interest, there is little that will be actually new to those medical readers who have followed the literature of tuberculosis. This is not to be wondered at, as science does not reveal her secrets the more freely because a Congress is on foot, and the quiet work of laboratories keeps its slow and arduous course "without haste and without rest," regardless of the impatience of Governments and princes.

In the midst of this pomp and circumstance of glorious war against the tubercle bacillus, some words of Huxley's in reference to the practical advantages derived from scientific research are worth recalling. He says that if the scientific student in the course of his work sometimes "lights upon something which proves to be of practical value, great is the rejoicing of those who are benefited thereby, and for the moment science is the Diana of all the craftsmen, but even while the cries of jubilation resound.....the crest of the wave of scientific investigation is far away on its course over the illimitable ocean of the Unknown." The wave of investigation is now passing through the laboratories of Europe, and before another congress comes about the sought "kalon," a reliable and curative tuberculin, may by chance be found.

Considerable regret was felt that Professor Koch, the man who immortalised himself by the discovery of the tubercle bacillus, and the exposition of its life-history in its effects as associated with the production of disease in the higher animals, was unable to attend the Congress, owing to his absence in Italy, where he is at present studying malaria.

Reports of the chief papers in the five sections into which the Congress was divided are given below, and among those of particular interest are those of Fränkel of Halle on the mode of infection in tuberculosis; of Virchow on the prevention of tuberculosis as regards articles of food; and of Obermüller. Dr. Obermüller dealt with the tubercle bacillus in milk and butter, and the statistics which he quoted with reference to the occurrence of the bacillus in these products as consumed in Berlin was of the most alarming character.

They strongly emphasised the necessity for some form of sterilisation of the milk used in the preparation of this article. Von Leyden's account of the organisation of the Central Committee for the Creation of Sanatoria for Pulmonary Tuberculosis is of high practical interest and value.

While some of the papers deserve commendation and perusal, there were undoubtedly others which appear to require further elucidation. It is, for instance, difficult to understand how Professor von Leube, of Würzburg, could say in one portion of his paper that servants should wear muslin veils or masks while making the beds, cleaning the floors, etc., occupied by tuberculous patients, and in another portion of the same paper maintain that it was not strictly necessary to isolate tuberculous patients in general hospitals where proper attention was given to prophylactic measures. Sir Hermann Weber's address on climate in consumption—a subject of which he is an acknowledged master—was an important contribution to the work of the Congress which will be read with interest not only in Germany, but in England and America.

SECTION I.—THE DISSEMINATION OF TUBERCULOSIS.

The discussion in this Section was opened by Dr. Köhler, a brief abstract of whose remarks were published last week, but it may be added that he made the statement that in the four years 1894-97 the yearly average number of deaths from pulmonary tuberculosis in Germany was 87,600; this represents 2.95 per 1,000 persons living at these ages out of a total mortality of 9.1 per 1,000.

Influence of Occupation.

Dr. KRIEGER (Strassburg) discussed the influence of occupation on the incidence of tuberculosis, and classified the occupations which had a marked influence on the spread of the disease as follows: (*a*) Occupations which involved a great liability to infection, such as sick nursing; (*b*) occupations which favoured the occurrence of catarrh or the obstruction or lesion of the finer bronchi, thereby producing a local susceptibility; such occupations were those which exposed the workpeople to accumulation of dust in the lungs, or to injury by dust containing sharp particles or corrosive substances; (*c*) occupations in which, owing to the attitude assumed, the upper parts of the lungs were not fully expanded; (*d*) sedentary occupations which led to imperfect muscular development, and a general weakening of the organism, especially of the heart.

Tuberculosis in the Army.

Dr. SCHJERNING, Chief Medical Officer of the German War Office, read an elaborate paper embodying statistics of tuberculosis in the German Army.[1] He showed that since 1882 there had been a decline in the invaliding from tuberculosis, but that this decline had been interrupted by a remarkable rise in 1890-91 and 1891-92, which was probably to be attributed to the epidemic of influenza. He quoted with approval Laveran's dictum that the prophylaxis of tuberculosis in an army was a question of hygiene and recruiting. He analysed the amount of invaliding in the different army corps and in different garrisons, bringing out the general result that the rate was higher in garrisons in large centres of population. He showed also that the rate was higher in those departments of the army in which the men were largely employed indoors, as for instance among the bakers, and that it was high also among the bandsmen, whereas their general invaliding rate was lower. A history of tuberculosis in the family was obtained in 29 per cent. of the cases in the army. Among the determining causes assigned for the onset of the disease the most frequent was "cold," and next to this over-exertion. With regard to the effects of treatment it was only possible to say that recovery took place in 1.3 per cent. of the cases, and a good result in 22 per cent.; death occurred in 16 per cent.; in the remaining 60.6 per cent. treatment had no result.

Tuberculosis in Domestic Animals.

Professor BOLLINGER, Munich, maintained that tuberculosis of cattle and pigs was identical in its etiology with human tuberculosis, and that the enormous prevalence of tuberculosis in cattle was a great danger to the health of the people. On the other hand, human tuberculosis played a secondary part in the production of tuberculosis in domestic animals. The infectivity of the flesh of tuberculous animals varied with the stage and the degree of the disease. Though danger to man from this source existed it was probably not very great, and could be obviated by a proper preparation of the meat, and abstention from the consumption of raw or uncooked meat. The great danger to man was from the consumption of milk and unsterilised milk products derived from tuberculous cows, and the consumption of such milk, uncooked, and for long periods was particularly dangerous to children and susceptible adults. An estimate of the greatness of this danger might be made by observing the frequency of tuberculosis in pigs, which was in the main due to feeding the animals on infected milk. The great prevalence of tuberculosis among children, especially in the form of glandular infection, was to be attributed to the use of infective milk. The first essential measure to prevent the prevalence of tuberculosis among domestic animals was compulsory examination of meat.

Discussion.

In the brief discussion which ensued Dr. KUTHY, Buda-Pesth, said that consumption caused 60,000 deaths a year in Hungary, while 400,000 persons suffered from the disease.—Dr. SCHMID, Bern, Director of the Swiss Health Office, said that the mortality from pulmonary tuberculosis in Switzerland during the last twenty years had remained nearly constant, though the number of deaths from tuberculosis of other organs had apparently increased. This apparent increase was probably due to improved diagnosis.—Dr. L. BRAUER (Heidelberg) commented on the high percentage of tuberculosis among tobacco workers, which he attributed mainly to the crowding of the factories and the dust-laden air; and Dr. GEORGE MEYER (Berlin) gave some statistics as to the prevalence of tuberculosis among persons employed in printing establishments in Berlin, which appeared to show that the slight decline which had taken place was more marked among the men than among the women thus employed.

SECTION II.—ETIOLOGY.

The Tubercle Bacillus.

Professor FLÜGGE (Breslau) introduced the subject by an address on the relation of the tubercle bacillus to tuberculosis. After a historic survey of the research connected with the subject, he affirmed that there was no longer any room for doubting the view that the tubercle bacillus is the only direct cause of all the different kinds of human tuberculosis, as well as of animal (especially bovine) tuberculosis. Two chief objections had been made to Koch's theory: (1) That the expectoration of consumptives does not always contain tubercle bacilli; and (2) that bacilli found to be acid-proof in the staining process are sometimes found in non-tuberculous organs. But the first objection was answered by the experience that the bacilli perished very speedily outside the organism, and the acid-proof bacilli of the second objection were by no means identical with tubercle bacilli, from which they differed in biological and staining properties. Tubercle bacilli were parasites which did not flourish outside the animal organism, and which required an artificial nutritive medium for their development. In such cultivations they underwent morphological changes, and lost virulence more or less speedily. Thus there might be non-virulent tubercle bacilli, which had no infective power; but it would be unjustifiable to make this fact responsible for doubts as to the connection of cause and effect between the bacilli and the disease.

Professor C. FRÄNKEL, of Halle, spoke fluently and well with scarcely a reference to his notes. He said that since Koch's great discovery of twenty years ago, many, though not all, the problems connected with the subject had been solved. It was known now that the tubercle bacillus did not flourish outside the animal organism. From it, therefore, all sources of infection arose. The meat and milk of tuberculous cattle, the secretions of tuberculous lesions or mucous membranes, and above all the sputum of consumptives, spread the bacilli. Each animal and each human being, in the secretions of which living tubercle bacilli could be found, gave occasion

[1] This address has been published in a separate pamphlet entitled *Die Tuberkulose in der Armee.* Berlin: Hirschwald. 1899. M.1.50.

for the spread of the disease. But this fact should not cause groundless fears, for it was only where the tuberculous germ was in open communication with the outer world that there was any danger to healthy persons. There was none, for instance, in cases either of peritoneal or of meningeal tuberculosis, nor even in cases of phthisis in the first stages, that is, without penetration into the ramifications of the bronchi. Even where this was the case, air quietly expired was free from bacilli. It was only when the contents of the cavities were emptied by coughing that tubercle bacilli were ejected in tiny masses or drops of expectorant material. But these bacilli had no great power of resistance outside the organism; sunlight soon destroyed them; putrefaction in six or seven weeks; desiccation in six to ten months. They were only found in the immediate surroundings of phthisical patients; when their producer was removed they disappear. The supposed ubiquity, therefore, as had been conclusively proved by Cornet, did not exist.

Mixed Infection of Phthisis.

Professor PFEIFFER (Berlin) said that tuberculosis, especially of the lungs, rarely remained without complication for any length of time. Generally other bacteria—chiefly streptococci—joined their action to that of the tubercle bacilli. Their mode of entrance into the lungs was generally from the nose or the upper air passages. Such mixed infections gave the clinical configuration known as "consumption," and they caused the so-called "hectic fever." Probably the poisonous metabolic products of the streptococci produced the fever. As such patients were to a certain extent sources of danger to cases of uncomplicated lung tuberculosis, it was advisable in sanatoria to separate patients with fever from those without fever.

Heredity, Immunity, and Disposition.

Professor LOEFFLER (Greifswald) observed that tuberculosis might heal spontaneously. Congenital tuberculosis was extremely rare; in all such cases tuberculous disease of the mother's generative organs had been found. Tuberculosis of the father had no part in the heredity transmission of the disease. There was no proof as yet of immunity to the disease, nor of congenital or hereditary disposition to it; but it was very probable that other diseases of the respiratory or digestive organs, as well as disturbances of nutrition, favoured tuberculous infection.

Discussion.

The discussion was opened by Professor BIRCH-HIRSCHFELD (Leipzig) with remarks on the first stage of phthisis. His *post-mortem* examination of 32 cases of latent primary lung tuberculosis showed that, in 28 of the cases, the disease had its primary origin in the mucous membrane of one of the medium-sized bronchi.

M. LANNELONGUE (Paris) gave an account of his animal experiments in connection with traumatism and tuberculosis. They supported the view that in scientific experiment, as in clinical experience, it was rare for the tuberculous process to be localised at the spot of a traumatic lesion.

Professor BRIEGER (Breslau) discussed "hypertrophy" of the tonsils, which, he said, was wrongly considered as a symptom of scrofula, but which was capable of producing the chief and most typical symptoms of scrofulosis. Under the appearance of hypertrophy of the tonsils, however, tuberculosis might—though rarely—conceal itself. Latent tuberculosis of the tonsils was not of much importance in relation to the development of lung tuberculosis, but was etiologically important for tuberculosis of neighbouring organs, such as the middle ear.

M. COURMONT (Lyon) gave an account of his researches with the "agglutination" method, using homogeneous cultures of the Koch bacillus. Of 186 tuberculous cases, he obtained the agglutination reaction in all but 10, these being advanced cases (cavities and fever). He concluded that the agglutination method gave excellent results in the diagnosis of latent and masked cases.

Dr. HESSE (Dresden) described a new modification of nutrient agar-agar.

Dr. MAX WOLFF (Berlin) described animal experiments for the purpose of determining the heredity of tuberculosis. Only one descendant of the infected animals, 60 in number, was found to be tuberculous.

M. COURMONT (Lyon) gave an account of two typical tuberculous cases (human) in which the bacillus of Koch was not present, but a bacillus very similar, though by no means identical. He described the growth, staining qualities, etc., of the bacillus.

In reply, Professor FLÜGGE (Breslau) acknowledged that it was sometimes extremely difficult to find the bacilli of Koch, but declared his conviction that they were present in every case of tuberculosis.

SECTION III.—PROPHYLAXIS.

General Measures for the Prevention of Phthisis.

Dr. ROTH (Potsdam) expressed the opinion that, since tuberculosis was an infectious disease, the sanitary police should carry out preventive measures. The chief danger to be guarded against was inhalation of the expectoration of patients. The knowledge of this danger should be spread and popularised as largely as possible, and the masses should be instructed by every available means to recognise the first symptoms of consumption and to take proper precautions. In sanatoria he recommended the use of spittoon bottles made of strong paper material, which should be burnt and replaced by new ones every day.

Prevention of Infantile Tuberculosis.

Professor HEUBNER (Berlin) observed that tuberculosis was not congenital. Amongst the 800 infants of his clinic, none of those under a year old were tuberculous, but 26 of those from 3 to 4 years of age were infected. Infantile tuberculosis was in the great majority of cases acquired by inhalation, therefore children should be carefully guarded against contact with tuberculous patients. Children of tuberculous parents acquired the disease more readily than others, and the greatest care should be taken to strengthen them to resistance by open-air treatment, careful feeding, cold baths, etc.

Marriage.

Professor KIRCHNER (Berlin) discussed the dangers which attended the marriage of tuberculous persons. Such marriages were dangerous for the patient, for the healthy husband or wife, and for the children. The danger was greater among the poor (crowded dwellings, etc.) than among the well-to-do. Public opinion should be influenced to prevent (1) the marriage of youthful persons who from appearance and family history seemed inclined to tuberculosis; (2) the marriage of tuberculous patients, unless two years had elapsed since symptoms of phthisis had been observed. Married patients should be carefully taught that they were a danger to the other members of the family, and instructed in all the means at disposal for minimising such danger.

Houses, Workshops, and Public Vehicles.

Professor RUBNER (Berlin) dealt with the prophylaxis of tuberculin in dwellings, workrooms, and public traffic. The hygienic defects of poor people's dwellings were, he said, well known, and they could only be mended by building regulations, improved legislation as to house building, and by the appointment of house inspectors. In workrooms, factories, etc., greater precautions against the breathing of dust, etc., should be exacted by law. Medical inspectors should be careful to have all tuberculous persons excluded from mills, workrooms, etc., thus protecting the other workpeople from infection. As regards public traffic the public should be requested by placards, etc., not to spit on the floors of omnibuses, railway carriages, etc., and all public conveyances, especially sleeping cars, should be most carefully cleaned after use.

Hospitals.

Prof. v. LEUBE (Würzburg) in discussing prophylaxis in hospitals, said that the most delicate cleanliness was necessary. The patients should expectorate into special spittoons, and when coughing should always hold a pad of cotton wool (afterwards burnt) before the mouth. Servants should wear muslin veils or masks while making the beds, cleaning the floors, etc. Though it was an open question whether the sweat contained tubercle bacilli, doctors and nurses should take the precaution of disinfecting their hands after touching tuberculous patients. Where proper attention was given to prophylactic measures, it was not strictly necessary to isolate tuberculous patients in

general hospitals. But of course, where they could conveniently be separated from the other patients, it was advisable to do so. The airiest, lightest wards should be chosen as "phthisis wards," and there should be verandahs to enable the patients to lie in the air.

The Prevention of Tuberculosis from Articles of Food.

Professor Virchow said the chief spreaders of the disease were cattle by their meat and by their milk, then pigs, and, lastly, poultry. The existing German regulations for the examination of meat in slaughterhouses would suffice if made general. As regards the introduction of live cattle from other countries, the animals should be subjected to the tuberculin test. The greatest danger lay in milk. Cow's milk might contain bacilli, or they might find their way into the milk from the udder, which was sometimes studded with foci. The only rational remedy for their enormous danger would be the destruction of tuberculous cattle. But as this was not feasible at present, the danger must be minimised by boiling or sterilising milk. Pigs were more subject to tuberculin than had been supposed. Its chief seat was the lymph glands in the wall of the neck (scrofula), but these parts could be excised if proper care be taken. The danger from poultry was not great, as their tuberculosis was not identical with human tuberculosis. Nevertheless, he considered that tuberculous poultry should be destroyed. In conclusion, Virchow disputed the dogma of congenital or inherited tuberculosis on the strength of his own pathological examinations. The existence of tuberculosis in unborn or newborn infants had never yet been conclusively proved. Infection took place after birth—it might be in the first days of life.

Other Papers.

Time being short, a motion to close this section without a discussion was carried. Thus a number of papers had to be passed over unread, of each of which, however, a short synopsis has been published in the *Journal* of the Congress. Among these was one by Dr. Hambleton (England) on the Prevention of Pulmonary Tuberculosis, recommending systematic physical exercises, and especially development of the chest. Another by Dr. Donohue (Syracuse, United States of America) on Prophylaxis, in which he stated that tuberculosis cuts off 12,000 inhabitants of the State of New York yearly, and that infected milk had a great share in disseminating the disease. Another by Dr. Obermuller (Berlin) on The Tubercle Bacillus in Milk and Butter, in which he disclosed a really appalling state of things connected with the ordinary breakfast table, as a large percentage of the milk and butter samples examined (taken from various sources) were found infected with tubercle bacilli. Another paper was by Dr. Maar (Anspach) on Bovine Tuberculosis and the Hygiene of the Stalls in Relation to Human Tuberculosis.

Section IV.—Therapeutics.

Curability of Pulmonary Tuberculosis.

In introducing this subject Professor Curschmann (Leipzig) said that complete cures, in the strict histological sense, were very rare. Cessation of the process, with formation of scars and obliteration of the attacked part of the bronchial tree was more frequent. Such cases might be called cures in a clinical sense. A still larger proportion of cases attained what might be called a "relative cure," that is, a lingering continuation of the process with fairly good general health. There had been undoubtedly great improvement in the results achieved of late years. This was due to the physical and dietetic system of treatment now widely used. The lung sanatoria gave excellent results—on the average about 20 per cent. of the patients showed permanent improvement. Of course, the earlier the stage of the disease and the smaller the area attacked, the greater the chance of cure. Therefore early diagnosis, especially of "latent" forms, was of the greatest importance. Climate had not the influence on recovery formerly attributed to it. The chance was favourable everywhere where the air was pure and the temperature not too changeable. The old theory of "immune zones" was no longer tenable. As regards mixed infection, experience was far too small to make it possible to speak with certainty of chances of success.

The Medicinal Treatment of Tuberculosis.

Professor Kobert (Rostock) said that experience had fully proved that there was no real specific against pulmonary tuberculosis; and, further, that in miliary tuberculosis and galloping consumption there was known therapeutic method which could save the patient. Early cases of phthisis could be dealt with so successfully by the Brehmer (open-air) method; that drugs were not required. In surgical cases (with the exception of those in which the lung was involved) iodine gave the best results. As to the use of drugs generally, it could only be said that cases must be treated according to their individual character. The narcotics—above all codein—were of great use in laryngeal cases. In emaciation and cachexia, artificial food, stomachics, and creosoted cod-liver oil were valuable. Febrifuges, such as pyramidon, should be employed in cases in which rest in bed and hydropathy did not succeed in lowering the temperature, and inhalations of essential oils (for instance, turpentine) in cases of putrid expectoration. In intestinal tuberculosis opiates and astringents did good service; lead should be avoided, extract. ligni campechiani and zinc tried. The much-praised remedies—oil of camphor, cinnamic acid, etc.—were not specifics, but acted favourably by exciting leucocytosis.

Treatment of Pulmonary Tuberculosis with Tuberculin and Similar Remedies.

Professor Brieger (Berlin), who spoke next, began by affirming that Koch's tuberculin preparations (the old and the new) must be considered specifics. They acted only on tuberculous processes and not on secondary infections, and experience had proved that early stages of the disease were frequently influenced favourably by tuberculin. Where this was not the case it was probable that the failure was due to the dose used being insufficient. Even cases complicated by secondary infection, as, for example, phthisis, were improved, and sometimes brought to a standstill, by tuberculin. Hence tuberculin should be used in lung sanatoria. As a diagnostic both in man and animals the old tuberculin was of the greatest value.

Climatic Therapeutics, including Sea Voyages.

Sir Hermann Weber (London) read a paper on this subject, a translation of which is published at page 1321.

The Hygienic and Dietetic Treatment of Pulmonary Tuberculosis and Sanatorium Treatment.

Dr. Dettweiler (Falkenstein) said that the treatment consisted essentially in a permanent air and rest cure, day and night, carried out with scrupulous care, and adapted to the state of each patient and the stage of the disease; in hardening the skin by proper application of air, water, and massage; in gymnastics, etc.; in a system of feeding adapted to each individual case, in overfeeding to a certain extent, and the careful use of alcohol; in attention to the hygiene of the clothing and dwelling; in disinfection; in treatment of expectoration and cough. Great care should be exercised in the selection of the directing physician of a sanatorium. Where all these desiderata were fulfilled patients need not leave their own country, but could be successfully treated in all climates not subject to extremes of cold and heat.

Discussion.

In the discussion which followed Professor von Schroetter (Vienna) exhibited two patients cured of severe laryngeal tuberculosis, one of whom had been under observation since 1890, the other since 1885. They had both undergone tracheotomy. Both had been cured by the hygienic dietetic method, combined with remedies.—Dr. Sinclair Coghill (England) spoke on the rational treatment of cachexia.—Professor Winternitz (Vienna) recommended hydropathy as the most effective weapon in the fight against tuberculosis. The water used must be the freshest and coldest at disposal, as lukewarm water was much more trying than cold. Among 400 cases treated by him by hydropathy he had obtained improvement in almost 80 per cent.; in chronic cases, arrest and relative cure.—Dr. Landerer (Stuttgart) was convinced of the efficacy of cinnamic acid injected either subcutaneously or intravenously. His experience extended over seventeen years, and embraced 110 cases, with 57 cures and 26 improvements.—An assistant of Professor Maragliano (Genoa) read some experimental contributions to the hygienic-dietetic treatment.—Dr. von Schweinitz (Washington) gave an

account of experiments on animals with immunising serum.—Professor CERVELLO (Palermo) recommended inhalation of formaldehyde vapour, which he had found extremely efficacious in assisting the natural healing process.—Dr. MAILLART (Geneva) related the favourable result achieved in the Geneva hospital during the winter of 1898-99 by the air cure.—Dr. DIMITRIPOL (Bucharest) spoke of the treatment of nodular pulmonary consumption: Dr. PETRUSCHKY (Danzig) of treatment by Koch's tuberculin: Dr. DE LA CAMP (Hamburg) of body weight as the chief factor in compiling the statistics of cures and improvements.—Dr. SARFERT (Berlin) pleaded for the admission of surgical cases to sanatoria, as such cases were the greatest source of danger to families. He considered that operating rooms would be provided in all sanatoria.—Dr. EGGER (Basel) recommended the establishment of colonies in high altitudes, where needy patients might find paid employment, as high altitude was eminently favourable for the cure of tuberculosis.

SECTION V.—SANATORIA.

Monument to Brehmer.

At the opening of this section Professor LIEBREICH (Berlin) rose to state that the Balneological Society, over which he presides, had decided to erect a monument to Brehmer, the originator of the sanatorium movement and founder of the modern open-air treatment. He proposed that delegates of the Congress should join the Committee of the movement. The proposal being unanimously accepted, the DUKE OF RATIBOR, President of the Organising Committee of the Congress, made a short speech welcoming Professor Liebreich's proposal.

The Congress and the Working Classes.

The business of the section was then opened by Herr GAEBEL (Berlin), President of the Imperial Insurance Department, who said that the sanatoria movement was intended chiefly for the benefit of the masses—the working population. But it was not enough to build sanatoria; it was even more important to interest the nation in these endeavours, and to enlighten the masses on the subject of the disease. It was satisfactory, therefore, to know that numerous working-men delegates were taking part in the meeting.

The Development of the Sanatoria Movement.

Professor VON LEYDEN (Berlin) gave an address, in which he traced the history of the cause from 1880, when Hogt, of Bern, made the first proposals for united effort. The next pioneers were Goldschmit, of Reichenhall, and Dettweiler, and then von Leyden himself, who treated the subject publicly in 1888. In 1892 the People's Sanatorium in Falkenstein was opened. Then the Imperial Insurance Department joined the movement, and erected a sanatorium for insured persons in the Harz Mountains. In 1896 the Berlin-Brandenburg Sanatoria Society was formed, and began to build the sanatorium at Belzig. The Red Cross Societies came into action at the same time, and the Grabowsee sanatorium was their creation. Finally these separate endeavours were united by the foundation of the Central Committee for the erection of sanatoria for pulmonary tuberculosis, of which Prince Hohenlohe, the Imperial Chancellor, is president. At the present moment there were 33 people's sanatoria in Germany, either in full action, or approaching completion. Branch societies watched over the families of the patients and negotiated with a view to finding work for discharged patients. But the greatest enterprise of the Central Committee had been the calling of the present congress.

Financial Considerations.

Landesrath MEYER (Berlin) observed that modern science having proved that lung sanatoria were of the greatest value in the cure of pulmonary tuberculosis, the need for their establishment had become so great that it could not be satisfied by the isolated action of philanthropic societies. In the long run the mainspring of such undertakings must ever be a legitimate vested interest. To secure health and working power for their sick was strongly in the interest of (*a*) employers who wished to secure and preserve valuable workers; (*b*) sick clubs who had a financial stake in the quick restoration to health of their subscribers; and (*c*) the incapacitation and old-age insurance department, and the insurance societies, trades unions, etc., which had to pay out annuities to all those who were incapacitated from work by the disease. The State itself had the deepest interest in the movement, which was an aid towards raising the health standard, and thus the prosperity of the nation. By united action on the scale indicated, it will become possible to maintain at least one sufficiently large sanatorium in every province of Prussia.

Dr. R. FRIEDEBERG (Berlin), Medical Adviser to the Berlin Sick Clubs' Central Committee, spoke of the work to be done by sick clubs in the sanatoria movement. The classes to which the sick club members belonged were ravaged by consumption. Almost 50 per cent. of the deaths, and as many incapacitations from work were caused by the disease. A sufficient number of sanatoria ought to be built to obviate the long period of waiting for a free bed. It is of the utmost importance that the masses should be enlightened as to the dangers of tuberculosis, and taught the rudiments of hygiene. He proposed that popular lectures on such subjects should be held at sick clubs' meetings, hygienic tracts distributed, and similar measures taken to disseminate information. He urged further that a yearly examination of every sick club member should be made obligatory, and that sputum examinations should be free of charge in all the Provincial State laboratories.

The Planning of Sanatoria.

Herr SCHMEIDEN (Berlin), State Architect, who discussed the plans of sanatoria, said that a people's sanatorium should be for one sex, and for one class only. The situation should be sheltered and sunny, with wooded neighbourhood, without dust, smoke, or soot. That was to say, there should be no factories, etc., in the neighbourhood. There should be a good and plentiful water supply, and a good system of drainage. The building height should not exceed two storeys above the ground floor. The kitchen should be placed in a separate part of the building, and the washhouse in a building of its own. Bedrooms should not be used as living rooms. The minimum of air space should be 30 c.cm. per bed. Single rooms should be provided for 10 per cent. of the inmates. The baths should not be in the cellar, but in warm, dry rooms. The walls, floors, and ceilings should be faced with impervious material easy to clean. Central heating, electric lighting, taps with pure drinking water should be provided, as well as arrangements for getting rid of sputum, and for sterilising the clothes before being sent to the laundry.

Staff-Surgeon SCHULZEN (Berlin) who discussed the arrangement of sanatoria, advocated the pavilion system. In summer Doecker's movable barracks were useful for extension. The bedrooms should contain two to four beds, but a small number of single rooms should be provided. Meals should be taken in common, under the supervision of nurses. The nurses should be educated ladies. The average cost, counting 110 beds in a sanatorium, should amount to about 3 marks (3s.) a day. The results obtained in sanatoria, so far, were good, but the time had been too short to permit a final opinion to be formed. The results would be improved (1) by the more careful selection of patients, and exclusion of those in a late stage; (2) by extending the duration of the treatment; and (3) by the establishment of convalescent homes, where patients could, after their discharge from the sanatoria, take up work under favourable conditions. Directors of sanatoria should remain in communication with patients after their discharge, should receive yearly reports from them, etc., and should send in the results to a central office, where statistical lists would be made out.

The Families of Patients in Sanatoria.

Staff-Surgeon PANNWITZ (Berlin) said that as absence of mental worry was a *sine quâ non* for the success of the treatment the patient's mind must be set at rest on the subject of his family's well-being, and his own chances of getting work when restored to health. These were ramifications of the great movement for which State organisation could not suffice, and in which the assistance of philanthropic societies would be of the greatest value.

Discussion.

The discussion was opened by Dr. RUFENACHT WALTERS (England), who said that in England the open-air and hygienic dietetic treatment of consumption was not new, as it had been practised there for a long time. The modern movement for the establishment of people's lung sanatoria had taken

root in England too, and before long such sanatoria would be erected. At present consumptive patients were received into (1) general hospitals, (2) special hospitals for chronic diseases, (3) convalescent hospitals, and (4) homes for consumptives.—Dr. HALBACH (Bremen) recommended decentralisation, and the formation of local groups to organise the joint work of the State and of philanthropic societies.—Dr. MAYER (Frankenthal) contended that sick clubs should have the right to refuse membership to all persons who, being found tuberculous or inclined to tuberculosis—were employed in work likely to cause tuberculosis.—Professor EWALD (Berlin) said that the struggle with tuberculosis meant not only treatment of the disease, but also effective prophylaxis. Children's sanatoria at the seaside were the best safeguards, as twenty years' experience had proved them to be successful in conquering the initial stage of consumption and glandular disease. The erection of more such children's sanatoria was therefore earnestly desirable.—Dr. SALOMON (Berlin) and Professor BAGINSKY (Berlin) shared Ewald's views on seaside sanatoria for children, and gave some details of the arrangements in the existing institutions in Norderney, Wykon Föhr, Zoppot, and Neufähr.—Dr. SANCHEZ-ROZAL (Valencia) gave an account of the sanatorium near Valencia erected by national subscription for the free treatment of needy consumptives. Ten beds were to be reserved for German patients.—Dr. WEICKER (Goerbersdorf) read statistics of the 1,800 patients discharged from his people's sanatorium during the last four years, showing that the percentage of those able to work had increased from year to year. He pleaded for the organisation of statistical lists on a uniform plan with the Imperial Insurance Department at the central office.—Dr. PREDÖHL (Hamburg) expressed the opinion, founded on the experience of 2,000 cases, that patients in the later stages of tuberculosis should not be admitted to the sanatoria.—Dr. REICHE (Hamburg) gave figures to prove the good results obtained by the Hanseatic sanatoria; 60 per cent. of the patients discharged were able to take up work.—Professor BROUARDEL (Paris) said that in Paris the hospitals could not take in the number of consumptives who asked for admission. Generally more than half of these were obliged to wait—for months sometimes—before they could be admitted.—Dr. CORTEZO (Spain) recommended the Spanish seacoast, Dr. VOLLMER (Kreuznach) spoke of the brine bath sanatoria for children, and Dr. VAUGHAN (England) of English sanatoria.—Dr. HOHE (München) pleaded for the erection of sanatoria for the middle classes.—MOHARREM-BEY (Egypt) proposed the erection of international consumption hospitals, and offered the whole of his pecuniary resources in aid of the project.—Herr GOLDSCHMIDT (Berlin) affirmed that the trades unions acquiesced in the objects of the Congress.

Concluding Ceremonies.

At the end of this discussion the DUKE OF RATIBOR made a short speech, in the course of which he thanked the Imperial Chancellor and all his co-workers for their indefatigable efforts, the usual votes of thanks followed, and after a "Hoch!" for the German Emperor and Empress, the Congress was officially closed.

Entertainments.

On Wednesday evening the Burgomaster gave a reception to the members of the Congress and their friends, which was largely attended, and this was followed by a promenade concert in the Exhibition Gardens.

On Thursday afternoon the Chancellor, Prince Hohenlohe, gave a garden party in the beautiful and historic grounds of his official residence, which was largely attended by the foreign delegates and members with their lady friends. Many distinguished Germans were present, and one of the Guards' bands provided most excellent music.

In the evening at the Kaiser's invitation a large number of the delegates, members, and ladies went to the Opera. The house was filled with a brilliant assembly of men and women. Many of the men wore uniforms, orders, and decorations, and the large contingent of officers from the German Army Medical Service were conspicuous in their blue uniforms, gold lace collars, and epaulettes. A veteran Brigade-Surgeon from the Indian Medical Service, who was among the guests remarked that our Army Medical Corps might well take a lesson in the matter of smart uniforms from our German friends. Wagner's opera, "Die Meistersingers," was played, and one was at a loss to know which to admire most, the magnificent orchestral music or the sweet rich soprano of Hiedler. This delightful function ended a long day of work.

On Friday evening Professor and Frau von Leyden gave a brilliant reception in their beautiful house, to which a certain number of those taking a prominent part in the affairs of the Congress, as well as a number of the foreign delegates, were invited. Among the guests were Prince zu Hohenlohe, the Imperial Chancellor; Count Posadowski, Minister of the Interior; General Von Gossler, Minister of War; the Duke of Ratibor, and other eminent men and women, including the Ambassadors of England, France, Russia, Austria-Hungary, and Italy, and the Swedish Minister. The reception had a semi-official character and among the British representatives present were Sir Grainger Stewart, Professor Clifford Allbutt, Mr. Malcolm Morris, and Dr. Hellier.

On Sunday some 80 delegates were received at Potsdam by the Emperor and Empress. Their Majesties spent nearly two hours in conversing with the delegates, and displayed the keenest interest in all the details of the Congress. The Empress personally congratulated Professor Sir Thomas Grainger Stewart on his introductory speech.

The British and Colonial Delegates.

Through some oversight—the responsibility for which did not rest with the British Embassy at Berlin—the names of Sir Herbert Maxwell and Dr. Pye-Smith, both delegates of the British Government, were omitted from the official list of delegates. The error was rectified in later issues. Sir Herbert Maxwell, who it will be remembered was an able and indefatigable Chairman of the Second Royal Commission on Tuberculosis, was at some pains to look up several delegates from various British Colonies, who also had been, somewhat to their surprise, left out of the first published list. These delegates were entertained by Sir Herbert Maxwell and Dr. Pye-Smith at luncheon. Sir Herbert Maxwell stated that he was much interested in the comments of one of the Canadian delegates on the Congress and its object. This delegate said that the modern discoveries and doctrines with regard to tuberculosis as an indoor and infectious disease had enabled him to understand the incidence of phthisis among the inhabitants of the western part of Canada, where the people were not thick on the ground, and where the life would on the face of it appear to be a healthy one. The confined life of the Canadian winter, largely spent in almost entirely closed huts and houses, offered every condition for the development and spread of the disease; and so it happened that, when phthisis was once introduced into a family, it only too frequently spread among them.

The Japanese Delegates.

Japan was largely represented at the Congress. Dr. Hayashikawa, one of the delegates, stated that Professor Kitasato, who studied for seven years with Koch, and who while with him largely contributed to the discovery of the tetanus bacillus, now has an excellent laboratory and hospital at Tokio. In the laboratory every branch of bacteriology is studied, but especially attention is devoted to leprosy. There are several other bacteriologists in Tokio, of which Ogata, Professor at the Tokio University, is the best known. Tuberculosis occurs in man and beast in Japan, but is not apparently so common among infants and children as in Europe. Cow's milk in Japan is invariably boiled before consumption. Scrofula and meningitis are believed to be more common than tabes mesenterica in children, but statistics are not numerous or very reliable. There are at present 100 Japanese students studying medicine in Berlin, and in the Tokio University the only two European professors are German. These are significant facts, and the British medical schools, both for students and graduates, must look to it if they desire to do their share in the education of the various Eastern nationalities now opening their arms to Western civilisation.

The Outcome of the Congress.

There is no doubt that the Congress has been a great success. If it has added nothing new to science it has gone far to popularise much good work that science has already accom-

plished, and will appreciably strengthen the practical efforts now being made by the civilised States in Europe to combat on rational and comprehensive lines one of the greatest maladies which humanity has had to endure. That the success was so signal is largely due to the interest displayed by the Empress, and to the enthusiasm of the Duke of Ratibor, the President, and the other members of the Organising Committee.

The doubts and fears expressed by some as to the costliness of the sanatorium treatment and the possibility of the discovery of some tuberculin which shall render them unnecessary in the treatment of tuberculosis are groundless. The sanatorium treatment has a wider significance than that of a mere passing phase of treatment for tuberculosis. It is a practical recognition of the fact that huge barracks in the hearts of cities are not ideal homes for the chronic sick, and there can be no doubt that the open air, the country life, and the peaceful surroundings of sanatoria will be found an effective form of treatment for many other forms of chronic sickness.

THE PLAGUE.

EGYPT.

THE latest news from Alexandria is to the effect that up to May 29th, 8 cases of plague had occurred; of these 2 had died and 2 recovered. The Greeks seem to suffer equally with the native Egyptians, and amongst the former considerable alarm prevails. The natives, it is said, seem quite unconcerned. As usual, in all semi-civilised communities, the natives resist the authorities in taking sanitary precautions.

The Public Debt Commissioners have agreed to advance £20,000 to the Government of Egypt for expenditure upon plague preventive measures. With this sum in hand the Government and municipal authorities in Alexandria are placed in a position to carry out vigorous measures of isolation and disinfection. The origin of the outbreak has not been traced, and as all the cases of plague which have been met with occurred in persons who have not been to the Red Sea coasts for either commercial or religious purposes the explanation of the outbreak is difficult. One theory, which seems credible, is that the infection has been brought to the city by pilgrims from Mecca, and that the disease exists in the town to a greater extent than is known, and was in all probability prevalent before the present cases occurred. This is so constantly the case in Eastern countries that it is exceedingly likely to be true of Alexandria.

It is reassuring to know that neither in Ismailia nor in Zagazig, in both of which places plague was reported to be present last week, has any extension of the disease occurred.

The type of case in Alexandria does not seem to be severe, as few of the persons attacked have died, and the actual number of cases is very small.

At Gibraltar, Trieste, and the Greek ports, ten to twelve days' quarantine is being imposed on all vessels from the date of their leaving Alexandria.

HONG KONG.

The Colonial Office on May 28th received information that in Hong Kong the number of fresh cases of plague during the past week had increased to 143, as against 87 in the previous week; and that 134 deaths from plague had occurred, as against 70 in the previous week. Not only is the virulence of the disease increasing, but the area attacked is widening.

INDIA.

The Indian Medical Service and the Plague.—The *Madras Mail* of April 29th has some severe and apparently deserved strictures on the official methods adopted in combating the plague. Time was, it states, that when the Indian Empire was to be won, or consolidated, the Government of India gladly availed itself of the well-appreciated services of its medical officers among the natives, and in this way secured administrative successes of the highest order. Now it seems to be officially held that the mere possession of medical knowledge absolutely unfits for civil administration, even in such medical work as fighting the plague. For this duty the youngest "heaven-born" civilian is selected, or, failing him, some officer of the Indian Staff Corps. But it is remarkable that even these "practical men after the heart of the Government of the country," and wholly "uncontaminate by knowing aught of sanitation," must have a medical officer attached to them in order that they may be able to "recognise the disease they are sent to combat." The plague campaign is essentially a sanitary one; yet the chiefs sent to fight it have no sanitary knowledge of a special kind.

Lieutenant-Colonel MacRury, I.M.S., formerly Sanitary Commissioner for the Government of Bombay, in the *Asiatic Quarterly Review* for April, has also some apposite criticisms on plague administration in Bombay which deserve attention. He contends that the real and pressing want of India is a scientific corps of men invested with sufficient power to regulate and amend the willing efforts of judiciously constituted district authorities, and controlled by a Board or Council at Simla of such administrative capacity and skill as would constitute them fit representatives of modern sanitary science and engineering.

THE HUNTER CASE.

WE have received the following letters from the Treasurer of the Hunter Fund Committee:

[*Copy of Dr. Syme's Letter.*]

Cumberland Lodge,
Gamlingay.

DEAR SIR, May 21st, 1899.

In last week's BRITISH MEDICAL JOURNAL I noticed the appeal of the Committee of the Hunter Fund. As I was the only other medical practitioner in Gamlingay at the time of Dr. Hunter's prosecution before the Caxton Bench, I am no doubt I am the person indirectly referred to in the appeal. If that is so, there are several inaccuracies I should like to point out. I am not going to inquire whetner Dr. Hunter was popular or not, or whether he had every chance of a prosperous career, but I most certainly deny that I had any reason whatever to feel jealous of him. As a proof of this, I have only to point to my income from my practice, which at the end of 1897, that is, before the prosecution, was nearly twice as much as it was at the end of 1893, when Dr. Hunter first came to Gamlingay.

Again: my complaint to the General Medical Council was in the form of a letter, stating that Dr. Hunter was signing himself M.D. (and I was of opinion with intent to falsely raise his status), and asking the Council to write to him and remind him that he had no right to do so. I did not object to his calling himself Dr., and had nothing whatever to do with the prosecution for describing himself as Physician and Surgeon; on the contrary, I thought as most other people did, that a man qualified to practise medicine and surgery was a physician and surgeon. I do not for a moment think the affair did, or ever tended to, injure his practice. I am quite sure I did not obtain a single patient from him on account of it.

You say he died suddenly after returning from a hard day's work. As a matter of fact, he had just returned from London where he had been taking a holiday. He fell asleep in the train, and instead of getting out at Sandy he was taken on to St. Neots and drove from the station, about eight miles. He was dead within a quarter of an hour of arriving at his house. Mrs. Hunter sent for me and I went at once and found him already dead. I had not heard before that Mrs. Hunter sent to Cambridge, and I think you are wrongly informed as to this. As I was called in I thought it likely that if, as I imagined, the coroner should think a *post mortem* and inquest necessary he would instruct me, as I asked the sergeant of police who went to the coroner to say that I should much prefer him to get a medical man from Cambridge to make the *post mortem* and to attend the inquest; but that I should be quite willing to attend, as I did, and give evidence which, however, I was not called upon to do.

Now, I do not wish to do anything which would injuriously affect the appeal you are making on Mrs. Hunter's behalf, as she is left so badly off, but I feel I must take some notice of the remarks and trust you will in the next issue of the JOURNAL correct the erroneous statements. I shall be glad to hear by return that you agree to this.—I am, yours faithfully,

W. S. SYME.

Rivers Willson, Esq.

Oxford, May 30th, 1899.

THE HUNTER FUND.

SIR,—The Committee have received a letter from Dr. Syme of Gamlingay, criticising as inaccurate certain statements in its recent circular. Dr. Syme writes that as he was the only practitioner at Gamlingay, the expression "local jealousy" could but apply to him. He desires to say that he was influenced by no jealousy when he wrote to the General Medical Council, charging the late Dr. Hunter with signing himself "M.D." with "intent to falsely raise his status." He further writes that it is not true that Dr. Hunter returned home "after a hard day's work" on the evening of his death, for he had been taking a holiday in London.

The Committee have thought it only right to put Dr. Syme's corrections before the profession; but they cannot admit that the circular, as published, gives an untrue version of the case in any material respect. Where two practitioners are competing in the same district, it must be a very strong reason to warrant one of them in laying a complaint against his rival before the General Medical Council. Dr. Syme thinks that the late Dr. Hunter was signing himself "M.D." with intent to falsely raise his status. If an "M.D." of Edinburgh were practising in the United States under the same conditions as the late Dr. Hunter was in this country, and he signed himself "M.D.," it would scarcely be just to accuse him of "endeavouring to falsely raise his status." The disinterestedness, too, of an American rival who complained of him might be open to question. With regard to Dr. Syme's second point, it is true that on the day of Dr. Hunter's death he had been to London, but as to his having been taking a holiday, it would be interesting to know Dr. Syme's authority for such a statement.

With regard to the charge made by Dr. Syme against the late Dr. Hunter, the Committee think it only fair to quote from a letter just received from Dr. Windle, Dean of the Medical Faculty of Mason University College, Birmingham, who says: "You are quite at liberty to say that I knew the late Dr. Hunter from the commencement of his medical studies to the time of his departure for America; that I corresponded with him whilst over there, and can therefore bear testimony to the accuracy of your statements. I can also state that he was always a most honourable and gentlemanly student, incapable in my opinion of any underhand or unprofessional conduct, and very popular both with his fellow students and the staff. He went to America intending to spend his life there in practice, and it was on this account that he took an American degree."—I am, sir, yours faithfully,

RIVERS WILLSON,
Treasurer for the Hunter Fund Committee.

THE NEW VACCINATION ACT IN OPERATION.

Vesicles and Area.

E. R. F.—The third schedule of the Vaccination Order, 1898 (Instructions to Vaccinators under Contract), says: "In all ordinary cases of primary vaccination the public vaccinator must aim at producing four separate good-sized vesicles or groups of vesicles, not less than half an inch from one another. The total area of vesiculation resulting from the vaccination should not be less than half a square inch." There are therefore two aspects of recognised vaccination—the number of vesicles, and the area of vesiculation. The latter should not be less than half a square inch; the former "in ordinary cases" should be four, and these the public vaccinator "must aim at producing." It will rest with the inspector of vaccination to decide whether in any particular district strong feeling against vaccination is enough to render cases "extraordinary," and admit of a reduction in the standard number of vesicles, and yet permit a share in the Government grant to be awarded. It is, however, of the greatest importance to maintain the highest efficiency and thoroughness of the operation.

Public Vaccinator's Fees.

A. G.—As the Local Government Board suggested certain fees for distances from the residence of the public vaccinator, it would have been more satisfactory if the guardians had decided to accept these suggestions *in toto*, and not to calculate distances from the centre of the village, half a mile from the vaccinator's residence. However, in this, as in so many other cases, it will probably be prudent to yield to the decision of the guardians, rather than raise any opposition. If the fees can be shown to be inadequate at the end of twelve months' working of the Act, a revision might well be applied for.

Public Vaccinators and Club Patients.

B. A. D. writes: A. is public vaccinator of a district; he vaccinates B., who is a club patient of C. A few days after the inspection, on the eighth day, the arm goes wrong. (1) Is C. bound to attend the case as a club patient? (2) If he chose to undertake the case, could he charge fees for his attendance? (3) Should he send the case to A., who vaccinated? (4) Could the public vaccinator charge fees for such after-attendance?

*** The form of vaccination contract (first schedule of Vaccination Order, 1898) says that the public vaccinator in every case of primary vaccination or revaccination of an adult "will do and perform all such acts and things as, to the best of his judgment and in accordance with the requirements of the orders in force as to vaccination, shall seem to him necessary for the purpose of causing the vaccination to be successfully terminated." He will also, after inspection of the case, "do such acts and give such directions and otherwise treat the case as may be necessary." Again, "If any child vaccinated by him shall, in his opinion, require medical treatment, he will, if the parent or other person having the custody of the child consent, attend the child and prescribe such treatment as may be required." Under these requirements of his contract the public vaccinator could not well charge fees for any necessary after-attendance, though he is not bound to provide medicine. As the public vaccinator is responsible for seeing that everything possible is done to secure the successful termination of the operation, we think that C. could refer the patient to him, and, if the patient preferred to be attended by C., could make some special arrangement as to fees for such extra attendance independent of the club payments.

LITERARY NOTES.

Mr. Fisher Unwin will publish almost immediately *Claude Bernard*, by Professor Michael Foster, F.R.S.—one of the Masters of Medicine series. Another volume, *Hermann von Helmholtz*, by Professor J. G. McKendrick, F.R.S., of Glasgow, is, we understand, in the press.

The London Polyclinic may be considered as having fairly taken its place among established medical institutions. The one thing wanting to complete its equipment was a journal of its own, and this want has now been supplied. The *Polyclinic* gives every information about the London Medical Graduates' College, its present position and its ambitions. We gather that one of the necessities of the college in the immediate future is the possession of an official seal and motto. "Æsthetic and classical members" are invited to give "the benefit of their artistic taste and learned lore."

On May 25th the *Deutscher medicinische Wochenschrift* issued a *Festnummer* in honour of the Congress on the Fight against Tuberculosis as a *Volkskrankheit*—that is to say, as a disease of the populace. The number contains a sheet of portraits, including that of the Empress, who was the Protectress of the Congress; of Chlodwig, Fürst zu Hohenlohe-Schillingfurst, State Chancellor, Honorary President; of Victor, Herzog von Ratibor, the first President; of Dr. E. von Leyden, second President, and of some other notable officials of the organising committee. The issue contains a kind of prologue by Professor Eulenburg, one of the editors, in which the praises of Professor von Leyden are sung as the originator of the proposal to provide sanatoria for phthisical patients of the working classes. This is followed by a number of papers on various questions connected with tuberculosis, and abstracts of papers dealing with various aspects of the subject.

Dr. F. William Cock writes with reference to John Browne and his works on the King's evil:

The *Charisma Basilicon* is the third book of which the *Adenochoiradelogia* is the first; the second or middle one is *Choiradelogia* or *An exact Discourse of Strumaes or King's Evil Swellings*, etc. The three books are generally found bound together; they were all "printed by Thos. Newcomb for Samuel Lowndes, over against Exeter Exchange" in the Strand, 1684. Sometimes there is an engraving of the ceremony at the Court; in my copy there is a small one of Charles II when Prince of Wales.

We have received from Dr. George C. Peachey of Wantage the following interesting communication relative to an old work which was recently referred to in this column:

The note in the British Medical Journal of May 27th, p. 1289, concerning the treatise entitled "*The Excellency or Handywork of the Royal Hand; by Thomas Harris, London, 1655*," is interesting and important, since it clears up the hitherto doubtful point of authorship and identity. For from the MS. annotation in the British Museum copy to the effect that the author "Dr. Harris was Burgess of St. Albans in the Parliament of 1661, and that his father old Harris there chirurgeon bought up all the copies and burnt them," it becomes plain that the Burgess was no other than Thomas Arris, M.D., son of Edward Arris, Alderman Master of the Barbers and Surgeons Company, Serjeant Surgeon to the *King* (?), and Surgeon to St. Bartholomew's Hospital, and we already know from the annals of the Company that old Arris was not on good terms with his son.

For in 1675, the year before he died, he used "some severe and sharp expressions" reflecting upon his son's honour relative to the payment of an annuity to the Company in return for lands which he held from his father solely upon the condition of such payment, which condition he had failed to fulfil. The buying up and burning of this book by old Arris, which fact is now brought to light, also serves to explain the reason why the work escaped the notice of the bibliographers, Ploucquet and Forbes; indeed, the only mention of it which I have met with is in Beckett's "*Free and Impartial Inquiry into the Antiquity and Efficacy of Touching for the Cure of the King's Evil*" (1722), wherein (p. 58) occurs the following passage:

"Four Years after this Dr. *Thomas Allen*, sometime of *Caius College*, in *Cambridge*, afterward *Physician in Ordinary to King* Charles *the Second*, published a Treatise of the Cure of the *Evil* by the *Touch*, which he entitles, *The Excellency or Handywork of the Royal Hand*, dedicated to the Duke of *York*. The whole Book is principally a Declamation on the Miseries of the Rebellion, and an Incentive to the Love of his Majesty, for submitting to Touch so many deplorable Objects for the Cure of the *King's Evil*, and to dissuade Persons from applying themselves to the *Seventh Sons*, or those called *Strokers*, who it seems, if any of them chanced to succeed, were thought to lessen the Esteem of his *Majesty's Performances*. But Mr. *Greatrack's* Reputation very much increasing at this Time, although he is not mentioned in the Book, it seems to be more particularly calculated against his surprising Successes."

It will be noticed that the title, date, dedication, and political savour, as given by Beckett, agree in every respect, other than the author's name, with the work attributed to Harris, and their identity may be safely assumed.

Now old Arris's breach with his son may have been either the cause or effect of the burning of *The Royal Hand*. In either case the father's action would seem to denote his antagonism to the political views of the work, especially when we remember the offices he held and the dates of his appointments. Yet Munk says that old Arris was Serjeant Surgeon to the King, and the date of his appointment was 1651. If so, then old Arris was himself a turncoat like his son, whose political conviction had undergone a complete *volte-face*, for we read, again in Munk, that the latter proceeded Doctor of Medicine at Oxford in 1651, "being licensed to do so by an Order for regulating the University, stating that he was well affected to the Parliament and present Government."

And here the question arises—whence arose Beckett's mistake?

1. Was it merely a clerical error of his, *i.e.*, Allen for Arris?

2. Was it due to an act of piracy on the part of Allen, possibly for the purpose of ingratiating himself with the restored Stuarts? He would have had a precedent for such in the case of Browne's *Charisma Basilicon*, "the body of which book is nothing else than a translation of Tooker's *Charisma* (1597), which being even by that time (1684) exceeding scarce, he, I suppose, thought he might securely do it without having his plagiarism discovered." And there was a D. Thomas Allen (contemporary with Dr. Thomas Arris), some time of Caius College in Cambridge, though I can find no record of his being Physician in Ordinary to Charles II.

3. Was it the method of young Arris to secure the further circulation of his work, under another name, without his father's knowledge?

It must not be forgotten that the very title quoted in the British Medical Journal bears evidence of a desire to mislead. The author's name is given as Thomas Harris, whereas in the Annals of the Barbers and Surgeons Company, and those of the College of Physicians, so far as they are published, it is always Arris. Again, Thomas Arris was M.D.Oxon., 1651, but his degree is omitted from the title.

It would be interesting to collate such copies of this little work as are still to be found, bearing either the name of Harris, Allen, or Arris, and to note whether they carry the *imprimatur* of the Archbishop of Canterbury or Bishop of London, as, in the case of a London-printed book, was required by a statute of Charles II (1662). *The Royal Hand* possesses additional interest as being one of the few books published in London in the year of the Great Plague.

Presentation.—Dr. Hope, Medical Officer of Health for Liverpool, on the occasion of his approaching marriage, was recently presented by the staff of the Public Health Department of Liverpool with a massive silver centrepiece.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders and Postal orders should be made payable to the British Medical Association at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 3RD, 1899.

THE TUBERCULOSIS CONGRESS.

THE Congress on Tuberculosis in Berlin, which came to an end on Saturday last, has attracted an amount of public attention which cannot fail to have a favourable effect upon measures now being taken in this country to check the ravages of the disease. In gauging the value of the work done it is important to bear in mind the objects with which it was called. It was promoted by the Central German Committee for the Establishment of Sanatoria for Pulmonary Diseases, and the full title of the Congress was Kongress zur Bekämpfung der Tuberkulose als Volkskrankheit, which may perhaps be best translated as "Congress on the Fight against Tuberculosis as a National Disease." The origin of the Committee and the part which Professor von Leyden has taken in its formation and work are sufficiently explained in the reports of our correspondents in another column; but it may be pointed out that the discussions were essentially of a practical nature, that the programmes of the sections converged upon the question of the establishment of sanatoria for the working classes, and that many of the associations interested in workmen's assurance sent delegates.

Though sanatoria for the treatment of poor consumptives are of comparatively recent introduction, the number of such institutions in Germany is already considerable. It was only in 1892 that the beginning was made by the establishment at Falkenstein of the first sanatorium for poor consumptives. This was a small establishment close to the celebrated sanatorium directed by Dettweiler, and has now been superseded by the neighbouring large establishment at Ruppertshain which was opened in 1895. During the last few years the progress in this direction throughout Germany has been astonishing, and more sanatoria for tuberculous patients of the working classes exist in Germany than in any other country. If we inquire as to the causes which have led to this praiseworthy result, two principal reasons are perceived: (1) The good results obtained by the private sanatoria for paying patients and the attention directed to the subject by the writings of Brehmer, Dettweiler, and others, and (2) the German system for the compulsory insurance of the working classes.

This system of general assurance under State control was practically inaugurated in 1881, and has been gradually extended and consolidated since then. The object is to give the workman unfitted for work by sickness, accident, invalidity, or old age, a legal right to a provision sufficient to render him independent of public charity or Poor-law relief. The practicability of this colossal scheme has been abundantly proved by its successful working under the paternal government of Germany. The results of the system are from a medical point of view already very great. The possible relationship between traumatism and various diseases has been more exactly studied than previously, and the most reliable methods of dealing with workmen's injuries (so as to accelerate recovery or minimise resulting disablement) have been investigated on a larger scale than was formerly possible.

The necessary funds for this system of assurance are furnished partly by the employed themselves, partly by the employers, and partly by the State, so that all parties have a common economic interest in maintaining the welfare of the working classes, both by making the conditions of their lives as hygienic as possible, and by affording them the best possible treatment when injured or diseased. For insurance against accidents the chief contribution is furnished by the employers, who likewise subscribe a sum for insurance against illness equal to half the amount paid by the workmen themselves. It is therefore in the employers' interest not only to guard their workmen against accidents of all kinds, but by proper ventilation of the workrooms, and by every other rational method, to diminish their liability to consumption and other diseases. The medical and surgical treatment is provided by local associations, which receive the contributions from the workmen and their employers.

Foremost amongst the questions which these associations have to decide is, what to do with their members who become consumptive. Considering the relative frequency and the chronicity of pulmonary tuberculosis, provision for consumptive members must seriously drain the resources of any workmen's assurance association, and from the economic as well as from the humanitarian point of view, the best method of treating the disease has to be selected. It is said that about a quarter or more of those who die of pulmonary tuberculosis might be saved by timely treatment according to the methods in use in modern sanatoria. It is reasonable, therefore, that sanatoria for poor consumptives should receive very strong support from the various workmen's insurance associations. Although private philanthropy must always be useful in Germany, as elsewhere, for the foundation and maintenance of such sanatoria, yet assurance associations naturally contribute to the expenses of these institutions in proportion to the number of patients they send for treatment. Gebhard calculates that if an assurance association provide sanatorium treatment for 500 consumptive workmen, the cost of treatment will be counterbalanced by the result, provided that 140 of the patients so far recover as to do without sick pay for a year.

Anyone who visits a German sanatorium such as that of Oderberg, near St. Andreasberg, in the Upper Harz Mountains (which is carried on in connection with the workmen's insurance arrangements of the three great Hanseatic towns—Hamburg, Lübeck, and Bremen) must be struck by the fact that the patients nearly all look very well, much better than the average patients to be seen at the

Brompton Hospital or other English hospitals for consumptives, so that nobody from mere inspection would suppose them to be suffering from pulmonary tuberculosis. In fact, it is quite obvious that the patients for treatment at these excellent sanatoria are selected with the very greatest care, so that generally only those whose pulmonary lesions are very slight in extent and strictly limited are admitted. Such cases are undoubtedly the most likely to be permanently benefited by a stay of two or three months at a sanatorium such as that at Oderberg.

In the selection of patients it must be admitted that sometimes the diagnosis of pulmonary tuberculosis cannot be established beyond doubt, but it is held to be better from an economic point of view to treat a patient, who, though he perhaps has no true tuberculous lesions, is likely to be benefited by the sanatorium, than to admit patients in whom the signs of pulmonary tuberculosis are already too obvious, and who are therefore less likely to obtain permanent benefit from a stay of two or three months at the sanatorium.

It is to be hoped that the statistics which are now accumulating of the results of the sanatorium treatment of the consumptive poor will afford unquestionable evidence that assurance associations really gain financially by providing sanatorium treatment for their consumptive members. Probably the actual financial advantage obtained by assurance associations from sanatorium treatment will depend largely upon the rigid care bestowed by their medical men in selecting the most favourable cases—with lesions of slight extent only. There will still remain full scope for private charity. Its part will be to increase the available accommodation in sanatoria for treatment of those patients in a more advanced stage who are now excluded by the severe selection of cases now practised. Patients who, owing to the extent of their lesions, are less likely to obtain permanent benefit from a single short course of treatment will then not be altogether denied the advantages of a method which offers more or less chance of ultimate success, even when not employed from the very commencement of the disease, a method of treatment which they could purchase for themselves if they belonged to the wealthy classes.

CLIMATE IN THE TREATMENT OF CONSUMPTION.

THE address delivered by Sir Hermann Weber to the Tuberculosis Congress at Berlin, which will be found in another column, sets forth in no uncertain terms the views of an acknowledged master of his subject with respect to the value of what is called the climatic treatment of phthisis. The tide of public opinion has recently been set so strongly in the direction of treatment by sanatoria, as the one and only likely means of success, that many writers have been led to the sweeping assertion that it matters not where the disease is treated so long as the strictest rules of hygiene be observed. Sir Hermann Weber has for many years been an advocate of treatment in specially selected climates, and it is not surprising to find that he is by no means agreed with those who express the views just referred to. He still holds to the opinion that climate is of real importance, but he qualifies this statement by the proviso that it is insufficient if it be not supplemented by medical supervision and hygienic and dietetic guidance.

In his address he says all that can be said in favour of the various climates which have obtained reputation, but it must be confessed that he does not on the whole make out a very strong case in their favour. The disease in an early stage may be benefited by residence in any healthy climate, but in dealing with the more advanced stages he would seem to prefer to steer the middle course of the mild and temperate conditions to be found near at hand in preference to the more pronounced climatic conditions of many foreign countries, against nearly all of which he has some objections to raise. Of one climate only does he speak in terms of unqualified praise, and that is to be found on the western slopes of the South American Andes of Peru. Here the experience of ages goes to prove that removal from the plains to the high altitudes is a veritable specific for the cure of consumption. But the Peruvian Andes are out of the reach of most European consumptives. Of the highlands of South Africa he speaks in terms of disappointment. The promises held out a few years ago have only been partially fulfilled by the experience of subsequent facts.

Incidentally, he mentions the good effects that have been noted among children of consumptive families who have been brought up entirely in pure air at high altitudes. The extreme importance of guarding the years of adolescence ought in future to obtain more attention than has yet been devoted to it. The period between 15 and 25 years of age is, of all others, the most important in the life-history of young people of either sex who may be reasonably suspected of tuberculous susceptibility. The disease is then preventable and ought to be prevented.

Dealing with climates of low elevation he discusses the value of forests, only to show that they may best be utilised as wind screens for dwellings that are fully exposed to light and air. Of desert life he relates some interesting personal observation amongst nomad tribes, all of which go to prove the value of open-air life, although they do not directly give evidence of any special climatic virtues in desert air. Illustrations of the same fact may be found in abundance in most of the mountainous districts of Wales and Scotland, where tuberculous disease is often common amongst those members of the community who habitually stay indoors, while the shepherds and gillies of the same race are unaffected so long as they live constantly in the open air.

Desert air is one of the many attractions held out to intending travellers in Egypt. Such as are consumptive would do well to read Sir Hermann Weber's remarks on the climate of the country before they set out. As a result of two long visits he finds much to criticise in the Egyptian climate, and points out that one of its vaunted virtues—its regularity—is not to be counted upon. The insanitary conditions of most dwellings, the want of proper protection for invalids on the Nile boats, the absence of properly-equipped sanatoria, and the shortness of the season during which the country is likely to be favourable to invalids are all points which must be carefully weighed, both by patients and their medical advisers. The cases which in his opinion are likely to be benefited are contained in a very short list. Among them will be found

cases subject to attacks of bronchitis; but it must be assumed that recurrent chronic bronchitis is here intended, as the climatic conditions described are obviously undesirable for sufferers from the acuter forms of attack.

From his account of the sea as a health-giving climate, at least one noteworthy point may be gathered. He records the fact that of a number of boys of strongly consumptive families who have been sent into the navy as a profession, a far larger proportion have remained free from subsequent tuberculosis than of those sent into sedentary professions or trades.

From the summing-up of the whole subject it may be gathered that it is of all things important to study carefully the type of constitution which each individual patient presents before selecting a climate for the pursuance of his treatment. All cases do better in healthy rather than than in unhealthy climates, and for some of the more robust patients with but slight disease the invigorating air of altitudes may be preferred, but as disease advances climate becomes of less importance. In all cases, whether at high or low levels, medical supervision is essential, and for the poor it ought to be provided "as a national requirement for the cure, the prevention, and the extermination of tuberculosis."

TUBERCULOSIS AND HOSPITAL MILK.

NEARLY all, if not all, who are regarded as authorities in the matter of tuberculosis and its prevention are pretty well agreed that in this country, at least, a large portion of the tuberculosis from which the human subject suffers is due to the use of milk from tuberculous cows; and this view finds strong support from Professor Virchow's address to the Congress of Tuberculosis in Berlin, a brief report of which appears in another column. One telegraphic account goes so far as to state that, in Professor Virchow's opinion, the question of tuberculosis in relation to milk is so "serious" that "a single cow could depopulate a whole village." While a full discussion of the opinion thus attributed to Professor Virchow must be reserved until the publication of the paper in the *Transactions* of the Congress, which are promised for an early date, it may not be unprofitable to draw attention to it from another point of view; and it is the more important to do so because there are good grounds for the apprehension that some of those responsible for the government of our hospitals are distinctly failing in that which is an obvious duty on their part.

It is now admitted that in all probability some 70 per cent. of the milch cows in this country are more or less tuberculous, and that at any moment the udder may, in the vast number of cows in question, become the seat of the deposit of tubercle. In most of our hospitals tuberculous affections of different sorts are constantly under treatment, but at the same time there are a number—many, we fear—in which no proper precaution is taken to ensure that, whilst serving for the treatment of tuberculosis in one set of patients, these same hospitals are not also serving as distributors of tuberculosis to others, especially to those who are on milk diet. We also know, as a matter of fact, that when the need for sterilising or pasteurising hospital milk in bulk before its distribution to the wards has been brought under the notice of some of the lay administrators of our hospitals, the proposal has been met with actual opposition, and this on grounds too trivial to be worthy of comment. Indeed, the time has come for every member of a medical or surgical staff in all our hospitals to inquire into this matter as regards the patients for whom he is responsible; and we hope, also, that a large number of the governors of those institutions are now sufficiently alive to the evil to realise that they, too, have a definite responsibility as regards this subject.

We have already called attention to this matter, and the immediate reason for reverting to the matter is that we have before us a few examples of one step that can be taken in this direction. To name one only: The authorities responsible for the Brighton Isolation Hospital have made it a condition of their milk contract: 1. That the contractor shall furnish to the medical officer of health certificates from a qualified veterinary surgeon to the effect that (*a*) the cows from which the milk is obtained have been subjected to and failed to react to the tuberculin test; (*b*) the reacting animals have been removed from the byres, and the latter have been cleansed and disinfected; (*c*) all new cows purchased from time to time during the period of the contract have been similarly tested.

We are not prepared to say that, having regard to the probable limitation of mischief to actual tuberculosis in the udder, it is necessary in every case to go so far in the direction of controlling individual dairies as is done in these conditions, and this especially in view of the fact that a hospital is precisely the place where pasteurising of milk can be carried out in the way which will be most efficient in so far as danger from tuberculosis is concerned, and least harmful—if harmful at all—to the dietetic properties of milk. But one thing is certain, namely, that there is an amount of laxity in this matter which, in view of our present knowledge, borders on, if it has not already in some cases reached, the stage of culpability.

In his Harben Lectures on the Administrative Control of Tuberculosis, Sir Richard Thorne contrasted the care that is taken in our hospitals to avoid anything that is septic and pathogenic in connection with surgical operations, with the actual "courting of" the tuberculous infection by means of the milk that is used in the wards; and it surely must be obvious to all that there is something wrong in applying the knowledge we have acquired to the prevention of infection in connection with operations for the removal of parts that are tuberculous in a surgical ward, whilst the administration of the institution, by ignoring the knowledge which is available, is actually adding to the number of tuberculous patients.

The reminder from the Berlin Congress should serve to emphasise the need for immediate action in the direction we have indicated.

THE QUEEN'S HEALTH.

WE have the best authority for stating that the alarming paragraphs regarding the Queen's eyesight which have appeared lately are erroneous and misleading. For a considerable time Her Majesty's eyesight has been to some extent impaired owing to changes incidental to advanced years, but we are glad to be in a position to say

that the deterioration has ceased to be progressive, and that the Queen's eyesight has in no respect become worse during the last few years. All reports to the contrary, as well as the rumour of any impending or even contemplated operation, are therefore pure inventions.

THE LONDON SCHOOL OF TROPICAL MEDICINE.

At a meeting of the Committee of Management on May 26th, the following officers were elected on the staff of the Seamen's Hospital Society:—Physicians: R. Tanner Hewlett, M.D., M.R.C.P.; Guthrie Rankin, M.D., M.R.C.P. Surgeons: James Cantlie, M.B., C.M., F.R.C.S.; J. Brian Christopherson, M.D., B.C.Cantab., F.R.C.S. Ophthalmic Surgeon: L. Vernon Cargill, F.R.C.S. Superintendent and Medical Tutor of the London School of Tropical Medicine: D. C. Rees, M.R.C.S., L.R.C.P. Mr. W. Turner who has been Surgeon at the Branch Hospital, Albert Docks, has been transferred to the Dreadnought Hospital. For the time being the staff of the Dreadnought Hospital, Greenwich, is now constituted as follows:—Physicians: Drs. Hewlett and Rankin. Surgeons: Messrs. Johnson Smith and W. Turner. That of the Branch Hospital is as follows:—Physician: Dr. Patrick Manson. Surgeon: Mr. Cantlie. Surgeon to Outpatients: Mr. Christopherson. Mr. Vernon Cargill takes duty at both hospitals. Mr. Rees, the superintendent and medical tutor of the School of Tropical Medicine, has lately returned from the West Coast of Africa, where he was in the service of the Niger Coast Protectorate under the Colonial Office. Two further staff appointments are left unfilled for the present in order that the by-law of the Society making the possession of the Membership or Fellowship of the Royal College of Physicians of London a necessary condition on the part of candidates may be suspended. Suspension of the by-law is considered advisable in the special circumstances created by the establishment of the London School of Tropical Medicine to enable officers to be elected who, although not yet holding the qualifications required by the by-law, will undertake to obtain these qualifications within a stated period. Whatever may be thought of the general principle of limiting hospital appointments in the metropolis to Members or Fellows of the London College of Physicians, it is obvious that the appointments of the Seamen's Hospital Society are of a special and exceptional nature which would fully justify not merely the suspension but the repeal of such a by-law. Men who have had the practical experience of tropical diseases required to make them efficient medical officers to hospitals established for the treatment of those diseases can seldom have had the opportunity of taking the steps necessary for admission to the College of Physicians.

SECRET COMMISSIONS IN THE UNITED STATES.

The medical profession in the United States has for a considerable time past been much exercised about that particular form of secret commission which is known in France by the name of "dichotomy." This in plain terms is a system of division of spoils between the specialist and the general practitioner who plays the part of jackal to the consulting lion. Nearly a year ago Dr. Melville Black, of Denver, boldly gave public expression to the opinion that "in a certain number of cases the physician should receive a fee for referring cases to the specialist." He argued that as the general practitioner is often put to a good deal of trouble in regard to cases which he sends to specialists, and may find a difficulty in getting a fee from the patient, he should receive compensation from the specialist. This pronouncement drew a strong protest from Dr. Lyman Greene, of St. Paul, Minnesota, who, however, soon afterwards admitted that since making it he had learned that the practice of asking for and paying commissions of the kind referred to was more general than he had formerly believed. This brought on the scene Dr. Robert T. Morris, of New York, who said his own experience afforded no ground for the belief that the evil existed. His innocence was, however, speedily enlightened by the receipt of "several communications which indicate that the practice is not uncommon in a section of our country which is renowned for its 'hustling' spirit." Incidentally we learn the interesting fact that practitioners who wish to be fair to him and to the patient will sometimes say to him, "My patient cannot pay you 5,000 dollars for his operation without depriving himself a good deal, but he can pay you 2,500 dollars." We gather that Dr. Morris's fine philanthropy leads him to accept the comparatively trifling fee of £500 rather than subject the poor patient to serious privations. At a meeting of the Louisville Medico-Chirurgical Society on March 10th, 1899, Dr. Ap Morgan Vance read a paper on the subject, in which, after pointing out that Dr. Morris was inclined to "put it on" the West, he went on to say that if that gentleman would investigate further he would find that they were all in the same boat, and that the evil would be found to exist everywhere in one form or another. Dr. E. J. Brown, of Minneapolis, said "Some of our western towns have become so infected with this evil that no honest, self-respecting specialist would dare make the effort to establish himself if he knew the facts." From this witness we learn further that touting is carried on in a naked and unashamed manner of which we have no notion in this backward old country. He says: "For the past few years in this city a patient with an eye bandaged could not walk down our down-town streets without being approached by runners with the offer to take him to a better surgeon than the one he was employing." Dr. T. H. Hatch, of Owatonna, Minnesota, says: "Undoubtedly there is not a State in the Union that is not infected with the commission evil to a greater or less extent." The doctor's wife is active in touting. "Only a short time ago," says Dr. Hatch, "I saw the wife of a reputable (supposed) physician collar a boy with a dirty rag on his throat and steer him to her husband's office. When that same woman hears of a woman who is pregnant she coaches her and uses her utmost endeavours to inveigle her to employ her husband." The gentlemen who discussed Dr. Ap Morgan Vance's paper were unanimous in condemning the sharing of fees between specialists and practitioners, but most of them bore testimony to the existence of the practice. One said he was satisfied that the evil of paying commissions for the referring of cases is more common in Eastern cities than with them. As the East accuses the West and the West brings a counter charge against the East, we may take it that the system exists to a greater or less extent in all but the most unsophisticated parts of the United States. Indeed, one speaker (Dr. J. B. Bullitt) bluntly said that the evil was so prevalent that he could only believe that those who had not been made aware of it were such as lived so far above the clouds that they had not come in contact with the ordinary things of earth. Dr. R. T. Morris has suggested that at the next meeting of the American Medical Association a resolution be adopted to the effect that any practitioner of medicine who gives or receives a commission for cases referred to or by him shall be expelled from the Association.

LONDON STATISTICS.

There has just been issued from the Statistical Department of the London County Council a small book, at the price of 1s., entitled *Statistical Abstract of London*. It is the second of its kind, and deals with the year 1898. Mr. Gomme, the Statistical Officer of the Council, is responsible for its compilation. For those who delight in the language of figures the pages of this little volume are eloquent with interesting information in regard to London's growth and importance. The population grouped in parishes from

1801 to 1896 illustrates very conclusively the depletion of the City and the overgrowth of the peripheral parishes which has so accentuated the problem of adequately housing the working classes. The population of the Administrative County of London at the beginning of the century is computed to have been 958,788, while in 1896 it was 4,433,018. The inhabited houses in the 670 acres of the City were in 1801 no fewer than 17,190; they have now shrunk to 4,568. Some idea of the value of the land in London is gathered from a table which shows that the rateable value of the whole of the administrative county in 1898 was £36,579,150, and a 1d. rate now yields £152,413. Analogous experiences in other areas diminish the surprise with which we learn from tables on page 33 that fewer persons were born and fewer persons died in London in 1896 than in 1886, while the number of marriages was greater in the later year than in the earlier. Paupers of all classes show a slight though unsteady increase from 1887 to 1897. There were 118,647 in 1897 against 108,639 in 1886, while it is in accord with the ratepayers' experience to learn that the annual expenditure of Poor-law authorities on relief of the local poor has risen nearly a million within the same period. The number of inquests held in London in 1897 was 7,642, while the number of notifications of infectious disease amounted to 45,415. It may surprise some to learn that there are more than 9,000 acres of land in London described as "permanent pasture or grass," and that more than 13,000 head of cattle, sheep, and pigs graze thereon. Vital statistics for the county are dealt with fully by the medical officer of health in his annual report, but it is satisfactory to learn from this report that in the matter of contagious diseases of animals—notably glanders, rabies, and swine fever—there has been a reduction. Of rabies there are recorded 13 cases in 1897-98 against 46 and 61 in the two preceding years. The little volume is indispensable to any student of London problems.

CONSUMPTIVE PATIENTS ON MAIL STEAMERS.

A GENTLEMAN who holds an official position in Johannesburg has written a forcible letter to a contemporary in which he relates his experience on a recent voyage from Cape Town to London, and points out the necessity of making some special provision for consumptive patients on board mail steamers. He was obliged to share a cabin with a gentleman suffering from advanced pulmonary consumption, and on making complaint to the purser he was told by that official that no other arrangement could be made; the company having issued a ticket to the passenger they could not refuse to take him. Other passengers have also protested, and it is no doubt true that with the increasing facilities for travelling, and an increasing belief in the benefit to be derived from a sea voyage by patients suffering from consumption in certain stages, a number of advanced phthisical patients embark on a voyage for the Cape or Australia, in some cases at any rate without medical advice, and without any knowledge of the risk they run personally from the discomforts of a sea voyage, and specially from the trying climate in the tropics. They are, perhaps, ignorant of the dangers of infecting other passengers with the disease, and at the time the passage is taken the company is, under present arrangements, unaware of the condition of the passenger, so that if the ship is crowded a healthy passenger is liable to be made cabin mate with a phthisical patient. In the case of diseases ordinarily recognised as infectious, such as small-pox, scarlet fever, etc., the patients are at once isolated, and the captain has the right to land such passenger at the next port of call rather than run the risk of infecting the whole ship; but in the case of phthisical patients no such precautions are taken. Yet surely, with our present knowledge of tuberculosis, it should be recognised on shipboard that a patient suffering from pulmonary phthisis is a source of danger to others. Patients suffering from it, if taken as passengers, should not be put into the same cabin with healthy passengers. At all times cabin mates are thrown into very intimate relations, and in bad weather this is more especially the case. Under such circumstances all the conditions for the transfer of the infection from the sick to the healthy exist, and passengers have a right to ask that some special provision should be made for phthisical patients; certain cabins should be set apart for them, and all antiseptic precautions taken.

THE ROYAL ORTHOPÆDIC HOSPITAL.

THE Royal Orthopædic Hospital, London, is to be added to the rather long list of special hospitals, the internal administration of which has from time to time gained an unenviable notoriety. It appears that in June last a deputation from the Prince of Wales's Hospital Fund inspected the hospital, but no grant was made by the fund. Though the deputation made no formal report as to their views it was subsequently ascertained that the chief reason for withholding the grant was the character of the premises in which the charity is carried on. The building is old, the sanitary arrangements of the wards and lavatories unsuitable for a hospital, and there are no proper bath-rooms or operating theatre. The matter was carefully considered and plans were drawn for rebuilding the hospital on its present site, but the long narrow piece of ground running from Oxford Street to Hanover Square, averaging only 37 feet in width, with buildings on either side, and with an open space in the centre which cannot be built over, was recognised by the committee, after carefully considering the plans, to be out of the question as a site for a hospital built on modern principles. In February last the Committee received a letter from Mr. H. A. Reeves, one of the surgeons to the hospital, stating that during the previous three years there had been outbreaks of sore throat, fevers, and other forms of blood poisoning in the hospital, and that a recent outbreak had been worse than any previous one. Three deaths were mentioned by him, and he expressed the opinion that the facts pointed to a very serious insanitary condition which no patching up could remedy. The Committee thereupon advertised for suitable premises for a temporary hospital, and determined to recommend the governors to sell the present site and to purchase another in a less expensive neighbourhood whereon a properly equipped hospital for seventy five beds could be erected. At the annual meeting of the hospital on March 27th the report of the Committee recommending the transfer of the hospital and the sale of the present site was brought up. At this meeting seven of the twelve gentlemen comprising the old committee were rejected and eight new members were elected in their place. Sir Walter Gilbey, the Chairman, in a recent letter to Lord Wantage, the President of the hospital, has stated that an examination of the names and qualifications of the thirty-eight persons present who recorded their names showed that twenty-eight had been governors of the institution for less than four months. Moreover, two of the gentlemen who were newly elected on the Committee had not paid a subscription at the date of the court, and not being therefore governors were not eligible under the laws for election on the Committee. Lord Wantage has summoned a special court of the governors on Thursday afternoon next, when certain alterations in the laws of the hospital will be proposed. One of these would direct that no annual governor should vote at any election unless his name had been received twelve months earlier and his subscription paid; and another that a governor proposed for election on the Committee of Management shall have been a governor for not less than twelve months. These alterations are in the right direction, for the making of faggot votes is an abuse which has led to the perpetuation of many evils at many hos-

pitals. Against a new law which is also to be proposed we would make the strongest protest. The proposed law is "that no acting medical officer of the hospital shall be eligible for election as a member of the Committee of Management." The principle that the acting medical staff of a hospital should be represented on the Committee of Management is sound, and any departure from it can only prepare fresh difficulties for the future. In the present instance it would appear that two of the surgeons to the hospital are opposed to the transfer of the hospital to a new site. That they may be, and probably are, mistaken ought not, however, to lead to the introduction of a bad principle into the laws of the hospital.

EPSOM COLLEGE.

THE annual election of foundation scholars of Epsom College took place on May 26th, when the following six candidates were elected from a list of 34: Charles R. Gross, Hugh L. Burton, Watkin W. Roberts, Frank H. Kebbell, William L. B. Leech, Francis D. Kenny. Under a rule of the College adopted in 1879, a Committee of Examination appointed by the Council investigates the relative claims of candidates, and selects the candidates who in the opinion of the Committee best deserve election. The number of names thus selected is equal to the number of vacancies. The Council, in sending out the ballotting papers, encloses a slip giving the list of candidates thus selected, and stating that they are recommended as being in the opinion of the "Committee of Selection" the most urgent cases. This is an excellent system, inasmuch as, while it leaves to every governor the absolute right of voting for any candidate, it at the same time gives most valuable guidance to those governors who may not have personal knowledge of any of the cases. On the present occasion all the candidates thus recommended were elected. On the same occasion seven pensioners of the Royal Medical Benevolent College, two men and five women, were elected. The "Committee of Selection" makes a selection from the list of candidates for pensions on the same principle as in the case of foundation scholars. On the present occasion the candidates elected were those thus recommended, namely: John R. Diamond, Caroline A. Modlin, Frances E. Lane, Matthew J. Rae, Elizabeth E. Betts, Clara Moore, Ann Glenton. The pension to Mr. Diamond is allotted to the Pugh Pensioners Fund. The pensioners now receive an augmented annual sum in lieu of residence, with permission to reside with their friends, an arrangement which is found to be much more satisfactory to all parties than the old plan under which pensioners resided in the asylum at Epsom. Dr. Holman, the Treasurer of the College, who was in the chair, congratulated the members of the Selection Committee on the fact that the whole of the candidates recommended by them had been elected, and this endorsement of the recommendations of the Committee by the whole body of governors speaks volumes for the care shown in the very difficult task of picking out the most necessitous cases from among the large number of candidates urgently seeking help.

DINNER TO SIR WILLIAM MAC CORMAC.

THE dinner given to Sir William Mac Cormac at the Café Royal, London, on May 24th, by past house-surgeons of St. Thomas's Hospital, in honour of his third year of tenure of the office of President of the Royal College of Surgeons, brought together a representative company of the members of the school since its transference to the present hospital. Of 127 gentlemen who served the office of house-surgeon during the period in which Sir William was actively connected with the hospital, 16 died during their term of office or since, 22 are fulfilling various medical duties abroad, and were represented by letters or telegrams, and of the remainder 77 assembled to do honour to their old teacher and chief. Mr. Franklin, of Leicester, as senior house-surgeon of the period included, who was in the chair, gave the toast of "Our Guest." It was supported by Dr. Acland and Mr. Makins, two members of the present hospital staff, and by Dr. F. E. Nichol, of Margate, as a second member of the school practising in the provinces. The chairman paid a warm tribute to Sir William's personal character and public services, recalling among other reminiscences a clinical lecture by Mr. Le Gros Clark, in which the lecturer made certain prognostications regarding intraperitoneal rupture of the urinary bladder, since happily falsified by the two cases of successful suture by Sir William. Mr. Makins dealt with Sir William's services to the school and hospital and to the surgery of London, and expressed on the part of those present the admiration and respect felt by Sir William's old pupils for Lady Mac Cormac. Dr. Acland dwelt upon Sir William's work in connection with the sick and wounded in war, and his loyal support of the Army Medical Service; and Dr. Nichol emphasised the happy relations existing between Sir William and his house-surgeons and dressers, and the permanent affection and esteem established between him and his old pupils. Sir William, who was greeted with enthusiastic applause, said that the compliment thus unanimously paid him touched him most deeply. It would always be a pleasure for him to look back on that evening, and he would preserve as one of the liveliest and happiest recollections of his life the regard for him which had been so abundantly testified. Nothing could have touched him more deeply than the reference to his dear wife. The chairman then presented the guest of the evening with an illuminated album, decorated with a drawing of the hospital and a vignette of a field hospital, containing the signatures of the house-surgeons and the assistant house-surgeons of St. Thomas's between 1870 and 1894, and headed by a short address, which said that the donors took "this opportunity of expressing their admiration of his services to the advance of the science of surgery in the hospital and on the field of battle, his unwearied efforts to promote the objects of the medical profession and maintain its high status, his services to St. Thomas's Hospital and its Medical School, and his unvarying kindness and efforts to help his pupils and juniors."

THE LIVERPOOL CANCER AND SKIN HOSPITAL.

THE Liverpool Hospital for Cancer and Skin Diseases has for some months been the subject of a painful interest to all who are jealous of the honour of the medical profession, and to all who are concerned in the welfare and good government of medical charities. It is understood that some of the matters in dispute will be the subject of investigation in the law courts, and we will therefore confine our observations to facts upon which there is a pretty general agreement. The honorary staff of the hospital has consisted, until the present difficulties arose, of three surgeons and three assistant surgeons, the three surgeons being Dr. J. D. Crawford, Dr. G. Stopford Taylor, and Dr. Wm. Whitford. Towards the end of last year the Committee appointed a Subcommittee, consisting of five of its members, to inquire into the internal management of the hospital, and each of the three medical officers was written to and invited to offer suggestions as to improvements in the management, and to send any specific complaints which he desired to make. Dr. Taylor and Dr. Whitford alleged against Dr. Crawford that he had for a long period been sending private patients from his house to have their medicines made up at the hospital's expense, and had in other ways used the hospital for his own personal advantage, and, further, that he had behaved in an indecent manner to some of the nurses, especially when they had had occasion to call at his private residence. The exact details of the latter

charge, which, if true, were of a particularly gross and painful character, we do not propose to relate, but a fair idea of their scope may be gathered from the columns of our contemporary *Truth*. Dr. Crawford on his part made certain allegations against the management of the hospital and Dr. Whitford in particular, but they were not of a very serious nature. After meeting ten times, the subcommittee presented their report, which, as regards the main points in dispute, was to the effect that none of the charges had been substantiated against Dr. Crawford, and that a complete revision of the staff was absolutely necessary; and the committee thereupon called upon Dr. Taylor and Dr. Whitford to resign their positions on the staff. This the two latter gentlemen declined to do, and the matter was referred to a special meeting of the subscribers, which took place on May 10th. Before this meeting was held a special meeting of the Medical Institution was called, when a resolution was proposed to protest against the dismissal of these two members of the staff under the existing circumstances. After a somewhat acrimonious discussion, the previous question was moved and carried by a small majority. This action on the part of the institution was the outcome of a widely-felt indisposition on the part of the members to pledge the institution to taking any part in the matters under dispute, and it resulted in the meeting separating without expressing any official opinion on either side. During the next few days a memorial addressed to the subscribers and donors to the hospital was signed by 112 practitioners in Liverpool, the signatories including Mr. Mitchell Banks, Dr. Barr, Dr. Carter, Dr. Bernard, Mr. C. Puzey, Mr. W. Alexander, and many other leading members of the profession. The memorial set forth that the signatories had received copies of the report of the Subcommittee, which had been sent to them by Dr. Crawford, and that they had a strong opinion that in the interests of justice, and for the good of the hospital itself, there should be a full, free, and exhaustive inquiry into all the subjects alluded to, an inquiry of a much more exhaustive character than they believe had yet been held, judging from the report itself. About the same time Dr. Taylor and Dr. Whitford sent out to the subscribers a pamphlet containing an elaborate criticism of the report, in which they alleged that the Committee had ignored several important items of evidence, evidence which was set forth at length in this criticism. The special meeting of the subscribers took place on May 10th, when the action of the Committee was confirmed by 44 votes to 20, with the result that Dr. Taylor and Dr. Whitford are dismissed. An amendment which was moved to refer the whole question to a committee of inquiry, with the Lord Mayor as its head, was rejected by 45 votes to 33. It is asserted that during the few weeks which preceded the meeting a large number of persons qualified themselves as governors of the hospital by paying the minimum subscription, and voted at the meeting. That such a charge, whether true or not, could be made, shows that the laws of the institution need revision, since the regulation in this matter which is at present in force might obviously lend itself to a serious abuse. The usual practice in the Liverpool hospitals is not to allow subscribers to vote until three months after the first subscription has been paid. Two of the three assistant surgeons have resigned their posts.

DISTRICT MEDICAL OFFICERS AND PUBLIC VACCINATION.

IT appears from a report in the *East Devon Herald* that two of the public vaccinators of the Tiverton Union have failed to come to terms with the guardians for the performance of public vaccination and that three appointments as district medical officers have become vacant, apparently in consequence. We can hardly understand how this was brought about, as it does not follow that a district medical officer becomes in any way ineligible to continue in office in consequence of any fresh arrangements made in reference to public vaccination. A district medical officer as such has nothing whatever to do with public vaccination; this only becomes one of his duties if the guardians and he agree to enter into a contract for him to undertake it, and if the guardians of any union do not make a contract for this purpose with their own district medical officer they have to make the necessary contract with some other duly qualified medical practitioner. The district medical officer, except by agreement, is not compelled to undertake public vaccination on any terms, and some positively decline to do so. Any dismissal from office of a district medical officer because he declines to undertake the responsibility of public vaccination would, we should hope, be held by the Local Government Board to be arbitrary and unjust and that consequently it would decline to confirm it. While we would not counsel litigation, there seems some reason to think that if such a case came before a superior court any such action of guardians would be regarded as *ultra vires*, and treated accordingly.

THE BRITISH ASSOCIATION.

THE arrangements for the meeting of the British Association in Dover next September are now in a forward state, and at a public meeting held in Dover last week under the presidency of the Bishop, Sir John Evans gave a general account of the approaching meeting. The president will be Professor Michael Foster, and the presidents of the various sections are as follows: Mathematical and Physical Science, Professor J. H. Poynting; Chemistry, Mr. Horace T. Brown; Geology, Sir Archibald Geikie; Zoology, Mr. Adam Sedgwick; Geography, Sir John Murray; Economical Science, Mr. Henry Higgs; Mechanical Science, Sir William White; Anthropology, Mr. C. H. Read; Physiology, Mr. J. N. Langley; Botany, Sir George King. Sir John Evans indicated that some of the most interesting subjects which would be dealt with would be wireless telegraphy, the new inventions in connection with the spectrum, the discovery of coal at Dover and Ropersole from purely scientific deduction, the gault and its fossils, and the discovery of implements of the Stone Age at Thanington and Reculver. He stated that the Belgian biologists would visit Dover in connection with the meeting and that the opportunity would be taken of showing some courtesy to the members of the French Association for the Advancement of Science, which would meet at Boulogne at the same time as the British Association met at Dover. He also gave some particulars with regard to the committees of the society and of the grants made to them, one of these being for the cost of experiments towards establishing a universal system of dealing chemically with sewage. Grants were also made for carrying out zoological and biographical researches. Sir William Crundall, who was mayor at the time when the invitation was given to the Association, was able to announce that the arrangements of the local committees were well advanced and that everything promised a successful meeting.

DISPOSAL OF THE DEAD BETWEEN DEATH AND BURIAL.

ALTHOUGH Section LXXXIX of the London Public Health Act does provide for the removal to a mortuary by order of a Justice of the Peace, under a medical certificate, of bodies of persons dying of other than infectious diseases, if their retention in a sleeping room or dwelling house be obviously dangerous to the health of the inmates, the power is rarely exercised except in the case of infectious diseases, and in houses where there "is no vacant room available." Yet there can be no doubt as to the danger and impropriety of keeping a corpse in an inhabited house for several days, perhaps for a whole week, though so long as mortuaries are practically appanages of the coroner's court, their associations will inspire a not unnatural repug-

nance to the removal thither of the dead, save under urgent necessity. In Munich the difficulty has been overcome by the provision of a public edifice of a solemn and imposing appearance, to which all bodies, without exception, must be removed within twelve hours after death, and where they remain until the funeral, which need not take place for several days. Those who choose to pay for the privacy may have the use of small separate apartments, but the majority among all classes prefer to avail themselves of the large hall separated from the public corridor by a plate glass partition, where the coffins, left open until commencing cadaveric changes leave no doubt as to the fact of death, may be seen decently arranged, and with such display of floral wreaths and lighted candles as the affection or religious observances of the relatives may prompt. Every painful and repulsive suggestion of the Morgue is absent, and the surroundings are made as solemn and attractive as possible. Munich has in this set an example which might with advantage be followed by all great cities.

DR. NORMAN KERR.

WE much regret to announce the death of Dr. Norman Kerr, which occurred at his residence, Wellington Square, Hastings, on Tuesday, May 30th. Dr. Kerr had for many years been Chairman of the Inebriates Legislation Committee of the British Medical Association, and a member of the Council of the Metropolitan Counties Branch. He was also a constant attendant and speaker at the annual meetings of the Association; a member of several medical societies, President of the Society for the Study of Inebriety, and author of many books and innumerable papers on alcoholism and cognate subjects. His life-long labours on behalf of the temperance cause will, indeed, be remembered with gratitude by his many colleagues and friends. Dr. Kerr, who was in his 66th year, had been ailing for a year past, suffering from Bright's disease and frequent attacks of bronchitis; he finally relinquished practice in London early in the present year. His health at first improved at Hastings, and he was able to preside at the April quarterly meeting of the Society for the Study of Inebriety in London. Shortly afterwards he suffered severely from influenza and bronchitis, and never regained his strength or ability to sleep. He gradually sank, and passed away peacefully.

THE BOLINGBROKE HOSPITAL.

THE appeal to the public for £20,000 on the part of the authorities of the Bolingbroke Hospital, Wandsworth Common, naturally directs attention to its present position and management. Originally started as the Bolingbroke Pay Hospital it seems to have proved a failure in a pecuniary sense, and the word "pay" having been dropped from its title it is now described as a free accident and home hospital, where out-patients, it is stated, are treated only on the recommendation of a doctor, but where accidents and cases of emergency are seen and treated at all hours of the day and night. So far, indeed, has it been from paying its way, that from time to time large sums have had to be advanced by its President, Canon Erskine Clarke, to keep things going, while the usual means resorted to by necessitous charities—entertainments, church collections, collecting boxes, illuminated parades, and so on have been pressed into service. By these various means an income of over £3,000 was last year obtained, of which only £119 8s. 6d. appears to have gone in medical salaries. We believe that a few years ago, in consequence of some unpleasantness, the entire working staff of the hospital resigned. Mr. Bryant is at present surgeon to the hospital, and the consulting staff includes Sir W. H. Broadbent, Dr. Galabin, Dr. Goodhart, Dr. H. M. Murray, Mr. Pearce Gould, and also a local general practitioner, who is responsible for throat and ear cases. Of the £20,000 asked for, a sum of £4,500 is required to purchase the freehold of the present building from Canon Clarke, and £10,000 for an additional building for accident and out-patients. The arrangement with Canon Clarke for the purchase of the freehold may be an excellent one, but the mode in which the property has been valued is not stated. The report states that the Committee of the Prince of Wales's Hospital Fund have made a donation of £250 towards the cost of "an additional hospital for accident cases, on condition that the work is undertaken with the least possible delay," and adds that it is "most important to provide a new out-patient department, and proper accommodation for the nursing staff and servants." It appears that in 1898 the number of attendances in the accident room was 13,668; of these 2,498 were "new cases." The number of cases admitted was 219. The number of "throat and ear out-patients" was 791. The medical report states that 349 patients (23 medical and 326 surgical) were treated in the hospital. There were thus 139 patients who paid the whole or part of the cost of their maintenance. The amount paid by in-patients is stated to have been £942 4s. 6d. At present the out-patient department proper seems to be on a very small scale, and in view of the great extension which appears now to be contemplated, the profession has a right to ask those of its members whose names are being used in support of the present appeal to exert their influence to prevent the perpetuation in connection with this institution of the acknowledged evils of unreformed hospitals.

LONG VACATION COURSE AT CAMBRIDGE.

ARRANGEMENTS have now been made for holding a course in pathology at Cambridge open to non-members as well as members of the University during the Long Vacation this year. It was feared at one time that the loss which the Pathological Department suffered by the death of its head, Professor Kanthack, would prevent the course being held this year, but Professor Sims Woodhead has now taken up his duties and the course will commence on Thursday, July 6th, and will consist of lectures and demonstrations in morbid anatomy and histology and clinical pathology, and lectures and practical laboratory work in bacteriology. If a sufficient number join, a class will be formed for more advanced bacterological work. The course will be conducted by the Professor (Dr. Sims Woodhead), Dr. G. H. F. Nuttall, and Mr. Strangeways Pigg (University Demonstrator). The last-named gentleman will forward a syllabus on application to him at the Pathological Laboratory, New Museums, Cambridge, and some further particulars will be found in our advertising columns.

THE TRANSFER OF MEDICAL PRACTICES IN FRANCE.

THE question whether a medical practice can legally be sold has frequently been raised in France—mostly by purchasers who rightly or wrongly have, after entering into possession, been dissatisfied with their bargain. A decision given by the Cour de Paris on December 29th, 1847, appears to be based on the view that a medical practice cannot form the subject of a commercial transaction. This difficulty has, however, been ingeniously overcome by a decision of the Civil Tribunal of the Seine, given on April 8th, 1897. In this case, while maintaining the view that a medical practice cannot be a matter of sale, the Court held that it could nevertheless be the subject of a perfectly lawful contract—namely, an undertaking on the part of the vendor not to visit patients within a specified area and to introduce a purchaser to those on his books. The transaction is, in fact, equivalent to the right of presentation of a successor which enables holders of many public offices in France to transfer to others—for a consideration—appointments which they may wish to resign. If we would speak by the card, therefore, we must not say that medical practices can be sold in France; the profession of the *grande nation*

abhors a commercial transaction as much as Nature was once supposed to abhor a vacuum. When a doctor wishes to retire or to seek fresh fields for his professional abilities he offers to introduce a successor. It is true that before accepting this invitation the intending successor must follow the advice of Iago and put money in his purse. But of course he does nothing so vulgar as buy the practice; he merely expresses his sense of the benevolence of the introducer by a present of money. The procedure irresistibly reminds one of Molière's *bourgeois gentilhomme*, who did not sell cloth, but whenever he happened to have a supply by him would graciously part with it to his friends in exchange for specimens of the currency. But the distinction, though so fine drawn as to be to any thick sight invisible, may have the advantage of saving the feelings of patients. We have heard of an old lady, for many years the most valuable asset in a practice which changed hands more than once, who was so indignant on discovering that she had, as she put it, been sold like a cow, that she took the choice of a medical adviser into her own hands.

THE RED CROSS AT THE PEACE CONFERENCE.

AT the Peace Conference now sitting at The Hague, Switzerland will bring forward the following proposals which are intended to complete the provisions of the Convention of Geneva:—(1) All wounded to be declared neutrals; (2) a decision to be come to on the question whether wounded when taken prisoners should after their recovery be treated as prisoners of war or sent back to their homes; (3) the convention to be applied to naval warfare; (4) the identity of prisoners of war, of the dead and of the wounded, to be established with the greatest care; (5) knowledge of the Geneva Convention to be compulsory on soldiers; (6) a special campaign police to be created whose duty it shall be to seek for and protect the wounded on the battle field; (7) ambulances to be established at a sufficient distance from the battle field in order to avoid contagion; (8) Red Cross Societies to be officially recognised; their *personnel* and appurtenances to be declared inviolable. The United States delegates are said to have received instructions to make every effort to get the Convention extended to all wars upon the sea.

THE MEDICAL CLINIC AT LEIPZIG.

THE *Deutsches Archiv für klinische Medicin* has issued a special number, being a *Festschrift* for the centenary of the medical clinic in Leipzig. It forms an octavo volume of nearly 800 pages, and contains a number of clinical and pathological papers. The first paper, however, by Dr. W. His, jun., a professor in the University, gives an interesting account of the history of the medical clinic in connection with the University of Leipzig. The germ of modern clinical instruction seems first to have been planted at Padua in 1538, but after a short period of prosperity the resulting plant withered and died. Its seed, however, was carried by Jan van Heurne to Holland, where it grew luxuriantly. In 1631 van Heurne's son Otto founded the clinic at Leyden, at which 70 years later Boerhaave began to lecture, and from which for 37 years he exercised his extraordinary influence over the medical teaching of the day. Clarus, the first director of the Leipzig clinic, was an ardent disciple of Boerhaave. It was not till the middle of last century that the need of bedside instruction began to be widely felt in Germany, and clinics sprang up in all directions. Leipzig moved more slowly than many other towns, and it was not till 1799 that a building for the purpose of the scientific teaching of medicine and surgery was erected in connection with the hospital. On the ground floor were an anatomy theatre and a room for the resuscitation of persons suffering from asphyxiation; upstairs were an operating theatre (lighted from the roof) and two wards for surgical patients. In addition there was, curiously enough, a room for electrical treatment. Unfortunately we have no information as to the instruments employed or the methods of treatment adopted. A bathing establishment with "seven cells," at which hot water for forty bathers could be supplied daily, and a garden for convalescent patients added to the comfort of the hospital, while the arrangements generally were rounded off by the acquisition of a private cemetery "near by." The clinic made a good start with 22 students. It had, however, the misfortune to lose, by death, no fewer than three directors in the space of ten years, and the number of students fell to 5. In 1850, when Wunderlich took charge of affairs, there were only 20 students. Under his brilliant direction the clinic flourished for twenty-seven years. Under Dr. Curschmann, the present director, both clinic and hospital have developed considerably, the latter having now accommodation for 1,335 beds, while the centenary number of the *Deutsches Archiv für klinische Medicin* bears witness to the good work turned out by the Leipzig School of Medicine.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual meeting of the Royal College of Surgeons in Ireland will be held on Saturday, June 3rd. On the following Monday the election of officers will take place. Mr. R. L. Swan will be re-elected President, and Mr. T. Myles Vice-President for the ensuing year. For the Council the new candidates are Mr. W. Stoker (Jervis Street Hospital), Mr. J. B. Story (St. Mark's), Mr. Pratt (Jervis Street), Mr. Glasgow Patteson (Meath), Mr. F. Saunderson Morrison, Mr. Robert H. Woods (Richmond), and Mr. Richard B. McCausland (Steevens's). Of these Mr. Stoker and Mr. Story have already been on the Council, and they now seek election, having left the Examining Board. Mr. Morrison lives in Dundalk.

MILITARY PUNISHMENTS.

IT is a matter of general surprise that no medical member has been nominated for the Departmental Committee appointed by Lord Lansdowne to examine the method of inflicting military punishments. No soldier can be punished without a medical certificate of fitness to undergo punishment, and the questions which will arise are largely medical. The omission of a medical member from the Committee is therefore the more strange, and should be explained. Perhaps it is the old story, and a medical officer is to be in "attendance" on the Committee.

MR. HENRY SECKER WALKER, F.R.C.S., has been elected one of the Honorary Ophthalmic and Aural Surgeons to the Leeds Infirmary in the room of the late Mr. Bendelack Hewetson.

A FURTHER outbreak of typhus fever has occurred in Edinburgh within the last few days, again in the condemned and insanitary area of Simon Square, the starting-point of the last epidemic. Sir Henry Littlejohn described at the last meeting of the Public Health Committee this new recrudescence as due to dirt and overcrowding.

THE Croonian Lectures before the Royal College of Physicians of London will be given by Dr. J. Buckley Bradbury, Downing Professor of Medicine in the University of Cambridge, at the College on June 20th, 22nd, 27th, and 29th, at 5 P.M. on each day. The subject of the course will be Some Points connected with Sleep, Sleeplessness, and Hypnotics.

DR. WILLIAM OSLER, F.R.S., Professor of Medicine, Johns Hopkins University, Baltimore, will give the Cavendish Lecture of the West London Medico-Chirurgical Society on Friday, June 16th, at 8.30 P.M. The subject of the lecture is Cerebro-spinal Fever. The meeting will take place in the Town Hall, Hammersmith, and after the lecture a *conversazione* will be held.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1899.

NOTES.

The President's Address at the opening of the sixty-seventh session was brief and business-like. It dealt with death certification; the proposed legislation with regard to temporary removal from the *Register*, and the use of titles by persons whose names have been erased; the Lord Chancellor's Bill to restrain companies from practising medicine, surgery, midwifery, and dentistry; with preliminary examinations; and with a charge of covering which raised, as he said, a new question. Sir William Turner stated that to meet the wishes of several members of the Council to have the facts, a narrative of the Hunter case had been prepared, but was to be *secreta concilii*. He concluded by mentioning the several reports to be presented.

Pass and Pluck at the Edinburgh and the Victoria Universities respectively was raised by a motion by Mr. Brown, who, in the words of Sir J. Batty Tuke, thus threw a firebrand in amongst the Councillors. In the course of remarks concerning certain tables of figures presented to the Council, Mr. Brown made the statement that men feared to go to the examinations of the Victoria University, but rushed to those of the Edinburgh University, and asked for a committee to inquire why candidates should thus prefer the Edinburgh examiners. On this Dr. McVail declared that the motion was an insinuation that the University of Edinburgh had been granting degrees on terms which induced men from the three Colleges of the Victoria University to proceed to Edinburgh to have an easy examination. The President himself affirmed that Mr. Brown was in error if he thought that the University of Edinburgh attracted students by offering an easier examination, and Sir Philip Smyly protested against the diploma of the Conjoint Board of Ireland being regarded as an inferior degree. Sir Dyce Duckworth said that the proposed Committee "would have nothing to inquire into," and the somewhat heated incident ended by 21 members voting for the previous question.

The Examination for the F.F.P.S.G. was the cause of a notice of motion by Mr. Horsley that a ruling of the President was in contravention of the Medical Act. The matter at issue was complex, and raised the following three questions: (1) What constituted a memorial? (2) what comprised an attack on the President? and (3) which of the higher examinations, if any, the Council had a legal right to supervise? To add to the confusion, a further point was raised as to whether a memorial addressed to the Council must of necessity be submitted to that body. The solution of all these questions was avoided by the simple expedient of moving the previous question. This, however, was not done without some curiosity being aroused as to the memorial in question, which, it was stated, alleged insufficiency of the Fellowship examination of the Faculty of Physicians and Surgeons of Glasgow, and had been forwarded by two of the Fellows; but, being simply addressed to "Dear Sir," the President held that it had not been properly presented to the Council, though entrusted to Dr. Hugh Woods for that purpose. In regard to the Council's right of supervision of the higher qualifying examinations, Mr. Horsley contended that Section XVIII of the Medical Act, 1858, and Schedule A, specified the Glasgow Faculty's Fellowship Examination by name as being liable to such control, but the President held that Section XXX, which merely entitles the holder of such a diploma to register this qualification as a "higher" qualification, also justifies the view that such examination was beyond the Council's control. Sir Christopher Nixon expressed his opinion that such supervision would be a "herculean" task. Mr. Horsley, in replying, put it to the Council that Sir Christopher's objection did not touch the argument, and contended that Section XXX did not govern Sections XVIII and XX. Dr. McVail having stated that he thought the motion quite out of order, the whole discussion was shelved by the previous question being moved and carried by 22 votes to 4.

Inspection of Documents was next considered, and the Council rescinded the standing order recently passed concerning the inspection of documents, and substituted therefor regulations confirming the individual rights of members to inspect documents.

The Resolution on Direct Representation of the Council of the British Medical Association met with a curious reception from the General Medical Council on Wednesday. Sir William Gairdner thought that the general practitioner was simply bored by direct representation and regarded elections as a nuisance, reckoning them disturbing elements in his daily work. He began his speech by saying that he was unwilling to speak in any tone of opposition to the British Medical Association, and ended by stigmatising the resolution as the production of a small, insignificant coterie of discontented men "agin the government," who were always disposed to get up a row for the sake of a little notoriety. After this remarkable pronouncement, Mr. Teale's avowal that though he was in favour of the extension of direct representation he would vote against it failed to excite much interest, but his impression that the meaning of Section x of the Act of 1886 was that no increase in the number of direct representatives could take place until one of the corporations ceased to be represented was as surprising as it was novel. Dr. Little voted against any change because the general practitioners' interests were cared for by all the members of the Council; but Mr. Brudenell Carter, in a short but bitter speech, delivered with great deliberation, described the resolution as cut and dried, manufactured in some central workshop, and sent out to various book clubs and chess clubs to be obediently passed. Not satisfied with this flight of imagination, Mr. Carter ventured on the still more daring assertion that the people who passed it did not care one farthing about it, and had obviously never given it five minutes' thought. Mr. Carter's knowledge of the British Medical Association is not so profound as Sam Weller's knowledge of London—it is peculiar, but not extensive. After Sir William Thomson had made a speech full of wise and weighty arguments, Sir Christopher Nixon promptly showed that he was opposed to the proposal by asking the question, What can a direct representative do for the interests of the profession that the (corporate) members of the Council were not willing to do? Dr. Pettigrew having ventured the opinion that the profession was "wonderfully represented on this Council," denounced the proposal on the ground that if the direct representation were increased it meant one step more towards trade unionism. Dr. McVail welcomed the resolution, which he warmly supported; he ascribed the movement to the influence with the profession in England possessed by Mr. Horsley. He rather astonished the Council by contending that the Crown and the Universities were under no compulsion to choose members of the medical profession as their representatives. The British Medical Association can at least be grateful for one small mercy: the previous question was not moved, and the medical public now know that there are seven members of the Council who are in favour of an increase in the number of direct representatives, though there are still twenty-one antagonistic to the proposal.

Reciprocity with Foreign Countries was the subject of a report by the Executive Committee in connection with an application from the Italian Ambassador. The proposition appeared to be that Italian graduates should be allowed to practise only among Italians in this country, but the terms of the Act are very precise, and it is doubtful whether the legal advisers of the Council, to whom the point was referred, will advise that there is power to make any arrangements short of complete reciprocity. A precedent would thus be created which might have very far-reaching consequences, since it would hardly be possible to refuse to one country a concession which had been granted to another.

REPORT OF PROCEEDINGS.

Tuesday, May 30th.

Sir William Turner, President, in the Chair.

The sixty-seventh session of the General Medical Council commenced at the Council Chamber, Oxford Street, at 2 P.M. on May 30th. Dr. Philip Henry Pye-Smith was introduced by Dr. Church as the representative of the University of London in succession to the late Sir William Roberts.

President's Address.

The President then delivered the following address:

The Offices of the Council.

At our last session the Council approved of a recommendation in a report by the President and Treasurers that another storey should be added to the Oxford Street front of our office, and plans and estimates were submitted and approved. During the winter and spring the contractors, under the supervision of the Treasurers, have been engaged in carrying out the plans of the architect, Mr. Woodd. The Council will, I trust, approve of the alterations now approaching completion, which will give us the additional room required for the transaction of our business, and will promote the comfort of members of the Council.

Memorials of Former Presidents.

I may also call attention to the recent addition to our collection of memorials of former Presidents, by the gift of the bust of Sir George Burrows, which, through the liberality of Sir Frederick Burrows and Mr. Alfred Willett, now adorns our hall of meeting, and completes the series of portraits or busts of our past Presidents.

The late Sir William Roberts.

The Council will, I am sure, join with me in expressing our sorrow at the death of Sir William Roberts, the representative of the University of London during the past three years. The distinction which he had attained as a scientific and practical physician, and his lovable nature, had endeared him both to members of the Council and to all who knew him. We welcome as his successor another distinguished graduate of the University, Dr. Philip Henry Pye-Smith, whose professional position and literary and scientific culture will add to the value of our debates and assist us in our deliberations.

Death Certification.

From a communication received from the Home Office on the subject of death certification, I was given to understand that the introduction of a Bill to amend the law on this subject came within the province of the Local Government Board, and not that of the Home Secretary, to whom communications on behalf of the Council had previously been made. I accordingly addressed a letter to the President of the Local Government Board on the subject, and had an interview with the Permanent Secretary. In reply, I have been assured that the representations made will receive the consideration of the Board, but that the President regrets his inability to bring in a Bill during the present session.

Erasure of Names from the "Medical Register."

Since the Council rose in November last I have, with the approval of the Executive Committee, placed before the medical authorities two clauses drafted by Mr. Muir Mackenzie, on the question of the suspension of the right to use a title or titles by persons whose names have been erased from the *Medical Register* for criminal or professional offences, so long as the erasure of a name and title remains in force. From the replies which have been received it is obvious that only a minority of the medical authorities are prepared to accept these clauses. Objections of various kinds are stated in the replies which have been sent by the majority of the bodies interested. I have embodied the replies in two interim reports, which I have presented to the Executive Committee, and which will be circulated amongst members of Council. Acting under a remit from the Executive Committee, Mr. Muir Mackenzie has considered objections which have been made by a number of the medical authorities to the clauses as originally drafted, and has suggested amended clauses, which, whilst carrying out the Council's objects, will, it is hoped, remove the difficulties expressed by these authorities to the clauses originally submitted to them.

The Practice of Medicine by Companies.

The Committee of the Council, appointed a year ago to obtain, if possible, an amendment of the law to restrain companies from conducting the practice of medicine, surgery, and dentistry, have continued in communication with the Lord Chancellor on this subject. I have the satisfaction to state that the Chancellor has introduced a Bill into the House of Lords which, should it become an Act, will render it unlawful for a company under the Companies Acts to carry on the profession or business of a physician, surgeon, dentist, or midwife, and if any company contravenes this enactment, it shall be liable on summary conviction to a fine not exceeding five pounds for every day during which the contravention happens.

The Preliminary Examinations of the College of Preceptors.

I have received from Mr. C. R. Hodgson, Secretary to the College of Preceptors, a letter in which he criticises the Report of the Council's Education Committee of November last, in so far as it bears on the preliminary examinations conducted by the College of Preceptors. In this letter Mr. Hodgson calls my attention to what he alleges to be serious errors of statement and fact in the Report, and asks me, as President, "to deal with the matter in such a way as will result in the practical revision of the Report and of the conclusions arrived at on incorrect data." As the statements in Mr. Hodgson's letter reflect on the accuracy of the Report of the Council's Education Committee, I have brought the communication, and two prints which accompanied it, to their notice, and have requested them to furnish me with any observations they may wish to make upon it during the present session.

The Standard of General Education.

As it is obvious that the question of the standard of general education to be aimed at for entrants to the medical profession is one which affects not only our profession but the authorities engaged in school education, as well as those who test by examination the attainments of candidates, the Council will be pleased to see the efforts which are being made by our Education Committee to obtain, from a wide range of authorities on general education, information which may help us to reach a satisfactory conclusion. Owing to the number and importance of the replies the Committee will, I understand, ask the Council to extend the period of reference, so that they and other members of Council may have time to analyse and digest the communications which have been received.

Cases of Discipline.

Several cases of discipline will come before you. In one of these the question is raised, I think for the first time, whether a registered medical practitioner, the salaried officer of a Provident Dispensary, is to be regarded as covering an unqualified person, who not only acts as dispenser, but, it is alleged, visits and prescribes for the patients attending the dispensary. The said dispenser is, it is said, not engaged by the practitioner, but is in the employ of the committee of the dispensary, and the medical officer affirms that he has given no consent to the dispenser visiting his patients.

The Hunter Case.

As several members of the Council have expressed a wish to have the facts appertaining to the case of the late Mr. H. K. Hunter arranged in a form to enable the Council to follow it in its several stages should it become the subject of discussion, I have directed a narrative of the case to be prepared, copies of which will be placed in the hands of members of Council. The Council's solicitor has also, at the request of the Penal Cases Committee, prepared a report on the legal proceedings, which is appended to the narrative. As the narrative contains extracts from the Minutes of the Penal Cases Committee, and from the Minutes of the Council sitting *in camerâ*, I have marked the print "Confidential: for members of Council only."

Reports of Committees.

The Council will have presented to it during the session reports, both from its standing Committees and from special Committees appointed to consider and report on a Midwives Bill, on the Companies Acts Amendment Bill, on medical aid associations, as well as other matters of interest and importance.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the thanks of the Council were unanimously given to the President for his address, and it was directed to be entered on the minutes.

Business Committee.

It was moved by Sir DYCE DUCKWORTH, seconded by Sir RICHARD THORNE, and carried, that the Business Committee should consist of the same members as before, namely, Dr. MacAlister (Chairman), Mr. Bryant, Sir Philip C. Smyly, and Dr. Bruce.

EXAMINATION TABLES.

On the motion of Dr. HERON WATSON, seconded by Sir RICHARD THORNE, the following returns were accepted and entered on the minutes:

(*a*) Table showing results of professional medical examinations during 1898.

The following is a brief abstract of this table in so far as concerns the final examination for the diplomas and degrees now most generally sought:

Final Examinations.

	Rejected.	Passed.
Conjoint England (R.C.P. & S.)	302	489
Conjoint Scotland (R.C.P. & S.Edin., and F.P.S.G.)	237	199
Conjoint Ireland (R.C.P. & S.I.)	107	67
University of Durham	9	36
,, London (M.B.)	66	87
,, Edinburgh	29	199
,, Glasgow	19	96
,, Dublin	30	94
,, Ireland (Royal)	36	43

	Part I.	Part II.	Part I.	Part II.
,, Cambridge	61	79	21	57
,, Victoria	33	58	41	35
,, Aberdeen	7	46	4	42

Apothecaries' Society of London, 117 rejected and 92 passed in Surgery; 79 rejected and 169 passed in Medicine, etc.

(*b*) Table showing results of professional examinations for qualification in sanitary science, public health, or State Medicine during 1898.

(*c*) Table showing results of professional dental examinations during 1898.

(*d*) Table showing results of preliminary examinations during 1898.

(*e*) Table showing exceptional cases in regard to length of course of study during 1898.

(*f*) Table showing results of competition held on May 8th, 1899, for commissions in the Medical Staff of the Royal Navy.

Table (*f*) showed that 24 candidates had competed for 22 vacancies in the Medical Department of the Royal Navy. Of the 22 successful candidates, 16 held the diplomas of the Conjoint Board in England; one of the gentlemen held a medical degree from the University of Cambridge also, and one other candidate from that University was successful; 2 candidates holding medical degrees of the University of Dublin, 1 from the University of Glasgow, and 1 from the Victoria University, were successful, and 1 gentleman who held the diplomas of Conjoint Board in Scotland and of the Society of Apothecaries of London. Two of the successful candidates, both diplomates of the Conjoint Board in England, were noted as "deficient in spelling." Of the 2 unsuccessful candidates who were "rejected," 1 was a graduate of the University of Dublin (failed in Medicine), and 1 a diplomate of the Conjoint Board in England (failed in Surgery).

(*g*) Table showing results of competition held in February, 1899, for commissions in the Medical Staff of the Army.

Table (*g*) showed that 36 candidates had competed for 24 vacancies in the Royal Army Medical Corps, 8 other candidates were found qualified but were unsuccessful, and 3 qualified in each compulsory subject but did not obtain the aggregate number of marks required. One candidate (Conjoint Board in Scotland) was rejected as deficient in surgery. Of the 24 candidates passed into Netley, 9 held the diploma of the Conjoint Board in England, 1 that of the Conjoint Board in Scotland, 8 that of the Conjoint Board in Ireland, 1 that of the Apothecaries' Society of London, 1 was a graduate of the University of Aberdeen, 1 of the Victoria University, and 3 of the University of Dublin.

(*h*) Table showing results of competition held in February, 1899, for commissions in the Indian Medical Service.

Table (*h*) showed that 26 candidates had competed for 18 vacancies in the Indian Medical Service, 5 were found qualified but were unsuccessful, and 3 were rejected. Of the successful candidates 8 held the diplomas of the Conjoint Board in England, and 3 of these gentlemen were also medical graduates of the University of London, and 1 of the University of Glasgow; 7 of the other successful candidates were graduates of the University of Edinburgh, 2 of the University of Glasgow, and one of the University of Dublin. Of the candidates who failed 1 held the diploma of the Conjoint Board in England, 1 of the Conjoint Board in Scotland, and 1 was a graduate of the University of Dublin.

Mr. BROWN wished to call attention to one or two points in the tables which he thought deserved serious consideration. If the table showing results of professional examinations held in 1898 for qualifications granted under the Medical Act by the bodies named in Schedule A of the Act were examined, it would be found that in the Final Examination for the Victoria University in Part I there were 33 rejections and 58 passes, and in Part II there were 41 rejections and 35 passes. For more than half the candidates in Part II to be rejected pointed to something radically wrong. Either the candidates must have gone to the examination exceedingly ill-prepared, or the examination must have been of a particularly erratic character.

In answer to the PRESIDENT, Mr. BROWN stated he was going to conclude by moving that the representatives of the examining bodies to which he should call attention might be asked to furnish the Council with an explanation of the apparent discrepancies in the results of the examinations. It was the duty of the Council to consider these examination tables if they found anything extraordinary in them. He was afraid great injustice was done to some individuals through the methods of the examination, and he was confirmed in this by the inquiries he had made. If the final examination for the same degrees of the University of Edinburgh were inspected it would be found that there were 18 rejections and 62 passes at the examinations for M.B., C.M. and at that for M.B., Ch.B. 11 rejections and 137 passes. He hoped the representatives of those bodies would give some explanation. He was only referring then to the Victoria University, although there were others to which his remarks would apply. Men would not present themselves at those places where their chances of getting through was so small, but would do so at universities where they stood a better chance. That was a state of things that should not exist, and he therefore moved that a special committee be appointed to examine and report as to the number of passes and rejections in the final examination of the University of Edinburgh and the Victoria University.

Mr. VICTOR HORSLEY seconded the motion.

Dr. MCVAIL asked Mr. Brown if he personally knew of men who had failed at the Victoria University, and who had passed at the Edinburgh University?

Mr. BROWN said he did not know any such persons, but that students were prevented from going to the Victoria University and other places where the examinations were very severe, and went to those places where they had a better chance of passing.

Dr. MCVAIL would like to ask if Mr. Brown had gone into the figures of these two universities throughout, or did he happen to pitch on these particular tables? Did he mean to insinuate that the University of Edinburgh had been for so long conducting its examinations on such easy terms that men were induced to go from Manchester, Liverpool, and Leeds to the University of Edinburgh to pass? The allegation was a very serious one, because it meant that the University had not been doing its duty. Anybody who knew anything about the University would know that the suggestion was without foundation.

Mr. BROWN said he made no charge or insinuation; he only asked for a committee to inquire into the discrepancy.

The PRESIDENT pointed out that although there was no charge in Mr. Brown's motion, yet there was in his speech.

Dr. MCVAIL said he was prepared to move as an amendment that the Tables (*a*), (*b*), (*c*), (*d*), (*e*), (*f*), (*g*) and (*h*), should be referred back to the Examination Committee.

Dr. LEECH seconded the amendment.

Sir JOHN BATTY TUKE pointed out that this course would throw much unnecessary work on the Examining Committee.

Dr. MACALISTER took the same view.

The PRESIDENT said that as the representative of the University of Edinburgh, he did not think he could let the remarks of Mr. Brown pass by without some reference. Mr. Brown was entirely in error if he thought that the University of Edinburgh attracted students by offering them an easier examination. No deeper error was engrained in the mind of anyone, and he said that with great deliberation, having been connected with the University of Edinburgh for now nearly fifty years, and having an intimate knowledge of all that went on

there in connection with medical matters. With regard to the results of last year's examination, it was a matter of common remark in the University that the men who were in for examination were an extremely good set. If Mr. Brown wished to know what the standard of examination of the University of Edinburgh was, he would direct his attention to the report of the last inspection. Mr. Brown would probably rise from a perusal of the report with a full sense that the University did its duty as a medical Examining Board.

After some observations from Sir Philip C. Smyly,

Sir Dyce Duckworth, as a member of the Examination Committee, said that there was nothing for the Committee to inquire into. The tables spoke for themselves to those accustomed to the examinations. He felt so strongly on the matter that he would move the previous question.

Dr. Pettigrew seconded this.

The President, in accordance with the Standing Order, then put as a motion:

That the Council, instead of proceeding to vote on the question originally proposed, should pass to the next order of the day.

This was put and declared carried.

Sir Wm. Thomson suggested that the table as to the degrees, diplomas, and licences of candidates for commissions in the Royal Army Medical Corps was not altogether intelligible: it might convey the impression that the first 13 places were won by the English colleges.

After some discussion it was arranged that a footnote should be prepared, and that the matter should be brought up subsequently.

Dr. Glover asked for an explanation of the figures showing the results of professional examinations of the Apothecaries' Society of London. The table showed that 92 persons passed in surgery and 169 in medicine. Was it to be understood that no candidate passed the final examination in both subjects?

Mr. Carter said he would like to have notice of the question. He called attention to the exceedingly satisfactory fact that out of 37 of their candidates who presented themselves for appointment in the army 35 obtained them.

The Examination for the F.F.P.S.G.

Mr. Victor Horsley moved and Dr. Bruce seconded the following motion:

That the action of the President in ruling out of order the following notice of motion of the last session: "Notice of motion by Mr. Horsley: 'To draw attention to a memorial furnished by certain Fellows of the Faculty of Physicians and Surgeons of Glasgow addressed to the Council respecting the insufficiency of the examination for the Fellowship of the Faculty, and to move a resolution thereon,'" on the ground that the matter did not come within the purview of the Council, was in contravention of the Medical Act, 1858.

The President said that before Mr. Horsley went into the question, he would point out that there were two inaccuracies in the motion. No memorial addressed to that Council had been received from any Fellow of the Faculty of Physicians and Surgeons of Glasgow. The papers of the office had been searched with great care, and no such memorial could be found. What did reach the office was a letter in the month of May from Dr. Hugh Woods, who was Secretary to a society called the London and Counties Medical Protection Society, Limited. Enclosed in that letter was a letter signed by two gentlemen, but the peculiarity of the letter signed by those two gentlemen was this, that the Council did not know to whom it was addressed. These two letters were sent to him in May, and following the rule he adopted in all such matters he minuted to the Registrar that the Council did not visit and inspect the examination for the Fellowship of the Glasgow Faculty, and had no authority over examinations or qualifications other than those which primarily admitted to the *Register*. that Dr. Woods might be written to to that effect, and told that the matter was one for the consideration of the Faculty itself, and he then added, as the Executive Committee met in a few days, the answer might be deferred. He mentioned the matter at the meeting of the Executive Committee which followed immediately afterwards, and the members were of the same mind as himself, and an answer was sent to Dr. Woods, and not to any Fellow of the Faculty. He would further state that no letter had been received from Dr. Woods since the letter he last referred to was sent, and he understood from the Registrar that no letter had been received from any Fellow of the Faculty of Physicians and Surgeons of Glasgow on the matter. Therefore the motion as presented by Mr. Horsley contained serious inaccuracies, and the motion as framed was not the motion that he ruled out of order. He would ask Mr. Horsley if he was going to correct his notice of motion?

Mr. Victor Horsley said that as regards the form of the motion within the motion he had proposed, that was certainly copied from the programme of business of last session.

The President replied that it was not the motion that he ruled out of order.

Dr. Cameron thought Mr. Horsley would remember that on the last occasion he asked him whether he would have any objection to altering the terms of the motion by inserting instead of "certain Fellows," "two Fellows." Mr. Horsley then said he had no objection to that, and that he also had no objection to altering the words "insufficiency of the examination" to "alleging an insufficiency of the examination," and asked him to request the Chairman of the Business Committee to alter the motion to that effect. That was done, and that was the motion Mr. Horsley presented to the Council, and was ruled out of order.

The President remarked that that was not the notice of motion which Mr. Horsley had given notice of for that day; and he would call upon him to alter his notice in accordance with the facts.

Mr. Victor Horsley then proceeded to alter the terms of his notice of motion, and observed that the question was a purely academic one. He understood the ruling of the President was to the effect that the terms of his motion did not come within the purview of the Council, which he interpreted to mean that the Council had nothing to do with the higher examinations of corporations. This he felt sure was an entire misapprehension. Table G. of the *Register* specified certain examinations as "admitting primarily to the *Register*," which he thought was not in harmony with the Medical Act, 1858. Prior to 1887 there was no distinction between "primarily admitting" and "secondarily admitting;" then Table G. was altered, no one knew under what circumstances, as there was no minute relating to the subject, and as altered it brought the Council as it were into conflict with the Act of 1858. He thought that to allow the President's ruling to pass without protest would be to cut the Council off from a statutory right and duty which it owed to the profession and to the public, because it was their duty to inspect these examinations, which they had not done in the past; and the President's ruling seemed to him in direct contravention of the Act of 1858.

The President observed that Mr. Victor Horsley's motion was a specific charge brought against him as President of the Council that he had contravened the Medical Act of 1858, and he had been very curious to know how the charge would be supported. Mr. Victor Horsley supported the charge because there appeared in the *Register* a certain table called Table G. He might say, that, in instructing Mr. Allen, the Registrar, as to the answer he was to give to Dr. Woods, the table referred to was never in his mind at all, and in fact he could not recall at that moment what Table G was. What he had in his mind was the Act of Parliament, which was his only authority. Although his opinion was only that of a layman, yet he thought he was corroborated in it by the practice of the Council in regard to these matters ever since he had been a member of it, which was some thirty years or more. The practice of the Council in regard to these matters had been invariable, and he knew of no instance in which it had been departed from. It was based on Section xxx of the Act of 1858 to which he had referred. The meaning of the Section as interpreted by the Council was that a person had to pass a qualifying examination which the General Medical Council had a right to inspect and to satisfy itself that the qualifying examination was such as to secure the possession, by persons obtaining such qualification, of the requisite knowledge and skill for the efficient practice of their profession. He could then present himself for a Fellowship examination, and when he had obtained the Fellowship of the particular body, or, as was the case with some bodies, when he was selected as a Fellow without examination at all, he would come to the office and present his diploma as a Fellow,

and the Registrar had no right to refuse to register, because Section XXX of the Act said that the possessor of any higher degree or qualification other than the qualification in respect of which he may have been registered, "shall be entitled to have such higher degree and additional qualification inserted in the *Register*." The course he had adopted was not merely derived from his own experience, but from what he considered to be the meaning and intent of the Act of Parliament, and had nothing at all to do with Table G. He thought it was incompetent for the Council to go into the matter, and that the remedy was in the Glasgow Faculty itself.

Mr. BROWN was of opinion that the duties of the Council were clearly defined by Section XVIII of the Medical Act and not by Section XXX, and that under that Section the Council was entitled to examine into the sufficiency of what were called the higher examinations.

Sir CHRISTOPHER NIXON said that at first sight he was was inclined to think that it might be within the power of the Council to sit as judges upon the higher examinations of the various medical corporations, but it seemed to him that that would be a herculean task for the Council to impose upon itself. If the Council took upon itself to have an inspection of the membership of the College of Physicians, with which he specially was connected, it would be open to that body to refuse any such inspection, and the Council would be perfectly powerless. He did not think the Medical Acts gave the Council power to deal with any examination other than that which entitled a man to be registered, and for that reason he was not able to adopt Mr. Horsley's view.

Mr. TEALE thought the Council's duty was simply to ensure that the public should be able to distinguish qualified from unqualified persons, and to secure the best education for those entering the profession.

Mr. VICTOR HORSLEY, in reply, said that the reason why he had thought Table G. was in the mind of the President was because he had used the precise words in his reply to Dr. Woods. In reply to Sir C. Nixon he observed that it was work which the Council had to do, and it ought to do it.

Dr. MCVAIL thought the motion quite out of order, as it in effect asked the Council to censure its President because he failed to put a memorial before the Council which certain members of the Faculty sent to him, but which did not reach him directly. He thought they should not vote on such a motion at all, and he moved the previous question.

Dr. HERON WATSON seconded.

The PRESIDENT then put the motion:

That the Council, instead of proceeding to vote on the question originally proposed, do pass to the next order of the day.

This was carried.

[At the conclusion of the day's proceedings Mr. Horsley obtained through the Chair permission to inspect the documents.]

INSPECTION OF DOCUMENTS.

Dr. MACALISTER moved:

That the report of the Executive Committee with regard to the inspection of documents be received and entered on the minutes

Mr. BRYANT seconded.

The motion was put and carried unanimously.

Sir DYCE DUCKWORTH moved, and Mr. BRYANT seconded:

That the Standing Order to be substituted for the present Standing Order XXIII be adopted in the following form:

That the following be the conditions on which leave is granted to members of the Council to inspect the documents of the Council, when not required for use by its legal advisers.

1. That a notice in writing of three clear days be given to the Registrar except when the Council is in session, when special leave may be granted.

2. That the subject of the documents needed for inspection be stated.

3. That the Registrar be held responsible for the safe custody of all documents.

4. That it be an instruction to the Registrar to have the documents so arranged with respect to chronological order and otherwise as to facilitate their inspection during office hours.

5. That documents under inspection be not removed from the premises of the Council.

6. That all such documents and the information therefrom derived be regarded as strictly confidential.

This was carried unanimously.

The Council then adjourned.

Wednesday, May 31st.

SIR WILLIAM TURNER President, in the Chair.

THE minutes of the previous day's proceedings were read and confirmed.

DIRECT REPRESENTATION.

The REGISTRAR read a communication from the British Medical Association referred to the General Council by the Executive Committee:

British Medical Association,
General Secretary's Office,
429, Strand, London, WC.,
April 21st, 1899.

Sir,—I am directed by the Council of the British Medical Association to forward to you copies of resolutions passed at their last meeting held on Wednesday, the 12th day of April.

I am, Sir
Your obedient servant,
FRANCIS FOWKE,
General Secretary.

The Registrar of the
General Medical Council.

"Resolved: That this Council feels that the time has now come when the general practitioners in the United Kingdom are entitled to demand a much larger share of direct representation on the General Medical Council.

"Resolved: That a copy of the foregoing resolution be sent to the General Medical Council."

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the communication was received and entered on the minutes.

Mr. BROWN, in moving the following resolution, thanked the Council for allowing it to take so early a place in the programme:

That in the opinion of the Council the time has come when it is expedient to confer on the registered medical practitioners resident in England and Wales the power of returning an additional member to the General Medical Council, as provided for in the Medical Act of 1886.

On the previous occasions he had put a similar motion on the paper, but the exigencies of business had been such that it was not dealt with. Now the profession evidently expected that the Council would declare itself on the question of direct representation, and would say whether the time had not come when they would take advantage of the powers which were given to them by the Act of 1886 in order to increase the number of direct representatives which should have the honour of a seat on the Council. Section x of the Medical Act, 1886, provided as follows:

The General Medical Council may at any time represent to the Privy Council ..... (c) That it is expedient to confer on the registered medical practitioners resident in any part of the United Kingdom the power of returning an additional member to the General Medical Council.

When he first put this motion on the paper two sessions ago he included Scotland and Ireland, but it had been represented to him that it might be inexpedient to discuss the motion as to the three places on this occasion, and therefore he had thought it expedient to deal only with England; but if the representatives of Scotland and Ireland were to bring forward a similar motion to his, it should have his hearty approval. It had been hinted to him that he scarcely need occupy time by any elaborate arguments showing the necessity and the justice of granting to the practitioners of England and Wales a larger share in the representation on the Council, because it must be obvious that the Legislature took into account the number of persons practising in the divisions of the United Kingdom when they granted three to England and one each to Scotland and Ireland. But the number of medical men practising in England and Wales had considerably increased since the passing of the Act of 1886, so much so that they might certainly say that the general practitioner might demand additional representation as of right. He did not put it on that ground. He preferred to put it on the ground that it was expedient. The number of practitioners in England and Wales had very much increased since 1886. In that year they numbered 16,978, and now they were 21,614. This showed an increase of 4,636 now in England and Wales more than were practising when the Legislature gave them three representatives, and as Scotland and Ireland had a representative for about 3,000 practitioners in each case, he thought that a clear case was made out for the asking the Privy Council that England and Wales should have an additional representative. He asked the Council to do the thing gracefully, and let it go before the Privy Council through the proper channel. The profession would not continue to come to them with this request if the Council time after time were to reject it. He asked the

Council to look at the matter in a fair and proper light, and not to stand in the way any longer of doing justice to their fellow practitioners throughout England and Wales. Although there was only one memorial on their minutes, those who had read the medical papers must have seen that in numbers of the large provincial towns in various Branches of the British Medical Association, north and south and in the Midlands, resolutions had been passed of a similar character to that now before them. The last time a similar resolution was moved was in 1895, and although it was then rejected by a considerable majority, there were only fourteen members now present who then voted against the resolution; and he ventured to hope that as the circumstances had very much altered since that time, they would see their way to vote for the motion. He would suggest, though it was beyond the terms of the motion, that, if it was carried, it would facilitate the election and selection of the proper representatives to divide England and Wales into two divisions, so that two might represent the north and two the south.

Mr. VICTOR HORSLEY formally seconded the motion, reserving his right to make a speech.

Dr. GLOVER rose to say a few words in support of the motion. He was sure the sweet reasonableness with which Mr. Brown had put the matter to the Council must dispose it to consider the proposal favourably. He knew that at one time the subject of direct representation was a somewhat ungracious subject to the Council, and that they never took kindly to it; but during the progress of years that feeling had diminished, and would diminish. The direct representatives had always done their fair share of the work of the Council, and on the occasion when his first two colleagues retired, the work that they had done was spoken very highly of by the Council. Of course, he did not justify every speech the direct representatives made, any more than the speeches of some of the indirect representatives could be justified; but they always did their fair share of the work. Sir George Humphry once emphasised to the Council the fact that the profession supplied the income to the Council for carrying on its work, and therefore it was but fair that it should be fully represented. When such a modest suggestion as Mr. Brown's was brought before them, he did not see how the Council could resist it. It must be apparent to them all that the rank and file of the profession were immensely interested in their proceedings, not only as to medical education, but also in questions of judgment and discipline. On the question of death certification, the legislation as to midwifery, or any such questions, the opinion of men engaged in actual practice was of the greatest moment to the Council, and likely to affect its decisions.

Sir WILLIAM GAIRDNER was unwilling to speak in opposition to or in any way which might be construed as being against the idea of the representation of medical practitioners, because he was very glad to have those members on the Council. But he could not allow himself to come to a vote on the subject without placing before the Council some considerations which seemed to him to weigh in the other direction. Mr. Brown had practically only one serious argument, and that was that there were a great many more medical practitioners now than there were at the time the number was fixed, and that by reason of that fact there should be more; in other words, that the representatives are to bear something like a definite proportion to the number of the electors. That was not at all his notion of the spirit and intention of this representation or any other representation on their Council. If they were to apply the same rule and measure they would find themselves betrayed into all sorts of anomalies. They would find the University of Glasgow, with its multitudes of graduates, represented by one member; they would find the University of St. Andrews, with a very much smaller number of graduates, represented by one member also; they would find the Royal College of Surgeons of England, which had far the largest number of members, represented by one; and they would find the smallest corporations represented by one also. It was not the principle or the intention of the Medical Act that the number of members of the General Medical Council should bear anything like a proportion to the number of electors. The proper aspect from which to look at the matter was that every institution connected with the medical profession should have a voice on the Council. That voice, when it came through one man, enabled the case to be represented to the Council. The number of representatives was of comparatively little importance. What was really wanted was that the general practitioners in England, Scotland, and Ireland should have a living voice on the Council, and to that principle he was entirely favourable; but he did not think that because the number of medical practitioners had increased therefore the General Medical Council must be swelled by the addition of a new representative. He thought the *status quo* was fairly satisfactory, and that no case had been made out at the present time for any additional member. He did not think the Council or the profession would be a bit better off for it, and although a great show of professional adhesion has been given through the British Medical Association and otherwise to the idea that a change was wanted, yet that left out of account the great body of men who had borne the burthen of the whole for so many years, and had devoted so much time and attention to it. There were a certain number of men who went to the British Medical Association meetings and passed resolutions of this kind. It was simply a disturbing element which they would rather be without. There were always men who were, speaking in general terms, malcontents, who were always disposed to gain a little bit of notoriety. When a man came on the scene and got a little party about him consisting of friends to nominate him as a candidate for the general practitioners, that involved the expensive machinery of a vote, and all that was capable of being done by a small and insignificant coterie of men who, if they were gathered together in a room, would be found to be men of no distinction whatever.

Dr. LITTLE said that it was a great mistake to suppose that the five representatives of the general practitioners were the only persons interested. No argument, he thought, had been adduced which should lead the Council to petition the Privy Council to increase the number of direct representatives.

Sir RICHARD THORNE was of opinion that Mr. Brown had wisely limited himself to England and Wales, because had he not done so the argument against his motion would have been much stronger. He had taken the trouble to examine the voting papers of the last election of the Council, and he found that of the voting papers sent out, Ireland returned 75 per cent., Scotland 68 per cent., and England and Wales only 59 per cent. That showed that the medical profession of England and Wales took very little interest in the work of the Council, and did not desire increased representation.

Mr. CARTER stated that before this resolution appeared on the Minutes as coming from the British Medical Association, it had been sent to him from some provincial medical society precisely in the same terms, and it was therefore evident it had been manufactured and sent out by the society to be abundantly passed, but as far as he knew it had been only adopted by the society he referred to. If the Council adopted this resolution, it could not go on with the business of the present session, as the constitution of the Council would be incomplete; it would have to adjourn and get a new election as soon as the Privy Council sanctioned it.

Sir WILLIAM THOMSON observed that the matter had been brought before the Council by an Association largely representative of the profession. He considered that the profession in the three countries was entitled as a body to a larger share of representation on the Council. It was not a mathematical problem of whether 75 or 65, or 20 per cent. voted at the election; the question was to be settled on the broad principle of whether it was a right and just claim. The great mass of the profession were represented by something like only one-sixth of the Council, and they felt that that was hardly a fair representation. It had been suggested that this question had been raised by discontented persons, but he would remind them that all reforms were the outcome of discontent. The present demand was backed-up by the great mass of the profession and was extremely moderate, having regard to the great interests which the Council had to guard.

Sir CHRISTOPHER NIXON said the answer to the motion was the question: What could a direct representatve do for the interests of the profession that the members of the Council present were not willing to do? He failed to see what advantage it would be to the profession to have a representative directly elected when they had a body such as the Council was, composed of gentlemen willing to do anything

they could to benefit the members of their profession. He could not see how they were to advance the interest of the general practitioner at large by increasing the number of their representatives on the Council.

Dr. PETTIGREW was of opinion that to increase the number of representatives would be to increase the work of the Council which was already done twice over in consequence of the devolution which now took place, and that the general body of the profession was abundantly represented by the representation it had now.

Dr. LEECH did not think it desirable to deal with the question piecemeal, but the time would come when the whole matter would have to be considered. Although he was in favour of increased representation yet he should vote against it on this occasion.

Dr. MCVAIL said he had voted for the resolution before and he should do so again, although he did not agree with Mr. Brown, who had dealt with the Council as having a vested interest against the general practitioner. He thought that the Medical Acts did not require that all the members of the General Medical Council should be members of the medical profession. He believed that at least sixteen members of the Council might be laymen. Though the resolution of the Council of the British Medical Association complicated matters, yet it was a perfectly fair resolution taken in connection with the Act of 1886, which did contemplate that it might be expedient to have an additional representative. As the profession had grown enormously since that Act was passed, it should have another representative.

Mr. G. BROWN, in reply, said that he did not accept the view that if his motion was adopted it would necessitate another election and thereby stop the work of the Council, because if it were adopted it could be sent to a committee to see when and how it could best be carried out. He agreed with Dr. McVail as to the growth of the profession since 1886, and repudiated the suggestion that his motion was put forward in a spirit of trade unionism. As to the suggestion that other bodies had been approached by the British Medical Association to pass the resolution and it was a cut-and-dried one, this was the first intimation he had ever heard of anything of the kind, and he had had nothing to do with the manufacture of any agitation with regard to it. He brought the resolution forward entirely on its merits, and he hoped the Council would adopt it.

The motion was lost:

Against, 21: Dr. MacAlister, Mr. Bryant, Sir Dyce Duckworth, Dr. Pettigrew, Dr. Church, Dr. Aithill, Sir Richard T. Thorne, Dr. Heron Watson, Sir William Gairdner, Sir C. Nixon, Mr. Tichborne, Mr. Teale, Sir Philip C. Smyly, Dr. Bennett, Dr. Philipson, Dr. Reid, Dr. Cameron, Dr. Leech, Dr. Little, Mr. Carter, and Sir J. Batty Tuke.

For, 7: Mr. Tomes, Dr. McVail, Sir William Thomson, Mr. Brown, Dr. Glover, Mr. Horsley, and Dr. Bruce.

PRACTICE BY COMPANIES.

On the motion of Mr. TOMES, seconded by Mr. VICTOR HORSLEY, it was resolved:

That the report from the Companies Acts Amendment Bill Committee be received and entered on the minutes.

It was agreed on the motion of Dr. MACALISTER, seconded by Dr. CHURCH:

That the President be requested to address to the Lord Chancellor a communication to the following effect:

The General Medical Council desire to express its thanks to the Lord Chancellor for the action which he has taken with regard to the Companies (Medical Profession) Bill. They consider that the addition of the general term "medical practitioner" in Clause 1 is very desirable, and that with this addition the Bill would amply guard against the evils dealt with by it. They hope that in view of the fact that the incorporation of companies of the class dealt with in the Bill, of which they append two fresh examples, is still actively going on, the Lord Chancellor may see fit to proceed with the Bill at an early date during the present session.

REAPPOINTMENT OF REGISTRAR.

Dr. MACALISTER desired to interpose an important motion with regard to the Registrar. [The Registrar withdrew.] Dr. MacAlister proceeded to say that in accordance with Standing Order 18 (2) the appointment of General Registrar was an annual one. Mr. Allen, their Registrar, was appointed on May 28th, 1898, General Registrar in accordance with the provisions of the Standing Orders. They were therefore in the position at that moment, strictly speaking, of having no Registrar. It was a matter of extreme importance, and on the ground of special urgency, he interrupted the business to propose that Mr. Allen be reappointed General Registrar in accordance with the provisions of Standing Order 18 (2) and that his reappointment should subsist until the last day of the May Session in 1900.

Mr. BRYANT seconded, and the resolution was carried unanimously. The Registrar was called in, and the foregoing resolution read to him by the President.

UNQUALIFIED DISPENSERS.

The Registrar then read the following communication from the Privy Council Office in regard to the system of employing unqualified persons as dispensers, referred to the General Council by the Executive Committee by the following resolution:—

That the Committee recommend the subject to the consideration of the General Medical Council, but in the meantime express to the Privy Council that, whilst they fear that occasional accidents may arise from the employment by qualified medical practitioners of careless or in competent dispensers, the cases, in their opinion, are very rare, and it appears to the Committee that probably the best protection is afforded to the public by the responsibility of the practitioner for the acts or defaults of the servants whom he employs.

LETTER FROM THE PRIVY COUNCIL.

Privy Council Office,
January 24th, 1899.

SIR,—I am directed by the Lord President of the Council to transmit to you, to be laid before the General Medical Council for their information, the accompanying copy of a letter received from Mr. Oglesby, of Barnsley, directing attention to the danger to the public arising from the employment by medical practitioners of unqualified dispensers.—I am, Sir, your obedient servant,
A. W. FITZROY.

The Registrar of the General Medical Council.

ENCLOSURE REFERRED TO.

[*Copy.*]

Arthur Oglesby,
Analytical Chemist.
21, Cheapside, Barnsley,
January 23rd, 1899.

To Her Majesty's Privy Council.

Your Lordships,—I beg to draw your attention to the recent fatality at Heaton Norris, in which a doctor's dispenser—admittedly an incompetent man—was so thoroughly ignorant of doses as to cause the death of a person by giving such a quantity of morphine as no sane man—other than an ignorant—would have dispensed.

And I would respectfully submit to your lordships' notice that the public run a serious risk by the careless dispensing that is done in thousands of doctors' surgeries throughout England.

In this town (Barnsley) out of, say, twenty-five doctors all but *one* have their medicine dispensed at their own surgeries, and I think that not one single qualified dispenser is engaged by these men. At the two hospitals in this town unqualified dispensers have the posts for cheapness.

The fact that even doctors themselves have a very vague knowledge of dispensing, and are not qualified dispensers, also that they are able so easily to cover up any mistakes their dispensers may make; that there are plenty of qualified dispensing chemists—taught the whole art of dispensing and examined by the Pharmaceutical Society—under your lordship's jurisdiction—to do this very work, and thus well qualified to do it, certainly makes it a crying evil, that while, for the safety of the public, the chemist—who is a qualified dispenser—is hedged round with restrictions as to the dispensing of poisons, etc., the prescriptions of a medical man, possibly containing the most powerful toxic agents, are generally dispensed by his groom or some equally incompetent person.

And I submit to your lordships that no medical man ought to be free to delegate the dispensing of his prescriptions to any other than qualified and therefore fit persons.

Whether your lordships will think, after consideration, that the doctor himself should not be allowed to do his own dispensing—being so easily able to cover up any mistake by a death certificate—I leave to your lordships' judgment.

I beg to remain,
Your Lordships' obedient servant,
(Signed) ARTHUR OGLESBY.

A further letter from the Privy Council, dated January 27th, 1899, transmitted the following letter:

[*Copy.*]

Cooper and Co.,
Pharmaceutical Chemists,
80, Gloucester Road,
South Kensington, S.W.
January 25th, 1899.

To the Clerk of the Privy Council.

SIR,—The recent lamentable case of poisoning at Heaton Norris, near Stockport, brings vividly to mind the unsatisfactory manner in which dispensing is conducted in surgeries by unqualified assistants. Much has been done in recent years to protect the public by means of rigorously enforcing the provisions of the Pharmacy Act of 1868, on registered chemists, but it appears to me that the public require more protection, namely, that all dispensers of poisons should be qualified chemists or doctors.

No Act has been passed with a view to protect the public from incapable dispensers in private surgeries, and the seriousness of the case is at once apparent when we learn that considerably more than half of the dispensing in this country is done by unqualified dispensers in surgeries.

For the safety of the public I would respectfully suggest that the exist-

ing conditions under which poisons are dispensed in surgeries should receive immediate and serious attention.—Yours faithfully,

(Signed) ALBERT COOPER,
Fellow of the Chemical Society, and Member of the Pharmaceutical Society.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the communications were received and entered on the minutes.

The PRESIDENT said that the Council would observe that the Executive Committee recommended this subject to the consideration of the General Medical Council, but they thought it was only right that they should not allow the long interval from January 27th to the present meeting to pass by without sending to the Privy Council the communication mentioned in the resolution of the Committee.

Mr. BROWN asked if the Executive Committee had any resolution to bring forward in regard to this matter, because he was not satisfied with things as they existed. If the Executive Committee had no resolution to bring forward, he thought the Council ought to appoint a committee or pass some resolution urging medical practitioners who did their own dispensing to employ qualified dispensers. He should like to ask the Executive Committee how they arrived at the conclusion that these accidents were very rare. He took it that they had some information on which to base such a statement.

The PRESIDENT remarked that they had no information that they were anything but rare.

Mr. BROWN thought they should arrive at some decision which might prevent, so far as lay in their power, such lamentable accidents occurring again.

Mr. CARTER did not think that Mr. Brown quite apprehended the position. This was not a reference by the Council on which the Executive Committee were called upon to report, but a letter arriving in the interval between the Council meetings was laid before the Executive Committee, who thought it desirable to send some reply, but they referred it for the consideration of the General Medical Council. The Executive Committee thought it was a matter to be dealt with by the General Medical Council, and not to be dealt with by them.

Mr. BROWN, in reply to the PRESIDENT, stated that he would propose that a Special Committee be appointed to consider the communications as to unqualified dispensers forwarded by the Privy Council.

The motion was seconded by Dr. BRUCE, and carried unanimously.

The following gentlemen were selected to form the Committee: Mr. Brown, Dr. Bruce, Mr. Teale, and Dr. Leech.

PERSONATION.

The REGISTRAR then read the following report by the Executive Committee to the General Council on the following reference from the General Council sitting *in camerâ* on November 30th, 1898:

That the Executive Committee be instructed to report upon means to secure the identification of registered medical and dental practitioners, and to prevent fraudulent personation of such practitioners.

REPORT.

The Committee recommend the adoption of the following Standing Order:

"That no application for the restoration to the *Medical* or *Dentists Register* of the names of persons who have been removed under Section XIV of the Medical Act (1858) or Section XII of the Dentists Act (1878) shall be entertained unless it be accompanied by a statutory declaration made by the applicant setting forth the facts of the case, and stating that he is the person originally registered, and by a certificate from a clergyman, a magistrate, or a registered practitioner as to his identity."

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the report was received and entered on the minutes.

Mr. BRYANT moved, and Mr. CARTER seconded:

That the recommendations contained in the report of the Executive Committee be adopted.

Mr. VICTOR HORSLEY proposed an amendment, which, after some discussion, was as follows:

That a Special Committee be appointed to report during the present session upon the best means to secure the identification of a person applying to be admitted to the *Medical* or *Dentists Register*, and to prevent fraudulent registrations either on first being admitted to the *Register* or on reregistration.

Dr. BRUCE seconded this.

Dr. ATTHILL did not think the recommendation was sufficient; he thought that the subject should be carefully considered.

Sir JOHN BATTY TUKE said the question was one of serious importance, and he did not consider that the proposal of the Executive Committee would meet the exigencies of the case.

Mr. BRYANT, with the consent of Mr. CARTER, withdrew his motion.

The PRESIDENT then read Mr. Victor Horsley's motion to the meeting, the following words being added:

and that the whole subject of the granting of certificates of registration be also referred to the same Committee for consideration and report.

The resolution was put to the meeting and carried unanimously.

The following gentlemen were selected for the Committee; Mr. Victor Horsley, Dr. Bruce, Sir Richard T. Thorne, Mr. Tomes, Sir John Batty Tuke, Sir William Thomson, and Sir Philip C. Smyly.

CERTIFICATES TO MIDWIVES AND OPTICIANS.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the following report of the Executive Committee was received and entered on the Minutes:

REPORT.

The Committee recommend the Council to adopt the following resolution:

"That, as regards the issue of certificates in midwifery referred to in the memorials, the Council is of opinion that as a Midwives Bill is now before Parliament, it should at present refrain from taking any action. As regards the certificates granted to spectacle makers, the Council exercises no jurisdiction over such opticians, but will be prepared to consider any properly substantiated charge of improper conduct made against a registered medical practitioner with reference to this subject."

On the motion of Mr. BROWN, seconded by Mr. VICTOR HORSLEY, it was resolved that the discussion on this report be adjourned to a later day this session.

RECIPROCITY WITH FOREIGN COUNTRIES.

It was then proposed by Dr. MACALISTER, and seconded by Mr. BRYANT, that the following communications which had been received from the Privy Council in regard to the practice of Italian practitioners in this country be received and entered on the Minutes.

The Executive Committee recommended:

1. That these communications be referred to the meeting of the Council in May next.

2. That in the meantime the Registrar be directed to inform the Privy Council that the Committee would welcome such a recognition of a right by English practitioners to practise in Italy, as would enable Her Majesty in Council, under the provisions of Section XVII of the Medical Act, 1886, to extend similar privileges to Italian practitioners in this country. And that with regard to the other question raised in the correspondence the Executive Committee would refer the Privy Council to a letter, of date February 24th, 1898, addressed to Sir Charles Lennox Peel, containing a reply by that Committee to certain questions received through the Privy Council from the German Ambassador as regards practice by foreigners in this country.

(*a*) Letter from the Privy Council.

The Clerk of the Council,
Privy Council Office,
London, S.W.
February 13th, 1899.

SIR—I am directed by the Lord President of the Council to advert to your letter of the 25th August, 1897, on the subject of formalities necessary in this country for the recognition of degrees obtained at Italian universities by Italian subjects, etc., the contents of which were communicated to the Foreign Office on the 8th October, 1897, and I am to transmit to you the accompanying copy of a letter which has been received from that Department, transmitting a copy of a note from the Italian Ambassador at this Court asking whether Italian physicians can without a fresh diploma exercise their profession in this country, or at least on foreigners resident in Great Britain, and whether, if the answer to this question is in the negative, Her Majesty's Government would be willing to grant permission to Italian physicians to do so if the Italian Government were to engage to grant similar privileges to English physicians residing in Italy.

I am to request that you will move the General Medical Council to favour the Lord President with any observations they may desire to offer on Baron de Renzis's note.

I am, Sir,
Your obedient servant,
A. W. FITZROY.

The Registrar of the
General Medical Council.

(*b*) Communication from the Foreign Office to the Privy Council Office.

[*Copy.*]

Foreign Office,
February 10th, 1899.

SIR,—I am directed by the Marquis of Salisbury to state to you that, on the receipt of your letter of October 8th, 1897, the Italian Ambassador was

informed that the General Council of Medical Education were unable to supply further particulars beyond those already communicated to him with regard to the professions of physician and surgeon.

I enclose a copy of a note which has now been received from Baron de Renzis, asking whether Italian physicians can, without a fresh diploma, exercise their profession in this country, or at least on foreigners resident in Great Britain, and whether, if the answer to this question is in the negative, Her Majesty's Government would be willing to grant permission to Italian physicians to do so if the Italian Government were to engage to grant similar privileges to English physicians residing in Italy.

Lord Salisbury would be glad to learn what reply the Lord President of the Council would wish to be given to His Excellency.

I am, Sir,

Your most obedient humble servant.

(Signed) T. H. SANDERSON.

The Clerk of the Council.

(c) Despatch from the Italian Ambassador.

[*Copy.*]

(Translation.)

Italian Embassy, London,

January 31st, 1899.

MY LORD.—This Embassy did not fail to communicate in due course to the King's Government the purport of the two notes from your lordship of the 3rd of May and 16th of October, 1897, relative to the recognition of Italian diplomas in England.

Returning to a part of the subject, I am now to request your lordship to be good enough to give me more special explanations as regards the admission of graduates in medicine of the Italian Universities to practise the medical profession in England.

As the Italian Government and the Italian medical profession are much interested to know exactly what are the laws, regulations, or customs which affect the subject, I venture again to invoke your lordship's assistance, and request you to be so good as to answer with the greatest possible precision the following queries:

1. Can Italian physicians in England, without being furnished with any fresh diploma, exercise their profession on anybody, or at any rate on the foreign colonies in this country only?

2. In the negative case, would the Government of the Queen be willing to grant such permission to Italian physicians if the Government of the King were to engage on their side to grant similar privileges to English physicians residing in Italy?

I shall (*sic*) all the more grateful to your lordship the more categorical the answers which your lordship may be able to give to these queries, and

I have, etc., (Signed) F. DE RENZIS.

The Marquis of Salisbury, K.G., etc.

Dr. MCVAIL was of opinion that if this reciprocity was conceded to Italy the Government could not refuse it to other countries. Why should the Council compel Englishmen, Irishmen, and Scotchmen to undergo a very difficult examination and yet allow foreign practitioners to practise in this country without inquiring what training they had had?

Mr. VICTOR HORSLEY said that if they compared the clauses of the Act of 1886 with the suggestions of the Executive Committee there was no limit whatever to the way in which the medical profession could be swamped by foreign immigrants. They would all like, if it were possible, to establish in this country reciprocity on the basis of imperial federation, but he thought they should begin at home and deal with the Colonies, whose people were our own relations, and who could converse in our own language. It had been said that the Council had control over the medical education of this country in the interests of the public, but he would suggest as a direct representative that it held control also in the interests of the profession, and for that reason he did not think the Council should accept the motion.

Dr. ATTHILL said the subject had been brought forward by members of the medical profession in Italy, and the action of the Council was in the interests of a considerable number of members of the medical profession in various parts of Italy, and was not for the good of the Italian practitioners at all. He thought that the number of Italian medical practitioners coming to this country to practise would be very small.

Sir RICHARD THORNE was of opinion that something should be done in the interests of the British subjects resident in Italy, of whom there were thousands; they would suffer if they could not get medical practitioners to attend them.

Sir CHRISTOPHER NIXON thought it was an extraordinary proposition to come from the Executive Committee, having regard to the fact that there was no security as to the standard which foreign medical practitioners had passed.

Sir DYCE DUCKWORTH said it was a very small question, which he had been informed was only raised by two or three Italian doctors, and as far as he could learn not much was likely to come of it.

Dr. MCVAIL moved, and Sir JOHN B. TUKE seconded:

That it be remitted to Mr. Muir Mackenzie to advise the Council as to whether, under Clause 17 of the Medical Act, 1886, the privileges to foreign practitioners can be restricted to recognition of practice by them amongst their fellow countrymen only who may be resident in this country.

The PRESIDENT wished to point out that some members of the Council had read into the resolution more than it expressed or signified; it only meant that if Italy recognised English practitioners to practise upon their own countrymen a similar privilege would be extended to Italian practitioners here.

The amendment was put and declared carried; and having been put and carried as a substantive motion, the Council adjourned.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must include details of the precise character and objects of the research which is proposed and must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C.

Reports of work done by the assistance of Association grants belong to the Association.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

ERNEST HART MEMORIAL SCHOLARSHIP.

The Council are also prepared to receive applications for a scholarship of £200 for the study of some subject in the department of State Medicine in memory of the late Mr. Ernest Hart.

Applications must be sent in writing on or before June 15th, stating the particulars of the intended research, qualifications and work done.

Forms of application for the scholarships can be obtained from the General Secretary.

FRANCIS FOWKE, *General Secretary.*

429, Strand, London, May 2nd, 1899.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL.

MEETINGS of the Council will be held on July 12th and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting will be held at the Hotel Cecil on Tuesday, June 20th, at 6 P.M. The members will dine together at 7 P.M., Mr. Thomas Bryant, President-elect, in the chair.—H. BETHAM ROBINSON, J. W. WASHBOURN, Hon. Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The annual meeting of this District for the election of officers will be held at the Royal Forest Hotel, Chingford, on Thursday, June 8th, at 6 P.M., followed by the annual dinner of the District at 6.30.—C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Medical Institute, Birmingham, on Thursday, June 22nd, at 3.30 P.M. The chair will be taken by the President, Mr. Vincent Jackson, and an address will be given by the President-elect, Mr. Bennett May. The annual dinner will take place at the Grand Hotel, at 6.30 P.M.—WILLIAM F. HASLAM, 54, Newhall Street, Birmingham, Hon. Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Bolton on Wednesday, June 21st. Applications for membership should be addressed to Dr. BARR, 72, Rodney Street Liverpool, Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Derby, on Thursday, June 15th, at 2.15 P.M., Mr. E. M. Wrench, F.R.C.S., President-elect, in the chair. After the transaction of the usual business, and the delivery of the President's address, a discussion will take place on the Local Distribution of Cancer in the area of the Branch. Information is desired on the following points: (1) The frequency of cancer in any district; (2) whether it is more common on high or low ground; (3) whether it is on the increase in any district; (4) any instance of two or more cases of cancer in any house. The following, among others, are expected to take part in the discussion: Dr. H. Handford, Dr. W. B. Ransom, Mr. R. G. Hogarth, Dr. G. H. Milnes, Mr. J. Acton Southern, Dr. E. Mansel Sympson, Dr. E. N. Nason, Dr. Astley V. Clarke, Dr. R. Sevester, Mr. J. Tubbs Thomas, Mr. C. J. Bond, and Dr. F. M. Pope. Mr. C. J. Bond will show a patient from whom he removed the Gasserian Ganglion by the Krause-Hartley operation. Mr. T. Henderson Pounds will read a short paper on the Extirpation of the Cancerous Uterus by the Abdominal Route, with five successful cases. The President-elect will be glad to see members who come from a distance at luncheon at the Midland Hotel, at 1.0 P.M. The annual dinner will be held at 6 P.M.; tickets 7s. 6d., exclusive of wine. Place of dining to be subsequently announced. Those wishing to attend the meeting and dinner are requested to send notice to Mr. J. Acton Southern, 50, Friar Gate, Derby, before June 5th.—FRANK M. POPE, Leicester, Honorary Secretary and Treasurer.

EAST ANGLIAN BRANCH.—Preliminary Notice.—The annual general meeting of the East Anglian Branch will take place at Colchester on Thursday, June 29th, under the presidency of Dr. E. L. Fenn. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting, will communicate at once with Dr. Barnes, Eye. Members desirous of nominating candidates for election as officers of the Branch under By-law 9 must send their nominations to Dr. Barnes, so as to reach him not later than June 7th.—EDGAR G. BARNES, M.D., Eye, MICHAEL BEVERLEY, M.D., Norwich, THOMAS CARR, M.D., Braintree, Honorary Secretaries.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held on Wednesday, June 14th, in the Board Room of the North Devon Infirmary, Barnstaple, at 3 P.M., when Dr. Montgomery will resign the chair to Dr. Mark Jackson, who will deliver an inaugural address. The Branch Council will meet at 2.40 P.M., and will afterwards present their annual report to the meeting. Luncheon, by kind invitation of the President-elect, will take place at 1.30 P.M., at the Imperial Hotel, Barnstaple, and the annual dinner will be held at the same place, at 6.30 P.M., at which the Mayor of Barnstaple will be present. Tickets (exclusive of wine) 6s. After the meeting, tea will be served in the Board Room of the North Devon Infirmary. In the evening the Mayor of Barnstaple will hold a reception at the Athenæum, invitations to which will be issued to all members of the Branch. The Barnstaple Club will be open to members of the Branch for the day. On Thursday, June 15th, the Barnstaple members have kindly arranged an excursion by train to Ilfracombe, thence by coach along the coast to Lynton, and back by the Lynton-Barnstaple Railway. This, however, cannot take place unless the number can be made up to sixteen. The Hon. Secretary will be glad if members will inform him at once whether they will be present at (1) the luncheon, (2) the dinner, (3) the excursion, so that further arrangements may be made.—H. W. WEBBER, M.S., 4, Woodland Terrace, Plymouth, Hon. Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—Preliminary Notice.—The annual meeting will be held at Malvern on Thursday, June 29th. Members having papers to read or communications to make are requested to communicate with the Honorary Secretary at an early date.—GEO. W. CROWE, M.D., Honorary Secretary.

SHROPSHIRE AND MID-WALES BRANCH.—A special general meeting of this Branch will be held at the Salop Infirmary on Tuesday, June 13th, at 4 P.M. Business: To discuss a communication made to the Branch meeting on May 16th by Dr. Charnley respecting the refusal of the Editor of the JOURNAL to publish the abstract of his paper on the "Salisbury Diet." The Clinical and Pathological section of the Branch will meet after the special general meeting.—HAROLD H. B. MACLEOD, Honorary Secretary, Clive House, Shrewsbury.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at the West Kent Hospital, Maidstone, on Tuesday, June 27th, at 3 P.M., Mr. John Knowles in the chair. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary, LUDFORD COOPER, St. Bartholomew's Hospital, Rochester.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held at the Kyle of Lochalsh on the forenoon of Wednesday, June 14th next. By the generosity of a member, a special train will be run from Inverness to suit the convenience of members and their friends. Particulars will be given by circular.—J. W. NORRIS MACKAY, M.D., Honorary Secretary, Elgin.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held in Carlisle on the afternoon of Friday, June 30th. Members intending to read papers or show cases, and gentlemen applying for membership, are requested to communicate as soon as possible with W. F. FARQUHARSON, Garlands, Carlisle, Honorary Secretary.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE nineteenth annual meeting of the Isle of Wight District was held on April 21st at the Royal Marine Hotel, Ventnor; Dr. J. GROVES, President, in the chair. There were present: J. M. Williamson, President-elect; T. A. Buck, R. Robertson, F. C. Brodie, H. Godfrey, J. Cowper, E. M. Shirtliff, Honorary Secretary.

Election of Officers.—The following were elected officers for the ensuing year:—*President:* Dr. J. M. Williamson. *President-Elect:* Dr. T. A. Buck, Ryde. *Honorary Secretary and Treasurer:* Dr. E. M. Shirtliff, Ryde.

President's Address.—The PRESIDENT gave a very able and comprehensive address on the Present Treatment of Tuberculosis, which was greatly appreciated by his hearers.

Paper.—Dr. COWPER read a short paper, Report on several cases of Malignant Disease of the Female Breast, with practical remarks on Treatment and Operative Procedure.

Proposed Discussion on Vaccination.—Dr. GODFREY promised at next meeting to introduce for discussion the subject of Vaccination.

Next Meeting.—The next meeting was fixed for July at Sandown.

METROPOLITAN COUNTIES BRANCH: SOUTH EASTERN DISTRICT.

THE annual meeting of this District was held at the Evelina Hospital on May 25th, Dr. R. PERCY SMITH (Vice-President of the District) in the Chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year: *Vice-President of the District*, Charles Sangster; *Representative on the Council of Branch*, Dr. J. W. J. Oswald; *Honorary Secretary*, Dr. Theo. B. Hyslop; *Committee*, Hugh Ker, Dr. Campbell Boyd, Dr. Cooper Cripps, Dr. R. J. W. Oswald, Dr. W. Bramley Taylor, Dr. M. H. Quarry, Dr. R. Capes, Dr. H. Taylor, and Dr. Maurice Craig.

Demonstrations.—The meeting then adjourned to the wards, where Dr. TIRARD showed a girl who had been admitted for Acute Rheumatism, who had subsequently developed acute pericarditis and endocarditis, accompanied by maniacal chorea and acute dilatation of the heart, but ultimately followed by recovery. He also exhibited a child of 9 years old, with Congenital Heart Disease and extreme cyanosis; a patient with Tuberculous Peritonitis in an early stage; one with Acute Hydrocephalus, with much tension over the anterior fontanelle, and a boy who had been recently admitted for Fluid Effusion into one Knee-joint and one Elbow-joint, accompanied by general œdema and albuminuria. The œdema had rapidly subsided under treatment, but the albuminuria, unaccompanied by hæmaturia, persisted. The nature of the renal changes, and their possible connection with the joint affection, were discussed at some length.—Dr. WILLCOCKS exhibited an obscure case of Paralysis, and discussed the probable nature of the lesion, and the pathology of the condition. The case was that of a girl aged 4½ years. In the family history there was nothing of importance. The child had measles about Christmas, and the cough was very severe; mumps at the same time. The child seemed quite well till a month ago, when the mother noticed that she kept falling down, and that this was due to weakness of the left leg. This got

steadily worse, and for about a week the left arm had been noticed to be weak. The child had vomited several times. On admission the lungs, heart, and abdomen were normal. The child looked healthy, but had a peculiar idiotic way of laughing at nothing. She answered questions well, but speech was indistinct. There was no wasting of any muscles. The left leg was spastic, but the spasticity could be overcome. The left knee-jerk was very much increased, as also the jerk on right side. The right leg was not spastic. The left arm was spastic, and the elbow-jerks and wrist-jerks were both increased. No squint. No facial paralysis; discs normal; the veins were a little full, if anything.—In the discussions, Drs. PERCY SMITH, LEFTWICH, OSWALD, HYSLOP, and others took part.

Votes of Thanks.—A vote of thanks was proposed to the retiring Vice-President for his long and much-valued services to the District, to which Dr. PERCY SMITH replied. Votes of thanks were also proposed to the retiring officers, and to those who had helped during the past year.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.

THE last meeting of the session was held on May 17th, at 111, Sinclair Road, W., by kind permission of the Vice-President.

Election of Officers.—The following were elected:—*Vice-President:* J. Pickett, M.D.St.And. *Representative on Branch Council:* T. Aird Jolly, L.R.C.P.Edin. *Honorary Secretary:* Thomas Dutton, M.D.Durh., M.R.C.P.Edin. *District Committee:* J. Brindley James, M.R.C.S.Eng., H. W. Kiallmark, M.R.C.S.Eng., G. Crawford Thomson, M.D.Durh., J. Jackson Clarke, F.R.C.S.Eng., L. Dobson, M.D.Lond., T. Savill, M.D.Lond., L. H. Pegler, M.D.Edin., G. Herschell, M.D.Lond., E. C. Barnes, M.R.C.S.Eng., and W. T. Evans, M.B.Edin.

Report to the Council of the Branch.—The HONORARY SECRETARY read the report, which was unanimously adopted, and ordered to be forwarded to the Honorary Secretary of the Branch.

Vote of Thanks.—A vote of thanks was proposed by Dr. DUTTON, and seconded by Dr. PICKETT, to the Vice-President, which was carried with acclamation.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

A MEETING of this Branch was held in Aberdeen on May 17th, Professor FINLAY in the chair.

The Cold-Bath Treatment of Typhoid Fever.—Dr. W. RIDDELL MATTHEWS (Royal Asylum, Aberdeen) read a paper on the cold-bath treatment of typhoid fever (with notes of four cases). The following is a synopsis of the paper: 1. History of the cold-bath treatment, with special reference to "Brand's method." 2. Comparison of the cold-bath treatment or prophylactic treatment with the expectant or ordinary method of treatment, and the advantages of the former. 3. Study of the objections to the cold-bath treatment and how they were to be met. 4. Practical details of the bath treatment: (1) Bath of 70° F., and lower if necessary; (2) bath given when temperature registered 103° or more in the axilla: (3) patient kept in bath till temperature reduced to 100° F. 5. Beneficial effects of the cold-bath treatment on the symptoms and complications: (*a*) *Temperature.*—The advantages of this method over ordinary antipyretic treatment; (*b*) *Circulatory System.*—(1) Heart and pulse, (2) circulation generally; (*c*) *Respiratory system.*—(1) Dispels any catarrh, (2) risks of bronchopneumonia is *nil*, (3) prevention of congestion; (*d*) *Nervous and psychical symptoms.*—Beneficial effects: (1) Headache, (2) insomnia, (3) delirium or stupor, (4) prostration; (*e*) *Digestive system.*—(*a*) Dispels dry brown tongue and sordes, (*b*) dispels thirst and increases appetite; (*f*) *Nutrition and muscular strength.*—Beneficial effects: (1) Not much emaciation, (2) no dorsal decubitus; (*g*) *Effect on mortality gathered from statistics.*—(1) Reduced by 50 per cent., (2) tends to prolong life in fatal cases.

The Widal Test.—Professor FINLAY gave notes of a series of cases in which the Widal test had been employed, and an interesting discussion followed as to the value of this test in the diagnosis of typhoid fever.

Summer Meeting.—At a meeting of the Council held the same evening, Cruden Bay was chosen as the place of summer meeting which is to be held on June 20th.

SHROPSHIRE AND MID-WALES BRANCH.

THE spring meeting of this Branch was held at the Salop Infirmary on May 16th. Mr. T. LAW WEBB, the President, took the chair. Thirty-four members were present.

Confirmation of Minutes.—The minutes of the preceding meeting were read and confirmed.

Branch Representative on Council.—Mr. J. D. Harries was elected Branch representative on the Council of the Association and on the Parliamentary Bills Committee.

New Members.—The following gentlemen were elected members of the Branch: A. H. W. Ayling, Wellington; C. E. Hedges, M.A., M.D., Newport, Salop; W. Jameson, Pontesbury; S. Nessulam, M.B., Shrewsbury; L. Rose, M.B., Newport, Salop.

The late Dr. Jukes de Styrap.—Mr. HARRIES drew attention to the loss the Branch had sustained in the death of Dr. Jukes de Styrap. Dr. GWYNNE proposed and Mr. WITHERS seconded a vote of condolence with the relations, and referred in terms of the highest appreciation to the excellent work he had long done in the domain of medico-ethics.

Resignation of Honorary Secretary.—The PRESIDENT then read a letter he had received from Dr. Gardner resigning his post as Honorary Secretary, and expressing his regret at doing so. A hearty vote of thanks to Dr. Gardner was proposed by Mr. POPE, seconded by Mr. JACKSON, and carried by acclamation. Dr. GARDNER responded.

Election of Honorary Secretaries.—Mr. HARRIES proposed that Mr. MacLeod should succeed Dr. Gardner; this proposal was seconded by Mr. JACKSON, and carried unanimously. Mr. MACLEOD thanked the meeting for the honour they had conferred upon him.—Mr. EDDOWES proposed and Mr. JACKSON seconded that Mr. L. J. GODSON be elected Assistant Honorary Secretary. This was carried unanimously.

The late Dr. John Gill.—A letter was read from Mr. Gill, thanking the Branch for the vote of condolence passed with the relatives of the late Dr. John Gill, of Welshpool.

Accommodation for Medical Witnesses.—Letters from the Clerk of Quarter Sessions, from the Standing Joint Committee of the County Council of Salop, and from the various chief constables and clerks of the peace who had been written to concerning the resolution passed at the last meeting *re* the accommodation of medical witnesses, were submitted to the meeting.—Dr. CURETON spoke on the subject.

Vaccination and the "Conscience Clause."—A communication from the Council of the Association and from the Worcestershire and Herefordshire Branches on the subjects of vaccination, revaccination, and the "conscience clause," were submitted to the meeting.—Dr. PIGOTT, Dr. RILEY, Dr. WHITWELL, and Dr. PACKER spoke on the subject. It was remarked by the speakers that the number of vaccinations in this district had distinctly increased since the Act had come into force.

Dr. Charnley and the "British Medical Journal."—Dr. CHARNLEY made a commmunication to the Branch respecting the refusal of the Editor of the BRITISH MEDICAL JOURNAL to publish the abstract of his paper on the Salisbury Diet, read by him as President on May 24th, 1898. The correspondence on the subject having been read, Dr. LLOYD characterised the suppression of the abstract as a matter of the utmost gravity, and proposed that a special meeting of the Branch be held to consider the question.—The proposition was seconded by Dr. CURETON, spoken to by other members, and carried unanimously.

The Etiology of Cancer.—The PRESIDENT read a paper on recent researches as to the etiology of cancer and the influence of locality on the prevalence of the disease. He said that in 1894 he read before the Branch a paper on the cell inclusions of cancer, illustrated by photomicrographs shown by the optical lantern. He then took the view that these bodies were parasites within the epithelial cells. Metchnikoff, Ruffer, and others thought they were protozoa, although the evidence for this was scanty. More careful study of the parasites discredited the statements of some over-hasty observers, who declared that they had seen spore formation, and even falciform bodies within some of the parasites. The President

showed a diagram illustrating genuine spore formation in the coccidium oviforme of the rabbit, and in eimeria falciforme of the mouse. Nothing resembling this mode of reproduction had been seen in the parasitic bodies found in cancer. It had, therefore, to be admitted that if these bodies were really protozoa (or at any rate sporozoa) one had to do with a variety hitherto unknown, and differing from the usual types in its mode of reproduction. Although it was scarcely possible as yet to classify these bodies correctly, he thought they must now admit that they were organisms of some kind within the epithelial cells. Their micro-chemical reactions, as studied by careful and accurate staining of sections, gave uniform results. Thus it was no longer possible to maintain that they might be only degenerated material—included leucocytes, etc. Were they, however, the cause of cancer? If they were so, they should be constantly present in carcinoma, and in no other disease. Also it should be possible to produce cancer artificially in animals by infecting them with the parasite. In cancers of rapid growth it was always easy to demonstrate the presence of the parasite in considerable numbers. But in ordinary cases, of slower growth, it was more difficult, as the organism was more sparingly distributed. In epithelioma it was specially tedious and troublesome to identify these bodies—at least, he found it so. Some good observers stated that the parasite was present in sarcoma; but he had not been able to satisfy himself of this. Sarcoma and carcinoma were so distinct clinically and anatomically that it seemed unlikely that both diseases were due to the same specific irritant. How was it that a cancer never excited a sarcoma in the adjoining connective tissues, if both were caused by the same organism? Had anyone ever seen a sarcoma which had advanced to an epithelial surface pass on to the formation of a true carcinoma of mucous membrane, skin, or gland? He thought not. These parasitic bodies, then, were found only in cancer, or in cancer and sarcoma; for although bodies of similar shape and size had been seen in the epithelium of inflamed and artificially-irritated mucous membrane, the staining reactions were not the same as in cancer. The same might be said of the bodies seen in the corneal epithelium of the rabbit after vaccination. Was it possible to produce cancer artificially in animals by infecting them with the parasite? They could not say positively that it was so; but recent researches by Sanfelice and Roncali in Italy had proved that an organism could be isolated from cancer in the human subject which was pathogenic to certain animals, causing death with the production of tumours. Strangely enough, a similar organism, virulent in the same way, was cultivated by one of these observers from fruit juice. But the most recent work in this direction had been done by Mr. H. G. Plimmer, who on March 9th read before the Royal Society a Preliminary Note upon certain Organisms isolated from Cancer, and their Pathogenic Effects upon Animals. He announced that after many trials he had discovered a cultivation medium which had enabled him to isolate and grow the cancer parasite from a rapidly-spreading carcinoma of the breast. Also that he had, by injecting some of the culture into the peritoneal sac of guinea-pigs, produced endothelial tumours of malignant nature, causing death in from thirteen to twenty days. Pure cultivations from the abdominal glands reproduced the same sequence of events in other guinea-pigs. The cornea of a rabbit inoculated with the culture showed great proliferation of epithelium, which had grown down into and between the fibrous layers of the cornea. The cells contained the parasite in great abundance. The Italian observers classed the organism with the blastomycetes, with which arrangement Mr. Plimmer was inclined to agree, but thought it premature to dogmatise as yet. Previous attempts to cultivate the parasite outside the body having always failed, they had to thank Mr. Plimmer for a brilliant research which had removed at least one stumbling-block from before those who were inclined to accept the cell inclusions of cancer as true parasitic organisms. With regard to the influence of locality on the prevalence of cancer, the President did not attach so much importance as did some authorities on this question to geological and climatic conditions; and for this reason amongst others: In his own district several groups of "cancer houses" were situated on high ground, and were in no wise damp or ill-drained; whilst there were but few cases of cancer in the low-lying houses near the Severn, which was frequently flooded in the winter and spring months. Statistical inquiry on a large scale did not discover the tubercle bacillus, though it might have deepened the suspicion that tuberculosis was an infectious disease. They suspected that cancer was in some unexplained way also infectious. And as a tuberculous patient did certainly (if no precautions were taken) infect the dwelling in which he lived and died, so also did a cancer case contaminate his surroundings and thus tend to increase the number of "cancer houses." It was impossible at present to prove this. Not very long ago it was just as impossible to prove the danger of the "tuberculous house." If cancer turned out to be due to some modified yeast or mould fungus, it was likely to be to a certain extent infectious. The conditions and limitations which controlled this infectiveness were at present absolutely unknown, but might not always remain so; and though now it was more scientific candidly to admit lack of knowledge on these points and cry "ignoramus," let them not go further and join those who insist that they should say rather "Ignorabimus."

Vote of Thanks.—A hearty vote of thanks was accorded the President for his valuable paper.

Communications.—Dr. CHARNLEY read notes of a case of rapidly-growing Epithelioma of the Face simulating abscess, and Mr. LAW WEBB showed sections of the same. Mr. ROPE showed a case of inoperable Sarcoma of the Neck, and gave his experience of the treatment of such tumours by formic aldehyde—40 per cent.—The PRESIDENT showed some interesting microscopical specimens of Cancer of the Breast containing parasitic bodies within the cells.

Tea.—By the kind invitation of the President, members partook of tea at the Infirmary after the meeting.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A CORRECTION.—In the report of the proceedings of this District on p. 1306 of the BRITISH MEDICAL JOURNAL of May 27th, Mr. H. Myddelton-Gavey is reported to have shown "an epileptic patient on whom he had operated, with good results, for double cataract." Mr. H. Myddelton-Gavey writes that the point of the whole matter was that the double cataract was produced by the epileptic fits in a youngish patient.

SPECIAL CORRESPONDENCE.

ROME.

The Life Cycle of the Parasites of Tertian Fever in the Anopheles Claviger.—Professor Koch in Italy.—School for Mentally Deficient Children in Rome.—General News.

AT a meeting of the Accademia Medica di Roma, held on April 30th, Drs. G. Bastianelli and Bignami read a summary of the results of their investigations on the Cycle of Life of the Parasites of Tertian Fever in the Anopheles Claviger. They are as follows: The large pigmented forms of the tertian parasites, incapable of multiplying in man, may be distinguished morphologically into two categories—some with a large vesicular nucleus and little chromatin represent the female (macrogameti); others, richer in chromatin, the male (microgametociti of zoologists). In the middle intestine of the male anopheles claviger six microgameti (flagella) generally protrude, one of which fecundates a macrogamete, after the chromatin of the latter has undergone a process of reduction. The fecundated macrogameti penetrates into the middle intestine of the anopheles, where it develops, passing through a cycle of life perfectly similar to that described by Ross for the proteosoma of birds in the grey mosquito, and by the anthus and grassi for the semilunæ in the anopheles claviger. In this cycle of life the tertian sporozoon remains distinguishable by its morphological characters from that of semilunar origin; the young forms are distinguished principally by the form of the sporozoon and the characters of the pigment; the forms undergoing development by the size of the bodies produced successively by nuclear division; the mature forms are distinguished as a rule by the size and the disposition of the residue of segmentation, perhaps also by the size. The distinction of the species of malarial parasites, therefore, remains unaltered. The same conclusion is also obtained from the third experiment, which demonstrates that the semilunæ which have given only tertian at first, passing through the anopheles

claviger, maintain unchanged their specific characters. The study of the life of the anopheles in the Roman Campagna explains in a satisfactory mode the behaviour of the tertian at the change of the seasons. It has been demonstrated experimentally that very few punctures—indeed, even one only—by the infected anopheles may produce the infection in man.

Since the beginning of May, Professor Koch and his assistants have installed themselves at the Municipal Hospital of Grosseto, where they are continuing their researches on malaria. Grosseto is a town situated in the line between Genoa and Rome, and is surrounded by an extensive plain, which in olden times was the Lacus Prelius of Cicero. This lake gradually became a morass and caused malaria. By skilful drainage and other means the Italian Government has converted nearly the whole of this morass into valuable pasturage and has thus lessened greatly the malaria. It is said that Professor Koch intends to go to South Africa to continue his studies there when he leaves Grosseto.

The Society for the Medico-Pedagogic Treatment of the Mentally Deficient opened a school for children in Rome in January last. The number of children attending is twenty, and they belong to both sexes. Their age varies from 6 to 11 years, and all of them have been dismissed from the public or private schools either owing to their dulness of mind or to their unruliness. The children are taken to the school every morning at 7.30, returning to their homes every evening at sunset. The medico-psychological treatment is entrusted to Professor De Sanctis, the alienist, to an aurist, and two consultants (Professors Sciamanna and Sergi).

Meetings in connection with the institution of the League against Tuberculosis which has been formed in Italy have already been held in nearly all the large cities throughout the country, and the League has the warm support of the leading medical professors of the various universities in the kingdom. Several sanatoria for the treatment of pulmonary tuberculosis are also being established in Italy, notably one at the beautiful Cascata della Marmore Terni, near Perugia. This spot was selected on the grounds that it has been proved for some time that the air of the falls is singularly favourable for the treatment of tuberculosis. This is considered to be due to the enormous quantity of ozone present in the air surrounding the Cascata, and which is formed by the high fall (650 feet) of the river Velino.

At the meeting of the Executive Committee of the Federation of the Ardini dei Medici of Italy, held in Rome April 30th, Professor Durante of Rome was elected President of the Federation, he having received 77 votes out of 80 delegates voting.

BIRMINGHAM.

The Medical Benevolent Society: its Registration as a Friendly Society: Annual Dinner.

THE annual meeting of the Birmingham Medical Benevolent Society was held on May 26th. There was a good attendance of members. Mr. J. T. Harthill, the retiring President, introduced his successor, Mr. Lloyd Owen. Sir James Sawyer was made President-elect. The annual report showed that the invested funds of the Society amounted to £14,402. There were seventeen annuitants on the books of the Society at the commencement of the year. Two of these had since died, and one new one was added to the list. The sum expended in grants during the year had been £550.

A most important step was taken by the Society at this annual meeting. The directors of the Society, on the advice of their solicitor, decided to register the Society as a friendly society instead of a benevolent society, and so to alter the rules as to bring them in accord with the Amended Act of 1896. The main reasons for so doing was given to the members present by Mr. J. T. Harthill, the retiring President, who pointed out that unless they were so registered the trustees could not legally continue to hold many of the present investments. Legally the Society was already a friendly, and not a benevolent, institution, and should be registered as such. The proposal to so alter the constitution of the Society was seconded by Dr. Savage, and carried unanimously.

In the evening the annual dinner of the Society was held, and a most pleasant social evening was spent.

CORRESPONDENCE.

FEES TO MEDICAL WITNESSES IN THE POLICE-COURT.

SIR,—For some years past efforts have been made by the Council of the United Kingdom Police Surgeons' Association to secure better fees for those who have to attend as medical witnesses in the police, the sessions, and the assize courts. We find that in the police or magistrate's court the practice varies. In all cases committed for trial the medical witness is paid the inadequate fee of half a guinea each day (before the magistrate) after the case has been tried at the sessions or assizes. When the case is summarily disposed of by the magistrate the medical witness is paid half a guinea (each case, not each day) in some places. In Leeds and Leicester the police surgeons receive no fee whatever in such cases, and we have good reason for believing that the list of places where this demand for gratuitous medical evidence prevails might be considerably augmented.

Will you kindly allow us through your columns to ask any of your readers, whether police surgeons or not, who are not paid by the magistrate in non-committal cases, to send their names to one of us?—We are, etc.,

FRED. W. LOWNDES, 40, Knight Street, Liverpool.
H. CULLIFORD HOPKINS, 6, Bladud Buildings, Bath.
} Hon. Secs. United Kingdom Police Surgeons' Association.

May 29th.

THE SOIL AS A NURSERY OF PATHOGENIC ORGANISMS.

SIR,—The article on Cremation by Sir F. Seymour Haden in the BRITISH MEDICAL JOURNAL of May 27th contains several references to me which seem to imply that I am an enthusiastic advocate of cremation. I am not even, as Sir Francis asserts, a member of the Cremation Society. I have always been of opinion that the burial of the dead in properly-situated and well-conducted cemeteries is the rational and natural way of disposing of them. My memorandum on burial grounds and their management, published many years, was circulated amongst the Burial Boards of England and Wales by the Local Government Board. But, whilst I agree in the main with Sir Francis as regards earth-to-earth interments, I entirely disagree with him as regards the part which the soil plays in relation to zymotic disease. We cannot set aside the experience of mankind from the earliest times to the present, which clearly proves that disease prevails more in some regions than in others. Now, the composition of the atmosphere is the same everywhere as regards its gaseous constituents, and the extraneous matter found in it can only come from the earth. Surely, in the unhealthy seaboard regions of Africa the *fons et origo* of disease is the matter evolved into the air from malarious soils or washed from them by the water subsequently used for potable purposes.

The recent investigations of Dr. Sidney Martin[1] show that typhoid bacilli placed in soil remained there, multiplied, and spread during the whole period of investigation—456 days. Dr. Houston shows[2] that the virulent bacillus enteritidis is "common in cultivated and polluted soils." If micro-organisms are the *materies morbi* of zymotic diseases, and if some varieties of them can exist outside the human body, which seems to be universally acknowledged, surely it is only rational to believe that they have chiefly their abiding place in the superficial soil. It is incredible that all the bacilli associated with disease should exist and multiply only in man or the atmosphere. For many years past I have studied the incidence of enteric fever in Dublin, and have found that the cases of that disease were 50 per cent. greater per 100,000 of the population in the districts where the soil was gravel than in the districts where the soil was boulder clay. I have already in the JOURNAL fully explained why, in my opinion, gravel is more favourable to the development of the bacilli than clay is. Sir Francis says that it is by overcrowding and filth that the disease is spread. That holds good for small-pox and typhus fever, but in Dublin the rich suffer quite as much as the poor from this disease. I shall continue

[1] Annual Reports of the Local Government Board, 1896-7 and 1897-8.
[2] Report of Local Government Board, 1897-8.

in my belief that the cleaner the soil we live on the longer are we likely to live on it.—I am, etc.,

Dublin, May 29th. CHARLES CAMERON, C.B.

PRESCRIBING IN GENERAL PRACTICE.

SIR,—Being challenged to make good my assertion in your issue of May 20th, that the giving of prescriptions, as against dispensing, by medical practitioners, is applicable to practice among the poor, and even to contract practice, may I beg you to allow me space for the following explanation: I hold at present three contract appointments, namely, as district medical officer under the Poor Law, surgeon to Her Majesty's Post Office (local), and surgeon to an almshouse. I contract with one of the local chemists to provide all medicines required in connection with these offices for a fixed annual sum, which amounts approximately to one-third of the gross value of each of these appointments. Prescriptions given to contract patients bear a private mark for identification, and are directed to be taken to the particular chemist who makes them up free of charge to the patient and retains the prescriptions. There is no other consideration in the bargain, as, though this chemist obtains a share in my private prescribing, I make it a rule not to recommend any one chemist; but if asked, direct my patients to take their prescriptions to any respectable chemist with whom they have been accustomed to deal. I have every reason to believe that my contract works fairly for the chemist and myself, and that full justice is done to the patients. I hardly suppose this principle could be applied to club practice at 4s. a head per annum, because in my opinion this rate does not afford a living wage for the club surgeon, and certainly does not allow two margins of profit. I have found the contract rate allowed by Her Majesty's Post Office, namely, 8s. per head per annum, fairly remunerative, though not excessively so. Be it remembered that Post Office servants are specially selected adults in the working years of life, and do not include old people, married women, or children. Out of this 8s. I can afford to allow 3s. for the druggist, and we are both satisfied. I would suggest this rate as a reasonable basis for contract work, the average annual sickness of Post Office employees being something like nine days for men, and thirteen for women. As to private practice among the poor, I know that some are reluctant at first to pay twice over, to the chemist as well as the physician, but a little experience teaches them that this plan is in the long run as cheap as, or cheaper than, paying the medical practitioner for every bottle of medicine. Take the very common case of the anæmic girl—what she requires is carefully-considered advice as to diet, exercise, and general hygiene, for which the physician may charge any fee fairly proportionate to the patient's means from half a crown upwards, *plus* an appropriate prescription which the dispensing chemist can afford to make up for a fair profit on the price of the drugs, at perhaps eightpence or ninepence a bottle. She may be taking medicine for two months, and yet only require to consult her medical adviser three or four times in the course of her treatment. This is a typical instance, and entails many advantages: it is cheaper for the patient than if she had to pay her medical attendant for every bottle of medicine; it saves the time of the physician, and is more consistent with his dignity; having no interest in the sale of drugs he can insist on the medicine being taken for as long a time as the patient requires it, and loses nothing by stopping it when it has done its work; his advice as to hygiene is more likely to be heedfully regarded than when it merely serves as the conversational wrapper to a bottle of physic; lastly, the prescription becomes the patient's property, and can be used again on her own initiative in case of a relapse.

If prescribing by physicians became general, chemists could afford to lower their charges for dispensing, and indeed would be forced to do so by the stress of competition to such a price as would leave them a decent profit on the ingredients of prescriptions. In a small town it is possible to have an understanding with the chemists that a certain private mark shall indicate that the patient presenting the prescription is genuinely poor, and may fairly be charged at something less than the usual rate. The enterprise of the drug trade has made the general public so knowing in the art of self-prescribing that it seems likely that we shall ere long be reduced perforce to our legitimate function as physicians, that of advice.—I am, etc.,

Stamford, May 24th. REGINALD FARRAR, M.D.Oxon.

SIR,—I read with much pleasure Dr. Farrar's letter upon counter prescribing in the BRITISH MEDICAL JOURNAL of May 13th, and the answers to the same in the JOURNAL of May 20th. I heartily agree with every word Dr. Farrar writes upon the subject. Dispensing and attending midwifery cases were always my horror, the latter so much so, that after I had been in practice for four years I gave up obstetric work *in toto*. I only supplied my poorer patients with medicine—they always sent for it; and the richer ones if they liked could have their medicines made up by my dispenser, providing they sent for them too. I avoided dispensing as much as I could. The last ten years of professional life (I have been out of harness now for over six years) I only wrote my prescription, and I may add I had no chemist to whom I sent my patients; they were quite free to go where they liked. I took every opportunity of impressing upon my patients that doctors should have no interest whatever in supplying medicines (in my younger days I never charged for drugs, though, as stated above, in some cases I supplied them); I said the doctor is an orderer of drugs, the chemist is a mixer-up of the same. I have been asked to have clubs, but used to tell the good stewards who offered me the surgeonship of the same that I was much too poor a man to accept their terms, and some I astonished by saying, If you will get a chemist to fix up your medicines alone for the price you offer me for drugs and attendance, I will attend the club for nothing for a year. Now, in country villages, if the doctor did no dispensing, a chemist must set up in the village too, and if our pharmaceutical friends could only agree on a minimum charge for the very poor the thing could be arranged to the benefit of the chemist and the doctor at the same time. Take the following as a type of ordinary prescription: ℞ Liq. ammon. acet. ℥j, tinct. scillæ, ℥ss., tinct. belladon. ♏ix, glyc. pur. ℥ij, aq. chloroformi ℥iij, aq. ad. ℥vj. M. fiat mistura. Take one-sixth part every four hours. The ingredients here cost only a penny, and then let a charge of a penny be made on bottle (when found by chemist) one has a good profit.

What has kept the medical man at the bottom of the social tree up to the present? Our alliance with drugs. So long as practitioners supply medicines the public will, as far as the majority is concerned, credit us with commercial and not professional status. Like "G. P." and Dr. Nutting, I shall be glad to hear what Dr. Farrar may have further to say on the subject.—I am, etc.,

Portland Place, W., May 21st. HENRY W. WILLIAMS, M.D.

SYPHILITIC DISEASES; THEIR PREVENTION, STUDY, AND TREATMENT.

SIR,—If Mr. Lane will read my letter of May 6th more carefully, he will see that he is in the illogical position of having denied the truth of a statement that was never made. My words were, "Patients prefer to go to general hospitals or to skin hospitals, where they are treated as ordinary hospital patients and not as criminals and outcasts." It is a pity Mr. Lane thinks it necessary to take up the cudgels in defence of the London Lock Hospital, because it might appear to an outside observer that the shoe pinched somewhere. It was far from my intention to cast any imputation against the staff of the London or any other Lock hospital. My contention is that there is a tendency of the authorities of English Lock hospitals to regard the patients as beings apart from ordinary hospital patients, and not entitled to the same consideration. This state of things results in the almost entire neglect of the study of venereal and syphilitic diseases in this country. On the Continent and in America these diseases are recognised and studied in the same way as other diseases, and are not covered with the hypocritical cloak of British prurity.—I am, etc.,

Finsbury Square, May 23rd. C. F. MARSHALL, F.R.C.S.

SIR,—Mr. Lowndes's letter of April 10th, and your article on April 22nd, raised the hope that an abler pen than mine would continue this most important discussion. I think that all

reading these communications will admit that the question of proper provision of Lock Hospitals covers but a small part of the ground; the general question is far wider. A brief reflection will show that a large number of syphilitic patients would on no account voluntarily enter a lock hospital.

I venture to suggest that an important factor in the control of syphilis is to obtain greater uniformity of treatment. All know how various are the methods and periods of treatment of different practitioners, and all have seen disastrous results from too early discontinuance of treatment.

In many cases patients are to blame. So great is the general ignorance on this subject that many neglect treatment through carelessness; others think syphilis a trifling ailment compared with gonorrhœa, and some that it protects against other diseases! If the public knew more about syphilis the fear of infection would often be an excellent preventive. A naval officer tells me that he has seen syphilitic patients throw overboard their pills, or resort to other expedients to avoid treatment, fearing salivation, which is said to be one of the traditions of the services. In a few years many of these men are invalided as hopeless cases.

Greater uniformity of treatment and education of the public on this subject will lessen, but not prevent, the recurrence of syphilis; more than this is needed. The fact that syphilis is an "acute specific" points to notification under the "Infectious Disease (Notification) Act" as the only logical course. It may be objected that notification will result in concealment, recourse to quacks, and inability of sanitary authorities to punish offenders. To this it may be replied that the success of the present notification is due to the public's recognition of the Act as a powerful preventive of the spread of disease, and therefore worthy of implicit obedience.

Undoubtedly the prolonged course of syphilis, and the impossibility of keeping patients under constant observation are difficulties, but if the public can be educated as regards tuberculosis, they may also be taught that syphilis is as terrible a disease, and that it is also a preventable one.—I am, etc.,

Bristol, May 29th. C. W. J. BRASHER.

TREATMENT OF SCARLET FEVER WITH SODIUM SALICYLATE.

SIR,—With reference to the very interesting memorandum of Dr. Dobson Poole, on the above subject,[1] it may interest your readers to be reminded that the use of salicylate of soda in scarlet fever was very strongly recommended by von Jaksch in the *Deut. med. Woch.*, 1888, Nos. 40 and 41, as not only diminishing the general dangers of the fever, but as even banishing scarlatinal nephritis.

Since I came upon the above article, which I have elsewhere quoted,[2] I have asked many of those in charge of fever hospitals as to their experiences, but have only gathered that scarlatinal nephritis follows in so small a percentage of cases that it is very difficult to form any opinion as to the effects of salicylates, and Dr. Poole, I note, does not specially mention nephritis.

Personally, I believe that salicylates are similarly useful in all fevers, though in diminishing the serious and deadly sequelæ of scarlet fever their effects may be more evident than elsewhere.

And though this early elimination of uric acid in fevers may remove much of the *materies morbi* of rheumatism and nephritis, it is still better to be constantly free from the poison, and those whose diet keeps them free from uric acid may, I believe, escape both the fever and its sequelæ,[3] and the reason for this I hope to demonstrate still more conclusively at the Portsmouth meeting in August.—I am, etc.,

Brook Street, W., May 29th. ALEXANDER HAIG.

PERSONATION.

SIR,—It has lately come to my knowledge that a man calling himself Dr. E. F. M. Alleyne has been seeking appointments as assistant, etc., and as I am the only E. F. M. Alleyne on the *Register*, I would warn all medical men against employing him.—I am, etc.,

E. F. MASSY ALLEYNE, L.R.C.P. and S.Irel.

Cullompton, Devon, May 30th.

[1] BRITISH MEDICAL JOURNAL, May 27th, p. 1274. [2] *Uric Acid*, Ed. iv, p. 472. [3] See *Uric Acid*, prev. refs., pp. 5, 127, and 307.

OBITUARY.

MR. JOHN WILLIAM HARRIS MACKENZIE, of Daisy Bank, Cheadle, Staffordshire, died suddenly from syncope on the morning of May 17th. He was the only son of John Mackenzie, Esq., Stoke's Field, St. Thomas in the East, Jamaica, a leading planter, and was great-grandson of the Rev. Murdoch Mackenzie, M.A., a Scotch divine of some eminence, who was minister of the High Church in Inverness in the middle of last century. His early years were spent in Jamaica, but on the death of his father he was brought to this country. He was educated at the Grammar School, Newcastle-under-Lyme, and in later years he has often spoken of the greater excellence of the teaching, especially in classics, of such a school as compared with our modern schools. After leaving school he was apprenticed to Mr. Clay, of Birmingham, and was firmly convinced of the advantages of the apprenticeship system. Later he was one of the first students of Queen's College, Birmingham. He was admitted M.R.C.S.Eng. in 1845, and became a Licentiate of the Apothecaries Society in the same year. He was appointed House-Surgeon to the old North Staffordshire Infirmary in 1845, at which time his uncle, the late Dr. Thomas Mackenzie, was senior visiting physician. Later he started practice in Penkridge, and, on the death of another medical uncle, Mr. John Bourne, in 1862, he removed to Daisy Bank, Cheadle, with which town he had been connected since childhood. For twenty-five years Mr. Mackenzie had held the offices of Medical Officer and Public Vaccinator for the Cheadle district, only resigning in January of this year, when he was succeeded by his son, Dr. Ernest Mackenzie. He was also connected with several friendly societies in the neighbourhood. During the last few years he had been gradually giving up work, and two years ago, whilst on a holiday at Southsea, he developed a very severe carbuncle. Here he received the greatest kindness and attention from Dr. G. F. Morley and Dr. Rundle, and, though he recovered completely from the local trouble, the heart never regained its proper strength. A chill brought on gastric trouble, and after one day in bed the end came quite suddenly and unexpectedly from syncope. His remains were interred in the family grave at Cheadle on May 20th, amidst many manifestations of sympathy and respect, deputations from the Freemasons and all the friendly societies with which he had been connected being present. His wife died nine years ago, but he leaves four sons and four daughters to mourn his loss, the two eldest sons being engineers and ex-Whitworth Scholars, the two youngest Doctors of Medicine of the University of Glasgow.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Baron M. W. af Schultén, Professor of Surgery in the University of Helsingfors, aged 52; Dr. Alphonse Charpentier, Member of the Paris Académie de Médecine, and author of various works on obstetrics, aged 63; Dr. Isaac Mayor, Surgeon to the Cantonal Hospital, and Professor of Anatomy at Geneva, aged 81; Dr. Ulry, Chief of the Ophthalmological Clinic at Bordeaux; and Dr. William W. Godding, Medical Superintendent of the Government Hospital for the Insane at Washington, and for a number of years Professor of Mental Diseases in the medical department of Columbia University, aged 68.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON HERBERT E. MARSH has been placed on the retired list at his own request, May 29th. He was appointed Surgeon, March 31st, 1875; Staff-Surgeon, March 31st, 1887; and Fleet-Surgeon, March 3rd, 1899. He served with the Royal Marine Battalion at Suakin during the campaign in the Eastern Soudan in 1884-85, receiving the medal with clasp and the Khedive's bronze star.

The following appointments have been made at the Admiralty:—JAMES M'C. MARTIN, D.S.O., Staff-Surgeon, to the *Trafalgar*, May 25th; WALTER BOWDEN, D.S.O., Staff-Surgeon, and ALFRED WOOLLCOMBE, Surgeon, to the *Edgar*, May 25th; LAWRENCE BIDWELL, Surgeon, to the *Lion*, May 25th; ALAN G. EASTMENT, Surgeon, to the *Wildfire*, for disposal, May 30th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL W. J. FAWCETT, M.B., is promoted to be Colonel, *vice* J. Fraser, deceased, May 10th. Colonel Fawcett entered the service as Assistant Surgeon, April 1st, 1871; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; was granted the rank of Lieutenant-Colonel, April 1st, 1891; and was made Brigade-Surgeon-Lieutenant-Colonel, April 24th, 1895. He served in the Soudan campaign in 1885 (medal with clasp and Khedive's bronze star), and with the Hazara expedition in 1888 (mentioned in despatches, medal with clasp).

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN A. A. ABRAHAM is promoted to be Surgeon-Major, May 27th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL C. H. BEATSON, Bengal Establishment, has been appointed Principal Medical Officer to the Kohat-Kurram Force, *vice* Lieutenant-Colonel A. S. REID, who has been transferred to Nagpore as Administrative Medical Officer, Central Provinces.

THE POSITION AND PAY OF THE DIRECTOR-GENERAL, ARMY MEDICAL SERVICE.

A CORRESPONDENT sends us the following remarks, with which in the main we agree, as to the position of the Director-General, A.M.S. (1) His emolument of £1,500 a year is quite inadequate for the duties of his important position; he has no allowances whatever. His pay should equal that of the Inspector-General of Fortifications—£2,100 a year, with £300 table money—in order that he may entertain and cultivate the acquaintance of those under him. (2) His rank should clearly be superior to the Surgeon-Generals under him, and should be that of Lieutenant-General. That is the rank of the Principal Medical Inspector-General in the French Army. (3) He should have an aide-de-camp and secretary on his personal staff; the former a junior officer, in order that he may have touch with the younger ranks in his corps. In the recent great changes in the Army Medical Service the Director-General has been left out of the commensurate advancement these changes most certainly should have brought him. The consequence is that the position occupied by him is not now that which altered circumstances demand.

MANY MASTERS.

A CORRESPONDENT avers that the position of the average civil surgeon in India is scarcely a happy one, through a multiplicity of masters. He is under the following "medical bosses": (1) The Director-General of the Indian Medical Service; (2) the Inspector-General of the Civil Hospitals of the Province where he serves; (3) the Sanitary Commissioner of the Province; and (4) the Inspector-General of Gaols. The following are his "civilian bosses": (1) The magistrate of the district, generally a young man; (2) the Commissioner of the Division; or (3) a deputy of the Commissioner. The above are "official bosses;" but there are also "non-official" visitors, specially selected natives or European gentlemen in the district, who one and all can make comments of praise or blame in the "visitors' book." The divergence in opinion among these critics is often remarkable; sometimes amusing. It is no easy matter carrying on duty under so many masters.

MEDICO-LEGAL.

THE BEDMINSTER COTTAGE HOSPITAL.

ON May 17th and 18th, at the Bristol County Court, before His Honour Judge Austin and a jury, Miss Lydia Glaise sought to recover £25 damages from Dr. W. L. Christie (proprietor of a cottage hospital at Bedminster) for fraudulent misrepresentation and breach of agreement. According to the report in the *Bristol Mercury*, the plaintiff, Lydia Glaise, said that in January last she answered an advertisement in the *Hospital*, and, after correspondence with the defendant, paid him £10 10s. and came to Bristol on March 1st. She went to Church House, Bedminster, a portion of which was occupied by the defendant. Witness stated that the ward for the reception of patients contained two beds, one a chair bed and the other a spring mattress, a child's cot, and a cradle. The defendant never gave the plaintiff any instructions in any of the cases she went out to. She went out as an entirely inexperienced person. Witness had also to attend patients who came to the surgery for medicine. She found it would be quite useless to remain as she could get no training.

Cross-examined, she made the suggestion that £5 should be paid back and that she should live out; she did not think that there was any comfort in the institution. In further cross-examination, she admitted that she had looked at several cases, but there was no one to tell her what to do or to explain anything; she was not even taught how to take the temperature of a patient. She admitted that, as a rule, Dr. Christie or Sister Hope saw the patients at Church House, but that she often had a great deal of trouble to get the doctor to come down. In re-examination by Mr. Inskip, she said that, judging by her experience since she had been at the General Hospital, there was nothing in the whole of her experience at Dr. Christie's which could be described as nursing instruction.

Bessie Nelson gave evidence that she went to Dr. Christie's for instruction as an indoor nurse, but she left after three days because the place was so dirty. She then became an outdoor nurse, and during the three or four months she remained there were three or four in-patients. She used to go to patients at their own homes.

Mr. Wansborough, having addressed the jury for the defendant, called Elizabeth Willing, who said she went to the Bedminster Cottage Hospital in October, 1898, for three months; she paid £10 10s. Dr. Christie lectured every morning, and the matron in the afternoon. There were three empty beds in the hospital, and a cot and cradle in different rooms; there were several patients in the hospital, and witness went out sometimes. She was satisfied with her training at Bedminster, and she could attend to all the duties of her present position; she got her present position at Shottermill, Haslemere, while she was at the Bedminster Hospital. In cross-examination, she admitted that she had only attended four maternity cases while at the Bedminster Hospital. Dr. Christie gave her a certificate of fitness. Altogether she paid twenty-two visits to sick persons, and attended four maternity cases besides nursing indoors.

Another witness, a probationer in St. Mark's Hospital, London, who went to Dr. Christie's to be trained in February of the present year, said she was satisfied in every way with the experience she got. In cross-examination, she stated that she was appointed to St. Mark's Hospital upon Dr. Christie's testimonial.

Several other witnesses, who had obtained situations in different institutions, also gave evidence for the defendant.

Samuel Smith, the owner of Church House, said that Dr. Christie was a weekly tenant at 17s. 6d. a week, and there was an understanding that he should be allowed to remain so long as the institution succeeded.

Dr. William Leddingham Christie, the defendant, stated that he started the hospital in Bedminster in September, 1897. Witness paid the whole cost of the dispensary; he had had 24 or 25 nurses training at the hospital, and had dealt with 150 pure charity patients who had paid nothing. The average number of patients was 30 weekly. Three months' training, such as he gave, would fit probationers excellently for the work they were trained for, and they had no difficulty in gaining situations. The plaintiff charged him with defrauding her, and he declined to return the money because he would be admitting that he had been defrauding her if he did that. In cross-examination defendant stated that his institution was made up of himself, Sister Hope, and the nurses. He kept accounts, but not for publication. Sister Hope's services were honorary, for the benefit of the poor. They were holding on this hospital until they could gain public confidence, and get an official committee. He issued the following advertisement: "Probationers wanted; midwifery and general nurses trained and supplied." Re-examined, he said that he took for granted that a nurse who had been at other hospitals knew how to take the temperature.

After the evidence of Sister Hope, the Judge, in summing up, said that the case was most important, though a small amount was involved. It should be practically impossible for a bogus institution to exist which should divert into the pockets of those who ran it the earnings of people who could ill afford to part with them. On the other hand, it was an exceedingly important thing that a professional man should not have fixed upon him the stigma of fraud, nor should he (unless the jury were clearly of opinion that he had committed a breach of contract) have the stigma of having broken the contract he had made with a person in the comparatively helpless position of the plaintiff. The questions put to the jury were: Did the defendant or did Sister Hope, when the letters, and prospectus, and advertisement were brought to the knowledge of the plaintiff, honestly believe that they were able to give to the plaintiff the training described in the letters, prospectus, and advertisement? Was the defendant ready and willing to give to the plaintiff substantially the training described in those documents? The Judge asked the jury to dismiss entirely from their minds what they had read of the inquiry in connection with the dispute Dr. Christie had with the Children's Hospital.

The jury retired, but returned in five minutes with a verdict for the defendant.

J. C. McW.—Our correspondent should give his evidence to the best of his knowledge and belief. It is for the Court to decide as to the relative value of the evidence given before it.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

M.B. EXAMINATION.—The following candidates have satisfied the Examiners:

Pass List.—First Division: W. B. Anderton, Owens College and Manchester Royal Infirmary; A. H. Carter, Guy's Hospital; H. S. Clogg, Charing Cross Hospital; Agnes Sarah Edmonds, B.A., London School of Medicine and Royal Free Hospital; F. R. Greenwood, Mason College, and Queen's and General Hospital, Birmingham. Second Division: F. V. O. Beit, St. Bartholomew's Hospital; W. M. Bergin, University College, Bristol, and St. Bartholomew's Hospital; C. T. Bishop, Charing Cross Hospital; H. Burrows, St. Bartholomew's Hospital; F. J. H. Cann, Guy's Hospital; Lucy Beatrice Clapham, London School of Medicine and Royal Free Hospital; A. E. Clarke, Guy's Hospital; D. Davies, University College; R. H. Dixon, St. Mary's Hospital; H. E. C. Fox, Guy's Hospital; H. N. Goode, St. Thomas's Hospital; C. B. Goring, B.Sc., University College; H. A. Günther, University College; H. W. Harding, St. Thomas's Hospital; A. J. Knowlton, Middlesex Hospital; Janet Waldegrave MacInnes, London School of Medicine and Royal Free Hospital; H. J. Marriage, St. Thomas's Hospital; G. V. Miller, University College; Ettie Sayer, Royal Free Hospital; Eliza Turner Watts, London School of Medicine and Royal Free Hospital; P. M'K. C. Wilmot, Guy's Hospital; H. E. Wise, Middlesex Hospital; E. W. Woodbridge, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen have passed this Examination in the subjects undernoted:

FIRST PROFESSIONAL EXAMINATION FOR THE DIPLOMA OF "FELLOW."

Anatomy and Physiology.—W. H. Wynn, B.Sc.Lond., Mason University College, Birmingham; H. McI. W. Gray, M.B., C.M.Aberd., Aberdeen University; R. J. Johnston, B.A., M.B., R.U.I., and J. A. D. Radcliffe, Queen's College, Belfast; W. P. Gowland, Owens College, Manchester; A. Parkin, Durham University; O. W. Richards, M.A.Oxon., Oxford University; C. Dykes, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., University College, London; E. F. Fisher, London Hospital; G. E. Gask, M.R.C.S.Eng., L.R.C.P.Lond., St. Bartholo-

mew's Hospital; K. E. Crompton, B.A.Cantab., Cambridge University and St. Thomas's Hospital; D. W. Bishop, St. Mary's Hospital; M. A. Collins and F. Curtis, Guy's Hospital; F. A. C. Tyrrell, M.B., B.C.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., Cambridge University and St. Thomas's Hospital; N. Carpmael, St. Thomas's Hospital; J. O. Skevington, M.R.C.S.Eng., L.R.C.P.Lond., St. Mary's Hospital; R. de S. Stawell, M.B., B.C.Camb., M.R.C.S.Eng., L.R.C.P.Lond., Cambridge University and St. Bartholomew's Hospital; G. Smith, M.B.Durh., M.R.C.S.Eng., L.R.C.P.Lond., Durham University and St. Bartholomew's Hospital; C. Banting, M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., University College, London; L. B. Aveling, B.A.Camb., Cambridge University and London Hospital; W. H. Bowen, C. Tessier, A. C. H. Gray, Guy's Hospital; R. G. Ralston, M.B., C.M.Ed., M.R.C.S.Eng., L.R.C.P.Lond., Edinburgh University, St. Bartholomew's Hospital, and King's College, London; F. H. Wessels, B.A.Mich., Michigan University and St. Bartholomew's Hospital; G. F. D. Smith, B.A.Oxon., Oxford University and St. George's Hospital; A. Caddy, St. George's Hospital; R. S. Olver, M.R.C.S.Eng., L.R.C.P.Lond., King's College, London; H. E. Ridewood, London Hospital; J. H. Henderson, M.B., C.M.Edin., M.R.C.S.Eng., L.R.C.P.Lond., Edinburgh University and King's College, London; M. S. Mayou, M.R.C.S.Eng., L.R.C.P.Lond., King's College, London; E. W. Bain and I. Stusser, London Hospital; H. W. Carson, M.R.C.S.Eng., L.R.C.P.Lond., St. Bartholomew's Hospital; R. E. Harcourt, M.D., M.Ch.R.U.I., Queen's College, Belfast, and King's College, London; H. F. Bellamy, Charing Cross Hospital; W. B. L. Trotter, M.R.C.S.Eng., L.R.C.P.Lond., University College, London; H. M. Rigby, M.R.C.S.Eng., L.R.C.P.Lond., and C. E. Ham, London Hospital.

Seventy-nine gentlemen were referred back to their professional studies for six months.

The following gentlemen having passed the necessary Examinations and conformed to the bye-laws and regulations have been admitted Members of the College:

A. J. B. Adams, St. Thomas's Hospital; H. St. A. Agate, St. Mary's Hospital; C. E. Andrews, London Hospital; H. A. Ahrens and C. F. Backhouse, King's College Hospital; F. R. Baker, London Hospital; W. L. Baker, Guy's Hospital; A. S. Barnes, Mason University College, Queen's and General Hospital, Birmingham; J. S. Barnes, F. Bawtree, H. R. Beale, and A. C. Bird, St. Thomas's Hospital; H. F. Bassano and G. Browse, Cambridge University and St. Bartholomew's Hospital; C. D. Bishop, Charing Cross Hospital; F. C. Borrow, H. Burrows, G. G. Campbell and E. P. Court, St. Bartholomew's Hospital; W. D. Chapman, Cambridge University and London Hospital; E. W. Clapham, London Hospital; C. J. Copp, Trinity College, and Toronto University, and St. Thomas's Hospital; F. Cox, University College and Royal Infirmary, Bristol; E. H. Cragg and H. S. Crapper, Guy's Hospital; J. B. Davey and D. L. F. Davies, Middlesex Hospital; G. H. Dominy, St. Thomas's Hospital; E. B. Dowsett, King's College and Guy's Hospital; W. A. Durance, Westminster Hospital; R. H. Dixon and A. L. Edwards, St. Mary's Hospital; D. R. Edwards, R. J. Ewart, University College and Royal Infirmary, Liverpool; W. H. Edwards and J. W. Ensor, Guy's Hospital; H. D. Everington, St. Bartholomew's Hospital; T. G. Fenton, St. Thomas's Hospital; E. F. Fookes, Owens College and Royal Infirmary, Manchester; P. Foster, Charing Cross Hospital; F. H. Foulds, St. Mungo's College, Glasgow, Charing Cross Hospital, and Westminster Hospital; A. H. Gadsden, St. Mary's Hospital; P. Gardiner, Middlesex Hospital; J. Gatt, University of Malta; H. B. Gibbins, St. Bartholomew's Hospital; A. G. Graham, St. Thomas's Hospital; S. M. Green, University College and Royal Infirmary, Liverpool; C. J. W. Grimdrod, St. George's Hospital; R. Gruber, Vienna University and St. Bartholomew's Hospital; C. C. Gurd, McGill College and General Hospital, Montreal, and St. Mary's Hospital; A. E. Hamerton, Yorkshire College and General Infirmary, Leeds; H. A. C. Harris, St. Thomas's Hospital; J. O. Harvey, Mason College, Queen's, and General Hospital, Birmingham; W. T. Hillier, H. Hepwell, and A. W. D. Hunt, Middlesex Hospital; M. Horne, Cambridge University and St George's Hospital; R. J. Horton-Smith, Cambridge University and St. Thomas's Hospital; J. B. Hughes, Durham University, University College, and Royal Infirmary, Liverpool; J. Howells, Guy's Hospital; C. D. Ingle, University College and Royal Infirmary, Bristol; F. W. James, University College Hospital; W. H. Leonard and W. C. Long, St. Bartholomew's Hospital; J. H. Lightfoot, St. Mary's Hospital; L. J. Lock, Trinity College, Dublin, and London Hospital; A. D. Lewis, J. T. M. McDougall, G. N. Mcacher, and A. A. Miller, Guy's Hospital; M. R. Maher, University College and Royal Infirmary, Liverpool; J. M. Martin, McGill College and General Hospital, Montreal and University College Hospital; H. B. Minshull, Mason College, Queen's and General Hospital, Birmingham; R. F. Moorshead, University College and Royal Infirmary, Bristol, and St. Bartholomew's Hospital; F. C. Morgan, University College and Royal Infirmary, Bristol; W. R. Nichols, Trinity College, and General Hospital, Toronto; B. A. Nicol, Charing Cross Hospital; R. Norman, London Hospital; J. E. H. Parsons, Cambridge University and Guy's Hospital; E. M. Pearce, University College and Royal Infirmary, Bristol; J. W. Pettinger, Cambridge University and St. George's Hospital; F. A. Pitts-Tucker, St. Thomas's Hospital; D. L. K. Prichard, University College Hospital; A. E. Priddle, Cambridge University and St. Mary's Hospital; J. H. Roberts, Guy's Hospital; J. H. R. Robinson, London Hospital; H. S. Roch, King's College Hospital; A. E. Rouse, St. George's Hospital; D. Samuel, St. Mary's Hospital; J. E. Simpson, University College Hospital; B. H. Slater, Cambridge University and Middlesex Hospital; F. G. Stacey, Cambridge University, Yorkshire College, and General Infirmary, Leeds; A. J. Stanley, Mason College, Queen's and General Hospital, Birmingham; B. C. Stevens, Durham University and St. Thomas's Hospital; R. A. Stevenson, Owens College and Royal Infirmary, Manchester, and St. Thomas's Hospital; H. C. Sturdy, Guy's Hospital; E. Talbot, Cambridge University and St. Bartholomew's Hospital; N. Unsworth, St. Bartholomew's Hospital; Ralph H. Vincent and I. A. Walker, St. Bartholomew's Hospital; J. Wallwork and W. Wright, Owens College and Royal Infirmary, Manchester; W. B. Watson, Durham University and St. Mary's Hospital; T. H. Wilkins, University College and Mason College, Queen's and General Hospital, Birmingham; J. A. Willett, Oxford University and St. Bartholomew's Hospital; W. F. Willis and G. D. Winston, St. Mary's Hospital; O. C. Worthington, Guy's Hospital; E. A. Wraith, Yorkshire College and General Infirmary, Leeds.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

OVERCROWDING IN ST. PANCRAS.

THE report of a special (Health Department Organisation) Committee was presented to the Vestry of St. Pancras on May 10th, and it contains matter of such importance that medical officers of health will do well to read it.

Dr. Hamer, Assistant Medical Officer of Health of the London County Council, in two reports presented to the Council towards the end of the years 1897 and 1898, stated that the staff of inspectors was insufficient for the proper registration and inspection of the houses let in lodgings in that parish. In the opinion of the Committee, Dr. Hamer in his report had not exhibited sufficient restraint in the condemnation of the general sanitary administration of the parish, and had thereby injured the reputation of the parish, and increased the difficulties in attaining the object which the Council has in view. The Committee, moreover, holds the view that the majority of the defects mentioned by Dr. Hamer were not of a serious nature, and were not nuisances, or injurious or dangerous to health.

The report of the Committee then deals with the administration of the parish, and the Committee finds that very little, if any, systematic inspection has been performed by the medical officer of health, and recommends that he "be called upon to relinquish the appointment which he now holds at Guy's Hospital and to devote the whole of his time to the duties of his office," and that he "be instructed to himself make the preliminary inspection, commencing with property which is obviously most in need of inspection and registration." The Committee is also unable to agree with Dr. Hamer that seven additional inspectors are required, and recommends that two additional sanitary inspectors be appointed.

The main question involved in Dr. Hamer's report is that of overcrowding, and it is one of vast importance, affecting as it does the moral and material well-being of a very large portion of the urban population of this country. It has occupied the attention of sanitary reformers for many years, but no effectual and practical remedy has yet been suggested. The Committee no doubt have justification for the opinion that the strict enforcement of the by-laws as to overcrowding really involves the great question of the housing of the people. For this reason the Committee are not prepared to recommend the vestry to enforce the by-laws strictly until such time as the London County Council shall undertake the rehousing of the persons thereby disturbed.

The enforcement of such by-laws is in the experience of all health officers a very difficult matter and every parish in London could doubtless be shown to be lacking in this respect. It involves a very large staff and almost a weekly inspection of a great amount of property, the conditions of tenure of which are constantly changing. There are many who hold the view that with the powers and means at present at disposal it is well nigh impossible to deal effectually with the subject. There is a large section of the community in London among whom overcrowding is under present circumstances inevitable; the wages which they earn do not admit of the payment of more than about five shillings for accommodation, and that sum will not secure more than two rooms for what is often a large family. Sanitary authorities may displace such people, but they do not, and cannot, cure the evil. It is easy to call the sanitary authority to task for this, and the fact often does some good, but sufficient consideration must always be had for the inherent difficulties of the situation.

On the other hand, the Committee is ill-advised in recommending that Dr. Sykes be required to resign his post as

lecturer at Guy's. Such duties involve at most an hour or two's absence from the parish each week, and it is work which, by necessitating that the lecturer keeps well apace with Public-health science, redounds to the advantage of the officer and the parish. Moreover, the requirement that the medical officer should make a preliminary inspection of insanitary premises is scarcely what is contemplated in the duties of the medical officer of health as laid down by the Local Government Board. That is work which can be performed equally well by a less highly-trained official, except where special difficulties arise; and apart from directing and supervising such work, the medical officer of a large parish such as St. Pancras can generally be more profitably employed.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 5,663 births and 3,496 deaths were registered during the week ending Saturday last, May 27th. The annual rate of mortality in these towns, which had been 17.7 and 17.6 per 1,000 in the two preceding weeks, further declined to 16.0 last week. The rates in the several towns ranged from 10.4 in West Ham, 10.8 in Gateshead, 11.1 in Huddersfield, and 11.2 in Cardiff and Halifax, to 20.4 in Oldham, 20.8 in Liverpool, 21.3 in Preston, and 21.4 in Manchester. In the thirty-two provincial towns the mean death-rate was 16.2 per 1,000, and was 0.5 above the rate recorded in London, which was 15.7 per 1,000. The zymotic rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.6 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.9 in Wolverhampton, 3.0 in Nottingham, 3.1 in Hull, and 3.7 in Manchester and in Burnley. Measles caused a death-rate of 1.1 in Nottingham, 1.2 in Salford, 1.4 in Sunderland, and 2.0 in Manchester; and whooping-cough of 1.0 in Plymouth, 1.4 in Burnley, and 1.8 in Wolverhampton. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 59 deaths from diphtheria in the thirty-three towns included 23 in London, 5 in Leicester, 5 in Sheffield, and 3 in Leeds. Four fatal cases of small-pox were registered last week in Hull and 1 in Oldham, but not one in London or in any other of the thirty-three large towns; and only one small-pox patient was under treatment last week in the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,210 and 2,161 at the end of the two preceding weeks, had risen to 2,201 on Saturday last, May 27th: 229 new cases were admitted during the week, against 219, 259, and 211 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 27th, 1,001 births and 516 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.5 and 19.0 per 1,000 in the two preceding weeks, declined to 16.9 last week, but was 0.9 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 8.5 in Greenock and 13.0 in Aberdeen to 20.3 in Paisley and 22.0 in Perth. The zymotic death-rate in these towns averaged 1.7 per 1,000, the highest rates being recorded in Dundee and Leith. The 267 deaths registered in Glasgow included 9 from measles, 2 from scarlet fever, 4 from whooping-cough, and 8 from diarrhœa. Four fatal cases of whooping-cough were recorded in Edinburgh, and 4 in Leith.

CERTIFICATION OF LUNATICS FOR DETENTION IN WORKHOUSE.

ON p. 1136 of the BRITISH MEDICAL JOURNAL, May 6th, 1899, in answer to a correspondent, the opinion was expressed that no district medical officer could be compelled to certify for any patient at a workhouse, but that if he did so he would be entitled to a fee for so doing.

A.S. writes, saying: "Surely this is all wrong. A district medical officer has nothing to do with certifying in such a case. If a pauper lunatic is to be detained in a workhouse, the workhouse medical officer must fill up a form under the last Lunacy Act as part of his ordinary duties, and a second certificate has to be given by a medical man outside, for which he receives a fee of 10s. 6d."

We think our correspondent could not quite have understood the reply given in the BRITISH MEDICAL JOURNAL of May 6th. It was not suggested that a district medical officer would give a certificate by virtue of his office, but in his private capacity of medical practitioner, and, of course, as such he would be entitled to a suitable fee.

A DEFAULTING SANITARY AUTHORITY.

THERE are comparatively few urban sanitary authorities which have failed to perform such an obvious duty as that of making some provision for the isolation of the infectious sick, and the absence of a fever hospital in an urban community of 34,000 persons places Kingston in a unique position so far as this country is concerned. No one will grudge Kingston this distinction, and few will be found to sympathise with the "penny wise and pound foolish" policy of those who elect to continue a state of affairs which must inevitably lead to disaster. In Dr. Collins the Kingston sanitary authority has the services of a medical officer of health well qualified to advise on all matters affecting the public health. It is obvious, however, from the remarks which fell from many members of the Council when the subject of a fever hospital was under discussion on May 16th, that they had not taken the trouble to read the medical officer's last annual report, in which he advocates the provision of a fever hospital, and gives facts which refute every argument advanced by the opponents to the measure. It was contended by these that experience proved that very few parents would part with their children in sickness; that there was no evidence that an isolation hospital was effectual in staying an epidemic: that the death-rate was lower than it had been for sixteen years, and that there was therefore no need for a hospital; that the time of epidemics had largely gone by and that if one arose they could in a very short time erect temporary buildings; that there was no necessity to waste money in erecting an isolation hospital, for while they had Dr. Collins they would never need one. The whole fabric of these arguments is so transparently threadbare that it is difficult to conceive them as seriously advanced by individuals whose better judgment was not obscured by the desire to save the district a present 3½d. rate in the pound, regardless of all consequences in the future. Dr. Collins explicitly states in his annual report that in nearly every case of typhoid fever and diphtheria brought to his notice the need of a hospital has been impressed upon him, and in some cases, owing to the impossibility of proper isolation, the disease is spread and lives are lost. The motion for the erection of a fever hospital was nevertheless lost, only three out of twenty-two being found to support it. This action, or rather lack of action, by the Council cannot meet with the approval of the best informed section of the community. We are sorry for the ratepayers of Kingston, whose interests must inevitably suffer from the lack of such provision, but more especially do we deplore the preventable sickness and mortality for which such default has already been responsible which will assuredly be increased as time goes on.

THE DISPOSAL OF SEWAGE.

THE judgment delivered by Mr. Justice Cozens-Hardy in the case of Brown v. the Mayor, Aldermen, and Burgesses of Dunstable on May 19th, is of some importance, though the legal technicalities involved renders it not easy to understand the nature of the point decided. The plaintiff, Major W. F. Brown, the owner of Dunstable Park, claimed an injunction to restrain the defendants from continuing to discharge sewage or drainage through ditches or sewers on to Dunstable Park. The defendants, amongst other defences, contended that the owners in fee of Dunstable Park had granted to trustees for the inhabitants of the parish the right to drain all sewage and drainage from any messuage or tenements built, or to be built, within the said parish, and to discharge such sewage through ditches or sewers on to Dunstable Park, but that such grant had been lost. The learned judge, however, held that the facts proved did not raise a presumption of a lost grant, and that the defendants' contention on this part of the case failed. But he further held that some of the inhabitants had acquired a prescriptive right to pass sewage into the sewers; and it was clear that no injunction could be granted which interfered with such rights. Again, others had made connections with the sewers with the consent of the defendants, and it was settled law that they could not be interfered with; and, lastly, with regard to any future connections to be made by householders adjoining the sewer, Section 21 of the Public Health Act, 1875, gave such owners the right to connect their houses with the sewers; therefore it was impossible to make any order which involved the complete closing or abandonment of the sewers. As, however, the defendants had failed in their claim of alleged right as above stated, an injunction was granted restraining them from directing or authorising any sewage or foul matter to flow or be discharged from sewers or drains vested in them on to Dunstable Park. The only result of the litigation is that whilst the defendants are restrained from taking an active part in compelling persons to pass the sewage along the sewers, or to make connections with them, they are not prohibited from permitting or allowing such things to be done, a termination which is far from satisfactory.

ANOTHER case involving a point of a similar nature, namely, the right to discharge sewage matter into a pond, was recently tried at the Lincoln County Court before Mr. Norris, Q.C. (the deputy judge). In this case the plaintiff was Mr. Newell Melbourn, of Ingham, and the defendants were the Welton District Council. The claim was for £50 damages occasioned to the plaintiff's cattle by the defendants wrongfully causing sewage to be discharged into a pond on the plaintiff's premises to which the cattle had access; the plaintiff also claimed an injunction to restrain the Council from continuing the pollution of the pond. From the evidence it would appear that for many years the sewage from the village of Ingham was discharged into the village pond, the overflow from which found its way into a dyke connected with the pond on the plaintiff's property. During the year 1896 the district council constructed a tank for the reception of the sewage, the overflow from which was discharged into the dyke.

In giving judgment for the defendants, the judge found as a fact that the sanitary authority had acquired a prescriptive right to discharge the overflow of sewage into the dyke, and, further, that by erecting the tank the condition of things was not rendered any worse than before, and, therefore, the plaintiff had not succeeded in establishing any right of action against the defendants.

ENTERIC FEVER AT BATHGATE, N.B.

FOR nearly two months a considerable epidemic of enteric fever has prevailed at Bathgate, in the county of Linlithgow, Scotland. Bathgate, it may be noted, has a population of 5,330. It appears that on April 8th last 2 cases were notified from one house; on April 11th a third case was reported, and there were a dozen more cases in the fortnight following. On April 28th 13 cases were notified, on May 1st 27 cases, and in the week ending May 27th only 3 cases. It would appear therefore that the brunt of the outbreak was over. In all there have been 134 cases, and the mortality to this date has been 16. There was at first very considerable difficulty in diagnosing the cases, inasmuch as the outbreak of enteric fever was immediately preceded by an epidemic of influenza. The outbreak is attributed to sewage contamination of the water supply entering below the filters by a tunnel from an old and disused quarry. The public school has been fitted up as a temporary hospital, and 36 cases have been admitted to it. Of the 36 2 have died, but these were practically hopeless cases on admission: 6 patients have recovered, and 28 remain in the public school under treatment.

HEALTH DEPARTMENT OF SHANGHAI.

THE annual report of Dr. Stanley, Health Officer of Shanghai, tells of distinct progress in sanitation during the past year. Notification of infectious diseases has been enforced for the first time this year, and the medical men of the Settlement have co-operated and performed this ser-

vice gratuitously. The methods of isolation and disinfection have been extended and improved. Typhoid fever is much more prevalent than in England, but the case-mortality is much less. Cholera has been absent from the Settlement for two years in succession. So far no case of plague has occurred, but the health officers are alive to the importance of preventing its introduction, and of securing, as far as possible, the absence of conditions favourable to its development and spread. Only 10 cases of small-pox, with 2 deaths, have occurred during the year. Dysentery, rabies, and beri-beri have been more or less prevalent, and 9 deaths among the foreign population are attributed to alcoholism. Attention is drawn to the urgent necessity of more efficient filtration of the water supplied by the Shanghai Waterworks Company, in consequence of its being derived from the Yangtse River, which is largely polluted with sewage matter. The meat supply is carefully supervised, and no meat is allowed to be exposed for sale unless examined and officially stamped. Considerable improvement in the supervision of the milk supply has also been effected.

TENURE OF OFFICE OF M.O.H.

Q.—1. It is only necessary that the Local Government Board assents to the removal of a medical officer of health in those cases in which half his salary is received from the county council. In other cases the Local Government Board has no voice in the matter.

2. It is very usual for the county council to contribute a portion of the salary of a M.O.H. for an urban district.

3. The Acts and Order bearing upon the above subject (1) are: The Public Health Act, 1875, Section 191; the Local Government Act, 1888; the Order of the Local Government Board, dated March 23rd, 1891. They can be obtained from Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C., and Westminster, S.W.; or John Menzies and Co., 12, Hanover Street, Edinburgh, and 90, West Nile Street, Glasgow; or Hodges, Figgis, and Co., Limited, 104, Grafton Street, Dublin; price 1s.

CERTIFICATES AS TO NECESSITY OF AMPUTATIONS IN POOR-LAW DISTRICTS.

F.R.C.S.EDIN. writes to ask whether Article 178 of the Consolidated Order of the Local Government Board, dated July 24th, 1847, is still in force, as, if so, it appears to exalt the holders of London diplomas at the expense of the medical graduates of London, Edinburgh, and Cambridge.

*** Article 178 has been rescinded, and the regulation now in force in lieu thereof is as follows: "After February 28th, 1879, no district medical officer shall be entitled to receive the remuneration prescribed for any amputation, unless before performing it he shall have obtained at his own cost the advice of some person who shall be registered under the Medical Act of 1858, and shall be justified by law to practise in England and Wales either medicine or surgery or both, and shall produce to the guardians a certificate of such person that, in his opinion, it was right and proper that such amputation should be then performed." The effect of the above is that anyone now registered can give the required certificate.

HOSPITAL AND DISPENSARY MANAGEMENT.

PROPOSED COTTAGE HOSPITAL FOR SOUTH WIMBLEDON.

IT is proposed to erect a cottage hospital for South Wimbledon. At a meeting recently held in the district, at which Mr. T. C. Summerlayes, of the Surrey County Council, presided, Mr. Frank Deas, M.R.C.S., L.R.C.P., with whom the idea originated, said that about nine-tenths of the people of Wimbledon who should benefit by a cottage hospital resided in South Wimbledon, the population of which had trebled itself in the last few years. The present cottage hospital at Wimbledon was excellent, but too far away from those who required it. He had several promises of support towards a new hospital, and a list of persons who had promised £60 in donations and £50 in annual subscriptions. A resolution was unanimously carried "That in the opinion of the meeting separate cottage hospital accommodation is greatly needed for Wimbledon and Merton south of the railway." A Committee of eight persons was appointed to confer with the Committee of Wimbledon Cottage Hospital for giving effect to the previous resolution, such Committee to report to a subsequent meeting. We are informed that the present hospital is unfortunately at one end of the parish, as far as possible from the most populous part, and is consequently very inconvenient in cases of accident. There is, it is thought, need for a new institution, not for a new branch of the present hospital; for of the medical men practising in Wimbledon and Merton, who now number over forty, only three, who are partners, are on the staff of the present hospital. The remainder are allowed to attend at the hospital and have the charge of patients if they are considered suitable cases by the medical officers, who alone are responsible to the Committee. Attempts have been made to alter this representation, but unsuccessfully; and now some of the practitioners of that locality have quite ceased to attend patients in the hospital, on the ground that its medical staff is recruited from one firm alone. Clearly this was the very error to be avoided in respect of the proposed South Wimbledon Hospital, but it has been already more or less committed, as Mr. Deas was the only medical man selected by the meeting to serve on the newly-appointed Committee. Happily it is not yet too late for this initial blunder to be corrected.

GUY'S HOSPITAL.

THE Treasurer's annual report for 1898 to donors and subscribers contains a large amount of information in small compass. The year's progress was quiet, but steady. Four governors died during the year; Mr. Gladstone, a governor for more than sixty years, who in 1895 set on foot the splendid scheme which rescued the hospital from a very serious financial crisis; Sir T. D. Acland, Bart., also a governor for sixty years; Mr. Abel Smith, M.P., and Mr. Arthur Mills. Among those elected to the Corporation were the Right Hon. A. J. Balfour, M.P., Sir S. Wilks, Bart., the Earl of Pembroke and Montgomery, and Sir F. Wills, Bart. The number of in-patients was 6,701, being 92 beyond the total of 1897, and the largest number yet recorded; 2,248 were of a medical, 4,453 of a surgical nature; the former had a mean residence in the hospital of 29.9 days per patient, the latter of 21.9 days. The percentage mortality among the medical cases was 16.7; amongst the surgical cases it was 4.6 The number of out-patients also increased, being 76,211 in 1898, as compared with 68,000 in 1897; the increase was principally due to the greater number of casualties and urgent cases, whilst the patients in most of the special departments increased in number. The midwifery patients attended in their own houses numbered 3,495. The out-patient inquiry officer, whose duty it is to see that that department is not taken advantage of by persons able to pay medical men, found that of the 78,000 only 54 were unsuitable on that account. The re-endowment fund has reached the total of £232,500. The ordinary expenditure was £46,461 and the extraordinary £18,342; the latter sum was spent in works of permanent benefit to the hospital, the renovation of wards, nurses, accommodation, a new scheme of drainage, etc. Mr. H. L. Raphael made a donation of £20,000 towards a new nursing home, and Sir F. Wills, Bart., contributed £5,000 for rebuilding the medical library which is to be called the Wills Library. Amongst the statistical tables, too voluminous to quote, are the following interesting items of expenditure, namely, for meat £1,753, milk £1,165, sisters and nurses' board £4,249, and drugs £5,492.

BARNWOOD HOUSE HOSPITAL FOR THE INSANE.

THE average number of patients resident in this asylum during 1898 was 158. Of these, 66 were males and 92 females. There were 34 admissions, 22 discharges, and 6 deaths. Of the patients admitted, Dr. Soutar states that in not more than 8 was there any prospect of recovery, and he emphasises the fact that although the hospital is in all respects fully equipped for the treatment of curable cases, and the committee is always ready to admit them at reduced rates of payment, it is singular that admission is sought for very few such cases. Of the discharges, the recovery-rate amounted to 38.2 per cent., calculated upon the number admitted, including those transferred from other asylums. The case of an old lady is mentioned who for 3 years had maintained an unbroken silence; she accidentally fell and fractured her hip, and broke her silence at the same time. Since the accident "she will at times reply to questions in an intelligent and rational way, or even make known her desires." Out of the average daily number resident of 158 patients, only 1 was admitted free of charge, and 10 at sums varying from 20s. to 30s. a week. The average expenditure was £2 2s. 4¾d. a patient weekly.

INDIA AND THE COLONIES.

INDIA.

THE "JIGGER" IN BOMBAY.—The Bombay Government has issued a resolution regarding the means to be taken to prevent the importation of "jigger" into India. The "jigger," or, as it is also called, chigoe or jigger, is a true flea (pulex penetrans), and commonly attacks the feet, being usually found under or near the toenails; it may occur in other situations, for example, the chest; but such cases are uncommon. The female burrows under the skin, and gradually enlarges to about the size of a pea. The "jigger" is a peripatetic parasite. It is stated that it was conveyed to the West Coast of Africa in the course of trade from the West Indies. Surgeon-General Bainbridge, with the Government of Bombay, says in a letter to Government, "There is no reason to doubt the probability that this insect will establish itself in India," and is thus not, apparently, hopeful regarding the complete efficacy of the precautions prescribed on the lines of the Government resolution. The "jigger" is a guest difficult to eject, and if it does obtain an entry into India will "come to stay."

THE SANITATION OF BOMBAY.—The current number of the *Asiatic Quarterly* has an instructive and interesting contribution on the Necessity for Sanitary and Administrative Reform in India, by Dr. MacRury, who was Sanitary Commissioner for Bombay, and did much good work. The writer observes that "the sanitary engineering should be devised and conducted by specialists, not by men who have been digging canals or dumping metal on roads most of their time, and who have suddenly set themselves up as amateur sanitary engineers." Nothing, says an Indian critic, could be more relevant to the present state of affairs at the head of the both Imperial and the Provincial Governments than these observations of Dr. MacRury. India cannot properly be said to have an efficient sanitary administration until the local agencies are brought under the guidance and oversight of a body equipped with the fullest engineering and scientific capacity.

A NEW HEALTH RESORT IN BURMAH.—The Government of India has approved of a hill residence at Maymyo for the Lieutenant-Governor of Burmah. This in a manner points to the place being so far considered a success as a hill station, and, as the railway ought to be opened within a year, it bids fair to become the health resort of Burmah. Government has been spending much money on barracks, houses, and roads, and many improvements are contemplated in the near future.

ROYAL INSTITUTE OF PUBLIC HEALTH.—The dinner of the Royal Institute of Public Health will be held at the Hotel Cecil on Wednesday, June 7th, Professor W. R. Smith, M.D., President, in the chair. Among those who are expected to be present are the Archbishop of Canterbury, Lord Lister, Lord Kelvin, Sir Dyce Duckworth, Professor Michael Foster, and Professor Clifford Allbutt. The gold medal awarded to Lord Lister by the Institute will be presented to him on that occasion.

MEDICAL NEWS.

AMALGAMATION OF MEDICAL SOCIETIES IN CHICAGO.—Most of the medical societies of Chicago have been practically merged in the Chicago Medical Society, although many of them preserve their autonomy as far as the control of their own affairs is concerned.

THE second of a series of three concerts in aid of the funds of University College Hospital was held in the Botanical Theatre of University College on May 26th, and was well attended. The third concert will take place on Friday, June 16th, at 3.30 P.M.

SOCIETY OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—A meeting of the committee of this Society was held on May 30th to consider the proposal of the College Council to apply for a supplementary Charter in celebration of the centenary of the granting of the original Charter in 1800. The opinion was generally expressed that this would be a suitable occasion for settling the long-standing controversy regarding the representation of Members. It was agreed to present a memorial to this effect to the Council of the College, and the question of the form which this should take was adjourned to the next meeting. It was noted that the Council intends to call a general meeting to consider the proposed Charter, but it was thought desirable to appeal to them to submit some definite scheme for a settlement, and to include it in the Charter.

DR. J. CLARENCE WEBSTER, Lecturer in Gynæcology in McGill University, Montreal, has been appointed Professor of Obstetrics and Gynæcology in the University of Chicago. Dr. Webster, after graduating in Arts at Mount Allison University, studied medicine at Edinburgh, where he graduated M.B. in 1888 and M.D. in 1891. In 1889 he became Assistant Lecturer on Obstetrics in the Edinburgh School of Medicine, and in 1890 he was appointed First Assistant in the Midwifery Department of the University of Edinburgh, as well as private assistant to Professor A. R. Simpson. He has been connected with McGill University since 1897. Dr. Webster is a Fellow of the Royal College of Physicians and of the Royal Society of Edinburgh. He is the author of a textbook on gynæcology, a monograph on extrauterine pregnancy, and numerous other contributions to medical literature.

THE VALLAURI PRIZES.—Professor Tommaso Vallauri, Senator of the Kingdom of Italy, who died in 1897, leaving no natural heirs, bequeathed his whole estate to the Royal Academy of Sciences of Turin for the foundation of two prizes to be awarded every four years for the encouragement of scientific research and the study of Latin literature. In fulfilment of the terms of the bequest the Society announces that it has decided that one prize of 30,000 lire (£1,200) will be awarded to the scientific investigator, Italian or foreign, who within the period of four years from January 1st, 1899, to December 31st, 1902, shall be considered to have published the most noteworthy work on any of the physical sciences, taking that term in the widest sense. A prize of equal value will be awarded to the author, Italian or foreign, of the best critical work on Latin literature which shall have appeared between January 1st, 1903, and December 31st, 1906. The only persons excluded from competition are Italian Fellows of the Royal Academy of Sciences of Turin. The President of the Academy is Professor Guiseppe Carle; the Secretary of the Section of Physical Science, Professor A. Naccari; and the Secretary of the Section of Moral, Historical, and Philological Science, Professor C. Nani.

MEDICAL VACANCIES.

The following vacancies are announced:—

ARMAGH DISTRICT LUNATIC ASYLUM.—Assistant Medical Officer; unmarried, and not over 32 years of age. Salary, £100 per annum, with furnished apartments, rations, fuel, light, washing and attendance. Applications to the Resident Medical Superintendent by June 8th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Ophthalmic Surgeon. Applications to the Medical Committee, Children's Hospital, Steelhouse Lane, Birmingham, by June 7th

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board. Applications to the "Chairman of the Committee," by July 15th.

BRADFORD UNION WORKHOUSE.—Resident Assistant Medical Officer, unmarried. Salary, £100 per annum, with rations and apartments. Applications to the Clerk to the Guardians, 22, Manor Row, Bradford, by June 5th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon to the Western Branch; unmarried. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary, Queen's Road, Brighton, by June 6th.

BURY INFIRMARY.—Junior House-Surgeon. Salary, £60, with board, residence, and attendance. Applications to the Honorary Secretary, Dispensary, Bury, Lancs.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Resident House-Surgeon. Salary £65 per annum, with board, lodging, and washing. Applications to the Secretary by June 10th.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Salary at the rate of £40 per annum. Applications to the Secretary by June 16th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician. Appointment for six months. Board, residence, etc., are provided, and an honorarium of £25. Applications to the Secretary by June 10th.

EXETER: WONFORD HOUSE HOSPITAL FOR THE INSANE.—Assistant Medical Officer, unmarried and between 25 and 35 years of age. Salary, £150 per annum, with board, apartments, etc. Applications to the Medical Superintendent by June 10th.

GERMAN HOSPITAL, Dalston.—Honorary Assistant Physician; must possess good knowledge of the German language. Applications to the Secretary by June 15th.

GLOUCESTER: GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Physician. Applications to the Secretary by July 5th.

GREAT NORTHERN CENTRAL HOSPITAL.—Junior House-Physician. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Applications to the Secretary by June 12th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Medical Registrar and Pathologist. Honorarium 50 guineas. (2) Surgical Registrar. Honorarium £40. (3) House-Surgeon. Appointment for six months. Salary, £20, with board and residence. (4) House-Physician. Appointment for six months. Salary, £20, with board and residence. (5) Assistant Physician; must be F. or M.R.C.P.Lond. (6) Anæsthetist. Appointment for one year. Honorarium, £15 15s. Applications to the Secretary by June 13th.

HOVE: BOROUGH OF.—Medical Officer of Health and Medical Officer of the Hospital for Infectious Diseases, not more than 35 years of age. Salary, £450 per annum, rising to £550. Must live in the borough. Applications, endorsed "Medical Officer," etc., to the Town Clerk, Hove, by June 17th.

KENSINGTON DISPENSARY, Church Street, W.—Vacancy on Honorary Medical Staff. Applications to Mr. T. W. O. Wheeler, Honorary Secretary, 138, Kensington High Street, W., by June 5th.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.—House-Surgeon; unmarried. Salary, £140 per annum, increasing to £170, with rooms in the Infirmary and attendance. Applications to the Secretary before June 1st.

KING'S LYNN: WEST NORFOLK AND LYNN HOSPITAL.—House-Surgeon. Salary, £80, rising to £100, per annum, with board, residence, and washing. Applications to the Chairman at the Hospital by June 9th.

KING'S NORTON UNION.—Resident Deputy Medical Officer at the Infirmary and Workhouse, Selly Oak, near Birmingham, between 24 and 40 years of age. Salary, £170 for the first year, rising to £200 per annum, with furnished residence. Applications, on forms provided, to the Clerk to the Guardians, 10, Newhall Street, Birmingham, by June 10th.

KNIGHTON UNION, Radnorshire.—Medical Officer and Public Vaccinator for the Llanbister District. Salary, £100 per annum, and medical and vaccination fees. Applications to the Clerk by June 14th.

LEEDS: GENERAL INFIRMARY.—Honorary Assistant Ophthalmic and Aural Surgeon. Applications, marked "Appointment of Honorary Assistant Ophthalmic and Aural Surgeon," to the Treasurer at the Infirmary by June 15th.

LONDON COUNTY COUNCIL.—Scholarship in Sanitary Science in the Pathology Laboratory of the Claybury Asylum. Value £150 a year. Scholarship awarded for one year, but renewable. Applications to the Secretary of the Board, 116, St. Martin's Lane, W.C., by June 7th.

MANCHESTER: OWENS COLLEGE.—Senior Demonstrator in Physiology. Stipend, £150 per annum, rising to £200. Applications to the Registrar by July 3rd.

MANCHESTER: VICTORIA DENTAL HOSPITAL.—Honorary Anæsthetist. Applications to Mr. C. E. Marshall, Secretary, 38, Barton Arcade, Manchester, by June 10th.

NORTH-EASTERN HOSPITAL FOR CHILDREN.—(1) Surgeon. (2) House-Surgeon. Appointment for latter for six months, with salary at the rate of £50 per annum. Applications to the Secretary, 27, Clement's Lane, Lombard Street, E.C., by June 15th.

PAISLEY: BURGH OF.—Medical Officer of Health. Will also be appointed Visiting Physician to the Infectious Diseases Hospital. Salary, £400 per annum. Applications, endorsed "Medical Officership," to the Clerk to the Local Authority, Municipal Buildings, Paisley, by June 10th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months, when re-election is required. Salary at the rate of £100 per annum, with furnished apartments, board, and washing. Applications to the Secretary by June 13th.

ST. ANDREWS UNIVERSITY.—Professor of Pathology. Application to the Secretary of the University by June 21st.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY.—Honorary Surgeon, must be F.R.C.S.Eng. Applications to the Secretary, 60, King Street, Regent Street, W., by June 15th.

SEAMEN'S HOSPITAL SOCIETY, "Dreadnought," Greenwich, S.E.—Surgeon to the Dispensary, 51, East India Dock, E. Salary, £63 per annum. Applications to P Michelli, Secretary, by June 12th.

SCHOOL BOARD FOR LONDON.—Medical Officer for the Shaftesbury Training Ship at Grays. Salary commencing at £100 per annum, rising to £150. Applications to the Clerk, School Board Offices, Victoria Embankment, S.E., by June 7th.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House-Surgeon. Appointment for six months. Honorarium £10, with board and rooms. Applications to the Secretary by June 6th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to the House-Surgeon.

UNIVERSITY COLLEGE, LONDON.—Jodrell Professorship of Zoology. Applications to the Secretary by June 5th.

VICTORIA HOSPITAL FOR CHILDREN.—House-Physician. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary at the Hospital, Queen's Road, Chelsea, S.W., by June 17th.

VIRGINIA WATER: HOLLOWAY SANATORIUM.—Senior Assistant Medical Officer. Salary commencing at £300 per annum, with board, lodging, and washing. Applications to the Medical Superintendent by June 8th.

WINCHESTER: ROYAL HANTS COUNTY HOSPITAL.—(1) Honorary Physician-in-Ordinary. (2) House-Physician, unmarried. Salary, £65 per annum, with board, residence, etc. Applications to the Secretary by June 24th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to the Chairman of the Medical Committee by June 5th.

MEDICAL APPOINTMENTS.

ABRAHAM, Phineas S., M.A., M.D., B.Sc., F.R.C.S.I., late Assistant Surgeon, appointed Surgeon to the Hospital for Diseases of the Skin, Blackfriars.

CANTLIE, James, M.B., C.M.Aberd., F.R.C.S.Eng., appointed Surgeon to the Seamen's Hospital Society.

CARGILL, L. Vernon, F.R.C.S.Eng., appointed Ophthalmic Surgeon to the Seamen's Hospitals, Greenwich, and Victoria and Albert Docks.

CHRISTOPHERSON, J. Brian, M.D., B.C.Cantab., F.R.C.S., appointed Surgeon to the Seamen's Hospital Society.

COCKILL, W. B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Grayrigg District of the Kendal Union.

COX, Alfred, M.B., B.S.Durh., appointed Honorary Pathologist to the Northern Counties Hospital for Consumption and Diseases of the Chest, Newcastle-on-Tyne.

CULLINAN, N., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Risca Town Council.

FOLEY, T. McC., L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Workhouse of the Scarborough Union, *vice* M. Malvin, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

HEWLETT, R. Tanner, M.D., M.R.C.P., D.P.H.Lond., appointed Physician to the Seamen's Hospital Society.

JOULE, John, L.R.C.P.I., L.S.A.Lond., appointed Medical Officer and Public Vaccinator to the combined Districts of Halberton, Sampford Peverell, and Uplowman in the Tiverton Union.

MCMAHON, R. F. D. S., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health for St. Columb Major.

MARSHALL, C. F., M.D., B.Sc., B.Ch., F.R.C.S.E., appointed Assistant Surgeon to the Hospital for Diseases of the Skin, Blackfriars.

PARR-DUDLEY, A. D., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Fifth District of the Chipping Sodbury Union.

PAYNE, J. F., M.D., F.R.C.P., late Physician, appointed Consulting Physician to the Hospital for Diseases of the Skin, Blackfriars.

PEARCE, G. H., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Fourth District of the Barnsley Union

RANKIN, Guthrie, M.D., M.R.C.P.Lond., appointed Physician to the Seamen's Hospital Society.

REES, David Charles, M.R.C.S., L.R.C.P., appointed Superintendent and Medical Tutor to the London School of Tropical Medicine

ROWLANDS, D. C., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Cwmamman District of the Llandilofawr Union.

SELLORS, T. B., L.S.A. appointed Assistant Medical Officer to Grove Hall Asylum, Bow, E.

STEVENS, T. G., M.D., B.S.Lond., F.R.C.S.Eng., M.R.C.P.Lond., appointed Assistant Physician to the Hospital for Women, Soho Square.

THORNTON, G. L., M.R.C.S., L.R.C.P., appointed Medical Officer for the Seventh District of the Barnstaple Union.

WALKER, H. Secker, F.R.C.S., appointed Surgeon to the Eye and Ear Department of the Leeds Infirmary, *vice* H. Bendelack Hewetson, M.R.C.S.Eng., deceased.

WEBSTER, J. Clarence, M.D.Edin., F.R.C.P.E., Lecturer in Gynecology, McGill University, appointed Professor of Obstetrics and Gynecology, Rush Medical College, University of Chicago.

DIARY FOR NEXT WEEK.

MONDAY.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Mr. Wyatt Wingrave: The Pathology of Nasal Obstruction.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Seymour Taylor: Chlorosis and its Treatment. (Lecture I.)

Odontological Society of Great Britain, 40, Leicester Square, W.C., 8 P.M.—Annual General Meeting; Valedictory Address by the President. Mr. Kenneth Goadby: On Micro-organisms of Dental Caries. Casual Communications by Messrs. E. Preedy, E. Bartlett, and H. Albert.

TUESDAY.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Tooth: Neuritis (Lantern Demonstration).

Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Dundas Grant: Nervous Disorders of Taste, Hearing, and Smell.

WEDNESDAY.

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr. T. D. Savill: Alopecia.

Hospital for Consumption, Brompton, 4 P.M.—Dr. Fowler: The Arrest of Pulmonary Tuberculosis.

Obstetrical Society of London, 8 P.M.—Specimens will be shown by Mr. Stott, Mr. Malcolm, Dr. Stevens, and others. Papers: Dr. Lewers: A case of Persistent Mento-posterior Position of the Face in which the Child was Delivered Alive by the Axis-traction Forceps. Dr. Wilson: Hydramnion in cases of Unlovial or Homologous Twins.

THURSDAY.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Eden: Gynæcological Demonstration.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Seymour Taylor: Chlorosis and its Treatment. (Lecture II.)

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Dr. Dundas Grant: Diagnosis and Treatment of Painful Affections.

Ophthalmological Society of the United Kingdom.—Cases and Specimens at 8 P.M. Papers, 8.30 P.M.: Dr. Rockliffe and Mr. Hainworth: Penetrating Wound of Orbit with Traumatic Meningitis: Recovery. Dr. Beevor and Mr. Marcus Gunn: Case of Obliteration of a Branch of the Retinal Artery following frequent attacks of Temporary Amblyopia. Mr. J. B. Story: Recovery of Sight after Partial Occlusion of the Central Artery.

British Gynæcological Society, 8 P.M.—Dr. F. W. N. Haultain (Edinburgh) will give a Lantern Demonstration on a case of Deciduoma Malignum. Dr. Mendes de Leon (Amsterdam): On General Disorders originating in Disease of the Female Pelvic Organs.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Mr. T. H. Kellock: Demonstration of Selected Cases.

FRIDAY.

Ophthalmological Society of the United Kingdom, 8.30 P.M.—Special Meeting for a Discussion on the Operative Treatment of Myopia, to be opened by Mr. F. Richardson Cross.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

CARLIER.—On May 29th, at 39, Morningside Drive, Edinburgh, the wife of E. Wace Carlier, M.D., of a son.

GREGORY.—On May 0th, at Beverley, the wife of W. Herbert Gregory, M.D.Edin., of a son.

MARRIAGE.

SYSON—BRITTEN.—At the Windsor Hotel, Glasgow, on May 24th, by the Rev. J. Lennox, U. P. Church, Beith, assisted by Rev. T. Somerville, M.A., Blackfriars Parish, and the Rev. H. F. Henderson, M.A., Ogilvie Free Church, Dundee, John Cockburn Syson, M.D.Glasgow, to Janet Snodgrass, younger daughter of Mrs. Britten, Dunlop House, Beith.

DEATHS.

MYLES.—At Hill House, Wigton, Cumb., Kathleen Elizabeth, only child of Thomas and Edith Myles, aged 14 months.

MAY.—On Monday, May 29th, of typhus fever, Walter May, M.R.C.S., of Clincaun, Kilmoganny, o. Kilkenn .

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Tu. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Th., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9. Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2. Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Tu., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Tu., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Tu., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu., F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M., F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Tu., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Alitology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

AUTOCAR asks for information about De Dion or Beeston motor cycles—whether they are suitable machines in a rather hilly country practice, easily repaired, etc.

DIASTASE would be glad if any member could recommend a form of earth closet suitable for a private house. He finds his present one frequently out of repair.

S. asks for information as to any preparation giving an intense dead—that is, absolutely non light-reflecting—black, which can be used for painting insides of microscope eye-pieces and other optical instruments. Indian ink has been tried, but without obviating the objectionable reflection of light; and a deposit of carbon from a lamp-flame, otherwise successful, was found to be continually finding its way as smuts on to the lenses.

SIMON asks whether there is any reason to believe that children of one mother are, when full time, generally born at the same period of her menstrual month? There have been some remarkable instances in large families of the birthdays all falling about the same day of different months. Is there any known reason to believe that this is owing to the mother having a menstrual month corresponding to that of a calendar month in length?

VARICOSE VEINS AND BICYCLING.

CAUTION asks whether a lady 50 years of age, and with veins of the legs very much enlarged and varicose, can with safety learn to ride a bicycle?

ASSISTANT'S LOCOMOTION.

M.B., C.M.Aberdeen asks for information on the following points: 1. Is an assistant expected to find his own means of locomotion to visit distant patients—for instance, provide himself with a cycle? 2. Is he expected to walk if the distances are often from eight to twelve miles on a stretch? 3. Does "indoor" include "washing?"

*** 1. We are advised that an assistant could not be expected to find his own cycle, if a cycle is required, in order to do his principal's work.

2. No principal could expect an assistant to walk more than a reasonable distance. If patients have to be visited eight and twelve miles away from his residence, it would be the duty of the principal to find some conveyance for his assistant, if the railway were not available. Travelling expenses incurred in doing the principal's work should be paid by the latter.

3. "Indoor" does not usually include "washing."

DISINFECTION OF PLAGUE-INFECTED DWELLINGS.

K. writes: I am at present on plague duty, Bombay, and in that capacity I have to order disinfection of all dwellings in which plague cases have occurred and see that it is properly carried out. The disinfecting fluid generally used has the strength of 1 in 1,000 mercury perchloride solution, and consists of hydrargyr. perchl. 3ss., acid hydrochloric (strong) 3j., dissolved in 3 gallons of water. Now, the object of adding the acid in preparing an antiseptic solution is "to obviate the formation of insoluble albuminate of mercury, which tends to coat organic substances and prevent the penetration of the disinfectant" (Parkes's *Hygiene*). But when it is required to flush rooms thoroughly with a perchloride solution, is it absolutely necessary to add the free acid, which would necessarily be used in large quantities, where the floor, walls, the ceiling of a room or a large number of rooms, or not infrequently a whole building has to be disinfected? For in this case the fluid has not to act on any living tissues, and to my mind there is no probability of an insoluble albuminate forming. I should also like to know if whether the composition of the disinfecting fluid stated above is the best? During the prevalence of an epidemic as the plague, is disinfection absolutely necessary and productive of any good? I can say from my experience as a section medical officer, that cases of plague have occurred in the same dwellings repeatedly after repeated flushings of the same with disinfectant solutions from roof to cellar. This fact has been borne out by the testimony of other medical officers as well on plague duty.

*** The use of the acid is always advisable with bichloride as an antiseptic, as organic matter of any kind interferes with the activity of the bichloride of mercury more rapidly when acid is not present. Disinfection is certainly of use. No one pretends that it removes all sources of infection. It does, however, remove one. The other sources must be attacked in different manner. We should be very sorry to see any attempt made to discontinue very thorough disinfection.

ANSWERS.

STUDENT.—Congenital tuberculosis is extremely rare. It is impossible to form any trustworthy opinion upon the data supplied by our correspondent.

R.B.—We have received the copy of the periodical sent by our correspondent. It is an illustration of the indirect puffing which we commented upon last week in an answer given to M.D.Cantab., to which we would refer our correspondent.

E.H.C.—We are informed that it is not usual—especially when the fees for medical attendance are notified to, and paid by, the school authorities—to make any discrimination between the pupils of a school. Under the circumstances described by our correspondent, he would be following the ordinary procedure in furnishing the head master with a note of his professional charges.

T.F.V.—The regulations of the Conjoint Board of England require that the whole of the five years' curriculum should be spent at recognised institutions; six months may be spent at a science institution recognised by the Board for instruction in chemistry, physics, and practical chemistry, or a year may be spent at such an institution, if it be recognised also for biology, but the remaining four winter and four summer sessions must be spent at a recognised medical school and hospital. The alternative to spending six months or a year at a recognised science institution is to spend it at a recognised medical school in addition to the other four years.

NOTES, LETTERS, Etc.

ERRATA.—In the notice of the meeting of the North Kent District of the South Eastern Branch in the BRITISH MEDICAL JOURNAL of May 27th, p. 1,305, col. 1, line 3 from bottom, the name of Mr. H. J. Ilott was incorrectly printed as "Holt."—In the heading of the memorandum on Blackwater Fever, by Mr. A. D. Humphrey, in the BRITISH MEDICAL JOURNAL of April 1st, p. 788, the cases should have been described as occurring in Darjeeling, Terai, and *not* in Assam.—In Dr. Stuart Tidey's letter on the Hunter fund in the BRITISH MEDICAL JOURNAL of May 27th, p. 1,308, col. 2, the word "regular" in the third line of the last paragraph should be "insular."—In the report of the Edinburgh Medico-Chirurgical Society, in the BRITISH MEDICAL JOURNAL of May 27th, p. 1279, the nature of Dr. Affleck's third case should have been stated to have been "diabetes insipidus," and not "diabetes mellitus."

THE HUNTER FUND.

MR. RIVERS WILLSON (Treasurer) (42, Wellington Square, Oxford) writes to acknowledge the receipt of the following further donations to this fund:

	£	s.	d.
Amount previously acknowledged	45	12	9
Dr. Stuart Tidey, Florence	1	1	0
Dr. Danford Thomas, Hampstead...	2	2	0
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J. C. Cook, Esq., 11, Store Street, W.C.	0	10	6
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Garrett Horder, Esq., Cardiff	0	10	6
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L. M. S. S. A., London	0	5	0
John E. B. Wells, Esq., Hoddesdon, Herts	1	1	0
Total	£62	13	3

PROFESSIONAL ETIQUETTE AND THE WORKMEN'S COMPENSATION ACT.

MR. LACHLAN GEORGE FRASER, M.B. (North Shields) writes: Since the new Workmen's Compensation Act has come into force nearly all the works on the Tyne have insured against accidents to their employees. Whenever an accident occurs the insurance company concerned send their doctor to examine into the nature of the injuries, and report on the patient's condition. Although I have had numerous cases, on only two occasions have I had word from the insurance doctor that he wished to see the case; in both these instances the same medical man was concerned. Some of the cases were of an exceptional character. For instance, a man was under my care for fractured rib and other injuries. He was visited by an insurance doctor, who said he wished to examine him. My patient, reasonably enough, asked to have his own doctor present. The medical examiner thereupon left. The man was reported fit for work! This case was subsequently examined for the insurance company by the gentleman referred to above, who met me in a professional way, and after examining the patient, advised the company to continue his pay for several weeks. Another medical examiner visited a patient of mine, who said he would like me to be present. The doctor left the house and the man's pay was stopped. In this case also I had no word from the examiner. I pass over a case of severe injury to a foot, in which I arrived at my patient's house in time to see my dressings on the floor and a stranger examining the wound. I could quote many other examples that have occurred in my own practice, and my experience is not unique. On talking the matter over with my colleagues here, I find they have had similar cases, not once, but many times.

A patient under my partner's care was visited the other day by an insurance doctor, who not only examined his injuries, but was good enough to prescribe for him as well! I have written on each occasion to the medical man employed, and, except in one case, my letters have been unanswered. I have also communicated with one of the insurance companies. By them I was informed that it was the custom in this district to conduct medical examinations in this manner and they saw no reason to alter it. As private remonstrances with the various medical examiners and with one of the insurance companies have been without effect, I think it right to give the matter publicity in your columns, and to invite the aid of the Association to put a stop to this unprofessional conduct, in the interests both of the public and our profession.

*** The rule that no medical practitioner shall visit the patient of another except in consultation with him is undoubtedly a very good one, and so far as possible should be adhered to; but it must be admitted that it is not always possible to do this. We imagine that the cases to which our correspondent alludes are so numerous, the work

paid for upon so low a scale, and the time within which the report is called for from the medical officer to the insurance company so limited that it would be difficult if not impossible to insist upon the strict observance of this otherwise highly salutary rule. This is a question in which the avoidance of friction and the preservation of friendly relations can only be secured by conciliatory conduct on both sides. We think that the medical man who visits for the insurance society should as far as possible give notice of his visit to the patient. If this were done the patient would be able to secure the attendance of his own medical man whenever he wished, and we think, too, that the patient has it in his own power to ensure this arrangement by refusing to be examined except in the presence of his own medical attendant.

NEISSER'S DIAGNOSTIC STAIN.

DR. J. O. SYMES (Bacteriologist, Bristol Royal Infirmary) writes: With reference to Dr. Coles's communication on Neisser's diagnostic stain for the diphtheria bacillus in the BRITISH MEDICAL JOURNAL, May 20th, 1899, may I suggest that the cause of his failure to obtain satisfactory results is due to the fact that in his second solution he uses benzoin instead of Bismark brown? Referring to Dr. Hewlett's paper (the reference should be BRITISH MEDICAL JOURNAL, 1898, ii, p. 599, not 1889) I find that benzoin is the word used there, but this I think must be an error. I have not access to Neisser's original article, but in EPITOME, 75, BRITISH MEDICAL JOURNAL, January 22nd, 1898, and in Dr. Leedham-Green's article on this subject (*Birmingham Medical Review*, October, 1898), Bismark brown is the stain mentioned, the strength of the solution being the same as that of the benzoin solution employed by Dr. Coles. I have myself tried unsuccessfully to obtain the differential stain with benzoin. Using Bismark brown the specimens stain readily and with marked differentiation.

DR CHARLES POWELL WHITE (Leeds) writes: In reading the article by Dr. Coles on a modification of Neisser's diagnostic stain (BRITISH MEDICAL JOURNAL, May 20th), I have tried his method on about eighteen cultures of the B. diphtheria. I can fully confirm what he says about it. It certainly makes it much easier to obtain a good result. I think, however, that it is a mistake to call it a diagnostic stain. It certainly is not diagnostic as between the B. diphtheriæ and other bacilli. The B. tuberculosis avium stains in an absolutely typical manner, especially with the longer times advocated by Dr. Coles. The B. tuberculosis hominis also behaves in the same way but does not stain quite so readily. I have also obtained a typical result in one culture of the B. coli communis obtained from cultures of peritonitis, but have failed with other cultures of the same organism. If the stain is diagnostic as between the Klebs-Loeffler bacillus and the so-called pseudo-diphtheria bacillus, we must first of all know exactly what is the pseudo-diphtheria bacillus. This bacillus is usually described as a bacillus resembling the Klebs-Loeffler bacillus exactly but which is not virulent to guinea-pigs. Why should we take the guinea-pig as our standard? It is well known that the virulence of a culture of the B. diphtheriæ varies greatly with the medium on which it is grown and with the animal upon which it is tested, and the virulence of a given culture varies greatly if tested from time to time.

I do not think that Neisser's stain, although it gives beautiful results, is any more diagnostic than simple staining with Loeffler's methylene blue.

MEDICAL FEES FOR LIFE ASSURANCE EXAMINATIONS.

WE have received from a correspondent copies of the medical forms in use by a life assurance company. One called "the short examination form" is used for assurances not exceeding £100. The fee payable for assurances under £50 is 2s. 6d.; for assurances of £50 and not exceeding £100 the sum is 3s. 6d. "The full examination form" is used for assurances over £100. The fee payable for assurances under £200 is 7s. 6d.; for £200 and under £500, 10s. 6d.; for £500 and upwards, £1 1s. We have taken the trouble to count the number of questions to be put to the applicant, and we find that they amount to seventy-four, not including those relating to family history. In addition to this, the form of report for the medical examination is of unusual length. To give one example, five questions are asked as to the character of the pulse. We consider that the sum of 7s. 6d. is quite inadequate for the amount of work demanded by such an elaborate system of examination. The best assurance offices are recognising the responsibility placed on the medical examiner by increasing the fees for examination, and some pay a guinea for all assurances of £100 and upwards. We trust the Association issuing the examination forms under discussion will see the advisability of reconsidering the scale of payment. Until this is done we cannot advise medical men to give their assistance to a company which practises so illiberal a policy.

JEWS AND CANCER.

DR. E. L. WALFORD (Regent's Park, N.W.) writes: In reply to the inquiry of "C." in the BRITISH MEDICAL JOURNAL of May 13th, p. 1199, in 1893 I very carefully investigated it, and I found that the mortality from cancer among Jews was in the same ratio as that of the Gentile population in the district in which they reside. That is to say, in a "cancer district" it is very high, and in a "non-cancer district" very low; and the result of the investigation was to convince me of the geographical distribution of cancer. Another thing which the investigation seemed to point to was that cancer of the female genital organs, even in cancerous districts, is less common among Jewesses than among their Christian neighbours, and I explain this by the rite of circumcision.

INFECTIVE URINE.

DR. D. WALSH (Bentinck Street, W.) writes: Your interesting note on the infectivity of typhoid urine in the issue of the 25th reminds me of a possibility pointed out by me in a small work on *Excretory Irritation* some years ago. The following is a quotation (p. 356): "In the case of some exanthems it seems probable that the micro-organisms themselves, apart from their products, are directly excreted by the skin, thus accounting for the infectiousness of affected individuals which is generally assumed to be greater in the desquamating stages. Whatever the exact method of exit of the virus, it is clear that the living germs must in some way be eliminated from the body. Scarlet fever would cease to exist did not the specific micro-organisms escape from the body in a condition capable of spreading the disease. The question is, Through what particular channels of exit do the germs escape? If through the kidney and bowel discharges then it is tolerably certain that effective measures are not taken in one case out of a hundred, even in our best ordered fever hospitals, to disinfect those evacuations. Indeed, the only attempt at systematic disinfection of scarlet fever appears to be directed to the skin, the clothing and other objects, that have been in contact with the skin. Upon logical grounds there seems to be good reason for regarding with grave suspicion all excreta from a scarlet fever patient."

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Mr. H E. Acker, Strassburg; Another G.P.; Messrs. Arnold and Sons, London; Mr. T. Aquino, Bhusawal: Alcohol; Autocar; Alkali; Mr. R. B. Anderson, London. **B** Dr. W. S. Barnes, Georgetown; Dr. W. C. Bosanquet, London; Dr. W. Bain, Harrogate; Mr. L. A. Bidwell, London; Mr. C. W. J. Brasher, Bristol; J. W. Batterham, M.B., St. Leonards-on-Sea; Mr. J. Brunt, Fleetwood; Mr T. Blair, Leeds; Messrs. P. Blakiston's Sons and Co., Philadelphia. **C** Caution; Mr E. H. Corder, Worcester; Dr. F. W. Cock, London; Conciliator; Mr. A. Coleman, London; Sir C. A. Cameron, Kingstown; Mr. S. Chaffers, Manchester; Dr. A. C. Clark, Hartwood; Dr. F. J. H. Coutts, Manchester; A. Cox, M.B., Gateshead. **D** Diastase; Mr. E. H. Douty, Davos Platz; Dr. T. M. Dolan, Halifax; J. W. Downie, M.B., Glasgow; Mr. H. M. Dowler, Gairkhata; Mr. J. Davies, Newtown, Mon.; Dr. T. Dutton, London; Mr. A. Demard, London; Mr. W. G. Dickinson, London. **E** Mr. E. East, London. **F** Dr. J. B. Fitzsimons, Hereford; Dr. R. A. Farrar, Stamford; Mr. W. Fleming, London; Mr. W. T. Freeman, Reading; Dr W. F. Farquharson, Carlisle; Mr. W. A. Frost, London. **G** Mr. R. L. Gifford, Blackburn; Messrs. C Griffin and Co., London; Mr. P. T. Goodman, London; Mr. B. W. Ginsbury, London; Mr. J. L. Green, Salisbury; G. W. Griffiths, M.B., London. **H** Mr. T. G. Horder, Cardiff; Dr. E. B. Hulbert, Windsor; Dr. A. Haig, London; Dr. T. B. Hyslop, London; Dr. S. Harris, Manchester Mr. H. C. Hopkins, Bath. **I** Dr. H. J. Ilott, Bromley. **K** Sir F. Knollys, London. **L** Mr. H. C. Lawrence, Cheltenham; Mr. N. P. O'G. Lalor, Lucknow; Mr. A. D. La Touche, Ossett; Mr. F. W. Lowndes, Liverpool. **M** Messrs. Mackey, Mackey, and Co, London; Mr. J. H. Mummery, London; Messrs. Merryweather and Sons, London; Mr. W. J. D. Mulford, London; M.D Brux; Mr. T. S. Mansford, London; Medallel; Dr. N. Macleod, Shanghai: Mr. E R. Morgan, Morriston; Mr. V. Matthews, London; Mr. J. C. McWalter, Dublin; A. E. Morison, M.B., West Hartlepool; Dr. H. M. Montgomerie, Penzance. **N** Dr. E. F. Neve, Srinigar, Messrs. F. Newbery and Sons, London. **O** Mr G. H. Ormsby, Runcorn; Observer; Dr. J. O'Conor, Buenos Ayres. **P** F. M. Pope, M.B., Leicester; H. Peck, M.B., Chesterfield; Mr. R. W. Partridge, Epsom; Mr. A. Powell, Kala; Mr. G. C. Peachey, Wantage; W. R. Parker, M.B., Kendal. **Q** Mr. E. Quayle, Urmston. **R** Dr. G. Rankin, London; R.S.O. **S** Messrs. Street Brothers, London; Dr. T. G. Stevens, London; H. J. Stiles, M.B., Edinburgh; Sufferer; Simon; Mr. W. P. Stocks, Manchester; Dr. C. W. Suckling, Birmingham; Mr. N. Smith, London; Dr. S. J. Sulemani, Camp Vyara; Mr. M. F. Simon, Singapore; S.; Mr. T. B. Sellors, London; Dr. R. B. Selby, Port William; Scrutator. **T** A. Thorne, M.B., London. **W** Mr. D. J. Williams, Kingston, Jamaica; Dr. B. Walker, Kirkby-Stephen; C. P. White, M.B., Leeds; Dr. F. Willcocks, London; Dr. D. Walsh, London; J. A. Waring, M.B., Nottingham; C. S. Wallace, M.B., London; Dr. R. Willson, Oxford; Dr. J. C. Webster, Montreal. **Y** W. McG. Young, M.B., Leeds; etc.

BOOKS, ETC., RECEIVED.

The Murmurs of Mitral Disease. By E. M. Brockbank, M.D., M.R.C.P. Edinburgh: Young J. Pentland. 1899.

Anæmia and Some of the Diseases of the Blood-forming Organs and Ductless Glands. By B. Bramwell, M.D., F.R.C.P., F.R.S.E. Edinburgh: Oliver and Boyd. 1899. 12s. 6d.

A Textbook on Practical Obstetrics. By E. H. Grandin, M.D., and G. W. Jarman, M.D. Second Edition. Philadelphia: F. A. Davis Co. 1899. 4 dols.

The Anatomy of the Central Nervous System of Man and of Vertebrates in General. By L. Edinger, M.D. Translated from the Fifth German Edition by W. S. Hall, Ph.D., M.D., assisted by F. L. Holland, M.D., and E. P. Carlton, B.S. Philadelphia: F. A. Davis Co. 1899.

Aseptic Duties of a Surgical Nurse or Dresser. By J. O'Conor, M.A., M.D. Buenos Ayres: J. Grant and Sons.

Vegetationsstorungen und Systemerkrankungen der Knochen. Wien: A. Holder. 1899. M 3.

Bradshaw's Dictionary of Bathing Places, Climatic Health Resorts, Mineral Waters, Sea Baths, and Hydropathic Establishments London: Kegan Paul, Trench, Trübner and Co 1899. 2s. 6d.

Chemical and Microscopical Aids to Clinical Diagnosis. By C. C. Douglas, M.D., B.Sc. Glasgow: J. Maclehose and Sons. 1899.

Mathematical Contributions to the Theory of Evolution. By K. Pearson, F.R.S., A. Lee, B.A., B.Sc., and L. Bramley-Moore. London: Published for the Royal Society by Dulau and Co. 1899. 3s. 6d.

The Pharmacopœia of Guy's Hospital. Compiled by a Committee of the Staff. London: H. H. G. Grattan. 1899.

Anatomy of the Brain and Spinal Cord. By J. R. Whitaker, B.A., M.B. Third Edition. Edinburgh: E. and S. Livingstone 1899. 5s.

Aids to the Analysis of Food and Drugs. By T. H. Pearmain and C. G. Moor, M.A., F.C.S., F.I.C. Second Edition. London: Baillière, Tindall and Cox. 3s. 6d.

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A CLINICAL LECTURE
ON
MISPLACED TESTES AND THEIR SURGICAL TREATMENT.

Delivered at St. Thomas's Hospital,

BY H. BETHAM ROBINSON, M.S.LOND., F.R.C.S.,

Assistant Surgeon and Surgeon for Diseases of the Throat at St. Thomas's Hospital; Surgeon to the East London Hospital for Children, Shadwell.

To get a right understanding of the subject it is in the first place essential that we should have a correct knowledge of the descent of the testis and the factors that bring this about. Normally the testis, which in the fœtus develops in relation with the front and lower part of the kidney, passes downwards towards the internal abdominal ring, enters the inguinal canal about the end of the sixth month, and leaves the external ring in the eighth month to reach the bottom of the scrotum a little before birth. It must be remembered that this process is not as advanced on the right side as on the left side, so that the frequency of right-sided congenital hernia at birth, as borne out by statistics, is accounted for. Preceding the descent of the testis a process of peritoneum has descended along the canal into the scrotum, the processus vaginalis testis, which ultimately by the closing off at its lower end forms the tunica vaginalis.

We must now consider how these structures make their way downwards from within the abdomen. In relation with the testis is a fold of peritoneum, the mesorchium, from which passes upwards the plica vascularis, containing the spermatic vessels, and downwards the plica gubernatrix; the latter is a cord-like structure containing the gubernaculum, which courses downwards outside the hypogastric vessels to a depression in the abdominal wall, the site of the internal ring and the beginning of the future peritoneal pouch. The gubernaculum is a muscular structure chiefly which, passing upwards in the plica, is attached to the back of the peritoneum, to the vas deferens, and to the testicle; below it traverses the abdominal muscles, being continuous with the different layers at the situation of the external ring. It gets however other attachments below later, to the bottom of the scrotum, to the root of the penis over the pubes, in the perineal region about the anus and ischial tuberosity, and also in Scarpa's triangle over the saphenous opening. This gubernaculum is probably an important factor in the descent of the testis, and the abnormal development of some of these fibres accounts for errors in situation of the gland.

We are now in a position to consider misplacements of the gland, adopting with slight modification the classification of Reclus:

1. Ectopia proper, where the testis has descended out of its normal course.
2. Retentio testis, where its migration is incomplete but in the normal line.

ECTOPIA TESTIS.

The following forms are met with: (*a*) *perineal*, (*b*) *crural*, (*c*) *pubo-penile*, and (*d*) *abdominal*.

The *perineal* form is certainly the commonest. The testis is situated at the side of the scrotum in the furrow between the thigh and scrotum, or a little in front of the anus, beneath the smooth skin of the perineum, and the scrotum is ill-developed on the same side. It is said to occur more often on the left side but perhaps on slender grounds. The explanation offered for this position is that the perineal fibres of the gubernaculum are especially developed and the scrotal attachment defective.

The following cases have been under my care at the Children's Hospital, Shadwell:

CASE I.—Child, aged 3 weeks, came February, 1896, with testis in scroto-femoral furrow, on a level with posterior part of scrotum; testis well-developed. The scrotum showed well-marked rugæ, and, except for the want of fulness from the absence of the testis, was not very different in size from the left side. This case did not attend again.

CASE II.—Child, aged 14 days, brought to me February, 1896, with the right testis occupying a perineal position just posterior to the scrotum; the right half of the scrotum was very little developed. This was the sixth child, and there had been no other deformity noticed in the family. An interesting feature in this case was that the whole processus vaginalis still persisted, so that the bowel came down into the perineum and surrounded the testis; it could, however, be easily reduced. The child was very jaundiced and died in a few days.

CASE III.—W. B., aged 18 months, was brought to me February, 1894, with the right testis in the scroto-femoral furrow, just posterior to the scrotum, which had existed since birth; the scrotum on the right side was fairly well developed.

Operation.—On August 10th, 1894, I operated, adopting a method advocated by Mr Pollard[1]. A longitudinal incision was made passing from the external ring down the line of the cord to the bottom of the testis. The testis and cord were then dissected up so that they were free up to the external ring, but in this separation great care was taken to cut so wide as to raise the tunica vaginalis and its cremaster muscle without damage. As has been before noticed some fibrous bands had to be cut through passing from the lower part of the gland to the perineal skin and fat before it could be made free. A second incision was then made into the bottom of the scrotum, and, artery forceps being pushed under the bridge of skin above, the testis was drawn down into the scrotum. The wounds were then stitched up with interrupted sutures and a collodion dressing applied. The testis occupied its proper position and gave the normal fulness to the scrotum. The wounds healed by first intention. On September 3rd it was noted that the testicle remains well in position and the cremaster acts briskly on tickling the inner side of the thigh. Since the child left the hospital I have seen him at intervals, and the condition is extremely satisfactory and the testis well developed.

CASE IV.—A. E., aged 7 months, came to me in July, 1897, with the left testis in the left half of the perineum just in front of the anus; the scrotum on the same side was very imperfectly developed. The right side was normal. The mother wished for a postponement of the operation which was afterwards performed on August 12th, 1898.

Operation.—The same procedure was adopted as before, the incision being made just inside the line of junction of thigh and perineum, and the testis and cord freely dissected up to the external ring. The scrotal incision was made and the testis drawn into place under the bridge of skin; there was a good barrier of fatty tissue between the perineal wound and the new bed for the testis. The wounds were united with interrupted horsehair stitches and collodion dressing applied. The progress was uneventful and the after-result very satisfactory.

The *crural* form is rare and is found over the saphenous opening having descended in the crural canal, where it simulates a femoral hernia and, like it, turns upward over Poupart's ligament. The advocated treatment of these cases is replacement through the natural opening which may be very difficult from the size of testis, and it certainly is not surgically sound to make it again intra-abdominal. If I had such a case to deal with I should bring it into its proper place through the floor of the inguinal canal, not hesitating to cut Poupart's ligament and resuture it afterwards. Generally these cases are encountered by accident in operating for a supposed strangulated femoral hernia, the absence of the testis from the scrotum not being noted. In those cases where the testis is inflamed the best treatment would be castration. The *pubo-penile* form is very rare and here the testis is placed by the side of the root of the penis; it is said to be due to great development of the inner attachment of the gubernaculum. The *abdominal* form is one not spoken much about in books but has a very definite *locus standi*. Here the testis has got out of its proper line by passing upwards outside the external oblique above the external ring into its peritoneal sac similarly placed. It has been suggested that this condition arises from the application of a truss to an undescended testis, but I can quote cases, as below, where no such factor has been introduced. These cases are usually associated with hernial swellings, and the testicle generally can be pushed back into the inguinal canal. The first case recorded is associated with the classical name of Scarpa and Hulke[2] met with a similar condition.

CASE V.—Some of you will remember a little boy, aged 9, who came to my out-patient room some weeks ago. The right half of the scrotum was ill developed and on coughing it was noticed that there was a rounded swelling above the external ring. On manipulation a testicle could be felt here on the external oblique which could be made to return through the ring into the canal; in its re-descent it passed in the same course above the external ring. In this case there appeared to be no downward pouch into the scrotum.

Another case was my patient at the Children's Hospital, Shadwell, in July, 1898.

CASE VI.—B. M., aged 12 years, gave the following history: A lump in each groin had been noticed at birth; these had since varied in size, but had never disappeared, and at times he had had great pain. On examination the scrotum was quite undeveloped. On the right side there was a hernial swelling over the line of the inguinal canal, but very superficially placed; the contents, which were fluid, could be displaced and no testis could be felt until the finger was placed inside the ring. On the left side there was a similar hernial swelling superficially placed, but on reducing the fluid contents a testis could be felt above and external to the external ring.

First Operation.—On July 19th an incision was made over the canal from the internal to the external rings on the left side. A hernial sac was displayed extending from the external ring outside the external oblique almost to the internal ring; this contained the testis. The sac with the testis was then separated to the external ring when it was seen that the vaginal process of peritoneum instead of passing into the scrotum had turned upwards and outwards. As it was necessary to occlude its communication with the peritoneal

cavity, the anterior wall of the inguinal canal was slit up to the internal ring; the peritoneal process was separated from the cord from just above the testis to the inner ring, where it was tied off and cut away. It was then seen that the length of cord below the external ring would allow the testis to rest in the scrotum without any stretching, so the inguinal canal was sutured up. A small vertical incision was now made at the bottom of the scrotum, and artery forceps were passed upwards in the fat under the strap of skin left undivided to the external ring, where they caught and drew down the peritoneal sac (the new tunica vaginalis) and the testis into the scrotum. A stitch was passed through the bottom of the sac and made to fix this to the skin of the perineum at the back of the scrotum to ensure it retaining its position. The skin was sutured with horsehair, and cyanide gauze dressing used. The wound healed by first intention and the testicle maintained its position well.

Second Operation.—A fortnight later a similar operation was done on the right side and a similar state was found except, as before stated, the testis was in the inguinal canal. Here after the peritoneal sac had been divided the cord separated and stretched it was found that the testis could be brought into the scrotum and treated as before. The result was again satisfactory, and his condition has remained so since. What the cause of this arrangement of the sac is I cannot say. Some have held that the ill-development of the scrotum is the cause, but it is more probable that this is the effect of the non-descent.

RETENTIO TESTIS.

In dealing with the second part of my subject, retentio testis, where the descent has stopped in the normal line, this may occur in the following forms:

(*a*) *Abdomino-lumbar*, where the testis is retained in relation with the posterior abdominal wall in the neighbourhood of its original site; it may be fixed or free to move, this depending on the length of the mesorchium. This form is rare, and attention might be drawn to it by the presence of a small abdominal swelling and absence of testis elsewhere.

(*b*) *Iliac*, in which the testis is in close relation with the internal ring resting on the psoas.

(*c*) *Inguinal.*—Here the testis may occupy any part of the canal, being near the external or internal ring. In many of the cases the peritoneal sac has not severed its connection with the abdomen so that a hernia complicates matters. Often the testis is very mobile, and if in the outer part, near the internal ring, it may pass to and fro into the abdominal cavity. When near the external ring, if this is of fair size, the testis may pass just outside to occupy the position of the next form. An interesting group is the interstitial variety, where the sac extends between the structures of the abdominal wall. Such a pouching may take place under the external oblique, between it and the internal, or in a deeper plane in the subperitoneal tissue, when it may press on the iliacus or inwards behind the horizontal ramus of the pubes towards the bladder. Included in these forms will be the *hernie en bissac* of the French.[3] These variations in the form of the sac are possible sites for deviation in the course of the testis.

(*d*) *Cruro-scrotal.*—This is differentiated by Godard as the form when the testis stops just outside the external ring, over the pubic crest and symphysis, and would need careful diagnosis from the ectopic forms, pubo-penile, and the higher-placed variety of the perineal.

As to the cause of retardation many explanations are offered, such as defective contraction of the gubernaculum, contracted external ring, shortness of the vessels of the cord and the vas, and in the abdominal form intrauterine peritonitis. It is conceivable that the interstitial form may be developed by the pressure of a truss.

The treatment of these cases varies, of course, with the position of the testis. Where the gland does not descend through the external ring it is obvious that it is very unlikely to be able to be brought into the scrotum. In a young child, when it is near the external ring, it might be attempted to press the gland down by a truss with a concave margin. In an adult, however, where the gland is atrophied and, as is usual, complicated by hernia, the best treatment is a radical cure with castration.

In the cases where the testis remains in the canal about the internal ring, the only practical course is castration; if a truss be applied the interstitial form might result or the gland be irritated by pressure. When the testis is in the abdomen or in the iliac fossa, in most cases no treatment is undertaken, but in some instances such may be imperative under very unfavourable conditions, as in gonorrhœal inflammation of the gland. The great risks of a fatal peritonitis in gonorrhœa, or of a possible carcinomatous change in the retained gland, which has been considered frequent, may be powerful factors in favour of castration.

Should the testis be outside the ring attempts may be made to bring it into position by operation. As a means to this end additional length has been gained by stretching the cord structures so as to bring the vas nearer to the mid-line, or even it might be attempted by operation to displace the vas in the subperitoneal tissue by dividing the deep epigastric artery, and so to effect the desired lengthening. Again, the epididymis may be dissected from the vas, and the gland turned upside down, thus increasing the distance by the length of the testis.

In all these procedures the lower part of the gland must be fixed to the perineum behind the scrotum to keep it *in situ*; it must be remembered that it will be of no avail to fix it to the scrotal skin, for the testis will retract and invert the scrotum. The cord may also be fixed to the pillars of the ring to prevent this retraction.

Lastly, help has been obtained from various forms of cradles that have been devised to effect the same result. It is desirable not to get the testis fixed over the front of the pubes, for here the gland is most liable to injury.

REFERENCES.

[1] *Lancet*, July 14th, 1894. [2] *Med.-Chir. Trans.*, vol. xlix, p. 189. [3] Holmes and Hulke, *System of Surgery*, vol. ii, p. 801.

THE AMŒBA DYSENTERIÆ: ITS RELATION TO TROPICAL ABSCESS OF THE LIVER.

BY CAPTAIN D. G. MARSHALL, I.M.S.,

Late Officiating Professor of Pathology, Lahore Medical College.

TROPICAL abscess of the liver, and especially its association with the presence of the amœba dysenteriæ, is a subject which has received but a small amount of attention in this country, though the disease is probably far more common among people returning from tropical countries than is generally supposed. In this article the subject will be considered chiefly in its pathological aspect. Clinically it has been most thoroughly treated by Drs. Councilman and Lafleur in the *Johns Hopkins Hospital Reports*.

That the amœba dysenteriæ produces a typical form of dysentery has been conclusively proved by Kartulis's experiments on animals. The doubts which have been thrown on his results are chiefly due to the fact being overlooked that there are several forms of dysentery. That tropical dysentery is frequently complicated with, or followed by, abscess of the liver is well known, but whether the amœba which causes the dysentery is the cause of the abscess in the liver has been much disputed, though it is difficult to see why a parasite which is admitted to be the cause of destructive changes in the intestine should not be considered capable of producing the same effects in the liver.

As it is admitted that the amœbæ are not the cause of all cases of dysentery, so doubtless many cases of abscess of the liver, even when associated with dysentery, are not due to the presence of the amœba, and this partly explains why many observers have failed to find them in cases of liver abscess.

Virchow is of opinion that abscess in the liver is caused not by the amœbæ, but by micro-organisms carried in the amœbæ. In their cases Councilman and Lafleur found the amœbæ invariably present, pus organisms being absent, proving that the formation of abscess is due to amœbæ and not to pus organisms. But in the older and larger abscesses, particularly those that have been opened and drained, pus organisms are more frequently found. Many observers (Losch, Koch, Osler, and others) have found the amœbæ in liver abscesses.

The case which yielded most of the sections figured below had an especial interest in that death was caused by a thrombus containing large numbers of amœbæ, a hitherto undescribed pathological condition.

I am indebted to Mr. Stiles both for particulars of the case and also for handing over to me the liver for examination.

CASE.[1]—A strong healthy man aged 27 went to the West Coast of Africa in 1894, and within a month began to suffer from malarial fever. Early in 1895 he had an attack of dysentery, for which he was in hospital three weeks; on leaving he at once embarked for home. During the voyage he improved in health, and on arrival in Scotland was apparently perfectly well. In August, 1895, two months after his return, he was attacked with severe dysenteric diarrhœa, followed by pain in the right shoulder, rigors, fever, and profuse sweating. Abscess of the liver was ultimately dia-

gnosed, and the abscess opened in November, 1895. By the spring of 1896 he had increased 2 stone in weight, and appeared to be in perfect health; against the wishes of his medical adviser he, later in the year, proceeded to Ceylon, and shortly had another attack of dysentery. He returned home; an abscess of the liver was again diagnosed and opened, but three weeks after the operation, while sitting up in bed, he was suddenly seized with intense dyspnœa, and died in a few hours.

On *post-mortem* examination the liver appeared to be of normal size. The surface showed the cicatrix of the first operation, and the opening made at the second operation. On section the abscess was found to be situated in the most common

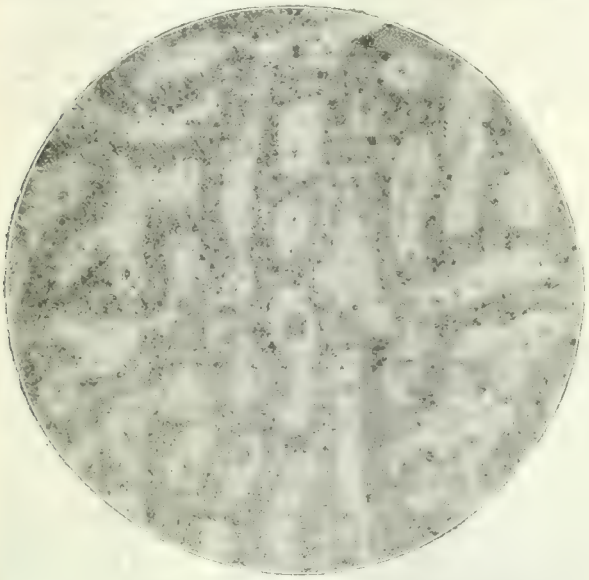


Fig. 1.—Case of tropical liver abscess. Shows fatty degeneration of liver cells, engorged capillaries, and proliferated endothelial cells. × 150.

situation—the upper part of the right lobe. The cavity, contracted to the size of an orange, was surrounded by firm fibrous tissue; its interior was rugose, and covered with a ragged semi-opaque layer of viscid material. The cicatrix of the opening made

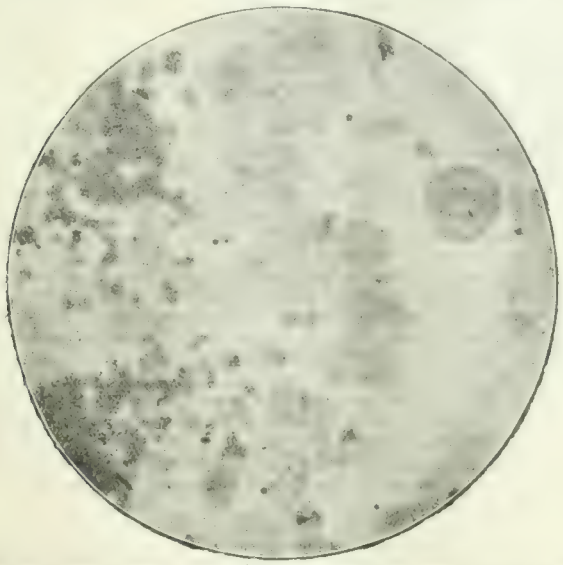


Fig. 2.—Case of tropical liver abscess; amœbæ; staphylococci, etc., in necrotic tissue of abscess wall. × 1,000.

at the first operation led down to the abscess, and was distinct from the opening made at the second operation. In various parts of the liver small yellowish necrotic patches were noted. A thrombus partly organised was found firmly fixed in a large vein just where it joined the inferior vena cava, into which it projected a short distance. Sections taken from various parts of the liver, including the abscess wall and thrombus, were fixed in perchloride of mercury solution, transferred to alcohol (some were treated with osmic acid), and embedded in paraffin. For staining the liver tissue, picrocarmine, hæmatin and eosin, and methylene blue and eosin were used. For the recognition of the amœbæ, treatment with iron-alum and Heidenhain's hæmatoxylin and counterstaining with rubin and orange was found to be very good, the amœbæ in the tissues

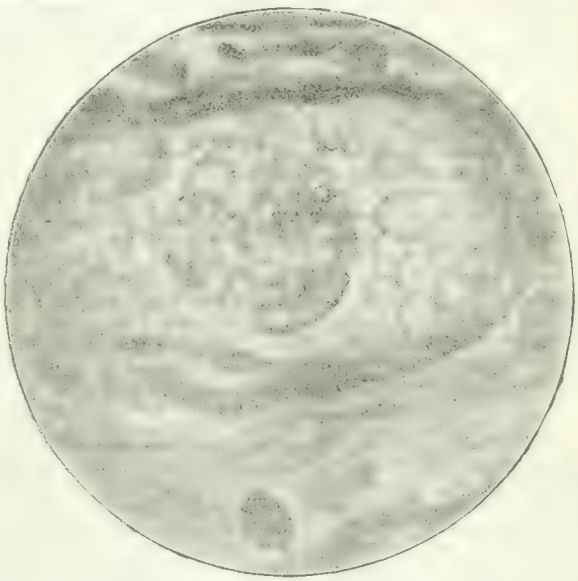


Fig. 3.—Large amœba in blood vessel; liver abscess wall. × 1,000.

and blood vessels being more easily recognised with this method, although they stained well with Ehrlich's hæmatoxylin, methylene blue, thionin blue, and safranin. For micro-organisms thionin blue was used, and also Gram's method.

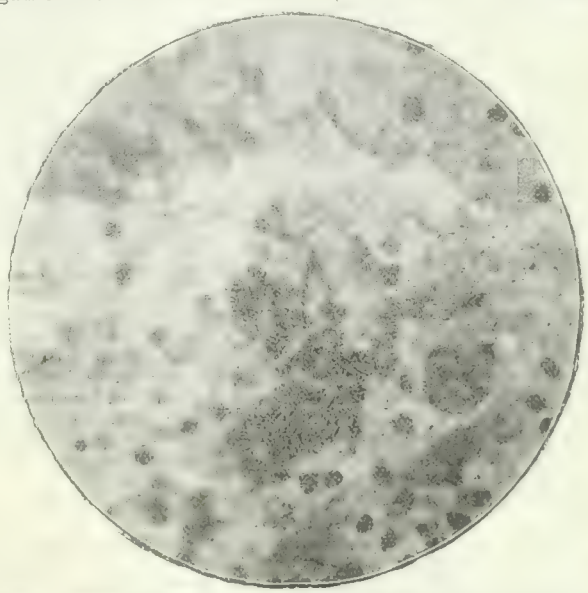


Fig. 4.—Case of tropical liver abscess; amœba in blood clot from vena cava. × 600.

Eosin and methylene blue gave the best results with the thrombus.

The sections presenting points of special interest were the following:

1. From the left lobe; the area round the central vein was

seen with the naked eye to be paler in colour than the peripheral zone. Under the microscope the capillaries were seen to be engorged, leucocytes in excess, and there were some few swollen endothelial cells. The liver cells showed cloudy swelling and commencing fatty degeneration, the nuclei having the power of taking on stain.

2. From the right lobe, including one of the yellow necrotic patches, sections showed changes similar to those in No. 1, but much more advanced. The detached swollen endothelial cells, under a high power, were seen to contain masses of pigment, which gave no reaction with ferrocyanide of potassium. The liver cells were markedly fatty and disintegrated, some represented simply by fragments, and many nuclei were unstained. Some of the fragments were swollen and vacuolated, with sharp edges. (See Fig. 1). No amœbæ were found in these areas, the destructive changes being apparently due, as suggested by Councilman and Lafleur, to the action of the chemical products of the amœbæ.

3. Sections from the wall of the abscess showed from within outwards a layer of mucoid necrotic material lining the abscess cavity; in this many amœbæ were found. Next, a reticular layer also containing amœbæ; deeper, granulation tissue containing connective tissue cells and swollen fatty liver cells, and deeper still, firmer fibrous tissue showing compressed liver cells, distorted bile ducts, amœbæ lying both free and in the capillaries. (See Figs. 2 and 3.)

4. Sections of the thrombus, which was partly organised, showed fairly numerous amœbæ and some fragments of degenerated liver cells. (See Fig. 4.)

Amœbæ.

In addition to the above-noted situations, the amœbæ are found, during life, in the sputum and in the fluid removed from an abscess. It should be carefully noted, however, that they are seldom found in the fluid first removed; this is a fact not generally known, and from a failure to find amœbæ in fluid removed by aspiration it has often been erroneously concluded that they were not present in the abscess. After an abscess has been opened the discharge should be carefully examined at each dressing, especially when the drainage tube contains fragments of necrotic material. Certain precautions are necessary in the treatment of specimens to ensure detection of the amœbæ, as they rapidly disintegrate, especially in fluids. Cunningham long ago pointed out that in dysenteric stools they are only found when the reaction is alkaline, and as the reaction becomes acid they disappear often within an hour; fluid removed by aspiration should be placed in a sterilised tube, kept at about 80° F., and examined as soon as possible. If film preparations are made they should be at once fixed with perchloride of mercury or other reagent.

Portions of the liver removed should be at once placed in saturated solution of perchloride of mercury, or if this is not available in absolute alcohol. If this is done the amœbæ are perfectly preserved and easily recognised. Some of the sections of which photographs are shown were made from portions of the liver which had been kept in spirit for over two years.

The fluid removed by aspiration in the case quoted above was carefully examined for organisms, but none were discovered. Gelatine and agar tubes were inoculated, but remained sterile, and no amœbæ were found. The fluid consisted chiefly of granular detritus, fragments of chromatin, pigment granules, and a few blood corpuscles. These characters of the fluid show it to be the result of the necrotic process ascribed to the influence of the amœbæ. Films made from the discharge at later dressings showed the cellular debruitus, fragments of liver cells, pus cells, blood corpuscles, and some amœbæ.

The size of the amœbæ varies from 10 μ to 40 μ, usually 24 μ to 30 μ.

Their shape is generally circular, but sometimes oval. By careful focussing the surface is seen to be markedly convex when entire. That they are of considerable thickness is shown by the fact that with the microtome successive sections of the same amœba can be made. They are not flattened discs, but globular masses (see Figs. 2, 3, 4, 5).

They are bounded by a well-defined capsule or ectosarc, which is often seen to be doubly refractile; this gives them the well-defined outline which renders them easily distinguishable, even under a low power, from most other structures. The interior presents a granular appearance, and in some of the smaller amœbæ this granular material occupies the whole of the space; but some of the larger ones show a well-marked nucleus, or "contractile vesicle," while others do not. Almost all contain well-marked "vacuoles," which vary very much in size, some occupying almost one-third of the space, others being quite minute.

As a result of his work on living specimens Cunningham maintained that there was a true spore formation, though this is of course opposed to all accepted ideas of the mode of reproduction of the monadina, it is a point open to question if these so-called "vacuoles" do not represent sporocysts. In some of the specimens examined the "vacuoles" could be clearly seen becoming extruded through the ectosarc, an appearance quite distinct from the ordinary extension process. (Fig. 5.) The larger amœbæ often contain red blood corpuscles. These are well seen in specimens stained with eosin and methylene blue. They are said often to contain micro-organisms, but this is not usual. In the accompanying photographs it should be noted that though micro-organisms are in parts numerous, not a single amœba contains any.

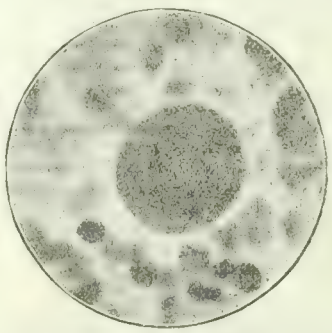


Fig. 5.—Amœba in wall of liver abscess.

How do the amœbæ effect an entrance to the liver? They are so frequently found in the blood vessels (see illustrations) that it can hardly be doubted they reach the liver by the portal circulation. It has however been maintained by certain observers that the path is through the wall of the intestine into the abdominal cavity and so to the liver.

Fig. 2. At the edge of the abscess the amœbæ were often found to be surrounded by bacilli, which morphologically and in their staining properties were identical with the B. coli. There were also staphylococci and streptococci, and some cocci single and in short chains which stained with Gram's method.

Consideration of the case described above only confirms what most men practising in India have learnt from painful clinical experience—namely, that a man who has suffered from abscess of the liver and apparently recovered, is still in danger of recurrence, especially if he stays in a tropical climate or returns to it too soon. The importance of the presence or absence of amœbæ, which may be definitely settled by repeated examinations of the discharge after an abscess has been opened, depends on the fact that in the cases in which they are present there is a greater tendency to recurrence owing to the serious and widespread damage to the liver tissue associated with their presence. Moreover, in any case of abscess of the liver the knowledge that a large cavity in the liver, surrounded by a firm fibrous capsule, takes at least a year or more to completely cicatrise, should be sufficient to make us use every means in our power to prevent these patients running the risk incurred by returning to a dangerous climate for at least two years after the abscess has been opened.

NOTE.

[1] The clinical history and an account of the first operation were published by Dr. Byrom Bramwell and Mr. Stiles in the *Lancet*, September 12th, 1896.

THE Duke and Duchess of York have arranged to open the new Homes of the National Society for the Employment of Epileptics, at Chalfont St. Peter, on Friday, June 23rd, instead of June 22nd as previously announced.

THE REMOVAL OF A FIBROID FROM A UTERUS UNICORNIS IN A PAROUS SUBJECT.

BY ALBAN DORAN, F.R.C.S.,

President of the Obstetrical Society of London; Surgeon to the Samaritan Free Hospital.

THE case which I am about to relate is of interest owing to its rarity, and to the fact that the half of the uterus opposite to that which bore the tumour was so well developed as to have been twice the seat of pregnancy. It illustrates also surgical considerations of importance to the operator in relation to the management of the pedicle during the removal of such a tumour.

F. B., aged 38, a patient of Mr. W. C. Aylward, of Tunbridge Wells, was admitted into the Samaritan Free Hospital under my care on December 21st, 1898, suffering from a painful pelvic tumour. She was fairly nourished, but weak, and had never been the subject of any serious illness. She had been married for eight years. Five years ago she was delivered at term by forceps, the child is yet alive. The precise reason for the use of instruments could not be ascertained, but under the circumstances atony of the uterus seems very probable. The uterus, after recovery, began to prolapse, then she consulted Mr. Aylward, who applied instruments to support it. About a year ago he detected a painful swelling in the hypogastrium. Then she once more became pregnant, and on November 14th, 1898, aborted at the second month for no apparent reason. Ever afterwards she suffered from much pelvic pain and worried because she understood that she had a tumour. The temperature ranged during the last fortnight before operation from 97.4° to 99.8°, the pulse never exceeded 84. The catamenia had always been regular, but recently were accompanied by sharp pain referred to the right iliac fossa. Since the miscarriage one period with very free show had occurred.

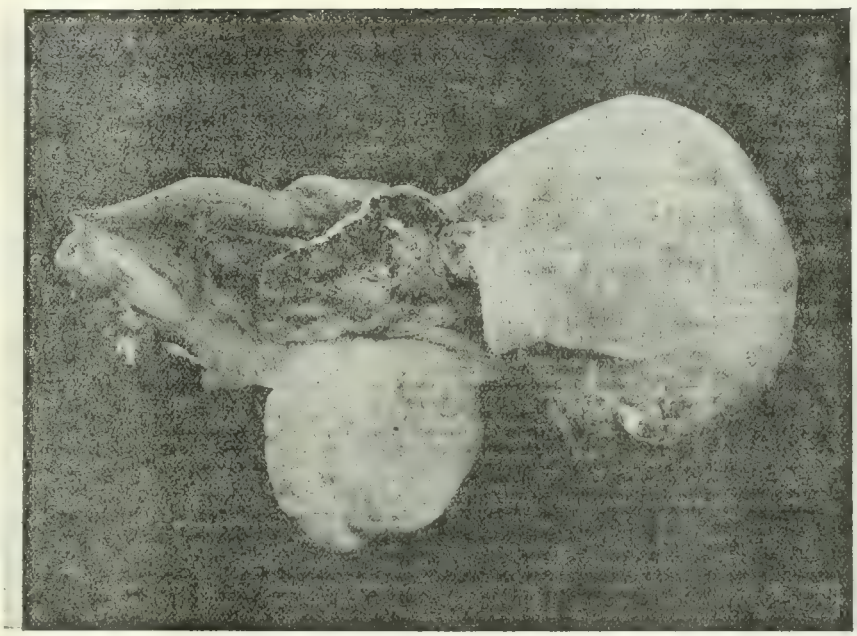


Fig. 1.—The tumour and the right appendages seen from the front.

The uterus was extremely anteverted; its cervix was small, but fairly long; and its cavity 3½ inches. In the right fornix was a hard oval mass, freely movable, and separate from the uterus, as far as I could detect by bimanual palpation. The vagina was perhaps rather narrow, there was no indication of a septum.

On January 3rd, 1899, I operated, assisted by Mr. Corrie Keep. The patient was placed in the Trendelenburg position. The left appendages appeared healthy, a slight adhesion bound down the ovary; I set it free, and then was able to draw up the anteverted uterus, so as to get a good view of the parts. The right tube and ovary sprang from the outer aspect of a tumour of the size of a hen's egg. A very stout and long round ligament, much larger than its normally attached fellow on the left side, also arose from the outer part of the tumour. Internally the tumour was connected with the uterus by a broad band. This band had a free border above, but was continuous with the broad ligament below. The uterus seemed almost regular in shape, but was slightly truncated to the right; the cervix was quite distinct from the tumour. (Fig. 4 indicates the relations as seen at the operation.)

The ovarian artery and veins were large. On drawing up the right appendages I detected a large, tortuous, pulsating artery running from below into the outer side of the tumour. This was, of course, the right uterine artery. I took especial care to securely ligature these large vessels. I tied the ovarian vessels first, then transfixed the band connecting the tumour to the uterus close to the latter, and threaded one end of the ligature through the serous coat investing the band, lest this inner ligature should slip. I next secured the uterine artery, as in a retro-peritoneal hysterectomy, and tied the silk firmly. Then I transfixed the broad ligament below the tumour, and tied, crossing the ends. But the pedicle was evidently very short, so I cut round the capsule of the tumour well above the ligatures and enucleated it; the ligatures were then all drawn tight except that round the uterine artery, already secured. The vessels were very large for so small a tumour. I sewed the cut edges of the capsule over the raw surface of the pedicle. Some omentum was then resected. The abdominal wound was closed with deep interrupted silkworm-gut sutures, the anterior sheath of the recti with continuous catgut. Convalescence was rapid. The patient was in good health four months later, and menstruated regularly.

Ligatures round a short pedicle with dilated vessels are especially apt to slip. For that reason I took great care to provide against so serious an accident. The pedicle being thus secured, no other source of peril remained. On that account I sutured the sheath of the recti separately. When an abdominal operation is lengthy or otherwise severe, I dispense with this procedure, as I know that the danger of hernia of the cicatrix when deep interrupted sutures alone are employed is not so great as to justify the increase of risk by prolonging the operation. The wound was well supported by strapping, a precaution which I always take, and it is just in cases like the present where the parietes are unstretched that hernia is most probable, and yielding of the wound during convalescence not improbable.

This case was clearly an instance of uterus unicornis, with a rudimentary second cornu connected by an impervious band with the well-developed side which had twice borne a fœtus. The rudimentary cornu had become the seat of a myoma. For recent theories on malformations of this kind and their association with fibromyomatous growths, Dr. Falk's recent contribution should be consulted.

The specimen which I removed is preserved in the Museum of the College of Surgeons. The appended drawings (Figs. 1 and 3) are from photographs of the specimen. The diagrams (Figs. 2 and 4) will serve to make them clearer. The tumour forms an almost spherical body. The Fallopian tube runs into it; anterior to the tube and a little lower the stump of the right round ligament is seen attached to the outer aspect of the tumour. The ovary, well-developed, hangs from below and behind the cut surface of the broad ligament. No trace of the band which connected the tumour with the uterus is seen, as it was cut away, with part of the capsule of the tumour itself, during the process of enucleation already described. In the lower part of the tumour laid bare by the enucleation the uterine vein and artery are visible. It is difficult to understand why they were so large. Posteriorly the ovarian ligament runs into the tumour. The cut surface of the tumour, where a piece was excised for examination (Fig. 3) presents the naked-eye appearances usually seen in a section of a uterine fibroid.

The sections of the tumour prepared for examination showed that it was almost entirely made up of plain muscle cells. The fibrous tissue between the bundles of cells was scanty. The walls of the blood vessels were well-developed. The muscle cells were arranged very regularly in large bundles, more as is seen in the normal uterine wall than in a uterine "fibroid." This feature is interesting when the seat of the growth in this case is remembered.

Strictly speaking, the above case should be described as myoma in the undeveloped cornu of a "uterus unicornis." I

apply the term as defined by Dr. Ballantyne in his article on Malformations of the Genital Organs in Woman.[2] This condition "may exist with or without a rudimentary second horn." The well-developed cornu, in my case, not only opened into a normal vagina, but proved capable of bearing a fœtus to term. The undeveloped cornu bore no cavity; it consisted of a mere band in which the fibroid developed. Possibly the tumour arose in a thickening of the cornu, which had always existed; as I have observed in a specimen[3] where the right cornu is reduced to a small fusiform structure, to which the round ligament, ovarian ligament, and Fallopian tube are attached. Had there been a cavity in the cornu, communicating with the Fallopian tube, a fœtus might have developed in it. Luschka, Turner, Remfry, Campbell Pope and others have described abnormal gestation in an undeveloped cornu of a uterus unicornis. The presence of the round ligament on the exterior aspect of the tumour or fœtal sac distinguishes this condition from myoma or ectopic pregnancy in the Fallopian tube. The existence of an impervious band between the tumour or fœtal sac and the well-developed cornu distinguishes the condition under discussion from fibroid or pregnancy in one cornu of a uterus bicornis unicollis. By that term it should be understood that there are two distinct cornua, both usually well developed, with cavities opening into a common cervix. Hence the malformation was "uterus unicornis," and not "uterus bicornis unicollis" in the four cases of abnormal gestation quoted above. In each of the well-known drawings of Luschka's and Turner's cases the band between the fœtal sac (which is the undeveloped cornu) and the more developed half of the uterus is clearly represented, and the relation of the sac to the round ligament carefully indicated. In Remfry's case the fœtal sac was attached to the remainder of the uterus by a pedicle "no thicker than that of an ordinary ovarian cyst. On passing the hand down into the pelvis the right portion of the uterus, with its Fallopian tube and round ligament, was felt curving towards the right side." The relations of the sac to the round ligament and Fallopian tube settled the nature of the malformation. Campbell Pope's case, which I examined, is classed as "uterus bicornis unicollis." But the fœtal sac was "connected to the left side of the uterus by a pedicle 1¼ inch in length." Again, "From the lower part of the anterior surface of the cyst hung the left appendages, which appear to have no direct connection with the uterus."

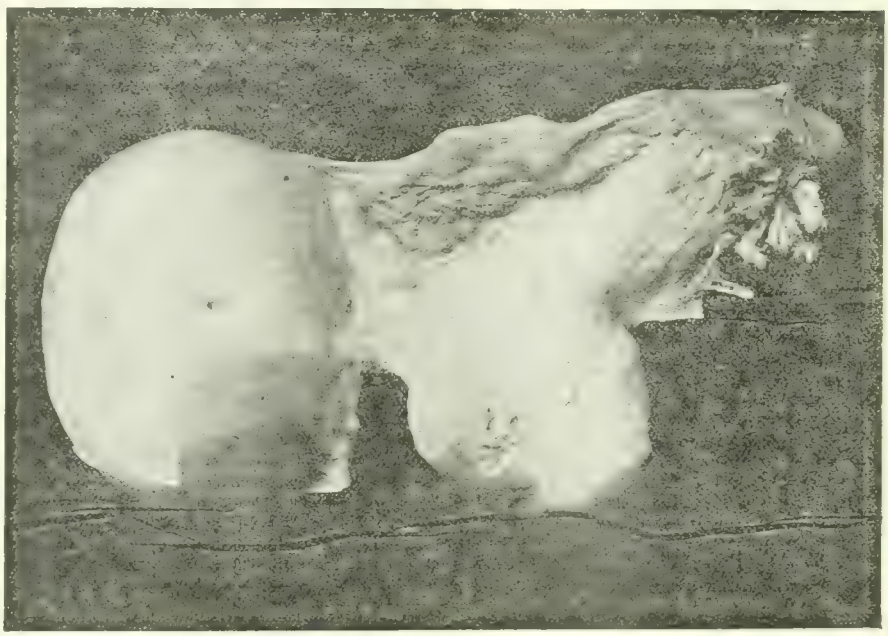


Fig. 2.—The tumour and the right appendages seen from behind. The ovarian ligament runs into the outer aspect of the tumour, into which a section has been made more internally to show the structure of its interior.

As a contrast with these four cases I may note Dr. M. Handfield-Jones's "Case of Double-Bodied Uterus," where "the cervix was wide and bulky.....with its upper margin two distinct corpora uteri were continuous. The left corpus uteri was that in which pregnancy had occurred." Thus we here have a true sample of "uterus bicornis unicollis."

I find that a case precisely like that which is the subject of the present paper is very rare. The best example is Dr. Amand Routh's.[4] The history was very obscure, the patient, pregnant for the first time, passed a decidual cast after symptoms of shock. Two tumours were detected in the lower part of the abdomen, and they diminished in size after rest. The patient lived for over two years after the shedding of the cast and died of phthisis.

As in my own case, there was a distinct band between a large firm tumour and the half uterus. The relations of the Fallopian tube and round ligament settled the question of the nature of the malformation. Some doubt remained, however, in the opinion of Dr. A. Routh as to the nature of the tumour. He suspected that it might be a fœtal sac in the malformed cornu, the solid matter in its interior being products of conception altered by time. Dr. Walter Griffith, however, found that it was a myo-fibroma.[5] The acute symptoms probably signified abortion from the opposite cornu of the uterus. I shall return to the subject of a parous single cornu.

Gebhard notes that, though a malformed uterus is not rarely the seat of a myoma, this condition has only been once recorded in uterus unicornis. He refers to Snegurieff's case. Nine cases of myoma in uterus bicornis [6] (1 in uterus didelphys and 1 in uterus subseptus) have been observed. Pick and Falk have dwelt on the liability of malformed uterus to myoma.

Snegurieff's case occurred in a married woman, aged 40, with atresia. A fibro-myoma of the size of a fœtal head was removed by operation; it grew in the right cornu, and Eberlin's drawing shows the relations of the growth to the rest of the uterus and the Fallopian tube and round ligament. But the left segment of the uterus was even less developed. Hence the malformation was far greater than in mine. It was rather "uterus bipartitus," a more rudimentary type than "uterus unicollis." Mangiagalli's case was very similar, a tumour was enucleated, a tube and rudimentary ovary sprang from its capsule. On the side opposite to the tumour was a fibrous cord, a rudimentary cornu, also bearing an ovary and tube. The patient died from hæmorrhage on the second day. The case is classified as "fibroma in a uterus unicornis."

The condition is clearly very rare. My own case and Dr. Routh's seem the only examples where the opposite cornu was capable of gestation; my patient had twice been pregnant, once to term.

Uterus unicornis, as has been shown, is more often associated with pregnancy in the cavity of the ill-developed cornu. But in my case there was no such cavity. Over eighty years ago Dr. Granville described a case of gestation in the well-formed cornu of a uterus unicornis. The drawing, which was published with his report, has been freely copied in more modern works. Frank,[7] of Altona, has just recorded a case of uterus unicornis in a parous woman. The left cornu, ovary, and tube, were absent and the left kidney lay on the pelvic brim.

The new growth in my patient was so small that I should have watched the case rather than operate when I did had it not been for the painful dragging sensations which harassed the patient. The prolapsing of the well-formed cornu was

probably due to the defects in development of the supporting structures which were insufficient to keep it up after the first pregnancy. At the operation I observed that it was completely anteverted and thick-walled. Its cavity measured three and a-quarter inches. Many a normally developed uterus in this condition cannot be maintained at its right axis and level by its well-developed supports.

It is easy to understand that the catamenia were regular, for one cornu had proved competent to bear a child to term, and to deliver it with a little assistance. Uterus unicornis is so rare and its variations (from almost total absence of any trace of the suppressed cornu to the presence of a cavity in that cornu) so indefinite that no sound conclusions can be drawn from the collected catamenial histories of recorded cases. The cases where atresia vaginæ is associated with hæmatometra of one cornu are in this respect the gravest.

The bulky uterus, which seemed to be well-developed when examined bimanually, and the history of two pregnancies ending without any phenomenon more abnormal than an abortion deceived me as to the true nature of this case. The hard mass puzzled me. Altogether it seemed very like the myoma of the ovary which I had removed over a year previously.[2] This, like the tumour in the present case, caused severe bearing-down pains. In cases of this kind of uterine malformation complicated with atresia, a fibromyoma of a cornu has been taken for a hæmatometra and a hæmatometra of a cornu for a pelvic tumour (Eberlin).

Fig 2

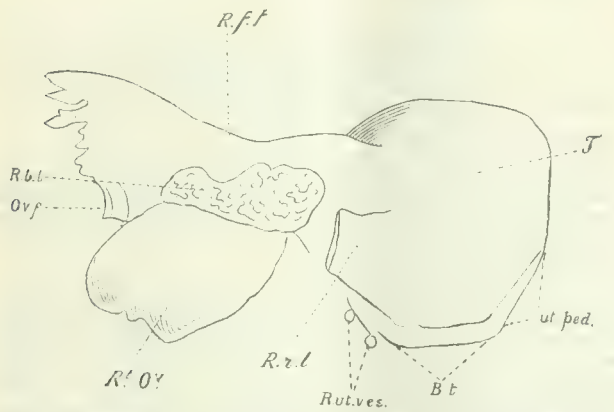


Fig. 2.—Diagram explanatory of Fig. 1. *T.*, tumour; *Ut. ped.*, portion of the capsule of the tumour divided in separating it from the uterus; *B. t.*, base of tumour enucleated from the lowest part of its capsule; *R. ut. ves.*, right uterine vessels; *R. r. l.*, right round ligament; *R. f. t.*, right Fallopian tube; *Ov. f.*, ovarian fimbria of tube: *R. b. l.*, right broad ligament; the layers are seen separated by much connective tissue in which the dilated ovarian vessels run; *Rt. ov.*, right ovary.

Whilst for reasons given above a fibroid of an undeveloped uterine cornu is rarely if ever accurately diagnosed, there should be no hesitation about recognising its true character when it is exposed by an abdominal incision. Contrary to what is the case with so many other types of pelvic tumour, the larger it grows the more evident do its relations become, nor are they likely to be obscured by inflammatory changes. Its firm texture and its relation to the uterus indicate that it is pathologically a myoma before the fact is proved by microscopical examination. When the operator has recognised the teratology of his case, all that remains for diagnosis is to be sure that the cornu is not the seat of a hæmatometra or of a fœtus and its membranes.

When there is a distinct band between the tumour and the other half of the uterus, as in my case, that other half should be saved and the band treated as the pedicle in ovariotomy. This has been successfully done in one case, at least, of gestation in an undeveloped cornu, though the patient died from another cause. In my case I left behind a cornu which had already been twice impregnated, and which bore a normal tube and ovary.

The operation, however, though not difficult, is not safe if treated as a trifle on the mere fact that it is relatively easy. Mangiagalli lost his patient from hæmorrhage on the second day; yet the opposite cornu was very ill-developed, so that specially large arteries were not to be expected. In my case the opposite cornu functioned naturally, and a very large serpentine uterine artery with big veins ran into the lower part of the tumour externally. I saw at once that simple ligature and division of the pedicle, unusually broad for so small a tumour, would be very unsafe.

The tube and ovary should certainly be removed in a case of this kind, as they are useless and a source of danger from possible future ectopic gestation due to extrauterine migration of the ovum from the opposite side, a well-known phenomenon in cases of pregnancy in a cornu unconnected with the cervix. When atresia of the opposite cornu is detected, it is probably best to amputate the entire uterus above the cervix, as Sutton recommends in all cases of hæmatometra.

In conclusion, this operation of retroperitoneal hysterectomy is safest when a myoma in a "uterus bicornis unicollis," properly so-called, is detected. Gow successfully performed this operation in his case. The fold of peritoneum which sometimes passes between two well-formed and well-separated cornua (recto-vesical ligament) may give trouble. Neither in a case like this nor in a case of tumour in uterus unicollis like mine, is panhysterectomy advisable. The malformation may involve displacement of the ureters, and other important structures out of sight, to an extent impossible beforehand to determine, thus rendering that operation very perilous. In retroperitoneal hysterectomy the operator can see what he is about to divide with the knife.

Fig 4

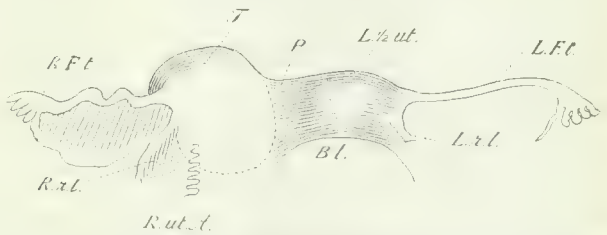


Fig. 4.—Sketch showing the relations of the tumour as seen at the operation. *T.*, tumour; *L. ½ ut.*, left half of uterus; *P.*, pedicle connecting tumour to half uterus; *R. F. t.*, right Fallopian tube; *L. F. t.*, left Fallopian tube; *R. r. l.*, right round ligament; *R. ut. a.*, right uterine artery; its serpentine course is indicated; the dotted line shows the outline of the tumour in the broad ligament whence its base was enucleated (see Fig. 2, *B. t.*); *Bl*, bladder.

Notes and References.

[1] Abnormal development of the round ligament on the undeveloped side appears to be the rule in uterus bicornis. [2] Allbutt and Playfair's *System of Gynæcology*, p. 79. [3] No. 3674A Museum of St. Bartholomew's Hospital. As in my case the left half of the uterus is normal. Meyer, Pick, and Falk dwell on the part which the ligament appears to play in producing this malformation. [4] A good drawing of the specimens is to be found in *Trans. Obst. Soc.*, vol. xxix, p. 58; the specimen itself is in the museum of St. Bartholomew's Hospital, No. 3001A. [5] *Loc. cit.*, pp. 2-4. [6] See also Gow's case. Cystic Intraligamentous Myoma with double Uterus (Uterus bicornis, the cornua communicated at the os internum). *Trans. Obst. Soc.* vol. xl, 1898, p. 134. [7] *Centralbl. f. Gyn.*, May 20th, 1899. [8] Ovarian Tumours simulating Inflamed Ovaries including a case of Ovarian Myoma. *Edin. Med. Journ.*, vol iii, N.S., 1898. p. 449. (The myoma is represented at pp. 455-456.)

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THE SOLVENT ACTION OF CERTAIN BRITISH AND FOREIGN MINERAL WATERS ON THE BIURATE OF SODIUM.

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Harrogate.

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ADMITTING the therapeutical value of biurate solvents in cases of gout, it seems reasonable to test the solvent power of accredited remedies *in vitro*. Experimenting on these lines, Sir Wm. Roberts, and more recently Dr. Luff, found that the admixture of a small quantity of sodium salts with blood serum containing biurate diminished the solubility of the latter. Dealing with 100 c.cm. of distilled water containing an excess of biurate, it was shown that less biurate was dissolved in the presence of a sodium salt than in its absence. The inference drawn from these experiments was that mineral waters containing the smallest percentage of sodium salts were the most beneficial in the treatment of gout. There is, however, a consideration which makes it necessary to accept such an inference with caution. It should be remembered that mineral waters are not simple saline solutions, but may contain one or more substances counteracting the influence of the sodium salts on the solubility of the biurate. This objection is exemplified by the action in the laboratory of the mineral ash of spinach, as indicated by Dr Luff, such ash being specially solvent, although its percentage of sodium salts is high. Dr. Luff, in his suggestive book, has given a list of mineral waters considered by him to be most suitable for the removal of the biurate deposited in the tissues in cases of gout, and has arranged them according to the proportion of sodium salts they contain.[1] To such a list this objection, if valid, must apply.

To test its validity I have carried out a series of experiments closely following the methods adopted by Dr. Luff:

The biurate of sodium was prepared in accordance with Sir William Roberts's instructions: 10 grams of uric acid and 10 grams of bicarbonate of sodium were added to a litre of distilled water. The mixture was boiled for half an hour, filtered, and the filtrate allowed to stand for twenty-four hours. The precipitate was then collected, washed with cold distilled water, and dried at 38° C.

In the first set of experiments six stoppered bottles, each having a capacity of 200 c.cm. were used, the size being important owing to the necessity for agitation.

No. 1 contained 100 c.cm. distilled water.

No. 2 contained 0.5 per cent of a mineral water, plus 99.5 per cent. of distilled water.

No. 3 contained 1 per cent. of a mineral water, plus 99 per cent. of distilled water.

No. 4 contained 3 per cent. of a mineral water, plus 97 per cent. of distilled water.

No. 5 contained 5 per cent. of a mineral water, plus 95 per cent. of distilled water.

No. 6 control similar to No. 5.

An excess of biurate was added to the first five bottles. They were then placed in a warm chamber in pairs, at intervals of twenty minutes, and agitated an equal number of times; No. 6 was not agitated. The chamber was kept at a temperature of 38° C. by a gas regulator. When the door of the chamber was opened there was a temporary fall of about 2°. After a period of five hours the bottles were removed in the same order, the successive intervals being taken up by the processes of filtration and titration. Their contents were passed through double filters until clear solutions were obtained and refiltered; 50 c.cm. were then taken and made up to 100 c.cm. with distilled water. To this 20 c.cm. of sulphuric acid were added, and the mixture titrated with 1 in 10 normal standard permanganate solution.

In no two experiments did the distilled water dissolve exactly the same amount of biurate. This was anticipated, as it is next to impossible for the conditions to be precisely similar in any two of these experiments, but the variations lay within narrow limits. Proportionate variations in the same direction occurred with the mineral waters; that is to say in a given experiment when the result with distilled water was above the average, the result with the mineral water was above the mean and *vice versâ*; consequently the average of the figures obtained with distilled water has been taken as a basis and the other results brought into uniformity. Finding that the higher percentages of all the waters used diminished the solubility of the biurate, 1 per cent. has been selected as being the most appropriate for illustrative purposes. Objection may be raised to this percentage as being too high, but taking magnesia water as an example it should be noted that it only contains 2 per cent. of total solids, an amount reduced experimentally to 0.002 per cent.

TABLE I.—*Showing the Solubility of Sodium Biurate in 100 c.cm. of Distilled Water, at a Temperature of 38° C., and in Distilled Water containing 1 per cent. of the different Mineral Waters.*

Solvent.	Sodium Biurate Dissolved.
	Per 1,000.
Distilled water	1.110
Magnesia water, Harrogate	1.100
Beckwithshaw water, Harrogate	1.080
St. Ann's well, Buxton	1.075
Source Pavillon, Contrexéville	1.068
Teiplitz	1.060
Celestin spring, Vichy	1.050
Mild Montpellier, Harrogate	1.020
Morrison well, Strathpeffer	1.010

It should be stated that the quantity of permanganate solution required to produce the end reaction in a control experiment was deducted in due proportion from the amount reduced in the titration process of the experiments with 1 per cent. of the different mineral waters before the figures in the above table were computed.

Several experiments were undertaken to determine the effect of agitation upon the solubility of the biurate. Considering what a very insoluble substance biurate is, the influence of agitation was very marked. Providing the temperature did not vary, it was found that as much biurate was dissolved in five hours with frequent agitation as in ninety-three hours without agitation.

In a second series of experiments distilled water was replaced by artificial blood serum which reacts with biurate similarly to natural blood serum. One per cent. only of the waters was experimented with and the bottles were left in the warm chamber for 20 hours, otherwise the experimental conditions were similar in the two series. A bottle containing artificial blood serum alone was always placed with each set of bottles in the warm chamber. As the artificial blood serum nearly always varied slightly in its solvent effect in the different experiments the average has been again taken, and the solvent power of each mineral water estimated accordingly. The results obtained with this medium showed even less comparative variation in the solvent power of the mineral waters used than with distilled water. With both media most of the experiments were repeated.

TABLE II.—*Showing the Solubility of Sodium Biurate at a Temperature of 38° C. in 100 c.cm. of Artificial Blood Serum, and in Artificial Blood Serum containing 1 per cent. of the undermentioned Mineral Waters.*

Solvent.	Sodium Biurate Dissolved.
	Per 1,000.
Artificial blood serum	0.104
Magnesia, Harrogate	0.102
Beckwithshaw Harrogate	0.100
St. Ann's Well, Buxton	"
Sulis Water, Bath	"
Royat	"
Source Pavillon, Contrexéville	"
Elizabeth Brunnen, Homburg	"
Gichtwasser, Wiesbaden	"
Vittel	"
Ems	"
Teiplitz	0.099
Rakoczy, Kissingen	"
Celestin Spring, Vichy	"
Choussy-Perriere, La Bourboule	0.097
Marienbad	"
Morrison Well, Strathpeffer	0.096
Carlsbad	"

Regarding the therapeutic significance of these results, I may point out that the differences in solvent power between the various waters is almost infinitesimal, and that in any case the differences in question are not necessarily determined by the percentage of sodium salts they contain. The method itself, however, appears to me to be open to criticism. In the first place, the absence of continuous and prolonged agitation involves a marked divergence from the conditions under which the solvents would be present in the blood; and secondly, the chemical compounds that come into contact with the biurate in the test bottle are by no means necessarily identical with those that after absorption come into contact with it in the tissues. In illustration of this point, it may be stated that spinach was given in a case of chronic gout, the patient being at the time on a fixed diet, without any apparent effect on the solubility of the biurate, as evidenced by the excretion of uric acid in the urine. Hence inferences from chemical experiments, such as those under consideration, as to the activity of a supposed biurate solvent, should be modified by administering the substance to a gouty patient, and only when a positive result is obtained can a favourable conclusion be arrived at in regard to its therapeutic value.

REFERENCE.

[1] A. P. Luff, *Gout: its Pathology and Treatment*, p. 230.

BONE CROCHET HOOK (4½ INCHES LONG) ACCIDENTALLY LODGED WITHIN THE PERITONEAL CAVITY.*

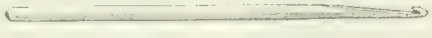
BY HENRY BRIGGS, M.B.EDIN., F.R.C.S.ENG.,

Professor of Midwifery and Gynæcology in University College and Surgeon to the Hospital for Women, Liverpool.

THE total number of intraperitoneal foreign bodies to which any clinical interest has been attached has been small. This is due chiefly to two sets of circumstances. Within the opened abdomen the easy concealment of a sponge or instrument is ever present in the minds of the operating surgeon and his assistants. In the closed abdomen the anatomical relations of the peritoneal folds and the abdominal viscera do not encourage foreign bodies which may be lying, primarily, in the alimentary or genital canal to become, secondarily, wholly intraperitoneal. Neverless, sponges and instruments have been left behind by operating surgeons; and knives and the handle of a broken utensil, primarily swallowed, have by ulceration become, secondarily, wholly intraperitoneal. The former has supplied by far the larger group of cases. Reports, gathered from patients and communicated by correspondents to the medical journals, have suggested that instruments have been frequently used *per vaginam* by women upon themselves.

As an example of an almost singular risk of self-conducted vaginal manipulation of instruments, I have to report a case, recently under my care, at the Hospital for Women, in which a bone crochet hook was forced completely through the vaginal roof into the peritoneal cavity.

History.—A domestic servant, a single woman, aged 34, in service in Manchester, went home to stay with her mother at Runcorn. Next morning, Tuesday, March 7th, 1899, she "applied iodoform ointment to the ulcerated neck of her womb." For this purpose she used a single bone crochet hook, holding the hooked end in her right hand, and passing into the vagina the blunted end covered with the ointment. She had often before applied the ointment in this way. She always assumed during the process a squatting posture. On the occasion just referred to, when the crochet hook was within



Crochet hook (half size).

the vagina, she, from the squatting posture, reached over towards the top of a table close by. She afterwards knelt down, and immediately, on passing the finger well into the vagina, discovered that she could only just touch, and could not grasp, the hooked end of the crochet hook. She stood up and walked about, and, from her sensations, felt sure the position of the crochet hook within her was changed. She postponed further notice of the occurrence. There was not even a stain of blood, she said, until the next menstrual period commenced two days later, after the regular monthly interval, and ceased as usual the following day. She felt pain in the right iliac region on walking, and more particularly on sitting. She walked to Dr. Robinson's house in Runcorn on the Thursday; he advised her to go to the Hospital for Women, Liverpool. She delayed her journey till the Friday afternoon. On admission she complained of a little pain in the lower abdomen and of painful micturition.

Physical Signs.—There was no constitutional disturbance; the temperature and pulse were normal; she moved about in bed without obvious discomfort. Abdomen free from distension. Externally, tenderness and a local resistance, on pressure, under the inner fifth of Poupart's ligament, on the right of the pubes, suggested the site of one end of the crochet hook. Bimanually, the crochet hook could be traced, rather indefinitely, across the top of the right broad ligament, from the inner end of the right crural canal in front to the right fourth sacral foramen behind. At this stage of the investigation the patient was interrogated as to the length of the crochet hook. A crochet hook of the usual length (my charge-nurse had one) would not lie in a pelvis of average size in the position indicated. The patient explained that her crochet hook was shorter than the one nurse produced.

X-rays.—There were good reasons for the expectation that an *x*-ray photograph would confirm the presence and position of the foreign body within the pelvis. Dr. Thurstan Holland obtained the excellent result copied in the figure; a nurse's crochet hook, as a control experiment, was also photographed on the edge of the plate (see the figure).



Diagnosis.—I communicated the result of my clinical examination to Dr. Thurstan Holland before, at my request, he confirmed the diagnosis by an *x*-ray photograph, and added the useful information that the hooked-end of the crochet hook was most probably directed backwards, against the sacrum.

Operation.—March 14th (eight days after the accident), with the patient in the lithotomy position, I incised the vaginal roof, through the posterior fornix, and placed my left index finger within the pouch of Douglas, and on the hooked end of the crochet hook. My finger was used as a guide for a single tenaculum which "hooked," hook to hook, the hooked end, and enabled me to at once withdraw the crotchet hook. A little serum, approximately 1 ounce, containing floccules of lymph, escaped. The opening in the vaginal roof was left lightly packed with cyanide gauze for forty-eight hours. A normal pulse and a normal temperature were recorded throughout the uncomplicated recovery. She left the hospital for home on March 27th.

Remarks.—The rectum, uterus, and bladder were explored and found empty, or unconnected with the foreign body. The crochet hook lay within the peritoneal cavity. How did it get there? I did not detect traces of an aperture of entrance.

* Read before the North Wales Branch of the British Medical Association.

There can be no doubt that the crotchet hook had penetrated the vaginal roof, through the posterior fornix, (*a*) judging from this case alone, for two reasons: (1) the position the crochet hook occupied in the peritoneal cavity, and (2) the length of the crochet hook, 4½ inches, (*b*) associating this case with the report of a similar case before the Royal Medical and Chirurgical Society[1] in May, 1855, by Mr. Erichsen and Mr. T. Bryant, where a pointed cedar pencil, 5½ inches long, lay for eight months within the abdomen after having penetrated the right posterior fornix-vaginæ and transfixed two coils of small intestine. When contrasted with the crochet hook, the extra inch in length of the cedar pencil would account for the latter having reached a higher level on the anterior abdominal wall, through which, by incision, Mr. Erichsen removed the pencil, death ensuing four days later from septic peritonitis and fæcal extravasation. If the circumstances attendant upon the intraperitoneal entrance of the foreign body in either of the cases were considered, it would appear very probable that the crochet hook (4½ inches) or the cedar pencil (5½ inches) was first completely lodged within the vagina, the upper end raising or propping up the posterior fornix and the lower end resting on the pelvic floor or perineum; whilst a sudden, perhaps almost violent, change in the patient's posture raised the intra-abdominal pressure and drove the foreign body through the vaginal roof. My patient from a squatting posture raised herself to reach over a table top and then knelt down; Mr. Erichsen's patient was disturbed during her manipulation of the vaginal foreign body. My patient had used a blunter instrument; she had the advantages in diagnosis of the *x*-ray photography and in treatment, of pressure from her doctor not to delay, and in her case of operation by the vaginal route.

The only other example of a primarily vaginal foreign body in any way resembling those I have described I find mentioned by Dr. Freund,[2] of Strassburg, who discovered accidentally when operating, by abdominal section on the left Fallopian tube, a portion of the shanks of a hairpin which had penetrated the uterus and tube.

References.

[1] *Medico-Chirurgical Transactions*, xxxix. [2] *Centralblatt für Gynäkologie*, December 17th, 1887.

TWO CASES OF INTRACTABLE UTERINE HÆMORRHAGE FOR WHICH VAGINAL HYSTERECTOMY WAS PERFORMED.

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Mr. Bland Sutton in the British Medical Journal of April 8th, p. 839, draws attention to cases of persistent uterine hæmorrhage which do not yield to the curette, and which are not characterised by any marked naked-eye changes in the uterus. Histological examination however shows changes in the uterine wall, and he applies the term "fibrosis of the uterus" to this condition.

I have met with two such cases, in each of which I performed vaginal hysterectomy, and as in one of the cases a careful histological examination was made which bears out the views of Mr. Bland Sutton, I have thought that it may be of interest to briefly narrate the cases.

Case I.—The first was a woman, aged 46, who was admitted to the Queen's Hospital, Birmingham.

History.—She had had eight children, the last eight years ago, and since the birth of the last child there had been six miscarriages, the last one being eighteen months ago. When not pregnant during the last five years she had been almost constantly losing blood, and for six weeks before admission there had been no intermission of the bleeding. She had been treated by rest in bed, drugs, and curetting had been several times performed, but with no permanent effect.

Operation.—As the patient was getting very anæmic and was having fainting attacks it was decided to perform vaginal hysterectomy, and this was done on August 14th, 1897. The patient made a good recovery and there has been no further vaginal hæmorrhage.

The main interest of the case lies in the result of an examination of the uterus. To the naked eye this organ appeared normal. A careful microscopical examination was kindly made by Dr. Douglas Stanley, Pathologist to the Queen's Hospital, whose report, dated November 11th, 1897, was as follows:

"I have examined the sections of uterus. The endometrium shows considerable alteration of the epithelial cells, which are round or irregular and proliferative, forming a deep layer, in which are found vessels with poorly-developed walls. Under this there seems to be some fibrotic degeneration of the uterine tissue, and here the vessels show evidence of chronic inflammatory thickening; further away from the mucous surface there seems to be no alteration of the tissues."

Case II.—P. G., aged 35 years, I saw in consultation at her own home in May, 1897.

History.—She had had three children, the last confinement having taken place eighteen months previously; this was brought on prematurely by a fall, and she had complained of pain in the right side of the abdomen ever since. She menstruated profusely one month after the confinement, and since then she had suffered from somewhat severe menorrhagia.

Operation.—On May 23rd, 1897, I curetted the uterus. This was followed by some improvement in the menorrhagia, but it later became as bad as before, and as she was losing strength and having fainting attacks it was decided to perform vaginal hysterectomy. This was done in the Queen's Hospital on November 5th, 1898. The ovaries and Fallopian tubes were apparently normal, and were not removed.

The patient made a good recovery, and there has been no further hæmorrhage.

The uterus after removal appeared somewhat enlarged, but otherwise no abnormality was visible to the naked eye. No histological examination was made.

In both these cases the menorrhagia commenced as a sequela of parturition or miscarriage, and they both bear out the views enunciated in the above-mentioned paper of Mr. Bland Sutton that the change in the uterine wall is secondary to "infective chronic metritis."

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

TREATMENT OF CORYZA.

I have found by repeated experience that coryza can be aborted by using locally a solution of belladonna tincture (*P.B.* 1899) in water. The strength used by me is ℥j, or ℥iss in ℥j of water. The method of using it is as follows: The nose having been well cleared out and a Wallas's irrigator containing about a dessertspoonful of the solution applied to one nostril, close the other nostril and the mouth, and, while gradually raising the distal end of the irrigator, make a long inspiration until the air, in bubbling through the solution, carries with it a coarsish spray. Afterwards spray the other nostril in the same way and then, having well cleared out both nostrils, repeat the process. Thereafter the coryza will cease, that is to say, if the treatment has been commenced on the first or second day of the attack. In cases of longer standing it may be necessary to repeat the application more than once or twice. When the coryza has lasted already for some time, and, consequently, the mucous membrane has become thickly coated with a tenacious mucus, it is necessary to remove this accumulation by irrigations of alkaline solutions (sodium bicarbonate with sodium biborate, etc.) before using the belladonna.

The above treatment checks immediately the coryza of hay fever in many cases.

Wimpole Street, W. William E. Burton.

A NEW METHOD OF CLOSING THE PERITONEUM AFTER LAPAROTOMY.

Having on many occasions had to reopen the abdominal cavity for the treatment of ventral herniæ, constriction of intestine, and other pathological conditions the result of laparotomies, I have almost invariably found that the intestine or omentum had become densely adherent to the site of the previously cut surface of the parietal peritoneum. In many cases symptoms of intestinal obstruction, most probably from peritoneal adhesions, have come under my notice where skilled operators had previously adopted the most modern methods of suturing the membrane.

After careful consideration I have discovered a method which has answered admirably in my hands. I open the peritoneum by an incision say 4 or 5 inches in length; being a very elastic membrane, I stretch the opening with my fingers should I require more space.

Having done what is necessary in the abdomen my plan of

closing the peritoneum is as follows: I pass a continuous suture either of silkworm gut or kangaroo tendon around the cut surface, beginning at the centre of the incision. The needle is introduced about one-eighth of an inch from the cut edge after the manner of a pursestring suture. Having surrounded the opening in this way, the ends are drawn tight, and the peritoneal opening is closed, the raw surface being puckered up external to the abdominal cavity.

By this means the peritoneal cavity is thoroughly closed; there is no raw surface to adhere to the intestine, and no leakage can take place into the abdomen should there be any oozing from the muscles or subcutaneous structures. The suture is easily applied, and the peritoneum closed in this way can much more effectively withstand any post-anæsthesial vomiting, which is a matter of great importance. The muscles and aponeuroses are brought together with interrupted sutures and the skin approximated by the subcutaneous method. On no occasion have I seen any untoward symptoms follow this procedure.

HENRY O'HARA, F.R.C.S.I.,
Senior Honorary Surgeon to the Alfred Hospital.
Melbourne.

DELIVERY OF THE ARMS WHEN DISPLACED UPWARDS IN BREECH CASES.

I RECENTLY attended a case of labour with pelvic contraction, the child presenting transversely. Turning was resorted to and the legs brought down. The uterus was carefully followed with the hand in its descent, and as the pulsations of the cord were only imperceptibly felt traction was made on the legs in the axis of the parturient canals. The arms, however, became displaced upwards and could not be brought down by the usual digital method. I therefore knotted a corner of a soft handkerchief and passed it round the shoulder which lay anteriorly, it being most accessible. Then, having pushed the handkerchief along the arm to the elbow it was kept there by a finger of the left hand whilst with the other hand I exerted traction on the handkerchief in a direction obliquely across the anterior aspect of the child's body. In this way I managed to pull down the arm without difficulty. The other arm was then easily brought down with the fingers. I consider the method freer from danger than the use of a blunt hook. The danger of causing fracture of the shaft of the humerus or dislocation of the head of that bone is to be avoided by (1) keeping the handkerchief at the elbow by means of the finger, and (2) by pulling in a direction obliquely across the anterior surface of the child's body. The "lacque" has been mentioned by authorities as useful sometimes in bringing down a breech, but I have not noticed anything of the kind mentioned as of use in bringing down the arms, hence my reason for publishing the case.

T. M. CALLENDER, M.B., C.M.Edin.,
Late Resident Surgeon Royal Maternity and Simpson Memorial Hospital, Edinburgh.
Sidcup, Kent.

A CASE OF HERNIA OF THE OVARY.

HERNIA of the ovary is mentioned in most surgical and gynæcological textbooks, but appears to be sufficiently rare to render the present case worth recording. E. M., aged 25, a domestic servant, consulted me in February last on account of a painful swelling in the left groin, which had appeared suddenly two years ago while she was lifting a heavy coal-scuttle. Since that time she had been incapacitated from earning her living, as she had been obliged to leave one situation after another owing to the hernia, the pain of which was relieved by rest and aggravated by work. She stated that the swelling was always larger and more painful at the monthly periods. On examination I found a solid globular, highly-sensitive swelling, the size of a large walnut, in the left inguinal canal. It could be partially, but never entirely, reduced by taxis. While the patient was under observation, she passed through a menstrual period, during which the swelling did undoubtedly increase in size, and became much more tender. The signs, therefore, were characteristic of ovarian hernia, and the girl was admitted to the hospital for operation. On March 10th, 1899, I cut down on the hernia, and found an apparently healthy ovary in the inguinal canal. There was some adhesion of the broad ligament to the interior of the canal, so that the ovary could not be returned within the abdomen. The ovary and about two inches of the Fallopian tube were removed by transfixing the broad ligament with stout silk, and tying the tube and ligament in two sections. The inguinal canal was closed by sutures of silkworm gut, completely occluding it, as in the ordinary operation for radical cure of hernia. The case did well, the wound healing soundly by first intention, and the patient left the hospital on April 6th.

WALTER L. BELL, M.D.,
Surgeon to the Lowestoft Hospital.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CARDIFF INFIRMARY.

A CASE OF MISPLACED, MISSHAPEN KIDNEY.

(By A. WILLIAM SHEEN, M.D., M.S., F.R.C.S., Senior Assistant Surgeon).

A MAN, aged 59, was admitted with an old stricture and symptoms of prostatic hypertrophy. He had used a catheter constantly for ten years. He contracted erysipelas, followed by gangrene, and died one week after his admission. The left kidney was found to be misplaced, lying upon, and with its long axis in the line of, the left common iliac artery and rather more to its inner side. It was firmly fixed in position and touched the fourth and fifth lumbar vertebræ and the brim of the pelvis. The left suprarenal capsule and the right kidney with its capsule had their normal situations.

The left kidney on dissection was found to be smaller and more rounded and flattened than normal. Its upper end reached to within half an inch of the aortic bifurcation, its lower end fitted into the division of the common iliac into its external and internal branches. Its greatest length was 3½ inches, its breadth 2½ inches, and its thickness 1 inch. There was no proper hilum, but upon the anterior face of the kidney was a shallow depression about 1½ inch wide in the middle and narrowing to a point at the inner and outer borders. At these borders it is continuous with grooves which will be again referred to. This area divided the anterior face of the kidney into two parts, the upper being smaller and rounded, the lower larger and somewhat horseshoe-shaped, with its concavity turned towards the upper part and embracing the depressed area. Posteriorly the kidney is smooth and flat, and there is no trace of any subdivision.

The ureter is formed by the junction of four main trunks. Three of these spring from the depressed area above mentioned and the fourth from the upper rounded portion of the anterior face. This last trunk is again formed by the union of four smaller subdivisions, so that altogether seven channels leave the anterior surface of the kidney to form the ureter. The ureter commences about an inch from the kidney and takes its usual course to the bladder. It is about five inches long, is pervious and of normal calibre.

The arteries are three in number. The first (the largest) springs from the bifurcation of the aorta and enters the kidney at the posterior part of a short, shallow antero-posterior groove on the inner border. This groove is continuous anteriorly with the depressed area. The second artery springs from the front of the aorta one inch above its bifurcation and traverses a long narrow groove which passes from behind, forwards, and downwards along the outer border of the kidney to terminate at the outer angle of the depressed area, the artery itself entering the kidney substance at the outer part of this area. The third artery (the smallest) leaves the internal iliac one inch below its origin and enters the outer border of the kidney one inch above its lower extremity.

The largest vein is formed by the junction of two tributaries from the internal part of the depressed area, joined almost immediately by a tributary from the upper rounded portion of the anterior face; it runs at first in anterior relation to the artery from the aortic bifurcation, and then passes in front of the right common

iliac artery to enter the anterior surface of the inferior vena cava one inch above its commencement. Another vein is formed by the junction of several small venous radicles from the upper and anterior extremity of the kidney, and this is joined on the outer side as it runs upwards by a vein which accompanies the artery in the groove on the outer border of the kidney. The vein thus formed is apparently the vena azygos minor, for it receives two or three veins crossing the front of the spine horizontally from within outwards, and runs vertically upwards behind the suprarenal capsule, sending a branch in front of that body, towards the diaphragm.

The left suprarenal capsule is large and distinct; an artery springing from the anterior surface of the aorta, just above the origin of the cœliac axis, enters its inner border. Some of its veins enter the ascending vein above-mentioned, but they could not all be traced, and no other arteries were found.

The right kidney is large and healthy, except that its cortex contains a rounded calculus, apparently about one inch in diameter, and presenting an exposed surface the size of a shilling in the centre of the outer border. The right ureter is normal. The median and lateral lobes of the prostate are moderately enlarged, and the bladder wall is much hypertrophied.

The specimen showing the above points was exhibited at the meeting of the Cardiff Medical Society on April 7th last.

STATION HOSPITAL, THAYETMYO, LOWER BURMAH.

THREATENED DEATH UNDER CHLOROFORM.

(By FRANK E. GUNTER, M.B., C.M.Edin., Captain R.A.M.C.)

THE following notes seem to me to be of interest as confirming the experience of Mr. C. W. Cathcart and Mr. Thomas Stevenson, that in certain cases of chloroform poisoning the heart stops before the respiration.

Private H. B., aged 24, was admitted into hospital with primary syphilis. He was placed on the usual mercurial treatment. As the sore did not heal well, and as the prepuce was tight, I determined to excise it. Accordingly on November 29th, 1898, he was anæsthetised with chloroform administered on a cone of permeable spongeopilin. The cone was well open at the top. After about five minutes' administration, when he had received 2½ drachms of chloroform, he became pale and his pulse at the wrist stopped. His respirations continued uninterruptedly. His head was lowered, his legs raised, and artificial respiration commenced. As a result of these measures, which were continued for nearly a quarter of an hour, his pulse again began to beat and he recovered.

This case seems to me to emphasise the importance of watching the pulse carefully during chloroform administration. Had this not been done in the above instance the man would have died on the table, as there was nothing in his breathing that pointed to there being anything amiss with him.

ST. MARY'S HOSPITAL FOR CHILDREN, PLAISTOW.

CASE OF PATENT URACHUS: OPERATION: CURE.

(Under the care of Mr. ANGUS KENNEDY, Surgeon to the Hospital.)

[For the notes of this case we are indebted to T. BLANCHARD-SELLORS, L.S.A., Acting Resident Medical Officer.]

ABOUT five weeks ago an unhealthy-looking child of seven months was brought to the out-patient department with a tumour of the umbilicus, which the mother had been told was a rupture. It had been present since birth, had increased in size since then, and fluid had been noticed to come from it during the whole time. The child was admitted, and on examination a tumour of the size and appearance of a large red cherry was seen to occupy the situation of the umbilicus. A small opening slightly below the summit admitted a probe which passed about 3 inches, and from it urine was continually flowing. On grasping the tumour with the fingers and drawing it forwards, a pedicle was noticed covered with skin, the shape of the pedicle and tumour together being very much like a small "button" mushroom, the stalk arising from the centre of the depressed umbilicus. The tumour itself was evidently formed of everted vesicle, mucous membrane, and the deep red colour of its surface was the result of congestion due to constriction in the pedicle. Although urine was continually dribbling through this abnormal orifice, the greater part was passed by the urethra. A few days after admission—during which time the skin around had been carefully prepared—Mr. Kennedy performed an operation of which the following are the steps. A probe having been passed into the opening and two long pieces of silk having been passed through the skin of the pedicle to draw it forwards, the everted mucous membrane was cut away at its junction with the skin of the pedicle. The skin of the pedicle was then carefully dissected from the duct forming its centre; the probe was withdrawn, and the duct ligatured with strong silk as low as possible, care being taken not to include the smallest piece of skin. The pedicle was cut away just above the ligature, and the skin edges brought exactly together by fine silk sutures over the stump. A catheter was passed *per urethram*, and only clear urine drawn off. A week after the stitches were removed, and the wound was found to be perfectly healed. Since then the child has passed urine only by the normal channel, and the umbilicus differs but little from an ordinary one, a slight vertical ridge more prominent than the radial ridge marking the site of operation.

REPORTS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

J. M. PURSER, M.D., President, in the Chair.

Friday, May 5th, 1899.

FRACTURES OF CLAVICLE.

DR. KNOTT exhibited a large series of pathological clavicles.

Professor E. H. BENNETT said that the two specimens of fracture of sternal end of clavicle were very rare. They were of exactly the same type as he had himself obtained, namely, that the fracture was oblique, passing through the sternal end and produced by a force acting in the axis of the clavicle. The anatomical varieties of the clavicles shown conformed to the great varieties of shoulders. He had never seen an epiphysis on the outer end of the clavicle.

Mr. R. C. B. MAUNSELL asked Dr. Knott if he had ever seen an example of ununited fracture of the clavicle. He had a patient who sustained a fracture of the clavicle, and a false joint was the result, owing to non-union.

Dr. KNOTT, in reply, said that he had never seen an ununited fracture of clavicle.

INFECTIVE ENDOCARDITIS.

Professor E. J. MCWEENEY described a case of this disease. Into the left auricle projected a greyish friable mass of fibrinous material as big as a large hazel nut, and springing from the aortic cusp of the mitral. The chordæ tendineæ were involved in a mass of similar character, and were much softened and ulcerated. Microscopically and culturally the diplococcus of Fraenkel was the only organism found. The edges of the fibrinous mass contained it in prodigious numbers, aggregated in small circular colonies. Both kidneys were found extensively infarcted, but not the spleen. Two months previously the patient had developed a slight consolidation of both bases, consequent on a laparotomy successfully performed for the relief of pyloric obstruction by Mr. Chance. The temperature had been elevated at that time for two days only, and the case was regarded as one of so-called "ether pneumonia." She was discharged cured of her gastric troubles, and readmitted a month afterwards with the symptoms of ulcerative endocarditis. Dr. McWeeney drew attention to the facts (1) that cases of so-called ether pneumonia may be due to pneumococcus infection, and (2) that pneumococcus infection of the lungs spreads more often than is generally supposed to the general circulation, giving rise to ulcerative endocarditis. This was the second case of the kind he had shown within the last five months to that Section. Illustrative slides and cultures were shown.

DISLOCATIONS OF THE METATARSUS ON THE TARSUS.

Professor BENNETT submitted accounts of two cases of dislocation of the metatarsus on the tarsus which he had met with—one the complete dislocation of the bases of the meta-

tarsals upwards and outwards; the second an example of dislocation of the first, second, and third metatarsals downwards beneath the tarsus. Of this he showed a cast, and of the former the skiagraph, showing that the dislocation had occurred without fracture of the base of the second metatarsal. He briefly reviewed the literature of the subject, and described the method of treatment of his cases.

Remarks were made by Dr. Knott.

Central Sarcoma of Bone.

Mr. W. J. De Courcy Wheeler read a paper on this subject.

Dr. E. J. McWeeney said that the two microscopical sections which he had prepared for Mr. Wheeler showed an enormous number of giant cells or myeloplaxes. The tissue resembled normal bone marrow, with an extreme multiplication of the myeloplaxes. The cells were of positively gigantic proportions, and some possessed about a hundred nuclei. The nuclei of many of the smaller round cells showed the mitotic figures, but there was no evidence of the mitosis in the nuclei of the myeloplaxes. Regarding the tissue from which they originated, Mr. Bland Sutton laid stress on the fact that periosteal sarcoma never contains giant cells. Mr. Jackson Clarke stated that some periosteal sarcomata had a giant-cell character, and this was also the speaker's opinion, based on experience of a good many such growths. As for the proposition of removing such tumours out of the sarcomata, he thought it impossible because there was an unbroken chain of intermediate links between a round or spindle-celled sarcoma, with a very few giant cells, on the one hand, and a sarcoma crowded with such cells on the other hand. In Mr. Wheeler's specimen there was no tendency whatever to the formation of spicula of bone often characteristically formed in myeloid sarcomata.

Remarks were made by the President, and Mr. Wheeler replied.

Vascular Tumours of Abdominal Wall.

Mr. R. Charles B. Maunsell showed two specimens which had been successfully removed by operation. The first was removed from the left lumbar region of a young lady, aged 22, and had been gradually growing from early childhood. It was large as an adult hand, and on examination proved to be formed of dilated lymphatic spaces, and of the same character as the congenital cystic hygromata of the neck. The second was removed from a baby, 11 months old, and proved to be a venous nævus. It had been noticed shortly after birth, when it was not bigger than the head of a pin, and had rapidly grown until at operation it measured 16½ by 11½ c.cm., and covered fully a third of the baby's abdomen. It was ulcerated and constantly oozing blood. Mr. Maunsell removed it *en masse*, very little blood being lost during the operation, the patient making an uninterrupted recovery notwithstanding its tender age.

Specimens.

Mr. Fagan showed specimens illustrating Pathological Conditions of the Tunica Vaginalis Testis.

Islington Medical Society.—At a meeting on May 16th, Mr. Arbuthnot Lane read a paper on the Pathology and Treatment of Adenoids. He stated that years had now elapsed since he had recognised that the hypertrophy of the pharyngeal tonsil was simply an inflammation of a lymphatic tissue consequent upon an infection of an area where lymphatics drained into it and that the removal of the secondary infection dealt only with an effect and not with the primary source of trouble. He also recognised that the naso-pharyngeal sequence was but an accidental consequence of a general condition which occurs in children possessed of little vitality resulting from an imperfect respiratory capacity in the first instance. On this ground he attacked the primary infection of the naso-pharynx, expecting that its disappearance would in time be followed by a return to their normal condition of the pharangeal, faucial, and cervical lymphatic glands together with the imperfect development of the naso-pharynx which always existed in chronic cases because the forced draught through the cavity had been in abeyance. He effected this by improving the vital capacity by regular respiratory exercises, all inspired and expired air being driven through the nasal cavities, the mouth being kept closed. This treatment was completely successful so that he found himself now rarely called on to operate for adenoids. He called attention to the fact that the same class of child constantly assumed the several attitudes of rest, namely, the symmetrical and asymmetrical resting postures of the trunk and abduction of the foot, conditions which when they become fixed or exaggerated were called by the names dorsal excurvation or round shoulders, lateral curvature of scoliosis, and flat foot, all of which terms he hoped would soon disappear from surgery. He described and showed photographs illustrating the several changes in the trunk consequent on respiratory incapacity and the various deficiencies in development of all the bones of the face which he found were directly dependent for their perfect form in the proper evolution of the naso-pharynx under the influence of the mechanical factor which was alone responsible for it, namely, the forcible passage of air through the cavity in respiration.

West London Medico-Chirurgical Society.—At a clinical meeting on June 2nd, Dr. S. D. Clippingdale (President) in the chair, Mr. McAdam Eccles showed a boy with a large tumour, probably Nævo-Lipoma of the Forearm, which had existed since birth. The case was discussed by the President and Dr. Leonard Dobson, and Messrs. Rotherof, E. P. Paton, C. B. Keetley, and Neville Wood.—Dr. Leonard Dobson and Mr. Keetley showed a young woman who had been successfully operated on for Gastric Ulcer three weeks previously. The patient had suffered much pain for many months, and was in no way better in spite of prolonged medical treatment. Mr. Keetley opened the abdomen, and found an ulcer near the œsophagus, which had become adherent to the diaphragm. The adhesions were separated, and the ulcer scraped and closed. The patient made a good recovery. The case was discussed by Messrs. Bidwell, Neville Wood, and Paton.—Mr. Bidwell showed a child on whom he had operated for Tuberculous Peritonitis, and a man on whom he had operated for advanced Carcinoma of the Rectum. These cases were discussed by Dr. Dobson.

Laryngological Society of London.—At a meeting on February 3rd, Dr. F. de Havilland Hall (President) in the chair, Mr. H. Betham Robinson showed (1) a case of Slight Defective Abduction of the Right Vocal Cord; (2) a case in which a Tumour of the Right Vocal Cord had been removed.—Dr. Furniss Potter showed a case of Paralysis (? Complete) of the Left Cord.—Mr. Bowlby showed a case of Ulcer of the Nasal Septum.—The President showed a specimen of Abscess of the Larynx.—Dr. William Hill showed an infant exhibiting a Peculiar Grunting Inspiratory Sound.—Mr. Richard Lake showed a case of Papillomata of Larynx.—Dr. StClair Thomson showed a man, aged 51, shown at the November meeting as a case of Hypertrophic Laryngitis of doubtful nature, which was now seen to be Tuberculous.—Dr. Herbert Tilley showed (1) a large Naso-pharyngeal Polypus; (2) cases of Epitheliomatous Ulceration of Naso-pharynx.—Dr. Dundas Grant showed a case of Empyema of the Antrum, cured by alveolar irrigation after failure of intranasal treatment.

Vegetable Diet.—After careful research, especially concerning the diet of workmen in certain trades, Hildebrandt concludes that vegetable diets do not, as a rule, offer sufficient nourishment to the human organism. All exclusive diet is bad. Gastric and intestinal irritation and general constitutional disturbance may arise if the alimentary tract becomes charged with vegetable matter. The consumer's pocket is not spared by vegetarianism, as the same sum representing the cost of a mixed meal can only purchase a supply of vegetable food less nutritious, though more bulky. Hildebrandt holds that it has not been proved that vegetable albumen is of as high value as animal albumen as an article of diet. He admits, as the result of experiment, that two-thirds of the albumen necessary for diet can be furnished by vegetables, whilst carbohydrates are almost exclusively derived from vegetables. Hildebrandt, who publishes his conclusions in the *Klinische Therapeutische Wochenschrift*, No. 31, 1898, considers that for man a mixed diet is certainly demanded.

REVIEWS.

RECENT WORKS ON DISEASES OF THE CIRCULATORY SYSTEM.

WELL as Sir R. DOUGLAS POWELL'S Lumleian Lectures[1] have become known since their delivery at the College of Physicians and their publication in our own columns, it is a great advantage to have them reissued in a permanent form. After all the new work upon the mechanics of the heart and upon the parts of the blood vessels and nerves in its function, after also the puffing of this fashion or that in treatment, it is a great solace to the busy and practical man to have at hand this calm survey of the present position of our knowledge of what can be done in the diseases of the organ from the hand of one who is not only a thoroughly competent teacher of the pathology of his subject, but also a master of refined diagnosis and the possessor of an unusually large and rich experience.

The first lecture, as will be remembered, dealt with the functional disorders of the heart, and passes by easy gradations to the consideration of diseases which may be regarded as the more permanent deposits of prolonged functional disorder, or which occur with the caprice which characterises disease which, if organic, yet partakes of neurotic qualities in any considerable measure.

In the second lecture, which is concerned with the inflammatory diseases, the point so important to every practical man as to the degree to which rest is to be carried in convalescence from these affections, is fully weighed.

In the third part the lecturer gives a careful and most judicial appreciation of the various methods of treating overtaxed or failing hearts by the various methods—medicinal and other—which are at the disposal of the practitioner. In this volume medical men engaged in the daily stress of general practice will find such matters dealt with in an impartial spirit, and the relative merits and the appropriate place of each method set out with as much accuracy as is possible at the present state of our knowledge. Fallacies of diagnosis and of prognosis are convincingly demonstrated, and the powers for good of each method are lucidly indicated. Massage, saline baths, resistance exercises, respiratory exercises, graduated walks, drugs—all in turn come under the scrutiny of the lecturer, and are compared with a scrupulous fairness which cannot fail to be very instructive at the present time of therapeutic "booms," and will save us from many a mistake.

We confidently advise every practitioner of medicine to read this short but pregnant volume.

Although appearing as one of a series of Aids to Memory, M. GIRAUDEAU'S[2] work forms a fairly complete monograph on the subject of pericarditis in all its aspects, and is written in a more readable style than is usually employed in works of its class. M. Giraudeau has arranged his subject in a clear and definite manner, and does not content himself with the repetition of well-known facts, but expresses his own views with clearness and precision. As to the causation of the disease, he shows that toxinogenic organisms are in all probability to be held accountable, even in the so-called simple forms that are for the sake of classification attributed to injury or "cold." Of the relation of pericarditis to Bright's disease he has no explanation to give, although he agrees with other physicians in his dissatisfaction with the present state of knowledge on the subject. In his account of effusion he calls attention to the possible effects upon the nutrition of the heart by the pressure exercised on the cardiac veins by a large effusion that is left to undergo slow absorption. Of adhesions in general he has much to say, and lays particular stress upon the incidence of extra-pericardial adhesions, and on their subsequent effects upon the heart muscle. To this latter form he gives the name of "callous pericarditis."

Of hæmorrhagic effusion he speaks with much familiarity as a not infrequent accompaniment of tubercle and cancer. Such cases are, however, rarely seen in this country. A very full account is given of serous and purulent effusions, and minute details are appended as to the use of the exploring needle and the aspirator in dealing with them. The author is an advocate of the more frequent use of these instruments in both classes of case. The work as a whole is a useful account of the disease as seen and studied by a practical physician of the present day, and is prefaced by an interesting historical summary of the steps that have gradually led to the existing state of modern knowledge.

The volume on the surgery of the heart and pericardium is one of a series which that most versatile and prolific of authors, Professor TERRIER,[3] is publishing. The substance of the work formed a portion of the course of systematic lectures delivered by the author in 1897. One-third of the book is devoted to the anatomy of the pericardium and the heart. The exact limitations of the pleural sacs under all the usual, and not a few of the unusual, conditions are discussed, and some apt diagrammatic figures are given. The surface marking of the pericardium when empty and when moderately or largely distended is clearly shown.

Puncture of the pericardium is discussed, and the many methods and routes for the due carrying out of this procedure are passed in review. The method of Voïnitch-Sianojentzky, though unquestionably more scientific, is rather too abstruse for routine employment. Preference will probably be given to the method of Delorme and Mignon. A vertical incision 4 c.cm. in length is made on the left border of the sternum, laying bare the inner ends of the fifth and sixth intercostal spaces. Through either of these the needle is passed obliquely inwards. Incision of the pericardium is advised for all purulent effusions. Washing out is preferred by the majority of surgeons who record cases. Drainage may be single or double, by tube or by gauze.

Wounds of the heart may or may not be complicated with wounds of the pericardium. Those not associated with pericardial wounds are more frequently and more speedily fatal. As Morgagni first pointed out, the cause of death is in most cases the pressure upon the heart and the great vessels by the blood contained in the pericardial sac. The heart contracts just so long as it has some fluid in its cavities. When the pressure of the blood, free in the pericardium, equals or exceeds that in the venæ cavæ the heart is empty, and ceases then to beat. In cardiac wounds suture has been performed by Farina, Cappelen, and Rehn.

Dr. TATTI[4] describes the pulsation of the foot as being a clinical sign of value. As is well known the pulsation is always present if the legs are crossed in the sitting posture, and the knee of one leg does not press into the popliteal space of the other. The movements are almost isochronous with the radial pulse. Dr. Tatti describes and figures an apparatus by means of which a tracing can be made of this pulsation of the foot. In the normal individual the tracing shows an ascending limb, a top, and a descending limb. The ascending limb mounts obliquely, the top is pointed or slightly rounded, and the descending limb is wavy. The curve varies with temperature, exercise, psychical impressions, etc. Under diseases of the circulatory system the author says that in aortic incompetency the ascending limb is straight, the top is more rounded, and, what is of most importance, a single marked secondary wave occurs on the down stroke. In mitral regurgitation there are very pronounced secondary waves which may be confounded with the pulsation itself. The pulsatile movements are irregular and unequal. In mitral stenosis the changes chiefly lie in the descending limb, and these comprise (1) a short oblique but straight segment, (2) a horizontal part, and (3) another short oblique segment. In arteriosclerosis the principal pulsation and the secondary waves are so reduced that the series of movements are represented by a slightly wavy line; occasionally a few pulsations, somewhat more accentuated than the others, interrupt the uniformity of this tracing. In chronic myocarditis the tracing consists of a certain number of equal undulations followed by a pause.

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[1] *On the Principles which Govern Treatment in Disorders and Diseases of the Heart.* The Lumleian Lectures delivered before the Royal College of Physicians of London. By Sir R. Douglas Powell, Bart., M.D. London: H. K. Lewis. 1899. (Demy 8vo, pp. 116. 6s.)

[2] *Des Péricardites.* [On Pericarditis.] By C. Giraudeau, Physician to the Hôpital Tenon, Paris. (Encyclopédie-Scientifique des Aide-Mémoire). Paris: Masson and Co. 1899. (Crown 8vo, pp. 186. Fr.3.)

[3] *Chirurgie du Cœur et du Péricarde.* [Surgery of the Heart and Pericardium.] Par Félix Terrier, Professeur à la Faculté de Médecine de Paris, etc., et E. Reymond, ancien interne des Hôpitaux de Paris. Paris: Félix Alcan. 1898. (Crown 8vo, pp. 212, figs. 79. Fr.3.)

[4] *La Pulsation du Pied.* [The Pulsation of the Foot.] Par M. le Docteur Salvio Tatti. Buenos Aires: J. Peuser. 1898. (Roy. 8vo, pp. 44, 22 plates.

The changes in the curve produced by tremblings and tremors such as occur from mental excitement, alcoholic intoxication, paralysis agitans, etc., are also described. The author illustrates his essay by details of cases and 156 tracings. He looks upon the phenomenon as proceeding from absolutely rhythmical contractions of the arteries and capillaries supplying the region along with the co-operation of the vasomotor fibres. Among other conclusions M. Tatti says that the sign is not due to compression of the vessel in the popliteal space, and that the variations in the tracing are more sensitive than those presented by the radial artery, especially where the peripheral arterial system is affected. Thus it reveals arteriosclerosis in its earliest stages.

M. Tatti's study is undoubtedly most elaborate and careful, but further experience is needed before it can be stated how far the pulsation of the foot will be applicable to clinical work.

HANDBUCH DER SCHULHYGIENE. [Handbook of School Hygiene]. Von ADOLF BAGINSKY, assisted by O. JANKE. Third Edition. Vol. i. Stuttgart: F. Enke. 1898. (Roy. 8vo, pp. 748; 238 illustrations. M.16)

OWING to the development which the subject of school hygiene has undergone since the second edition was published, Professor BAGINSKY has been compelled to devote the first volume of this—the third edition of his handbook—to the architectural and sanitary aspects of school hygiene. The second volume will deal with the more strictly medical side of the question.

The author traces the history of school hygiene back to the ancient Greeks, who more than recognised its essential aim—the development of a healthy body *pari passu* with the education of the mind. Their method was to keep children in the open air as much as possible, and to put them through an elaborate system of athletic exercises.

Nowadays, light and fresh air have to be brought to the pupil in the school. As architects and teachers are mainly responsible for the health of children while at school, it is necessary that they should thoroughly grasp the principles on which a school should be built, lighted, warmed, and ventilated. For their purpose we know of no better book than the volume before us. Clearly and concisely the author explains how a site should be chosen and the building planned and erected. Plans are given ranging in size from the single-roomed village school to the immense educational buildings in Berlin. He then dwells in more detail on the subjects of heating and lighting, and on the difficult problem of ventilation.

No fewer than 125 pages are devoted to the question of desks and seats. The medical and scholastic opinions are to some extent in conflict, but it is clear that the children should not be compelled to sit, especially when writing, in a constrained position. The desk is too often placed far enough away from the seat to allow the pupil to stand up to answer questions, etc., and is therefore too far away for him to maintain a suitable position when writing. The desk should have a seat which can be tilted up out of the way, or the pupil should be able to step aside in order to stand up. To suit children of different sizes it should be possible to raise or lower both seat and desk.

The descriptions in the text are assisted by numerous excellent diagrams, and the volume should prove of exceptional value to all who are interested in the education of children. We may add that Professor Baginsky, in happy contrast to many German writers, expresses himself so clearly and tersely that his book may be read easily even by those whose knowledge of German is not extensive.

NOTES ON BOOKS.

Burdett's Official Nursing Directory (London: Scientific Press, Limited. 1899. Crown 8vo, pp. 651. 5s.) is divided into two parts—the first a list of the nurse-training schools, and the second a directory of nurses. The most valuable part of the work is a preliminary chapter giving an outline of the principal laws which affect nurses; the information concerning the hospitals appears in so many other compilations by Sir Henry Burdett that it is unnecessary to comment on it here. The directory of nurses is a list of about 6,000 names. It is therefore not complete, and as somewhere about half of these names are marked by a star, signifying that the nurse has not verified the statements attached to her name, it cannot claim to be authoritative. We have been at some pains to ascertain the method of selection which honours some nurses with a place in the directory whilst others are excluded, but must confess to being completely baffled: for instance very few of the matrons' names of the large metropolitan or provincial hospitals are placed on it; the names of matrons and of nurses who have retired are to be found, and married nurses appear under their maiden names.

We have received the second German edition of Dr. OSKAR SCHAEFFER'S *Anatomischer Atlas der Geburtshilflichen Diagnostik und Therapie* (Munich: J. F. Lehmann. 1899. Crown 8vo, pp. 318; 160 illustrations M. 12). A review of the English edition of this atlas was published in the BRITISH MEDICAL JOURNAL, January 22nd, 1898, p. 223.

In his small work on *Constipation and its Modern Treatment* (London: Medical Publishing Company. 1898. Crown 8vo, pp. 67. 2s. 6d.) Dr. GEORGE HERSCHELL considers the departures from the normal that lead to constipation. The removal of retained fæcal matter is regarded as the first step towards recovery; and various methods of achieving this end according to the position of the retained mass are advocated. The restoration of the tone to the muscular and nervous tissues of the bowel and to the abdominal walls is next to be attained by means of hydropathy, electricity, massage, mechanical vibration, or gymnastics. Regulation of the diet, the foods to be avoided and those to be chosen, is described; and the drugs that are of service, and the indications for their employment are noticed. It is recommended that laxatives should never be used except in special circumstances. Recovery, it is said, is usual if the right means are employed and if the patient will submit to a course of treatment of sufficient length; but both factors are essential.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

Vernisol.—This is a jelly-like substance, which when smeared on the skin dries quickly, leaving a transparent flexible coating, readily washed off with water. This substance has been introduced by Messrs. John Bell and Co., 225, Oxford Street, W., as a basis for the application of remedial agents to the skin. Vernisol is miscible with powders, liquids, fats and oils, both fixed and volatile. The manufacturers prepare combinations of mercury, phenol, mercury perchloride, zinc oxide, sulphur, ichthyol, salicylic acid, lead acetate, etc., with vernisol, and any form can be made according to prescription. Vernisol has no irritating action upon the skin, and for the application of medicinal substances where inunction is not required it appears to be a suitable and cleanly basis. The vernisol combinations are supplied in convenient collapsible tubes.

Mutton Essence.—We have examined a sample of "Hipi" mutton essence, which is stated to be manufactured in New Zealand from the best parts of the sheep. The results of our analysis enable us to say that the sample examined consisted of a well-made meat preparation, which yields with boiling water a very pleasant and palatable soup having the taste and characters of a mutton broth. As stated by the makers, the preparation is quite different in character and taste from the well-known extracts of beef. The preparation examined by us is free from adulteration, contains a legitimate amount of water, and as regards proteid matter, extractives, and salts has a composition which justifies us in regarding it as a good preparation of its class and in recommending it for trial.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1899.

NOTES.

The Examinations of the Apothecaries Hall, Dublin, were the subject of a long series of reports by the Examination Committee, embodying reports from inspectors, examiners, and the visitor, together with the replies of the body subjected to all this supervision. Mr. Tichborne alleged that the reports of the Committee were designed to show that the examinations were "a right-down failure," an attempt having been made to make out a case in detail against the broad verdict of their own inspectors. His energetic defence of the body he represents did not convince the Council, which accepted the reports of the Examination Committee, and ordered them to be entered on the minutes, where they will occupy altogether some 75 pages. Sir Dyce Duckworth, one of the Treasurers of the Council, mentioned incidentally that the cost to the profession of the inspection of these examinations of some dozen candidates, not a few of whom failed, after all, to pass, amounted to £307 10s. 8d.

Medical Aid Associations were the subject of a report by the committee over which Dr. Glover presides. It is two years since this committee was appointed, and the great difficulty of the questions raised was assigned as the reason for this somewhat prolonged period of incubation. The report now produced in fact deals with two sets of organisations. First, we have the Friendly Societies, with representatives of which the committee has had two interviews. The outcome is a suggestion for the formation of a Conciliation Board, consisting of representatives of the medical profession and of the Friendly Societies; but the question of the wage limit is to be left to "the sense of righteousness of the individual members of the societies." After a rather desultory debate, the Council expressed a somewhat platonic approval of the proposal, limited by a formal and emphatic declaration that it would not take any part in the composition of the proposed Conciliation Board. In the second place, the report dealt with that other class of medical aid associations—those established by insurance or other commercial companies—in which insurance is the principal business and medical attendance is thrown in merely as a bait. The committee recommended the Council to express strong disapproval of medical practitioners associating themselves with medical aid associations in which touting and advertising for the purpose of procuring patients are practised. This was accepted by the Council, and will demand the most serious attention of all those members of the profession who may be connected with such associations.

The Penal Cases which have been before the Council possess an unusual amount of interest, since they presented some novel features. In one instance a side light was thrown upon a certain kind of medical aid association. A provident dispensary, so-called, engaged the services of a registered medical practitioner and of a dispenser. The members paid 1d. a week, and 1d. a bottle for medicine as required, immediate benefits of membership being obtainable on payment of 5s. On the part of the complainants it was alleged that the unqualified dispenser was employed in other capacities than that of dispenser, and that, in fact, he visited patients, assisted at operations, administered chloroform, and was permitted to administer medical aid and treatment as if he were a duly qualified medical man. For the defence, these statements were denied, and it was also urged that inasmuch as the registered medical practitioner was employed by the dispensary committee at a fixed salary, and as the dispenser was also a salaried officer, the responsibility for any irregularity, should such have been committed, did not rest with the medical officer. Absolutely contradictory affidavits were put in. The Council deliberated for a long time upon the case *in camerâ*, and in the result decided, as the case was one of the first of its kind, to postpone delivering a final judgment, but the President told the defendant that the Council took a grave view of the charge proved against him, which it might adjudge to be infamous conduct in a professional respect. The further consideration of the case was adjourned until November next, but the defendant was counselled to reconsider his position with regard to the dispensary and the unqualified dispenser.

The Rowland-Nugent Case came under notice in connection with a charge brought against Mr. S. B. Shekleton. Nugent had formerly been upon the *Medical Register*. He appears to have met with little success in practice, and he left this country and settled in Australia. Before going away, however, he left some or all of his diplomas in the hands of Rowland, who under some arrangement, the precise nature of which was not in evidence, agreed to pay to Mrs. Nugent, who remained in England, the sum of 3s. 6d. a week. In consequence of Nugent's disappearance from his registered address his name was removed from the *Register* under Section XIV of the Medical Act, 1858. Rowland, who was in possession of Nugent's diplomas, and at some undetermined date had taken his name and was personating him, appears to have felt or anticipated some inconvenience from the absence of the name from the *Register*, and took the bold step of applying for its restoration. For this purpose a certificate of identification was essential, and this he obtained from Shekleton. The fact that Rowland was not Nugent having come to light at his trial last January, when he was sentenced to three years' penal servitude for manslaughter, the diplomas of the real Nugent were impounded by order of the Court. The charge against Shekleton, which was supported by the Medical Defence Union, before the Council was that he aided and assisted an unqualified person to procure himself to be registered, and to assume the position of a duly qualified and registered medical practitioner, and to carry on medical practice as though he had been registered. Shekleton's defence was that he had never known that Rowland was not in reality named Nugent, and that the certificate was given in good faith: but as he admitted that he had known Rowland for many years, during which he asserted that he had not known what name he was passing under, this plea was not accepted, and he was adjudged guilty of infamous conduct in a professional respect.

The Ease with which Personation was carried out in this case lends special interest to the measures proposed by the Executive Committee for its prevention. These measures were not deemed by the Council to be adequate, and a Special Committee was appointed to draw up a scheme to guide the Registrars, so that the perpetration of such an offence may at least be rendered more difficult in future. The decision of the Council in this case amounts to the recognition of a new form of offence adjudged to be infamous conduct, and it may be anticipated that the light thrown upon the subject will bring about the adoption of much more stringent requirements in the matter of identification than have hitherto obtained. It is indeed believed that there are a good many persons practising at the present time under cover of diplomas and registration granted to persons quite other than themselves. This has been found to be a thing difficult to discover and, under existing regulations, still more difficult to prove.

A Charge of Covering was proved against Neville Holland, whose name had upon a previous occasion been struck off the *Register* for a similar offence. He promised that he would never repeat the offence and his name had been restored. But he was a poor brokendown old man, who had even drifted into the workhouse. He answered an advertisement which led to his association with an unqualified person. The defendant alleged that the unqualified person never attended patients with his consent or knowledge, but the facts brought forward by the Medical Defence Union and by Mr. Braxton Hicks, the Coroner, convinced the Council that it had no choice but to remove his name for the second time from the *Register*. Notwithstanding the gravity of the offence and its repetition, members of the Council could not but feel some pity for this wrecked professional man, whose poverty must have been a sore temptation to wander from the straight path, and there

is surely something wrong with a state of things which allows the persons who hold out such temptations to go scot-free.

A Case of Alleged Covering by a Registered Dentist was also heard by the Council. The provisions of the Dentists Act differ somewhat from those of the Medical Acts, in that the facts are ascertained by the Dental Committee, whose finding is absolute as to the facts, while the General Council adjudicates upon the gravity of the offence established by the facts as found by the Committee. This difference of practice was intended to save the time of the Council and so to diminish the expense of such hearing, but as this was the first adjudicated upon under these conditions the economy of time was not so great as it may be expected to be in the future. In this case the Dental Committee had found that the unqualified assistant had been employed in a capacity quite other than that of an ordinary dentist's mechanical or workroom assistant. The Council warned the defendant that he would be called upon to come up at the next session of the Council and would then be expected to satisfy the Council that there had been no continuance of the practices which had been found by the Dental Committee to have been going on at the time when the complaint was lodged.

The Report of the Companies Act Amendment Bill Committee, which expressed approval of the Bill introduced by the Lord Chancellor to prohibit the profession or business of a physician, surgeon, dentist, or midwife being carried on by a company, contained as an appendix a copy of the memorandum of association of the "Doctor Bland" Company, Limited. This company, registered in Ireland, was formed "to carry on or practise the profession or business of medical doctors, physicians, surgeons, apothecaries, pharmaceutical chemists, dentists, midwives, dry goods and patent medicine vendors." The Committee reported that there was no such person as Dr. Bland registered as resident in Ireland, nor did any such name appear among the seven signatories to the memorandum; the Committee, however, found amongst them two names which appear in the *Medical Register* for 1899, although one was described in the memorandum as a pharmaceutical chemist. At the opening of business on Tuesday letters were read by Sir Christopher Nixon, the representative of the Royal University of Ireland, and Mr. Tichborne, representative of the Apothecaries Hall, Dublin, from these two gentlemen respectively, stating that they had severed their connection with the Dr. Bland Company. The recent formation of this company—it was only registered on April 2nd, 1899—lends force to the Council's request to the Lord Chancellor to proceed with the necessary legislation with the least possible delay.

The Recognition of Grammar Schools by the licensing bodies was a question raised by the recommendations which concluded the report of the Education Committee on the regulations of the Conjoint Boards concerning the first of the five years of medical study. The Committee recommended that a medical student should be required before being registered as a student to produce evidence not only that he had passed a preliminary examination as required by the Council, but that he had commenced medical study at an institution recognised by one of the licensing bodies and approved by the Council. Great exception was taken to the concluding phrase by the representatives of the Royal Colleges in England, who denied the right of the Council to question the discretion exercised by the Colleges in the recognition of such institutions. Sir Dyce Duckworth said that the Royal Colleges would not submit to dictation from the Council, and that while he recognised that it was desirable for the Council to insist on the registration of students, yet if pressure were put on the Conjoint Board, it would be compelled to insist upon its students not registering with the Council at all. Dr. Church, after pointing out that the old universities had only reluctantly consented to modifications enabling their students to be registered, proposed that the Council should revert to the regulation as it stood previously. Sir William Thomson and Sir Christopher Nixon both contended that the course pursued by the Conjoint Board in England amounted to an attempt to whittle down the medical curriculum, and denounced the attitude of the two Royal Colleges as flat rebellion against the Council. Dr. McVail suggested that the only course for the Council to take would be to report the Colleges to the Privy Council, and remarked that the Conjoint Board had been treated "too reverentially" by Sir J. Batty Tuke. Mr. Teale, on the other hand, thought it was an honest attempt on the part of the Conjoint Board to disentangle the first year's studies, though when promptly challenged by Sir J. Batty Tuke, he did not unravel the tangle. The Council supported their Committee, and it remains to be seen whether the Royal Colleges will defy the lightnings of the Council.

The Hunter Case it was expected would have been discussed on Wednesday afternoon, and Mr. Horsley had the first place on the programme with a resolution to draw attention to the proceedings taken in the name of the Council against the late Mr. H. K. Hunter, L.S.A. It appeared, however, that the legal advisers of the Council were not present, and Mr. Horsley objected to being called upon to raise a question affecting the procedure followed by these officers in their absence. Finally it was agreed that the legal advisers should be requested to attend on Thursday afternoon before the conclusion of the business of the Council, and it is therefore necessary for us to defer the report of these proceedings until our next issue.

The Colonial List of the "Medical Register" has hitherto contained only the degrees or diplomas by right of which the name has been registered. The legal advisers of the Council had held that the terms of the Medical Acts precluded a person registered on the Colonial List from obtaining the insertion of an additional diploma obtained in the United Kingdom. Mr. Horsley raised the point in connection with the application of a lady registered on the Colonial List as M.B., Calcutta, whose application to add F.R.C.S.I. had been refused. Mr. Horsley argued that the Act of 1886 extended to persons on the Colonial List the provisions of the Medical Act, 1858, relating to the *Medical Register*, and that, therefore, the privilege of adding an additional diploma distinctly given by Section XXX of the latter Act, must apply to them. After a brief discussion, Mr. Muir Mackenzie, who had given a contrary opinion, admitted the justice of Mr. Horsley's contention, and the Council thereupon resolved that in future additional or higher qualifications should be registered on the Colonial List.

The "British Pharmacopœia" of 1898 is, it appears from a report of the Pharmacopœia Committee, almost out of print. The number of copies printed was 26,500, and only 1,275 remain. The report expressed satisfaction that the *British Pharmacopœia* had been adopted in Queensland and Victoria by Acts of the respective Legislatures. It was also stated that the Indian and colonial medical authorities had made valuable criticisms and suggestions upon the proposed Indian and colonial Addendum, and that a committee had been formed in Canada to consider what additions it would be desirable to make to the Addendum in order to adapt the *Pharmacopœia* to the requirements of the Dominion.

THE Council was still sitting on Thursday when we went to press. At the opening of business the President stated that Dr. W. S. Church, the representative of the University of Oxford, had resigned. Dr. Frank Joseph Payne, the new representative, was introduced by Sir Dyce Duckworth, and took his seat. The Council then sat *in camerâ*, and on strangers being readmitted Sir John Batty Tuke moved and Dr. MacAlister seconded the following resolution, which was duly carried, "That the letter forwarded with certain documents to the President by the Secretary of the College of Preceptors, with the reply of the President thereto read *in camerâ*, be entered on the minutes." The report of the Finance Committee was brought forward by Mr. Bryant, who pointed out that the surplus was chiefly due to the sale of the *Pharmacopœia*. Discussing the financial condition of the Irish Branch Council, Mr. Bryant declared that the position of that Branch required careful consideration, and prophesied that at the end of the year, unless a great alteration took place, its position would be grave.

REPORT OF PROCEEDINGS.

Thursday, June 1st, 1899.

Sir William Turner, President, in the Chair.

The minutes of the previous day's proceedings were read and confirmed.

The Case of S. B. Shekleton.
(*The Nugent-Rowland Case.*)

The Council then proceeded to the consideration of the case of Samuel Bingham Shekleton, of 17, Compton Avenue, Barking Road, East Ham, registered in Ireland November 26th, 1874, as Lic. R. Coll. Surg. Irel., 1872, who had been summoned to appear before the Council on Thursday, June 1st, 1899, at 2 P.M., to answer the following charges as formulated by the Council's Solicitor:

(1) That in the year 1895 he aided and assisted an unqualified person, named Julian Averfield Rowland, to procure himself to be registered under the Medical Act, 1858, under the name and with some of the registrable qualifications of one Edward Joseph Nugent, by making and producing false and fraudulent representations.

2. That he aided and assisted the said unqualified person to assume the position of a duly qualified and registered medical practitioner, and to carry on medical practice as though he had been duly qualified.

The false representation above mentioned is contained in the application for registration forwarded by the said Julian Averfield Rowland, in the name of the said Edward Joseph Nugent, to the Irish Branch Council, dated June 25th, 1895, which contains a certificate of identity of the said date signed by him (Shekleton).

Dr. Bateman was present to conduct the case on behalf of the Medical Defence Union.

Mr. Muir Mackenzie was present as legal adviser to the General Medical Council.

Mr. S. B. Shekleton did not appear, nor was he represented.

Mr. Farrer, the Solicitor to the General Medical Council, said that proper notice had been given to Mr. Shekleton that the inquiry would be held that day, and he had a certificate from the Post Office that the summons had been duly served upon him. They had received a letter from Mr. Shekleton, which showed that he had received the summons, and the only defence he made in that letter was, first, that he never knew Rowland under any other name than that of Nugent, and that he never aided or assisted Rowland in any way beyond the fact that he resided for a time in his (Rowland's) house pending partnership negotiations between them.

Dr. Bateman, in opening the case, said that so far as he knew it was absolutely unique. It was a charge against Mr. Shekleton that he had aided and assisted Julian Averfield Rowland, who was an unqualified person, in procuring himself to be registered under the Medical Act under the name and with some of the qualifications of Edward Joseph Nugent, to the scandal of the profession and the extreme danger of the public. He should have to refer rather in detail to the case of Rowland, who in the name of Nugent was convicted at the Old Bailey in January, 1899. The circumstances were these: In 1895 information was given to the Medical Defence Union that a man calling himself Joseph Nugent was practising at 38, Barking Road, Canning Town, and was issuing certificates representing that he had certain Irish qualifications. On searching the *Register* no such name was found, and it was noticed that a person of the name of Nugent was practising at Woolwich. Suspicion was aroused, and on inquiries being made it was discovered that this Nugent had left England in 1894, and that Rowland was using Nugent's name. It then transpired that Mr. Shekleton had signed a certificate for Rowland as Nugent. Rowland was convicted of manslaughter and sentenced to three years' penal servitude. During part of the time that Rowland was practising Mr. Shekleton lived in the same house. The three points he (Dr. Bateman) relied upon were the residence in the same house, the form of the certificate, and his not appearing at the police-court or at the trial to support the certificate of identification.

The President again directed that Mr. Shekleton's name should be called, but he did not put in an appearance.

Strangers were directed to withdraw, and the Council deliberated on the case *in camerâ*. After the Council had been in deliberation some time Mr. Shekleton arrived, and on strangers being readmitted to the Council Chamber,

The President inquired of Mr. Shekleton why he had not been present at the time his case was called on.

Mr. Shekleton apologised for not being present, and explained the reason of his late arrival. He was exceedingly sorry if he had disarranged the proceedings of the Council.

The President said that Mr. Shekleton must consider it an act of grace on the part of the Council that they would give him an opportunity of explaining, notwithstanding that he was not there when the case was commenced.

Mr. Shekleton said he could not give any further explanation than that contained in his letter.

The President: Have you nothing else to say except what is contained in that letter?

Mr. Shekleton: Nothing particular.

The President: Are you aware that this is a very serious charge which is made against your professional conduct and character?

Mr. Shekleton: Yes. I am perfectly aware of that, but I did it unwittingly. I would not have done it knowingly.

The President: Then you have no other statement to make except the one that is in your letter?

Mr. Shekleton: Nothing particular, Sir.

In answer to questions which were put to him, Mr. Shekleton said he first knew the man twenty years ago when he was an assistant in Gloucestershire. He did not then know his name was Rowland. He first understood that his name was Nugent in 1890. He knew that was his name because he saw him come from Nugent's house in Barking Road. He was then practising under the name of Nugent. On the evening of the committal for trial of Rowland he went and saw Mrs. Rowland, and told her her husband had proved to be the wrong man. She said to him that she might as well tell him he was not the man at all; he was not Nugent. He was completely floored by this. This was in 1898.

The President asked how it was, if he knew so little of this man and did not know his name, that he was led to sign the certificate.

Mr. Shekleton said that when he signed the certificate he asked him plainly how long it was since he first knew him. To which he (Rowland) replied sixteen years. He then said he could conscientiously say that he had known him for sixteen years.

The President pointed out that what Mr. Shekleton certified was, under date June 25th, 1895, that Newland was the same person whose name formerly stood in the *Medical Register* as Edward Joseph Nugent, with the address at Artillery Place, Wellington Street, South Woolwich.

In further answer to the President, Mr. Shekleton said that he had nothing further to say, only that he was perfectly innocent.

In answer to Dr. MacAlister, Mr. Shekleton said he had never known the man in question in connection with Woolwich, although he said by the certificate that he had.

In reply to Sir John Batty Tuke, Mr. Shekleton said the signing by him of the certificate was not a deliberate act at all; it was an act of good nature.

Mr. Brown asked if he ever knew the name of Rowland in connection with the man, to which Mr. Shekleton replied that he never did; he never had the slightest suspicion of it; if he had he would have immediately written off to the Branch Medical Council in Ireland.

Strangers were directed to withdraw, and the Council deliberated on the case *in camerâ*.

On the readmission of strangers, the President said that the Council had considered the charge made against Mr. Shekleton, and had given him the opportunity of tendering an explanation. The resolution they had come to was that the Council adjudged him to have been guilty of infamous conduct in a professional respect, and they directed the Registrar to erase from the *Register* the name of Samuel Bingham Shekleton.

The Real Nugent.

The President said he had had two resolutions directly arising out of that case submitted to him. The first was moved by Dr. Church, seconded by Mr. Victor Horsley:

That the result of that day's inquiry *re* Samuel Bingham Shekleton, together with a copy of the papers brought before the Council, be communicated to the proper authorities of New South Wales, drawing atten-

tion to the statement that Edward Joseph Nugent has been placed on the Colonial List, and is now practising in New South Wales; and, further, to the fact that his name has been erased, under Section XIV of the Medical Act, 1858, from the *Medical Register* of the United Kingdom.

The resolution was put to the meeting and carried unanimously.

The PRESIDENT said the next resolution was one moved by Sir William Thomson, seconded by Mr. Victor Horsley:

That the Council hereby approve of the action of the Executive Committee in removing from the *Register* the name of Edward Joseph Nugent, L.R.C.S.I. and L.K.Q.C.P.I.

Dr. MACALISTER said that he thought that was wrong. They ought not to make any charge against Mr. Nugent until he was tried.

Sir WILLIAM THOMSON said his object was to have it made clear to the public that Mr. Nugent's name, removed under Section XIV in the ordinary way, had not been properly replaced there.

Mr. VICTOR HORSLEY thought the resolution did not condemn or cast any imputation on Mr. Nugent.

Dr. MACALISTER said it might be read that way.

Mr. VICTOR HORSLEY said the Council had to set itself right with the profession, because the name appeared on the *Register* at the moment when the Executive Committee acted. It was therefore no fault of theirs, and if they passed a resolution such as Sir William Thomson had proposed that would set the Council right with the outside public.

The PRESIDENT did not see why the Council should approve the action of the Executive Committee when the Executive Committee were simply discharging their duty in acting for the Council in the intervals of its sessions. Why should the Council have a special entry in their minutes approving of their action in doing what it was their duty to do?

Mr. VICTOR HORSLEY said it was the first time that such a minute would have appeared.

The PRESIDENT said this was the first time such a motion had ever been brought forward approving of the action of the Executive Committee.

Mr. VICTOR HORSLEY was sorry, but he must continue to press the point. He did not think many of the Council could have read the minutes of the Executive Committee. There was a divergence of opinion between their legal advisers as to whether the Executive Committee were acting rightly in removing the name. Their solicitor seemed to think that Mr. Nugent might have cause to complain against the whole Council, and the reason why he seconded this resolution was with a view of bringing the responsibility of the action home to the central body.

The PRESIDENT pointed out that the Executive Committee were the Council for the time being, and that the Act of the Executive Committee was the act of the Council. He did not see why the Council should wish to pat its own back.

After some discussion, in which Sir WILLIAM THOMSON, Dr. MCVAIL, and Mr. VICTOR HORSLEY took part, the resolution was put by the PRESIDENT to the meeting, when 10 voted for it and 12 against. The motion was thereupon declared lost.

Mr. VICTOR HORSLEY said on the point of order he rose to ask the President whether the negativing of the resolution meant that the Council disapproved of the action of the Executive Committee.

Dr. MCVAIL: Most undoubtedly.

Dr. MACALISTER said they could not inquire into the reasons which led members of the Council to vote against the resolution.

Mr. VICTOR HORSLEY retorted that his question was not addressed to Dr. MacAlister, but was addressed to the President.

Dr. MACALISTER said that his observation was addressed to Dr. McVail.

Mr. VICTOR HORSLEY said he asked the President to rule whether they were to regard the negativing of the resolution as meaning that the Council disapproved of the action of the Executive Committee, because if that were so he would like at some later period of the session to put the Council right.

The PRESIDENT said of course he understood that those who voted for the motion did not disapprove of the action of the Executive Committee, but he could not interpret what the opinions of those members of the Council were who opposed the motion.

Mr. VICTOR HORSLEY thought that if the President was able to interpret the minds of some of them he was able to interpret the minds of the rest.

After a request by Mr. BROWN, which was not acceded to, that the names should be taken down, the matter dropped.

THE CASE OF JAMES JEROME MCKAY.

Consideration of the case of James Jerome McKay, 154A, Wandsworth Road, S.W., registered in England July 17th, 1876, as of Bally Roberts, Fermoy, co. Cork, Mem. Roy. Coll. Surg., Eng., 1876; Lic. Roy. Coll. Phys. Lond., 1877, who has been summoned to appear before the Council on Thursday, June 1st, 1899, at 3 P.M., to answer the following charge as formulated by the Council's Solicitor:

That having, as a registered practitioner, undertaken, on the order of the coroner, to make a proper and complete *post-mortem* examination of the viscera, head, chest, and abdomen of the body of a dead child named Ernest Mackenzie, for the purpose of ascertaining and informing the coroner's court of the cause of the death of such child, he not only failed to make the examination which was required, and failed and omitted to ascertain the cause of death, but subsequently deposed before the coroner's court (contrary to the facts) that he had ascertained the cause of death by making a complete and careful examination of all the organs of the deceased child.

(The documents forwarded to the General Medical Council in support of the complaint consist of the information in writing of the said coroner, dated February 4th, 1899, and a certified copy of the depositions taken at the inquest on the death of the said child, held on December 9th and 12th, 1898.)

Dr. Bateman, Secretary of the Medical Defence Union, appeared in support of the charge, and Mr. James Jerome McKay appeared in person.

Dr. BATEMAN said that the circumstances of this case, like the circumstances of the last, were unique. It was acknowledged by all medical men that a *post-mortem* examination was the most essential part of any inquiry held as to the cause of death. The verdicts of juries depended on the facts which were placed before them in such cases by the medical men who made the examination, and a great deal depended on the manner in which the examination was carried out, and the facts deduced from it. It was still more important that the evidence given by medical men should be the truth. In the present case Mr. Braxton Hicks held an inquest on December 9th and 12th, 1898, concerning the death of Ernest Mackenzie. The medical man who made the *post-mortem* examination and gave evidence was Mr. McKay. On December 9th Mr. McKay gave evidence at the inquest that he had made a *post-mortem* examination, and went into minute details as to the result of this examination. The coroner, however, in consequence of some communication which was made to him, adjourned the inquest, and directed three other registered medical practitioners to make another *post-mortem* examination upon the body. These three medical men gave evidence at the adjourned inquest on December 12th to the effect that a *post-mortem* examination had not been held of the character deposed to by Mr. McKay. The coroner thereupon recalled Mr. McKay, and, after cautioning and reading to him his former evidence, asked him if he desired to say anything. McKay replied that he abided by his original evidence. In answer to the PRESIDENT, Dr. Bateman said Mr. McKay was present in court when the evidence of the other doctors was given. The matter was considered so serious that the coroner committed McKay for perjury in giving false evidence before him. The matter came before Mr. Plowden, the police magistrate, who formed the opinion that it was a matter of dispute between medical men as to diagnosis, and he dismissed the case. It might be said that Mr. McKay was being charged again for an offence of which he had been found innocent, but Dr. Bateman urged that it was not the same charge; the one was a criminal charge the other a civil.

Mr. MCKAY (in answer to a question from the PRESIDENT) said his defence was that he had been tried by Mr. Plowden for the offence and acquitted, and that since then he had not been in practice. He did not wish to say a word against Mr. Braxton Hicks, but he would like to know why he did not give him a chance of being present at the *post-mortem* examination by the other doctors. He was not asked to be present there.

Replying to Mr. VICTOR HORSLEY, Mr. MCKAY stated that he was perfectly sober when he said he would abide by the evidence which he had previously given in spite of the account of the *post-mortem* examination; he fully understood

the gravity of the matter when it was put before him by the coroner.

Strangers were directed to withdraw. On their readmission,

The PRESIDENT said: Mr. McKay, it is my duty to announce to you the resolution which has been come to by the Council in connection with your case, and I will read it:

That the Council do now judge Mr. James Jerome McKay to have been guilty of infamous conduct in a professional respect, and do direct the Registrar to erase from the *Register* the name of Mr. James Jerome McKay

MEDICAL OFFICER FOR THE EDUCATION DEPARTMENT.

At the request of the PRESIDENT, Dr. MACALISTER then announced the receipt of a communication from the Royal Institute of Public Health, asking the Council to make a representation to the Right Hon. A. J. Balfour with regard to the appointment of a medical officer for the Education Department. He moved, Mr. BRYANT seconded, and it was resolved:

The Business Committee beg leave to report a communication addressed to the President by the Honorary Secretary of the Royal Institute of Public Health has been referred to them as being in the nature of a petition. On examination it appears that the communication has been addressed to the General Medical Council under a misapprehension, as the Council is not a medical corporation in the sense intended by the writer, and that the Registrar be requested to send a reply to this effect.

THE CASE OF WILLIAM STEWART, M.D.

The Council then considered the case of William Stewart, of Denton, near Manchester, registered in Ireland May 19th, 1887, as M.D., Mast. Surg. 1887, R. Univ. Irel., who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's Solicitor:

Complaint has been lodged with the Council by the Ashton-under-Lyne District Medical Society in relation to the Denton and District Provident Dispensary, by whom he (Stewart) is engaged as medical officer, and by whom an unqualified person named Burgess is engaged or employed as his assistant. The complaint is that he (Stewart) associates with the said unqualified person in the practice by him (Burgess) of medicine and surgery, and permits him to carry on medical practice, and is party to his administering medical aid and treatment to patients as if he were a duly qualified medical man.

Mr. Hyde, solicitor, appeared in support of the charge for the Ashton-under-Lyne District Medical Society. Mr. W. H. Shawcross, instructed by Mr. Bond, appeared for Dr. Stewart.

Mr. HYDE, in opening the cases, stated that the Denton and District Provident Dispensary was open to all classes of persons at a charge of one penny a week, but no entrance fee was asked except when persons wished to be admitted to what were known as "immediate benefits," when a fee of 5s. was charged. The subscriptions were collected by collectors. It appeared from a report issued by the dispensary that in 1897 there were 27,500 attendances on patients at their own homes, and in 1898 there were 28,100, and he submitted that it was impossible for such a large quantity of work to be done by one man. Mr. Burgess was employed by the Denton Dispensary as dispenser, but he had been seen to visit patients. It was alleged that he was covered by Dr. Stewart, and had been allowed to act as a qualified assistant in his employ. In support of his statement he read the sworn declaration of a Mr. Nightingale and a Mr. Irvine, who had watched Mr. Burgess on various occasions, and which, he contended, made out a case for Dr. Stewart to answer.

Mr. SHAWCROSS, in reply, read the sworn declarations of the various persons whom it was alleged Mr. Burgess had professionally attended denying the fact, and stating that if he had visited them it was merely as a friend. He submitted that Dr. Stewart had done nothing which was not in harmony with the rules of the medical profession. He then called Dr. Stewart, who stated the subscriptions were paid to trustees on behalf of the dispensary, who paid him a fixed salary; and that Burgess had never administered chloroform or assisted at operations although he had been present, and that if he had visited patients it was without his (Dr. Stewart's) knowledge. Replying to Mr. Victor Horsley he stated that the collectors in no way acted as canvassers or touts to get patients.

The Council adjourned at 6.40 P.M., having suspended the Standing Order as to the 6 o'clock rule in order to complete the evidence.

Friday, June 2nd, 1899.

The minutes of the previous day's meeting were read and confirmed.

ADJOURNED CONSIDERATION OF THE CASE OF WILLIAM STEWART, M.D.

In reply to Sir JOHN BATTY TUKE, Mr. HYDE said that the two witnesses in the case were retired police officers. They were not private detectives, although they acted as detectives in that particular case.

In answer to Sir JOHN BATTY TUKE, Dr. STEWART said that he was on good terms generally with the rest of the profession in his neighbourhood; there was certainly no ill-feeling on his part.

In reply to a question by Mr. VICTOR HORSLEY as to what was the precise composition of the management of the dispensary, Dr. STEWART said he believed the dispensary was managed by the whole Committee, which consisted of 13 members. There was a president, a vice-president, a treasurer, and three trustees, and other persons, and these constituted the Board of Management. They appointed Mr. Burgess without Dr. Stewart's knowledge, and without consulting him in any way.

In reply to Mr. BROWN, Dr. STEWART said that Mr. Burgess had never attended any of the obstetrical cases or visited them after the confinement; he had attended cases without his (Dr. Stewart's) knowledge, but had never done so under his instructions. Mr. Burgess did not to his knowledge possess any private practice, or carry on any private practice in Denton.

In reply to Dr. LITTLE, Dr. STEWART said he was not the first medical officer to this dispensary. He first made the acquaintance of Mr. Burgess when he was appointed by the Committee of the dispensary; that was to say after his (Mr. Burgess's) appointment.

In answer to Mr. BRYANT, Dr. STEWART said there were printed rules of the institution, but he had not a copy of them with him.

Dr. PETTIGREW asked Dr. Stewart whether it was possible under any circumstances that Mr. Burgess might attend his (Dr. Stewart's) patients without his knowledge, but with the knowledge and connivance of the institution.

Dr. STEWART replied that he should say the Committee did not encourage the visiting of patients by Mr. Burgess.

Dr. PETTIGREW asked whether the institution prevented Mr. Burgess from doing anything in that connection; whether he was forbidden to do it.

Mr. STEWART replied that he was not supposed to do anything except dispense. He had never heard that Mr. Burgess had done so.

In answer to Dr. GLOVER, Dr. STEWART said the members of the dispensary paid one penny a week for men, women, and children.

Strangers were then directed to retire, and upon their readmission, after an interval of an hour and a half, during which the Council were deliberating,

The PRESIDENT, addressing Dr. Stewart, said: I think you will recognise, Dr. Stewart, from the time that the Council has taken to deliberate over your case, that they have given very great consideration to it, and I am instructed by the Council to tell you that the charge made against you has been proved to the satisfaction of the Council. I have further to point out to you that the Council takes a grave view of this charge; that the offence which you have committed is one which the Council may adjudge to be infamous conduct in a professional respect; but that inasmuch as this case is one of the first of its kind which has come before the Council, they postpone delivering a final judgment. Accordingly, the Council has adjourned the further consideration of your case until November next, and in the meantime I would counsel you very carefully to reconsider your position. So you will be summoned to appear here next November, and you will then have to tell the Council what your position is in connection with the charge that has been made against you. That is the decision of the Council.

Dr. STEWART: Can I ask any questions?

The PRESIDENT: No, you cannot ask any question. The decision of the Council has been given.

THE CASE OF NEVILLE HOLLAND.

The Council then proceeded to the consideration of the case of Neville Holland, of 3, Durham Street, Lambeth, registered in England August 2nd, 1870, as Lic. Soc. Apoth. Lond. 1869; Mem. R. Coll. Surg. Eng., 1870, who had been summoned to appear before the Council on Friday, June 2nd, 1899, at 2 P.M., to answer the following charges as formulated by the Council's Solicitor:

(1) That he associated himself with an unqualified person of the name of Blumenthal, at a surgery carried on at 121, Tyers Street, London, and aided and assisted such unqualified person in the carrying on by him of a medical practice.

(2) That he assisted in and was a party to attracting practice to the said surgery by public advertisements.

(3) That he had violated the undertaking given by him to the General Medical Council in the month of November, 1895, that if his name was restored to the *Medical Register* he intended to act as an assistant to a registered practitioner, on the faith of which undertaking the General Medical Council permitted his name to be restored to the *Medical Register*.

The information and complaint have been lodged by the Coroner for South-West London and by the Medical Defence Union.

Mr. Braxton Hicks, coroner, and Dr. Bateman, secretary of the Medical Defence Union, attended in support of the charge. Mr. Holland appeared in person.

Dr. BATEMAN proceeded to open the case against Mr. Holland; and the reading of the depositions was concluded by Mr. BRAXTON HICKS, who then reminded the Council that Mr. Holland's name had been removed from the *Register* and reinstated in 1895 on a promise in writing that he would not identify himself with anybody not a duly qualified registered practitioner, which promise he had broken. When he found a registered practitioner acting with an unqualified man, it was his duty as coroner to report the fact to the Council for it to deal with, as "covering" was a source of danger to the public which should not be permitted.

Mr. HOLLAND, in reply to the charge, stated he had nothing to say beyond the statement forwarded to the Council.

This was read by Mr. MUIR MACKENZIE, and was to the effect that Mr. Blumenthal never attended any patients with his (Mr. Holland's) consent or connivance.

Strangers were directed to withdraw. On their readmission,

The PRESIDENT said that after giving consideration to the case he had to announce that the charge made against Mr. Holland had been proved to the satisfaction of the Council, and the Council had judged him to have been guilty of infamous conduct in a professional respect, and directed the Registrar to erase from the *Register* the name of Neville Holland.

Mr. HOLLAND asked the President if he would be allowed to act as assistant to a medical man, as he had the offer of a situation, and now his name was erased from the *Register* he would like to know in what capacity he could act.

The PRESIDENT said he was not in a position to advise him; he must get the best advice he could.

THE CASE OF WILLIAM HENRY COSSENS.

The Council then proceeded to consider the case of William Henry Cossens, when at the suggestion of Dr. MCVAIL it was resolved that it be taken *in camera*, and strangers were directed to withdraw. On being readmitted,

The PRESIDENT said he had to announce that the Council had considered the case of William Henry Cossens, of Derby Street, Prescot, Lancashire, registered in England on October 22nd, 1886, as Lic. Soc. Apoth. Lond. 1885, convicted of a misdemeanour at Liverpool Assizes on November 28th, 1898. On the question put from the chair, the Council resolved that William Henry Cossens, having been proved to have been convicted of misdemeanour, the Registrar be directed to erase his name from the *Medical Register*.

The Council then adjourned.

Saturday, June 3rd, 1899.

The minutes of the previous day's proceedings were read and confirmed.

DENTAL BUSINESS.

The charge found to be proved against Mr. Henry Rowton, adjourned from December 1st, 1898, was further considered.

Mr. FARRER, the Solicitor to the Council, stated that both Mr. Rowton and also Mr. Price, the complainer, had been written to telling them of the meeting, but no answer had been received from either of them. The Dental Committee had considered the case, and recommended that nothing further should be done. The case was considered by the Council for a time, but the further consideration of it was suspended to this meeting. The complaint against Mr. Rowton was that he signed a certificate of death. He had stated that he was sorry he had offended, and would not do so again. He was a chemist and was on the *Dentists Register*.

Mr. TOMES said that Mr. Rowton was subject to their jurisdiction in virtue of his being upon the *Dentists Register*. His offence was practually committed in virtue of his being a practising chemist.

The PRESIDENT said that on page 218 of Vol. of Minutes for 1898,[1] it was stated that Mr. Rowton did not appear, and that a letter was read from his solicitor, dated November 17th, 1898, stating that his client undertook never again to issue any document which might be considered to be a medical certificate, or attend any patients as a medical practitioner. The Dental Committee having considered the case, recommended that no further action be taken in the matter. The Council itself then resolved that the further consideration of the charge found to be proved against Mr. Rowton be adjourned until the next session of the Council. It was in consequence of this resolution that the case appeared in the programme now. Mr. Rowton was not in attendance, although he had had notice served upon him that there would be a meeting of the Council to consider his case.

Mr. BROWN regarded the case as a very serious one. This man, registered as a dentist, carried on the business of a chemist, and in the course of his business he appeared to have been attending patients, and under his treatment—he would not say in consequence thereof—a patient appeared to have died, and thereupon he took upon himself to do that which he knew he had no power to do—namely, to give a certificate of death. He would ask whether the Dental Committee had taken these circumstances into consideration, and had made a further report.

The PRESIDENT said there was no further report from the Dental Committee.

Dr. MACALISTER stated that the reason for adjourning this matter on the last occasion was that it was considered that the Dental Committee had exceeded their powers. The statute only gave them power to consider the case. The case was not adjourned on its merits, but owing to the form in which the matter came before them late in the session.

The PRESIDENT said that the Chairman of the Business Committee had called his attention to the fact that they were really now going to deliberate on the case, and he would ask the Council whether that should not be done *in camera*.

This was agreed to, and the Council discussed the measure *in camera*, and strangers were directed to withdraw.

On their readmission the PRESIDENT stated that the Council had passed the following motion:

That the Council, taking note of the undertaking made on behalf of Henry Rowton that he will never again issue any documents which can be considered to be medical certificates, or attend any patients as a medical practitioner, resolves to proceed no further in regard to the charge found to be proved against him.

The Council then proceeded to consider a report of the Dental Committee on the case of Clement Maguire Kershaw, registered in the *Dentists Register*, on July 22nd, 1891, under Section XXXVII of the Dentists Act, without any diploma. The Committee found that Mr. Kershaw had in his employment an unregistered and unqualified person who had been permitted by him to perform the operations of extracting teeth for patients, and filling the teeth of patients with plaster fillings in the absence of Mr. Kershaw. In one case the unqualified assistant had performed a dental operation on a patient under chloroform in the absence of Mr. Kershaw, who was ill, but he had not administered the chloroform. The assistant had also been permitted by Mr. Kershaw to see patients independently of him, and to do more than fell within the province of a mechanical assistant.

Mr. GERMAINE, barrister, who appeared for Mr. Kershaw, made a lengthy statement as to the circumstances under which the charge had been brought. With regard to the charge of permitting extraction of teeth and filling of teeth with plaster fillings, he was told by members of

[1] BRITISH MEDICAL JOURNAL, December 10th, 1898, p. 1760.

the dental profession that it was an admitted rule or practice for dentists to employ unqualified persons to perform these two acts, provided that the duty of the unqualified assistant was limited to the extraction of teeth and to the filling with plastic fillings. He understood that recently the Council had sent out a circular in opposition to that practice, but a copy of that had not reached Mr. Kershaw, and he was informed by him that, as soon as he found out that the Council would look upon the practice with disfavour, he had discontinued the practice, and had done neither of these acts. If he was right in supposing that it had been the practice up to recently to allow unqualified assistants to perform these operations, then the Council would not consider it an offence on the part of Mr. Kershaw. If, on the other hand, his information was wrong—and the Council had always looked with disfavour on these operations being performed by an unqualified person—then that fact had never come to the knowledge of Mr. Kershaw, and the Council might, he thought, give some notice or information to the dentists on the *Register* that henceforward they were not to allow that to be done which notoriously had been done in the past. With regard to the charge of permitting the unqualified assistant to perform an operation under chloroform, counsel urged that it was an isolated occurrence, when Mr. Kershaw was ill, and that the unqualified assistant had yielded to the urgent solicitations of the patient, a girl, and her mother. Mr. Kershaw had blamed the unqualified assistant for doing this, and he hoped the Council would see that there were extenuating circumstances. Besides that, there was the statutory declaration of three medical men of good position who had known Mr. Kershaw, and known of his operations for years, and they stated that on no occasion had Mr. Neighbour extracted teeth in their presence, when chloroform was administered, without the presence of Mr. Kershaw. As to the charge that the unqualified assistant had been permitted by Mr. Kershaw to see patients independently to him, he did not quite know what the meaning of the Committee was in using the words "to see patients," because it was admitted that Mr. Neighbour used to see patients to make an appointment for Mr. Kershaw to go there. If that expression was limited to seeing them and arranging the appointments, there could be no offence in it; but if, on the other hand, it meant to advise the patients and operate upon them, then it meant no more than what had been previously said—that Mr. Neighbour personally attended patients and extracted teeth, and filled the teeth with plastic fillings. He thought he need not repeat what he had said with regard to that. There remained simply the act of Mr. Neighbour in seeing patients and extracting and filling teeth, and the one occasion only of the extraction of teeth under chloroform. He hoped he had satisfied the Council that Mr. Kershaw himself had not willingly been guilty of any unprofessional conduct.

Strangers were directed to withdraw. On being readmitted,

The President announced that the further consideration of the case had been adjourned until November. He had, however, to point out that the Council regarded such professional dealings as had been brought to their notice in connection with this case very seriously, and had expressed their views on the matter in a notice which had been sent out some time ago, a copy of which, he understood, had not been received by Mr. Kershaw. He would be supplied with a copy before he left the office, and the Council would give him an opportunity of reconsidering his position in regard to the employment of unqualified assistants, and when he appeared before the Council in November he would have to satisfy it on the matter.

Reciprocity with Foreign Countries.

The Council then proceeded to the adjourned consideration of the report of the Executive Committee on the subject of the revision of the Memorandum on Reciprocity of Medical Practice in relation to Foreign Countries, referred to it on May 25th, 1898, by the General Medical Council.

Mr. Brudenell Carter pointed out that the legal opinion which the Council had on May 31st directed to be obtained had not yet been received. He thought it was obvious that the charters of the various medical bodies might have an important bearing on the general question; and he moved that the report be referred back to the Executive Committee, with instructions to take legal opinion on the points of issue with reference to the bearing of the whole law of this country in relation to the question, and to embody them in a more complete report.

Mr. Victor Horsley seconded it as it was his motion which ultimately induced the Council to reconsider the matter. He pointed out that the document which he then brought forward practically covered the whole report as issued by their office. That document consisted of two parts, an introduction and a statement, the whole being called a memorandum. The introductory part, as amended by the Executive Committee, distinctly stated that the Lord President of the Privy Council had approved of the statement, and they could not issue an amended statement, and still quote the Lord President as having declared himself in its favour. With regard to the statement there were a number of Medical Acts left out which it was important should be included, because otherwise foreign Governments would not be informed that women had a right to practise medicine in this country. He called the attention of the Council to the fact that an unqualified or unregistered person reading Paragraph 3 would find it the best possible advice to him as to how he could evade the Medical Acts, and he thought it ought not to be couched in language which would effect that purpose. With regard also to Paragraph 4, any foreigner reading that would naturally conclude that there was a foreign list, and that all he had to do was to present himself to the Council with his diplomas to be established on the list, whereas the question had been dealt with much more fundamentally by the Council, which had never recognised any foreign diploma and had no foreign list.

The President said the expression was "foreign countries which treat this country with reciprocity," which they had not begun to do.

Mr. Victor Horsley accepted this, but said he was putting himself in the position of a stranger not quite *au fait* with the regulation of the Council, who might assume his country had accepted reciprocity.

The President then put the motion:

That the report of the Executive Committee on reciprocity of medical practice in relation to foreign countries be referred back to the Committee for further consideration, and in order to obtain an opinion on the whole of the law bearing upon the subject.

That he thought was a very comprehensive motion.

Mr. Victor Horsley said that was not the motion he seconded, and he should not like to second it.

Dr. MacAlister thought it would be sufficient if it was referred back for further consideration and report, and this was ultimately adopted.

Proposed Increased Disciplinary Powers.

The Registrar then read the following interim report to the Council by the President, on the steps taken by him to secure increased powers for penal and disciplinary purposes under Section xxix of the Medical Act, 1858:

The President has to report that in November, 1898, in accordance with a request of the Executive Committee, he addressed a letter to the medical licensing authorities, in which he asked if they would be prepared to express approval of two draft clauses for the amendment of the Medical Act, 1858, copies of which were enclosed.

At the meeting of the Executive Committee on February 27th, 1899 (Minutes of the Committee of that date, p. 24), the President reported that he had received answers to his letter from all the medical authorities with six exceptions. Four of the authorities approved of the suggested clauses, several others approved of Clause 1 but took exception to Clause 2, whilst some found matters in both clauses with which they could not agree.

To meet the objections which had been raised, the Executive Committee resolved that the President's interim report of February 27th should be remitted to Mr. Muir Mackenzie, and that he be requested to consider the objections taken and the suggestions which had been made by several of the medical authorities for the amendment of the clauses.

During the interval between the meetings of the Executive Committee on February 27th and May 29th, the six medical authorities which had not replied to the President's letter of inquiry at the first-mentioned date, had forwarded their comments on the clauses submitted to them. The answers of these bodies left the question in much the same position as it was placed in by the earlier series of replies. The President embodied these in a second interim report, presented to the Executive Committee on May 29th, and along with them amended clauses drafted by Mr. Muir

Mackenzie to meet the objections which had been taken by certain of the medical authorities.

After consideration, the following resolution was adopted by the Executive Committee (minutes of the Executive Committee, May 29th, p. 11):

"That the Executive Committee approve of the amended clauses drafted by Mr. Muir Mackenzie, and request the President to forforward them the medical authorities before submitting them to the Council."

May 29th, 1899. WM. TURNER.

The PRESIDENT said he had directed the Registrar to circulate amongst the Council to the interim reports to the Executive Committee referred to in the above interim report, in order that they might have an opportunity of reading the views of the different medical authorities on the clauses as submitted to them, and also the suggestions of Mr. Muir Mackenzie for the purpose of meeting the difficulties which they had raised.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, it was resolved:

That the President's interim report be received and entered on the minutes.

Dr. MACALISTER moved, Mr. BRYANT seconded, and it was resolved:

That the communications for the Privy Council office and enclosures, and Mr. Muir Mackenzie's report thereon, be received and entered on the minutes.

Privy Council Office,
February 9th, 1899.

SIR,—Referring to previous correspondence on the subject of the proposed amendment of the law with a view to obtain penal and disciplinary powers in the case of persons whose names have, in certain circumstances, been erased from the *Medical Register*, I am directed by the Lord President of the Council to transmit to you, for the information of the General Medical Council, the accompanying copy of a proposed Bill, which has been drafted by the Incorporated Association of Medical Practitioners, for preventing persons who have been removed from the *Medical Register* under Section XXIX of the Medical Act, 1858, from continuing to act as medical practitioners.

I am, Sir,
Your obedient servant,
A. W. FITZROY.

Sir William Turner,
President of the General Medical Council.

(ENCLOSURE.) [*Copy.*]

"AN ACT

"To prevent persons who have been removed from the *Medical Register* under the provisions of Section XXIX of the Medical Act, 1858, from continuing to act as medical practitioners.

"WHEREAS it is expedient that persons who have been removed from the *Medical Register* by the General Council of Medical Education and Registration under the powers conferred upon it by Section XXIX of the Medical Act, 1858, should be prevented from continuing to act or practise as medical practitioners: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same as follows:

"1. This Act may for all purposes be cited as 'The General Medical Council (Additional Powers) Act.'

"2. This Act shall commence and take effect from the first day of September, One thousand eight hundred and ninety-eight.

"3. Any person whose name shall have been removed from the *Medical Register* by the General Council of Medical Education and Registration, under the powers conferred upon the said Council by Section XXIX of the Medical Act, and who shall thereafter practise medicine or surgery, or medicine and surgery, as the case may be, in any part of the United Kingdom of Great Britain and Ireland, shall, upon a summary conviction for any such offence, pay to the said Council a sum not exceeding twenty pounds.

"4. The General Council of Medical Education and Registration shall be entitled to receive all fines inflicted upon offenders convicted under Section XL of the Medical Act 1858.

Report by Mr. MUIR MACKENZIE.

"PENAL AND DISCIPLINARY POWERS. PROPOSED AMENDMENT BILL.

"I have considered the Bill which has been drafted by the Incorporated Association of Medical Practitioners for the purpose of preventing persons whose names have been removed from the *Medical Register* from continuing to act as medical practitioners.

"The provisions of the Bill are set out at pages 25 and 26 of the minutes of the Executive Committee of February 22nd, 1899 (and above).

"As regards the general principle of the Bill, it is undoubtedly of a very stringent character. If passed into law, its effect would be to make it a criminal offence for a person whose name had been removed from the *Medical Register* for misconduct to practise medicine or surgery in any way. The creation of such an offence would introduce an altogether new principle in the legislation which is embodied in the Medical Acts, and would probably arouse very considerable opposition in Parliament. Expressing my own opinion, I could not advise the General Medical Council to support such a measure without very careful consideration.

"As regards the details of the Bill, the points upon which I wish to observe are the following:

"The 3rd Clause provides that on a summary conviction the offender is to pay to the General Medical Council a sum not exceeding £20. The words of the clause thus differ from those of Section XL of the Medical Act, 1858, and seem to me open to objection on that ground. Next, there is no reference to midwifery in the 3rd Clause of the Bill. This seems to me to be open to objection.

"Lastly, as regards the 4th Clause, it does not in my opinion adequately meet the difficulty which has arisen with regard to the payment to the General Medical Council of penalties inflicted under the Medical Acts. The difficulty which has arisen is that the metropolitan authorities contend that by virtue of the stringent terms of the Police Act, 1839, which provides that penalties imposed by any future Act of Parliament, when recovered in the metropolis, are to be paid to the Receiver of Police, that official is entitled to all the penalties recovered under the Section XL of the Medical Act 1858, in the metropolitan police-courts. The clause in the proposed Bill is not framed, I think, in terms which would displace the contention of the metropolitan authorities, if that contention is a sound one.

"On the whole, therefore, I do not feel that I can advise the General Medical Council that the proposed Bill is one which deserves the Council's support.

"(Signed) M. MUIR MACKENZIE.

"4, Temple Gardens, E.C.,
"May 11, 1899."

THE EXAMINATION OF THE APOTHECARIES HALL, DUBLIN.

Sir DYCE DUCKWORTH then read the reports from the Examination Committee on the Inspection of the Examinations of the Apothecaries Hall, Dublin, at the conclusion of which he moved, and Mr. BRYANT seconded, that they be received and entered on the minutes.

The reports were three in number:

1. A report by the Examination Committee on the inspection made by Dr. Coupland of the examination in October, 1898. For the First Professional Examination four candidates entered for the whole or part of the examination, of whom one candidate who took up physics, chemistry, and biology, passed. The others who took up fewer subjects were rejected. Only one of the three candidates in physics passed with pass marks; in chemistry the solitary candidate passed with 51 per cent. of marks; in biology one of the two candidates passed, and the inspector reported that the paper was even more elementary than that submitted on the last occasion when he inspected. In the subject of anatomy the solitary candidate was rejected, but the inspector reported that the requirements of the examination were greater than should be demanded from a first year student. In the Second Professional Examination the solitary candidate passed with 51 per cent. of marks in anatomy, and with 52 per cent. in January. For the Third Professional Examination three candidates entered, one for all the subjects—(*a*) Pathology, (*b*) Medical Jurisprudence, and (*c*) Hygiene; one for (*a*) and (*b*) only, and one for (*b*) only. One of the two candidates in Pathology passed, but the inspector described the marks as rather above the value of the answers. In Medical Jurisprudence the three candidates were rejected. In Hygiene the solitary candidate passed, but the inspector reported that the paper was elementary, and did not cover sufficiently wide ground. In reply to the inspector's comments, the Governor and Court of the Apothecaries' Hall had indicated to the examiners in hygiene the necessity of increasing the value and varying the questions. The Examination Committee directed the attention of the General Medical Council to the fact that this Board still manifested caprice in the allotment of marks, and appeared at times to adjudicate the work of candidates too highly. The Board, however, appeared to have made considerable efforts to meet the suggestions of the General Medical Council.

2. A report by the Examination Committee on the inspection made by Dr. Gibson, of the examination in January, 1899. There were no candidates for the First Professional Examination. Four candidates presented themselves for the Second, two for the Third, and two for the Final Examination. The inspector reported that all the candidates for the Second Part had passed parts of their earlier examinations before other Boards in Ireland and Scotland. The examinations in Histology and Materia Medica were well reported of. He reported the Second, Third, and Final Examinations as "sufficient." The Examination Committee expressed the opinion that these examinations were being gradually improved in character, but still noted that they attracted, as a rule, men of inferior attainments, who were striving to pass into the profession by reiterated efforts in piecemeal fashion. The Examination Committee noted the undesirability of this system, which appeared to leave candidates free to present themselves before any Board for parts of an examination, and encouraged a piecemeal method of passing various subjects.

3. A report by the Examination Committee on the inspection made by Dr. Gibson of the examination in April, 1899. The Examination Committee called the attention of the General Medical Council to the fact that the entire April quarterly examinations of this Board consisted in the re-examination of two rejected candidates in a solitary subject of the Second Examination, and further noted that these candidates were in process of securing a diploma to be gained by piecemeal examinations before different Boards in different parts of the United Kingdom, a system which could not be too strongly deprecated, and which had been condemned by the General Medical Council.

The two assistant examiners, Mr. Alexis Thomson and Mr. H. G. Howse, also presented a report. Two candidates were examined in surgery, of whom one was rejected and one passed. The examiners reported that the examination was well and fairly conducted.

Mr. TICHBORNE said there were portions of the reports which he objected to being entered on the minutes, and he should like an opportunity of discussing the matter. It being four o'clock he moved that the discussion on the motion be adjourned.

This was seconded by Dr. GLOVER, and carried.

The Council accordingly adjourned.

Monday, June 5th, 1899.

The minutes of the previous day's meeting were read and confirmed.

THE EXAMINATION OF THE APOTHECARIES' HALL, DUBLIN.

The consideration of the reports of the Examination Committee on the inspection of the examination of the Apothecaries' Hall, Dublin, was resumed.

The PRESIDENT now asked Mr. Tichborne whether he objected to the reports being received and entered on the minutes, or whether he desired to object to the adoption of the reports.

Mr. TICHBORNE said that he wanted to object to the tone in which some matters of fact were stated in the reports, and therefore he did not wish them to go on the minutes as they stood; he, in fact, wanted them amended. He then referred to the reports of the Committee on the reports of the inspectors, Dr. Sidney Coupland (October, 1898), by Dr. Gibson (January, 1899), to the reports by the visitor, Dr. Church, and also to that by the two examiners, who, rightly or wrongly, seemed to have acted as inspectors.

Sir DYCE DUCKWORTH objected to Mr. Tichborne saying "rightly or wrongly." He said those two gentlemen acted as inspectors under the Act of Parliament.

Mr. TICHBORNE then referred to the conclusions of Dr. Gibson at page 19 of the report. Mr. Tichborne then referred to Dr. Coupland's report of October, 1898, and to the report thereon of the Examination Committee, and objected to the words "one only" before the word "candidate" occurring in several places, and also the word "solitary" candidate. He concluded by moving the following amendment:

That the following words or passages be omitted from the report of the Examination Committee now before the Council:

(*a*) That the prefixes "only one" and "solitary," which continuously appear before the word "candidate" in the October report and also the last paragraph, be omitted as superfluous.

(*b*) That in the report of the January examination the words of the penultimate paragraph be omitted after the word "character."

(*c*) That in the report on the April examination the last paragraph be omitted.

Sir DYCE DUCKWORTH pointed out that this body was now placed under their tutelage and the Privy Council had made this Council responsible for the carrying on of the examinations. Therefore this Council had to watch and inspect the examinations that went on. The reports were carefully gone into and such information was extracted from them as it was thought desirable to bring before the Council. It was the duty of the Council to look at the character of the examinations and the number of men and the position which the examination appeared to hold generally in the country. The objection of Mr. Tichborne to the use of the words "only one" could easily be met by substituting the word "the" candidate, and with regard to the word "solitary," that word was used because a single candidate presented himself for the examination and it was necessary to show that this heavy machinery was brought into play to examine a single candidate. He would point out that the expense which the Council was put to in the watching the nature of these examinations was considerable because in the course of the last fifteen months they had spent no less a sum than £307 10s. 8d. in inspecting these examinations. The Council would see that that was a reason why the matter must be closely watched, and why the Examination Committee should report to the Council the nature of the work done. He must also object to the excision of the other paragraph which Mr. Tichborne referred to, because he considered it important that the Council should be made acquainted with the true facts of the case. Of course, if the Council objected to the Examination Committee expressing this opinion, and bringing the facts before them, the Committee would know how to act on the next occasion; but in the meantime, as long as he was Chairman of the Committee, they would report to them.

Mr. TICHBORNE would like to ask Sir Dyce Duckworth on what grounds it was that he stated in the report of April: "The Examination Committee calls the attention of the General Medical Council to the fact that the entire April quarterly examinations of this Board consisted in the re-examination of two rejected candidates in a solitary subject of the Second Examination; and further notes that these candidates were in process of securing a diploma to be gained by piecemeal examinations before different Boards in different parts of the United Kingdom"?

Sir DYCE DUCKWORTH pointed out that the information was to be obtained from the four corners of the report, and referred Mr. Tichborne to page 5.

Mr. VICTOR HORSLEY said he thought he ought not, in justice to those who sent him there, to record a silent vote on this matter. He hoped this Council would support the Examination Committee for the reason that he was quite sure the profession did not know that, because the Apothecaries' Hall, Dublin, wished to hold an examination, this Council had to pay out of its shrinking funds a sum of £223.

Sir DYCE DUCKWORTH said it was over £300.

Mr. VICTOR HORSLEY said he was referring to last year, but he was quite sure the profession was not aware that it was taxed to that extent. He would also like to point out that he did not think the authorities of the Apothecaries' Hall fully realised that they were carrying on this examination themselves at a loss. Altogether the only net result must be loss on all sides.

Dr. BRUCE pointed out that they were sitting there to administer the law, and that they must do.

The PRESIDENT said he would put the first division of the amendment:

That the following words or passages be omitted from the reports of the Examination Committee now before the Council: (*a*) That the prefixes "only one" and "solitary," which continuously appear before the word "candidate" in the October report and also the last paragraph, be omitted as superfluous.

The amendment was put, and declared by the PRESIDENT lost.

Mr. TICHBORNE requested that the names should be taken, when 19 members voted against the amendment, 7 for, 3 did not vote, and one member was absent.

The PRESIDENT then put the second part of the amendment:

That in the report of the January examination the words of the penultimate paragraph be omitted after the word "character."

when 7 voted in favour of the amendment and 18 against it.

The PRESIDENT then put the last paragraph:

(*c*) That in the report on the April examination the last paragraph be omitted.

Four voted in favour of the amendment and 17 against.

Mr. TICHBORNE asked that the names should be taken, as this was a very important question.

The names having been taken, 19 voted against the amendment, 4 for it, and 6 did not vote.

The PRESIDENT then declared the amendment lost.

The original motion was then put:

That the reports of the Examination Committee on the inspection of the examinations of the Apothecaries' Hall, Dublin, be received and entered in the minutes.

This was put and carried with two dissentients.

Sir CHRISTOPHER NIXON said before they proceeded to the next business he should like to ask a question having regard to the report of the Examination Committee in reference to the Apothecaries' Hall examination as to whether it was proposed, bearing in mind the adverse opinions expressed in this report and the enormous expense that this Council was put to in inspecting those examinations, to continue the same course in the future. He quite agreed with what fell from Dr. Bruce that the law must be carried out, but still he thought they were all practical men on the Council and that they looked to some practical results. He failed to see what practical results there were on an expenditure of £230 in inspecting an examination which produced one or two successful candidates, but the greater portion of rejected ones.

The PRESIDENT thought Sir Christopher Nixon was going into matters which were not before them for argument. They were bound to follow the order of the Privy Council.

Sir CHRISTOPHER NIXON inquired whether he understood that the Council proposed not to take any action notwithstanding the adverse comments of the Examination Committee.

In reply to a further question from Sir CHRISTOPHER NIXON, the PRESIDENT said that it would be competent for Sir

Christopher Nixon to hand in a notice of motion on the matter.

Sir Christopher Nixon said he did not wish to appear to take up a position in any way offensive to the representative of the Apothecaries' Hall, because he was a great personal friend of his, and had been so for a number of years.

The President said the Council quite understood that.

Reports of the Education Committee.

On the motion of Sir John Batty Tuke, seconded by Dr. MacAlister, the following reports of the Education Committee were received and entered on the minutes: (1) Interim report on the proposal to raise the minimum requirements of the Council as regards preliminary examinations; (2) report on the regulations of the English and Scottish Conjoint Boards in regard to the first year's course of professional study.

The Standard of Preliminary Examinations.

Sir John Tuke then moved that the recommendations in the interim report be approved of.

Dr. MacAlister seconded.

Sir John Tuke said that during the last six months the Education Committee had been occupied in endeavouring to carry out the reference made to it in November last, when this Council passed this motion:

> That the Education Committee be requested to consider and report to the Council during the next session as to the earliest date at which, in their opinion, it will be practicable to raise the minimum requirements of the Council as regards preliminary examinations to the standard of the senior and higher grade examinations at present recognised.

When that resolution was adopted it was stated that it would be of importance to obtain the opinion of authorised bodies of persons closely connected with general and medical education. Accordingly, a letter was issued in December last, addressed to various bodies of persons stating what the Committee proposed to do in regard to examinations in 1900, and also its desire to still further raise the examinations at a future date. Three questions were asked in these letters, which were as follows:

> (1) Is it practicable within the next few years to require that all intending students of medicine shall have passed an examination equivalent in character and standard to the Senior Local and Higher Grade Examinations?
>
> (2) If it is practicable, what is the earliest date at which the higher standard should be enforced?
>
> (3) What proportion of students would probably be precluded from entering upon a course of medical study (say, at the age of 18 years) if the Junior Examinations at present recognised should (say, in 1905) cease to be accepted by the Council for the purpose of registration?

A study of the 44 answers received to this letter of inquiry showed that the whole question was much more complex than six months ago it appeared to certain members of the Council to be. A study of the replies further showed that there was a very large divergence of opinion upon the whole subject. They, on the one hand, had opinions expressed that the scheme of raising to the Senior Local Examination was actually practicable in 1905, or even at an earlier date; but, on the other hand, they had the opinion expressed that if it was not absolutely impracticable it was impracticable for many years to come. With regard to those who held it practicable at an early date, it was interesting to mark that those who were most confident on the subject were the headmasters of schools and the heads of strictly and purely medical bodies; bodies who did not deal with the general and medical education conjointly. He thought it was equally interesting to know that when they came to deal with the opinions of bodies which dealt not only with general education but also with medical education, warning notes were sounded. There were certain exceptions, but, as a rule, the universities sounded warning notes. This was very well exemplified in the replies which had been received from the Universities of Oxford and Cambridge. The Secretary of the Delegates of Local Examinations, Oxford, wrote "that the prescription of the senior local examinations as a minimum qualification would involve a considerable increase in the demands made on such students, the regulations imposing limits of 16 and 19 years upon candidates who aim at honours or distinction in the junior or senior examinations respectively." And Sir William Anson, the Vice-Chancellor of the University of Oxford, wrote that the Hebdomadal Council held the opinion "that the question is largely one of age; the examination for lower certificates is intended for candidates of about 16; that for higher certificates is intended for candidates of about 18. The Board therefore suggests that it might be unwise to make the proposed change unless it is intended to discourage candidates from beginning their medical studies until the age of 18."

Sir Richard Thorne did not want to interrupt, but he should like Sir John Tuke to explain what he meant by saying there was a "note of warning" from the universities.

The President thought Sir John Tuke should be allowed to finish his statement and then the members of the Council could ask him any questions.

Sir John Tuke said he would again use that expression and the note of warning reached its highest point in the replies of the medical school of Owens College, and the replies that came from Ireland. The replies received from the universities of Scotland were to his mind specially important, inasmuch as those bodies had within the last few years had the experience of a sudden raising of the standard of examination, and they had given him the results of that. Certain of the bodies had answered, that the general tone and high standard of medical education in Great Britain and Ireland at this moment might drop with the reduction in the number of students. There was another point brought out in a number of the replies received, and that was that the relative value of certain of the preliminary examinations accepted by the Council was not well defined. During the last six months the Committee had been endeavouring to satisfy itself on that point, and had made application to various examining bodies to allow the Committeee access to the answers of candidates. The papers asked for were the papers of men who had just scraped through. The members of the Committee examined those papers and formed their individual opinion on the relative merits. However willing the Council might be to accept the opinion of members of the Education Committee, those members felt that too much responsibility was thrown on them by their being asked to undertake this duty. The Committee felt that, in order to come to a proper conclusion on the general question, they ought to be afforded some expert opinion as to the relative value of the junior examinations, otherwise they felt that the Committee's opinion might be called in question. The inspection of such papers might possibly be the most important part for an expert adviser such as was suggested, but it was evident there were many questions arising out of the replies on which much light could be thrown by such advisers, and he ventured to suggest that the Council and the Committee would be brought much more closely into touch with the educational authorities and the public were such assistance afforded. The plan of action suggested, although it was not decided upon by the Committee, was to appoint three men, one for each division of the United Kingdom, who were unconnected, as far as possible, with any interest which was involved, and to submit to them the plans and regulations for the examinations of the various bodies in order that they might see whether they were in accordance with the regulations of the Council; that they should apply for the inspection of the papers again from the various bodies, and that they should forward the answers to such experts. Those who had already afforded them access to papers he had no doubt would do so again, and there were other bodies who were quite willing to allow them to see the answers of their candidates. He also thought the experts should have the interim reports, with any other documents bearing on the question which they had issued in previous years. It might be advisable also that the experts and advisers should hold a conference with the Education Committee, but whether that was so or not, he thought they could frame a report on which the Committee might found their report to the Council. Backed by such a report as he had described, he thought the Committee would be able in November to suggest a course by which a system for gradually raising the junior examinations could be established, and in that way there would not be much left to be desired in 1905.

Dr. MacAlister seconded the motion.

The President said the motion was that the recommendations submitted in the interim report be approved of. Those

two recommendations were that the period of reference of the Committee should be extended; the second matter was that the Committee might be provided with the means of obtaining expert assistance, and they recommended a specific sum of £100 for the purpose. He would venture to say, inasmuch as this was only an interim report, that the Council need not at that time go into the question of an analysis of the various communications which had been made to the Education Committee. He thought the Council should limit itself to the two recommendations he had referred to. Therefore he would ask the Council whether it was agreed that the period of reference of the Committee be extended.

The motion was put to the meeting and carried.

The PRESIDENT said the second matter was that the Committee may be provided with the means of obtaining expert assistance, and that the sum recommended for one year was £100.

Mr. BRYANT said he should like to say as Chairman of the Finance Committee that he could see no possible objection to so modest a request.

The PRESIDENT then put it to the meeting that the sum of £100 be provided for enabling the Committee to obtain expert assistance in the direction explained by the Chairman of the Education Committee.

The resolution was put and carried.

Sir RICHARD THORNE said he had been informed with regard to a question as to the College of Preceptors that it had been stated that the report would be dealt with at this session. He did not know if he was rightly informed or not.

The PRESIDENT remarked that that was not quite so. In reply to Sir Richard Thorne, the President said that he would be quite in order in setting down a motion with regard to the matter.

Mr. VICTOR HORSLEY said he would second the motion.

The PRESIDENT said he would like to state what the position was, although it was explained to the Council in his address.

Mr. VICTOR HORSLEY asked whether the letter which the President referred to in his address should not be placed on the programme of business so that the members of the Council could read it.

The PRESIDENT said he had a little difficulty as to how to deal with the letter. It really was a letter addressed to him calling his attention to what Mr. Hodgson alleged to be serious errors of statement and fact in the report, and asked him as President "to deal with the matter in such a way as will result in the practical revision of the report, and of the conclusions arrived at on incorrect data." He read that letter to mean that it gave him a certain discretion in dealing with it. What he did was to remit the matter to the Education Committee, and to ask them to furnish him with any observations they might wish to make upon it during the present session. On Saturday last the Education Committee put into his hands a memorandum which they had drawn up on the matter, and that memorandum was at the present time under his consideration, but he had not had sufficient time to thoroughly grasp the whole of it. Of course, if it was the wish of the Council that it should go on the programme of business he could have no objection.

Mr. VICTOR HORSLEY said they could not expect that before the President had finished his consideration of it. [It was then arranged to leave the matter over until the following day.]

Dr. MACALISTER announced that the Education Committee would bring up its second report on Wednesday.

Sir RICHARD THORNE read the report dated May 30th, 1899, as follows:

REPORT OF THE MIDWIVES BILL COMMITTEE.

Members—Sir Richard Thorne (Chairman), Dr. MacAlister, Mr. Horsley, Dr. Glover, Sir Christopher Nixon.

In accordance with the resolution of the Council of November 29th, 1898: "That the Midwives' Bill Conference Committee be reappointed [with the addition of Mr. Horsley] for the purposing of watching any legislation that may be proposed on the subject in the next session of Parliament," your Committee have considered "A Bill to Promote the Better Training of Women as Midwives and to Regulate their Practice, 1899,"[2] which has been read a first time in Parliament, and they now beg leave to report as follows. A copy of the text of the Bill is hereto appended.

1. With reference to Clause 2 of the Bill, they would recall the fact that in a report of the Council, April 6th, 1898, which was directed to be forwarded to the Lord President of the Council, the Council laid it down: "That the term 'midwife' should be defined as meaning a woman who undertakes for gain to attend cases of natural labour, and who is not registered under the Medical Acts." Clause 2 of the Bill of 1899 defines a midwife simply as a woman who undertakes for gain to attend women in childbirth.

Your Committee hold it to be of fundamental importance that the words "natural labour" should be retained in the definition, and they strongly urge this point in the following among other reasons:

If the word "childbirth" is used without limitation it may well be held to confer on women not registered under the Medical Acts a statutory right to attend for gain cases of abnormality or disease in connection with parturition. This is not only contrary to the public interest, but is inconsistent with Section XXXII of the Medical Act, 1858, and of Section VI of the Act of 1886.

Your Committee hold strongly that a point which is of such vital importance should be expressly embodied in the statute, and should not be left to be dealt with under rules which may be varied from time to time.

As regards the meaning of "natural labour," your Committee are of opinion that the rules to be drawn up by the Central Midwives' Board under Clause 5 (3) I (*d*) of the Bill can be fully relied on to deal with any difficulties such as, it is alleged, might arise on this point. It would be easy, for example, to specify the conditions indicating difficulty, abnormality, danger, or disease under which qualified medical assistance should forthwith be sought.

2. As regards the matter dealt with in Clause 3 (2) of the Bill, your Committee are of opinion that the Bill should contain a provision making it penal for a licensed midwife to employ as her substitute, in attending for gain on a case of labour, any person not licensed under the Act.

Subclause (4) of this Clause should, in their opinion, be extended so as to prohibit the granting by a licensed midwife of any certificate relating to a death or stillbirth.

3. On Clause 4, your Committee are of opinion that the requirements as to evidence of good character should apply to all applicants for "licence"; and also that the clause should be amended so as to make all certificates purporting to be evidence of training and skill in midwifery subject to the approval of the Central Midwives' Board.

4. With regard to Clause 5 subclause (3) they would observe on (*a*) that they are of opinion that it should be made clear that the rules passed by the Central Midwives' Board are not to be valid unless and until they have been approved by the General Medical Council; and on (*b*) that, in their opinion, the paragraph should run as follows:—"regulating the course of training and the conduct of examinations" to be required for a "licence."

5. In Clause 7 of the Bill your Committee are of opinion that the term "qualifications" should be avoided, as being likely to lead to misapprehension, and that it should be replaced by the term "conditions" which is used in Clause 5 (3) I (*a*).

6. On Clause 9, the Committee would express the opinion that the local sanitary authority, which is primarily concerned with questions affecting the prevention of disease, including puerperal fever, should take part in the local administration of any Act relating to midwives. Modification of the Bill in this sense would involve corresponding modification of the financial and other clauses of the Bill.

7. At this point they would also call attention to the imperative necessity of making provision for qualified medical assistance in every case attended by a midwife which presents symptoms of difficulty, abnormality, danger, or disease on the part of the mother or of the newborn child. As regards this matter they would call attention

[2] The text of the Bill was published in the BRITISH MEDICAL JOURNAL of January 7th, 1899, p. 45.

to report of the Council of April 6th, 1898, paragraph 10' and to the concluding paragraph of the report by the Committee appointed by the Council to confer with delegates from the Midwives' Bill Committee, November 22nd, 1898.

8. With regard to the concluding paragraph of Clause 10 of the Bill, your Committee are of opinion that a small fee should be charged on each occasion of the annual renewal of the "certificate."

9. They are further of opinion that the misdemeanour referred to in Clause 11 (*a*) of the Bill should relate to both the "licence" and the "certificate."

10. On Clause 12, the Committee would observe that in their opinion the misdemeanour as to falsification should include "any person," and should not be limited to the person appointed to keep the roll.

11. On the Bill generally your Committee would further observe:

(*a*) That the term "licence" should throughout be restricted to the permission granted by the local supervising authority to practise in a given area; and that the document granted by the Central Midwives' Board should be termed a "certificate" entitling the possessor to be placed on the Midwives' Roll, and thereby testifying to her competence to receive a local "licence." This change will involve certain consequential modifications in many of the clauses of the Bill.

(*b*) That they assume that before any Bill regulating the training and practice of midwives is passed into law, provision will be made by Parliament for covering both the general and special expenses which the Council and any Committee appointed by them will have to incur in the performance of any duties that may be imposed on them under that law.

The Committee accordingly recommend: That the Council inform the Lord President of the Privy Council that they are unable to approve the Bill unless it is recast in accordance with the suggestions made in this report.

Sir RICHARD THORNE then moved that the report be received and entered on the Minutes.

Dr. MACALISTER seconded.

Sir RICHARD THORNE pointed out that there was a very important clause in the report as to which he was one of the minority, and therefore he could not move the adoption of the report. He did not know how far the Council would agree to go into this matter now as the chances of a Midwives Bill were very remote, but if they did go into it he would explain his position.

The PRESIDENT said the last part of the report recommended "that the Council inform the Lord President of the Privy Council that they are unable to approve the Bill unless it is recast in accordance with the suggestions made in this report." The natural person to move that was, of course, the Chairman of the Committee, but if the Chairman of the Committee felt that he could not move it, he should state his position.

Dr. MCVAIL did not know the internal dissension that went on in the Committee, but he should like to ask a question.

Mr. VICTOR HORSLEY said that to put the Council in order, he would move the adoption of the report, because he felt most strongly that it ought to go to the President of the Privy Council as it stood.

Sir CHRISTOPHER NIXON seconded the proposition as a member of the Midwives Bill Committee.

Sir RICHARD THORNE said that he should like to say at once that there was no quarrel on the Committee and a more harmonious Committee never sat. It would be noticed that Clause 5 of the Bill referred to the constitution and duties of the Central Midwives' Board which should consist of "four registered medical practitioners, one to be elected by the Royal College of Physicians, of London, one by the Royal College of Surgeons of England, one by the Society of Apothecaries, and one by the Incorporated Midwives' Institute." And then two persons were to be appointed for terms of three years by the Lord President of the Council. It would be noticed that the Committee resolved in regard to this clause "to disapprove of the proposed constitution of the Central Midwives' Board on the grounds that it should be more representative in character and should include registered medical practitioners who are familiar with the condition of midwifery practice in local districts throughout England and Wales." He was in a minority of two on the Committee of five in regard to that matter, because he did not believe that a selection of individuals from different parts of the country was as good as leaving the matter in the hands of those who were deemed capable of granting licences to medical practitioners in midwifery. Then the Committee in their report as to Subclause 2 stated that it was their opinion "that all the members of the Central Midwives' Board should be registered medical practitioners." Upon that matter he spoke absolutely for himself, and he was of the contrary opinion. He thought that the justification for the Bill was based on the fact that 90 per cent. of the cases of childbirth were the result of natural process of health, and that the medical profession whose right of intervention was limited to the occurrence of abnormality or disease had no right to demand to constitute the whole of the Board. With the exception of the points which he had mentioned, he agreed with every word in the report.

Dr. MACALISTER, as another member of the minority, said he could not approve of this being sent to the Privy Council. He thought that not only was paragraph 4 of the report an undesirable paragraph to put forward, but it was to some extent in opposition to the policy hitherto adopted in regard to this matter. Some time ago, when the Council laid down a number of propositions as to what any Midwives Bill should contain, they abstained from going into matters of machinery. But the Council was now asked to express its opinion on the matter of machinery. He thought if they sent the report as it was to the Privy Council they would diminish their influence rather than increase it.

Mr. CARTER was inclined to think that if the Bill passed, one of its early effects would be in many localities to prevent women now practising midwifery, with the approbation to a certain extent of their neighbours, from continuing to do so; and he was quite sure that the paragraph in question would excite in many localities feelings of compassion with midwives, and would create the idea that they were being subjected to hardship. Under those circumstances he could not help thinking that there should be a non-medical element on the Board, and that would be an answer to any suggestion of unfairness.

Dr. ATTHILL had considered the report with very great care, and having had the instruction of midwives under his charge for the greater part of his professional life, he thought on the whole it was most satisfactory.

Mr. VICTOR HORSLEY thought it was necessary that the Council should only agree to the proposal which was put before them by Sir Richard Thorne after much consideration. This was no question of appealing *ad misericordiam* in regard to any particular set of people at all, and there was no evidence to prove that the profession was likely to be unworthy of the trust reposed in it. He did not see why they of all persons in the world should go so far as to speak in a manner which persons outside might interpret in an unfavourable sense. He would also desire to point out that the Lord President of the Privy Council in regard to this matter of the Midwives Bill had said practically that he would lay most stress on any remarks made by the Council on the subject, and as the clause in question was passed by a majority of the Committee, he ventured to express the hope that it would be passed by a majority of the Council.

The PRESIDENT then put the following amendment, proposed by Sir R. THORNE, seconded by Dr. MACALISTER:

That the Council withhold its approval from the first two paragraphs of Section 4 of the report, and that the communication to be addressed to the Privy Council be modified accordingly [3]

The amendment was carried, was then put as a substantive motion, and declared carried, 16 voting for and 9 against.

On the suggestion of Dr. MACALISTER it was resolved, in order that it might not appear that those who voted against the substantive motion were opposed to the other parts of the report being sent to the Privy Council, that the report as

[3] These paragraphs are omitted from the report as printed above from the minutes.

amended be now adopted by the Council, and transmitted to the Privy Council.

On the motion of Sir Richard Thorne, seconded by Dr. MacAlister, it was resolved that the following further report, dated May 31st, 1899, relating to different memorials on the subject of the Midwives Bill be received, adopted, and entered on the minutes:

Report.

(*a*) The Midwives Bill Committee have had under consideration a memorandum, etc., by the British Medical Association on the Midwives Bill referred to them by the President of the Council, and they beg leave to suggest that the British Medical Association be thanked for their communication and enclosures, and that they be informed that the Committee of the Council, in drafting the report on the Midwives Bill which they have submitted to the present session of the Council, have had regard to the principal matters embodied in the Memorandum and Draft Bill of the Association, and that the Association will find that many of their suggestions find support in the report of the Committee.

(*b*) The Midwives Bill Committee have had under consideration a memorial from the British Gynæcological Society with reference to the Midwifery Bill referred to them by the President of the Council, and they beg leave to suggest that the following reply be sent:

That the memorial be acknowledged with thanks, and that the British Gynæcological Society be informed that the successive reports of the Committee to the Council will show that the considerations set forth in the memorial have continually been kept in view by the Committee.

(*c*) The Committee have also considered a report of March 6th, 1899, forwarded by the Royal College of Surgeons of England, and submitted to them by the President of the General Medical Council.

The Committee report that the matters referred to in the report of the College have received their consideration, and that they believe the report which they have presented to the Council during the present session contains evidence that they have felt it their duty to direct the attention of the Council to the majority of the points adverted to in the report of the College.

The D.P.H.St.Andrews.

On the motion of Sir Richard Thorne, seconded by Dr. McVail, the report of the Public Health Committee on the regulations for the diploma in Public Health, forwarded to the Council by the University of St. Andrews, was subject to certain emendations received and entered on the minutes. The report pointed out certain respects in which the regulations should be amended, and these suggestions had been accepted by the University of St. Andrews. Sir Richard Thorne also pointed out that there was considerable diversity of opinion as to the interpretation to be placed on the rules of the Council in regard to the course of study for a diploma of Public Health. The members of the Committee thought it desirable to ascertain what could be done in the matter, and he moved, Mr. Teale seconded, and it was resolved, that the reference on this subject be continued.

Medical Aid Associations.

It was agreed, on the motion of Dr. Glover, seconded by Mr. Teale, that the following report of the Medical Aid Association Committee be received and entered on the minutes:

Report of the Medical Aid Associations Committee, May, 1899.

Members: The President, *ex officio*; Dr. Glover, *Chairman*: Mr. Teale, Dr. Bruce, Mr. Bryant, Dr. Church.

"The Committee would, by way of preface, remind the Council that in 1893 (Minutes, vol. xxx, Appendix xii) a report on medical aid associations was presented by a Committee of the Council, and was discussed on May 26th, when the following resolutions were arrived at:—

(1) That the following rules, already laid down by the Council as to "covering" unqualified assistants, do apply to medical officers of medical aid associations in respect of any unqualified persons whom an association may have engaged to assist them:—

Rule (*a*) That the Council record on its Minutes, for the information of those whom it may concern, that charges of gross misconduct in the employment of unqualified assistants, and charges of dishonest collusion with unqualified practitioners in respect of the signing of medical certificates required for the purposes of any law or lawful contract are, if brought before the Council, regarded by the Council as charges of infamous conduct under the Medical Act.

Rule (*b*): A registered medical practitioner would render himself liable to the censure of the Medical Council in case of the employment of an unqualified assistant in the practice of medicine, surgery, or midwifery on behalf and for the benefit of such registered practitioner, either in complete substitution for his own services, or under circumstances in which due personal supervision and control are not, or cannot be, exercised by the said registered practitioner.

(2) That the investigation by the Committee of the question of the conduct of medical aid associations has not disclosed the prevalence of any offences with which it falls within the statutory province of the Council to deal; but that the report of the Committee with reference to certain evils which it describes, cannot fail to be instructive to the executive committees and medical officers concerned, and that the President be requested to transmit copies of the report to these committees and officers.

"The Committee are now able to report to the General Medical Council the result of their labours in discharge of the duty imposed on them by the following resolution of the Council passed May 31st, 1897 (vol. xxxiv, p. 91):

That the communications in regard to medical aid associations received by the Executive Committee on May 24th, 1897, be referred to a Committee consisting of the following members: Mr. Teale, Dr. Bruce, Mr. Bryant, Dr. Glover, Dr. Rentoul,[4] Dr. Church.

"The communications referred to will be found printed in the Minutes of the Executive Committee, pp. 201-204, vol. xxxiv.

"One of these communications was in the form of a memorial presented to the General Medical Council by a deputation appointed at a meeting of the medical men of Norwich. It expressed the desire of the memorialists to have the opinion of the General Medical Council on the question of professional intercourse with the medical officers of the Norwich Medical Institute. At the meeting of the profession in Norwich, a Committee was appointed to consider the relation of the Medical Institute to medical aid associations, and the Committee reported "that the institute is a trading society, conducted by laymen, for affording medical attendance in return for a small annual subscription (three shillings), only a portion of which is paid to the medical officers, the remainder going to defray the working expenses, and the balance is appropriated for investment in the acquirement of real property. The Committee considered that the four[5] conclusions summarised in the report of the General Medical Council on the evils of medical aid associations are in every case applicable to the Norwich Medical Institute, and were unanimously of opinion that it is unbecoming and unprofessional for any member of the profession to lend his name or to associate himself in any way with such a society."

"The report of their Committee was unanimously adopted by the medical men in Norwich, and the memorialists sought the advice and guidance of the Council on the question of meeting in consultation medical men who had undertaken duties on conditions which must be considered detrimental to the public and derogatory to the profession.

"The second communication was received from the Norwich Medico-Chirurgical Society, composed of medical men residing in Norfolk and Suffolk, desiring the General Medical Council to take steps to counteract the growing evils of medical aid associations and of medical institutes, and pointing out that the formation of such institutions in Norwich and at Great Yarmouth had attracted the attention of the profession in East Anglia.

"The members of the Norwich Medico-Chirurgical Society resolved (*nem. con.*) to decline professional intercourse and consultation with the medical officers of these institutions, and in their communication to the Council directed attention to the step they had taken.

"A third communication, from the Beckenham and Penge Medical Society, addressed to the President of the General Medical Council, simply reported the fact that at a meeting of the Society it was unanimously resolved that:

The holding of a medical appointment to so-called medical aid societies be considered derogatory to the profession, and inimical to its best interests.

"Other communications bearing on this subject have been referred from time to time by the Council to the Committee, which presented an interim report in 1897 (see vol. xxxiv, p. 159), and two interim reports in 1898 (see vol. xxxv, p. 91 and p. 206). The Committee was reappointed on November 30th, 1897.

"The delay of two years in reporting any definite result is partly explained in the interim reports just mentioned. The time has been occupied by the Committee in inquiring into the causes of friction between medical aid associations consisting of members of friendly societies and the medical pro-

[4] Dr. Rentoul's resignation in 1897 involved his retirement from this Committee.

[5] Only two of these conclusions were adopted by the Council (Minutes, vol. xxx, pp. 61-62). They are given above.

fession. It may seem long, but will appear less so when the great difficulty of the questions raised by the memorialists is considered, as well as the number and scale of the friendly societies which have organised associations for supplying medical aid to their members.

"The Committee have had the advantage of receiving a deputation from the practitioners of Norwich and Yarmouth, and discussing with them in much detail the causes of the dissatisfaction very naturally felt by them, and expressed in their memorials. On the suggestion of Mr. E. W. Brabrook, the Registrar of Friendly Societies, conveyed through the President of the Council, the Committee has had two interviews with a Subcommittee appointed by the leading friendly societies. The last of these was a formal conference. Printed reports of the last conference with the representatives of the friendly societies have been distributed to the members of the Council, and throw a pretty full light on the matters in dispute.

"These resolve themselves very much into questions of remuneration, arising largely out of the recent inclusion in the membership of medical aid associations of women and children who, hitherto, have been generally excluded from the club system, and out of an alleged practice of retaining in the membership of such associations persons whose means and social circumstances unfit them, without injustice to the profession, for receiving the benefits of medical attendance on such terms as are proper for ordinary members. The Committee is of opinion, after due inquiry, that there is no disposition on the part of the friendly societies to deny the reasonableness of much of this dissatisfaction, nor any want of wish that their medical officers should be adequately remunerated. With this purpose various suggestions have been made by the Committee to the authorised representatives of the friendly societies, the most important of which is a proposal for a Conciliation Board consisting of representatives of the friendly societies and of the medical profession to determine questions at issue.

"The proposal for a Conciliation Board has been cordially accepted by the representative of friendly societies after full discussion by their various constituencies. The acceptance was intimated in a letter to the Chairman of the Committee on April 15th last, by Mr. J. E. Cleveland, of the National Independent Order of Oddfellows, who says: 'I am pleased to inform you that at the meeting of the National Conference of Friendly Societies, held in London on Thursday last (April 13th), it was unanimously resolved that the members of the Committee who were previously appointed to confer with that of the General Medical Council, should be elected the representatives of the friendly societies upon the proposed Conciliation Board with the members of the Council.'

"The Committee cannot but think that the creation of such a Board with the full sanction of the profession on the one hand, and of the great friendly societies on the other, would be an important step towards the establishment of a better understanding betweeen these bodies and the medical profession. The creation of a good Conciliation Board would pave the way for a more thorough discussion of all the questions at issue, and would, the Committee believe, lead to the more adequate remuneration of medical work, and the better medical treatment of the members of the friendly societies. The question of such a Board of Conciliation is one for the consideration of the profession, and in the judgment of the Committee, cannot be settled by the General Medical Council itself.

"It should be clearly stated that all that has been said so far refers strictly to associations composed essentially of members of friendly societies and their families, who belong, with few exceptions, to the industrial classes, and do not employ paid canvassers. The chief purport of this report is to commend the scheme of a Conciliation Board to the favourable consideration of the General Medical Council.

"The Committee suggest for adoption by the Council the following resolution:

"That the Council approve of the recommendation of the Committee in favour of the formation of a Board of Conciliation, to consist of representatives of the friendly societies and of the medical profession.

"The Committee since its formation has received communications with reference to another class of medical aid associations, namely, those established by insurance or other commercial companies, in which insurance is the principal business and medical attendance is thrown in merely as a bait. It is alleged that wholesale canvassing and touting is practised by these associations. The general tenour of the complaints made to us is that canvassing on a large and promiscuous scale is practised, and that in some quarters practitioners have been driven to employ similar methods in self-defence. The Committee cannot doubt that in the nature of the case this is the general working of a medical aid association promoted to push insurance business and to yield profit to a commercial company. They have reason to believe that a large number of medical men are engaged to such associations. They venture to suggest to the Council that the evil is great enough to justify the expression of strong disapproval by the Council of touting and advertising for the purpose of procuring patients in the medical aid department, and of any sanction to such methods by registered medical practitioners.

"The Committee suggest the following resolution for adoption by the Council:

"That the Council strongly disapprove of medical practitioners associating themselves with medical aid associations in which touting and advertising for the purpose of procuring patients are practised."

PROPOSED BOARD OF CONCILIATION.

In moving the adoption of the report, Dr. GLOVER reminded the Council that the Committee had conferred with the representatives of the various friendly societies, who had frankly admitted that the terms upon which medical men did the work of the societies were not satisfactory, and that the payment some of them received for their services was very inadequate. The friction between the profession and the associations had been very great, but the representatives of the societies appeared as anxious as the representatives of the medical profession to terminate it. The result of their deliberations was a recommendation to the Council for the establishment of a Board of Conciliation, which, it was hoped, would do much to remove the misunderstanding that hitherto had existed. With regard to the question of wage limit, the societies' representatives stated that it was not in their power to entertain the question, and they would rather leave a matter of that sort to the sense of righteousness of the members who joined, and so long as a man remained a member of a society he was entitled, if he chose, to all the benefits of it: but there was nothing in the abstract resolution in favour of a Board of Conciliation which would prevent this question being discussed hereafter. He thought the proposal of the Committee was the only practical one; if it were tried and failed, then it could not be said that they had not shown a disposition to settle the matter, and they would be putting themselves right with their own constituents and with their own consciences.

Dr. BRUCE, in seconding, endorsed the observations of Dr. Glover.

Mr. VICTOR HORSLEY asked the Council to vote against the proposal; in the first place, because the members had not had time to peruse the various documents, and he ventured to say the Council ought not to come to any decision on a proposal of this importance without having full knowledge of the documentary evidence laid before it; secondly, because it went a great deal too far; thirdly, that they entered at once upon the position of the Council towards the public at large and its direct relation to the profession, and it behoved them not to do anything which would imperil the dignity of the Council, or in any way curtail its proper functions. In conclusion he complained of the delay in issuing the report, and he asked whether the proposal was such a weighty one that the delay in bringing it forward was justifiable.

Mr. BROWN supported the recommendation, as he thought it worthy of a trial. If the Conciliation Board did not effect its purpose, then the Council could withdraw its support.

Replying to Mr. VICTOR HORSLEY, the PRESIDENT said he had no information as to medical aid societies being registered under the Friendly Societies Act, but the Registrar of Friendly Societies had supplied him with these facts; that on May 30th, 1898, the friendly societies of which he took cognisance had a membership of 213,617, and that they employed 75 medical officers, with an average of 2,849 members for each medical officer.

Mr. CARTER thought the recommendation of the Committee

possessed two advantages: in the first place it might do a great deal of good, and in the second it could not possibly do harm.

Mr. Bryant said that a conference which represented thirty-three friendly societies, with an aggregate membership of 3½ millions and a capital of £23,000,000 sterling, had passed a resolution in favour of a Conciliation Board, and agreeing to abide by its decision; he hoped the Council would adopt the recommendation.

Dr. Leech thought it would be an advantage to the profession if it could be adopted, while

Mr. Teale said the desire of the representatives was to do what was fair between their society and the medical profession.

Sir Richard Thorne hoped if the Conciliation Board was established, that the representatives of the Council would take no part in the formation of it. He thought it was a very dangerous step to take, although, perhaps, it was very desirable.

Dr. MacAlister approved of the recommendation, as he thought it would be the means of settling disputes amicably.

Dr. McVail said the subject was so important that he should like to know more about it. He thought if the Council adopted the recommendation it would lead to disputes with persons who would probably have to come before it to defend themselves.

Dr. Bruce said the Council would be neglecting a public duty if it failed to take advantage of the evidence which had been collected by the Committee, and although they could not appoint the members of the Conciliation Board, yet they could approve of the principle, which would be a step in advance.

Sir Christopher Nixon thought it below the dignity and outside the powers of the Council to intervene in such a matter at all, and he wished to dissociate himself from it altogether.

The President reminded the Council that the question was raised by certain members of the profession, who practically asked them to adjudge those members of the profession who acted as medical officers of these associations guilty of infamous conduct in a professional respect. The question was thus brought before them from a serious point of view, and it was only right that Dr. Glover should obtain such evidence as would enable them to arrive if possible at such a conclusion as would bring the profession and the friendly societies into harmonious co-operation. If they could do that he felt sure they would have done a good act.

Sir Richard Thorne suggested the following rider to the resolution:

That having regard to the statutory duty which devolves on the General Medical Council, it is very undesirable that any member of the Council should take any part in the constitution or formation of the proposed Conciliation Board.

A long discussion took place on the construction of the resolution. After various suggestions had been made, the President put the following resolution:

That the Council approve of the recommendation of the Committee in favour of the formation of a Board of Conciliation, to consist of representatives of the friendly societies and of the medical profession, provided it is understood that, having regard to the statutory responsibilities of the Council, it is inexpedient that it should take part officially in the formation of the Board.

This was declared carried, no one voting against it.

Mr. Victor Horsley desired the names to be taken down on a point of order, to draw the attention of the Council to the fact that a large number of members did not vote.

This was done, when it appeared 20 voted for, 8 did not vote, and 2 were absent.

The Council then adjourned.

Tuesday, June 6th, 1899.

The minutes of the previous meeting were read and confirmed.

Medical Aid Associations.

The President stated that he had called the attention of Dr. Glover, the Chairman of the Medical Aid Associations Committee, to the fact that his motion was in the nature of what one of the members of the Council had called a "a pious opinion," and Dr. Glover had not suggested to the Council any means of taking action. It was for him to consider whether he would not supplement the motion adopted on the previous day by suggesting what action the Council should take.

After some discussion, Dr. Glover said he would propose that a copy of the resolution of the Council on medical aid associations, proposed at the meeting of the Council on the previous day, be forwarded to the Chairman of the Committee, to the representatives of the friendly societies, and to the various professional bodies and members of the profession who had memorialised the Council on this subject.

Dr. Bruce seconded the resolution.

Mr. Victor Horsley thought they should have notice of the resolution. He could not understand it.

Dr. Glover said he was quite willing to give notice.

The President stated that he was perfectly clear that some motion on the subject was requisite, and he had no objection to the matter standing over till Wednesday, and this was agreed to.

Dr. Glover then proceeded to deal with the second part of the report. He read various communications which had been received by the Committee bearing out the statements contained in the report, and concluded by moving:

That the Council strongly disapprove of medical practitioners associating themselves with medical aid associations in which touting and advertising for the purpose of procuring patients are practised.

This was seconded by Dr. Bruce.

Mr. G. Brown called the attention of the Council to a notice of motion which appeared in his name on the programme for the day, and which he thought was a little stronger than the terms of Dr. Glover's motion, although he had been told that his was not strong enough. He would ask Dr. Glover if he would not accept the terms of his resolution, which were:

That this Council regards it as unprofessional to hold the appointment of medical officer to any society established for the purpose of providing medical aid to its members whose agents systematically canvass for members from door to door.

Mr. Victor Horsley appealed to Dr. Glover to adopt the terms of Mr. Brown's resolution.

Dr. Pye-Smith supported Dr. Glover's resolution, but suggested that the work "touting" should be altered to "soliciting."

Dr. McVail thought that before the Council voted on the resolution the members ought to know what it really meant. If the Council meant to take action next November against the persons Dr. Glover had referred to, then they should pass the resolution; but he did not think they were justified in voting for the resolution if it was only another "pious opinion," and if no action was to be taken.

Mr. Tichborne and Sir John Tuke took the same view, and after some further discussion Dr. Glover, in reply, said he wanted the resolution to contain words sufficient to give notice that if persons lent themselves to such systems and evidence of a clear and satisfactory character of the fact was produced before the Council, the Council would be prepared to use its disciplinary powers for the correction and removal of those persons.

The following resolution was then put to the meeting, being proposed by Dr. Glover, seconded by Dr. Bruce, and carried unanimously in the following form:

That the Council strongly disapprove of medical practitioners associating themselves with Medical Aid Associations by which systematic canvassing and advertising for the purpose of procuring patients are practised.

Dr. Glover stated that he should put on the programme for the next day a notice of motion to forward that resolution to all the bodies and persons who had memorialised.

Fines in the Metropolitan District.

The Registrar then read the next business on the programme, which was:

To receive the following recommendations from the Penal Cases Committee adopted on April 28th, 1899, in connection with the penalty recently paid by T. R. Allinson, which had been retained by the Receiver of Police, and with the advice of Mr. Muir Mackenzie that this was a proper case to take into the courts to test the point of law relating to penalties:

"That the Committee recommend the Council to bring an action for the recovery of the fine and to instruct Mr. Farrer to that effect."

"The Executive Committee on May 29th passed the following resolution on this subject:

"That the Executive Committee approve of the recommendation of the

Penal-Cases Committee, and advise the Council to take the legal proceedings referred to, and that the documents be referred to the Committee on Fines under the Medical Acts."

To receive the following report from the Committee on Fines under the Medical Acts:

The Committee on Fines, while thinking that the answer of the Home Secretary on the subject of fines under the Medical Acts should have been directly referred to them for consideration, approve of the action taken by the Penal Cases Committee and the Executive Committee respectively in obtaining Mr. Muir Mackenzie's opinion relative to the legality of the claim of the Receiver of the Metropolitan Police to take all such fines.

The Committee further approve of the recommendation made by Mr. Muir Mackenzie that an action-at-law should be undertaken by the Council to test the claim above stated.

J. G. GLOVER,
Chairman.

On the motion of Dr. GLOVER, seconded by Sir DYCE DUCKWORTH, the foregoing was received and entered on the Minutes.

Mr. G. BROWN thought that the suggested action might lead the Council into heavy expenditure. He should like to ask Mr. Muir Mackenzie if he thought there was any reasonable chance of their succeeding.

Sir WILLIAM THOMSON did not think that Mr. Muir Mackenzie's opinion should be given in public.

Sir DYCE DUCKWORTH thought it should be given *in camerâ*.

The PRESIDENT then moved that the Council should go into *camera*.

This was agreed to, and strangers were directed to withdraw.

ADDITIONAL QUALIFICATIONS ON THE COLONIAL LIST.

On the readmission of strangers, the Council proceeded to the consideration of a communication from the Privy Council, forwarding documents and application on behalf of Miss Rachel Cohen, M.B., Calcutta, who having registered on the Colonial List under her Indian degree, and having gained the diploma of the F.R.C.S.I., desired to have her qualification added to the *Register*. This had been refused by the Executive Committee on the strength of an opinion by Mr. Muir Mackenzie, that the applicant could not register her higher qualification on the Colonial List.[6]

Mr. HORSLEY had the following motion on the paper:—

To draw attention to the fact that Mr. Muir Mackenzie's opinion, that a registered Colonial practitioner should not be permitted to add to the *Register* any British qualification, is contrary to both the wording and the spirit of the Medical Acts, and to move that the applicant's request, detailed in Minute 22 of the Executive Committee, February 27th, 1899, be acceded to,

and he, therefore, to simplify matters, moved that the application of Miss Cohen be acceded to. This was seconded by Dr. BRUCE.

Mr. HORSLEY said that Mr. Mackenzie's contrary opinion had in the first instance apparently been given, as appeared to him without full consideration of Section XIV of the Medical Act of 1886, which provided that all privileges conferred on practitioners under the Act of 1858 were, as far as possible, equally conferred upon practitioners registering in the Colonial List under the Act of 1886, and he asked Mr. Mackenzie to explain why he thought that Section XIV did not give that power, because he did not find in Mr. Mackenzie's memorandum any specific discussion on the point that he (Mr. Horsley) had just raised.

Mr. MACKENZIE stated that his difficulty had been that under the substitution portion of Section XXX it would be possible for such an applicant to substitute the higher qualification which was not a registrable qualification in the sense of the Act of 1886 for the proper degree under which he or she had gained access to the *Register*.

Mr. HORSLEY pointed out that this surely was an error, for if anyone effected such substitution then *ipso facto* the registration would cease because the fourth column of the *Register* would not be complete according to the provisions of the Act of 1886.

Mr. MUIR MACKENZIE admitted this and also that he had come to his first opinion without the full knowledge of the facts before him.

The Council then continued the discussion of this subject, and universal sympathy was expressed with the application.

Dr. CHURCH suggested that inasmuch as persons taking the higher qualification of the M.R.C.P. had been given to understand that they could not register that higher qualification on the Colonial List, further hardships would be inflicted unless the Council came to a general conclusion on the matter.

Dr. ATTHILL suggested the addition of general expressions to the motion, and ultimately Mr. HORSLEY's motion was agreed to *nem. con.* in the following form:

That the application of Miss Rachel Cohen, M.B.Calcutta, to register on the *Colonial Register* the diploma of F.R.C.S.I. which she has obtained be acceded to, and that the Registrar be directed in future to register additional or higher qualifications on the Colonial List.

Wednesday, June 7th.

The minutes of the last meeting were read and as amended confirmed.

THE BUSINESS OF THE COUNCIL.

Mr. CARTER said that before the business on the programme was proceeded with he would like to make a suggestion in favour of despatch. They were all exceedingly anxious to conclude the business of the session as soon as possible, for they were all conscious that the last session was very much prolonged. It lasted nine days, though he thought the business could have been concluded in five or six. That was largely due to the unbounded eloquence of certain members of the Council, two of whom in the last five or six days between them made 133 speeches. He thought it would be conducive to the despatch of business if those members of the Council who had an inclination to put their views before the world did not speak more than three times on each motion.

RESTORATION TO THE REGISTER.

The PRESIDENT stated that he would now read a resolution come to *in camerâ* on the previous day, which should be made public. It was resolved that the recommendation of the Executive Committee respecting the case of Alfred Freeman be adopted, and that accordingly the Registrar be instructed to restore the name and qualification of Alfred Freeman to the *Medical Register*.

THE HUNTER CASE.

Mr. HORSLEY asked whether or not the legal advisers of the Council were going to be present on the occasion of this discussion.

The PRESIDENT replied in the negative.

Mr. HORSLEY did not think that he ought to say what he had to say in their absence. It was quite understood yesterday that the Council were going to deal with certain penal questions when the legal advisers would be present.

The PRESIDENT said it was considered that they had disposed on the previous day of those questions which required the attendance of the legal advisers.

Mr. HORSLEY said that was certainly not the understanding in the minds of many. He did not think it was right for any member of the Council to be called upon to question the procedure of their legal advisers without it being arranged previously that their legal advisers should be present.

The PRESIDENT stated that it was impossible for Mr. Muir Mackenzie to be present that day.

Mr. HORSLEY said he was still not satisfied.

The PRESIDENT stated that both their legal officers preferred not to be present.

Mr. HORSLEY remarked that if the legal advisers had stated that they did not wish to be present he would accept that.

The PRESIDENT said they thought it better not to be present.

Dr. GLOVER suggested that perhaps Mr. Muir Mackenzie could be present on the following day.

Mr. HORSLEY said he was quite willing to take this matter up at any time to suit the convenience of counsel.

Dr. GLOVER thought it was due to their legal advisers that they should be present.

Dr. MACALISTER thought they were going to be present, but of course if, having notice of this matter, they chose not to be present, they could have no grievance.

Dr. GLOVER said that depended upon what was asked of them.

Mr. HORSLEY replied that that was exactly the point. As a matter of procedure he intended to call attention to this matter with a view of eliciting from their legal advisers an

[6] The circumstances were stated in a letter by Dr. C. F. Knight, published in the BRITISH MEDICAL JOURNAL on April 29th, p. 1059.

explanation which he thought the Council and the profession were justified in asking. He did not intend to conclude with a motion, because he wished to hear the explanation of the legal gentlemen before he did anything else.

The PRESIDENT called attention to the fact that he had stated in his address that he had given directions that the various resolutions by the Penal Cases Committee and the Council should be in type.

Mr. V. HORSLEY pointed out that the document in type, although of immense service to them, was not complete.

The PRESIDENT was under the impression that it was.

Mr. HORSLEY replied that it certainly was not complete.

Mr. CARTER, as a matter of order, would ask whether any member could bring forward a matter merely to make a speech, without moving a motion.

Mr. HORSLEY said before the President answered that question he should like to say that if the President felt that he would not be in order unless he concluded with a motion he should have to do so; but he was extremely loth to do so, and he did not think he should be called upon to do so. Any member of the Council could raise a question, parallel to the question of privilege in the House of Commons, on which he wanted information. That was all he proposed to do in order to set the Council right with the profession outside. If the President was inclined to listen to Mr. Carter's suggestion, he was ready to move the adjournment, on the ground that he could not obtain certain information.

The PRESIDENT remarked that he thought it perfectly legitimate for any member of the Council to draw attention to the proceedings in the case referred to. He should not dream of ruling Mr. Horsley out of order, but he thought Mr. Horsley should ask the leave of the Council to draw attention to the case.

Mr. HORSLEY was quite content, saying that this would get rid of Mr. Carter's point of order. He then moved that the Council grant leave to him to draw attention to the proceedings taken in the name of the Council against the late Mr. H. K. Hunter, L.S.A.

Dr. BRUCE seconded.

Sir RICHARD THORNE moved as an amendment:

That the subject be adjourned until the legal advisers of the Council be present.

He thought it was not right to discuss the matter in their absence.

The PRESIDENT stated that the idea of their not being present was that it would give more freedom to the Council to discuss the question.

Sir RICHARD THORNE pointed out that there was no point to discuss unless they had some statement from them.

Sir JOHN TUKE seconded Sir Richard Thorne's amendment. He thought it inexpedient that it should go forth to the world that their legal advisers did not wish to come, and did not come.

Mr. HORSLEY asked leave to withdraw his motion in favour of the motion of Sir Richard Thorne. He had the permission of Dr. Bruce to do this.

The PRESIDENT acceded to this, and stated that that being so the form of Sir Richard Thorne's resolution would hardly do, as it was to be treated as a motion.

It was then moved by Sir RICHARD THORNE, seconded by Sir JOHN TUKE, and carried unanimously.

That the Legal Assessor and Solicitor to the Council be asked to attend a meeting of the Council on Thursday, June 8th, at 4.15 P.M. or at some other convenient hour when the proceedings taken in the name of the Council against the late Mr. H. K. Hunter, L.S.A., will be considered.

This was carried unanimously.

INSPECTION OF HIGHER EXAMINATIONS.

It was then moved by Mr. HORSLEY, seconded by Dr. BRUCE:

That this Council records its opinion that by Sections XVIII and XX of the Medical Act 1858 the duty is imposed on the Council of enquiry into and securing as far as possible the efficiency of any examination which confers any registrable qualification mentioned in Schedule A of the said Act.

Mr. VICTOR HORSLEY said the motion had been brought forward from a purely academic point of view, and he would ask the Council to read the Act as he did, namely, that Section XXX did not in any way invalidate the obligations of Sections XVIII and XX.

The PRESIDENT invited Mr. Horsley to show the bearing of Section III of the Medical Act of 1886 upon the question.

Mr. HORSLEY replied that to his mind it was *nil*. Section III of the Act of 1886 for the first time introduced a new feature into Medical Acts, namely, a statutory statements as to the minimum upon which a man could gain entry upon the *Register*, but if the section were to interpret as had been done by members of the Council it would be necessary to say that the term "qualification" was restricted absolutely in the sense of the Act of 1858. He submitted it had nothing whatever to do with the Act of 1858.

The PRESIDENT inquired of Mr. Victor Horsley if he had considered whether the Council would be in a position to decline to put on the *Register* as an additional qualification a Fellowship for which there had been no examination.

Mr. VICTOR HORSLEY ventured to think that had no bearing on the point, although it was a question of very great importance, and a very fit one for discussion by the Council. The only thing that could be said in relation to a matter of that kind was that the Council had recognised certain diplomas or qualifications for which, in most instances, an examination was required; but he was not aware that the Council, in expressing its recognition of any one Fellowship, laid it down that it was to be secured by examination.

Dr. MACALISTER said it appeared to him that Section XX of the Act of 1858 limited the qualifications to those obtained by a course of study and examination.

Mr. CARTER said the examination out of which this question arose had ceased to be a registrable qualification since 1886.

The PRESIDENT then put the motion, which he declared lost.

At the request of Mr. VICTOR HORSLEY the names were taken down, when it appeared 9 voted against, 7 for, 12 did not vote, and 2 were absent.

THE APPOINTMENT OF THE LEGAL ADVISERS.

The next business was a question by Mr. VICTOR HORSLEY:

To ask the Chair for the minutes of appointment by the Council of the Legal Assessor and Solicitor to the Council.

The PRESIDENT said the Registrar had gone through the minutes, which he thought had better be read.

The REGISTRAR having read the minutes, Dr. GLOVER moved, and Sir CHRISTOPHER NIXON seconded:

That the answer now read by the Registrar in response to the question put by Mr. Victor Horsley be entered on the minutes.

Some members of the Council objected to this course being adopted, including Mr. CARTER, who said the question had been put as a matter of curiosity.

Mr. VICTOR HORSLEY said his object was a purely historical one, and protested against the observations which had been made.

The motion was then put, 15 voting for and 5 against.

PROCEDURE OF THE DENTAL COMMITTEE.

Mr. TOMES then brought forward the report of the Dental Committee. He said that as the Standing Orders of the Council were not in every respect applicable to the Committee. Mr. Muir Mackenzie had drawn up some new ones. There was no new principle involved, the only change of importance being that, under the direction of the President, the Registrar could make inquiries so as to get the case ready and thus obviate the Committee meeting for purely formal purposes. He then moved that the proposed new Standing Orders be adopted.

This was seconded by Mr. CARTER.

Dr. MACALISTER pointed out that there were one or two matters in the report which should be cleared up and which would necessitate the redrafting of at least one recommendation, and the PRESIDENT having suggested that the consideration should be adjourned, he moved and Mr. TEALE seconded, "That the consideration of the report be adjourned until the following day," which was agreed to.

THE DISPENSING COMMITTEE.

On the motion of Mr. TEALE, seconded by Dr. LEECH, it was resolved that the name of Mr. Carter should be added to the Committee on Dispensing.

THE FIRST YEAR'S COURSE.

Sir JOHN BATTY TUKE moved, and Dr. MACALISTER seconded, and it was agreed:

That the report of the Education Committee on the Regulations of the English and Scottish Conjoint Boards in regard to the first year's course of professional study be received and entered on the minutes.

Sir JOHN B. TUKE, in presenting the report, said the Committee had found it impossible to present a narrative report, and therefore he would simply read the remarks of the Committee as follows:

The Committee ... desire to call the attention of the Council to the two questions, distinct but interconnected, which it involves. *First*, the question whether a year of scientific study *before registration* should *in exceptional cases* be recognised as constituting one of the five years of the medical curriculum. *Second*, the question whether a year of scientific study taken *after registration*, but in an institution of the status and character of an ordinary secondary or grammar school, should *regularly* be recognised as constituting one of the five years required.

The *first* question is that raised by the enactment of Section X of the Scottish Universities Ordinances. The Committee and the Council repeatedly protested against this Section, both as being a dangerous precedent and as unnecessary for the relief of the *bonâ fide* cases of exception contemplated by the Commissioners. Experience seems to have justified the protest on both grounds. According to the information before the Committee, Section X has not been utilised to any great extent. In Aberdeen no cases of exemption have occurred, in Edinburgh five, and in Glasgow four. But the Committee understand that in all the cases examinations qualifying for registration had been passed; indeed, in two of the Glasgow cases the applicants for exemption were already graduates in Arts. The section was, therefore, for its proposed purpose superfluous, as any formal difficulty it was devised to remove could have been met in other ways to which no objection could be taken. But the example set by this enactment has apparently had the influence which the Council apprehended, and the new regulations of the Conjoint Boards in England and Scotland illustrate the manner of its operation.

The *second* question, had it been formally raised at the time when the Conjoint Board in England obtained from the Council the concession that scientific study before registration should qualify for the First Examination, would in the Committee's opinion have been answered in the negative by the Council. One chief object of the Council's action has been to secure that ordinary school work should be completed, and tested by a sufficient preliminary examination, before the course of medical study was begun. It has been felt that to be truly profitable to the medical student his work at the ancillary sciences should be conducted under higher conditions and under better safeguards as to efficiency than can be looked for in secondary schools, the majority of whose pupils are still boys and girls. The wholesale recognition of ordinary day schools as "teaching institutions" in which the first year of medical study may be pursued, must practically frustrate this object, and bring about the result foreseen by the Committee in their report of May 24th, 1894. They would in particular call the Council's attention to the following paragraph:

"The Committee, however, cannot help regarding the system with considerable distrust; First, because in practice it may tend to the recognition of an inferior class of schools; secondly, because the standard of examination in science may, as a consequence, be so lowered as practically to lead to the waste of the first year of study; thirdly, because it does not explicitly provide for any Preliminary Examination in the ordinary school subjects before the special scientific subjects are begun; and, fourthly, because, though the Conjoint Boards have safeguarded their system by requiring five years of medical study after registration of such schoolboy students, it is open to any other licensing body to require only four years."

As to the remedy, the Committee still feel the difficulty, pointed out in their Report of 1894 (see p. 21 of report, and Minutes, Vol. xxxi, Appendix xvi, pp. 12, 13), of the Council taking action in regard to the inspection and direct recognition of "Teaching Institutions." But it appears now that the check, proposed by the Committee and adopted by the Council, on the recognition of such institutions "after due inspection" by the licensing bodies has proved insufficient in two ways. In the first place, contrary to the Council's intention, a considerable number of Secondary and even of Board schools have been admitted to recognition; in the second place, the duty of inspection delegated to the licensing bodies has not been carried out in all cases.

The Committee have definitely ascertained that the Conjoint Board in England has recognised certain "teaching institutions" for the purposes of instruction, examination, and registration, without the guarantee which inspection affords that the said institutions are adequately equipped and efficiently conducted. The Chairman of the Committee wrote to the Secretary of the Board on February 8th, asking whether the following schools had been inspected: Nonconformist Grammar School, Bishop's Stortford; Bristol Grammar School; The Grammar School, Bromyard; Felsted School, Felsted; Higher Grade Board School, Hanley; Mercers' School, Holborn; Higher Grade Board School, Norwich; Higher Grade Board School, Portsmouth; Grammar School, Portsmouth; Forest School, Walthamstow; Grammar School, Woodford (Essex). The following is the reply:

Examination Hall, Victoria Embankment,
London, W.C., March 21st, 1899.

DEAR SIR JOHN BATTY TUKE,—I have now submitted your letter of the 3rd ultimo to the Committee of Management of this Board, and I am desired to inform you that the following resolution was adopted by them in reference to your request for information as to the recognition of institutions, namely:

That whilst the Committee of Management are of opinion that the question of the recognition of institutions is entirely one for the respective examining bodies to determine for themselves, Sir John Batty Tuke be informed that the following schools mentioned by him have been visited, and reported on favourably, by Members of the Committee, namely:—Felsted School; Mercers' School, Holborn; Higher Grade Board School, Portsmouth; Forest School, Walthamstow; Bancroft School, Woodford, Essex; and that the others mentioned by him were accepted after the Committee had satisfied themselves that the Schools fulfilled the requirements of, and were recognised by, the South Kensington Science and Art Department.

I return your marked list of Schools.

Yours very truly,
FREDERICK G. HALLETT,
Secretary.

Sir JOHN BATTY TUKE, M.D.

The Committee have thus to report that the recognition of "teaching institutions where physics, chemistry, and elementary biology are taught," without due inspection, is not in accordance with Resolution II, agreed to by the Council on December 4th, 1894. (*Vide supra*, p. 23.)

It therefore appears to the Committee necessary that the Council should now take a further step. The licensing bodies should be informed that schools for boys and girls were not intended by the Council to be regarded as institutions at which the first of the five years of medical study may be spent; and the Council should require that before registration is effected a student should have commenced medical study at a university or School of Medicine, or at a scientific institution recognised by one of the licensing bodies, *and approved by the Council*. If this were done the recognised institutions would not merely, as now, be reported to the Registrar, but would come in a regular and formal way before the Council for its approval. Attention could thus be drawn to any institution regarding which objection might be taken, and approval withheld if the evidence as to its status and efficiency were unsatisfactory. As registration is a matter over which Council alone has control, this manner of dealing with the difficulty appears to be the least open to objection.

The PRESIDENT understood the change recommended by the Committee was the introduction of the words "approved by the Council" into the regulations in regard to the institutions which did not at present require to be approved by the Council for the purposes of registration only. The Committee recommend that there should be approval by the Council as well as recognition by one of the licensing bodies.

Mr. CARTER asked if it would be just that the Council should institute inspection of the bodies referred to.

The PRESIDENT informed Mr. Carter that the Council had no power to inspect institutions; it could inspect and visit examinations only.

Dr. MACALISTER thought the registration should alone take place in regard to those institutions which had formally been brought before the Council, and had been approved in the sense that no objection had been raised. What happened was that the bodies sent up a list to the Registrar, which remained in the office but which was never seen, and it had come as a great surprise to many of them that it had grown so long, and it was thought that list should be circulated and come before the members in order that if they saw an institution of which they knew nothing, they should raise the question before the Council as to whether it had been approved. All the Committee desired was to give an opportunity to the members of the Council to object to any institutions which ought not to be recognised.

Mr. BRYANT said the report contained a principle which he, as representing the Royal College of Surgeons of England, could not for a moment recognise and which he thought other conjoint boards and universities would strongly object to. The fault found principally with his own college was that there were a few names of institutions which had not been recognised after inspection. The bulk of those institutions had been visited and carefully inspected and approved of, and those that had not been approved of had not been put upon their list; but some institutions, such as the South Kensington Science and Art Department, they found were thoroughly efficient teaching institutions and they were willing to accept those without visitation. If, however, the Council objected to that, he thought there would be no difficulty in visiting those which had not been visited, but attention not having been drawn to the matter he could not promise this would be so, although he would use his influence with his college to induce them to send inspectors and report to the Council. He could not approve of the report as it stood, but hoped some motion would be brought forward by which some words of it might be cut out.

Sir DYCE DUCKWORTH wished to accentuate strongly the points Mr. Bryant had brought out, and he hoped the recommendation would not commend itself to the Council.

Mr. CARTER would regard with some apprehension the passing by the Council of any recommendation which tended to weaken the responsibility of the examining body.

Dr. CHURCH rose to propose an amendment. He did so with some difficulty, because he could not but feel that the Council would think that whilst it was the voice of Oxford, it was

the animus of Bartholomew. He hoped, however, the Council would think that he was speaking impartially. It might be in the recollection of the Council that there was considerable difficulty with regard to getting his University recognised. He was not an enemy to registration, but they should take care that their demands for registration should not be too severe, and that nothing should appear which might be called in question by the licensing bodies. He therefore would propose as an amendment:

That in the resolution in regard to registration the word "scientific" before "institution" should be omitted, and also that the concluding words "approved by the Council"; and that in the form of the registration of medical students the word "recognised" be substituted for "scientific," and that the words "be approved by the Council" be omitted;" in other words that the old form be retained.

The PRESIDENT remarked that this matter was remitted to the Education Committee on the motion of Sir William Thomson and Sir P. Smyly. He thought the Council would like to hear something from those members.

Sir P. SMYLY and Sir RICHARD THORNE having made a few remarks,

Sir WM. THOMSON said he was responsible for having shared in the introduction of this apparently very dreadful subject. This matter was raised on the last day, almost the last hour, of the last session, and they then got rid of the matter by sending it to the Education Committee. The matter came before the Council in a letter addressed to it by the Secretary of the College of Surgeons, Ireland, in which they drew attention to certain departures from the requirements of this Council which had been established some two or three years before. It was pointed out in the letter that according to the recently issued rules and regulations of the Conjoint Board in England it was possible to obtain a medical course of four years, in spite of the requirement of this Council that the course should be for five years; and they gave reasons for that which he thought were specific and cogent. The Conjoint Board of England was pursuing a course which was entirely different to what they had required, and instead of a five years' course, it was offering four years to its students. That was in exact opposition to their requirements and recommendations, and they stated that they intended to stand by their decision. He had always been under the impression, although perhaps it was a delusion, that the General Medical Council were practically omnipotent in matters of medical education, and that this body had the charge and control of these things; that it was their duty to see that their orders were carried out, but from what they had heard that day it seemed to be possible to put all these considerations aside, and not to inform the Council of any departures from its own rules at all, but to quietly change the whole order of things, and then when the body who had so acted was challenged it told the Council that it did not care what it required or what it recognised, but that it would do as it thought best. That was the position of things. If the General Medical Council was in that position, and if it was incompetent to enforce its own rules and requirements, then there was no use for the Council meeting there at all. As to the question of law, he was not a lawyer, but he did say that it was a matter of extreme importance if the Council, after having passed rule after rule and regulation after regulation, were to be told at the end that that was all sound and fury and that it signified nothing. If that was the truth, then he did not know why the Chairman of the Education Committee had spent six months over the matter, and why the Education Committee had been engaged day after day for so many hours during the whole of the session. With regard to the schools that had been spoken of, the contention was not that these schools were necessarily bad or inefficient for the teaching of science. The whole principle was laid down by the Council itself when they adopted the view of the then President with regard to this question. He would ask the Council, Was the first year at a grammar school a *bonâ fide* year of medical study? [Cries of "No, no."] That was the declaration which the Council had made in its own report. The first year of medical study was no longer a *bonâ fide* year, and according to the declaration of the Council knowledge gained in the first year was inferior knowledge. That was not the aim of the Council, and it was not the purpose for which they added a year on to the four years. They did not intend that the first year should be a sham. He said that the intention of the Council was that the first year should be conducted at a university or in a medical school, or in a scientific institution approved by this Council. If they were going to approve of this departure from their rules, then he put it to them that the only alternative was that they must go back to the four years. It was of no use talking of five years' curriculum when it was not five years. He, for himself, could not understand why two large corporations should have made the statement that they would not obey the regulations of the Council; but if that was so the sooner they ceased issuing these documents requiring these bodies to do certain things the better it would be for the dignity of the Council. Under these circumstances he did ask the Council to accept the report. It was put forward as a recommendation which he ventured to think would protect medical education, not only in this country, but everywhere, and would be worthy of their Council.

Sir CHRISTOPHER NIXON said that as a member of the Education Committee and as the representative of the Royal University of Ireland he would like to say a few words. He claimed that as far as medical education was concerned they in Ireland were a law-abiding body, and he claimed that especially for the Royal University. They had always been most rigid in carrying out the recommendations of the General Medical Council, and when the General Medical Council thought fit to increase the number of years for medical education from four to five they adopted their recommendation at once. He did not think that the regulations which the conjoint bodies in England had agreed to among themselves would in any way interfere with the Dublin School of Medicine, for the reason that if any school or secondary school professed to teach their medical students the subjects of the first year's medical studies he could promise that such a course would never be recognised as far as their body was concerned. He was surprised at the tone taken up by the representatives of the two great corporations here with regard to the General Medical Council. He, too, thought that the Council was omnipotent in the matter of medical education, and yet they were told without any hesitation that whatever regulations were made they would not be obeyed. He did not know whether, if that statement went broadcast, as he was afraid it must, it would have a good effect on bodies that wished to conform to their rules. If one or two corporations, through their representatives, said that they would not be bound by the regulations of the Council, the time might come when their example would be followed greatly to the detriment of the interests of the profession. It might be that those expressions were used under some feeling of irritation. The report, no doubt, was a very decided report, and it was decided in this that they meant to have control over the bodies recognised. They allowed the different corporations the right of inspecting those bodies, but they must submit the result of that inspection to the Council, and it was for the Council to say whether it was satisfied with the inspection. This appeared to him to be really a test case with regard to the power of the Council, and if the Council felt it had not the power, then it would probably take the not very courageous course of throwing out the recommendations of the Education Committee; but if it did that, then he was afraid they were on the downward path, and all the good that had been done in years gone by in elevating the tone of medical education would be lost.

Mr. GEORGE BROWN, as an independent member, not connected with any corporation, felt that they were greatly indebted to the Education Committee for grasping the subject in the manner they had done. He hoped the Council would adopt the report without any fear of the dreadful consequences which had been suggested.

Dr. MACALISTER pointed out that it could not be asserted that the conjoint colleges in England had in any way broken the rules laid down by the Council. They had kept strictly within the letter of the law. They had interpreted them in a sense which the Council did not intend, and which the Colleges themselves did not intend at the time they accepted them. They had changed their intention.

but it had not appeared that the Council had changed its intention; but he thought it right to state that the Colleges had kept within the letter of the regulations laid down. He thought Sir John Batty Tuke would bear him out in saying that they were within the strict letter of the law.

Sir JOHN BATTY TUKE said they were within the strict letter of the law.

Dr. MCVAIL said he should vote for the adoption of the report.

Dr. ATTHILL felt there was a systematic process at work for whittling away at least one of the five years. He believed that the majority of students now hardly got such a full and complete education as they did under the four years' system.

The PRESIDENT remarked that the point at issue was not that the two London Corporations declined to submit a list, because the list was in the minutes of the Committee. As he understood it, they declined to limit their functions to a question of approval by the Council.

Sir W. T. GAIRDNER was not surprised that the colleges had changed their views because they were presented with an educational phenomenon of the greatest importance which would amount, before the century was finished, to a complete revolution: that was the introduction of science into the programme of the grammar schools to a much greater extent than ever before.

Dr. BRUCE entirely sympathised with the view expressed as to the great advantage of science being taught in these schools. If the year was to be reckoned as a year of medical study, then it came under the purview of the Council. There was much sham study of chemistry in grammar schools.

Mr. TEALE suggested that the difficulty arose because the two Colleges had attempted to disentangle the studies of the first year's curriculum.

In answer to Sir JOHN TUKE, Mr. TEALE suggested that the way to avoid the entanglement was to see that these subjects were not going on coincidently with dissections and physiology.

The PRESIDENT pointed out that there was no motion before the Council.

Dr. CHURCH would like his amendment put, because that only restored the old form of registration certificate.

The PRESIDENT thought he was right in saying that it was an amendment he could accept.

Mr. TEALE seconded the amendment.

Dr. CHURCH said there was not the slightest disposition on the part of the Conjoint Board of London to run contrary to the wishes of the Council. It was merely that they did not see why the Council should go out of its way, and beyond what they believed to be its powers. It was not the business of the Council to regulate the curriculum of the Conjoint Board, and they objected to the interpretation which the public would put on the word "approve."

Sir JOHN BATTY TUKE in reply said it was for the Council to settle now and for all time whether they would have a five years' curriculum or not.

The Council then divided on the amendment, 9 voting for and 17 against.

Mr. BRYANT complained that the body he represented had not been properly treated. They had regularly given information to the Council with regard to the institutions recognised and it was open to any member to inspect and criticise their list. There were only certain exceptions, such as the South Kensington, and they would be perfectly willing to undertake to visit those. He concluded by moving as an amendment:

That the following be adopted instead of the recommendation of the Committee, namely, "That the list of recognised teaching institutions forwarded to the Registrar at the beginning of each year be reported to the next following meeting of the Executive Committee and printed in the minutes of that Committee for the information of the Council."

This was seconded.

In reply to Dr. HERON WATSON, Mr. BRYANT said that the rule of his college was that a man must have five years' medical education after registration.

Dr. MACVAIL said the whole point was whether the school year counted as one of the five.

The PRESIDENT observed that its relation to registration was the fundamental position of the motion.

Sir JOHN BATTY TUKE said he could not accept the amendment, as it appeared to him identical in meaning with one which had just been disposed of by the Council.

The Council then divided, when the PRESIDENT declared the amendment lost. By request the names were taken down, when it appeared that there 18 against, 8 for, 3 did not vote, and 1 was absent.

The PRESIDENT then put the original motion that Recommendation 1 on page 29 of the Committee's report be adopted, which he declared carried. The names were taken down, when there appeared 18 for, 6 against, 5 did not vote, and 1 absent.

On the motion of Sir JOHN B. TUKE, seconded by Dr. MACALISTER, it was resolved:

That the Registrar be directed to call the attention of the licensing bodies to the foregoing resolution.

THE PENAL CASES COMMITTEE.

On the motion of Dr. BRUCE, seconded by Dr. ATTHILL, it was resolved:

That the number of members of the Penal Cases Committee be the same as that of the Executive Committee, namely, eight, exclusive of the President, four for England, two for Scotland, and two for Ireland.

It was then agreed, on the motion of Dr. MACALISTER, seconded by Dr. BRUCE:

That the Executive Committee be asked to make the consequential alterations in the Standing Order.

The Council then adjourned.

THE EXAMINATION FOR THE F.F.P.S.G.

On the first day of the present session of the Council a discussion took place with regard to the examination for the Fellowship of the Faculty of Physicians and Surgeons of Glasgow. It arose in regard to a memorial by certain Fellows as to the insufficiency of examination. The following, we are informed, is the text of the memorial:

(Copy of Memorial sent to the General Medical Council on May 10th, 1898.)

We, the undersigned, being Fellows of the Faculty of Physicians and Surgeons of Glasgow, respectfully beg to draw your attention to a flagrant instance of insufficiency of examination, held on January 21st, 1898, for the Fellowship of our Faculty, particulars of which are appended.

As the insufficiency of this examination, and of at least one previous examination held at St. Mungo's College, is matter of common notoriety and derogatory to all concerned, we, as Fellows of Faculty, thought it proper in the interest of the profession to make a strong effort to correct so grave an abuse, and thereby place the Fellowship Examination on a proper footing, and give it the prestige which such an examination ought to possess.

Under these circumstances a letter was written by one of our number later in the day (January 21st) to Dr. Hector Cameron, President of the Faculty, asking for the favour of an interview, in order to place before him a matter of importance in connection with the Faculty. The President replied that he would be glad to see us at his house on the following Tuesday (January 25th), at 2 o'clock.

We accordingly waited on him on the day in question, and gave him an accurate account of the mode adopted in conducting the Examination in Operative Surgery on January 21st, as well as numerous details of two previous examinations for the Fellowship held at St. Mungo's College, all of which, we may add, were utterly insufficient for the Fellowship Examination of any licensing body.

We afterwards proceeded to the house of Dr. W. L. Reid, a member of Council, to whom we imparted the same information. The result of this was a communication from the Secretary of Faculty, dated the 27th, requesting our joint representations, *in writing*, regarding the defects of the examination in question. (Copies of all appended.)*

Notwithstanding the facts disclosed to the President of Faculty on January 25th, and notwithstanding the Secretary's letter of January 27th, requesting us to place these facts in writing for the consideration of the Council, the first item of business in the notice of the next monthly meeting issued on February 3rd, reads as follows:

"Report by Council on the eligibility for the Fellowship of ——, and ballot for his election."

On February 4th a letter (copy appended*) was received by both subscribers from the Secretary of Faculty, requesting our joint presence in the Faculty Hall, at 4.15 on the following day in order to have a "friendly conversation" on the matter, and in compliance with the wish of the President we attended the meeting of Council at the hour named.

The first question asked us by the President was, "Were we willing to leave the matter at present under consideration in the hands of the Council?" To this we replied that we were willing to do so, believing at the same time that steps would be taken by the Council to rectify matters.

No communication, however, was made by the Council on this subject to the Faculty, either at the meetings of February 7th, when the Council reported that the candidate was eligible for the Fellowship, or at the next meeting on March 7th, when the candidate was finally admitted.

ROBERT THOMAS KENT.
JAMES WHITSON.

These have been omitted here.

THE PEACE CONFERENCE.

To judge from the tone of the political press, the Peace Conference at the Hague seems to have surprised most of those interested in its proceedings by not breaking up in most admired disorder after two or three sittings. That is something: but unfortunately it leaves the prospect of the millennium promised us by the Czar and Mr. Stead as remote as it was before. As soon as the preliminary flourish of general professions of goodwill and fine sentiments had been duly executed and the Conference settled down to business, the tug-of-war began among the peacemakers. The committee on the extension of the Geneva Convention to naval warfare got into difficulties at its first meeting on May 30th, and the situation was saved only by the tact of the chairman, M. Asser, the leading jurisconsult of Holland, who proposed adjournment for a week for the consideration of controversial points.

THE GENEVA CONVENTION AND NAVAL WARFARE.

At M. Asser's suggestion the subject was divided for purposes of discussion under four headings as follows:

1. The treatment of vessels.
2. The medical and hospital staff.
3. Wrecked and wounded.
4. General alterations.

The discussion on the first of these points, though generally business-like and technical, became at intervals keen and almost moving. The British delegates vetoed any rushing of resolutions in the direction of altering the laws of naval warfare. The general feeling was expressed by a delegate for Switzerland, who said: "La Convention de Genève sera discutée pied à pied." The debate on Section 1 of the Russian proposals for altering the Convention branched out into the following: (1) The status in time of war in hospital ships. (2) Merchant ships chartered to remove the sick and wounded. (3) Hospital ships of private societies. (4) Vessels which visit the scene of naval hostilities at owners' own risk for the purpose of ministering to the wounded.

It was agreed unanimously to appoint a subcommittee to draft regulations on the basis of the above classifications. This Subcommittee consists of Sir John Fisher (England), Captain Siegel (Germany), and two other members representing respectively Russia and France.

On June 1st, at a meeting of Commission No. 2, a small Committee, consisting of the English, Russian, and German naval delegates and the French legal delegates, was appointed to settle the details of principles for extending the Geneva Convention to maritime warfare.

THE CARE OF THE WOUNDED AT SEA.

The second section of the Red Cross Committee also encountered serious difficulties in its labours, the British and American delegates especially raising numerous objections on questions of detail, and showing an inclination to reject all regulations of too stringent a character. On the other hand, the delegates of Russia, Germany, France, Austria, Italy, and Japan displayed a very conciliatory disposition as regards the points before the Committee, and appeared anxious to secure a speedy agreement. On June 2nd the Committee on the Articles submitted at the Geneva Convention of 1868 met and succeeded in establishing a new set of rules for the protection and care of the wounded at sea. One of the chief obstacles to be overcome was the Russian proposal that the hospital ships of neutral States should fly the flag of one of the belligerents as well as the Red Cross of Geneva. It has been decided that such vessels must sail under the flag of the nation to which they belong, and that they must be subject to the command of an officer of the fleet, who may order them to withdraw.

CONDEMNATION OF THE DUM-DUM BULLET.

The Subcommittee of Commission No. 1 on disarmament decided at its sitting on May 31st to submit to the Conference a proposal consisting first of the prohibition of missiles such as explosive bullets, and also "*les balles à enveloppe dure, dont l'enveloppe ne couvrirait pas entièrement le noyau ou serait pourvue d'incisions*"; secondly, a suggestion that for five years the States represented at the Conference should pledge themselves to use in their armies only the rifles with which they are armed at present.

A resolution prohibiting the use of the Dum-dum bullet was adopted at the sitting of Commission No. 1 of the Peace Conference on May 31st in spite of the opposition of the British delegates by 18 votes to 3. Italy and Austria voted with England. It was also resolved to prohibit the use of explosives from balloons and explosive bullets. On all the more important proposals agreement was found to be impossible, and a strong conviction is felt that the work of this Commission is doomed to failure.

Telegraphing on June 4th, the Special Correspondent of the *Standard* says:

Although the Brussels Section has proposed to extend the St. Petersburg Convention of 1868 so as to prohibit the Dum-dum and mark 4 Woolwich bullet, which was used in the Soudan campaign, the controversy is by no means at an end. It will be renewed on the report, when General Sir John Ardagh will again defend these projectiles, which experience in savage warfare has proved to be necessary. Continental experts seem to have an erroneous idea of the construction and effect of the Dum-dum bullet. In the report prepared by the Germans, and submitted to the Committee by Colonel Schwarzhoff, there is a diagram of the alleged Dum-dum which differs materially from the real bullet. The diagram shows a more extended point than is given by slicing off the end of the Dum-dum. With these spurious imitations the Germans have made experiments on which surgical opinions have been based. These opinions, emphasised with gruesome illustrations of shattered bones and torn flesh, denounce the Dum-dum as a missile that needlessly aggravates the suffering of men when *hors de combat*, and renders their death inevitable.

The English reports, founded not on false imitations but on the genuine bullet, are more favourable. Experiment has demonstrated that the track of the Dum-dum and the wound itself are not more terrible than those of the Snider, the Martini-Henry, or fully-mantled bullets. These tests have been made with great care, and constrain one to the belief that the Committee passed judgment on inaccurate information, or from a desire to place Great Britain in apparent hostility to a proposal advanced ostensibly in the interests of humanity. When the secret history of the Conference is written, it will be found that this is not the only example of the incapacity of a parliament of men to avoid suspicion of prejudice.

The mark 4 Woolwich bullets come under the same ban, though its effect on the Dervishes in the Soudan was not worse than that of the large Remington bullets extracted from the bones of men at Netley. The decision of the Committee will doubtless be confirmed, but unless the Government orders otherwise it cannot be binding, as the attitude of the British delegates in all these matters is one of non-committal.

At a later meeting of this Section satisfactory progress was made with the Articles of the Brussels Convention of 1874. Clauses dealing with the means that may be employed to injure an enemy, the conditions of siege and bombardment, and the treatment of belligerents and of wounded in the hands of neutrals, were disposed of. Certain new Articles were discussed, and little now remains to complete the work of the Committee.

The same correspondent, telegraphing on the night of June 5th, is by no means so sanguine. He says:

On the whole, it seems doubtful whether the Brussels Section will accomplish any useful purpose. At any rate, the attempts to extend the Articles of the 1874 Convention to naval warfare will be strenuously resisted by the British representatives.

THE PREVENTION OF TUBERCULOSIS.

ABERDEEN.

ON May 31st a conference took place in the Town Hall, Aberdeen, between the Public Health Committee of Aberdeen Town Council and Aberdeen representatives of the Aberdeen, Kincardine, and Banff Branch of the British Medical Association, for the purpose of hearing the views of the medical men with reference to Dr. Matthew Hay's report to the Public Health Department of the Corporation on Tuberculous Disease, with suggestions for its prevention and control, and also for the purpose of devising some means for the practical carrying out of the suggestions. Councillor Dr. Robertson, convener of the Public Health Committee, presided. The British Medical Association was represented by Professor Finlay, President of the Aberdeen, Kincardine, and Banff Branch; Professor Stephenson, Dr. Scott Riddell, Dr. A. T. Milne, and Dr. Edmond. The points specially dealt with were—the city milk supply, the meat supply, and the proposed sanatorium. With regard to the first point, the medical authorities agreed with Dr. Matthew Hay as to the advisability of a regular inspection of dairies being instituted, the application of the tuberculin test, and the employment of a veterinary surgeon as an inspector of dairies who would be able to apply that test. It was the opinion of the doctors that were these suggestions carried out a pure milk supply would be ensured, and the sterilisation of milk would be rendered unnecessary.

The meeting then took up the consideration of Dr. Hay's remarks on isolation, and the question of a proposed sanatorium for consumptives, and of the associated outdoor or dis-

pensary arrangements. The deputation expressed themselves strongly in favour of the idea being carried out, either at the expense of the rates or by voluntary subscriptions.

On the suggestion of the deputation, it was agreed that a conference should be held with the dispensary directors, with the managers of the Royal Infirmary, and with the Aberdeen City Parish Council, in order that the subject might be discussed, with a view to co-operation in bringing forward some tangible scheme for providing the sanatorium.

LEEDS.

Under the presidency of the Lord Mayor of Leeds (Alderman T. W. Harding) a meeting was held at the Town Hall on May 30th, at which another stage was reached in the effort to provide a sanatorium for the treatment of consumptives in the city, an important result of the conference being that Dr. Trevelyan was desired to ascertain the probable cost of the founding of an experimental consumptive home for twenty-five patients. The gathering at which this decision was come to consisted of members of the committee appointed by the conference that was recently called by the Lord Mayor to consider the best means of dealing with tuberculosis, and was composed of leading members of the medical profession in the city as well as of representatives of the four boards of guardians in the city. Amongst those present were: Dr. Trevelyan, Dr. Chadwick, Dr. Eddison, Dr. Churton, Dr. Woodcock (Holbeck Sanitary Association), and Dr. Griffith. The attention of the meeting was largely devoted to the consideration of the report presented by Dr. Trevelyan and Dr. Woodcock on the Berlin Conference, from which they had returned. Both gentlemen took advantage of their attendance at the Conference to visit four important sanatoria for the treatment of consumptive patients in Germany—one at Nordrach, near Strasburg; another at Falkenstein, near Frankfort; a third at Grabowsee, in the neighbourhood of Berlin; and a fourth at Hohenhonnef, in the vicinity of "The Seven Hills" on the Rhine. Of these four homes, that at Grabowsee in the suburbs of Berlin was thought by the Committee to be the most interesting and the most practical for the probable requirements of Leeds. There the home is worked on lines to meet the needs of the comparatively poor working-class patients who are not able to pay beyond a limited sum. The other sanatoria are self-supporting. It was intimated that a conference of representatives of the four Boards of Guardians of Leeds was shortly to take place for the purpose of carefully considering the proposal for the establishing of an experimental home for patients suffering from phthisis, and the committee decided to place at the disposal of that conference any information obtained in connection with visits recently made by members of the committee to Continental sanatoria, and by Dr. Churton to the sanatorium of Edinburgh.

In the course of the discussion that took place, great stress was laid upon the importance of the disinfection of rooms previously occupied by consumptive patients, and it was thought desirable that steps should be taken to bring the question before the Sanitary Committee of the Leeds Corporation. A further meeting of the Committee was fixed for a fortnight later.

Steps are being taken to establish a North-West of England Branch of the National Association for the Prevention of Consumption, and the idea is being well supported by sanitary authorities and Boards of Guardians. A conference of Guardians on the treatment of phthisical paupers is being arranged by the Leeds Board of Guardians.

ITALY.

A meeting of the Rome Committee of the Lega Nazionale contro la Tuberculosi was held on May 28th, His Excellency Dr. Guido Baccelli, Minister of Public Instruction, being in the chair. Among those present were Professors Durante, Marchiafava, Rossoni, Concetti, Mazzoni, Bastianelli, and a large number of practitioners, medical officers of the army, and representatives of the general public. Professor Baccelli expressed his sympathy with the objects of the League. He said the whole world was rising in arms against the fell scourge of tuberculosis. He had just received a telegram from Professor Virchow announcing the success of the great International Congress at Berlin. He pointed out the difficulties of the enterprise, for if, on the one hand, science could show the means by which victory could be secured, on the other, governments could not always easily adopt those means. Professor Baccelli concluded by promising the movement his hearty personal support. On the proposal of Professor Durante, Professor Baccelli was elected President of the Roman Committee. A scheme of organisation was then discussed and, with some modifications, approved. Professors Durante and Marchiafava were elected Vice-Presidents, Drs. Garofalo and Rossi-Doria Secretaries, and Dr. Micheli Treasurer of the Committee.

THE PLAGUE.

INDIA.

SINCE the commencement of the rainy season the plague has declined throughout India. Cholera is prevalent in several places, and in Karachi it has attained alarming proportions.

HONG KONG.

There is no appearance of any abatement in the number of fresh cases or in the mortality during the past week. It would appear that the dryness of the season may have to do with the severity of the recurrence. Up to the end of May an abnormally dry season obtained in the south of China, and we have no information of the dry spell being broken. In average years rain falls heavily in Hong Kong during May, but in 1804 and again in 1898 the dryness of both April and May was exceptional. We are apt to assume that it is the hot weather that averts or causes the abatement of a plague epidemic, but from experience gained both in India and China it would seem as though the rainy season was of some, if not of great, consequence in checking its spread and lessening its fatal powers.

EGYPT.

The most recent report is that 15 cases in all of plague have occurred in Alexandria, with 5 deaths and 4 recoveries. From no other part of Egypt is there any information of plague being present. There seems no doubt that it is plague which is reported from Alexandria, and that either the type is a mild one, or that the advanced period of the summer is the cause of its seeming mildness. We are unacquainted with an inroad of a mild or modified variety of plague, unless pestis minor can be so classed; and it would seem that the high temperature prevailing may be the cause of the relative mildness of the disease in Egypt at present.

PERSIA.

A telegram from Teheran to the *Times*, under date June 7th, states that 2 cases of plague have occurred at Bushire, and that the port has been declared infected.

BIRTHDAY HONOURS.

THE list of birthday honours this year, so far as Medicine is concerned, is remarkable for the fact that the first two names are those of physiologists. We believe that this is the first occasion on which this science has been thus distinguished.

SIR JOHN BURDON SANDERSON, BART.

John Scott Burdon Sanderson, upon whom the Queen has conferred the dignity of a baronetcy, was born at Newcastle in December, 1828, and is the Nestor of physiologists in this country. He was educated at the University of Edinburgh, and in due course received from it the degree of M.D. in 1851. He at first gave special attention to public health work, was medical officer of health for Paddington in 1856-57, and carried out various inquiries for the Local Government Board. He also held the office of Physician to the Middlesex Hospital, and to the Hospital for Consumption, Brompton, and practised as a physician in London. At the same time he was much occupied in experimental pathology, especially with relation to tuberculosis. He was employed by the Royal Commission on Cattle Plague to make investigations into that disease, and also visited North Germany in 1865 to inquire into an epidemic of cerebro-spinal meningitis. Again, he was in 1869 employed by the Royal Commission on Cornish Mines to make an inquiry as to the influence of extreme heat on the health of the workers. In 1883 he sat on the Royal Commission on Hospitals for Infectious Diseases, but before this, in 1874, he had been appointed Jodrell Professor of Physiology at University College, and in that post found work highly congenial to his inclinations. This chair he retained until his election in November, 1882, to be Waynflete Professor of Physiology in the University of Oxford. More recently he succeeded Sir Henry Acland as Regius Professor of Medicine in the same University.

Sir J. Burdon Sanderson's most important contributions to physiology have been mainly in connection with the subject

of the electrical phenomena of plants and animals. His first Croonian Lecture which dealt with this subject was delivered in 1867; the second, delivered last March, dealt with the relation of motion in animals and plants to the electrical phenomena associated with it. His contributions to medical literature have ranged over a wide field, and include reports on tuberculosis, small-pox, diphtheria, pyæmia, and infection and disinfection. He is also the author of the article on Inflammation in Holmes's *System of Surgery*, of a volume on lectures on the same subject, and of the Croonian Lectures given before the Royal College of Physicians in 1891, on the Progress of Discovery relating to the Origin and Nature of Infectious Diseases, which were published in these columns at the time.

SIR MICHAEL FOSTER, K.C.B.

Sir Michael Foster, upon whom the Queen has conferred the dignity of Knight Commander of the Most Honourable Order of the Bath (Civil Division), was born on March 8th, 1836, the son of Mr. Michael Foster, F.R.C.S., who practised in Huntingdon. The future Professor was educated at Huntingdon Grammar School and University College School, London, and received his medical education at University College, London. He graduated B.A.London in 1854, M.B. in 1858, and M.D. in 1859. From 1860 to 1866 he practised as a surgeon at Huntingdon, but in 1867 he was appointed teacher, and two years later Professor of Practical Physiology at University College, London, thus becoming associated with his former teacher, Professor Sharpey. In 1870, when the School of Physiology at Cambridge was still in its infancy, he accepted the office of Prælector of Physiology, Trinity College, Cambridge, and in 1883 he became the first Professor of Physiology in the University of Cambridge. The success of the medical school at Cambridge is in no small degree due to his efforts. In his own special department of physiology he has gathered round him a band of eminent fellow-workers, most of them formerly his own pupils, who have made Cambridge known throughout the world as a centre of teaching and seat of research. Sir Michael Foster has been for many years one of the secretaries of the Royal Society, and his scientific position is further shown by the fact that he is President-elect of the meeting of the British Association at Dover this summer.

SIR WILLIAM MITCHELL BANKS.

The announcement that the Queen has conferred the honour of knighthood upon Mr. William Mitchell Banks, Surgeon to the Liverpool Royal Infirmary, and Emeritus Professor of Anatomy in University College, Liverpool, has been received with the greatest satisfaction by his numerous friends and especially his colleagues in Liverpool. The medical profession in Liverpool can boast of not a few illustrious names; Allanson, Dobson, Currie, Henry Park, and Robert Bickersteth have left their mark on the history of medicine, and it now numbers in its ranks acknowledged authorities in many departments whom it would be invidious to name. Sir William Banks is, however, the first whose position has thus been recognised by the Crown. His father was a solicitor in Edinburgh, and the son was born there in 1842, and was educated at the Academy and University. He took the degree of M.D. in 1864, when he received a University Gold Medal for an anatomical thesis on the Wolffian body. For two years he was Demonstrator of Anatomy in the University of Glasgow under the late Professor Allen Thomson. He settled in Liverpool in 1867, and two years later became Pathologist to the Royal Infirmary there. Subsequently he was elected Assistant Surgeon, and is now Surgeon to that great institution.

During his long and successful professional career Sir William Banks has always manifested a keen interest in all matters affecting the welfare of the medical profession, and in times of stress has proved himself to be a prudent and competent leader. He not only made many important contributions to surgical literature, especially in connection with cancer of the breast and the radical cure of hernia, but has found leisure to cultivate various tastes, and is not unknown in the world of letters; but his greatest work, and that which we have no doubt he contemplates with the greatest satisfaction, has been the share he took in the erection of the new Royal Infirmary, and in the development of the medical school.

In 1870 he was appointed Demonstrator, subsequently Lecturer, and, when the University College was chartered, Professor of Anatomy. In 1896, when he resigned the last-named office, he was made Emeritus Professor, and his old pupils took the opportunity of obtaining his portrait, which now hangs in the Senate room. This was a well-deserved recognition for one of the chief among a small band of earnest colleagues who raised the school from a condition of deep depression. When the Victoria University was formed by the conjunction of the three northern University Colleges, he was chosen the first representative on the General Medical Council. Sir William Banks was treasurer of the annual meeting of the British Medical Association at Liverpool in 1883, President of the Section of Surgery at Bristol in 1894, and his extremely interesting address in surgery at the annual meeting at Montreal will be fresh in memory. In 1893 he delivered the annual oration before the Medical Society of London. Both of these addresses had a marked literary character, which is to be found also in his other writings. The profession in Liverpool, to whom he is best known, feel that a no more worthy recipient for the honour could have been chosen, and his many friends throughout the profession will sympathise with this feeling.

SIR JOHN SIBBALD, M.D., F.R.C.P.E., F.R.S.E.

The knighthood conferred on Dr. John Sibbald is the crowning honour to the services of one who was for wellnigh thirty years a distinguished public officer, for twenty-one years an able administrator as a Commissioner in Lunacy for Scotland, and a man of letters and parts. For some years after graduation he held resident appointments in the Royal Infirmary and in the Royal Maternity Hospital, Edinburgh; in the Royal Infirmary, Perth; and the Brompton Consumption Hospital. The experience in general medicine thus gained influenced his attitude as a lunacy official, and the whole tone of his writings and administrative work has been in the direction of approximating the treatment of the insane, both in asylums and elsewhere, to the conditions of ordinary sane life. A sketch of his career was given in the BRITISH MEDICAL JOURNAL of March 29th, 1899, page 749, at the time of his retirement from the public service.

SURGEON-GENERAL GORE, C.B.

Surgeon-General Augustus Gore, M.D., who has been made a Companion of the Bath (Military Division), was lately Principal Medical Officer of H.M. Forces in India, and in that capacity organised successfully the medical arrangements of the recent frontier campaigns. He entered the service as assistant-surgeon in 1860, and in the following year served during the operations on the Sierra Leone river. He was mentioned in general orders for services and conspicuous bravery and was specially recommended for promotion in 1868. He also served in the Ashantee war in 1873 as sanitary officer, and was severely wounded in the action near Dunquah and was again wounded a fortnight later. For these services he received the medal. During the operations on the West Coast of Africa he showed conspicuous bravery in bringing in a wounded officer, and it was believed at the time that he had well earned the Victoria Cross.

MAJOR WILLIAM BABTIE, C.M.G., R.A.M.C.

Major Babtie, of the Royal Army Medical Corps, who is made a Companion of the Order of St. Michael and St. George, entered the medical service in 1881. The distinction now conferred upon him is given, on the recommendation of the Secretary of State for Foreign Affairs, in recognition of services rendered in Crete, where he was engaged in important sanitary work.

LIEUTENANT-COLONEL W. G. KING, C.I.E., I.M.S.

Lieutenant-Colonel Walter Gawen King, M.B., of the Indian Medical Service, who has been made a Companion of the Order of the Indian Empire, is Sanitary Commissioner with the Government of Madras, and has rendered excellent service in the Sanitary Department and in connection with vaccination. He distinguished himself during the famine of 1897, and during the operations for the suppression of plague in 1898-9.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders and Postal orders should be made payable to the British Medical Association at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 10TH, 1899.

DIRECT REPRESENTATION.

THE debate on the proposal to increase the number of direct representatives on the General Medical Council, which was reported in the BRITISH MEDICAL JOURNAL of June 3rd, has not advanced the matter very much. Mr. George Brown asked the Council to affirm that the time had come when it was expedient to confer on the registered medical practitioners resident in England and Wales the right to return an additional member as provided for in Section x of the Medical Act, 1886. Mr. Brown, in a temperate speech, pointed out that the number of practitioners in England and Wales had increased by about one-third since 1886, and suggested that if his motion were carried it would be convenient to divide England and Wales into two divisions, so that two direct representatives might be elected in the north and two in the south. The motion was seconded by Mr. Horsley, and supported by Dr. Glover, Sir William Thomson, and Dr. McVail. The Council also had before it at the same time a resolution of the Council of the British Medical Association expressing the opinion that the general practitioners in the United Kingdom were entitled to demand a much larger share of direct representation. Exception was taken to the form of this resolution, on the ground that it went beyond what was possible without fresh legislation. While allowing due weight to this technical objection, it must still be recognised that the feeling of the majority of the Council was against any increase in the number of direct representatives, even to the extent of the single representative contemplated in the clause of the Medical Act of 1886, to which reference has already been made.

That the direct representatives in the present and in the past have proved useful members of the Council and have done good work was freely conceded, but it was urged that the desire for an increase could hardly be very general when at the last election only 59 per cent. of the electors in England and Wales took the trouble to return their voting papers at all. No little ingenuity, sometimes far fetched, was indeed displayed by some of the opponents of the proposal. Thus it was sought to make some capital out of the contention that the direct representatives at present sitting for England and Wales were not very truly representative of the practitioners of the country, since they were all residents of London, and it was also urged that the fact that three of the five direct representatives were not general practitioners weakened the claim for an increased representation of general practitioners. It was left to Dr. McVail, who supported the proposal, to make the most novel observation, for he contended that so far as the Act determines the constitution of the Council it might be to a large extent a lay body, since neither the Crown nor the Universities were under any statutory obligation to select medical men as their representatives. He prophesied that if the Council were found to become narrow in its views it was very possible that a counteracting influence in the way of lay members might be introduced. This came as a development of a contention that the desire for increased representation was mixed up with ideas as to the duties and powers of the Council, which if carried into effect would confer upon it something of a trades-union character, and that were the title of the Council as a council of medical education and registration to continue truly to indicate its proper scope less would be heard of the agitation.

The advocates of the measure did not wander so far afield in their arguments, but contented themselves with a simple presentment of their case, none the less forcible in that by-issues were left alone. The motion was lost by a considerable majority, amongst whom were to be found sundry of those who expressed a guarded approval of the principle whilst saying that the time was not yet. Thus for the present the question is shelved, for it is clear that the initiative will not be taken by the Council, the only body which is given power under the Act to move for some time to come at all events. There is perhaps a good deal of truth in the contention that the profession at large is to some extent responsible for this result. If the members of the profession will not take the trouble to record their votes in much larger proportion than they did at the last election they lay themselves open to the answer that they cannot be in earnest. It is to be hoped that upon the occasion of the next election the practitioners of England and Wales will follow the good example set them by the Scottish practitioners in this respect.

MEDICAL PRACTICE BY COMPANIES.

THE report of the Companies Acts Amendment Bill Committee was received and adopted by the General Medical Council on May 31st, and the President will communicate with the Lord Chancellor, expressing the thanks of the Council for the introduction of his Bill, and urging upon him the desirability of proceeding with it at an early date.

The report, whilst bringing the history of the negotiations down to the present time, mentions that owing to the intervention of the Whitsuntide recess, it had not been possible to obtain very recent information as to the prospects of the Bill. This report had hardly been received when a change in the position of affairs took place, and the single clause of the Medical Bill and that of the Pharmacy Bill have been reprinted with but little alteration—this time not as separate Bills, but as two distinct clauses in the Companies Act Amendment Bill. It had been supposed that the intention to follow this course had been abandoned, and it is not yet

known whether its adoption is to be regarded as a final decision.

The Medical Bill thus reappears as Clause 3 of "A Bill (as amended by the Select Committee) intituled An Act to Amend the Companies Acts." It is unaltered, except that reference to the Companies Acts, 1862 to 1898, which in its new position would have been superfluous, is omitted. The Pharmacy Bill, which forms Clause 2 of the same Bill, contains as an addition the proviso that the name of the qualified person shall be conspicuously posted in the shop or other place where the business is carried on, but is in other respects unaltered.

The principles of the proposed enactments, therefore, are in no way altered, but their embodiment in a complex measure which has already hung fire for some years is likely to postpone, for a time at all events, their submission to the judgment of Parliament. How far, and in what manner, their prospects of passing into law are affected is a matter upon which there may be two opinions: on the one hand they would become a portion of an important Bill, which, whenever it is seriously brought forward, is likely to be supported with the full power of the Government, whereas if introduced separately, even as Government measures, the full forces of the Government would perhaps not be put into operation in order to carry them in the face of any determined opposition; on the other hand, the general issues of a new Company Bill are so complex and so interwoven with innumerable important financial considerations, that there is always a possibility that these clauses might suffer shipwreck in the midst of others not very closely related to them.

Upon the whole, however, it would seem that the prospects of the Lord Chancellor's measure becoming law are improved by its being placed in a prominent position in a Bill of first rate importance, where it has received the full endorsement of a very strong Select Committee. The endeavours of the General Medical Council's Committee were in the first instance directed towards obtaining the insertion of some such provisions in this very Bill, and although they appeared to have failed in this, and were very well content with the introduction of the Lord Chancellor's measure as an independent Bill, they cannot but feel some satisfaction in the ultimate adoption of the course which they originally advocated.

As the principles involved and, indeed, the actual words of the Medical Bill have undergone no change except the omission of superfluous words, the report of the Committee is in no other respect obsolete. It hints at certain difficulties which appear to have arisen through the attempt to deal at once with the whole question as affecting medical and dental practice and pharmaceutical practice, the Pharmaceutical Society being dissatisfied with the provisions of their Bill. The attitude of the pharmaceutical press, upon which strictures of some severity might easily have been passed, was not alluded to—an act of forbearance which it is to be hoped will meet with due appreciation.

The General Medical Council has, however, been requested by the Pharmaceutical Society of Ireland to use its influence to induce the Lord Chancellor to include pharmacists in the Medical Bill. To this it was felt impossible to accede. For, as was pointed out in a courteous answer, the Council could not step outside its proper province by attempting to interfere in a matter which was not fully within its cognisance. Were it to do so it would expose itself to a well-merited rebuff for tendering advice upon a subject on which it could not speak with the necessary authority. We may observe further that, whilst we cordially wish well to the pharmacists in their endeavour to obtain an amendment of the law in this direction, the matter has passed far beyond the stage at which any such recommendation could appropriately be made, apart from all considerations of its general expediency or the contrary. The Lord Chancellor has, by inviting communications from the General Medical Council and from the Pharmaceutical Society, intimated that he regards these two bodies as respectively the proper sources whence to derive information, and even perhaps advice, upon medical and dental matters on the one hand and upon pharmaceutical matters on the other. Under these circumstances it would be as inappropriate for the General Medical Council to offer suggestions upon the Pharmacy Bill or the pharmacy clause in the Companies Act Amendment Bill as for the Pharmaceutical Society so to do with regard to the Bill or clause affecting the medical profession. We hope therefore that we have heard the last of recriminations and hints of opposition.

Whether the pharmaceutical question is for the present insoluble by reason of its being thought that provisions which would satisfy the representative Society are not likely to be passed by Parliament, or whether some practicable compromise between its views and those of the Lord Chancellor can be arrived at, it is impossible to doubt that the chances of securing what is desired would be greatly helped by the recognition of the general principle that the action of companies must as least be brought within the provisions which regulate the conduct of individuals. There could be no more emphatic endorsement of the acceptance of this principle than the passing of the Medical Bill in some form or place.

METROPOLITAN SANITARY ADMINISTRATION.

In the British Medical Journal of June 3rd we gave an account of the report of a Special Committee of the St. Pancras Vestry, which had inquired into the statements contained in a report of Dr. Hamer, Assistant Medical Officer of the London County Council, who has recently inspected the district and discussed its sanitary administration. The report of this Special Committee may be said to contain two main arguments—the one that the overcrowding provisions in the by-laws for houses let in lodgings cannot be enforced strictly "until such time as the London County Council shall undertake the rehousing of the person so disturbed," the other that "the organisation of the health department was, to say the least, somewhat faulty," and that the appointment of two additional inspectors would suffice, even when the duty of enforcing the by-laws and regulations with respect to dairies and milk, slaughterhouses, knackers' yards, and offensive businesses are transferred to borough councils as is proposed by the London Government Bill now before Parliament.

Reference to Dr. Hamer's report shows that he has carefully considered this question of the sufficiency of the sanitary staff, and that he discusses the various duties that

have to be performed, and the demand each duty makes upon the administration. We note, moreover, that he casts no reflections upon the staff, though it is to be assumed that he would have done so if he had felt that there were grounds for accusation. We feel at a loss in discussing this point, because while we have been favoured with a copy of the report of the Special Committee of the St. Pancras Vestry, we did not receive a copy of the evidence upon which this report is based. We note that this evidence has been printed, and the study of it is evidently essential to a full consideration of the subject. It is obvious that while Dr. Hamer attributes the insufficiency of administration in St. Pancras in the main to the fact that the number of inspectors is inadequate, the vestry hold the members of their present staff to be at fault. In the absence of the printed evidence we have not all the material needed for independent judgment, but we may observe that while Dr. Hamer, an officer who has investigated the sanitary needs of a number of London districts, is of opinion that seven additional inspectors should be appointed, and that his opinion is endorsed by the county medical officer, the St. Pancras Vestry only propose to appoint two officers, who they consider will also provide all the necessary administration for the duties about to be transferred from the London County Council. If the vestry are correct in their view that their existing officers are at fault their failure must indeed have been very great, for Dr. Hamer reports that markedly dirty and dilapidated conditions were found in exceptional proportion in St. Pancras. We shall not, however, be surprised to find that this is not the true explanation of St. Pancras's insufficiency, for it would appear that the vestry have hitherto practically failed to put in force the regulations for houses let in lodgings, which is the obvious method of dealing with the conditions needing remedy.

The Committee, as we have already said, base their objection upon the difficulty of dealing with overcrowding. This difficulty no doubt supplies a convenient argument to an unwilling authority, but provides no excuse for the neglect found in St. Pancras. So long as overcrowding is permitted so long will the rents of tenemented property be high. To accept this excuse as adequate would be to allow the interests of the owners of houses occupied by poor persons in London to override the sanitary laws. That Dr. Hamer's view of the cause of existing conditions in St. Pancras is probably correct is supported by the fact that the administration of the law relating to cellar dwellings is practically a dead letter in St. Pancras.

It is evident that the publication of the report of the St. Pancras Vestry does not close the subject. The next step remains with the London County Council.

THE ADMINISTRATION OF THE VACCINATION ACT.

FROM the medical point of view the two hours' debate on the administration of the new Vaccination Act, which took place in the House of Commons on June 2nd, on the Local Government Board vote in Committee of Supply, was of comparatively little importance. There was absolute silence on the part both of Mr. Chaplin and of his various critics as to a Revaccination Bill. That question no doubt belongs more particularly to the House of Lords, as it was there that the Government promise was made, and it is there that a demand should be made for its fulfilment. Mr. Chaplin was, however, quite successful in repudiating the charge brought against him with regard to the relationship of vaccination officers to their Boards of Guardians on the one hand, and to the Local Government Board on the other. He pointed out that the matter was settled by the judgment of the Court of Queen's Bench in 1897. The judgment was to the effect that a vaccination officer is entitled to take proceedings under the Act of 1867 without first obtaining the special authority of the guardians. That decision is in agreement with the opinion of the law officers of two Governments. All this being so, it is really a waste of time on the part of Mr. Chaplin's critics to suggest that he is in any way responsible for the results of this new reading of the law.

It is no doubt true that in July, 1888, the then President of the Local Government Board stated that the enforcement of the Act is committed to an elective tribunal, and that they must use their discretion in the cases that come before them. This view, however, is overruled by the decision of the Court of Queen's Bench, though that decision may of course be held to raise the question whether the law as now interpreted is satisfactory; whether the arrangement is a good one by which an officer appointed and entirely paid by a local body may act according to the behests of the central authority rather than of his employers. A good deal might be said for the view that prosecutions should be undertaken by officers directly responsible to the Local Government Board itself. It is quite easy to see that troublesome complications may arise from the present position of affairs, as for example at Leicester, where the guardians have practically refused to appoint a vaccination officer, and where, quite possibly, there would be refusal to find the money for payment of his salary if he were appointed. On these points Mr. Chaplin was repeatedly questioned in the course of the discussion. He was asked whether the law would be enforced in Leicester and Chesterfield, and he was challenged to set about the campaign at once. He was asked also what would happen to the vaccination officer who declined to prosecute, and what the officer was to do if the guardians were in favour of prosecution while the Local Government Board were not. To these questions no answer was vouchsafed. The difficulties in which Mr. Chaplin finds himself are only what might have been expected from the partial and ill-considered legislation of last year. To allow the new Act to be neglected as was the old would be a disastrous policy, but its administration is rendered difficult by its own defects. Meanwhile, Mr. Chaplin keeps silence as to the intentions of the Government, but he is obviously doing his utmost to promote the practice of vaccination by the use of the very imperfect means with which Parliament has provided him, and it is at least satisfactory that some measure of success is attending his efforts.

THE late Mr. Joseph Shaw of Wakefield has by his will bequeathed £2,000 to the Clayton Hospital, Wakefield. The hospital is also to receive the residue of the estate, which is expected to amount to £50,000.

THE NEW UNIVERSITY FOR LONDON.

We understand that certain draft statutes and regulations, chiefly relating to the constitution of the university and to examinations for degrees, have been forwarded by the Secretary of the Royal Commission to certain of the bodies concerned, not for publication but for the purpose of receiving from such bodies any representations which they may desire to offer. Such representations must be made during the present month. We understand that the Standing Committee of Convocation of the University of London has had the draft statutes under consideration, and that a subcommittee is reporting on them this week. It is probable that an extraordinary meeting of Convocation will shortly be summoned to consider the draft statutes which must vitally affect the future well-being of the University. If it be true that the seal of confidence is to be maintained, it is not clear how Convocation at large can usefully discuss proposals which are of supreme interest not only to its own members but to the public at large. If the Commissioners propose to invite criticism from outside at a stage precedent to that of laying the statutes on the table of the House, the sooner they are made public the better.

THE CHAIR OF PHYSIOLOGY IN EDINBURGH.

The Chair of Physiology in Edinburgh University, which has been vacant since the death of Professor Rutherford last February, is about to be filled up. The electors, who represent both the University and the City Council, held a short meeting last week, and are to meet again next week, when it is understood that a decision may be come to. The appointment is exciting a great deal of interest, partly no doubt owing to the acknowledged eminence of some of the candidates; and gossip has been busy in Edinburgh—too busy in fact—for some of the rumours which have been set in circulation have caused no little amusement to those really acquainted with the facts. Dark hints have been dropped as to the convivial habits of one applicant, whose abstemiousness is well known, while it has been whispered that another, whose reputation as a lecturer stands particularly high, is deficient in the qualities necessary to keep together a large class. It is strange how such foolish gossip should have got afoot, but it is not to be supposed that it will have the least weight with the electors, who are too much men of the world to be affected by *canards*.

THE PREVENTION OF GLANDERS.

The Departmental Committee on Glanders has now completed its report, which we understand will in the course of a few days be made public. It is stated that several important changes are proposed in the mode of dealing with the disease, some of which may necessitate fresh legislation. The proposals are understood to be less drastic than was anticipated, no attempt at stamping out the disease within measurable time being considered to come within the region of practical politics. Some difference of opinion has, we understand, arisen as to the compulsory use of mallein as a diagnostic, and also as to the amount of compensation for slaughter to be paid to an owner when a horse without clinical signs of the disease proves to be a "reacter" to the mallein test. There is, however, unanimity of opinion to the effect that there are several points connected with the pathology of glanders which call for further research, and it is in contemplation by the Board of Agriculture that such investigation should now be proceeded with without further delay.

CHELSEA CLINICAL SOCIETY.

The Chelsea Clinical Society held its second annual dinner at the Criterion Restaurant on June 3rd, the President, Dr. J. Foster Palmer, in the chair. The toast of "The Queen" having been duly honoured, the President proceeded to propose "Prosperity to the Chelsea Clinical Society." He congratulated the members on a very successful session, and detailed the work that had been accomplished, referring especially to the discussion on tuberculosis. Though the Society had done much, still much more remained to be done, and the speaker drew a humorous picture of the degeneration that would follow perfect knowledge when our brains became inactive. Dr. Gibbes, one of the Vice-Presidents of the Society having replied, the President proposed next the toast of "Kindred Societies," drawing attention to the great antiquity of the Medical Society. To this toast Dr. Isambard Owen replied, and in the course of his observations said that he supposed he had been asked to reply because, being a strict absentee from all societies, he might fairly be assumed to be impartial. Yet he was ready to admit that in the medical societies much of the life and strength of the profession exists. He was quite convinced that the progress of medicine in this country would have been far less rapid had it not been for the voluntary association of our profession in the various societies in London and the provinces, and last, but not least, in that comprehensive medical society the British Medical Association. Medical societies did an invaluable work in bringing men together, and this was an antidote to the excess of individualism the profession was even now suffering from; the material interests of the profession were the interests of the public, and much could be done for the business interests of medical men, though till now they had a little shrunk from insistence on this point, feeling it might be considered derogatory. Dr. Ewart having eulogistically mentioned the works of the President in the course of proposing his health, referred to that gentleman's views in regard to the burial question, and stated that if the members of that Society would read Dr. Palmer's writings they would see that these matters must be considered. Dr. Wethered having briefly replied for the visitors, the evening terminated with a vote of thanks to the officers of the Society.

THE SITUATION AT THE LIVERPOOL CANCER AND SKIN HOSPITAL.

The annual meeting of the Liverpool Cancer and Skin Hospital took place on May 30th, in the Town Hall, the Lord Mayor being in the chair. The annual report, which was adopted, contained a long paragraph referring to the dispute which has led to the dismissal of Drs. Taylor and Whitford from the staff. It stated that after the meeting of governors on May 10th, when the proceedings of the Committee were confirmed, Dr. Given, one of the assistant surgeons, and also the matron, tendered their resignations. It also announced the resignation of Mr. J. D. Crawford, the subject of the accusations which have been the cause of all the troubles which have arisen. The hospital is therefore without a medical staff with the exception of one assistant surgeon. It is noteworthy that the governors, in appointing the Committee for the ensuing year, have placed upon it two gentlemen who are understood not to be in sympathy with the line of action pursued by the last Committee with respect to the charges made against Mr. Crawford. The present condition of things is eminently unsatisfactory. Mr. Crawford has resigned, as he was justly entitled to do after being connected with the hospital for twenty-nine years. It would, however, be affectation to pretend that he has in any sense cleared himself of the serious allegations which have been made against him. They stand in print in the pages of *Truth* and in the circulars which Dr. Taylor and Dr. Whitford have sent to the subscribers, and Mr. Crawford has not taken the legal steps which alone could vindicate his character. He has however severed his connection with the hospital, and it is no concern of ours whether he is content to leave things as they are or not. The case is, however, different with regard to Dr. Taylor and Dr. Whit-

ford. They have been ejected from their positions with all the appearance of being in disgrace, because acting in good faith they made against Mr. Crawford allegations which they state they are prepared to defend in a court of law if they are given an opportunity of doing so. The feeling of the medical profession in Liverpool in the matter may be judged from the memorial which was signed by 108 practitioners, demanding a complete investigation. The two gentlemen who have been dismissed are both men of unblemished reputation. Dr. Whitford is Physician to the Stanley Hospital and a justice of the peace; Dr. Taylor enjoys a high reputation as a specialist in diseases of the skin. We cannot doubt that when angry passions have had time to cool down, the governors will take care that no injustice is done to their former medical officers, and that unless it is shown that Dr. Taylor and Dr. Whitford have in some way failed in their duty to the charity, they will be reinstated in the positions from which they have been displaced.

HAHNEMANN IN THE UNITED STATES CONGRESS.

A MOTION for the erection of a national monument to the founder of homœopathy was not long ago thrown out by the United States Congress. The majority was a narrow one, but like Mercutio's wound, which was not so wide as a church door, 'twill serve. The lower legislative chamber of the Union is not always conspicuous for political wisdom, but it has what Dr. Johnson called (to the quickly suppressed merriment of his hearers) "a bottom of good sense." The debate on the Bill was interesting as reflecting the opinions of legislators of the great Republic about homœopathy and orthodox medicine. The following summary, for which we are indebted to the *Medical Review*, shows the line taken by the various speakers. Mr. Dalzell, of Pennsylvania, moved to suspend the rules and pass the Senate's joint resolution appropriating 4,000 dols. for the building of the foundation for the monument to Samuel Hahnemann. He stated that the monument had been secured at a cost of 75,000 dols., and that in a country made up of citizens of every clime, he thought it was entirely appropriate that men of genius of whatever nationality should be recognised. Mr. Bailey objected on the ground that the person whose memory it was to commemorate had not been connected with the service of the Government. This argument received the support of Mr. Dockery, who protested that if distinguished citizens were recognised in this way, they would enter the domain of controversy. If a great homœopathist was to be recognised by a contribution for a monument, then an allopathist should be recognised in an appropriation for a monument to Dr. S. D. Gross. To this Mr. Dalzell replied that a monument had been erected to the late Professor Gross, the foundation having been supplied at the public expense, and it now stands in the public grounds of the medical museum. Mr. Dockery, who is evidently not a man who allows himself to be upset by an awkward fact, contended that such an unwise precedent only furnished additional grounds for opposition to the Bill. Mr. Cannon supported the opposition and stated that Hahnemann was a man whose genius was recognised universally, apart from the jealousies of the profession, Mr. Handy stated that if the rule restricting monuments to men connected with the United States Government were not sufficient, there should be some limitation to guide Congress, and he thought it was wise at least to limit the recognition to those that had lived in the United States. He stated that whether Hahnemann was indeed a genius, or whether he discovered truths, was yet a disputed question. Apart from the worth of Hahnemann's work, it was that of a foreigner and not of an American scientist. Mr. Slayden was entirely convinced that a man who had so reduced the size of the doses of medicine, and who sugar-coated the pills, was entitled to a monument. To this Mr. Handy replied that he ought to have a smaller one. (We venture on our own account to remark that an infinitesimal one would be most suitable.) Mr. Clardy asked Mr. Dalzell to state what Hahnemann had done for medical science to justify the erection of a monument to his memory. He had read his work on medicine, and he would like to know what benefit had accrued to the world from the doctrine of *similia similibus curantur*, which he undertook to establish. He thought that the real benefit was that Hahnemann's system clearly demonstrated that it was Nature which cured the disease and not the drugs. This conviction had allowed a great many people to die a natural death. Still, he hardly thought that this great benefit entitled Hahnemann to a monument. The motion to suspend the rules and pass the appropriation was lost by 73 to 62. This is the second defeat which the promoters of the scheme have suffered, for in 1895 President Cleveland vetoed a bill providing a site for a Hahnemann monument. But the admirers of the prophet of pilules express confidence of ultimate success. The *Homœopathic Review* says that "a new effort is being made, and as it is being made by a strong committee of ladies, it will be curious if the matter hangs long in doubt." Our contemporary appears to believe that *ce que femme veut*, the American legislator *le veut*. If the United States Government delights to honour the memory of Hahnemann, that is its own affair. It can play the fool in its own house. A Hahnemann statue erected by the American nation would be regarded by the civilised world as only a particularly solid specimen of that American humour which so amuses its producers.

BEARDS AND BACILLI.

THE beard has lately fallen under suspicion of being the haunt of bacilli. It has been hinted that surgeons who wish to keep inviolate the aseptic faith should for conscience sake sacrifice what Parolles calls "valour's excrement." This is a counsel of perfection: but your devotee of asepsis is nothing if not perfect, and he would doubtless have himself shaved and even epilated to a completely glabrous condition, like the actor who blacked himself all over to play Othello, if he thought he could thus bring himself to the ideal degree of surgical purity. But the beard may, we are now told, be a means of conveying infection quite apart from surgical operation. Dr. Schoull, of Tunis, has long been so convinced of the dangers which lurk in the beards and moustaches of men suffering from tuberculosis that he has made it a rule to insist on the thorough disinfection of these masculine adornments when the wearer will not consent to part with them. He has made experiments by inoculating material obtained from the hairs of the beard and moustache in guinea-pigs, and the results have convinced him that the danger to which he calls attention is a real one.

THE CENTURY'S PROGRESS IN SCIENTIFIC MEDICINE.

WHILE we in the Old World are debating whether the present century ends with this year or the next (unless the Prince of Wales is to be held as having settled that question the other day when he accepted the Presidency of the Royal Agricultural Society for "the first year of the new century," to wit 1900!), our go-ahead cousins across the Atlantic seem to consider the nineteenth century as already dead. At least so we gather from the fact that *Harper's Magazine* in its June number records The Century's Progress in Scientific Medicine. Surely this is a little "too previous," for even granting, for the sake of argument, that the new century begins with 1900, there are still nearly seven months of the old to run out. And at the rate at which new microbes are discovered and new curative serums are manufactured, what may not be done in seven months? Dr. Henry Smith Williams, the writer of the article, might

well have waited a little longer. This, besides enabling him to make his record more complete, would have given him the opportunity of making it more accurate. He may have some ground for his belief that it was the investigations of the experimental physiologists which led to the abandonment of "those severe and often irrational depletive methods—bloodletting and the like," though those unphysiological experimentalists, the homœopaths, are generally believed to have had more influence in that direction. *Fas et ab hoste doceri.* Dr. Williams is laboriously facetious about the diagnosis of *gale répercutée* which was made in the case of the great Napoleon, but his account of the discovery of the itch mite is quite remarkable for the curious infelicity of its blunders. He says, correctly enough, that although "here and there a physician had claimed to find an insect lodged in the skin of a sufferer from itch," this view was not generally accepted by the profession. But we are further told that a young Pole, named Renucci, learnt from the peasant women of his country how to dislodge the acarus scabiei with the point of a needle, and demonstrated the parasite in Paris in 1834. Renucci is not a patronymic suggestive of Polish nationality, and, in point of fact, the "Pole" was a Corsican. Dr. Williams adds that Alibert, to whom Renucci showed the acarus, "gave out the discovery to the medical world with an authority that led to early acceptance." How "early" the acceptance was may be gathered from the fact that in 1850 Anthony Todd Thomson, in his work on diseases of the skin, was allowed without a word of protest from his editor, Edmund Alexander Parkes, to repudiate the acarus and all its supposed works, and to declare that "itch is certainly the result of a morbid poison." Seven years later a dermatologist of such repute as Devergie expressed his belief that the acarus was a morbid product of itch, "as the louse is the morbid product of pediculous prurigo." But the liberty which Dr. Williams takes with Renucci's nationality is as nothing compared with the extraordinary havoc he makes of the names of his own countrymen. Horace Wells, who experimented with nitrous oxide, is made to masquerade as "Charles H. Wells," and William Thomas Green Morton, whose name, as that of one of America's greatest glories, might have been thought to be a household word in his own country, is disguised as "William Jennings Morton," and this not once but several times. If "Horace" had got transmuted into "Henry," or if Morton had been docked of one of his initials, the error—in an American writer—would have been bad enough. But why "Charles?" And O gasping one, why "Jennings"? The only explanation that suggests itself is that the American mind is nothing if not inventive, and its inventiveness sometimes runs away with it. After such a comedy of errors trifles like "Devaine," which occurs thrice in a single column, and "the Scotch surgeon Sir J. Y. Simpson," are distinctly tame. But if Dr. Williams is inaccurate he sometimes, with a candour too rare among historians, gives us the means of convicting him out of his own mouth. Speaking of anæsthesia, he says: "This discovery came solely out of America, and it stands curiously isolated, since apparently no minds in other countries were trending toward it even vaguely." In the very next sentence, however, he says that it was Davy's "experiments with nitrous oxide gas that gave the clue to one of the American investigators." Dr. Williams goes on to say that "there had been nothing in Davy's experiments to lead anyone to suspect the possibility that a surgical operation might be rendered painless in this way." If he will take the trouble to read Davy's own account of his experiments, he will find it stated in good set terms that "as nitrous oxide in its extensive operation appears capable of destroying physical pain, it may probably be used with advantage during surgical operations in which no great effusion of blood takes place." We might comment on the strange fact that not a word is said about gynæcology or abdominal surgery; or about the laryngoscope, the ophthalmoscope, or, indeed, any other instrument of precision except the microscope, the stethoscope—and, we had almost forgotten to add, Piorry's plexímeter. But enough, we think, has been said to show that this picture of medical progress might have been very considerably better if the artist had taken more pains.

OUBAIN ARROW POISON.

In recent years the subject of arrow poison has been one of considerable interest to pharmacologists, and the substances used by the African natives for the purpose of hunting and war have been utilised by pharmacologists in this country for the treatment of certain diseases of the heart and nervous system. The case of strophanthus hispidus is an excellent example of this, and Fraser, by his excellent work on this subject, has added a most useful weapon to the armamentarium of the pharmacologist. Oubain has long been known as an arrow poison, though the term appears to have been used rather in a generic that in a specific sense. One form of oubain brought from the Hamassia country by Dr. Macpherson consists essentially of a residuous extract derived from the wood and leaves of the Acokanthera schimperi. This poisonous substance was sufficiently powerful to kill one of the native troops brought under Dr. Macpherson's observation, and to render another excessively ill; but the one who was ill only was treated with strychnine, which it was believed was an antidote to the oubain. In order that it might be clearly established whether strychnine was really an antidote or not to the oubain, Dr. Macpherson forwarded some of the poison to the Foreign Office, who forwarded it to the laboratories of the Royal Colleges of Physicians and Surgeons, where a series of experiments was carried out. As the result of these experiments Dr. Woodhead found that it was possible to separate an active crystalline or granular substance which has the toxic properties of Fraser's acokantherin; that it acts powerfully on the muscles of respiration, and that the respiration is affected before the heart's action is materially interfered with; that it does, however, affect the heart muscle directly, and also apparently acts on the ganglia; that it also acts upon the peripheral nerve endings of the voluntary muscles. Its action on the respiratory and laryngeal muscles is thus of special importance. It was ascertained also that it interfered with the reflex apparatus, especially the central portion, and that it has a direct action upon the pupil. It appears to kill slowly, because it takes some time for the poisonous dose to be dissolved from an arrow stuck in the wound, so that the sooner the arrow can be extracted the better for the patient; indeed, if the symptoms of the poison have not already set in, the removal of the arrow should be sufficient to prevent a fatal termination. From a considerable series of experiments carried out on guinea-pigs and rabbits, it was evident that strychnine, especially when given in very full physiological doses, but of course stopping short at the lethal quantity, had a very definite action in saving an animal from a poisonous dose of the acokantherin; it is therefore recommended that the injection of large doses of strychnine should precede any attempt to remove the arrow. On the supposition that the converse action might hold good, several experiments were made to determine whether acokantherin had any action in preventing the poisonous action of a lethal dose of strychnine; this was never found to be the case. Strychnine is an antidote against a poisonous dose of acokantherin, but acokantherin is not an antidote against a poisonous dose of strychnine. It is pointed out that there appear to be very definite limits even to the antidotal action of strychnine, and that it is quite possible that part of this action may be in connec-

tion with the secondary effects on the cord. It is also pointed out that it is useless to give small doses of strychnine in cases of arrow poisoning by acokantherin.

TROPICAL MEDICINE.

MAJOR RONALD ROSS, I.M.S., will inaugurate his first course of lectures on Tropical Medicine at University College, Liverpool, on Monday, June 12th, by an address on the Possibility of Extirpating Malaria, when he proposes to deal in detail with the means of exterminating malaria-bearing mosquitos. We understand that it is intended that the first malaria expedition of the Tropical Medicine Department of University College, Liverpool, should go to Sierra Leone in August. The enterprise which Liverpool is showing in this respect is paralleled by the action recently taken by the Museums Committee and the Council of that city, in sending an exploring expedition to Sokotra, an island which lies some 600 miles south-east of Aden. The representative of the Liverpool Corporation was Dr. H. O. Forbes, the Director of the Museums; the other member of the expedition was Mr. W. R. Ogilvie-Grant, of the British Museum. They were accompanied by Mr. W. Cutmore as taxidermist, and have brought back a large number of interesting and, in many cases, novel specimens. We trust that this new Liverpool expedition to investigate malaria in Sierra Leone will likewise have important results. A further evidence of the interest which is taken in the movement for the investigation of tropical diseases was afforded by the speech which Captain Lugard delivered at the first annual West African dinner in London last week. No body of men, he said, could take a deeper interest in the establishment of a school of tropical medicine in London than those Europeans who were engaged in administrative posts in West Africa. At his suggestion the following telegram was sent to Mr. Chamberlain, expressing the appreciation of West Africans of his efforts to investigate the nature and control the prevalence of the diseases so fatal to Europeans on the West Coast: "Seventy members of the West African services dining at the Hotel Cecil to-night desire me to express to you their gratitude and appreciation of the efforts you have made to promote the investigation and cure of tropical diseases and prevent the waste of life in West Africa. We desire to respectfully assure you of our deep appreciation of the sympathy and interest which have prompted your efforts.—LUGARD, Chairman." Mr. Chamberlain, in a letter acknowledging the receipt of the telegram, has expressed his thorough appreciation of the goodwill and sympathy thus expressed in the endeavour which he has at heart to lessen the illness in tropical colonies.

REPAYMENT OF LOCAL LOANS.

IN Committee on Supply, Sir Albert Rollit called attention to difficulties put by the departments in the way of local authorities anxious to make sanitary and other improvements, by the short periods for which they were allowed to borrow the necessary money. He contended that the Act of Parliament which gave the President of the Local Government Board a discretion in this matter had received rather a restrictive interpretation. Sir Walter Foster, amongst others, took part in the discussion, and we are glad to see that the traditions of office did not prevent him from speaking out boldly in favour of a more generous policy. It is, of course, perfectly true that posterity must be protected from reckless extravagance; but it is somewhat difficult to see the method in the present somewhat maddening restrictiveness. Why should the expense of providing in perpetuity a necessary recreation ground be a debt to be wiped out in a period of thirty years? In a growing town the park as an asset will in most cases be of far more value at the end of the thirty years than at the beginning; and the very rates often benefit directly by a judicious expenditure of this kind. Sir Walter Foster pointed out that scores of small urban and rural districts are in a condition which is a disgrace as well as a danger to the nation. We should never, he contended, get rid of this state of things till the necessary works could be carried out on easier terms. He thought Mr. Chaplin would be wise if in regard to loans in connection with the water supply and drainage of these areas he extended as far as possible the period for repayment. Whilst we would deprecate extravagance, we certainly hold that the provision by a wise expenditure of a pure water supply and an efficient drainage system is a valuable legacy to leave to our successors, and that the clearing away of slums is a measure of so much importance to the coming generations that even if they have themselves to pay a small portion of the cost of what has been done for them, they will ultimately gain, even pecuniarily, by having it done at a cheaper rate than they would be at all likely to do it for themselves when values have still further increased.

DOCKRELL *VERSUS* DOUGALL.

A COMMITTEE has been formed for the purpose of raising a testimonial to Dr. Dockrell, the plaintiff in the case of Dockrell *v.* Dougall. The desire is that the testimonial should express the admiration of his medical brethren for his courage and public spirit, and in some measure recoup him for the heavy costs in which he was mulcted. The Honorary Treasurer is Mr. Ernest Clarke, F.R.C.S., 3, Chandos Street, Cavendish Square, W., and the Honorary Secretary is Mr. J. Henry Chaldecott, 2, Lancaster Road, Hampstead, N.W. It will be remembered that the proprietor of a medicated water had made use of Dr. Dockrell's name in an advertisement, and had not withdrawn it when requested. The jury found that the statement was not libellous, and the Court of Appeal decided that it could not go behind the finding of the jury. A report of the hearing of the appeal was published in the BRITISH MEDICAL JOURNAL of May 6th, page 1132, and as was observed in the JOURNAL on that occasion, much sympathy will be felt for Dr. Dockrell. For this sympathy the proposed testimonial will afford a practical outlet.

SCIENTIFIC SANITATION.

THE report of the State Board of Health of Minnesota for the year 1895 to 1896 has recently been issued, and the Secretary and his staff are heartily to be congratulated on the admirable work of which it affords evidence. The quarterly reports from the Bacteriological Laboratory are excellent, and show that those who have charge of it are active and well up to date. A well-organised system exists for the examination of suspected cases of diphtheria, for the application of serum reaction in typhoid, for inoculation for rabies, for the bacteriological examination of water, and for the bacteriological investigation of hog cholera and swine plague. The successive reports afford ample evidence that the work was not only well begun, but that it has been thoroughly and effectively carried on, whilst the interesting papers appended show that opportunities have been utilised not merely for statistical statements, but also for obtaining scientific information much of which may prove to be of great practical use in the future. In this connection it may be noted that Professor Wesbrook and Drs. Wilson, McDaniel, and Adair, have conjointly come to the conclusion that the throats of people brought in contact with diphtheria patients should always be most carefully examined. If the bacillus diphtheriæ be found they should be quarantined until free of bacilli. It is recommended further that freedom of the throats of diphtheria patients, or of those brought into contact with them, from bacillus diphtheriæ or its variants, should be determined by at least two successive negative examinations; and that diphtheria patients, particularly while convalescent, should be quarantined by assigning, when

possible, a room to each patient. The reports of the Veterinary Department are almost equally interesting, and the vital statistics, directions, charts, and papers bearing upon sanitation together make up a most admirable report, and one that may well form a model for other similar reports. The bacteriological system, and the method of accommodating the work of this department to the requirements of practical sanitation, as regards the diseases both of animals and of man, is well worthy of imitation in much larger communities on this side of the Atlantic. In such matters not to go forward is to go back, and it is therefore to be hoped that the Minnesota Board of Health will not rest content with what it has already been able to accomplish, but will make every effort to equip their Health Department, its laboratories and offices still more fully than they have already done, and so allow of the very best work to be carried on by their staff.

THE RECENT ELECTION OF SENATOR IN THE ROYAL UNIVERSITY OF IRELAND.

WE are requested to state that the supporters of Dr. Walton Browne, who was recently elected senator of the Royal University, wish it to be understood that their opposition to Dr. O'Sullivan of Cork was not in any degree dependent on religious or sectarian motives. On the contrary, Dr. Browne's candidature was promoted by a body of graduates whose leading principle is a desire to preserve and strengthen the secular and non-sectarian system of education represented by the Queen's Colleges in Ireland. Dr. O'Sullivan was understood to favour Mr. Balfour's proposals, which undoubtedly were based upon religious considerations, and it was on this ground and not because he is a Roman Catholic that his re-election upon the Senate was opposed. We are informed that regret is felt in Belfast and the north of Ireland that the exigencies of the situation should have deprived Cork of its only elected representative on the Senate, and that this regret is felt by none more than by some of Dr. Walton Browne's most prominent supporters.

HEALTH CONDITIONS ON THE CONGO.

THE first volume of the report of the National Congress on Hygiene and Medical Climatology of Belgium and Congo, held in Brussels in August, 1897, a review of which was published in the BRITISH MEDICAL JOURNAL for June 4th, 1898, was exclusively devoted to localities in Belgium. The second part, issued recently, deals with the climate, soil, and hygiene of the Independent State of Congo. We note much work by various authors, bearing on one of the most important questions of the present time, namely the possibility of the acclimatisation of Europeans in tropical Africa. It is pointed out that the chief dangers to white men are diseases due to living organisms, though the tropical climate itself doubtless acts as a predisposing cause. Heat-stroke is referred to as the type of a purely climatic danger, but recently Dr. L. W. Sambon has called even this old-established belief into question, for he considers that "ardent fever" or "siriasis" is of infectious nature like other tropical fevers. The high death-rate in the German African possessions shows how very great are the difficulties which have to be encountered by Europeans in tropical climates, but science is making rapid progress, and the causes of tropical diseases are now being more seriously studied and appreciated, so that there is hope for great advance in the future. Just as Europeans are at last being taught the nature of consumption and the best means to prevent it, so colonists to tropical Africa will have to be taught the nature of the special dangers (climate and infections) to which they will be exposed, and by what methods they may best avoid special diseases and maintain their general health.

THE BIRMINGHAM CONSULTING SCHEME.

WE have already called attention to some of the objections to the consultative institution which the Birmingham Hospital Saturday Fund proposes to establish. Mr. Herbert Bracey, one of the senior members of the medical staff of the Balsall Heath Dispensary, states that in 1895 seven consulting practitioners were appointed in connection with the Balsall Heath Dispensary, but that during the years that have since elapsed they have only been consulted between sixty and seventy times by all the 1,700 or 1,800 members of the institution. The scheme in force at Balsall Heath is that the dispensary patient pays, in cases in which a consultation is recommended, half a guinea if the consultation takes place at the consultant's rooms, and a guinea if the consultant visits the patient at his own house in consultation with his medical attendant. These are stated to be half the usual charges. The consultants with whom these arrangements were made were Dr. Suckling and Dr. Carter, Mr. Bennett May, Mr. Lawson Tait, and Mr. J. W. Taylor, Mr. Henry Eales, and Dr. Lewis, so that the arrangement really fulfilled the first essential in a consultation, namely, that the second opinion should be that of a man of standing, who had given special attention to a particular department of medicine. The contrast between this scheme and that of the Hospital Saturday Fund is striking; the one is a practical scheme evolved by practical men, the other is impracticable and a sham.

LONDON'S LUNATICS.

WHAT is really the nucleus of the sixth monster asylum for the County of London was officially inaugurated on Saturday last by Mr. Hubbard and his colleagues on the Asylums Committee of the County Council. They have acquired for £40,000 an estate of 1,060 acres, called Horton Manor, on the breezy uplands near Epsom. The Manor House has been utilised as a residence for the medical and other officers, and temporary erections have been rapidly added on either side for the accommodation of 700 patients (590 females and 110 males). Dr. F. Bryan, late Senior Assistant Medical Officer at Colney Hatch, has been appointed medical superintendent of the new asylum. Amongst other interesting developments it is intended to establish on the Horton Manor estate a working colony for male epileptics whose mental condition has brought them under the provisions of the lunacy law; 127 acres are to be utilised for this purpose, and it is proposed to accommodate about 300 patients in eight or nine villas scattered over this portion of the estate, and apart from the ordinary lunatics. Occupation in the open air in such pursuits as gardening and fruit growing is to be a prominent feature in the treatment.

MR. WILLIAM MARTINDALE was on June 7th elected President of the Pharmaceutical Society of Great Britain. Mr. Martindale, who was formerly head of the dispensary and teacher of pharmacy at University College Hospital was well known to many generations of students, who will join with us in congratulating him upon the honour which has now come to him.

ST. MARY'S HOSPITAL.—A "Streets and Squares Bazaar" in aid of the fund for completing the Clarence Memorial wing of St. Mary's Hospital, Paddington, was opened by the Duchess of Fife on June 6th. The bazaar was given the title mentioned because a series of local committees was organised representing the various streets and squares in the neighbourhood of the hospital. The energetic efforts of the ladies and gentlemen who formed the committees has resulted in a substantial contribution towards the sum of £70,000 needed for the completion of the wing.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENTS.]

The Education of Children Bill brought together, in spite of the attractions of the Derby Day, nearly 300 members. This was a noteworthy attendance on the first day after the Whitsuntide recess, and showed how general is the interest in the half-timer's question. A small group of Lancashire members fought the Bill doggedly, and succeeded in preventing its complete passage, although the operative clause was passed. The position of the measure consequently looked very precarious, as it fell back for Wednesday of this week behind the Franchise Bill. But the unexpected often happens in the House of Commons, and on Wednesday last the Franchise Bill debate collapsed and the Half-timers Bill ran through Committee in a few minutes and now will probably pass the Commons on an early day.

Barrack Schools for Pauper Children were thoroughly criticised on the Local Government Board vote on June 2nd. After the President had, by a large majority, escaped the reduction of his salary on Mr. Pickersgill's motion on vaccination, as reported below, Mr. Samuel Smith brought up the whole question of the treatment of children under the Poor Law. The cost of a child in one of these big buildings was shown to be twice as much as under more natural systems, and the general opinion was that the result was not half so satisfactory. The remarkable success attained in Scotland by boarding-out was referred to, as well as its inestimable advantage in destroying the pauper taint. The Local Government Board have recently sanctioned blocks for 60 children, but a strong opinion was expressed that these were too large, and that cottage homes or scattered homes for 10 to 15 children was the best way of giving the little ones the advantage of home training. Mr. Chaplin, in replying to his many critics, said that he had been carrying out as far as he could the recommendations of the Departmental Committee. Five classes of sick children had been transferred to the care of the Asylums Board. The ophthalmic children, 800 about, would be placed in new schools at Brentwood and Swanley. The children suffering from ringworm (about 400) would be placed in the girls' school at Banstead. For the convalescents three homes had been established, and two homes had been provided for children mentally defective. For the remand children there was a house for 50 at Camberwell and another for 50 more at Hampstead. An additional lady inspector had been appointed to visit boarded-out children, and the Board was encouraging guardians all over the country to develop cottage homes with industrial training and scattered homes. On the whole a good case was made, showing progress, even if slow, on the part of the Local Government Board, and the motion made by Mr. Smith to reduce Mr. Chaplin's salary was withdrawn. Grievance, however, succeeded to grievance, so that at the end of the sitting Mr. Chaplin's salary was still being discussed and the money for the Local Government Board was not voted.

The Public Health Acts Amendment Bill has been referred to the following Select Committee: Dr. Clark, Dr. Fox, Dr. Farquharson, Mr. Galloway, Mr. Heath, Sir Alfred Hickman, Mr. Hobhouse, Mr. Brynmor Jones, Sir Francis Powell, Sir A. Rollit, Mr. T. W. Russell, Mr. Schwann, Mr. J. G. Talbot, Mr. Whitmore, and Mr. H. G. Wilson. Mr. T. W. Russell will act as Chairman.

Dropped Bills.—The following Bills have been withdrawn for this session: Adulteration (Food Products) (Mr. Kearley), Constructive Murder Law Amendment, London Water (Purchase), Metropolis Water (Mr. Samuels), Poor-Law Officers' Superannuation (Scotland), Street Noises, Bakehouses, and several others of no medical interest.

The Infectious Diseases (Notification) Act (1889) Extension Bill passed through the House of Lords last week, but as an amendment had been made it had to come back to the Commons. Luckily the amendment was not one likely to cause any dispute between the two Houses; it merely excepted Huddersfield from the operation of the Act, as that town was the first to get an Act for the purpose. This was a harmless concession to a very natural feeling of local pride on the part of the pioneer in this sanitary reform. The Lords' amendment was accepted on Monday, and the Bill now only awaits the Royal assent to become an Act.

Child Labour in Jam Factories appears from a question of Mr. Hedderwick to require attention. The children in this industry are stated to work for many months from 6 A.M. to 10 or 11 P.M., in a damp heat rising occasionally to 90° F., carrying from time to time weights reaching as much as one hundredweight. The Home Secretary admitted the urgent need for legislation, and said that he had a Bill ready for the purpose of bringing jam factories under the sanitary provisions of the Factory Acts, and limiting the excessive hours of labour. It ought to be introduced at once.

The Sewage Farm at Aldershot and its dairy produce were the subject of a question last week, and Dr. Andrewes's report was laid upon the table of the House. From the report it appears that the milk and butter are quite free from dangerous properties, that the arrangements of the farm are satisfactory in a sanitary sense, and that no danger is likely to arise from the consumption of the produce of the farm.

The Dum-dum Bullet has come before the House again in consequence of the reported resolution against its use passed at the Hague Peace Conference. The proceedings of the Conference being secret, the First Lord was unable to give any information as regards the action of the British delegates with reference to the bullet. The Secretary of State for India, however, in answer to Mr. Dillon, said that a new pattern of bullet was under trial in India, and that the results of the experiments, as well as those made previously, would be communicated to the House.

The London Government Bill came on for the report stage rather unexpectedly on Tuesday night. The Finance Bill was under discussion, when it was discovered that by some error it had not been reprinted since the Committee stage. There was nothing to be done but to adjourn the discussion, and so the London Bill came on. The main feature of the evening was the debate on the woman question, and finally it was decided by a majority of 35 that women should be eligible as aldermen and councillors in the new municipalities.

THE NEW VACCINATION ACT AND ORDER.

In the House of Commons in Committee of Supply on the Local Government Board Vote a debate was raised on the administration of the Vaccination Act, 1898.

Mr. PICKERSGILL (South-West Bethnal Green) complained that the President of the Local Government Board was encouraging vaccination officers to flout their employers, the Boards of Guardians, for the Order of October, 1898, stated that it was a duty of the vaccination officer under the Vaccination Act, 1871, to take proceedings for the enforcement of the law, without reference to his Board of Guardians. He also complained that the Local Government Board had recently informed Boards of Guardians that they were entitled to circulate at the public expense pamphlets issued by the Jenner Society in favour of vaccination. He moved to reduce the salary of the President of the Local Government Board by £100.

Mr. CHAPLIN said that such circulation of literature had been the practice for twenty years or more under Section XXVIII of the Vaccination Act, 1867, and he saw no reason to interfere with it. Mr. Pickersgill had asserted that the practice of twenty-five years, under which vaccination officers took instructions from their guardians, had been broken by his (Mr. Chaplin's) intervention; but it was the judgment of the Court of Queen's Bench, a judgment which was in agreement with the opinion of the law officers of two Governments, which had intervened. That judgment, rendered in 1897, was to the effect that a vaccination officer was entitled to take proceedings, under the Act of 1867, without first obtaining the special authority of the guardians. Mr. Chaplin said that he desired to do everything in his power to promote vaccination.

Mr. CHANNING (Northamptonshire East) said that he believed that Mr. Chaplin last July had frankly recognised that for the future vaccination was to be voluntary and not compulsory, but that since then forces had been brought to bear on him which had induced him to change his attitude. The Order had altered completely the relations between the Local Government Board and the Boards of Guardians, and had changed fundamentally the administration of an important section of the Act. Mr. Chaplin was under a grave misapprehension in supposing that the Act would lead to a great increase in vaccination. In the town of Leicester there were some 80,000 unvaccinated children, while only a small proportion of exemption certificates had been obtained. In his own constituency some 8,000 certificates had been taken out, but to represent the number of unvaccinated children whose parents objected to vaccination, this number would have to be multiplied by four or five. The right of Boards of Guardians to decide as to whether prosecution should be instituted had

been recognised for at least twenty-four years, and in 1888 the then President of the Local Government Board (Mr. Ritchie) had said that the enforcement of the Act was committed to an elective tribunal which must use this discretion. He asked Mr. Chaplin what he proposed to do. Did he intend to prosecute those people whose children were not vaccinated, and who had not obtained and refused to obtain certificates under the conscientious objector's clause? Mr. Channing also complained that the provision of the Act excluding any form of compulsory vaccination of children in hospitals and workhouses under the age prescribed by the Act had been violated; that the public vaccinator in many cases had ignored the provision requiring twenty-four hours' notice to be given; that certificates under the conscientious objector's clause had been held to be invalid because not sent to the vaccination officer within seven days; and that parents had been compelled to pay for producing the birth certificates of their children.

Mr. Hazell (Leicester) said that his constituents were practically unanimous, and were determined that the views of the Local Government Board should not prevail in Leicester.

Sir Walter Foster said that in his opinion the issue of the circular of the President of the Local Government Board was, to say the least, unfortunate. It impressed on vaccination officers that they were bound to prosecute defaulters under the Vaccination Acts, and to do so even against the opinion of the guardians. Vaccination officers were appointed by the guardians, and from them they received their salaries. Yet they were to institute prosecutions whether their employers liked it or not, and were to rely on the Local Government Board to protect them. The result must be that in some cases the position of these officers would become intolerable. The offended guardians would be always near them, but the protecting central authority was far off, and these officers would be unable to serve the two masters. If the dispute went on the danger would be that, when the vaccination officer resigned, the guardians would not appoint a successor, and vaccination would fall into neglect. He should like the right hon. gentleman to tell them what he meant to do with those Boards of Guardians who would not appoint. (Mr. Chaplin: They nearly all have.) Would he have a definite line of policy when the difficulty arose? It would have been better, as he had proposed in Committee, to have paid every medical man for every case properly vaccinated, and he believed it would have cost less in the end. He congratulated the right hon. gentleman on the statement he had made as to the success of the Act. He thought that statement must be reassuring to the country and to the House—that the policy carried out last year was a right policy. He had received information from various parts of the country from medical men, and he found that there had been a larger amount of vaccination during the last few months than in any similar period for many years. He thought, however, the result would have been infinitely greater if it had not been for the stupid policy of the press and the magistracy. He thought that the magistracy were to blame because they had not carried out the law as it was intended to be carried out. Unfortunately, the press took the matter up, and there was a great deal of wild writing tending to encourage the magistrates not to grant certificates. If the certificates had been granted readily there would have been less agitation and more vaccination. He complained of the tendency in some districts to charge too high fees for certificates, and in addition to exact certificates of birth. This would raise the cost to 2s. or 3s. in each case, which was a serious matter to a man receiving only 20s. or 25s. a week, especially when he had to pay for two or three children in arrears as often happened last year. In every case it was the duty of the Local Government Board to do what they could to prevent prosecutions being undertaken when the plea of insanitary surroundings was raised. He hoped that throughout his administration of the Act the right hon. gentleman opposite would do all he could to lessen the causes of irritation, such as prosecutions for technical omissions in complying with the Act. The great thing was to get the children vaccinated, and to advance the consumption of the calf lymph which the Act contemplated should be generally used.

After some remarks from Mr. Labouchere,

Mr. Chaplin said that he could only repeat that any instructions he might issue would, after the decision of the Court, be superfluous and ineffectual. He had done nothing to interfere with the relation between guardians and vaccination officers. He would perform the duty which Parliament has placed upon him without fear or favour, but avoiding so far as possible anything that would cause irritation. Reports by the Local Government Board's medical inspectors as to the increase or decrease of vaccination since May 4th relating to different unions—West Bromwich, Maidstone, Lambeth, Fulham, St. Olave's (Southwark), Holborn, Whitechapel, St. Saviour's (Southwark), Haddington, Stoke-on-Trent, and Glamorganshire—showed that in the first quarter of 1898 the number of vaccinations in these unions was 3,744; in the first quarter of 1899 there were 6,614, an increase of 3,333, or 77 per cent. He had every reason to believe this increase might be taken as a fair indication of what was going on in other parts of the country. He conceived it to be his duty to do everything in his power to promote an increase of vaccination throughout the country.

Sir William Harcourt thought that the statement was most satisfactory, and proved that the amended Bill was much better than that originally produced.

Mr. Bayley (Derbyshire, Chesterfield) asked whether the Government would continue the custom of the last thirty years, or would put in force what was said to be the law.

Mr. Chaplin said that the custom had been ruled illegal by a Court, and he had no power to interfere.

Dr. Clark (Caithness) asked whom a vaccination officer was to obey if a Board of Guardians was in favour of prosecutions but the Local Government Board was not? At present a vaccination officer had to give security that he would obey the directions of the Local Government Board as well as of the Board of Guardians which employed him.

The Committee divided, when there voted for the reduction 59, against 190, majority 131.

In response to the appeal by the Duke of Devonshire, Mr. H. L. Florence has forwarded a donation of £105 in aid of the West London Hospital.

EDINBURGH HARVEIAN FESTIVAL.

The 117th Harveian Festival was held in the Hall of the Royal College of Physicians, Edinburgh, on Friday, June 2nd, when the President, Professor Alexander Crum Brown, gave the Harveian Oration on Dr. John Mayow.

"John Mayow descended from a genteel family of his name, living at Bree, in Cornwall, was born in the parish of St. Dunstan's-in-the-West, in Fleet Street, London, admitted a scholar of Wadham College on September 27th, 1661, aged 16 years, chosen Probationary Fellow of All Souls College soon after, upon the recommendation of Hen. Coventry, Esq., one of the Secretaries of State, where, tho' he had a legist's place, and took the degrees of Civil Law, yet he studied physic, and became noted for his practice therein, especially in the summer time, in the city of Bath, but better known by these books, which show the pregnancy of his parts: De Respiratione, *Tract* 1, 1668; De Rachitide, *Tr.* 1, 1669, Oxon., of both which tracts is a large account given in the *Phil. Tr.*, No. 41, p. 803, an. 1668: De Sale nitro et spiritu nitro-aërio, De Respiratione fœtus in utero et ovo, De motu musculari et spiritibus animalibus, all Ox. 1674, a large oct. Of these three last (which were printed again with the two first) is a large account given in the *Phil. Tr.*, No. 105, p. 101, etc., and all five were printed together at the Hague, 1681, oct., and again in *Biblioth. Anat. per Le Clerc et Manget*, Genev, 1685. He paid his last debt to Nature in an apothecary's house, bearing the sign of the Anchor, in York Street, near Covent Garden, within the liberty of Westminster (having married a little before, not altogether to his content), in the month of September, sixteen hundred seventy and nine, and was buried in the Church of St. Paul, Covent Garden."

This short account from Wood's *Athenæ Oxonienses* (1772) is all, said Professor Crum Brown, I have been able to find of the personal history of Mayow, except that on the 30th of November, 1678, he was elected a Fellow of the Royal Society of London, having been proposed by Hooke. He was thus 23 years old when he published his tract on Respiration, and he died at the early age of 36.

A Precursor of Lavoisier.

I have chosen Dr. John Mayow as the subject of this discourse, not so much because he was a contemporary of Harvey—he was 12 years old when Harvey died—or because he also lived in Oxford and was a physician, as on account of the five tracts which form his *Opera omnia*. Mayow's works were not much noticed in his own time, and speedily fell into total oblivion.

When oxygen was discovered, about 1774, and when Lavoisier soon after expelled the phantom phlogiston which for a long time had haunted chemistry, Mayow's book was discovered in old libraries, where it had remained untouched for a hundred years; and those who discovered it were astonished to see that the new chemistry which was rapidly conquering the scientific world was to be found in this old book. As far as I know, Dr. Thomas Beddoes was the first distinctly to recognise Mayow's claim. It is interesting to note that not only did Dr. Beddoes discover this Cornishman who had been dead and forgotten for more than a hundred years, but that he had the good fortune to discover a living Cornishman, a chemist of greater eminence than Mayow, for Humphry Davy was the superintendent of Dr. Beddoes's Medical Pneumatic Institution. Dr. Beddoes published his discovery of Mayow in a letter to Dr. Edmund Goodwyn, with an "Analysis of Mayow's Chemical Opinions." It is dated Oxford, February 12th, 1790, two years before his resignation of the Readership in Chemistry. Besides Beddoes, we have Dr. J. B. A. Scherer, M.D., Physician in Vienna, who in 1793 published "Beweis dass J. Mayow vor 100 Jahren den Grund zur antiphlogistischen Chemie gelegt hat." And also G. D. Yeats, M.B., of Hertford College, Oxford, Member of the Royal Medical Society of Edinburgh, and Physician in Bedford, who in 1798 published "Observations on the Claims of the Moderns to some Discoveries in Chemistry and Physiology."

Beddoes quotes from Blumenbach's *Institutiones Physiologicæ*, 1787, the following remarkable passage:

"A great part of these memorable phenomena" (says he, speaking of respiration), "by which in recent times both the physical science of the factitious airs and the physiology of respiration have been so strikingly

enriched and illustrated, were already known more than a hundred years ago to the physician John Mayow, a man of most acute genius, whose tract, De sal-nitro et spiritu nitro aerio (for that was the name he gave to dephlogisticated air), published in Oxford in 8vo I have read and reread with great pleasure."

But these attempts to make Mayow and his work known to the scientific and medical world were not crowned with success, and without going further we can see one reason for this in the character of these attempts themselves. Dr. Yeats had not been able to find in Mayow an interesting experiment quoted by Dr. Beddoes, and wrote to him to that effect. Dr. Beddoes was very much distressed and alarmed.

Later, continued Dr. Crum Brown, the reference was found, all the fuss had been about nothing, and was of no use save to advertise Dr. Yeats. "If Dr. Beddoes is too rhetorical (it was his own criticism of himself), Dr. Yeats is rather prosy, and quite lacking in critical power, so that I do not think they can have induced many people to read Mayow's tracts."

CHARACTER OF MAYOW'S WORK.

Then, again, Mayow might have contributed in an important way to our knowledge or to an understanding of Nature, but he did not. All his work had to be independently discovered by others, and it is from them and not from Mayow that we have derived our knowledge. Some passages in Mayow's writings doubtless contain indications by no means obscure of truths not generally known or discovered by others more than a century later; but closely connected with these will be found foundationless assumptions and wild reasoning worthy of a mediæval alchemist. In much he anticipated Lavoisier. Much nonsense is inextricably mixed up with the description of his ingenious and well-contrived experiments and with his clear-sighted interpretation of them. Mayow's discoverers failed in their endeavour to place his name in the list of great scientific heroes.

HIS VIEWS ON RESPIRATION.

But for all that he was a very interesting man, and his five tracts are well worth reading, and before long we may see them in an English translation. The tract *De Respiratione* was his earliest and by far his best, and it had a particular interest to Harveians from the intimate relation of respiration and the circulation of the blood. The mechanism of respiration is described as it might be by a physiologist of to-day. He observed the double articulation of the rib to the vertebra. He held that both internal and external intercostal muscles were muscles of respiration. He gives a very neat and very apt illustration of the way in which the lungs are inflated. His account of the action of the diaphragm is exactly what we have all been taught; he even mentions that although on the whole in inspiration the wall of the abdomen is pushed out by the abdominal viscera pushed down by the diaphragm, there is a part of the abdominal wall drawn in because of the attachment of the diaphragm to the false ribs. He gives a vivid and clear description of the mechanism of hiccough. His remarks altogether on violent expiration are most interesting. Having explained the mechanism of respiration, he next turns to its use. "This," he says, "is indeed a most difficult affair, for there is not more accord as to its necessity than doubt as to its use." Dr. Crum Brown then compared Harvey's idea as to the use of respiration with Mayow's. Harvey considered the cooling of the blood as the reason why it was sent round by the lungs instead of straight from the right to the left side of the heart. Mayow, on the other hand, says "it may be affirmed that an aërial something (whatever it be) necessary for the sustenance of life, passes into the mass of the blood. Hence, air driven out from the lungs is no longer fit for respiration." The aërial something is the same nitro-aërial spirit that causes fire. Water contains air which can be expelled from it by heat. "To this I add, lastly, that the air interspersed in the particles of water is inhaled by fish for respiratory purposes." What good does the vital aërial spirit do in the blood? It produces animal heat. It is necessary for motion. This he proves. At first Mayow was inclined to think that the nitro-aërial particles were carried to their destination in the muscles by the blood; but on more mature consideration he concluded that it was more probable that the blood took them to the brain, and that the nerves conveyed them thence to the muscles. Dr. Crum Brown then quoted a bright passage from *De Respiratione Fœtus in Utero et Ovo*, in which Mayow maintains that "the placenta should no longer be called a uterine liver, but rather a uterine lung."

HIS WRITINGS.

Dr. Brown admitted that in his quotations he had been separating Mayow's light from his darkness, and he then gave a specimen or two of his darkness. Dr. Crum Brown concluded thus: Mayow lived very near the beginning of really scientific investigation; he made ingenious experiments; he was an acute and intelligent observer, but he could have no conception of the enormous amount of experimental and observational work to be done before an approximation could be made to an answer to many of those questions which he discussed. It seems to me that a study of Mayow's works has a very considerable psychological interest, and I feel personally indebted to him for an introduction to the original, simple-minded, enthusiastic Dr. Beddoes.

THE DINNER.

The Orator was awarded a vote of thanks for his address, and then the Harveians betook themselves to dinner. The loyal and patriotic toasts were honoured; the immortal memory of Harvey was drunk in silence; the clergy, the President (given by that veteran Harveian Dr. John Smith), the guests, and the Secretary were in turn "toasted." Songs were given by Drs. John Smith, James Eculis, and Lockhart Gillespie; and the President gave his ever fresh story of "John McNeill." Before concluding with *Floreat Res Medica!* the President nominated Professor Thomas Annandale as his successor in the chair.

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

A MEETING in support of the work of this Association was held at 7, Connaught Place, by permission of Mr. T. A. Denny and Lady Hope, on June 6th.

The CHAIRMAN (Mr. Denny) stated how he had, in company with the Secretary, paid a visit to one of the dispensaries of the Association, and he was gratified to see the amount of good work which was being done.

In proposing the first resolution, Sir WILLIAM BROADBENT said that it contained material for a long debate, for, in fact, a volume. He was not prepared to analyse the propositions which could be extracted from it, but he approved of it, and had great pleasure in moving its adoption. The satisfactory medical attendance on the working classes in London was a problem of extreme difficulty. The very poor were adequately provided for by the Poor-law administration, and there was a section of the population above them to whom it was right that the great hospitals should offer an open door both as in-patients and out-patients. It was when the question of the medical attendance on the working classes proper—the prosperous working class—was reached, that the difficulties began. One difficulty was that the moment a serious illness attacked the breadwinner he dropped from the well-provided into one of the lower categories. It was only by the principle of insurance against the evil day that the working classes who were comfortable and prosperous while in health and strength could provide against illness, and that was done in two ways: by benefit clubs and by provident dispensaries. The system of the metropolitan provident dispensaries seemed to him best to meet the demands of those who were anxious to help themselves by providing against illness. He thought there was more of the relation of the ordinary family medical attendant in the doctors of the provident dispensaries than with the club doctors, who were very much overworked. The question of co-operation with hospitals was one to which he attached great importance. Many of those who held cards in connection with provident dispensaries were almost by that very fact debarred from the advantages of help from a general hospital. In all lines of practice, complicated cases in which the opinion of a surgeon or a physician of experience was necessary arose, and there was some difficulty in patients of provident dispensaries getting such advice. Instead of difficulty there ought, he thought, be increased facilities. They were people who had done their best to provide against ill-

ness as far as their means would permit, and when the advice they required was beyond their means they ought to be the first to obtain the special advice, and treatment if required, which was provided by the great general hospitals. He was glad to see by the annual report of the Association that some of the large general hospitals hung up in their out-patient room a notice to the effect that patients bringing letters from a medical practitioner or provident dispensary would have priority of treatment. This was an admirable beginning, and he hoped the plan would continue to grow. He had pleasure in proposing:

That it is necessary for the satisfactory medical attendance of the working classes in London that provident dispensaries worked in co-operation with the hospitals, under rules generally approved by the medical profession, should be formed in every district of the metropolis on the system of the Metropolitan Provident Medical Association.

The resolution was seconded by Lady Hope, who related how she once received treatment in a provident dispensary.

Mr. C. S. Loch spoke in support of the resolution, which was carried unanimously.

The Dean of St. Paul's proposed the following resolution, which was seconded by Mr. Buxton, supported by Mr. F. D. Mocatta, and carried:

That this meeting regards with satisfaction the progress already made by the Association in the formation of twenty branches where considerably more than 30,000 persons, contributing in small periodical payments over £5,300 a year, have had secured to them by thrift and providence good medical treatment and medicine in time of sickness, and pledges those present to assist in raising funds for the creation of new provident dispensaries and their maintenance until they attain self-support.

Mr. Bousfield, in proposing a vote of thanks to Lady Hope and Mr. Denny for allowing the Association to hold a meeting at their house, said he was glad to say that the Association had now the support of the medical profession. Medical men ought to be paid as much as possible for their work, and he hoped they might see the payments to the medical officers on the staff of their dispensaries doubled. Medical men always gave more than they were adequately paid for, but the Association paid them as well as their funds would allow.

Mr. T. Holmes, in seconding the resolution, said that it had been hoped that the Association would by that time have numbered ten times as many members as it did. Much as he esteemed and reverenced the good work done by the great hospitals he thought the hospital system was not perfect, and he looked forward to the time when the hospital of every district would be a sort of consultative centre for the medical charities and medical practitioners in the district.

Mr. Hamilton Hoare spoke in support of the resolution, which was carried unanimously.

THE NEW VACCINATION ACT IN OPERATION.

Public Vaccinators and Police-court Cases.

Public Vaccinator, who at the vaccination officer's request gives evidence on the same day in three police-court summonses taken out under the new Vaccination Act, asks whether the public vaccinator is entitled to a half-guinea fee for each set of evidence, or only half a guinea for attendance at the police-court, or whether it is part of his duty as public vaccinator to give evidence.

*** There is no special provision in the Vaccination Acts or Orders made thereunder for the remuneration of the public vaccinator in cases of this kind. It appears therefore that in the ordinary course our correspondent should be entitled to the fee of half a guinea for each case. Reference to a letter which appeared in the British Medical Journal of June 3rd from the Honorary Secretaries of the United Kingdom Police Surgeons' Association will show, however, that the practice as to fees to medical witnesses in police and magistrates' courts varies considerably.

Public Vaccinators and the Certificate Form.

We have received from Dr. E. Rice Morgan, Public Vaccinator for the Morriston District of the Swansea Union, copies of letters and newspaper reports in regard to charges brought against him by Dr. Gabe, of Morriston.

We have already taken an opportunity to express an opinion on the subject of occasions of friction between public vaccinators and private practitioners, and feel that very little service can be rendered by introducing into our columns matters which are likely to embitter local feeling, already it may be somewhat strained. There are, however, one or two points in this case which it is well to notice.

The gravamen of the charge is contained in a letter by Dr. Gabe to the guardians, of April 25th, 1899, which accuses Dr. Morgan of exceeding his duties "by allowing his assistant to take away vaccination papers from parents weeks before their babies are vaccinated," and goes on to say: "I can mention cases where parents desired their children to be vaccinated by me, but are prevented from doing so, feeling that they are compelled to have their children vaccinated by Dr. Morgan or his assistant, as Dr. Morgan has possession of their vaccination papers."

The Board resolved: "That Dr. Morgan be advised not in any case to receive from the parents of children the vaccination notice and form of certificate (given to the parents by the registrar of births) until the child has been vaccinated by him," refusing by 19 to 6 votes to pass a resolution of thanks to Dr. Gabe for his action in the matter.

Without going into the details of the case, it may be said that the documents before us do not seem to us to afford justification for the course which Dr. Gabe appears to have taken, and we may refer to opinions expressed in the British Medical Journal of May 6th, p. 1107.

One practical point is worth observing, and that is that if a public vaccinator on visiting a child finds it unfit to be vaccinated he is bound to give a certificate of postponement, and for this purpose he must take away the paper in question.

MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

The annual meeting of this Society was held in the Royal College of Surgeons, Dublin, on June 5th, Mr. R. L. Swan, President of the College, in the chair.

The Hon. Secretary, Dr. J. W. Moore, read the report, from which it appeared that the grants for the year amounted to £1,141. The applications were from 65 widows, and 3 medical men. In 26 instances only had the medical man by whose death the application had been rendered necessary ever contributed to the funds of the Society. The Committee regretted the apathy shown by so many of the profession in their attitude towards the fund.

On the motion of Mr. Croly, seconded by Dr. Joseph Smyth (Naas) the report was adopted.

The following resolution, moved by Sir George Duffey, and seconded by Dr. Middleton (Mullingar) was adopted:

That this meeting desires to convey its warmest thanks to the committee and officers of the parent society, as well as to those of the provincial branches, for their hearty zeal in the Society's beneficent work, and also to those of our student brethren who have contributed a tangible proof of their generous sympathy in the cause; and would urge strongly upon the profession that even a moderate annual contribution to this fund would enable them to assist more adequately our necessitous brethren and their families.

On the motion of Dr. Delahoyde, seconded by Dr. Taggart, the officers for the next year were elected.

Dr. Mackesy proposed, and Dr. Kidd seconded, a vote of thanks to the Press, and the proceedings terminated.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that they are prepared to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting must include details of the precise character and objects of the research which is proposed and must be made on or before June 15th in writing addressed to the General Secretary, at the office of the Association, 429, Strand, W.C.

Reports of work done by the assistance of Association grants belong to the Association.

Research Scholarships.

The Council of the British Medical Association are prepared to receive applications for one of the three Research Scholarships which is vacant, of the value of £150 per annum, tenable for one year, and subject to renewal by the Council for another year.

Ernest Hart Memorial Scholarship.

The Council are also prepared to receive applications for a scholarship of £200 for the study of some subject in the department of State Medicine in memory of the late Mr. Ernest Hart.

Applications must be sent in writing on or before June 15th, stating the particulars of the intended research, qualifications and work done.

Forms of application for the scholarships can be obtained from the General Secretary.

Francis Fowke, *General Secretary.*

429, Strand, London, May 2nd, 1899.

LITERARY NOTES.

WE have much regret in announcing the decease of the *Index Medicus*. We gather that it has literally died "of its own too much," the vast and ever-growing mass of medical literature being beyond the power of mere men of mould to index, unless the staff were increased to an extent that would be financially ruinous. As the *Index Medicus* has already risen from the dead on at least one occasion, it may be well to add that we have the publisher's assurance that its demise this time is definitive.

According to the *Börsenblatt für den deutschen Buchhandel* of Leipzig, the number of works relating to medical science published in Germany during 1898 was 1572. In 1897 the output amounted to 1521.

The name of the author of the *Religio Medici* is much in men's mouths at present. In *Literature* of May 27th M. Joseph Texte writes on "Thomas Browne en France." He thinks it very legitimate and natural that the appeal for funds to raise a monument to him should have spread from Norwich, "patrie de l'exquis auteur de *Religio Medici*" all over England. He dare not venture, however, to extend the appeal to France, where Browne, though by no means without admirers and friends, is scarcely so well known as he should be. But in the seventeenth century he was known to the learned of Paris, and he found special favour in the eyes of Gui Patin, the famous physician whose *Letters* are a part of French literature. Announcing to a correspondent on October 21st, 1644, the appearance of "a small new book entitled *Religio Medici*," Patin says: "C'est un livre tout gentil et curieux, mais fort délicat et tout mystique; l'auteur ne manque pas d'esprit; vous y verrez d'étranges et ravissantes pensées." On April 16th, 1645, he writes that people are making a great fuss about the *Religio Medici*, in which there are pretty things. He characterises the author as a melancholy man, agreeable in his thoughts, but, as the Frenchman shrewdly surmised, seeking for a master in the matter of religion, like many others. Patin adds: "Perhaps at last he will find none." Having learnt that Browne was still living Patin applied to him what old Philippe de Commines said about a contemporary saint: "He is still alive, and he is as likely to grow worse as to grow better." In 1668 Browne found a French translator in Nicolas Lefèvre, a Protestant chemist, who had been placed by Charles the Second in charge of a laboratory at St. James's Palace. M. Texte thinks that if Lefèvre did not exactly kill his author in the eyes of French readers, he, at any rate, mortally wounded him, by transforming him into a theological bigot.

It has been urged in the interest of the aggressive midwife that the obstetric branch of medicine was acknowledged as the appanage of woman till the encroaching tyrant man invaded it in the seventeenth century, and finally succeeded in annexing it in the middle of the century which is now hastening to its end. But the supporters of the ambitious daughters of Lucina, who are moving heaven and the House of Commons to bring the tedious labour of their charter of independence to a happy delivery, will be well advised not to push the historical argument too far. If we are to believe J. H. Schulze, author of a *Historia Medicinæ* published at Leipzig in 1728 (for a knowledge of which learned but now unhappily latent work we are indebted to Dr. G. C. Peachey, who refers to it in the last number of the *St. George's Hospital Gazette*), the first member of the human family who practised midwifery was Adam. Says Schulze: *Valdeque vero simile est Adamum, ipsius rei præsentis necessitate compulsum, laboranti amicæ obstetricias manus adhibuisse, sicque chirurgiæ primam forte operationem exercuisse.* Thus Adam was not only the first accoucheur, but the first who performed a surgical operation. One cannot help wondering how he managed the case. A man *rei præsentis necessitate compulsus* will often prove unexpectedly resourceful; but the situation was embarrassingly novel, and if the *res* had not presented in the right way the human race would have come to an abrupt end. As far as we are aware the point has not been dealt with by the "higher criticism"; we venture, therefore, with some diffidence to suggest that the case was an example of that indefinable but not infrequent process known as "natural labour."

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL.

MEETINGS of the Council will be held on July 12th and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will take place on Friday, June 23rd, at 1.30 P.M., at the London Hotel, Taunton. Business: Minutes; report of Council; Treasurer's accounts; election of members of Council and President-elect; place of next annual meeting; intermediate meetings. Instead of the usual address, Dr. J. A. Macdonald, the President-elect, will open a discussion on whether this Branch shall co-operate with the Bath and Bristol and Gloucestershire Branches in forming a Branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis. (Members are specially requested to attend, as it is desirable to have a representative opinion on this subject.) If co-operation be decided upon, delegates will be appointed. There will be a lunch at the hotel at 1 P.M., price 3s. Members intending to be present at luncheon are requested to kindly inform the Honorary Secretary on or before June 19th.—R. LIDDON MEADE-KING, M.D., Taunton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at the Swansea Hospital on Thursday, June 29th. Nominations, communications, etc., should be forwarded before June 14th.—A. SHEEN, M.D., Cardiff, D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary on Friday, June 30th, at 2.45 P.M. The Council have arranged a joint meeting with the Reading and District Branch. Agenda: Minutes; ballot for new members; exhibition of pathological specimens and living cases. Dr. Ashby, the Medical Officer of Health for Reading and District, will open a discussion on the Prevention of Tuberculosis. Short Papers. A dinner will take place at Exeter College at 6 P.M. after the meeting.—WM. COLLIER, St. Mary's Entry, Oxford, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at the General Hospital, Kettering, on Thursday, June 29th, at 3 P.M. The President-Elect, Dr. John Allison, invites the members to luncheon at the George Hotel, at 1.45 P.M., and will be glad of the favour of a reply, sent to himself, not later than June 25th. Agenda: Report of Committee of Management; proposal of new members—David Stone, M.B. (Northampton), John Tait (Sharnbrook, Beds); letters and communications; election of representative to General Council and on Parliamentary Bills Committee; vacancies in the Committee of Management to be filled up; President's Address. Mr. Watson Cheyne, M.B., will give an address on Surgical Tuberculous Diseases, with lantern demonstration. Mr. W. Gifford Nash will exhibit some interesting specimens.—C. J. EVANS, Northampton, Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Derby, on Thursday, June 15th, at 2.15 P.M., Mr. E. M. Wrench, F.R.C.S., President-elect, in the chair. After the transaction of the usual business, and the delivery of the President's address, a discussion will take place on the Local Distribution of Cancer in the area of the Branch. Information is desired on the following points: (1) The frequency of cancer in any district; (2) whether it is more common on high or low ground; (3) whether it is on the increase in any district; (4) any instance of two or more cases of cancer in any house. The following, among others, are expected to take part in the discussion

Dr. H. Handford, Dr. W. B. Ransom, Mr. R. G. Hogarth, Dr. G. H. Milnes, Mr. J. Acton Southern, Dr. E. Mansel Sympson, Dr. E. N. Nason, Dr. Astley V. Clarke, Dr. R. Sevester, Mr. J. Tubbs Thomas, Mr. C. J. Bond, and Dr. F. M. Pope. Mr. C. J. Bond will show a patient from whom he removed the Gasserian Ganglion by the Krause-Hartley operation. Mr. T. Henderson Pounds will read a short paper on the Extirpation of the Cancerous Uterus by the Abdominal Route, with five successful cases. The President-elect will be glad to see members who come from a distance at luncheon at the Midland Hotel, at 1.0 P.M. The annual dinner will be held at the St. James's Hotel at 6 P.M.; tickets 7s. 6d., exclusive of wine. Those wishing to attend the meeting and dinner are requested to send notice to Mr. J. Acton Southern, 50, Friar Gate, Derby.—Frank M. Pope, Leicester, Honorary Secretary and Treasurer.

Border Counties Branch: Counties of Roxburgh, Berwick, Selkirk, and Peebles District.—The annual meeting of this District will be held at Abbey Green, Jedburgh, the house of Dr. Blair, President of District, on Friday, June 16th, at 4 P.M., to elect office-bearers for the ensuing year. A full attendance of members is urgently requested.—W. Hall Calvert, Melrose, Honorary Secretary.

Metropolitan Counties Branch.—The annual general meeting will be held at the Hotel Cecil on Tuesday, June 20th, at 6 P.M. The members will dine together at 7 P.M., Mr. Thomas Bryant, President-elect, in the chair.—H. Betham Robinson, J. W. Washbourn, Hon. Secretaries.

Birmingham and Midland Counties Branch.—The annual meeting of this Branch will be held at the Medical Institute, Birmingham, on Thursday, June 22nd, at 3.30 P.M. The chair will be taken by the President, Mr. Vincent Jackson, and an address will be given by the President-elect, Mr. Bennett May. The annual dinner will take place at the Grand Hotel, at 6.30 P.M.—William F. Haslam, 54, Newhall Street, Birmingham, Hon. Secretary.

Lancashire and Cheshire Branch.—The annual meeting of this Branch will be held in Bolton on Wednesday, June 21st. Applications for membership should be addressed to Dr. Barr, 72, Rodney Street Liverpool, Honorary Secretary.

East Anglian Branch.—Preliminary Notice.—The annual general meeting of the East Anglian Branch will take place at Colchester on Thursday, June 29th, under the presidency of Dr. E. L. Fenn. It is requested that gentlemen desirous of joining the Association or Branch, and members willing to read papers or contribute cases to the meeting, will communicate at once with Dr. Barnes, Eye.—Edgar G. Barnes, M.D., Eye, Michael Beverley, M.D., Norwich, Thomas Carr, M.D., Braintree, Honorary Secretaries.

South-Western Branch.—The annual meeting of this Branch will be held on Wednesday, June 14th, in the Board Room of the North Devon Infirmary, Barnstaple, at 3 P.M., when Dr. Montgomery will resign the chair to Dr. Mark Jackson, who will deliver an inaugural address. The Branch Council will meet at 2.40 P.M., and will afterwards present their annual report to the meeting. Luncheon, by kind invitation of the President-elect, will take place at 1.30 P.M., at the Imperial Hotel, Barnstaple, and the annual dinner will be held at the same place, at 6.30 P.M., at which the Mayor of Barnstaple will be present. Tickets (exclusive of wine) 6s. After the meeting, tea will be served in the Board Room of the North Devon Infirmary. In the evening the Mayor of Barnstaple will hold a reception at the Athenæum, invitations to which will be issued to all members of the Branch. The Barnstaple Club will be open to members of the Branch for the day. On Thursday, June 15th, the Barnstaple members have kindly arranged an excursion by train to Ilfracombe, thence by coach along the coast to Lynton, and back by the Lynton-Barnstaple Railway. This, however, cannot take place unless the number can be made up to sixteen. The Hon. Secretary will be glad if members will inform him at once whether they will be present at (1) the luncheon, (2) the dinner, (3) the excursion, so that further arrangements may be made.—H. W. Webber, M.S., 4, Woodland Terrace, Plymouth, Hon. Secretary.

Worcestershire and Herefordshire Branch.—Preliminary Notice.—The annual meeting will be held at Malvern on Thursday, June 20th. Members having papers to read or communications to make are requested to communicate with the Honorary Secretary at an early date.—Geo. W. Crowe, M.D., Honorary Secretary.

Shropshire and Mid-Wales Branch.—A special general meeting of this Branch will be held at the Salop Infirmary on Tuesday, June 13th, at 4 P.M. Business: To discuss a communication made to the Branch meeting on May 16th by Dr. Charnley respecting the refusal of the Editor of the Journal to publish the abstract of his paper on the "Salisbury Diet." The Clinical and Pathological section of the Branch will meet after the special general meeting.—Harold H. B. Macleod, Honorary Secretary, Clive House, Shrewsbury.

South-Eastern Branch: West Kent District.—The next meeting of this District will be held at the West Kent Hospital, Maidstone, on Tuesday, June 27th, at 3 P.M., Mr. John Knowles in the chair. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary, Ludford Cooper, St. Bartholomew's Hospital, Rochester.

Northern Counties of Scotland Branch.—The annual meeting of this Branch will be held at the Kyle of Lochalsh on the forenoon of Wednesday, June 14th next. By the generosity of a member, a special train will be run from Inverness to suit the convenience of members and their friends. Particulars will be given by circular.—J. W. Norris Mackay, M.D., Honorary Secretary, Elgin.

Border Counties Branch.—The annual meeting of this Branch will be held in Carlisle on the afternoon of Friday, June 30th. Members intending to read papers or show cases, and gentlemen applying for membership, are requested to communicate as soon as possible with W. F. Farquharson, Garlands, Carlisle, Honorary Secretary.

SOUTH EASTERN BRANCH: EAST KENT DISTRICT.

The 151st meeting (annual) of this District was held at the Kent and Canterbury Hospital on May 25th, Dr. Parsons (Dover), Treasurer of the British Medical Association, in the Chair. Twelve members and visitors were present.

Confirmation of Minutes.—The minutes of the last meeting and of the last annual meeting were read and confirmed.

Accounts.—The accounts of the past year, audited by Dr. Styan, were presented and passed on the motion of the Chairman, seconded by Mr. Rigden.

Election of Honorary Secretary.—Mr. Raven (Broadstairs) was unanimously re-elected Honorary Secretary on the motion of the Chairman, seconded by Mr. Rigden. Mr. Raven accepted the office for another year.

Meeting in September.—It was proposed by Mr. Clarke, seconded by Dr. Hackney, and carried, that the meeting in September should be held at Ramsgate.

Meeting in March, 1900.—It was proposed by Mr. Wacher, and seconded by Dr. Tyson, that the meeting in March, 1900, should be held at Sittingbourne. This was carried.

Chairman for September Meeting.—Dr. Hackney proposed and Dr. Whitehead seconded a resolution, which was carried, that Dr. Styan (Ramsgate) should take the chair at the meeting in September.

Visit to Cathedral.—After the business of the meeting the members visited the Cathedral, and were conducted over the building by Dean Farrar, and a most interesting afternoon was spent under his guidance.

Dinner.—At 6 o'clock the members dined at the County Hotel under the presidency of the Chairman.

NORTH OF ENGLAND BRANCH.

The spring meeting of the North of England Branch was held at Tynemouth on May 31st. In the absence of the President through illness Dr. Murphy took the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Unattached Members.—A letter drawn up by the Secretary urging upon unattached members the advantages of branch membership was read, approved, and ordered to be circulated.

Resolution.—Dr. Mark Wardle proposed the following resolution:

> That the Council of the British Medical Association be asked to formulate a code of professional ethics and to send a copy of such code to every practitioner on the *Register*.

He believed that differences, etc., now unfortunately frequent, were often due to a want of knowledge of the time-honoured and reputable methods of practice. Since apprenticeship had ceased, a young man was no longer brought up before the hourly example of a reputable practitioner, but was sent from school to college and from college into practice with absolutely no experience to guide him in his relations with patients and with other members of the profession. He was aware of the impossibility of making a gentleman by Act of Parliament, but if this resolution was brought into effect ignorance of usage could no longer be pleaded as an excuse. He urged the publication and circulation of an official code by the British Medical Association in accordance with the terms of the resolution.—Dr. Alfred Cox, in seconding the resolution, referred to an unofficial code already in existence and thought that an extended and corrected code, possibly based upon this, and issued officially under the auspices of the British Medical Association would be more widely known and therefore more effectual. Drs. Wilkinson, Frazer-Hurst, Macaulay, G. R. Murray, L. G. Fraser, S. Walker and Murphy also spoke, and the resolution was unanimously carried.

Cases.—Dr. Murphy brought forward a girl after operation for Perforated Gastric Ulcer. The operation had been performed eight hours after the occurrence of the perforation, the ulcer being situated on the anterior surface of the stomach 2 inches from the pylorus. Eight days after the operation bright red blood was passed with the motion, and although she vomited also there was no blood in the vomit. Next day,

however, she vomited a large blood cast of the stomach, and there was again violent bleeding *per anum*. A point of special interest was the source of this subsequent hæmorrhage. The success of the operation was in large measure attributable to the short time elapsing between perforation and operation—eight hours. He had operated on nine such cases, with only one recovery. Mr. A. M. MARTIN, Dr. MARK WARDLE, Dr. GOWANS, and Dr. BEATTIE took part in the discussion.—Dr. L. G. FRASER showed a child after treatment for Fixity of Lower Jaw, due to adhesions and cicatrical contraction of the soft tissues of cheeks and mouth following scarlatina. The case had been treated by division of restraining bands and frequent dilatation, with gag maintained for three months. The child had now a fair range of movement and quite a useful mouth. There had been no recurrence of contraction for two years. —Dr. HARKER brought forward a patient after laparotomy for Ruptured Tubal Pregnancy, together with the specimen removed. Twelve hours after operation she had a sudden attack of extreme collapse, and it became a matter for consideration whether or not to again open the abdomen on the probability of the collapse being due to internal hæmorrhage. Such hæmorrhage and shock gave rise to almost identical symptoms. In this instance he infused saline solution with prompt and marked benefit. Dr. GOWANS and Dr. MURPHY remarked upon the case.—Mr. A. M. MARTIN showed two infants exhibiting rare Congenital Deformities: (1) Cleft hands and supernumerary toes; (2) Congenital Anterior Curve of Tibia, probably due to intrauterine fracture. Drs. WARDLE, PEART, S. WALKER, and MOORE discussed these cases.

Specimens.—The following specimens were exhibited: Dr. GOWANS: (1) Photographs of the first case of Myxœdema shown in the North of England; (2) Multilocular Ovarian Cyst; (3) Ruptured Tubal Pregnancy; (4) Dermoid of Ovary; (5) Extrauterine Gestation, hysterectomy; (6) Hysterectomy for Carcinoma, removal by vaginal method.—Dr. G. R. MURRAY: Ruptured Aneurysm of Innominate Artery, with consolidated aneurysm of the abdominal aorta.

Dinner.—The dinner took place at the Grand Hotel after the meeting and was well attended.

SOUTHERN BRANCH: WINCHESTER DISTRICT.

A MEETING of this District was held at St. Patrick's Hall, Winchester, on May 31st, Dr. BEVAN (President) in the chair. There were present 16 members.

Confirmation of Minutes.—The minutes of the previous meeting were read and signed.

Election of Officers.—The following officers were elected for the ensuing year:—*President:* Dr. Bevan. *Secretary and Treasurer:* Mr. Langdon. *Members of Committee:* Drs. Harman, Moon, and Applebe.

Accounts.—The audited accounts for the year 1898 were read and approved.

Communications.—Dr. HARMAN read notes of a case of Pneumonia, the septic origin of which was plainly indicated during the progress of the disease. In the discussion which followed it was agreed that the room is frequently maintained at too high a temperature. Abdominal pain was stated to be a frequent first symptom in pneumonia.—Mr. J. F. BRISCOE described a case of Asphyxia of a man in a diver's dress. When all other means seemed likely to fail, blood letting gave great relief, and the case recovered. The discussion which followed chiefly gave the results obtained by those present from the use of this remedy.—Dr. FULLER ENGLAND exhibited a photograph illustrating an uncommon form of Psoriasis.—Dr. J. LOCKART LIVINGSTONE read notes of a case of Diabetes Mellitus, and showed the patient (a man, aged 19), the symptoms being unusually favourable in so young a subject. He was asked to report the progress of the case at the next meeting.—Mr. F. W. JOLLYE read notes of a case of Cholecystitis, with incarceration of thirteen gall stones in the dilated cystic duct, in which the only symptoms for the first month of the illness were several attacks of fever, debility, with profuse sweats at night, but no rigors. An acute attack of colic followed, with distension of gall bladder, increase of sweats, and debility. History of the previous attacks of jaundice five and eleven years previously being obtainable. Mr. Charters Symonds opened and drained the gall bladder and removed the stones. The night sweats ceased immediately, and the patient made a normal recovery. The fluid from the gall bladder, whose coat was much thickened, consisted of blood-stained albuminous fluid, with much mucus, but no pus, and the bacterium coli communis was the only organism found. The absence of jaundice as well as the general condition of the patient, which was good, and the fear of general infection and the probability of the stones in cases with history of previous attacks being incarcerated in the cystic duct made the operation desirable, and in all probability a safe one.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at University College, Bristol, on May 31st; L. A. WEATHERLY, M.D., President, in the chair. Fifty-one members and one visitor were present.

New Members.—The following new members were elected: C. R. Wood, M.A., M.D.Durh., M.R.C.S., L.R.C.P., Frome; W. E. Husband, M.R.C.S., L.R.C.P., Bath; W. Dutton Akers, M.R.C.S., Bath.

Communications.—Dr. A. J. HARRISON showed a case of Lichen Ruber Planus, on which Mr. WATHEN commented.—Dr. CAREY COOMBS read the notes of a case of Puerperal Tetanus, which ended in the recovery of the patient, the illness running a somewhat protracted course. A discussion on the treatment of tetanus followed, in which Messrs. WILLETT, CARWARDINE, Drs. CAVE, MICHELL CLARKE, and FIRTH took part.—Dr. W. COTTON showed a number of fine Lantern Slides of Photographs and Radiographs, illustrating the use of a Wimshurst machine (sectorless) in *x*-ray work. Drs. ROGERS, WATSON WILLIAMS, STACK, and Mr. WALKER discussed the use of the Wimshurst machine and the photographs and radiographs exhibited; and Dr. COTTON replied to various questions asked.—Dr. J. O. SYMES read a paper giving the results of a number of experiments which he had carried out on the Antiseptic and Disinfectant Properties of Soaps. Drs. HARRISON and COOMBS commented on several points raised by the paper.—Dr. G. PARKER showed Lantern Slides and Microscopic Specimens of the Large-spored variety of the Ringworm Fungus.—Dr. WALTER C. SWAYNE read the notes of a case of Vaginal Hysterectomy for Cancer. Mr. ROGER WILLIAMS made some observations on the relative merits of different operative procedures in cancer of the uterus.—Dr. JAS. SWAIN showed Card Specimens of two Uterine Myofibrinomata removed by Hystero-myomectomy, with retroperitoneal and extraperitoneal treatment of the pedicle respectively.

EAST YORK AND NORTH LINCOLN BRANCH.

THE fourth winter meeting of this Branch was the clinical evening, and was held on February 17th, in Etherington Ward, Hull Royal Infirmary. The chair was taken by Dr. HARRISON (President), and there were twenty-seven members present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

New Member.—H. F. Shea, M.B., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., Hull, was elected a member of the Branch.

Cases.—The following were shown:—Dr. HAINWORTH: (1) Congenital Dislocation of the Hip (unilateral); (2) Congenital Dislocation of Hip (bilateral); (3) Recurrent Carcinoma in Glands of Neck, 12 years after removal of Tumour of Breast.—Dr. LOWSON: Plastic Operation on the Face.—Mr. H. THOMPSON: (1) Compound Depressed Fracture of Skull; Wound of Superior Longitudinal Sinus; Secondary Ligature of Sinus; (2) Ununited Fracture of Radius, treated by wiring fragments; (3) Excision of Knee.—Mr. R. H. B. NICHOLSON: Compound Depressed Fracture of Skull.—Mr. HOWLETT: Subclavian Aneurysm.—Mr. A. LEGGE ROE: Interstitial Keratitis, due to Primary Infection.—Dr. CAMERON: (1) Removal of Ovaries *per vaginam*; (2) Chronic Ovaritis, treated by cauterisation; (3) Proptosis of Right Eye in a child.—Dr. PIGEON: Epithelioma of Tongue. —Mr. NELSON: (1) Aortic Aneurysm; (2) Secondary Syphiloma of Lower Lip, near site of primary sore; (3) Tumour of Forearm.—Dr. HARRISON: Epithelioma of Lower Lip.—Mr. FRANCIS: (1) Paralysis of Arm since infancy, arrested development, dislocation of shoulder; (2) Congenital Syphilis; (3) Pulsating Tumour of Neck; (4) Sclerosing Mastitis, simulating Atrophic Scirrhus.

Specimens.—Dr. LOWSON: Carcinoma of Peritoneum in a woman aged 23 (microscopic slide).—Mr. A. LEGGE ROE: (1)

Sarcoma of Choroid; (2) Fragment of Steel in Globe.—Mr. Palmer: (1) Aneurysm of Ascending Part of Aortic Arch; (2) Hernia of Richter; (3) Rare variety of Internal Hernia.—Mr. Francis: Calculi removed by Suprapubic Cystotomy in a man of 76.

The fifth winter meeting was held on March 17th, at the Hull Royal Infirmary. The chair was taken by Dr. Harrison (President), and there were twenty-seven members present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Cases.—The following were shown: Miss Sharman: Hæmatoma of Sterno-mastoid.—Dr. Daly: (1) Pneumothorax; (2) Epileptiform Convulsion of some years' standing, followed by Paralysis.

Specimens.—Dr. Hainworth: Photograph of large Gumma of Lip.—Dr. Lowson: (1) Cancer of Fallopian Tube, with Ovarian Cyst; (2) Pyosalpinx; (3) Elephantiasis of Preputium Clitoridis; (4) Polypoid Growth from Rectal Mucous Membrane; (5) Carcinoma of Cervix Uteri, removed by Vaginal Hysterectomy.—Dr. Daly: (1) Cerebral Hæmorrhage following Embolism; (2) Heart showing Vegetations on Aortic Valves.—Mr. R. H. B. Nicholson: Cerebral Hæmorrhage.—Mr. H. Thompson: Loose Body from Knee-joint.—Dr. Waters: Large Sebaceous Cyst from Nucha.

Discussion.—An adjourned discussion took place on Mr. Howlett's paper on Aseptic Surgery.

Paper.—Dr. Lowson read short notes of a case simulating Prostatic Enlargement.

The sixth winter meeting was held on April 21st at the Hull Royal Infirmary. The chair was taken by Dr. Pigeon, and twenty-nine members were present.

Confirmation of Minutes.—The minutes of the preceding meeting were read and confirmed.

New Members.—T. S. Worboys, M.R.C.S.Eng., L.R.C.P. Lond., Barrow-on-Humber, was elected member of the Branch.

Specimens.—The following were shown:—Dr. Waters: Heart from case of Angina Pectoris.—Mr. H. Thompson; Double Ovarian Cysts.—Mr. Howlett: Fifteen inches of Gangrenous Bowel removed from case of Hernia.—Mr. Falkner: Chorionic Villi from Fallopian Tube in case of Tubal Pregnancy.—Dr. Pigeon exhibited by means of the oxy-hydrogen lantern a series of slides illustrating Tumours of the Kidney.

Papers.—The following papers were read:—Dr. Hainworth: Case of Traumatic Meningitis.—Mr. Falkner: Case of Pregnancy complicated with Extrauterine Pregnancy.—Dr. Waters: A method of dealing with the Stump in Hysterectomy.—Mr. H. Thompson: Case of Tetanus following Nephrorrhaphy.

Annual Meeting.

The forty-third annual meeting was held on May 31st at the Royal Infirmary, Hull.

Lunch.—This was preceded by a lunch at the Royal Station Hotel, at which thirty-six members and guests were present.

Exhibition.—An exhibition of drugs and surgical instruments was held in the out-patient department by Messrs. Down Brothers; Joseph Wood; S. Maw, Son and Thompson; Ranseke; Parke, Davis and Co.; Allen and Hanburys; and K. Schall.

Business Meeting.—The business meeting commenced at 2.30 p.m. The minutes of the preceding meeting were read and confirmed. The report of the Council was read and adopted. The report of the representative of the Branch was read and adopted. The report of the representative on the Parliamentary Bills Committee was read and adopted. The balance sheet was passed.

Election of Officers.—The election of the Council for the ensuing year took place, with the following results: *President:* Dr. T. S. Morley. *Ex-President:* Dr. E. Harrison. *President-elect:* Dr. A. Parkin. *Vice-Presidents:* Mr. A. Legge Roe, Dr. Close. *Secretary and Treasurer:* Mr. A. G. Francis. *Representative of the Branch* and *Representative on the Parliamentary Bills Committee:* Mr. C. H. Milburn. *Council:* Mr. Hardley, Dr. Elliott, Mr. Howlett, Dr. Pigeon, Dr. Lowson, Mr. Thompson, Dr. Hainworth, Dr. Daly.

Donations.—A donation of one guinea was voted to the Royal Medical Benevolent College. A donation of one guinea was voted to the British Medical Benevolent Fund.

Illegal Certification of Unqualified Practitioners.—Dr. Harrison moved:

1. That this Branch of the British Medical Association supports the measures, and adopts the memorial of the Corporate and Medical Reform Association, Limited, to the General Medical Council, opposing the illegal certification of unqualified practitioners (midwives and opticians, and resisting any Bill to legalise such certification.

2. That this resolution be transmitted to the Council of the Association and each Branch; and that the Council and the Branches are earnestly requested to unite in the organised resistance to this scandal to the profession and public mischief and danger, which if legalised will virtually repeal the Medical Acts.

Mr. R. B. Anderson, the representative of the Corporate and Medical Reform Association, Limited, who had accepted an invitation to speak on Dr. Harrison's motions, and to explain the history and objects of his Association, thanked the Branch for the opportunity thus afforded. He described the policy of his Association to be, by forming local societies where none existed, and by offering facilities of affiliation and combined action for common purposes without loss of autonomy to those now existing, to progressively unite the profession, and by enlisting the interest and co-operation of the lay public and the State, to secure, through Parliament, their rightful influence on their respective corporations and the General Medical Council. He desired to be permitted to earnestly support the motions before the meeting. The motions were put successively and unanimously and enthusiastically adopted.

Votes of Thanks.—A vote of thanks to the ex-President and officers of the Branch was proposed and carried.

President's Address.—Dr. T. S. Morley then gave his presidential address on the General Practitioner: His Work and Wants.

Cases and Specimens.—The address was followed by an exhibition of patients and specimens.

Tea.—The President subsequently entertained the members at afternoon tea in the Library of the Hull Medical Society, which had been kindly placed at the disposal of the Branch. About fifty members attended the meeting.

SPECIAL CORRESPONDENCE.

BRISTOL.

The Royal Victoria Home.—St. John Ambulance Challenge Cup.

A recommendation from the Finance Committee to contribute £2,000 to the permanent establishment of the Royal Victoria Home at Brentry, a certified reformatory for inebriates, was referred back by the Council at its last meeting. In return for this sum the managers had agreed to allot a certain number of beds to the city (15), to take the patients at half the usual charge (that is, 6d.), to have two members of the Council on the Board of Management, and the appointing by the Council of one of the trustees. The estate is well known to all residents in Bristol, and consists of 89 acres of ground and a large mansion. The warden is the Rev. H. Burden; and as many as six county councils have already made arrangements to send patients there. One of the objections raised was that there was a mortgage on the property, but this has subsequently been denied in the local press. Another, that the warden was a clergyman, which is, however, covered by the Home Secretary's regulations. It is stated that the female inmates will be employed in basket making, laundry work, sewing, and gardening; the male ones in bookbinding, and, curiously enough, in printing photographs; but care would be taken not to compete with ordinary trades. The management will receive no profits, and any moneys over must be spent for the benefit of the institution. It will be necessary for the Council to make some arrangements for the working of the Act, but they do not at present seem inclined to avail themselves of the Royal Victoria Home.

The annual competition for the Challenge Cup by squads of the Branch of the St. John Ambulance Association was held on June 3rd at the Zoological Gardens. Four squads of five men entered, and after a searching examination in stretcher work and a *viva voce*, the judges, Colonel Steele, Colonel Tomlinson, and Dr. Harvey awarded the prize to a squad from the Witham Chemical Works. Mr. F. Richardson Cross, M.B., presided, and in presenting the cup to the leader, spoke of the value of ambulance work. There was a marked improvement in the work this year, the winning squad proving themselves very efficient.

CORRESPONDENCE.

BIRECT REPRESENTATION AND THE BRITISH MEDICAL ASSOCIATION.

SIR,—From the mode in which you have pointed or annotated in your editorial "Notes" at p. 1362 the remarks I made on Wednesday at the General Medical Council you have given to them a colouring which was certainly not intended, and which your own report, if carefully considered, will by no means bear out. No shadow of disrespect was in my mind, and therefore I presume there could be none in my speech, towards the Council of the British Medical Association. I do, indeed, hold that the latter Council has not rightly interpreted the mind of the medical profession in urging at this moment a vague and impossible claim for "a much larger share of direct representation on the General Medical Council." But the arguments employed, even the one illustration used, by me as to the undue influence of small and insignificant coteries in matters of this kind, had no reference to the Council of the British Medical Association, and would have been very much out of place if so read in the light of your comments. My one illustration was taken from Scotland; where Dr. Bruce, who so well represents the profession at large in the General Medical Council, had at the last election to encounter the expense, and all of us the useless worry, of a contest on behalf of a small body of malcontents, who, when invited by special circular, did not, I am told, count up much more than a dozen, but who were made to figure in the newspapers as a large and influential party in favour of a rival candidate. I did not venture on any allusion to England at all, as I do not reside there; and no man can have a higher appreciation than I have of the services to the General Medical Council of such men as Mr. Wheelhouse and Sir Walter Foster, not to mention the names of my fellow councillors now existing. But surely it cannot be forgotten that not long ago one gentleman, no doubt of earnest character and good intentions, but known to most of us only through his interminable and intolerable gift of correspondence in your own and other journals, was pitchforked into the General Medical Council by what I will venture to call an insignificant coterie, and shortly thereafter managed to snuff out his own little candle, to the relief of all concerned. Have I not a right to infer, then, that in the British Medical Association, at times, a comparatively small section may make a great deal more noise than it is worth, while the comparatively large body of quiet men, slow to be disturbed in their important daily avocations, leave the field open to the agitating minorities? I mean no disrespect to the Council of the British Medical Association in saying that it is possible they may thus be misled into an ill-considered resolution at times, and with these explanatory remarks I am content to leave the arguments adduced in my speech to work their own effect.—I am, etc.,

Oxford Street, W., June 3rd. W. T. GAIRDNER.

SIR,—After reading the debate on direct representation in the General Medical Council, most members of the profession will come to the conclusion that we occupy much the same position as the Uitlanders in South Africa. In both cases those who pay the piper consider that they are inadequately represented on the governing body, and that the majority of the representatives are either ignorant or regardless of the interests of those they represent. In both instances the reply of the Government is that there is no discontent among their constituents, that the Uitlanders, medical or otherwise, are as happy as the day is long; that they wish for no better representation; that the present agitation has been manufactured by a few brawlers and malcontents; and, finally, the members of the Government pat each other on the back, and assure one another that they are a fine set of fellows, who perform their duties in a manner that everyone allows to be almost perfection.

The mere mention of the subject of direct representation renders the majority of the Council irritable. They know there are no valid reasons to be advanced against an increase of direct representation, and that they are resisting a reform that must come. In the debate last week all the reason was on one side and the numbers on the other. Those opponents of reform who deigned to speak at all had to support their case by ingenious and far-fetched arguments, which no one with any knowledge of the present condition of the medical profession would think worthy of attention. Most people will agree with one of the speakers that the medical profession is wonderfully represented on the Council—so wonderfully, that some members of the Council might have been living on a different planet. One good result of the debate is that we know now who are for and who against this necessary reform.—I am, etc.,

Mansfield, June 5th. E. S. NUTTING.

A CHARGE AGAINST THE CHAIRMAN OF COUNCIL.

SIR,—In his letter of May 16th, Dr. Robert Saundby, Chairman of Council and member of the Reference Committee, has a sentence which I am certain would not have been passed had the letter emanated from any private member of the Association; and alike in penning such a sentence and in allowing its admission to the columns of the BRITISH MEDICAL JOURNAL, Dr. Saundby has grossly abused his position. The offending sentence is as follows: "Truly the saying 'that a man's enemies are those of his own household' is always being illustrated in the medical profession. I am glad to say that, with the exception of Mr. Lawson Tait, not one member of the profession here has given public encouragement to the new scheme. It remained for Mr. Garrett Horder, the Secretary of the Hospital Reform Association, to give to the Birmingham public this exhibition of the want of union which exists amongst us."

I shall leave Mr. Garrett Horder to deal with his own case, but for myself I desire to say that I decline to be hectored and bullied into an agreement with Dr. Saundby upon any point whatever. The public encouragement I gave to the new scheme was due to the fact that I was the only member of the profession upon whom the interviewer called who did or could know anything about it. Others gave opinions on matters which were never in it, or had been discarded as it was developed.

But "the views put forward by the consultants in Birmingham upon the proposed consulting institution"[1] have been completely upset by Dr. Saundby in a lay paper,[2] when he says concerning the same scheme, not altered one bit between those dates, and to this effect: "I will only say that, with the assistance of my colleagues, I am doing my best to seek a satisfactory solution of the problem, and that it is yet too early to despair of success." This sudden friendliness to the new scheme is a most singular sequence to the ill-tempered, vindictive, and wholly unjustifiable attack made upon me in your columns. Has Dr. Saundby been converted to the wisdom of some such scheme and its great advantages to the profession? If so, he should make an apology for his outburst of bad temper to me simply because I anticipated him in that process by some months.—I am, etc.,

Birmingham, June 1st. LAWSON TAIT.

*** Mr. Lawson Tait is mistaken in supposing that the Reference Committee is still in existence; it was not reappointed by the Council last July. We have communicated a copy of the above letter to Dr. Saundby, who writes as follows:

SIR,—I am obliged to you for letting me see Mr. Lawson Tait's letter, but it is not of the kind that I care to notice.

[1] Dr. Saundby, BRITISH MEDICAL JOURNAL, May 20th.
[2] *Birmingham Daily Post*, May 26th.

Perhaps you will kindly print enclosed copy of a letter which I have published in the *Birmingham Daily Post*.—I am, etc.,

Birmingham, June 7, 1899. ROBERT SAUNDBY.

THE PROPOSED CONSULTATIVE INSTITUTE.

To the Editor of the "Daily Post."

SIR,—I trust I may not be misunderstood if I do not reply to Mr. Lawson Tait's attack, but it is better to run this risk than to degrade the discussion into a personal squabble.

I will only say that, with the assistance of my colleagues, I am doing my best to seek a satisfactory solution of the problem, and that it is yet too early to despair of success.

68, Hagley Road, May 28th. ROBERT SAUNDBY, M.D., LL.D.

THE SOIL AS A NURSERY OF PATHOGENIC ORGANISMS.

SIR,—I must lose no time in apologising to Sir Charles Alexander Cameron, C.B., of Dublin, for having unwittingly confounded him with Sir Charles Cameron, Bart., M.P., a member of the Cremation Society and my cross-examiner-in-chief on a recent committee of the House of Commons on death certification. I will not, however, for the present trouble him with my reasons for insisting on the marked distinction which exists between *materies morbi* which find their way into the surface soil, to become comparatively harmless there, and the same *materies morbi* which are virulent only till they get there. The question, in fact, is a larger one and will have to be looked at from a larger point of view than the mere microscopist is at present prepared to enter upon, and it may be added by a class of observer which has yet to be created.—I am, etc.,

Woodcote, June 5th. F. SEYMOUR HADEN.

SYPHILITIC DISEASES: THEIR PREVENTION, STUDY, AND TREATMENT.

SIR,—I read Mr. Marshall's letter of May 6th with all the care it deserved, and, in view of his statement in the BRITISH MEDICAL JOURNAL of June 3rd that it was not his intention to cast any imputation on the London Lock Hospital, I have re-read it. I now reply that whatever his intentions may have been, he did undoubtedly cast the most grossly unjustifiable imputations on that institution, as anyone who understands the English language and who will take the trouble to read his letter will admit. These imputations I, as one of the senior surgeons to the institution, naturally resented, and, in Mr. Marshall's words, took up the cudgels on its behalf, not, as he states in somewhat confused metaphor, because a shoe pinched somewhere, but in order to contradict a statement which, if any weight were attached to it by your readers, could not fail to react injuriously upon an institution which does and has done the most valuable work both in the treatment of venereal disease, and in rescuing unfortunate women from the paths of vice.—I am, etc.,

Queen Anne Street, W., June 5th. J. ERNEST LANE, F.R.C.S.

REINFECTION IN SYPHILIS: PROFETA'S LAW.

SIR,—Two articles have recently appeared in the BRITISH MEDICAL JOURNAL which appear to me to prejudice the pathological issue in favour of the modification of syphilis mainly by treatment, as opposed to modification by natural causes.

On behalf of the latter view, already advocated by myself, I trust you will permit me at once to point out that whereas in the article on Reinfection in Syphilis in the JOURNAL of April 15th Ricord's clinical denial in 1858 of genuine reinfection is given, and Fournier's opinion in favour of relapsing genital sores is noted as opposed to the soft sores due to reinfection, no mention is made of Ricord's emphatic testimony in favour of "the indurated chancre being transmitted to previously infected subjects under the form of a chancre with a soft base, analogous in appearance to the simple chancre." Nor is reference made to the late Mr. Henry Lee's denial in 1854 of the teaching of the French school respecting "the occurrence of constitutional syphilis once only during the lifetime of each individual," nor to his examples of genuine and modified reinfection of previously infected subjects.

In the article on Profeta's Law, May 27th, while restriction to the secondary infectious period of disease in the mother is stated, no mention is made of the clinical relapse or reinfection of syphilis in women in succeeding pregnancies. Such repetitions of symptoms of a secondary nature are opposed to an arbitrary restriction of the infectious period and immunity. While acquisition of syphilis in adult subjects of inherited syphilis is emphasised, no mention is made in either article of the generally admitted modified nature, with exceptions, of such acquired disease, nor of manifestations at puberty or later, in favour of a prolonged immunity. The proof of immunity is held to be wanting, but the belief that such is equivalent to previous contamination is founded on clinical observation and inoculation experiments. Wallace of Dublin (1837) interpreted the freedom of the mother as immunity "in consequence of her constitution being already contaminated," but he admitted exceptions. Conversely the freedom of the infant may be regarded as immunity, admitting of exceptions, and as opposed to the theory of absence of inoculable lesions.—I am, etc.,

Grosvenor Street, W., June 6th. JOHN A. SHAW-MACKENZIE.

THE VICE-PRESIDENCY OF THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

SIR,—Inasmuch as there was no change in the offices of president or vice-president in this June election which took place to-day, I desire to inform the Fellows of the College that last year, when I expressed to the electors my determination to offer myself for the office of vice-president, I felt that my long service to the School and College as senior demonstrator, examiner and councillor, and my seniority as a surgical teacher and as a hospital surgeon, might reasonably deserve recognition by the Fellows, and that I might hope to be honoured with election to the office I then sought. Unhappily personal and domestic circumstances prevented me from giving prominence to my candidature until others had occupied the ground in some degree, and as a contest is extremely distasteful to me, and in my opinion is not to the advantage of the College, I thought it best to refrain from presenting myself for the vice-chair until the next legitimate vacancy occurs, in June, 1900. I desire, however, to assure the Fellows that under any circumstances I shall do so when that time arrives. With this intimation, I trust that my friends and supporters among the Fellows will not be induced to pledge their votes to any other candidate for the next vice-presidency.—I am, etc.,

Dublin, June 5th, 1899. L. H. ORMSBY, M.D., F.R.C.S.I.

THE CASE OF DOCKRELL v. DOUGALL.

SIR,—A circular has been issued referring to the case of Dr. Dockrell, who has been unsuccessful in defending his right in the law courts. It is unfortunate that Dr. Dockrell was not a member of a medical defence association, as it is acknowledged that the defence of any member of the profession is much better maintained by a powerful body—such as the Medical Defence Union—than by individual effort. For not only has the injured member the moral support and prestige of the Union to sustain him, but also the special experience and advice of the able secretary and council of this body; and should the case go into the law courts the complainant's cause is conducted by those especially trained for the warfare.

In this case is it not possible, as has occurred in analogous instances, that Mr. Dougall would have withdrawn the objectionable use of Dr. Dockrell's name for advertising purposes, if the latter had been represented by the Defence Union?

It is to be hoped that as a result of this case hundreds may be induced to join a defence association. The most powerful of these bodies, the Medical Defence Union, has a membership of but 4,000; but if with this strength so much has been accomplished, what might we not hope for with a roll of 10,000?—I am, etc.

Maida Vale, W., June 6th. H. HAVELOCK STURGE.

FORMALIN IN CONSUMPTION.

SIR,—In your note in the BRITISH MEDICAL JOURNAL of May 27th, p. 1317, a Cure for Consumption, it is stated that formalin, otherwise formalina (which is a 40 per cent. solution of formic aldehyde), instead of being a new method of cure for consumption discovered by Professor Cervello, of Palermo, "it has been in use as a remedy for consumption in this country for two years or more."

Allow me to point out that in a report published in the JOURNAL of a paper read by me at a meeting of the Southern

Branch in November, 1896, I referred to my experience extending as far back as 1895. In that paper I advised a trial of the inhalation of formalin in the early stages of tuberculous consumption, and that after its use there would be found by microscopic examination a diminution, and finally the disappearance, of the bacillus tuberculosis in the sputum. I had then especially in view a case where the patient had wintered in South Italy, and subsequent to his return to England continued in ill-health, with winter cough; all the attacks of hæmoptysis ceased under the use of the inhalation of formalin. I am not aware that this successful treatment of consumption had been previously published.—I am, etc.,

Salisbury, May 30th. J. LARDNER GREEN.

LECTURESHIPS ON "TRADE DISEASES."

SIR,—We are having schools of instruction in "tropical diseases" established in London and Liverpool, while lectureships on that subject have been instituted in Edinburgh and elsewhere. But while congratulating ourselves on this important step, which has so direct a bearing on our interests abroad, I think it would be well to give some attention also to a matter which lies nearer home.

I refer to the providing of instruction in regard to diseases arising from or aggravated by the industrial pursuits of our British people. We are a maritime people, and a colonising power; but we are also, and first of all, a manufacturing people. Our position in the world, our wealth, and our power, essentially depend on our skill and capacity as manufacturers. Our possessions abroad afford markets for our goods, and our ships carry them thither, but at the root of all lies the making of these goods. And, therefore, the health and well-being of those engaged in industrial pursuits is to us, as a nation, a matter of prime importance. So far as I am aware, there is no lectureship or special course of instruction given on "trade diseases" in this country.

I am aware that the subject falls under the heading of "Hygiene," and that it is dealt with as a part of "public health," and it may be argued that this is provision enough. I do not think so. As well may it be contended that "tropical diseases" fall under the heading of "Practice of Medicine," and that therefore special courses on that subject are unnecessary.

My proposal is that special lectureships on "trade diseases" should be instituted at the medical schools in our large manufacturing towns, and that these lectures should be illustrated and supplemented by visits to factories and public works. These visits would afford valuable object lessons to the young students, not only contributing to their medical education, but widening and deepening their knowledge of the life conditions of the labouring classes, and giving them some idea of the wonderful skill and energy which have placed us where we are as a nation.—I am, etc.,

JAMES W. ALLAN, M.B.,
Dispensary Physician, Glasgow Royal Infirmary.

Glasgow, June 5th.

MEDICO-LEGAL.

Replies in this column are limited to questions affecting the legal interests and privileges of the medical profession at large. The column is not to be used as a medium for affording legal advice in private or personal matters as to which the applicant ought to consult his own solicitor.

MEMBER B.M.A.—Our correspondent had better apply to the Clerk of the Society of Apothecaries, Blackfriars, E.C., and furnish him with full particulars as to the unqualified practice of the person of whom he complains.

O. A. K. asks the following question: Having had occasion to amputate a finger of a platelayer in the employ of a railway company, in consequence of an accident received during his work (the man being a club patient of mine), can I charge and demand payment for the amputation from the company?

*** We assume that our correspondent attended the injured man at his request, and not at the request of the company. In this case we are advised that he would have no direct claim against the company for performing the operation. If, however, his patient is entitled to compensation from the company under the Employers' Liability Act or Workmen's Compensation Act, our correspondent might get his patient to stipulate that the medical expenses should be included in the compensation paid. We presume that the operation is not covered by the club payments.

THE JENNER INSTITUTE OF PREVENTIVE MEDICINE.

SOME technical difficulty has been encountered in making the alterations in the Memorandum of Association of the Jenner Institute of Preventive Medicine, in order to enable it to accept the gift of a quarter of a million sterling which Lord Iveagh has made upon certain conditions. The case has twice been before the judge of the Chancery Division, and last week an arrangement was sanctioned under which notices of the two statutory meetings which are necessary will be sent to all members, including those abroad. When the resolutions, which have already been passed by extraordinary general meetings held in March and April last, have been again passed and confirmed, the matter will come before the vacation judge for the final approval of the alterations in the memorandum.

MEDICAL TITLES.

PHYSICIAN, who is registered with the following qualifications, viz.: L.R.C.P.Edin., L.R.C.S.Edin., and Lic. Fac. Phys. Surg. Glasg., asks whether there would be any liability if he prefixed "Dr." to his name on his name on his doorplate?

*** The use of the title "Dr." by Licentiates of Colleges, though common, is, we consider, contrary to the best usages of the medical profession, and, in the present state of the law, might possibly lay the user open to proceedings.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

MAJOR R.A.M.C.—Wanted an exchange to India the coming trooping season; Bombay Presidency preferred. Arrived home December, 1898. Apply, stating terms, to "Wild Heather," care of Messrs. Holt and Co., 3, Whitehall Place, London, S.W.

ROYAL NAVY MEDICAL SERVICE.

STAFF-SURGEON RICHARD E. BIDDULPH, B.A., M.B., has been appointed to the *Duke of Wellington*, June 6th.

ROYAL ARMY MEDICAL CORPS.

DEPUTY SURGEON-GENERAL EDWIN GRANVILLE LEY, M.D., died on June 1st at Ealing. He was a son of the late Commander George Ley, R.N., of Rochester, and entered the Army Medical Service as Assistant-Surgeon, March 1st, 1859. He was made Surgeon-Major, April 1st, 1874, and retired on half-pay, March 29th, 1878. He was granted the honorary rank of Deputy Surgeon-General, July 22nd, 1878. He had no war record in the Army Lists.

INDIAN MEDICAL SERVICE.

SURGEON-GENERAL R. HARVEY, C.B., D.S.O., M.D., Bengal Establishment, Director-General, Indian Medical Service, and Sanitary Commissioner with the Government of India, is granted privilege leave for three months. Surgeon-General L. D. SPENCER, C.B., M.D., Bengal Establishment, Principal Medical Officer, Punjab, officiates for Surgeon-General Harvey.

Lieutenant-Colonel C. W. CARR-CALTHROP, M.D., Bengal Establishment, officiating as Principal Medical Officer and Sanitary Commissioner, Assam, with the temporary rank of Colonel, is promoted to be Colonel. He was appointed Assistant-Surgeon, April 1st, 1869, and served in the Afghan war in 1879-80, and was in the engagement at Ali Kheyl and in the operations round Cabul in December, 1879, including the investment of Sherpore (medal, with clasp).

Surgeon-General Sir JOSEPH FAYRER, Bart., M.D., K.C.S.I., Bengal Establishment, retired, Honorary Physician to the Queen, is awarded a good-service pension from October 25th.

THE VOLUNTEERS.

SURGEON-CAPTAIN H. C. MARTIN, M.D., Suffolk Yeomanry (the Duke of York's Own Loyal Suffolk Hussars), has resigned his commission, May 17th.

Mr. ALFRED COOPER, late Surgeon and Honorary Surgeon-Major, 14th Middlesex Volunteers Rifle Corps, is appointed Surgeon-Lieutenant in the Suffolk Hussars, May 17th.

Surgeon-Captain W. EASBY, M.D., 1st Northamptonshire Engineers, has resigned his commission, June 3rd.

Surgeon-Major W. GANDY, 2nd Volunteer Battalion the East Surrey Regiment, is promoted to be Surgeon-Lieutenant-Colonel, June 3rd.

CROSS SWORDS IN THE OFFICIAL *ARMY LIST*.

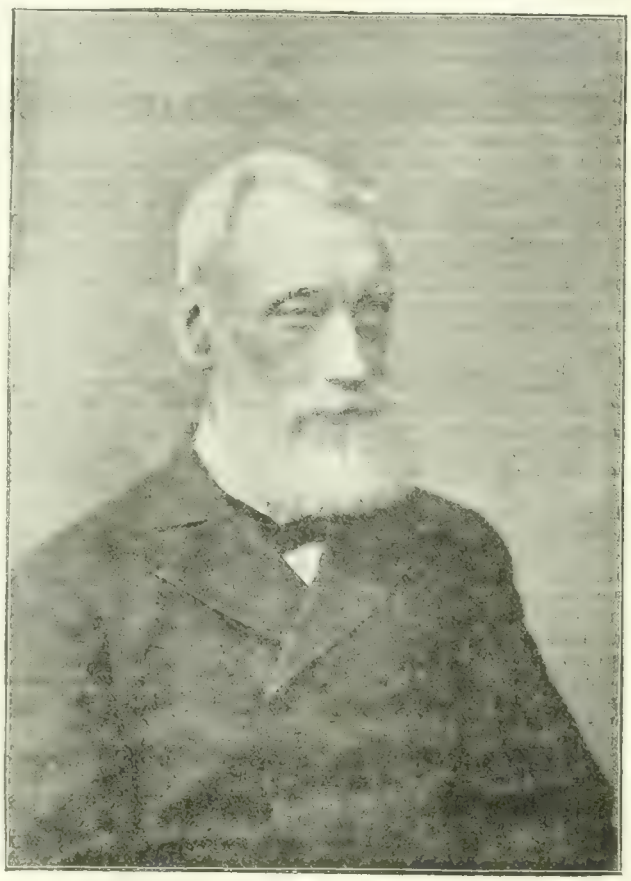
A CORRESPONDENT is informed that if he will look more attentively at the official quarterly *Army List* he will find cross swords are not used in any regimental or corps list, but the war services of officers are given alphabetically at the end of the volume.

THE examination for the certificate in Psychological Medicine of the Medico-Psychological Association of Great Britain and Ireland will be held in London, Glasgow, Aberdeen, Cork, and Dublin, on Thursday, July 13th, 1899. The examination for the Gaskell Prize will be held at the Bethlem Hospital, London, on July 14th. Further information can be obtained from the Registrar, Dr. Spence, Burntwood Asylum, Lichfield.

OBITUARY.

NORMAN KERR, M.D.GLAS., F.L.S.

THE late Dr. Norman Kerr, whose death at Hastings on May 30th we announced last week, was the eldest son of the late Alexander Kerr, a Glasgow merchant, and was born on May 17th, 1834. He was educated at the High School of Glasgow, and was employed for a few years as a journalist on the staff of the *Mail*. He then entered the University of Glasgow, where he graduated in 1861. He was able to support himself with his pen while studying at college, and was a distinguished student. He originated the Total Abstinence Society in connection with the university, which is still in existence; and was also one of the founders of the City Hall Saturday Evening Concerts which have proved highly successful since their origin more than forty years ago. About the same time also he became a director of the Coffee Tavern Company.



Shortly after graduation he sailed for some time as ship's surgeon in the Allan Canadian mail steamers, and although at that date his total abstinence principles were not so pronounced as they became later in life, his prescriptions of alcoholic comforts to ailing passengers were noted as being extremely restrictive.

He settled in London in 1874 at St. John's Wood, and was elected a parochial medical officer of St. Marylebone, a post which he retained for twenty-four years, until, in fact, compelled by ill-health to retire. In London he threw himself with zeal into the advocacy of the temperance cause, and being a ready speaker his services on the platform were in constant requisition, not only in the metropolis, but in all parts of the country. He became a great authority on questions connected with inebriety, and did much special work amongst patients suffering therefrom. His Scotch tenacity often enabled him to persevere when the battle seemed hopeless. Not content with merely helping the United Kingdom Alliance, of which he was an early member, he founded the Society for the Study and Cure of Inebriety some twenty years ago, was its first President, and remained at its head until his death. He was indeed its moving spirit, and its success has been very largely due to his labours. His colleagues and friends in the temperance movement recognised his great services to the cause by presenting him with a testimonial, which consisted of portraits of his wife and himself and a carriage. The presentation was made by the late Sir B. W. Richardson.

Dr. Kerr was a member of the Obstetrical, the Medical, and the Harveian Societies of London, and had been for many years Chairman of the Inebriates Legislation Committee of the British Medical Association, and was a Corresponding Secretary of the American Association for the Cure of Inebriates, and was Physician to the Dalrymple Home for Inebriates at Rickmansworth from its foundation until recently, when he was appointed Honorary Physician. The work that he achieved towards the repression of inebriety was truly prodigious; the recent Inebriates Act is largely his doing, and his untimely death has unfortunately deprived the country of his ripe experience before the initial difficulties of its administration have been quite overcome. His chief works were *The Action of Alcoholic Liquors in Health* (1876), the *Mortality from Intemperance* (1879), *Inebriety, its Etiology, Pathology, Treatment, and Jurisprudence* (of which the third edition appeared in 1894), *The Relations between Intemperance and Insanity*, and *Alcoholism and Drug Habits*. He combated a host of ideas which he considered fallacies, notably "the gold cure" for inebriety, and hypnotism, and in 1890 he produced *Hypnotism not a Safe and Reliable Remedy*. His facile pen, moreover, was always at the service of the temperance cause, with the result that the unsigned articles and paragraphs which he produced were legion.

He extended the right hand of fellowship to co-labourers of all nations in this field; and in his capacity of President of the Society for the Study of Inebriety he frequently presided at public receptions accorded to distinguished Colonial or foreign representatives who had done good work in the cause. Altogether, he was a worker of such signal capacity that the loss occasioned to the temperance movement by his decease is almost beyond compute. His earnest but unpretentious manner and his genial disposition under all circumstances endeared him to many friends.

Dr. Kerr was twice married: first, in 1871, to Eleanor Georgina, daughter of Mr. Edward Gibson, Ballinderry, Ireland, who died in 1892; and, secondly, in 1894, to Edith Jane, daughter of Mr. James Henderson, Belvidere Lodge, Newry, County Down. This lady, and four daughters and a son by his first marriage survive him.

The funeral took place on Saturday, June 3rd. The service was conducted by Dr. Kerr's friend, Canon Duckworth; the first part at St. Mark's Church, Hamilton Terrace, in the presence of the family and several friends of the deceased; and the interment subsequently at Paddington Cemetery, Willesden Lane.

J. G. SINCLAIR COGHILL, M.D., F.R.C.P.EDIN., M.R.C.P.LOND.

DR. SINCLAIR COGHILL, of Ventnor, who died there on Monday last from perforating ulcer of the stomach after a short illness, was one of many eminent medical men whose professional baptism, so to speak, was associated with the Crimean War. He was born in Caithness in 1834 and he was educated at the High School and University of Edinburgh. Before completing his medical curriculum he entered the Royal navy and served in the Baltic as surgeon's mate until the end of the Crimean War, for which he received the medal. Resuming his studies at the University of Edinburgh he so distinguished himself that on graduation he became private assistant to Sir James Simpson, and lived with that eminent professor of midwifery in that capacity for two years. Then

for three years he occupied the post of Demonstrator of Anatomy in the University of Glasgow under Professor Allen Thomson.

But the adventurous spirit which had taken him into the Navy came between him and that natural progress to higher university honours which might have been anticipated from so promising a beginning. In 1861 he was appointed Municipal Medical Officer of Shanghai and Consulting Physician to the General Hospital there. It was in the early days of the settlement—the days of the Taiping rebellion. Shanghai had been threatened the year before by the rebel forces, and it was not until 1863 that Gordon took over the command of the "Ever Victorious Army." So the members of the small English colony saw much of each other and much of Dr. Coghill's charming manner and racy conversation; and many of his warmest friendships dated from the genial intercourse of those early Shanghai days. It was about that time too that Japan opened its interior to Europeans, and Dr. Coghill was one of the first to avail himself of the opportunity of seeing something of that country. Though very successful in practice in Shanghai, the strain of an epidemic of cholera in which he lost his eldest son, the uncertainty of his wife's health—who suffered greatly from ague there—perhaps the recollection of the opportunities he had sacrificed in coming out, ultimately led him back in 1869 to Edinburgh.

In Edinburgh he was again for a time associated with Sir James Simpson in professional work and in editing his papers and lectures. During the last illness of his old teacher and friend he filled his place in the lecture room of the University, continuing his interrupted course of lectures to the end of the session. On the death of Sir James Simpson he was an unsuccessful candidate for the Chair of Midwifery, and ultimately commenced to lecture on general pathology and pathological anatomy in the Edinburgh (extramural) Medical School.

In 1875 he migrated to Ventnor for health's sake, and succeeded Dr. Arthur Hill Hassall as Physician to the Ventnor Consumption Hospital, which had been started a few years before. From this date down to his death Dr. Coghill's energies and abilities have been devoted to the working and development of that institution so far as the energies of a considerable general and consulting practice would allow. Much of its success as a sanatorium for the treatment of consumption had been due to the untiring zeal and the patient and unwearying attention to administrative details which as physician and as chairman of the House Committee of the hospital Dr. Coghill ungrudgingly gave during the past twenty-four years. Wherever the good work of the Ventnor Hospital is known Dr. Coghill's name is associated with it, as is that of Brehmer with Goerbersdorf, and Dettweiler with Falkenstein.

To complete this brief record of his professional career it may be mentioned that he was a Fellow of the Royal College of Physicians of Edinburgh, and a Member of that of London, a Corresponding Fellow of the Gynæcological Society of Boston, and a member of the British Medical Association, before which he gave the address in Obstetrics at the annual meeting at Ryde in 1881. He was a frequent contributor of papers to medical journals. His article on the Prevention of Consumption in the February number of the *Nineteenth Century* was widely read, and was translated into German, and, with his extensive experience at the Ventnor Consumption Hospital, led to his receiving an official invitation to the recent International Tuberculosis Congress held at Berlin.

But Dr. Coghill was not merely a noteworthy medical man. His mind was a storehouse of information on a wide range of subjects. He was a Fellow of the Scottish Society of Antiquaries, and enthusiastically interested in, and well informed about, most things connected with Scotland. But though nothing if not patriotic, his enthusiasms were not limited to Scotland. The great wall of China, the art treasures of Japan, were as interesting to him as the story of Mary Queen of Scots or the Runic crosses of Iona.

It was this quality of enthusiasm which was perhaps his most distinguishing trait, which made him the most interesting and amusing of talkers and companions, and a ready and effective speaker in public when occasion required. It arose from a sympathetic and sensitive nature, which, like many of his countrymen, he possessed to a degree often inconvenient for his own mental comfort, but which made him the personal friend of all his patients.

It was this quality of enthusiasm that made him seem to defy advancing years. Only a year before he died he started a day for consultations in London, making the journey between Ventnor and London usually twice in the day, besides doing an increasing amount of professional work between them.

His short illness came upon him when he seemed to be in the enjoyment of exceptional health and vigour though, doubtless the wear and tear of the last year had much to do with his sudden and fatal breakdown.

GEORGE FREDERICK CROOKE, M.D.,

Formerly Pathologist to the Queen's Hospital, Birmingham.

ON Tuesday, May 30th, there died at King's Heath, with painful suddenness, George F. Crooke, a man whose early work in pathology promised a brilliant career.

Dr. Crooke had been in indifferent health for some years. Some few months ago he suffered from influenza, which left him in a very weak state of health. At the time of his death he was travelling by railway to meet his wife. He had hurried to catch the train, and shortly after taking his seat in the railway carriage was seized with syncope, and died of cardiac failure in a few minutes.

Dr. Crooke began to do original work in pathology while Resident Medical Officer at the Leeds Fever Hospital, where he went after receiving his medical education at Edinburgh and Guy's Hospital, London. The subject of his investigations was the Morbid Anatomy of Scarlet Fever, with special reference to the Liver and Kidneys. After leaving Leeds he travelled on the Continent for fourteen months, visiting Halle, Vienna, and Berlin. During all this time he was collecting material, and prosecuting his researches on scarlet fever. These researches he embodied in his thesis for his M.D. at Edinburgh in 1884, for which he was awarded the Gold Medal of the University.

He afterwards settled in Birmingham, and was elected Pathologist to the General Hospital, a post which he held for several years. While there he contributed frequent articles to the various medical journals, making the pathology of ulcerative endocarditis his special study. Unfortunately his pathological zeal cost him his health, for while at the hospital he contracted a severe attack of pyæmia, which laid him low for many months, and which in all probability sowed the seeds of a kidney mischief from which he never completely recovered. He was then appointed Pathologist and Physician to out-patients at the Queen's Hospital, and Lecturer on Practical Pathology at Queen's College, Birmingham. He continued there, practising at the same time as physician in Birmingham for about two years, when his health again broke down, and he was obliged to throw up all his appointments and seek rest. On regaining his health he entered general practice, and having married eventually settled down at Stechford, a suburb of Birmingham, where he remained until his untimely death.

Though his more intimate friends had latterly seen but little of him, and though of late years he had done little writing, he still retained his innate love of pathological research, and at the time of his death was engaged in a work on Malignant Endocarditis.

He leaves a widow and one child, who are but very poorly provided for; and it is hoped that a fund will be shortly started for their relief.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are D. Eduardo M. Perez, Professor of Forensic Medicine in the Medical Faculty of Buenos Ayres, aged 47; Dr. Barbara Alexandrowna Kaschewarowa Rudnewa, the first woman who was admitted to the Medico-Chirurgical Academy of St. Petersburg, where she graduated Doctor of Medicine with distinction in 1868; and Dr. Francis Minot, some time Professor of Medicine at Harvard, and a former President of the Association of American Physicians, aged 78.

ON the occasion of Hospital Sunday, June 11th, the London Companies Volunteer Medical Staff Corps will parade and attend the morning service at St. Paul's Cathedral as usual.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

EXAMINATIONS FOR DEGREES.—Part I of the First and Second Examinations for Medical and Surgical Degrees will commence on Monday, June 12th; and Part II of the same examination on Wednesday, June 14th.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of the Fellows held on June 5th, the following were elected for the ensuing year: President: Robert Lafayette Swan. Vice-President: Thomas Myles. Hon. Secretary: Sir Charles A. Cameron, C.B. Council: Archibald H. Jacob, Edward Hallaran Bennett, Sir Philip Crampton Smyly, Sir William Stokes, Henry Rosborough Swanzy, William Stoker, William Ireland Wheeler, Sir William Thomson, Austin Meldon, D.L., Sir Charles A. Cameron, C.B., L. Hepenstal Ormsby, Richard D. Purefoy, John J. Cranny, Henry Gregg Sherlock, John B. Story, Henry Fitzgibbon, Francis T. Heuston, John Lentaigne, and Richard Bolton M'Causland. The new members are Mr. William Stoker, Mr. J. B. Story, and Mr. R. B. M'Causland. There were two vacancies caused by the retirement of Mr. Croly and Mr. Benson, and Mr. Chance has lost his seat. The president and vice-president are elected for a second year.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT a meeting of the College held on June 2nd Mr. George Thorpe, L.S.A., having passed a special examination for the Licence in Medicine was admitted a Licentiate of the College.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

UNION MEDICAL OFFICERS AS MEDICAL OFFICERS OF HEALTH.

R.S.O. asks the following question: Is it legal for a medical practitioner holding the Union appointment to be likewise medical officer of health for the same district, especially when there is another medical gentleman residing in the locality who has no Local Government appointment?

*** It is certainly not illegal for these two appointments to be held by the same person, and we understand that it is not uncommon for this to be the case.

COUNTY MEDICAL OFFICERS OF HEALTH.

AT the annual meeting of the County Councils Association last week, Mr. Hobhouse moved: "That it is desirable that a medical officer should be appointed for every administrative county or group of counties." The motion was seconded by Mr. Guthrie, but Lord Belper expressed a doubt as to the wisdom of passing resolutions which the Association had no power to enforce. Lord Herries expressed the opinion that the advisability of making such appointments should be left to the decision of the respective councils. On the suggestion of Sir John Hibbert, the President of the Association, who was in the chair, the resolution was adopted in the following amended form: "That this Association notes with satisfaction that the number of county councils appointing medical officers of health has been increased during the past year, and trusts that the number may be further increased."

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 7,265 births and 3,872 deaths were registered during the week ending Saturday last, June 3rd. The annual rate of mortality in these towns, which had declined from 17.7 to 16.0 per 1,000 in the three preceding weeks, rose again to 17.7 last week. The rates in the several towns ranged from 8.5 in Brighton, 10.2 in West Ham, 11.5 in Cardiff, and 13.4 in Norwich to 22.6 in Preston, 22.9 in Wolverhampton, 24.3 in Liverpool, and 26.5 in Manchester. In the thirty-two provincial towns the mean death-rate was 18.2 per 1,000, and was 1.2 above the rate recorded in London, which was 17.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the rate was equal to 1.7 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.2 in Bolton, 3.4 in Leicester, 3.5 in Manchester, and 4.2 in Burnley. Measles caused a death-rate of 1.1 in Nottingham, 1.4 in Burnley, 1.6 in Bolton, and 2.5 in Manchester; scarlet fever of 1.0 in Bolton and 1.4 in Burnley; whooping-cough of 1.0 in Oldham, and 1.4 in Burnley; and "fever" of 1.0 in Huddersfield. The 69 deaths from diphtheria included 24 in London, 9 in Sheffield, 8 in Leicester, 4 in Liverpool, and 3 each in West Ham, Swansea, Manchester, and Leeds. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two provincial towns; and only one small-pox patient was under treatment in the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,161 and 2,201 at the end of the two preceding weeks, had further risen to 2,212 on Saturday last, June 3rd; 260 new cases were admitted during the week, against 259, 211, and 229 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 3rd, 992 births and 607 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.0 and 16.9 per 1,000 in the two preceding weeks, rose again to 19.9 last week, and was 2.2 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 15.5 in Leith and 16.9 in Paisley and in Perth to 20.8 in Aberdeen and 20.9 in Edinburgh. The zymotic death-rate in these towns averaged 2.2 per 1,000, the highest rates being recorded in Paisley and Glasgow. The 291 deaths registered in Glasgow included 12 from measles, 6 from scarlet fever, 2 from diphtheria, 7 from whooping-cough, and 11 from diarrhœa. Six fatal cases of whooping-cough, 3 of measles, and 2 of scarlet fever were recorded in Edinburgh, and 3 of scarlet fever in Paisley.

INDIA AND THE COLONIES.

CAPE OF GOOD HOPE.

RINDERPEST.—The Department for Agriculture has published a return showing the incidence of rinderpest in that colony during the recent outbreak. It is stated that the total of horned cattle in the colony before the commencement was 1,639,435. Of this total 98 per cent. became infected or were inoculated, and 35 per cent. died. Various systems of inoculation were used, including those of Professor Koch, Dr. Edington (whose process is known as the glycerinated bile process), and that of Drs. Turner and Kolle. Inoculation with glycerinated bile was used in 34 districts of the colony. In 23 of these districts this method was alone employed, and the incidence of mortality for those 23 districts was only 8¼ per cent. (32,464 head died out of a total of 393,777). The number of cattle saved in these districts is stated to be over two millions sterling in value. We assume it would be fair to estimate, on these grounds, the total value of the horned cattle in the colony before the outbreak at over eight millions, and hence the total loss by death alone would represent a sum of nearly three millions sterling.

GIBRALTAR.

IN view of a recent question in the House of Commons by Mr. Pierpoint, and Mr. Wyndham's answer, on the health of Gibraltar, the facts and figures furnished in the Annual Report for 1898 of the Public Health of Gibraltar, by Major H. P. Elkington, R.A.M.C., M.O.H., are of interest. The statistical portion of this report shows that in a fixed population of 16,906 and a resident alien population of 2,914 there were a birth-rate of 29.16 per mille (the number of females born being in excess of males), and a death-rate of 18.74 per mille, the lowest but one recorded since 1881; the lowest was in 1893—17.75. Of the diseases causing mortality, the zymotic class gives a rate of 1.36 per 1,000 of total population (19,100). Thirty-one cases of diphtheria were notified, and 5 proved fatal. In nearly every instance some sanitary defect was found in the house or its surroundings. The sanitary portion of the report notes a generally satisfactory condition; sanitary defects gradually removed; dairies, goat sheds, and milk shops regularly inspected; sewerage improved; and a large increase of chemical and bacteriological work in the two laboratories. We note, however, that overcrowding remains about the same, and, with the rent of houses so high, is likely to continue, especially in one-room tenements.

QUEENSLAND.

PREVENTIVE INOCULATION FOR TICK FEVER.—A recent issue of the *Brisbane Courier* reports the spread of ticks in the neighbourhood of Ipswich, Queensland, and in the suburbs of Brisbane. As is well known, these insects when they infest cattle excite tick fever, a disease which kills off a very large proportion of those infected. The preventive inoculation of cattle against the fever by means of the blood of immune calves, has now been proved to be of great service. Recent reports by Mr. Pound, the Director of the Stock Institute in Brisbane, on his investigations on this subject in the northern parts of Queensland, show that in every case where preventive inoculation was resorted to cattle were saved; while in other instances where this measure was neglected, whole herds had died off. The only ill-effects noted were a temporary illness, accompanied by a slight diminution in the quantity of milk and abortion in cows in calf. The actual loss from inoculation did not exceed 0.5 per cent. In the face of these and similar reports, it is thought that preventive inoculation against tick fever should be universally adopted, if not enforced by law.

TRINIDAD.

ANNUAL REPORT OF THE SURGEON-GENERAL.—The annual report of the Surgeon-General of Trinidad shows that the death-rate of the colony for the past year was 25.93 per 1,000. The general health has been satisfactory, but in some districts dysentery in a particularly aggravated form was prevalent. However, with an improved water supply, it had ceased before the end of the year. Yaws has become so prevalent in many districts that a special hospital has been built to provide for the compulsory segregation of these patients. In consequence of an epidemic of small-pox in Venezuela, strict quarantine was maintained during the greater part of the year. The proportion of vaccinations to births in the colony was 96.48 per cent., and the results obtained by the medical officers with glycerinated calf lymph were all that could be desired. The high death-rate amongst the inmates of the lunatic asylum, namely, 16.49 per cent. is attributed to the overcrowding of the institution. It is satisfactory to learn that the building of the new asylum is progressing, and it is hoped that it will soon be ready for occupation. Two additional wards for male patients have been built at the Leper Asylum, but the accommodation on the female side is still so limited that additional wards will be required before long. During the year 316 cases were in these asylum; of these, 35 died and 16 were discharged. The two colonial hospitals, at Port of Spain and San Fernando, have been maintained in a high state of efficiency. New regulations have been enforced whereby admissions to hospital are restricted to proper hospital cases, consequently the number of admissions has been reduced, and a saving in the expenditure of £2,617 for the year has been effected. The district hospitals, which serve as poorhouses rather than hospitals, have been economically managed, and a saving in the expenditure of £305 secured. In addition to the out-patient departments at the district hospitals there are three public dispensaries, six pauper stations, and fourteen yaws dispensaries, the total cost of which is about £1,300 per annum. The cost of the medical services per head of the population compares favourably with that of other colonies with similar services. Since the beginning of the year the Medical Service of Tobago has been amalgamated with that of Trinidad.

MEDICAL NEWS.

IT has been decided to found a chair of pathological anatomy in the Laval University, Montreal. The list of subscribers to the fund which is being raised for the purpose is headed by the Archbishop of Montreal.

THE IRISH MEDICAL ASSOCIATION.—The Irish Medical Association will hold its annual meeting this year in Cork, on June 20th, under the presidency of Dr. N. J. Hobart. This is, we are informed, the first occasion on which the annual meeting of the association has been held outside Dublin. The arrangements are in the hands of a local committee, of which Dr. P. G. Lee is the Honorary Secretary. The meetings will take place in the Examination Hall of Queen's College, and in the evening a dinner will be held in the Victoria Hotel.

THE annual report of the Life-Saving Society shows that steady progress has taken place. Although a very young Society, having been formed in London only in 1891, it has already several centres established in other parts of the United Kingdom, as well as in some of the Colonies. It is fortunate in having for its President H.R.H. the Duke of York, who takes an active interest in its proceedings, having been present with the Duchess at one of the swimming and life-saving exhibitions. Not the least useful part of its work is the facility it offers for instruction in the ways of rescuing the drowning and of resuscitating those who are apparently lifeless. Its small handbook, which in seven years has passed through five editions, gives an excellent account of the methods of proceeding. We notice that financial support is asked for to extend its operations further, and although medical men as a body contribute their fair share of support in the Life-Saving Society technical instruction they give, there may be some who, if they knew of its wants, might like to give pecuniary support, and it is well deserving of it.

METROPOLITAN HOSPITAL SUNDAY FUND.—The Lord Mayor has issued an appeal for increased support to the Metropolitan Sunday Fund. He states that if £50,000 is raised this year the fund will, since its foundation in 1873, have been instrumental in distributing among the hospitals and dispensaries of London one million sterling. Towards the desired amount for this year Mr. George Herring has contributed £10,000. The appeal further points out that there has not been an increase in the contributions commensurate with the increase of the population of London; a fact which, it is thought, may be due partly to many rich and well-to-do persons living out of London in the home counties, and partly to the conversion of many businesses into limited liability companies.

MR. VICTOR HORSLEY will deliver an address upon the work of the General Medical Council, with special reference to the proposed registration of midwives and the examination of the spectacle makers and optical societies, at a meeting of the Wood Green and East Suburban Medical Protection Societies, which will be held on Thursday next, at 4 P.M., at the West Ham Hospital. The other direct representatives of the profession have been invited to be present, and it is hoped that some will be able to attend. Members of the profession will be admitted on presentation of their visiting cards. Notices of resolutions to be brought forward must reach the honorary secretaries, Drs. Murtagh Houghton and W. B. Winston, at York Road, Ilford, not later than June 12th. The notice of the meeting contains a statement that the following resolution was passed by both the Societies mentioned at their respective general meetings. Mr. Horsley's address will be in reply to these resolutions: "That the above Societies view with regret that Mr. Victor Horsley has ceased to carry on his opposition to the recognition at law of partially qualified practitioners in that he is at present supporting a Bill giving a legal status to midwives, and trusts that he will reconsider his position."

WOODFORD COTTAGE HOSPITAL.—The Duke and Duchess of Connaught on June 1st opened a new cottage hospital at Woodford. The hospital, which has been erected as a memorial of the Jubilee, is due to the munificence of Mr. J. R. Roberts, of Woodford, who has built and equipped the building in the best possible manner entirely at his own cost, which will reach the sum of £8,000. At the opening ceremony, the Chairman of the hospital, Mr. W. H. Brown, claimed the privilege of making up the endowment fund to £6,000 by a further donation of £750. The building, which is in the Queen Anne style, contains two wards, to accommodate 6 patients each, with a hall, nurses' room, operating room, and the necessary offices. The operating room is fitted with the most recent appliances. On the first floor there are two wards for paying patients, and bedrooms for nurses and nurses and servants. On the lower floor there is a fine room for convalescent patients, a board room, ambulance room, *post-mortem* room, and various offices. The medical staff has been elected, and consists of Drs. Warner, Berrill, and Sayres.

A MEDICAL DOG SHOW.—The students of the London (Royal Free Hospital) School of Medicine for Women are to be congratulated on the good management of their dog show on June 3rd. The exhibitors were all medical practitioners or students and members of their families. One interesting feature was an exhibition of champions and prize winners, among which seven pocket beagles, the property of Mrs. Oughton Giles, were conspicuous. There were in all 227 entries, and the dogs were arranged in the spacious laboratories and lecture rooms of the Pfeiffer Wing opened by the Prince and Princess of Wales last year. The proceeds of the show are to be devoted to the new block now being erected. Among the prize takers were Miss Cruikshank, M.D. ("Jack Nelson," Yorkshire terrier), and Miss Billett, L.S.A., D.P.H. ("Grouse," English setter). The students who took prizes were Miss Lewin (long-haired dachshund) and Miss Wellburn (dachshund); Miss Beverley's "Kees," was shown in the foreign dog class, which contained also Dr. Broadbent's Norwegian elk hound and Miss Madeleine Broadbent's Japanese pug. Miss Murray, the secretary of the Students' Dog Show Committee, showed a young Aberdeen terrier in a most informal manner, for though not competing, he ran about with as much importance as the judges. The prize-givers, besides the students and various friends, included Mrs. Garrett Anderson, M.D., Mrs. Scharlieb, M.D., M.S., Mr. Stanley Boyd, and the *Ladies' Field*. Among medical men who took prizes were Dr. Webster Adams (Ipswich), Dr. Wheeler O'Bryen (Sydenham), and Dr. Lycett Burd (Shrewsbury).

MEDICAL VACANCIES.

The following vacancies are announced:—

BATH: ROYAL UNITED HOSPITAL.—House-Surgeon. Appointment for three months, but eligible for re-election for one year. Salary at the rate of £60 per annum, with board, lodging, and washing. Applications to the Secretary by June 20th.

BEDFORD COLLEGE FOR WOMEN.—Lectureship in Bacteriology. Applications to the Secretary, York Place, Baker Street, W., by June 19th.

BIRMINGHAM GENERAL HOSPITAL.—House-Physician. Appointment for one year, but eligible for re-election. Salary, £70 per annum, with residence, board, and washing. Applications to the House-Governor by June 30th.

BIRMINGHAM: MASON UNIVERSITY COLLEGE.—Professorship of Physiology. Applications to the Secretary by June 30th.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board. Applications to the "Chairman of the Committee," by July 15th.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £80, with board, residence, and washing. Applications to the Secretary by June 17th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House Surgeon to the Western Branch; unmarried. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary, Queen's Road, Brighton, by June 24th.

CARDIFF UNION.—Assistant Medical Officer for the Workhouse. Appointment for one year. Salary, £100 per annum, with rations, apartments, attendance, and washing. Applications to the Clerk, Queen's Chambers, Cardiff.

BURTON-UPON-TRENT, BOROUGH OF.—Medical Officer of Health for the Borough. Salary at the rate of £350 per annum. Applications, endorsed "Medical Officer of Health," to the Town Clerk, Town Hall, Burton-upon-Trent, by June 28th.

DUNDEE ROYAL INFIRMARY.—Resident Medical Assistant. Appointment for six months. Salary at the rate of £40 per annum, with board and washing. Applications to Dr. Fraser, Medical Superintendent, by June 21st.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Salary at the rate of £40 per annum. Applications to the Secretary by June 15th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Junior Resident Medical Officer and Registrar. Salary, £50, with board and washing. Applications, addressed to the Committee of Management, by June 20th.

GERMAN HOSPITAL, Dalston.—Honorary Assistant Physician; must possess good knowledge of the German language. Applications to the Secretary by June 15th.

GLASGOW CORPORATION.—Bacteriologist. Salary at the rate of £350 per annum. Applications to the Interim Clerk to the Corporation (Police Department), City Chambers, Glasgow, by June 30th.

GLOUCESTER: GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Physician. Applications to the Secretary by July 5th.

GORDON HOSPITAL FOR FISTULA, ETC.—Surgeon; must be F.R.C.S.Eng. Applications to the Secretary at the Hospital, Vauxhall Bridge Road, by June 21st.

GREAT NORTHERN CENTRAL HOSPITAL.—Clinical or House-Physician. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary by June 12th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—(1) Physician to Outpatients: (2) Dental Surgeon. Applications to the Secretary by July 10th.

HEREFORD COUNTY AND CITY ASYLUM.—Locum Tenens for ten or twelve weeks. Salary, £2 2s. per week, with board, lodging, etc., and return second-class railway fare from London. Applications to the Medical Superintendent by June 18th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by June 28th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Medical Registrar and Pathologist. Honorarium 50 guineas. (2) Surgical Registrar. Honorarium £40. (3) House-Surgeon. Appointment for six months. Salary, £20, with board and residence. (4) House-Physician. Appointment for six months. Salary, £20, with board and residence. (5) Assistant Physician; must be F. or M.R.C.P.Lond. (6) Anæsthetist. Appointment for one year. Honorarium, £15 15s. Applications to the Secretary by June 13th.

HOVE: BOROUGH OF.—Medical Officer of Health and Medical Officer of the Hospital for Infectious Diseases, not more than 35 years of age. Salary £450 per annum, rising to £550. Must live in the borough. Applications, endorsed "Medical Officer," etc., to the Town Clerk, Hove, by June 17th.

HUDDERSFIELD INFIRMARY.—Assistant House-Surgeon. Salary, £60 per annum, with board, residence, and washing. Applications to the Secretary.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY.—Vacancy on Honorary Medical Staff. Applications to the Secretary, 13, Kilburn Park Road, N.W., by June 17th.

KNIGHTON UNION, Radnorshire.—Medical Officer and Public Vaccinator for the Llanbister District. Salary, £100 per annum, and medical and vaccination fees. Applications to the Clerk by June 14th.

LEEDS: GENERAL INFIRMARY.—Honorary Assistant Ophthalmic and Aural Surgeon. Applications, marked "Appointment of Honorary Assistant Ophthalmic and Aural Surgeon," to the Treasurer at the Infirmary by June 15th.

LONDON COUNTY ASYLUM, Claybury, Essex.—Junior Assistant Medical Officer, between 23 and 30 years of age. Salary, £150 per annum, with board, furnished apartments, and washing. Applications, on forms provided, to be sent to the Clerk of the Asylums Committee, 6, Waterloo Place, S.W., by June 14th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer. Honorarium, £25 per annum. Applications to the Secretary by June 12th.

MANCHESTER: OWENS COLLEGE.—Senior Demonstrator in Physiology. Stipend, £150 per annum, rising to £200. Applications to the Registrar by July 3rd.

NEW HOSPITAL FOR WOMEN.—Fully qualified medical woman as Senior Assistant to the Out-patient Department for Children. Appointment for two years. Applications to the Secretary, 144, Euston Road, by June 28th.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and residence. Applications to the Secretary by June 25th.

NORTH-EASTERN HOSPITAL FOR CHILDREN.—(1) Surgeon. (2) House-Surgeon. Appointment for latter for six months, with salary at the rate of £50 per annum. Applications to the Secretary, 27, Clement's Lane, Lombard Street, E.C., by June 15th.

READING: ROYAL BERKS HOSPITAL.—House-Surgeon. Salary, £60 per annum. Also Assistant House-Surgeon. Salary, £30 per annum. Board, lodging, and washing provided in each case. Appointments for one year. Applications to the Secretary before June 19th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Appointment for six months, when re election is required. Salary at the rate of £100 per annum, with furnished apartments, board, and washing. Applications to the Secretary by June 13th.

ST. ANDREWS UNIVERSITY.—Professor of Pathology. Application to the Secretary of the University by June 21st.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY.—Honorary Surgeon, must be F.R.C.S.Eng. Applications to the Secretary, 60, King Street, Regent Street, W., by June 15th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer. Salary to commence £120 per annum, with board, lodging, and washing. Applications to Dr. Finch, the Asylum, Salisbury.

ST. SAVIOUR'S UNION.—Second Assistant Medical Officer at the Infirmary, East Dulwich Grove S.E. Remuneration, £80 per annum, with furnished apartments, board, and washing. Applications marked outside "Application for Second Assistant Medical Officer," to the Clerk by June 19th.

SEAMEN'S HOSPITAL SOCIETY, "Dreadnought," Greenwich, S.E.—Surgeon to the Dispensary, 51, East India Dock, E. Salary, £63 per annum. Applications to P. Michelli, Secretary, by June 12th. Also House-Surgeon. Salary, £50 per annum, with board, residence, and washing. Applications to the Secretary by June 19th.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £50 per annum, with board, residence, and washing. Applications to the Secretary before June 24th.

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Medical Officer for two or three months. Salary, three guineas per week, with furnished apartments, board, etc. Applications to the Medical Superintendent.

UNIVERSITY COLLEGE, Bristol.—Professorship of Physiology. Applications to the Secretary by July 5th.

VICTORIA HOSPITAL FOR CHILDREN.—House-Physician. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary at the Hospital, Queen's Road, Chelsea, S.W., by June 17th.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, washing, and attendance. Applications to the Secretary.

WEST DERBY UNION.—Resident Medical Officer at Mill Road Infirmary, Everton, Liverpool. Salary, £100 per annum, with rations. Applications to the Clerk to the Guardians, Brougham Terrace, Liverpool, by June 20th.

WEST END HOSPITAL FOR NERVOUS DISEASES, Welbeck Street, W.—Medical Registrar (non-resident). Appointment for six months, but eligible for re-election. Honorarium of not less than twenty-five guineas. Applications to the Secretary by June 27th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointment tenable for six months from July 1st. Applications to the Secretary-Superintendent by June 21st.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—House-Surgeon. Appointment for six months. Board and lodging provided. Applications to the Secretary.

WINCHESTER: ROYAL HANTS COUNTY HOSPITAL.—(1) Honorary Physician-in-Ordinary. (2) House-Physician, unmarried. Salary, £65 per annum, with board residence, etc. Applications to the Secretary by June 21st.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House Surgeon. Appointment for six months. Honorarium at the rate of £50 per annum, with board, lodging, and washing. Applications, addressed to the Chairman of the Medical Committee, by June 20th.

MEDICAL APPOINTMENTS.

ALLKIN, F. W., L.R.C.P., L.R.C.S.Edin., L.P.P.S.Glasg., appointed Medical Officer for the Second District of the Ashton-under-Lyne Union.

BEATH, D. Leslie, M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Medical Officer to the Eastern Dispensary, Bath.

BEEMERIDGE, E. Harding, B.A.Oxon., B.Sc.Lond., M.R.C.S., L.R.C.P., appointed House-Surgeon and Registrar to the Royal Orthopædic Hospital, *vice* E. Lanoing Evans, resigned.

BROWNE, S. S., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Workhouse and the Alcester District of the Alcester Union.

CULLINAN, N., M.D., L.R.C.P., L.R.C.S., L.F.P.S.G., appointed Medical Officer of Health for Risca, *vice* R. Istance, M.R.C.S.Eng., resigned.

DAVIS, G. E., L.R.C.S., appointed Honorary Ophthalmic Surgeon to the Blackburn and East Lancashire Infirmary.

DOWSETT, E. B., L.R.C.P., M.R.C.S., L.D.S., appointed Staff Demonstrator of Practical Dentistry at Guy's Hospital.

EASTMAN, Julio S., M.R.C.S.Eng., L.R.C.P.Lond., appointed Junior Assistant House-Surgeon to the Stockport Infirmary.

FISON, Edmund T., B.A.Camb., M.D., appointed Physician to the Salisbury Infirmary, *vice* F. Fawson Lee, M.B.Lond.

FOX, Hugh Clayton, M.R.C.S.Eng., L.S.A.Lond., appointed Divisional Surgeon of Metropolitan Police for St. Ann's, Stamford Hill.

HAIR, Allan, M.R.C.S., L.R.C.P.Lond., appointed Assistant Medical Officer to the North-West Fever Hospital, Hampstead.

HINCHCLIFF, C. F., L.D.S., appointed Staff Demonstrator of Practical Dentistry at Guy's Hospital.

SCOTT, J. B., M.B., C.M.Edin., appointed Medical Officer for the Seventh District of the Ashton-under-Lyne Union.

SLOCOCK, Richard, M.R.C.S., L.R.C.P., B.A.Oxon., appointed Public Vaccinator and Medical Officer to the Spilsby East District, *vice* Dr. Gay, deceased.

STEELE, Frank, M.R.C.S., L.R.C.P., appointed Medical Officer to the Casualty Department, East London Hospital for Children, Shadwell.

ST. THOMAS'S HOSPITAL.—The following gentlemen have been appointed House Officers from June 6th:

House-Physicians.—E. H. Ross, L.R.C.P., M.R.C.S.; H. C. Thorp, M.A., M.B., B.C.Camb.

Assistant House-Physicians.—J. Gaff, L.R.C.P., M.R.C.S.; A. Bevan, L.R.C.P., M.R.C.S.

Obstetric House-Physicians.—(Senior) S. H. Belfrage, M.B.Lond., L.R.C.P., M.R.C.S.; (Junior) H. M. Scaping, B.A.Camb., L.R.C.P., M.R.C.S.

Clinical Assistants in the Special Department for Diseases of the Throat, Skin, and Ear.—Throat: L. H. Lindley, M.B., B.Ch.Oxon. Skin: H. R. Beale, L.R.C.P., M.R.C.S.; N. Unsworth, L.R.C.P., M.R.C.S. Ear: A. C. Bird, L.R.C.P., M.R.C.S.

Several other gentlemen who held offices before have received an extension of their appointments.

DIARY FOR NEXT WEEK.

MONDAY.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Mr. Wyatt Wingrave: The Pathology of Middle Ear Disease.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. C. B. Keetley: Injuries and Deformities of the Upper Extremity, including the Hand. (Lecture I.)

Roentgen Society, 11, Chandos Street, Cavendish Square, W.—Major Beevor, R.A.M.C., Mr. J. Hall Edwards, and Mr. H. W. Cox will demonstrate and describe a Portable Roentgen Apparatus for field and ward work. Mr. F. W. Watson Baker and Dr. Walsh will show new Stereoscopes.

TUESDAY.

Royal Medical and Chirurgical Society, 8.30 P.M.—Captain Leonard Rogers, I.M.S.: Results of Segregation of Cases and Moving from Infected Sites in eradicating the Assam Epidemic Malarial Fever or Kala Azar. Dr. James H. Sequeira: The Remote Prognosis of Pericarditis. (Communicated by Dr. Francis Warner.)

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Mr. Victor Horsley: Surgery of the Nervous System.

WEDNESDAY.

Hospital for Consumption, Brompton, 4 P.M.—Dr. Sidney Martin: Mediastinal Tumours.

THURSDAY.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. C. B. Keetley: Injuries and Deformities of the Upper Extremity, including the Hand. (Lecture II.)

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Mackenzie Davidson: Roentgen Ray Demonstration.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Dr. Dundas Grant: Diagnosis and Treatment of Discharges from the Ear.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Lees: Demonstration of Selected Cases.

FRIDAY.

West London Medico-Chirurgical Society, Town Hall, Hammersmith, W., 8.30 P.M.—Professor William Osler: The Cavendish Lecture on Cerebro-spinal Fever.

SATURDAY.

Neurological Society of London, Physiological Laboratory, Cambridge, 4.15 P.M.—Dr. W. H. R. Rivers: Some Psychological Observations on the Natives of Torres Straits. Dinner in Trinity Hall at 6.30 P.M.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

FRANCIS.—On June 1st, at 84, Wright Street, Hull, the wife of A. G. Francis, B.A., M.B., B.S., F.R.C.S., of a daughter.

SAUNDERS.—On May 29th, at 6, Downleaze, Sneyd Park, near Bristol, the wife of Henry W. Saunders, M.B.Lond., F.R.C.S., of a son.

MARRIAGES.

BLYTH—ARMSTRONG.—In Benwell Parish Church, on the 1st instant, by the Rev. Herbert Bott, M.A., Vicar of St. Aidan's, assisted by the Rev. A. L. Curry, M.A., Meredith Wynter Blyth, B.A., B.Sc., son of Dr. A. Wynter Blyth, Medical Officer of Health, St. Marylebone, London, to Chrissy Mary, eldest daughter of Henry E. Armstrong, D.Hy., Medical Officer of Health, Newcastle-upon-Tyne.

BUNCOMBE—BOUSFIELD.—On the 1st instant, at All Saints, Forest Gate, by the Rev. T. F. F. Williams, M.A., Vicar, William Dewey Buncombe, Medical Superintendent of City of London Infirmary, Bow Road, elder son of the late Charles Hope Buncombe, F.R.C.S., of Bow and Putney, to Henrietta Mary, elder daughter of William Jeune Bousfield, of Forest Gate, Essex.

DENDLE—KINMOND.—At St. Stephen's Church, Broughty Ferry, N.B., on the 6th instant, by the Rev. James Leask, M.A., Frank Dendle, M.B., C.M., D.P.H.Edin., Dunfermline, to Alexandra, youngest daughter of the late Thomas K. Kinmond, Broughty Ferry.

DEATHS.

COGHILL.—On June 5th, at Ventnor, of peritonitis, John George Sinclair Coghill, M.D., F.R.C.P.E., M.R.C.P., Senior Physician of the Royal National Hospital for Consumption, Ventnor, aged 65 years. Scotch and China papers please copy.

OLIPHANT.—At St. Andrews, N.B., on the 7th instant, Robert Moir, M.D., F.R.C.S.E., Surgeon-Major (retired), Indian Medical Service.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th. 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical. M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2 o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45 o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, W., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—Tu., 2.30; Th., 2

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Tu., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30 Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C. London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

THE COURTESY VISIT.

CONCILIATOR, who has recently started practice in a suburb of a town containing 100,000 inhabitants, asks advice as to the radius within which calls upon other medical men may be properly expected from him.

*** A radius of half a mile from his house probably would be quite sufficient. He may also find it useful to make the acquaintance of the hospital physicians and surgeons; and if he has not already joined the local Branch of our Association, he may be advised to do so without delay.

PARTNERSHIP AGREEMENTS.

NORTH-EAST asks advice under the following circumstances: He is negotiating for a share in a practice, the vendor of which reserves to himself the right, at the end of seven years, to retire from the firm and to practice as a surgical consultant in the same neighbourhood. He further stipulates that his late partner shall thereupon buy the whole practice, and do his best to assist him in his special department by recommending as many patients as he can. How far ought such an arrangement to affect the price of the retiring partner's share in the practice?

*** Such an arrangement is hardly likely to be satisfactory. Few would care to buy their partner's share, unless on condition that he ceased to practise altogether in that neighbourhood.

MEDICAL CLUBS.

W. E. P., who has been asked by some gentlemen in his neighbourhood to suggest a financial basis upon which a medical club could be worked, writes for information.

*** Without a thorough knowledge of local conditions it is not possible to make any suggestion as to a financial basis for a medical club. If it were contemplated to form one on the lines of ordinary friendly societies the following points should be specially studied: (1) Admission only of adult male members after a thorough medical examination; (2) Careful observance of a wage limit.

ANSWERS.

SUFFERER should consult his usual medical attendant.

M.D. BRUX.—We are informed that the robe makers to the Brussels Medical Graduates' Association are Messrs. Ede and Son, Chancery Lane, E.C.

MR. J. LITTLEWOOD (Mansfield) writes, in reply to "Member's" query in the JOURNAL of March 13th: I have had considerable personal experience in the use of the O'Connor Extension, and can thoroughly recommend it in every particular.

DR. T. PRICHARD ROBERTS (95, Great Peter Street, St. Albans) writes, in reply to "Autocar," to say that, in his opinion, the best motor tricycle is the Beeston Motor, fitted with electric ignition. I have, he adds, during the last eighteen months ridden some 11,000 miles on mine with little trouble. I shall be delighted to give "Autocar" full particulars.

G. H. V.—A mentally deficient boy, if not certifiably imbecile, would be received into the Hendon Homes of the National Society for Promoting the Welfare of the Feeble-minded, at 10s. a week. If certifiably imbecile he would be eligible, on election and small payment, for the Earlswood Asylum. The office of the former society is at 53, Victoria Street, London, S.W.; of the latter at 36, King William Street, London Bridge, E.C.

ALKALI.—We agree with "E." that the patient has a perfect right to change his medical adviser, and that having given due notice to his former medical attendant he can choose a new one. Where such notice has been given, the medical practitioner who is invited to take charge of the case is committing no breach of medical etiquette in accepting it. In small places undoubtedly such transfers cause a certain amount of trouble and are to be regretted, but they are unavoidable, and the discarded doctor will best consult his own dignity by suffering his misfortune in silence.

MEDICAL AID ASSOCIATIONS.

A. B.—We have already repeatedly expressed disapproval of the unusual methods adopted by some members of the medical profession in their efforts to meet the competition of medical aid associations. We may refer our correspondent to the resolution adopted by the General Medical Council on Tuesday last (see page 1414). This resolution confirms and supports the opinion which has frequently been expressed in our pages.

CHLORAL AND BROMIDE COMPOUNDS.

W. B.—The *British Pharmaceutical Conference Unofficial Formulary* contains a very excellent formula for a mixture of chloral, potassium bromide, hyoscyamus, and cannabis indica. It is called liquor bromo-chloral compositus, and is made as follows: Take of hydrate of chloral 1,600 gr., tincture of Indian hemp 400 minims, tincture of fresh orange peel 400 minims, juice of henbane 1,600 minims, syrup 3½ fluid ounces, liquid extract of liquorice ½ fluid ounce. Dissolve. Take of bromide of potassium 1,600 gr., distilled water a sufficient quantity. Dissolve the bromide of potassium in 7 fluid ounces of distilled water, and add to the former solution; filter, and wash the filter with sufficient distilled water to produce 1 pint. This preparation should be shaken whenever any of it is to be dispensed.

RECURRENT SNEEZING AND NASAL CATARRH.

E. B. H. writes: In answer to "A Medical Correspondent" asking advice in the treatment of recurrent sneezing and nasal catarrh in the BRITISH

MEDICAL JOURNAL of May 20th, may I suggest to him the possibility of the trouble being connected with uric acid diathesis, as I have recently seen two cases with similar symptoms relieved only by the administration internally of alkalies, of potass. bicarb. gr. xv ter in die, by preference, taken with a tumblerful of moderately hot water on each occasion, combined with the protection of the nasal mucous membrane by the use of an oil spray. An excellent form of this is the nasal cloudiser manufactured by Messrs. Slater Brothers, of Baker Street, W., and the application which relieved my patients consisted of ichthyol 5j dissolved in ol. amygdal. dulc. 3vij, the resulting solution being strained before use. Should the suggestion contained in the JOURNAL of May 27th fail to afford relief, "A Medical Correspondent" might feel disposed to try this method.

NOTES, LETTERS, Etc.

ERRATUM.—In the paragraph on the Victoria Hospital, Edinburgh, published in the BRITISH MEDICAL JOURNAL of June 3rd, the number of beds which the hospital at present possesses should have been given as 16, and not as there stated.

AN APPEAL ON BEHALF OF THE FAMILY OF THE LATE DR. COOKE.

MR. E. STANMORE BISHOP and Dr. F. EAMES write to acknowledge the following further amounts received on behalf of the family of the late Dr. Cooke. The total amount is £57 16s. 6d., which will be sufficient to enable Mrs. Cooke, with some slight assistance, to start a small house for patients going to Buxton for treatment.

	£	s.	d.
Amounts acknowledged May 13th and April 29th ...	37	7	6
Dr. S. P. Snook	2	2	0
Dr. Spiers, Carlisle	2	2	0
Leonard Bidwell, F.R.C.S.	1	1	0
M.D.	1	1	0
W. G. Bacot, Bournemouth	1	0	0
Dr. Kinch, Matlock Bridge	0	10	6
Percy Ashworth, F.R.C.S.	0	10	6
Dr. W. A. Ardagh	0	10	0
F. G.	0	10	0
Dr. A. T. Windle	1	1	0
H. C. V., Poona	2	0	0
Dr. J. T. Windle, Halifax	1	1	0
Dr. Hill Griffith, Manchester	2	2	0
Sir Thomas Smith	5	0	0
Total	57	16	6

Mrs. Cooke desires most sincerely to thank all those who have generously contributed to this fund.

THE HUNTER FUND.

MR. RIVERS WILLSON (Treasurer) (42, Wellington Square, Oxford) writes: Kindly permit me to announce the following further donations to this fund:

	£	s.	d.
Amount previously acknowledged	62	13	3
Dr. J. B. Ball, 12, Upper Wimpole Street, W.	1	1	0
Dr. E. A. Nix, 11, Weymouth Street, W.	2	2	0
E. Creighton, Esq., Streatham Common, S.W.	1	1	0
A. A.	0	10	6
Percy Sharp, Esq., Brant Broughton	0	10	6
Henry Stear, Esq., Saffron Walden	1	1	0
Dr. Francis T. Bond, Gloucester	0	5	0
Leonard A. Bidwell, Esq., 59, Wimpole Street, W.	1	1	0
Dr. Petch, York	1	1	0
Walter H. Dodd, Esq., Preston, Brighton	1	1	0
Total	£72	7	3

CASE OF HYDRAMNIOS WITH AN ANENCEPHALIC FŒTUS.

DR. ROBERT T. FERGUSON, (Anstruther) writes: On March 9th, 1899, at 4 P.M., I was called to a woman, aged 30, in her fourth confinement, which she had not expected till the beginning of April. Her former children are healthy. The abdomen was very large, and she had been gradually feeling more and more uncomfortable, and had been unable for the two preceding nights to sleep from difficulty of breathing. The os was slightly dilated and very rigid, the membranes at the internal os, and the presenting part high up. After waiting some time, during which the pains were few and short, I gave chloroform and dilated the os. I then ruptured the membranes, and the liquor amnii came with a noisy gush over the bed on to the floor, probably as much as a gallon. She said that she had felt movement that morning, but I could not find any evidence of life by the stethoscope.

The centre of the os was now occupied by a bony ridge, passing forward into a hollow; to the patient's left the finger came upon an ear. After repeated trials I got the forceps applied, but on attempting traction the blades slipped. Pains coming on a little better and the presenting part more within reach, I got my forefinger into the mouth, and made traction while bearing down with my left hand over the uterus. The tissues of the cheeks gave way as I got the head into the lower part of the sacral hollow, and I completed delivery by passing my right hand behind the head and bringing it forward while bearing down with the hand outside. The placenta followed in about fifteen minutes. It was normal but very small, and the cord, which measured 21 inches, was very thin.

The child, a female, had been dead some hours. It measured 16 inches, weighed 4 lbs., and was perfectly formed except as to the head. This was flattened antero-posteriorly, and was open above and behind. The scalp ended above about 2 inches from the eyes, passing downwards in an irregular line fringed with soft black hairs, half an inch behind the ears, to a semicircular opening in the skin at the top of the spine. The cranial bones ceased about an inch further on all round, and enclosed a depression which was made circular by a cervical spina bifida. This depression was occupied by membranes and blood clot the spinal canal being closed by the membranes. The skin of the face was continuous with that of the chest, there being no chin and no neck. The ears were crumpled up and flattened against the skull, but appeared to be perfect. The nose was flattened, the cheeks prominent and bulging upwards. The eyes were very prominent, filled with blood, and looked upwards, the left being open and staring, the right closed. There is no history of syphilis, alcoholism, tuberculosis, infectious disease, or maternal impression in this case.

LETTERS, COMMUNICATIONS, ETC., have been received from:
A A. J. Anderson, M.B., Blackpool; Mr. A. B. Avarne, Blaenavon; Messrs. Allen and Hanburys, London; J. W. Allan, M.B., Glasgow. **B** Mr. J. Busfield, London; Mr. A. Berrill, Woodford; Mr. R. H. Bremridge, London; Messrs. Baillière, Tindall and Cox, London; Mr. A. Bance, Enfield; Dr. W. Bain, Harrogate; Mr. J. B. Blackett, London; Mr. L. A. Bidwell, London; Mr. E. S. Bishop, Manchester; F. M. Blumer, M.B., Stafford; Dr. H. A. Ballance, Norwich; Mr. D. L. Beath, Bath; Dr. T. Beattie, Newcastle-on-Tyne; Dr. J. Barr, Liverpool. **C** Mr. L. V. Cargill, London; Dr. J. M. Clarke, Clifton; Mr. P. T. Carpenter, British Honduras; Dr. W. H. Calvert, Melrose. **D** Dr. E. H. Douty, Davos-Platz; Mr. A. Demaret, London; Sir J. J. L. Donnet, K.C.B., Bognor. **E** E. T. M.; Dr. C. R. Elgood, Windsor; E. A. W.; Dr. J. C. Eames, Stoneclough; F. H. Edgeworth, M.B., Clifton. **F** F.R.C.S. Eng.; Mr. H. C. Fox, London; F. S.; A. G. Francis, M.B., Hull. **G** Dr. A. E. Giles, London; Mr. G. P. Gaskell, London; Sir W. Gilbey, Bart., London; Dr. M. Greenwood, London; Sir W. T. Gairdner, London; Mr. G. P. Gaskell, London; Mr. J. Gormley, Liverpool. **H** Mr. P. H. V. Hammersley, Leek; J. B. Hall, M.B., Bradford; Sir F. S. Haden, Alresford; Mr. M. Houghton, London. **J** Dr. A. James, Edinburgh; Dr. J. Johnston, Bolton. **K** Sir F. Knollys, K.C.M.G., London; Mr. D. Keele, London. **L** H. C. Lloyd, M.B., Dublin; Mr. C. W. Long, M.P., London; Mr. J. E. Lane, London; Mr. P. G. Lodge, Bradford; Mr. J. O. Littlewood, Mansfield. **M** Dr. C. F. Marshall, London; Mr. C. A. McKerrow, Manchester; Metropolitan Provident Medical Association, Secretary of, London; Dr. R. L. Meade-King, Taunton; Mr. J. D. McFeely, Dublin. Member B.M.A.; Mr. J. G. McLannahan, Stonehouse; A. E. Morison, M.B., West Hartlepool; Mr. E. E. Morgan, Morriston; Mr. A. F. Messiter, Epworth; A. E. Maylard, M.B., Glasgow; Medicus; Mr. V. Matthews, London; M.D. and L.R.C.S. Edin.; Mr. A. E. McCullagh, Durham. **N** N.S.P.; Mr. J. F. Nutter, Bedford; E. S. Nutting, M.B., Mansfield. **O** Dr. L. H. Ormsby, Dublin; O. A. K.; Mr. J. Orton, Foleshill. **P** Mr. T. Partridge, Stroud; Paris; Physician; F. M. Pope, M.B., Leicester. **R** Mr. G. A. Richardson, London; Mr. G. Rendle, London; Mr. T. F. Raven, Broadstairs; Dr. W. Reid, Alverstoke; Dr. G. H. D. Robinson, London; Mr. T. P. Roberts, St. Albans; W. B. Russell, M.B., Colwyn Bay; R.M.O.; Dr. R. Robertson, Ventnor; Mr. A. Roy, London. **S** Dr. J. A. Shaw-Mackenzie, London; Dr. A. Sheen, Cardiff; Mr. W. H. Spottiswoode, London; Dr. J. B. Spence, Lichfield; Mr. H. H. Sturge, London; Dr. S. Sunderland, London. **T** Mr. L. Tait, Birmingham; R. S. Thornton, M.B., Deloraine; T. E. W. **V** G. H. Vos, M.B., London; Mr. J. J. Vezey, London. **W** W. E. P.; Mr. T. E. Williams, Talgarth; Dr. L. A. Weatherly, Bath; Mr. W. J. Walsham, London; Dr. F. Willcocks, London; Wilfrid; etc.

BOOKS, ETC., RECEIVED.

The Newer Remedies. By V. Coblentz, A.M., Phar.M., Ph.D., F.C.S. Third edition. Philadelphia: P. Blakiston's Son and Co. 1899. 1·00 dol.

The Abdominal Brain and Automatic Visceral Ganglia. By B. Robinson, B.S., M.D. Chicago: Clinic Publishing Company. 1899.

La Vaccinazione nell Esercito e l'Antivaccinismo. Per Dr. R. Livi. Seconda edizione. Rome: E. Voghera. 1899.

Essentials of Modern Treatment of Disease. By K. M. Nadkarni. Parts I. and II. Madras: N. K. Rao and Co. London: Baillière, Tindall and Cox. 1898. Rs. 5.

Clinical Lectures. By G. A. Zacharin, M.D. Translated from the Fifth Russian edition by A. Rovinsky, M.D. Boston: Damrell and Upham. 1899.

Die Oxy-Buttersäure und ihre Beziehungen zum Coma-diabeticum. Von Dr. A. Magnus-Levy. Leipzig: F. C. W. Vogel. 1899. M.2.

Die Lungentuberkulose in der Armee. Bearbeitet in der Medizinal-Abtheilung des königlich Preussischen Kriegsministeriums. Berlin: August Hirschwald. 1899. M.4.

Manual of Bacteriology. By R. Muir, M.A., M.D., F.R.C.P.E., and J. Ritchie, M.A., M.D., B.Sc. Second edition. Edinburgh and London: Young J. Pentland. 1899.

An Apology for the Intermediates (for Boys). By M. C. Hime, M.A., LL.D. London: Simpkin, Marshall, Hamilton, Kent and Co. 1899. 1s. 6d.

Selected Papers on Stone, Prostate, and other Urinary Disorders. By R. Harrison, F.R.C.S. London: J. and A. Churchill. 1899. 5s.

The Care of the Baby. By J. P. C. Griffith, M.D. Second edition. London: Rebman Publishing Company. 1899. 9s.

A Textbook of Pathology. By A. Stengel, M.D. Lond. Rebman Publishing Company. 1899. 22s. 6d.

A Short History of the Progress of Scientific Chemistry in our Own Times. By W. A. Tilden, D.Sc., F.R.S. London: Longmans, Green and Co. 1899. 5s.

Les Projectiles des Armes de Guerre, leur Action Vulnerante. Par H. Nimier et E. Laval. Paris: Félix Alcan. 1899. Fr. 3.

Les Ptoses Viscérales (Estomac, Intestin, Rein, Foie, Rate). Diagnostic et Nosographie (Entéroptose-Hépatisme). Par F. Glénard. Paris: Félix Alcan. 1899. Fr. 20.

Transactions of the Twentieth Annual Meeting of the American Laryngological Association held in the City of Brooklyn, N.Y., May 16th, 17th, and 18th, 1898. New York: D. Appleton and Co. 1899.

Untersuchungen von Taubstummen. Von Dr. A. Schwendt und Dr. F. Wagner. Basel: H. Schwabe. 1899. M.8.

Elements of Practical Materia Medica and Pharmacy. By W. Wood, M.B., C.M. Edinburgh: James Thin. 1899.

La Kinésithérapie Gynécologique. Traitement des Maladies des Femmes par le Massage et la Gymnastique (Système de Brandt). Par H. Stapfer. Paris: Masson et Cie. 1899. Fr. 1.25.

The Treatment of Hæmorrhoids and Rectal Prolapse by means of Interstitial Injections. By D. Wright, F.R.C.S. London: H. J. Glaisher. 1899. 1s.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

CLINICAL REMARKS
ON
AMPUTATION OF THE LOWER JAW.

BY SIR WILLIAM STOKES, F.R.C.S.I., CH.M.UNIV.DUB.,
Surgeon-in-Ordinary to Her Majesty the Queen in Ireland; Honorary Member of the Imperial Academy of Medicine, St. Petersburg; Professor of Surgery, Royal College of Surgeons, Ireland.

I THINK it may be safely affirmed that since the publication of Mr. Cusack's memoir on Amputation of the Lower Jaw, which appeared in the *Dublin Hospital Reports*, little has been added to our knowledge in reference to the technique of this operation. The line of incision, the method of bone section, and the difficulties and dangers connected with the procedure, as well as the after-treatment, are all dwelt on and described with a precision and accuracy that leave little to be desired or added to. The paper, in truth, constitutes a landmark that will always serve as a guide to the operating surgeon in dealing with such cases. One of these was an example of that comparatively rare condition termed multilocular cystic disease of the lower jaw. The late Professor Robert Adams has given a graphic description of the case, which he published in the *Dublin Hospital Gazette*, 1857, and a well-executed illustration of the tumour removed forms an attractive feature in Mr. Christopher Heath's exhaustive work on *Injuries and Diseases of the Jaws*. In this work, too, will also be found an illustration of another remarkable case of the same kind operated on by the late Dr. Edward Hutton; one I took a special interest in, as I was at the time of the operation one of Mr. Hutton's dressers in the Richmond Hospital, and had charge and took notes of the case for him. Of this case Mr. Heath has observed that "it is the best example of the disease hitherto known as cystic sarcoma with which I am acquainted." The specimen was formerly in the museum of the Richmond Hospital, but is now in the possession of the Royal University of Ireland.

As these cases presented many features of analogy as regards appearance, history, and pathology to one that I recently operated on in the Meath Hospital, a brief record of it will probably not be deemed devoid of surgical interest.

M. B., aged 29, a domestic servant by occupation, was admitted into the Meath Hospital under my care on November 14th, 1898. She suffered from a large and, it was stated, increasing tumour of the greater part of the left side of the lower jaw. The patient stated that the tumour was first observed in 1893. On March 20th, 1897, she presented herself at the Dental Hospital of Ireland, complaining of pain accompanied by swelling of the lower jaw on the left side. Mr. George Moore, one of the surgeons of that institution, saw her at this time, and has kindly furnished me with the following notes of the case which he took at the time:

Four years ago (1893) she suffered from excessive pain in this region, to relieve which a local practitioner extracted the left six-year lower molar. Two years now elapsed, during which time the patient was free from discomfort, but soon afterwards (in 1895) she noticed the jaw swelling in the region of the second left lower molar. This increasing, advice was sought at a general hospital, and as a result an opening was made into what appears to have been a cystic tumour. Some fluid was evacuated, and the cavity packed on several occasions with lint. The swelling subsided, but in some months returned. The patient then sought advice at the Dental Hospital again. On examination, the wisdom tooth on the affected side was found absent, and had never been erupted nor extracted, while the twelve-year molar was present and badly decayed. Much swelling was present around the lower tooth, principally affecting the buccal aspect, and running backwards and upwards upon the ramus, the bone being evidently thinned. It was considered expedient to remove the remaining molar which, along with all other decayed teeth and roots, was extracted under ether. The molar tooth, without any evidence of fracture, came away, but it had no fangs or roots, nor did a probe passed into the socket detect any. The probe could be passed into a cavity of some size, but from which apparently no fluid escaped. The case was then sent to the Meath Hospital, and placed under my care.

On her admission, the deformity caused by so large a growth was very striking, so much so that it is a source of regret to me that a photograph of the patient was not taken previously to the operation. The patient stated that recently there had been great activity in the growth, and she suffered much, especially at night, from pain in the ear on the affected side. The family history was on the whole good. On inspection, the tumour was seen externally extending from behind the angle of the jaw to within an inch of the symphysis menti. On the buccal aspect the growth was found very prominent, and pushing the tongue towards the right side, and to a certain extent interfering with both speech and deglutition. The growth also extended downwards below the ramus of the jaw. The integuments over the tumour were apparently healthy, and were freely movable over its surface. The external surface of the tumour was hard, but on the inside, where it projected into the mouth, some portions of it were soft and crepitating.

The case being one which clearly indicated operative interference, I recommended removal of the affected part of the bone, and the patient willingly consenting, I commenced by making a free incision an inch behind the angle of the jaw, and carried it forwards and somewhat behind the bone to a point corresponding to three-quarters of an inch to the left of the symphysis menti, and then vertically upwards towards, but not through, the red border of the lip. The transverse facial artery was severed by this incision and both proximal and distal ends secured. With a periosteal raspatory, an opening at a point where the anterior section of the bone was to be made into the mouth was accomplished, and the bone divided by means of a chain saw. This section was effectually and rapidly carried out and without any difficulty. The soft tissues were thus, partly by the scalpel and partly by a raspatory, detached. On reaching the coronoid process and portion of the bone posterior to it, I found that the disease had extended much further backwards than I had anticipated. The coronoid was expanded by the cystic growth, and the same might be said of the cervix and condyle of the bone. This portion of the bone I have never previously seen affected in this manner. Owing to the cystic development here the bone, in my efforts to remove it at the articulation, broke down, and had to be removed piecemeal. At this stage of the operation the hæmorrhage was very severe, and I greatly feared some of the larger branches of the internal maxillary artery had been wounded. Happily I succeeded in arresting the hæmorrhage by ligation and pressure, and no further trouble from hæmorrhage was experienced. The wound was then securely packed with iodoform gauze, and the edges brought together by a continuous silk suture.



Fig. 1.—Patient after operation.

The patient rallied well after the operation, and suffered little from either shock or pain. The temperature and pulse remained practically normal, and the wound healed by first intention. The sutures were removed within a week; no trace of suppuration having ever been seen in connection with them. The local treatment of the wound consisted in frequent irrigation with a weak permanganate of potash solution. It is needless to say more than that the patient made an uninterrupted recovery, and returned home in excellent health and spirits in March, 1899. The accompanying illustration, taken from a photograph made by Mr. F. Fitzgerald, late clinical clerk in the Meath Hospital, gives a faithful representation of the patient at the time of her departure from the

hospital. Having regard to the fact that almost the entire of half the lower jaw was removed, it must be admitted that the result was satisfactory.

The tumour, as will be seen in the accompanying illustration, is an example, and a signally well-marked one, of the comparatively rare condition, multilocular cystic disease, formerly known as cystic sarcoma. It is, as already stated, similar in its growth and structure to the remarkable examples of the disease described and illustrated in Mr. Christopher Heath's work on *Diseases of the Jaws*. The case recorded above, however, differed in one respect from these —one which in no small degree added to the difficulties in the technique of the operation—and that was the extension of the disease so far posteriorly, involving as it did not only the coronoid process but also the cervix and condyle of the bone. This feature or peculiarity in the case, which added so largely to the difficulties of the operation, made it differ from any of the specimens I have read of, operated on, or seen in any pathological museum. The accompanying illustration of the tumour, taken from a photograph kindly made for me by my colleague, Dr. Scott, Professor of Physiology in the Royal College of Surgeons, gives an excellent idea of the appearance of the growth on a section being made of it (Fig. 2).



Fig. 2.—Tumour after removal.

The diagnosis of these tumours is at times surrounded with difficulty, and if the contents be fluid or partially so, the characters of chronic abscess, dental cyst, dentigerous cyst (follicular odontome), and multilocular epithelial cyst (epithelial odontome) will have to be differentiated. In Smale and Colyer's work it is stated that the last (epithelial odontome) "may be suspected if the swelling shows a tendency to be nodular. This form of tumour is likely to be mistaken for a medullary sarcoma, and the diagnosis between the two is often very difficult, but with the former there will nearly always be an absence of a tooth or teeth from the series."[1]

There is much obscurity in connection with the origin of these bone cysts, and much difference of opinion exists among some acknowledged surgical authorities. Mr. Heath states that this origin is probably in the cancelli of the bone, and due to irritation caused by neighbouring teeth, and also that the multilocular form of bone cyst seems to be more closely connected with the teeth than the single cysts.

Distension and absorption of the alveoli go on as the cysts increase in size, so that the walls at length become membranous, and the macerated bone shows great gaps in its outline.—Heath.

At variance with these views we have Mr. Pollock's statement that these cysts appear to be independent of either any tooth irritation or of any previous cartilaginous deposit.

The theory of tooth irritation has also an advocate in Mr. Salter, who has observed that the cysts only arise "when the tooth or teeth associated with them are embedded in the substance of the jawbone;" but in another place we find his somewhat contradictory statement that "impaction of a tooth is not necessarily a cause of these serous collections, the former being common, the latter comparatively rare."

Mr. Coote[2] also holds the view as to the cysts being the result of irritation produced by decayed teeth; Magitot that they resulted from the fusion, and sometimes subdivision, of several dentigerous cysts, those, namely, connected with imperfectly developed teeth.

The view that they are due to an abnormal development of the enamel organ has also been advocated by Falkson[3], and, lastly, the theories of Eve[4], and endorsed by Malassez,[5] that these growths have not a dental origin, but that they are neoplasms of a epitheliomatous nature.

According to Ziegler[6] these "Zahncysten" may originate from cystic dilatation of a tooth socket of a developed tooth, as well as through a corresponding degeneration of buds "Sprossen" of enamel germ, or of the dentinal sac of a tooth in the course of development. In the latter case the cysts are lined with cylindrical epithelium. Orth[7] maintains that the jaw cysts originate from tooth germs, and and part also are cystic fibromata.

The late Sir John Tomes has observed that "Such cysts are tolerably frequently observed attached to the roots of extracted teeth. The process is probably identical with that resulting in the formation of alveolar abscess, but the process being less acute a serous cyst takes the place of a rapidly suppurating sac. As such cysts increase in size they produce absorption of the bony structures round them, and may in this way come to occupy the cavity of the antrum."[8] As regards unilocular cysts this view is, I should say, most likely the correct one.

An interesting pathological feature that is observable in the case I have drawn attention to is the condition of the molar tooth that was extracted by Mr. G. Moore previously to the removal of the tumours. I allude to the complete absence of the fangs and the under surface of the tooth not showing any evidence of ulceration, being smooth, cup-shaped, and polished. The cause of this partial absorption of a permanent tooth is, like the origin of the bone cysts, involved in much obscurity.

Sir J. Tomes[9] held that the cases of absorption of permanent teeth might be divided into two classes—first, "when the whole or part of the root of a permanent tooth is absorbed without reference to the growth of an adjoining tooth; and, secondly, when a portion of a permanent tooth is absorbed to make room for the eruption of a neighbouring tooth. The mechanism of the absorption which takes place when one tooth impinges upon another below the level of the gum is not fully understood. When the contact takes place above the gum no harm is done, but when at a lower level absorption is set up, whether by the periosteum being irritated by being squeezed between the crown of the advancing tooth and the cementum of the other or by some other process."

In connection with this subject the following remarks by the eminent dental surgeon, Mr. Mummery, of London, will be read with interest. They occur in a letter recently addressed to Mr. Moore:

"In all such cases which I have seen the absorbed surface exhibits the lacunæ of Howship, and in many portions a redeposit of bone or cementum.

"I think there is no doubt that the factor in absorption of the roots of such teeth is the osteoclast, as in bone. I have preparations showing absorption of the roots of the teeth and the so-called absorption organ (the accumulations of osteoclasts) *in situ*.

"I mentioned your question to Tomes, and he agrees with me that the absorption of the root in these cases is exactly the same process that we see in the skull when the bone is excavated by the presence of an intracranial tumour, when the characteristic lacunæ of Howship and the osteoclasts occupying them are well seen."

The points of especial interest in connection with this case are as follows:

First, it raises the question as to the origin and differences, clinical as well as pathological, between the unilocular and multilocular cystic maxillary growths.

Secondly, the extension of the disease posteriorly to the temporo-maxillary articulation, a feature I have never seen before, and one which added in no small degree to the difficulties of the operation.

Lastly, the condition of the teeth, and the question that arises therefrom as to whether imperfect or arrested development was an etiological factor in the production of the growth, or an effect produced by the latter.

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ON THE TREATMENT OF ABDOMINAL PALPITATIONS.

BY SIR WILLOUGHBY WADE, M.D., F.R.C.P.,
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THIS well-known disorder, most common in women but not infrequent in men, is in all cases unpleasant, often distressing, and in some instances painful, so much so that patients are most grateful for relief.

Palpation of the abdomen during an attack reveals an abnormally forcible pulsation of the abdominal aorta. Not only so, but often in the intervals also we find a pulsation which is undue, whether compared with that of the patient during health, or with the average amount in other healthy persons. In the quiescent condition it is often more evident just above the bifurcation than in other accessible portions. It also may extend to one or both of the iliacs. And we also may find such a condition in persons who are not sensible of throbbing. On superficial pressure it may not appear to be so, but on deep pressure it is evident that the pulsation is confined to the aorta itself. Such pressure elicits distinct, sometimes extreme, tenderness. Whether this tenderness is situated in the coats of the artery itself, or in nerves distributed over its surface, or in both, may admit of difference of opinion, I incline to think that it is in the coats of the artery. We generally also find some, perhaps not considerable, disturbance, constant or intermittent, of some one or more of the splanchnic viscera. It is important to know that it may be associated, not only with functional or curable splanchnic disorders, but also with organic changes, such as carcinoma, and that in a position where it does not form a tumour in the *trajet* of the aorta, either in front of or behind it.

When we meet with undue pulsation in the radial artery we call it high tension. But in these cases there is no noticeable high tension in the radial, but often the reverse. Does this, then, prove that, contrary to all appearances, there is not an excess of tension in the abdominal aorta?

The throbbing of inflamed parts, the increased flow of blood and its more vehement projection through the arteries of an inflamed hand, Claude Bernard's experiments on the secretion of the submaxillary gland all show that there may be a tense state of limited arteries which does not extend to other parts of the circulation.

Experiments have led physiologists to the conclusion that in the rabbit the splanchnic vessels, inclusively, are capable of containing the entire blood of the body. Probably the same is true of man. They have also pointed out a fact which has, I fear, been but imperfectly assimilated by the practitioners of medicine. This is that the splanchnic and somatic (or skeletal) circulations are complementary the one of the other. That if we repress the blood from the other parts of the body it takes refuge in the abdominal organs and *vice versâ*. Or, if we attract it to skin and muscles, we withdraw it *pro ratâ* from the abdominal organs and *vice versâ*. Herein, it may be said in passing, is the chief, if not the sole and adequate, explanation of the benefits obtained by the Schott system. The baths attract the blood to the skin and the resisted movements to the muscles, and, by emptying the splanchnic circulation, relieve the stasis therein.

From all the above considerations, it seemed to me reasonable to conclude that in the case of abdominal palpitations appearances are not deceptive. That whatever may be the state of the somatic circulation, tested as it commonly is by the radial pulse, the abdominal circulation, as regards its aorta and probably other arteries, is in a state of high tension.

The therapeutic test, suggested by these considerations, amply justifies them. With the object of reducing arterial tension, our predecessors used to bleed. We have recourse most commonly to the nitrites, especially nitroglycerine, and it is this which I employ in these cases; it may be taken when the attack is on, but it is better to give it once or twice a day, or if needful more often. A small dose will be generally found sufficient to affect the disorder, and we thus avoid the unpleasant headache or flushing which larger doses produce. One two-hundredth of a grain every night is often sufficient, and this may be obtained either by a tablet containing that quantity or by cutting in half one of those containing $\frac{1}{100}$ grain.

The relation of the state of the aorta to the functional disorders of other organs is not quite certain. It may be that it causes them: or, on the other hand, it may be that they cause it. Possibly the relation may be in some cases the one and in others the other. But if, as the palpitations subside, the other symptoms remain, it will be necessary to attend to them. But it is surprising how the equalisation of the circulation affects the other miscellaneous symptoms in many instances.

An interesting illustration of this is curious though easily explicable. Nitroglycerine is commonly employed for the reduction of the force and volume of the pulse as tested by the radial artery. In the condition under consideration the radial pulse is at once rendered more full and forcible by the entrance into the somatic vascular area of the blood liberated from the splanchnic area.

I append short notes of the first and the last cases in which I have applied this method of treatment.

A lady past middle life had an attack of hæmatemesis to an alarming amount. This recurred twice in the course of four days. The last attack was as follows In the forenoon she complained of great and painful abdominal pulsation. She then became pale, the pulse frequent, and very small and feeble, and she said she had "a faraway feeling." About six hours after she began to vomit, and brought up a large quantity of blood; a small portion was bright red, the remainder very dark. I came to the conclusion that all except the scanty florid first portion had been poured out in the forenoon, and that preceded as it had been by the vehement aortic pulsation, the hæmorrhage was due to an active determination of blood to the stomach. She had not had, nor did she have, any symptoms of ulcers.

I determined to administer nitroglycerine in such quantity and at such intervals as might be necessary to prevent any undue abdominal pulsation, and did so. She had no return of the hæmorrhage though many of incipient pulsation, and she made a slow but good recovery.

I have since seen two other similar cases. In neither did the hæmorrhage recur after the circulation had been controlled by nitroglycerine.

The second case also of a lady past middle life, has been under my care within the last few weeks. When I saw her she complained of uneasy and unrestful sleep, a total incapacity to think or to read, or to mix in society because of her inability to enter into conversation. In short, she felt perfectly wretched. She also had great, and often painful, abdominal pulsation, especially about 5 or 6 A.M. Her pulse was quiet and regular though rather small and feeble. She had been in a similar condition about two years ago, and, obtaining no relief from treatment, was recommended by her London physician to go into a "rest cure," which she did for five weeks, and came out very well. The same thing happened last year, and she was again sent to a "rest cure," and remained six weeks, but was not as well as at the end of the previous period. The present attack has lasted about a month. I gave her $\frac{1}{200}$ gr. nitroglycerine at bedtime. The first night her sleep was more quiet and restful, and the next morning pulsation very much less. In three or four days all her symptoms had disappeared, and she was comfortable, bright, and happy. In both these cases the pulse developed under the treatment. This principle of treatment is applicable also to many cases of cold feet and hands; this symptom being due not to insufficient action of the heart, as is often supposed, but to contraction of the local arterioles.

ON THE DISSEMINATION OF CANCER OF THE BREAST,

AND THE NECESSITY FOR ITS TREATMENT BY EXTENSIVE OPERATION.

[*With Special Plate of Microscopic Sections.*]

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[From the Surgical Laboratory of the University of Edinburgh.]

Complete and Incomplete Operations.

Clinical Evidence.

It is now just a decade since Heidenhain[1] published his important and classical paper upon the causes of recurrence after operation for cancer of the breast. In a communication[2] dealing with my own researches on the same subject, I was able to confirm, and to some extent also to extend, the observations of Heidenhain. The practical and therapeutic significance of the anatomical and pathological observations embodied in these two researches have been duly recognised by many surgeons, and have been largely instrumental in inducing them to revise the operation formerly adopted for cancer of the breast. Cheyne, Halsted, Rotter, Kocher, Butlin, Helferich, and many others have worked out and developed an operative procedure which, by meeting the pathological requirements, offers a fair prospect of ridding the unfortunate sufferer of what was, and is even now, too often regarded as an incurable disease.

In the early part of last year a paper upon Immunity and Latency after Operations for Reputed Cancer of the Breast, read before the Royal Medical and Chirurgical Society of London by Mr. Marmaduke Sheild, led to an important discussion, which resolved itself practically into a debate upon the comparative value of the old and the new operations. The debate was deemed of such importance that it was twice adjourned, and many of the leading London surgeons took part in it. Most of the speakers, with the important exceptions of Cheyne and Butlin, objected strongly to applying the word "cured" to patients who had survived the operation for three years without manifesting any signs of recurrence, and many cases were brought forward by Mr. Sheild and others in which patients who had been subjected to the old operation had survived a much longer period. Such patients, however, owed their good fortune to the eccentricities of their disease rather than to the operation. The vagaries of cancer are such that an incomplete operation may occasionally give the same freedom from recurrence as a more extensive one. As long, however, as we are unable to single out such cases, the old operation, performed with the object of curing the patient, is unjustifiable. "Incomplete" the old operations certainly were, and the sooner this is recognised the better will it be both for the patient and for the credit of modern surgery. It is a mistake to suppose that the ultimate prognosis in patients free from recurrence three years after the old operation is as good as in the case of a patient who is free from recurrence three years after a modern extensive operation. In the former case the patient still runs the risk of local as well as of internal recurrence, whereas in the latter case the risk is limited to a very large extent to internal recurrence only, for the simple reason that the tissues in which local recurrence so commonly occurs have been removed. By a "complete" operation is meant one which prevents external recurrence; but no operation can be termed complete in the sense of preventing internal recurrence, for internal metastases may already exist at the time of operation, and it is the duty of the surgeon to ascertain, as far as possible, if such be the case.

In the face of the arguments and results which Mr. Cheyne was able to bring forward (in his Lettsomian Lectures for 1896) in favour of the modern extensive operation for cancer of the breast, one can only express surprise that so many eminent and experienced surgeons should have spoken so favourably of the old operation.

Many surgeons in the discussion above referred to, complained of the use of the terms "incomplete" and "complete," which were used to designate the old and new operations respectively. Mr. Cheyne, I believe, was mainly responsible for the use of these terms, and I am bound to say that if proofs were needed to justify his using the term "incomplete" to designate the old operation, no better could be brought forward than are furnished by contrasting the results of his own operation with even the most favourable of those obtained by the old operation. In his "Further statement as to results obtained by operation for cancer of the breast,"[3] he has, in my opinion, gone a long way towards justifying the use of the word "cured," as applied to cases which have been operated on in the manner he describes. Taking the 12 out of the 21 patients who had been free from recurrence three or more years after the operation, Mr. Cheyne finds that one died from acute bronchitis without any recurrence three years and five months after operation; one, known to have been well a year ago, has not been traced; one is said to have died of cancer of the intestines, while the remaining nine are all alive and well at periods varying from six to nine years after operation. Taking all the cases which Mr. Cheyne has operated on since 1890, 51 per cent. are alive and well three or more years after operation. These cases are now referred to by Mr. Cheyne as "successes" in place of "cures." Further, Mr. Cheyne's results bring out the important fact that a distinctly hopeful prognosis may be given in cases where only one year has elapsed without recurrence, provided, of course, a sufficiently radical operation was performed.

Pathological Evidence.

Although no better or stronger proof could be brought forward in support of the value of extensive operations in cancer of the breast than is afforded by their results, I may be pardoned if in this paper I endeavour once more to demonstrate that, on pathological grounds, such operations are necessary if the patients are permanently to be rid of the disease.

The following remarks are founded upon the careful naked-eye and microscopic investigation of over 100 breasts removed by the staff of the Edinburgh Royal Infirmary and of the Chalmers Hospital during the first half of the present decade. By the courtesy of the staff of these hospitals I was permitted to examine the greater number of the cases before operation, and was present at the operation. The parts removed were investigated by me in the surgical laboratory of the University of Edinburgh, where I received much encouragement and many valuable suggestions from Professor Chiene.

Naked-eye Anatomy.

The Nitric-acid Method.

In order that the anatomy of the gland and the distribution of the disease could be satisfactorily studied by the naked eye, it was found necessary in the first place to obtain a method which would differentiate the epithelial from the connective tissue structures. A 5 per cent. solution of nitric acid was employed for this purpose in the manner originally described by the writer.[2] This reagent, by coagulating the protoplasm of the epithelial cells, and at the same time partially gelatinising the connective tissue, gave the required differentiation. Although the cancerous and the normal epithelium react in the same manner, they could generally be differentiated after a little experience by observing the differences in their distribution and arrangement. In cases in which this could not be done by the naked eye, the microscope was employed to settle the question. Space will not permit me to describe the anatomy of the breast, or to refer to the great variations which are met with, depending for the most part upon the age of the patient and the functional state of the gland. With regard to the cancerous tissue, the nitric acid not only defines very clearly the limits of the tumour, but, what is more important, by enabling one more readily to detect small foci of disease in the gland and adjacent tissues, this reagent affords us a means of studying the dissemination of the disease.

The Routes of Local Dissemination.

Since pathologists are now agreed that carcinoma is primarily a local affection, it is clearly the duty of the surgeon to endeavour to remove not only the entire breast, but as far as possible as much of the adjacent tissues as is liable to be involved in the dissemination of the disease. It must not be supposed that disseminated foci of cancer are visible to

the naked eye in every cancerous breast, even by the aid of nitric acid; indeed, in the early stage of a typical circumscribed scirrhus it is the exception, rather than the rule, to meet with them. By the examination, however, of a large number of breasts in which such foci are visible, we acquire a considerable knowledge of the channels along which the disease is liable to be disseminated. And when no foci are visible to the naked eye, careful microscopic investigation will frequently reveal their presence, so that, whether visible or not, all those tissues in which we are accustomed to find them must be looked upon with suspicion, and removed, however limited and circumscribed the tumour may appear. Unfortunately our knowledge of the dissemination of cancer is not sufficiently extensive to allow us to state precisely in any given case when, or in what order, and in what direction, the various tissues become involved. As, however, the cancer cells have necessarily occupied the lymphatic spaces for some time before the tumour can be detected clinically, it is only reasonable to suppose that a certain amount of dissemination will in all probability have taken place by the time the case comes under treatment.

The writer, in his demonstrations on surgical pathology to the senior students of the class of surgery in the University of Edinburgh, has for some years been in the habit of demonstrating the morbid anatomy and mode of dissemination of cancer of the breast by means of photomicrographs—the work of Mr. Andrew Pringle, of London, and of Mr. Richard Muir, of the Pathological Department of the University of Edinburgh, to both of whom I desire to express my indebtedness and thanks—selected from many hundreds of preparations. With the exception of Mr. Cheyne's article on the breast in Treves's *System of Surgery*, in which a few of these photographs have been reproduced, even in the latest textbooks on surgery and works on diseases of the breast, although the morbid histology of the different varieties of cancer is figured, no illustrations are given demonstrating the lymphatic dissemination of the disease and the need for the modern extensive operation. If by giving the gist of these demonstrations I succeed in proving the necessity of such operations, this paper will not have been written in vain.

The Characters of the Breast Tumour.

As regards the tumour itself, it is generally met with in the form of a more or less hard growth, which although not encapsulated is generally well circumscribed. It may occupy any part of the breast, and when growing in the extremity of one of the peripheral processes, more especially of the outer hemisphere, may give rise to the erroneous impression that it has originated outside the mamma. When the tumour is growing in the deeper layers of a large, fat mamma the tumour may either escape detection altogether, or be mistaken for a localised mastitis, in consequence of its outline being obscured by the fat. An atrophic scirrhus, situated subjacent to the nipple, is often difficult to detect on account of the thickened and indurated condition of the skin about the areola.

Less frequently the cancer instead of forming a circumscribed tumour is more or less diffused throughout the whole breast, and this form of the disease may, like the nodular form, occur as a diffuse, slow-growing atrophic tumour, or in the form of a rapid and more acute general enlargement (acute or inflammatory cancer). This condition is liable to be mistaken for a subacute general mastitis, but may generally be distinguished by the early involvement of the skin.

The colloid variety of cancer, which is met with in not more than 2 or 3 per cent. of cases of cancer of the breast, cannot as a rule be diagnosed clinically. In history and physical signs this variety of tumour stands midway between fibro-adenoma and scirrhus. It is slow growing, well-defined, and sometimes has a bossy surface; the glands in the axilla, although they may be slightly enlarged, are very rarely malignant. It differs from fibro-adenoma in being non-encapsulated, and therefore not mobile apart from the breast, and in having more the consistence of a scirrhus than that of a fibro-adenoma.

Turning now to the main subject of this article—that is to say, the mode of dissemination of the disease—it must be distinctly understood that the preparations which have been used to illustrate the text were not derived from one breast, but have been selected from a large series. On several occasions, on examining cancerous breasts in which no disseminations were visible to the naked eye, I have come across, as it were by accident, cancerous emboli in lymphatics far removed from the primary tumour, occupying sometimes breast tissue, at other times the adjacent tissues—skin, circum-mammary fat, pectoral fascia. As regards the spread of the disease in the breast tissue itself, we have to consider, first, the part played by the gland parenchyma.

Spread of the Disease in the Breast.

Given, then, an ordinary scirrhus of the breast, according to the views of Heidenhain there are present throughout the whole breast proliferative changes in the epithelium of the parenchyma and in the interacinous connective tissue, which must be looked upon as precancerous, sooner or later destined to develop into typical cancer. Now that we know how widely the breast tissue extends, and how frequently peripheral processes are left behind, it becomes important to consider the part any breast tissue which escapes removal would play in the production of recurrence. My own observations lead me to conclude that, when cancer manifests itself in breast tissue which has been left behind, the disease is far more likely to originate from cancerous emboli lurking in the lymphatics of the breast tissue than from the epithelium of the parenchyma; in other words, that recurrence from breast tissue which has been left behind originates in the same way as recurrence in the tissues extrinsic to the mamma—for example, in the skin and pectoral fascia. This question, although of great interest to the pathologist, is of less importance to the practical surgeon, since in removing all the lymphatics of the breast he must of necessity also remove all the parenchyma.

In many cancerous breasts the gland tissue differs in no respect from that found in non-cancerous breasts. The proliferative changes which Heidenhain and others regard as precancerous are very commonly met with in various forms of mastitis and cystic disease, and yet it is the exception for these affections to become malignant. The principle, therefore, that should underlie all operations for carcinoma of the mamma is complete removal, not only of the breast, but also of as much of the surrounding tissues as is likely to contain the lymphatics along which cancer cells may be disseminated. Unfortunately, it is impossible in any given case to say to what extent this dissemination may have taken place, and herein lies the difficulty and uncertainty of the operative treatment of malignant disease.

Microscopical Anatomy.

However well defined the outline of the primary tumour may appear to the naked eye, microscopically the essential elements of the tumour, that is to say, the cancer cells, insinuate themselves into the lymph spaces of the adjacent tissue. By continued proliferation the cells come to be arranged in irregular, anastomosing clusters, which dilate the lymph spaces into the so-called alveolar spaces of the stroma; the latter consists partly of the pre-existing tissue and partly of a newly-formed tissue, the result of an inflammatory hyperplasia of the connective tissue, set up by the irritation produced by the proliferation of the cancer cells, and no doubt also by their chemical products. In the meshes of the stroma leucocytes are generally met with, and these are more or less numerous according to the degree of irritation. Microscopically the tumour tissue may be distinguished from the adjacent gland parenchyma, not only by its lack of gland-like architectural arrangements, but also by the difference presented by the morphological characters of the cells in the two cases. Without going into details of cell structure, suffice it to say that the cells of the tumour, especially their nuclei, are much larger, and show signs of greater reproductive activity than the cells of the gland parenchyma.

"*Cancer Cells.*"

These structural differences are comparable with, and no doubt co-related to, the functional differences, and are sufficiently marked to justify us in applying the specific term "cancer cells" to the modified and malignant epithelial cells of the tumour. Of what it is that brings about this very remarkable modification, both of structure and function, on

the part of the epithelial cells, we are as ignorant as ever. To settle this question would be to solve the cancer problem, and possibly also to lead to the discovery of a method of success fully dealing with the disease without resort to the knife. I have no intention of entering upon the vexed question of the parasitic causation of cancer further than to say that I have devoted much time to an endeavour to elucidate the nature of the cancer bodies originally described by Rutter and Plimmer[4] as protozoa, and subsequently by Sanfelice,[5] Roncali, and other Italian observers as belonging to the blastomycete variety of fungi. I must confess I had satisfied myself that these structures were not parasites, and that I was able to trace their evolution from the cancer cells themselves. It is to be hoped, however, that the very interesting and important work recently published by Plimmer[6] may settle the question. Without having heard Mr. Plimmer's paper, or having seen his preparations and cultivations, one is perhaps hardly justified in offering any criticism; but the question which presented itself to my mind was as to the possibility of the cultures consisting of proliferated and degenerated cancer cells themselves—a possibility which must be reckoned with if we reflect upon the reproductive activity which epithelial cells are capable of retaining when transferred to a suitable soil. Again, the peculiar morphological appearances which cancer cells present when growing in the fluid of a malignant pleurisy seems to justify such a possibility.

Spread along Lymphatics.

Fig. 1 is a view, under a low power, of the invading edge of a mammary cancer. In the upper half of the field clusters of cancer cells are seen invading the fat of the interlobular breast tissue; in the lower half of the field is an atrophied gland lobule, consisting of the finer ramification of a duct, round which are grouped a few atrophied acini filled with small epithelial cells. Close outside this atrophied lobule are a few clusters of cancer cells which are much larger than the epithelial cells of the acini. By comparing the cells of the cancer with those of the gland parenchyma, placed thus side by side, one gets a good idea of the relationships of the one to the other, and learns to distinguish the two kinds of cells when met with independently. In the right upper quadrant are two blood vessels, accompanied by two paravascular lymphatic vessels distended with cancer cells. This section may be taken as an example of what happens when a cancer invades and spreads amidst the breast tissue itself, and shows that it makes its way into the lymph spaces and lymphatic vessels. Having gained the lymph vessels a few cells may at any time be transplanted by the lymph stream to a lymphatic gland, or may be arrested as emboli at any point along the lymph channel which leads to the lymphatic gland. Further, it is to be noted that the adjacent parenchyma becomes invaded and destroyed by the onward march of the proliferating cancer cells. The interacinous connective tissue undergoes a more or less well-marked chronic inflammatory hyperplasia, but the epithelial cells of the acini seldom show signs of becoming cancerous; in other words, the cancer cells do not appear to exert any spermatic, fertilising, or infective power over them. In Fig. 2, taken from a part of the tumour invading the nipple, one of the main lactiferous ducts is seen to be surrounded by clusters of cancer cells, the whole appearance resembling somewhat a duct surrounded by acini filled with large cells. They are not acini, however, the cells of which have undergone a cancerous transformation; they are the lymphatics which occupy the adventitious coat of the duct, injected as it were with cancer cells. These two preparations then may be taken as illustrating (1) the local origin of the tumour; (2) its spread along the lymphatics—paralobular, paraductal, interlobular, and paravascular—of the breast tissue; (3) the more or less passive part played by the adjacent gland parenchyma.

In diffuse cancers of the breast the preparations treated by the nitric acid method show isolated and conglomerate foci of cancer, scattered throughout the greater part of the breast. In such cases it is not always possible to say which foci are the result of lymphatic dissemination and which have originated as independent outbreaks of cancer from the parenchyma. It is just in these cases that we might expect to find the precancerous, or what is sometimes termed the adenomatous, stage of cancer, and to be afforded a demonstration of the various stages in the transition from normal parenchyma into cancer; but it is seldom that such transitions are to be found; the tissue is generally either distinctly cancerous or distinctly non-cancerous. In the instances in which we do find proliferative and hypertrophied epithelium in the gland parenchyma, it is difficult to say whether or not such cases are to be regarded as precancerous, inasmuch as precisely similar changes are met with in various forms of chronic mastitis, cystic disease. I cannot agree with Heidenhain in regarding the parenchyma of a breast which is the seat of an ordinary circumscribed scirrhus as necessarily precancerous throughout. Since, however, the more diffuse cancers show us that the disease may break out in the form of independent foci, we must admit the possibility of the same thing happening in a breast the seat of a circumscribed tumour, should the disease be allowed to run its course. For this reason, therefore, it is safer to remove the entire breast. But a far more important reason for removing the whole breast is in order that we may be sure of removing any pre-existing cancer cells which may have been transplanted either directly or indirectly from the primary tumour, and which may be lurking in the lymph spaces and lymphatics of the stroma.

Transitional Stages.

The breast tumours in which transitional stages in the development of cancer may be most conveniently studied are:

1. Those in which the cancer has followed upon an antecedent mastitis, and

2. A group of epithelial tumours which have been singled out by Halsted[7] as possessing distinctive clinical and histological features, and which he proposes to designate under the name "adeno-carcinoma." He has met with five or six examples of this variety of tumour in about 150 cases of breast cancer. Thanks to the excellent plates which accompany the text, there is no difficulty in identifying the three or four cases which have come under my notice. Surgeons will do well to make themselves familiar with their clinical features, because, possessing a somewhat encephaloid appearance, and having a tendency to fungate they are liable to be looked upon as possessing a high degree of malignancy, whereas, in reality, they are, as Halsted has shown, much less malignant than the ordinary scirrhus, since they rarely give rise to secondary growths in the glands, or to local recurrences. They are perhaps most closely allied to the duct cancers.

From what I have seen of cancers developing in connection with chronic mastitis, I am inclined to think that though they possess a distinctly higher degree of malignancy than is displayed by the adeno-carcinomata of Halsted, they are, nevertheless, less malignant than the ordinary scirrhus; this is probably to be accounted for by the fact that the cicatrisation of the inflammatory tissue tends to narrow or obliterate the lymph channels.

BREAST TISSUE AND RECURRENCE.

As bearing upon the part which breast tissue when left behind plays in causing recurrence, I may refer to what was found in two recurrent tumours. In one the recurrent nodule, which did not appear until nine years after the first operation, was situated close to the inner extremity of the cicatrix, just outside the edge of the sternum. Microscopic examination revealed the fact that the cancerous nodule was invading some atrophied breast tissue adjacent to it. In the second case, the recurrent tumour, which was the size of a walnut and bore a close resemblance to a primary tumour, appeared to be situated just below the lowest limit of the mammary area, yet on nitric acid examinination of the parts removed, typical gland parenchyma, in the form of a grape-like clustering of ultimate lobules, could readily be made out. Some of these were actually seen upon the exposed surface of the mass removed, which shows that some gland tissue had been left behind even after the second operation. The specimens derived from these two cases were subjected to careful microscopic investigation in order, if possible, to determine whether the recurrent tumours had originated from cancerous lymphatic emboli, or from the gland parenchyma which had been left behind at the first operation. In both instances the tumour tissue, which was of the typical scirrhus type, invaded the adjacent parenchyma, but the latter differed neither in

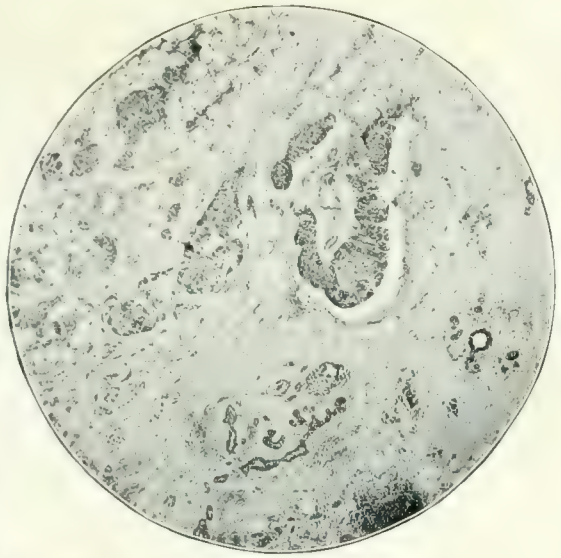


Fig. 1.—Shows cancer spreading in the lymphatics of the breast tissue (× 50).

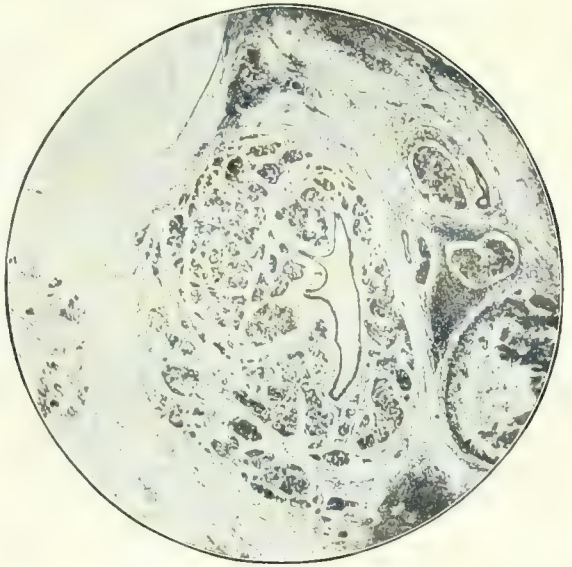


Fig. 2.—Cancer in lymphatics outside a main lactiferous duct (× 70).

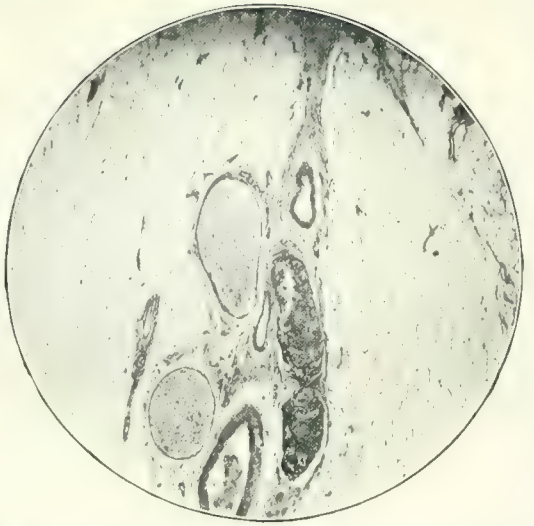


Fig. 3.—Cancer in a lymphatic vessel occupying one of the connective tissue "claws" radiating from edge of tumour into surrounding fat, towards axilla (× 50).

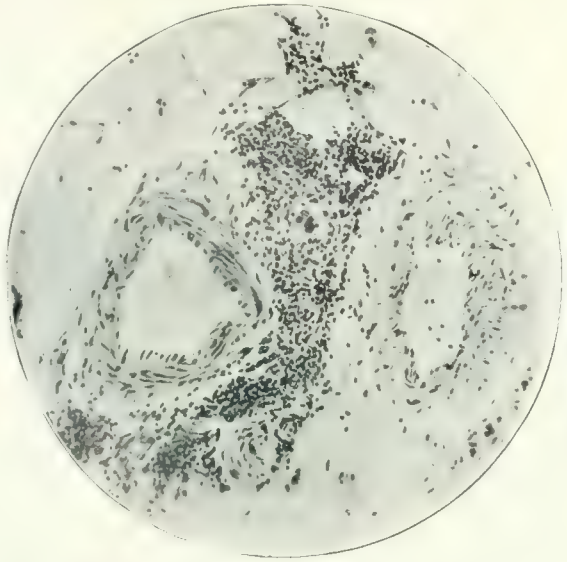


Fig. 4.—Cancer in small lymphatic occupying one of the suspensory ligaments of Cooper (× 150)

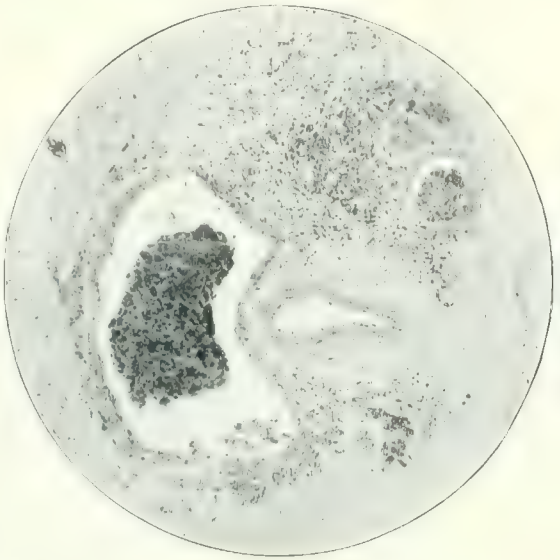


Fig. 5.—Cancer in lymphatic (vein ?) upon the cut surface made by the surgeon in removing the breast (× 100).

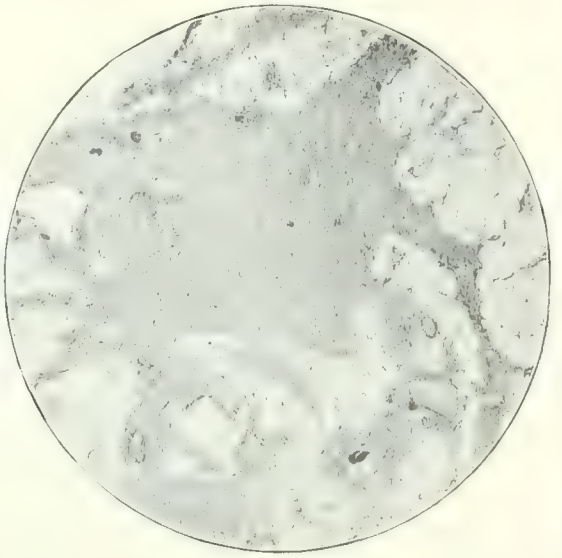


Fig. 6.—Cancer in efferent lymphatics accompanying the blood vessels of the pectoral fascia (× 20).

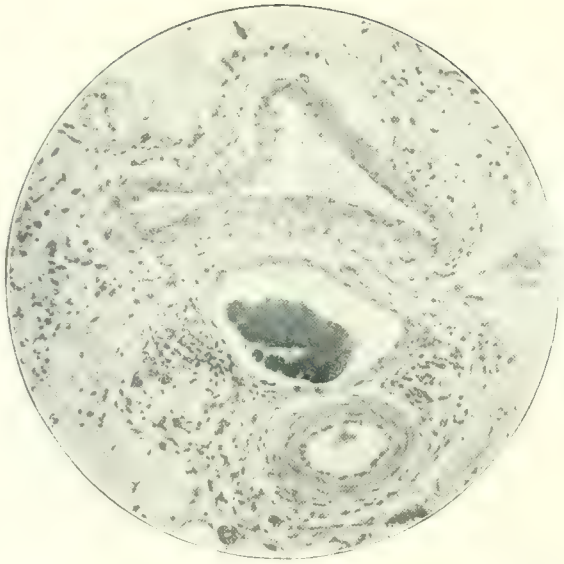


Fig. 7.—One of the cancerous lymphatics (Fig. 6), more magnified; shows artery, vein, and lymphatic (× 150).

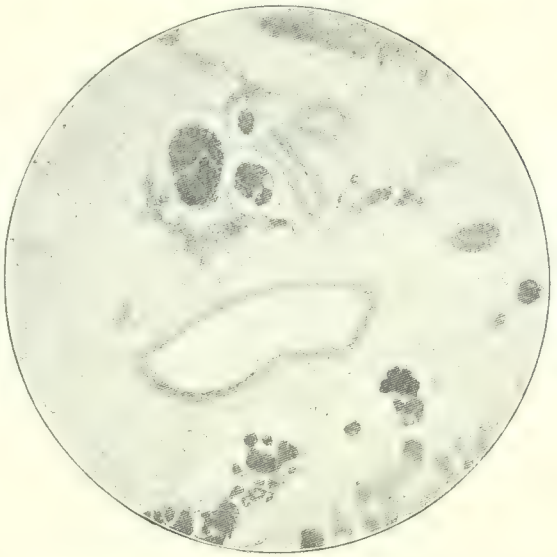


Fig. 8.—Cancer in efferent lymphatics accompanying the blood vessels and nerves which traverse the pectoralis major on their way to supply the mamma (× 70).

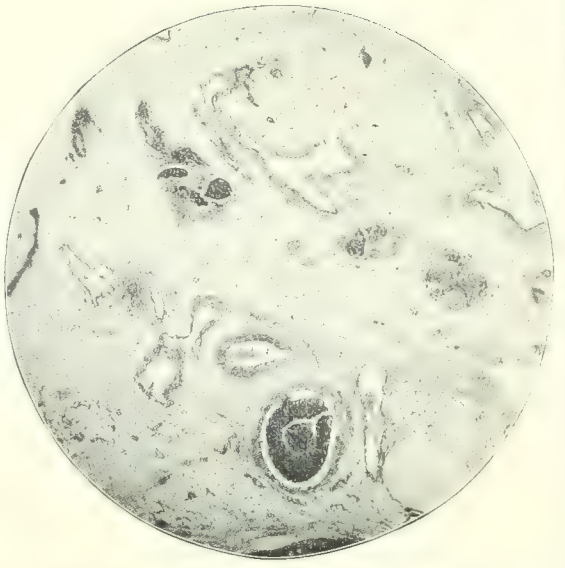


Fig. 9.—Cancer in lymphatics close to an axillary gland (× 50).

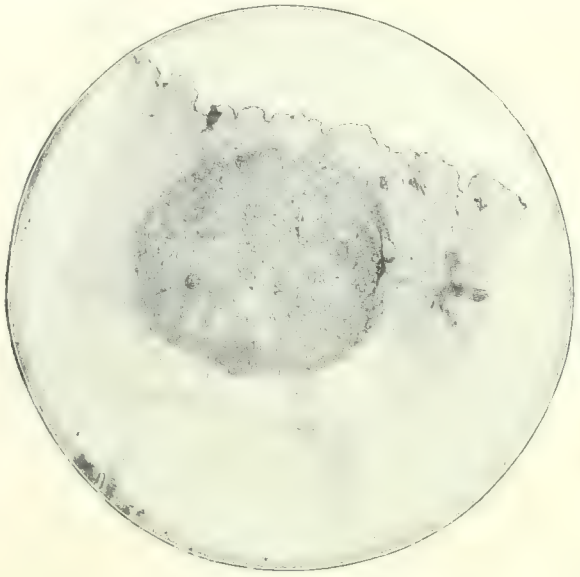


Fig. 10.—Shot-like secondary nodule in skin (× 6)

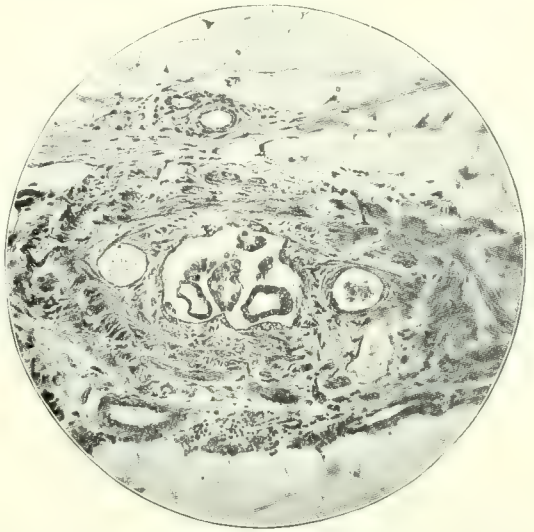


Fig. 11.—Small cancerous emboli which have been washed into an axillary lymphatic trunk (× 150).

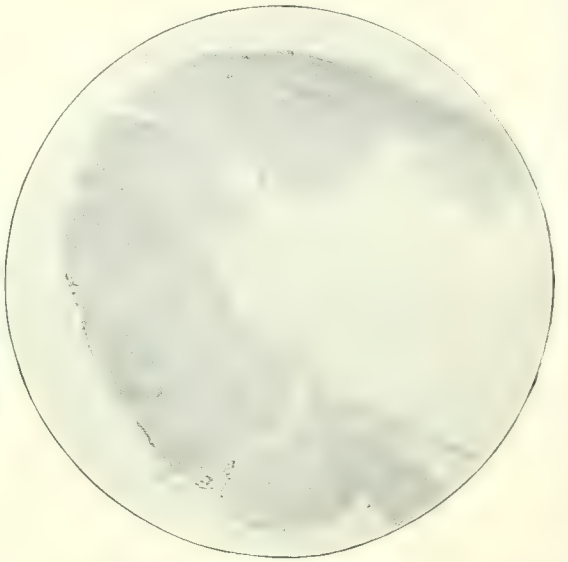


Fig. 12.—Portion of a small axillary gland showing early stage of cancerous infection (× 15)

arrangement nor in structure from what one is accustomed to find in non-cancerous breasts; the interacinous connective tissue was rather more cellular than normal, but there was no proliferation or hypertrophy of the epithelium of the acini—in short, no changes which could be regarded as pre-cancerous. It was impossible to say, therefore, whether these two recurrences had originated from cancerous lymphatic emboli, or as fresh outbreaks from gland parenchyma. The fact, however, that they had originated in the midst of the breast tissues raises the suspicion that they may very probably have been fresh outbreaks from the parenchyma, and, if so, then it becomes all the more necessary that the surgeon should remove every trace of gland tissue.

In this connection I may refer also to a cancerous breast which contained an ordinary involution cyst situated in the opposite hemisphere to that of the tumour. Microscopic preparations were made for the purpose of demonstrating the structure of the wall of the cyst and its relation to the adjacent parenchyma. To my surprise I found two or three small cancerous emboli occupying the lymphatics of the breast tissue just outside the wall of the cyst. The parenchyma in the neighbourhood was quite normal. If this piece of breast tissue had been left behind, then, by the time that the recurrent tumour had become manifest clinically, it would no doubt have been impossible to say what was the origin of the recurrence, but in all probability the blame would have rested with the parenchyma. I might instance many other examples of the accidental finding of cancerous emboli in breast tissue far removed from the primary tumour; indeed, I have found them in sections taken from the exposed surface of the parts removed, a good example of which will be found in Fig. 5. It must not be supposed, however, that in carcinomatous mammæ the lymphatics throughout the gland are extensively and continuously filled with cancer cells; in some breasts—more especially those which are the seat of diffuse cancer—emboli are numerous; in others, sections from many parts of the breast have to be examined before any emboli can be discovered; in others, again, careful search fails to find them, but, as complete microscopic investigation of the entire mamma is practically impossible, it would be rash to conclude that none exist.

In successful microscopic preparations there is, as has been already stated, no difficulty in distinguishing the cancer cells from the epithelium of the gland parenchyma, so that the relation of the one to the other can readily be studied. I have repeatedly found cancer cells occupying the lymphatics in all the situations in which Langhans has succeeded in injecting them artificially. In many instances, owing to shrinkage of the cancerous emboli, the endothelial lining of the lymphatics may readily be made out.

The Paravascular Lymphatics.

Besides the lymphatics which are closely related to the parenchyma—namely, the interacinous, the perilobular, the interlobular, and the periductal lymphatics—there are other intramammary lymphatics which are more closely related to the blood vessels. These may with advantage be spoken of as the paravascular lymphatics, and since the lymphatics above mentioned open into them, they may be looked upon as constituting the main effluent lymphatic channels by which the lymph is drained from the breast. When patent, these lymphatic vessels can be readily seen and studied. In structure they are exceedingly simple, consisting of a layer of endothelium, immediately outside of which is the unmodified connective tissue, forming a sheath to the blood vessels which the lymphatics accompany. As far as I am aware, in the mamma itself there are no lymphatics, the walls of which are furnished with non-striped muscular fibres. These paravascular mammary lymphatics are generally larger than the small veins and arterioles which they accompany and surround more or less completely. Sometimes the blood vessel is seen to occupy the centre of a large perivascular lymphatic sheath. In the majority of instances the lymphatics in ordinary histological preparations are empty and collapsed, and thereby escape notice. When cancerous, they are generally filled and distended with cancer cells, which may or may not have penetrated their walls and invaded the surrounding tissue. Occasionally one may observe a patent lymphatic containing a few cancer cells which appear to be floating in the lymph stream; the endothelial lining of the lymphatic is then quite distinct, and I have never seen appearances indicating that the endothelium becomes cancerous.

The Blood Vessels and Lactiferous Ducts.

It is by no means always easy to say whether a cancerous embolus is occupying the paravascular lymphatic or a small vein. Goldmann,[8] in an able and important monograph, has demonstrated, by the aid of orcein, a specific stain for elastic fibres, that the blood vessels, especially the small veins, are more frequently and more extensively invaded than was hitherto thought to be the case. The wall of the vein is usually attacked directly from without, but the cancer cells are, as a rule, prevented from gaining free access to the lumen of the vessel by an advancing barrier of connective tissue, caused by the chronic inflammatory hyperplasia which the cancer cells set up in the wall of the vessel; in some cases there is formed an organised thrombus containing cancer cells which blocks the lumen of the vessel, and in this way prevents a more general invasion by the blood stream. More rarely the arteries become invaded, and it is possible that the sudden formation and extensive distribution of lenticular disseminations in the skin may, in some instances, be due to arterial embolism. Goldmann has also shown that the walls of the lactiferous ducts may become invaded in much the same way as the blood vessels, and should the cancer cells gain access to the lumen, they may, by their subsequent proliferation, give rise to a condition which cannot always be distinguished from an independent outbreak of cancer, starting from the epithelial lining of the duct.

PAGET'S DISEASE OF THE NIPPLE.

In that interesting affection known as Paget's disease of the nipple, the malignant epithelial cells, which either originate in, or gain access to, the ducts, subsequently spread along them, destroying the adjacent normal epithelium in their advance. In microscopic preparations consisting of longitudinal sections of a nipple, one can frequently trace the malignant disease from the surface of the nipple down some of the ducts, until a frontier is reached where there is a marked line of demarcation between the cancerous and normal epithelium. Others of the main ducts may be quite free from the disease, and in others again one half of the lumen may be cancerous, while the other half is normal. I cannot make even this incidental reference to Paget's disease without taking an opportunity of mentioning that the so-called psorosperms are nothing more nor less than epithelial cells which have become hypertrophied, vesicular, and succulent-looking, and which have taken on proliferative activity, as shown by the frequent presence of mitotic figures, which, in short, have undergone a malignant transformation. As Karg[9] rightly points out, the so-called psorosperms are the first cancer cells. Why they should crop up here and there, sometimes single, sometimes in pairs, sometimes in small clusters, and sometimes in groups in the deeper layers of the epidermis is difficult to understand. In Paget's disease we come nearer to a demonstration of the actual initial stage of malignant disease than is afforded by any other forms of carcinoma with which I am familiar. But whence and wherefore the origin of the malignant cell or cells, surrounded on all sides by perfectly normal epithelium? The study of some specimens tends to confirm the observations of Karg that all transitions may be made out between the cancer cells and the normal epidermic cells. If it were not for the fact that the malignant cells were situated deep down in the epidermis, and often covered by many layers of normal epithelium, I should be inclined to say that some of the cells which had escaped from the orifices of the cancerous lactiferous ducts had got implanted upon the surface and there taken root. It must be confessed, however, that the histological appearances alone, without other considerations, tend rather to negative this view. The same stimulus, whether a *contagium vivum* or not, is no doubt responsible for the malignant action which has been taken on both by the epithelium of the lactiferous ducts and by that of the adjacent epidermis. That the disease begins at or near the mouths of the ducts, and spreads from thence both down the ducts and circumferentially in the skin, there can, I think,

be little doubt. But why the disease should spread in the skin in the form of foci, limited to the epidermis, is a question which makes Paget's disease of the nipple one of the most interesting of the histological problems connected with cancer.

Mode of Spread in Extrinsic Mammary Structures.

While, then, breast tissue may occasionally be demonstrated in the neighbourhood of recurrent nodules, it must be admitted that in the majority of cases no breast tissue is to be discovered. This leads us to the consideration of the mode of spread of the disease in the extrinsic mammary tissues—the skin, circum-mammary fat, pectoral fascia, and pectoral muscle. Any or all of these tissues may of course be directly invaded by the main tumour. When the skin becomes involved and ulcerates, or when the tumour fungates, the epidermis becomes destroyed; its epithelium takes no part in the cancerous process—that is, the cancer cells of the tumour possess no infective influence, capable of endowing the epidermis with malignant properties. When the tumour is situated under the areola the cancer cells gain early access to the lymphatics, which occupy the adventitious coat of the main lactiferous ducts.

The Subareolar Lymphatic Plexus.

These lymphatics open into the rich subareolar plexus of Sappey, which in its turn is in free communication with the cutaneous system of lymphatics. Central tumours, therefore, are peculiarly liable to produce induration about the nipple and areola, and to give rise to extensive infection of the skin. In the form of the disease known as *cancer en cuirasse*, in which the skin of the chest becomes indurated, thickened, tuberculated, and tightly bound down to the deeper tissues, the primary tumour, which may be small and atrophic, is generally situated under the areola. If such a breast be sliced vertically, and treated with nitric acid, the spread of the cancer in the skin can often be distinctly made out in the form of miliary-like, or more irregular, opaque white deposits, united by a network of white lines, the latter corresponding to the lymphatic plexus, injected, as it were, with cancer cells. On the surface of the skin the cancerous main lymphatic trunks are not infrequently to be made out in the form of branching, cord-like elevations, radiating from the nipple.

The Suspensory Ligaments of Cooper.

But the subareolar plexus is not the only channel through which the lymphatics of the breast are brought into communication with those of the skin. If the mamma be sliced vertically, triangular tooth-like processes of breast tissue will be seen to pass from the anterior aspect of the main body of the gland, to end in fibrinous prolongations (the suspensory ligaments of Cooper) which reach the under surface of the true skin. Into these fibrous processes the parenchyma is prolonged for a greater or less distance, and in spare women with well-developed mammæ it may reach to within a very short distance from the corium. From the side of the larger processes smaller secondary processes are given off, and by the junction of these with neighbouring processes a reticular arrangement is produced, the meshes of which are occupied by the subcutaneous fat. Similar peripheral processes containing parenchyma radiate from the circumference of the gland, and, after dividing up in the manner above described, they pass insensibly into the delicate connective tissue septa which separate the lobules of the circum-mammary fat. It is this entire absence of anything in the shape of a capsule to the breast, combined with the tapering off of the peripheral processes, which renders it so difficult for the surgeon to say when he has removed the whole mamma. These anatomical facts appear to have been fully recognised by such anatomists as Sir Astley Cooper and Henle, but until a comparatively recent date their practical importance was not appreciated by surgeons, or, if appreciated, disregarded, in consequence, no doubt, of the old idea that cancer was a constitutional disease, and, therefore, incurable by operation. To those who have not yet fully convinced themselves of the extensive distribution of the mamma, I would strongly recommend the study of the appearances presented by the breast tissue after treatment with nitric acid, typical illustrations of which will be found in my original paper already referred to. These peripheral processes of the mamma are not only of importance in giving a wide distribution to the parenchyma, but they are of equal importance, in that they carry with them lymphatic vessels which bring the lymphatics of the breast tissue proper into direct anatomical continuity with the lymphatics of the skin and subcutaneous tissue of the whole mammary area. It is by means of these lymphatic connections that microscopic miliary lenticular and nodular foci are disseminated, not only in the breast tissue proper, but frequently also in the skin and circum-mammary fat; and it is with the object of removing the whole area in which these are likely to be found that the modern extensive operation becomes necessary. I have, especially by the use of nitric acid, repeatedly demonstrated the presence of disseminated foci of disease upon the exposed surface of the parts removed, and have frequently found cancerous lymphatic emboli towards the inner margin of the breast when the primary tumour was situated in the outer hemisphere, and *vice versâ*.

In aggravated cases cancerous foci, both microscopic and macroscopic, are scattered in all directions, both in and around the breast. It will generally be found that those foci which occupy the subcutaneous tissue and circum-mammary fat are situated in the septa which separate the fat lobules. If these foci be examined microscopically they are usually found to have developed in the paravascular lymphatics, which, along with the small blood vessels, ramify in the septa. At other times miliary or shot-like cancerous foci are found close beneath or within the corium; and a careful search will sometimes reveal the presence of a cancerous paravascular lymphatic occupying one of the ligaments of Cooper or connective tissue septa leading up to the nodule. Fig. 4 shows a few cancer cells in a small lymphatic vessel accompanying the blood vessels which occupy one of the ligaments of Cooper, where there was a slight tacking down of the skin over the tumour. No better illustration could be afforded of the importance of free removal of that part of the skin which overlies the tumour—a point in the operation which is not always sufficiently attended to, especially when the tumour is placed peripherally. Fig. 3 is an example of a cancerous embolus in a large paravascular lymphatic which was found accompanying the vessels and nerves ramifying in one of the silvery connective tissue processes or "claws" which radiated from the edge of an ordinary circumscribed scirrhus into the circum-mammary fat towards the axilla.

The Retromammary Tissue and Pectoral Fascia.

Another situation in which cancerous lymphatics are very commonly met with is in the retromammary tissue and pectoral fascia, both of which, surgically speaking, should be regarded as forming an essential part of the breast. The body of the mamma is separated from the subjacent muscle by a thin stratum of connective tissue, the deeper fibres of which are more closely packed, to constitute the pectoral fascia proper. This fascia is very thin, and gives off many delicate processes, which pass between the fasciculi of the muscle; the larger processes support the blood vessels which pass from the muscle to the gland. In obese subjects the retromammary tissue as well as the pectoral fascia are largely converted into fat, so that the fascia is scarcely recognisable as a distinct layer, in fact, anatomically speaking, there is no distinct line of separation between the retromammary tissue and the pectoral fascia. Delicate processes of breast tissue pass from the deep surface of the corpus mammæ into the retromammary tissue, and, as Heidenhain has shown, the parenchyma not infrequently extends into them as far as the pectoral muscle. It follows, therefore, that in order to remove the whole of the mammary parenchyma, the pectoral fascia, along with the superficial fibres of the pectoral muscle, should be removed. The retromammary tissue and pectoral fascia are of special importance to surgeons on account of the number of efferent lymphatics which leave the posterior surface of the mamma and ramify in them in the form of a horizontal plexus, from which main trunks arise and pierce the axillary fascia to reach the axillary glands. That these efferent lymphatics are involved at a comparatively early stage of carcinoma is shown by the frequency with which adhesions are present when it is attempted to strip the fascia off the deep surface of the mamma. Moreover, it will often be observed that these adhesions are present although to the

naked eye the tumour itself has not actually extended as far as the deep surface of the breast; they are analogous to the adhesions which produce the slight tacking down of the skin over a tumour situated at some little distance beneath it. In the majority of cases adhesion to the retromammary tissue takes place at an earlier date than to the skin, so that the efferent retromammary lymphatics, and consequently also the glands, are often infected at quite an early stage of the disease, and long before the skin is involved. If a carcinomatous breast, to which the retromammary tissue is adherent, be examined by the nitric acid method, delicate opaque white lines may often be seen radiating from the deep surface of the tumour into the retromammary tissue, and if these be examined microscopically they will be found to consist of cancerous lymphatic vessels which generally run in company with the blood vessels (paravascular efferent retromammary lymphatics). Often, however, even when cancerous, they are too small to be detected by the naked eye, in which case they are discovered more or less accidentally in microscopic sections, typical specimens of which are shown in Fig. 6, one of which is more magnified in Fig. 7.

Enough has been said to show the great importance of removing the retromammary tissue and pectoral fascia, and along with it the fascia covering the serratus magnus and the upper digitations of the external oblique of the abdomen; but while surgeons are now agreed as to the importance of removing these fasciæ, much difference of opinion still exists as to whether it is necessary to remove the pectoral muscle as well.

The Pectoral Muscle.

According to Heidenhain there is no necessity to remove the whole thickness of the pectoral muscle so long as no part of it is actually invaded by the tumour, but when once this invasion has occurred he urges the removal of the whole muscle, as the contraction of its fibres is favourable to early dissemination of the cancer cells throughout its substance. This teaching is founded upon the description of the lymphatics of the muscles by Sappey, who states that the lymph circulation is from the interior of the muscles towards the lymphatics of the investing fascia, and not from the fascia towards the muscle.

Rotter,[10] as the result of a careful investigation into the lymphatics of the pectoral muscle, has come to the conclusion that the removal of the whole of the sternal fibres of the muscle should be a routine practice in the operation for cancer of the breast. In the first instance, he adopted this course, because he found it simpler than the removal of a thin layer of the muscle. Since the beginning of 1896 he has made a careful examination of the pectoral muscle in all the breasts he has removed, forty in number. He found that the perforating branches of the internal mammary and the superior thoracic artery, after penetrating the pectoralis major, could be traced through the retromammary tissue into the substance of the breast, and in one instance he succeeded in tracing a branch of the latter vessel into the tumour itself. Branches from the long thoracic could be traced through the muscle as far only as the retromommary fat. These are facts which are familiar to all anatomists, but Rotter was able to demonstrate that the blood vessels already mentioned were accompanied by efferent lymphatic vessels from the breast. Grossmann had already shown, by injections in the cadaver, that a lymphatic vessel could occasionally be demonstrated accompanying the superior thoracic artery and passing from the mamma along the posterior surface of the pectoralis major to the infraclavicular glands, this vessel receiving a lymphatic which proceeded from the first or pectoral set of axillary glands. Rotter has made the further important observation that one or two small glands were constantly found alongside the trunk of the superior thoracic artery, and that in one half of the specimens examined two or three other glands were found, generally in the angles of bifurcation of its branches, not more than three fingerbreadths from the perforating arteries. Other inconstant lymphatic glands were found behind the lower part of the pectoralis major, in relation to the branches of the external mammary artery. In a few instances a gland was discovered in the substance of the pectoralis in relation to one of the perforating arteries. In rather more than a third of the carcinomatous breasts examined by Rotter, small cancerous nodules, visible to the naked eye, were found upon the posterior surface and in the substance of the pectoralis major, adjacent to the superior thoracic, at a distance varying from 1 to 2 inches from its origin from the axillary artery. These nodules, which could not be classed as cancerous infraclavicular glands, were placed between the pectoralis major and minor. Less frequently similar nodules were found relating to the peripheral branches of the artery. In one advanced case a cancerous gland was found related to one of the perforating arteries.

Out of the 15 preparations in which the retropectoral lymphatic glands were diseased, it is interesting to note that only in 5 was the muscle directly invaded by the tumour; in the remaining 10 cases the tumour was separated from the muscle by a layer of retromammary fat of variable thickness. In the 18 cases in which there was no disease in the retropectoral lymphatics the tumour was adherent to the muscle in 5 instances, so that the invasion of the pectoral muscle was scarcely more frequent in the cases in which retropectoral dissemination existed.

As the result of the above observations Rotter came to the following conclusions:

1. That when the tumour invades the pectoral muscle directly, the latter does not become infected throughout, but through the main paravascular lymphatic channels above described.

2. That at an early stage of the disease, and before the tumour has become adherent to the pectoral fascia, the cancer cells may be conveyed through the retromammary fat and pectoral muscle to the lymphatic glands situated in the fascia upon the posterior surface of the pectoralis major, as well as by the more generally recognised channels to the axillary glands. That although dissemination is less regular by the former than by the latter channel, it nevertheless occurs in at least one-third of the cases, a frequency which renders removal of the pectoralis major necessary.

3. That these efferent lymphatics from the mamma only pass through the sternal portion of the muscle, and that the clavicular portion need not be removed unless large cancerous infraclavicular glands have become adherent to it.

Fig. 8 is from a section of a portion of the pectoralis major from a case of recurrent scirrhus in which the nodule was adherent to the muscle. It will be observed that the paravascular lymphatics which accompany the blood vessels and nerves of the muscles are distended with cancer cells; small portions of the muscle are seen at the upper and lower margins of the figures.

If these important observations of Rotter are confirmed, there can be no question about the importance and necessity of removing the pectoral muscles in all cases. Cheyne, although he recommends that only the lower fibres of the pectoralis major should be removed in ordinary cases, is careful to point out that by so doing he is able, by pulling the muscle upwards, to remove all the fascia from its posterior surface, the cellular tissue between the pectorals, and the infraclavicular glands. The writer is inclined to think, however, that a less experienced operator than Mr. Cheyne would do well to take away both pectorals with the object not only of removing the retropectoral fascia and glands, but also of facilitating the thorough removal of all the glands, fat, and cellular tissue from the axilla.

The Axillary Lymphatic Glands.

Although I have gone fully into the normal and pathological anatomy of the axillary lymphatic glands in a former paper, I may here refer to one or two points which are of special practical importance. The number of lymphatic glands met with in the axilla is often far in excess of that usually described by anatomists, which may be readily accounted for by the fact that some of them are no larger than a pin's head, while others again frequently undergo such a marked adipose transformation as to be mistaken for ordinary fat lobules. This adipose change, of the nature no doubt of a functional involution, begins by a conversion of the connective tissue of the hilus into fat, and spreads towards the capsule, so that a narrow crescent of lymphoid tissue is all that remains of the essential structure of the gland. There is considerable evidence to show that these fatty lymphatic glands are probably also developed

from fat lobules which are more closely related to the lymphatics than usual—that is to say, which possess afferent and efferent lymphatics, in the same way that some fat lobules possess an afferent artery and an efferent vein. I have occasionally observed the formation of lymphoid nodules containing germ centres in connection with the efferent paravascular lymphatics of the breast. It would be difficult to account for the large number of tuberculous glands which are so frequently met with in the neck, without some such new formation. These fatty involuted axillary glands are of interest to the surgeon both clinically and pathologically. As a rule palpation through the coverings of the axilla gives no indication of their presence; they are usually discovered when the axilla is explored from the wound made to excise the breast, and, as they are generally larger than non-involuted glands, they are either regarded as malignant, or are looked upon with the greatest suspicion. In stout women their resemblance to an ordinary fat lobule is such that they are liable to be overlooked by the surgeon who is content with exploring the axilla with the view of discovering and "shelling out" only those glands which are distinctly indurated. The point which the surgeon must bear in mind with regard to these fatty lymphatic glands is that they are just as liable to become affected as the typical glands.

It must be clearly understood that in its initial stage cancer of a lymphatic gland gives rise neither to enlargement nor to induration, and the absence, therefore, of these signs does not necessarily mean freedom from malignancy. No better proof of this statement could be adduced than that which is afforded by the condition of matters shown in Fig. 12, which represents a very early stage of glandular infection. The preparation was made to show the structure of a lymphatic gland which has undergone partial fatty involution. To the naked eye it showed no signs whatever of malignancy; indeed, in consequence of the fatty change it was softer than an ordinary gland made up entirely of lymphoid tissue. It will be observed that the disease in the gland is represented merely by a few small clusters of cancer cells occupying the subcapsular lymph sinus into which the afferent lymphatics open. The specimen becomes still more interesting from the fact that the gland was no larger than a small pea, and that the other glands from the axilla were still smaller, and healthy. The primary growth was a small and somewhat atrophic-looking scirrhus, and was separated from the pectoral fascia by a layer of retromammary fat about one-third of an inch thick.

Although cancerous glands are so commonly and so abundantly met with in the axilla, cancerous afferent and efferent lymphatic vessels are not found so frequently as one would expect, a point to which attention has also been directed by Joerss, who suggests that infection from one gland to another takes place rather by embolism than by direct extension along the lymphatic vessels. Fig. 11 shows a transverse section of a thickened lymphatic trunk which was found in the axillary fat at a considerable distance from a cancerous gland. The bundles of non-striped muscle are seen in the vessel, while three or four cancerous emboli are seen floating freely in its lumen. More frequently the cancer cells are found to completely plug the lumen of the vessels. A third condition I have met with is that in which the cancer cells occupy the lymph spaces of an organised lymphatic thrombus. In Fig. 9, which is taken from the tissue immediately outside a cancerous lymphatic gland, several of the afferent lymphatics are seen to be plugged with deeply-stained cancer cells.

Surgeons when examining the axilla are not infrequently in the habit of referring to a "thickening" of the lymphatics to be felt not only when the axilla is opened up, but even through its covering. I am satisfied that the lymphatics are in no way responsible for this condition, which is met with most distinctly in spare women. The feeling is due to the presence of the ducts of the breast tissue, which run like so many branched and rather ill-defined strings upon the surface of the serratus, often as high up in the axilla as the third rib. They are, in fact, the ducts belonging to what Spence used to speak of as the axillary tail of the mamma, and the more widespread the breast tissue the better, as a rule, are they to be felt. That this is the case may readily be demonstrated by stripping off the fascia from the posterior surface of the breast and treating with nitric acid, when the structures in question appear as branching opaque white lines, which may occasionally be traced close up to, but not into, cancerous glands. Microscopic examination shows that these white lines are not lymphatics, but mammary ducts. One may examine both macroscopically and microscopically the tissue from many cancerous axillæ, without being able to discover any disease whatever in the lymphatic trunks. It would appear, therefore, that as soon as the cancer cells reach the main lymphatics they are swept along them to the glands in the form of an embolus. Cancerous emboli are also to be found in the smaller lymphatics of the axilla, and these, of course, are only to be discovered by microscopic examination. The emboli may invade the wall of the lymphatic and give rise to nodules of cancer which are distinct from the lymphatic glands. In the comparatively few cases in which I have found the main trunks diseased, the cancer cells could always be traced as far as a malignant gland. It is very doubtful whether a cancerous condition, even of the largest axillary lymphatics, could be detected during an operation.

The lymphatic glands which are first involved are the pectoral group, which lies on the anterior part of the inner wall of the axilla, along the line of the long thoracic artery. In the later stages of the disease, the glands towards the apex of the axilla, those alongside and behind the vein, as well as those below the clavicle, and the posterior group lying along the course of the subscapular vessels and nerves may all become involved.

It must be distinctly understood, however, that the glands towards the apex of the axilla and beneath the clavicle may be diseased while the pectoral glands are normal. There are two points which I think are not sufficiently attended to in clearing out the axilla; the one is the removal of the fascia over the serratus, which cannot be done satisfactorily unless some of the fibres of the muscle are dissected away along with it; and the other point is, that in removing the glands from the neighbourhood of the axillary vein, the sheath of the latter should be taken away; one has only to dissect the axilla, in a formalin-hardened subject, to realise the close relation of the main lymphatic trunks to the vein. It is advisable, moreover, to remove the branches of the axillary vein which proceed towards it from the chest, since they also are accompanied by lymphatics. The subscapular nerves should be spared if possible, since they supply muscles which are important in carrying out the movements of the shoulder.

The Supraclavicular Glands.

As regards the supraclavicular glands it is very difficult to say whether or not their removal should, as recommended by Halsted, form part of the routine operation. The researches of Halsted and his assistants have shown that these glands are more frequently diseased than surgeons were inclined to believe, and that, just as in the axilla, without manifesting any evidence of such a condition to the naked eye. There can be no doubt that the removal of these glands is called for if cancerous glands are found occupying the highest position that can be reached by the axillary route, because the glands in the posterior triangle of the neck may be cancerous without affording any clinical evidence.

Although Halsted recommends and practises the clearing out of the supraclavicular region in every case of cancer of the breast, most surgeons will, I think, be disposed to await the results of the microscopic examination of the tissues removed from this region before following his example.

What we specially wish to learn is: (1) In what proportion of cases can cancer be demonstrated microscopically without there being any evidence of its existence to palpation; (2) what is the proportion of cures in cases in which these glands were found to be diseased? Upon the answer to the latter question will rest the decision as to whether infected supraclavicular glands constitute a contraindication to operation.

Operation.

The thorough operative procedures adopted by Cheyne, Halsted, and Kocher[11] have been so ably and clearly described in their writings, that for me to append a systematic account of the operation which is called for in cancer of the breast, would be superfluous. To those who have not access to Halsted's papers, I may refer to Mr. Butlin's excellent description of that surgeon's operation, published, with illustrations, in the British Medical Journal for December 3rd, 1898.

As the result of my own personal investigations I certainly concur with Mr. Watson Cheyne, who says: "I may add my firm conviction that the patient's chance lies in the first operation. If this fails, either from imperfect removal of the disease, or on account of the extent of the disease in the first instance, further operation, however extensive, is seldom successful."

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THE PROBABLE PARENTAL FORM OF THE SHARP-TAILED FILARIA FOUND IN THE BLOOD OF THE ABORIGINALS OF BRITISH GUIANA.

[WITH SPECIAL PLATE OF PHOTOMICROGRAPHS.]

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IT is now known that two forms of filarial embryos—a blunt-tailed and a sharp-tailed—occur in the blood of a large proportion of the aboriginals of British Guiana. In the BRITISH MEDICAL JOURNAL of April 16th, 1898, I described some adult filariæ found in two of these aboriginals, and showed that they were the parental forms of one of the blood worms referred to (described and provisionally named "Filaria Ozzardi"[1] by Dr. Manson in the BRITISH MEDICAL JOURNAL of December 25th, 1897)—namely, the blunt-tailed.

In the course of a *post-mortem* examination of a third aboriginal in whose blood both the blunt and sharp-tailed filariæ had been found (and no others in repeated examinations—two of them at night), I found a few adult filariæ of the species previously described, and, in addition, a female and the portion of a male new to me, and probably the parental form of the sharp-tailed embryos.

These two worms lay close together, and were found on stripping the peritoneum from the anterior abdominal wall. They were partly detached in the process, and consequently must have been lying in the subperitoneal connective tissue. They were arranged in loose coils, and did not appear to be either encysted or contained in any vessel. They were dead. The general structure—an unarmed head, complete alimentary canal, double ovarian tube opening into a single rather complicated vagina, smooth surface—was similar to that of the other filaria alluded to, and closely resembled Filaria Bancrofti.

The subjoined table gives my measurements of this and the other known adult hæmatozoal filariæ of approximately similar dimensions; that found by Magalhães at Rio de Janeiro is so much larger that it may be excluded from the comparison.

	Filaria Bancrofti.	Filaria No. 1. (Filaria perstans.)	Filaria No. 2. (Filaria Ozzardi.)
	Mm.	Mm.	Mm.
Length	85 to 90	70 to 80	81
Greatest thickness ...	0.20 to 0.26	0.120	0.210
Diameter of head ...	0.055	0.070	0.050
Diameter of neck ...	0.049	0.054	0.039
Distance from head—			
(1) Of vaginal outlet ...	0.710	0.600	0.710
(2) Of ovarian opening...	0.920	?	0.850
Distance from tail of anal papilla...	0.225	0.145	0.230
Termination of tail ...	Blunt, circular, not bulbous.	Slightly bulbous; covered by thickened cuticle prolonged into two triangular appendages.	Bulbous, cuticle not thickened.

From this table it will be seen at once that the new filaria is sharply differentiated from the other aboriginal filaria by its smaller head, larger body, and the absence of caudal cuticular appendages. On the other hand, its resemblances to Filaria Bancrofti are very marked. The vaginal outlet is as strongly marked as in that worm, and consists of a straight tubal terminal portion continuous with an irregular convoluted portion into which the two ovarian tubes open together. I do not find any widely-dilated portion such as I believe exists in Filaria Bancrofti.



Natural size.

The shape of the body differs in these two worms. In Filaria Bancrofti the thickness for the greater part of the worm is fairly uniform, but it tapers slightly towards the head for a short distance from the vulva, and then more abruptly to the neck. In the new filaria the greatest thickness is about the junction of the anterior third with the rest of the body; from this point it tapers gradually towards the head, tapering more rapidly for a considerable distance from the vaginal outlet to the neck, without any abrupt change. The termination of the tail also differs in being distinctly bulbous, measuring 0.038 mm. at a distance of 0.017 mm. from the tip, and 0.034 at 0.04 mm. from the tip of the tail.

The portion of the male found was about 38 mm. in length. In thickness it was nearly 0.2 mm.; in marked contrast with the 0.11 mm. of the male Filaria Bancrofti, or the 0.06 of the male of the other aboriginal filaria. The tail was tightly coiled. There were no protruded spicules; but without running the risk of damaging the specimen a thorough examination of this feature was impossible. The tip of the tail protruded from the coil. It slowly tapered to a point 0.27 mm. from the tip, where it abruptly tapers. This point probably marks the point of emergence of the spicules. The gradual taper ending in a faintly bulbous tip in this worm, is very different from the termination of the tail in Filaria Bancrofti.

It is obvious that the powerful body and small head of this worm are better suited for extensive wanderings than the larger head and weaker body of the aboriginal filaria previously found. If its habitat is the connective tissue, as seems probable, it will be very difficult to find; in two previous examinations in which the sharp-tailed embryos had been found I failed to find the corresponding adult worms. Under the circumstances I leave the details of structure, and particularly the character of the embryos in the ovarian tubes, for further examination, as they could not be determined without risk of damaging or altering the specimens.

The differences observed both in the male and female are sufficient, I consider, to differentiate this from the other described adult filariæ. The name "Filaria Ozzardi" might be retained for the new species.

[1] [We are informed that Dr. Manson has recently found these adult filariæ to be identical with the parental form of the African Filaria perstans. The blunt-tailed form of the so-called Filaria Ozzardi is therefore Filaria perstans. The microphotographs have been made by Mr. Francis Fowke from specimens sent home by Dr. Daniels.]

MR. HENRY ALLEN, of Ecclesall, who died on February 23rd last, has bequeathed £250 each to the Sheffield Infirmary, Sheffield Royal Hospital, Sheffield Children's Hospital, and the Jessop Hospital.

THE ANTIRABIC INSTITUTE OF TURIN.—The official report of this institution states that the number of persons who applied for treatment during the year 1898 was 441. Of these 231 underwent a course of treatment by Pasteur's method; in the remaining 210 cases it was positively ascertained that the animal which inflicted the bite was not rabid. The mortality was *nil*. The total number of persons who have applied for treatment since the opening of the institute on September 30th, 1886, is 5,169; of these 3,627 were actually treated. The total death-rate from 1836 to 1898 (inclusive) is given as 0·68 per cent.

ON THE METHOD OF OPERATING FOR UMBILICAL HERNIA, WHETHER FOR RADICAL CURE OR WHEN STRANGULATION HAS OCCURRED.

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In almost all the surgical handbooks of the day in which the subject is mentioned, the following, in brief outline, is the operation recommended in uncomplicated cases of umbilical hernia, whether for radical cure or when strangulation has occurred. The sac is opened by a vertical incision over the middle of the tumour; the omentum is turned aside, and the intestine—after such adhesions as confine it within the sac have been separated, and, when strangulation is present, the stricture has been divided—is returned into the abdominal cavity; the omentum is detached from the interior of the sac wherever it is adherent, and, when thus completely freed, is tied in strands: these strands are divided on the distal side of the ligatures; the stump thus formed is returned into the abdomen; the sac is cut away after its neck has been closed; the abdominal opening itself is securely closed by deep sutures, and the edges of the external wound are adjusted.

This proceeding may be altered in two particulars, with the result that it occupies less time, is more easy, and, as experience shows, safer for the patient. The first point concerns the treatment of the sac; the second the management of adherent omentum. 1. As to the sac: As a first step, this, as I believe, was originally suggested by Mr. Treves, is stripped entirely of all the surrounding tissues, and completely isolated down to the opening through which it leaves the abdomen—that is to the level of the linea alba. The isolation of the sac is thus effected. A curved incision starting from the middle line above is carried over the right side of the swelling to the middle line below, and a similar incision is made on the left side, the two together forming an elliptical wound. These two incisions are so planned that they include the skin which covers all the front of the swelling, only enough being left to allow of the closure of the wound, without tension, in the middle line, when the hernia shall have been reduced and the sac removed. Next, the whole thickness of the subcutaneous fat is separated on either side from the outer surface of the sac, including its neck. This is easily carried out by a sweep of the finger and a few touches of the knife.

The operator now has the hernial sac and its contents clearly defined and under control. The sac is opened by an incision in the middle line long enough to afford free access to its interior. The omentum—any part of which, not in the neighbourhood of the neck of the sac, may be freely divided, provided it has been first either tied or securely clamped above and below—is unfolded and the intestine exposed. This, when such adhesions as tether it within the sac have been divided, is returned. In cases in which extensive and firm adhesions have formed between the intestine and the omentum or the sac, it is safer and quicker to cut through these structures at a little distance from the gut, so that portions are left adherent to it, than to persist in dissecting them off. The intestine having been returned into the abdominal cavity the omentum is taken in hand.

In dealing with this structure the usual method is to detach it at what may be termed its periphery from the sac wherever it is adherent. This, if the hernia is large and the the adhesions are extensive, is a tedious proceeding which occupies considerable time. The following is a more expeditious method. The operator makes his way to the omentum where its neck emerges from the abdomen. This neck or stem he defines and isolates so that he can pass his finger completely around it. If it is adherent to the ring the adhesions must be separated. The stem is now tied in strands in the usual way, divided beyond the ligatures and returned into the abdomen. There will now remain the sac containing, perhaps, a large mass of more or less adherent omentum. The sac is cut away by dividing its neck at the level of the ring. Its edges are brought together with sutures, and the peritoneal cavity is thus closed. The ring itself is next obliterated by strong buried sutures and the external wound is closed.

The dangers formerly attending operations on large umbilical hernia which had become strangulated is well known. The mortality in these cases only a few years ago was between 60 and 80 per cent. When, however, it became the practice to close the opening into the abdomen, and so shut off the peritoneal cavity from the external wound, and when, furthermore, the aseptic method was established, the mortality was very largely reduced. The death-rate, however, still reached a high figure, and was due, to some extent at least, to the character of the operation which was performed. As the hernia was often very large, and as the adhesions present were extensive and firm—the intestine, the omentum, and the sac being laced together into a confused mass—a long and tedious dissection had to be performed which occupied so extended a period that the patient, already exhausted, passed into a condition of collapse. It was, therefore, very desirable that the operation should be modified so that it could be carried out more expeditiously. To this end (1) the method of isolating the sac, as above described, was an important contribution. While the sac is as yet unopened it forms a well-defined and more or less firm tumour, from which the surrounding structures can be stripped off—just as in a femoral hernia—with the greatest facility, and very much more quickly than when the sac has been emptied and rendered flaccid. Moreover, to have the sac defined and isolated makes it much more easy to deal with its contents. (2) The clamping and free division of such portions of omentum as cover over and obscure the intestine saves much time; while (3) to deal at once with the omentum, where its neck emerges from the abdominal ring, instead of first separating, one after another, the adhesions which connect it at numerous points with the fundus of the sac, curtails the length of the operation by probably one half. In the last three years I have performed the operation I have endeavoured to describe nine times—four times for radical cure, and five times for the relief of strangulation. All the patients recovered. Two patients, in whom strangulation had existed for three and four days respectively were in a grave condition for the first twenty-four hours. The remainder bore the operation well, and gave no anxiety from the first.

MYXŒDEMA TREATED WITH "COLLOID" MATERIAL.

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The following case was treated with "colloid" material from the thyroid gland prepared according to Dr. R. Hutchison's formula.[1] The material used was Messrs. Oppenheimer's preparation put up in "palatinoid" form, each palatinoid being equivalent to 5 grs. of the fresh gland.

J. F., aged 54, on January 7th, 1898, when first seen by me, complained of weakness, lassitude, pains in the limbs, uncontrollable sleepiness, and loss of memory. There was nothing special in his family history with the exception that his mother had died, aged 49, of what had been termed "dropsy." His only illness had been due to a carbuncle in 1896, followed by an abscess in the left side of the neck. There was no history of venereal disease. His habits had always been temperate. As a young man he was thin. He had noticed a gradual increase in body weight during the previous six years with a definite increase of 21 lbs. during the last two years. During the latter period of time also his hair, which had been abundant, had gradually thinned and almost completely fallen off, together with his eyebrows and eyelashes, and to a certain extent his beard and moustache; the hair that remained had turned almost white, brittle, and void of lustre. From a tenor his voice had changed during the previous eighteen months, and had become very rough and deep in tone. His speech had become very slow and laboured. His face and body generally had become puffy and swollen, his lips thickened, and the facial lines marked by translucent folds. Lachrymation, and particularly salivation, had become profuse, and the saliva was with difficulty swallowed. His hands and feet had become enlarged. His collar had to be increased from size 15 to 17, and his boots from size 7 to 9. During these two years he had suffered from increasing pains in the hips and back, great lassitude and weakness, with feelings that his legs were a "dead weight," and especially had he great difficulty in mounting stairs. Five years previously he could walk as many as five miles with comfort, but recently he had to rest very often even during a short walk of about half a mile. His general movements had become laboured and slow, and he had found great difficulty in performing fine movements with his fingers, and stated that his "fingers" had become "all thumbs." The symptoms on examination were characteristic of myxœdema; the principal were as follows:—The skin was almost like lizard skin, dry and fissured, with complete absence of sweating; his face was waxy-looking, with a pink blush on each cheek. The hair was scanty, brittle, dry, and white on the head, absent from the



EXPLANATION OF PLATE.

Fig. 1.—Taken January, 1898. Before commencing treatment.
Fig. 2.—Taken January, 1898. Before commencing treatment.
Fig. 3.—Taken June, 1898. After treatment. The hair is an entirely new crop, and brown in colour. Compare with Fig. 2.
Fig. 4.—Taken June, 1898. After treatment, to show the new growth of hair.
Fig. 5.—Taken June, 1898. After treatment. Compare with Fig. 1.
Fig. 6.—Taken January, 1898. To show the cracked skin and the swelling of the hands. Circumference, wrist, 7 inches; hand, 8¾ inches.
Fig. 7.—Taken June, 1898. The skin is soft and the fingers more tapered. Owing to the position—that is, turned under—of the hand, the improvement looks less than it really is. Circumference, wrist, 6½ inches; hand, 7½ inches.

eyelids and partially from the brows, pubes, and axillæ; the beard and moustache were stubbly. The circulation was slow, the pulse ranging from 54 to 60; the hands and feet much affected by cold, the fingers turning quite white. The temperature ranged from 96.5° to 97° F. Tactile sensibility was slow, and the expression was vacant and fixed. He stated that he never laughed because his face was "too stiff"; talkativeness was marked, with a monotonous voice and the use of many qualifying phrases. His memory was poor for recent events. There was extreme sleepiness, so that, although he slept twelve hours at night, he fell asleep at any time if unoccupied or left alone; he said that he dreamed constantly during sleep. The digestive system was normal with the exception of almost complete anorexia. The lips, tongue, and fauces were greatly thickened, and salivation was extreme. The urine had a specific gravity of 1020; it was acid, and free from albumen and sugar; 300 gr. of urea were excreted in twenty-four hours. Owing to the myxœdema, no reliable examination of the thyroid could be made.

On January 25th, 1898, he commenced treatment with "colloid" material, taking one palatinoid at night. The dose was gradually increased to four in twenty-four hours by February 22nd, it was then reduced to two, and by June to one in twenty-four hours. No symptoms of "thyroidism" arose during the treatment. The result was a rapid disappearance of all symptoms and a return to normal health. The hair during the treatment fell off; the absolute baldness was followed by a thick crop of brown hair, which required cutting on three occasions before June. The pulse and temperature returned to normal; the skin also, with normal perspiration; the mental inactivity disappeared; inflection and modulation of the voice returned, all the movements became easy, and walking was no trouble. The body weight gradually sank. Sleepiness disappeared, and the appetite increased almost to voracity. So distressing had been his condition before treatment that he was unable to attend to his daily business in anything like a satisfactory manner, but since treatment he has followed his occupation with increasing pleasure and good results. At the present time (May, 1899) he remains in excellent condition, taking a daily dose of one or two palatinoids of the "colloid" material. His appearance has so altered that he has repeatedly to explain to his customers that he is the same person they knew before, and that the stout old gentleman with the white hair was not his father, who had, as they believed, died of "dropsy."

From March until June I did not see him, and no record was made. The table on p. 1462 is necessarily incomplete, as it was found inconvenient to collect the urine during every twenty-four hours; the patient attending business during the whole period of treatment. It is interesting to note that with loss of body weight there was an increase in the output of urea up to a certain point, then, although the body weight went on decreasing, the urea diminished in quantity, and at this period the maximum dose of "colloid" was being

administered. At present the weight remains at 12 st. 7 lbs., and the patient is taking one or sometimes two palatinoids per diem.

I append a table of some of the changes observed during treatment:

1898.	Weight.		Urine.	Urea.	Palatinoids Ordered.
	st.	lbs.	ozs.	grs.	
Jan. 25	14	8	50	300	1 at night
,, 29	—	—	54	337	2 ,,
Feb. 7	14	7	58	580	3 in 24 hours
,, 14	14	3	—	—	3 ,,
,, 22	13	13	70	560	4 ,,
Mar. 1	13	7	72	468	4 ,,
,, 13	13	1	—	—	3 ,,
,, 15	12	11	54	364½	2 ,,

NOTE.[1]

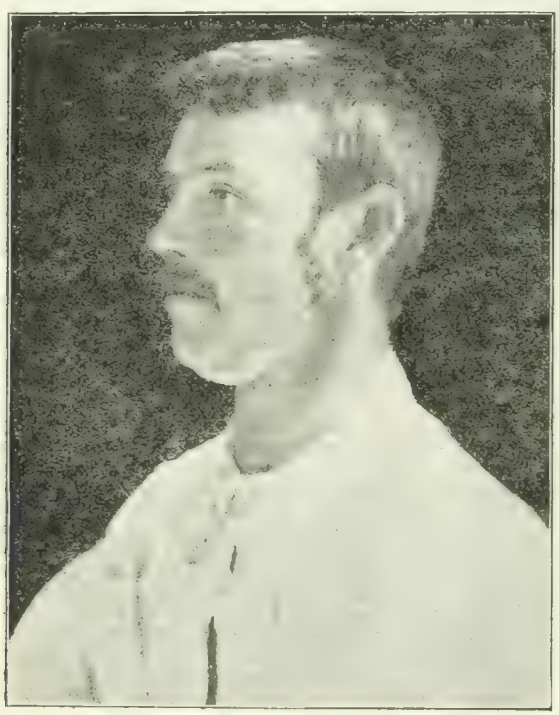
For a full account of the chemistry and preparation see BRITISH MEDICAL JOURNAL of March 21st, 1896, January 23rd, 1897, and February 27th, 1897; *Journ. Physiol.*, vol. xx., p. 474.

PULSATING TUMOUR IN THE SUBMAXILLARY REGION.

BY P. CLENNELL FENWICK, M.B.LOND., M.R.C.S., L.R.C.P.,

Surgeon to the Christchurch Hospital, N.Z.

C. B., aged 32, was sent to me for operation suffering from a pulsating tumour in the left submaxillary region. Ten years ago he fell and struck his chin violently, and since then has noticed a swelling in his neck which has gradually increased in size.



A tumour the size of a golf ball lay just below the left ramus of the jaw. The swelling pulsated visibly, and on holding it between two fingers the pulsation was distinctly expansile. Pulsation was most marked at the posterior end, but could be felt all over the tumour. On pressure the swelling could be partly reduced, but regained its former size directly the pressure was removed. There was some lateral movement, but none in the long axis. Pressure over the line of the facial artery did not stop the pulsation. The facial artery itself could not be felt. The position of the tumour is shown in the accompanying photograph.

I was of the opinion that the tumour was an aneurysm, and decided to dissect it out and ligature the artery at each end.

On reflecting the skin and dividing the fascia a layer of thinned-out muscle was exposed and divided. Beneath this another layer appeared, and finally the sac wall was exposed. Through this the nature of the swelling could be seen, and proved to be a mass of pulsating varicose veins. The dissection became rather difficult as the tumour extended a considerable distance up behind the ramus, and was firmly connected to the lower edge of the bone by strong fascial covering. Several vessels were ligatured, and the complete mass was removed. It was impossible to determine to which trunk these veins belonged, but from its situation I think that the lingual vein was the rent vessel.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ACUTE THYROIDITIS: SUPPURATION: OPERATION, RECOVERY.

G. G., a French Canadian, aged 39, always healthy, both parents living, visited me on April 13th. He complained of a swelling outside the throat, also of stiffness of the neck. He stated that on April 8th he had been in the sugary gathering sap, and upon returning home first noticed the swelling. It rapidly increased and gave him some inconvenience, though swallowing did not incommode him, nor was inspiration embarrassed. Still, he was compelled to hold his head in one position, as turning it from side to side pained him considerably.

Examination disclosed an enlargement of the thyroid gland. There was a thickening of the tissues in the region of this structure extending downwards to the clavicles, and laterally to the borders of the mastoid muscles. The gland was hard to the touch, and slightly painful on pressure.

He visited me on the two following days. Tenderness was increasing, there was no rise in temperature, and the patient did not complain of chills. He suffered, however, from headache, stiffness of the neck, and loss of appetite. On April 16th he summoned me to attend him at his house. I found him in much the same condition, but he was vomiting, and showed symptoms of marked constitutional disturbance—coated tongue, fœtid breath, and insomnia. The temperature was still normal. On April 17th the constitutional disturbance was more pronounced, the expression was anxious, the breath very offensive, the swelling was very tender, and the temperature was 102.5°. Some fluctuation could now be detected. I was satisfied that suppuration had taken place, and operated the following morning without administering an anæsthetic. A large quantity of stinking pus escaped. This gave immediate relief. An hour after my departure the patient declared he was very hungry, and demolished a plateful of beans and bacon.

This case appears to me to be interesting inasmuch as the disease is not frequently met with, and we have also a clear history of the causation, namely, exposure to cold. As a rule I believe thyroiditis is usually associated with infectious diseases or traumatism. In this instance, however, a history of neither was present.

Cookshire, Que., Canada. R. H. PHILLIMORE, M.D.

TROPICAL ŒDEMA ON SHIPBOARD.

DURING the summer of 1884, I left England on account of my health, for residence in New Zealand. Amongst other troubles I knew that I had dilatation of the ventricles with imperfect closure of the valves. I felt much better as the voyage proceeded, and on arriving in the tropics was under the impression that I was rapidly gaining flesh, until, on closer examination, I found what I took for flesh was fluid; my legs and feet had become œdematous considerably. I communicated my unpleasant discovery to Dr. B. G. Corney, a fellow passenger, on his way to Fiji, where he holds a Government post of con-

siderable responsibility. A day or two after my communication he came to me and said, "What I have remembered may afford you encouragement. I once had under my care, on a voyage to the Cape, an Italian gentleman o very high rank, and during our passage through the tropics, to my great consternation, his legs and feet became very œdematous, but it all passed off when we got into cooler latitudes." This, happily, occurred in my own case. On my return to England in 1890, which was by way of Australia and the Canal, I experienced the same condition, though to a lesser extent, whilst in the tropics. I then made inquiry amongst my fellow-passengers, and found several were affected in like manner. Those who suffered were chiefly persons debilitated by long residence in a hot climate, and who had probably not led the most regular lives.

Tooting Common, S.W. ALFRED COLEMAN, F.R.C.S., etc.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LIVERPOOL ROYAL INFIRMARY.

PLEXIFORM NEUROMA OF EYELIDS WITH PTOSIS: EXCISION: PTOSIS RELIEVED BY PANAS'S PLASTIC OPERATION.

(Under the care of Mr. RUSHTON PARKER.)

A MAN aged 45 was sent in by my colleague, Mr. Bickerton, from Dr. Paton of Rock Ferry, Birkenhead, on account of hypertrophied pendulous eyelids on the left side. The upper completely obstructed his vision by its length, and was, moreover, incapable of the slightest elevation by the usual muscular effort (Fig. 1). He had also dotted all over his body soft fibrous tumours, 33 in number—20 on the trunk, 10 on the lower limbs, and 3 on the upper. His face was abundantly pitted with small-pox, from which he had suffered at the age of three. During childhood his left upper eyelid underwent gradual enlargement, but up to the age of over 20 did not interfere with sight, as could be seen from photographs in his possession. After this the lids both increased, and a state of ptosis became confirmed.

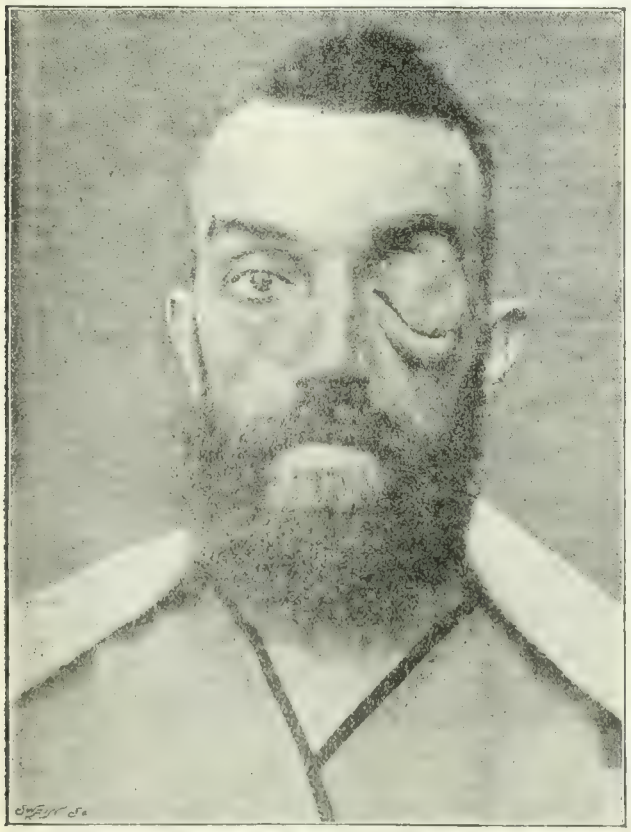


Fig. 1.—Plexiform neuroma of eyelids with ptosis. Multiple neuromata elsewhere.

First Operation.—This was undertaken on June 2nd, 1897, by means of an incision dividing the outer canthus and reaching nearly to the ear so as to include an extension of the disease towards the temple, in the form of tortuous neuro-fibromata or "plexiform neuromata." They and the examples of multiple fibroma molluscum found also in this patient are stated to be usually of the same nature. Much of the redundant tissue was excised from beneath the skin and lids, together with the skin itself of one-third of the enlarged upper eyelid. After healing the parts were much reduced, but still redundant in both lids, the upper continuing to obstruct vision.

Second Operation.—Accordingly a second excision was performed on November 5th, 1897, when a great part of the upper lid and its loose subcutaneous tissue were removed. There still remained a condition of absolute ptosis (Fig. 2), which

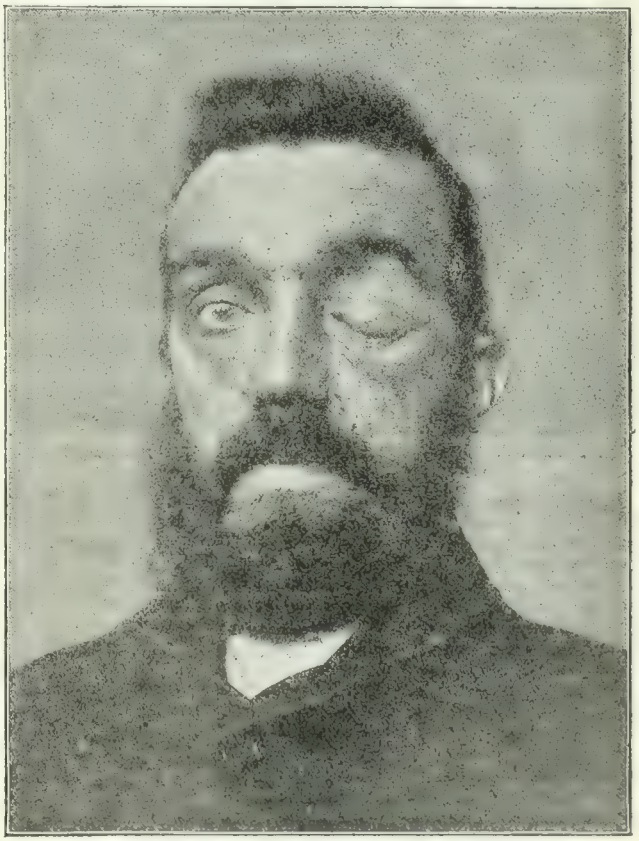


Fig. 2.—Patient after excision twice. Still ptosis.

however, he could remedy in a temporary way by a strip of adhesive plaster holding up the lid.

Third Operation.—Later Dr. Nathan Raw informed me of an operation devised by M. Panas of Paris for the relief of this condition, whereby the upper lid is brought under the action of the occipito-frontalis muscle. The necessary description with explanatory diagram is to be found in vol. iv of the French treatise on *Surgery*, edited by Duplay and Reclus. This operation was performed on January 19th, 1899, as follows: The eyelid, lined by orbicularis muscle, was partly detached in a curved flap, convex upwards; the shaved eyebrow was incised along its ridge, the intervening bridge of skin dissected off the parts behind it, but still attached by its two ends, and then the eyelid flap passed behind the bridge of

skin above it, and sutured to the upper edge of the eyebrow incision. The wound speedily united, and in less than three weeks' time it was found that the patient could voluntarily uncover his eye as completely as vision required (Fig. 3).



Fig. 3.—Same patient after Panas's operation for ptosis; raising upper eyelid by action of occipito-frontalis.

Fourth Operation.—The operation was repeated on February 6th, 1899, in order to attempt to remove the partial droop still remaining and shown in Fig. 3. This improved the appearance somewhat.

Fifth Operation.—As the orbicularis, though unusually powerful, seemed to have slipped forward from its attachment to the temporal region, another operation was performed on March 15th. A free incision was made along the temple from the outer canthus towards the ear, the muscle exposed, and then stitched to the temporal fascia. This had the desired effect, and by the end of March he was perfectly satisfied with the sight of the previously shrouded eye, which he can now uncover at will. His power of closure is unusually strong.

DR. GEORGE GRANVILLE BANTOCK has been elected a foreign associate member of the section of gynæcology of the *Société d'Obstétrique de Gynécologie et de Pédiatrie de Paris.*

BRITISH HOSPITAL, BUENOS AYRES.—From the annual report of the British Hospital at Buenos Ayres for 1898 we learn that considerable additions and improvements have been effected in the buildings. New wards have been erected, and additional land adjoining the hospital has been secured. Provision is made not only for indigent persons, but also for those needing special medical and surgical treatment, and who pay for private wards, as well as fees for the medical attendance. During the year 1,361 patients were under treatment as in-patients, the death-rate being 5.5 per cent. Out-patient attendances numbered 3,573. One hundred and sixty-two abdominal operations were performnd, with 8 deaths; and 468 general operations, with 7 deaths. Among the medical patients most deaths were due to tuberculosis and enteric fever.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THOMAS BRYANT, M.S., F.R.C.S., President, in the Chair.

Tuesday, June 13th, 1899.

THE RESULTS OF SEGREGATION OF CASES AND MOVING FROM INFECTED SITES IN ERADICATING THE ASSAM EPIDEMIC MALARIA FEVER OR KALA-AZAR.

DR. LEONARD ROGERS, I.M.S., presented a further communication on this subject, which was read by the SECRETARY. In a paper read before the Society in March, 1898, he gave a summary of his investigation of the Assam epidemic of malarial fever, locally known under the name of kala-azar. He argued that this was an intensified form of malarial fever, which, after a succession of very unhealthy years due to extraordinary seasonal conditions, had attained the power of being slowly communicable, usually in an indirect manner, from person to person. He now presented the results of the carrying out of his recommendations for the eradication of the disease, which were based on the above view, and believed that the success which had attended the measures advised by him lent considerable support to his conclusions. His recommendations were briefly as follows: (1) All newly imported coolies should be placed in fresh lines, and not allowed to enter old infected ones; (2) in slightly infected lines all infected persons, together with their households, should be moved out into separate segregation lines, and the huts which they had inhabited should be burnt and not rebuilt; (3) in badly infected lines all the healthy people should be moved out during the dry cold-weather months, when infection was at a minimum, and placed in new lines, while the infected persons and their households should be segregated, and the infected line abandoned. The results which had followed the adoption of these measures on various infected tea gardens in Assam were briefly considered. The results detailed in the paper showed that the measures advocated had been successful in actual practice as far as tea gardens were concerned, and that this disease, which hitherto had carried off from 70 to 90 per cent. of those attacked, might now be regarded as controllable.

There was no discussion.

THE REMOTE PROGNOSIS OF PERICARDITIS.

This paper, by Dr. JAMES H. SEQUEIRA, was communicated by Dr. FRANCIS WARNER. After a review of the previous work upon the prognosis of pericarditis, the writer considered the investigation of the functions of the pericardium by Barnard and Leonard Hill, which showed that the pericardium acted as a support to the heart during muscular exertion. This recent work appeared to throw so much light upon the effects of pericarditis that the whole subject of the remote prognosis of the disease, and especially of its sequel, adherent pericardium, seemed to need reconsideration. It occurred to the writer that if, as a result of inflammation, the pericardium were softened and dilated the protective support afforded to the chambers of the heart during muscular exertion, strains, and the like, would be lost, and that the heart might therefore dilate and fail at once. If, on the other hand, the pericardium were dilated and then became adherent to the chest wall, the fact that the heart was working in a dilated sac introduced factors which could only tend to the frequent failure of compensation. But if the pericardial sac were undilated, the presence of adhesions was of little moment. In that way the problems presented by the consideration of the different clinical features shown by cases of adherent pericardium could be explained. To ascertain how far these surmises were correct, the writer had traced the after-history of 130 cases known to have had acute pericarditis. Of these he had personally examined 100, often at frequent intervals. There were 43 deaths among the cases traced, and he had obtained details of the *post-mortem* appearances in the majority, and had been present at the necropsy wherever possible. Clinically the cases fell into three groups: (1) Those in which there was perfect compensation of the heart. (2) Those in which compensation was easily broken. (3) Those in which compensation never occurred. In the first

group there were 31 cases. All the patients were over 14 years of age. The pericardium was undilated; there were no symptoms and practically no physical signs. In the second group there were 86 cases. The young patients, and especially the young females, formed the bulk. There were all gradations in the severity of the symptoms. Many of the patients were in and out of the hospital for years, while in some compensation occurred once only. In the young females (6 to 15 years old at the time of the acute attack) death occurred on the average in little over two years. In the males, in whom the original attack occurred between the same ages, the average length of life was three and a quarter years. The extremes were, of course, very wide of this. In the fatal cases the pericardium was found to be dilated and adherent, and the severity of the symptoms depended in great measure upon the amount of the dilatation. The writer had found that there was an interesting relation between the annual increase in the body weight and the age at which death occurred in the cases in which the acute attack occurred in early childhood. In the third group of cases, 13 in number, compensation never occurred. In some this depended upon the fact that the dilatation of the pericardium was progressive. The patients were all young, and death resulted in from three to nine months after the acute attack. The effect of concomitant valvular disease and of myocarditis was considered, and the writer concluded that valvular lesions were of little moment in many cases, and that myocardial degeneration could not induce the enormous dilatation of the heart so often observed, if the pericardium were undilated. Further, the amount of hypertrophy of the heart in cases of adherent pericardium appeared to be, in the main, dependent upon the amount of dilatation of the cardiac envelope. The writer concluded that he had proved that the amount of dilatation of the pericardium must be taken into account in the consideration of the remote prognosis of acute pericarditis, and that influences, such as the increase in the body weight and the amount of muscular exertion, which augmented the labour of a heart working in a dilated pericardium, tended to impair the power of compensation. The paper was supplemented by tables showing the observations of the writer on the individual cases, and by detailed accounts of the more interesting ones.

There was no discussion.

OBSTETRICAL SOCIETY OF LONDON.

ALBAN DORAN, F.R.C.S., President, in the Chair.

Wednesday, June 7th, 1899.

HYDRAMNION IN CASES OF HOMOLOGOUS TWINS.

DR. THOMAS WILSON read a paper on this subject. He said that although twins derived from separate ova were seven times more common than those derived from a single ovum, hydramnion appeared to occur nearly as frequently in the latter variety as in the former. The paper was founded on two cases of unioval or homologous twins which occurred in the writer's practice, and in twenty other cases collected from various sources. The usual history of a case of this kind was that the patient, usually a multipara, for the first few months of a pregnancy went on normally. Then, usually at the fourth or fifth month, and without any assignable cause, rapid enlargement of the abdomen began acutely, and led, in the course of a few days or weeks, to extreme distress by reason of the severe pressure symptoms set up. The affection ended in nearly every case in premature delivery before the end of the seventh month; in the majority of the cases labour came on spontaneously; in about 20 per cent. it had to be induced. The contents of the uterus were found to be twin fœtuses of the same sex, one of which was decidedly larger than the other, and was enclosed in an amnion containing an enormous excess of fluid; the smaller fœtus was provided, as a rule, with a normal or deficient quantity of liquor amnii. There were a single placenta common to the two fœtuses, a single chorion, and two amnia. The heart and kidneys of the larger fœtus were hypertrophied, often enormously. Neither fœtus showed any malformation, and the mother was healthy. The cause of the hydramnion was found in the relation of the vessels of the two fœtuses to the common placenta. The twin whose vessels ran a shorter or more direct course obtained an undue share of blood from the placenta, in which anastomoses took place between the vessels belonging to the two fœtuses. In this way one fœtus grew faster than the other, and its heart became not only absolutely but also relatively larger than that of the other. This led in some way to increased uptake of fluid in the placenta, and so to increased exudation by this twin. This increased exudation took the form of excessive secretion, certainly from the kidneys, probably from the skin, and possibly also from the portion of placenta belonging to the affected fœtus; and the accumulation of these discharges led rapidly to enormous hydramnion of the same fœtus. The diagnosis could often be completely made by observing that the signs of a fœtus were limited to a small portion of the circumference of a hydramniotic cyst. The appropriate treatment consisted in the induction of premature labour by puncture of the membranes. Case 1. Seventh pregnancy; symptoms beginning at the fourth month; labour induced by puncture of the membranes at five and a half months. Larger fœtus, contained in 19 pints of amniotic fluid, with large heart and kidneys, thick umbilical cord with dilated vessels; smaller twin in separate amnion with normal amount of fluid, umbilical cord long, thin, velamentous; common placenta. Case 2. Third pregnancy; symptoms beginning at three and a half months; labour spontaneous at five months; enormous gush of fluid followed by birth of twins contained in their membranes; larger twin hydramniotic: smaller showing marked atrophy of the wall of the left ventricle: common placenta and chorion.

DR. HERBERT SPENCER congratulated the author on the full account that he had given of this interesting condition. With reference to the clinical aspect of the subject, he (Dr. Spencer) had found that *ballottement*, impossible to obtain in the dorsal position, could readily be got by placing the patient in the knee-elbow position, when the fœtus sank to the dependent part of the abdomen, and could be readily felt there. Adverting to the differential diagnosis between hydramnion and an ovarian tumour, he suggested in difficult cases the passage of a bougie. He thought the author took somewhat too limited a view of the causation of the hydramnion in these cases. It was evident that the theory given by the author would not explain cases of hydramnion in cases of single fœtus, and according to that theory hydramnion ought to be excessive in cases of acardiac fœtus where the circulation of the two fœtuses was carried on by the heart of one; this, however, was not the case. He thought it was a difficult thing to diagnose hypertrophy of the heart in premature fœtuses, the size of the viscera varying very much in fœtuses of the same size. In one of his own cases of acute hydramnion with homologous twins the fœtuses were almost of the same weight (one just over, the other just under, 1 lb. 4½ oz.), and the hearts appeared to be normal. In this case the cord of the hydramniotic fœtus was much twisted near the fœtus and œdematous beyond (the placenta and cords weighed 1 lb. 7 oz.); the œdema thus produced would, he thought, possibly explain the hydramnion in this case; but he did not see how a hypertrophied heart could explain its occurrence. As fluid was found experimentally to exude into the amnion, whether injected into the fœtal or natural circulation, it was possible that hydramnion might arise from abnormalities in either. He agreed with the author in regarding the urine as one of the sources of the liquor amnii; if the fœtus did not pass urine into the amnion, fœtal hydronephrosis, of which he had seen several examples, would not occur.

DR. A. ROUTH thought that the question of the etiology of hydramnion would not be established without reference to its occurrence in single ova, and did not think that the author's theory would explain many of such cases. It did not account for hydramnion occurring in the acardiac twin instead of the hypercardiac, nor for the majority of such cases being female and often puny and lacking vitality, where the arterial tension must be below normal; nor for its frequent occurrence in cases of anencephalus, spina bifida, exomphalos, etc. He thought the diagnosis by means of uterine contractions most helpful, and if abdominal *ballottement* was obtained over all parts of the abdomen by putting the patient in the knee-chest position on either side, it proved not only hydramnion, but the absence of any complicating ovarian cyst.

Dr. Griffith characterised the paper as a most valuable contribution to the subject. His own observations had led him to the same conclusions up to a certain point; but he was unable to accept as proved the view that the fœtal kidneys were sources of liquor amnii. It had never been demonstrated that it was possible for a fœtus to overcome the tension of the liquor amnii and to pass its secretion, if any, into this sac, and there was evidence that it could not do so. The determination of such minute quantities of urea or similar substances was difficult.

Dr. Wilson, in reply, emphasised the fact that hydramnion, like dropsy and jaundice, was a symptom which might depend on some one or more of a variety of causes. His contribution was intended to deal with one group only of the cases, and no attempt had been made to discuss the causes of hydramnion in general. The number of facts in favour of the renal origin of at least part of the liquor amnii left little room for doubting the truth of the theory. Intermittent contractions of the uterus were important in diagnosis. Treatment by rupture of the membranes could only be undertaken when urgent symptoms in the mother demanded it.

Specimens.

The following specimens were shown: Mr. Malcolm: (1) Macerated Fœtus from Extrauterine Gestation retained about a year; (2) Macerated Fœtus from Extrauterine Gestation retained seven years; (3) Multilocular Tumour growing from the front of the bladder containing papilloma and not connected with either ovary.—Dr. Stevens: Drawings of Vaginitis caused by Bacillus Coli Communis.—Mr. Targett: A Naegele Pelvis.—Dr. Griffith: Two cases of Sarcomatous Disease of Uterus.—Dr. Wilson: Unioval Twins.—Mr. Addinsell: Unusual Thickening of the Endometrium in a Uterus containing Fibroids.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

H. R. Swanzy, F.R.C.S.I., President, in the Chair.

Thursday, June 8th, 1899.

A Case of Obliteration of a Branch of the Retinal Artery following Frequent Attacks of Temporary Amblyopia.

Dr. C. E. Beevor and Mr. Marcus Gunn read this paper. The patient, a man aged 34, had suffered since childhood from temporary attacks of amblyopia lasting a few minutes, and involving especially the right eye, but unattended by headache. About nine months ago, after violent exercise, he had an attack in which the blindness of the right eye was followed by loss of the superior half of the visual field of the right, which had persisted, and part of the periphery of the lower half of that field. At present, on ophthalmoscopic examination, there was atrophy of the lower half of the right disc, with shrinking of the branches of the lower half of the arteria centralis retinæ. He had had occasional attacks affecting the left eye, and in one he temporarily lost the lower half of the field of vision of the left eye. There were no other symptoms except that the right knee-jerk was very deficient and difficult to obtain. The case was considered to be an unusual condition of complete obstruction of a retinal artery that had previously been liable to recurrent temporary constriction.

Recovery of Sight after Partial Occlusion of the Central Artery.

Mr. J. B. Story reported the following cases: Mr. H., aged about 35, was attacked with blindness of the left eye on December 26th, 1898, and was first seen on January 5th of this year. Externally the eye was normal in appearance, but the pupil did not act to light; vision was reduced to a perception of light. The optic disc was hazy, the arteries were threadlike, and there was a slight cherry colour at the macula, as is seen in typical cases of embolism. Inhalation of nitrite of amyl produced some redness of the fundus, and arterial and venous pulsation could be produced by pressure. The patient was apparently healthy and was not rheumatic; his heart was not examined. Iodide of potassium was ordered internally, with daily inhalations of amyl nitrite. After six days vision had become fingers at 3 m.; small doses of corrosive sublimate were ordered. Two weeks after, on January 23rd, the pupil was active and vision had become $\frac{6}{6}$; the improvement had begun suddenly four days before. On February 7th vision had further improved to $\frac{6}{5}$, and on April 18th it was $\frac{6}{5}$; ophthalmoscopically the eye appeared normal except for a faint perivascular line along the inferior retinal artery. Miss J. W., aged 39, was first seen on February 20th of this year. The left eye had suddenly become blind a week before; the heart was normal, and her health was good. In the eye V. was fingers at 5 m., the pupil was inactive to light; the retinal arteries were reduced to threads. There was some œdema of the retina, and the veins were beaded. Trinitrine was prescribed. On March 8th there was no change in vision or in ophthalmoscopic appearances. On March 17th the pupil was active and vision was $\frac{6}{5}$. On May 1st V. was $\frac{6}{5}$, the left disc was slightly pale, and its edges slightly blurred; the arteries were small and the veins normal. The author regarded both cases as examples of partial occlusion of the retinal artery.

Mr. Thompson asked if endartaritis obliterans had been excluded as a cause; it had been maintained that all cases of so-called embolism of the central artery had this cause.

Dr. Argyll Robertson spoke of a case in which there had been temporary obscuration in an eye; it was similar to Benson's case read before the Ophthalmological Congress at Edinburgh. He asked if Dr. Beevor had noted the reaction of the pupil.

Mr. Johnson Taylor spoke of a case in which there had been temporary blurring of the vision.

Mr. Priestley Smith said the point of practical importance was the warning frequently given by the transient nature of the earlier attacks in such cases, so that if the cause could be discovered we might prevent the onset of blindness. Many of the cases were reflex, as from overloading of the stomach; others were due to a blood condition, and were possibly of the same nature as migraine. He advised the use of salicylates and copious draughts of hot water; he also suggested the immediate use of antipyrin in such cases.

Messrs. Juler, Cant, and Gunn spoke, and Dr. Beevor replied.

Traumatic Division of Both Optic Nerves.

Mr. Kenneth Scott related this case. An Egyptian native, age 23, was sent to the Kasr-el-Aïni Hospital at Cairo after attempted suicide. A bullet had entered the right temple, traversed the head and passed out at the left temple; it had passed from side to side below the base of the skull in a direction downwards and forwards. Both eyeballs were completely protruded and lay on the cheeks, the right one hanging down 19 mm. and the left one 15 mm. Both eyes were dark discoloured and flattened; it was obvious that both optic nerves had been torn across and the globes had been ruptured. The damaged eyes were removed, and it was found that both orbits had been traversed by the bullet, and the base of the brain had been shattered as there were fragments of bone and brain matter in the right orbit. The patient did not long survive the injury.

Card Specimens.

The following card specimens were shown: Mr. J. Tatham Thompson: Section of an Eye showing Subconjunctival Dislocation of the Lens.—Mr. H. E. Juler: Fundus Changes following Optic Neuritis.—Mr. Holmes Spicer: A Case of Spring Catarrh.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

William Craig, M.D., F.R.C.S.E., Vice-President, in the Chair.

Wednesday, June 7th, 1899.

Cases.

Mr. John Shaw McLaren showed a boy of 14 after Amputation at the Hip-joint. The thigh was crushed by machinery. Recovery after amputation at the hip performed for disease was not very rare, but recovery after amputation at the hip performed for injury was sufficiently infrequent to justify the case being shown. There were other points of interest. Hæmorrhage was controlled by digital pressure on the aorta, and this was easy and successful, which it would not always be in an adult, especially if a fat patient. The patient's

condition was very good when he was laid on the table, but he was pulseless at the end of the operation. A pint of hot salt water was transfused into the median basilic vein with immediate marked improvement. For the comparative collapse which continued no alcohol was given, but hot strong coffee. The patient was brought in for operation twelve hours or more after the accident. Possibly recovery might have been helped by the delay; it might be better not to perform a "primary" till later, so long as asepsis could be secured.—Mr. CHARLES CATHCART showed a young woman after operation for Perforated Vermiform Appendix with General Peritonitis.—Mr. F. M. CAIRD showed a young man who had Congenital Syphilis with Destruction of the Nasal Septum, and was now suffering from the secondaries of a recently acquired syphilis.

SPECIMENS.

Dr. SHENNAN showed a series of pathological specimens: (1) Malignant Pustle with microscopic slide showing the bacilli of anthrax in the tissue spaces. (2) Sarcoma of Cerebrum in the tip of the temporo-sphenoidal lobe of the left side. The patient showed hemiplegic symptoms on the opposite side, but there was no special implication of the Rolandic areas. Permission was only granted for examination of the brain. (3) Testicle and Epididymis from a man aged 75 years, showing in the epididymis and tunics calcareous deposit. In the epididymis it was large in amount, and surrounded a cyst. Probably it was the remains of an old tuberculosis. The cavity of the tunica vaginalis was obliterated, but the testicle seemed normal. (4) Hæmorrhagic Nephritis with Infarcts. The whole organ was deeply congested, and the cortex was full of recent infarcts, and dark brown from the presence of altered blood pigment. The patient, a woman, was attacked suddenly one evening with headache, sickness, and vomiting, which persisted till death. There was no œdema of the extremities or face, and no rise of temperature. There was mental impairment. The urine on boiling became solid with albumen. There was tenderness of the muscles of the calves. Death occurred on the fourth day. (5) Tuberculous Nodule in the wall of the Heart Muscle of an infant. Invasion took place along the cervical and tracheal glands. (6) (*a*) Pulmonary Tuberculosis in Diabetes. The lungs showed large, rapidly-caseating, well-defined nodules; (*b*) Gangrenous Ulcer from the same case.

HEREDITARY SYPHILITIC OSTEITIS.

Dr. ALEXANDER JAMES read a paper on a case of this nature. The patient was an ill-grown lad of 18, and there was a distinct history of hereditary syphilis. He had had no "snuffles" nor skin rashes as an infant, but at the age of 3 years he had had keratitis. At the age of 10, after an attack of measles and whooping cough, he had complained of great pain, worse at night, in his tibiæ and humeri, and this was associated with the formation there of nodes. On the right tibia the node was a very large one and was specially painful. With rest and iodide of potassium the conditions had improved, the nodes had disappeared, but now at the age of 18 there was existent a condition of great thickening and elongation of the right tibia, a condition of "partial gigantism." Six months ago he had developed gradual paralysis with occasional twitching of the right arm, optic neuritis, headaches, etc. In spite of large doses of iodide of potassium and mercury he had died comatose. On *post-mortem* examination a gumma of the size of a golf ball was found in the middle of the left Rolandic area of the cortex. Sections of the enlarged right tibia showed a complete change in its structure. It showed externally a thin rim of compact bone, and internally cancellated tissue with no medullary cavity. The meshes of this cancellated tissue were filled mainly with fat cells, and very few marrow cells were to be detected.

Drs. JOHN THOMSON and THEO. SHENNAN, and Messrs. F. M. CAIRD and ALEXIS THOMSON spoke, and Dr. JAMES replied.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—At a meeting on June 1st, Dr. R. FORTESCUE FOX (President) in the chair, Dr. H. SHIRLEY JONES read a paper on the Treatment of Neuritis and Neuralgia by the Droitwich Brine Baths. Dr. DOUGLAS KERR (Bath) said he could testify to the benefit which he had known in severe cases of neuralgia from the Droitwich bath treatment. The PRESIDENT remarked that neuralgia in its various forms was usually relieved under balneological treatment. It acted doubtless as an eliminant, and also tended to remove the subinflammatory conditions on which most cases of neuralgia depended. He also called attention to the use of cold douches for neuralgia by the French. In reply to Dr. DOUGLAS KERR and Dr. BOWEN DAVIES, Dr. SHIRLEY JONES said the treatment he adopted at Droitwich in neuralgia and neuritis consisted for the most part for acute cases in the use of a hot reclining bath without massage or electricity but with as complete rest as possible, in cases of the lower limb rest in the recumbent position, for the upper limb rest in a sling, and in uncomplicated cases no drugs at all. For the relief of pain he used hot brine as a compress. As the acute stages passed off the douche over the course of the nerve came into use, the temperature and the length of time varying considerably with the amount of pain and the idiosyncrasies of the patient from 115° to 80° usually, and he had occasionally found great benefit from a temperature as low as 65° given as a douche, particularly in cases where there had been atrophy of muscles resulting from a neuritis: there, too, he found great benefit from the use of the swimming bath, where, owing to the great buoyancy of the water, exercise of any limb might be effected with a minimum of exertion, and this he thought a very important point in the development of atrophied muscles; apart from that the swimming bath had a very decided tonic effect, and as such was very useful in the treatment of chronic neuralgia.—A paper written by Dr. IVOR MURRAY on Scarborough as a Health Resort in Phthisis was then read. He claimed for Scarborough special beneficent action in the treatment of the earlier stages of phthisis if the modern views were carried out. Its natural elevated position, its woods and gardens, its walks and shelters, its comparatively uniform and bracing climate, the large number of hours of bright sunshine, the high winter temperature (42.6° mean from November to February), the low mortality from phthisis (1.1 per 1,000 against 2.4 for all England) pointed it out as a most suitable locality for practising the open-air treatment which his experience and that of others had confirmed. Dr. FELKIN (London) said that he was rather surprised to hear Dr. Ivor Murray say that malarial patients did well at Scarborough. He had had several patients who had suffered from malaria, and who had been sent to that health resort without any benefit. Mr. ALFRED HAVILAND said that the low rate of mortality from phthisis in Scarborough and the adjoining precipitous coast districts of the North Riding was an early problem for him during his investigations on the distribution of this cause of death throughout Great Britain, which was solved by the discovery of the conditions of the climates of localities around our coasts lying to the leeward of precipitous cliffs, which broke the force of inshore winds, so fatal to the lung-tainted, whilst the greatest atmospheric purity was preserved. Dr. MURRAY stated that the opinion he had formed of the climate of Scarborough in relation to phthisis, and the grounds upon which he had based it had been fully confirmed by his own experience since the publication of Haviland's *Scarborough as a Health Resort* in 1882. The speaker illustrated his views by giving his experience during a south-west gale at Beachy Head while at Eastbourne thirty years ago.

WIGAN MEDICAL SOCIETY.—At a meeting on June 8th, Mr. C. R. GRAHAM in the chair, in the unavoidable absence of the President, Mr. Cooke, a vote of condolence was passed to Mr. W. Mitchell Roocroft and family, on the death of his father, Mr. William Roocroft, J.P., a former President of the Society.—It was proposed by Mr. BENSON, seconded by Mr. MONKS, and carried by acclamation:

That the Society tender its hearty congratulations to Sir William Mitchell Banks, on the mark of distinction accorded him recently by Her Gracious Majesty the Queen.

—The SECRETARY read the following resolution on vaccination, which had been received from the Honorary Secretary of the Medical Institution, Liverpool:

That the members of the Liverpool Medical Institution are of opinion that the Vaccination Act of 1898 was enacted in direct opposition to the findings of the Royal Commission, and that the operation of the Act will

be prejudicial to the public safety, and that its amendment is urgently required.

It was proposed by Dr. BENSON, and seconded by the HONORARY SECRETARY, that the Society should support the resolution of the Liverpool Medical Institution. It was then proposed that the letter and resolution should lie on the table. An interesting discussion followed, a further amendment being proposed and carried unanimously to the following effect:

That this meeting is of opinion that Parliament should make efficient vaccination compulsory; that the sanitary authority should have the carrying out of the Vaccination Act; that the cost of vaccination should be a State or Exchequer charge, and that private practitioners and public vaccinators should be paid the same fees from the Exchequer funds.

The following members took part in the discussion, Messrs. BENSON, REES, BRADBURY, PARKER, BRADY, WILDING, GRAHAM, MONKS, and the HONORARY SECRETARY.—The President's address was postponed till the next meeting.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—The annual meeting was held on June 6th in the Library, New Hospital for Women. It was devoted to the election of the Managing Committee and officers for the ensuing year. In the evening of the same day the annual dinner took place at the Midland Grand Hotel; seventy-eight members were present. The PRESIDENT (Mrs. Scharlieb, M.D., M.S.) was in the chair; and Dr. Sophia Jex-Blake, of Edinburgh, was entertained as the guest of the evening.

REVIEWS.

A TEXTBOOK OF MENTAL DISEASES: WITH SPECIAL REFERENCE TO THE PATHOLOGICAL ASPECT OF INSANITY. By W. BEVAN LEWIS, L.R.C.P.Lond., M.R.C.S.Eng., Medical Director, West Riding Asylum, Wakefield. Second Edition. London: Charles Griffin and Co., Limited. 1899. (Royal 8vo, pp. 636. Illustrations, charts, and 26 lithographed plates. 30s.)

THE first edition of this work ten years ago was an important study of mental diseases. It sought to present us with an account of mental diseases in their clinical and pathological aspects, and took high rank in the speciality of psychological medicine. The present edition is enlarged by about fifty pages of text, and by additional drawings illustrating the normal histology of the brain cortex, as shown by the Golgi method, and the price of the book is slightly raised. The work consists of an anatomical, a clinical, and a pathological section.

The first Section—on Anatomy and Histology—is rather unequal in its parts. For while the part on cortical histology is minute and full, the parts dealing with the nervous tracts of the spinal cord, medulla, pons, mid-brain, and thalamus are not lucidly described, and the general body of facts is not complete and not brought up to date. The text is insufficiently illustrated, and much of the anatomy is as old as Meynert, and takes no account of the recent advances in knowledge which we owe to Flechsig and Bechterew, Forel and von Monakow, Marchi and Risien Russell. The concluding observations on brain physiology might have been more systematically presented. Conspicuous by their absence are the important discoveries of Flechsig on the "association-centres" of the brain, attention to which had been drawn in the BRITISH MEDICAL JOURNAL in 1894.

The Clinical Section opens with a long and elaborate psychological discussion on "states of mental depression." It is a close and abstruse piece of reasoning, largely based on Griesinger, and, though clever, is not convincing. Most of it belongs to the domain of speculation, and in the absence of more definite data the space taken up seems to be too large. Passing on to clinical conditions, we next find detailed descriptions of melancholia, stupor, and mania. Many observers since Meynert have described an asthenic delirium or acute mental confusion, clinically different from mania or stupor. This is now widely recognised, but we find no special account of it in the work before us.

Mendel's "paranoia" is admitted as designating a group of cases for which the term "*primare Verrücktheit*" would be, of course, the more fitting title, but the clinical description given is meagre and insufficient. Circular insanity, to the study of which such valuable additions have been made by the Falrets (father and son), is not described with sufficient fulness. Epileptic insanity is more fully dealt with, and its medico-legal bearings are duly indicated. The next two chapters on general paralysis of the insane and on alcoholic insanity are the best in the book. These diseases are described with great minuteness, and many valuable observations are brought together and tabulated. A clinical division of general paralysis into five groups is attempted, and it is claimed to comprise all forms. We do not meet with any account of juvenile or adolescent general paralysis, a subject which has attracted much attention of late years. Nor is there anything offered regarding the etiology of general paralysis, a subject on which information is naturally expected in a textbook.

The psychoses of adolescence and of the senile epoch are well discussed. As regards climacteric insanity, its rarity is emphasised, only 4.4 per cent. of the total female admissions apparently affording examples of this condition. Concerning hysterical and choreic insanities, we find nothing, nor do we find any accounts of the insanity said to be associated with myxœdema. The Clinical Section is brought to a close with a chapter on treatment, which is on the whole concise and as far as it goes satisfactory. We find no reference to thyroid treatment.

In the concluding section on pathology the subject is presented in essentially the same light as in the first edition. We should have welcomed the newer light thrown in this department of mental disease by the discoveries of Golgi, of Nissl, and of their school generally, and it is doubly disappointing to find nothing presented to us in these respects. Much of the speculative pathology concerning the "scavenger cell" as an element in the genesis of insanity is here reproduced in the form of views familiar to us in the first edition, though much work done since then, both in this country and on the Continent, has failed to substantiate the author's views. Our conceptions of the neurons, of the neuroglia, of toxic agencies, and of pathology have widened and changed, and the presentation of the subject in these pages is on the whole not quite adequate. We find here and there statements of a curious nature: the nucleus of a nerve-cell is said to possess "inhibitory functions," and to act as an "imperium in imperio;" the red corpuscles are believed to "oxidise the hydrocarbons circulating in the blood," and menstruation is called a "depurative process."

This section of the book is on the whole disappointing. It marks the close of an older epoch, but it has failed to assimilate or enter into possession of the facts and discoveries of the new, and we are unable to accord to it the praise given a decade ago, when conceptions of mental pathology were different. It is a book for the specialist, who will read it for the special views and observations it contains.

THE TREATMENT OF SYPHILIS IN THE PUBLIC SERVICES. By Major F. J. LAMBKIN, R.A.M.C. London: John Bale, Sons, and Danielsson. 1899. (Royal 8vo, pp. 32. 1s.)

THE author gives an excellent account of the treatment of syphilis adopted by him. He is strongly in favour of the intramuscular treatment as first advocated by Lang of Vienna in 1888. The results he states, are quicker, and it is possible to get the soldier or sailor to carry out the treatment for the length of time required—a matter of great importance. Mercurial inunctions, although giving equally good results, can only be carried out while the patient is in the hospital, as the moment he is discharged they are given up. If pills are given, the soldier in no way differs from the civilian; he takes them for a few weeks, and after the objective symptoms have disappeared he discontinues their use. If intramuscular injections, however, are employed, he must come under the weekly supervision of the medical officer, even when well enough to have returned to his ordinary duties. In the event of his being removed to another station, the medical officer has merely to communicate with the new officer, who can arrange to have the treatment continued. Major LAMBKIN has given over 7,000 intramuscular injections, and the

composition of the mercurial cream which he employs (hydrarg. 3j, lanolin pur. 3ij, both by weight, ol. carbolic 1 in 20, 3iv by measure), as well as the special syringe required, is described. He is careful to point out that in "Nature herself we have a strong ally to help us," and that "a good constitution in the patient" and "good hygienic surroundings" materially assist both Nature and the doctor. Special attention is also drawn to the necessity of cleanliness of the teeth and mouth, and the abstention from all sources of local irritation, such as spirits and tobacco. The advisability of wearing flannel next the skin, and the avoidance of unnecessary exposure to cold, are also insisted upon. If all the precautions urged by Major Lambkin are carried out, he feels confident that "the virulence of the disease itself will be very much modified, and that the loss to the public services will be markedly decreased."

The pamphlet is clearly and concisely written, and should be of great value to all medical men, not only in the services, but also in hospital and private practice.

JAHRBUCH DES BOSN-HERCEG LANDESSPITALES IN SARAJEVO FÜR 1894, 1895, UND 1896. [Yearbook of the General Hospital of Bosnia and Herzegovina at Sarajevo.] Herausgegeben von der Landesregierung für Bosnien und die Hercegovina. Wien: Josef Sáfár. 1898. (Imp. 8vo, pp. 853, 119 illustrations.)

THIS carefully-prepared and well-printed volume is an official report of all that has been done in the course of three years towards the establishing at Sarajevo of a large and fully-equipped hospital for the benefit of the inhabitants of Bosnia and Herzegovina. This hospital was opened in 1894 and additions have since been made. It is evidently an institution that has been established at a liberal outlay, and with a full intention on the part of the local government to render it thoroughly suitable both for the treatment of disease and for the extension of medical science.

The report for the first three years will be found of service to all who are interested in details of hospital construction and administration. It shows also that full use has been made of an abundance of interesting clinical material, and that in the organising of the Sarajevo Hospital the care of the patients and the means of affording both practical and scientific instruction have been placed in the hands of a large and very capable staff.

The compilers of this report have done their work with much patience and industry, and to such an extent has elaboration been carried in the statistical sections that the reader runs the risk of failing to find some simple but yet important detail amongst a bewildering series of complicated tables. A description of the hospital and some statistical details relating to its administration are followed by a series of clinical reports resembling those issued in this country by the medical and surgical registrars of the large hospitals.

The report on medical cases, by Dr. Kobler, includes some interesting clinical remarks on enteric fever and its complications, and also on pathological investigations in malaria. Dr. Preindis Verger, in his surgical report, adds to complete statistical returns of cases treated in the wards and out-patient department some papers on the treatment of tetanus, on congenital fistula in the neck, and the results of the reclination treatment of cataract. Other special reports indicate that much attention is paid in this hospital both to gynæcological work and to the treatment and study of syphilis and cutaneous diseases. The thoroughness and scientific spirit with which the staff of this hospital have carried out their duties are shown by a carefully-prepared record of pathological and bacteriological investigations.

PROFESSOR HIERONIMUS (a Novel). By AMALIE SKRAM: translated from the Danish by ALICE STRONACH and G. B. JACOBI. London and New York: John Lane. 1899. (Crown 8vo, pp. 320. 6s.)

BJÖRNSON describes this is an epoch-making work, and the authoress is generally known as the Danish Zola. This is high praise, but it is not too high for such resplendent work. Those who regard Zola as great will admit that Fru SKRAM is even greater. She uses the methods of her great master, but she handles them with greater freedom, and produces even finer effects. Zola has done nothing so admirable as the description of the death from carbolic acid poisoning in *Professor Hieronimus*. We have the convulsive heaving of the chest, the rattling in the throat, the leaden-coloured visage, the gaping mouth with the bluish-white froth dribbling from it, all complete. Then there is a fine description of washing and laying out the body, and a charming realistic touch in the statement that corpses "are sometimes very dirty about the feet and legs." We remember nothing in all fiction to compare with this. The great masters of literature who described the deaths of Falstaff, of Le Fevre, of Roderick Dhu, of the laird of Dumbiedykes, of Colonel Newcome, never thought of describing the dirt on their legs.

Fru Skram is now in the plenitude of her powers, and we may anticipate from her work that will excel even Professor Hieronimus. How exquisitely she could describe the process of vomiting and the appearance of the vomit! Then, too, if she would follow the corpse from the death chamber to the *post-mortem* room, what magnificent effects she could produce! How she would revel in the description of the yellow fat, the half-decomposed brain slobbering out of the skull, the "scolp" of the lungs as they are pulled out of the thorax, and the hands of the operator grabbling in the guts! As far as we know this has never been attempted in a novel, and we commend the theme to Fru Skram with the certainty that she alone of living authors could do it justice.

THE ANALYSIS OF FOOD AND DRUGS. Part II. The Chemical and Biological Examination of Water. By T. H. PEARMAIN and C. G. MOOR, M.A. London: Baillière, Tindall, and Cox. (Demy 8vo, pp. 178. 5s.)

A SERIOUS gap in the literature of practical hygiene has been filled by the publication of this volume.

Of the books which have hitherto been accessible to students and practitioners, it may fairly be said that none have exactly supplied the everyday wants of the practical investigator. They have either been of a purely chemical and descriptive nature, or else have dealt with the subject from an academic point of view. The volume before us has the advantage of hitting the happy medium between these two classes of treatises, for on the one hand it contains in sufficient detail for practical work descriptions of all the chemical and bacteriological processes likely to be required in routine practice, and on the other hand it devotes a large amount of space to criticism of existing methods, and to the all-important subject of the interpretation of results.

In the account given of the bacteriological investigation of water, stress is properly laid upon the fact that the first value of such methods is the facility they give for suggesting further inquiries along particular lines. A just view is taken of the value of bacterial enumerations, and of the significance to be deduced from the presence of any particular organism. The authors fully recognise the fact—which is only too often neglected in writing reports on water—that the enumeration obtained from plating out the water on gelatine takes count only of a certain proportion of the organisms present, namely, those only which are capable of growth on the medium employed at the particular temperature of incubation adopted, and of those which are of a sufficiently facultative aërobic nature to develop under the usual conditions of culture.

The book is divided into seven sections. The first is an introduction, next follows a classification of waters from different sources, and the methods to be employed in securing representative samples. Following this is the section on the physical examination, which is illustrated by a valuable collection of drawings of the various suspended matters that may be found in water; next comes the chemical examination and interpretation of the results so obtained, then the bacteriological examination of water and consideration of the results so obtained, and next a section on the law relating to water supply, and finally a section on aërated table waters.

A feature of the book is the excellent series of outline drawings of the microscopic fauna and flora of natural waters, a matter not sufficiently well known among practical men.

Often the greatest assistance can be obtained from examination of a sediment. The chapter, valuable as it is, might have been rendered more valuable had a description been given of a reliable method of sedimentation.

THE LIVING ORGANISM: AN INTRODUCTION TO THE PROBLEMS OF BIOLOGY. By ALFRED EARL, M.A. London: Macmillan and Co.; and New York: The Macmillan Company. 1898. (Demy 8vo, pp. 286. 6s.)

THIS is in no sense a textbook of biology. It is rather an exceedingly thoughtful essay on the problems which the systematic study of biology suggests. The author shows how very complex such problems are, and how a trained judgment is necessary to realise even the simplest. Biological phenomena lend themselves very readily to popular discussion, but the common occurrence of such terms as "heredity" and "natural selection" in popular works does not imply a widespread extension of scientific research. If these amateur biologists read Mr. EARL'S little book it will give them an opportunity for serious reflection.

The psychological side of all scientific problems is insisted on throughout; the objective can be studied only through the subjective. We fear this is an aspect of the subject which is often neglected by others than amateurs. All biologists will benefit by reading this book, which is most suggestive; it teaches us how much there is in the living organism which is at present outside the range of chemical and physical operations.

NOTES ON BOOKS.

PROFESSOR ESMARCH is a well-known authority on "First Aid;" indeed, Esmarch's triangular bandage is usually, if not invariably, employed in this country for the purpose of securing first dressings. The third edition of his little work, *Der Erste Verband auf dem Schlachtfelde*, or First Dressings on the Battlefield (Dritte Auflage. Kiel und Leipzig: Lipsius and Tischer. 1899. Fcap. 8vo, pp. 34, 33 illustrations. 6d.) will be welcomed both by those who teach and those who learn how immediate assistance should be rendered. His hints are equally useful in private as in military life. Stress is laid on antiseptic treatment, and a list of the chief antiseptics and the way to use them is given. A special antiseptic first dressing is described arranged in so small a compress as to be readily carried on the person. Every soldier going into action has one sewn into his clothing, in case of need on the battlefield. There appears to be no alteration in the methods of applying the bandage, but its use is made very clear by twenty-five illustrations and a good descriptive letterpress. Methods of improvising splints and tourniquets with rifles, scabbards, stones, etc., are carefully described and illustrated.

Mr. B. G. A. MOYNIHAN, of Leeds, has printed his Arris and Gale Lectures before the Royal College of Surgeons of England this year in a small volume, to which he has given the title *On Retroperitoneal Hernia* (London: Baillière, Tindall and Cox. 1899. Demy 8vo, pp. 174. 7s. 6d.). The subject so ably and clearly discussed in these lectures is one that has hitherto been regarded as more interesting to anatomists than to practical surgeons. The fact that it has received less than adequate attention from English surgeons in the past may be accounted for in the first place by the extreme complexity of retroperitoneal herniæ, together with their exuberant and variable nomenclature, and, in the second place, by the rarity of bad results from such conditions and the difficulty of making a precise diagnosis. Most forms of retroperitoneal hernia, it may be asserted, are observed more frequently in the *post-mortem* room than on the operating table. Mr. Moynihan, by a careful study of the subject—both in the dead subject and in the abundant literature by English and foreign authors—has endeavoured, we think with full success, to throw much light on its many obscure points, and to render it interesting to practitioners as well as to anatomists.

Schoolboy's Special Immorality (London: J. and A. Churchill. 1899. Demy 32mo, pp. 48. 6d.) is a reprint, with additions, of an essay which was published by DR. MAURICE C. HIME in 1897, and received with considerable favour. In addition to his own successful experience as a headmaster, the author brings to the consideration of a serious problem the courage and the discretion which are needed. There are not a few who incline to shirk their responsibilities as parents and as schoolmasters in relation to this subject, and who are prompted to ignore its existence by doubts as to their own ability to deal with it. To such, and to all men indeed who are concerned in the care and training of the young, this little work should prove really helpful.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

Aseptic Sponges (Squire).—Messrs. Squire and Sons (413, Oxford Street, W.) have sent samples of "sponges" made of cotton fibre, subjected to very great pressure, and so compressed into discs of about an inch in diameter and one-twelfth of an inch in thickness. Each disc is therefore as thick, and only a little larger, than a penny piece. If dropped into water this cotton-wool sponge rapidly absorbs moisture, and swells like the "Pharaoh's serpents" which used to be the delight of children's parties at Christmas. Each disc is found to increase to fifteen times its size, and will absorb twelve times its weight of fluid. These discs will no doubt be useful in tamponing small cavities where hæmorrhage is feared, and where it is necessary to maintain even pressure. Perhaps it is chiefly in nasal surgery that they will be of service. Packing the nostril with strips of gauze is always painful for the patient, and not always effective, for, once saturated with blood, the gauze is apt to shrink, and so allow further hæmorrhage. These discs can be cut in semicircular form, and easily slipped in between the septum and the outer wall, where, as they swell, they will exert even and increasing pressure. They will probably prove of very considerable help in epistaxis and in many intranasal operations.

Gelatine Vaginal Capsules.—We have received from Messrs. Squire and Sons, 413, Oxford Street, a sample of glycerine capsules for use in the vagina. A piece of wool secured with a string is enclosed in a capsule of thin soluble gelatine. The wool can be saturated with any medicament that is thought suited to the case; it should be then enclosed in the capsule and inserted in the vagina, where the capsule melts. The wool can afterwards be withdrawn by the string. Medicated wool enclosed in capsules such as these is introduced with greater ease and comfort than wool without such a covering.

Urosine.—Urosine is the name given to a combination of quinic acid with lithia. Dr. J. Weiss, of Bale, in a paper published in the *Berliner Klinische Wochenschrift*, 1899, No. 14, has shown that quinic acid possesses the property of decreasing the formation of uric acid in the organism, and that consequently it may be of service as a remedy against gout and affections due to the uric acid diathesis. Quinic acid (or kinic as it is sometimes called) occurs in cinchona bark. It has a very bitter taste, so that it has been thought advisable to combine it with a base, and lithia, on account of its diuretic properties, has been chosen. It is claimed for urosine that it limits the formation of uric acid to a very great extent, and that it has an advantage in this respect over such preparations as alkaline waters, piperazin, etc., which are meant to serve only as solvents of uric acid already formed. Urosine has a pleasant taste; it is put up in tablets each containing $7\frac{1}{2}$ grs. in an effervescent form, and also as urosine water—a solution of urosine in carbonated water. The samples of urosine tablets have been sent by Messrs. Wiedenmann, Broicher and Co., 33, Lime Street, London, E.C.

GENERAL COUNCIL

OF

MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1899.

NOTES.

The Hunter Case was brought under the notice of the Council by Mr. Horsley, who made use of his long-desired opportunity with much judgment. Availing himself largely of the document printed by order of the President, to which he desired that certain incontestable additions should be made, he presented a clear narrative which needed little comment to enforce it; though he allowed himself for a few minutes to be carried away by the strength of his convictions into a condemnation of the judgment of the Appeal Court, which had only an indirect relation to the issues before the Council. On the other side only three members spoke—Dr. Glover, Mr. Carter, and the President. Dr. Glover, while endeavouring to fix upon the whole Council responsibility for everything that had been done, attempted a diversion by questioning Mr. Horsley's consistency; while Mr. Carter in his opening sentence, in which he declared that as a member of the Penal Cases Committee his impression was that the case was recommended to the Council for prosecution simply as a test case on the propriety of the use of this particular M.D., immensely strengthened Mr. Horsley's contention. Doubtless this is excellent reading for the Society of Apothecaries, but will the rest of the Penal Cases Committee and of the Council view it with equal satisfaction? The President, as was fitting in a deliverance from the chair, rather sought to pour oil upon the troubled waters than to enter into argument. He first addressed himself to the exoneration of Mr. Muir Mackenzie, and in this he seems to have been quite successful. He concluded by the plea that in the intervals of the sessions of the Council legitimate discretion must be accorded to some one. But a careful perusal of the documents and a study of their dates show that this plea has only a very limited application to this case.

The Employment of Unqualified Dispensers by Medical Men came before the notice of the Council in the form of a letter which was forwarded to it for its information by the Privy Council. This letter had been answered by the Executive Committee to the general effect that they considered that cases in which any evil could be shown to have arisen were very rare. They however recommended the subject to the consideration of the Council, and a short discussion took place which eventuated in the appointment of a small Committee to investigate and report upon the matter. But it was clear from the remarks which dropped from one or another that there was an impression that the case had been overstated.

The Committees of the Council were appointed on the last day of the session. The election of the Executive Committee was conducted by ballot. Under the by-laws it must consist of four English, two Scotch, and two Irish members. The ballot resulted in the re-election of the same persons who had served upon it last year, and we understand that it is an unusual occurrence for any change to take place in its constitution, except by the operation of chance events which remove from the Council members of this body. However this may be, the fact is that the changes in the Executive Committee do not by any means correspond with the changes in the *personnel* of the Council. This is to be regretted, inasmuch as under the Medical Acts this body may be said practically to be the Council in the intervals of the sessions.

The Penal Cases Committee, which is now elected in the same manner, also contains the same names as before, but it has been enlarged, so that now it is of the same size as the Executive Committee and is similarly constituted as regards the three countries. The practical result is the addition of one English member, Mr. Horsley, of one Scotch, Dr. Bruce, and of one Irish, Sir Christopher Nixon. As we understand that the Scotch and Irish members, by a usage which has grown up, are hardly expected to attend all its meetings, the virtual increase is less considerable than it appears to be.

The Appointment of the Legal Advisers to the Council was raised by a question from Mr. Horsley. In response to his request for the minutes of appointment by the Council of the legal advisers, sundry extracts from the minutes extending over a long period of years were submitted, from which it appeared that no formal appointment had at any time taken place, so that it was made clear that the Council is quite at liberty, should it see fit, to employ any solicitor or counsel. Though as a matter of convenience it is obviously advantageous that the work of the Council should be conducted by the same firm of solicitors as a usual course, yet it may easily happen that for special cases the services of a solicitor whose attention has been largely devoted to similar cases would be desirable. We are informed that it is by no means unusual for large bodies to refrain from definitely appointing any solicitor, though they, of course, commonly transact their business through the same channels.

The need for Amendment of the Medical Acts was raised by Dr. Glover's proposal to appoint a Committee to consider what amendments were desirable but did not meet with sufficient support. Amongst the points Dr. Glover discussed as specially suitable for amendment was the power of the Council to supervise the higher qualifications, Section XL of the Medical Act, 1858, the reciprocity powers, and the necessity for further clauses relating to restoring names to the *Register*, but it was urged that inasmuch as the special function of the General Medical Council was to administer the existing Acts, proposals materially to amend them would come more appropriately from an outside source, and would doubtless be referred in due course to the Council for its consideration. On this aspect of the question a good deal might be said on both sides, but the plea of the President that his hands would be paralysed in his endeavours to bring the various qualifying bodies to an agreement upon a new disciplinary measure, although in a measure contradictory to that first raised, probably had more effect in inducing the Council to decide that it had better not make any such appointment at present. We may take it, however, that the proposal may be revived at some future time when no such negotiation is in progress.

Reciprocity of Medical Practice has received a large amount of attention during the session. It will be remembered that the pamphlet on reciprocity, issued and sold by the Council, but shown in the May session of 1898 to be inaccurate, was referred to the Executive Committee for them to report on last November. This report was presented, but the consideration was postponed till the present session, when Mr. Horsley did not find it a difficult task to demonstrate that it was again inaccurate, and once more the Executive Committee have received the Council's instructions further to consider the pamphlet. It is not surprising, therefore, that if on such a simple matter the Executive Committee failed to draw up a sufficiently correct statement to satisfy the Council, much confusion arose when they attempted to explain to the Council their method of dealing with the proposed reciprocity of practice with Italy. The Privy Council had referred to the General Medical Council a proposition from the Italian Government for the establishment of reciprocity between Italy and Great Britain. Before the question came on for decision by the Council the Executive Committee had to a certain extent prejudged it by answering the Privy Council. The Executive Committee however apparently had not sufficiently considered the question in all its bearings, and had as a matter of fact so worded the communication to the Privy Council that the terms were not generally approved. The Executive Committee will now be able before next November to consider Mr. Muir Mackenzie's opinion that any privileges to practise granted to a foreign practitioner in this country under the Act of 1886 cannot be restricted solely to such practitioner's own compatriots. This opinion the Executive Committee have been instructed to communicate to the Privy Council, at the same time pointing out the difficulties in connection with recognising foreign medical degrees, the General Medical Council having no means of control over the medical education and professional examination of such graduates.

Certificates to Spectacle Makers, and Certificates in Midwifery formed the subject of a resolution, proposed by the Executive Committee, declaring that the Council exercised no jurisdiction over opticians granting certificates to spectacle makers, but expressing willingness to consider any properly substantiated charge of improper conduct made against a registered medical practitioner with reference to this subject. As regards the issue of certificates in midwifery the Executive Committee's resolution proposed that as a Midwives Bill was now before Parliament, the Council should at present refrain from taking any action. Mr. Brown contended that a special Committee ought to be appointed to go through the memorials presented to the Council in regard to these matters. The Executive Committee had, according to Mr. Brown, confused the two questions together, and Mr. Horsley concurred in the opinion that the two questions ought not to be conjoined. The Executive Committee's position, however, was unassailable in regard to one point in relation to the spectacle makers, namely the want of jurisdiction of the Council over opticians granting these certificates, and in the end the Council supported the resolution of the Executive Committee.

The Definition of Natural Labour in the Midwives Bill has been the subject of communication with the Privy Council, and Sir Richard Thorne informed the Council that the Privy Council had decided that it would be better to insert words restricting the work of midwives to natural labour among the restrictive clauses of the Midwives Bill than to attempt to define the term "natural labour." The Council recognised the wisdom of accepting this proposal, but it was reported that the Lord President of the Privy Council adhered to the proposal of the promoters of the Midwives Bill that laymen should be represented on the Midwives Board.

The Impecuniosity of the Irish Branch of the Council was utilised by the witty representatives of the Sister Isle to ventilate another injustice to Ireland. The alluring prospect of a loan of £1,000 of English money was rudely dissipated by the trustees becoming severely critical as to the advisability of the investment. When further the Irish Branch was invited to explain the cause of their deficit, it was no wonder that its members should retaliate by asserting that its receipts were lessened because Irish students went to Scotland where fees were lower and examinations easier. Sir C. Nixon put it to the Council that as the English Branch worked no harder than the Irish, they should form a common purse, with something retrospective thrown in for the Irish as well.

The Confidential Document Fiction was the occasion of a debate which should serve the purpose of ending the absurdity by which documents of the General Medical Council have been at one and the same time on sale to the public and issued as confidential to members of the Council. The matter arose incidentally on the last day of the session. Sir Dyce Duckworth produced to the Council a copy of the British Medical Journal of June 10th, and with great indignation demanded to know how it was that the suppressed memorial on the Fellowship Examination of the Faculty of Physicians and Surgeons of Glasgow was published at full length in the report of the Council's proceedings, though the memorial had not been laid before the Council. Dr. Cameron, the representative of the Faculty, said that the memorial was prefaced in the Journal by a statement that a discussion took place with regard to it in the Council, but that he could not remember any discussion of the sort. We do not profess to understand Dr. Cameron's point, unless it be that a motion in the Council, a statement by the President, and a speech by Dr. Cameron himself do not constitute a discussion. The facts are, we believe, correctly reported in the Journal of June 3rd, p. 1365. Many members of the Council evinced much interest also on learning that minutes marked "confidential" had been and now were on sale at Messrs. Spottiswoode's. Sir Christopher Nixon ended the somewhat amusing incident by the simple expedient of reading his copy of the Journal, thereby discovering the fact that the suppressed memorial was not printed as part of the Council's proceedings, and happily disposed of the matter by suggesting the somewhat obvious explanation that the authors of the document might have themselves forwarded it for publication.

REPORT OF PROCEEDINGS.

Thursday, June 8th, 1899.

Sir William Turner, President, in the Chair.

The minutes of the previous day's proceedings were read and as amended, confirmed.

New Member.

The President stated that that morning a communication had been received from the University of Oxford to the effect that Dr. Church had resigned his position as representative of that University, and that Dr. Payne had been appointed in his stead. He was very sorry to think that the Council had lost Dr. Church.

Dr. Joseph Frank Payne was then introduced to the President and the Council by Sir Dyce Duckworth.

The College of Preceptors.

The Registrar said the first business on the programme was that the President had to make a communication to the Council *in camerâ*.

Strangers were then directed to withdraw, and after the lapse of an hour, upon their return, Sir John Tuke moved, and it was seconded by Dr. MacAlister:

That the letter forwarded with certain documents and memorandum and statement to the President by the Secretary of the College of Preceptors, together with the President's reply thereto read to the Council *in camerâ*, be entered on the minutes of the Council.

This was carried unanimously.

Election of the Executive Committee.

Mr. George Brown called attention to the fact that the Crown representatives, as representing Her Majesty's Government, were not represented on the Executive Committee. He referred to all the divisions in the kingdom. Formerly the Crown representatives had always occupied a place on the Committee, there being generally two for England and one for Scotland or Ireland. Sir Richard Quain, when he was President of the Council, was a Crown representative, and he, *ex officio*, occupied a seat on the Committee.

The President said it was a matter which rested entirely with the Council, and it was for the Council or the individual members to judge for whom they voted. They could not discuss it further.

The President then declared that the members elected on the Executive Committee were as follows: Sir Dyce Duckworth, Mr. Bryant, Mr. Carter, and Dr. Glover (for England); Dr. Heron Watson and Sir William Gairdner (for Scotland); and Dr. Atthill and Sir Philip Smyly (for Ireland). The old members were therefore elected.

Election of the Penal Cases Committee.

Sir Richard Thorne said, with a view to save time, he would move that two scrutineers be appointed to examine the voting papers and report to the Council.

The President appointed Dr. Pye-Smith and Dr. Payne as scrutineers.

The Council then proceeded to vote, and the scrutineers retired with the voting papers. At a later stage of the sitting the President reported that the scrutineers had placed in his hands the result of the election of the Penal Cases Committee: Mr. Bryant, Mr. Carter, Dr. Glover, and Mr Horsley had been elected for England: Dr. Watson and Dr. Bruce for Scotland. For Ireland Sir William Thomson was elected, and Dr. Atthill and Sir Christopher Nixon had obtained an equal number of votes.

Dr. Atthill expressed a desire to retire in favour of Sir Christopher Nixon, and the President declared Sir Christopher Nixon duly elected.

Report of the Pharmacopœia Committee.

It was then proposed by Dr. Leech, seconded by Dr. MacAlister, and carried unanimously, that the following report from the Pharmacopœia Committee be received and entered on the minutes:

The Pharmacopœia Committee beg leave to report that 26,500 copies of the *British Pharmacopœia, 1898*, have been printed, and 25,225 of these have passed into circulation, leaving in hand only 1,275 copies; it is therefore evident that at an early date a further reissue will be needed.

The Pharmacopœia Committee note with satisfaction that the Legislatures of Queensland and of Victoria have sanctioned Acts which provide for the adoption of the *British Pharmacopœia, 1898*, in Queensland and Victoria respectively.

In accordance with the report of the Pharmacopœia Committee adopted by the Council in November, 1898, the Pharmaceutical Societies of Great Britain and Ireland were invited to appoint representatives to confer with members of the Pharmacopœia Committee, and nominated Mr. C. Ekin, Dr. W. Inglis Clark, and Mr R. J. Downes to act in this capacity. A conference has been held, at which Dr. Leech, Dr. MacAlister and Dr. Tirard (Secretary) met the above-named representatives, and discussed numerous points connected with subjects dealt with in the *Pharmacopœia*.

It is recommended that the Pharmacopœia Committee be allowed to authorise the publication of reports received from experts in pharmacy and pharmaceutical chemistry upon matters deemed worthy of investigation.

The President has addressed a letter to the Lord President of the Privy Council requesting that a report upon the Indian and Colonial addendum should be forwarded through the Secretary of State for India and the Colonial Office to the Indian and Colonial medical and pharmaceutical authorities. Communications have been received from the India Office and from the Colonial Office expressing readiness to comply with this request.

The report has been widely circulated, copies having been sent to about 900 medical and pharmaceutical authorities and experts in India and the British Colonies,

Valuable criticisms and suggestions have already been received from some of the Indian and Colonial medical authorities, and also from Surgeon-General G. Bidie (retired).

A comprehensive Committee has been formed in Canada to consider what additions it is desirable to make to the addendum in order to adapt the *Pharmacopœia* to the requirements of the Dominion, and a preliminary report has already been received from this body.

After the various communications have been considered by the Pharmacopœia Committee, a draft Indian and Colonial addendum will be drawn up and submitted for the approval of the Council. But much time must elapse before all the comments can be received and considered, and it will probably be found impossible to present the draft addendum at the November meeting of the Council.

Dr. LEECH then moved that the report be adopted. It would be seen that the circulation of the *Pharmacopœia* was going on very satisfactorily, and that it would be no burthen on the finances of the Council. There would be some expenses in regard to investigations, but nothing compared to the receipts from the sale. There had been some criticism, some worthy of note and some founded on a misconception, and Dr. Attfield had collected and analysed them, and had submitted them to the Pharmacopœia Committee. In consequence of his indisposition they had not been able to present the final report to the Council, but they would deal with it before the next session. The Committee recommended that the Pharmacopœia Committee be allowed to authorise the publication of the report.

The resolution was carried.

REPORT OF FINANCE COMMITTEE.

On a motion of Mr. BRYANT, seconded by Sir DYCE DUCKWORTH, the report by the Finance Committee was received and entered on the minutes:

RECEIPTS.

The income of the General and Branch Councils for the year ending December 31st, 1898, was £14,629 3s. 3d., and the expenditure for the same period having been £13,905 10s. 2d., there was a surplus of £723 13s. 1d.; this was chiefly due to the publication of the new *Pharmacopœia*. The fees received by the Branch Councils again showed a slight decrease, for £273 5s. less was received in England, and £13 2s. 6d. less in Ireland, while Scotland showed an increase of £172 2s. 6d.; the total decrease was therefore £114 5s. These figures seemed to show that, though the fees would probably continue to decrease slightly each year owing to the increasing stringency of the conditions of qualification, yet the effect of the introduction of the five years rule had now passed, for the decrease in fees in 1897 was £779 12s. 6d.

EXPENDITURE.

Amongst the items of increased expenditure the following might be specified:

(*a*) An increase of £1,214 8s. 2d. for General Council fees, and of £122 4s. 8d. for Executive Committee fees, occasioned by the extra session of the Council and the length of its meetings; the Executive Committee also met in July, whereas last year (1897) it did not meet between the May and November sessions.

(*b*) An increase of £2,454 18s. 2d. for the *British Pharmacopœia*, due to the cost of publishing the new work.

(*c*) An increase of £171 15s. 11d. in the cost of printing the *Medical* and *Students' Registers*, regarding which the Stationery Office writes: "This is the first supply under a new contract, and the charge is higher than usual on account of this office having to pay full printing composition rates. During the currency, however, of the new contract, the charge for future editions will be considerably lower."

(*d*) An increase of £223 9s. in the inspection of examinations, owing to the scheme regarding the Apothecaries Hall, Ireland, having come into force.

(*e*) An increase of £138 2s. 7d. in miscellaneous expenses, occasioned chiefly by the issue of the circular regarding the employment of unqualified assistants, and partly also by the extra session of the Council.

On the other hand, decreased expenditure had to be noted:

(*a*) In salaries, £601 10s. 1d.

(*b*) In law expenses, £133 17s. 11d.

The average yearly expenditure of the General and Branch Councils for the past seven years had exceeded the average yearly income by £310 13s.

THE BRITISH PHARMACOPŒIA.

The "percentage rate," which showed what part of the "moneys received by the several Branch Councils," had, pursuant to Section XIII of the Medical Act, 1858, been paid towards defraying the General Council's expenses, was considerably lower during the past year, having been 71.69, as against 109.89, in 1897, caused by the receipts having been increased by the refunding of the money expended on the *British Pharmacopœia* in the last few years. The auditor had recommended that in future the money spent in the preparation of a *Pharmacopœia* should not be charged as part of the expenditure of the year, but should be carried forward until the book was published; the violent fluctuations of receipts and expenditure which now took place would thus be avoided, and a comparison of the figures year by year would be more simple.

ESTIMATES.

With regard to the current year, all the items of increased expenditure might reasonably be expected to show a decrease, some of them to a considerable extent, with the exception of the inspection of examinations (the Apothecaries' Hall, Dublin), the interest payable on the mortgage would be increased on account of the additions to the building—for which a sum not exceeding £3,000 was allowed—and the Sinking Fund, that had been approved of, to pay off the debt to the English Branch Council, would probably cause an additional annual expenditure of about £215.

With regard to the *British Pharmacopœia*, there would be some payments to be made in connection with the preparation of the Indian and Colonial addendum, but these would probably be more than balanced by the sale of the *Pharmacopœia* itself, for the whole of its preparation having been charged against the first edition, all future reprints showed a profit of about 4s. 6d. per copy.

Looking at the matter generally it was unlikely that the Branch Councils would be called upon to increase their contributions at the end of the current year, and it was possible that the amounts might even be reduced.

THE FINANCES OF THE BRANCH COUNCILS.

The position of the Irish Branch Council in regard to finance required careful consideration. Its estimated contribution for the current year was £874 5s., which included a deficiency in last year's contribution brought forward of £234 3s. 11d. Its income last year was £702 19s. 1d. Assuming, therefore, that the income would be approximately the same, there would be a deficiency of £171 5s. 11d., which would reduce the assets to £113 3s. 11d., and at the end of the year 1900, unless a great alteration took place, the position would be grave. In 1896 the assets of the Irish Branch were £801 18s. 5d.; they were now £284 9s. 10d., or in other words in two years the assets have decreased £517 8s. 7d.

The assets of the English Branch Council has increased by £296 11s. 8d., and of the Scottish Branch Council by £40 0s. 5d., while thereof the Irish Branch Council had decreased by £129 12s. 1d., making a total increase of £207. The Dental Fund had decreased by £97 19s. 8d.

DENTAL FINANCE.

The receipts of the Dental Registration Fund for the year ending December 31st, 1898, were £806 14s. 2d., and the expenditure being £704 13s. 10d., is thus £102 0s. 4d. less than the income. The assets of the Dental Fund had decreased by £97 19s. 8d.

The following resolution was moved by Mr. BRYANT:

That in accordance with the recommendation of the Auditor the money spent in the preparation of the *British Pharmacopœia* should not be charged as part of the expenditure of the year, but should be kept as a separate account.

The Committee meant that the whole account of the *Pharmacopœia* should be kept distinct, expenditure as well as receipts, so that they should know precisely how they stood financially.

The resolution was seconded by Sir DYCE DUCKWORTH, and carried.

SINKING FUND.

Mr. BRYANT said that following the instructions of the Council (December 1st, 1898) the Finance Committee had prepared a special report in regard to the formation of a sinking fund. He had considered the report of the actuary on the subject very carefully, and discussed it with the actuary. It suggested several alternatives, but he (Mr. Bryant) had come to the conclusion that the wisest plan to recommend was that given as follows in the actuary's report:

Assurance by Annual Premiums.—An assurance company, in consideration of a premium of £215 12s. 6d., payable at the beginning of each year for fifty years, will guarantee the payment of the sum of £25,000 at the end of fifty years (the Alliance Company being suggested). By this plan no complicated book-keeping would be required, because the full debt would be repaid by means of the policy in a lump sum at the end of the fifty years.

This plan appeared preferable to an alternative proposal to assure by a single premium, which would at once have diminished the capital of the English Branch Council by £7,388. One question might arise which was not discussed in the report, and that what the position of the Council would be on the assumption that it might require the money. He did not know under what circumstances that could occur, but he had a paper from the Alliance Company as regards the surrender value, and that stated that subject to the same

notice, which was a notice of three calendar months, a policy affected by annual premiums might be surrendered any time after the payment of the second premiums, and as a surrender value the company would pay the amount of the premiums received except the first annual premium accumulated at 3 per cent. compound interest less a rebate of 10 per cent. of the accumulated amount. He then moved:

That the Treasurers be requested to carry out the resolution of the Council as to the formation of a sinking fund, by the adoption of the second method mentioned in the report of the Actuary of the London Assurance Corporation, as specified on page 7 of the report, namely, the payment of an annual premium of £215 12s. 6d. for a period of fifty years.

Sir DYCE DUCKWORTH seconded the resolution, which was carried unanimously.

Dr. MCVAIL thought before they proceeded any further that the Scottish and Irish members ought to return their warmest thanks to Mr. Bryant and the members of the English Branch for what they had done.

THE FINANCES OF THE IRISH BRANCH COUNCIL.

Mr. BRYANT said the next resolution was:

That the question of the financial condition of the Irish Branch Council be referred for consideration to the Finance Committee (with power to take legal advice) and report to the General Medical Council.

At the meeting of the Finance Committee the subject of the impecuniosity of the Irish Branch had been brought forward, and the Committee came to the conclusion that the English Branch should advance £1,000 to the Irish Branch at 2½ per cent. At that time he thought their money was invested in trustees, and he spoke to one of the trustees upon the matter, but he said he could not think of agreeing to it, and inquired what was the security. Unfortunately, there was no security for their money, so there was a little difficulty at the beginning. He thought the Committee might consider the matter between the present time and the next Council meeting, and get a legal opinion upon it. He should be exceedingly pleased as one of the Treasurers of the General Medical Council to be able to help their sister in distress.

The PRESIDENT inquired the reason for the extraordinary drop in their receipts.

Dr. ATTHILL said that the receipts of the Irish Branch were certainly not so good as formerly. A large number of the Irish students went to Scotland, and registered in Scotland, and a fair percentage of those registered in Scotland were Irish medical students. The Irish Branch was conducted with economy, and he was quite safe in saying the fees were not charged for more than two meetings in the year for the last two or three years past. On several occasions they had met in Dublin and charged no fees whatever. The Irish Branch had paid their calls every year, and they were now in this position that they had a balance of about £200 since January 1st. As soon as they got a little money together they would remit to the Council anything they could. They would be as honest as a poor man could be. When he heard that Mr. Bryant suggested an advance of £1,000 he was delighted. He could assure the Council that the Irish Branch would pay the Council every shilling they could.

Sir CHRISTOPHER NIXON objected entirely to the tone of discussion with regard to the Irish Branch. It had been represented as an impecunious body, and was apparently supposed to be at the charitable mercy of the Council. It was very kind of the Council to suggest an advance of £1,000 to relieve their distress, but he thought the answer to the President's question as to why they were in that condition was that it was a repetition of the history of what usually took place when there were any financial relations between this country and Ireland. As a matter of fact, when these bodies were established the English and Scottish Branch Councils were put on more favourable terms than the Irish Branch, as was shown by the returns published since the Act of 1858. The number in England was 37,179, in Scotland 13,201, whilst in Ireland there were altogether 9,164; the percentage to the whole was in the case of England 62, Scotland 22, and Ireland 15. He thought the question should be dealt with in the proposed Medical Amendment Act. One of the most important amendments would be the creation of a common purse to which all the Branches should remit. The point should be dealt with by the Committee appointed to consider the amendments in connection with the Medical Act.

Sir PHILIP C. SMYLY, as Treasurer of the Irish Branch Council, pointed out that it could only take fees for the registration of candidates. He said the Irish Branch was gradually getting below the level of low tide, and in a very short time would be in a very impecunious state. He could only suggest that the expenses of the Penal Cases Committee of the Council should not be charged to Ireland or to Scotland, especially as they were not responsible except in a very small degree for those cases. If this course were adopted it would mean a large sum to the Irish Branch, and it would then be able to get along very comfortably. The English Branch was very wealthy and had a large surplus; the Act of Parliament required that the expenses of the three Branch Councils were to be paid out of the residue of the money so received. What was to happen to this residue?

Sir DYCE DUCKWORTH thought the history of the Council for the last ten or fifteen years would explain what was to happen to the residue. The importance of the work of the Council to the country had enormously increased, its meetings were becoming more exhaustive year by year, and he thought there were good reasons why they should safeguard their residue and watch their expenditure. He would like to ask the Irish representatives if they could tell the Council why it was that a large number of students educated in Ireland sought their diploma in Scotland and elsewhere.

Sir CHRISTOPHER NIXON replied that in the first place it was cheaper, and, in the second place, examinations were easier to pass in Scotland.

Dr. MCVAIL said the General Medical Council simply called on the Branch Council for a percentage of all moneys received, and if the Irish Branch Council had got nothing it could remit nothing.

Dr. ATTHILL wished to say the Irish Branch Council would have been in a different position if it had not been taxed above its income; he could not understand how any body could be called upon to pay a percentage above the money it received.

The PRESIDENT, replying to Mr. TICHBORNE, said the Dental Fund paid a proportion of the expenses in relation to the amount of business which the General Medical Council discharged on behalf of the dentists.

The motion was then put and declared carried.

LEGAL EXPENSES.

Mr. BRYANT then proposed, and Sir DYCE DUCKWORTH seconded, the following resolution:

That the other portions of the Finance Committee's report be received and adopted.

[These consisted of five tables: A, a comparative statement of the income and expenditure of the General and Branch Councils during the years 1896-97-98; B, a comparative statement of the expenditure of the General Medical Council for the years 1896-97-98; C, showing the comparative income and expenditure of the General and Branch Councils during the last seven years; D, returns to Parliament of receipts and expenditure of the Dental Registration Fund for the year ending December 31st, 1898; E, a comparative statement of the assets, after deduction of liabilities, of the three Branch Councils and the Dental Fund on the last day of 1896, 1897, and 1898 respectively.]

Mr. VICTOR HORSLEY pointed out that there were certain tables furnished to the Executive Committee in February which were not furnished to members of the Council. Members of the Council should have all the facts before them, because they were all responsible for the finances, although they did not control in any way the expenditure of the Council. They only endorsed the conclusion the Executive Committee had arrived at. Arising out of that he wished to know what had become of the lawyer's bill for 1897. He reminded the Council that last year he had pointed out that owing to some office arrangement five or six years ago, the lawyer's bill was not paid, and the next year they were face to face with two bills. One was paid but not the other, and so things had gone on until in 1897 they paid the bill for 1896, but he was unable to find the one for 1897.

The REGISTRAR stated, in reply to Mr. HORSLEY, that the Council was always a year behind in paying the lawyers, and that the last bill paid was for 1897.

Mr. VICTOR HORSLEY said that was exactly what he understood, and he thought it ought to be shown more clearly on the papers. The accounts were passed by the Executive Committee in February and remitted to the House of Commons in accordance with the Act of Parliament, as with the authority of the Council. If a member of the House

asked a question, they might be in a difficulty, because they had furnished an account which was not correct.

The PRESIDENT observed that the return made to Parliament in February was a return of the moneys that had been received and payments that had been made on accounts rendered; but they would endeavour to see that their accounts were properly rendered every year.

Mr. VICTOR HORSLEY said that was what ought to be done. The motion was then agreed to.

STUDENTS REGISTRATION COMMITTEE.

On the motion of Sir DYCE DUCKWORTH, seconded by Dr. MACALISTER, it was resolved:

That the report from the Students Registration Committee be received, entered on the minutes, and approved. [The report dealt with applications for exceptional registration as students, or for the antedating of the commencement of professional study.]

RECIPROCITY WITH FOREIGN COUNTRIES.

It was agreed, on the motion of Dr. MACALISTER, seconded by Mr. BRYANT:

That the opinion of Mr. Muir Mackenzie on the subject of Italian reciprocity be received and entered on the minutes.

The PRESIDENT said it would be within the recollection of members that when this matter was referred to Mr. Muir Mackenzie, it was agreed that he should be requested to attend. He had, however, received a letter from him, in which he said that when he attended the Council last week he was not aware that he would be required to attend again, and he had made business engagements which it was impossible for him to break, and expressed his regret that he could not be present.

THE HUNTER CASE.

The Council then proceeded to consider the notice by Mr. Victor Horsley:

To draw attention to the proceedings taken in the name of the Council against the late Mr. H. K. Hunter, L.S.A.

Mr. VICTOR HORSLEY was proceeding to point out certain omissions from the narrative prepared by the President, when

The PRESIDENT said that a question had been put to him which he thought important. The document referred to was marked "private and confidential," and had been prepared under his direction for the information of members in order that they should understand the subject before them. Its contents had reference to matters which had taken place *in camerâ*, and if they were to publish it, it would lose its confidential character and would become a public document.

Mr. BROWN moved, and Dr. GLOVER seconded, that the document be entered on the minutes; which Dr. MACALISTER thought a good way of getting over the difficulty, but he suggested it should be with the omission of the names of other persons mentioned in it.

Mr. VICTOR HORSLEY, however, pointed out that he could not make himself intelligible without referring to names; he thought it sufficient if names having no reference to the case were left out.

Dr. MCVAIL thought they should not go on in the absence of Mr. Muir Mackenzie, and he moved, and Dr. CAMERON seconded:

That the consideration of the Hunter case be adjourned until the November session, in order to permit of Mr. Muir Mackenzie being present.

There being two motions before the Council, the PRESIDENT decided to put the above, which, on a show of hands, he declared lost. He then put the motion proposed by Mr. BROWN and seconded by Dr. GLOVER:

That the narrative drawn up by the direction of the President, together with the report of the solicitor, in the case of *re* Hunter be received and entered on the minutes with the omission of other names referred to in penal proceedings.

And it was carried.

Mr. VICTOR HORSLEY commenced by referring the President to a certain document which he said had, no doubt unintentionally, been omitted from the narrative which had just been placed on the minutes. He said his object in bringing this matter before the Council was that, outside their chamber, the Council had been charged with having prosecuted a registered practitioner unfairly; and he wished to point out to the profession that as a whole the Council were not guilty of the charge of ordering Mr. H. K. Hunter, L.S.A., to be prosecuted for signing himself a physician. That was his whole case; and he had evidence in support of it. He drew the attention of the Council to the fact that a practitioner in the country complained to the Council as to the use of the M.D.; and he distinctly stated in his complaint that Mr. Hunter ought to have been advised not to use it. A correspondence then ensued, in which Mr. Hunter asked for information from the Council and its officers as to the course he ought to pursue, and he was told they could not give him any information. He thought it a hardship on practitioners that the Council should refuse to give information of that kind; it did so on some occasions, but not on all. The next point to which he desired to call attention was the fact that Mr. Hunter was evidently assisted financially by the Apothecaries' Society, which he thought appeared from the documents. Then the late President directed that the correspondence should be laid before Mr. Muir Mackenzie, to advise whether they could or could not take any steps against Mr. Hunter, and they had what was called his opinion on the case; but he wished to point out that there was no case for Mr. Mackenzie's opinion. Mr. Muir Mackenzie had not insisted, as he might have done, and some of them thought he should have done, on having a properly drawn case. He pointed out that there was not in the opinion from end to end a charge made out against Mr. Hunter which referred to the use of the M.D. degree. Mr. Hunter had an American M.D. degree, which was recognised by the Council before 1886, but which he gained subsequently to that year. Therefore he was not entitled to use it as a qualification; but it was a respectable degree. When the matter was referred to the Penal Cases Committee, they had only before them the question of Mr. Hunter's using the American M.D., and they recommended the Council to take proceedings against him, although Mr. Muir Mackenzie's opinion, taken for what it was worth, was against any prosecution being instituted in regard to that. Then when the report of the Penal Cases Committee was before the Council, Mr. Muir Mackenzie stated in regard to Mr. Hunter that he was a man who did not even call himself a registered practitioner, and the Council in his (Mr. Horsley's) opinion voted on the understanding that they were prosecuting an unregistered man. He felt sure that the so-called opinion was never read to the Council, and they never heard of it until after the Hunter case had been determined and the appeal decided; consequently the Council never had before it the fundamental fact that Hunter was a registered practitioner. His name was herded together with a lot of unregistered quacks, and they all assumed that they were prosecuting unregistered persons. Then with regard to drawing the summons, he complained that Mr. Muir Mackenzie had not been treated fairly by their solicitor, and that the instructions given were not such as ought to have been given on so important a matter as the prosecution of a registered practitioner. Their country agent, Mr. Clare, went to the Court to take a summons in respect of three charges against Mr. Hunter for calling himself "M.D.," physician and surgeon. Mr. Clare was there informed that Hunter had given up calling himself M.D., and Mr. Clare at once dropped the charge, and wrote to Mr. Farrer (the solicitor to the Council) that he had felt obliged to drop it, and asked him to confirm what he had done. He submitted the charge against Mr. Hunter of calling himself a physician was not to be found in any of the documents now before the Council. Thus, the first part of his (Mr. Horsley's) case was that Mr. Hunter had been prosecuted for calling himself a physician, in the name of the Council, without the fact having been brought before the Council. The second part of his case was with regard to the appeal by Mr. Hunter, which was taken up by the Apothecaries' Society on Hunter's behalf. The Penal Cases Committee instructed Mr. Muir Mackenzie to appear in court and resist the appeal in a judicial manner. They came to the conclusion on a report from Mr. Farrer, wherein it appeared that the fact that Hunter was an L.S.A. and a registered practitioner was not stated. That he thought was not a proper way for their solicitor to report in regard to a registered practitioner. However, in deciding to resist the appeal, he submitted that the Penal Cases Committee had exceeded their authority, as they had no statutory authority to initiate legal proceedings. It might be

said that the appeal was merely the continuance of a former action; but Mr. Horsley pointed out that the appeal was to decide the important question whether an L.S.A. could call himself a physician. The Penal Cases Committee had not reported to the Council that they had ordered the appeal to be resisted, and he thought they ought to have so reported to give the Council a chance of of expressing its opinion as to whether it would resist the appeal. He then commented on the decision of the judges who heard the appeal which he should judge by the facts was absolute rubbish. The judgment was obtained by the Penal Cases Committee without statutory authority, and they did not ask for confirmation of their action. He was willing to admit that all were liable to err, and he did not wish to sneer at the Penal Cases Committee. He made this statement simply and solely for the purpose of explaining that there were members of the Council who were absolutely innocent of the charge made against them; that they instituted a prosecution against Mr. Hunter, a registered practitioner, and that the prosecution terminated in his ruin. That was the charge made against the Council, and it was with the view of exculpating the Council in the eyes of the profession that he had made these remarks. He concluded by thanking the Council for the attention they had given him.

Mr. BROWN said he should like to say a few words, though, as Mr. Victor Horsley had gone so exhaustively into the matter, he would be very brief. From a correspondence he had had with members of the Council he had arrived at the conclusion that the Council, when it ordered the prosecution of Mr. Hunter, was not in possession of the full facts; he merely referred to that fact as confirming the statement of Mr. Horsley. He referred generally to the way the case had been conducted on behalf of the Council, as set forth by the previous speaker, and concluded by saying that, although a great injustice appeared to have been done, the Council had done it unwittingly. He felt sure the time spent in discussing the case would not have been wasted if the public recognised that the Council as a whole were not responsible for the proceedings against the late Mr. Hunter.

Dr. GLOVER thought that in one respect there was no difference of opinion as to their sympathy with Mr. Hunter in regard to any trouble he may have felt from this action and also with the widow. He failed to see that the members of the Council were not responsible for the prosecution. The Penal Cases Committee, whether rightly or wrongly, referred this matter to the Council for decision. Mr. Horsley wished them to understand that he did not know what he was doing, and he had stated that he had assumed that Mr. Hunter was an unqualified man.

Mr. VICTOR HORSLEY said that was not correct. He wished the Council to understand that he voted under a misapprehension, due to a statement made to the Council by Mr. Muir Mackenzie. As far as anything was presented to him he knew what he was doing; but it turned out on examination that what he was told was not correct. He had not objected to the prosecution because Mr. Hunter was herded together with other unregistered persons and because they were distinctly told by Mr. Muir Mackenzie that he was to be prosecuted for using a bogus American M.D., and they were not told that he was a registered practitioner.

Dr. GLOVER said his point remained the same. He was surprised that Mr. Horsley should give himself away by the statement which he made; and he could not admit that he was innocent; he was as guilty as any other member, and more so because he had a more acute mind on these subjects. He submitted the fact that Mr. Hunter had not called himself physician and surgeon did not accord with the documents they had before them, and which were admitted to be correct. With regard to resisting the appeal when the authorisation was given Mr. Hunter was unfortunately dead, and the question had become a purely impersonal one. It was merely a question of law, and not a question of animus against Mr. Hunter. From first to last the prosecution was conducted in a friendly spirit, which Mr. Hunter himself acknowledged. The question was not raised by the Council, but by a practitioner outside, and he was of opinion that they had done a great service by raising it, although he did not himself think much of the judgment which Mr. Horsley had characterised as rubbish. It was a very interesting question as to the value of a medical diploma.

Mr. CARTER, as a member of the Penal Cases Committee, said his impression was that the case was recommended to the Council for prosecution simply as a test case on the propriety of the use of this particular M.D. It was selected mainly because Mr. Hunter had expressed his desire or willingness to contest it. He believed he was one of Mr. Brown's correspondents, but he answered him hastily without having any memorandum before him. He did not agree with Mr. Horsley that the Penal Cases Committee had exceeded its authority in resisting the appeal; they did not think it respectful to allow an appeal for a conviction which they had obtained to be argued without the presence of their standing counsel. He then referred to a report of a meeting of registered practitioners of England, at which it had been stated that the Council had improperly resisted access to the documents which were necessary to form an opinion on the subject. He quoted from the minutes of the Council to show that that was an entire mistake, and he thought it was quite time that this fact was made clear.

The PRESIDENT said he would like to say a few words as Mr. Muir Mackenzie was absent. They would see that from the very first occasion on which Mr. Mackenzie was asked to give an opinion he had the whole of the facts clearly before him, and he thought there were three matters to be considered in connection with Mr. Hunter—namely, the designation of doctor of medicine, and his styling himself "physician and surgeon." It was as far back as 1897, and again in 1898 they would find those three points were before him, and the opinions which he gave were based upon the assumption of the titles by Mr. Hunter of doctor of medicine, physician and surgeon. Therefore he thought that no charge should be made against Mr. Muir Mackenzie of having kept back those three points. Then there was another point as to the proceedings not having been stopped at a particular stage. He asked the Council to consider the difficulty the Council were in in conducting legal proceedings. A prosecution was entered upon after they had met and when they would not meet for another six months. During the interval something unexpected arose; were their legal advisers to drop the case, or were they to pursue it in a way which seemed to them to carry the matter on in a direction which the Council might have more or less strongly indicated to be the direction in which the prosecution should be conducted? He thought they should be in a position to exercise what he might call a legitimate discretion. That he thought had been overlooked in the discussion, and the blame had been apportioned where blame should not have been.

The matter then dropped.

THE MEMORANDUM ON RECIPROCITY.

Dr. MACALISTER then moved, and Mr. BRYANT seconded:

That the communication received in connection with the memorandum on reciprocity be referred to the Executive Committee.

Dr. MCVAIL said this was a very important question, and there was no reason for having the matter settled before next session. The recommendation of the Executive Committee was in favour of reciprocity, and it had been sent on to the Government, who were at this moment under the impression that the General Medical Council had agreed to the principle of reciprocity. The Council should either support the Committee, or ask the Executive Committee to modify the message which they had sent to the Government. He did not object to the document going to the Executive Committee, but it must go with clear and explicit instructions that, under the present state of the law, this Council could not recommend reciprocity. It was a very difficult subject; but if the privilege was to be given to Italians, it must be given to other countries, and in particular to America. He asked how they could recognise Italian practitioners and refuse Americans.

Dr. MACALISTER said America was composed of States, and they could not negotiate with States. They had an opinion some time ago with regard to Canada, and it appeared they could not enter into reciprocity with Canada.

Some discussion then took place as to the course of business, it having been expected that the session would terminate that day.

Sir JOHN BATTY TUKE said the question of reciprocity was

very important, and he proposed that the Council should adjourn until two o'clock on Friday.

This was seconded by Mr. VICTOR HORSLEY, and carried, and the Council adjourned.

Friday, June 9th, 1899.

The minutes of the previous day's proceedings as amended were approved.

"CONFIDENTIAL" DOCUMENTS.

Sir DYCE DUCKWORTH said before proceeding with the day's business he should like to call the attention of the Council to what appeared in that day's BRITISH MEDICAL JOURNAL on page 1419. A document was published there which he personally had not seen, and which, so far as he could gather, had not been laid before the Council. He thought it would be interesting to know how that document got there. It certainly had not been in their hands, but it was published at full length in the JOURNAL. He thought this could not be regarded as anything but an improper proceeding, and he was curious to know how such a document got there.

In reply to the PRESIDENT, Sir DYCE DUCKWORTH said that he referred to a document as to the Examination for the Faculty of Physicians and Surgeons.

Mr. CARTER called attention to the fact that the document was printed after the conclusion of the report of the particular day's proceedings, and it said "We are informed."

Dr. MACALISTER said it was quite possible that the persons whose names appeared there might have communicated it to the JOURNAL.

Dr. CAMERON said it was prefaced by a statement that a discussion took place on the first day of their meeting, but he did not remember any discussion of the sort, except in a very indirect way.

Mr. GEORGE BROWN said that in common with other members of the Council he some months back received a "confidential" communication, which were the Minutes of the Executive Committee, and the Committee's report was published in one of the medical journals almost immediately. That seemed to him like a breach of privilege, and it was of no use whatever to put "strictly confidential" on their communications if they were to be published immediately.

The PRESIDENT asked if Mr. Brown meant that the whole minutes were published?

Mr. BROWN said the whole minutes were published in one of the medical journals immediately after they had received them as a communication marked "strictly confidential." He thought that the word "confidential" should be removed from these documents, or that they should not be allowed to get into the hands of persons who published them in the public journals.

The PRESIDENT said that he was not aware of anything of the kind having been done.

Mr. VICTOR HORSLEY said that he had made inquiries into the matter which had been referred to, and he found that the word "confidential" really did not mean anything. He had made inquiries as to how a certain document could possibly have appeared in the columns of the BRITISH MEDICAL JOURNAL, and the Editor told him that he simply sent to Messrs. Spottiswoode's and asked for the minutes, paid 1s., and got them. The word "confidential" was on the top of that document, and that word was on the copy which he had received.

The PRESIDENT suggested that he would get his copy from the office.

Mr. VICTOR HORSLEY said that was so, but the same observation applied to the other document, and to his astonishment these "confidential" minutes appeared in the JOURNAL the same week.

Dr. MACALISTER asked whether the word "confidential" was on the copy sold by the printers.

Mr. VICTOR HORSLEY replied that it was.

Mr. TOMES stated that the Editor of the BRITISH MEDICAL JOURNAL had told him that the word "confidential" was on the copy that he bought, and that he bought a second copy subsequently from Messrs. Spottiswoode's office, and the word "confidential" was on the second document.

Mr. GEORGE BROWN remarked that he had always treated the Minutes of the Council when they were marked "confidential" as being confidential, and he had never referred to them in any way whatever. He thought that either the word "confidential" should be eliminated from these documents, or that they should be treated as strictly confidential.

The PRESIDENT thought that instructions should be given to Messrs. Spottiswoode that before they sold any copy of the Minutes the word "confidential" should be struck out. They had always held that the Minutes became public minutes after their meetings. The Minutes of the Executive Committee would become public as soon as they were issued. He thought the proper way was to give the instructions that he had suggested to their printers.

Sir RICHARD THORNE inquired whether that meant that the members need not regard them as confidential after they received them.

The PRESIDENT replied by saying that that was a point he had not considered.

Sir WILLIAM THOMSON pointed out that these were Minutes of proceedings which had occurred in public. He was not referring to the Minutes of the Executive Committee, but to the Minutes of the General Medical Council.

Dr. GLOVER pointed out that the Minutes of the Executive Committee, as soon as they were confirmed, were public property, and he thought the word "confidential" should be excised in either event. He knew from experience that that word remained on documents long after they had been issued.

Sir DYCE DUCKWORTH said that this discussion did not relate to the point that he had raised. He thought the Council should express its sense of the impropriety of documents appearing in the public press which the Council had not dealt with.

The PRESIDENT remarked that he knew nothing about this matter until that moment, and therefore had no time to look into the question, but from the report it appeared that a discussion took place with regard to the examination, and the matter arose in regard to a memorial by certain Fellows as to the insufficiency of the examination, and further the report said "We are informed."

Sir CHRISTOPHER NIXON would like to point out that after the report of the meeting of the Council the words "The Council then adjourned" appeared. Then came the document which had been referred to. He did not think they had any right to interfere with the discretion of the press in publishing that which was part and parcel of the proceedings.

The PRESIDENT pointed out that it did not appear as part of their proceedings, except in so far as that a copy of the memorial was sent to the General Medical Council.

Sir DYCE DUCKWORTH said that it conveyed the impression that the document had been in the hands of the Council, whereas it had not been. Therefore he contended it was an impropriety on the part of the JOURNAL to publish it.

Dr. MACALISTER said that he thought after this discussion the public would take note of the explanation that the documents set forth in the paper referred to had not been before the General Medical Council, and probably that would be sufficient.

Mr. VICTOR HORSLEY said he had not had the privilege of looking at the document, but he would like to ask whether this was the document which was forwarded to the President by Dr. Hugh Woods.

The PRESIDENT said he had not compared them, but on the face of the document he should say it was.

The matter then dropped.

RECIPROCITY WITH FOREIGN COUNTRIES.

Dr. MCVAIL asked the President if he had any information as to whether the Privy Council had taken any action in consequence of the letter sent to them by the Executive Committee.

The PRESIDENT said that the information he had was that they had not taken as yet any action. The Privy Council was obviously waiting until this meeting of the Council.

Dr. MCVAIL then said that he would propose the following resolution:

That it be remitted to the Executive Committee to represent to the Privy Council that in reply to the following question put by the General Medical Council to Mr. Muir Mackenzie, namely, that it be remitted to Mr. Muir Mackenzie to advise the Council as to whether under Section XVII of the

Medical Act, 1886, the privilege to foreign practitioners can be restricted to the recognition of practice by them among their fellow countrymen only who may be resident in this country, Mr. Muir Mackenzie's opinion was as follows:

OPINION.

The question on which, as I understand, my advice is asked, is whether, under Section XVII of the Medical Act, 1886, the privileges accorded to foreign practitioners under Part 2 of the Medical Act, 1886, can be restricted to the recognition of practice by them amongst their fellow countrymen only who may be resident in this country.

Section XVII of the Medical Act, 1886, provides, as regards a foreign country, that Her Majesty may by Order in Council declare that Part 2 of the Act shall be deemed, on and after a day to be named in the Order (which in the Act is called "the prescribed day"), to apply to a foreign country, which, in the opinion of Her Majesty, affords to the registered medical practitioners of the United Kingdom such privileges of practising in the foreign country as to Her Majesty may seem just.

The effect of the section is that on such an Order being made by Her Majesty, Part 2 of the Act becomes applicable to the practitioners of the foreign country.

The effect of the application of Part 2 of the Act to the foreign country is that by Section XII of the Act a person who satisfies the Registrar that he holds a recognised medical diploma of the foreign country, and satisfies the other conditions contained in Section XII, is entitled to be registered in the list of foreign practitioners in the *Medical Register*.

The effect of Sections VI and XIV of the Medical Act of 1886 is that every person who becomes registered as a foreign practitioner becomes entitled to practise medicine, surgery, and midwifery in the United Kingdom and British Dominions.

There is no express provision in Section XVII, or in any other provision of the Medical Act, 1886, which empowers Her Majesty, by the Order in Council which applies the Act to a foreign State, to limit the right of the foreign practitioners who, by virtue of the Order in Council and the Act, become entitled to be registered.

In the absence of any express power to impose such a restriction as is suggested by the question put to me, my opinion is that no such restriction could be imposed by an Order in Council made under Section XVII.

If Her Majesty is advised that a foreign country affords to the registered practitioners of the United Kingdom such privileges of practice as Her Majesty thinks just, Her Majesty can make an Order applying Part 2 of the Act to that foreign country, but upon such an Order being made, the practitioners of the foreign country who satisfy the requirements of the Act will be entitled to the full privileges which the Act confers.

My opinion, therefore, to the question submitted to me is, that the privileges to foreign practitioners cannot be restricted in the manner indicated in the question.

M. Muir Mackenzie.

4, Temple Gardens, E.C.
June 7th, 1899.

and that the Executive Committee be requested in a covering letter to the Privy Council to indicate the difficulties that surround the granting of recognition to medical graduates in foreign countries over whose curriculum of study in professional examinations the General Medical Council can exercise no supervision; and that in the event of any further additional communication bearing on the subject being received, the Executive Committee be requested to consider whether the principle of limited recognition already established by Section VI of the Act of 1859 might not be extended by a short enactment.

He wished to draw the attention of Parliament to the great difficulty that might ensue if any unlimited recognition were given to foreign practitioners, leaving it to the Executive Committee to arrange with the Privy Council in regard to this very difficult measure.

Mr. Tomes, in seconding the resolution, said in case some members of the Council should view the proposition as impracticable, he might state that he had mentioned the extension of the provisions of the Medical Act of 1859 to Mr. Muir Mackenzie, who had replied, conversationally, that it did not appear to him to be an impracticable suggestion.

Mr. Victor Horsley was sorry to find himself in conflict with the mover and seconder of this resolution, but he wished to propose as an amendment that all the words that followed after the word "supervision" should be left out. He did so for this reason: that the Lord President of the Privy Council had informed him that he would not contemplate any Medical Act Amendment Act which was practically only one clause. He would only contemplate a Medical Act Amendment Act which dealt comprehensively with the subject. He thought if the first part of Dr. McVail's motion were carried they would have an extremely useful report next year from the Executive Committee, a report going, as he thought, as far as they were entitled to go.

The President said he understood from Mr. Victor Horsley that his amendment was that that part of Dr. McVail's motion which referred to the Executive Committee being requested to consider whether the principle of limited recognition of practice already established might be extended by a short enactment should be struck out and should not form part of the motion.

Mr. Victor Horsley replied that that was so.

Mr. Tomes inquired whether, supposing it was dropped, it would go on record in any form.

The President thought that Dr. McVail might accept that suggestion.

Dr. McVail said that with the sanction of Mr. Tomes he was willing to leave that part out.

Dr. Glover thought the Privy Council would want to know whether they admitted the reasonableness of giving foreigners a full right to attend their compatriots in this country and *vice versâ*.

Dr. Cameron thought the British practitioners in Italy would hardly be content with leave to attend on their own compatriots. He fancied that their practice was largely made up of persons who spoke the English language and that they attended quite as many Americans as subjects of the Empire.

Dr. MacAlister did not want the Privy Council to think that the Council was at all inconsistent. Dr. McVail had said that they could not recognise diplomas of bodies they did not inspect, but, as a matter of fact, they were doing it every day by putting people on the Colonial List.

The President, before putting the resolution of Dr. McVail, said that if it was remitted to the Executive Committee it would be delayed. He would ask the Council whether they would be satisfied to remit it to the President. He would not have suggested that if the last sentence of the resolution, as originally put, had been retained, that referring to an Act of Parliament; but if the matter was remitted to him he would do his best to bring the facts together and time would not be lost.

Mr. Tomes said that when they drafted the resolution a certain lapse of time was in their minds.

The President replied that he was not anxious to do it, but on the question of delay he was willing to undertake it.

The resolution was then put to the meeting and carried unanimously.

The Midwives Bill.

Dr. MacAlister moved that the communication from the Privy Council Office in answer to a communication from the President of the General Medical Council forwarding the draft report adopted by the Midwives Bill Conference Committee be received and entered upon the minutes:

[The letter, which was from the Clerk of the Privy Council, stated that the Lord President had had further communications with the promoters of the Bill, who were willing to meet the views expressed in the first paragraph of the report of the Committee of the General Medical Council by addition to Clause 3 (4) of the words: "or unless she is registered under the Medical Acts, to attend cases of abnormality or disease in connection with parturition." His Grace was advised that, as a matter of drafting, this form of amendment was preferable to the change in the definition of midwife which found favour with the Committee.]

Dr. MacAlister said that when that letter was read he showed it to every member of the Midwives Bill Committee, and they agreed that it would be better to accept the decision of the Privy Council, and a letter had been sent to the Privy Council in the name of their Council.

The President then read the letter which had been sent to the Privy Council.

On the motion of Dr. MacAlister, that letter was inserted on the minutes after the first letter.

Dental Business.

Dr. MacAlister moved that the new Standing Order, as drafted by the Dental Committee for regulating procedure in dental penal cases be adopted, with the proviso that Clause 11 be remitted to the Dental Committee for reconstruction. The report contained a great deal of extremely valuable matter, which ought to be in force, and he hoped that by next November the Committee would be able to revise that part.

Mr. Tomes seconded the motion, which was carried.

Amendment of the Medical Acts.

Dr. Glover moved the following resolution:

That a Committee of the General Medical Council be appointed to consider necessary amendments to the Medical Acts.

Dr. Glover said that he was not satisfied with the state of the law with regard to the powers of the Council. As to the question of reciprocity, he observed that it was too late in the age to deny some reciprocity between nations in respect of equally educated men. The British nation was the last on the face of the globe that could not afford to deny the consideration of

that question. He could not help thinking that the Council had had sufficiently long relations with the Government for it to know that the Council consisted of a reasonable and moderate set of men, and to ensure that any fairly reasonable proposal would be entertained.

Sir WILLIAM THOMSON in seconding the motion expressed the opinion that the request was so reasonable that there would be no opposition to it.

Sir CHRISTOPHER NIXON strongly supported the resolution. He thought they should secure such a condition of the law that no one would be allowed to practice except he had been registered. There was also the question of the financial position of the Council to be taken into consideration. He thought the members of the Committee would probably have good reason for seeing that the financial arrangements should be put on a fairer footing. Another point that might be discussed by the Committee would be the right to use certain titles. As the law stood at the present moment there was justification for the argument that a Licentiate of the Apothecaries Society was entitled to call himself physician and surgeon. He had read the report of the judgments in the Hunter case, and, without being at all disrespectful to the members of the Judicial Bench, the only way he could explain the absence of common sense in the judgments was that the judges had not been well reported.

Sir JOHN BATTY TUKE said it was important to have an amendment with respect to the registration of students. They had no machinery except what they had constructed themselves, and it seemed to him of the utmost importance that they should be able to carry out the spirit of the Act by the establishment of a right of registering students and determining the conditions under which they were to be registered.

The PRESIDENT desired to call the attention of the Council to the interim reports which he had issued to the Executive Committee with reference to the questions of disciplinary powers. Acting on the suggestions of the Privy Council, he had endeavoured to bring the various medical authorities into line, and he agreed that it would be desirable to seek an Act which would carry out certain important amendments, and would give powers to the licensing bodies to do what many of them at the present moment could not do, namely, to cancel or revoke the medical degrees or diplomas which they had conferred. Although in the first stage of the negotiations various objections were raised, he hoped that in the second stage the bodies would all come into line. A minor subject was the disposition of the penalties which were paid to the metropolitan police. If these things could be set right they would undoubtedly be important reforms, but from what had fallen from the various members it seemed to him that the intention was to have a new Medical Act altogether and not a reform of the existing Act. Their counsel was of opinion that a report of such a committee as it was proposed to institute would be able to deal with that. He himself would not make any objection if the Council thought they could do it, but he had considerable doubts as to whether they could. He would venture to suggest that they should not be precipitate, but that they should wait until next November, and see what answers the bodies gave to him on the clause which would be sent round to them in the course of next week. A little delay would not be disadvantageous.

Dr. MACALISTER asked the Council not to embark on this roving commission. If they commenced to propose practically the reconstruction of the Medical Acts they would immensely weaken their position under the existing Acts. He thought the proposition would come better from outside persons, but if they initiated it he was sure the Privy Council would adopt a different attitude with regard to them than they had now succeeded in winning from them.

Mr. GEORGE BROWN thought the proposed amendment of the Act would come better from their body than from outsiders, because what was anybody's business was practically nobody's business. The Council had found out the shortcomings of the Acts and exactly what was wanted, and could therefore make suggestions as to amendments which would come with much greater force and weight than from any outside body or private individual.

Mr. CARTER thought that the proper people to introduce an amendment of the Medical Acts were the members of the Legislature, and they had three members of their own profession with great attainments who were members of the House of Commons. If members of the profession were anxious to reform the Medical Acts their first steps should be to approach these gentlemen in Parliament, and endeavour to enlist their assistance.

Dr. GLOVER was then heard in reply, and the resolution being put by the President, was declared lost, 8 voting in favour of the resolution and 10 against.

Mr. BROWN asked for the names to be taken down, when 10 members voted against, 8 for, 3 did not vote, and 9 members were absent.

PETITIONS TO THE COUNCIL.

On the motion of Mr. HORSLEY, seconded by Mr. BROWN, the following resolution was carried:

That subject to Standing Order 16 all petitions addressed to the General Medical Council immediately before or during the session of the Council be laid upon the table.

REPORTS OF THE COUNCIL.

Mr. VICTOR HORSLEY moved:

That a shorthand report be made of all sittings of the Council and Executive Committee.

He thought that if the Council had a complete shorthand report of all its sittings it would only be in keeping with the practice of every other public body. He did not propose that the report should be fully published, but that there should be a verbatim report of their proceedings.

The PRESIDENT inquired if Mr. Horsley meant of all the speeches.

Mr. VICTOR HORSLEY replied that he did. That was what was done in all responsible public bodies. The British Medical Association had a shorthand note taken of the meetings of all its committees. He was not proposing that in this instance. What he was proposing was that a shorthand note should be taken of all the sittings of the Council and the Executive Committee. If that had been done two years ago he did not believe the time of the Council would have been spent in the Hunter case as it had been.

The resolution was seconded by Mr. BROWN, but, on being put to the meeting, was declared to be lost.

APPOINTMENT OF EXAMINERS.

On the motion of Mr. CARTER, seconded by Mr. BRYANT, it was resolved:

That Mr. Charles Stonham, F.R.C.S., Surgeon to and Lecturer on Surgery at the Westminster Hospital, be appointed an Assistant Examiner in Surgery to the Society of Apothecaries for a period of five years, in the room of Mr. Bernard Pitts, retiring by rotation.

On the motion of Mr. BROWN, seconded by Dr. PETTIGREW, the Assistant Examiners in Surgery at the Apothecaries' Hall Dublin, were reappointed.

CERTIFICATES TO MIDWIVES AND SPECTACLE MAKERS.

Mr. BRYANT moved and Dr. HERON WATSON seconded the following resolution:

That as regards the issue of certificates the Council is of opinion that as a Midwives Bill is now before Parliament it should at present refrain from taking any action. With regard to the second memorial, as regards certificates granted to spectacle makers, the Council exercises no jurisdiction over such certificates, but will be prepared to consider any properly substantiated charge against a medical practitioner with reference to this subject.

Mr. BROWN moved as an amendment:

That the memorials referred to in the minutes be referred to a Special Committee to report at the next session.

Mr. VICTOR HORSLEY, in seconding, said he did so because the matter was very important, and the Council was not as yet in a position to consider it fully. He had heard members say that they had not even seen the memorials, and had had no opportunity of considering them.

Dr. MCVAIL thought the recommendation of the Committee had gone as far as any Committee could go.

Dr. MACALISTER said that inasmuch as they had sent up to the Privy Council a Midwives Bill which contained a clause dealing with the matter, it would be inopportune to go further now.

Mr. CARTER said there was nothing new in these advertise-

ments by spectacle makers. They had been going on ever since he knew anything about spectacles. It seemed to him that the matter was out of their province, and if anybody had done wrong the right thing would be to bring him before the Council.

The President then put the amendment, when 5 members voted for it and 11 against.

At the request of Mr. Brown the names were taken, when 12 voted against, 5 for, 4 did not vote, and 9 were absent.

The President then proposed to put the original motion—that the resolution of the Executive Committee be adopted.

Mr. George Brown submitted that the report should be taken in two parts, because the first was entirely different from the second.

The President then put the two parts of the resolution separately, and both were adopted.

Public Medical Officers in Ireland.

The next business on the programme was: "Notice of question by Sir William Thomson: To inquire whether it will be in order to introduce a motion relating to the grievances of certain public medical officers in Ireland."

After some remarks by Sir William Thomson,

The President said he could give no opinion whether a motion was or was not in order until he had seen it. He thought the better plan would be for Sir William Thomson to put a motion on the paper, and if he (the President) was in the chair he would answer.

The Ventilation of the Council Chamber.

Dr. McVail proposed, Dr. Heron Watson seconded, and it was agreed:

That Mr. Bryant, Mr. Teale and Sir R. Thorne be appointed a committee with full powers to carry out before the next session of the Council whatever improvements they may deem to be practicable and desirable for the better ventilation of the council room, and if possible, to improve the Press accommodation.

The Midwives Bill Committee.

It was moved by Dr. MacAlister, seconded by Mr. Carter, and agreed to:

That the committee appointed on November 29th, 1898, for the purpose of watching legislation on the subject of midwives during the present session of Parliament be reappointed as the Midwives Bill Committee, and be instructed to watch any further legislative action that may be proposed in the matter.

Medical Aid Associations.

It was proposed by Dr. Glover and seconded by Mr. Brown:

That copies of the resolution passed by the Council on June 6th on the subject of medical aid associations relative to the formation of a Board of Conciliation be forwarded by the Registrar to those persons and bodies who have memorialised the Council on the measure, and likewise to the representatives of the friendly societies with whom the committee have had conference.

Dr. McVail had given notice of an amendment:

That the Council shall issue to all registered medical practitioners the following notice: "That the Council will regard as infamous conduct in a professional respect the association of registered practitioners with medical aid associations which systematically canvass and advertise for the purpose of procuring patients to such associations and practitioners."

He was quite willing that the whole matter should be postponed till the next session, but, if any warning was to be given by the Council beyond publication in the minutes and the reports in the medical journals, he must hold to his resolution.

The President pointed out to Dr. Glover that the matter had been reported in the medical journals, and he thought they had better postpone for the present the issuing of any special notice.

The matter then dropped.

Dr. Glover moved, Dr. MacAlister seconded, and it was agreed to:

That the Committee on Medical Aid Associations be reappointed.

Companies Act Amendment Bill.

On the motion of Dr. MacAlister, seconded by Mr. Tichborne, a communication from the Lord Chancellor's office, acknowledging the receipt of the President's representation in regard to the Companies Act Amendment Bill, was entered on the minutes.

Mr. Tomes said that at the time the Companies Act Amendment Committee of the Council drew up and presented their report they were not aware of a slight change in the aspect of things, and their report in that respect was obsolete almost before it was issued. The separate Bill that the Lord Chancellor introduced to prohibit the practice of medicine, surgery, dentistry, and midwifery by companies, and the Bill for regulating the practice of pharmacy in certain respects had now reappeared as clauses in the Bill to amend the company law generally. That was certainly an advantageous thing, because it was an important Bill and was likely to be backed by the whole force of the Government.

In answer to the President, Mr. Tomes said that the words "medical practitioner" had not been inserted, and that would have to be seen to. The probability that some questions might be asked of them led him to propose to the Council that the Committee be reappointed for a time.

Mr. Tichborne seconded, and the motion was agreed to.

Dental Business.

On the motion of Dr. MacAlister the following resolutions were adopted:

That the report of the Dental Education and Examination Committee be received and entered as an appendix to the minutes.

That the report of the Executive Committee on Dental Business be received and entered on the minutes.

He desired to call attention to the notice drafted by Mr. Muir Mackenzie as to a medical practitioner assisting in the administering of anæsthetics. The notice would be circulated with other notices connected with misdemeanours.

Personation.

Mr. Victor Horsley stated that in accordance with the wish expressed by the Council he proposed that the consideration of the draft report from the Prevention of Personation Committee be postponed until the next session of the Council.

This was agreed to.

Preliminary Examinations in Wales.

Sir John Tuke moved, Dr. Macalister seconded, and it was agreed that the senior examinations of the Welsh Intermediate Board of Education should be recognised as preliminary examinations qualifying for entrance to medical study. The recognition also of the degree of Science in the University of Wales was recommended.

Reappointment of Committees.

The Pharmacopœia Committee and the Finance Committee were reappointed.

The following were elected as members of the various Committees:

Dental Committee.—The President, Sir Dyce Duckworth, Mr. Tomes, Sir Heron Watson, and Sir Philip Smyly.

Examination Committee.—Sir Dyce Duckworth, Mr. Bryant, Mr. Teale, Sir Heron Watson, Dr. Pettigrew, Dr. McVail, Dr. Little, Sir William Thomson, and Sir Philip C. Smyly.

Education Committee.—Dr. MacAlister, Dr. Glover, Dr. Page, Sir John Batty Tuke, Sir William Gairdner, Dr. Reid, Dr. Bennett, Sir Christopher Nixon, and Sir William Thomson.

Public Health Committee.—Sir Richard Thorne, Mr. Teale, Dr. Pye-Smith, Dr. Bruce, Dr. McVail, Dr. Cameron, Dr. Bennett, Sir Philip Smyly, and Mr. Tichborne.

The Dental Education and Examination Committee and the Students Registration Committee were reappointed.

Vote of Thanks.

Dr. Glover proposed a hearty vote of thanks to the President for his conduct in the chair during their prolonged session.

Sir C. Nixon had great pleasure, as one of the Irish members, in seconding this.

The motion was carried and the proceedings terminated.

The F.F.P.S.G.

We have received the following letter from the Secretary of the Faculty of Physicians and Surgeons of Glasgow:

Faculty of Physicians and Surgeons of Glasgow,
June 13th, 1899.

Sir,—The attention of the Council of this Faculty has been called to your report of the proceedings of the recent session of the General

Medical Council, or rather to what may be more accurately described as a supplement to that report in your issue of the 10th instant (p. 1419). This contains the text of a memorial signed by two Fellows of the Faculty, the name of the person to whom it was addressed not appearing on the face of the document. Its publication is introduced by you with the statement, "On the first day of the present session of the Council a discussion took place with regard to the examination for the Fellowship of the Faculty of Physicians and Surgeons of Glasgow." A reference to your own report of the proceedings of the Council will show the inaccuracy of this prefatory statement. The Fellowship Examination was never discussed at all. That consideration of the question was found to be beyond the competence of the General Medical Council is, under the circumstances, a matter of regret to the Council of the Faculty. Such a discussion would at least have had the effect of enabling the General Medical Council, after hearing a fair and temperate statement of the facts by the Faculty representative at the Council, to estimate at their proper value the allegations made in the memorial.

The matter to which the memorial refers has been exhaustively investigated by the Council and reported on to the Faculty on two separate occasions. On behalf of the Council I have to ask from you space for a succinct statement of the facts, which will be given as far as possible in the terms used in the official reports submitted by the Council to the Faculty.

The language used in some parts of the memorial being general and indefinite, it is necessary first of all to define precisely the area of the "insufficiency" alleged in regard to the examination. The only department of the examination to which reference was made in the letters of the memorialists to the Council of 31st January, 1898, was that of operative surgery, and the details furnished were those of the examination of a single candidate examined on the 21st of that month. No complaint has been made by the memorialists or any other person in regard to the examination in other departments of surgery or of any other subject.

Till a comparatively recent period the examination in operative surgery was held in the Faculty Hall, an ample supply of instruments being provided there for the purpose. On the occasion referred to, of the examination of a candidate in January, 1898, it was found more convenient to hold it in one of the medical schools outside. In making the preliminary arrangements for the examination there the lay official charged with the duty did not send a supply of instruments, as he was under the mistaken impression that this would be superfluous, and that instruments for the purpose would be readily obtained at the school. In the circumstances the examiners availed themselves of what instruments they could procure on the spot, and by means of these the examination of the candidate was proceeded with. The examiners—both of them experienced surgeons and teachers of surgery—stated to the Council in the presence of the memorialists, that the instruments obtained were adequate for the essentials of an examination in operative surgery, though one of the operations necessarily suffered somewhat in technical completeness. They emphatically assured the Council that they were perfectly able to satisfy themselves beyond any doubt that the candidate possessed the particular skill and knowledge which it is the special object of an examination in operative surgery on the dead body to test. This assurance from the examiners the Council accepted. Were corroborative evidence of the fitness of the candidate to pass in operative surgery required, it would be found in the fact that on the same day he passed a very good examination in the cognate subject of anatomy, including actual dissection, the examiner who mainly conducted the latter examination being Mr. Kent, one of the two memorialists. In the other departments of surgery the candidate also passed an excellent examination.

On the 9th January last the Council reported their investigations and recommendations to the Faculty, and after full discussion their report was approved of and adopted by a majority of 54 votes to 9.

In thus briefly reporting the facts the Council think it unnecessary to trouble you with any comments on them.

Yours faithfully,
ALEXANDER DUNCAN,
Secretary.

THE MIDWIFE ABROAD.

FROM a pamphlet[1] which was sent to us some little time ago marked "for review," we learn that on August 10th, 1897, "by invitation from Mrs. Currie (Cert. Mid. R.C.P.I., L O.S., etc.)" a meeting was held, at which it was resolved to form an association under the name of the Manchester and District Midwives' Society. At the fourth meeting—on September 2nd, 1897—it was resolved "that the society be simply named The Midwives' Society." On September 23rd, 1897, the constitution of the society was settled, its aims defined, and certain rules made. One of the means which it was then resolved should be employed for the attainment of its objects was "the publication of *Transactions*."

These *Transactions* should prove interesting and instructive reading to those members of the medical profession who have taken part in the endeavour to secure adequate education and control of those women who attend persons during confinement.

The first paper of some twenty which the pamphlet contains is headed Notes thereon taken from an Address to the Midwives' Society on Tuesday, August 24th, 1897, by A. J. Currie, F.R.G.S., F.R.Met. Soc., Licensed and Registered Physician Surgeon, and Accoucheur, State of Vermont, U.S.A., Fellow of the American Association of Physicians and Surgeons. There are other papers, however, by ordinary members of the society which interest us more than this, and we may pass on, merely noting that on January 4th, 1898, this gentleman was elected an Honorary Fellow and Member of the Midwives' Society.

"THE PROTECTION AND FURTHERANCE OF MIDWIVES' INTERESTS."

In October, 1897, one of the vice-presidents of the newly-formed Society read a paper with this title. In the course of her remarks she said: "The interests of midwives are at variance with the medical profession whose principal income is derived from the practice of midwifery, and gynæcology resulting from surgical interference in midwifery practice; and whose interest, therefore, is to have midwives suppressed, independent of ability, character and other considerations. The laws at present pertaining to the practice of midwifery have been made by those interested in the medical profession, and adverse to the interests of the midwife and the community. This is a fact worthy of serious consideration" (page 11).

THE UMBILICAL CORD AND ASEPTIC MIDWIFERY.

At the next meeting two papers were read. The first was on the question, Does the Umbilical Cord need a Ligature? In the course of it the authoress said: "In fourteen cases I ligated the cord and noted the changes, observing the progress of each case, the size of the liver, the organs of digestion, secretion, excretion, etc. The next fourteen I treated without ligating the cord and noted the conditions as in the former, and found the contrast was so great and so much in favour of non-ligation that I have continued this practice ever since, during which time I have had over 800 cases with good results" (page 12).

The other paper was on Aseptic Midwifery. In it we are told that "the act of parturition is entirely physiological. The meddlesome doctor who irrigates the parts with his Bichloride solution immediately after delivery, washes away the plastic lymph that Nature pours out to protect the lacerated tissue, rendering the exposed parts more liable to infection. The duty of the midwife (or physician) is not so much to use antiseptic pads and irrigations as to sustain the vital forces." Again: "I insist upon it that the degree of cleanliness which respectable people observe in their daily lives is quite sufficient for the lying-in room." And yet again: "I believe that the midwife can reduce, to a minimum, her cases of childbed fever by placing her expected patient in a physiological condition by the proper constitutional treatment" (page 16).

"TIRED OVARIES AND A HUNGRY WOMB."

Another midwife, in a paper with the striking title, Malthusianism or Tired Ovaries, asserts that "one rarely meets a healthy virgin of forty;" and says of the married woman who resolves to have no more than one or two children, that she falls into a state of health in which "she complains of nothing in particular but everything in general, with nervous symptoms predominating; the most careful examiner will find at the bottom of the whole trouble, a pair of tired ovaries and a hungry womb! Now instead of letting anyone make a 'big to do' over a small 'granulated' spot on the cervix, or a slight leucorrhœal discharge, or some minor trouble, and tell her she must have 'local treatment' every third or fourth day, the midwife should be a true woman, and tell the woman the truth: that if she will go through pregnancy and lactation, she will be cured" (page 18). "For a woman nursing a baby and not menstruating, to advise weaning because she is 'delicate' is fallacy, for she gains nothing by substituting ovulation for lactation" (page 19).

PSEUDO-CYESIS.

The next paper was on the mistakes which may be made as to the existence of pregnancy, mistakes which may compel even an experienced midwife to admit her "want of perfect knowledge in apparently commonplace affairs." This lady admitted that "Once a patient of mine was pregnant and I believed her not, and in another case the reverse was true." But to judge from this paper such mistakes are much more often made by medical men. Thus she describes a case of

[1] *Transactions of the Midwives Society, instituted 1897.* Vol. i. Manchester: Printed for the Society by E. Y. Sproston, 29, Hyde Road, West Gorton. 1898. (Crown 8vo, p. 71, 2s. 6d.)

"pseudo-cyesis," where the doctor diagnosed the presence of "both pus and water," and wished to operate, but the midwife "sent him word that no operation was necessary, and if I needed him I would call upon him." The midwife sent for "a medical man in whom I felt reliance.....I had decided to act and took my chances, my medical friend administering the chloroform.....As I expected, when she was under the influence of the anæsthetic the abdominal walls flattened, and the uterus, nearly normal in size, could be plainly felt." The patient afterwards confessed that she had practised deception because "she liked excitement, and to see what big fools she could make." Another paper by a midwife member treats of Mastitis, including incision, drainage, and antiseptic dressing of the wound, and "tonic and supportive" treatment (page 43).

Placental Delivery.

At another meeting a member read a very elaborate paper on Placental Delivery, including a minute description of the operation of removing an adhering placenta, with antiseptic precautions. This lady says: "If after an hour's time has passed the placenta is still within the cavity of the uterus, it becomes the duty of the midwife to introduce her hand and deliver it manually" (page 27), and concludes by observing that "an anæsthetic is not usually necessary during the operations, and it is not well, if it can be avoided, to relax our patient more than necessary; but in those cases of severe nervous tension, or where we have a supersensitive patient, it will do little or no harm, and may be a great relief" (page 28).

Bacteriology.

At the next meeting the Society relaxed to a paper on the Pursuit of Happiness, but soon resumed its more arduous labours by listening to a discourse on Bacteriology and Modern Midwifery. There was a time, we are told, when the birth of a child was thought a physiological process, but "now we have reached the time when accoucheurs believe in making much of and much out of the birth of the child. They want to make so much of it, and so much out of it, that childbearing has become dangerous, and so expensive that men cannot have large families without impoverishment" (p. 31). Then the authoress makes what we must assume to be a midwife's joke, though it is not so labelled. She says: "True, they (the medical profession) do not ask that germicides be used at the begetting, but that will come in time, and it may be that the medical man will insist on being there with his antiseptic washes, sponges, gauze, and pads."

The Midwives Bill and Stillborn Children.

The Midwives Registration Bill was dealt with by a vice-president (1898-99), who asked indignantly: "Why are we to be governed by these medical men? Why are *we* not consulted? The Bill is called the Midwives' Bill, therefore what have these gentlemen to do with it? Ought not the public and the trained midwives to be consulted? Don't you think that it is purely a woman's work to attend cases of midwifery? .....I do not for one moment wish to say a word in disfavour of the medical man, but let him leave midwifery alone, or leave infections and surgical work to others who do not attend midwifery. We do not *wish* to prescribe or give medicine..... At the same time we should not consider it wrong to certify the death of a stillborn child or of one that lived twenty-four hours" (page 41).

Later the Midwives Bill is thus again referred to in a paper entitled A Few Plain Facts: "I don't believe in the 'Midwives' Board,' examining boards, and such other foolery of the 1897 'Midwives' Registration Bill.' Human nature is weak. Money is strong. Let every midwives' school be chartered by the Government. Let there be a law.....that the said authorities shall be the sole judges of the proficiency of their pupils. That when a diploma is granted to such pupil it shall be *prima facie* evidence of her standing as a midwife anywhere in Great Britain and our Colonies" (page 47). Further on this lady waxed lyrical. Of the Midwives' Board she said (apparently she meant the Midwives' Board, but it may have been the Midwives' Registration Bill, for the grammatical construction is a little involved): "It is absurb (*sic*) and ridiculous. No, the whole thing was concocted to wipe from the face of the earth the last vestage (*sic*) of the independence of midwives. In this glorious country of ours, the time will never come when an honourable set of women will be compelled to bow to the dictum of a set with different interests. Those grand old days of barbarism and savagery are gone, and gone for ever" (page 48).

At the meeting on March 16th, 1898, "A letter from the Honorary Secretary of the 'Association for Promoting Compulsory Registration of Midwives' was read, and a Petition accompanying the same for Parliament handed round for signatures; but in view of the objectionable features of the Bill which the Society has determined to oppose, no one signed" (page 59).

At a meeting held March 24th, 1898, when "Over 40 Midwives were present. After careful consideration of the 'Midwives Registration Bill,' clause by clause, it was again *resolved* 'That the Bill be opposed as prejudicial to the interests of the public and of trained midwives;" and, further, "That a deputation be formed, consisting of the said three midwives, to interview various Members of Parliament as early as can be made convenient, and otherwise attend to the real advancement of the Midwives' cause" (page 60).

The pamphlet contains some other matters of interest, to which we may find occasion to refer at some future time.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ROYAL ORTHOPÆDIC HOSPITAL.

A Special Court of Governors of the Royal Orthopædic Hospital was held in the hall of the Royal Medical and Chirurgical Society on June 8th, to consider certain alterations of the laws of the institution.

Lord Wantage, in opening the proceedings, related the reasons for calling the special meeting.

Sir Walter Gilbey moved an alteration in By-law 2, which provided that no annual governor should vote at any election unless the first annual subscription had been paid, and the name received twelve months previously to the day of election.

Sir Ernest Clarke, in seconding the motion, said that the object of the amendment was to reaffirm and strengthen a law which had been in force in the hospital for over 41 years. It was recognised by all hospitals as necessary and desirable, and had it been obeyed by the new governors who mustered in such numbers at the last annual court, the present crisis in the hospital's affairs would have been avoided. The law was obviously designed to protect the regular subscribers to the charity from persons who made one single subscription in order to qualify them for a vote at the annual court of the hospital. At a meeting of the new committee on April 21st he pointed out that six of the eight new committeemen were elected by the votes of those who were not qualified to vote at all. It was suggested to him at the committee meeting that it was open to him to apply to the Courts by a complicated and rarely used process for a pronouncement on the validity of this by-law; but it could hardly be expected that any single governor should put himself to the expense and trouble of justifying a law which was already on the books, which had been accepted without question for nearly half a century, which was a necessary by-law, and one in force in all the hospitals whose rules he had been able to collect.

Mr. Marks, while not opposing the proposed alteration, questioned the power of the governors of the hospital to make it.

After a good deal of heated discussion the resolution was carried.

Mr. Drower moved an alteration of the by-laws so as to limit the selection of the members of the committee to governors of the hospital of not less than twelve months' standing. He referred to a circular which had been issued by a member of the committee which he stated contained false charges. He also related the work the old committee had done in recent years.

The resolution was seconded by Mr. G. Titus Barham, and carried.

A motion giving power to the annual court to add to the number of the Committee of Management was also carried.

On the motion of Mr. Howard Colls, seconded by Mr. Samuel Studd, a new by-law was adopted requiring fourteen days' notice of any new nomination on the Committee;

Mr. Alderman Bell in proposing "That no acting medical officer of the hospital shall be eligible for election as a member of the Committee of Management," said that he would advise the new Committee, who would have the management after that day, that not only should they not allow members of the medical staff to be upon the Board of Management, but the best that could happen to the institution would be to clear out the whole of the present medical staff, and then start afresh.

The resolution was seconded by Sir Walter Gilbey.

Mr. Marks deprecated the attacks which had been made upon the members of the medical staff.

The resolution was then put to the meeting, and upon the show of hands 13 voted for and 25 against; whereupon proxies which had been received were handed in and the resolution was finally declared by the chairman to be carried by 60 against 45.

Sir Walter Gilbey, after proposing a vote of thanks to the chairman for presiding on the occasion, begged leave to place in his (the chairman's) hands the resignations of the five members of the old Committee of Management who had been re-elected, which included Mr. Alderman Bell, Sir Ernest Clarke, Mr. Drower, Mr. Samuel Studd, and himself.

Mr. Alderman Bell seconded the vote of thanks to the chairman which was carried.

The Chairman said it was his duty to accept the resignations, and while wishing all goodwill to the hospital he also begged to tender his resignation as President.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders and Postal orders should be made payable to the British Medical Association at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 17TH, 1899.

THE ANNUAL MEETING OF THE ASSOCIATION.

THE annual general meeting of the British Medical Association will take place at Portsmouth this year, from August 1st to 4th, and full particulars of the very complete arrangements which have been made by the local committees for the benefit of members attending the meeting will be found at p. 1493. In Dr. Ward Cousins, the senior surgeon to the Royal Portsmouth Hospital, the meeting will have a President well known to all members of the Association, to which he has given unstintedly during many years past most valuable services, not the least being those rendered during his period of office as President of the Council of the Association. He will inaugurate the meeting by an address, and addresses will be given also by Sir R. Douglas Powell, in Medicine and by Professor Alexander Ogston, of Aberdeen, in Surgery.

The scientific business of the meeting will be conducted in twelve Sections, and from the preliminary announcements of the officers of the Sections, which will be found at p. 1496, it will be seen that the subjects selected for discussion include a large proportion of those which are at the present time most keenly debated. One of the greatest benefits conferred by the annual meetings of the British Medical Association is the opportunity they afford to medical men engaged in various departments of practice, and resident in widely different places, to meet together to compare experiences and to thresh out questions still unsettled. It is no idle boast to say that no other medical organisation affords a like opportunity for the exchange of ideas, and of those personal courtesies which do so much to sweeten life, and to assuage the bitterness of controversy.

Portsmouth is, and has been since before the time of Nelson, the chief station of the Royal Navy. At Haslar, close by, is the great naval hospital, which has some 1,500 beds, and connected with Haslar Hospital is the Royal Navy Medical School, which is attended by the surgeons of the Royal Navy Medical Service immediately after passing the entrance examination. Further away, but still within easy reach of Portsmouth, is the Royal Victoria Hospital at Netley, which plays the same part as a clinical hospital to the Army Medical School that Haslar plays to the Navy Medical School. The annual meeting thus takes place within the sphere of influence of these two important schools of military medicine—Haslar and Netley—and it is hoped that many members of the two services will make a point of taking part this year in the work of the meeting. As an organisation binding together all ranks, all classes, and all departments of the profession of medicine, the British Medical Association stands alone. Through its annual meeting, and through the meetings of its Branches, it affords opportunities for its members to make acquaintance with each other, and to work together for the advancement of the science and practice of medicine, and of the material interests of the profession, while its JOURNAL serves as a bond of union the value of which is, we are proud to think, every year more appreciated. It finds its way to the remotest corner of the British Empire, and no effort is spared to make it useful to members in their daily work.

On the roll of members of the Association—a roll which still steadily increases in length—are the names of many medical officers of the Royal Navy, of the Army, and of the Indian Medical Service. This fact shows that the value of such a professional body is appreciated by the services. It is not yet quite a year since the issue of the Royal Warrant constituting the Royal Army Medical Corps. By this warrant the long struggle for the recognition of the position of medical officers of the army as an integral part of that army, with recognised army rank in a scientific corps, was brought to a successful termination. The part which the British Medical Association played in that struggle is a matter of history which need not be retold, for it is well known to the large number of officers of that corps, who are also members of this Association. Suffice it to say, that we learn on all hands that the new arrangement is working well, and that the establishment of the Royal Corps is fulfilling the expectations of those who maintained so long, against enormous odds, that it was the only remedy for a state of things highly unsatisfactory to the officers, and dangerous to the public weal. Years ago the Association took part in a somewhat similar struggle to improve the position of the medical officers of the Royal Navy. A period of peace has ensued, but we doubt not that should the assistance of the Association be asked again by members serving in the Royal Navy it will be given as readily and as effectually.

A new departure in the scientific work of the Association was marked by the institution for the first time at the annual meeting last year in Edinburgh of a Section of Tropical Diseases. The large attendance at that Section, and the interest shown in its discussions would have been sufficient to encourage the formation of a similar Section this year. Indeed, had the precedent not existed, it must have been created, for the subjects with which this Section is concerned must always have a prominent place at any meeting where officers of the medical services of the Royal Navy, of the Army, and of India may be expected to gather in numbers. They and the officers of the Colonial medical services are constantly being brought face to face with the serious problem of the treatment and prevention of those malarial and epidemic diseases so fatal to Europeans in the tropics. Pathology is daily throwing fresh light upon the nature of the causes of these diseases, and is thus placing in our hands new means of preventing them, and new methods of obviating their fatal effects.

THE HUNTER CASE AND THE PENAL CASES COMMITTEE.

The long-deferred discussion of the Hunter case has taken place, and we see no reason to alter in any substantial respect the view which we have already expressed—that the prosecution of Mr. Hunter upon the charge that he, being a Licentiate of the Apothecaries Company, made use of the title "physician"—should never have been undertaken, and, indeed, would not have been undertaken had the Council had the issue plainly placed before them. But the discussion—which was greatly facilitated by the fact that a history of the case, together with copies of the documents and extracts from the minutes prepared by order of the President, were in the hands of members—has thrown light upon certain points which were previously in doubt.

Three main facts were established beyond dispute. The first is that the General Medical Council only authorised the prosecution of Mr. Hunter upon a charge the gravamen of which was the use of the title of an American M.D., which was not registrable. In the motion submitted to the Council the case of Mr. Hunter was lumped together with three others, and there is nothing to show that the peculiarities of the case, by which it differed vastly from the other three, were ever presented to the Council. Yet as a matter of fact it was eminently a case in which the question whether he should be prosecuted was a matter calling for the exercise of the discretion of the Council, and was an issue fully as important as the question whether he could be prosecuted. Furthermore, the attention of the Council was never, so far as any record can be found, called to a fact which was very material in forming an estimate of the moral nature of the alleged offence. This was that the degree which Mr. Hunter was using without authority was that of the Jefferson College of Philadelphia, which, had he obtained it and had been registered before the passing of the Act of 1886, could have been inscribed upon the *Register* as an additional qualification. Nevertheless, this fact, which under the circumstances was very material, had been brought to the cognisance of the Penal Cases Committee and appears upon their minutes.

The duties of the Penal Cases Committee are defined by a resolution of the Council in the following terms: "That the Council instruct its Penal Cases Committee to inquire into cases of persons offending under Section XL of the Medical Act, 1858, and, where it sees fit, to instruct the legal advisers to proceed against such persons" (*Minutes*, December 2nd, 1895, p. 153).

The Penal Cases Committee, therefore, was acting according to the terms of the resolution in recommending the prosecution of various persons, but it was surely a great mistake to present four cases of essentially different nature to be voted upon in a single motion, and a still greater mistake not to seek the opinion of the Council explicitly upon one in which the question of expediency was paramount.

The second point is brought out by the letter of Messrs. Conquest and Clare, the local solicitors employed, addressed to the solicitors of the Council on March 24th, 1898. This letter stated that it had not been found possible to obtain a summons for the use of the title of M.D., which Mr. Hunter had ceased to make use of, and that therefore they had "applied for and obtained two summonses for using the name and title "physician and surgeon" respectively. The local solicitors added the inquiry, very proper from their point of view, "We hope you will agree that we took the right course under the circumstances," thereby implying that they thought that this was open to doubt. This letter was received and answered on March 25th, 1898, and the implied question as to the propriety of going on was only indirectly answered by the request of the solicitors to the Council for the "proofs" of the witnesses. The summonses were returnable on April 6th, so that there was an interval of eleven clear days, but it does not appear that the solicitors to the Council either sought or obtained any authority to proceed under the circumstances thus radically altered.

Mr. Hunter was convicted, and his conviction was reported to the Penal Cases Committee by the solicitor to the Council in the following terms, which under the circumstances were by no means so explicit as with advantage they might have been: "This person was summoned at Caxton Police Court, and convicted of improperly using a medical title, and was fined £5. He has applied to the magistrates to state a case for the consideration of the Court of Queen's Bench." Whatever may have been verbally communicated to the Penal Cases Committee, there is nothing upon record to show that the Committee were then informed of the exact nature of the charge upon which he had been convicted, nor of the issue to be raised on appeal.

The third point of importance is that the Penal Cases Committee directed the legal advisers to support the conviction on appeal. This order was given on May 3rd, 1898, although the whole Council was to meet on May 24th. This action of the Penal Cases Committee was defended during the recent debate on the ground that it was a matter of urgency. It might with much force be contended that the Penal Cases Committee went entirely beyond their powers in ordering the appeal to be defended; nevertheless, when the question was brought up at the ensuing session of the Council it was never submitted to its judgment, but was practically withdrawn from consideration upon the double plea that it was a *fait accompli*, and that the matter being *sub judice*, any discussion would be improper at that moment.

It is thus absolutely clear that the general body of the Council never considered or authorised the defending of the appeal, which seems to have been treated as a necessary corollary of having once embarked upon the prosecution. It appears to us that a grave error of judgment was here committed. It can by no means be assumed as a matter of course that every case in which the Council has initiated proceedings must be defended in an appeal court.

The decision to go into the Appeal Court was an important step, and this case in particular was one in which the circumstances were so peculiar that there was at least room for difference of opinion. Clearly therefore the Council should have been afforded the opportunity of deciding for itself upon the matter, which, as a fact, it never had. The appeal was not heard until January 20th, 1899; in the meantime, although Mr. Hunter was dead and the Apothecaries Company had obtained leave to stand in

his place, which had changed the aspect of affairs, the Council had once more met, and the consideration of the question of going on with the appeal was again to all practical intents and purposes, so far as we can judge from the statement prepared by order of the President, withdrawn from its consideration. The arguments in the Appeal Court, and the judgments of Mr. Justice Lawrance and Mr. Justice Channell were fully reported in the BRITISH MEDICAL JOURNAL of January 28th and February 4th, and the effect of the decision of the Court was discussed, so that we will not recur to those points now. But first and last, it is abundantly clear that in a matter eminently calling for the exercise of a careful discretion, the Council as a whole never had a proper and adequate opportunity of coming to a decision. Mr. Horsley's contention that the general body of the Council cannot be held responsible for the adoption of lines of action upon which it never pronounced itself seems fully justified.

We have no intention or desire to apportion blame for this state of things. Probably everyone concerned acted according to his lights, and did that which at the moment appeared to him to be right. It is easy to be wise after the event. But to any dispassionate observer it is obvious that by a succession of steps the Council became committed to a course upon which it never had the opportunity of deciding, and which it is in the highest degree improbable it would have taken, had it been in full possession of all the facts. That this should be possible indicates that some revision of its methods of procedure is urgently called for, lest the same sort of thing should happen again. It is not likely that so long as the recollection of this case continues to be vivid that any similar mistake will be made. The Penal Cases Committee has been enlarged by one more member from each of the three countries, and at the first election by ballot last week Mr. Horsley was elected as the additional representative from England. The English members, who we believe are alone expected to attend when the case for consideration has arisen in England, as is the case in the great majority of instances, will in future number four. It is not likely that any mistake similar to that made in the Hunter case will be made in the near future. But the more distant future should be guarded and the powers of the Penal Cases Committee so defined that we may not again see it prosecuting a registered medical practitioner owing to any such disastrous blunder as led to the prosecution of the late Mr. Hunter.

THE UNCONSCIOUSNESS OF ANÆSTHESIA.

To question whether an anæsthetic produces unconsciousness seems at first sight much the same as to doubt the wetness of water. Yet the question is not so foolish as it seems, and it is worth while to inquire its meaning and its grounds. The experience of those who have inhaled ether or chloroform is not uniform. To some it is pleasant, to most it is at any rate not offensive, but there remains a small number of persons who have found it disagreeable and even horrible, and who complain of a sense of oppression, of confinement, of dread, not easily to be explained in words, but sufficiently powerful in fact. Again, patients may on recovering be perfectly oblivious of the operation, may even doubt that it has been performed, who yet while under the knife have by gestures or cries given signs that would usually be taken to prove that they felt pain. These two lines of evidence have led some objectors to say that anæsthesia is a loss of memory, not a loss of perception, and that it should be called a state not of unconsciousness, but of oblivion.

Two answers can be given. In the first place, the gestures and cries which sometimes go with complete oblivion need not imply the action of the highest centres. They are probably of the nature of reflex actions, and as such are carried out on a plane below the highest. Consciousness of self, the being "all there," is the latest perfection of development; it is not necessary to life, and the only means we have for recognising it at all assure us at the same time that it diminishes almost infinitely as we descend the scale of Nature, and that though man possesses it to an enormously greater degree than animals, it is even in him often in abeyance during natural working life. There is no difficulty in supposing that what we call consciousness is abolished even though gestures and cries remain. In the second place the unpleasant memories, the feeling of dread that some recall, are probably relics of the transition stage either when passing into or when emerging from anæsthesia. In these conditions time and space are both distorted, and what seems the experience of an hour is probably the feeling of half a minute or less. The memory is not of the whole time of anæsthesia, but of the very short period in which it was incomplete.

A much greater difficulty, however, is found in the apparent persistence of will sometimes noticed both during sleep and in anæsthesia. It is common enough to be able to wake at a given hour in the morning by forming overnight the resolution to do so. It is also generally true that a man who is neither excited nor terrified, and who is naturally self-controlled will be able to take an anæsthetic quietly, while those who are either naturally excitable, or who are excited at the time, and above all those who by lives of excess have weakened self-control, will be noisy and obstreperous. This again, however, can be well explained without supposing consciousness to persist. Many acts of daily life are half voluntary only, and after once they are set going by volition will continue without further attention. Such are walking, knitting, and many other actions which we aptly call mechanical. In like manner, before taking ether a patient can set his mental machinery for the purpose, can so arrange his "points" that the train will continue to run on the same lines, even though his guidance and control are in abeyance. And probably in like manner, though exact analysis is in this case more difficult, he can arrange to get up after a given interval of sleep. Just as if he were awake he would say, "Two hours hence I will go out," and after two hours would find the impulse to go out coming upon him, so he can, as it were, time his alarum to run down after a certain interval, and pay no heed to it in the interval. Striking parallels can be found in hypnotic suggestions, which once given will remain latent for hours after the subject has been awakened, to fulfil themselves very much to his surprise at the appointed time.

The connection between consciousness and memory is a fascinating, but a far-reaching, subject. The common English teaching is that one's consciousness is the sum of

one's memories, and that if by accident or disease a period of time or certain faculties are blotted out of memory, they cease to form part of the personality. The question is arguable, but not in the space of an article. Memory is itself one of the great mysteries, and those who study it will feel the less inclined to dogmatise the more they learn.

ADVERTISING AND CANVASSING.

Every week testifies to the demoralising influence of medical aid associations and their like upon the medical profession. We therefore welcome the resolution which the General Medical Council has passed upon this subject as evidence that it has become alive to the urgent need for dealing with this growing evil, and as an earnest of stronger action in the future. There is a special phase of the evil work of these associations to which attention must be directed. It is that medical practitioners are being induced to compete with them by adopting their methods. Nearly every day brings specimens of the advertisements of the private club of a medical practitioner, or group of medical practitioners, who are seeking in this way to counteract the canvassing and touting for patients which is carried on without hindrance from the General Medical Council or the licensing bodies, by insurance companies, provident dispensaries, sick societies, and similar organisations organised and controlled by laymen but worked by qualified practitioners who can be and ought to be made responsible.

We have repeatedly condemned these advertisements and have pointed out to the individuals concerned the unprofessional character of their conduct; but while doing so we cannot but feel that they are being treated very unfairly so long as registered medical practitioners are allowed to remain in the service of associations which use similar means without a word of censure from any of the authorities of the profession.

We are informed that many of the medical men employed by these organisations would welcome a declaration by the General Medical Council that to hold office in associations which canvass and tout for patients or in other ways violate recognised rules of professional conduct would be regarded as infamous in a professional respect. They contend that they are powerless to reform these abuses themselves; that the only action they can take is to resign their appointments, and that this would be quixotic self-sacrifice, of no value to the profession, so long as there are dozens of men ready to take their places.

It is, therefore, to be regretted that the Council did not see its way to adopt the advice of Dr. McVail, to issue a notice to registered medical practitioners which should have given force and meaning to the resolution condemning canvassing and advertising. We hope that when this comes before the Council again Dr. McVail will extend his resolution so as to make it apply to canvassing and touting for the purpose of procuring patients, whether by medical aid associations, sick clubs, provident societies, or individual medical practitioners. That such a warning is greatly needed cannot be doubted by anyone who has seen such evidence as our files of correspondence could furnish.

RED TAPE AT THE WAR OFFICE.

Public departments have too often in the past been professors of the art of "how not to do it," and the answer given to Dr. Farquharson's protest in the House of Commons with reference to the omission from the official list of recognition of approved service in the Soudan of the name of Surgeon-General Taylor, C.B., shows that red tape and musty precedent still cling closely to the sturdy stem of the War Office. Amid the criticisms of the conduct of the campaign, no disparagement of the services of the medical department can be found, and Lord Kitchener sums up his appreciation of their successful and devoted work in the following terse yet comprehensive phrase: "The medical arrangements were so conducted as to afford the maximum of comfort with the minimum of suffering." Under these circumstances it is more than strange that the public recognition of merit accorded in ample measure to those of inferior rank should have been withheld from the distinguished Surgeon-General and his staff, whose sagacity and skill must have contributed largely to the triumphant result of the military operations. This is not only shabby, it is stupid, and Mr. Balfour's explanation only makes matters worse. Vague expressions of respect for the "great and distinguished profession" will not disguise the fact that "being obliged," as he put it, "to draw the line in some place," he has deliberately done so in front of the medical officers and erected a barrier which they cannot pass. It was pointed out in the course of debate that Surgeon-General Taylor, ranking with a major-general, was actually senior in military rank to generals of brigade whose names were conspicuous by their presence, and the feeble defence that he was not actually commanding troops in the field will not satisfy the public mind. Ill-advised proceedings like this are specially unfortunate at a time when the medical service of the army was steadily regaining its lost hold on the confidence of the medical schools, and we hope that this renewed proof of the thinly veiled hostility of the military advisers of the War Office to the doctors may not check the flow of eligible candidates encouraged by recent concessions.

DEATH OF MR. LAWSON TAIT.

The announcement of the death of Mr. Lawson Tait on June 13th soon after completing his 54th year will be received with very sincere regret. He has written his name large on the history of the great development of surgery which has taken place during the last quarter of a century. He was born and educated in Edinburgh, and settled in Birmingham twenty-eight years ago. The next twenty years were the fruitful time of his life. He brought to bear upon the practice of his art an acute intellect and great independence of mind, combined with boldness and manual dexterity. The influence which he exerted by his teachings and writings upon the development of abdominal surgery was very great, and but for certain defects of temper and manner, which after all were chiefly on the surface, his position in the profession would have been much more influential than it actually was at the time of his death. He was a hard fighter, and was in the habit of using very direct and uncompromising language, but nothing can obscure the great services which he rendered to the practice of his art, and his fame and work will be remembered when the irritation which his method of controversy was apt to produce has been forgotten. Mr. Tait had been in indifferent health for some time, and was taken ill while attending the opening of the new station at Droitwich. In the last number of the British Medical Journal was published a fighting letter from him, together with a brief reply from Dr. Saundby; from the latter we have received the following note and we feel sure that everyone with whom Mr. Tait had had controversies in the past would be ready to express the same sentiments: "I am sincerely sorry for the death of

Mr. Lawson Tait. He and I were friends of long standing, and although we sometimes differed widely, the fund of geniality, which was the real basis of his character, never made these differences more than temporary. I feel sure that had death not intervened he would have recognised in time that I had made no attack upon him. During the last few years failing health had made him much more irritable than he used to be, and his old friends have marked the change with sorrow. Now that the grave has closed over his head I can only wish to recall the many great and noble qualities of the man we have lost."

THE SURGICAL TREATMENT OF CANCER OF THE BREAST.

FOR many reasons cancer occurring in the breast has been more closely studied than cancer elsewhere. It is more readily accessible for purposes of examination; the anatomy, both of the breast itself and of the lymphatics, is more completely understood; the breast is very readily and extensively removed without serious risk; and any local return after removal attracts immediate attention. We are chiefly indebted to the observations of Heidenhain and of Stiles for the extent and the accuracy of our knowledge of cancer as it affects the breast. The latest pronouncement of the latter observer appears in the JOURNAL to-day. The argument for extensive operation in the treatment of cancer in the breast may be thus briefly epitomised: Cancer is at first a purely local disease. From the limited area it occupies in the breast it spreads by means of lymphatic vessels which carry away cancer cells in many directions. The chief effluent lymph vessels are probably the paravascular. Some of the superficial lymphatics of the breasts communicate, by means of vessels passing in the suspensory ligaments of Cooper, with the lymphatics of the skin; others open into the subareolar plexus of Sappey, and there make union with the lymph vessels from the pectoralis major. From here the main lymphatic trunks pass in varying directions, some to the axillary glands, some to the glands lying above the pectoralis minor, and some to the supraclavicular glands. In the lymph vessels the cancer cells may form emboli. These plugged masses of cells may be found in portions of the breast far distant from that chiefly and primarily affected. It is therefore impossible to say, from a naked-eye examination, how far the disease has spread. Assuming, then, that cancer is a disease of local origin, and that its direction of growth is that indicated, it necessarily follows that any operation intended for the cure of cancer must be as locally extensive as circumstances will permit. In the case of the breast every lobule of the organ, all the pectoral muscles, all the lymph glands, and all the connective tissue and fat of the axilla, must be removed. Whether it is necessary to remove at the same time the supraclavicular glands is a question that has not yet received final solution. The very important researches of Halsted show that these glands are affected in many cases in which no enlargement can be detected at the time of operation. The probability therefore is that the supraclavicular glands will require to be dealt with in the same complete manner as the axillary. To sum up thus briefly the knowledge we owe to Stiles is hardly to do justice to the subject. By so doing we cannot make a close acquaintance with the steady, persevering, almost inspired, series of efforts which have enabled him now to make it clear to us that an extensive operative procedure is, without exception or reservation, the desirable thing. It is no longer competent for any surgeon to say that in his own hands such and such a limited procedure has proved satisfactory. We are all aware of the misleading impressions garnered from experience imprinted only upon the memory. Stiles lays before us a mass of evidence based upon exact anatomical knowledge and enlightenment by careful and persistent clinical and pathological observations, and it seems to admit but of one verdict. Every step that has been taken in these researches has received a wealth of investigation that bids defiance to error. Nothing is accepted on hearsay, nothing is assumed because probable. Each fact is carefully and repeatedly tested, and the inevitableness of the conclusion reached must bring conviction to the mind of every thoughtful surgeon.

PRACTICE IN WEST AUSTRALIA.

IN view of approaching legislation on hospital arrangements in Western Australia a writer in the *Kalgoorlie Miner* gives an interesting survey of the hospitals in the other Australian colonies, pointing out their advantages and defects, and then indicates the lines on which the public hospitals in Perth and throughout the colony should be governed. In these colonies the hospitals have to depend to a large extent on State assistance, the subscriptions from the charitable public not being nearly sufficient to maintain them. Hence arises the tendency to attempt to make the hospital pay commercially by asking some payment from all patients who can contribute anything to their support whilst in hospital. The writer suggests the imposition of a "Consolidated Hospital Gold Tax" on gold production in the colony; and the provision of local rates (voluntarily determined on by a local referendum) for supplying half the funds required for the support of local hospitals. In the mining districts, particularly those recently opened up in Western Australia, enteric fever and other diseases depending upon imperfect sanitary arrangements are very prevalent. But the population is a floating one; districts which may be thickly populated now, in a few months' time may be comparatively deserted. Hence the need of temporary hospitals of light construction which can be transferred, if need be, from one field to another. It would appear from a letter to the same paper from the medical officer of the Bulong Hospital, that some, at any rate, of the smaller country hospitals in mining districts, instead of providing medical and surgical relief to the poor, are practically converted into large dispensaries from which all who care to pay a shilling a week can get treatment and all medicines and appliances free of charge, no matter what their financial standing may be. Hence no medical practitioner or chemist can exist in such a place, and even friendly societies are practically killed by such an arrangement. It is well to know that the authorities are beginning to realise the state of matters, and the sooner hospital benefits are restricted to legitimate claimants of charitable medical and surgical relief the better both for the public and the profession.

FOOD-GRAINS AND DISEASE.

THE recent famine in India has given medical officers in Bengal and the North-West Provinces, notably at Chausa,[1] an opportunity of seeing the effect of the consumption as food of "kesari dal," a species of vetch (*lathyrus sativus*). This kesari dal is cheap, as it will grow on swampy soil where no other crop is found; it grows in all seasons, and therefore is apt to be the only certain provision of life in times of famine. The natives eat it either as "dal," a sort of porridge, or made up into bread; when eaten as bread it is harmless so long as the proportion to wheat flour does not exceed a quarter. When eaten as almost the only article of food it produces paraplegia in the course of a few months. Dr. Irving, then Civil Surgeon of Allahabad, reported to the Government in 1857 that in one district 6 per cent. of the population were thus affected. The onset of the paraplegia is usually sudden. Irving reports a typical case where a man "was working in the rice fields during the rains, and had sat down; he found he was

[1] See Captain Buchanan's article in the *Indian Medical Gazette* 10 September, 1898.

unable to rise." In some cases, sudden pain in the loins is felt, and at the same time great difficulty in rising from a sitting posture. There is no fever. The cases which have recently occurred in Bengal show very much the same symptoms. The arms are unaffected, and the patients drag themselves along by means of leaning on a tall bamboo, which they fix on the ground in front of them, and use as a sort of pivot round which they twist themselves forward. They can squat on the ground easily, but arise with many contortions. There is considerable wasting of the muscles of both legs, but one side is usually affected rather more than the other. Sensation is not impaired, but the skin is harsh. The knee-jerks in recent cases are easily obtainable; if put in a constrained attitude for some time their stretched muscles quiver and jerk; there is no ankle clonus, but the tendo Achillis is so rigid that the ankle cannot be flexed, and the patient can only get his toes to the ground. The sphincters are not affected. These advanced cases appear to be incurable; no doubt when the first symptoms occur, recovery would follow change of diet, especially if combined with warm clothing. Irving narrates of five cases which he took into the Government dispensary, that they improved a little with good food, but "as soon as medicines were administered they all ran away." The peasant has little idea of leaving the ground his fathers tilled, and he goes on eating this "dal," though he knows the consequences. It is with great difficulty that a definite history can be obtained, for the native usually answers politely as he imagines he is expected to answer. The history of "lathyrism," or bean-paralysis, in Europe shows that it is best prevented by drainage of the soil, so allowing better food stuffs to grow; and the increase of means of communication, allowing food to be brought cheaply and rapidly to famine-stricken districts. In 1671 the Duke of Würtemburg issued an edict forbidding the use of this vetch for bread, and in 1786 the Florentine peasants were cautioned against its use: "even the swine became pitiable monsters, and grew fat, lying on the ground, and quite unable to rise." The admixture of this dal with horses' grain causes a paralysis of the hindquarters; cows apparently are not affected, and the dal is said by some to increase the milk—contrary to the experience of farmers at home, who say that tares "dry up the milk." It acts on the generative organs like cantharides. The fact that women seem nearly exempt seems to be due to their not being exposed to cold by working in the swamped fields as the men do.

THE DERWENT COMPROMISE.

It will be remembered that before Whitsuntide Sir John Brunner, the Chairman of the Select Committee to whom the several Bills for appropriating the waters of the Derbyshire Derwent had been referred, expressed very strongly the opinion of the Committee that it would be very difficult to convince them that Sheffield should be excluded from a share of the supply. Following as this did upon a a previous broad hint that the Committee favoured the idea of a joint scheme, the several claimants naturally put their heads together to find some *modus vivendi*. The House of Commons, on the motion of Sir John, has now passed an instruction to the Committee authorising them to consolidate the Bills or any portion of them if it seemed desirable. At the first meeting of the Committee after the recess the Chairman announced that he found that before they could take any action under this instruction it would be necessary to pass the preambles of all the three Bills dealing with the water supply, and he appealed to the opponents to know if their opposition was of a kind so hostile as to mean the absolute rejection of any scheme. Mr. Worsley-Taylor, counsel for the promoters of the Derby Bill, then read the heads of agreement arrived at by the claimants for the water. These propose the reference of a scheme for the obtaining of a first instalment of not less than twelve million gallons of the coveted supply to a body of engineers of whom two each shall be appointed by Derby, Leicester, and Sheffield, and one by Nottingham. They are to appoint an assessor to sit with them and settle any difference. The water is to be allocated 21.22 per cent. to the town of Derby, and 15.15 to the county; 30.30 to Leicester, 12.12 to Nottingham, and 21.21 to Sheffield. There is to be a conjoint board of whom the councils abovenamed are to elect 3, 1, 4, 2 and 3 members respectively. The compensation to be allowed is to be one-third of its rainfall. Partners are to have right of pre-emption of unclaimed supply, reserving rights to supply counties and certain districts near Sheffield. The inclusion of Edale is to be reconsidered, and the expenses incurred for one or more of the districts alone to be borne by them. The cost of the general works is to be apportioned in certain fixed ratios. There seems, therefore, a prospect that an equitable settlement of this important question is likely to be arrived at, and much of the credit of this desirable consummation will be due to the tactful management of Sir John Brunner.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

The fifth annual dinner of this club was held in the Royal Hotel, Edinburgh, on Friday, June 9th, when nearly sixty members were present. Professor Chiene occupied the chair, and the croupiers were the secretary, Dr. Ker, and Dr. George Chiene, one of the present residents. In proposing the toast of the evening, "The Residency," the chairman carried his audience back to the time—thirty-five years ago—when he had the honour of being Mr. Syme's house-surgeon. He gave a picture of the old hospital of that date, and had some story to tell about nearly every member of its staff. He drew most amusing contrasts between the nurses of the past and those of the present. His speech was thoroughly appreciated, and was, from a historical point of view, of very great interest. Dr. C. E. Douglas proposed the health of the Chairman, which was pledged with great enthusiasm. Dr. Kennedy contributed greatly to the success of the evening by his rendering of Dr. John Smith's now famous song, "The Bilin' of the Milk." Amongst others who sang were Drs. James, Thatcher, Caird, Lockhart Gillespie, Porter, George Chiene, and Bowie. An interesting feature of the dinner was that Mr. Chiene was supported by five of his old house-surgeons on each side. The menu card showed an old hospital student's ticket dated 1741.

A VISION OF THE BACK OF BEYOND.

Mr. Robert Buchanan has been glutting his mind with antivivisectionist literature, and after this feast of horrors he not unnaturally had a bad dream. The dream, he candidly admits, was "doubtless a foolish one." There is nothing uncommon in the experience, but wise people do not tell their dreams. Mr. Buchanan, on the other hand, has told his foolish dream to the editor of the *Zoöphilist*, who has been unkind enough to print it. Mr. Buchanan was rapt in sleep to the Back of Beyond, where he saw "countless presences" in whom he recognised "disembodied spirits with a shadowy resemblance to human beings." They were "beautiful beings, grave, calm, graceful, dignified, as immeasurably superior in insight and reasoning power to men and women of flesh and blood as men and women are superior to beasts of the forest and the field." These august beings apparently found nothing better to exercise their insight and reasoning power upon than contemplating the sufferings of man. "Wherever there was a sickbed or a deathbed they were present," not altogether for clinical study it would appear, but for the pleasure of the thing. Mr. Buchanan, misconceiving the situation, thought the beings were angels, and proceeded to interview

one. But they were only "Beyond-Men," completing their intellectual development by the study of pain, which they had come to see "as a necessary part of the eternal scheme of education." One might have thought they would have learned this great truth from their terrestrial schoolmasters; but they may have had the privilege of being taught in Board Schools where even *plagosus Orbilius* would have had to lay aside his cane. The "Beyond-Man' confided to Mr. Buchanan that he and the other "Presences" increased the tortures of humanity as the means of their enlightenment and progression "even as the human vivisector sacrifices the inferior creatures, animal and human, to his glorious thirst for Knowledge. The "Beyond-Man" added truly enough that "the majority of men cannot reason; they can only feel." But he added that they have no rights, and are in fact useful only as affording examples of suffering by which the "Beyond-Men" may gain knowledge that will enable them to reach, if we may say so, the Back of Beyond. Mr. Buchanan, on awakening from his dream, "with trembling hands again took up the record of human devilry, done in the name of Science," and proceeded to make a "deduction." This was that "if he accepted the right of any creature, under any circumstances whatever, to base its happiness or its security on pain wilfully inflicted on lower creatures," he must also accept "the fiat whose 'fiat,' one wonderingly asks) that there is no God." The psychological process by which Mr. Buchanan arrives at this "deduction" is impenetrably obscure, and the argument may be taken as an illustration of the Beyond-Man's remark that "the majority of men cannot reason." But leaving aside the "deduction," what is to be said of the premiss from which he draws it? Would Mr. Buchanan suffer himself without resistance to be made the subject of unscientific, but none the less painful, vivisectional experiments by a wild beast? Would he do nothing to check the too-pressing attentions of a savage dog? Would he let his house be overrun by rats or mice? Would he be careful of the feelings of a flea which might seek security on his person from that of an insufficiently zoöphilist cat? But on his own principles he has no right "under any circumstances whatever" to base his happiness or security on pain wilfully inflicted on lower creatures. Mr. Buchanan is not brilliant in dreaming, but at least he reasons better in his sleep then when he is awake.

PATHOLOGY IN OXFORD AND IN BIRMINGHAM.

THANKS to the influence of the Regius Professor of Medicine, Sir John Burdon Sanderson, the University some years ago established a lectureship in pathology. So successful have been the efforts of the lecturer, Dr. James Ritchie, that the number of students has exceeded the accommodation placed at his disposal. In view of the depressed condition of University finance, it was felt to be almost hopeless to expect further pecuniary assistance from the University to place the teaching of pathology on a proper footing. The generosity of an anonymous benefactor, who has promised a sum of £5,000 towards the erection of a pathological laboratory, has, however, stimulated the University to propose to supplement this sum by an additional £5,000 in order to provide suitable accommodation for tuition and research in pathology. At the meeting of Congregation on Tuesday last the grant was passed without dissent or discussion, and at the same time an annual grant of £250 for maintenance was passed, so that there need not be any delay after the new department is fully equipped. The further vote in Convocation will probably be taken before the end of this term, but there is every reason to hope, from the very favourable reception the decree met with in Congregation, that it will pass without opposition. In that case building operations will be commenced at once, and the department will be well on its way to completion by this time next year. The plans already submitted display a building providing accommodation for tuition in bacteriology, histology, and chemistry, together with lecture theatre, museum, and rooms for research work. In its minor details it is up to date as regards fittings, and provision has also been made for incubating and refrigerating chambers. Thus equipped, Oxford will be in a position to provide that groundwork in the science which is so necessary before a man can profit by the clinical aspects of the subject presented to him in his hospital practice elsewhere. The amount of pathological and particularly bacteriological work carried on in Mason University College has also recently very greatly increased. Not merely has the number of students reading for diplomas in Public Health, and studying bacteriology for other purposes, gone up, but the amount of sanitary work carried on in the laboratory has grown enormously of late. This movement was commenced by the College undertaking to conduct the examination of suspected diphtherial secretions for the Corporation of Birmingham. Since then the movement has grown, and examinations of this character, and in some instances also in suspected cases of tuberculosis and typhoid fever are conducted for most of the municipalities around Birmingham, and for the County Councils of Staffordshire and Shropshire. The work having become too arduous and important to be carried on by anyone but a specialist devoting his whole time to it, the Council of the College decided to appoint a Professor on those lines, and at their last meeting selected for the position Dr. R. F. C. Leith, Assistant Physician to the Royal Infirmary, Edinburgh, and Lecturer on Pathology and Bacteriology at Surgeons' Hall, Edinburgh. Dr. Leith's reputation as a teacher is well known and his contributions to the scientific literature of medicine have attracted considerable notice. Professor Leith commences his duties in the new and much larger laboratory, which is being built for him, at the beginning of the next winter session in October.

CATARACT EXTRACTION IN A LIONESS.

PROFESSOR GUSTAVO PISENTI, of the University of Perugia, has lately had a thrilling experience in extracting a cataract from a powerful lioness about three years old. The animal was placed in a suitable cage in the middle of the menagerie, and the first difficulty was the administration of an anæsthetic. The intervals between the bars of the cage were filled up with cotton wool, and a large packet of gauze impregnated with chloroform was placed in the cage, the door of which was then closed with a shutter. In about a quarter of an hour a reconnaissance was cautiously made, and the illustrious patient was seen lying stretched out, apparently in a condition of deep coma. She was then dragged out of the cage, bound and gagged. She was next placed on a table, but before the operation could be begun she suddenly awoke, and struggled violently, rolling on to the floor, where the medical men "with admirable coolness, but not without intense emotion which might easily be seen in their countenances," held her down while the animal's head was wrapped in a towel steeped in sulphuric ether. The lioness, however, managed to free herself from the gag and partly from her bonds, and gave a roar which made the majority of the spectators beat a hasty retreat. But the ether overcame her, and Professor Pisenti with great pluck dragged her into the cage again, where the anæsthetic *coup de grâce* was given by means of another packet of gauze steeped in chloroform. The beast's head was pulled out through the door of the cage and securely held in position. Professor Pisenti then operated with brilliant success. We have no doubt that the Professor had a more "serious time" than Artemus Ward had in getting into the uniform of the days of his youth, and we congratulate him heartily on having escaped a counter-operation by his formidable patient. A curious feature of

the scene was the excitement produced among the other animals—zebras, bisons, leopards, wolves, hyænas, monkeys, etc.—in the menagerie, who all inhaled some portion of the anæsthetics with which the air was saturated.

THE SECRET OF SUCCESS IN MEDICINE.

WE learn from an American contemporary that Dr. John E. Harper in an address on Success in Medicine, delivered at the graduating exercises of the College of Physicians and Surgeons of the University of Illinois, pointed his moral by citing the principles adopted by Sir Henry Holland for the conduct of his professional life. Holland began practice, Dr. Harper informed his hearers, "at the age of 21 among the aristocracy of the West End of London, and at the outset made the following two resolutions: 1. That he would never practise more than ten months in any one year, spending the remaining two months in travel and recreation. 2. That he would never allow his practice to exceed fifty thousand pounds per annum." To these rules, we gather, he adhered with admirable resolution for sixty-four years, and it is comforting to know that he "several times collected in one year the amount to which he had limited himself." We fancy that most people will fully agree with Dr. Harper that the secret of success in medicine is to make £50,000 a year. The resolution never to exceed that limit is one that most of us would find no difficulty in keeping; nor would many find such a self-denying ordinance as Sir Henry Holland with such fortitude inflicted on himself at all necessary. Sir Henry's plan of starting in practice "among the aristocracy of the West End of London" is another secret of success that is unfortunately not open to everyone. Not a few have to content themselves with the aristocracy of Brixton, or Stepney, or even of Whitechapel, but these haunts of fashion have, of course, the advantage that the practitioner has, perhaps, less difficulty than he might find at the West End of limiting his income to £50,000 a year. To speak seriously, Sir Henry Holland's career is about the last which could be used as showing to ordinary practitioners the way to success in medicine. He had altogether exceptional advantages at the start; he lived at a time when a little knowledge went very much further than it goes now; he was largely used by statesmen as a neutral medium of unofficial communication, and by ladies as a purveyor of gossip—is it not on record that on his paying a professional visit one day he was informed that her ladyship was too ill to see him? Lastly, he did not limit his aspirations in the matter of fees to £50,000, but to £5,000 a year. Even this is a self-limitation which most practitioners do not find it needful to impose upon themselves as a rule of professional life.

DICHOTOMY IN FRANCE.

REFERENCE was recently made in the BRITISH MEDICAL JOURNAL to the practice of "dichotomy"—that is, the sharing of the spoils between the specialist and the general practitioner who sends him a patient—a custom decidedly more honoured in the breach than in the observance, which is said to prevail to a greater or less extent in France. That the practice is by no means confined to France was clearly shown by a large body of testimony from American specialists, a part of which we quoted. But to France, as far as we know, belongs the discredit of the invention. Readers of Gyp's *Ces Chers Docteurs* will doubtless remember "Dr. Tant pour Cent.," who expounds the system with cynical frankness. To the guileless Briton the picture may appear overdrawn, but things are told of the famous surgeon who is supposed to have been the original of "Tant pour Cent." which make Gyp's professor of dichotomy a model of ethical propriety by comparison. Yet it is related that even he was not prepared for a demand once made by an eminent specialist in another line who claimed a share of the fee for an operation on his own sister. In another case within our own knowledge, a leading French specialist asked a British compeer, quite as a matter of course, what percentage of his consultation fee he paid the general practitioner who brought the patient. On being informed that such a thing would put a man outside the pale of the profession in this country, the distinguished foreigner evidently could not quite make up his mind whether his friend was a fool, or merely a hypocrite, after the supposed manner of his nation. Léon Daudet is to be regarded as a hostile witness in regard to the medical profession, of which he would doubtless have become an ornament, had not the stupidity of examiners—stupidity against which so many godlike youths fight in vain!—stood in the way. But even granting that his picture of the dichotomists in *Les Morticoles* is a caricature, that very fact shows that the evil satirised has a real existence, for a caricature is pointless unless it is founded on fact. Only the other day, in adjudicating upon a dispute about the fee for a cataract operation, a *juge de paix* based his decision on the assumption that the fee had been divided between the operator and the practitioner, "such being the custom." This *obiter dictum* has naturally formed the subject of indignant comment in some of the French medical journals, and unquestionably the expression was a most improper one to be uttered from the bench. But the fact that such a deliverance from a judge should be possible must, we fear, be taken as a proof that dichotomy is far from uncommon in France.

THE LATE DR. CROOKE.

WE understand that the family of the late Dr. Crooke have been left in very straitened circumstances, and that a fund is shortly to be formed for the benefit of his widow and child. Dr. Arthur Foxwell and Mr. Gilbert Barling have the matter in hand, and an appeal will probably be made through the columns of the BRITISH MEDICAL JOURNAL to the old friends of Dr. Crooke who may be willing to help. Until such appeal is made Dr. Foxwell, of Newhall Street, Birmingham, has kindly consented to secure and acknowledge any such donations. We have received from Mr. G. A. Wright, F.R.C.S., of Manchester, a cheque for £3 3s., which has been forwarded to Dr. Foxwell.

THE FIRST OVARIOTOMY IN ITALY.

A MONUMENT has just been erected in the surgical amphitheatre of the University of Pisa in commemoration of the fact that it was there that, on September 26th, 1868, ovariotomy was performed for the first time in Italy by Pasquale Landi. Dr. Landi, who was Professor of Clinical Surgery at Pisa, was born in 1817, and died in 1895. He attended King Victor Emanuel, and was the author of some sixty monographs on surgical subjects.

HOMŒOPATHS IN COUNCIL.

THE annual Congress of Homœopathic Practitioners was held at Leicester on June 8th, under the presidency of Dr. Byres Moir, of London. The President delivered an address on The Effects of Modern Therapeutic Researches upon the Position of Homœopathy. He said that homœopathy was directed to bringing distinct law into the use of drugs as therapeutic agents. It is easy enough to formulate distinct laws, but in medicine the difficulty is to get Nature to abide by them. Our homœopathic friends with their "definite laws regulating the choice of medicines" and their "strict rules of practice" must often find themselves in the position of King Canute when he tried to impose a distinct law on the rising tide. Dr. Byres Moir said that the charge which had often been made against homœopaths of neglecting pathology had been frequently met. For that reason probably he seems to have considered himself dispensed from the

necessity of meeting it. But, like a disease played on the whole battery of globules, the charge remains, and we are as curious to know what homœopathic pathology is as Mr. Pecksniff was to learn Mrs. Todgers's idea of a wooden leg. We gather not only from the President's address, but from the remarks of other speakers, that our separated brethren of the homœopathic persuasion are at last awakening to the fact that drugs, even when energised by the dynamic potency imparted by infinitesimal dilution, are not the be-all and the end-all of medical treatment. The homœopathic mind, we are assured, is broadening, and "of late surgery, etc., is being more generally acknowledged by homœopaths." It is to be hoped that surgery will be duly grateful for the honour thus done it. We should be glad, however, to know more of the "etc." which are also coming to be "acknowledged" by homœopaths. "Etc.," like charity, may cover a multitude of sins. We hail these signs of grace with satisfaction. We must, however, enter a protest against a claim made on behalf of Hahnemann that he was the first to teach the necessity of isolation in the treatment of epidemics. The doctrine received its first and fullest scientific expression from Richard Mead; but long before him our forefathers had a very fair grasp of the principle, as they showed in dealing with leprosy. The Congress ended, in accordance with the most orthodox practice, with a dinner which was graced by the presence of the Mayor of Leicester, who is Vice-President of the Congress. Not having been represented we are unable to say whether the conformity to the methods of the "old school" was extended to the details of the repast. A dinner on homœopathic principles would probably be too great a sacrifice to "definite law" for the most devout believer in the Hahnemannian revelation.

THE COUNCIL OF THE COLLEGE OF SURGEONS.

BESIDES Mr. Jessop (Leeds) and Mr. Ward Cousins (Portsmouth) who seek re-election in July only two other names have been received, those of Mr. Herbert Page (St. Mary's Hospital) and Mr. Jordan Lloyd (Birmingham). Mr. Herbert W. Page has been a member since November, 1869, and a Fellow since December, 1871; he is a well-known London surgeon and teacher, and, like the President, he has seen modern surgery on the field, and had the management of a base hospital during the Franco-German war. He is a well-known authority on spinal injuries. Mr. Jordan Lloyd (Member July, 1878, Fellow December, 1880) is a provincial surgeon of high repute, a member of the Council of our Association, and is known to our readers as the author of a remarkable monograph on Injury to the Pancreas: A Cause of Effusions into the Lesser Peritoneal Cavity, read at the Nottingham meeting of the Association in 1892, and published in our second volume for that year, p. 1051. This valuable piece of scientific surgical work soon became known all over the surgical world. Thus, although in some respects many Fellows would have preferred to see the two candidates for re-election returned without opposition, it cannot be denied that the two new candidates are surgeons of high distinction, who have both added much to clinical and scientific surgery.

RESEARCH IN INDIA.

IT will be recollected that on the occasion of the Diamond Jubilee the native Princes of India at the instance of that enlightened Prince the Maharajah of Dholepore, offered to establish a health institute for India. By erecting a monument of this kind it was intended not only to perpetuate the memory of a long and illustrious reign, remarkble for achievements alike in peace and in war, and especially to commemorate the important discoveries in preventive medicine during those sixty years, but also to create a great school of research in India which should investigate the vast problems of health and disease in the East which are still awaiting solution. The work which Professor Haffkine was carrying out in India with reference to the plague and cholera inoculations drew the attention of the Princes to the far-reaching results which may follow laboratory researches, and it was in no small measure the success which attend these inoculations and the hope they raised at a time of great distress that suggested to the Princes the Victoria Health Institute. The proposed institute, though perhaps the most striking, was only one among the philanthropic schemes with which the Indian nobles have identified themselves of late in the interests of their people. To mention the best known example, we have only to refer to the establishment and maintenance of the Lady Dufferin Hospitals throughout India, which owe much of their success to the liberality with which the Indian nobles subscribe to them. For some unknown reason the Indian Government at the time did not see its way to advance the project of the Princes, and the delay became the opportunity of the anti-vivisectionists, whose distorted fancies have seen in the Health Institute a temple of torture. With their usual vivacity and disregard of facts, they have flooded the country with statements as to the horrors likely to follow the establishment of such an institution. A short time ago they memorialised the Viceroy on the subject. The Honorary Secretary of the Indian Anti-vivisection Society has now received a letter from the Private Secretary to the Viceroy, stating that the scheme for the Indian Princes' Victoria Health Institute will not be proceeded with. The Indian Antivivisection Society, whose President is the Honourable Dr. Bula Chundra Krishna, who took a conspicuous part not long ago as an ardent and enthusiastic supporter of medical reform and original research in India, and read a paper on the efficacy of the Haffkine prophylactic, attribute this reply to their peculiar efforts. They have telegraphed their thanks to the Viceroy, and have forwarded a resolution expressing gratification at the abandonment of the scheme, as "the experiments would have been revolting to the feelings of millions of Her Majesty's Indian subjects." Plague and famine have so drained the purses of the Indian Princes that it has been felt for some time past that it would be unfair to allow them to contribute large sums at present to an institution which it is recognised should be largely under Government control. That a Health Institute will sooner or later be established by the Government, assisted perhaps by the munificence of such wealthy native gentlemen as Mr. Tata, whose benefactions we referred to in our issue of April 29th, there can be little doubt. The case is too urgent for long delay, and we are glad to see signs of the Government of India bracing itself to do its duty not only to its own people, but to those countries which have commercial intercourse with India. India is a land of epidemics, and now that steam has shortened its distance from other countries it must adopt scientific methods of checking and investigating epidemics, and this is impossible without an institute such as the Indian Princes projected.

A HORN-DESTROYING FUNGUS.

PROFESSOR MARSHALL WARD has made a very curious observation with regard to the spores of a fungus—onygenia equina—a horn-destroying fungus which he obtained from a cow's horn. It has two kinds of spores, chlamydospores and ascospores. The spore nature of the former, which had not previously been described, was proved by their cultivation in hanging drops, but no difficulty was experienced in getting the ascospores to grow. Others had attempted it and failed, and Professor Marshall Ward was not more successful until he hit upon the expedient of first submitting them to the action of artificial gastric juice. Then they grew on glue and other products of hydrolysis of horn into myce with the production of a mycelium

capable of infecting horn. In communicating these observations to the Royal Society, Professor Ward expressed the opinion that it was evident that the spores of onygenia pass through the body of an animal in nature. He finds that, as might be expected from this, extract of the animal's dung also affords a suitable food medium for the fungus. He thinks it probable that the cattle lick the onygenia spores from their own or each other's hides, hoofs, horns, etc., and suggests that this may explain why the fungus is so rarely observed on the living animal. Very little is known as to the constitution of horn, but Professor Ward has instituted some experiments to try to ascertain what changes the fungus brings about. The research has bearings on the question of the decomposition of hair, horn, feathers, hoofs, etc., used as manure in agriculture, and may be not without significance in throwing light on the destruction of cuticle, hair, etc., by parasitic fungi.

The annual return of the number of experiments on living animals has just been issued. The total number of experiments was 9,151, and of these, 7,640 were inoculations or hypodermic injections.

Sir William Mac Cormac, Bart., K.C.B., President of the Royal College of Surgeons, has been elected an Honorary President of the thirteenth International Medical Congress, to be held in Paris in August, 1900.

The annual *conversazione* of the Royal Society, to which ladies are invited, will be held on Wednesday next.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The Soudan Votes of Thanks, which were passed at the end of last week to Lord Kitchener and his principal officers, gave Dr. Farquharson an opportunity of calling attention to the omission of the name of Surgeon-General Taylor, who had medical charge of the campaign, and whose services had been specially commended by Lord Kitchener. Mr. Balfour attempted to justify the omission on technical grounds. It was not thought well to divide the House, but the protest was well made, and will no doubt bear fruit in the future.

The Adulteration of Tea was recently the subject of a question, in which it was asserted that much of the caper and dust teas imported contain 20 per cent. of earthy matter and sand. The Chancellor of the Exchequer said the Board of Customs had ordered a full inquiry to be made, and if as a result of the investigation it is found necessary, an increased number of inspectors will be employed and more samples will be taken. In the meantime directions have been given to administer existing regulations with special care.

The Troops at Ladysmith, who had been under canvas during the hot weather at an elevation of 5,000 feet, have recently been moved back to the huts for the colder season, when enteric fever is not prevalent. The Under Secretary for War in answering a question on this matter, said that £53,000 had been spent in improving the accommodation at Ladysmith, and orders had been given to apply the largest possible sum to the sanitary requirements of the station.

The Seats for Shop Assistants (England and Ireland) Bill passed through Committee without amendment, and was read a third time in the early hours of Saturday (June 10th). The Bill will now go to the House of Lords, it is hoped to receive more considerate treatment than the similar Bill for Scotland, and most probably to have its scope extended to that country.

The Undersized Fish Bill introduced by Mr. Ritchie and the Lord Advocate is a Government measure, framed in accordance with the report of the Select Committee of 1893, to put a stop to the great injury done to the fishing industry by the sale of immature fish. It provides that no sole or plaice under 8 inches in length, and no turbot or brill under 10 inches in length, shall be sold, under a penalty of £2 for the first offence, and £10 for the second offence. The term "sole" does not include lemon sole.

The Sale of Food and Drugs Bill will not reach the report stage till next week, or even later. In spite of the vigorous criticism which the Bill underwent in the Standing Committee, the opposition is by no means exhausted. It is blocked now by two motions for postponement on report, and by no fewer than four pages of amendments. The Government will be able to carry the measure if they only face the opposition earnestly, and determine that so much time and labour shall not be lost.

The Reformatory Schools Amendment Bill, which Lord Leigh has introduced into the House of Lords, has passed through the Committee stage with slight amendment, and will soon come down to the House of Commons. The Bill seeks to prevent youthful offenders ordered to be sent to a reformatory school being sent in the first instance to prison. The object of the Bill is so obviously humane that it is sure of general support.

Ambulance Service at the House of Commons.—The recent seizure and death of Dr. Wallace has called attention to the need of an ambulance in the Palace of Westminster. When both Houses are sitting and any great political excitement prevails, there are often between 2,000 and 3,000 persons in and about the buildings. It is important that in case of accidents proper provision for the removal of a sufferer should be ready to hand, and it is understood that the authorities of the House have decided to provide an ambulance.

The Feeble-minded Children have had their Bill kept back for some time, but the period of waiting is drawing to a close, and it is hoped that the Bill may be introduced in the House of Lords on an early day next week.

The Oysters Bill, which is waiting for the Committee stage in the House of Lords, is exciting a good deal of opposition. There seems to be a rather widespread and ominous objection to the interference of local authorities with the oyster beds, and a preference for the inspection and testing to be in the hands of the Local Government Board. It is feared that this desire to throw all the work on the central authority may imperil the chances of the Bill, and postpone a valuable sanitary reform.

The London Hospital Bill, which was noticed in this column some time back, passed its third reading in the House of Commons on Tuesday last, and only awaits the Royal assent.

The Midwives Bill was down for Wednesday last, as was also the **Vaccination (Conscientious Objectors) Bill,** but the Education of Children Bill, which passed its third reading, and the Service Franchise Bill, took up so much time that all the other orders of the day had to be postponed. As the Government have given notice to take more of the time of the House next week, we are not likely to hear much more this session of the Midwives Bill.

A "Non-Combatant" in Action.—In his report of the recent action in Samoa, where both British and American naval officers were killed, Captain White of the *Philadelphia* speaks as follows concerning the conduct of Passed Assistant-Surgeon G. A. Lung, United States Navy: "At times when the fire from the concealed natives was thickest, and at all times by his example, he encouraged the young and inexperienced men to the proper performance of their duty. On the completion of the work of his profession, he assumed command of our bluejackets, and marched them to the United States Consulate."



Haslar Hospital: Main Entrance.

SIXTY-SEVENTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

PORTSMOUTH, 1899.

The 67th annual meeting of the British Medical Association will be held at Portsmouth on August 1st, 2nd, 3rd, and 4th.

The Southern Branch.

Many years ago the members of the profession endeavoured to establish a Branch of the Provincial Medical and Surgical Association in Hampshire, and a preliminary meeting was held at the Southampton Dispensary on November 29th, 1836. Seventy gentlemen attended from all parts of the district, and among those present were many well-known physicians and surgeons of that day, including Dr. Forbes of Chichester, Messrs. Mayo and Wickham of Winchester, Mr. Henry Coates of Salisbury, and Dr. Engledue of Portsmouth. The Branch extended over a very large area, and many practitioners residing in Hampshire, Wiltshire, Dorsetshire, Sussex, Surrey, Berkshire, and the Isle of Wight were elected members. For several years annual meetings were held in the month of June at one of the principal towns: but no records have been preserved to show what the Branch did to advance medical science or to promote the interests of the parent Association, and it appears to have dissolved away after a short existence.

The present flourishing Southern Branch of the Association was established a quarter of a century ago. A general meeting of the medical profession and the surrounding neighbourhood was held on June 27th, 1874, at the School of Science and Art, to take into consideration the formation of a Branch of the British Medical Association. The chair was occupied by the late Mr. W. H. Garrington, and twenty-four medical practitioners were present.

At this meeting the preliminary arrangements were unanimously agreed to, and in a few days the number of members enrolled amounted to fifty, and invitations were issued to the medical men of Hants, Dorset, South Wiltshire, and the Isle of Wight.

In a short time a very successful result was obtained, and the membership of the Branch extended rapidly through this large area. On May 14th, 1874, a meeting of the members assembled at the residence of Dr. Trend, Southampton, at which the proposed organisation was fully discussed. It was then determined to divide the area into separate districts, having power to elect their own officers, and hold independent meetings for the promotion of the objects of the British Medical Association. It was, moreover, decided to hold an annual general meeting during the summer of every year, at one of the principal towns, and to entrust the general management of the Branch to a council composed of members of the various districts.

The first annual meeting of the Southern Branch was held on July 9th, at Southsea. The late Inspector General Sir William Smart, K.C.B., M.D., was elected the first president, and delivered the inaugural address. Dr. Ward Cousins held the post of general honorary secretary and treasurer from the formation of the Branch until 1893, when he was appointed President of the Council of the Association. He was succeeded by Dr. Trend, who resigned in 1895. The office is now held by Mr. H. J. Manning, of Salisbury.

The total number of members of the Southern Branch now amounts to 231.

The Invitation to the Association.

The proposal to entertain the Association at Portsmouth has been under consideration since 1896. Last year a large meeting of the local profession was held, and it was then resolved that, with the approval of the Mayor and Corporation of Portsmouth, the invitation to the Association should be presented at Edinburgh. This was done on July 28th last, when it was cordially accepted.



Royal Portsmouth Hospital

GENERAL ARRANGEMENTS.

Officers.—The President-Elect is John Ward Cousins, F.R.C.S., M.D.Lond., Senior Surgeon to the Royal Portsmouth Hospital, and the South Hants Eye and Ear Infirmary. An Address in Medicine will be given by Sir Richard Douglas Powell, Bart., M.D., F.R.C.P., Physician-Extraordinary to the Queen. An Address in Surgery will be given by Dr. Alexander Ogston, Professor of Surgery in the University of Aberdeen. The Local Honorary Treasurers are Dr. James Watson, Physician to the Royal Portsmouth Hospital, and Mr. F. Way, and the local Honorary Secretaries are Dr. C. C. Claremont, Elm Grove, Southsea, and Mr. C. P. Ruel, Kent Road, Southsea.

PLACES OF MEETING.

The general meetings on Tuesday, Wednesday, and Friday, and the annual dinner of the Association on Thursday will be held in the Town Hall. The general meeting on Thursday will be held in the Albert Hall. The sectional meetings and the annual museums will be accommodated in convenient rooms in the immediate neighbourhood of the Town Hall. The main reception room will be arranged about two minutes' walk from the hall, and in a department of the same building an arrangement will be made for the distribution of the excursion tickets. Special accommodation for ladies will be provided, and reception and tea rooms will be set apart for their use.

BUSINESS OF THE MEETING.

On Tuesday, August 1st, the Council will meet in the Council Chamber, Town Hall, at 9.30 A.M. At 11 A.M. a special service will take place at St. Mary's Church, Kingston, at which the Right Rev. Dr. Davidson, Lord Bishop of Winchester, will preach the sermon. The first general meeting will be held in the Town Hall at 2.30 A.M., when the report of the Council will be presented. At 8.30 P.M. the Association will reassemble in general meeting in the Town Hall to hear Dr. Ward Cousins's presidential address.

On Wednesday, August 2nd, the first meeting of the Council for 1899-1900 will take place in the Council Chamber, Town Hall. The Sections will meet in the appointed rooms from 10 A.M. to 1.30 P.M. At 2.30 P.M. the second general meeting will be convened in the Town Hall, when the Address in Medicine will be delivered by Sir Douglas Powell, Bart., and the general business of the Association continued. In the afternoon various garden parties and local excursions will take place. During the evening a reception and concert will be given by the Local Committee and Army Medical Officers on Southsea Pier.

On Thursday, August 3rd, the Council will meet at 9.30 A.M., and the Sections will continue their sittings from 10 A.M. to 1.30 P.M. At 2.30 P.M. the third general meeting will take place at the Albert Hall, when the Address in Surgery will be delivered by Professor Alexander Ogston, M.D. Later in the afternoon various local excursions and garden parties will be arranged. At 7.30 P.M. the annual dinner of the Association will take place in the Town Hall, and accommodation will be provided for 350 guests. At 9.30 P.M. the Mayoress will hold a reception.

On Friday, August 4th, the concluding general meeting will be held at 10 A.M. in the Town Hall, and the Sections will continue their sittings from 11 A.M. to 1.30 P.M. During the afternoon local excursions will take place, and in the evening a reception and ball will be given by the Mayor and Mayoress of Portsmouth.

HASLAR HOSPITAL.

Haslar is the chief naval hospital in the country. It is situated in the parish of Alverstoke, immediately north of Gosport, from which it is separated by a narrow creek. The total area of the hospital grounds is 58½ acres, and the building forms three sides of a square. Each side is over 500 feet in length. It was originally intended that the square should be completed, but that has never been carried out. At present it is calculated to have space for 1,500 patients. The average number under treatment is from 700 to 800, including sick

officers. All naval officers on full, half, or retired pay are eligible for admission if sick, and they receive treatment and everything for their comfort at the charge of 2s. 6d. a day. Sailors, pensioners, marines, and the men employed in H.M. Dockyard are also eligible for admission.

The hospital is the largest in the country if we reckon by the number of beds. The reason why provision was made for so large a number of patients is said to have been the number of cases of scurvy occurring in the fleet during the last century.

The erection of the building occupied several years. It was commenced in 1746, and was finished in 1762. The principal entrance — represented in the engraving (p. 1493) —is situated in the centre of the north-east front, and on each side of it are the offices of administration. The original sanitary arrangements were very imperfect, but of late years very great improvements have been carried out at the cost of about £1,600. The warming and ventilation of the wards have also undergone many alterations, and the wards have been divided by a corridor which runs through the centre of each floor. On the top storey a large and commodious kitchen has been constructed. All the cooking is done by gas and steam. The water supply is ample, and is obtained from a well some distance from the hospital, and about 320 feet deep. The water is pumped up to a high tower which has only recently been constructed.

The staff consists of an inspector-general of hospitals and fleets, two deputy-inspector-generals, two fleet-surgeons or staff-surgeons, and four or five surgeons. The attendants on the sick were formerly all male nurses, but recently female nurses have been introduced.



Esplanade, Southsea, showing Victory's Anchor, Pier, and Hotel.



Portsmouth Harbour, with Victory and St. Vincent.

THE ROYAL NAVY MEDICAL SCHOOL.

Haslar is the home of the Naval Medical School, through which all young surgeons entering the navy have to pass. Besides doing duty in the wards, they attend a systematic course of lectures on hygiene in connection with naval duties, and pass through practical work in the chemical and microscopic laboratories. The course lasts four months, after which the young surgeons are drafted off to other stations or ships as their services may happen to be required.

THE ROYAL VICTORIA HOSPITAL, NETLEY.

The Royal Victoria Hospital, Netley, is styled on the foundation stone the "Victoria Military Hospital." It is situated on the east side of Southampton Water, about eighteen miles from Portsmouth, and is the head quarters of the Army Medical Staff and the Army Medical School. The site was chosen after the Crimean war by a special committee appointed for the purpose. The institution is the general invaliding hospital of the army, and it contains accommodation for about 980 patients. Invalids from abroad are landed directly on the pier opposite the building.

The Medical Staff Corps consists of three quartermasters and twenty non-commissioned officers and men under the control of a resident surgeon-general. There is also a staff of nursing sisters. The staff of officers includes six medical officers of the army and the professors of the Army Medical School.

THE ARMY MEDICAL SCHOOL.

The surgeons, on entering the army, attend for some months the Army Medical School, and also do duty in the wards of the Royal Victoria Hospital under the supervision of the medical staff. The school is in session during eight months of the year.

ROYAL PORTSMOUTH HOSPITAL.

This institution is the general hospital of the town and surrounding district, and has been in existence more than half a century. In 1846 the Board of Ordnance presented the town with a grant of land near the turnpike road leading from Portsmouth to London. The foundation stone of the hospital was laid in 1847 by the late Prince Consort, and the following year it was opened for the accommodation of twenty patients.

When the Contagious Diseases Act came into operation the Government erected on the site three additional blocks for the treatment of lock patients. On the suspension of the Act these blocks were no longer required, and after being repaired and remodelled the committee of management appropriated them for the extension of the civil hospital. It has been decided to erect a complete new hospital on the present site, which has an area of about four and a half acres. During the past eighteen months the first part of the new building has been completed and splendid accommodation has been provided for eighty additional patients. At the present time the old and new are standing side by side, and members visiting Portsmouth in August next will have an opportunity of seeing the institution and examining under very favourable conditions the ideas of hospital instruction which prevailed half a century ago and the latest scientific developments.

HOTELS AND LODGING ACCOMMODATION.

Portsmouth and Southsea are full of very convenient hotels, but as the annual meeting of the Association will be held at the beginning of the Southsea season, members are recommended to make early application. The principal hotels facing the sea are the Queen's, Imperial, Pier, Esplanade, Grosvenor, and Royal Southsea Beach Mansions. A complete list will appear shortly in the BRITISH MEDICAL JOURNAL.

GOLF.

Members of the Association attending the meeting will be made honorary members for the week of the United Service Golf Club at Haslar, of the Royal Isle of Wight Golf Club at Bembridge, the Royal Winchester, and the Hayling Island and Petersfield Golf Clubs. A medal will be offered for competition under handicap on the United Service Course at Haslar. It is also proposed to organise on Saturday, August 5th, an international match between representatives of Scotland and the rest of the British Medical Association. A limited number of the best golfers in the profession will be asked to compete by match play from scratch. Those who are desirous of taking part in either or both competitions are requested to send their names to Dr. R. H. Blaikie, 42, Minto Street, Edinburgh, who will act for Scotland; or to Dr. Walter Reid, R.N., Alverstoke, Hants, who will act for England and elsewhere. Major Dumbleton, R.E., will act as referee. Further particulars will be announced later.

EXCURSIONS.

Saturday will be devoted to pleasure, and the following trips have been arranged by Dr. Lysander Maybury and the members of the Excursion Committee.

1. *Salisbury and Stonehenge.*—The visitors will travel by train to Salisbury, and will there be entertained at luncheon by the resident members of the Southern Branch. After a visit to the Cathedral, the party will go by coach to Stonehenge, and thence to Amesbury, where tea will be provided by Dr. P. J. Bancroft. The party will return by coach to Salisbury.

2. *Winchester.*—By rail to this interesting and historic city, and there the visitors will be entertained at luncheon and tea by the members of the Winchester District of the Southern Branch. During the afternoon the Cathedral, Winchester College, and St. Cross will be visited.

3. *Isle of Wight and Ventnor.*—By boat from Southsea Pier to Cowes, and thence by coach to Carisbrooke and Ventnor, *viâ* Blackgang and the Undercliff, through some of the most picturesque scenery of the island. Luncheon will be provided at Carisbrooke, and tea at Ventnor. The party will be invited to visit the Royal National Hospital for Consumption. The return journey will be by coach to Sandown, and then by rail to Ryde.

4. *Southampton and the New Forest.*—By boat from Southsea Pier to Southampton, thence by carriage, *viâ* Tatton, Bartley, Cadnam, Stoney Cross, Rufus's Stone, and Bolderwood. Luncheon at Lyndhurst. Return by coach to Southampton, and thence by boat to Southsea.

We are indebted to Mr. C. H. Newby, F.R.C.S., for the accompanying illustrations.

GENERAL MEETINGS AND SECTIONS.

THE following are the arrangements for the general meetings, and for the business of the Sections:

President: Sir THOMAS GRAINGER STEWART, M.D., LL.D., F.R.S.E., Professor of Practice of Medicine and Clinical Medicine in the University of Edinburgh, Physician in Ordinary to Her Majesty the Queen for Scotland, Edinburgh.

President-Elect: JOHN WARD COUSINS, M.D., F.R.C.S., Senior Surgeon, Royal Portsmouth Hospital.

President of the Council: ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Physician to the General Hospital, Birmingham.

Treasurer: CHARLES PARSONS, M.D., Dover.

An Address in Medicine will be delivered by Sir RICHARD DOUGLAS POWELL, Bart., M.D., F.R.C.P., Physician Extraordinary to Her Majesty the Queen, Physician to Middlesex Hospital.

An Address in Surgery will be delivered by Professor ALEXANDER OGSTON, M.D., Surgeon in Ordinary to Her Majesty the Queen in Scotland, Regius Professor of Surgery in the University of Aberdeen.

The scientific business of the meeting will be conducted in twelve Sections, as follows, namely:

A. MEDICINE.

Grand Jury Room, Town Hall.

President: JOHN MITCHELL BRUCE, M.D. *Vice-Presidents:* EDWARD JAMES WALLACE, M.D.; ROBERT WILLIAM BURNET, M.D. *Honorary Secretaries:* WILLIAM SYKES, M.D., Bury Place, Gosport; HUMPHRY DAVY ROLLESTON, M.D., 112, Harley Street, W.

Discussions have been arranged as follows:

1. Wednesday, August 2nd.—On the Medical Tests required at present for Admission to the Public Services. It is hoped that this will be opened by Sir J. N. Dick, K.C.B. Professor W. Osler, Sir Dyce Duckworth, Dr. P. Manson, Dr. J. Mitchell Bruce, Dr. R. W. Burnet, Dr. T. D. Savill, Major W. Turner, R.A.M.C. (Gibraltar), Dr. Wm. Sykes, Dr. Hill, and Dr. E. J. Wallace, have promised to take part in this discussion.

2. Thursday, August 3rd.—On the Preventive and Remedial Treatment of Tuberculosis. The discussion will be opened by Professor T. Clifford Allbutt, M.D., F.R.S. It is hoped that Sir William Broadbent, Bart., M.D., F.R.S., Sir R. Douglas Powell, Bart., M.D., Sir T. Grainger Stewart, M.D., Sir W. T. Gairdner, M.D., K.C.B., Dr. Arthur Ransome, F.R.S., Dr. F. W. Burton-Fanning, Dr. Heron, Dr. R. Robertson, Mr. A. G. S. Mahomed, Dr. Alex. G. Davey, Dr. J. E. Squire, Dr. Browning, Dr. H. Walsham, Dr. G. A. Reid, Dr. W. Morton Harman, Dr. S. T. Pruen, Dr. Frank M. Pope, Dr. R. W. Philip, Sir H. R. Beevor, Dr. S. Rendall, Dr. W. Vicary Snow, Dr. Wm. Calwell, Dr. R. Shingleton Smith, Dr. Williamson, and Dr. M. G. Foster, will take part in the discussion.

The following papers have been offered:

BAIN, W., M.D. (1) The action of certain British and Foreign Mineral Waters on the Quadriurate of Sodium. (2) An Experimental Contribution to the Study of Gout.
BRISCOE, J. F., M.R.C.S. The Practice of Bloodletting.
CALWELL, W., M.D. Gastric Adhesions as a Cause of Dyspepsia.
GARDNER, W. T., M.B. Notes on the Open-Air Treatment of Phthisis with Photographs of a new form of Kiosk.
HAIG, Alexander, M.D. Uric Acid and the Circulation; some New Methods of Estimating its Effects.
HUTCHINSON, Professor Woods. On the Form of the Chest in Tuberculosis and its Significance.
JOHNS, W. Denton, B.A., M.D. On the Open-air Treatment of Tuberculosis in England (with demonstration of cured cases).
LUFF, A. P., M.D. The Gelatinous Form of Sodium Biurate and its bearing on the Pathology of Gout.
MACLEOD, Herbert G., M.D., M.S. The Causes and Treatment of Sciatica and Neuralgia.
OSLER, Professor W. On Hypertrophic Cirrhosis with Bronzing of the Skin—Hæmochromatosis.
POYNTON, F. J., M.D. The Occurrence of Arthritis in connection with Inflammation of the Appendix Vermiformis.
PRUEN, S. T., M.D. Diet and Nutrition in the Treatment of Tuberculosis.
SYKES, William, M.D. A Suggestion for the Treatment of Phthisis Pulmonalis on the Lines of one of its Normal Terminations.

B. SURGERY.

Banqueting Room, Town Hall.

President: HENRY TRENTHAM BUTLIN, F.R.C.S. *Vice-Presidents:* Deputy-Inspector-General RICHARD SAMUEL PURNELL

GRIFFITHS, R.N.; ALFRED LLOYD OWEN, M.D. *Honorary Secretaries:* HENRY RUNDLE, F.R.C.S., 13, Clarence Parade, Southsea; D'ARCY POWER, F.R.C.S., 10A, Chandos Street, Cavendish Square, W.

Special discussions will be held upon:

1. The Diagnosis and Treatment of Gunshot Wounds of the Abdomen. To be opened by Colonel Stevenson, M.Ch., R.A.M.C., Professor of Military Surgery at Netley, followed by Mr. A. Barry Blacker, Dr. A. H. Robinson, Major W. C. Beevor, R.A.M.C., Damer Harrisson, F.R.C.S., and others.

2. The Prevention and Treatment of Syphilis in the Navy and Army. To be opened by Deputy-Inspector-General Griffiths, R.N., Royal Naval Hospital, Haslar, and Major W. Dick, M.B., C.M., R.A.M.C., Netley, Assistant Professor of Clinical Surgery, Netley. The following gentlemen have intimated their intention to take part in the discussion: Fleet-Surgeon A. T. Corrie, R.N., Dr. C. R. Drysdale, Major F. J. Lambkin, R.A.M.C., Mr. J. E. Lane, Dr. J. MacNamara, Major William Niven, M.D., Dr. G. Ogilvie, Dr. Shaw-Mackenzie, Mr. A. H. Ward, Colonel F. H. Welch, R.A.M.C., and Staff-Surgeon A. E. Weightman, R.N.

The following papers have been offered:

ARMSTRONG, G. E., M.D. The Surgical Treatment of Hæmorrhage from Gastric Ulcer.
BARLING, Gilbert, F.R.C.S. Analysis of 120 Operations for Appendicitis with Observations thereon.
BIDWELL, L. A., F.R.C.S. A Method of attaching the Mucous Membrane to the Skin of the Perineal Excision of the Rectum.
CARWARDINE, Thomas, M.S. On Excision of the Rectum for Cancer by a New Method and its Results.
CLARKE, J. Jackson, F.R.C.S. An Analysis of 100 Cases of Spinal Curvature and Disease.
FREYER, P. J., M.Ch. Recent Notes on the Surgery of Stone in the Bladder.
HARRISSON, Damer, F.R.C.S. Some Cases of Cerebral Surgery (With lantern illustrations).
HUTCHINSON, J., jun., F.R.C.S. The Vermiform Appendix in Relation to Hernia and Intestinal Obstruction. Illustrated by lantern slides and diagrams.
MACLEOD, Herbert W. G., M.D., M.S. The Treatment of Stone in the Bladder, with Notes of some Cases operated upon.
MOYNIHAN, B. G. A., F.R.C.S. A Series of Cases of Malignant Disease of the Stomach treated Surgically.
OGILVIE, G., B.Sc., M.B., M.R.C.P. Heredo-parasyphilis.
REID, G. Archdall, M.B. The Treatment of Surface Wounds.
RUNDLE, H., F.R.C.S. Notes on 375 Cases of Varicocele treated by Operation.
RYALL, Charles, F.R.C.S. Notes of a Case of Extensive Trans-Sacral Excision of the Rectum followed by Perfect Sphinteric Control.
SHEEN, W., M.D., F.R.C.S. (1) A Case of Secondary Thyroid Growth. (2) A Case of Malignant Disease in the Sac of an Umbilical Hernia.
SNOW, Herbert, M.D. The Result of Cancer Operations and of Continuous after Treatment.
SPENCER, W. G., F.R.C.S. Two Fatal Cases of Venereal Phagedæna.
THOMAS, J. L., F.R.C.S. (1) Two Recent Operations upon the Gasserian Ganglion for Neuralgia by the Hartley Krause Route. (2) A Reliable Washing Tap for Operating Rooms, with a Demonstration of a Simple Method for Irrigating the Abdomen.
WARD, A. H., F.R.C.S. On the Rational Treatment of Syphilis.
WILLIAMS, W. Roger, F.R.C.S. The Surgical Treatment of Uterine Cancer.

Mr. Jas. Mackenzie Davidson and Dr. Hugh Walsham will take part in a demonstration of X-Ray Photography in its Relation to Medicine and Surgery.

C. OBSTETRICS AND GYNÆCOLOGY.

Marylebone Hall, Swan Street.

President: GEORGE GRANVILLE BANTOCK, M.D. *Vice-Presidents:* JOHN ROBERT KEALY, M.D.; JOHN WM. TAYLOR, F.R.C.S. *Honorary Secretaries:* CHARLES PLUMLEY CHILDE, F.R.C.S., Cranleigh, Kent Road, Southsea; ERNEST WILMER PHILLIPS, M.R.C.S., Victoria Crescent, Victoria Road North, Southsea; WALTER WM. HUNT TATE, M.D., 57, Queen Anne Street, W.

The subjects selected for discussion are as follows:

1. Wednesday, August 2nd.—The Treatment of Fever following Delivery, with Special Reference to Serumtherapy. To be opened by Dr. Herbert Spencer.

2. Thursday, August 3rd.—The Natural Menopause compared with *(a)* the Menopause produced by Removal of the Uterine Appendages; and *(b)* the Menopause produced by Removal of the Uterus without Removal of the Appendages. To be opened by Mr. J. Bland Sutton, F.R.C.S.

The following gentlemen have signified their intention of joining in the discussions: Professor Murdoch Cameron, Dr. John Campbell, Dr. Cushing, Dr. Handfield-Jones, Dr. Shaw-Mackenzie, Mr. Christopher Martin, Dr. Newnham, Dr. Inglis Parsons, Dr. Purslow, Professor J. W. Byers, Dr. George Elder, and Dr. More Madden.

The following papers have been offered:

BYERS, Professor J. W. The Relationship of Certain Cases of Amenorrhœa to Raynaud's Disease and Subsequent Tuberculosis.
CAMERON, Professor Murdoch. A case of Rupture of Uterus, Missed Labour, and Delivery three months later.
CAMPBELL, John, M.D. Treatment of Acute Peritonitis.
MADDEN, More, M.D. On Some of the Methods employed in the Modern Treatment of Uterine Cancer.
NEWNHAM, W. H. C., M.B. A case of very unusual Suppuration in the Pelvis after Parturition.
PARSONS, J. Inglis, M.D. A New Treatment for Prolapse of the Uterus; further report of cases.
REID, G. Archdall, M.B. The Causes which render difficult the Labours of Civilised Women.
SHAW-MACKENZIE, J. A., M.D. The Syphilitic Factor in the Diseases of Women.
TURNER, P. D., M.D. Tuberculous Lesions found in the Generative Organs in 27 Consecutive *Post-mortem* Examinations on Phthisical Patients.

It has been arranged to exhibit pathological specimens illustrative of the papers for discussion.

D. STATE MEDICINE.

Shareholders' Room, Gas Offices.

President: GEORGE WILSON, M.D. *Vice-Presidents:* Surgeon-General CHARLES MACDONAGH CUFFE, C.B.; JOSEPH GROVES, M.B. *Honorary Secretaries:* HENRY RICHARD KENWOOD, M.B., Granville House, Alexandra Villas, Finsbury Park, N.; A. MEARNS FRASER, M.B., Epworth, St. Edwards Road, Southsea.

It is proposed to hold discussions on the following:

1. Recent Vaccination Legislation and the Prevention of Small-pox. To be opened by Dr. E. Seaton.

2. The Personal Communication of Tuberculosis and the Measures available for its Prevention. The following gentlemen will take part in the discussion: Sir Henry Littlejohn, M.D., LL.D.; Professor Delépine, Dr. A. Newsholme, Mr. J. Niven, Dr. Sidney Davies.

3. The Efficiency of Existing Measures directed against the Spread of Infection in Elementary Schools. The following gentlemen will take part in the discussion: Dr. A. Newsholme, Mr. A. E. Harris, Dr. J. F. J. Sykes, Dr. Sidney Davies, Mr. Henry R. Kenwood.

The following papers have been offered:

CANTLIE, James, F.R.C.S. The Early Decay of Teeth in Great Britain.
DOVE, — M.D. The Hygiene of Schools and Scholars.
KENWOOD, Henry, M.B., D.P.H., and GRIFFITH, A., M.D., D.P.H. The Distribution of Erysipelas in London and its Significance.
MANBY, E. Petronell, M.D., D.P.H. Meat Inspection and the Abolition of Private Slaughterhouses.
MARSDEN, A. Sydney, M.B., D.Sc., F.R.S.E. Overcrowding in Secondary Schools.
MARSH, T. A. P., Major, R.A.M.C. The Prevalence, Causes, and Prevention, of Enteric Fever in India and the Tropics.

E. PSYCHOLOGY.

Swan Street Board School (Boys' School).

President: DAVID NICOLSON, C.B., M.D. *Vice-Presidents:* SAMUEL RUTHERFORD MACPHAIL, M.D.; PETER WILLIAM MACDONALD, M.D. *Honorary Secretaries:* JAMES NEIL, M.D., Warneford Asylum, Oxford; BONNER HARRIS MUMBY, M.D., Medical Superintendent, Boro' Asylum, Portsmouth.

The subjects selected for discussion are as follows:

1. Lunacy Legislation as it Affects the Temporary Care of Incipient Cases. To be opened by Dr. Savage.

2. The Etiological Relation of Syphilis to General Paralysis. To be opened by Dr. A. W. Campbell.

3. The Treatment of Epileptics and Imbeciles. To be opened by Dr. Shuttleworth.

The following papers have been offered:

BRAMWELL, J. Milne, M.B. On Some Points in Hypnotism.
BRISCOE, J. F., M.R.C.S. The Asphyxial Problem in Convulsive Seizures.
HYSLOP, T. B., M.D. Double Consciousness.
MACDONALD, P. W., M.D., and DAVIDSON, A., will jointly contribute a paper on Congenital General Paralysis—a preliminary contribution.
REID, G. Archdall, M.B. Alcoholism in its Relation to Heredity.
SUTHERLAND, J. F., M.D., F.R.S.E. On Legislation affecting the Property and Person of the Well-to-do Inebriate.
WEATHERLY, L. A., M.D. How Can We Instil Rational Ideas Regarding Insanity into the Public Mind?

F. ANATOMY AND PHYSIOLOGY.

School Board Office, Town Hall.

President: JOHN JAMES CHARLES, M.D. *Vice-Presidents:* AURELIUS VICTOR MAYBURY, M.D.; ANDREW FRANCIS DIXON, M.B. *Honorary Secretaries:* EDWIN JOHN NORRIS, M.R.C.S., May Villa, Cottage Grove, Southsea; WM. JOSEPH

ESSERY, M.B., Netley Lodge, South Parade, Southsea; MARCUS SEYMOUR PEMBREY, M.D., Charing Cross Hospital, W.C.

The subjects selected for discussion are as follows:

1. The Interaction between the Ovaries and the Mammary Glands. To be opened by Mr. Stanley Boyd, F.R.C.S. The following gentlemen have promised to take part in the discussion: Dr. Amand Routh, Mr. W. G. Spencer, F.R.C.S., and others.

2. On the Exchange of Gases in the Lungs. To be opened by the President. The following gentlemen have promised to take part in the discussion: Dr. Washbourn, Mr. W. G. Spencer, and others.

The following papers have been offered:

ANDERSON, R. J., M.D. Some Points concerning Asymmetry.
BARRATT, J. O. Wakelin, M.D. The Anatomical Structure of the Ninth, Tenth, Eleventh, and Twelfth Cranial Nerves.
CANTLIE, James, F.R.C.S. The Lobes of the Liver.
CHARLES, J. J., M.D. (1) The Reaction of the Intestinal Contents. (2) The Function of the Rectum.
CHARLES, Havelock R., M.D. The Progress of Anatomical Teaching in Northern India.
CUNNINGHAM, D. J., M.D., F.R.S. Demonstration of some Points in the Sectional Anatomy of the Brain of the Orang and Chimpanzee.
DIXON, Francis, M.B., Sc.D.: (1) The Course of the Taste Fibres. (2) On the Grooves and Markings often found in the Human Calvaria, corresponding in position to certain Vessels or Sensory Nerves of the Scalp. (3) The Form of the Bladder and Prostate (demonstration). (4) The Mode of Ossification of the Upper End of the Femur in different Animal Groups (demonstration).
HARLEY, Vaughan, M.D. The Value of the Large Intestine in General Metabolism.
HUNTER, William, M.D. Metabolism in Acute Yellow Atrophy of the Liver.
THOMAS, J. Lynn, F.R.C.S. The Anæsthetic Areas in two Patients in whom the Second and Third Divisions of the Fifth Nerve were divided within the Cranium (demonstration).
PEMBREY, M. S., M.D. Cheyne-Stokes Respiration.
REID, G. Archdall, M.B. The Evidence for and against the Transmission of Acquired Characters.
ROSS, F. W. Forbes, M.D. On Blood Corpuscles.
RUSSELL, J. S. Risien, M.D. Experimental Observations bearing on Epilepsy.

Specimens of anatomical interest will be shown by the President and Professor A. F. Dixon.

A demonstration (microscopes and lantern slides) of the chorionic epithelium will be given by Dr. Eden.

G. PATHOLOGY.

Swan Street Board School (Infants' School), entrance in Salem Street.

President: JOSEPH FRANK PAYNE, M.D. *Vice-Presidents:* FREDERICK JOHN DRIVER, M.D.; OTTO JACKSON KAUFFMANN, M.D. *Honorary Secretaries:* EDMUND FAURIEL TREVELYAN, M.D., 40, Park Square, Leeds; WILLIAM CARLING, M.B., 11, Rosebery Terrace, Highland Road, Southsea.

Discussions have been arranged as follows:

1. The Pathology of Infective Endocarditis. To be introduced by Dr. Washbourn.

2. The Morbid Anatomy of Renal Tumours. Mr. Targett will assist in the introduction, and Mr. Morley Fletcher and Mr. Roger Williams will take part in the discussion.

The following papers have been offered:

FOULERTON, A. G. R., F.R.C.S. Title of paper not received.
REID, G. A., M.B. Effects of Heredity in Disease.
WILLIAMS, W. Roger, F.R.C.S. On Tumours of Gigantic Size, etc.
WOHLMANN, A. S., M.D. On the Bacillus of Rheumatoid Arthritis.

H. OPHTHALMOLOGY.

Overseers' Board Room, St. Michael's Road.

President: SIMEON SNELL, F.R.C.S.Edin. *Vice-Presidents:* LYSANDER MAYBURY, M.D.; EDWARD TREACHER COLLINS, F.R.C.S. *Honorary Secretaries:* ARTHUR VERNON FORD, M.R.C.S., South View Lodge, Kent Road, Southsea; ARNOLD LAWSON, F.R.C.S., 12, Harley Street, W.

The subjects selected for discussion are as follows:

1. The Visual Tests employed in the Navy, Army, and Mercantile Marine, and their Efficiency. To be opened by Deputy-Surgeon-General Henry Cayley, F.R.C.S., I.M.S.

2. The Pathological Significance of Sympathetic Irritation and its Connection, if any, with Sympathetic Ophthalmitis. To be opened by Mr. F. Richardson Cross, F.R.C.S.

The following gentlemen have signified their intention of taking part in the discussions: Mr. G. Anderson Critchett, Professor Malcolm McHardy, Dr. George Mackay, Mr. Devereux Marshall, Mr. A. Stanford Morton, Mr. H. E. Juler, and Mr. T. H. Bickerton.

The following papers have been offered:

COLLINS, E. Treacher, F.R.C.S. A lantern slide demonstration of the Changes Produced in Eyes by various Operative Procedures.
HINSHELWOOD, James, M.D. The Use of Euphthalmin; a new Mydriatic in Ophthalmic Practice.
LANDOLT, Professor Edm. The Determination of Visual Acuity: (*a*) The Principle of its Determination; (*b*) the Tests for Visual Acuity; (*c*) Practical Demonstration.
LAWSON, Arnold, F.R.C.S. The Correction of Refractive Errors in the Treatment of Trachoma.
SCOTT, Kenneth, F.R.C.S.Ed. (Title not yet communicated.)

Invitations to attend the meetings of the Section have been accepted by Dr. Hermann Knapp (New York), Dr. Samuel Risley (Philadelphia), Dr. de Schweinitz (Philadelphia), Dr. Theobald (Baltimore), Dr. Ayres (Cincinnati).

I. DISEASES OF CHILDREN.

Shareholders' Room, Water Company's Offices.

President: EDMUND OWEN, F.R.C.S. *Vice-Presidents:* JAMES GREEN, M.R.C.S.; DAWSON WILLIAMS, M.D. *Honorary Secretaries:* ALFRED HERBERT TUBBY, M.S.Lond., 25, Weymouth Street, Portland Place, W.; GEORGE AUGUSTUS TULLIS, M.D., 20, Clarence Parade, Southsea.

The subjects selected for discussion are as follows:

1. Wednesday, August 2nd.—On the Treatment of Ununited Fracture in Children. To be opened by the President of the Section.

2. The Treatment of Pleuritic Effusions in Childhood. To be opened (*a*) Medical, by Dr. Robert Maguire, and (*b*) Surgical, by Mr. H. Betham Robinson. The following gentleman will join in the discussion: Mr. J. McGaw, Mr. C. H. Milburn, and Dr. E. H. Greves.

3. Thursday, August 3rd.—The Causation and Treatment of Convulsions in Infancy. To be opened (*a*) Etiology, by Drs. J. A. Coutts and A. M. Gossage; (*b*) Pathology and Treatment, by Dr. W. S. Colman; and (*c*) Public Health Aspect, by Dr. Hugh Jones. The following gentlemen will join in the discussion: Dr. Edmund Cautley.

4. Friday, August 4th.—The Treatment of Inguinal Hernia in Infancy and Childhood. To be opened by Mr. John Langton, F.R.C.S., The following gentlemen will join in the discussion: Mr. J. Macready, F.R.C.S., Mr. Fred. Eve, F.R.C.S., Mr. D'Arcy Power, F.R.C.S., Mr. Robert Campbell, F.R.C.S., Mr. Henry A. Whitelock, F.R.C.S., Mr. Geo. Heaton, F.R.C.S., and Mr. Wm. Thomson, B.S., F.R.C.S.

The following papers have been offered:

CAUTLEY, Edmund, M.D. Abnormal Ossification of the Parietal Bone in an Infant.
EWENS, John, L.R.C.P. The Necessity of Requiring a Full Course of Lectures on Children's Diseases and Attendance at a Children's Hospital as Part of the Medical Curriculum.
HEATON, Geo., M.B., F.R.C.S. A Successful Case of Splenectomy for Rupture of the Spleen, with a Note on the Consequent Blood Changes.
LITTLE, E. Graham, M.D. Night Fevers in Children.
MORGAN, G., F.R.C.S.E. Remarks on Tuberculous Adenitis.
PARKINSON, J. Porter, M.D. The Varieties and Causes of Cough in Children, with especial reference to Practical Treatment.
PRIESTLEY, J., M.D. Infantile Hemiplegia.
STILL, G. F., M.D. Observations on the Morbid Anatomy of Tuberculosis in Childhood.
SUTHERLAND, George A., M.D. On Birth Palsy with Disseminated Tremors.
SYMPSON, E. Mansel, M.D. The Treatment of Rickets in an Out-Patient Department.

J. PHARMACOLOGY AND THERAPEUTICS.

Small Dining Room, Freemasons' Club.

President: JOHN BUCKLEY BRADBURY, M.D. *Vice-Presidents:* C. H. WATTS PARKINSON, M.R.C.S.; SAMUEL GOSS, M.R.C.S. *Honorary Secretaries:* JOHN EDWARD HARRY KELSO, M.B., 67, Elm Grove, Southsea; WILLIAM TUSTING COCKING, M.D., 277, Glossop Road, Sheffield.

The subjects selected for discussion are as follows:

1. Intestinal Antiseptics and their Value. To be opened by Dr. Vaughan Harley. The following will take part in the discussion: Dr. Frank M. Pope, Dr. P. Watson Williams, Mr. J. Burdon, L.R.C.P., and Dr. George Herschell.

2. Headaches and their Treatment. To be opened by Dr. T. Lauder Brunton, F.R.S. The following will take part in the discussion: Dr. C. W. Suckling, Dr. A. Haig, Dr. J. Dundas Grant, and Dr. George Herschell.

3. The Constitutional Treatment of Skin Diseases. The following will take part in the discussion: Dr. Robert B. Wild, Dr. George Thin, Dr. J. C. M. Given, Dr. T. Churton, and Mr. J. Burdon, L.R.C.P.

The following papers have been offered:

SCHEFF, Dr. E. (Vienna). *X*-Rays in the Treatment of Skin Diseases.

SIBLEY, W. K., M.D. The Therapeutics of Light and Heat.
WALSHAM, W. J., F.R.C.S. Cases Treated by Erythol Tetranitrate.

Dr. George Herschell will exhibit a new combined Galvanic and Faradic Battery for use in general practice, and also a New Apparatus for administering the Intragastric Needle Brush, also Apparatus for Washing-out the Stomach.

K.—LARYNGOLOGY AND OTOLOGY.

Board Room, Guardians' Offices, St. Michael's Road.

President: E. CRESSWELL BABER, M.B. *Vice-Presidents:* JOSIAH GEORGE BLACKMAN, M.D.; PATRICK WATSON WILLIAMS, M.D. *Honorary Secretaries:* HERBERT TILLEY, M.D., 101, Harley Street, W.; LYSTER COLE-BAKER, M.D., Bayfield, Kent Road, Southsea; THOMAS ARTHUR MUNRO FORDE, M.R.C.S., 21, Clarence Parade, Southsea.

The following subject has been selected for discussion:

The Diagnosis and Treatment of Chronic Empyema of the Frontal Sinus.

The following gentlemen have promised to take part in the discussion: Ernest Waggett, M.B., Macleod Yearsley, F.R.C.S., H. Scheppegrell, M.D. (Orleans), Sargent Snow, M.D. (Syracuse, N.Y.), F. W. Milligan, M.D., W. J. Nourse, F.R.C.S., and Dr. Posthumus Meyjes (Amsterdam).

The following papers have been offered:

BAR, Louis, M.D. (Nice). Intralaryngeal Tumour and Nasal Exostosis (probably Tertiary Syphilitic).
BOBONE, Dr. T. (San Remo.) Title not announced.
BRONNER, A., M.D. The Use of Formalin in Atrophic Rhinitis.
GRANT, Dundas, M.A., M.D., F.R.C.S. On Some Forms of Laryngitis consequent on Purulent Affections of the Nose.
HORNE, Jobson, M.D. Pachydermia Laryngis.
MEYJES, Posthumus, M.D. (Amsterdam). Case of Accessory Thyroid Gland at the Base of the Tongue.
MILLIGAN, F. W., M.D. (1) The Operative Treatment of Post-influenzal Suppurative Mastoiditis. (2) Two Cases of Malignant Degeneration of Originally Benign Nasal Polypus.
MOURE, E. J., M.D. (Bordeaux). A Case of Acute Empyema of the Maxillary Antrum.
NEWMAN, David, M.D. (1) Malignant Disease of the Pharynx and Œsophagus, with cases. (2) Adenoid Disease of the Vault of the Pharynx in its Relation to Tuberculosis in Children.
ROHRER, Dr. Fritz (Zurich). Anomalies of Development of the Auricle, with illustrative Photographs, Drawings, etc.
RÖPKE, Dr. (Solingen). Author's Method of Operation on Frontal Sinus.
THORNE, Atwood, M.B. Laryngeal Vertigo, with an account of three new cases.
WAGGETT, E., M.B., B.C. Cerebellar Abscess secondary to Chronic Middle Ear Suppuration; Evacuation; Cure.
WALKER, Downie, M.D. (Glasgow). Syphilitic Ulceration of Trachea, with Photographs and Specimens.

L.—TROPICAL DISEASES.

Committee Room, No. I, Town Hall.

President: GEORGE THIN, M.D. *Vice-Presidents:* Colonel KENNETH MCLEOD, M.D.; JAMES WATSON, M.D. *Honorary Secretaries:* Fleet-Surgeon JOHN TYNDALL, R.N., Tresco, St. Ronan's Road, Southsea; JOHN ROBERT STEVENSON ROBERTSON, M.B., 5, Western Parade, Southsea.

The subjects arranged for discussion are as follows:

1. Psilosis or Sprue; its Relations (Etiological and Pathological) to other Forms of Tropical Diarrhœa, and its Treatment.

2. On Thermic Fever (so-called Siriasis), with Special Reference to its alleged Microbic Causation.

3. The Agency of Insects in Spreading Infections.

Amongst those who have consented to take part in these discussions are Dr. Thin, who will open the first subject, and Colonel Kenneth McLeod, I.M.S., the second, Major Ross, I.M.S., will open the discussion on the third. Major John Ritchie, R.A.M.C., will take part in the discussion.

The following also intend to take part in the above discussions or send papers: Dr. Patrick Manson, LL.D., F.R.C.P., Inspector-General A. Turnbull, M.D., R.N., Dr. W. J. R. Simpson, Mr. James Cantlie, F.R.C.S., Colonel Crombie, I.M.S., Fleet-Surgeon H. M. Ellis, Royal Marine Artillery, Dr. James Watson, Surgeon Andrews, M.B., R.N., Captain Hughes, R.A.M.C., and Surgeon Stalkartt, M.D., R.N.

The following papers have been offered:

ANDREWS, Surgeon, O. W., R.N. Antivenene.
HUGHES, Captain, M. L., R.A.M.C. The Geographical Distribution of Undulant (Malta) Fever.
MANSON, Patrick, M.D. Filaria Periodicity.
STALKARTT, Dr. Blackwater Fever.
WARR, M. T., Major, R.A.M.C. A Further Contribution to the Study of Malarial Eye Affections.

RECEPTION ROOMS.

The Lower Albert Hall will be opened on Monday from 4 P.M. to 9 P.M., July 31st, and on Tuesday, August 1st, and the following days at from 9 o'clock to 6 P.M., for the issue of tickets to members and for supplying all necessary information. It is particularly requested that all members on their arrival will at once proceed to the reception room, Lower Albert Hall, enter their names and addresses, and obtain their tickets and Daily Journals containing programme, inquire for letters and telegrams, consult list of lodgings, hotels, etc.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 1ST, 1899.

9.30 A.M.—Meeting of 1898-99 Council. Council Chamber, Town Hall.
11.0 A.M.—Church Service; Sermon by the Right Reverend the Lord Bishop of Winchester, at St. Mary's Portsea.
2 P.M.—First General Meeting. Town Hall, Large Hall. Report of Council. Reports of Committees; and other business.
8.30 P.M.—Adjourned General Meeting from 2 P.M. Large Hall, Town Hall. President's Address.

WEDNESDAY, AUGUST 2ND, 1899.

9.30 A.M.—Meeting of 1899-1900 Council. Council Chamber, Town Hall.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Second General Meeting. Town Hall, Large Hall. Address in Medicine by Sir Richard Douglas Powell, Bart., M.D.

THURSDAY, AUGUST 3RD, 1899.

9.30 A.M.—Meeting of Council. Council Chamber, Town Hall.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Third General Meeting. Upper Albert Hall, above the Reception Room. Address in Surgery by Professor Alexander Ogston, M.D.
7 P.M.—Public Dinner of the Association. Town Hall, Large Hall.
9 P.M.—A *Soirée* by Ladies Committee. Grand Jury Room and the Mayor's Banqueting Room, Town Hall.

FRIDAY, AUGUST 4TH, 1899.

10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Concluding General Meeting. Upper Albert Hall, above the Reception Room. Albert Hall.

SATURDAY, AUGUST 5TH, 1899.
Excursions.

Honorary Local Secretaries.

C. C. CLAREMONT, M.D., 57, Elm Grove, Southsea.
C. P. RUEL, M.R.C.S., L.R.C.P., Cromwell House, Kent Road, Southsea.

ANNUAL MUSEUM.

The Annual Museum in connection with the sixty-seventh meeting of the British Medical Association will be arranged in the following Sections:

SECTION A.—Food and drugs, including prepared foods, chemical and pharmaceutical preparations, etc.

SECTION B.—Instruments comprising medical and surgical instruments and appliances, electrical instruments, microscopes, etc.

SECTION C.—Books, including diagrams, charts, etc.

SECTION D.—Sanitary Appliances and Ambulances.

A fine and well-lighted hall will this year be utilised for the purposes of the Museum. This room is 150 feet in length, and 60 feet in width, and is in close proximity to the Reception Room.

Exhibitors (other than members of the medical profession) will be charged for table, floor and wall space as follows: In Sections A, B, and C, from 2s. 6d. per square foot, depending on the position of the table; tables 3 feet and 3 feet 6 inches wide being provided. In Section D, 6d. per square foot for floor space (all fittings to be provided by the exhibitor). Wall space (where available) will be charged for advertisements at 6d. per square foot. Section D will be held in the Swan Street Board School, a short distance from the Drill Hall.

Advertisements in Museum Catalogue.—A catalogue will be printed, and 2,000 copies distributed gratis to members of the Association. Prepaid advertisements, to be sent before June 20th, will be inserted. Further particulars will be sent on application.

The plans of the hall and forms of applications for space will be ready early in May.

REGULATIONS.

1. All communications on general matters connected with

the Museum, and all applications for space, should be addressed to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth. N.B.—No space will be allotted before June 1st.

2. A brief description of each exhibit for insertion in the Museum Catalogue must be in the hands of the Secretary before June 20th.

3. Space will as far as possible be allotted in the order of application, and in proportion to the amount applied for, the Committee reserving power to give preference to *bonâ fide* inventions and improvements not previously exhibited, and also to refuse any exhibit they may consider unsuitable.

4. In the event of more space being applied for than is actually available, the allotment will be made at the discretion of the Committee.

5. The Committee reserve to themselves the power to utilise any of the floor space set apart for Section D (if it is not all required for sanitary exhibits) for the erection of additional tables, or for any other purpose they may think fit.

6. All exhibits should be addressed to the Secretaries of the Museum, British Medical Association, Drill Hall, Grigg Street, Portsmouth, with the name of the Section for which they are intended, with the exception of those for Section D, which should be addressed The Board School, Swan Street, Portsmouth. Packages should not be addressed to a firm's representative at the Museum.

7. All exhibits must be delivered between July 27th and July 29th, and each package must bear a card showing the name and address of the exhibitor.

8. All exhibits must be placed in the allotted space by 2 P.M. on July 31st.

9. No signs or placards will be allowed in the hall which may interfere with neighbouring exhibits. No exhibit or placard on the central tables must reach higher than 2 feet 6 inches from the table. The arrangement of signs, placards, exhibits, etc., will in every case be subjected to the approval of the Committee.

10. Intimation of the space allotted to each exhibitor will be sent as promptly as possible after June 1st, marked upon a plan. On receipt of cheque for the cost of such space, a card for the admission of the exhibit will be sent.

11. All cheques to be made payable to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth.

12. No exhibits will be received except on the understanding that the above regulations are strictly complied with.

H. RUNDLE, F.R.C.S., *Chairman*,
13, Clarence Parade, Portsmouth.
R. EMMETT, M.R.C.S., L.R.C.P.,
Winton House, North End, Portsmouth.
JAMES MCGREGOR, L.R.C.P. & S.Edin.,
9, St. Mary's Crescent, Portsmouth.

PATHOLOGICAL MUSEUM.

Specimens of interest for exhibition in the Museum should be forwarded, addressed to the Secretary of the Pathological Museum, British Medical Association, Boys' School, Seaman's and Marines' Orphan Home, Portsmouth, during the last week in July; and a brief description of each exhibit for insertion in the Museum catalogue must be in the hands of the Secretary by June 20th. Intending exhibitors are requested to communicate with the Secretary of the Pathological Museum, A. Bosworth Wright, M.R.C.S., L.R.C.P., 83, Kingston Road, Portsmouth. All specimens must be mounted ready for exhibition.

LITERARY NOTES.

IT is probably not often that the editor of a medical journal is honoured with a special blessing from the Pope. We are therefore pleased to record that the editors of *El Criterio Catolico en las Ciencias Medicas* have recently received the Apostolic benediction from His Holiness Leo XIII in recognition of their efforts to provide "an antidote to the poisonous materialism which saps the religious faith of too many students of medicine."

The advent of yet another medical journal is announced It is announced as a "high-class journal for members of th medical profession," to be called *The Physician*, to appea monthly, and "while admitting contributions on any and every branch of medical and surgical practice," to be "more closely concerned with therapeutics and pharmacology." *The Physician* will make its first bow on the journalistic stage in July.

If praise from Sir Hubert Stanley be praise indeed, what must it be from the editor of *Zadkiel's Almanac*? This giddy height of fame has been reached by Mr. Alban Doran, whose oration on "Shakespeare and the Medical Society," published in the BRITISH MEDICAL JOURNAL, is the object of eloquent panegyric in *Star Lore*, a periodical conducted by the prophetic sage aforesaid. But the eulogy is tempered with certain reservations. For instance, the orator is reminded that he did not quote the following lines which are said to illustrate the law of similars discovered by the immortal Hahnemann:

Tut, man! One fire puts out another's burning,
One pain is lessened by another's anguish;
Turn giddy and be holp by backward turning;
One desperate grief cures with another's languish:
Take thou some new infection to the eye
And the rank poison of the old will die.

"This," saith the seer, "is homœopathy." But whether homœopathy is the "new infection," or the "old poison," or the "desperate grief" we are unkindly left in doubt. We are inclined to think that the mental effect and general tendency of the system are indicated in the line "Turn giddy and be holp by backward turning." Mr. Doran is further taken to task for not referring to another passage, namely:

But when the planets
In evil mixture to disorder, wander
What *plagues* / and what portents! what mutinies!
What raging of the sea! what shaking of the earth!
Commotions in the winds!

This, one might say, is Zadkielism. Incidentally one learns that the prophet (as might have been surmised from his intellectual configuration) is an "antivack."

There has been much debate about the correct spelling of the word which figures prominently in the title of the Medical Graduates' College of London. Is it "Polyclinic" or "Policlinic?" An iota divides our medical scholars as it formerly divided the theologians. Some of the disputants have even taken to calling each other names, as has been the way of classical scholars since the advent of the New Learning. On the whole we think the advocates of "Polyclinic" have the worst of it, since it seems clear that the word was in the first instance intended to designate patients living in the πόλις or town, that is to say out-patients. But now we have an *ex cathedrâ* pronouncement from Dr. Achilles Rose of New York, who speaks as one having authority in regard to Greek, that the word is neither "policlinic" nor "polyclinic," but "astyclinic," from ἄστυ. Doubtless both sides will be grateful for this information, but like the old priest who would not give up his old *mumpsimus* for the new *sumpsimus*, they will probably not only stick to "poli(y)clinic," but continue to spell it in their own way.

Messrs. Baillière Tindall and Cox announce for early publication a third edition of *Heart Disease*, by Sir William and Dr. J. Broadbent: a second edition of Dr. D. Walsh's *Roentgen Rays in Medical Work*; a *Roentgen Ray Case Book* by the same author; a work entitled *Difficulties of Digestion due to Displacements*, by Mr. A. Symons Eccles; a second edition of Rose and Carless's *Manual of Surgery*; a second edition of Professor A. Roche's *Imperial Health Manual*; the French-English part of Mr. H. De Méric's *Dictionary of Medical Terms*; Part III of Dr. Murrell's *Aids to Materia Medica*; a third edition of Walsham's *Handbook of Surgical Pathology*; a second edition of Dr. Hime's *Guide to the Public Health Acts*; and *Urinary Analysis*, by Dr. Louis Heitzmann.

Messrs. Macmillan and Co. announce for early publication in their list of Manuals of Medicine and Surgery a new volume on *Differential Diagnosis in Medicine*, by Dr. Fred. J. Smith, of the London Hospital. The work will range widely over medical diagnosis, and is chiefly intended for senior students.

The twenty-ninth part (Tap—Zyth) of the New Sydenham Society's *Lexicon of Medicine and the Allied Sciences* has just appeared. This brings the work to a conclusion, a happy consummation on which we congratulate all concerned.

The forthcoming new edition of Dr. Althaus's work on the value of electrical treatment will, we are informed, contain a chapter on the use of electricity in gynæcological practice from the pen of Dr. Apostoli, of Paris.

NOVA ET VETERA.

FAITH HEALING, ANCIENT AND MODERN.

THE MIRACLE OF CURE.

MR. MATTHEW ARNOLD said in his airy way that "miracles do not happen." He stole the phrase from Renan, but it is difficult at this time of day to say anything that someone has not said before. Besides it matters little who said it, for it is not true. Miracles do happen, and doubtless have happened ever since the brain of this "foolish-compounded clay, man" began to wrestle with the problems of disease and death. Before going further it will be well to follow the advice so earnestly given by John Locke, and "define our terms." What is a miracle? The discussion of this question from the theological point of view lies altogether outside our province. The word "miracle" is used here in its etymological sense to denote something marvellous and opposed to common experience, that at first sight cannot be accounted for by the agency of natural causes. Here we must be allowed to remark that much shallow nonsense is often talked about "violations of the laws of Nature"—as if the laws of Nature were anything more than the "laws" which man formulates from the phenomena which he observes. But human observation can err, and has often erred, and it is conceivable that the law of gravitation itself may some day have to be amended, if not repealed. "True science," as Charcot said, "is a foe to systematic negation which the morrow may cause to melt away in the light of its new triumphs." What appears to be a miracle to-day may therefore cease to be a miracle to-morrow. Diseases now incurable by any therapeutic means at our disposal will, there is every reason to hope, be curable by medical art in the future. If such a disease were to be cured now by some force different from the resources which medicine has at command, it is not necessary to assume that the agency which works the cure is supernatural. The most orthodox theologians will admit that *miracula non sunt multiplicanda praeter necessitatem.*



Fig. 1.—Pregnancy or abdominal tumour (?)

In the sense in which the word is used here miracles not only do happen, but they happen frequently, and in almost infinite variety of circumstances. If human testimony is worth anything, cures of a marvellous nature are wrought at Lourdes, St. Winifred's Well, and other Christian shrines. Similar "miracles" are wrought at the tombs of Mussulman Marabouts, as they were at the healing shrines of ancient Greece and in the temples of Æsculapius in Rome. Cures of precisely the same kind are wrought by mesmerism, and other forms of faith healing in which the sacred element is altogether wanting. Could there be a more authentic "miracle" than the restoration of Harriet Martineau, a professed atheist and a strong-minded woman of the most pronounced type, to health by means of mesmerism, after long disablement by a pelvic tumour? The tumour, it is true, was found in her body after her death, but what of that? It had ceased to trouble her, and that may for practical purposes be counted a "cure." Brodie cured many bedridden patients by the simple process of bidding them get up and walk. There is nothing more supernatural in such occurrences than there is in the effect which arsenic has on pemphigus—an effect which was once described by a surgeon of the highest eminence as an illustration of the "miracle of cure."

THE SELECTION OF CASES.

The secret of good statistics of "miracles" lies, as in less occult provinces of the healing art, in the right selection of cases. These should be instances of purely functional disorder, or if there be organic mischief, it should be such as is dependent on nervous disturbance. "Neurosis" may indeed in general terms be laid down as the indication for "miracle." Dr. J. R. Gasquet, who paid a visit to Lourdes some years ago, classified the cases which he saw there into two categories. In one of these the symptoms were purely neurotic, and in them the recovery was the rule. The other consisted of "persons in whom examination easily detected the persistence of organic disease, but whose general condition was greatly improved." In the former group most of the cases were examples of hysterical paralysis; in the latter cases of osteo-arthritis predominated, a circumstance which Dr. Gasquet says is "not without interest considering the neurotic affinities of the disease." This is just what

might be expected. Of course, persons afflicted with other infirmities go to Lourdes. In the crowd attracted by the hope of cure are sufferers from cancer, tuberculosis, obstinate tetters of the skin, blindness and deafness from organic causes; but of these little is said. When a cure is claimed in such cases, there always remains a doubt as to the diagnosis.

Mind and Body.

Dr. Gasquet admits that the great majority of the cures which he saw at Lourdes "were evidently, in one way or another, due to the influence of the mind on the body." This influence, as all medical practitioners can testify, is capable of working "miracles" as striking as those in the records of any shrine. A powerful mental emotion or shock will often cure cases of functional paralysis, hysterical contracture, and similar conditions, which are the mere despair of medicine. Gout has been literally frightened out of a man, and strong emotion has restored the sound of a voice that had been still for years. We have ourselves seen a woman who had long been voiceless cured of her aphonia by the mere introduction of the laryngoscopic mirror; and the story told by Herodotus of the King's son who "burst the bonds of his voice" when he saw his father about to be slain before his eyes is entirely credible. A large number of most interesting cases illustrating the effects which mental shock may have on the body will be found in Hack Tuke's *Illustrations of the Influence of the Mind upon the Body in Health and Disease* (London: Churchill, 1872). The analogy which these cases, in which there is no suggestion of thaumaturgic influence, present to the miracles wrought at shrines and temples, is so striking that one can hardly avoid the conclusion that the mechanism is the same in the one class of cases as in the other. But in the miraculous cures it is the patient's faith that makes him whole; and in cases where nerve power is deficient there is no more potent agent. The physician has called this powerful auxiliary to his aid in cases of what Sir John Russell Reynolds called "paralysis from idea," and others where it was likely to be useful. Charcot sent many patients to Lourdes.

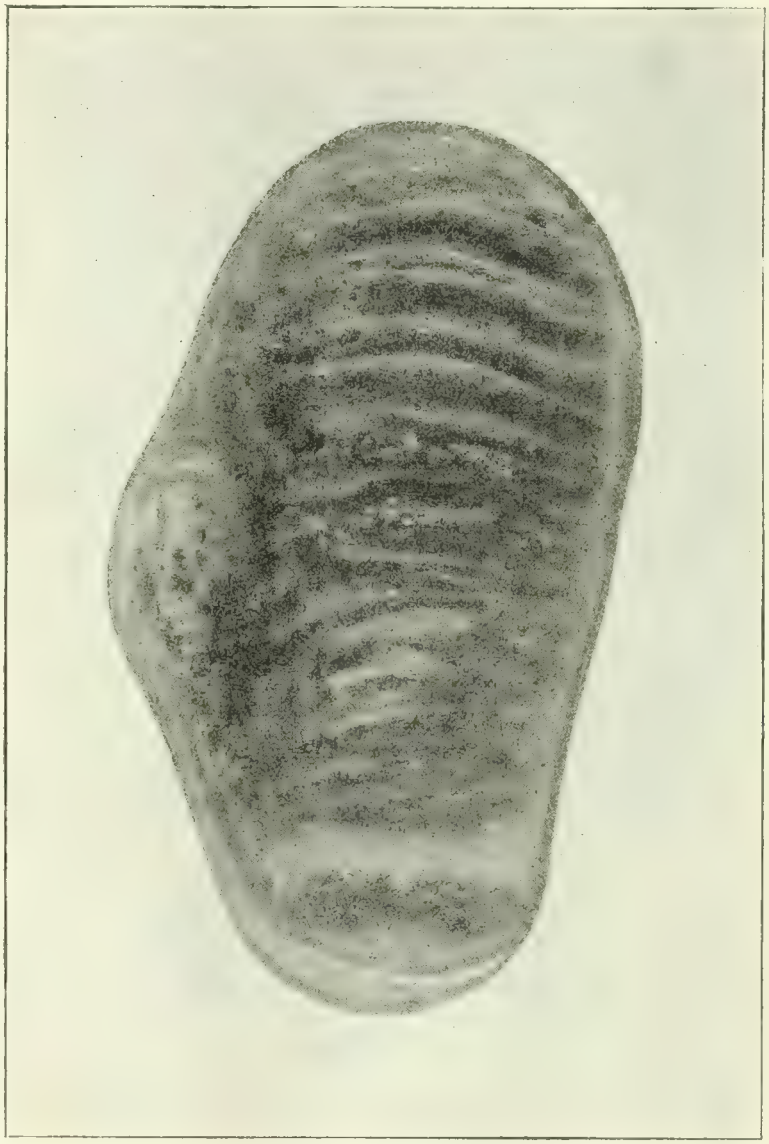


Fig. 2.—Uterus and ovary.

The Faith Cure in Greece.

As the great neurologist just mentioned says, "the methods by which the faith cure works are the same at all times, in all latitudes; the same among pagans and Christians as among Mussulmans—one and all wear the same characteristics." This is strikingly illustrated by the votive offerings which testify to the relief found by sufferers at the shrines. In ancient Greece the walls of the Asklepieia were adorned with arms, legs, necks, breasts, representing the part of the body which had been cured by miraculous agency. These were made of precious metal, or such baser material as the grateful patient could afford. The famous Asklepieion of Epidaurus was particularly rich in such *ex-voto* figures. Of the procedure adopted in the application of the faith cure space will not allow us to say anything here; a full description will be found in Dr. Caton's lectures on the Temples and Ritual of Asklepios at Epidaurus and Athens, which we had the privilege of publishing at the time of their delivery,[1] and which have just been reprinted.

Faith Healing in Ancient Rome.

The votive offerings at the Grecian shrines were doubtless very like the donaria found in the old Roman temples of Æsculapius, but of more artistic workmanship. A fine collection of these donaria was described by Dr. L. W. Sambon in the British Medical Journal of July 20th and 27th, 1895.

The donaria consisted, for the most part of bronze statuettes or representations in marble or terra cotta of the parts of the body which had been the seat of disease. They were thrown into the water of the sacred spring or hung about the walls of the temple or round the statue of the healing god. When they had accumulated to an inconvenient extent they were put away in small caves or wells, or buried in the ground, from which they are now from time to time recovered. The terra-cotta images are naturally the most numerous; and the variety of objects represented is very great. They are generally of very rude workmanship, but many of them are interesting as showing the notions of the anatomy of the human frame which were current among the old Romans and Etruscans.

[1] British Medical Journal, June 11th and 18th, 1898.



Ex-voto Figures in a Modern Italian Church.



Fig. 3.—Donaria representing upper part of face, ears, and eyes.

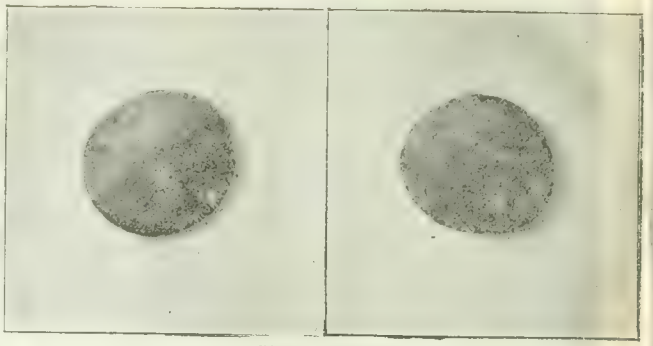


Fig. 4.—Breast.



Fig. 5.—Leg and foot.



Fig. 6.—Arm and hand.

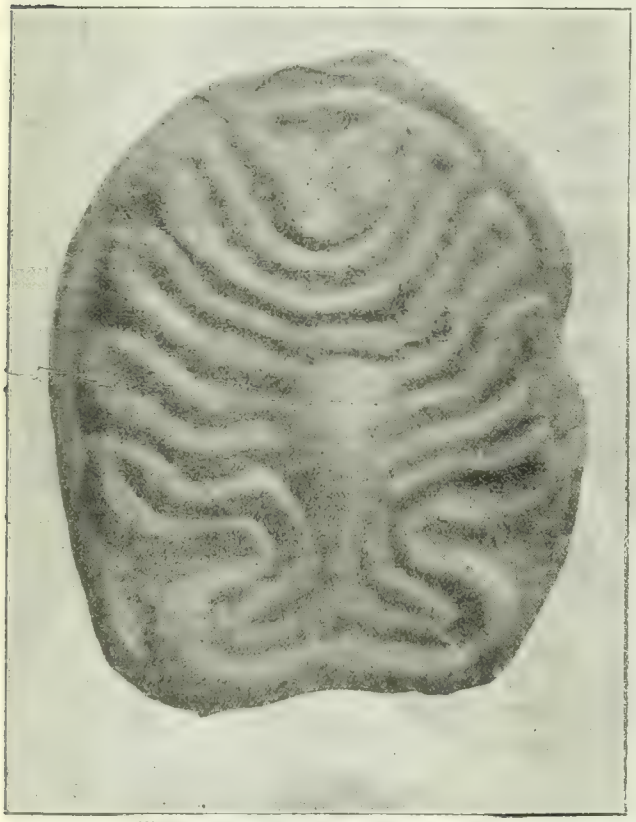


Fig. 8.—Coils of intestine within uterus.

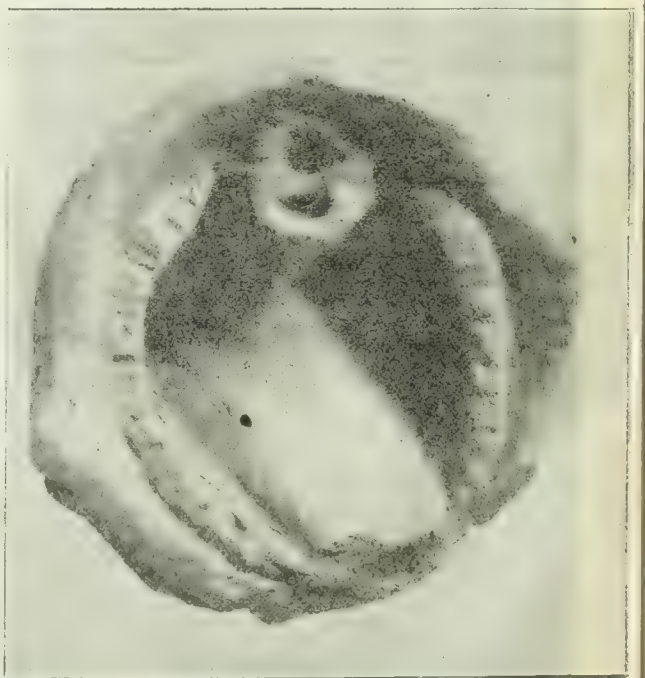


Fig. 7.—Section of mouth and pharynx.

FILARIA BANCROFTI *v.* NOCTURNA.

FILARIA PERSTANS.

FILARIA OZZARDI.



Fig. 1. - 2 Males and 1 Female.



Fig. 2.—Male, Caudal half.



Fig. 3.—Female entire.



Fig. 4. - Head, Male.



Fig. 5.- Head, Male.



Fig. 6.—Head, Female.



Fig. 7.—Tail, Male.



Fig. 8.—Tail, Male.



Fig. 9.—Tail, Female.

Photo., Francis Fowke, F.R.M.S.] [*Collotyped, Eyre & Spottiswood*

TO ILLUSTRATE PAPER ON FILARIA BY C. W. DANIELS, M.B

Figs. 1, 2, 3 × 6
Figs. 4, 5, 6, 7, 8, 9 × 100

FILARIA BANCROFTI *v.* NOCTURNA.



FIG. 1.—2 Males and 1 Female.

FILARIA OZZARDI.

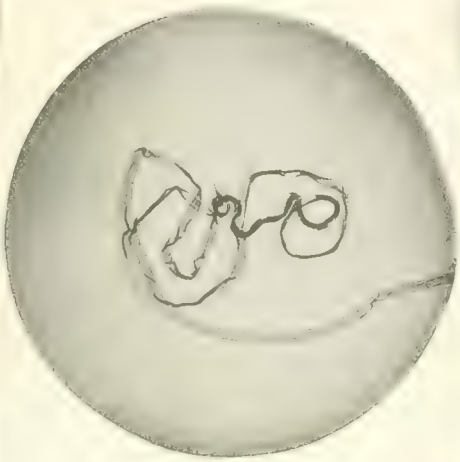


FIG. 2.—Male, Caudal half.

FILARIA PERSTANS.



FIG. 3.—Female entire.



FIG. 4.—Head, Male.



FIG. 5.—Head, Male.



FIG. 6.—Head, Female.

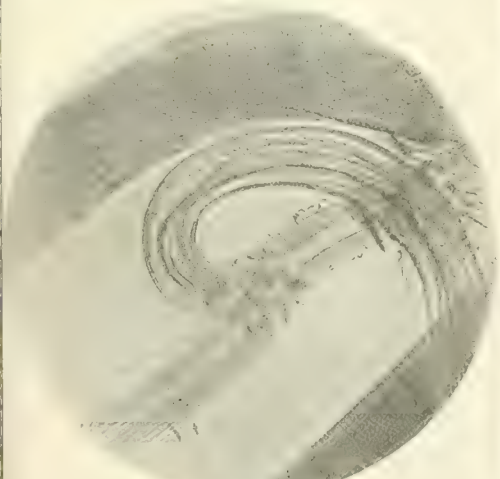


FIG. 7.—Tail, Male.

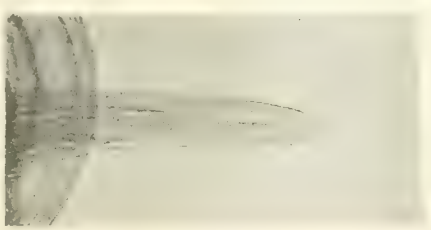


FIG. 8.—Tail, Male.



FIG. 9.—Tail, Female.

Photo., Francis Fowke, F.R.M.S.] [*Collotyped, Eyre & Spottiswo*

TO ILLUSTRATE PAPER ON FILARIA BY C. W. DANIELS, M.B.

FIGS. 1, 2, 3 × 6
FIGS. 4, 5, 6, 7, 8, 9 × 100

Thanks to the courtesy of Dr. Sambon we are enabled to give illustrations of some of these donaria. Fig. 1 is a reproduction of a statuette found in the Temple of Maternity at Capua. The enlarged breasts and abdominal swelling are probably intended to represent pregnancy, and the figure may have embodied a prayer of thanksgiving for a happy delivery or for recovery from some disease of the puerperal state. Fig. 2 represents the uterus and one ovary. Fig. 3 shows representations of the upper part of the face, the ear, and the eye. Fig. 4 represents the female breast, a prominent object among *ex-voto* offerings of all ages. Fig. 6 is a representation of the upper limb, and Fig. 5 of the lower; at the upper part of the latter is seen the hole by which it was hung. Fig. 7 is a section of the mouth and pharynx, showing the orifices of the gullet and windpipe. Fig. 8 appears to be a rough representation of the intestinal coils with the uterus at the lower part.

Other images represented patients deformed by disease—obesity, dropsy, pregnancy, rickets being clearly recognisable. Others, again, seem to be intended to represent fever-stricken patients. Malaria was very prevalent among the Romans in ancient times, as is proved by the numerous altars dedicated to Febris. This divinity was represented as a woman without hair and half naked, with swollen legs and distended belly; no doubt to express the thirst of fever she was figured in the act of drinking. The "Madonna delle Febbri" had shrines where she was specially invoked in the Middle Ages.

The terra-cotta figures were painted in various colours, generally red and blue. They were nearly always made from clay moulds, specimens of which have been found at Capua and Tarentum. The mould was used only for the front of the figure, the back being a plain piece of clay shaped by the hand.

Marble donaria are uncommon; bronze figures are fairly numerous. Another form of the *ex-voto* was a tablet of wood or terra-cotta, on which were paintings representing miraculous cures. We have seen pictures of exactly the same kind in Spanish churches. There, too, as well as in Italy and other southern countries, may be seen donaria in wax and silver, recalling those hung in the temples of Æsculapius. The full-page illustration (p. 1503) is from a photograph of an altar in the church of Santa Chiara at Naples.

APPOINTMENTS TO THE BRADFORD WORKHOUSE INFIRMARY.

THE recent retirement on pension of Mr. W. B. Procter, F.R.C.S.Eng., from the post of medical officer to the Bradford Workhouse after forty years' successful service has been the cause of a decision by the local Board of Guardians which has evoked much controversy amongst the members of the medical profession in that town.

The Board decided to appoint to the vacant post Dr. R. H. Crowley, M.D.Lond., M.R.C.P.Lond., who went to Bradford last year on his election as Physician to the Royal Infirmary there; and to add as coadjutors, but not recognised by the Local Government Board, Mr. J. Basil Hall, M.B., B.C. Cantab., and Miss Charlotte Hodgkins, L.R.C.P. Dr. Crowley is a consulting physician, Mr. Hall a consulting surgeon. The guardians did not open the appointment by advertisement to public competition, but privately offered it, as stated above, to the gentlemen named, by whom it has been accepted. Some months ago appointments were offered to Dr. Crowley and Dr. H. J. Campbell in a precisely similar manner. On hearing that objection was felt by general practitioners in the town, both gentlemen declined the office. Dr. Campbell, when again offered the post, refused to accept it; but Dr. Crowley changed his mind, and informed a deputation of medical men that he had considered the question from all points, and though aware of the dissatisfaction which existed, he would accept the office at £150 per annum. Many members of the profession in Bradford felt much aggrieved by the method of selection adopted by the guardians, and held a meeting to consider the question. Every member of the profession in Bradford was invited, Dr. Hime was voted to the chair, and several resolutions were carried with practical unanimity, the chief of which expressed strong disapproval of the fact that the guardians had abandoned the practically universal custom of throwing public appointments open to public competition, and that the profession could not feel confidence in any practitioner who accepted the post under the existing conditions.

Such are the main facts of this unhappy dispute. There are other details, however, which have still to be mentioned. It was a public advertisement that attracted Dr. Crowley to Bradford last year, when the post of physician to the infirmary was vacant. And it is contended that there should be no favouritism in the election to public offices, and that the guardians should have advertised in the usual way, and selected the best man from among the applicants.

One of the resolutions passed by the meeting of medical practitioners stigmatised "the salaries which it is proposed to offer to the medical officers to the Bradford Workhouse Infirmary as quite inadequate in regard to the important services to be rendered, and also in regard to the fact that the appointments are in no sense honorary, nor are the services to be rendered acts of charity." It appears that the late medical officer, Mr. Procter, had a salary of £400. Dr. Crowley is to receive £150, without extras; it is true he is styled a "consultant," but it is alleged that his work is largely that of a general practitioner. His salary is called an "honorarium." Mr. Hall's "honorarium" is fixed at £100 per annum; and Miss Charlotte Hodgkins has been retained, at an honorarium of £50, to attend certain cases.

The guardians apparently have the technical right to make appointments by private arrangement, as in this case, provided that "notice that the question of making such appointment will be brought before the Board has been given and entered on the minutes of one of the two ordinary meetings of the Board next preceding the meeting at which the appointment is made;" or they may appoint, after advertisement, as is the customary plan.

But it is contended by critics of the Board that the former method of appointment, which was that adopted by the Board, is contrary alike to general practice and the public interest. It is replied by apologists of the Board that as the Board intended to appoint a consulting physician and a consulting surgeon, their choice in Bradford was practically restricted to the two gentlemen whom they have appointed, and that to have advertised would, under the circumstances, have been a waste of public money.

The position held by Dr. Crowley is that of workhouse medical officer and visiting physician to the workhouse hospitals, whilst Mr. Hall is visiting surgeon; there is also a resident assistant medical officer. This arrangement does not seem to differ from those already obtaining in Manchester and Birmingham.

THE LONDON MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

THE inaugural dinner of the College took place at the Trocadero Restaurant on June 14th under very favourable auspices. Sir JOHN LUBBOCK, Bart., M.P., presided, and amongst the guests present, who numbered more than 250, were the Hon. A. Lyttelton, M.P., Sir J. Fayrer, Sir S. Wilks, Sir W. H. Broadbent, Canon Ainger, Mr. Jonathan Hutchinson, and Sir W. R. Gowers.

After the usual loyal toasts, which were proposed by the CHAIRMAN, Dr. W. M. ORD, in proposing "The Houses of Parliament," said that very many who were not in that room had expressed their cordial sympathy with the Graduates' College. Amongst such were: Lord Lister, Mr. Arthur Balfour (a vice-patron of the college), Dr. Farquharson, Dr. Hughlings Jackson, Lord Tweedmouth, and Lord Strathcona. He rejoiced to see around him the faces of so many scientific members of the profession and general practitioners of various ages who could estimate the value of such an institution. Ordinary medical education did not give a man the opportunity of acquiring all the technical knowledge he required in practice, though it enabled him to pass his examinations. All men, especially those who practised in the country, needed from time to time to return to some central place where they could learn what was necessary to keep them abreast of the knowledge of the day. A man five years only after passing his final examination was already behindhand in that respect.

The Hon. A. LYTTELTON, in his reply for the House of Com-

mons, commented on the superior oratorical powers of doctors, who in their patients found highly sympathetic listeners.

Sir John Lubbock proposed the toast of the evening, "The Medical Graduates' College and Polyclinic," and said that our medical institutions beneficently performed the purposes for which they had been called into existence. It was the very advance of medical science which rendered necessary such an institution as the Graduates' College. Even the instruments introduced during the last fifty years showed the marvellous progress made by medical science during that time. During the five years of his curriculum it was impossible for a student now to master the whole field of medical science, and even if a practitioner knew everything at the time of his going to the country to practise, he would in five years be hopelessly behindhand if he did not attempt to acquire knowledge of the subjects advanced during those years. The Polyclinic would be able to keep those who used it well to the fore. Mr. Hutchinson was about to deposit in its museum the various clinical appliances which he had for years been collecting, and his valuable library, besides giving to the institution much of his time. Altogether, he (the speaker) was convinced that the College could not fail to be of great service in the medical education of the future.

Sir William Broadbent, in replying, said everywhere he went he heard of the value which general practitioners attached to the institution.

Mr. Jonathan Hutchinson, who was received with much applause, said that the non-medical public would no doubt be quite willing that their doctors should go to such an institution to acquire the latest knowledge on medical subjects. But if the doctor sacrificed his time and left his practice to acquire this additional polish, the public should supply the grindstone, glass paper, and the emery powder by means of which the medical man could polish himself. He therefore appealed to the intelligent and benevolent public for assistance to render the institution a marked success. Medical men should occasionally come back to their studies, and have further knowledge quickly and easily supplied to them. The Polyclinic would tend to spread the best medical science over the whole world. It would teach science, which was preliminary to the big operations of surgery and to other advanced methods of treatment. The consultations, too, would be a feature of the institution, permitting the patients to remain under the care of their own practitioners. In the museum the practitioner would be able to see the best surgical instruments and appliances, and to have their uses explained to him by competent members of the staff, which would be composed of capable young men, who ought to be well paid, independently of the classes they might be able to attract. There would be clinical days for the examination of rare cases. There were already two new classes quite peculiar to the College—one which had to do with diseases of animals that had reference to man, and one on antenatal pathology. The merit of having started the College and pushed it to the front rested with Dr. Fletcher Little, whose efforts had been loyally seconded by the labours of Mr. Cantlie, Dr. Theodore Williams, Mr. Malcolm Morris, Dr. R. L. Bowles, Dr. Boyd Joll, and Dr. Rankin. He believed the success of the institution was assured; but, if the new University of London should devise a scheme of instruction more advantageous to the general practitioner than was that Graduates' College, he and his friends would gladly hand over their trust to the University.

Sir Joseph Fayrer proposed the toast of "The Medical Schools."

Dr. Stephen Mackenzie, in responding, remarked that the absolute necessity for the student to continue his education after it had nominally ended was apparent. In other great cities—Vienna, New York, Baltimore—there were post-graduate schools; the greatest of all, possibly, at the Johns Hopkins University, Baltimore. It was not in the fitness of things that London should be behind these other cities in that respect. It was certain that teachers of the present medical schools could not supply the want of graduates, whom this new organisation would be well able to instruct. He mentioned that Lord Strathcona had that day sent to Mr. Hutchinson a donation of £250 for the endowment fund of the College; and that 480 practitioners had already become members. He trusted that London might become the greatest centre for clinical teaching in the world, to which foreigners and colonials from all parts would be found to resort.

Dr. Fletcher Little read a subscription list which exceeded four thousand guineas, and said that it put the seal to the enterprise, which chiefly owed its success to Mr. Jonathan Hutchinson.

Dr. Alfred Hillier proposed "The Colonies," to which Sir S. Shippard, K.C.M.G., replied; and Dr. Theodore Williams gave the toast of "The Chairman," to which Sir John Lubbock responded.

In the course of the evening the band of the Royal Army Medical Corps, by kind permission of the officers, performed a selection of music under the leadership of the Bandmaster, T. W. Bennet.

NOTES ON PLAGUE IN EGYPT.

[From a Correspondent.]

The First Cases.

On May 4th a Greek was admitted to the Greek Hospital, Alexandria, suffering from fever and an inguinal bubo. The case attracted some attention, and the local sanitary authorities were consulted. Professor Bitter, the Director of the Institute of Hygiene, Cairo, who has had considerable experience of plague, having been a member of the Mission sent to India by the Egyptian Government in 1897, saw the case and regarded it as suspicious. Bacteriological examination, however, was not absolutely conclusive, therefore the case was treated as if it were plague, but was not notified as such.

On May 17th a second Greek was admitted, a typical case of the simple bubonic form of the disease, the bubo being situated in the left axilla. The gland was punctured, and found to be full of typical plague bacilli, and when the bacteriological examination was completed, plague was officially declared to exist in Alexandria on May 20th. The subsequent cases were as follows:

May 24th	... ...	1 Greek ...	... 1 Egyptian.
,, 26th	... ...	1 Greek ...	... 2 Egyptians
,, 27th	... ...	1 Egyptian	
,, 29th	... ...	1 Egyptian	
,, 31st	... ...	1 Greek	

On May 28th one Greek and one Egyptian died, both typical septicæmic cases. All other cases were simple bubonic, and are now convalescent. It was impossible to trace any connection between the individual cases.

Their Origin.

As to the origin of the disease, we have to consider that both Bombay and Jeddah are infected, and the possibility of the disease having been introduced from either of these ports.

Quarantine has been well described by Sir John Simon as an elaborate system of leakiness, and on this system Egypt depends for her sanitary security. That the leakage has been considerable of late years is shown by the fact that cholera, which culminated in a severe epidemic in 1896, was introduced in 1895. In 1898 plague appeared at Suez amongst the crew of a steamer which had been in communication with Jeddah, and which had received *libre pratique*. In this case the original focus of infection being found there was no difficulty in preventing any further spread of the disease. Now, again in 1899 plague has been introduced, but the circumcumstances are different, and in this lies the gravity of the situation.

None of the cases which have occurred in Alexandria have left Egypt for a considerable time, therefore the present infection is a local infection from some important cases which have never been either notified or detected. It is more than probable that this infection came from Jeddah, where 120 fatal cases of plague have been notified during the last few months.

In accordance with the principles laid down by the Conference of Venice, only Jeddah is considered infected. Arrivals from other parts of the Red Sea are given *libre pratique*. Whether the principles of the Conference of Venice should have been abrogated owing to the existence of plague in Jeddah, and the possibility of passenger communication between Jeddah and other ports considered non-infected, it is

now idle to discuss. The fact remains that once more it has been proved that the most elaborate quarantine arrangements fail to protect a country; and Egypt, which relies on quarantine for her protection, is now infected.

The date of the introduction of the original infection it is impossible to determine. Various rumours are in circulation. A case similar to the first case is stated to have been admitted to the Greek Hospital in April, but was not considered suspicious. Rats are said to have been found very ill in the Sailors' and Soldiers' Home, Alexandria, in April, but no plague-infected rats can now be found. Many poor Greeks and Jews arrived frequently from Jeddah, and the first case occurred in a building a portion of which was used as a native hotel where such people would resort. The cases amongst the Greeks are so far localised to a certain quarter, but there is no connection between individual cases, nor have any two cases occurred in the same house.

Prophylactic Measures.

A law has at once been promulgated which, by decision of the Court of Appeal, is applicable to Europeans as well as natives. This law provides for house-to-house visitation, isolation of sick, segregation of those in contact with them, and efficient disinfection of the house and effects. Already about 80 people are segregated in the quarantine establishment at Gabbaria, outside Alexandria. Amongst these not one case has occurred. It is satisfactory to note that many suspicious cases are being notified which turn out not to be plague. This shows that the medical and sanitary authorities are on the alert.

Alexandria alone is infected; the rest of the country is free.

In case of any sign of further extension of the disease the existing staff will be increased by English medical officers who have had experience of plague in India.

The task before the sanitary authorities is not easy, but everything that is possible will be done. The main difficulty will be the detection of concealed cases.

Latest advices are to the effect that 27 cases of plague have occurred in Alexandria. Of these 6 have recovered and 6 have died, leaving 15 cases under treatment. Between Saturday and Monday last 4 fresh cases occurred, and 1 death is recorded as having occurred outside the hospital. In no other part of Egypt are any plague cases reported. The disease is not confined to natives. Of foreigners, the Greeks are the greatest sufferers. The Greek population is in many instances "native" to the place, Greek families having resided in Egypt, and practically lived as Egyptians for many generations.

Residents in Egypt are showing but little apprehension of a severe epidemic. Plague has created much less scare than did the outbreak of cholera in either 1883 or 1896, and it is hoped that the summer heat and the excellent sanitary arrangements now enforced, should suffice to stamp out the disease long before the next tourist season comes round.

Up to the present Cairo is absolutely free, and the strictest measures are being taken for supervision of all native quarters.

At Cairo a large hospital is being erected outside the city, and arrangements are also being made for accommodating patients should the disease reach Cairo. A few cases have been erroneously reported as plague in Cairo.

Quarantine is imposed upon vessels from the Canal touching at Mediterranean ports, and the Spanish authorities have published a decree imposing quarantine on arrivals from Calcutta, Penang, and the Straits Settlements.

Hong Kong.

In Hong Kong the number of plague cases shows an abatement on the previous week; 97 cases are reported with 91 deaths.

Persia.

It is reported that down to June 11th 8 deaths had occurred at Bushire from plague. The Grand Vizier has given orders that the advice of the British medical officers is to be implicitly followed.

Transport of Plague Microbes.

A notification has been issued by the Bombay Government prohibiting the carriage of plague microbes or cultures on board any vessels from any port in British India without a permit. The Government orders republish a letter from the Health Officer of the port of Bombay.

The Russian Government has granted a subsidy of three million roubles to be applied towards the improvement of the Caucasian health resorts.

Pasteurism in Berlin.—The first patient presenting manifest symptoms of hydrophobia lately came under treatment in the Rabies Station of the Charité Hospital, Berlin. He died after a few days' suffering. In all the cases previously treated there the inoculations had been made with a prophylactic purpose.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A meeting of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 12th day of July next, at 2 o'clock in the afternoon.

June 15th, 1899. Francis Fowke, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL.

Meetings of the Council will be held on July 12th and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

Yorkshire Branch.—The annual meeting of this Branch will be held at the Infirmary, Huddersfield, on Wednesday, June 28th, at 3.30 A.M. Nominations, communications, etc., should be sent as soon as possible to Adolph Bronner, M.D., Bradford, Honorary Secretary.

South-Eastern Branch.—The fifty-fifth annual meeting of this Branch will be held at the Hotel Wampach, Folkestone, on Wednesday, June 28th, at 1.45 P.M. Dr. Eastes (President-elect) kindly invites members to lunch at the hotel from 12.30 to 1.45. Dinner at the hotel at 6 P.M.; charge 6s.—T. Jenner Verrall, Brighton, Honorary Secretary.

South-Eastern Branch: West Kent District.—The next meeting of this District will be held at the West Kent Hospital, Maidstone, on Tuesday, June 27th, at 3 P.M., Mr. John Knowles in the chair. Agenda: Election of Honorary Secretary. Dr. Charles Hoar will read a paper on Some Uses of Oxygen in Medicine. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary, Ludford Cooper, St. Bartholomew's Hospital, Rochester.

Bath and Bristol Branch.—The annual meeting of this Branch will be held on Wednesday, June 28th, in the Medical Library, University College, Bristol, at 4.30 P.M., when Dr. L. A. Weatherly will resign the chair to Dr. A. J. Harrison, President-elect, who will deliver the presidential address. The business of the meeting will be to receive the report of the Council, to elect the officers of the Branch, to transact the necessary business, and such subjects connected with the interest of the Branch and of the profession as may be brought before it. The Secretaries will be obliged if members will send them notice of any alteration in their diplomas or addresses. There are three vacancies in the Local Council for the Bath District and four for the Bristol District, the retiring members being ineligible for re-election for one year. The attention of the members is called to the mode of voting for the Local Council, whereby they will vote only for the vacancies in their own District. Each member is requested to write the names of those he wishes to vote for on the ballot paper, and to return the voting paper to the Secretary of his District on or before Saturday, June 17th. Members who have not paid their subscriptions are requested to do so immediately to the local Secretaries. The dinner will be held at the Clifton Down Hotel at 7 P.M. Dinner tickets, including ice and dessert, 7s. 6d. each; the wines will be served at moderate charges. N.B.—The Bristol Secretary particularly requests that members will inform him by Monday, June 26th, whether it is their intention to be present at the dinner. The Secretary cannot undertake to provide places for members at the dinner without notice beforehand.—J. Michell Clarke, Clifton, Honorary Secretary of the

Bristol District; W. M. BEAUMONT, Bath, Honorary Secretary of the Bath District.

SOUTHERN BRANCH.—The annual meeting of this Branch will be held at the South-Western Hotel, Southampton, on Thursday, June 22nd. The President kindly invites the members to luncheon (from 1 o'clock) at the South-Western Hotel. The general meeting will be held after luncheon. At this meeting the result of the polling for officers for the ensuing year will be declared. Dr. Ward Cousins will read notes of some cases of Abdominal Section. Dr. Purvis will read a paper on the Surgical Treatment of Uterine Fibro-myoma; and other papers may be expected. No communication must exceed seven minutes in length, and no subsequent speech must exceed five minutes. The address will be delivered by Mr. A. B. Wade, President. During the afternoon opportunities will be given to visit places of interest in the neighbourhood. Members intending to be present at luncheon are requested to communicate with Mr. A. B. Wade, Moira Place, Southampton, not later than June 20th.—H. J. MANNING, Laverstock, Salisbury, Honorary Secretary and Treasurer.

EAST ANGLIAN BRANCH.—The annual general meeting of this Branch will be held at The Castle, Colchester (by the kind permission of Mr. James Round, M.P.), on Thursday, June 29th. Programme of Proceedings: 11.30 A.M. Meeting of the Council of the Branch in the Castle Library. 12 noon. Meeting of the Branch for business in the Castle Library. Agenda: To receive report of Council of Branch; to receive Treasurer's report; to receive report of result of election of officers; to consider a proposal to invite the British Medical Association to hold its annual meeting in East Anglia in 1900. 1.30 P.M. Luncheon at the "Cups" Hotel, by kind invitation of the President-elect (Dr. Fenn). 2.30 P.M. Resumed general meeting. Introduction of new President by retiring President. President's address. Dr. W. W. Sinclair (Ipswich) will show Ophthalmic Specimens. Mr. Edgar A. Hunt (Colchester) will read a paper on a case of Hydronephrosis (with specimen). Dr. Thresh (Chelmsford) will read a paper on the Desirability of Forming an Essex Branch of the National Society for the Prevention of Tuberculosis. Dr. G. M. Scott (Witham) will read a paper on the Increase and Geographical Distribution of Cancer in the Chelmsford and Maldon Unions. Mrs. Garrett Anderson, M.D. (London), will read a paper on Cases of Diabetes. Dr. W. W. Sinclair (Ipswich) will read a paper on a Fatal Case of Orbital Cellulitis. The Castle Museum, with its fine collection of Roman antiquities, will be open to the inspection of members during the meeting, and the curator has kindly promised to be in attendance. There will be an exhibition of pharmaceutical preparations, etc., by Messrs. Burroughs, Wellcome and Co. and Messrs. Parke, Davis and Co. in the corridor adjoining the Castle Library. 4.30 to 7 P.M. Garden party, by invitation of the President and Mrs. Fenn, at their residence, Grey Friars.—EDGAR G. BARNES, M.D., Eye; MICHAEL BEVERLEY, M.D., Norwich; THOMAS CARR, M.D., Braintree, Honorary Secretaries.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will take place on Friday, June 23rd, at 1.30 P.M., at the London Hotel, Taunton. Business: Minutes; report of Council; Treasurer's accounts; election of members of Council and President-elect; place of next annual meeting; intermediate meetings. Instead of the usual address, Dr. J. A. Macdonald, the President-elect, will open a discussion on whether this Branch shall co-operate with the Bath and Bristol and Gloucestershire Branches in forming a Branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis. (Members are specially requested to attend, as it is desirable to have a representative opinion on this subject.) If co operation be decided upon, delegates will be appointed. There will be a lunch at the hotel at 1 P.M., price 3s. Members intending to be present at luncheon are requested to kindly inform the Honorary Secretary on or before June 19th.—R. LIDDON MEADE-KING, M.D., Taunton, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary on Friday, June 30th, at 2.45 P.M. The Council have arranged a joint meeting with the Reading and District Branch. Agenda: Minutes; ballot for new members; exhibition of pathological specimens and living cases. Dr. Ashby, the Medical Officer of Health for Reading and District, will open a discussion on the Prevention of Tuberculosis. Short Papers. A dinner will take place at Exeter College at 6 P.M. after the meeting.—WM. COLLIER, St. Mary's Entry, Oxford, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at the General Hospital, Kettering, on Thursday, June 29th, at 3 P.M. The President-Elect, Dr. John Allison, invites the members to luncheon at the George Hotel, at 1.45 P.M., and will be glad of the favour of a reply, sent to himself, not later than June 25th. Agenda: Report of Committee of Management; proposal of new members—David Stone, M.B. Northampton), John Tait (Sharnbrook, Beds), — Harrison (Daventry); letters and communications; election of representative to General Council and on Parliamentary Bills Committee; vacancies in the Committee of Management to be filled up (Drs. Jones, Cropley, Chillingworth, Phillips and Kennish retire in rotation, and are ineligible for re-election on this occasion); President's Address. Mr. Watson Cheyne, M.B., will give an address on Surgical Tuberculous Diseases, with lantern demonstration. Mr. W. Gifford Nash will exhibit some interesting specimens. Dr. F. B. W. Phillips will read some brief notes on "Toxic Symptoms due to Cheese."—C. J. EVANS, Northampton, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—Preliminary Notice.—The annual meeting will be held at Malvern on Thursday, June 29th. Members having papers to read or communications to make are requested to communicate with the Honorary Secretary at an early date.—GEO. W. CROWE, M.D., Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Medical Institute, Birmingham, on Thursday, June 22nd, at 3.30 P.M. The chair will be taken by the President, Mr. Vincent Jackson, and an address will be given by the President-elect, Mr. Bennett May. The annual dinner will take place at the Grand Hotel, at 6.30 P.M.—WILLIAM F. HASLAM, 54, Newhall Street, Birmingham, Hon. Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will be held in Bolton on Wednesday, June 21st. Applications for membership should be addressed to Dr. BARR, 72, Rodney Street Liverpool, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at the Swansea Hospital on Thursday, June 29th.—A. SHEEN, M.D., Cardiff, D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting will be held at the Hotel Cecil on Tuesday, June 20th, at 6 P.M. The members will dine together at 7 P.M., Mr. Thomas Bryant, President-elect, in the chair.—H. BETHAM ROBINSON, J. W. WASHBOURN, Hon. Secretaries.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held in Carlisle on the afternoon of Friday, June 30th. Members intending to read papers or show cases, and gentlemen applying for membership, are requested to communicate as soon as possible with W. F. FARQUHARSON, Garlands, Carlisle, Honorary Secretary.

SPECIAL CORRESPONDENCE.

BERLIN.

Medical Courts of Honour.—Proposed School for Tropical Diseases at Hamburg.—Overwork in Schools.

THE hope that it would be possible to modify the Bill for the establishment of Medical Courts of Honour in some of its clauses on the occasion of the second and third readings, has not been fulfilled. In spite of opposition freely expressed, no majority could be had for the proposed alterations, and the Bill was passed exactly as it left the hands of the Special Committee. Two points are felt to be particularly unsatisfactory. First of all the words "as such" in the clause: "Political, scientific, and religious opinions or actions of a doctor, *as such*, can never come under the jurisdiction of the Court of Honour," which it is feared may possibly give rise to vexatious interpretations. And secondly, the clause which fixes the maximum of the fines which the Court of Honour may inflict at 3,000 marks (£150), a sum which, to many of the less fortunate colleagues, would mean financial ruin, or something approaching it. But these considerations weighed only with a small minority on the Liberal side of the House, and these were outvoted by the Conservatives and Clericals.

Acting on a proposal by Professor Robert Koch, the German Federal Government have decided to erect an Institute for research on tropical diseases in Hamburg. This town has been chosen in preference to Berlin on account of its harbour, from which sick sailors and passengers can be brought into the institute direct without railway travelling. Thirty beds are to be provided.

A number of educationalists and medical men called a meeting for the purpose of discussing the subject of "overwork in schools and its effect on school children." All the speakers were unanimous in condemning the onerous amount of home-work which is universal at present, and the arrangement of the daily lessons in most educational establishments. Dr. Flatau thought that fatigue statistics should be regularly kept by school directors. Professor Eulenburg said that he was justified by his experience in speaking of "school nervousness," a typical nervous state made up of various nervous disturbances, and adjured parents and teachers to combine against the constantly increasing overwork of school children.

LIVERPOOL.

The Prevention of Malaria.—The Sanitary Condition of the Police Courts and Main Bridewell.—The Drainage of Liverpool and the Neighbourhood.

THE inaugural address in the School of Tropical Diseases was delivered by Major Ross, I.M.S., on June 12th, before a large mixed audience, who were present in response to an invitation from the Senate of University College. The subject was the Possibility of Extirpating Malaria. By the help of microphotographs, which were thrown on the screen, Major Ross

described the life-history of the malarial parasite, which he has investigated with such remarkable success. While it was a matter of common knowledge, he said, that much had been done, and could be done, by drainage to extirpate malaria, he showed that the expense and other considerations made it hopeless to expect to extirpate the disease by such means in the vast infected areas of the tropics. He was, however, strongly disposed to believe that it was possible to abolish malaria from certain districts by destroying the mosquito which was the definite host of the parasite. The mosquito which was the infective agent was not the common form, the culex; but the anopheles, a comparatively rare form which does not fly far, and is often strictly localised. The larva of anopheles was only found in a special kind of pool or puddle, and was easily recognised by its floating head downwards. Major Ross was of opinion that it would be found an easy matter to detect and fill up the pools in any given area which were infested by anopheles, and so prevent its breeding, with the result that malaria would cease to exist in that locality. He hoped before long to have the opportunity of putting his views to the test of experiment in Africa. Dr. Annett, Demonstrator of Tropical Diseases, exhibited on the screen a highly-magnified image of a drop of rat's blood infected with the living and moving tsetse trypanosome.

Attention has lately been directed in the local press to the highly insanitary conditions which are said to obtain in the police courts and the main Bridewell. The stipendiary magistrate's court is immediately above what is known as the great dungeon-room, where the prisoners sit before they appear in court. The dungeon-room is largely ventilated into the court above, which soon becomes highly offensive. The cells and other apartments of the main Bridewell are also stated to be in a condition quite inconsistent with modern ideas of the humane and hygienic treatment of prisoners, many of whom in this case have not yet been brought into court.

A question of some interest regarding the drainage of the populous communities around the estuary of the Mersey has lately come before under the consideration of the Conservator. The drainage of Lower Bebington in Cheshire is discharged into Bromborough Pool, and is causing a nuisance to dwellers in the neighbourhood. The District Council, therefore, propose to construct a sewer which would carry the sewage out into the middle of the Mersey. This proposal has, however, been objected to by the conservator, Vice-Admiral Sir George Nares, and by the representatives of the Manchester Ship Canal. It seems an anomaly that the representative of a purely commercial undertaking should have power to interfere with a local sanitary authority in carrying out efficient drainage operations. In the course of the inquiry which was held, Sir George Nares made the remarkable statement that the time was rapidly approaching when all the towns on the estuary, including Liverpool, would be called upon to cease to discharge their sewage into the Mersey, or, at all events, only to discharge during ebb tide. It is clear that to carry out such an arrangement would involve an enormous outlay.

BRISTOL.

New Municipal Fever Hospital.—Nurses' Home of the Royal Infirmary.

IT is announced that on July 12th the new municipal fever hospital at Ham Green will be formally opened by the Lord Mayor. The hospital is situated on the Avon, about half a mile above the pilot village of Pill, and about four miles by road from Bristol. The old house, which was formerly a country residence, has been converted into an administration block, where the medical resident, matron, nurses and servants will live. The hospital part proper consists of five blocks, one to be used as an isolation block, while the other four, of exactly the same construction to each other, will take scarlet fever, diphtheria, or enteric patients. There is also a separate building for the boilers for hot water; electric light both for the wards and administration block, mortuary, and *post-mortem* room and laundry. Water will be supplied by the Portishead Water Works Company. It seems almost a pity that such a beautiful house and situation should be made into a fever hospital, for the views in the garden, where there are some magnificent cedar trees, are some of the finest in the district, but as no tenant could be got for it, the Corporation were able to purchase the estate at a moderate sum. The wards have been designed by the borough engineer, Mr. Zabbicom, in consultation with Dr. Davies, and passed by the Local Government Board. They are constructed according to the most modern ideas, and every attention has been given to the peculiar nature of the cases which will be treated there. As at present arranged there is accommodation for seventy-five patients.

In aid of the nurses' home at the Royal Infirmary a carnival will be held on June 22nd, 23rd, and 24th, in the Zoological Gardens, at which many attractions, in the shape of a bicycle gymkhana, water polo, etc., are promised. The Royal Artillery Mounted Band will perform, and at booths presided over by well-known Clifton ladies, among whom doctor's wives predominate, the usual tea and necessary dinner will be provided and numerous miscellaneous articles will be purchasable. Weather permitting, the carnival promises to eclipse all previous entertainments of the kind held in Clifton, for in addition to the popularity of such a gathering many persons are interested in the Royal Infirmary and the comfort of the nurses at that institution. It is hoped by this means to raise about £1,000, which will be expended in furnishing the Nurses' Home, where additional rooms for fifty nurses are being added. For a long time it has been felt that those engaged in nursing should not live in the infirmary itself, and when the new wing is open the whole of the nursing staff, both those engaged in the institution as well as those who go out private nursing, will be lodged in the Home.

CORRESPONDENCE.

DIRECT REPRESENTATION AND THE BRITISH MEDICAL ASSOCIATION.

SIR,—Professor Gairdner hastens to disclaim any disrespect for the Council of the British Medical Association, apparently with the object of explaining that his disrespect was for the Association as a whole.

We cannot wonder that Professor Gairdner turns angrily upon the "insignificant coterie," or the "comparatively small section that makes a great deal more noise than it is worth." It is trying, indeed, to his temper to be derided as he vigorously trundles his mop to stay the advance of the tide of medical progress. Many good and great men fail, after a time, to keep pace with their fellows, and imagine that their fellows are going ahead too fast. We cannot blame Professor Gairdner if it is so with him. I have, however, no sympathy whatever with Professor Gairdner's "comparatively large body of quiet men, slow to be disturbed in their important daily avocations," who leave the field open to the agitating minorities. They should remember that "Nature abhors a vacuum." I should like, however, to whisper a little secret to Professor Gairdner, and that is that the bulk of the profession is lukewarm about elections to the General Medical Council, just as one hesitates to expend energy in repairing a superannuated building or to waste new wine by pouring it into old bottles.—I am, etc.,

Highgate, June 11th. HUGH WOODS.

THE HUNTER CASE.

SIR,—I cannot help thinking that I shall be expressing the sentiments of many of my professional brethren in saying that the explanation of the Penal Committee of the General Medical Council of their prosecution of the late Dr. Hunter is eminently unsatisfactory. There seems to me a grim irony in the suggestion of Dr. Glover—according to the report in the *Times* of June 10th—that the prosecution was conducted in a friendly spirit. Nervous to an unusual degree of any litigation, there was scarcely anything the unfortunate man would not have done to avoid the prosecution. At the first objection of the Council he discontinued the use of his foreign M.D. degree, and when, in spite of that concession, he was served with the summons, the shock precipitated the symptoms of the disease which was so soon to prove fatal.

Mr. Carter says that the Committee recommended the prosecution "simply as a legal test case on the propriety of

Mr. Hunter using this M.D.Philadelphia degree." If so, how was this object carried out, seeing that a summons was, presumably, refused on this ground, and granted on quite another? When the object of the Committee could not be thus attained, why was not the prosecution at once dropped? Where did the "friendly spirit" come in in prosecuting Dr. Hunter for another matter entirely outside the one which, according to Mr. Carter, he (Dr. Hunter) desired to have settled? Seldom has an official body occupying the high position of the General Medical Council given so lame an explanation of its conduct in a matter of such importance. Is it to be understood by the profession that such a policy is likely to be repeated?

I appeal to my brethren throughout the country to show by supporting the Hunter Fund their sympathy with the widow of an unfortunate brother who has unhappily fallen a victim to the "kindly spirit" of a body to which he was entitled to look for protection.—I am, etc.,

Major Greenwood, M.D.Brux., LL.B.Lond.,
Hackney Road, N.E., June 13th. Barrister-at-Law.

THE PROPOSED CONCILIATION BOARD.

Sir,—It must be allowed, I think, that the idea of bringing together the representatives of the friendly societies and the members of the medical profession is a good one. At the same time it must be apparent that the General Medical Council have not gone sufficiently into detail in their scheme. We all are aware that the friendly societies possess at the present moment a thoroughly workable organisation, and that they are prepared at a very short notice to nominate and elect men to represent them on a Conciliation Board.

On the other hand, it is evident that the medical profession have no organisation to deal with such a question. The point which appears to me of the greatest importance is, How are the representatives of the medical profession to be elected, and by whom? I submit that neither the British Medical Association nor the medical defence societies could undertake work of this kind. What I propose for the consideration of the profession is the formation of an association of medical officers connected with friendly societies. Let a conference of such medical officers be called together at an early date, and let it appoint a committee to draw up a scheme for the formation of a permanent association. In the meantime perhaps you, Sir, will permit your columns to be used for discussing this very important subject.

I cannot conclude without expressing the satisfaction that is felt with the action taken by the General Medical Council respecting the connection between the profession and these particular associations which combine life insurance with medical aid work.—I am, etc.,

Cardiff, June 10th. T. Garrett Horder.

Sir,—The extraordinary exhibition of impotence by the General Medical Council will create little surprise among those members of the profession accustomed to the proceedings of that body, but members of the profession who from their actual experience know the evils of these medical aid associations will agree that it would have been better for the Council to have adopted an honest *non possumus* rather than the pious attitude it has done.

As a result of six years' labour there is brought forth a more than *ridiculus mus*. The Council was asked to say that it is against the public interest that a medical practice should be carried on or owned by other than a medical man whose conduct is subject to its discipline, and it replies with "a recommendation to form a Board of Conciliation"! "A board to compromise principles," I suggest as an alternative and somewhat more appropriate name.

This appears to tacitly acknowledge the right of a body of laymen to carry on a medical practice, and in this regard the Council adds the fault of being inconsistent, for while adopting this attitude on the subject of medical aid associations, it has affirmed the propriety of the Lord Chancellor's desire to render illegal the owning of medical practices by companies. Let me ask, What is the difference whether the owners of a practice are registered as a company or not? It would appear that the General Medical Council adopts this attitude: A medical aid association may own and carry on a practice so long as it does not register itself as a company—so registered, it may not do so.

The statement that friendly societies representing funds (not capital) amounting to £23,000,000 have agreed to this Board of Conciliation is immaterial. We are not dealing with a matter capable of conciliation or compromise: we are dealing with the principle upon which the existence of any profession rests. No one wishes otherwise than well to the friendly societies or to deprive them of medical attendance. The position that it is against the public interest for medical practices to be owned by other than registered medical men becomes clearer and clearer every day, and even friendly societies, if their funds amounted to a thousand times the specified sum, may not be allowed to carry on a medical practice.

The essential of the second part of the Council's proceedings is the following resolution:

> That the Council strongly disapprove of medical practitioners associating themselves with medical aid associations by which systematic canvassing and advertising for the purpose of procuring patients is practised.

This can only be of interest to those antiquarians who assert that the Council itself is an anachronism. This opinion is recorded in 1899 and *Qui facit per alium facit per se* is a legal aphorism from all time. The profession since it was a profession has declared the same. Centuries ago a promise to abstain from advertisement was made a condition of obtaining a diploma. There is no difficulty in showing that it was an article of the ethical creed 2000 years ago. Why in the name of common sense not professionally infamous? Door to door or other canvassing for patients for a medical practice belonging to laymen and the responsible doctor allowed to still go free from disciplinary restraint! Why such hesitation to characterise such as "professionally infamous" while extending that harsh-sounding phrase to other indiscretions far less important? The moral of the matter seems to be that the time is ripe for the profession to seriously call for the reconstitution of the General Medical Council.—I am, etc.,

Birmingham, June 12th. Leslie Phillips.

THE CASE OF DOCKRELL *V.* DOUGALL.

Sir,—Everyone will agree with Mr. Havelock Sturge's opinion that recent events in the law courts make it more than ever desirable that medical men should not neglect the precaution of becoming members of a defence union. In the particular case of Dockrell *v.* Dougall, however, such membership would have availed the plaintiff nothing. It does not seem to be generally known that Mr. Dougall is a fully-qualified medical man, and that it was as such that he was introduced to Dr. Dockrell. In making the now famous references to gout and "Salyco," the latter was under the impression that he was discussing a matter of professional interest with a *confrère*, and naturally expected that his remarks would be accorded the measure of privacy which is customary on such occasions. The fact of Mr. Dougall's membership of the profession became even more serious when Dr. Dockrell felt obliged to take proceedings. I do not know whether at that time Dr. Dockrell was a member of a defence union or not; but even if he were, the union could not have fought the matter for him, for the reason that the rules of all these societies specifically forbid the management from taking part in disputes between two medical men. It is only in cases of Doctor *v.* Layman that they can interfere.—I am, etc.,

York Street, W., June 12th. Leonard Williams.

PRESCRIBING IN GENERAL PRACTICE.

Sir,—As an attempt to solve the difficulty as between "doctor" and "chemist" and to emphasise our claim to deal in "brains" rather than "bottles" (whether we or the chemist "compounds"), I beg to offer the following instances:

Instead of 3s. 6d. per visit with medicine and 2s. 6d. for consultation with medicine (2s. now in some places), a new departure was made thus: 2s. 6d. for visit or consultation with or without medicine or prescription for medicine as the minimum fee. When 3s. 6d. is charged for visit and medicine, 1s.

is the fee for a visit. So there is a temptation (often yielded to) to "pile on physic," and the drugs are regarded as our "stock in trade." We are trained to think and observe and prescribe, and some of us can also dispense passably. The chemist is trained to dispense, not to prescribe; but he also deals in trusses and other "patents." In the case quoted, a prescription is given or sent (by the patient) by the doctor to the chemist. This is copied for reference and retained, and on no account repeated without an order in writing from its author, the doctor. No charge is made to the patient in any case for medicine. The doctor pays the chemist at the rate of 4d. to 6d. a bottle.

In another case the doctor does his own dispensing. The minimum fee being the same as above in both.

The chemist when employed thus dispenses for all classes and comes to know them and gets a good introduction, and receives the full value of his drugs and bottles and about twice as much again for his "skilled labour" in each case at the rate quoted. The doctor is saved much trouble and worry and he (not the patient) pays for this exemption, or if he dispenses himself saves the cost of the chemist's labour. In either case there is no premium as now, on needless physicking, and no temptation for him to pile on "bottles" by way of getting 3s. 6d. instead of 1s. when only a visit or consultation is necessary.

Awaiting comments hereupon and hoping to see this matter thoroughly threshed out by those concerned—I am, etc.,

May 24th. ANOTHER G. P.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE ROYAL ARMY MEDICAL CORPS.

THE annual dinner of the Royal Army Medical Corps took place on Monday, June 12th, at the Whitehall Rooms, London. The chair was occupied by the Director-General, who, after the toast of "The Queen" had been honoured, gave that of "The Corps." In the course of his remarks he congratulated the officers present on the altered circumstances under which they met this year. The formation of the Royal Army Medical Corps announced by Lord Lansdowne at the historic dinner at the Mansion House had brought about a change which had already proved to be beneficial and which would, he felt no doubt, bring still greater benefits to the service in the future. Surgeon-General O'Dwyer then proposed "The Health of the Director-General," and spoke of the regard and esteem felt for him by every officer of the corps. The Director-General, in the course of a brief reply, said that when he first took up the duties of his office he had called to pay his respects to the Adjutant-General and that after a cordial interview that distinguished officer had said to him as he was taking leave, "There is one piece of advice I will give you. Whatever happens and whoever opposes you always stick up for your department." He had endeavoured to follow that advice in the past, and proposed to continue to follow it in the future. The conclusion of the speech was warmly applauded.

The formal proceedings, which were none the less agreeable because short, then came to an end. The arrangements for the dinner, which were most successful, were carried out by Lieutenant-Colonel J. Hector, M.B., A.M.S., honorary secretary, to whom we are indebted for the following list of those present at the dinner:

Surgeon-Generals.—J. Jameson, C.B. (Director-General), A. F. Bradshaw, C.B., C. McD. Cuffe, C.B., A. A. Gore, C.B., R. Harvey, C.B., D.S.O., H. S. Muir, W. Nash, T. F. O'Dwyer, A. F. Preston, J. B. C. Reade, C.B., P. B. Smith, W. D. Wilson.

Colonels.—W. F. Burnett, J. A. Clary, O. Codrington, H. Comerford, J. G. Don, A. W. Duke, T. J. Galloway, C.B., C. A. Innes, T. Ligertwood, J. H. McNamara, C.B., W. T. Martin, J. Maturin, J. L. Notter, T. O'Farrell, W. F. Stevenson.

Lieutenant-Colonels.—W. H. Allen, W. B. Allin, J. F. Beattie, G. D. Bourke, J. J. Bourke, A. L. Browne, W. L. Chester, A. F. S. Clarke, W. Donovan, D. Edge, R. Exham, J. A. Gormley, W. L. Gubbins, J. Hector, R. D. Hodgson, J. P. Hunt, W. Johnston, W. Keir, W. W. Kenny, H. C. Kirkpatrick, B. W. S. Large, H. A. Mackinnon, D.S.O., W. A. May, W. Rainsford, J. F. Ruttledge, M. Ryan, P. B. Tuthill, O. G. Wood, T. W. Wright.

Majors.—W. Babtie, C.M.G., M. W. Baker, W. G. A. Bedford, M. O. D'Caddell, C. H. Burtchaell, A. M. Davis, J. D. Day, A. Dodd, S. F. Freyer, J. Grier, F. A. Harris, E. M. Hassard, H. Hathaway, J. Hickman, S. Jackson, G. Hilliard, C.M.G., H. E. R. James, R. Jennings, O. R. A. Jullian, R. E. Kelly, A. Keogh, S. F. Lougheed, H. J. McLaughlin, W. J. Macnamara, W. G. Macpherson, H. J. Moberly, J. D. Moir, A. H. Morgan, F. J. Morgan, E. North, D. M. O'Callaghan, T. J. O'Donnell, E. V. A. Phipps, W. Pope, M. W. Russell, A. A. Sutton, G. T. H. Thomas, F. H. Treherne, G. T. Trewman, S. Westcott, E. M. Wilson, C.M.G., D.S.O.

Captains.—K. B. Barnett, T. B. Beach, H. J. M. Buist, H. E. Dowse, H. G. Faichnie, M. L. Hughes, J. C. Jameson, S. G. Moores, E. M. Pilcher, C. W. Profeit, P. H. Whiston, L. Way, E. McK. Williams.

Guests.—Mr. Vesey Holt, Dr. Dawson Williams, Mr. T. Wakley, jun.

The Director-General of the Medical Department of the Royal Navy and the President of the Indian Medical Board were also invited, but were unable to be present.

INDIAN MEDICAL SERVICE.

THE annual dinner of the Indian Medical Service was held at the Hotel Cecil on June 8th. In proposing the customary loyal toasts, the Chairman, Surgeon-General Sir W. Guyer Hunter, K.C.M.G., drew attention to the interest shown by the Prince of Wales in medical work, particularly instancing the deep sympathy he has shown in the movement for the prevention of tuberculosis. Dr. W. S. Playfair took the opportunity, whilst proposing the toast of the "Navy and Army," to refer to the great change for the better which recent regulations had made in the Army Medical Service, and stated that the most important thing was that in consequence of these beneficial alterations the Service was already attracting an adequate number of suitable candidates. Sir Henry F. Norbury, K.C.B., Director-General Royal Navy Medical Department, in responding, said that the Navy Medical Officers might be called a contented body, humorously adding that absolute perfection was a mistake, because it prevented people from grumbling, and took away a great deal of the pleasure of life. The Director-General of the Army Medical Service (Surgeon-General Jameson, C.B.), in responding for the army, sketched the different condition of the sick and wounded in wars of the present day as compared with the Crimea. He thought the Sirdar had summed up the results of the work of the Medical Service very happily in the expression: "A minimum of suffering and a maximum of comfort." Surgeon-General Sir Joseph Fayrer proposed "The Health of the Guests" in his most happy manner; and Mr. Thomas Bryant, in responding, said that the civilians present appreciated very highly the opportunity of meeting a body of men of whom the profession was always particularly proud. To Mr. Edmund Owen was entrusted the duty of proposing the toast of "The Indian Medical Service," and he conveyed in a capital speech his views on the advisability of raising the age at which men should enter the service. Though he admitted that knowledge was the monopoly of the young practitioner of twenty-one, he nevertheless forcibly showed the benefits that would accrue if the Service Examination were altered so that it would attract the men who had been house-surgeons, and had had actual experience. In response to loud and repeated calls, the Director-General of the Indian Medical Service (Surgeon-General R. Harvey) spoke of the improvement which was being made in the Chemical Department, and referred to the proposed Alienist Department for India. There was a project, also, he said, for a Bacteriological Department, which would, he hoped, bring India up to date in the matter of modern medical research. Though the speeches lasted till a very late hour, Lieutenant-Colonel Freyer was somewhat vociferously compelled to make a few remarks, an opportunity he turned to some account by a neatly-worded reference to the fact that no recognition had ever been known in the history of the service to have been accorded for sound practical professional work. The following also were present:

Surgeon-Generals.—A. C. C. De Renzy, C.B., W. R. Rice, C.S.I., P. W. Sutherland.

Colonels.—A. M. Branfoot, W. E. Cates, H. Cayley, C. P. Costello, D. E. Hughes, J. C. Penny, A. Porter, W. H. Roberts, B. Williamson, W. A. S. Wynne.

Lieutenant-Colonels.—H. Armstrong, Oswald Baker, W. H. Cadge, J. W. Clarkson, A. Crombie, A. H. C. Dane, E. F. Drake-Brockman, Theodore Duka, G. A. Emerson, J. C. Fullerton, G. Grant, D. F. Keegan, J. B. Lyon, C.I.E., J. Maitland, G. Massey, H. K. McKay, J. Parker, J. Reid, W. H. Riddell, J. B. Scriven, J. G. Skardon, G. S. Sutherland, W. H. Thornhill, A. H. Williamson.

Majors.—W. S. Caldwell, F. Carter, G. W. P. Dennys, A. S. Faulkner, J. Gilbert, S. Hassan, P. Hehir, H. Herbert, R. T. Lyons, P. D. Pank, F. Peck, F. C. Reeves, J. Scott, H. N. Stevenson, J. F. Tuohy, D. Warliker.

Captains.—J. I. Calvert, R. H. Castor, H. E. Drake-Brockman, G. Ramsey, R. F. Standage, R. G. Turner, C. J. R. Whitcombe.

Lieutenant.—J. N. Smith

Guests.—Dr. H. W. G. Macleod, Mr. Arthur Low, and Mr. Wakley

THE BIRTHDAY HONOURS.

THE six honours conferred for services in Crete were well earned and thoroughly deserved; but the fact that no honours have been given for the trying fighting at Candia on September 5th and 6th last has attracted considerable attention. That was of no ordinary character, and called forth the highest qualities of our officers and men. Especially do we miss recognition of the gallant and admirable services of certain officers and men of the Royal Army Medical Corps.

It is well to recall what these services were, in the cowardly and treacherous attack of certain Moslems on the British troops. On September 4th it was rumoured that an attack was not improbable, and with rare prescience Lieutenant-Colonel Ryan, R.A.M.C, the senior medical officer, took steps to meet a surprise in a detached field hospital, near the ramparts, about three-quarters of a mile from the headquarters. Having obtained rifles and ammunition from the Highland Light Infantry, he armed the 42 patients in the hospital and the 10 non-commissioned officers and men of the R.A.M.C., and directed Lieutenant Addams Williams, R.A.M.C., to make such dispositions as might prevent the hospital being rushed, he himself having to return to headquarters. Captain Drury, R.M.L.I., in the journal of that corps of December 7th, 1898, says: "Had not the Principal Medical Officer (Ryan) on the previous day caused arms and ammunition to be conveyed to the hospital, it is certain beyond peradventure that that institution, with its patients, its medical staff and its corporal's guard, would have been utterly wiped out."

It is only necessary to recall that Lieutenant Williams and his men very gallantly defended the hospital under a galling fire from the ramparts and looped high houses overlooking it; how Lieutenant Clarke, R.A.M.C., and eight volunteers sallied out and rescued Private McNeill, H.L.I., who was lying wounded on the ramparts, which cost the rescuers three killed and several wounded, including Clarke himself.

It seems strange that such services should be unrecognised by honours, more especially since General Sir George White himself, at the St. Patrick's dinner in London, very highly eulogised Ryan's soldierly qualities in Crete.

We trust that it is not yet too late to bestow honour on whom honour is due.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

MAJOR R.A.M.C.—Wanted an exchange to India the coming trooping season; Bombay Presidency preferred. Arrived home December, 1898. Apply, stating terms, to "Wild Heather," care of Messrs. Holt and Co., 3, Whitehall Place, London, S.W.

MEDICAL OFFICERS FOR SALISBURY PLAIN.

THE following medical officers, R.A.M.C., have been selected for duty this season on Salisbury Plain during the exercises by the troops:

1st Cavalry Brigade	...	Major Melville.
Royal Horse Artillery	...	Major Dodd.
2nd Brigade Division, R.F.A.	...	Major Reckitt.
1st Infantry Brigade	...	Lieutenant Hewitt.
2nd " "	...	Lieutenant Scott.
3rd " "	...	Captain Faichnie.
4th " "	...	Lieutenant Parker.
6th " "	...	Lieutenant Gill.
7th " "	...	Lieutenant Jones.
8th " "	...	Lieutenant Wingfield.

ROYAL NAVY MEDICAL SERVICE.

INSPECTOR-GENERAL HENRY MACDONNELL, C.B., has been placed on the retired list, June 4th. He was appointed Surgeon August 1st, 1861, Staff-Surgeon July 16th, 1874, Fleet-Surgeon January 28th, 1882, Deputy-Inspector-General December 27th, 1890, and Inspector-General April 10th, 1897. He was Fleet-Surgeon of the *Invincible* at the bombardment of the Alexandria forts in 1882 and during the Egyptian war, and received the medal with clasp and the Khedive's bronze star. He was made a Companion of the Order of the Bath on the occasion of Her Majesty's Diamond Jubilee in 1897.

Staff-Surgeon EDWARD H. WILLIAMS has been promoted to be Fleet-Surgeon, May 4th. His previous commissions are dated: Surgeon, September 30th, 1878; Staff-Surgeon, September 30th, 1890.

The following appointments have been made at the Admiralty: ARTHUR GASKELL, Surgeon, to the *Vivid*, June 6th; RICHARD L. PRICE, M.B., and ERNEST S. TUCK, Surgeons, to the Hong Kong Hospital, June 7th; THOMAS C. MEIKLE, M.A., M.B., Surgeon, to the *Linnet*, June 7th; HUGH S. BURNISTON, M.B., Surgeon, to the *Esk*, June 7th.

ROYAL ARMY MEDICAL CORPS.

MAJOR JOHN W. BEATTY, M.D., retires on retired pay, June 14th. He entered the service as Surgeon July 30th, 1881, and became Surgeon-Major twelve years later. He was in the Egyptian war of 1882, being present at the battle of Tel-el-Kebir, and receiving the medal with clasp and the Khedive's star. He was also with the Ashanti Expedition in 1895-6, for which a star was granted.

Major WILLIAM G CLEMENTS also retires on retired pay, June 14th. His commissions are also dated: Surgeon, July 30th, 1881; Surgeon-Major, July 30th, 1893. He has no war record in the *Army Lists*.

INDIAN MEDICAL SERVICE.

COLONEL ARTHUR STEPHEN, M.B., Bengal Establishment, retires from the service from May 19th. He was appointed Assistant Surgeon September 30th, 1857, and made Surgeon-Colonel May 19th, 1894. He was engaged in the Abyssinian war in 1868, and has the medal for that campaign.

Surgeon-Major ROBERT MOIR, M.D., F.R.C.S.E., retired Bengal Establishment, died at St. Andrews, N.B., on the 7th instant. He joined the department, December 20th, 1853, and retired therefrom June 16th, 1877.

An examination for the Indian Medical Service is announced to be held on July 28th. Regulations and information may be obtained from the Military Secretary, India Office, London.

THE VOLUNTEERS.

THE undermentioned officers have resigned their commissions from the dates specified: Surgeon-Lieutenant R. T. CANN, 1st Cornwall Artillery (Duke of Cornwall's) (Western Division Royal Artillery), June 7th; Surgeon-Captain E. W. SKINNER, M.B., 1st Cinque Ports Rifles, June 7th; Surgeon-Captain P. T. LUNN, 2nd Volunteer Battalion the Gloucestershire Regiment, June 14th; Surgeon-Captain W. K. LOVELESS, 1st Volunteer Battalion the Hampshire Regiment, June 14th; Surgeon-Lieutenant T. LIVINGSTONE, M.D., 2nd Volunteer Battalion the Durham Light Infantry, June 14th.

Surgeon-Lieutenant-Colonel C. BULLMORE, from the 1st Volunteer Battalion the Duke of Cornwall's Light Infantry, is appointed Surgeon-Captain in the 1st Cornwall Artillery (Duke of Cornwall's) (Western Division Royal Artillery), June 7th.

Mr. HENRY MITCHELL, late Surgeon-Major Royal Horse Guards, is appointed Major in the 2nd Volunteer Battalion the Prince of Wales's Own West Yorkshire Regiment, June 7th.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the respective corps specified: WILLIAM O. EVANS, 2nd Volunteer Battalion the Royal Welsh Fusiliers, June 7th; GEORGE STEPHEN, M.B., 2nd Volunteer Battalion the Durham Light Infantry, June 7th; SEPTIMUS FARMER, 1st North Riding of Yorkshire Artillery (Western Division Royal Artillery), June 14th; JOHN MCKIE, M.B., 5th (Glasgow Highland) Volunteer Battalion the Highland Light Infantry, June 14th.

Surgeon-Lieutenant W. MURDOCH, M.D., 3rd (Dumfries) Volunteer Battalion the King's Own Scottish Borderers, is promoted to be Surgeon-Captain, June 14th.

Surgeon-Captain J. ADAM, M.D., (1st Ross Highland) Volunteer Battalion Seaforth Highlanders (Ross-shire Buffs, the Duke of Albany's), is promoted to be Surgeon-Major, June 14th.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From	To
Lieutenant-Colonel W. A. May	Cork	Devonport.
" " P. H. Johnston, M.D.	Straits Stlmts.	C. of G. Hope.
" " A. W. Browne	Devonport ...	Malta.
Major B. T. M'Creery, M.B.	Holywood ...	Mauritius.
" A. P. O'Connor	Dublin	C. of G. Hope.
" C. G. D. Mosse	Chatham ...	St. Helena.
" L. Haywood, M.B.	Mullingar ...	Curragh.
" L. E. Anderson	Cork	Kilworth.
" L. R. Colledge	C. of Gd. Hope	Southern.
" H. J. Fletcher, M.B.	Gibraltar ...	Egypt.
" S. R. Wills	Chester ...	Birmingham.
" J. H. Brannigan	Curragh ...	Mullingar.
" J. H. Daly	Egypt	Kilworth.
" A. B. Hinde	Portsmouth ...	Gosport.
" R. E. Kelly, M.D.	Woolwich ...	Tower.
Captain A. Pearse	"	Aldershot.
" H. D. Mason	Norwich ...	Gt. Yarmouth.
" O. L. Robinson	Fort Camden ...	Straits Stlmts.
" C. B. Martin, M.B.	Bengal	Dover.
" G. E. Hughes	Home District	Punjab.
" J. F. M. Kelly, M.B.	—	Dublin.
" F. G. Faichnie	Bengal ...	Aldershot.
" F. A. Symons M.B.	Tregantle ...	Devonport.
Lieutenant H. L. W. Norrington	—	Tregantle.
" R. Selby, M.B.	Aldershot ...	South Africa.
" A. E. Wild	Woolwich ...	"
" J. S. Gallie	Maryhill ...	Mauritius.
" F. J. C. Heffernan	Athlone ...	"
" G. M. Goldsmith, M.B. ...	Chester ...	Chipping.
" J. M. Sloan, M.B.	Maryhill ...	Barry Camp.
Quartermaster J. B. Short	Crete	Edinburgh.
" J. C. B. Whitehorn ...	—	York.

Lieutenant-Colonel R. H. ROBINSON, retired pay, has assumed the medical charge of the troops in Guernsey.

Lieutenant-Colonel U. J. BOURKE has been granted increased pay under Article 362 of the Royal Warrant.

PERSONAL ASSISTANT TO SURGEON-GENERAL, BOMBAY.

THE Secretary of State has sanctioned the appointment of a personal assistant in lieu of a secretary to the Surgeon-General with the Bombay Government. The pay of the appointment is to be Rs.600 per mensem, with Presidency house rent, but no private practice will be allowed.

COLONEL D. SINCLAIR, C.S.I., has been appointed Surgeon-General to the Government of Madras in succession to Surgeon-General Sibthorpe, who retired on May 17th. Colonial Sinclair, who has lately been Chief Civil Medical Officer, Burmah, has served in that province for over twenty-seven years. After the third Burmese war he showed himself to be a successful organiser and administrator in the military, sanitary, and gaol departments of Burmah.

THE Government Quinologist, Madras, Mr. Standen, has been deputed to visit Java to study the system of planting cinchona and manufacturing quinine there.

SUCCESSFUL VACCINATION.—Dr. E. Knowles of Birkenhead has received the Government grant for efficient vaccination.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

APPOINTMENTS.—The new Vice-Chancellor is Mr. Chawner, Master of Emmanuel College. Sir Michael Foster and Dr Donald MacAlister are among the electors to the newly-established professorship of agriculture.

VACATION COURSES.—Professor Woodhead announces a number of courses of instruction in various branches of pathology, and Professor MacAlister courses in osteology, etc., during the ensuing Long Vacation.

DEGREES.—The following medical and surgical degrees were conferred on June 8th:

Doctor of Medicine.—A. P. Beddard, M.A., Trinity; G. M. Scott, B.A., St. Peter's; F. W. Garrad, B.A., Clare.

Bachelor of Medicine.—F. H. Allfrey, B.A., and E. R. Hunt, B.A., Trinity; H. A. Gaitskell, M.A., Clare; E. P. Sewell, B.A., and A. M. Ware, M.A., Pembroke; A. E. Carsberg, B.A., Caius; P. R. Lowe, B.A., Jesus; H. F. Parker, B.A., Emmanuel.

Bachelor of Surgery.—Messrs. Allfrey, Hunt, Gaitskell, Sewell, Ware, Carsberg, and Parker, as above; and J. H. Kemp, B.A., Clare.

APPOINTMENTS.—Mr. A. E. Shipley, of Christ's, is reappointed Lecturer in Invertebrate Morphology; Dr. D. MacAlister has been elected a member of the recently-established Board of Agricultural Studies.

MASTERS OF SURGERY.—Under the new regulations for this degree Mr. T. Holmes, M.A., Pembroke, F.R.C.S., and Mr. C. T. Dent, M.A., Trinity, F.R.C.S., have been approved for the degree of M.C., in consideration of their distinguished contributions to the science and art of surgery.

VICTORIA UNIVERSITY.

THE following degrees have been conferred:

Degree of M.D.—H. E. Annett,* University; C. A. Davies,† Owens; C. R. Marshall,* Owens; T. A. Rothwell,† Owens; Peter Thompson,* Owens, J. D. Windle, Owens.

* Gold medal. † With commendation.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE LONDON COUNTY COUNCIL.

AT the first meeting of the London County Council after the Whitsun recess, held last Tuesday, Lord Welby in the chair, it was resolved to purchase the site of Reid's brewery in Clerkenwell, at a cost of £200,000, under Part III of the Housing of the Working Classes Act, with a view to rehouse thereon some 3,000 persons of the artizan class who will be displaced by the new street the Council is about to make from Holborn to the Strand. An amendment which would have had the effect of pledging the Council to sell or lease land acquired for housing purposes under Part III of the Housing Act was rejected by a large majority.

A further report of the Improvements Committee to clear a site at Millbank, Westminster, embank the Thames from Victoria Tower to Lambeth Bridge, and, indeed, Grosvenor Road, etc., was adjourned. This scheme involves the displacement of 1,864 persons of the labouring class, of whom some 330 are living in insanitary conditions, and it is proposed to utilise part of the adjacent site of the old Millbank Prison, which has been acquired by the Council in which to rehouse some of the persons displaced. The cost of the complete scheme is estimated at £500,000; the Westminster Vestry, it is anticipated, will contribute not less than £100,000, while the Government is expected to assist in the widening of Abingdon Street as an improved approach to the Houses of Parliament.

FEES FOR MEDICAL CERTIFICATES.

E. A. W. writes: A person in poor circumstances, *but not attended by the parochial medical officer*, becomes insane, and requires to be sent away to an asylum *as a pauper*. A magistrate calls in the parochial medical officer to certify as to the mental condition of the patient, but a certificate of the previous history of the case is brought by the relieving officer to her usual medical attendant to fill up. Can the latter charge for the information? If so, how much? And who has to pay the fee, the Board of Guardians or the patient's friends?

*** We are afraid our correspondent cannot now establish a claim for any fee from the relieving officer for the information he gave at his request. He should have made terms for this at the time, and should have declined to give any certificate whatever unless a fee for it were forthcoming.

T. H. R.—The following are the statistics for the year 1898:

	England and Wales.	33 Large Towns (including London).	32 Large Provincial Towns.
Birth-rate (per 1,000 living)	29.40	30.30	30.90
Death-rate	17.60	19.00	19.30
Zymotic death-rate	2.22	2.85	2.87
Infant mortality (per 1,000 births)	161.00	178.00	185.00

Urban death-rate in England and Wales = 18.3 per 1,000 living.
Rural " " " = 16.0 " "
The death-rate for phthisis is not yet ascertained. "

HEALTH OF ENGLISH TOWNS

IN thirty-three of the largest English towns, including London, 6,627 births and 3,591 deaths were registered during the week ending Saturday last, June 10th. The annual rate of mortality in these towns, which had been 16.0 and 17.7 per 1,000 in the two preceding weeks, declined again to 16.4 last week. The rates in the several towns ranged from 10.8 in West Ham, 11.0 in Norwich, 11.4 in Croydon, and 13.2 in Gateshead, to 20.8 in Oldham, and in Sunderland, 20.9 in Liverpool, 21.0 in Salford, and 22.9 in Manchester. In the thirty-two provincial towns the mean death-rate was 16.9 per 1,000, and was 1.2 above the rate recorded in London, which was only 15.7 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.8 per 1,000; in London the rate was equal to 2.0 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.9 in Salford, 3.2 in Bolton, 3.4 in Manchester, and 3.5 in Swansea. Measles caused a death-rate of 1.0 in Bolton and in Salford, 1.1 in London and in Liverpool, 1.3 in Nottingham, and 2.2 in Manchester; and whooping-cough of 1.0 in Leicester and in Oldham, 1.3 in Hull, 1.5 in Huddersfield and 1.6 in Plymouth. The mortality from scarlet fever and "fever" showed no marked excess in any of the large towns. The 62 deaths from diphtheria in the thirty-three towns included 28 in London, 7 in Swansea, 7 in Sheffield, 6 in Leicester, 6 in Hull, and 3 in West Ham. One death from small-pox was registered in London and one in Hull, but not one in any other of the thirty-three large towns; and only one small-pox patient was under treatment last week in the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had risen from 2,161 to 2,212 at the end of the three preceding weeks, had further increased to 2,269 on Saturday last, June 10th; 278 new cases were admitted during the week, against 211, 229, and 260 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 10th, 961 births and 576 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 16.9 and 19.9 per 1,000 in the two preceding weeks, declined to 18.9 last week, but was 2.5 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 14.1 in Leith and 17.6 in Paisley to 21.3 in Dundee and 23.7 in Perth. The zymotic death-rate in these towns averaged 2.2 per 1,000, the highest rates being recorded in Glasgow and Leith. The 264 deaths registered in Glasgow included 24 from measles, 4 from scarlet fever, 4 from whooping-cough, 4 from "fever," and 4 from diarrhœa. Five fatal cases of whooping-cough were recorded in Leith, 4 in Edinburgh, and 3 in Dundee.

MEDICAL NEWS.

THE Duchess of York will open the new Nurses' Home of Queen Charlotte's Hospital, in the Marylebone Road, on July 17th.

DURING the International Congress of Women, to be held at the Westminster Town Hall from June 26th to July 4th, two days (June 27th and June 30th) will be devoted to a session on Women in Medicine, and a session on Nursing, respectively, when papers will be read and discussed. Further particulars will be found in the advertising columns.

AT the biennial festival dinner of the National Hospital for the Paralysed and Epileptic, Queen Square, both the Chairman, Sir Charles Hall, Q.C., M.P., and Sir Henry Burdett, K.C.B., paid a high compliment to the manner in which the hospital is administered. Donations and subscriptions were announced amounting to over £2,800.

THE IRISH MEDICAL ASSOCIATION.—The Irish Medical Association, as already announced, will hold its annual meeting this year at Cork on Tuesday next, under the presidency of Dr. N. J. Hobart. The local committee, of which Dr. P. G. Lee of Cork is the Honorary Secretary, has organised an excursion for the following day by steamer round the harbour of Queenstown during the regatta of the Royal Cork Yacht Club. Luncheon will be served on board.

REGISTRATION OF MIDWIVES.—Lady Balfour of Burleigh presided at the annual meeting of the Association for the Promotion of Compulsory Registration of Midwives on June 9th. Mr. J. H. Johnstone, M.P., who moved the adoption of the annual report, said that the conference held at the suggestion of the Lord President of the Council between representatives of the General Medical Council and of the promoters of the Bill had been so far fruitful that the latter had been able to frame a measure which he believed would be in the main acceptable to the Council. He urged that the Association should direct its efforts to securing, first, that all persons habitually undertaking the practice of midwifery should not be permitted to do so without qualification; and secondly, necessary legal supervision, not only for the preven-

tion of evil practices, but also for the safety of the public. Mr. F. G. Roumieu (coroner) said that coroners had for years recognised that some alteration in the present state of affairs must be made.

ST. GEORGE'S HOSPITAL GRAPHIC SOCIETY.—At the annual meeting held on Tuesday, June 6th, the President, Dr. W. H. Dickinson, resigned his office, which he had held since the death of the first President of the Society, Sir Prescott Hewett. Mr. T. Clinton Dent, who has always supported the Society by contributions of photographs, alpine and pathological, was elected in his stead. The exhibition was then declared open until June 10th. Of the two parts of the exhibition, the professional and pathological was the less prominent, and, it must be confessed, not so well supported as in past years. It contained, however, some admirable microphotographs by Mr. H. R. D. Spitta, and some drawings and paintings by Mr. P. L. Mummery. As in past years the general collection was admirably arranged by the Secretary of the Society, Dr. C. Slater, in the Board Room. The most original and effective exhibits were undoubtedly those of Dr. H. B. Muir, while the water colours and drawings of winter scenery around Davos by Mr. E. A. Wilson were very attractive. Dr. W. H. Dickinson, Dr. Dakin, Dr. Drewitt, Dr. G. F. Blandford, and Mr. A. H. Ward contributed as in past years. Mr. Dent sent some wonderfully sharp Alpine photographs, and Mr. Barwell some of quiet English scenery. The interest of the exhibition was further sustained by two magic lantern evenings.

THE SANITARY INSTITUTE.—The eighteenth congress of the Sanitary Institute will be held at Southampton from August 29th to September 2nd, under the presidency of Sir W. H. Preece, K.C.B., President of the Institute of Civil Engineers. The congress numbers three sections: (1) Sanitary Science and Preventive Medicine, presided over by Sir Joseph Ewart, M.D., F.R.C.P., J.P.; (2) Engineering and Architecture, presided over by James Lemon, M.Inst.C.E., F.R.I.B.A.; (3) Physics, Chemistry, and Biology, presided over by Professor Percy F. Frankland, Ph.D., B.Sc., F.R.S. In addition eight special conferences of municipal representatives, port sanitary authorities, medical officers of health, which will be presided over by Dr. T. Orme Dudfield; medical officers of schools, under the presidency of Dr. Shelly, of Hertford; engineers and surveyors to county and other sanitary authorities; veterinary inspectors, sanitary inspectors, and domestic hygiene will be held. Mr. Malcolm Morris will give a lecture to the congress on Tuberculosis; and Bailie Dick, J.P., Chairman of the Health Committee, Glasgow, will deliver a popular lecture on the Glasgow Infectious Diseases Hospital. In connection with the congress a health exhibition will be held, and it appears that already over 300 authorities, including county councils, have appointed delegates.

MEDICAL VACANCIES.

The following vacancies are announced:—

ABERDEEN UNIVERSITY.—Additional Examiner for Graduation in (1) Zoology, (2) Medicine, including Clinical Medicine, and (3) Midwifery. Appointments for each four years. Grants of £30 per annum to Examiners in Zoology and Midwifery and £40 to the Examiner in Medicine. Applications to the Secretary by July 4th.

BATH: ROYAL UNITED HOSPITAL.—House-Surgeon. Appointment for three months, but eligible for re-election for one year. Salary at the rate of £60 per annum, with board, lodging, and washing. Applications to the Secretary by June 20th.

BEDFORD COLLEGE FOR WOMEN.—Lectureship in Bacteriology. Applications to the Secretary, York Place, Baker Street, W., by June 19th.

BEDFORD COUNTY HOSPITAL.—(1) Senior House-Surgeon. Appointment for one year, but eligible for re-election. Salary, £100 per annum, with apartments, board, and washing. (2) Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided, and honorarium of £10. Applications to the Secretary by June 19th.

BIRKENHEAD: BOROUGH HOSPITAL.—Visiting House-Surgeon. Salary, £75 per annum, with board, lodging, and washing. Applications to the Chairman of the Weekl Board

BIRMINGHAM GENERAL HOSPITAL.—House-Physician. Appointment for one year, but eligible for re-election. Salary £70 per annum, with residence, board, and washing. Applications to the House-Governor by June 30th.

BIRMINGHAM: MASON UNIVERSITY COLLEGE.—Professorship of Physiology. Applications to the Secretary by June 30th.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board. Applications to the "Chairman of the Committee," by July 15th

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon; unmarried. Salary, £100 per annum, with board and residence. Applications, endorsed "Dispensary Surgeon," to the Secretary by June 26th. Also Junior House-Surgeon; unmarried. Salary, £50 per annum with board and residence. Applications, endorsed "Junior House-Surgeon," to the Secretary by June 26th.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon to the Western Branch; unmarried. Salary, £140 per annum, with furnished apartments, coals, gas, and attendance. Applications to the Assistant Secretary, Queen's Road, Brighton, by June 24th.

BRISTOL: UNIVERSITY COLLEGE.—Professorship of Physiology. Applications to the Secretary by July 5th

BURTON-UPON-TRENT, BOROUGH OF.—Medical Officer of Health for the Borough. Salary at the rate of £350 per annum. Applications, endorsed "Medical Officer of Health," to the Town Clerk, Town Hall, Burton-upon-Trent, by June 28th.

DERBYSHIRE ROYAL INFIRMARY.—Honorary Surgeon. Applications to the Secretary, Royal Infirmary, Derby, by June 30th.

DUNDEE ROYAL INFIRMARY.—Resident Medical Assistant. Appointment for six months. Salary at the rate of £40 per annum, with board and washing. Applications to Dr. Fraser, Medical Superintendent, by June 21st.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Junior Resident Medical Officer and Registrar. Salary, £50, with board and washing. Applications addressed to the Committee of Management, by June 20th.

GLASGOW CORPORATION.—Bacteriologist. Salary at the rate of £350 per annum. Applications to the Interim Clerk to the Corporation (Police Department), City Chambers, Glasgow, by June 30th.

GLOUCESTER: GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Physician. Applications to the Secretary by July 5th.

GORDON HOSPITAL FOR FISTULA, ETC.—Surgeon; must be F.R.C.S.Eng. Applications to the Secretary at the Hospital Vauxhall Bridge Road, by June 21st.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—(1) Physician to Outpatients; (2) Dental Surgeon. Applications to the Secretary by July 10th

HEREFORD: COUNTY AND CITY ASYLUM.—Locum Tenens for ten or twelve weeks. Salary, £2 2s. per week, with board, lodging, etc., and return second-class railway fare from London. Applications to the Medical Superintendent by June 18th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Applications to the Secretary by June 28th.

LEAMINGTON: WARNEFORD HOSPITAL.—Resident Lady Dispenser. Salary, £40 per annum, with board, lodging, and washing. Applications to the House-Surgeon by June 21st.

LIVERPOOL DISPENSARIES.—Assistant Surgeon; unmarried. Salary, £100 per annum, with board and residence. Applications to the Secretary, 34, Moorfields, Liverpool, by June 20th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum with residence and maintenance. Applications to the Chairman by June 28th.

LONDON SCHOOL OF MEDICINE, 8, Hunter Street, Brunswick Square, W.C.—Lecturer on Biology and Lecturer on Public Health. Applications to the Secretary by June 21st.

MANCHESTER: OWENS COLLEGE.—Senior Demonstrator in Physiology. Stipend, £150 per annum, rising to £200. Applications to the Registrar by July 3rd.

MANCHESTER: ANCOATS HOSPITAL.—Resident Senior House-Surgeon. Salary, £80, with board and washing. Applications to the Secretary.

MANCHESTER CHILDREN'S HOSPITAL.—Medical Officer. Salary, £180 per annum. Applications to the Secretary, Children's Dispensary, Gartside Street, Manchester, by June 29th.

NEW HOSPITAL FOR WOMEN.—Fully qualified medical woman as Senior Assistant to the Out-patient Department for Children. Appointment for two years. Applications to the Secretary, 144, Euston Road, by June 28th.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and residence. Applications to the Secretary by June 25th.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead, N.W.—(1) Surgeon. (2) Assistant Physician to Out-patients. (3) Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of £60 per annum. Applications to the Secretary at the offices, 40, Fitzroy Square, W., by June 29th.

RAINHILL, NEAR LIVERPOOL: COUNTY ASYLUM.—Senior Assistant Medical Officer; unmarried. Salary to commence at £225 per annum, with prospect of increase to £250, with furnished apartments, board, attendance, and washing. Applications endorsed "Assistant Medical Officer," to the Medical Superintendent by June 21st.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY.—Resident Medical Officer; unmarried. Salary, £100 per annum, with furnished apartments, board and attendance. Applications to the Secretary of the Dispensary, Ramsgate, by June 24th.

READING: ROYAL BERKS HOSPITAL.—House-Surgeon. Salary, £60 per annum. Also Assistant House-Surgeon. Salary, £30 per annum. Board, lodging, and washing provided in each case. Appointments for one year. Applications to the Secretary before June 19th.

ST. ANDREWS UNIVERSITY.—Professor of Pathology. Application to the Secretary of the University by June 21st.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL.—Assistant Demonstrator of Chemistry. Applications to Dr. James Calvert, Warden, by July 8th.

ST. MARYLEBONE GENERAL DISPENSARY.—Ophthalmic Surgeon. Applications to the Secretary, 77, Welbeck Street, W., by July 1st.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston Road, N.W.—Honorary Physician and Honorary Surgeon. Applications to the Honorary Secretary, 23, Gordon Street, Gordon Square, W.C., by July 3rd

ST. SAVIOUR'S UNION.—Second Assistant Medical Officer at the Infirmary, East Dulwich Grove, S.E. Remuneration, £80 per annum, with furnished apartments, board, and washing. Applications marked outside "Application for second assistant Medical Officer," to the Clerk by June 19th.

SEAMEN'S HOSPITAL SOCIETY, "Dreadnought," Greenwich, S.E.—Surgeon to the Dispensary, 51, East India Dock, E. Salary £63 per annum. Applications to P. Michelli, Secretary, by June 12th. Also House-Surgeon. Salary, £50 per annum, with board, residence, and washing. Applications to the Secretary by June 19th.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House Surgeon. Salary at the rate of £50 per annum, with board, residence, and washing. Applications to the Secretary before June 24th.

WALSALL AND DISTRICT HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to Mr. E. J. Brookes, Chairman, Leicester Street, Walsall, by June 26th.

WEST DERBY UNION.—Resident Assistant Medical Officer at Mill Road Infirmary, Everton, Liverpool. Salary, £100 per annum, with rations. Applications to the Clerk to the Guardians, Brougham Terrace, Liverpool, by June 20th.

WEST END HOSPITAL FOR NERVOUS DISEASES, Welbeck Street, W.—Medical Registrar (non-resident). Appointment for six months, but eligible for re-election. Honorarium of not less than twenty-five guineas. Applications to the Secretary by June 27th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointment tenable for six months from July 1st. Applications to the Secretary-Superintendent by June 21st

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Fifth Assistant Medical Officer, who will be required to act as Pathologist. Salary, £140 per annum, rising to £150, with board, etc. Applications to the Medical Superintendent by June 19th.

WINCHESTER: ROYAL HANTS COUNTY HOSPITAL.—(1) Honorary Physician-in-Ordinary. (2) House-Physician, unmarried. Salary, £65 per annum, with board residence, etc. Applications to the Secretary by June 24th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House Surgeon. Appointment for six months. Honorarium at the rate of £50 per annum, with board, lodging, and washing. Applications, addressed to the Chairman of the Medical Committee, by June 20th.

MEDICAL APPOINTMENTS.

ALLKIN, F. W., M.B., C.M. Edin., appointed Medical Officer of Health to the Denton Urban District Council

BARKLEY, James S., L.R.C.P. Edin., L.R.C.S. Edin., appointed Senior House-Surgeon to the Belfast Royal Victoria Hospital.

BROADLEY, J., M.B. Lond., appointed House-Surgeon to the Leeds General Infirmary.

BURNS William T., M.R.C.S., L.R.C.P. Lond., appointed Public Vaccinator to the City Carlisle and District, *vice* Dr. Murphy, resigned.

CROWLEY, R. H., M.D.Lond., appointed Medical Officer to the Workhouse of the Bradford Union.

FEATHERSTONE, G. W. B., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer of Health to the Painscastle Rural District Council.

FEGEN, C. M., M.R.C.S.Eng., L.R.C.P.Edin., D.P.H.Dub., appointed Medical Officer of Health to the Croydon Rural District Council; also Physician to the Isolation Hospital, Beddington Corner, Mitcham.

FISON, E. T., M.D.Cantab., F.R.C.S.Edin., M.R.C.S., L.R.C.P., appointed Physician to the Salisbury Infirmary.

HARBINSON, G. R., M.B., B.Ch.R.U.I., appointed Junior House-Surgeon to the Belfast Royal Victoria Hospital.

HIGGINSON, Charles Gaskell, M.A., M.R.C.S., L.R.C.P., L.S.A.Lond., appointed Honorary Medical Officer to the Pendleton Dispensary of the Salford Royal Hospital, *vice* J. A. Albrecht, L.R.C.P., L.R.C.S.Edin., resigned.

JOHNSTON, R. J., B.A., M.B., B.Ch., appointed Extern House-Surgeon to the Belfast Royal Victoria Hospital.

MCRAE, G. Douglas, M.B.C.M.Edin., appointed Assistant Physician to the Royal Asylum, Morningside, Edinburgh.

MAWSON, J. A., M.R.C.S., L.R.C.P., appointed Resident Medical Officer at Ida Hospital of the Leeds General Infirmary.

MOORHOUSE, C. H., M.B.Vict., appointed House-Physician to the Leeds General Infirmary.

MONYPENY, H. J., M.B., B.Ch.R.U.I., appointed House-Physician to the Belfast Royal Victoria Hospital.

POTTER, S. L. L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Workhouse and Infirmary of the Dewsbury Union.

RACE, J. Percy, L.S.A.Lond., appointed House-Surgeon to the Kidderminster Infirmary and Children's Hospital.

RIDDELL, R. G., M.B., Ch.B.Edin., appointed Senior House-Surgeon to the Borough Hospital, Birkenhead.

SMITH, John W., F.R.C.S.Eng., M.B.Edin., appointed Visiting Surgeon to the Chorlton Union Hospital at Withington, Manchester.

SPONG, A., M.B., Ch.B.Vict., appointed House-Surgeon to the Leeds General Infirmary.

SPROTT, William J., M.D., M.Ch., F.B.G.S., appointed Honorary Medical Officer to the Pendleton Branch Dispensary, *vice* C. C. Heywood, M.A.Camb., M.B., B.C., resigned.

STEVENSON, Roland A., L.R.C.P.Lond., M.R.C.S.Eng., appointed Junior Assistant Medical Officer at the Infirmary, Fulham Road, Parish of St. George's, Hanover Square, W.

TOTHILL, F. C., M.B., C.M.Edin., appointed Medical Officer for the Staines District of the Staines Union.

WILLIAMS, J. Humphry, M.D., appointed Medical Officer of Health to the Connah's Quay Urban District Council.

WRAITH, E. A., M.R.C.S., L.R.C.P., appointed House-Physician to the Leeds General Infirmary.

DIARY FOR NEXT WEEK.

MONDAY.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Mr. Wyatt Wingrave: The Clinical Anatomy and Physiology of the Mouth and Pharynx.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. C. B. Keetley: Injuries and Deformities of the Upper Extremity.

TUESDAY.

Royal College of Physicians of London, 5 P.M.—Professor J. B. Bradbury: Some Points connected with Sleep, Sleeplessness, and Hypnotics. Croonian Lecture I.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Mr. Ballance: Surgery of the Nervous System.

Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: Rest and Sleep.

WEDNESDAY.

Hospital for Consumption, Brompton, 4 P.M.—Dr. Schorstein: Asthma.

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr. Eddowes: Drug and Plant Eruptions.

Royal Meteorological Society, 70, Victoria Street, Westminster, S.W., 4.30 P.M.

Royal Microscopical Society, 20, Hanover Square, W., 7.30 P.M.—Mr. C. Beck: Exhibition of Wild Flowers with Microscopes.

THURSDAY.

Royal College of Physicians of London, 5 P.M.—Professor J. B. Bradbury: Some Points connected with Sleep, Sleeplessness, and Hypnotics. Croonian Lecture II.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Mott: Demonstration of Medical Cases.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. J. B. Ball: The Symptoms of Throat and Nose Affections.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Voelcker: Demonstrations of Selected Cases.

Central London Throat, Nose, and Ear Hospital, 5 P.M.—Dr. Dundas Grant: Diagnosis and Treatment of Dangerous Sequelæ of Otitis.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

DIXON.—On June 7th, at Pembroke House, Church Road, Birkenhead, the wife of James Herbert Dixon, M.B., C.M.Edin., of a son.

MARRIAGES.

BEST—MORE.—On June 9th, at Holy Trinity Church, Rothwell, by the Rev. W. S. Parker, vicar, assisted by the Rev. R. H. B. Cresthwaite, curate, Frederick Henry de Grewes Best, M.R.C.S.Eng., L.R.C.P.Lond., elder son of F. A. Best, Esq., Mount Gerrard, Torquay, to Elizaneth Beatrix (Bessie), only daughter of James More, Esq., M.D., of Rothwell, Kettering, Northamptonshire.

DODD—DE SOLOME.—On June 1st, at Holy Trinity Church, Folkestone, by the Rev. H. L. Richmond Deck, M.A., Percy Vernon Dodd, M.A., M.D., of 14, Manor Road, Folkestone, to Marion Maud younger daughter of the late Anthony de Solomé and of Mrs. de Solome, of Boulogne-sur-Mer.

HANN—HOLTZMANN.—On June 7th, at St. John's Church, Bradford, by the Rev. A. J. G. Nash, M.A., assisted by the Rev. C. O'Connor Fenton, M.A., Reginald George Hann, of Leeds, eldest son of the late George Hann, of Sheffield, and of Mrs. Hann, of Bradford, to Marie Fridrica, eldest daughter of Charles Holtzmann, Bradford.

SKOWBY—SKELTON.—At St. Andrew's Church, Sheffield, on June 8th, by the Rev. Charles Steele, Edward T. Scowby, M.B., of Selston, Notts, to Julielma, elder daughter of Sir Charles Skelton, Meadow Bank, Sheffield.

DEATH.

FERGUSON.—At Cove, by Aberdeen, on June 7th, Alexander Frederick Ferguson, M.B., C.M., Surgeon-Major (retired) I.M.S., in his 44th year.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 2; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 2; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Laryux, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 3; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, W., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—Tu., 2.30; Th., 2

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Opthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 3; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynecological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynecological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th. 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30 Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

H. W. G. asks for information as to the suitability of a private hansom for medical work in a town and country practice.

A. G. desires to hear of an institution where a man of deficient intellect could be received. He is able and willing to do rough farm and garden work.

DR. THOMAS J. JEFFERSON (Market Weighton, Yorks) asks whether there is any home for incurables into which a case of lupus of the face could be admitted? The patient is a girl, aged 28, otherwise in good health.

N. S. P. asks for experience as to the value of oxygenated carbonated mineral waters, and as to the effects of urotropine on the kidneys and bladder.

INQUIRER asks: Can any of your readers inform me of the best form of dry cell to use for obtaining constant current? Are two or three small-sized dry cells better than one good-sized cell? Is the Leclanché dry cell as reliable as the E.C.C. dry cell?

J. M. S. would be glad to be informed where he could obtain a portable lamp consuming acetylene gas, and constructed for use with the laryngoscope and ophthalmoscope. Particulars as to cost, etc., would be welcome. He inquires whether similar lamps are constructed for microscopic work.

ESTIMATE OF FEE.

A. D. asks what charge should be made to a patient who lives close to his surgery in a house rated at £50 a year for visit and medicine, and what for consultation and medicine when the patient calls at the surgery.

*** We are advised that 5s. would be a proper fee in either alternative.

ANSWERS.

AN INQUIRER might write to Mrs. Gilmore Burnett, 7, St. George Street, Bristol, Secretary of the Mary Carpenter Home for Feeble-minded Girls, who are received for training, etc., at 11s. per week.

C. C. D.—The address of the Medical Defence Union is 4, Trafalgar Square, W.C., and the Secretary is Dr. A. G. Bateman. The address of the London and Counties Medical Protection Society is 12, New Court, Lincoln's Inn, W.C., and the Secretaries are Dr. H. Woods and Mr. A. G. R. Foulerton.

BOOKS ON MEDICINE.

O. T. W.—Our correspondent would probably find either of the following books suitable for his requirements: *The Principles and Practice of Medicine*, by W. Osler, M.D., LL.D., F.R.S., F.R.C.P., 3rd edition (Edinburgh and London: Young J. Pentland, 1898, 24s.); *A Manual of the Practice of Medicine*, by F. Taylor, M.D., F.R.C.P., 5th edition (London: J. and A. Churchill, 1898, 16s.).

NOTES, LETTERS, Etc.

MORGAN DOCKRELL TESTIMONIAL FUND.

Mr. ERNEST CLARKE, F.R.C.S. (3, Chandos Street, Cavendish Square, W.) Treasurer to this fund, has received the following subscriptions:

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Total ...	£119	1	6

THE TRUSTFUL DOCTORS.

A NEW YORK merchant has recently filed a petition in bankruptcy. The list of creditors is said to be headed by twenty-nine doctors. When Collins died leaving debts to the amount of £2,000, Dr. Johnson exclaimed, "Was ever poet so trusted before?" On reading of the crowd of medical creditors in the case referred to, one is inclined to ask, Is there any class of man so trustful as doctors?

MIDWIFERY ENGAGEMENTS.

J. B. writes: Questions are frequently asked in the BRITISH MEDICAL JOURNAL as to whether medical practitioners who have accepted midwifery engagement have any claim for compensation when those engagements are broken without reasonable cause by the clients. I was engaged in September to attend a primipara in January. At the end of November I was asked to cancel the engagement on the ground that I was unknown to the nurse. I regarded this as an insulting excuse, and refused to cancel the engagement except on payment of a half fee. The case having come off without my services being called, I entered an action in the Wandsworth County Court for compensation for breach of contract. As I did not, and could not, produce any witness to show that I had sustained any specific damage, the judge held that the case was one for nominal damages only, and awarded me one shilling. Moral: Do not take these cases into court unless something more tangible than wounded feelings can be proved.

LETTERS, COMMUNICATIONS, Etc., have been received from:

A Mr. R. B. Anderson, London; Alumnus; Mr. W. Adamson, Liverpool; A. D.; Dr. G. N. Axelos, Rhodes. **B** Mr. A. Berrill, London; Mr. T. P. Brocklehurst, Mersham; Mr. W. L'H. Blenkarne, Worthing; W. B. Bell, M.B., Wallasey; Mr. W. T. Burns, Carlisle; Dr. W. Broadbent, Brighton; Mr. T. Blair, London; Dr. A. Bronner, Bradford; F. M. Blumer, M.B., Stafford; Mr. L. M. Byles, Anstwick; Dr. J. B. Bradbury, Cambridge; Messrs. Burroughs, Wellcome, and Co., London; Mr. E. J. Bland, London; Mr. W. E. Burton, London; Bunsen; Mr. L. A. Bidwell, London. **C** Dr. C. P. Coombs, Castle Cary; Mr. L. Cowen, London; Miss J. Crosfield, M.D., London; F. W. Clark, M.B., Hong Kong; Dr. J. M. Clarke, Clifton; Mr S. Constable, London; Chloroform; Mr. L. Cooper, Chatham; C. C. D. **D** Mr. F. G. W. Deane, Barbados; Dr. A. Duke, Cheltenham; Mr. J. P. Doyle, Dublin; Mr. A. Duncan, Glasgow. **E** Enquirer; Dr. F. Edge, Wolverhampton. **F** Dr. A. Fraser, Manchester; Dr. E. T. Fison, Salisbury. **G** Mr. H. F. Giffard, London; J. E. Gemmell, M.B., Liverpool; Sir W. Gilbey, Bart., London; Dr. E. Gwynn, London; A. Gregor, M.B., Newark; Messrs. C. Griffin and Co., London; Dr. A. E. Giles, London; Mr. G. P. Gaskell, London. **H** H. W. G.; Mr. R. G. Hebb, London; Messrs. D. Hill and Son, Yates and Hicks, London; Mr. C. G. Higginson, Manchester; Dr. W. M. Haffkine, London; Dr. T. W. Hime, Bradford; Mr. T. G. Horder, Cardiff; Dr. R. S. Hubbersty, Sunderland; H. M. **I** Inquirer; I.M.S. **J** J.; Mr. J. B. James, London; Mr. F. B. Jefferiss, Chatham; Justitia; Dr. T. J. Jefferson, Market Weighton. **K** Dr. E. Knowles, Birkenhead; Kidderminster Medical Society Secretary of, Kidderminster; D. N. Knox, M.B., Glasgow. **L** Mr. R. J. Leeper, Lithgow, N.S.W. **M** Mr. A. MacDonald, Washington, D.C.; Mr. H. Marsh, London; W. Mitchell, M.B., Bradford; M.O.H.; Mr. W. C. May, Leeds; M.D.; M.D., C.M.Edin.; M.D., Manchester; Dr. J. D. McCaw, East Finchley; Manor Farm Dairy, Manager of, London; Mr. W. M. Morice, London; Dr. J. W. Martin, Dumfries; C. J. Martin, M.B., London; Messrs. Macmillan and Co., London; Mr. H. J. Manning, Salisbury. **N** Neuritis. **O** Mr. H. J. Osborn, London; Mr. B. A. Onyon, Eye. **P** Mr. B. Parker, Brentwood; Dr. J. I. Parsons, London; Dr. F. L. Phillips, Birmingham; F. S. Pitt-Taylor, M.B., Birkenhead. **R** Dr. R. Robertson, Ventnor, Isle of Wight; R. G. Riddell, M.B., Birkenhead; Ripa; Dr. T. H. Redwood, Rhymney; Mr. J. P. Race, Manchester; Dr. A. H. Robinson, London. **S** Senex; Messrs W. B. Simpson and Sons, London; J. W. Smith, M.B., Manchester; R. W. I. Smith, M.B., Sheffield. **T** Dr. S. A. Tidey, Florence; Mr. A. Thomson, Oxford; T. O. D.; H. B. Thompson, M.B., Birmingham; F. W. Taylor, M.B., Blackburn. **V** Mr. T. J. Verrall, Brighton; Dr. G. Vincent, Ipswich. **W** Dr. R. Willson, Oxford; F. Wyatt-Smith, M.B., Reigate; Mr. E. J. Woodland, London; Messrs. Wyleys, Limited, Coventry; Mr. P. M. Wood, Ashfield, N.S.W.; Dr. F. Willcocks, London; Dr. L. A. Weatherly, Hohen Honnef; Dr. H. Woods, London; Mr. E. S. Whittington, Salford; Dr. A. McC. Weir, East Sheen; L. Williams, M.B., London; G. A. Wright, M.B., Manchester; Mr. T. B. Williams, Talgarth; Mr. J. C. Walker, St. Austell; Mr. O. T. Williams, Holyhead. **Y** Yorkshire Motor Car Company, Bradford. **Z** Zephyr; etc.

BOOKS, Etc., RECEIVED.

Defective Eyesight: The Principles of its Relief by Glasses. By D. B. St. J. Roosa, M.D., LL.D. London and New York: Macmillan and Co. 1899. 4s. 6d.

Klinische Erfahrungen ueber Diabetes Mellitus. Von Dr. E. Külz. Jena: Gustav Fischer. 1899. M.14.

The Radcliffe Infirmary, Oxford. By E. V. Jenkins. Oxford: Alden and Co. 1899. 2s. 6d.

Yearbook of the Scientific and Learned Societies of Great Britain and Ireland. Sixteenth Annual Issue. London: Charles Griffin and Co. 1899. 7s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

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THE CAVENDISH LECTURE

ON

THE ETIOLOGY AND DIAGNOSIS OF CEREBRO-SPINAL FEVER.

Read before the West London Medico-Chirurgical Society.

BY WILLIAM OSLER, M.D., F.R.S., F.R.C.P.,
Professor of Medicine, Johns Hopkins University, Baltimore.

IN practice we occasionally meet with a meningitis which is not tuberculous, which is not a complication of pneumonia or ulcerative endocarditis, and which is not a sequence of ear disease or of injury, and which is not a terminal infection in some chronic malady. As the meninges of both brain and cord are diffusely inflamed, we label the condition cerebro-spinal meningitis. At intervals, in certain regions, the cases multiply, and we then speak of epidemic cerebro-spinal fever. Until recently my experience, though somewhat varied, had been confined to a few instances in which the absence of the usual factors justified the diagnosis of the sporadic form of this disease. Within the past year a small outbreak in Baltimore has enabled me to study certain points in the etiology and diagnosis of this most interesting affection.

THE FEATURES OF CEREBRO-SPINAL FEVER AS AN EPIDEMIC.

Upon these I shall only touch very briefly.

(*a*) One of the most fatal of all acute diseases, it fortunately takes a very humble position among epidemics as a destroyer. No fever attacks so few individuals in a community during its periods of prevalence; so that the general mortality may be but slightly increased. On the other hand, scarcely any known fever kills so large a proportion of those attacked. The recent epidemic in Boston illustrates this very well. Of 111 cases in three hospitals 76 died, a mortality of 68.5 per cent.

(*b*) The outbreaks occur in certain waves or periods, of which the fourth during the present century is at present prevailing in the United States. For several years there have been local epidemics of the disease in widely separated regions, usually in villages and country districts; but in 1896, 1897, and 1898, a slight epidemic occurred in Boston, and in the latter year cases began to be recognised in Baltimore and other towns. From a recent collective investigation, made under the direction of Surgeon-General Wyman, of the United States Marine Hospital Service,[1] we learn that cerebro-spinal fever has prevailed during the past year (as a rule in a mild form) in 27 States, and in the District of Columbia. It is not possible to say that the movement of troops last summer had anything to do with the spread of the disease. The limitation for a year or more to one district or city, without spreading to adjacent towns, the localisation even (as at present in Washington and Philadelphia) to special districts of a city, the recrudescence for several seasons in succession, are well-known features illustrated by the present epidemic.

(*c*) Among specific diseases cerebro-spinal fever stands in some points close to pneumonia. Sporadic cases of both occur at intervals of epidemic prevalence, though in pneumonia they are much more numerous, while epidemics of pneumonia, like those of cerebro-spinal fever, are most striking in barracks, asylums, and gaols. Even when not prevailing as an epidemic there may be remarkable house epidemics of cerebro-spinal fever. The seasonal relations are the same in both, and the two diseases may prevail together. The abrupt onset, the great frequency of herpes in both, the leucocytosis, "the almost identical characters of the fibrino-purulent exudate in the two diseases" (Netter), the frequent complication of pneumonia in epidemic cerebro-spinal fever and of meningitis in pneumonia are additional points of contact. The degree of contagion is about the same in both diseases, and, lastly, it has been claimed that the organism described in cerebro-spinal fever is only a variety or a degenerate form of the pneumococcus.

On the other hand, Leichtenstern, speaking against the view that the pneumococcus is the cause of epidemic cerebro-spinal fever, says:

> Pneumonia is a disease spread over the entire earth, and appears at all times, there being no land immune from it. Epidemic meningitis is very rare, and in many countries is still unknown. Croupous pneumonia attacks every age, the disposition increasing somewhat with increasing age; epidemic meningitis is a disease which affects children and young people; beyond 35 there is slight disposition to it. Croupous pneumonia has a typical course and a crisis; epidemic meningitis has no crisis. The complications of the two diseases are different, etc.
> (Quoted by Councilman, Mallory and Wright.[2])

BACTERIOLOGY OF CEREBRO-SPINAL FEVER.

Until within the past few years the etiology of cerebro-spinal fever has been obscure, and a majority of observers regarded the organism found in the meningeal exudate as the pneumococcus, or a variety of it. More than twelve years ago, however, Weichselbaum described a diplococcus with special cultural peculiarities, which he regarded as the specific organism of the epidemic form of the disease. Little or no attention was paid to his communication until 1895, when his observations were confirmed by Jaeger. So little notice, indeed, had they attracted that neither Ormerod in Allbutt's *System* (vol. i, published in 1896), nor Latimer in Loomis and Thompson's *System*, published in 1897, mention Weichselbaum's organism. The work of Heubner,[3] in Germany, and more particularly the studies of Councilman, Mallory, and Wright, have fully confirmed the observations of Weichselbaum, whose organism, known variously as the meningococcus and the diplococcus intracellularis meningitidis, is now regarded as the specific cause of the disease. As the bacteriology of the subject is very fully discussed in the monograph by Councilman and his associates, and in the just—issued article by Netter in vol. xvi of the *Twentieth Century Practice*, I shall confine my remarks to an account of our experience in the study of the cases which have been in my wards during the past year. To Dr. Norman B. Gwyn, who has charge of the bacteriological work in my clinical laboratory, and to Dr. N. McL. Harris, bacteriologist in the pathological department of my colleague, Professor Welch, I am under special obligations for their careful study of the cases during life and after death.

The meningococcus in cover-slips made from the exudate has usually a diplococcus form, and lies within the polynuclear leucocytes; hence the definition "intracellularis" Many of the cells may be stuffed with them. They may also occur free. It stains with the ordinary staining reagents, and is decolorised by the Gram method. It grows best on Loeffler's blood serum, on which it forms "round, whitish, shining, viscid-looking colonies with smooth, sharply-defined outlines, which attain a diameter of 1 to 1½ mm. in 24 hours" (Councilman). In cultures it is usually short-lived; but Netter states that Germano has found that it resists desiccation, and has preserved its vitality to the end even of ninety days. He states also that Neisser has shown that the organism is transportable by atmospheric currents, even the most feeble, and that it is very susceptible to aërial convection. It is found in the cerebro-spinal exudate, rarely elsewhere in the body; but it has been isolated from the blood, the pus from the joints, the pneumonic areas in the lungs, and the nasal mucus.

The organism is feebly pathogenic for animals. Rabbits and mice resist subcutaneous inoculation. Heubner, and Councilman and his associates, have produced typical meningitis by inoculating cultures of the meningococcus beneath the spinal membranes of goats.

Our clinical and pathological experience with the organism is as follows:

> In 21 cases which I have seen, the lumbar puncture was made in 16. In 3 patients seen in consultation the diagnosis seemed so clear that lumbar puncture was not made. In Cases I and II, both mild, the puncture was made, in one on the seventh day, in the other on the sixth; but no organism was found. Cases III and IV were admitted late in the disease, and it was not thought necessary to perform it. Of the remaining 14 cases, in 13 the diplococcus intracellularis was present on cover-slips and in cultures. In the remaining case its presence was doubtful on the cover-slips, and the staphylococcus grew in culture. Of the cases which came to necropsy, 5 in number, the bacteriological results, as given by Dr. Harris, are as follows: Necropsy No. 1,104; meningitis, meningococcus; the pneumococcus from a pneumonic area in the lung. No. 1,180, a case with extensive arthritis, in which the diplococcus intracellularis was found in the blood and joint tissues during life, as well as from the meninges, *post mortem* the meningococcus was separated in pure cultures from the cord and brain, and from the lung the pneumococcus and the bacillus lactis aerogenes; from the blood in the coronary arteries the pneumococcus. The other organs were sterile. In Case X (Necropsy No. 1,247), on which laminectomy had been performed, the spinal

meninges at the time of his death (about two months later) were perfectly normal. At the operation the staphylococcus pyogenes grew in the culture. In No. 1,314, a case in which laminectomy was performed, the meningococcus was isolated from the meninges, both during life and after death. The bacillus coli communis, the bacillus lactis aërogenes, and the staphylococcus pyogenes albus were also isolated; from a broncho-pneumonic area in the lung the pneumococcus and the staphylococcus pyogenes aureus, from the spleen the staphylococcus pyogenes citreus, and from a thrombus in the superior longitudinal sinus, and from the pelvis of the left kidney the streptococcus septicus liquefaciens (Sternberg). This case had a diphtheritic and hæmorrhagic cystitis. No. 1,364, a very protracted case, in which death occurred in the twelfth week, and from which the meningococcus had been isolated from the spinal fluid twice, from the meninges *post mortem* the streptococcus pyogenes and the bacillus coli communis were isolated; and the staphylococcus pyogenes aureus and the bacillus coli communis from the broncho-pneumonic areas in the lungs. In a fatal case outside the hospital the meningococcus, the pneumococcus, and the bacillus coli communis grew in cultures from the cerebral meninges. There was no focus of pneumonia in the lungs.

The following memoranda by Dr. Harris are of interest:

Cultural methods employed. In the first cases we followed the method recommended by Councilman—namely, the use of blood serum "slants." Such were found to be almost useless on account of contaminating organisms, for out of a series of 8 tubes only 1 gave pure cultures.

In the other cases the exudates and fluids were plated out in alkaline 2 per cent. glycerine agar. This procedure gave entire satisfaction in that the growth of the meningococcus was quite vigorous, and that associated organisms in the exudate (Cases 1,314 and 1,324A) were readily separated and classified.

Upon certain points our observations agree with those mentioned in Councilman's article.

(*a*) We have never seen, as Jaeger states, a capsule formation, nor in any case unassociated with other pyogenic organism were we able to stain the specific organism by Gram's method.

(*b*) The cases coming to necropsy at the height of the disease furnished upon cover-slip and culture abundant evidence of the presence of the meningococcus, whereas cases which succumbed late in the disease yielded feeble results, or, as in Case 1,364, no evidence at all.

(*c*) The biological features of our several cultures gave practically the same results as Councilman obtained, except that in a few cases, after carrying the organism through several generations, litmus milk was found to be slightly bleached, but with no evidence of acid formation.

Regarding potato culture, Councilman's statement of an invisible growth on this medium should be expanded by remarking that microscopic preparations invariably show evidences of moderate increase, and that the organisms are much larger than on ordinary media.

At no time has blood serum culture been observed to bear any striking resemblance to a growth of pneumococcus on a similar medium.

As in Councilman's experience, great variations in viability of the organisms was noted. But it is worthy of mention that where there is condensation water in the tube and growth present in it, the organisms as a rule will be found to be alive many days after life has ceased in the growth upon the surface of the medium.

Staining Reactions.—Supplementary to Councilman's remark upon focal staining points when using methylene blue, it might be said that if old Loeffler's methylene blue solution is used, the coloration of that focal point is a decided violet-red.

Animal Experiments.—Subcutaneous inoculation in rabbits and mice (white and grey house mice) was resisted in every case. In rabbits inoculated beneath the dura mater, or into the ventricles of the brain, death occurred in all within fourteen days to six weeks, and in no instance were we able to find evidences of gross pathological lesions, nor the presence of the meningococcus on cover-slip or culture. The animals were all greatly emaciated. Mice inoculated into pleural or peritoneal cavities died in from three to four days, in most cases with general septicæmia.

Special Remarks.—Regarding Jaeger's observation of the occurrence of chains of cocci in exudate or spinal fluid, it may be said that it has not been observed, but on blood serum growths it was quite common to find chain formation with the unstained light line of cell division running parallel to long axis of chain. However, this feature is not by any means uncommon amongst the pyogenic staphylococci.

Attempts to isolate the specific organism from any other site than the spinal fluid and the meninges of spinal cord and brain have in every case been attended with failure. This is especially noteworthy in Case 1,189, which presented arthritis. A large quantity of the sero-purulent fluid was inoculated, incubated for three days, and the plates were found sterile, and yet cover-slips of the fluid showed considerable numbers of intracellular diplococci. The heart's blood of this case failed to give positive results at necropsy, although during life the organism had been isolated from the blood as well as from the joint lesion. Pneumonic or broncho-pneumonic foci have always given the pneumococcus, either alone or with the pyogenic staphylococci.

One case, No. 1,314, brings out a possible source of error in the use of Gram's stain upon the cover-slip preparations of the exudate in cases where a secondary infection may be present. The cover-slips from the meningeal exudate in this case were examined by Gram's method before cultures were ready, and cocci were found which did not decolorise, thus causing some surprise, but it was cleared of doubt by finding the staphylococcus pyogenes albus in association with the meningococcus upon the agar plate.

Case 1,325A is most interesting in that from the exudate on the cerebral meninges the meningococcus, the pneumococcus, and the bacillus coli communis were isolated and positively identified. A mouse was inoculated intrapleurally with 3 c.cm. of a twenty-four-hour-old blood serum condensation-water growth, and succumbed upon the third day with a general infection.

Another mouse received 5 c.cm. of a strong suspension in Durham's medium of a twenty-four-hour-old agar-agar culture of the pneumococcus, but showed no evidence of illness. The milk culture of this organism, when stained by Welch's capsule stain, exhibited well-defined capsules and stained by Gram's method.

Microbic Association in Cerebro-Spinal Fever.—Councilman, Mallory, and Wright state that:

Mixed infections with other organisms were not uncommon. The pneumococcus was found seven times, once in connection with Friedlaender's bacillus. Terminal infections with staphylococci and streptococci were occasionally found.

Netter refers to this point in the following terms:

In a very small number of cases observers have reported finding at the same time with the pneumococcus or the diplococcus the staphylococcus pyogenes, the streptococcus, the colon bacillus, the bacillus proteus, and the capsulated bacillus. These microbic associations are always secondary, however, and we must refrain from regarding any but the two agents above described as the primary causes of cerebro-spinal meningitis.[4]

In the report on the bacteriology of the *post-mortem* examinations by Dr. Harris, the frequency and number of microbic associations will have been noticed. Three points are of interest in this connection: In chronic cases, as X and XVII of our series, the diplococcus intracellularis may no longer be present; we have obtained it, however, for the first time on the twenty-fifth, thirty-first, and forty-first day of the disease. Of the two cases referred to, No. XVII presented a most typical picture of the disease, and the diplococcus intracellularis was obtained in the spinal fluid on the thirty-first and thirty-fifth days. At the necropsy the meninges showed a moderate amount of exudate, and there was fluid (purulent) in the posterior horns of the ventricles. The diplococcus intracellularis was not found, but the streptococcus pyogenes and the bacillus coli communis were isolated from the meninges.

Case X is of particular interest, and I give here a brief summary of the history:

A sailor, J. F., aged 25, was admitted October 29th, 1898. The illness had begun on October 26th with swelling and pains in the right ankle, and the next day the left ankle became swollen, and then the right hip; he was able, however, to walk to the hospital. On admission there were also redness and tenderness of the left wrist. For the first week we were very doubtful as to the nature of his trouble. The temperature was between 102° and 104°, and we rather suspected typhoid fever. On the 31st he complained of pain in the back and hips, and on November 1st it was noticed that his head was in a very retracted position. On November 4th he had retention of urine. On the 6th it was noticed that he could not move his legs. Lumbar puncture was then performed, and 2 drachms of a thick creamy pus removed, which showed cells and numbers of diplococci, some in cells, but a majority free and in groups. Dr. Cushing performed laminectomy, and drained away a large amount of purulent exudate, and irrigated the spinal meninges with normal salt solution. Cultures made from the fluid obtained by the lumbar puncture and at the operation grew the staphylococcus pyogenes aureus. From the history and symptoms the case was doubtless one of cerebro-spinal fever, subsequently infected with the staphylococcus.

More frequently the pneumococcus has been found in association with the diplococcus intracellularis. In our series it was present only once (Case XIII) in the fluid obtained by lumbar puncture. On the fifth day 20 c.cm. of a faintly cloudy fluid were removed, and both organisms grew in culture. On the seventh day the pneumococcus was isolated from the blood. Netter found the pneumococcus associated with the diplococcus intracellularis (*post mortem*, I take it, though it is not so stated) in 10 of 16 cases of cerebro-spinal meningitis.

A third point is the occasional association of the tubercle bacillus with the diplococcus intracellularis, but so rarely that it is not a point of much practical importance.

On the whole, then, our observations support those of Weichselbaum, Jaeger, Heubner, Councilman, and others, that in epidemic cerebro-spinal fever there is an organism with special cultural peculiarities which may reasonably be regarded as the exciting cause of the disease. Netter alone, among recent observers, seems to doubt this, and says that he only found the diplococcus intracellularis in 16 out of 39 cases, and in 10 of these the pneumococcus was present at the same time. His most recent statement in the *Twentieth Century Practice* (1899) is worth quoting:

Certain observers, and more particularly Jaeger and Heubner, believe that the diplococcus intracellularis is the sole pathogenic agent in epidemic cerebro-spinal meningitis, and that the pneumococcus has no influence whatever in the production of true epidemic meningitis. Councilman is a little less emphatic, although he appears disposed to adopt this way of thinking. I do not, however, in any way accept this view. The pneumococcus can, without any doubt, cause meningitis, and in spite of Heubner's experience, the *rôle* of the pneumococcus has been most surely established experimentally. The frequent occurrence of pneumonia complicating meningitis and of meningitis complicating pneumonia, and the coincidence with meningitis of many other inflammations which may be excited by the action of the pneumococcus, imply that between pneumonia and meningitis there exists a relation which cannot be denied.

He seems to think that the diplococcus intracellularis may be a degenerate form of the pneumococcus, and in support o his view cites:

Its intracellular position is evidence of a phagocytosis going on, the impossibility of cultivating most of the individuals, as shown by the small number of colonies obtained, its decolorisation by Gram's method, and its usual innocuousness in animals. I would not, however, insist upon this opinion, or lay too much stress upon the arguments just mentioned, for the question is only hypothetical as yet.

It does not seem to be altogether clear from certain of Netter's observations that he has been dealing with the meningococcus. Thus in his communication[5] the coccus which he found in the 8 cases was rounded, usually in pairs, sometimes in short chains; at other times capsules were seen. They stained by Gram's method, and in bouillon long chains developed, and mice resisted infection when inoculated subcutaneously. He concludes from these observations that the meningococcus is nothing more than a degenerate pneumococcus. Dr. Harris, in a note on this, remarks:

Such conclusions are entirely unwarranted, or, if his observations are correctly stated, he evidently had the veritable pneumococcus to deal with, and by some strange mode of reasoning concludes that he has the meningococcus in his series of cases, and that it is identical with the pneumococcus, though of a degenerate form.

Netter's position is most illogical and confusing. Throughout the article in the *Twentieth Century Practice*—in many ways one of the very best in literaure—he assumes that the specific disease, cerebro-spinal fever, may be caused either by the pneumococcus or the diplococcus intracellularis. That a primary cerebro-spinal meningitis may be due to the pneumococcus is universally acknowledged; but it is in the highest degree unlikely that a remarkable specific affection like cerebro-spinal fever should be caused by two different organisms. Towards the close of the article the inconsistency of this view seems to impress him, for he says certain peculiarities "prevent us from concluding that the two diseases (that is, pneumonia and cerebro-spinal fever) are absolutely identical."

Diagnosis of Cerebro-Spinal Fever.

Meningitis is not always easy to recognise clinically. Mortifying *post-mortem* disclosures are even more common with it than with pericarditis. The unexpected meningitis of pneumonia, of Bright's disease, and of other chronic affections, teaches us how latent may be the process; on the other hand, who has not in typhoid fever and in pneumonia made a positive diagnosis of meningitis, and has found *post mortem* the cerebro-spinal membranes perfectly free? Sooner or later the truth of Stokes's dictum is brought home to each one of us: "There is no single nervous symptom which may not and does not occur independently of any appreciable lesion of the brain, nerves or spinal cord." The anatomical classification of lepto-meningitis is not very satisfactory, and, as I have stated, there is great lack of uniformity in the terms employed. The *Nomenclature* of the Royal College of Physicians recognises four groups—purulent, tuberculous, syphilitic, and cerebro-spinal fever. An etiological classification, possible to-day in part, is of necessity incomplete. In the annexed diagram I have made a provisional grouping of the chief forms:—

Acute Lepto-Meningitis.	Primary.	1. Of cerebro-spinal fever.	(*a*) Sporadic. (*b*) Epidemic.	Diplococcus intracellularis.
		2. Pneumococcic.	Meninges alone involved or in a general pneumococcus infection.	Pneumococcus.
	Secondary.	1. Tuberculosis	... ...	Bacillus tuberculosis.
		2. Pneumococcic.	(*a*) Secondary to pneumonia, endocarditis, etc. (*b*) Secondary to disease or injury of cranium or its fossæ.	Pneumococcus.
		3. Pyogenic.	(*a*) Following local disease of cranium of a local infection elsewhere. (*b*) Terminal infection in various chronic maladies.	Various forms of staphylococci and streptococci.
		4. Miscellaneous acute infections.	In typhoid fever, influenza, diphtheria, gonorrhœa, anthrax, actinomycosis, and other acute diseases.	Typhoid bacillus, influenza bacillus, diphtheria bacillus, gonococcus, etc.

The acute primary lepto-meningitis in a large proportion of all cases follows an infection with the diplococcus intracellularis or the pneumococcus. It will be a great gain if Still's observations—to which I shall refer later—on the posterior meningitis are confirmed. I do not know where Quincke's meningitis serosa should come in an etiological grouping. Of 3 cases diagnosed as such in our records, in 2 a micrococcus was isolated, but nothing further is stated as to its identification. It is highly improbable that, as Netter holds, cerebro-spinal fever, either in the sporadic or epidemic forms, is caused by the pneumococcus. The body of evidence accumulated within the past few years in Germany and America is strongly in favour of the specific relationship of a definite, easily-recognised organism, the diplococcus intracellularis. The pneumococcus may produce a primary meningitis, and pneumonia at certain seasons and in certain regions may frequently be associated with this lesion; but both clinically and bacteriologically this form can be distinguished from the disease under consideration.

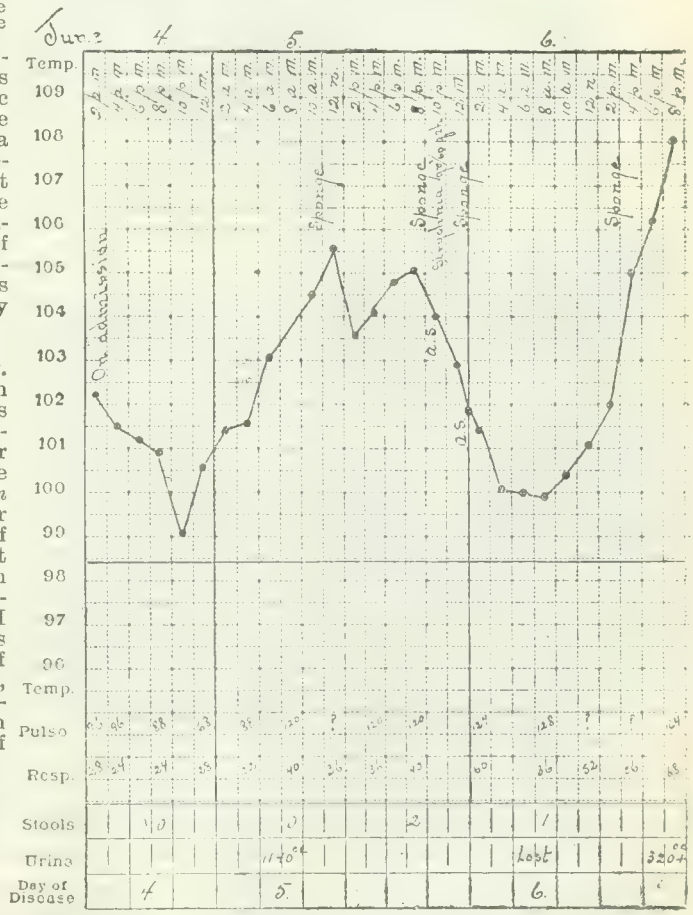


Chart 1, Case VII. E. R.

While the possibility of the occurrence must be admitted, I have not recognised a primary meningitis caused by the pyogenic organisms[6] or by the tubercle bacillus. The terminal meningitidis I have placed among the secondary forms; and, as in the terminal pleurisies and peritonitides, a variety of organisms are found. Even in cerebro-spinal fever the streptococci and staphylococci, always on the watch for a *locus minoris resistentiæ*, may drive out the original foe, as in Cases X and XVII on our list.

To the secondary forms of meningitis in the table I shall not refer, except to call attention to the importance of the pneumococcus in this group also; nor can I discuss within the limits of this lecture the clinical features of the varieties of meningitis, and must confine my remarks to a few specia points in the diagnosis of cerebro-spinal fever, and to a consideration of certain sporadic forms of meningitis.

I. *Certain Features in the Symptomatology of Cerebro-Spinal*

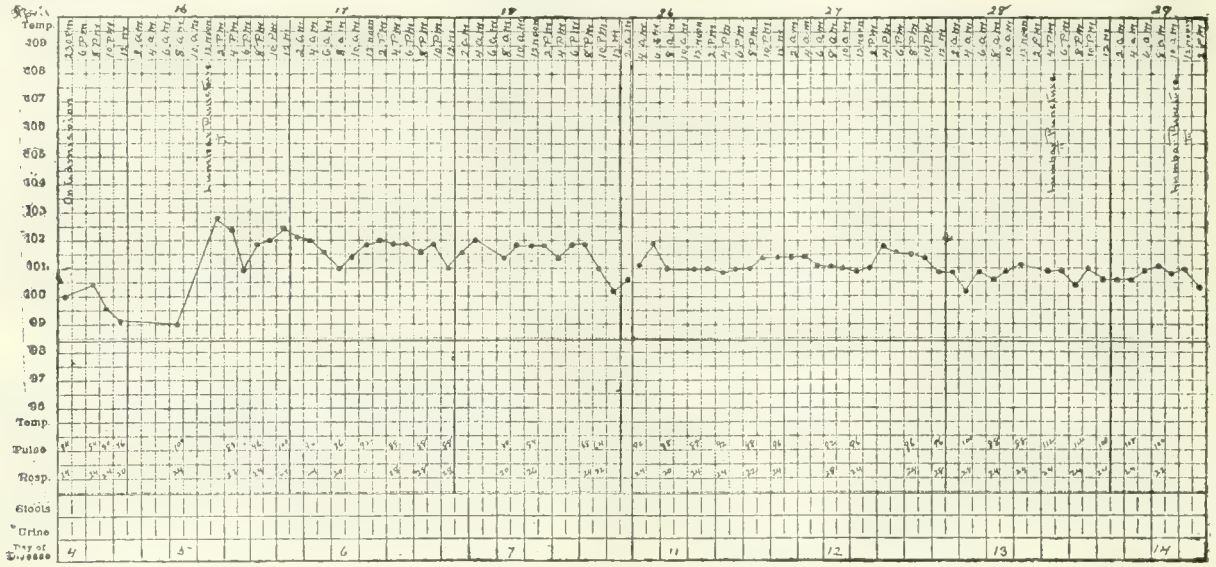


Chart 2, Case XVII.—P. C.

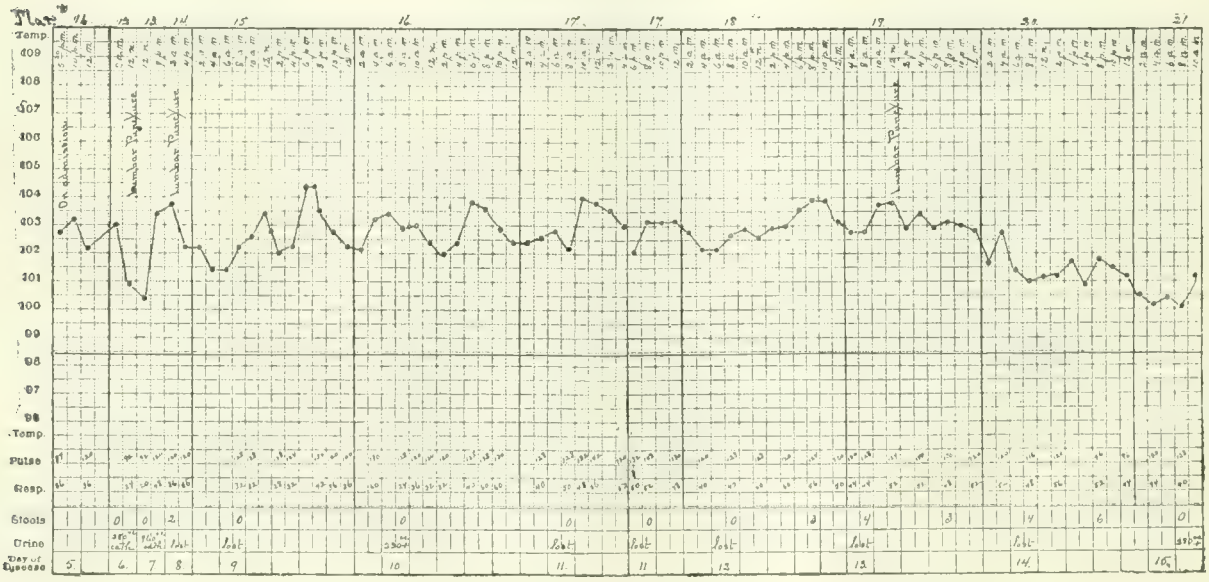


Chart 3, Case XIII.—O. S.

Fever.—No other form of meningitis presents a symptomatology of the same fulness—general, cerebral, spinal, and peripheral features are present in almost every case. This results in part from the extent of the cerebro-spinal involvement, in part from the very frequent implication of the nerves, and to some degree from the very chronic course. I shall discuss only a few of the important symptoms.

(*a*) *Onset.*—In striking contrast to other forms, particularly the tuberculous, cerebro-spinal fever sets in abruptly. Without warning, while at work, or awakening the patient from a sound sleep, comes the pain in the head, etc. This peculiarity may also be met with in primary pneumococcic meningitis; but in the form secondary to pneumonia, and in that which arises in endocarditis, latency of onset is the rule.

(*b*) *Fever.*—There is no constant type of fever in any form of meningitis. In cerebro-spinal fever the pyrexia is very variable, and I have given here a few charts in illustration. There may be no fever at onset—as shown in Charts 8 and 9 of the sporadic cases. Of our epidemic cases, all had fever on admission.

Irregularity in the fever may be present from the start. There is not a steady rise at first to a fastigium, but even on the third or fourth day the temperature may fall to normal. Chart 1 shows this extreme irregularity in a two-hour record. The remissions were very pronounced, and the temperature rose to 108° just before death.

In other cases the course is singularly like that of typhoid fever, and for days the two-hour temperature chart may not show a variation of more than a degree. This is well illustrated in Chart 2 from Case XVII. This patient (as shown on the lantern slide) had the facial aspect of a case of typhoid fever. Chart 3 from Case XIII shows also a very steady fever with but slight remissions to the time of death on the fifteenth day. Chart 4 from Case XV presents a still more marked resemblance to a typhoid fever curve, particularly in the daily remissions, giving the spiked chart with which we are all so familiar in the third week of the disease. Intermissions, exacerbations, and great irregularities similar to those in tuberculosis, are very pronounced in the more chronic cases. Chart 5 from Case XVI gives the maximum

and minimum daily temperature from the twenty-ninth to the seventy-ninth day. It will be noticed how variable is the time of the highest point of daily fever. On thirteen days the maximum temperature was in the morning—an inverse type, to which many writers have referred, in this disease. The exacerbations are better shown in the two-hour record. In Chart 7 from Case XVI the intermittent type is shown, but the paroxysms are readily distinguished from those of tertian malarial intermittent fever by their prolonged course.

In cases of this sort, when chills occur, the picture is very suggestive of malaria, and one can understand why some of the older writers regarded the disease as a manifestation of paludism. The chart of Case VIII is worth a passing comment. After a very steady temperature on the ninth, tenth, and eleventh days the record on the twelfth day was normal. On the thirteenth day there was a paroxysm without a chill, lasting from 10 P.M. on June 19th to 4 A.M. on June 21st. On the fourteenth and fifteenth days the temperature was normal. On the evening of the latter the fever rose, and the paroxysm lasted through the sixteenth day, and at 4 P.M. the patient complained of decided chilliness. On the seventeenth day no fever. At 10 A.M. on the eighteenth day the patient had a rigor, in which the temperature rose to 104.5°; the paroxysm lasted more than thirty hours. Then, on the

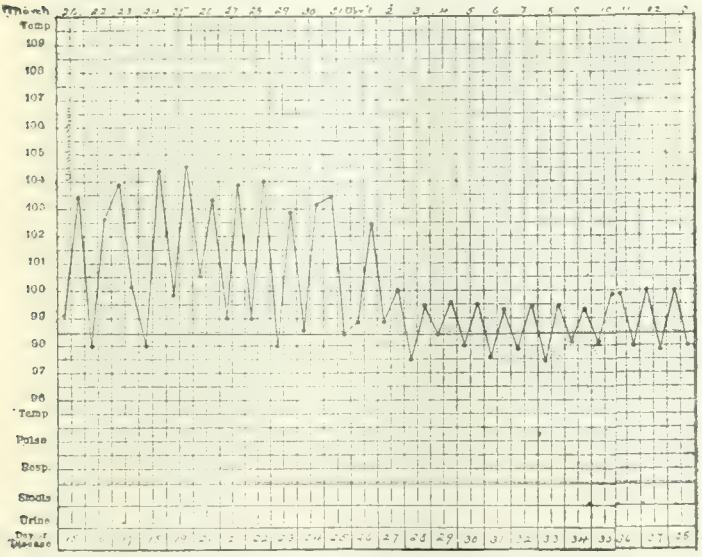


Chart 4, Case XV.—J. N. M.

twentieth, twenty-first, and twenty-second days he had recurring attacks, two chills, the one on the twenty-second, without chill, extended into the twenty-third day. After this the patient's temperature remained normal, and he recovered rapidly. During these attacks he complained a great deal of pain in the head and back. The spleen was not enlarged. The blood was examined daily for the malarial parasites, but none were found. And, lastly, Chart 7, from Case XV, illustrates the relation of the temperature to the lumbar puncture. After the sixth, seventh, and eighth punctures the fever dropped; after the twelfth it rose.

(*c*) *Skin Rashes.*—Various skin rashes are common in cerebro-spinal fever, and form an important feature in the diagnosis. Of 21 cases which I saw during the epidemic, in 13 a skin eruption of some form or other was present. Herpes, of course the most common, was present in 8 cases. A diffuse erythema about the chest and abdomen, and over the joints, was present in 4 cases. Petechiæ were noticed in 8 cases, extensive in only 3. In 3 cases a very remarkable and peculiar rash was present in the neighbourhood of the joints, particularly over the extensor surfaces of the knees and elbows, and about the ankles. There was a diffuse, livid erythema of great intensity, on which a purpuric herpes developed—a vesicular rash, the individual vesicles of which became filled with blood. As the erythema faded and the vesicles dried, they could be felt as little nodular hemispherical bodies, which persisted for a week or ten days.

(*d*) *Blood.*—A careful study of the blood was made in all of our cases. A leucocytosis was present in every instance. In 4 the first blood count was made on the third day, and the leucocytosis was 25,900, 14,500, 40,800, and 32,000 per c. cm. The first blood count was made on the fourth day in 4 cases, and the leucocytosis was 26,240, 31,800, 19,300, and 7,600 per c. cm. In only 4 cases did the leucocytes exceed 40,000 per c. cm., and the maximum count was on the ninth day in a fatal case 47,000 per c. cm. The leucocytosis persists even in the most protracted cases. In a lad who died in the twelfth week of the disease the leucocytes were 23,000 per c. cm. shortly before death. As a rule there was no special reduction in the red blood corpuscles. In 1 case a moderate anæmia developed, and in the fifth week the red corpuscles were only 3,100,000 per c. cm. In 1 case the diplococcus intracellularis was isolated from the blood during life.

Leucocytosis has no special value in the differential diagnosis of the various forms of meningitis. I had an impression that it was not so constant in the tuberculous variety; but Dr. Parfitt analysed the records in 11 of our cases, and found that in only 3 was a leucocytosis absent. The lowest count was 6,500 per c. cm. Of 8 cases with leucocytosis, there were 4 with 20,000 or more white corpuscles per c. cm. The highest count was in a child aged 8—24,333 per c. cm. Altogether the leucocytosis seems not to be so high or so persistent in the tuberculous meningitis.



Fig. 1.—Kernig's sign, showing the strong contraction of the flexors on attempting to extend the leg.

(*e*) *Arthritis*, or more often periarthritis—much more common in cerebro-spinal fever than in other forms—was present in 2 of our cases. In Case VII the joint lesion came on with great rapidity, and by the fourth day he had a multiple suppurative arthritis, resembling an acute pyæmia. The diplococcus intracellularis was isolated from the pus in the joints. In the other (Case X) the disease began with arthritis.[7]

II. *Kernig's Sign.*—Described by a Russian physician, and studied in Germany and France, this interesting sign has not attracted the special attention of English and American physicians, though J. B. Herrick, of Chicago, at the last meeting of the Association of American Physicians, spoke of its value. It has been present in all our cases in which it has been looked for. It is, I think, an old observation that the subjects of protracted meningitis, particularly children, very often lie with the thighs flexed upon the abdomen, and with the legs in a state of partial contracture, so that they are with difficulty extended. To test for Kernig's sign the patient should be propped up in bed in the sitting position, then, on attempting to extend the leg on the thigh there is contraction of the flexors which prevents the full straightening of the leg. On the other hand, in the recumbent posture the leg can be fully extended. Many patients with meningitis are not in a

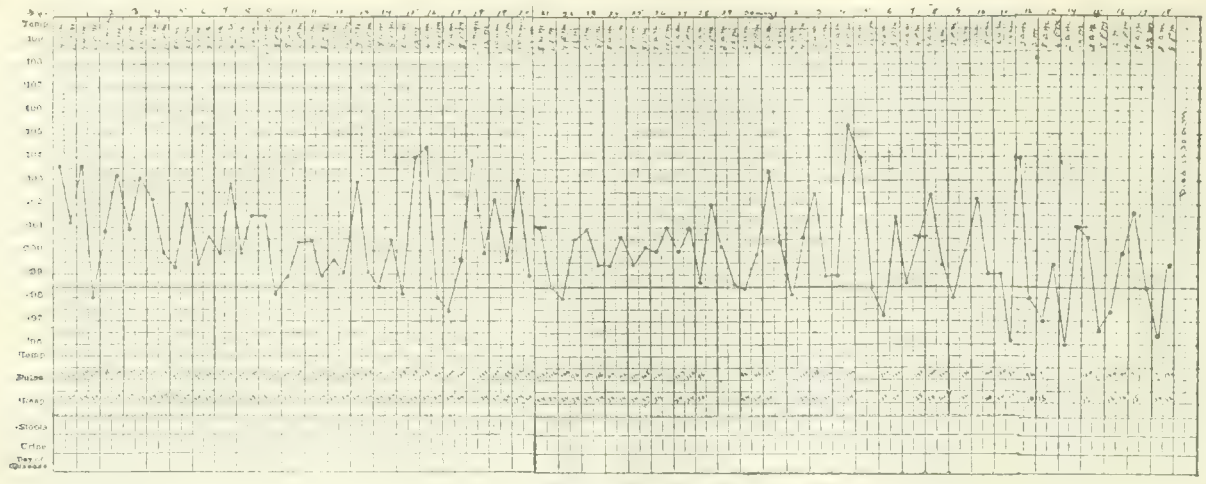


Chart 5, Case XVI.—C. A. K.

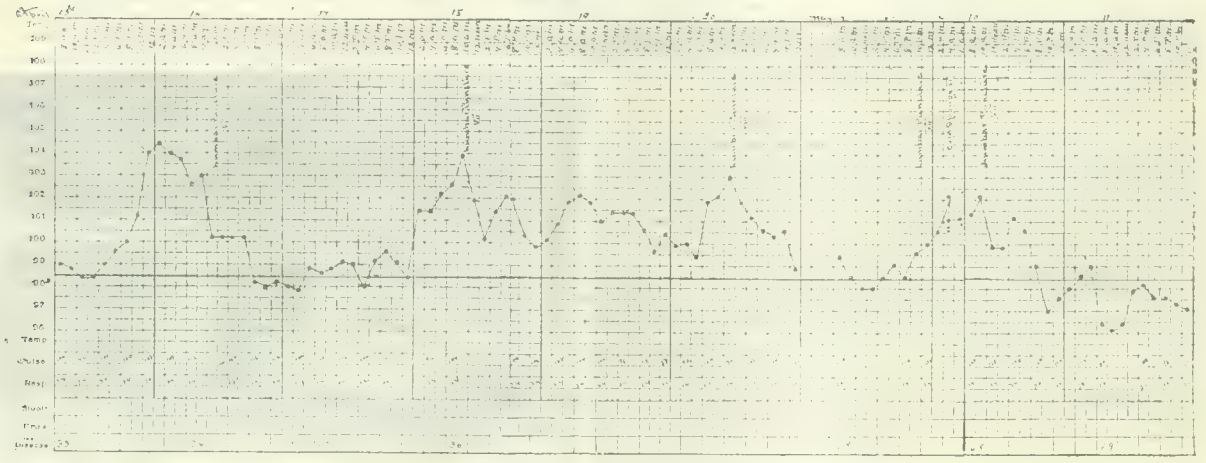


Chart 6, Case XV.—J. N. M.

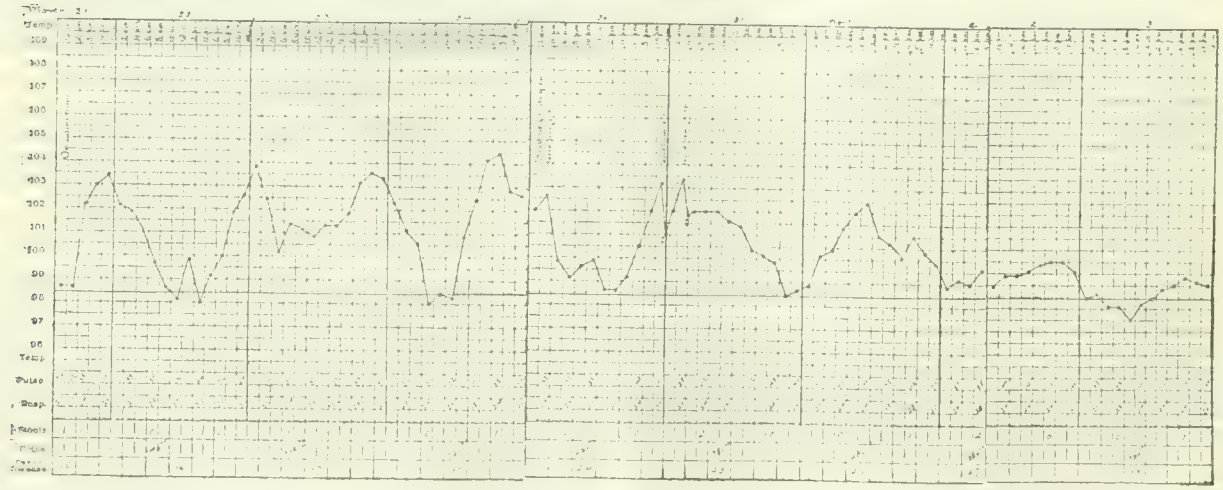


Chart 7, Case XVI. C. A. K.

condition to sit up, and the test can be equally well made by flexing the thigh on the abdomen, when on attempting to extend the leg, if meningitis be present, the limb cannot be fully extended, as shown in Fig. 1 (p. 1521). Friis found the sign in 53 of 60 cases, and Netter in 45 of 50. It is stated to be present in all forms of meningitis when the spinal meninges are involved. The presence of the sign is no indication of the intensity of the spinal

involvement, as it existed in a very marked degree in a recent case of pneumococcic meningitis, in which there was no positive exudate on the spinal meninges, only a turbid fluid. Netter's explanation of the phenomenon is as follows: "In consequence of the inflammation of the meninges the roots of the nerves become irritable, and the flexion of the thighs upon the pelvis when the patient is in the sitting posture elongates and consequently stretches the lumbar and sacral roots, and thus increases their irritability. The attempt to extend the knee is insufficient to provoke a reflex contraction of the flexors while the patient lies on his back with the thighs extended upon the pelvis, but it does so when he assumes a sitting posture."

III. *Lumbar Puncture.*—During the past ten years no single measure of greater value in diagnosis has been introduced than Quincke's lumbar puncture. We are now able in a large number of cases to make a prompt decision as to the existence of meningitis, and are further enabled to recognise the form of the disease. I shall not detain you with details of the technique, available now in all textbooks, and recently considered at great length in an elaborate "Referat" by Neurath in the *Centralblatt f. de Grenzgebiete der Medizin und Chirurgie*, Bd. I. It is a simple, quite harmless procedure, and in a majority of the cases can be done without general anæsthesia, or with the aid of a local freezing mixture. A dry tap is rare in cerebro-spinal fever; the needle may be plugged with fibrin, or a nerve root may come directly against the orifice. Puncture in the third or fourth interspace may be negative, while in the second a free flow is secured. In one of our early cases in which no fluid was obtained, the necropsy showed an exudate as thick as butter, with little or no fluid. A first puncture in a case is very often negative. Though simple the technique is, like other procedures of the kind, bettered by practice. Very often at first a few drops of blood flow, then a clear or turbid fluid, either drop by drop, or sometimes in quite a strong stream.

The fluid may be clear, turbid, purulent, or more rarely a brownish yellow or quite bloody. In a great majority of all cases, when meningitis is present the fluid is turbid. In rare instances clear fluid may be obtained when meningitis exists, and in a protracted case the fluid may be turbid at one puncture and clear at the next. Several observers have noted that the fluid may become clear in the intermissions of the disease. A clear fluid may be obtained from a puncture in the second lumbar interspace, while lower down a turbid fluid may be withdrawn. I saw this possibility very well illustrated in a recent *post-mortem* examination; the fluid in the lower dorsal and upper lumbar regions was perfectly clear, while that in the lower lumbar and the sacral regions of the canal was very turbid and contained numerous flocculent masses.

The fluid should be allowed to flow into a sterilised test tube. When the fluid is at all turbid there is usually a slight sediment and coagulation of fibrin. Cover-glass preparations are made either directly from the turbid fluid, or if the turbidity is slight and the cell elements few in number, after it has been centrifugalised. Cultures should be prepared at the time of making the lumbar puncture by allowing one or two cubic centimetres of the fluid to flow on to a Loeffler blood serum medium.

The amount of fluid obtained varies from a few drops to 130 c.cm. The samples in these flasks show the large amount which may be removed, one 126 c.cm., another 112 c.cm.

Wentworth claims that within certain limits there is some relation between the degree of turbidity of the fluid and the severity of the symptoms, and this was borne out by our more limited experience. Even in the most protracted cases the turbidity may persist. Only once was a clear fluid removed in an exacerbation. On several occasions a bloody fluid was removed in Case XVIII. In the wards at the same time was a remarkable instance of septic meningitis in which, after turbid fluid had been withdrawn at one puncture, at a subsequent one, before death, blood flowed from the needle, and *post mortem* there was extensive meningitis and a rupture of the basilar artery with hæmorrhachis.

The number of the organisms found bears no constant relation to the intensity of the symptoms. In acute cases they are present, as a rule, in large numbers. The later the disease, the less likelihood is there to find the diplococcus intracellularis in the fluid; but we have found it in the second, third, fourth, fifth, and seventh week. The following are some of the days on which the organisms were found: seventeenth day, fourteenth day, twenty-fifth day, thirty-first day, forty-first day, and nineteenth day.

Has the lumbar puncture any therapeutic value? Williams, of Boston, states that he has seen beneficial effects, and there are a few cases in the literature in which the severity of the symptoms were promptly mitigated by the removal of a variable amount of the spinal fluid. Wentworth (whose experience has been very large), speaking of these cases, says: "I have never seen any such cases, though constantly on the watch for them. A temporary relief, lasting for a few hours, has followed the operation in a few cases, but the same remissions frequently occur without any treatment." Netter says that he has seen convulsions, which had lasted for a long time without intermission, cease after the withdrawal of only about 2 drachms of fluid.

We have given this point our closest attention, and many times have performed the puncture directly for its supposed benefit. In Case VIII the note reads: "Much better after the first puncture; brighter every way.' Case IX, puncture at 11 A.M.: "Patient's condition has greatly improved; the muttering has ceased, and the irregular movements are less marked." To Case XVI I may refer more fully. It was an example of the chronic form in which the patient lingered for nearly three months. The accompanying table has been prepared by Dr. Marshall, one of my house-physicians. It gives the day of the disease, the amount of fluid withdrawn, the character of the exudate, the microscopical appearances, the culture results, the leucocytosis, and the effect (?) of the puncture on the temperature. The first puncture, made on the twenty-ninth day of the illness, was negative. From the second puncture 100 c.cm. of a yellowish turbid fluid were withdrawn, which contained pus cells and intracellular cocci

Kratz—Lumbar Puncture Chart.—Case xvi.

Puncture No.	Day of Disease.	Amount.	Character.	Microscopically.	Cultures.	Leucocytosis.	Temperature.
1	29	Negative	—	—	—	—	Unchanged.
2	31	100 c.cm.	Yellow; turbid.	Pus cells; intracellular diplococci.	Positive.	17,400	Dropped 2.4°
3	35	125	Yellow; turbid.	—	,,	25,300	,, 1.[illegible]
4	37	90	Pale yellow; turbid.	Pus cells; no cocci.	Negative.	19,900	,, 2.[illegible]
5	40	85	Pale yellow.	Pus cells; no cocci.	,,	28,000	,, 1.6°
6	44	126	Pale yellow; cloudy.	Intracellular; diplococci.	,,	15,000	,, 4.5°
7	46	100	Pale yellow; turbid.	Pus cells; no cocci.	,,	22,000	,, [illegible]
8	48	50	Pale yellow; turbid.	Pus cells; no cocci.	,,	19,000	,, 4.2°
9	54	30	Pale yellow; turbid.	Pus cells; no cocci.	,,	23,600	Rose 0.8°
10	59	Negative.	—	—	—	—	Unchanged.
11	59	100 c.cm.	Cloudy.	Pus cells; no cocci.	Negative.	—	Dropped 5.8°
12	62	60	Cloudy; blood-tinged.	Pus cells; no cocci.	,,	18,000	,, 3.4°
13	68	3	—	—	,,	32,000	,, 5.1°
14	70	75	Cloudy.	Pus cells; no cocci.	,,	47,500	Rose 2.6°
15	73	Negative.	—	—	—	23,000	Unchanged.
16	75	Negative.	—	—	—	—	Unchanged.
17	75	8 c.cm.	Cloudy.	Pus cells; no cocci.	Negative.	—	Unchanged.

in abundance, and the cultures were positive. In all seventeen punctures were made between the twenty-ninth and the seventy-fifth day of the disease, of which fourteen were positive. A turbid pale yellow fluid was removed at each tapping. On five occasions 100 c.cm. or more were obtained, once 125 c.cm., and once 126 c.cm. Following the two first effective tappings the patient appeared better, the temperature dropped, and he seemed much brighter, but he soon became worse, and the fever rose. Following the sixth, seventh, eighth, and eleventh punctures the temperature fell 4.5°, 3.8°, 4.2°, and 5.8°. There was no change in the general condition, though he sometimes was a little brighter, and the drop in fever followed so directly that it seemed only natural to attribute the good results to the lumbar puncture. The thirteenth puncture was practically negative, yet the temperature fell 5.1°, and after the fourteenth tapping the temperature rose 2.6°. Evidently not the withdrawal of the fluid, but the peculiar character of the disease, already spoken of, was responsible for the remissions. The chart illustrates further the persistence of the leucocytosis, and the sterile characters of the fluid after the forty-fourth day. I have here for demonstration the lumbar portion of the cord and its membranes. The position of the last puncture can be seen, and the repeated operations have caused a slight hæmorrhagic pachymeningitis.

Sporadic Cerebro-Spinal Fever.

To what extent do isolated cases of cerebro-spinal fever occur in the intervals between the epidemic prevalence? What is the nature of the primary suppurative meningitis which is met with from time to time in all communities? Neither hospital statistics nor the ordinary death returns give trustworthy answers to these questions. The diagnosis of meningitis is often doubtful, and it is very probable that a great many cases are returned as cerebro-spinal meningitis which are the cerebral forms of typhoid fever or of pneumonia. It is surprising how much confusion there is in the diagnosis of the different forms, and the urgent need of a more accurate recognition of the varieties is well shown by the number of terms used in the tabulation of cases. Thus, not to speak of the tuberculous form, which is often spoken of as basilar meningitis, the terms most frequently used are acute meningitis, meningitis simplex, purulent meningitis, and septic meningitis. In a recently-issued report on sporadic cerebro-spinal meningitis from the Philadelphia Hospital, by L. N. Boston,[9] exclusive of the tuberculous variety, the following names occur as designating the varieties of acute meningitis: lepto-meningitis, basilar meningitis, pachymeningitis and basilar meningitis, basilar and lepto-meningitis, hæmorrhagic meningitis, and purulent meningitis.

To reach uniformity in this matter is not at present possible, but we may welcome the steps which have been taken towards separating the different forms of the disease.

In the last *Census Report of the United States* the returns for the census year 1890, a year in which cerebro-spinal fever, so far as I know, did not prevail to any extent in epidemic form, the number of deaths reported from cerebro-spinal meningitis were 3,333, a large percentage of these during the first year of life.

From the Fifty-Ninth Annual Report of the Registrar-General, 1896, I gather that the deaths from cerebro-spinal fever in England from 1877 to 1896 (inclusive) have only once exceeded 50 per annum. There has been a great reduction in the return since 1887, 233 cases for the ten years ending 1896, against 406 for the previous decade. In Scotland there were only 6 deaths from cerebro-spinal fever in 1895, and 5 in 1896. In Ireland there were 76 deaths from this cause in 1896, and the same number in 1897.

From the records of two large metropolitan hospitals I have gleaned the following figures: At St. Bartholomew's from 1860, cases with the diagnosis of cerebro-spinal meningitis occur in the years 1872, 1888, 1889, 1890, 1892, 1893, 1895, 1896, 1897—21 in all. In many years the word meningitis alone is used, in others the word spinal meningitis and meningitis simplex. Ormerod[9] gives an exceedingly interesting report on 10 fatal cases from this hospital; 4 of them occurred between March and June, 1890, at which time epidemic meningitis prevailed in the Eastern Counties. At St. Thomas's since 1873 cases with the diagnosis of cerebro-spinal meningitis occur in the years 1895 and 1896—7 cases in all. In the wards of the Royal Infirmary, Edinburgh, there were in 1891 3 cases diagnosed as cerebro-spinal meningitis, in 1892 2 cases, in 1893 1 case.

In the United States and Canada the occurrence of sporadic cases of cerebro-spinal fever in the intervals between epidemics has long been recognised. In Montreal I performed *post-mortem* examinations on at least 3 cases of acute purulent cerebro-spinal meningitis not associated with pneumonia or endocarditis, and not following otitis media or injury. As illustrating the liability to error, I may mention a case in which the diagnosis of cerebro-spinal meningitis was made in malignant small-pox; in another instance, with the same diagnosis, the case was a very acute typhoid fever, fatal within a week. In Philadelphia I saw only 3 cases.

At the Boston City Hospital, from 1880 to 1896, there were 39 cases diagnosed as cerebro-spinal meningitis, with a mortality of 59 per cent. It is interesting to note that during the first five months of 1897, when the epidemic began, there were 42 admissions—a larger number than in the previous seventeen years. That the disease lingers in a city indefinitely after an outbreak has been the common opinion of all students of the disease, and anyone who has had a large *post-mortem* experience has met with sporadic instances of extensive suppurative meningitis which he has not been able to regard as secondary to any existing condition. The Philadelphia records are interesting in this respect. As collected by Stillé from 1863 the figures illustrate very well the periods in which there were slight outbreaks—namely, 1863-64 and 1872-73. Pepper[10] completed the figures to 1892, and Dr. Abbott has sent me the figures up to date. They show from 1884 a progressive decline in the number of cases, which may in part have been due to more careful diagnosis. From this year, when there were 124 deaths, there was a gradual decline, and in 1891 there were only 23 deaths. From that year the figures as sent me by Dr. Abbott are as follows: 1892, 22 cases; 1893, 35 cases; 1894, 18 cases; 1895, 17 cases; 1896, 7 cases; 1897, 10 cases; 1898, 24 cases; 1899 (to and including April 30th), 89 cases. Here again it is interesting to see how quickly the epidemic prevalence of the disease is manifest. During 1898 the disease was not recognised as prevalent in Philadelphia. During the present year a number of cases have occurred, and the deaths during the first four months have been 89.

In Baltimore the figures for the past six years are as follows: 1893, 59 cases; 1894, 26 cases; 1895, 27 cases; 1896, 32 cases; 1897, 22 cases; 1898, 70 cases; during this year the prevalence of the disease was recognised as occurring in a mild form through the city. During the first four months of the present year there has been an increase, and the deaths for this period have been 27.

Sporadic Cerebro-Spinal Fever at the Johns Hopkins Hospital.—In the spring of 1898 the first cases of the epidemic form were admitted to the hospital, and in all eighteen cases have been under treatment. Prior to this date only four cases had been admitted which we regarded as sporadic forms of cerebro-spinal fever, three within a few days of each other in 1893, and one, a chronic case, in 1892, which has been reported.[11]

Case I.—P. R. (Hospital No. 7253), aged 57, admitted May 1st, 1893. The patient had been drinking heavily, and when admitted was delirious, mumbling and muttering to himself, and picking at the bed-clothes, and he resisted actively any attempt to examine him. His friends stated that he had been in this condition for about a week. His temperature on admission was 97.5°, pulse 68, respirations 16. He had no skin rash and no symptoms suggestive of meningitis, and we regarded the case as one of delirium tremens. As shown in Chart 8 on p. 1525, he had no fever until the 5th, four days after his admission. There was then a rapid rise to 105°; the respirations increased from 28 to 40; the pulse rose to 112. Throughout the 6th the temperature remained high, falling on the morning of the 7th to 103°. The respiration rose to 48. He was a little cyanosed, could not be be roused, and he died at 8 A M. on the 7th.

The necropsy (No. 413) showed extensive yellowish purulent exudate over the hemispheres. There was a turbid exudate at the base and along the Sylvian fissures; the ventricles contained an excess of cloudy fluid. The cord was not examined. Cover-slips showed rounded cocci in pairs, chiefly in the mononuclear and polynuclear cells. Cultures showed diplobacilli. The lungs showed slight bronchopneumonia, and the pneumococcus was isolated.

Case II.—W. F., aged 27 (Hospital No. 7282), admitted May 3rd, 1893. The patient was apparently very deaf, and was noisy and delirious when admitted, and he had no friends from whom any history could be obtained. The temperature on admission was 99°, pulse 86, respirations 20. During the night he became very noisy and delirious, and the pulse was irregular. On the following morning examination of the thoracic and abdominal organs showed nothing of any special moment.

The spleen was not palpable. The temperature was 99°, pulse 96, respirations 24. On the evening of the 4th and throughout the night the patient became very noisy and had to be transferred to the isolating ward. It was noticed on admission that he was very deaf, and this seemed to increase. On the afternoon of the 4th the temperature began to rise, and at 6 P.M. reached 102,5°. The pupils were equal; the pulse was 96, irregular. The patient resisted strongly any attempt to bend the head, and the neck was held very rigid. There was general hyperæsthesia, and he cried out whenever he was touched. A petechial rash was noticed that afternoon for the first time over the abdomen. At 8 P.M. the temperature rose to 103° (Chart 9). He became very much worse; the pulse became more rapid, 112, very irregular, and he died a little after 2 in the morning.

Necropsy (No. 412). A purulent greyish yellow exudate over the hemispheres, also along the pons and medulla, and the whole length of the spinal cord, which in the lumbar region reached a thickness of 8 mm. The ventricles were distended with a turbid yellowish fluid. In the posterior cornua there was a greenish exudate. Cover-slips from the meninges showed numerous leucocytes and large cells containing round diplococci. Pus from the ventricles showed many cocci, single and in pairs, chiefly in cells. Some of the larger cells were packed with these cocci. Cultures were negative. Inoculations of a rabbit and a mouse were also negative. At that time we had not recognised the

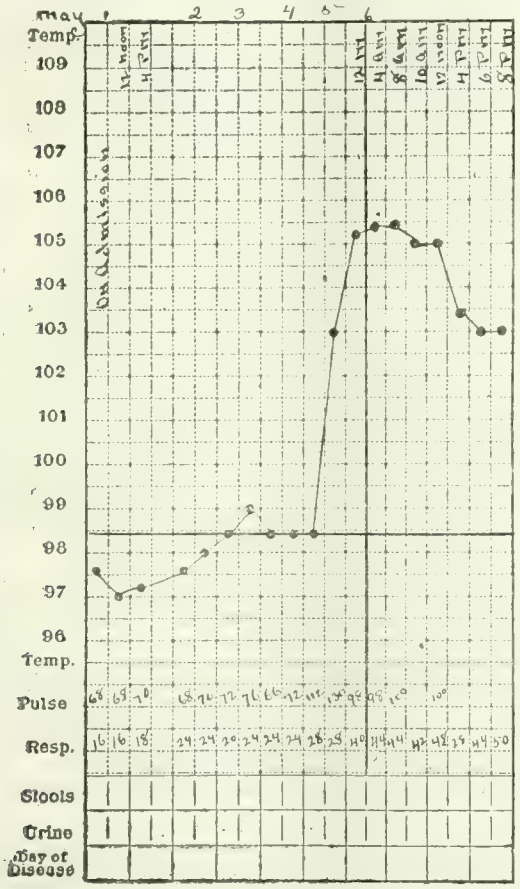


Chart 8, Case I.—P. R.

diplococcus intracellularis of Weichselbaum, but the description of the organism, the position in such numbers within the cells, the failure to grow in cultures and the negative results of experiments on animals, make it more than probable that we were dealing with this organism.

When these cases occurred the disease was not prevailing in Baltimore, and except in New York it was not epidemic anywhere in the country, so far as we could ascertain. Three days after the death of Case 1 a lad was admitted with a most remarkable family history of the disease. The father, a very intelligent man, gave the following details of the cases:

Wagner Family.—1. A son, a young man of about 20 years of age, returned home on Monday, February 7th, complaining of a terrible pain in his head. He had fever with much vomiting, and his head and neck were arched. He was very delirious, became rapidly worse, and died on Saturday, February 12th. 2. A sister, who had helped to nurse her brother, was taken ill on Monday, February 14th, with similar symptoms, and died in four days. 3. A second sister became affected in a few days, and for two weeks was desperately ill; she then began to improve, and is now well. 4. The mother, who was worn out nursing the children, was taken ill on March 17th, and died in two days. She had slept in the same bed with No. 5, who was admitted to the hospital.

CASE III.—W. W., aged 15, No. 5 of the Wagner family, was admitted on May 12th, in the eighth week of an illness which the doctor described as cerebro-spinal meningitis, and of which his mother and a brother and sister had died. The patient presented a dull, heavy appearance, and for some days did not appreciate his surroundings, and appeared confused. He had delusions and hallucinations, and thought he saw his mother and sister in the room with him. He had no fever, and there was no rigidity of the head or neck. The optic nerves looked normal. He improved gradually, and was discharged well on June 10th.

I can find no parallel to this record in the history of sporadic cerebro-spinal fever. The figures which I have given for Baltimore show that in the year 1893 a considerably larger number of cases occurred than in the four succeeding years, and the admission of these three cases in rapid succession excited our interest, but from this time until the spring of 1898 we saw nothing further of the disease. In the history of the epidemic form it is not very uncommon to find two or three cases from one house. Netter refers to Sewall's

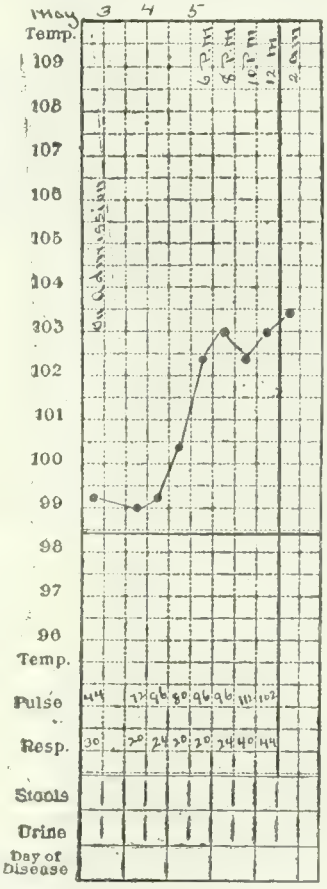


Chart 9, Case II.—W. F.

report of six children attacked in one family at the beginning of the New York epidemic in 1872, and he quotes from Thorne Thorne the statement of Morcieca that in Malta 7 cases occurred in a family of nine persons. Such facts speak strongly for the contagious nature of the disease. Under ordinary circumstances, however, it is exceedingly rare to find more than one case in a family, either in the sporadic or epidemic form, and I know of no case in our recent American experience in which a physician or nurse has been attacked, or in which cases have developed among other patients in a hospital. We know nothing of the conditions under which the disease assumes this family malignancy, as it may be termed. In this respect it resembles pneumonia, not highly contagious as a rule, but which may at times, in a family or institution, present a high degree of malignancy.

Bacteriology of Sporadic Cerebro-Spinal Fever.—In a number of cases of sporadic cerebro-spinal meningitis the Weichselbaum

organism has been found. The case reported by Stewart and Martin [12] is of peculiar interest, inasmuch as the epidemic form of the disease has not prevailed in Montreal for many years. It is to be noted, however, that the patient prior to her illness had been spending a few weeks in Boston, where the disease had been prevailing. An unusual point in this case was the occurrence of an acute purulent pericarditis in addition to the usual cerebro-spinal lesions. The cultures showed the diplococcus intracellularis.

By far the most suggestive contribution to this question made of late years is by Dr. George F. Still,[13] of the Great Ormond Street Hospital for Sick Children. In a study of the form of meningitis known as the simple posterior-basic of infants, he isolated from 7 of 8 cases a diplococcus which conforms in almost every particular with the diplococcus intracellularis. The frequency of this form of meningitis may be gathered from the fact that in ten years there were at this hospital 49 fatal cases, verified by necropsy. The smallest number in any one year was 2, and the largest number 7. All of the cases were sporadic; none of them formed a part of any outbreak which could be considered epidemic. Clinically the disease presents certain differences from the ordinary type of cerebro-spinal fever, attacking young children, chiefly in the first year of life, and as a rule is very much more chronic, though there are forms of cerebro-spinal fever which are quite as protracted. Skin rashes are rare, particularly herpes. The most interesting point of similarity determined by Still is the periarthritic affection in certain of the cases of posterior meningitis, involving, as in epidemic form, the capsule of the joint and the sheaths of the tendons. He determined also in one case the presence of the diplococcus in the exudate.

The problem is one which deserves the closest attention, and in every case of sporadic meningitis a careful bacteriological examination should be made for the meningococcus and the pneumococcus, as we are still ignorant of the proportion of cases due severally to these organisms. Two points remain for discussion—namely, the incidence of acute non-tuberculous meningitis in hospital work, and the clinical varieties of the pneumococcic form.

Through the kind permission of my colleague, Professor Welch, one of his assistants, Dr. W. G. MacCallum, has analysed from the pathological department of the hospital the cases of meningitis in which bacteriological examinations have been made.

The 25 cases may be divided into four groups:

(*a*) *Cerebro-spinal fever*—6 cases (Nos. 412, 413, 1,104, 1,189, 1,314, and 1,362).

(*b*) *Pneumococcic meningitis*—8 cases (Nos. 384, 478, 619, 746, 989, 1,082, 1,151, and 1,362).

(*c*) *Pyogenic meningitis*, in which streptococci or staphylococci, singly or in association, were found—7 cases (Nos. 694, 1,065, 1,092, 1,247, 1,166, 1,363, and 1,364).

(*d*) *Miscellaneous*—4 cases, 2 of which (Nos. 854 and 1,091) showed peculiar unidentified bacilli.

The pyogenic forms of meningitis do not concern us here; no case of primary streptococcus or staphylococcus meningitis came to necropsy. I have already referred to the chronic forms of cerebro-spinal fever in which the pyogenic cocci may alone be present at the time of death.

The meningitis with which the diplococcus lanceolatus is associated, in many respects the most important variety, deserves a separate consideration.

Pneumococcic Meningitis.

As the pneumococcus has long been recognised as the most important organism in the production of meningitis, the first question to be considered is how far sporadic cases of cerebro-spinal meningitis are due to it. Of the 25 cases of meningitis in the pathological department of the Johns Hopkins Hospital, in 8 the pneumococcus was isolated from the exudate. Bacteriological statistics everywhere show the great importance of this organism as a factor in the causation of meningitis. Of 20 cases examined by Councilman, Mallory, and Wright, there were 10 cases in which the pneumococcus was found, 8 of these secondary to other conditions, in 2 only primary. In 8 cases of secondary meningitis the streptococcus was present. Netter's experience is particularly interesting. To April, 1897, he had examined bacteriologically 61 cases of meningitis, with the following results: "Pneumococcus in pure culture 35 times, the same associated with the streptococcus and with the staphylococcus each 1 time, the streptococcus alone 13 times, the diplococcus intracellularis meningitidis 3 times, the staphylococcus pyogenes aureus and the bacillus of Friedlaender each 2 times, and the coli bacillus, the influenza bacillus, a fine bacillus, and a pyocyanic and saprophytic bacillus each 1 time." We may recognise three groups of cases of pneumococcic meningitis.

I. *The Meningitis is a Complication of Lobar Pneumonia.*—In Montreal my attention was called to the great frequency of this association, in 8 of 100 consecutive necropsies,[14] and since these observations I have had opportunities of studying a number of cases, though I have never met with so large a proportion. By far the most important contributions to the subject have been those of Nauwerck[15] and Netter.[16]. Of the 29 cases analysed by Nauwerck, in 4 the convexity of the brain was alone involved, in 16 both cortex and base, and in 17 the cortex, base, and spinal cord. Netter's study, the most complete that has yet appeared, contains an analysis of 124 cases collected from the literature. In the recent monograph on pneumonia by Aufrecht[17] 7 cases of meningitis were found in 253 necropsies, and of 1,501 cases of pneumonia, in 10 the diagnosis of meningitis was made, in 3 of which recovery followed. Of the 8 cases of pneumococcus meningitis in the department of my colleague Welch, in only 4 was the condition associated with lobar pneumonia.

II. *Pneumococcic Meningitis from Local Infection.*—In this exceedingly important group the infection may come from the nose or the adjacent sinuses, from the ears, or may follow an injury to the skull or an operation. In 2 of the 3 cases in the series analysed by Dr. MacCallum there was fracture of the base of the skull. In the third, a child, aged 6, had suppuration of the nasal mucous membrane and adjacent sinuses. In this connection the importance of the pneumococcus is universally recognised, and many cases are on record of infection from an otitis media.

III. *Primary Pneumococcic Meningitis.*—A number of observers have isolated the pneumococcus in primary suppurative meningitis. The records cannot be regarded, however, as entirely trustworthy, since it is only within the past few years that bacteriologists have learned to recognise the differences between the pneumococcus and the diplococcus intracellularis. Subsequent study must determine in what proportion of cases of sporadic meningitis the pneumococcus exists, and in how many the diplococcus intracellularis.

The primary pneumococcic meningitis may develop in a person in good health, but more frequently there is a general pneumococcus infection in a debilitated individual, or in one with chronic disease. The meningitis may be present alone, or as is so common, in association with endocarditis. Of the cases examined in the *post-mortem* room of the Johns Hopkins Hospital, one (No. 989), a man aged 44, had a general infection with the pneumococcus and meningitis. Another case (No. 1,206), with a general infection, acute endocarditis, and meningitis, is not included in this series, as a partial necropsy only was allowed, and but a small portion of the lumbar cord was examined.

Clinical Features of Pneumococcic Meningitis.—I shall now refer to certain clinical features of these three groups of cases:—

(*a*) *Pneumonia with Complicating Meningitis.*—Is the case one of cerebro-spinal fever with pneumonia or of inflammation of the lungs with an added meningitis? This question does not often arise now at the bedside, as it is most exceptional for the meningitis of pneumonia to present the symptoms of cerebro-spinal fever and in a dubious case occurring during an epidemic the lumbar puncture (as in a case to be referred to in a few minutes) may be relied upon to clear up any doubts. The most valuable clinical record of meningitis in pneumonia is to be found in Nauwerck's paper. The histories, 17 in number, are very full and complete, and in every case accompanied with a *post-mortem* report. He has added a series of 12 cases from the literature, making 29 in all. All of the cases were above the 20th year of age—a striking contrast to cerebro-spinal fever, in which a large proportion of all the cases are in the young. A second point is the latency of meningitis in pneumonia, which is much more often recognised in the dead house than in the wards. Netter states that fully one-half of the cases are of this latent type.

Of the cases I saw in Montreal I remember but one in which the diagnosis was made during life. Huguenin, referring to this obscurity, says: "We know no symptom which is constant in all cases, or which may not be present in an identical manner in other conditions." Headache, early delirium, deepening into unconsciousness, are present in all cases. This is a consequence of the more common involvement of the cortex of the hemispheres. As Leichtenstern remarks, the mind may remain clear throughout the course of a case of cerebro-spinal fever. Spinal symptoms are rare; in only 7 of the cases analysed by Nauwerck was there rigidity of the neck muscles. Strabismus was present in one-fifth of the cases, ptosis only once. The importance of lumbar puncture cannot be too strongly emphasised. A recent case, which occurred while cases of cerebro-spinal fever were in the hospital, illustrates this so well that I give an abstract of it:

C. E., aged 52 (Hospital No. 26417), was admitted May 6th, 1899, with pneumonia of the right upper lobe of about eight days' duration. He was in a semi-comatose condition, with a temperature of only 99°, respirations 32, pulse 108. There was a pneumonia of the apex of the right lung. The day after admission it was noted that his arms and legs were very stiff; Kernig's sign was well marked, and there was some rigidity of the neck. The patient, however, responded to questions. Lumbar puncture was made in the third interspace, and 5 c.cm. of a perfectly clear limpid fluid obtained. Lumbar puncture was made again on May 10th, and 30 c.cm. of a perfectly clear fluid obtained, negative on cover-slip and culture. For the next three days he had a good deal of tremor. Kernig's sign was present, and there was still some rigidity of the arms and of the neck. The leucocytes ranged from 16,000 to 24,000 per c.cm. On the 14th lumbar puncture was performed for a third time, and a slightly turbid fluid obtained, from which on cover-slips the pneumococcus was obtained. The patient died on the evening of May 14th. The necropsy showed a pneumonia of the right apex, a very slight purulent exudate at the base, some turbid fluid in the ventricles, and a small amount of turbid cerebro-spinal fluid, but no positive exudate on the spinal meninges. There was an ulcerative endocarditis of the aortic valve. The pneumococcus was isolated from the meninges, the heart valves, and from the lung. A very interesting feature in this case was the normal temperature on the eleventh, twelfth, and thirteenth days of the disease, and the high temperature on the fourteenth and fifteenth days, ranging to 105° and 106°.

And lastly, a most important difference between the meningitis complicating pneumonia and cerebro-spinal fever is the almost universally fatal course of the former. Nauwerck describes the complication as invariably fatal, and he was not able to convince himself that in any one of the reported cases of recovery in the literature meningitis was actually present. Netter[18] speaks somewhat more hopefully, and states that recovery may occur. He gives two cases from the literature, both in children. In one, a child of 5, in which the crisis occurred on the sixth day, the signs of meningitis were the presence during the first few days of headache, unequal pupils, and ptosis. Aufrecht, in his recent monograph (*loc. cit.*), also speaks of the possibility of recovery. Of 10 cases of meningitis in 1,501 of pneumonia, 3 recovered. Netter, in his article in the *Twentieth Century Practice*, commenting upon the statement by Wentworth that pneumococcal meningitis is always fatal, states that "as early as 1887 I demonstrated, however, that its curability is one of the most evident characteristics of the pneumococcal meningitis." So far as I gather there is nothing in his essay to justify such a statement, since, as I have mentioned, he gives but two instances of recovery.

Personally I have never recognised recovery in pneumonia complicated with meningitis, and the literature of the subject bears out strongly the view that one of the most striking differences between the meningitis of pneumonia and cerebro-spinal fever is the almost invariably fatal termination of the former.

(*b*) *Pneumococcic Meningitis from Local Infection.*—Two of the three cases in this group were surgical; one (No. 746), followed removal of the bones of nose and orbit; the other (1,151) a fracture of the base of the skull, involving the cribriform plate of the ethmoid. In both the pneumococcus alone was isolated from the exudate in the cerebral meningitis. In 2 of Councilman's 8 cases the infection followed fracture, in 1 otitis media. Cases of this group do not so often appear in the medical wards, but last year we were particularly interested in a case in which the infection started from the nose and accessory sinuses; though the possibility has to be considered of extension from the meninges. An abstract is worth quoting, and the picture (Fig. 2) shows a remarkable condition of cervical opisthotonos:

A. C., aged 6 (black), admitted March 31st, 1898. Her previous history was negative. Five days before entrance, directly after supper, she vomited and complained of headache; later in the evening she became delirious. Two days after the head was held stiffly, and she had much pain in the back of the neck. She had fever, rapid pulse, loss of appetite, and constipation. On admission she was conscious, but very irritable and difficult to examine. The head was arched back and could not be brought forward. The pupils were equal and reacted to light. There was a marked slight internal strabismus. There was nothing of moment found in the examination of the chest and abdomen. She was very tender in the suboccipital region, but there was no sign of disease of the cervical spine. Lumbar puncture on April 1st was negative. For the first week the condition remained about the same; the child could be roused and answered questions; the strabismus persisted; there were no changes in the optic nerves. The temperature ranged from 100° to 104°. The arching of the head and neck continued: the eyes looked directly upwards (Fig. 2). On April 17th a rash appeared, a diffuse erythema over the face, neck, and chest, with papules. The rash faded in three days. The temperature ranged from 102° to 104°. On April 19th a profuse purulent discharge appeared from the nose which showed the pneumococcus on cover slips, but in cultures only the staphylococcus aureus grew. She could still be roused; the attitude remained as shown in the photograph. No optic neuritis. Throughout the 18th the temperature dropped from 105° to 97° on the morning of the 19th, and continued about 97° until her death on the morning of the 21st. One of the most remarkable features was the retention of consciousness to within a week of her death.

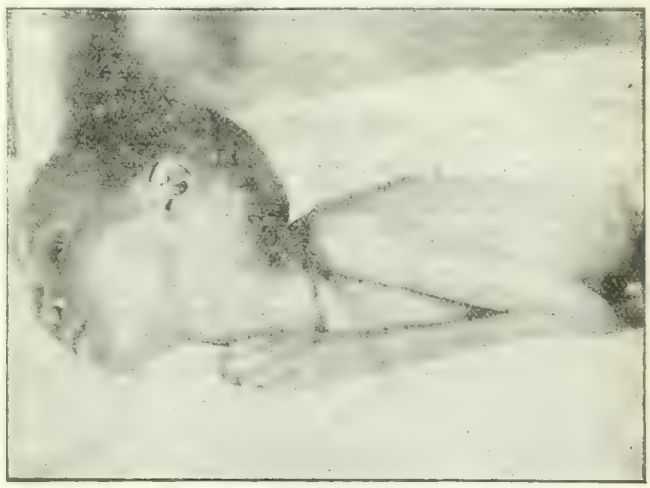


Fig. 2.—A. C. Pneumococcic meningitis—cervical opisthotonos.

The necropsy (No. 1,082) showed exudate over the sulci of the hemispheres. The base, from just behind the optic commissure, over the pons and lateral lobes of the cerebellum, was covered with a soft, yellow exudate. The posterior surface of the spinal cord showed the same. The ventricles were much distended with a turbid fluid. There was suppuration of the mucous membrane of the nose, and of the ethmoidal and sphenoidal sinuses. Cultures showed the pneumococcus in the cerebro-spinal exudate, and from the nasal pus the pneumococcus and the staphylococcus aureus.

(*c*) *Primary Pneumococcic Meningitis.*—Future investigations will decide the proportion of cases of primary cerebro-spinal meningitis due to the pneumococcus and to the diplococcus intracellularis; and it will be an exceedingly interesting study to determine whether there are clinical differences such as separate so decidedly the meningitis complicating pneumonia from the cerebro-spinal fever. Judging from the bacteriological records given by Councilman, Mallory, and Wright, and those of the Pathological Laboratory of the Johns Hopkins Hospital, the primary pneumococcic meningitis is rare in America—certainly much less infrequent than the secondary forms. Two of Councilman's 10 cases, both infants, one of ten months, the other of six days, were primary. I cannot gather from Netter's statistics[19] how many of his cases were primary; nor without consulting the original can one say how many of the 13 cases of sporadic meningitis studied by Malenchini (quoted by Netter) belonged to this group. Of our 8 cases, as stated, only 1 was primary, and is worth quoting:

G. C., aged 44 (white), admitted at 6.30 P.M. on September 1st, 1897, in an unconscious state. When seen by his brother on Saturday, August 28th, he was quite well. After going to bed on Saturday evening, the 30th, he had a severe chill. On Monday he was too ill to go to work. In the evening he became delirious, and ever since has had fever, has been restless, difficult to restrain, and very noisy. On admission the temperature was 105°; the pulse 136 and small. Dr. McCrae saw him a few minutes after he had been put to bed, and took very full and careful notes of the condition. The face was flushed and he looked distressed. There was no strabismus; the pupils were dilated and inactive. The head and neck were held stiffly, and the arms were held firmly flexed on the chest. There were no signs of pneumonia; the heart sounds were clear. The abdomen was not

distended, there were no rose spots, and the spleen could not be felt; there were no herpes. The skin had a diffuse mottling, but no purpuric spots were seen. There was no urethral discharge. The leucocytes were 13,500 per c.cm., no alteration in a differential count of 500. The Widal reaction was not present. At 10 P.M. the temperature had reached 106°, and he was given a bath at 80°, with ice frictions, which reduced the rectal temperature to 103°. At 11 P.M. the body seemed to be held much more stiffly. At 12 midnight he was much worse, and at 12.40 A.M. he died, about three days and three hours from the time of the initial chill.

The *post-mortem* examination (No. 989) showed a diffuse purulent meningitis of the hemispheres, the base much less involved and the ventricles not at all affected. The cord unfortunately was not examined. There was a recent diffuse nephritis, and the urine in the bladder contained albumen and tube casts. There was a general pneumococcus infection, no pneumonia or endocarditis, and the pneumococcus was separated in pure culture from the meningeal exudate.

THE TREATMENT OF CEREBRO-SPINAL FEVER.

In our series of cases we have used no special drugs. Morphine has been freely given to control the pain. Ice sponging has been employed whenever the temperature reached above 102.5°. Our mortality, considering that the cases were as a rule quite severe, has been low—only 8 of 18 cases in the hospital, and 9 among the 21 cases which I have seen.

I have already spoken of the possible benefits in certain cases of the relief of pressure by the withdrawal of cerebro-spinal fluid.

In two of our cases the spinal canal has been opened, drained and irrigated. Winter[20] in tuberculous meningitis, removed the final process of the second lumbar vertebra and drained the spinal canal. Von Ziemssen first attempted to use local therapeutics to the membranes of the cord by injecting a weak solution of iodine in a case of meningitis; and later Sahli practised permanent drainage through a cannula and catheter. So far as I know, an extensive laminectomy had not been done for acute spinal meningitis until our first case, November 6th, 1898, in which the operation was suggested and performed by Dr. Harvey W. Cushing, the first assistant in the surgical clinic of my colleague, Professor Halsted. The case has already been given in abstract under the section on Bacteriology[21] as the one in which the staphylococci only were present at the time of operation. The spinal canal was thoroughly irrigated with salt solution and a quantity of purulent exudate washed out. No change followed in the existing paraplegia. The bladder and kidneys became infected, and he died about two months after the operation. The paraplegia persisted. At necropsy the spinal meninges were smooth and looked perfectly normal. It was impossible to say where the dura mater had been incised, and there were neither adhesions nor areas of the thickening on the pia arachnoid. There were extensive changes in the cord itself and in nerve roots.

In Case XII laminectomy was performed on the fourth day by Dr. Cushing. The patient was very ill, and the spinal symptoms were especially pronounced. A catheter was passed beneath the dura mater, and the membranes drained and irrigated with salt solution. For several days he seemed much better. He developed a hæmorrhagic cystitis and pyelonephritis, and died on the sixth day after operation.

Dr. Musser, of Philadelphia, has also had an unsuccessful case. Dr. Rolleston and Mr. Herbert Allingham have reported[22] a case of sporadic cerebro-spinal meningitis, in which the patient recovered after laminectomy and drainage. On the principle of a desperate remedy for a desperate disease, the operation (which has been criticised adversely in an editorial note in the *Philadelphia Medical Journal*) seems justifiable in certain severe cases, in which, as in our first case, the spinal symptoms are very marked.

NOTE AND REFERENCES.

[1] *Public Health Reports*, vol. xiv. [2] "Epidemic Cerebro-spinal Menigitis." A Report of the State Board of Health of Massachusetts, Boston, 1898. [3] *Jahr. f. Kinderheilk.*, 1891, and the *Deut. med. Woch.*, 1897. [4] *Loc. cit.*, p. 193. *Bull. et Mém. Soc. Méd. des Hôp. de Paris*, XV, p. 407, 1898. [5] The case of John Brooks (Necropsy No. 1,065) is of interest in this connection. He had an illness of eight weeks' duration, with obscure cerebral symptoms. On admission he had a urethral discharge. At necropsy there was found an extensive cerebral meningitis, with distension of the ventricles and slight meningitis of the dorsal cord. From the exudate and from the urethral discharge streptococci and staphylococci were isolated. The slight urethral secretion might readily have been overlooked, and the case regarded as a primary pyogenic meningitis. [7] A full report of these cases is given in the *Boston Medical and Surgical Journal*, December 29th, 1898. [8] *Medical News*, May 20th, 1899. [9] *Lancet*, 1895. [10] *American Textbook of Medicine*, vol. i, p. 163. [11] *Johns Hopkins Hospital Bulletin*, 1892. [12] *Montreal Medical Journal*, March, 1898. [13] *Journal of Pathology and Bacteriology*, vol. v, 1898. [14] The Morbid Anatomy of Pneumonia, *Canada Medical and Surgical Journal*, May, 1885; and the Gulstonian Lectures on Malignant Endocarditis, BRITISH MEDICAL JOURNAL, 1885, i; [15] *Deut. Arch. f. klin. Med.*, Bd. xxix. [16] *Arch. Gén. de Méd.*, 1887. [17] Nothnagel's *Specielle Pathologie und Therapie*, Bd. xiv. [18] *Arch. Gén. de Méd.*, 1887, i, p. 273. [19] *Twentieth Century Practice*, vol. xvi, p. 193. [20] *Lancet*, 1891. [21] And reported in *Boston Medical and Surgical Journal*, December 29th, 1898. [22] *Lancet*, 1899.

THE CROONIAN LECTURES

ON

SOME POINTS CONNECTED WITH SLEEP, SLEEPLESSNESS, AND HYPNOTICS.

Delivered before the Royal College of Physicians of London.

BY JOHN BUCKLEY BRADBURY, M.D.CANTAB.,

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LECTURE I.

WHEN the late President did me the great honour of asking me to deliver the Croonian Lectures for 1899, I felt some diffidence in accepting the invitation; but on thinking the matter over it occurred to me that some points connected with sleep, sleeplessness, and hypnotics, which had engaged my attention, might possibly be of sufficient interest to bring before the College. Let me therefore thank the College for the task which was entrusted to me, and ask you to consider with me, in the first place, the

PHYSIOLOGY OF SLEEP.

For a long time sleep has been viewed from two standpoints—the physiological and the psychological—and although an attempt to combine the two is sometimes observed, they have remained distinct to the present day; for, notwithstanding the great development of physiological psychology, little has yet been done to bridge over the great gulf between the two sciences. But the question of the correlation of physiology and psychology may yet be solved, and the solution is necessary for a true conception of the phenomena of sleep.

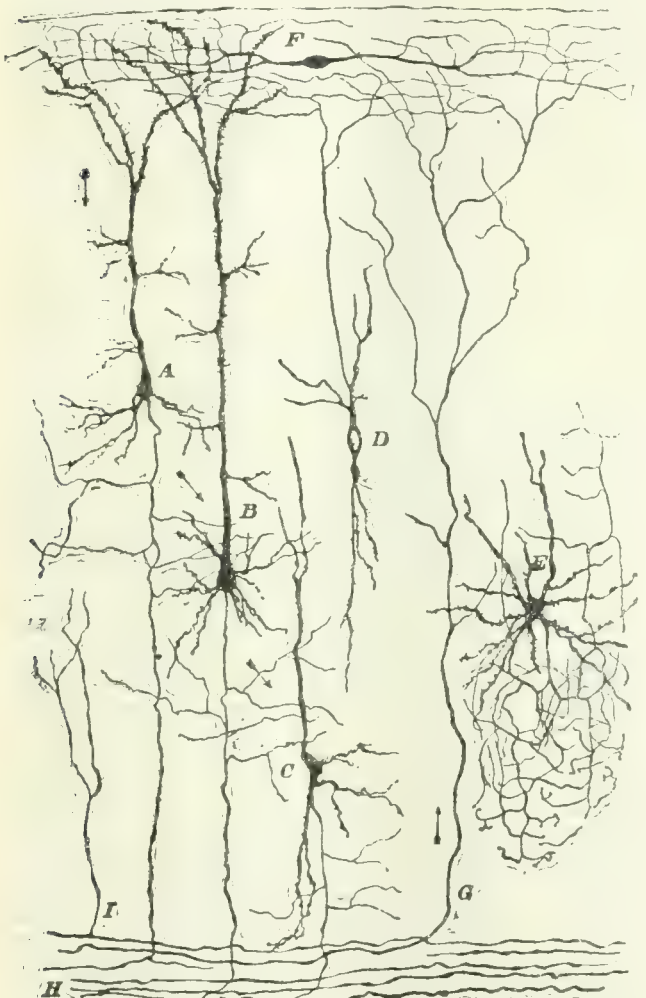
On the basis of recent discoveries in the physiology, and more particularly in the histology, of the nervous system, various theories of the causation of sleep have been advanced; but before we can consider these in detail it is necessary to review our present conception of the central nervous system.

The view now current is based upon Waldeyer's idea of a nervous system made up of independent elements—neurons and other cells—intimately and complexly arranged. Each neuron consists of a cell body with branching processes (dendrons or dendrites) and an axis cylinder process (axon or axite). The dendrons springing from various parts of the cell body divide and subdivide until extremely fine terminal processes (dendrites) are reached, which end apparently freely in a homogeneous matrix. In many cases upon the dendrites short lateral offshoots termed gemmules or thorns may be seen, and occasionally, especially in the young, nodosities may also be noted. The axon, contrary to former belief, is known to give off branches or collaterals, which again subdivide among the dendritic processes of other cells or form a network around their bodies. In no case, however, is there believed to be direct continuity. Each neuron is an independent unit, and as such comparable with the cells forming other organs of the body. The supposed mode of combination of the various nerve cells is shown in the diagram on p. 1528, col. 1, taken from Ramón y Cajal's Croonian Lecture.

The neurons, as might be expected, vary in the different parts of the brain and cord, both in regard to the size, form, and intimate structure of the cell body, and to the form and branching of its processes. But our immediate purpose is rather with the function than with the size and form of the cell. Those anatomical features that are concerned with the function of the cell are alone in the present connection of interest, and latterly they have received considerable attention. It is said that the fibrils of the axon process can be traced in some cells into the dendrons, and it has been stated that the function of the cell body, in such cases, is purely nutritive. Generally in the cell body a granular formation, more or less definitely arranged, is observed, the granules around the nucleus being more or less spherical, those at the periphery more elongated. These granules are believed to be connected with the functional activity of the cell; they disappear, for example, from the cells of the cervical ganglion after long-continued electrical stimulation (Vas, Lambert, Hodge), and the cells of the cerebral cortex, even when affected by ordinary stimuli, show a diminution in their staining power when compared with unstimulated cells (Mann, Lugaro, Demoor). Changes in the form and volume of the cell have also been described. With moderate activity, turgescence of the cell and nucleus and accummulation of chromatin particles occurs, and after prolonged work shrinking of the protoplasm and irregularities in the contour of the cell and the nucleus are observed.

All physiologists who accept Waldeyer's view believe that the transmission of nerve impulses occurs through the intercalated material between the terminal cell processes, but

some doubt has been thrown on the isolated character of the neurons. Our present conception of the nervous system is due almost entirely to investigations with Golgi's silver method; but Dr. Alex Hill, in his presidential address before the Neurological Society of London (1896) has raised objections against the trustworthiness of this method in proving the presence or absence of continuity of the processes of different cells; and I am inclined to agree with these objections; yet apart from the observations of Golgi, Waldeyer, Ramón y Cajal, van Gehuchten, and others, my greatest difficulty in accepting the continuous nerve-fibril theory is an *a priori* one. It is that of the cellular constitution of tissues. The various



The principal types of cells of the cerebral cortex of the mammifera: A, pyramidal cell of medium size; B, pyramidal giant cell; C, polymorphous cell; D, cell of which the axis cylinder is ascending; E, cell of Golgi; F, cell peculiar to the molecular layer; G, fibre ending freely in the substance of the cortex; H, white matter; I, collateral of the white matter. (After Ramón y Cajal.)

neurons are merely modified cells, the processes of which have their birth in the body at some period of embryonic life. According to present views these processes usually grow to a remarkable fineness, and closely approximate, but without uniting. If they unite, what is the cause of their union? It is almost as difficult to accept the idea of the coalescence of these individual dendritic processes as it is to understand the transmission of impulses between isolated cells.

The thorns, or, as they are more frequently called, gemmules, are short lateral protoplasmic extensions of the final dendritic processes of the neurons. They are most marked on the dendrites of the large pyramidal and Purkinje's cells, and they appear to end in a rounded knob-like extremity. But do they end thus? Hill believes that this appearance is purely an artifact, and due to the spread of the neuroplasm along the fibrils after death. The thorns, he thinks, indicate an actual union between certain unstained filaments and the protoplasmic processes.

Another theory of the function of these gemmules and the transmission of impulses has been put forward by Berkley. He accepts the knob-like terminations of the gemmules as natural, but he cannot accept Cajal's theory that nervous forces may discharge themselves from axites to dendrites all along the line. The dendrites, he believes, are covered with a thin enveloping sheath through which the gemmules penetrate, and it is only at the tip of the gemmules that naked protoplasm exists. Similarly the fine branches of the axites are covered with "a protective sheath of great tenuity," and only exhibit naked protoplasm at their bulbous terminations. Therefore Berkley believes that it is only between these free terminations that nerve impulses can pass.

The mode of branching of the axites varies according as they form ascending fibres (extrinsic) or belong to local cells (intrinsic). The extrinsic break up into a number of filaments, usually at some distance from one another, which subdivide. These course over a short extent of territory, and terminate in flattened or globular extremities, the number seldom exceeding 6 or 8 (Fig. 2).

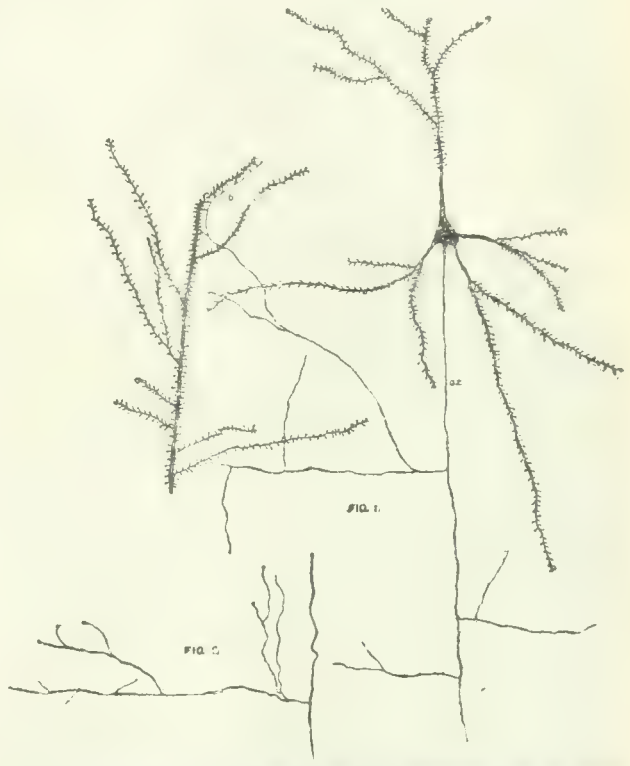


Fig. 1. Psychical neuron, showing the end apparatus of a collateral situated against the dendrite of another cell; human. Fig. 2. Form of termination of the ascending fibres of the cortex; guinea-pig. (After Berkley.)

The terminations from the collaterals of the psychical cells show a very different disposition. Winding among the dendrites of the cells, and often closely applied to them, they seldom show any definite endings until the mid-portion of the layer of small pyramidal cells is reached. There they split up into a number of exceedingly fine branches, which frequently run parallel with the course pursued by the apical and basal dendrites. They eventually give off at frequent intervals exceedingly short collaterals usually from the side nearest to the dendrites, which terminate in a round or flattened bulb-like extremity similar to those on the branches of the ascending fibres. These are closely applied to the bulbous tip of the gemmules, the appearance often suggesting one of actual contact, the axonal discharges of the stimuli overleaping the infinitesimal distance between the bulb and gemmule (Fig. 1).

"The interpretation of the objective existence of the terminal apparatus of the nerve fibres," Berkley says, "cannot be made but in one way—namely, that the impression conveyed from external sources to central cell, and from local cell to local cell, is not accomplished by a diffusion of the excitation through the whole cortex, or even at various points along the course of the finer branches of the axons, but at single points perfectly definite in their distribution, and that these points are situated only at the extremities of the nerve fibre twigs in the form of a histologically exact formation—the bulbous ending of the nerve fibre—which in itself constitutes the sole and only means for the carrying over of the cellular forces from axon to dendron and from cell to cell. This is in entire conformity with the conception of Waldeyer of the entity of the neuron, each cell standing as a unit in the nervous formation and only in continuity with others at definite points." In a still more recent communication Lugaro also states that the transmission of impulses occurs through the extremity of the gemmules. These he believes are capable

of expansion and retraction to a slight degree, and upon this function he bases his theory, which I shall presently allude to, of psychical processes. A form of nerve termination in the central nervous system has been described by Aldren Turner and Hunter in the spring number of *Brain* for 1899; but so far this has not been utilised to explain sleep. After injecting methylene blue into the circulation during life, they found after death a fine lattice-work arrangement over the cells in most parts of the brain. This was most marked over the root of the axis cylinder process, and according to these authors it is the termination of the axis-cylinder of another cell. There is no continuity of tissue, and therefore the entity of the neuron is not questioned. Nerve impulses are believed to pass from the network to the cell body and not from terminal axite to dendrite or *vice versâ*. The function of the dendritic processes, the authors are inclined to believe, is nutritive, a theory first suggested by Golgi.

After this brief survey of the place of the neuron in nerve physiology we shall be better able to understand some of the theories which have been put forward to explain sleep. But before dealing with these it will be well to review the facts which it is necessary to explain.

Speaking generally, during sleep the metabolism of the body is lowered. The respirations are shallower, the aëration of the blood is less active, the pulse is less frequent, the blood pressure is lower and the temperature tends to fall, the nervous system is so affected that sense stimuli of moderate intensity are not perceived, consciousness is in abeyance, but reflex effects can still be obtained. These phenomena are not constant during the sleeping state, but vary within fairly wide limits. On this account some of them have been credited with an etiological *rôle*, and this leads us on to the

THEORIES OF SLEEP.

Those advanced up to the present time may be divided into chemical, histological, vasomotorial, and psychological. Let us first consider the cause of sleep in the abstract. It is evident that consciousness, whatever this may be, is due to a definite condition of the nerve cells or neurons, and any departure from complete consciousness must be due to some change from this state. At the present time it is difficult to come to any other conclusion than that this state and its alterations are of a chemical nature; that consciousness is accompanied by, if not due to, a normal metabolism of the nervous cells, and unconsciousness or diminished consciousness to an alteration in this metabolism. This so-called normal metabolism is the result not merely of the vital requirements of the cells, but of this *plus* the alterations produced by the inflow of stimuli. Diminish the stimuli or make them constant both as to kind and intensity (monotony), and the metabolism may become constant though in changed conditions; a kind of rapid acclimatisation occurs, and with it diminished consciousness. The same effect might be produced by the alteration of metabolism due to the application of a poison.

It seems to me that the fundamental phenomena to be determined in dealing with psychical processes are the chemical changes occurring in the cells; molecular vibration and processes of a similar nature, which have been speculated upon from time to time are, with our present knowledge, in the realms of the unknown. Even if they can be known it seems more philosophical to determine the gross chemical changes first, although there is not much likelihood of these being actually demonstrated in the near future.

Admitting that chemical alterations are the causes or proportional concomitants of states of consciousness, we shall be able to trace a connection in some of the various theories of sleep which have been propounded. Thus it is very evident that the metabolism of the cerebral cell may be, and probably will be, altered by changed extrinsic conditions—for example, by the blood supply—and that it may produce gross physical changes in the cell—for example, retraction of the protoplasmic processes. The vasomotorial and histological, and in part the chemical theories, may be thus brought into connection; but let us examine the theories in detail.

The most fascinating of them all is what Duval has termed the histological theory of sleep. This seems to have been propounded in its most rudimentary state by Rabl-Rückhard, who suggested that an assumed amœboid motion of the neurons, and especially the dendritic processes would account for various psychological phenomena. Thus sleep might be explained by a retraction of these processes and consequent inability of nervous impulses to pass from one neuron to another. The same theory was elaborated independently by Lépine and Duval. Lépine thinks this isolation of the individual neurons may be due to some chemical modification of the cellular protoplasm, and he also states that the theory explains the extraordinary suddenness with which a state of wakefulness passes into one of sleep.

It is almost unnecessary to point out that the theory of Rabl-Rückhard, Lépine, and Duval is dependent upon the conception of isolated neurons as independent units in the composition of the nervous system, and that with the disproof of this conception their theory must fall to the ground. Kölliker has strongly criticised this (the amœboid movement) theory. He says that Widersheim's observations on the movements occurring in the nerve cells of the supra-œsophageal ganglion of leptodora hyalina are not pertinent to the question; and he rejects the comparison with the action of curare as irrelevant. Widersheim did not observe movement in the processes of the cells; and in the transparent parts of living animals, where nerve terminations have been observed, no movement has been perceived. Moreover, he thinks that if amœboid movements occur, physical conditions would tend to act in a constant manner, and the same mental states under varying conditions would be impossible. Furthermore, he says that "it cannot be doubted that the essential function of the nervous system—that is, psychical processes—is bound up with the nerve cells."

In many of his criticisms he seems to me to lay too much stress upon the stability of the axis-cylinder process. The structure of this can hardly be compared with that of the more delicate dendritic processes; and stimuli, without influencing the former, might powerfully affect the latter. At the end of his paper he expounds his theory of psychical conditions, a theory with which we have long been familiar. He advocates the view that facility in thought and action is due to diminished resistance in the pathways, but in what way this occurs he does not state.

Rámon y Cajal strengthen's Kölliker's objections by the following: (1) The nerve terminations of the cerebellum, the olfactory bulb, the central auditory ganglion, and the optic lobe constantly show the same extension, form and degree of approximation to the cell bodies, whatever may have been the mode of death of the animal (hæmorrhage, chloroform, curare, strychnine, etc.). (2) The nerve terminations of the retina and optic lobule of reptiles and batrachians (the animals on which he experimented) show the same condition, whether the organ was hardened after continued rest as after long retention in the dark, or after activity, as when it had been kept several hours in the sun. He therefore believes that the axites and dendrites possess a constant disposition. But in order to explain sleep and other physical phenomena he brings in another factor. Under different conditions, he found the processes of the neuroglial cells contracted or expanded, and he suggests that a function of these cells is to act as an isolating medium between the neurons. During sleep the neuroglial processes are introduced between the nerve ramifications and the cells or their protoplasmic processes, in consequence of which the passage of impulses is prevented or hindered. Apart from the seat of operation, Cajal's theory differs from Duval's in that the processes (neuroglia in the case of Cajal) are expanded when the brain is at rest and are contracted when in action. The contraction is usually automatic, but may be brought about by the action of the will. I do not, however, propose to follow Rámon y Cajal in his explanation of psychological phenomena on this theory, especially as his observations have not been confirmed by more recent investigators. His theory seems to me to endow the neuroglial cells with more nervous activity than they are capable of, and to allot to them a function which, from their position and structure, I venture to think improbable. Moreover, if we accept the network theory of Boll, Hill, and others, or Berkley's or Lugaro's modification of the usually-accepted view, this explanation loses nearly all its significance.

Before leaving the histological theories of sleep, I will briefly refer to a view recently advanced by Gotch to explain the conditions of hypnotism. He goes further than Duval in attributing a major influence to the periphery of the neuron, for he believes that the gaps between the terminations of the adjoining dendritic processes are of primary importance in the transmission of nerve impulses. These gaps determine whether an impulse shall pass or not; once it has passed

Gotch believes nothing can hinder its further course. The gaps are capable of variation; in fact, he states that: "the whole of modern physiology is inexplicable except on the supposition that the gaps are susceptible of alteration. What this alteration is we do not know; the gap consists of living tissue, and, like all living structures, is constantly undergoing molecular change." The resistance of the gap varies with different conditions; thus the action of the higher nerve centres increases the resistance, the force of habit or practice diminishes it; constant attention leads to fatigue changes in the intercalated material, and the forcing of the gaps is then "a concomitant of the mental mood of volitional attention."

Although this theory is primarily advanced to explain hypnotic phenomena, it is evident that a similar explanation might be advanced to account for sleep. It does not seem quite clear to me whether the resistance is due to a molecular rearrangement of the intercalated material or to an increase of its amount between the dendrites. If the latter, as is suggested in one place, the conditions simulate those advanced by Rabl-Rückhard, Lépine, and Duval. Gotch's theory differs from theirs in attributing a greater influence to the gaps than to the protoplasmic processes. Like its allies, it must consequently stand or fall with the proof or disproof of the neuronic conception of the nervous system. To me it seems to attribute much too active a function to what one has already been taught to regard as a passive structure; but past teachings must avail little if the present ones are sufficiently convincing; to me they are not.

The most recent theory has been advanced by Lugaro. According to him unconsciousness is not due to a retraction of the terminal dendritic processes, but to an expansion. As I have already said, he believes that nerve impulses pass through the gemmules, and that the passage is facilitated or inhibited by the closer or remoter relation of these to each other. During ordinary thought but few of these are in contiguity, the others are retracted. The latter are in a potential state, that is, they are capable of being approximated by any suitable stimulus. Lugaro's theory differs from that of Lépine and Duval in that expansion of the gemmules is regarded as the resting phase, and contraction as the active one. Thus in sleep the gemmules are believed to be expanded, the paths for impulses are thus enormously increased, and this leads to confusion of thought and loss of consciousness.

In the unsettled state of the views of neurologists on the structure of the nervous system, it would be impertinent to criticise these histological theories in detail; further research alone can settle present conflicting opinion, and on the result of this depends the probability or possibility of the minute changes we have considered affording an explanation of psychical phenomena.

The vasomotor theory of sleep is almost as popular as the histological theories, and interest in it has recently been awakened by the experiments of Professor Howell, of the Johns Hopkins University. It has, however, been a favourite theory for many years. Based upon direct observation of the cerebral cortex by Donders, Durham, Hammond, and others, and on the plethysmographic researches of Mosso, it seemed to possess a firm foundation, but of late this has been rudely shaken. The conditions of experimentation in these researches were not normal, and further investigations have shown the necessity of modifying our views on the matter. Thus Mr. Leonard Hill has proved that practically no change occurs in the cranial contents, that the brain at nearly all points is in contact with the cranial wall, and that the amount of cerebro-spinal fluid in the intact cavity is very small and incapable of gravitating to any appreciable extent into the spinal canal. Moreover, he has shown that the cerebro-spinal pressure equals the venous pressure, that it does not rise beyond it, and that the cerebro-spinal fluid does not normally function as a compensating mechanism for alterations in the cranial contents. "The volume of the blood in the brain is in all physiological conditions but slightly variable." Therefore, cerebral anæmia, if we regard this as a diminution in the total quantity of blood in the brain, cannot exist to any extent. It is possible for an arterial anæmia, combined with venous congestion to occur, and Hughlings Jackson's observations on the retinal vessels during sleep would render this not improbable. In view of Leonard Hill's researches it seems absolutely necessary to recognise the Munro-Kellie doctrine (the incompressibility of the brain and constant volume of the cerebral contents) in dealing with the causal factors of sleep.

Cappie, on purely theoretical grounds, advocated this doctrine, and advanced a theory of sleep in harmony with it. The main feature of his view is, that the arterial anæmia of the brain is compensated by a filling of the pial vessels, and an alteration of the normal pressure on the cerebral surface from an expansive to a compressive force.

Since Leonard Hill's investigations, Professor Howell has advanced a modified form of the vasomotor theory based upon personal experiments. According to him, the anæmia of the cortex is counterbalanced by the dilatation of the vessels at the base of the brain. The causal factor of sleep is a fatigue of the vasomotor centre, and particularly of that part of it supplying the skin area. This Howell deduces from the fact that the volume of the arm increases (that is, the cutaneous blood vessels dilate) just previous to sleep, and it usually contracts suddenly on awaking. He does not, however, ascribe the production of sleep solely to the fall of blood pressure, but he regards this as pre-eminent. The etiological factors he gives as:

1. A diminution of irritability caused by fatigue of large portions of the cortical area.
2. Voluntary withdrawal of sensory and mental stimuli involved in the preparations for sleep.
3. A diminished blood supply to the brain, owing to a relaxation of tone in the vasomotor centres, and the fall of general arterial pressure thereby produced.

Recently Leonard Hill has criticised Howell's results or rather his deductions from his results. He finds that the fall of arterial pressure is concomitant with sleep, and he adduces confirmatory experiments. Thus he found arterial pressure "as low when lying in bed in the waking state in the morning as in the sleepy state in the evening," a result evidently antagonistic to Howell's theory. Moreover, it is not difficult to explain the fall of blood pressure during sleep, or even previous to sleep, by the posture, diminution of external stimuli, extra clothing, etc., which we seek before endeavouring to sleep. The rapid rise of blood pressure at the moment of awaking Leonard Hill explains thus: "As the waking state is neared the turgescence of the limbs is lessened owing to the increased tone of the muscles and to the restlessness of the sleeper. Each movement or deep respiration expresses the blood and produces a lessening in the volume of the arm. This is shown to be so by an examination of Howell's tracings. Since each movement of the body momentarily raises the vena cava pressure, the brain is congested thereby, for the cerebral circulation passively follows every change in vena-cava pressure. The flushing of the brain is secondary to the external stimuli which provoke the external movements of the body, accelerate the heart, and increase the vasomotor tone. At the same time these stimuli may awake the dormant consciousness. Carefully reviewing all the above facts we must, I think, conclude that the anæmia of the brain is caused by rest of the body and the cessation of powerful objective and subjective stimuli. It is the cessation of the latter that produces sleep."

As regards the fall of arterial pressure being *post* or *propter*, I agree with Leonard Hill that it is the former. The vasomotor theory of sleep is quite inadequate to explain this condition; nevertheless, vascular phenomena play a part, and an important part, in sleep production. What, then, is the probable condition of the cerebral vessels in sleep? We have seen that the brain is a closed cavity, that the general arterial pressure falls during sleep, and that the pressure in the intracranial veins varies absolutely with that of the intrathoracic venous pressure; and it may be further stated that the intracerebral blood vessels have not been shown to possess any vasomotor innervation. It follows from these and other facts that the arteriole pressure is dependent on the venous pressure, and that any diminution in the size of the arterioles must be replaced by increase in size of the veins or other cerebral vessels. Howell believes the basal vessels dilate, but I am more inclined to agree with Cappie, who attributes the greater action to the pial vessels; probably both sets of vessels are involved.

But the condition during sleep, it seems to me, is rather one of comparative blood stasis than of simple anæmia. In either case a small amount of blood passes through the cerebral vessels in a given interval of time, and this is in reality the essential factor. And although I cannot regard a fall in blood pressure as the primary causal factor of sleep, yet the diminished supply of nutriment thus produced must exert a depressing influence on the metabolism of the cerebral cells, and aid in sustaining, if not in inducing, sleep. That the fall of arterial pressure is not necessary is shown by the action of many hypnotics, which directly exert no influence in this direction; but it may also be said that, other things being fairly equal, those hypnotics which depress blood pressure are more certain sleep producers than those which do not. Chloral, for example, is more certain than any of its derivatives.

The admissibility of pharmacological evidence naturally raises the question as to whether forced sleep from drugs is comparable to natural sleep. Although some hold to the contrary, I am inclined to believe that it is. The restorative effect of a properly apportioned dose of a hypnotic in mild cases of insomnia is suggestive. Moreover, if we accept the idea that sleep is the result of chemical changes in the cerebral cells, this conception gains in force, as the introduction of a hypnotic into the organism merely means a change in the environment of the cell, with subsequent variation in its activity. To deduce from the narcosis produced by large doses of these drugs that artificially produced and natural sleep are dissimilar is unfair; in this case the stimulus is excessive, and the result not comparable. But to return to the theories of sleep.

The various chemical theories which have been put forward seem to have been based on insufficient data. With the older theories of Sommer and Pflüger and others, I do not intend to deal. But comparatively recently a new chemical theory has been advanced. Errera believes that the leucomaines produced by the normal activity of the body play a predominant part. He has based his view mainly on the experiments of Bouchard and his school, who found that during the night convulsant substances were excreted in the urine, which were not present during the day. The toxicity of the urine during sleep was found to be much less than that passed whilst awake. On these experiments Bouchard formulated the theory that during the day the body formed a hypnotic substance which, by its accumulation, produced sleep, and that during sleep a convulsant substance was formed which by inducing muscular movements produced awakening. Both Beck and Herringham have failed to corroborate Bouchard's experiments, but apart from this it is difficult, from evidence of this kind, to draw conclusions as to the cause of sleep. The urine is a complex body, it varies largely in composition with the kind of food, the amount of exercise, and other physiological and pathological conditions, and this variation is greater with it than with other secretions. It does not seem right to compare the variability of the composition of the urine with the periodic alterations in the temperature and pulse; the limits of the first are much wider. Furthermore, as in the case of blood pressure, it does not seem to me proved that this altered composition of the urine is not *post* rather than *propter*. I do not mean to imply that metabolic changes have no influence in the production of sleep, but what I do maintain is that sleep has not been proved to be due to any one substance, or group of substances, present in the urine. The chemical theory from another point of view I shall mention presently.

The fourth class of our division of the theories of sleep is the psychological. And here we enter upon difficult ground. We have seen that the physiological and psychological are two separate spheres with independent methods of analysis; that the elements of the two sciences are different, and that the connection between the two can only be one of parallelism. It may be that we shall never get beyond this stage; but from a physiological point of view there seems nothing improbable in the idea that they may be correlated. Marie de Manacéine, in a popular book on sleep published two years ago, defines sleep as "the resting time of consciousness," and perhaps from a psychological point of view no better definition could be given, but to me it is a mere statement of a psychological fact, not an explanation. We cannot account for sleep in such an immaterial manner. We may not be able, perhaps, to give any further explanation at present, but the acceptance of such a theory would deprive us of that most valuable aid to research—a working hypothesis.

It is not improbable that the new schools of psychological physiology, and especially those which deal with it from the pharmacological side, may help us to a truer conception of the causes of sleep. Wundt and his pupils have already added something in this direction, and it is especially to his pupil Kraepelin that much of our knowledge in this department is due.

In a recent paper from his laboratory a new explanation of the action of hypnotics is given. Working on the psychical influence of trional with Kraepelin's methods, Hans Haenel found it to diminish the power of calculating and learning by heart, to increase the time in the choice-reaction, to diminish the erroneous reactions, to increase faults and omissions in reading and apprehension, and to diminish the rapidity of writing. He found it, however, to exert no influence on association and muscular work (ergographic curves) nor on the rapidity of repeating things previously learnt. The hypnotic action of the drug is explained, Haenel says, by the depression of apprehension and the increased difficulty in originating co-ordinate movements. He draws attention to the fact that these, and especially diminished power of apprehension, are present after all hypnotic drugs have been given, and the fact that morphine is not regarded as a hypnotic in small doses is due to the stimulant rather than the depressing effect this exerts on psychical processes. This in psychological terms is the condition produced by the action of hypnotics, but as an explanation of sleep it is not sufficient.

If, then, we feel obliged to discard psychological explanations, and with due deference we must do this, we can only return to physical and biological science. As we have said, the fundamental changes must be in the neurons themselves. I am inclined to believe that these are primarily of a chemical character; the differences observed between rest and activity and the changes resulting from the administration of various poisons, I think, support this view. But these differences are in no sense crucial. Before we could consider them such it would be necessary to know for certain what cells are concerned in the production of mental phenomena, and what changes result from the action of hypnotic drugs upon them. The action of poisons on nerve cells generally is, however, at least suggestive, as it shows that marked changes of a more or less transient character may occur during life.

Many years ago (1876) W. Ludwig, a pupil of Binz, described changes in the nerve cells of excised and teased cerebral tissue after the application of hypnotics. A year later Binz himself described the effect of morphine on isolated nerve cells. More recently the action of poisons has been investigated by means of Nissl's method, and a great number, including many metals, alkaloids, and toxins, have been found to produce distinct changes. Nissl believes that this action is characteristic for the same poison and the same kind of cell, but as yet there is a want of unanimity on this point. That decided morphological changes may be produced by the action of poisons all are agreed, and that these changes may be rapidly produced has been shown by Goldscheider and Flatau in some recent interesting researches.

Changes, too, are produced in the dendritic terminations of the cells, and usually these appear earlier and are more marked than those in the cell body. But in the dendrites more than in the cell observers differ as to the exact conditions present. Thus, after the administration of morphine, Demoor describes nodosities on the dendrites, which in extreme cases are reduced to mere moniliform filaments, while Lugaro observed expansion of the gemmules and very slight thickening of the processes. Alterations of the dendrites have been noticed by various observers after hypnotic drugs, and there can be little doubt that transmission of nerve impulses through these must thereby be markedly retarded, if not prevented.

Owing to the difference of opinion of observers regarding the exact condition produced by hypnotic drugs, it is impossible to draw a satisfactory conclusion regarding their mode of action or the cause of sleep. I am inclined to believe that hypnotics act chemically upon the neurons, both upon the cell bodies and their dendrites, and I think histological observations support this view. Retraction of the terminal processes or gemmules, if such occur, I believe to be secondary. But what part is played by the cell body, and what by the terminal processes, it is difficult to say. The finer dendrites are probably more exposed to external influences, and any modifications in them must affect the transmission of nerve impulses, but the cell body is the seat of metabolic activity, and this too must be readily affected by changes in the environment. Lugaro's view of the action of hypnotics and the cause of sleep I have already noticed. Demoor, as a result of his histological researches, desists from any attempt to formulate a theory of sleep.

Turning now to the more immediate object of these lectures, I intend to deal with the class of hynotics in a very general manner. The next two lectures will be devoted purely to pharmacological matters; in the last I propose to deal with the rational treatment of insomnia. The pharmacology will not, however, be solely concerned with the hypnotic influence of the drugs. I intend to take a much broader view and extend my thoughts to substances, which, although they possess no value as medicaments, yet are of considerable pharmacological interest. As the tendency for many years past has been towards a chemical view of pharmacological actions, I shall as far as possible take up this line. I propose first to deal with the hypnotics of the fatty series, and afterwards with those obtained from the vegetable kingdom.

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CASE OF MULTIPLE ADENOMATA OF THE SKIN.

BY ROBERT Y. AITKEN, M.D.GLASG.,
Senior House-Surgeon, Blackburn Infirmary.

THE patient, G. E., aged 43, is one of a family of three. She has had two children; one died aged two years, and the other is now 24 years of age, and in neither, or in any other relative, has there been any manifestation of the mother's disease. The patient came to the Blackburn and East Lancashire Infirmary in October, 1897, and asked to have some lumps removed from her head as they were rather unsightly and prevented her wearing a hat comfortably. She stated that thirteen years previously she noticed some small lumps growing on her forehead, scalp, and ears. They gave no pain, but had gone on increasing in size and number



Multiple Adenomata of Skin.

till there were quite thirty scattered over the forehead, scalp, and ears. There were a few very small ones scattered over the trunk. The largest was 2 inches long and 1 inch wide, and projected from the scalp about 1 inch. It, like many of the others, was slightly pedunculated. The skin over it was hairless and apparently atrophied, being smooth and shining, and having a few enlarged blood vessels coursing over its surface. The other tumours were more rounded than this, which seemed to have been formed by the fusion of two masses originally separate. The tumours varied in size from mere papules to large cherries, and although most were slightly pedunculated, were quite immovable in the scalp. They were, however, not attached to the underlying bone in any way. One on the right temple was shaped like a mushroom with a very short stem, the shape being no doubt produced by the pressure of the head on the pillow during sleep. The tumours felt solid, and were quite painless.

A day or two after admission to the infirmary about a dozen of the more prominent tumours were excised by Mr. Hunt. They had to be dissected off the pericranium. There was free bleeding for a few minutes but it stopped when the sutures were tightened.

On section the tumours looked like fibrous tissue to the naked eye, but under the microscope the appearances were, I think, rather unusual. The section shows masses of epithelioid cells arranged very regularly in a fibrous tissue stroma, the whole surrounded by a thin connective tissue capsule. These masses vary in shape but are for the most part round or oval; here and there they are cylindrical, or more irregular in shape, this, no doubt, depending on the direction of the section. The cells at the periphery of these masses are arranged in columnar fashion. The cells are for the most part round or oval, and their large nuclei stain readily.



Section of Tumour.

Clinically the tumours are certainly not malignant. There has never been any tendency to ulceration in any of them. A case, apparently of a similar nature, is recorded by Dr. James W. Barrett and Dr. Percy Webster, of Melbourne, in the BRITISH MEDICAL JOURNAL of February 6th, 1892. They call their case one of "Multiple Sudoriparous Adenomata of the Scalp." Mr. Jonathan Hutchinson, sen., in his *Archives*, vol. vi, No. 21, Plate CXIX, illustrates this case, but limits the name to "tumours of the scalp." The photograph of the patient was taken six months after she was first seen, and the tumours now noticed are distinctly but very little larger than they were then.

I am indebted to Mr. Hunt for permission to publish the case.

ITALIAN LARYNGOLOGICAL SOCIETY.—The Italian Society of Laryngology, Otology, and Rhinology will hold its fourth general meeting in Rome in October of the present year, under the presidency of Professor Giuseppe Gradenigo of Turin. The subjects proposed for discussion are: (1) The paths and modes of diffusion of tympano-mastoid infection (to be introduced by Professor Camillo Poli of Genoa; (2) the physiopathology of the olfactory nerves (to be introduced by Professor Vittorio Grazzi of Pisa); and (3) parasyphilitic or postsyphilitic lesions of the larynx. The following question will also be proposed for discussion: The Title of Specialist in Oto-rhino-laryngology.

INJURIES PRODUCED BY AN EXPLOSION OF GUN-COTTON.

By GERALD SICHEL, F.R.C.S.Eng.,
Surgeon, R.N.
[Communicated by the Director-General, Royal Naval Medical Service.]

On February 9th, 1897, in the afternoon, when we were lying at Zanzibar, an explosion of a dry primer for a torpedo occurred on board the ship I was then in. The primer contained 12¾ ozs. of dry gun-cotton, and the detonator 38 grs. of fulminate of mercury; the weight of the metal fittings was probably under ½ lb. Four men were fatally injured, and two slightly.

CASE I.—A. M., aged 23, was killed at once. The body was almost severed. The anterior wall of the abdomen was blown away, the intestines protruding, and all his clothes were blown off. There were severe injuries to the limbs also, with much pulping and splintering of bones.

CASE II.—J. J. J., aged 23. The left hand was blown off, the right hand was just hanging on by a little skin and a few tendons. There was compound fracture of the left femur. Much contusion generally, and numerous smaller wounds. Shock was great. Amputation was performed in the upper third of the left thigh. Death occurred in two hours.

CASE III.—A. W. R., aged 21. Wounds of scalp (from one of which there was arterial bleeding), limbs, and trunk, especially of the right thigh, in which numerous large splinters of bone from another man (A. M.) were sticking. There was much laceration and contusion and intense shock. Death occurred in three hours.

CASE IV.—C. H., aged 29. There was pulping of the right thigh along the line of the femoral artery, a punched-out wound of the anterior abdominal wall, not penetrating, a compound fracture of the right metatarsal bones, and numerous other cuts and bruises. Shock was intense, and death occurred in five hours.

CASE V.—J. J., aged 22. Two scalp wounds, a wound of the upper lip, the alveolar margin of the upper jaw was fractured, and the central incisors were loose. There was a skin abrasion over the front of the chest, and much bruising of the face. The patient recovered.

CASE VI.—A Scedieboy, who had a slight cut of the left side of the chest, also recovered.

Although the effects of the explosion were terribly violent, they were very localised. With the exception of the Black, who was some dozen yards off, and probably struck by a flying bit of metal, all the men were within four or five yards. The scene of the accident was on the starboard side of the foreshelter deck, which was covered with blood. The deck in places was slightly splintered, and several indentations, some of them a quarter of an inch deep, were seen in the metal fittings, where pieces of the primer itself had struck.

The injured men were all very deaf. Arterial bleeding occurred from one wound only. The most serious features were the intense shock, the number of small oozing wounds many of which had been caused by small bits of tinfoil from the primer, while from many others oil was oozing (the primer had just been cleaned with oil), and the amount of bruising. In Case IV the wound in the abdominal wall appeared to have been caused by one of his metal trouser buttons having been driven in; it was not, however, left in the wound.

The faces of all the men were easily recognisable. It is probable that A. M. had the explosive on his knees (he sitting down), and that J. J. J.'s hands were touching it at the time.

I think that this is an occasion where the "compressed air" ("projectile air") theory must be allowed to be responsible for the major injuries, partly splitting the skin itself, partly entering through small wounds caused by the tinfoil, and perhaps the oil. It is allowed that "windage" may rupture the membrana tympani: surely the skin itself may also be split by the force of impactly compressed air—it is a question of degree. Clothes may be torn and rent by the force of an explosion alone, if this force is only strong enough the tougher and more elastic skin also has to give way.

This is a very different matter from "explosive" results after a projectile has travelled several hundred yards; it is also different from "wind contusions" when a shot has gone some distance.[1] The visible wounds were no indication of the amount of injury really sustained.

It may be questioned whether it was wise to perform amputation of the thigh in Case II, but taking into consideration the facts that probably the femoral artery was pulped up, and that if he lived both forearms would subsequently require amputation, probably the course pursued offered him his only chance.

Beyond the amputation in this case, the only treatment carried out was staunching the oozing wounds by swathing them in sal alembroth wool, and attempting to combat the intense shock. For this, 30-minim doses of tincture of opium and large doses of brandy were given. Externally, hot-water bottles were applied. Later injections of morphine with atropine were adminstered. (Tablets for this purpose are provided by the service.)

As to the administration of opium in shock, Surgeon-Colonel Stevenson remarks: "Opium in any form or quantity must be applied with the greatest caution, if at all, in the treatment of cases of extreme shock of collapse." In these cases, however, the accompanying pain and great mental disturbance urgently demanded a powerful sedative. I believe the classical treatment for shock is summed up in three words: "opium, food, and stimulation." (Travers). My own opinion is, that although all the patients were considerably eased, they were given too little rather than too much opium, and should I be called upon to again treat similar cases, I shall feel inclined to give the tincture in ʒj doses. I think, however, that nothing could possibly have saved these men.

REFERENCE.

[1] See Colonel Stevenson's remarks on such cases in *Wounds of War*, pp. 57 and 77.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ANÆSTHETICS THROUGH A TRACHEOTOMY TUBE.

ANYONE who has given an anæsthetic through a tracheotomy tube in an extensive jaw or tongue operation must have often been worried by finding himself continually in the operator's way, or, trying to keep out of the way, by failing to maintain a sufficient anæsthesia; not to mention the constant soiling of the lint or towel by blood.

In administering chloroform some little time ago in an extensive Kocher's operation performed by Mr. Mayo Robson, where a preliminary tracheotomy had been done, I inserted one end of an ordinary rubber drainage tube into the outer tracheotomy tube; the other end I brought down on the patient's chest some 7 or 8 inches from the field of operation, and gave a C.E. mixture over it on a Skinner's mask with the greatest comfort to myself as well as to the operator.

Trendelenburg has an apparatus, I believe, specially made for this purpose, but anyone who tries this simple expedient will find it work admirably. It will be advisable to allow the patient to have a few breaths of air first before inserting the rubber tube.

Leeds. W. MCGREGOR YOUNG, M.A., M.B., Ch.M.

STRYCHNINE IN OPIUM POISONING.

AT 7.30 p.m. on May 5th I was called to see Miss A. B., a stout lady aged about 38. She was in a comatose state—the pulse at the wrist was imperceptible, the heart sounds were extremely faint, respirations gasping, about six to the minute, the pupils pinhole, the skin moist and warm. She had gone to bed at 3 P.M., having been nursing a friend the previous sixty hours, during which time she had had no sleep, and scarcely any nourishment. I found beside the bed an empty glass smelling of opium. Having tried in vain to rouse her by flicking with a wet towel and vigorous friction to the limbs, I gave her $\frac{1}{30}$ grain of strychnine hypodermically. Almost immediately the muscles of the face and arms twitched, then she opened her eyes, and when sufficiently aroused to swallow I gave her a pint of strong coffee. There was some difficulty in keeping her awake for a couple of hours. She made a rapid recovery and admitted having taken fifty minims of laudanum as she had frequently done before. She may not have taken more, but on account of the exhaustion, the opium might have taken much greater effect. This will show what an invaluable agent strychnine is in such cases. If the patient is able to swallow or a stomach pump is at hand, potassium permanganate is extolled as a specific antidote.

Herne Hill. R. D. PENNEFATHER.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ABERDEEN ROYAL ASYLUM.

CASE OF ACUTE (ULCERATIVE) ENDOCARDITIS GIVING A POSITIVE WIDAL REACTION.

(By W. R. Matthews, M.B., C.M., and D. R. Moir, M.A., M.B., Assistant Medical Officers.)

Mrs. B., aged 60, became ill on February 19th, 1899. The only symptoms that could be elicited were pain in the back and in the right shoulder. The patient was a well-marked case of delusional insanity, and at first we were inclined to think that her mental condition had something to do with her illness: but it was soon evident that she was seriously unwell. The temperature, which at first was normal, assumed a very irregular type, ranging from subnormal to above 103° F.; During the three days preceding death it remained subnormal. The pain complained of was evidently severe, as she cried out on being moved or handled. The tongue became dry and brown. The pulse was soft and irregular and the the heart sounds weak and muffled, but at no time during the illness could a murmur be detected.

As there had been a slight outbreak of typhoid fever in the institution, we had the blood examined. The first specimen gave a positive but not very distinct reaction; the second, according to the report, a distinct and well-marked reaction. About a week before death considerable dyspnœa set in, with signs of hypostatic pneumonia at the bases of both lungs. The patient was a very corpulent woman, and no splenic enlargement could be detected during life, nor was there any hæmaturia. She died on April 1st, gangrene of the lower extremities having set in three days before.

At the *post-mortem* examination there was extensive perihepatitis and perisplenitis. The organs were examined by Dr. Duncan, asssistant professor of pathology, Aberdeen University, who reported as follows:

Heart dilated and very flabby, with a large deposit of fat on its surface. The left ventricle contained a large greenish-coloured clot. On the auricular surface of the mitral valve there was a large ulcerated patch of recent endocarditis with many vegetations adherent.

Lungs: Left somewhat œdematous and congested, two small infarctions; right œdematous and congested.

Liver cyanotic. A number of small calculi in the gall bladder, which contained no bile.

Spleen much enlarged and studded with numerous infarcts of various sizes.

Kidneys: Left showed numerous infarcts, right one small infarct.

Intestine: A small ulcer about ⅛ inch diameter in ileum, bowel otherwise normal.

Nature of Case: Acute (ulcerative) endocarditis, with infarctions in spleen, kidneys, and left lung.

Remarks.—We think the case worth reporting on account of the blood giving a positive Widal reaction, which instead of enabling us to make a differential diagnosis, confirmed our suspicions that it was an anomalous case of enteric fever. The history of the case and the examination of the bowel *post mortem* afforded no evidence of a previous attack of typhoid fever to account for the presence of the reaction.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

H. R. Swanzy, F.R.C.S.I., President, in the Chair.

Special Meeting.

Friday, June 9th, 1899.

The Operative Treatment of Myopia.

A discussion on this subject was opened by Mr. F. Richardson Cross. He said that in the higher degrees of myopia they had to deal with a serious defect of vision which might not be of great importance to the educated, or to those engaged in fine work, but which to the ordinary labourer or handicraftsman might mean unfitness to earn a living by reason of the limit in his range of vision. Patients with high myopia, besides suffering in various ways from pain and discomfort, might be subject to increase in the myopia and a continued deterioration of the tissues of the eyeball from stretching or tearing of the choroid, inflammation, or hæmorrhage in the eye, and from detachment of the retina. Moreover, with full optical correction of the myopia the visual acuity was more or less diminished, and also the glasses which gave full correction could not be often worn with satisfaction. After a historical review of the subject the author went on to speak of the operation as now practised, and referred to the communication of Fukala, to whom the credit of establishing the present operation was due. Fukala claimed the following advantages for the operation: It gives distinctness of vision for distance, and improves visual acuity. It enables patients to work at the distance of ordinary useful sight without glasses, or with glasses easily borne; and improves the position of the head and body. It enlarges the retinal images, and allows of more light falling on the retina. It simplifies the optical apparatus of the eye. It removes the strain of accommodation and lessens the tendency to further increase in myopia. It improves the condition of the tissues of the eye. Proceeding to methods, Mr. Richardson Cross said that the removal of the lens was the only operative procedure likely to be of use, and the way of removing the lens was by discission and subsequent evacuation of the lens in the young, in whom the operation was most frequently necessary. In older patients or where the condition of the eye was unsatisfactory iridectomy followed by discission before extraction would be preferable. Some authors advocated repeated small discissions without evacuation, others practised very free cutting up of the lens and capsule. Mr. Cross thought discission should be limited to the anterior portion of the capsule as a rule, to avoid deep swelling of the lens within its capsule; evacuation of the swollen lens matter by the curette should be done within a few days before tension of the eye came on. He had used the suction syringe for removing the lens *débris* in some cases. Well-marked disease of the vitreous, or tendency to intraocular hæmorrhage, or softening of the globe, or some kinds of impairment in the visual fields were contra-indications of the operation. Choroiditis or macular changes, unless hæmorrhagic, were not against the operation. Certain accidents were unfavourable, as prolapse of the vitreous after laceration of the posterior capsule; septic infection was likely to occur after prolapse of the iris; the puncture of the anterior chamber should be small and peripheral to avoid this. Detachment of the retina as a consequence of the operation probably was less frequent than had been thought; but still detachment of the retina judging from statistics, was rather more likely to occur after operation in myopia than in eyes which had not been touched. The results of operation in 48 cases were appended and the author stated that he did not regret interference in a single case. The greatest amount of myopia was 25D and the lowest 7D; the latter were very young patients in whom the myopia was progressive. As a rule we should not operate where the myopia was less than 15D. He always operated on the worse eye, and as a rule on one eye only, the best eye being left untouched for reading purposes, while the operated eye was used for distant vision. The evidence of the sufferers from myopia who had been operated on had been almost without exception favourable to the operation, and they were conscious of the advantage they had gained.

Mr. Hartridge thought that judging by the sections of the ciliary muscle in myopes the amount of accommodation in such eyes was less than in normal sighted eyes. The vitreous in myopes of over 15D was rarely healthy, so that diseased vitreous he did not regard as unfavourable. He had operated on 17 eyes in patients whose ages ranged between 8 and 30. He practised free needling of the anterior capsule followed by linear extraction; in one case detachment of the retina had come on six months after the operation.

Mr. Lang had had 30 cases. In one patient detachment of the retina came on after operation, but inasmuch as the same thing happened in the other untouched eye three months later, he did not think it important. In the last few years all needle insertions had been made through the sclero-corneal

margin to avoid suppuration. He used atropine after the needling.

Mr. Treacher Collins had operated on 11 eyes. In one case the lens had become entirely absorbed after one needling only; the sight had not been made worse in any patient; it had been improved in all except one case in which there was central choroidal atrophy. All his patients had been entirely satisfied.

Mr. Cargill had operated on 6 cases.

Mr. Adams Frost had done the operation on 24 eyes; the value of the operation lay in the fact that the higher the myopia the greater the reduction in it produced by operation. The questions he proposed before doing an operation in any case were: Did circumstances make the wearing of glasses undesirable? Was the vision likely to be good after operation without glasses? Would the patient be better off after operation when using glasses? The fewer operations the less the risk in any case. He used the sclero-corneal puncture in needling. As a rule he thought both eyes should not be operated on.

Mr. Rayner Batten had operated on 13 eyes. He asked why the operation arrested the myopia? In one case in which the lens had cleared up rapidly after operation, he had noticed an increase in hypermetropia going on steadily for some months; he explained this by a definite shrinking of the eye going on steadily, but generally unnoticed, because of the opaque condition of the lens.

Messrs. Wray, Breuer, Critchett, Jessop, Stephenson, Lawford, and Doyne also spoke.

Glasgow Obstetrical and Gynæcological Society.—At a meeting on May 31st, Dr. Alexander Miller, Honorary President, in the chair, Dr. William McFarlane read a paper on Missed Labour. Two cases were reported. In Case I Dr. McFarlane delivered a patient on four different occasions of a decomposed fœtus, which had been retained *in utero* for one, two, two, and half a month respectively, beyond the expected time of delivery. In Case II the fœtus was retained six weeks beyond the expected time. The date of expected delivery in both cases was calculated from the last menstrual period. At the time of expected delivery there were none of the symptoms of labour, but from the appearance of the fœtuses, and the symptoms complained of by the mothers (such as cessation of the fœtal movements and feeling of weight in lower part of abdomen), their deaths, Dr. McFarlane concluded, must have taken place at that time.—Dr. Munro Kerr read a paper on the Bacillus Coli Communis as a cause of Puerperal Septicæmia. He reported two cases where pure cultures of this organism were obtained from the cervix uteri. In one case the disturbances were comparatively slight, and were removed after one or two intrauterine douches of perchloride of mercury 1 in 3,000. In the other case, seen in consultation, in spite of the usual treatment and intrauterine douching, the patient died. Dr. Munro Kerr pointed out that in febrile disturbances during the puerperium, bacillus coli was found in somewhere about 15 per cent. of the cases, sometimes in pure, but frequently in mixed, cultures. He also remarked that in coli infection the disease seemed to run a slower course than where other organisms were the cause of the septicæmia, that the symptoms were less acute, that fœtor of the lochia and diarrhœa were often very great and that if the disease were not arrested, the patient gradually sank into a low typhoid condition before death. As regards the prognosis, both grave and mild cases might result from infection by this organism; but it seemed as if it were a less serious infective agent than the streptococcus. Cases of "mixed infections" with the latter, however, often were specially serious. Extensive laceration of the peritoneum was often associated with infection by bacillus coli.—Dr. Jardine showed: A specimen of a Ruptured Uterus with the "retraction ring" well marked. The specimen was hardened with the child *in situ*. The patient arrived at the Maternity Hospital in a collapsed condition. Her medical attendant diagnosed a mento-posterior position of the face, ruptured the membranes when the os was fully dilated, attempted to extract several times with forceps, failed, and then, having seized a foot, was going to perform version when the patient suddenly collapsed. She died shortly after admission to the hospital; (2) a Fibroid Tumour and Uterus removed by Porro's operation; the woman was very much collapsed when admitted to the Maternity Hospital, and died shortly after operation; (3) Skull fractured during delivery, which was accomplished by forceps; the fracture was caused by the projecting promontory of the sacrum; the mother's pelvis was of the rachitic flat variety, the C.D. being about $3\frac{3}{4}$ inches. The child breathed after delivery and seemed all right, but was discovered dead in its cot about 17 hours after; (4) photograph of Child's Head showing marked depression of the parietal bone on one side; delivery by house-surgeon of hospital had been with forceps; there was no deformity of pelvis.

REVIEWS.

Die Arbeit der verdauungs Drüsen. [The Work of the Digestive Glands. Lectures by Professor J. P. Pawlow in St. Petersburg. Translated into German by Dr. A. Walther.] Wiesbaden: J. F. Bergmann; Glasgow: F. Bauermeister. 1898. (Roy. 8vo, pp. 212. 4s. 9d.)

Successful knowledge of digestion may be said to have begun with Beaumont's observation of the man St. Martin, who, owing to a gunshot wound, had a permanent gastric fistula. Immediately before his time papers written upon gastric digestion show a complete ignorance of the nature of the process. It was natural to suppose that similar inquiries carried out with animals would yield valuable results; but it must be owned that up to Heidenhain's time no great advance was made. Of late years Professor Pawlow, the head of a large laboratory in St. Petersburg, has devoted his whole energies to this subject, and in eight lectures recently published has summed up the work which he and his pupils have done, and which, though already set out in many communications to Russian journals and societies, has not, owing to its being in that language, become widely known. It is the most important treatise on the subject which has appeared for many years.

Feeling the importance of good method—and which of us who knows anything of original work does not feel it?—Pawlow has spared no pains to perfect his experiments. The description of the surgical arrangements of his institute (pp. 23, 24) shows that in this part nothing is left to be desired. The precautions against septic infection, the care bestowed on the animals after operation, and the elaborate details of ventilation and sanitation are beyond criticism. Similar care is bestowed upon planning the operations themselves, which are in some respects new. The gastric juice is collected from a small artificial stomach made by cutting out a piece of the natural stomach and forming it into a little separate sac with an external opening. An improvement on Heidenhain's operation is that the venous supply is retained intact by leaving the sero-muscular coat in connection with the original. In order to obtain the effect of eating without that of food in the stomach, the œsophagus is severed and its two ends united separately to the wound in the neck. Then "mock-feeding" (*Schein-fütterung*) can be carried on, the food escaping through the lower end of the upper part, which excites gastric secretion. Dogs so treated have been kept alive and in good health for years by artificial feeding. To investigate the nervous arrangements of the process of digestion elaborate sections of the vagi and sympathetic at different levels were performed, and the dogs again kept alive for a considerable time—weeks or even months. Although some of the experiments are carried out at the time of operation, in which case section of the cord below the medulla obviated the effect of shock, yet for the most part the animals are kept until all effect of operation has passed off, and no experiments on their secretion carried out until the general health is re-established. With such dogs pure gastric juice is obtained and the isolated small stomach is found to reproduce exactly the condition obtaining at the time in the walls of the true stomach. This has been sufficiently established by means of fistula into the true stomach as well as into the artificial.

The results are very remarkable. Gastric juice is secreted in considerable quantity with "mock-feeding," and equally

when the dog is shown food but does not eat it. This "appetite secretion" is large in quantity, and as powerful in quality as that produced by true feeding. But this secretion does not last more than two hours, if no food is received in the stomach, though it can be reproduced by the same stimuli as before. On the other hand, if food be introduced into the stomach unknown to the dog, as when he is asleep, and without awakening appetite, the secretion is from the first small in quantity but lasts for a much longer time. Natural secretion is the sum of both effects. Different kinds of food vary much in their power to excite secretion. In a dog whose œsophagus is intact meat, milk, and bread are at different times given in quantities representing the same equivalent of albuminoids. The meat produces a free flow, the milk a scanty flow, the bread a scanty flow of very powerful juice. The acidity of normal gastric juice does not vary with the pepsin, but remains the same unless neutralised by mucus. Food introduced unawares into the stomach also produces a variable secretion. Bits of meat excite secretion to a certain extent, but egg albumen, bread, and milk not at all. All meat extracts produce the effect of meat. Mechanical irritation produces no secretion whatever. Experiments have proved that in meat there are some bodies already existing which provoke secretion, and that similar bodies may be produced in the other foods by the act of digestion itself, so that once started as by the "appetite secretion," the process is kept up.

Both stomach and pancreas are under the control of nerves. To both the vagus certainly, and probably the sympathetic too, acts as a secretory nerve. Inhibitory fibres likewise exist, which run in the vagus. "Appetite secretion" is excited through the vagus, and stops directly if during the secretion the vagus be severed. Contact secretion, from the food in the stomach, is likewise a reflex act, and is not due to any direct influence upon the peptic glands.

Pancreatic secretion studied by a pancreatic fistula shows similar variation in quantity and quality. It is little if at all affected by appetite. Its chief excitant is the acidity of the chyle, which acts reflexly through the duodenal mucous membrane. Starch excites pancreatic secretion no more than water, but fat has a marked effect. Yet the little pancreatic juice that is produced by feeding with bread has a much greater amylolytic power than that produced by meat feeding. Fat produces both a considerable amount of juice, and a juice that has strong fat-splitting power.

We have written enough to show that Dr. Pawlow's lectures mark a great advance in the physiology of digestion. It is, as we have said, a summing-up of many previous original papers to which rather than to the lectures those must turn who require the original material in large quantities. But by far the largest part—in fact for each of us all but a very small part—of scientific knowledge rests upon our belief in the trustworthiness of someone else, and these lectures are such as to command the credence and admiration accorded to the best work and the best workers alone.

NOTES ON BOOKS.

In *Chemistry for Photographers* (Second Edition. London: Dawbarn and Ward. 1899. Cr. 8vo, pp. 158. 1s.) Mr. Townsend takes a rapid survey of the whole subject, including some of the very latest photographic novelties, explaining not only how the different preparations required in photography are made, but also the chemical changes that occur when they are used. We fear, however, that the formula on p. 54 would lead the reader to suppose that ferrous oxalate was soluble in water, no chemical explanation of the conditions necessary to prevent its precipitation being given. The book will be found very useful by those who are not content to follow blindly the directions given in photographic manuals, and its value is greatly enhanced by an excellent index.

The new buildings of the London Hospital Medical College, which have recently been completed, will be opened on Tuesday, July 18th, by Lord Knutsford. Subsequently the prizes to the students and nursing probationers will be distributed in the Library by Lord and Lady Knutsford.

THE MIDWIVES BILL.

A joint general meeting of the Wood Green and District Medical Society and the East Suburban Medical Protection Society was held at the West Ham Hospital, Stratford, on June 15th. Dr. F. J. Smith was in the chair.

Mr. Tomlin, on the invitation of the President, opened the proceedings by relating how the two societies, having passed an identical resolution to the effect that they viewed with regret the fact that Mr. Horsley had ceased to carry on his opposition to the recognition at law of partially qualified practitioners, in that he was at present supporting a Bill giving a legal status to midwives, trusted that he would reconsider his position, and invited him to address them on the subject. He (Mr. Tomlin) thought that these midwives were not required, and objected to their posing before the public as qualified in medicine, surgery, and midwifery. The supporters of the Midwives Bill now waiting the second reading, were a lot of irresponsible persons appearing as philanthropists at the expense of the medical profession. He considered it a farce that so powerful a body as the British Medical Association should be bringing forward a Bill for the registration of nurses to attend natural labour.

Mr. Horsley said that Mr. Tomlin in his opening remarks on the resolution—

> That the Wood Green and District Medical Society and East Suburban Medical Protection Society view with regret the fact that Mr. Victor Horsley has ceased to carry on his opposition to the recognition at law of partially qualified practitioners, in that he is at present supporting a Bill giving a legal status to midwives, and trust that he will reconsider his position,

had divided the question under two heads—first, the question of registration of midwives as midwives, and secondly, the question of the granting of certificates by the Obstetrical Society and by the Spectacle Makers' Company. Mr. Horsley understood the resolution to refer to the Midwives Bill at present before the House of Commons, put forward by the supporters of the Midwives Institute and backed by a certain number of influential members of Parliament. If the resolution was passed under the impression that he was giving his support to that Bill, the Society had been placed in a false position, as he was as much opposed to that Bill as anyone. If that was not the case, and if the Bill referred to was the Bill prepared by the British Medical Association, then he thought the resolution distinctly applied to him. He would therefore assume that the resolution referred only to the latter Bill. Years ago a Bill was prepared by the British Medical Association for the purpose of registering midwives to secure that they should be properly educated so as to carry out their work. He referred to the midwives that had existed, and always would exist, with whom no one attempted to interfere until it was proposed to put their names on a list for the express purpose of controlling their practice. This early attempt made by the British Medical Association to control the work of these women was not an attempt to give them a right to practise, as was often said by many people who thought it was conferring something new on these women; the idea was to control their work. That Bill was dropped. Then arose a kind of nurses' club, which was called the Midwives' Institute. It took upon itself to raise the matter, and a Bill was introduced into Parliament by Lord Balfour of Burleigh, which was more objectionable than that now brought forward by Mr. J. B. Balfour. The matter was further prejudiced long before he (Mr. Horsley) became a direct representative, by the General Medical Council practically accepting Lord Balfour of Burleigh's Bill; some verbal corrections were introduced, but practically the principle was accepted. That Bill was dropped, and was replaced by one brought in by Mr. de Tatton Egerton, practically the outcome of the Parliamentary Committee, which had reported in favour of some kind of registration. Mr. Egerton's Bill was before the General Medical Council when he (Mr. Horsley) stood for election in 1897, and he had written at that time a letter to Mr. Jackson, which was referred to by Mr. Tomlin, and he maintained that what he wrote then he still now upheld. He objected to the giving of a legal status to persons to practise midwifery, and he thought that when Mr. Tomlin proposed his resolution before the Wood Green Society that Society had forgotten a document Mr. Horsley, when he

was a candidate, had sent out to every member of the profession. Mr. Horsley then read the document, which concluded as follows:

> There are two methods of securing this, of which the first is the proposition by the Lancashire and Cheshire Branch of the British Medical Association, namely: "That every case of midwifery attended by a midwife should be seen by a registered medical practitioner within twenty-four hours of the commencement of labour." This, I believe, would adequately meet the case.
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> The second, however, is more fundamental in principle, and is what I should endeavour to secure acceptance by the General Medical Council and reference to the Privy Council as being a complete legislative safeguard against the attempted contravention of the Medical Acts. I propose that when any report on a Midwifery Nurses Bill is brought forward for final adoption, there shall be first adopted a Bill for the amendment of the Medical Acts to prevent the practice for gain of medicine, surgery, and midwifery by any but practitioners registered under the Medical Acts.
>
> This safeguard will at the same time put a stop to the irregular practice in diseases of women and children carried on at the present time by midwives, certificated or otherwise, and chemists.

The Government was being pressed hard by people who certainly had this to be said for them, that there was a great amount of evil inflicted by untrained midwives. There was no gainsaying the fact that the movement was a popular agitation and must be dealt with as such. The President of the Privy Council, the Duke of Devonshire, had said distinctly to the promoters of the Midwives Bill that he would refer the matter to the medical profession, and that the promoters of the Bill must make their own terms with the profession. Mr. Horsley was sorry to say that the Duke's idea of "the profession" was the General Medical Council. It was a very deplorable thing, but it was a fact. The President of the Privy Council sent Mr. J. B. Balfour's Bill to the General Medical Council, and it was remitted to a Committee of which he was a member. That Committee inserted into the Bill safeguards which were thought necessary both for the interests of the profession and for the interests of the public. The General Medical Council accepted the Committee's report with one modification, which referred to the presence of lay persons on the Board to regulate the whole. That was how the matter stood. What were the safeguards which were thought necessary as regards the public and as regards the profession, for after all the safety of the members of the public is quite as much involved as the safety of the income of medical men? The Bill introduced into Parliament was, to begin with, absolute nonsense; it did not safeguard the interests of the public; it conferred on midwives merely the title of midwife. That was an empty gift even to midwives. Recently, however, the promoters of the Bill had adopted the main safeguard, which the British Medical Association thought to be necessary, namely, that no midwife should "habitually and for gain" watch women in childbirth, unless she were on a list of properly-trained persons. Mr. J. B. Balfour and his friends accepted that safeguard, but with a bad grace. Unless the representatives of the profession in the House of Commons were really watchful of the interests of the public and the medical profession, that safeguard would be dropped out if there was any opposition in the House. There was absolutely no provision in the Bill to safeguard the medical profession, but during the last session of the General Medical Council a correspondence took place between the Council and the President of the Privy Council. It arose because a resolution had been carried in the Council that those women who were put on the list should be restricted to the watching of persons in normal labour. This was not accepted by the promoters of the Bill, but under pressure from the Duke of Devonshire they had inserted the safeguard into Clause 4 of the Bill in exactly the way drawn up by the British Medical Association, so that none of these women would be entitled to practise as a medical practitioner. Mr. Horsley thought that that was an adequate safeguard. In regard to normal or abnormal labour the question was raised by Dr. Rentoul and others in the original agitation against any midwives at all. It was important that the statute should contain clearly the fact that persons who could be proved to be practising midwifery in relation to abnormal labour should be punished for so doing. He could not see any difficulty in regard to what was normal or abnormal labour; any labour in which an accident happened at once became an abnormal labour, and if a midwife continued to accept the responsibility of such a case she at once came under the punitive clauses of the Bill. It might be asked, What was the safeguard in this Bill to the public against the accident of *post-partum* hæmorrhage, which might kill a woman before the midwife could send for a registered practitioner? The obvious answer was that if the members of the public chose to kill themselves that was their own look-out. There was a great deal of misconception in regard to this point. The public at the present time considered that in the most serious cases of disease they were quite entitled to call in a quack, and in regard to midwives they considered that there should be no restriction exercised, even up to the point of an accident occurring. The medical profession considered that the public were very foolish, but the profession did not make laws for the public, the public made laws for the profession. As a matter of fact, all that could be done was to show that the scheme involved a danger to the public, and to provide by the introduction of a punitive clause into the Bill that any further responsibility did not rest with the medical profession. Mr. Tomlin had raised in connection with that point another most important subject. Suppose an accident happened in parturition, as it well might, and a midwife in accordance with this Bill called in a medical practitioner, would not that practitioner be accused of conduct infamous in a professional respect—namely, covering? Of course, as such a matter would come before the General Medical Council, it would be wrong to express any opinion except merely as a private individual, but his own private opinion was that, if the woman was only acting within the restrictions imposed upon her by the proposed statute, no charge would lie against the practitioner. There were many correlative circumstances in connection with every charge of "covering," but it seemed to him that on the direct complaint it was impossible that any charge of covering could stand if the statute became law. In relation to the question of these women being registered as midwives, and not, as he wished to have them, registered as midwifery nurses, he himself thought that there was a good deal in a name, and he had fought hard for the term nurse. However, these terms had now all been voted upon, and by simple voting they were now reduced to the term midwife. Having lost the vote, there was an end of the matter; it would not be brought up again. There was one more chance, and that was the House of Commons; but he thought that the chance was a very poor chance indeed. He had spoken to members of Parliament, and endeavoured to induce them to take up the matter; and though he could say that 12,000 or 14,000 of the medical profession were opposed to the term "midwife," he obtained no sympathy from any members of Parliament to whom he had spoken. Their one answer was invariably, midwife being a term in general use, they did not see anything in the objection to it. It was quite a mistake to think, as Mr. Tomlin did, that any of these proposed Bills gave to any woman the right to practise midwifery. The triple qualification of medical men was not invaded; the Bill restricted to this class of women the right only to watch cases of normal labour, and in that restricted sense it might be said to be practising midwifery, but it was not so recognised by the public or by the law. If anyone attempted to prosecute a midwife at the present time for practising midwifery it would be useless. Since the Bill merely controlled the class of women who watched cases of normal labour, how could anyone say that that added a single danger to the validity of the triple qualification of medical men? The certificate of the Obstetrical Society was a monstrous document; in plain language, it was a diploma, and Mr. Brown and he had endeavoured to deal with that question in connection with the Spectacle Makers' certificate. Mr. Tomlin had said midwives were not required, but if he thought that he had better talk to the people who employed them. There were a number of women working as midwives, and it was proposed to control them by a Bill. Mr. Tomlin also said that this Bill of the British Medical Association was a farce, and he regretted that the Council approved of it at all. He (Mr. Horsley) did not regret that Bill, because he thought it was the best Bill that had been drafted in connection with the subject. Mr. Tomlin went on further to say that it would be a great thing if the Council of the British Medical Association would bring itself more into harmony with the wishes of the practitioner; with that Mr. Horsley quite sympathised, but he pointed out that the medical practitioners had the law entirely in their hands, only they

did not exercise it. They had a right to choose men to go to the Council who should represent their views, and it was their business to send those men. There were two distinct policies. Mr. Tomlin said, Oppose all Bills *in toto*. The other policy was that, considering the impossibility of stopping the Government when interested in a matter from forcing a Bill through Parliament, and considering they were bent on so doing, the only thing to do was to modify the Bill in accordance with the wishes of the profession. Mr. Tomlin's idea of meeting the question with the bare negative was a possible one, but personally he (Mr. Horsley) did not believe it was practical or useful. How was it possible to raise popular opposition to this Bill? What had happened in the past? In the past the only effect on the Government that had ever in these matters been brought about had been through the British Medical Association or the General Medical Council. The General Medical Council in this matter had done what it thought fit, and might be put aside. The British Medical Association through its Council had obtained opinions by means of motions from the Branches, and the matter had been settled by the Council working through the Branches who three years ago sent up answers on the question. The Council collated these answers, and had crystallised them into this Bill, so that the position of the British Medical Association was settled. Could the Association be moved to take up any other attitude on this question? Mr. Horsley thought not. In fact, dead opposition to all legislation was quite impossible; it was a policy of no work, and he thought that such a proposition of dead opposition was a barren one.

The CHAIRMAN gave Mr. Horsley a letter to read from Dr. Glover, in which he said he thought the proposed plan of opposition a more practical one than blank opposition to all legislation.

Mr. HORSLEY, continuing, said he had endeavoured in the first place to obstruct all Bills which contained fundamental errors, and that had been successfully done until the present Bill of Mr. J. B. Balfour, which in its latest form included safeguards for the profession and for the public, provided they were not dropped out in the passage of the Bill through the House of Commons. In the second place he had endeavoured to meet the Bill with proper arguments in the proper place, namely, in the discussions in the General Medical Council and British Medical Association and by private influence. Anybody who read the letters in the minutes of the General Medical Council could see that the President of the Privy Council desired a compromise between the promoters of this Bill and the profession. Should the Government bring in a Bill they could force it through the House of Commons irrespective of the wishes of the profession. The proper thing therefore now to be done was to press the Council of the British Medical Association to urge upon the Government the adoption of the Association's Bill. Mr. Horsley then referred to the question of certificates granted to spectacle-makers and said that, in spite of the utterly misleading statement of Mr. Carter in the General Medical Council, this question was a new one. For the first time now a medical practitioner was to be discovered conducting an examination of such a character that, even though it might only deal with refraction, which it did not, was a professional examination, and on that point there was the answer from the General Medical Council to the effect that it was ready to consider such conduct of a practitioner, but must leave it to the profession to initiate proceedings. All these certificates were, to say the least of it, poisonous, and none perhaps more so than the Licentiateship of the Obstetrical Society. The General Medical Council had stultified itself in this matter. It had declared that the original diploma was one that ought not to be issued by any practitioner and then through the late President of the Council communicated with the Obstetrical Society. The Obstetrical Society slightly altered the form, whereupon without more ado it was accepted by the General Medical Council. If the memorials furnished to the Council on these two subjects had been shorter and had been couched in more business-like terms perhaps more success would have been obtained. The matter was brought up before the Council, and Mr. Brown moved that a special committee be appointed to consider the facts raised by the memorial. Mr. Horsley had supported this, because it was only by such a committee that it could be hoped to effect anything. It was hardly necessary to say that the central phalanx of opposition to all progress and reform of the Council, headed as usual by Mr. Carter, defeated them by a large majority. It could be brought up at the next session, and though that meant a delay of six months, all that was possible should be done to put a stop to such certificates being issued. Finally there came the question of the amendment of the Medical Acts laid before the electors by Mr. Horsley in 1897. The programme of the last session of the General Medical Council contained a motion by Dr. Glover for a committee on that subject. If Dr. Glover had not put it on the paper, Mr. Horsley would have done so. He was however very glad Dr. Glover had put it on the paper, for he was already charged by the Chairman with bringing too much business before the Council. Dr. Glover moved his resolution and again it was met with the customary phalanx headed as usual by Mr. Carter and defeated. Of course this was a very disgraceful state of things, but it was necessary to make the best of a bad job. The General Medical Council was now however on the horns of a really picturesque dilemma. Five years ago the British Medical Association sent up two resolutions to the General Medical Council, one relating to direct representation and one relating to the obstetric question. Dr. MacAlister suggested that the British Medical Association was an outside body, and that such a body had nothing whatever to do with the General Medical Council. It might, of course, amuse itself by passing whatever resolutions it liked, and might send them through the post to the Council, but that was no reason why the resolutions should be taken into consideration. But Dr. MacAlister was one of those who at this May session did not think that a Committee of the General Medical Council should consider any necessary amendments of the Medical Act, because it was the duty of outside bodies to do that, and to bring their proposed amendment to the Council. A Medical Amendment Bill was prepared by the Parliamentary Bills Committee and submitted to the Council of the Association. The Council contained members imbued deeply with the corporation spirit, and they thought no attempt ought to be made to interfere with the varied privileges of the corporations, chief among which was absolute antagonism to everything which the general practitioner required. That Bill contained three reforms—increased direct representation on the General Medical Council, the one-portal system, and arrest of unqualified practice. The Council of the Association, although they were themselves direct representatives, threw out the proposed reform in regard to direct representation, rejected the one-portal system, and only kept in a part of the third reform regarding unqualified practice. One good thing would result from this—it would bring home to the practitioner the necessity of returning men to the Council of the Association who really represented their views.

Mr. GEORGE BROWN said that from the first he had taken up the position of direct opposition to all legislation, and his further acquaintance with the subject had not caused him to alter his opinion. He believed all legislation of this character was bad. If however the present Bill were passed, let it be as innocent and harmless as possible. His objection to legislation was as deadly as ever, and to keep the Bill from becoming law he would use all his power, for though it was full of safeguards, yet what were safeguards in an Act of Parliament? All safeguards would be ignored unless some power were put in to see that these women were kept within bounds. When you cannot get all you want, you must get what you can. He did not consider they had men in the House of Commons who understood the question.

Dr. RANDALL said midwives at the present time did as they pleased, and no one could touch them, but according to the suggestions now made they would certainly be able to control midwives to a certain amount. He considered that people would have midwives, and that they could not prevent them.

Drs. MURTAUGH HOUGHTON, HART, STANILAND, and ANDERSON then addressed the meeting.

Mr. HORSLEY in reply said his position was absolutely clear. If that meeting or any practitioner there considered that the proper attitude for the direct representatives on the General Medical Council was uncompromising opposition towards all proposed legislation then those representatives were quite en-

titled to ask how that was to be carried out. He (Mr. Horsley) would like no legislation on the subject, but that being impossible, how would he be serving the interests of the profession by recording a barren negative vote? If he was mistaken he would be glad to hear of something practical. He considered it was not their business to define to the public what was normal and what was abnormal labour. If the public choose to say that they will run the risk of the labour becoming abnormal, after they have been warned, if they choose to have unqualified practitioners in cases of difficulty, it is their risk. The profession could not better their advice; if the public would not listen no more could be done.

The following resolution proposed by Dr. Murtaugh Houghton was carried:

Maternity Nurses.

Definition.—Maternity nurse, a person, not registered under the Medical Acts 1858 to 1886, who for gain undertakes—under the supervision and direction of a duly registered medical practitioner—to nurse women during childbirth and the lying-in period.

Resolution.—That this meeting of registered medical practitioners, whilst not actively objecting to the registration of maternity nurses as above defined, views with alarm and distrust any attempt to create an inferior order of practitioners by the proposed registration of so-called midwives.

The following resolution by Dr. Staniland was carried:

Proposed Registration of Midwives.

Resolution: That this meeting thanks Mr. Victor Horsley for his interesting address, and pledges itself to support the direct representatives in uncompromising resistance in and outside the General Medical Council to any Bill that will recognise the attendance on any case of labour of persons not medically registered, and regards the Bill of the British Medical Association as a dangerous and unnecessary concession to a mischievous agitation.

The meeting, which was attended by fifty-five medical men, then terminated.

[Mr. Tomlin requests us to state that he meant his resolution to refer to the Midwives Bill of the British Medical Association. Owing to the number of persons who desired to speak, he did not feel justified in addressing the meeting again to make this statement.]

LONDON SCHOOL NURSES' SOCIETY.

The first annual meeting of the London School Nurses' Society was held at the offices of the School Board for London, Victoria Embankment, on June 19th, the Countess of Aberdeen in the chair.

Mr. Bridgeman (the honorary treasurer) said that work could be found for at least ten more nurses in London. Each nurse would cost £50 and £4 for dressings.

The Countess of Aberdeen said that the objects of the Society would appeal to mothers who knew how much could be prevented by paying attention to little ailments in time.

Mrs. Ruth Homan, in moving the adoption of the report, said that the work of the nurses in the schools was to attend to the minor ailments and to the cleanliness of the children. They also visited the homes and gave the mothers instructions as to how they ought to treat the children. The nurses prevented the spread of contagious disease by seeing if any child were sickening for some complaint. In America there was an organised medical inspection of schools, and as there was no such organisation in London, it was more necessary to have these nurses to visit the schools.

Mr. Brudenell Carter, in seconding the adoption of the report, said that the experienced eye of a nurse would be more likely than that of a parent to detect early symptoms which might be of grave significance.

Miss Hughes, in moving the reappointment of the Committee, said that the Society alleviated the sufferings of the children who suffer from the ignorance of mothers. When the parents were out at work, they had no time to look after their children's eyes or ears, or to go to a dispensary, or to the out-patient department of a hospital. The nurses by no means wished to interfere with the medical man's work; that was beyond their province. A nurse, by examining a child and taking the temperature, might find that it was unfit for work, or there might be a suspicious sore throat requiring the child to be visited at home. This could all be done without infringing on the duties of a medical man, though quite innocently a nurse might be treating some child who was already under treatment, and that might lead to trouble.

Sir Sydney Waterlow, in seconding the motion, said that if they made the public understand that this work was done for the prevention of infectious disease among children, the Society would soon be able to make a larger collection. He knew, from experience of what physicians and surgeons had told him, the great advantage of being able to detect disease in its early stages.

Lord Reay, in moving a vote of thanks to the Countess of Aberdeen, said that he had been rather struck by what Miss Hughes had observed about the desirability of consulting medical men's interests, and that nurses were not poaching on the preserves of medical men. He had never been able to make out altogether why there should be the least antagonism or jealousy between medical men and nurses. A very eminent medical man once gave him his opinion that without the skill and the great experience of the nurses who assisted him in the discharge of his duties, a great many operations and other treatments would hardly be feasible. In addition he would say that he for one saw with the greatest satisfaction that an attempt was being made to supply a very pressing need. He mentioned the instance of a case which had come under his notice—a child affected with diphtheria was sitting the whole day next to another child in a school without anyone having the slightest notion that the disease with which that child was suffering was of a dangerous and infectious nature. It was obvious if a nurse had attended that school, and her attention had been called to that child, it would have been removed at once.

Sir Henry Burdett, in seconding the vote of thanks, said that a great deal of money was paid for the School Board, and a small percentage of the grant would be a very handsome subscription to this Society which would be greatly appreciated.

THE LATE DR. G. F. CROOKE.

Mr. Gilbert Barling (85, Edmund Street, Birmingham), and Mr. J. T. J. Morrison (3, Great Charles Street, Birmingham), Honorary Secretaries, write:

We beg leave to make an appeal through your columns on behalf of the widow and infant son of the late Dr. G. F. Crooke, of whom an obituary notice appeared in the British Medical Journal of June 10th. Dr. Crooke's promising career in pathology was marred by incurable nephritis following scarlet fever, which he contracted when medical officer to the Leeds Fever Hospital; and at a later period, whilst pathologist to the Birmingham General Hospital, his health was still further undermined by a dangerous septicæmia. His untimely death at the age of 46 is therefore peculiarly affecting because due to disease incurred in the exercise of his profession. As he was unable to insure his life or make other provision for those dependent upon him, Mrs. Crooke and her little boy are left wholly without support. It is earnestly hoped that by the generous response of the profession a sufficient amount may be raised to establish Mrs. Crooke in some suitable pursuit. Contributions will be very gratefully received by the Treasurer of the fund, Dr. Arthur Foxwell, 22, Newhall Street, or by either of the above-mentioned Honorary Secretaries:

First List of Contributors.

	£	s.	d.		£	s.	d.
A. G. Barrs, M.D.	10	10	0	W. E. Bennett, F.R.C.S. ...	1	1	0
Gilbert Barling, F.R.C.S. ...	5	5	0	N. Hodgetts	1	1	0
Arthur Foxwell, M.D. ...	5	5	0	C. Lamplough, M.R.C.S. ...	1	1	0
W. F. Haslam, F.R.C.S. ...	5	5	0	Chris. Martin, F.R.C.S. ...	1	1	0
O. J. Kauffmann, M.D. ...	5	5	0	C. E. Purslow, M.D.	1	1	0
C. J. Lewis, M.D.	5	5	0	J. R. Ratcliffe, M.B.	1	1	0
Jordan Lloyd, F.R.C.S. ...	5	5	0	Robert Saundby, M.D. ...	1	1	0
Frank Marsh, F.R.C.S. ...	5	5	0	Priestley Smith, M.R.C.S. ...	1	1	0
Bennett May, F.R.C.S. ...	5	5	0	J. W. Taylor, F.R.C.S. ...	1	1	0
J. T. J. Morrison, F.R.C.S. ...	5	5	0	E. B. Whitcombe, M.R.C.S. ...	1	1	0
G. A. Wright, F.R.C.S. ...	3	3	0	Thomas Wilson, M.D. ...	1	1	0
Geo. Heaton, F.R.C.S. ...	2	2	0	Professor Windle, F.R.S. ...	1	1	0
J. W. Russell, M.D.	2	2	0	L. Gamgee, F.R.C.S.	0	10	6
T. Short, M.D.	2	2	0				

Amongst those called to the Bar at the Inner Temple on Wednesday, June 14th, was Dr. W. H. Coates, the medical officer of health for the Tatington District Council.

THE AMERICAN MEDICAL ASSOCIATION.

ANNUAL MEETING.

THE fiftieth annual meeting of the American Medical Association was held at Columbus, Ohio, on June 6th, 7th, 8th, and 9th, under the presidency of Dr. JOSEPH M. MATHEWS of Louisville. Thanks to the courtesy of the Editors of the *Journal of the American Medical Association* and the *Philadelphia Medical Journal*, who have favoured us with advanced proofs of the reports of the proceedings, we are enabled to give the following account of the meeting. Nearly 3,000 members attended, many of them from distant parts of the country; and the meeting is unanimously described as a most successful one from every point of view.

THE PRESIDENT'S ADDRESS.

The subject of the President's address was our National Body: its Purposes and Destiny. He said he imagined that when the father of the Association (Dr. N. S. Davis, sen.) called around him a few devoted friends, accomplished physicians and surgeons, and effected an organisation to be known as the American Medical Association, the first thought which filled their minds was the unification of the profession which they loved so dearly. What splendid results were accomplished by their efforts was evidenced in the assembling of so great a body that day. The speaker opined that anything that partook of the nature of jealousy, unfairness, or politics was deprecated by them; but, on the contrary, they desired that peace and goodwill should always obtain. He impressed upon them, therefore, that no class legislation should be indulged in by that body. Let them receive with open arms all who represented honesty, fair dealing, and entertained an earnest desire to elevate the standard of the medical profession and of the Association. Let no wrangling come into their midst, but rather let peace and harmony prevail, with love to one another, as became gentlemen. Proceeding next to deal with the question whether the Association should have a local habitation, the President said it was seriously to be questioned whether the Association profited in any manner by its migration each year to distant parts of the Union. It could not be denied that a mistake had been made in the past in going to cities too small to entertain it. It certainly added no dignity to that distinguished body to be thus travelling about, not to speak of the inconvenience occasioned to the majority of its members by so doing. Nor was it right or proper to impose upon a local profession the expense and trouble that it took to entertain it. If the members would give the subject careful thought and consideration, he believed that they would come to the conclusion that the Association should have a local habitation. The natural question would then be, Where could such habitation be found? Of all places the city of Washington was the best suited. The capital of the nation, it had advantages that no other place could offer, With its great free libraries it was the seat of learning; its magnificent Government buildings, its natural beauty, its select society, its two Houses of Congress, the rendezvous of foreign representatives and diplomats, the home of the medical departments of the Government army, navy, and marine hospital corps. Then, too, the idea was not far-fetched that the Government, liberal always, would at some time lend the Association a helping hand in the way of securing a suitable building in which to hold its meetings and to become the owner thereof. Again, it would be in touch with the legislative department of the Government, and it could readily be seen of what value this would be in securing much-needed reforms in a medical way. The *Journal* would there find the most suitable of all homes—an atmosphere of refinement, education, and wealth. Its editor would all the time be on the alert, and much profit would come to the *Journal* from such surroundings and associations. After discussing various matters relating to the internal economy of the Association, the conduct of the meetings, and the recognition of medical societies, the President proceeded to deal with the subject of tuberculosis. He said it behoved the national body of American physicians to take some action, or at least to approve the movement to stamp out that disease, as far as scientific effort could do so. Osler was quoted as saying that 1,200,000 in America had the disease at all times. One in every fifty persons had the disease. Over 13,000 died of tuberculosis in the State of New York every year. In every other American city the proportion of deaths was equally great. After referring to what had been done in other countries for the prevention of tuberculosis, he said that in several large cities of the United States an earnest effort had already been made to carry this thought into practical utilisation, especially in Chicago and New York. It could readily be seen, however, that comparatively few out of this great number of afflicted could be accommodated in this manner. Let them then, in the name of humanity, invoke aid from the Government of this very humane people, in order to help put down and thoroughly conquer this foe. During the last session of the New York Legislature a report of the Senate Committee appointed to investigate the advisability of establishing a State hospital for the cure of consumptives was made. Was it then too much to suggest that that Association, representing the most advanced thought of the medical profession of America, should take action in this important matter? The President urged them to appoint a committee to prepare a careful report on this subject, and present it to the next congress sitting, beseeching that the Government erect, prepare, or donate hospitals or reservations in and at which the poor or others shall receive treatment for the cure of consumption. Also that it be impressed upon State Boards of Health in the various States that it is advisable that the respective States should erect similar institutions. As far as the prevention of the disease was concerned, that must come from the education of the people to the facts. The President next referred to the antivaccinists. It seemed strange and beyond belief that citizens of respectability and supposed intelligence should band themselves together to prevent a means of saving human life. The efforts of these half-mad people might be disregarded, but they must not close their eyes to the fact that, by their loud cry, aided by political influence given often for self-aggrandisement, they were endangering the lives in every community. So far had this thing gone that the vaccination law in England had but recently been amended so that only those who might desire should be vaccinated. This was a menace to the public health and smacked of the Dark Ages. The President asked that the Association should give the medical profession in America an endorsement of their views in a resolution sustaining compulsory vaccination. The safety of the people from this most direful malady demanded it. The President went on to say that an International Conference for the Prevention of Syphilis would be held in Brussels in September. A statement of this fact had been sent to the Secretary of State of the United States, through the Belgian Minister at Washington, with a request that he appoint a delegation to attend this important Conference. The Honourable Secretary had in turn requested him, as the President of the Association, to name the delegation. This he had already done, as the call was for immediate action. What could be said of Belgium in this regard could be said of the United States. It was estimated that there were in the United States between six and seven million people afflicted in one way or another with syphilis. The time had arrived when they as physicians, singly or in convention assembled, should throw aside all restraint when dealing with this vital question. The President suggested that a Committee be appointed from that body, to report at the next annual meeting on the subject, What is the best means of preventing the spread of syphilis?

TREASURER'S REPORT.

Dr. HENRY P. NEWMAN, the Treasurer of the Association, next presented his annual report, showing that he had received 33,760 dollars during the past year on December 31st, 1898; the balance in hand was 28,739 dollars, besides 3,000 dollars sinking fund.

MISCELLANEOUS BUSINESS.

Various matters were then brought before the meeting. A report from the Chairman of the Rush Monument Committee was submitted, from which it appeared that of the 100,000 dollars required, only 10,582 dollars had been subscribed. Dr. GIHON, who is the last surviving member of the original Committee, said that after fifteen years of persistent earnest

effort the time had come when he must admit that he could do no more. He therefore tendered his resignation.

The Philadelphia Medical Society presented resolutions urging that the medical corps of the army and navy should be enlarged to a degree that would enable them to meet properly all demands that might be made upon them; that the President of the United States should be asked to recommend to Congress the appointment of an Army Medical Commission, to be composed of physicians and sanitarians, to be taken from military and civil life, including the Surgeon-General of the army and navy, whose duty it should be to prepare a report containing a detailed plan of a modern system to govern the medical departments of the army and navy in peace and war: that a national department of public health should be established with a Cabinet minister at its head, and that a committee should be appointed by the President of the American Medical Association, to wait upon and present these resolutions to the President of the United States for his favourable consideration. The resolutions were referred to the Executive Committee for consideration.

Dr. GEORGE M. GOULD presented a resolution providing that the publication of the *Index Medicus* should be undertaken by the Association. This resolution was referred to the Board of Trustees for consideration and report next year.

A NATIONAL BUREAU OF PUBLIC HEALTH.

At the second general session the Executive Committee recommended, and the Association adopted, a resolution favouring the establishment of a national bureau of public health, with a Cabinet officer at its head.

ARMY AND NAVY MEDICAL DEPARTMENTS.

The Executive Committee recommended the adoption of the resolutions introduced by the Philadelphia delegation calling for radical changes in the medical corps of the army and navy, and they were adopted after amendment so as to secure a direct appeal to Congress, and the appointment of a committee consisting of a member from each State having a medical society, and from the the army, navy, and marine hospital service, whose duty it should be to memorialise the President of the United States on the subject.

WOMEN MILITARY NURSES.

A resolution introduced by Dr. GOULD was also adopted, endorsing the Bill presented to Congress favouring the employment of women as military nurses in the army.

ADDRESS IN SURGERY.

The Address in Surgery was delivered by Dr. FLOYD WILLCOX MCRAE, of Atlanta, who confined himself to the discussion of some points in the surgery of the alimentary canal. He said the surgeon who should fail to give his patient the benefit of normal salt solution after a prolonged or bloody operation would be little less reprehensible than he who would knowingly place his patient in bed with bleeding vessels unsecured. Rubber gloves were of value in diminishing the danger of wound infection by the hands of the surgeon or his assistants. Reference was made to four cases of complete gastrectomy now on record—the celebrated case of Schlatter, of Zurich, one by Bingham, of San Francisco, one by Richardson, of Boston, and a fourth by Dr. McDonald, of San Francisco. The cases must be very few, indeed, that would justify the operation of complete gastrectomy. A new impetus had been given to the discussion on penetrating wounds of the abdomen by reports of the cases of gunshot wounds of the abdomen received during the late war, which had resulted favourably without surgical intervention. He did not advocate operation in every case of apparent penetrating wounds of the abdomen, but would advocate operation in every case when the condition was not absolutely hopeless or when there was any doubt as to whether the abdominal cavity had been penetrated or not. Carefully prepared statistics were presented of 107 cases of typhoid perforation that had been subjected to operation, with a total mortality of 79.439 per cent. The table showed a greater tendency to recovery when the perforation occurred late in the disease, and it seemed reasonable to expect 25 per cent. to 30 per cent. of recoveries in operative cases, when operation was undertaken within twelve hours after the occurrence of the perforation. Statistics had also been collected of 601 cases of septic peritonitis, with a mortality of 52.71 per cent. Statistics of 2,903 cases of appendicitis published during 1898 and 1899, with a mortality of 13.744 per cent. were presented. Of these 457 were interval cases with one death; mortality, 0.022. A very large proportion of the cases of appendicitis operated on during an acute attack when drainage was employed would eventually develop ventral hernias. Every case except one in which he left drainage for 48 hours or longer had a ventral hernia: (1) It would be safest to operate on every case of appendicitis if the operation could be done within 12 to 24 hours from the onset of the attack; (2) every case of fulminant appendicitis was an operative case, and medical treatment was useless; (3) every individual who had recovered from a decided attack of appendicitis should be advised to have the interval operation done; (4) every case of relapsing appendicitis should be operated on during the quiescent stage if possible; (5) if after forty-eight hours under appropriate medical treatment there was a distinct improvement medical treatment should be continued under careful surgical supervision, but if the symptoms were progressive immediate operation was indicated; (6) a sharp recurrence of the acute symptoms during the progress of a medical case pursuing an apparently favourable course also indicated operative intervention; (7) children under 12 bore appendicitis poorly, and should be operated on at once; (8) appendicitis was a surgical disease, and every case should be considered from a strictly surgical standpoint. It was especially pleasant to consider the brilliant work that had been done in the radical cure of hernia by American surgeons, notably Marcy, Bull, Coley, and Halsted. To Dr. Marcy of Boston, more than to any living surgeon, belonged the credit of first advocating the closure of the separate layers of the hernial incision with buried animal sutures, and it was he who demonstrated to the profession the value of kangaroo tendon of proper quality and carefully prepared, which seemed to be the very best material for suturing the deeper layers, and the radical operation for the cure of either inguinal or femoral hernia. The mortality of the operation was probably less than 1 per cent.; the percentage of recurrence was comparatively small.

DR. JAMES TYSON has been appointed Professor of Medicine in the University of Pennsylvania in the room of the late Professor William Pepper.

ARTICLE CLUB INDUSTRIAL EXHIBITION.—A special press inspection of the exhibits took place at the Crystal Palace on June 17th. Amongst the various exhibits were some of medical interest. The Thornton-Scarth Automatic Lighting Syndicate showed an interesting collection of apparatus for using acetylene gas for optical and medical work. It was stated that one of the large provincial isolation hospitals was now lighted entirely by this illuminating agent. Messrs. Defries and Sons displayed at their stall the equifex disinfection appliances, the Scurfield ventilation indicator, and the Pasteur filters. Messrs. Newton Chambers and Co. had a stall devoted to the demonstration of the disinfectant "Izal," and showed copies of large orders for this commodity from the Admiralty, the Office of Works, and the War Office. Mr. W. F. Stanley's exhibit of optical instruments was noteworthy for the cutting and working of Brazilian pebble into lenses, and the making of spectacles and frames, all of which operations were carried out by workmen at the stall. Messrs. Fassett and Johnson's Seabury Sulphur Candle and Seabury's Aseptic Ligatures attracted marked notice. Messrs. Colman showed examples of a portable mustard plaster, and medicated mustard bran for a poultice or footbath. Bovril, Limited, showed their foods and specialities for invalids; and the Borax Company also claimed attention for their specialities. The Swift Cycle Company showed an invention, the object of which was to provide adjustment of wheel bearings without interfering in any way with the arrangements for the adjustment of the chain. Jaeger's Sanitary Woollen System Company furnished an excellent exhibit; and Mellin's Food, Limited, presented to visitors an array of their preparations. Aperient waters were represented by the exhibit of the firm of Andreas Saxlehner. Messrs. Fry and Sons had on view different preparations of cocoa.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders and Postal orders should be made payable to the British Medical Association at the General Post Office, London.

British Medical Journal.

SATURDAY, JUNE 24TH, 1899.

THE CENSUS OF 1901.

IN another column is printed an important communication on this subject, signed by Mr. Courtney, M.P., the President of the Royal Statistical Society, and Sir R. Giffen, F.R.S., the Chairman of its Census (1901) Committee, which has been addressed on behalf of the Royal Statistical Society to the President of the Local Government Board, to the Secretary for Scotland, and to the Chief Secretary to the Lord Lieutenant of Ireland. With the terms of this communication we heartily agree, similar recommendations having, as our readers are aware, been repeatedly made in the BRITISH MEDICAL JOURNAL.

It is most desirable that pressure should be brought to bear upon individual members of Parliament as well as upon the members of the Government responsible for the arrangements for the next census in the direction indicated in the letter on page 1556.

The arguments in favour of the two recommendations contained in this letter are fairly obvious. A vast machinery has to be created for collecting and dealing with the census data, and the time allowed for this on former occasions has not been sufficient for these purposes. The collection of a large staff of new assistants after each census enumeration necessarily implies a less degree of accuracy in the figures than if there were constantly at least the nucleus of a staff in existence accustomed to the work, and not undertaking it as novices at each decennial census. If a quinquennial census were secured, such a permanent staff would not only be practicable but would be a necessity, and as the result of this it would be feasible to publish local statistics at an earlier period than can be accomplished under present conditions.

What is required is that during the present session, or, at the latest, early in the next session, a permanent Act should be passed arranging for a quinquennial census. If this were done the appointment of a separate census branch of the General Registry Office for England and Wales would follow almost as a matter of course, and the whole attention of this staff would be given to the business of the census, without the periodical dislocation and interruption of the registration duties of the General Registry Office which has hitherto been necessary, and has caused so much inconvenience. The officers of such a branch would find full employment in making and accelerating the preparations for each quinquennial census, in training and superintending the employees engaged in abstracting and tabulating the returns, and in expediting the publication of results.

The financial objection to a quinquennial census is one that need not cause hesitation in adopting this reform. The cost of the 1881 census for Great Britain and Ireland was only about £185,000, or 5 guineas per 1,000 of enumerated population. There is little doubt that this expense of each enumeration might be considerably reduced by having more frequent enumerations, but if not, the value of the results obtained would abundantly justify the double expenditure on the present basis. We may add that the Legislature in adopting the recommendations set forth above would only be acting in accordance with the report presented to both Houses of Parliament in 1890 by the Committee appointed by the Treasury to inquire into certain questions connected with the taking of the census. This Committee recommended that "the number of the population and its distribution as regards age and sex be ascertained midway between the decennial periods at which a full census is taken." So far the recommendation of this Committee remains almost completely a dead letter, no action having been taken in the direction indicated, except in London on the initiative of the London County Council. In the case of London, the value of the intermediate census in 1896 was greatly diminished for hygienic and social purposes by the fact that the census enumeration was one merely of numbers, the compulsory information not including an intimation of the age and sex of each person.

We hope that combined and sustained efforts will be made to ensure the passing of a permanent Census Act, establishing a quinquennial census of the age and sex of the population, and the establishment of a permanent Census Office by means of which the census data should be rendered available to local authorities with the utmost expedition compatible with accuracy.

THE MEDICAL CRISIS IN FRANCE.

THERE are so many "crises" in France at the present day that one more can hardly matter. Moreover, even our excitable neighbours across the Channel are not likely to be seriously agitated by the rumour of a "medical crisis." It is surely a sign of the time, however, that the state of the medical profession should be chosen and accepted by a Faculty of Medicine as the subject of a thesis for the doctor's degree. In a dissertation presented to the University of Lyons not long ago, M. Ernest Perthuisot discusses the "medical crisis" from every point of view. Among medical practitioners in France, as in this country, there is much discontent, and complaints are heard on all sides from doctors that they find it hard, and often impossible, to live by their profession. The causes assigned by M. Perthuisot for the "crisis" may be summed up as follows: 1. There are too many doctors. 2. The profession in France has in one way or another suffered discredit in recent years. 3. Quacks are allowed to take the bread out of the mouths of legally qualified practitioners. As regards plethora, M. Perthuisot shows that the condition is becoming acute. The number of doctors is increasing out of all proportion to the increase

of population. He estimates that while the vacancies left in the ranks of the profession by death or retirement amount to 600 or 700 a year, the output of graduates by universities is at present more than 1,100 a year; and the increase is so steadily progressive that M. Perthuisot thinks the number of doctors in France will, within a limited time—perhaps ten years—have doubled itself. Students flock to the medical schools, driven there by the ambition of parents of the small tradesman or farmer class; by the wish to escape military service; by the difficulty of the examinations for admission to the Ecole Polytechnic, and the other *grandes écoles;* by periods of commercial depression. M. Brouardel has shown by curves that "crises" in the world of trade correspond with large affluxes of students to the medical schools; the parents doubtless send them there in the hope that in medicine they may find a more certain prospect. Overcrowding leads to social degradation, to advertisement, to underselling, and to bondage to friendly societies.

All these evils are as rife here as in France, but we have not yet had to suffer a public reprimand from a Minister of State for combining against the clubs which grind the faces of the poor among us. The following deliverance, which M. Perthuisot quotes from the *Journal Officiel* of November 20th, 1893, shows how in France a great officer of State seeks to make friends of the mammon of unrighteousness by abusing the doctors:

> A certain portion of the medical body shows a tendency towards coalition against the contracts in use between doctors and the mutual help societies.....Medical syndicates have been formed, and have advanced the pretension to hinder doctors from attending by contract the sick of those associations, and from visiting them for a fee below a minimum tariff established by those syndicates under penalty of exclusion and ostracism (*mise à l'index*). A syndicate of the Seine Department in particular has taken the initiative in these arbitrary measures, which constitute an interference with the rights of labour, and strike at philanthropic associations of workers, who have hitherto been accustomed to benevolent treatment from the whole world.

Evidently the doctor has no "rights," and he is outside the pale of philanthropy. Nay, he must not attempt to protect himself; he is like the poor beast described in an old work on Natural History, as so ferocious that if attacked it would defend itself.

As to the discredit of the profession which M. Perthuisot considers to be a factor in the "medical crisis," we do not think he makes out a case. There has unquestionably in recent years been a crop of incidents in which doctors have played a discreditable part, and sensational newspapers have, of course, made the most of them. But on M. Perthuisot's own showing there is an ever-growing desire to enter the profession, and this would hardly be the case if it had fallen into serious discredit.

The quacks, whose unfair competition is one of the causes of the present discontent, are classified as seers, herbalists, midwives, religious persons (a class which includes the Ladies Bountiful of town and country, as well as priests, nuns *et hoc genus omne*), healers, bonesetters, and the pharmacists. In spite of the relatively high position held by pharmacists in France, counter-prescribing is as prevalent there as it is among us. The foreign doctor, who used to be a thorn in the side of the native practitioner, no longer adds to the stress of competition in France; in this at least the estate of our French brethren is more gracious than ours. On the other hand, they are much more heavily taxed than we are.

The remedies proposed by M. Perthuisot for all the evils which he describes are: (1) The diminution in the influx of candidates for admission to the profession by greater stringency in examinations; (2) the strengthening and rigorous execution of the laws against unqualified practice; and (3) the formation of an *Ordre de Médecins* with local branches ramifying through France, which should have power to punish unworthy members, undertake the prosecution of quacks, and influence legislation in favour of the profession. He admits that it would be difficult to get such an Order established at all, and that it would be still more difficult to get it clothed with adequate legal authority. To put the question in a nutshell: Will the State, in France or anywhere else, ever give the medical profession complete and effective control over the practice of medicine? There's the rub!

THE UNIVERSITY OF LONDON.

NEGOTIATIONS and communications are now proceeding which must profoundly influence the work which the University of London of the future will set itself to perform. On the one hand, its habitation is, we understand, again engaging the attention of the Treasury and the Senate, and, as we have already indicated, the Draft Statutes which determine the constitution of the new Teaching University are under the consideration of the bodies with whom the new University will be correlated.

We are given to understand that the Imperial Institute site has been favourably reported upon by a Committee of the Senate, and that the influential support which it has already obtained is likely to secure its final acceptance, though dissent is still audible in some quarters.

The Draft Statutes have been "confidentially" communicated to a variety of institutions and corporations, but the confidence with which they have been regarded has varied considerably. The twelve medical schools having been vouchsafed a single copy amongst them, proceeded at once to print a sufficient number for distribution. The Senate of the University of London, perhaps more scrupulous, has applied for more than the allotted copy for the use of its Fellows. A Committee of the Technical Education Board has, we understand, prepared a very full summary and criticism for the use of its members. While, as we have previously stated, a meeting of Convocation is to be held on June 27th to receive a report of its Standing Committee on the Draft Statutes, and this report has been sent broadcast to the thousands who compose that body.

From the latter criticism, which has clearly passed beyond the limits of confidence, it appears that the 16 representatives of Convocation upon the Senate will be apportioned thus: 6 to arts graduates, 1 to laws, 1 to music, 2 to medicine and surgery, and 6 to science, and the Committee very reasonably suggests that, having regard to proportionate numbers, the one musical representative should for the present at least be transferred to medicine. Again, of the 16 members of the new Senate to be elected by the "faculties" or electoral colleges of teachers, 3 are proposed to be allotted to medicine, 6 to science (including economics and engineering), 4 to arts, 1 to laws, 1 to music, and 1 to theology. Convocation's Committee advises the transfer of one science representative to the Faculty of Medicine.

It appears also that the Draft Statute makes it clear that, in accordance with the Act, the Standing Committees for internal and external students respectively shall be advisory only. Some 35 Boards of Studies are, we gather, provided for in the Statute, and provision is made for their meeting jointly. Power is given to the Senate to vary the number and designation of the degrees conferred, to admit as internal students graduates of other universities, and to substitute "other tests of fitness" in lieu of the matriculation examination. Apparently "external" as well as "internal" students in medicine are in contemplation, and these may come from the provinces or abroad, and indeed from any medical institution or school recognised as such by the Senate, within the metropolitan area.

In compliance with the provisions of the Act of last year, these Draft Statutes must, at a later stage, be laid on the table of the Houses of Parliament for forty days, and are open to objections made by the Senate or Convocation or any person or body of persons concerned, and we presume that the present circulation of the draft is purely an act of grace on the part of the Commissioners, and intended to facilitate general agreement before its final adoption by the Commissioners.

EXPERIMENTS ON LIVING ANIMALS.

THE return for 1898, which has just been presented to Parliament, shows that there were 234 licensees, of whom 61 performed no experiments. The experiments performed have been classified and arranged in two groups, of which one of 1,511 experiments includes all those which involve anything like operative procedures, while the other group (containing 7,640 experiments) is composed entirely of inoculations and hypodermic injections or similar proceedings. In the first group the experiments were mainly physiological, and 1,068 of these were done under the terms of the licence or Certificate C. In only 443 instances were the animals allowed to recover from the anæsthetic, and to survive the operation. In many instances the operative procedures were not serious, and all, as the report observes, "in order to ensure success, are necessarily done with as much care as are similar operations upon the human subject; and the wounds being dressed antiseptically, no pain results during the healing process." No operations (other than inoculations, etc.) were performed without anæsthetics, and it is indeed difficult to conceive circumstances in which the withholding of an anæsthetic in cases involving operative procedures could be anything but a disservice to the experimenter. With regard to the larger group the report says: "Many of these latter were performed in the course of professional duty for the diagnosis of disease, the preparations of antitoxins, the testing of water, and so forth." It has always appeared to us that the Vivisection Act, as originally framed, did not contemplate that the Home Office should exercise control over proceedings of this kind. The Act was directed against cruelty which might arise in connection with "experiments calculated to give pain," and was not meant to put a check upon the use of hypodermic syringes. This is an important point, because the diagnostic value of inoculation tests is only beginning to be appreciated, and it seems very hard that a physician should not be able to do his duty by a patient without having recourse to "licences, certificates, and registered places." Of course, the Act affords protection against any possible action on the part of misguided persons, and therein is to be found the reason why pathologists take out licences and certificates for the performance of proceedings which are part of their professional routine.

A PLEA FOR URGENCY FOR THE OYSTERS BILL OF THE GOVERNMENT.

THE urgent necessity for legislative enactment in the direction of the Oysters Bill of the present session is further evidenced by some recent events in Brighton. On May 10th a professional man invited twenty-two of his friends to an oyster supper. Thirty-five dozen oysters were ordered from a local shop, the proprietor of which, it is stated, has oyster-layings and ponds a few miles from Brighton, which have been characterised as dangerously liable to contamination by sewage, in repeated reports by Dr. Newsholme, Medical Officer of Health of Brighton, and more recently in Dr. Bulstrode's report to the Local Government Board. It appears, however, that the oysters for the above supper came direct from a well-known place, other than the above, which is believed to be free from sewage contamination. All the members of the party partook of oysters with the exception of one who was nervous on the subject. He has remained well. Of those who ate oysters three suffered from unpleasant symptoms or serious illness, while the remaining eighteen do not appear to have had any ill-effects. One guest had an attack of vomiting which lasted throughout the night from the time of his arrival home at 10 P.M. No further symptoms developed. The two remaining guests, one a member of the Brighton Town Council, and one a member of the Hove Town Council, developed typhoid fever about six to eight days from the date of the oyster supper. One has since died, and the other is still ill. In both these cases the first symptoms resembled those of influenza. The incubation period, although short, is by no means unexampled. The above instance, although it may bring home to many who would not otherwise realise it the great risk involved in eating oysters from sources unknown to them, is only one of a large number of others recorded in the above town and in other towns throughout the country in which the matter has been investigated. We have received from a Brighton correspondent an account of two other recent cases of poisoning by oysters. The particulars are briefly as follows: A gentleman and his wife were driving on June 6th past some oyster ponds, and stopped at the neighbouring oyster shop and each had six oysters. They were both very ill before reaching home. On reaching home they both had violent vomiting associated with a burning sensation in the throat, and remained ill during the night. Such cases as the above indicate the urgent necessity for legislation for the protection of the public health in respect of shellfish. The President of the Local Government Board has promised such legislation; a Bill has been introduced into the House of Lords, and it would be a public calamity were the Government to allow the Bill to drop. By pressing it forward now they will deserve, and will secure, the gratitude of a large number of important local authorities, who at the present time feel they are face to face with a serious cause of sickness and death with which they are completely unable to cope.

THE INEBRIATES ACT, 1898.

THE Special Committee of the London County Council which is considering what action should be taken in the metropolis under the permissive powers of the Inebriates Act of last year, reported last Tuesday that pending the provision of permanent accommodation for the reception of criminal habitual drunkards to certified reformatories, arrangements have been made whereby inebriate women convicted under the Act in London police-courts may be sent either to Lady Henry Somerset's Home at Duxhurst, or (in case of Roman Catholics) to the St. Joseph's Reformatory at Ashford. The chief difficulty experienced by the various county councils throughout the country in putting this Act into operation appears to be how far existing philanthropic institutions should be subsidised, or whether

councils should either jointly or separately themselves erect reformatories, or whether, on the other hand, they should make fixed capital grants to existing homes on condition of sending representatives to their governing bodies.

THE LATE DR. SINCLAIR COGHILL.

WE have received a letter from a correspondent well qualified to speak expressing the opinion that in the obituary notice of Dr. Sinclair Coghill full justice was not done to his desire to try all things in the hopes of lighting on something good. It is undoubtedly true that at a period when therapeutic nihilism was the fashion he was not afraid to be sanguine, and that in some directions he was in advance of his time. "Dr. Coghill," our correspondent writes, "was always on the alert to give a trial to any method of treatment likely to prove of benefit in the cure of pulmonary disease. He was one of the first to introduce guaiacol as a remedy in phthisis. For years he was an advocate of open-air treatment for consumption, and the plan of Ventnor Hospital and the regulations of the institution were made with a view to carrying out this method as much as possible. In the Ventnor Hospital, as devised by him, was the nucleus of what is now being done in disinfection and in the hygienic treatment of phthisis in every institution in England."

THE INTERNATIONAL MEDICAL CONGRESS IN PARIS.

THE Thirteenth International Medical Congress will be held at Paris from August 2nd to August 9th, 1900, and the official programme of rules, regulations, and preliminary agenda has just been issued from the central offices in the Rue de l'Ecole de Médecine. M. Lannelongue is President of the Congress and Dr. Chauffard is the Secretary-General. National Committees have also been formed in each country to further the work of the Congress. The Committee for Great Britain and Ireland is an especially strong one. The President is Sir William Mac Cormac, Bart., K.C.V.O., and Hon. Secretaries are Dr. Garrod, Dr. Keser, and Mr. D'Arcy Power. Every registered medical practitioner in the United Kingdom may become a member of the Congress as well as any representatives of science who may wish to attend. A card of membership will be issued to those who are eligible if they forward £1 with a visiting card on which is their name and address to either of the Secretaries (Dr. A. E. Garrod, 9, Chandos Street, Cavendish Square, or Mr. D'Arcy Power, 10A, Chandos Street, Cavendish Square, London, W.). Among other advantages members will be entitled to receive a digest of the proceedings of the Congress and the printed report of the section to which the member belongs. In the general assemblies, as well as in the sectional meetings the English, French, and German languages may be employed, though French is adopted as the official language in all international relations. Members who propose to attend the Congress should give very early notice of their intention as the time coincides with the holding of the Universal Exhibition, and is in the middle of the tourist season. It is anticipated, therefore, that very great difficulty may be experienced in obtaining accommodation for those who postpone their applications. The sections are grouped into five classes. The first class contains the subjects ancillary to medicine, namely, Comparative and Descriptive Anatomy, with M. Milne-Edwards as President; a section of Histology and Embryology under the control of MM. Ranvier and Balbiani; Physiology under M. Chauveau. The second group of sections is directly connected with the medical sciences, and includes Pathology, with the subsections of Bacteriology and Pathological Anatomy, and Internal Pathology. A section dealing with Children's Medicine, Therapeutics, Neurology, Psychiatry, Dermatology, and Syphilography. The third class includes the surgical sections: General Surgery, the Surgery of Infancy, Urinary Surgery, Ophthalmology, Laryngology and Rhinology, Otology, Stomatology. The fourth class embraces Obstetrics and Gynæcology, and the fifth class Public Medicine, with the subsections Legal Medicine, Military Surgery and Medicine (including Epidemiology and Hygiene in the army), Naval Medicine, and Colonial or Tropical Medicine. Amongst the names of those who are set down to take part in the discussions are Dr. Lauder Brunton, F.R.S., Dr. Ferrier, F.R.S., Dr. Alexander Bruce, Dr. Shuttleworth, Dr. Fletcher Beach, Dr. Colcott Fox, Dr. Galloway, Mr. Malcolm Morris, Dr. Pringle, Mr. Jon. Hutchinson, Mr. J. E. Lane, Mr. Mayo Robson, Mr. Treves, Mr. Swanzy, Sir Felix Semon, Dr. Dundas Grant, and Dr. Champneys.

THE WEIR BEQUEST TO DUBLIN HOSPITALS.

WE have already mentioned that the late Mr. James Weir, of Dublin, has bequeathed a sum of over £100,000 to Dublin hospitals. The distribution was left in the hands of his three trustees—Sir William Findlater, Mr. Jas. Merry, and Mr. George Bell. These gentlemen having within the past month secured the decision of the Vice-Chancellor as to certain provisions of the will, have now declared their award. The number of applications was very large, all kinds of institutions seeking for a portion. The list of institutions ultimately selected by the trustees includes the following:

Steevens's Hospital, Meath Hospital, Dental Hospital, Richmond Hospital, City of Dublin Hospital, Coombe Hospital, Adelaide Hospital, Rotunda Hospital, Jervis Street Hospital, Sir Patrick Dun's Hospital, Mercer's Hospital, Drumcondra Hospital, Victoria Eye and Ear Hospital, Convalescent Home, National Hospital for Consumption, Cork Street Hospital, Maternity Hospital, St. Vincent's Hospital, Orthopædic Hospital, Children's Hospital (Harcourt Street), Children's Hospital (Upper Temple Street), Hospice for the Dying, Mater Hospital, Linden Convalescent Home, St. Michael's Hospital, Kingstown; Royal Hospital for Incurables, Donnybrook: Throat and Ear Hospital, Hume Street; Cripples' Home, Bray; Molyneux Asylum. Among the institutions which received specific legacies from the estate in February last were the Royal Hospital for Incurables, Adelaide Hospital, Stewart Institution for Imbeciles, Coombe Hospital, Sir Patrick Dun's Hospital, and the City of Dublin Hospital.

All the hospitals in the last list have already received a special bequest of £1,000 each, but they are now included in the general distribution. The executors have not published the amounts given to the individual hospitals, but we understand that the following statement is correct so far as it goes: Richmond, £10,000; Sir Patrick Dun's, £6,000; Meath, City of Dublin, Adelaide, Jervis Street, Mercer's, National Hospital for Consumption, Hospital for Incurables, £5,000 each; Mater Misericordiæ Hospital, £3,000; and St. Vincent's, £1,000. The other institutions receive various smaller sums, which are not yet made known. It will be seen that the Richmond and Sir P. Dun's are liberally treated. The distribution appears to have been carried out with great care, and it will give wide satisfaction. Mr. Weir was born in Scotland, and he came to Dublin sixty years ago. All his large fortune of over £200,000 was made by himself in trade. In dealing so splendidly with the poor of the city of his adoption, he has not forgotten his relatives and friends, to whom over £100,000 were bequeathed.

"THE YORKSHIRE OPTICAL SOCIETY."

THE number of letters which a spectacle maker in Yorkshire may in future claim to put after his name will be extraordinary—F.S.M.C., B.O.A., M.Y.O.S.; the effect of such an array will be no doubt to impress, if it does not bewilder, the public mind. The first two sets of letters are already more or less familiar, the last finds its justification in the fact that last week a Yorkshire Optical Society was founded in Bradford, with Sir J. Fortescue Flannery, M.P., a liveryman of the Spectacle Makers' Company, as Presi-

dent, and Dr. S. Jacob, described as one of the founders of the London Optical Society, as chairman. The meeting was called by Mr. Forshaw, D.D.S. (Baltimore), described as a freeman of the Spectacle Makers' Company and a member of the British Optical Society of London. He said that it had been his desire to establish such a Society since his connection as dispenser with the Bradford Eye and Ear Hospital in 1883. His hospital experience had proved to him the necessity of such an organisation. Dr. S. Jacob, who was in the chair, said that the primary object in forming the Society was to establish a body, not only for the education of the public, but for the education of medical men who had conceived the erroneous impression that the Spectacle Makers' Company's diplomas were misleading to the public. Mr. Maher, of Harrogate, said that only by establishing such societies could the medical practitioner discover that the optician was no poacher on his preserves. The optician was not supplanting the doctors in any way, but simply endeavouring to let them know the difference between educated ophthalmic opticians and the travelling pedlar. In a short comment upon the formation of this Society the *Bradford Observer* recalled the fact that Dr. Kerr had deemed it necessary to address to the parents of Board School children a specific warning as to the need of skilled investigation of the cause of defective sight in any individual child, and our contemporary drew the conclusion that the Yorkshire Optical Society would "be able to do something to enable the public to distinguish between the qualified and unqualified." Dr. Kerr has since pointed out that common sense dictates that the first step should be to consult the family doctor, since defective vision may be dependent upon a number of causes. He quotes as a statement of what the public should do when made aware of visual defects the advice issued by a well-known optical firm: "We will venture to warn the public against having their sight tested by anyone who has no medical knowledge, because it is impossible for him to know whether glasses are really necessary." This is thoroughly sound advice, and, as Dr. William Mitchell, who has also written to our contemporary, observes, the proper function of an optician is to make spectacles for the public according to directions received in the prescription of a properly-qualified medical man, just as a pharmaceutical chemist's function is to dispense or compound medicine from a prescription similarly obtained.

THE DREYFUS CASE IN THE LYONS MEDICAL SCHOOL.

THE Dreyfus *affaire* has been the occasion of serious disturbances in the medical school of Lyons. Professor Augagneur had taken an active part in manifestations in favour of Captain Dreyfus and President Loubet, and the students attending his lectures had expressed their sympathy with him in this line of conduct. The next day the Professor's lecture room was invaded by a mob of persons, for the most part not belonging to the school, who made such an uproar that it was impossible for him to lecture. The Dean has posted up a notice, dated June 10th, to the effect that the course of surgical pathology will be suspended till further orders.

THE ROYAL SOCIETY'S *CONVERSAZIONE*.

THE annual *conversazione* (ladies' night) of the Royal Society was held on Wednesday evening, and was largely attended. Many of the objects exhibited had already been seen at the *conversazione* last May 3rd. Among the novelties was an ingenious apparatus, the invention of Dr. Mackenzie Davidson, by means of which the Roentgen ray shadow on a fluorescent screen can be seen in stereoscopic relief. Two induction coils, each joined up respectively to a battery, and to a Crookes's vacuum tube, are placed side by side, so that the points on their respective anodes from which the Roentgen rays originate are in a horizontal line, at a distance of six centimetres or more from each other. On the same horizontal level, and in a parallel plane is a suitable framework, in which are two sight holes. In front of the sight holes is a rapidly rotating disk, with two slots in register with the sight holes respectively. The shaft which carries the disk is connected by means of eccentrics with two mercury contact breakers, and the arrangement is such that when one sight hole is open one of the tubes is momentarily illuminated, and a shadow of the object appears on the fluorescent screen from the illumination of this one tube; when the other sight hole is open the other tube is illuminated and casts its shadow. When the machine is made to operate at such a rate that the sight holes are opened and closed not less than ten times a second, the images seen by each eye become continuous, with the result that a shadow picture in striking stereoscopic relief is produced. By means of a reversing key the electrical connections can be changed over, so that at will, either the shadow will be seen in true stereoscopic relief, or in pseudo-stereoscopic relief. This reversal of appearance will probably prove of great utility in determining the exact location of an object. Professor Ray Lankester exhibited collections of mosquitos recently received at the Natural History Museum for study in reference to the connection of malaria with mosquitos, together with a series of drawings of mosquitos by Mr. Ernest E. Austen. Dr. Patrick Manson exhibited a set of microscopic specimens showing the development of the parasite of malaria: (1) Two-thirds grown tertian parasite; (2) sporulating form of tertian parasite, (3) crescent body; (3) flagellated body; (5) malaria-infected mosquito, (*a*) low power, (*b*) high power. Dr. Allan Macfadyen, the director of the Jenner Institute of Preventive Medicine, exhibited cultures and microscopical specimens of pathogenic bacteria illustrating the bacteriology of typhoid fever and cholera. They included microscopical specimens of normal typhoid bacillus from a culture, the same showing "clumping" process produced by the addition of blood from a typhoid patient, the comma-bacillus of cholera, the plague bacillus and a very fine specimen of diphtheria bacillus showing polar staining. He also exhibited a number of cultures of typical bacteria and of pigment bacteria. Mr. Shelford Bidwell demonstrated experiments on multiple vision showing that a bright object of suitable form for which the eye is not accommodated appears not merely blurred, but multiplied: thus the number of distinct images of an incandescent lamp filament seen through a lens of a focus of 4 or 5 inches may amount to 20, 30, or more. If a narrow slit is interposed between the eye and lens, a row of images is formed. Mr. Bidwell believes the phenomena to be due to the cellular structure of the transparent media of the eye, inasmuch as it may be imitated by means of a lens covered with a few layers of gauze. The Marine Biological Association had an exhibition illustrating different methods practised by marine animals for securing food by (1) the production of currents by either ciliary or muscular action; (2) the prehension of moving prey either by special organs provided with pincers, suckers, or nematocysts, or by teeth and jaws; (3) browsing upon or sucking in nutritive material, either living or dead. In the large meeting room Dr. Tempest Anderson (York) gave a lantern demonstration of photographs illustrating the eruption of Vesuvius in September, 1898, which he had taken during a stay of a week on the mountain.

THE INTERNATIONAL GOLF MATCH.

WE announced last week that arrangements were being made for an international golf match on Saturday, August 5th, after the annual meeting, between representatives of Scotland and the rest of the British Medical Association. The original plan was that the match should take place

between a limited number of the best golfers in the profession, but we learn that a strong desire has been expressed, especially by Scottish members, that the match should not be limited, but that all should be allowed to enter on one side or the other. In consequence the conditions of the match have been altered. It will be open to all members of the Association, and the medal will be won by the competitor who shows the best result against "Colonel Bogey." Members who desire to play for Scotland are asked to communicate at once with Dr. R. H. Blaikie, 42, Minto Street, Edinburgh; those for England with Dr. Walter Reid, R.N., Alverstoke, Hants.

THE MEDICAL OFFICER OF THE MARCHAND EXPEDITION.

IN the enthusiastic welcome accorded to Major Marchand by his fellow countrymen, the medical officer of the expedition has not been forgotten. On June 8th Dr. Emily, of the French navy, was entertained at dinner by a number of his medical brethren, including Professors Brouardel, Pinard, and Laborde. Dr. Cunéo, Medical Inspector-General of the French navy, was in the chair. The health of the guest of the evening was proposed by a brother officer of the medical service of the navy, Dr. Delavaud, in a poem specially composed by himself in honour of the occasion. After describing the difficulties and dangers encountered by the explorers in Africa, he concluded with the following lines:

> Vous étiez de ceux-là, vous, docteur Emily,
> Vous nous fîtes honneur, nous vous disons: Merci!
> Tour à tour médecin, soldat, à la bataille,
> Vous vous trouviez partout, et vous fûtes de taille.
> Dans ce combat de paix que la France entreprit
> Vous pansiez des héros, et puis "Dieu les guarist."

Dr. Emily has a distinguished record of service, and has made some valuable contributions to the literature of his profession, notably on the subject of filaria.

THE RATING OF HOSPITALS.

WE understand that the question of rating the hospitals of London will again engage the attention of the London County Council next Tuesday. We learn from a return that has been prepared by the statistical office of the Council that more than £20,000 a year is paid by the hospitals to the various local authorities in the metropolis. Moreover, it appears that great diversity of principle obtains in the mode of assessment which is adopted in different parishes, and even within the same parish the ratable value does not in all cases bear a definite relation to the size or site occupied by the hospitals within its area. We trust that the County Council may see fit to advise that the exemption from rating which applies to places of worship and certain other buildings may fairly be extended to institutions whose work is essentially charitable.

THE PHARMACISTS AND COMPANY LAW AMENDMENT.

OUR contemporary, the *Pharmaceutical Journal*, attributes to us an objection to "the pharmacists fighting for their own hand" in the matter of amending company law. Now this was the very course which, as we pointed out, was the only one available, and any objections which we may have expressed had relation purely and simply to the methods and the weapons which they proposed to use. Respecting these we are glad to see that milder and, we think, wiser counsels appear to prevail, and that there is no longer so much said of opposition to a clause which in no way touches pharmacy merely because it is not included in it. The position is really a very simple one; the sympathies of the Government, without which there is little prospect nowadays of getting anything through Parliament, have been enlisted, and suggestions have been invited from the General Medical Council, who sent, as we are informed, short and general suggestions, and from the Pharmaceutical Society, who sent, as we learn from that their own *Journal*, a comparatively lengthy and detailed draft, which does not seem to have commended itself to the authorities that be. Their obvious course is to endeavour by temperate argument to induce the Government to modify their proposals in any desired direction, but to assume a position of antagonism is calculated to destroy that sympathetic interest and to postpone indefinitely the chance of getting anything at all done. Considering the immense step which has been gained in securing the interest of the Government in the matter at all, there seems to be a lack of worldly wisdom in taking any steps which are likely to alienate it. A certain amount of adverse comment upon the provisions of the medical clause has appeared. Thus, it has been urged that it is aimed against the friendly societies, whereas it was carefully so worded as not to affect them; that it would strike at hydropathic establishments where there was a resident doctor, and many more equally groundless and fanciful objections. To all of which it may be answered that in such cases it is the registered medical practitioner who has the right to practise and who does in fact practise, and not the company. Some amount of misconception may be expected and also, we suppose, some amount of actual misrepresentation; of this latter a good example is furnished by a circular issued by the Association of Unregistered Dental Practitioners, a body not much commended by its name, which abounds in mistatement of actual facts.

FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE next Congress of the French Association for the Advancement of Science will be held at Boulogne, September 14th to 21st. Arrangements have been made for an exchange of visits between the French and the British Associations. The meeting will be further of special interest from the medical point of view, as it is to be made the occasion of the formal unveiling of a statue of Duchenne of Boulogne. A subsection of Medical Electricity has been formed in connection with the Association, and will meet for the first time at the Congress. Communications have been promised by Dr. H. Bordier of Lyons on the Treatment by Electrolysis of Strictures in General and Strictures of the Urethra in Particular; by Professor Marie of Toulouse on Stereoscopic Radioscopy and Radiography; by Professors Imbert and Bertin-Sans of Montpellier on the Recent Progress of Radiography; and by Dr. Bouchacourt of Paris on Endodiascopy, its Technique and its Results.

THE CAVENDISH LECTURE.

THE Cavendish Lecture of the West London Medico-Chirurgical Society was delivered by Professor William Osler, F.R.S., of the Johns Hopkins University, Baltimore, on June 16th, 1899, at the Town Hall, Hammersmith, before an audience numbering upwards of two hundred members and guests of the Society. Among the guests present was Dr. Halsted, the well-known American surgeon, a colleague of the lecturer. The subject of the lecture of the lecture was "Cerebro-spinal Fever," the full text of which appears in another column. Professor Osler was listened to throughout with great attention, and it was evident that his audience were highly interested in his lucid descriptive details bearing upon the disease partly, no doubt, because cerebro-spinal fever is so little known in this country. But even in America, where the disease not infrequently occurs in epidemic form, cerebro-spinal fever is not easy to diagnose when it is met with sporadically. The sporadic cases may bear a close resemblance to typhoid fever, and under such circumstances much care is requisite in order to arrive at a correct differential diagnosis. At the close of the lecture Professor Osler was ac-

corded a vote of thanks by acclamation on the motion of Dr. J. B. Ball, seconded by Dr. Symons Eccles, and in reply he admitted that whatever he had been able to accomplish in life had been achieved by hard and persevering work. Subsequently Professor Osler was formally admitted an honorary member of the Society by the President, Dr. S. D. Clippingdale. The annual *conversazione* of the Society was afterwards held, at which 250 members and guests were present. Twenty-nine of the leading firms who cater for the needs of the profession had exhibits of instruments, pharmaceutical preparations, electrical apparatus, dietary products, and books. A band discoursed pleasant music under the direction of Mr. Algernon Clarke, and two violin solos were capitally rendered by Dr. Arthur Haydon. Smoking and light refreshments were included in the programme, and a very successful meeting was brought to a close at a late hour.

AN OBJECT LESSON IN BALNEOLOGY.

WE have been asked to call attention to a scheme for enabling practitioners to familiarise themselves with the better-known watering places and health resorts in France, a scheme which has been working for some years past with great success. Every year early in September a personally conducted party of medical men meet at a given town and are thence conducted over a specified itinerary, special arrangements being made for their transport and reception for an inclusive sum, not exceeding £8. This year's itinerary starts from Montluçon on September 2nd and on the following day a visit will be paid to La Bourboule. On the succeeding days Mont Dore, St. Nectaire, Royat, Vichy, etc., will be visited, winding up on September 13th with Pougues, whence the visitors will be free to find their way home or to continue the trip. The arrangements are in the hands of an influential Medical Committee, the Organising Secretary being Dr. Carran de la Carrière, of 2, Rue Lincoln, Paris, who will receive applications up to August 15th. The lady relatives of practitioners are admitted to join the party. The trip will be under the scientific direction of Professor Landouzy, who has undertaken to give the necessary explanations. The example is one which the authorities of our own far too much neglected watering places might advantageously follow, for the neglect which is the fate of our home resorts is doubtless largely attributable to the practitioner's ignorance of the facilities which they, in common with the better-known Continental resorts, can offer for the treatment of certain classes of diseased conditions.

THE NEW PROFESSOR OF PHYSIOLOGY AT EDINBURGH.

PROFESSOR E. A. SCHÄFER was, on June 16th, elected Professor of Physiology in the University of Edinburgh, which is to be congratulated on having thus secured for this important chair an all-round physiologist of European reputation. Professor Schäfer received his medical education at University College, London, and early showed the bent of his genius by winning the coveted University scholarships in Zoology, Anatomy, and Physiology at the University of London. On the establishment of the Sharpey Scholarship he was appointed to the office which carried teaching obligations with it, and from that time he devoted himself to research and teaching in physiology, and in both capacities has won the highest distinction. He first became known as a histologist by his work on the structure of striped muscle which was published in the *Philosophical Transactions* in 1873, and this was followed a few years later by his election as a fellow of the Royal Society at the early age of 27. Later he was led to give particular attention to cerebral physiology, and he has made many important contributions to this complex department of knowledge. More recently still he has published many valuable observations on internal secretions, a subject which he chose for his masterly Address in Physiology at the annual meeting of the British Medical Association in London in 1895. He is the author of a widely used text-book on *Histology;* he is the chief editor of the new edition of *Quain's Anatomy*, and the editor of the *Advanced Text-book of Physiology* now in course of publication; to both he has made many contributions. In addition to all this he has been for twenty-five years actively engaged in teaching, for the last fifteen as Jodrell Professor of Physiology in University College, London. In speaking therefore of Professor Schäfer as an all-round physiologist we have used a colloquialism which well expresses the facts. He has had many distinguished predecessors in the Chair to which he has now been elected, but he may be trusted to shed fresh lustre on it, and on the venerable University of which he thus becomes a member. Edinburgh, however, has also its part to do, by providing for the new professor adequate accommodation for the work which lies before him. The University as yet possesses no Institute of Physiology, such as is to be found in even a minor university town in Germany. This defect should be made good without delay, and if, as is to be feared, the University has not itself funds at its disposal adequate for the erection and maintenance of an Institute worthy of the ancient renown of the University of the capital of Scotland, the occasion affords an opportunity for her wealthy sons to do for Edinburgh what wealthy Scots have done for Montreal and for Liverpool. The name of McEwan is indissolubly linked with the University by the gift of the Hall, which affords so suitable a place for all great academic functions. May some other benefactor show his love for learning and for his native country by supplying the deficiency which we have ventured to indicate!

THE DOCTOR IN THE PULPIT.

IT has been said that the medical profession is the priesthood of a scientific age. At the present day the doctor has largely taken the place of the confessor, and in one way or another he preaches as much as most parsons. But he has not yet begun to any extent to "wag his pow" in a pulpit. From the confessional to the pulpit, however, is but a step, and this step, as we learn from the *Surrey Mirror*, has recently been taken. On Sunday, June 11th, in All Saints' Church, South Merstham, after the ordinary service of evening prayer, Dr. J. E. Usher, by invitation of the rector, preached what was virtually a sermon on the "Gospel of Cleanliness." His homily was full of sensible advice as to the importance of a free use of air, light, and water. Greatly daring, he denounced the ladies who, in their jealous care of their carpets, shut out light and air from their rooms. He had also something to say in condemnation of excessive indulgence in the cup that cheers but not inebriates. If it does not "inebriate," Dr. Usher told his audience it does worse, for it is responsible for part of the increase of insanity which is overtaxing the provision available for the safe custody of lunatics. The ladies were further admonished as to the importance in regard to domestic happiness of "feeding the beast." A bad cook is a *causa teterrima belli* in the household, an old truth which has quite recently received fresh illustration in the Divorce Court. Altogether Dr. Usher's sermon in South Merstham Parish Church may be taken as an indication of the greater importance which people are coming to attach to public health. It will be interesting to see if the example set by the rector is followed in other parishes. The doctor in the pulpit will do well to stick closely to his text and, like Mark Antony, to speak only of that which he knows. But who is to guarantee that he shall preach only sound scientific doctrine? Clergymen, and still more perhaps their wives, appear to have a bent towards the unorthodox in medicine. Are we to have the pure word of science preached in one church, and antivaccination or homœopathy enforced with the aid of the 'drum ecclesiastic' in another?

Sir Henry Thompson, Bart., and Sir Felix Semon have been elected Honorary Presidents of the International Medical Congress to be held in Paris in 1900.

The annual meeting of the Irish Medical Association was held in Queen's College, Cork, on June 20th, under the presidency of Sir Thornley Stoker. The meeting was well attended, and we hope to publish a report of the proceedings in an early issue.

Mr. J. T. J. Morrison, M.A., M.B.Cantab., F.R.C.S.Eng., Senior Surgeon for Out-patients to the Queen's Hospital, Birmingham, and Senior Police Surgeon of Birmingham, has been appointed Professor of Forensic Medicine in Mason University College, in succession to Dr. R. M. Simon.

A College of Comparative Medicine is about to be established at Harvard University. A Chair of Comparative Pathology has been endowed with the fund given by Mr. George Fabian, and appropriations have been made from the bequest of the late Mr. Henry L. Pierce for a Chair of Comparative Physiology and for Laboratories. It is intended that the College shall perform the functions of the Pasteur Institute of Paris and the Jenner Institute of London.

As at present arranged the expedition of the Liverpool School of Tropical Medicine will leave for Sierra Leone early in August. The party will be headed by Major Ronald Ross, I.M.S., the Director of the School, who will probably be accompanied by Mr. H. E. Annett, the Demonstrator, and possibly by some volunteers. The first point to which it is proposed to give attention is the identification of the mosquito which acts as host to the malarial parasite in Sierra Leone. When this has been accomplished the breeding places and habits of the mosquito will be studied with a view of devising means for checking its multiplication.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The Midwives Bill, introduced by the Right Hon. J. B. Balfour, has been dropped at last. Last Wednesday week was its last chance, and as it failed to pass the second reading then, its promoters wisely decided to drop the Bill. It will be picked up again next year no doubt, but most probably in a form more generally acceptable to the profession. It is sufficient to know now that it will trouble neither its promoters nor its opponents for another year.

The Rations of Recruits formed the subject of a question last week. It appears that recruits during their three months' training at the regimental depôt do not receive the full bread ration unless they pay for it. The recruit shares with his comrades the extra messing included, but 3d. a day is stopped out of his pay. Such is the statement of the Under-Secretary. The economies of the army are truly marvellous.

The Cottage Homes Bill, which was referred to a Select Committee, is not likely to occupy the House any more this session. The Committee will not adopt the Bill or endeavour to modify it, but will present a report which will contain recommendations as to the treatment of the inmates of workhouses, and lead no doubt to important changes in administration as regards both indoor and outdoor relief.

Old Age Pensions, which have produced some seven Bills this session, are also being considered by a Select Committee. Up to the present little progress has been made except in taking some valuable evidence. The chairman is anxious to report this session and it is therefore anticipated that the evidence will be closed next week and the month of July given to the preparation of the report.

The Business of the House.—Mr. Balfour made the usual annual motion for taking all the private members' time on Tuesday. This motion is usually the occasion on which the probable course of public business is sketched. This year the Government hope to pass a number of Bills before August 12th. Among these are the Food and Drugs Bill, the Small Houses Acquisition Bill, the Colonial Loans Fund Bill, and the Board of Education Bill and Money-Lending Bill, both of which have passed the Lords. Four new Bills, one of which is the Clerical Tithes Bill, were also named, but as that measure is likely to be opposed its chances are not great, unless other measures are sacrificed to it. No mention was made of the Lunacy Bill which has come down from the Lords, it seems only to be shelved once more. The Factories and Workshops Bill also would appear to have a very doubtful chance this year.

The Youthful Offenders' Bill is a Government measure, which, on the motion of Lord James, was read a second time in the House of Lords on Tuesday. It appeared that in 1897 no fewer than 1,630 young persons were committed, and of of these 58 were children under 12. Many of these were for trivial offences, and imprisonment followed non-payment of the fines inflicted. The Bill enabled magistrates to deal summarily with such cases, and in the cases of boys whipping was substituted for imprisonment. No more than six strokes were to be given a child, and twelve to a boy under 14, and eighteen in other cases. The children could be sent to a reformatory after punishment, or in some cases placed in the care of a married constable. Lord Leigh's Bill, to which we referred last week, has passed the Standing Committee of the Lords without amendment, and so there is a good prospect that between these two measures the inhuman custom of sending young persons of tender years to associate with criminals in gaols will be stopped once for all.

The Drainage Separation Bill which has been introduced by Mr. Stephens, has two objects. The first is to enable local authorities to protect rainfall and landflow water as sources of water supply from pollution by sewage; and the second to enable authorities to preserve sewage for purification from dilution by rainfall and other water. The powers are not compulsory, but will enable a locality to go in for separation. The advantages of separation cannot now be enjoyed by the community in consequence of the rights acquired under the Public Health Act, 1875. Local authorities, if this Bill passes, will have an option between the existing combined system and the separate system of the Bill.

The London Government Bill passed its second reading in the House of Lords on Tuesday, and will be considered in Committee on Monday next. The woman question is to be raised again, and Lord Dunraven will move to omit the words inserted by Mr. Courtney enabling them to become councillors and aldermen. There will be opposition to this course, and if women are disqualified, the House of Commons will, no doubt, again come to their rescue.

The Case of Dr. Lamont has been before the House this session more than once, when Sir Charles Cameron has questioned the Lord Advocate with respect to the unjust treatment of this gentleman. On no occasion has any satisfaction been given, and consequently we may now expect the case to be discussed in Committee of Supply. Sir Charles Cameron has circulated among the members of the House a very clear and full statement of the case, from which it appears that after most distinguished service in South Uist during a grave fever epidemic, for which Dr. Lamont received the thanks of the Scottish Local Government Board, he was practically got rid of by the local authorities. Before he left the island charges were made against him in connection with irregularities in his vaccination certificates; a warrant was issued against him, but not served, and no warning given him. He was afterwards arrested in Glasgow, put in a cell for two nights, and then taken to Lochmaddy. When he was tried later on at Inverness he obtained a triumphant acquittal. There ought to be some means of getting reparation in this case, which on the face of it looks like an instance of gross injustice and grave personal injury to an honourable member of the profession. When it is raised on the Estimates it is sure to attract very general interest.

THE PEACE CONFERENCE.

THE following is the text of the scheme submitted to the Subcommittee of the Red Cross for the adaptation of the Geneva Convention to naval warfare, and presented to the Subcommittee as drawn up by M. Louis Renaut:

Article I.—Military hospital ships—that is to say, those ships which are built or fitted out by States specially and solely for the purpose of taking help to wounded, sick, and shipwrecked, and the names of which shall have been communicated before they are employed to the belligerent Powers—shall be respected, and cannot be captured during the period of hostilities. These ships shall not be assimilated to war vessels as regards their stay in a neutral port.

Article II.—Hospital ships equipped entirely or in part at the cost of private individuals or of relief societies officially recognised shall be equally respected and exempted from capture, if the belligerent Power to which they are attached has given them an official commission, and has notified their names to the hostile Power before they are employed. These ships shall be in possession of a document from the competent authority stating that they were under its control while being fitted out and at their final departure.

Article III.—The hospital ships fitted out entirely or in part at the expense of private persons or of officially-recognised societies of neutral countries shall be respected and exempted from capture, if the neutral Power to which they are attached has given them an official commission and has notified their names to the belligerent Power before they are employed.

Article IV.—The ships which are mentioned in Articles I, II, and III shall take help and assistance to the wounded, sick, or shipwrecked of the belligerents, without distinction of nationality. The Governments shall pledge themselves not to utilise these ships for any military purpose. These ships shall not impede in any manner the movements of the combatants. During and after a battle they will act at their own risk and peril. The belligerents shall possess the right of controlling and visiting the ships, and shall be able to reject their aid, order them away, oblige them to take a given direction, put a commissioner on board, and even detain them should the gravity of the circumstances require it. The belligerents shall, so far as possible, inscribe in the log of the hospital ship the orders which they shall give them.

Article V.—The military hospital ships shall be distinguished by being painted white outside with a horizontal green band about one metre and a-half broad. The other ships mentioned in Articles II and III shall be distinguished by being painted white on the outside with a red horizontal band about one metre and a-half broad. The boats of the ships just mentioned, as well as the smaller craft which may be set apart for hospital service, shall be distinguished by similar painting. All the hospital ships shall make themselves known by hoisting, together with their national flag, the white flag with the red cross prescribed by the Geneva Convention.

Article VI.—Trading vessels, yachts, or neutral boats carrying the wounded, sick, or shipwrecked men of the belligerents, may not be captured on account of this transportation but they will be liable to be captured if they commit any violations of their neutrality.

Article VII.—The religious, medical, and hospital staff of all ships captured shall be inviolable, and may not be made prisoners of war. They will carry away with them on leaving the ship all objects and instruments of surgery which are their private property. This staff shall continue to carry on their functions as long as it may be necessary, and will be allowed to retire when the commander-in chief shall deem it possible. The belligerents are bound to allow the full pay to the staff which shall fall into their hands.

Article VIII.—Sailors and soldiers on board ship who are either wounded or ill, no matter to what nation they may belong, shall be protected and tended by their captors.

Article IX.—The sick, wounded, or shipwrecked men of one belligerent Power who fall into the hands of another shall be prisoners of war. It belongs to the victor to decide, according to circumstances, whether they shall be kept, sent to a port of his country, or to a neutral port, or to a port belonging to the enemy. In this last event, the prisoners thus delivered up to their country shall not be allowed to serve during the war.

Article X.—Those sick, wounded, or shipwrecked persons who are disembarked at a neutral port with the consent of the local authority shall be guarded by the latter in such a way that they shall not be able to take part again in the operations of war. The expenses of their keep in hospital and under guard will be borne by the State to which belong the sick, wounded, and shipwrecked men.

At a final meeting on June 15th the report was after some debate adopted. On the termination of the proceedings, Sir John Fisher, the British naval delegate, congratulated the President of the Committee and his colleagues on being the first to obtain an important and genuine success in the work of the Conference.

THE PREVENTION OF TUBERCULOSIS.

NEWCASTLE.

A PUBLIC meeting was held on June 16th at Newcastle, under the auspices of the National Association for the Prevention of Consumption and other forms of Tuberculosis, the object of the meeting being to form a local branch of the Association for the Counties of Northumberland and Durham. The Mayor of Newcastle (Mr. George Harkus) presided, and amongst others present were Professor Clifford Allbutt (Cambridge), Sir J. C. Browne, Dr. Henry Newton, Dr. Coley, Dr. H. Fraser Hurst, Dr. Foggin, Dr. Adam Wilson, Dr. Harker, Dr. Lyle, Dr. W. C. Beatley, Dr. G. E. Watson, Dr. Dodd, Dr. G. H. Philipson, Dr. Thomas Hodgkin, Dr. H. E. Armstrong (Medical Officer of Health), Professor George Murray, M.D., Dr. Hembrough, Dr. Beattie, and many others.

The Mayor, in opening the meeting, said he did not expect during his year of office to preside over any gathering of greater importance than that.

Professor Clifford Allbutt addressed the audience upon the objects and aims of the Association. After reviewing the growth of medical opinion of late years in regard to the curability of tuberculosis, he spoke of the open-air treatment. Although the climate was of importance—and it was no use pretending that it was not—still in most parts of England there were places to be found where the air was pure (and that was of immense importance), and where the situation was open and sunny; and it was found that by sending people to such places they got fairly good results. They would get good results from the sanatoria to be erected in that district and elsewhere on one condition. They would find that in the various sanatoria there was a very rigorous system of selection in force. If a man had a hole in his lungs, they would not look at him at any sanatorium; they would only take cases where the disease was in its infancy. With a rigorous system of selection they would get most satisfactory results. In conclusion, Professor Allbutt dwelt on the advantages of affiliation with the central Association. He said they need not be afraid that the central society was going to aim at any drastic legislation, or that it would attempt to deprive the local branches of any of their automony.

The High Sheriff of Northumberland (Mr. Watson-Armstrong) moved:

That a local branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis be now formed for the counties of Durham and Northumberland.

They were in a favourable position in that district for the establishment of sanatoria. There was in Newcastle a medical school which took a very high place in the country; and all its distinguished members were anxious to assist the movement. Lord Armstrong was willing to accept the presidency of the Branch. Sanatoria could be established with good effect. There was the life-giving air of Coquetdale, which restored Lord Armstrong to health as a young man when he was supposed to be stricken with consumption, and had enabled him to reach his 89th year in fair bodily health and in full mental activity.

Alderman Thomas Richardson seconded the motion, which was carried.

The Vicar of Newcastle proposed:

That Lord Armstrong be appointed President of the Branch, and the following noblemen and gentlemen Vice-Presidents: The Duke of Portland, Earl Percy, Earl Grey, the Bishop of Newcastle, the Mayor of Newcastle, the Sheriff of Newcastle, Mr. W. A. Watson-Armstrong, Mr. T. H. Bainbridge, Mr. W. C. B. Beaumont, M.P., Mr. F. W. Blake, Mr. Thos. Burt, M.P., Sir Wm. Crossman, Mr. Joseph Cowen, Mr. W. D. Cruddas, M.P., Mr. R. S. Donkin, M.P., Mr. Charles Fenwick, M.P., Sir Edward Grey, Bart., M.P., Mr. John Hall, Archdeacon Hamilton, Sir Chas. Hamond, M.P., Sir James Joicey, M.P., Mr. J. C. Leyland, Sir Andrew Noble, Mr. J. A. Pease, M.P., Professor Philipson, the Right Hon. Sir Matthew White Ridley, Bart., M.P., Mr. Watson Askew-Robertson, Alderman Stephenson, Mr. Thos. Taylor, and Sir George Trevelyan, with a large and influential committee.

Sir J. C. Browne seconded the motion, which was adopted.

THE PLAGUE.

EGYPT.

[*From a Correspondent.*]

COURSE OF THE EPIDEMIC.

FROM May 4th, the date of the first known case of plague in Alexandria, to June 3rd there had been 10 cases and 2 deaths. From June 4th to 10th there have occurred 12 cases and 5 deaths. For a period of four days from June 2nd to 5th there were no cases and hopes were entertained that the disease had been stamped out. On June 5th 4 cases occurred, 1 being a hospital attendant, the remaining 3 came from quarters of the town which had not hitherto furnished cases.

The hospital attendant was employed in washing the dead.

He had washed the corpse of a septicæmic case on May 29th and developed the disease five and a-half days afterwards, a fact of interest as regards the period of incubation. The bubo was axillary.

Two of the cases on June 5th were police. The cases occurring in the same barrack room. These men had not been employed on plague duty, nor had they been in any way brought into contact with plague cases. How they employed their time off duty it is impossible to say.

Rats.

Rather late in the day, it is now stated by the police officers of the barracks that about May 20th dead rats, three in number, were found in one barrack room, and that a certain number of sick rats in a more or less dazed condition were observed. The barracks are old insanitary buildings.

It is stated that the rats which before swarmed in the barracks have now completely disappeared. Bearing on the question of rats, it is interesting to note that the statements made as to rats being observed sick or found dead, now in three different localities, have always been made when the occurrence of cases of plague has called attention to these localities. The sanitary authorities have not succeeded in obtaining one plague-infected rat, although every effort in this direction has been made.

That rats do suffer severely from plague, and so can convey infection, is undeniable, but it would be more satisfactory to have conclusive proof of the immediate part taken by them in the propagation of the disease. Had rats infected with plague been found in these barracks, the communication of the disease to some of the men of the police would have been quite possible, as the men go barefooted in the barrack rooms; but it is difficult to explain why under such circumstances only 2 men out of some 30 became infected.

Sanitary Measures.

Contrary to the statements quoted in a recent issue of the BRITISH MEDICAL JOURNAL, the population submitted to the measures adopted without the slightest complaint. Had they to be applied on a more extended scale, and to larger groups of population, it is as yet too early to say how they would be received, but if the Government only maintain a firm front all opposition will inevitably disappear.

The attitude taken up by the European section of the Anglophobe, and indeed one may say the Anglophile, press is not to be admired. At one moment it denies that the disease is plague at all, jeering at the sanitary authorities for excessive zeal, and demanding a close time for the *chasse aux bubons;* at another moment under the influence of a hysterical excitement caused by the occurrence of 4 fresh cases, it proclaims loudly that nothing is being done, and demands the burning down of infected houses, the absolute isolation of medical officers and all who have seen a plague case, the establishment of special commissions of intelligent citizens, while as a panacea for all Egyptian ills internationalism is once more brought forward, and a serious proposition made that an International Commission should be sent to Egypt to take such measures as would protect Europe from the inevitable result of incompetent Egyptian sanitary administration. Needless to say, this latter proposition comes from Paris. International administrations have not given brilliant results in Egypt, and it is doubtful whether their success would be more marked in stamping out the disease than it has been in saving the country from its introduction. The experiment is one at all events which is not likely to be given a trial.

Mortality and Prospects.

One case of the pneumonic form of the disease has occurred, while the other fatal cases were of the septicæmic form. The total number of cases is 22, with 7 deaths—about the same percentage as was observed in the European Hospital, Bombay, where a number of the earlier cases were admitted.

The situation is undoubtedly grave, as there would appear to be many different centres of infection in the town. With one or two exceptions, no connection can be traced between the individual cases, while amongst about 90 people placed under observation as living in the same room or house with the infected person, not one case has occurred.

Contrary to the rumours which have recently been circulated in a certain section of the European press, the disease is confined to Alexandria. The rest of the country is absolutely free. The statement published in the *Neue Freie Presse* and repeated in the *Indépendance Belge*, that the people were flying from Alexandria, shops being shut up and general panic reigning, is absolutely untrue. There is no exodus from the town, which remains perfectly calm, and no shops are being closed. The Bourse is flat, and that is about all.

LITERARY NOTES.

DANIEL G. BRINTON, M.D., Professor of American Archæology and Linguistics at the University of Pennsylvania, has presented to the University his entire collection of books and manuscript relating to the aboriginal languages of North and South America, representing the work of twenty-five years, and embracing about 2,000 titles.

A work by Dr. StClair Thomson, entitled *The Cerebro-Spinal Fluid: its Spontaneous Escape from the Nose*, is in the press. The book will be published by Messrs. Cassell and Co.

The *Index Medicus* resembles that unscientific but interesting person, Osman Digna, who used to be reported as dead or mortally wounded at least once a week. According to latest advices, his unquiet spirit at last really *fugit indignata sub umbras*, but we have the liveliest expectation that before long he will again "bob up serenely" as if nothing had happened. In like manner the *Index Medicus* has a gift of rising from its own ashes which might have been envied by the most talented phœnix. Last week we let the tear of sensibility fall over what was described as positively the last and final demise of that useful publication. And behold! almost before the tear is dry, we find that our mourning was at least premature. At the annual meeting of the American Medical Association, held in the early days of this leafy (and dusty) month of June, Dr. George M. Gould, of Philadelphia, proposed that the *Index Medicus* should be kept alive by the Association. He moved the following resolution:

> Whereas, the suspension of the publication of the *Index Medicus* is a deplorable event, which will result in greatly increased labour on the part of medical men in their literary work, and seriously hindering the progress of medical science, practical as well as literary.
>
> Be it therefore resolved: That the Executive Committee of the American Medical Association appoint a committee of three members of the Association to take charge of the publication of the periodical, perfect plans for the same, and engage the service of an editor and of such editorial assistance as may be required; also to choose a publisher and make contracts with him for the printing, distribution, etc., of the work all in such manner as to continue the high standards of accuracy and bibliographic usefulness so well established by the previous publishers.
>
> Resolved: That the Treasurer be instructed to pay all bills of such Committee in payment of necessary expenses of such editing and publication, providing that this outlay does not exceed annually 3,000 dollars.

The resolutions were referred to the Board of Trustees. We hope the American Medical Association may see its way to adopt Dr. Gould's proposal, for the discontinuance of the *Index Medicus*, if it cannot justly be said to eclipse the gaiety of nations, is a serious loss to medical literature.

The *Journal of the American Medical Association* has issued a "souvenir number" on the occasion of the fiftieth annual meeting of the body of which it is the organ. Besides original articles, it contains a number of reviews of progress in the principal departments of medicine; brief accounts, with portraits, of ex-Presidents of the Association; a history of the *Journal*, and much other interesting matter. The first number of the *Journal* "materialised" on July 14th, 1883. Its circulation, which was 3,800 in the year, had grown to 11,270 in 1898.

Many years ago the late Mr. Pengelly, the well-known geologist of Torquay, told the following story in *Notes and Queries:*

> I was ferried 'across the Dart on January 17th last by a man about 60 years of age, who had always lived in the same village, on the right bank of the river. He told me that in his childhood he had the "king's evil"; and his parents, having tried all the doctors in the district, but without the least advantage, were at length prevailed on to place a dead toad in a silk case and to cover that with broad tape. "This," said my informant, "I put on when I was nine, and I wore it on the pit of my stomach, round my neck, for ten years; and it made a perfect cure. I've to bless the day when I first wore that toad."

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 12th day of July next, at 2 o'clock in the afternoon.

June 15th, 1899. FRANCIS FOWKE, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL.

MEETINGS of the Council will be held on July 12th and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before the latter meeting—namely, September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

PERTHSHIRE BRANCH.—The summer meeting of this Branch will be held at Fisher's Hotel, Pitlochry, on Wednesday, June 28th, at 1 P.M. Business: read minutes; report as to arrangements for tuberculosis meeting: resignation of representative member; any other business. Lunch will be served in the hotel on the conclusion of the formal business, and the President has kindly consented to arrange for a drive afterwards. Members intending to be present will oblige by giving notice to the Honorary Secretary on or before June 24th.—A. R. URQUHART, Murray's Royal Asylum, Perth, Honorary Secretary.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held in the County Hotel, Carlisle, on Friday, June 30th, at 4 P.M. Order of business: Minutes of last meeting; report of the council; election of office bearers; to appoint places of meeting for the ensuing year. Dr. J. R. Hamilton (Hawick) will deliver his presidential address. Dr. Stevenson (Temple Sowerby) will show a case of Dermographism and read a note on the condition. Dinner at the hotel at 7 P.M.—W. F. FARQUHARSON, M.D., Garlands, Carlisle, Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Huddersfield, on Wednesday, June 28th, at 3.30 A.M. Nominations, communications, etc., should be sent as soon as possible to ADOLPH BRONNER, M.D., Bradford, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The fifty-fifth annual meeting of this Branch will be held at the Hotel Wampach, Folkestone, on Wednesday, June 28th, at 1.45 P.M. Dr. Eastes (President-elect) kindly invites members to lunch at the hotel from 12.30 to 1.45. Dinner at the hotel at 6 P.M.; charge 6s.—T. JENNER VERRALL, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at the West Kent Hospital, Maidstone, on Tuesday, June 27th, at 3 P.M., Mr. John Knowles in the chair. Agenda: Election of Honorary Secretary. Dr. Charles Hoar will read a paper on Some Uses of Oxygen in Medicine. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary, LUDFORD COOPER, St. Bartholomew's Hospital, Rochester.

BATH AND BRISTOL BRANCH.—The annual meeting of this Branch will be held on Wednesday, June 28th, in the Medical Library, University College, Bristol, at 4.30 P.M., when Dr. L. A. Weatherly will resign the chair to Dr. A. J. Harrison, President-elect, who will deliver the presidential address. The business of the meeting will be to receive the report of the Council, to elect the officers of the Branch, to transact the necessary business, and such subjects connected with the interest of the Branch and of the profession as may be brought before it. The Secretaries will be obliged if members will send them notice of any alteration in their diplomas or addresses. There are three vacancies in the Local Council for the Bath District and four for the Bristol District, the retiring members being ineligible for re-election for one year. The attention of the members is called to the mode of voting for the Local Council, whereby they will vote only for the vacancies in their own District. Members who have not paid their subscriptions are requested to do so immediately to the local Secretaries. The dinner will be held at the Clifton Down Hotel at 7 P.M. Dinner tickets, including ice and dessert, 7s. 6d. each: the wines will be served at moderate charges. N.B.—The Bristol Secretary particularly requests that members will inform him by Monday, June 26th, whether it is their intention to be present at the dinner. The Secretary cannot undertake to provide places for members at the dinner without notice beforehand.—J. MICHELL CLARKE, Clifton, Honorary Secretary of the Bristol District; W. M. BEAUMONT, Bath, Honorary Secretary of the Bath District.

EAST ANGLIAN BRANCH.—The annual general meeting of this Branch will be held at The Castle, Colchester (by the kind permission of Mr. James Round, M.P.), on Thursday, June 29th. Programme of Proceedings: 11.30 A.M. Meeting of the Council of the Branch in the Castle Library. 12 noon. Meeting of the Branch for business in the Castle Library. Agenda: To receive report of Council of Branch: to receive Treasurer's report: to receive report of result of election of officers; to consider a proposal to invite the British Medical Association to hold its annual meeting in East Anglia in 1900. 1.30 P.M. Luncheon at the "Cups" Hotel, by kind invitation of the President-elect (Dr. Fenn). 2.30 P.M. Resumed general meeting. Introduction of new President by retiring President. President's address. Dr. W. W. Sinclair (Ipswich) will show Ophthalmic Specimens. Mr. Edgar A. Hunt (Colchester) will read a paper on a case of Hydronephrosis (with specimen). Dr. Thresh (Chelmsford) will read a paper on the Desirability of Forming an Essex Branch of the National Society for the Prevention of Tuberculosis. Dr. G. M. Scott (Witham) will read a paper on the Increase and Geographical Distribution of Cancer in the Chelmsford and Maldon Unions. Mrs. Garrett Anderson, M.D. (London), will read a paper on Cases of Diabetes. Dr. W. W. Sinclair (Ipswich) will read a paper on a Fatal Case of Orbital Cellulitis. The Castle Museum, with its fine collection of Roman antiquities, will be open to the inspection of members during the meeting, and the curator has kindly promised to be in attendance. There will be an exhibition of pharmaceutical preparations, etc., by Messrs. Burroughs, Wellcome and Co. and Messrs. Parke, Davis and Co. in the corridor adjoining the Castle Library. 4.30 to 7 P.M. Garden party, by invitation of the President and Mrs. Fenn, at their residence, Grey Friars.—EDGAR G. BARNES, M.D., Eye; MICHAEL BEVERLEY, M.D., Norwich; THOMAS CARR, M.D., Braintree, Honorary Secretaries.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary on Friday, June 30th, at 2.45 P.M. The Council have arranged a joint meeting with the Reading and District Branch. Agenda: Minutes; ballot for new members; exhibition of pathological specimens and living cases. Dr. Ashby, the Medical Officer of Health for Reading and District, will open a discussion on the Prevention of Tuberculosis. Short Papers. A dinner will take place at Exeter College at 6 P.M. after the meeting.—WM. COLLIER, St. Mary's Entry, Oxford, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at the General Hospital, Kettering, on Thursday, June 29th, at 3 P.M. The President-Elect, Dr. John Allison, invites the members to luncheon at the George Hotel, at 1.45 P.M., and will be glad of the favour of a reply, sent to himself, not later than June 25th. Agenda: Report of Committee of Management; proposal of new members—David Stone, M.B. Northampton), John Tait (Sharnbrook, Beds), — Harrison (Daventry), Horace Savory (Bedford), letters and communications; election of representative to General Council and on Parliamentary Bills Committee; vacancies in the Committee of Management to be filled up (Drs. Jones, Cropley, Chillingworth, Phillips and Kennish retire in rotation, and are ineligible for re-election on this occasion); President's Address. Mr. Watson Cheyne, M.B., will give an address on Surgical Tuberculous Diseases, with lantern demonstration. Mr. W. Gifford Nash will exhibit some interesting specimens. Dr. F. B. W. Phillips will read some brief notes on "Toxic Symptoms due to Cheese." Messrs. Burroughs, Wellcome, and Co., will exhibit some of their pharmaceutical preparations.—C. J. EVANS, Northampton, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—Preliminary Notice.—The annual meeting will be held at Malvern on Thursday, June 29th. Members having papers to read or communications to make are requested to communicate with the Honorary Secretary at an early date.—GEO. W. CROWE, M.D., Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at the Swansea Hospital on Thursday, June 29th.—A. SHEEN, M.D., Cardiff, D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

STAFFORDSHIRE BRANCH.

THE third general meeting of the session was held at Wolverhampton on May 25th, Dr. MCALDOWIE, President, in the chair. Fifteen members were present.

Confirmation of Minutes.—The minutes of the last general meeting were read, approved, and signed.

New Members.—B. Henry Shaw, M.B., B.Ch., Stafford, and Fred. B. Turton, M.B., C.M., Wolverhampton, were elected members of the Branch.

Operation for Knock-knee.—Mr. G. A. PHILLIPS showed a girl, aged 17, rather under-sized, but fairly healthy, and with good family history, on whom he had performed Macewen's operation for acute knock-knee two years ago. Box splints were kept on for eleven weeks, and the patient was kept in hospital for two months afterwards. The limbs remained straight for more than fifteen months, when both femora began to bend at the site of the operation, The deformity had rapidly increased, and now both condyles had rotated inwards, and the patellæ were also directed towards each other.—Dr. MCALDOWIE looked upon the condition as due to a trophic lesion of the cord, and did not think operative interference would be of any benefit.

Excision of Urethra for Impermeable Stricture.—Dr. DEANESLY showed a man, aged 52, on whom he had performed the operation of excision of the urethra for impermeable stricture twelve months previously, with the most satisfactory results. The specimen, consisting of the segment of urethra removed at the operation, was exhibited.

Nephrolithotomy.—Dr. DEANESLY also showed calculi from 3 cases of nephrolithotomy. The first was a highly crystalline uric calculus about the size and shape of an almond. The patient, an otherwise healthy man of 32, had a typical attack of right renal colic about nine months previously, and had suffered from frequent lumbar pain and hæmaturia since then. The right kidney was brought out on to the loin with some difficulty after excision of 2 inches of the twelfth rib. The stone lay in the upper end of the ureter close to the kidney, and was removed through a half-inch longitudinal incision. On sounding the interior of the kidney through the ureteral wound, another calculus the size of a pea was found in the cortex, and removed through an incision in the convex border of the kidney. The kidney being healthy and the urine free from pus, the ureteral incision was closed with fine silk and the cortical incision with silkworm gut. The ends of the latter sutures were used to anchor the kidney to the transversalis tendon. The wound was closed and drained only with a thin strand of gauze passing down to the sutured ureter. This was removed at the end of forty-eight hours. Convalescence was uninterrupted, the wound healed by primary union, and the patient returned home on the tenth day. The second was a pear-shaped uric calculus weighing 33 grs., and quite smooth. The patient, a boy of 10 years, had lost flesh for some months, complained of pain in the right iliac region, and frequently passed bloody or chocolate-coloured urine. The bladder was sounded negatively, and the kidney was not perceptibly enlarged on either side. The diagnosis inclined to tuberculous kidney. The left kidney was first examined through a 2-inch abdominal incision immediately below the ninth rib cartilage. It was found quite normal. The wound having been closed, the right kidney was exposed through the ordinary lumbar incision, and easily drawn out on to the loin. It was dilated to about twice the normal size, and the stone lay like the last in the upper end of the ureter, close to the kidney. It was removed through a small incision, which was sutured with silk after the absence of other stones in the kidney and the patency of the ureter had been demonstrated. The kidney was returned and the wound closed. The boy made a rapid recovery, both wounds healing by primary union. The third specimen consisted of one large and eighteen small calculi from the right kidney of a man aged 35. In this case there was a large kidney swelling and much pyuria. The operation was difficult and prolonged owing to the tightness of many of the calculi. The wound was necessarily flooded with pus from the kidney. Septic symptoms set in at once, and death occurred on the third day. The operator regretted that he had not removed the kidney entire without first opening it and fouling the wound.

Specimen.—Mr. SPANTON showed a Phosphatic Calculus which he had removed from the bladder of a male patient who had previously been the subject of an injury to the pelvis. The specimen was interesting from the fact that the nucleus of the calculus was a piece of bone.

The Use of Electric Mains for Medical Purposes.—Dr. J. A. CODD read a paper on this subject. The use of town mains was advocated for certain purposes because of the greater economy and convenience. With the constant current supply for galvanisation, kataphoresis, and electrolysis, the use of Schall's shunt rheostat with a lamp safety resistance, Edelmann's galvanometer, and commutator was recommended, and the switchboard, if fitted with a lamp-holder plug, could be carried about easily to patient's houses where the current was installed. In certain cases a battery of twenty small accumulators might be more useful. For the induced current the constant supply was not of much use, but the alternating current by Woakes's transformer could be made to yield three series of currents suited for faradism, cautery and surgical lamps respectively. For cautery, a two-celled accumulator was recommended to be charged through a group of lamps in parallel. For surgical lamps the galvanisation switchboard was recommended with the galvanometer switched out, and a low resistance safety lamp inserted; or a four-celled or two-celled accumulator could be used, according to the E.M.F. of the lamp. For radiography the constant current was useful for actuating the Ruhmkoff coil through a resistance, while with the alternating current Tesla's transformer might be used. For laryngoscopic and similar work the Ediswan focus lamp of fifty or more C.P. was recommended, and a very efficient and cheap universal bracket was shown; but for a more elegant and costly device, MacDonald's rectangular bracket, with gimble and condenser, was recommended. The switchboards used by Dr. Codd were shown and explained, while the current and E.M.F. required for different purposes was also explained according to Ohm's law.

SHROPSHIRE AND MID-WALES BRANCH.

A SPECIAL general meeting of this Branch was held at the Salop Infirmary on Tuesday, June 13th, at 4 P.M. The President, Mr. T. LAW WEBB (Ironbridge), in the chair. Twenty-five members were present.

Dr. Charnley and the "British Medical Journal."—The minutes of the last general meeting having been signed, the PRESIDENT called upon Dr. Charnley to address the meeting upon the subject for which it had been summoned—namely, to discuss a communication made to the Branch on May 16th by himself respecting the refusal of the Editor of the BRITISH MEDICAL JOURNAL to publish the abstract of his paper on the Salisbury Diet.—Dr. CHARNLEY then read the correspondence which had passed between him and various officers of the Association, and gave at length an explanation of all matters connected therewith.—A discussion followed, in which Mr. JACKSON, Mr. TREDENNICK, Dr. CURETON, and Dr. JACOBSEN took part.—Mr. J. D. HARRIES, Branch Representative on the Council of the Association, gave a detailed account of the action of the Council in the matter.—Dr. LLOYD (Chirk) proposed, and Dr. CURETON seconded a resolution to the following effect, namely:

That this Branch, having carefully considered the correspondence between the Editor and Secretary of the BRITISH MEDICAL JOURNAL and Dr. Charnley respecting the non-publication of the abstract of a paper on the Salisbury Diet, read at a meeting of the Branch on May 24th, 1898, on the grounds alleged by the Editor, is of opinion that the suppression of the abstract on these grounds was unjustifiable and an undeserved slight to the Branch, and requests the Council to reconsider the matter.

The resolution, on being put to the meeting, was carried unanimously.—Dr. GARDNER proposed, Dr. RILEY seconded, and it was carried unanimously:

That the Branch Representatives on the Council of the Association be requested to bring the above resolution before the next meeting of the Council of the Association.

—The meeting then adjourned.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.

THE annual meeting of this Branch was held at Cambridge on June 5th.

Election of Officers.—The following officers were elected: *President:* D. B. Balding, F.R.C.S., J.P. *Secretary:* Dr. E. Lloyd Jones. *Representative of the Branch on the Parliamentary Bills Committee:* Dr. Balding. *Representative on the Council:* Dr. Stear. The following members were elected on the Council: Dr. Griffiths, Dr. Roper, and Dr. Lawrence Humphry.

MEDICAL MAGISTRATE.—Mr. W. H. Nethercliff, F.R.C.S.Edin., has been appointed a Justice of the Peace for the borough and city of Canterbury.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

Proposed Crematorium for the City: Public Meeting: Letter from Sir Henry Thompson: Appointment of Committee.

IT has been felt for some years that Birmingham, like other populous centres (such as Manchester, Liverpool, and Glasgow), will sooner or later have to provide increased and more efficient means for the disposal of the dead than at present exists. Owing to the rapid extension of the city, not only have the churchyards in the city ceased to provide sufficient burial space for its dead, but the cemeteries established on what were a few years ago its outskirts, are now being built in on every side.

A semi-private meeting of ladies and gentlemen interested in cremation was held some twelve months ago, when the matter was discussed. A large and influential committee was formed, and diligent inquiries have since then been made with regard to the best method of carrying out a scheme of cremation for Birmingham. A public meeting was held on Wednesday, June 14th, in the Council House, to further the movement. It was presided over by Mr. G. J. Johnson, who was some years ago Mayor of Birmingham, and was attended by a large number of ladies and gentlemen interested in the movement. Among those present were: Sir Charles Cameron, Bart., M.P., the Bishop of Coventry, Mr. J. Swinburne-Hanham (Hon. Secretary of the Cremation Society of England), Alderman the Right Hon. W. Kenrick, Alderman Cook (Chairman of the Health Committee), Mr. J. Harvey Simpson (Secretary of the Manchester Crematorium), and a large number of well-known medical men of the city and surrounding towns. Sir Henry Thompson, in a letter of apology, wrote:

> The very fact that intramural burials have long been illegal is a sufficient reply to the assertion that burial in ordinary soils and near to watercourses can be made without considerable risks to the living. Those soils so desirable for the dead are precisely those which are the healthiest and safest in every way for the living; and they rise in value every year for the increasing population who require them. Competition has already commenced between the healthy living and the unconscious dead for possession of the choicest unoccupied sites. . . . Cremation must therefore arrive. It can only be a question of time in the limited site which our islands occupy with their forty millions of inhabitants.

The Bishop of Coventry in an eloquent address moved: "That it is desirable to make provision for a crematorium in Birmingham and neighbourhood." This resolution was seconded by Sir Charles Cameron, Bart., and carried unanimously. Resolutions appointing a General Committee and an Executive Committee to carry out the scheme in the best manner were then passed.

BRISTOL.

Prevention of Consumption.—Report on Tuberculosis by the Medical Officer of Health.—The Children's Hospital.

SOME months ago a meeting of medical men was called at Dr. Fox's house to consider what steps should be taken to start a Branch of the National Society for the Prevention of Consumption. A provisional Committee was formed, and meetings were held in conjunction with certain medical men from Bath and outlying districts. It is now announced that the Lord Mayor of Bristol will hold a public meeting in the Victoria Rooms on July 6th, to inaugurate a Branch of the counties of Gloucestershire, Somersetshire, and Wiltshire, and that Sir Herbert Maxwell, President of the Royal Commission on Tuberculosis, will deliver an address.

In connection with this, Dr. Davies presented a report on tuberculosis to the Health Committee, which has now been printed and distributed. The report states that during the last ten years (1889-1898) there have been 4,876 deaths from tuberculous diseases in Bristol, 3,520 of which were due to pulmonary consumption. The mortality from all causes during this period was 43,141, so that 1 death in every 9 was due to tubercle and 1 in 12 to phthisis. Information is also given on the by-laws which might contribute to prevent tuberculous diseases, such as those on dwellings, inspection of meat, slaughterhouses, and milk supply, and notes given of what is done to follow the conclusions arrived at by the British Medical Association in January of this year. In the construction of new houses Section XXV of the Public Health Amendment Act, 1890, is in force, but as this only applies to new houses there are doubtless many in which the conditions of the Act are not fulfilled. There are only two inspectors for 126 (less 2) slaughterhouses. This matter has been reported on previously, and a public abattoir recommended, and while considerable quantities of unsound meat are from time to time detected, this is probably only a small quantity of what really exists. An air space of 600 cubic feet is allowed in cowsheds, and the local authorities have powers to inspect and control dairies inside but not outside the City. No powers exist to prevent the sale of milk of tuberculous cows or to examine it. The medical officer of health since 1891 has offered to disinfect houses in which tuberculous patients have lived, as well as the bedding, etc., therefrom, but few medical men have availed themselves of this. The recommendation that the city medical officer of health should co-operate with medical officers to county councils cannot be followed, as there is no such person in the counties of Gloucestershire or Somersetshire. The importance of the appointment of such an officer is evident from the fact that Bristol is supplied with milk from 85 farms in the former county, and from 67 in the latter.

A large number of invitations were issued for a meeting called in the interests of the Hospital for Sick Children, and about a hundred persons met at the Victoria Rooms on June 19th. The High Sheriff presided, and pointed out that the Committee were anxious to increase their subscription list and to wipe off the debt that had been accumulating for some years. It was suggested that ladies should canvass for subscriptions, and a considerable number undertook to pay visits to districts in Bristol on behalf of the institution. According to the report for 1898 the balance due to the treasurer is £2,811, more by £1,148 than it was in the previous year.

SHEFFIELD.

Voluntary Notification of Phthisis.—Schools and Diphtheria.—Female Sanitary Inspectors.—The Antivivisectionist.

THE recent meeting respecting the prevention of tuberculosis is apparently bearing some fruit. The Sanitary Committee of the Health Committee, after considering a special report on the prevalence of tuberculosis by the medical officer of health, have recommended that as a temporary measure voluntary notification by the medical men in the city should be adopted on the lines suggested by the medical officer of health, that every case so reported should be visited with a view to (*a*) giving instructions as to how to prevent the spread of the disease, and (*b*) as to taking any action in regard to the insanitary conditions (if any) of the house or workplace that may be found necessary; that powers be obtained to prevent the sale of milk from cows suffering from tuberculous udder disease, and to make t a punishable offence to sell milk containing the infecting matter of tuberculosis, unless reasonable precautions have been taken by the farmer to avoid so doing; and that a limited number of samples from ordinary milk supplies of the city be tested as to their liability to cause tuberculosis.

The Medical Officer of Health (Dr. Robertson) must be congratulated on the activity the Health Committee is at present exhibiting. In consequence of his representations that diphtheria is prevalent in the city and his having shown that the schools and other institutions form the centres for distributing infection, the Health Committee have authorised him to employ a medical man to examine children attending schools where there is evidence of infection from diphtheria.

The Health Committee have also decided to appoint female sanitary inspectors. In fact they have actually appointed two. The intention was to have only one at first, but it appears that two of the applicants were of such equal merit that the opportunity was taken to appoint them both. These ladies will have duties dealing with the inside of the house as distinguished from the men inspectors, whose duties are outside. Dirty houses, ill-feeding, and ill-treatment of children will come under notice. Experience will of course prove how inspectors of this class will work, and it is scarcely to be wondered at that some may have a little fear of friction.

A lingering, desultory, uninteresting, and moreover an almost one-sided, discussion has been taking place in one of the daily papers on the eternal vivisection question. The

stale arguments of the abolitionists mingled with abuse of the medical profession have been trotted out to do service once again. The attempt to draw any well-known member of the profession has signally failed, and the disappointment has found expression in the irritation displayed thereat by some of the writers of letters. Their ire was somewhat roused by a singularly neat and pithy note appearing under the signature of "M.R.C.S.," who most disrespectfully described the antivivisectionists as "petticoated men and trousered women." A lady under her own name has, however, administered a severe rebuke to those desirous "of controlling the practices of medical men." "They have not read or have forgotten the teachings of our greatest philosophers, who say that the many think wrongly and the few think rightly. The 'people' only see what is just before their eyes. They have not patience to look ahead."

ABERDEEN.

The Volunteer Medical Staff Corps.—The Prevention of Tuberculous Disease.—Desecration of Graves.

THE Aberdeen Company of the Volunteer Medical Staff Corps encamped this year at Aboyne, and the four days spent there were of the most pleasant description. The weather was magnificent, and the camping ground, in a wooded hollow with Aboyne Castle in the background, could not have been better chosen for convenience or picturesqueness. Some 92 men of the corps arrived at the ground on the evening of June 1st, and in an hour and a half after their arrival everything was in order. On June 3rd Colonel Rooney, R.A.M.C., held an inspection. After the various drills many of the men were individually questioned on their work and examined in bandaging. The results on the whole proved very satisfactory. There was a considerable number of visitors to the camp, and besides music and games, which followed the inspection, the most interesting incident was the presentation of a silver salver as a wedding gift to the popular Quartermaster De Lessert, who for more than fourteen years had taken the greatest interest in the corps. The camp broke up on June 5th, and the Volunteers returned to Aberdeen with the most agreeable impressions of the outing.

On June 7th the Public Health Committee of the Aberdeen Town Council met representatives from the parish council, the local Branch of the British Medical Association, and from the more important medical charitable institutions, for the purpose of conferring as to what steps should be taken for the prevention and cure of tuberculous disease. An important and comprehensive publication on the subject had been presented by the medical officer of health, Dr. Matthew Hay, to the Public Health Committee in April, with suggested recommendations to the Town Council of measures to be taken for the control of the disease. The opinion was expressed that a sanatorium was necessary, and it was considered that steps should be at once taken in view of securing the inclusion of tuberculosis among other infectious diseases.

The sensation in Aberdeen caused by the discovery that graves in the Wellfield Cemetery have been tampered with, and many bodies removed from them, has been one of horrified surprise; and the disgusting measures by which it is alleged attempts have been made in some cases to conceal these acts of violation appear almost incredible. Investigations are being carefully carried out by the Fiscal, with the assistance of the medical officer of health, and it is to be hoped that before long those really responsible for these practices may be identified and dealt with.

HONG KONG.

Bubonic Plague: Small-pox.

THE number of cases of bubonic plague has gradually increased, but though the figures are higher the epidemic is practically still confined to one area—West Point. The system of house-to-house visitation is being again put in force and every suspicious case is taken to Tung Wa for observation; if plague develops the case is passed on to Kennedy Town Hospital (fever hospital). The following table shows the number of cases for two weeks and the figures for five days, May 6th to May 11th:

	Week ending May 29th.		Week ending May 6th.		Cases May 6th to 11th.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Bubonic plague ...	28	34	64	52	57	48
Small-pox	2	1	3	3	—	—

CORRESPONDENCE.

THE CENSUS OF 1901.

SIR,—I have the pleasure under the direction of the Council of the Royal Statistical Society to send you, for publication, copies of a letter, and of an enclosure thereto, addressed by the Society to the President of the Local Government Board, to the Secretary for Scotland, and to the Chief Secretary to the Lord Lieutenant of Ireland on the subject of the above.—I am, etc.,

BENEDICT W. GINSBURG,
Assistant Secretary.

Royal Statistical Society, 9, Adelphi Terrace, Strand, London, W.C., May 27th, 1899.

(Copy of Letter.)

SIR,—In view of the near approach of the date for the Census of the United Kingdom in 1901, the Council of the Royal Statistical Society desire to direct your attention to the accompanying copy of the report of a Committee appointed to consider the subject of an Imperial Census in 1891, which was brought under the notice of the Government in 1889.[1]

The experience of another ten years has further impressed the Royal Statistical Society with the increasing importance, value, and even necessity of trustworthy population statistics for a variety of political, social, and commercial purposes.

It is universally admitted that a decennial Census no longer furnishes an adequate basis for the necessary estimates of population in intercensal years. The intermediate London Census in 1896, enacted by the London (Equalisation of Rates) Act, 1894, has demonstrated the advantages that would result from an intermediate Census for the whole country.

The very numerous changes of local areas consequent upon the administration of the Local Government Act, 1894, Local Government (Scotland) Act, 1894, and Local Government (Ireland) Act, 1898, render it more than ever desirable that the Statutes authorising the Census in 1901 should be passed at an earlier date than has been the case on the occasion of recent Censuses.

The Royal Statistical Society therefore request that you will support and bring to the notice of the Government their renewed and urgent appeal—

(1) That the next Census Acts may be passed, if not this session, at any rate, in the early days of next session, in order that sufficient time may be allowed for fully considered and thoroughly efficient preparatory arrangements.

(2) That the Acts may make provision, not only for the decennial Census in 1901, but also for an enumeration of the population, at least by sex and age, in 1906.

(Signed)

LEONARD COURTNEY,
President of the Royal Statistical Society.
R. GIFFEN,
Chairman of the Census (1901) Committee.

May 24th, 1899.

COUNTY OF DURHAM MEDICAL UNION.

SIR,—We are still in the midst of our struggle for increased remuneration, and although we have obtained a certain measure of success yet there is much more to be done.

We are grateful to the British Medical Association for their kind help hitherto, and we look with hope for more assistance in the future. Several points affecting professional etiquette require the immediate notice of the General Medical Council, but we feel that it is utterly futile expecting any redress from that quarter.

We have now a membership of at least two hundred, and twelve local committees have been formed in different parts of the county, each with its chairman and secretary; some of the committees meet every fortnight or month, and discuss the process of getting more remuneration for their services.

A pleasant side to all our work is the bringing medical men into closer touch with each other, and we feel sure that by cementing the Union and getting it established on a firm

[1] The main arguments of this report are embodied in the article published at p. 1543.

basis we shall improve the status and dignity of the profession generally.

As viewed at present the profession is in a deplorably weak state: there are hosts of grievances without any means of rectifying them.

We are told that if we, in our struggle, very soon obtain some splendid result, then other counties will think of forming unions. I would earnestly plead with the medical men of other counties, and especially those adjoining this county, to commence the formation of a union as soon as possible, not only for their own sakes but also as a help to this Union; as it is, the fact of our isolated action is a drag in itself against more substantial progress. A confederation of such unions in each county would rapidly sweep away many of the anomalies which now exist.

Our annual meeting will be held on the 27th of this month in the city of Durham at 2.15 P.M., and during the afternoon a social gathering in the Town Hall will take place—called an "At Home"—given by the Local Committee.

I am sure we shall cordially welcome the presence of medical men from other counties at the meeting, and by communicating with me their visit shall be made a comfortable one.—I am, etc.,

EDWARD JEPSON, M.D.
President of the County of Durham Medical Union.

Durham, June 17th.

THE BOLINGBROKE HOSPITAL.

SIR,—In your number of June 3rd you refer to an appeal which is being issued on behalf of the Bolingbroke Hospital for the purpose of enlarging its accident wards, and building a new out-patient department. With your criticism on the proposal no one can demur, but I think, in all fairness to the institution, an explanation of the great care taken to avoid in any way running counter to the interests of the local practitioners, while at the same time supplying a great want in the district, will not be out of place.

Any one who takes the trouble to look over the yearly report will at once see the necessity for such an institution, the only one of its kind in the district. The number of accidents admitted each year increases. There are a class of cases which both for patient and doctor are better in hospital; they are usually drawn from those who cannot afford to pay for the necessary nursing and attendance.

The proposed increase in the out-patient department is for the purpose of supplying necessary and adequate accommodation for carrying on the work as it exists, and cannot interfere with the interests of the local practitioner, because all cases attending this department have to bring a recommendation from a member of the profession; if accidents they are first seen to and then have to obtain the same before being subsequently looked after. The only medical cases seen are those sent up for an opinion; they are sent back to their own doctor for treatment.

In this way the intererests of the profession are looked after in a manner far above the usages of most hospitals, who in this respect would do well to copy "the Bolingbroke."

For myself, a local practitioner, I wish the hospital every success in raising the funds.—Yours, etc.

Northcote Road, S.W. C. J. MARTIN, M.B.Dub.

MEDICAL AID ASSOCIATIONS AND THE GENERAL MEDICAL COUNCIL.

SIR,—After reading the report of the proceedings of the General Medical Council in reference to medical aid societies, the question arises as to the meaning of "touting." In actual experience we shall find that few "clubs" or benefit societies of any kind could exist without "touting." But the Council passes by these, and pounces down upon so-called medical aid societies.

It seems to me that clubs and medical aid societies are merely the outcome of other abuses in the profession, which tend to impoverish general practitioners, such as hospital abuse, unrestrained quacks and quackery, the prescribing chemist, the men who write pamphlets extolling their skill, etc. Until these abuses are suppressed, men in poor districts will be driven to devise schemes to make two ends meet, however unsavoury these schemes may be to the opulent seer of the West End, who has never felt the sting of poverty. Facts are stubborn things, and they cannot be all included in one sweeping resolution.

As regards medical aid societies, some are pernicious, some are not. The kind which is run by a lay company which pockets the bulk of the funds, and keeps a "medical officer" on sweating wages to undersell his professional brethren is, without doubt, infamous; but there are others which I believe to be no worse than ordinary benefit clubs, which are not tabooed by the profession. In some respects they are preferable. Now, Sir, do any of these benefit societies or clubs exist without "touting" for members? Ordinary clubs employ only one doctor, and there are some medical aid societies which are not so exclusive. The payment is the same, and any doctor in the district, if he likes to do so, may attend its members.

All medical men have to do something for the poor, quite regardless of the remuneration, and it is better that that work should be done under some kind of organisation than without any whatever. We cannot all be on hospitals, dispensaries, or even clubs. Medical men also know that indirect remuneration comes from attending the sick poor, for he who is kind and considerate cannot fail to make a good name, and thus make a stepping-stone to better patients. If this were not so, why is there so much competition for honorary medical posts? It is just this consideration which cannot always be laid aside. Suppose, for instance, a medical man settles down in a country place, and he is offered work there by a medical aid society—a society so well established that it practically monopolises the poor of the district; the new man also finds that other medical men in the district are not above being connected with it. It remains with him either to accept the offer and take his share of work or throw it into his opponents' hands. He also finds that the society is well organised, there is no evidence of touting, and that the work of the society is conducted as respectably as that of any other benefit club. Here, then, is his field of work so far as the poor are concerned, and he performs his duty with the same aim and object as does the man who attends any charitable institution, namely, to obtain work and make himself known. Such a society as this compares favourably with the church club which is touted for from house to house by the district visitors for the benefit of its two or three medical attendants; both are worked by a lay committee, and in such the payments are the same. It will also compare favourably with some dispensaries which are worked on the same lines, for there is the same tendency to create monopolies where none ought to exist. I am no upholder of medical aid societies, but still I feel that before the General Medical Council passes any sweeping resolutions on this subject, the rules of the different societies should be criticised on their several merits. Medical men require a fair field and no favour and I am sure will do everything in their power to aid the General Medical Council in suppressing "infamous conduct."—I am, etc.

June 19th. JUSTITIA.

SHOULD DOCTORS BE ALLOWED TO DISPENSE?

SIR,—This is not a query of my own, neither is it a conundrum, but an idea which occurs in a letter of a Barnsley chemist to Her Majesty's Privy Council (BRITISH MEDICAL JOURNAL, June 3rd, 1899, p. 1368). The question arises in said chemist's mind from the unfortunate fact of a doctor's dispenser having inadvertently put up a lethal dose of morphine. There are likewise some erroneous statements in this letter to the Privy Council. For example:

"1. I would respectfully submit to your lordships' notice that the public run a serious risk by the careless dispensing that is done in *thousands* (the italics are my own) of doctor's surgeries throughout England.

"2. The fact that even doctors themselves have a very vague knowledge of dispensing, etc.

"3. Whether your lordships will think, after consideration, that the *doctor himself should not be allowed to do his own dispensing*."

And then follows this false indictment against the medical profession—"being so easily able to cover up any mistake by death certificate."

This, Sir, is "carrying war into the enemy's camp" with a vengeance indeed against the profession in general, and the

Barnsley doctors in particular. As a straw soon shows which way the wind is blowing, so often does one sentence in a letter show the cause and explain the animus of that letter: "In this town (Barnsley), out of twenty-five doctors all but one have their medicine dispensed at their own surgeries," and, he cruelly adds, "I think that not one single qualified dispenser is engaged by these *men*" (the italics are once again my own).

Now, I am not going to defend dispensing by unqualified persons, neither am I going to take up the cudgels for my brother-practitioners at Barnsley (they are, doubtless, well able to defend themselves), but I cannot keep silence when it is gravely suggested to Her Majesty's Privy Council that, because various irregularities may occasionally occur in doctors' surgeries, therefore the whole body of practitioners should be debarred dispensing their own prescriptions. Moreover, it would be impossible to pass a workable law to this effect, as urgent cases frequently arise where remedies must be dispensed by the doctor himself, *cito, tuto, et* (I hope) *jucunde*.

Is this dispensing by doctors to be stopped by law, and are our patients to suffer till the nearest chemist can be found, who possibly may be miles away? Our professional reputation—not to say our common humanity—would bid us defy such a law, which would be "more honoured in the breach than in the observance."—I am, etc.,

W. L'HEUREUX BLENKARNE, L.S.A., M.R.C.S.,
Formerly Surgeon to the Leicester and Leicestershire Provident Dispensary.

Worthing, June 10th, 1899.

SIR,—For the last five years I have practised here and have not dispensed. I have clubs, and my method is as follows. The chemist who does my dispensing supplies me with prescription papers to fold in the form of a letter, with his name printed on the back. On one of these forms I write my prescription, either in the case of private or club patient. Private patients pay for their own medicine in the ordinary way, but the chemist agrees with me not to repeat their medicines without an order from me. He also keeps a separate book in which all my prescriptions are entered. Club medicines are charged to me, and are supplied by the chemist at a reduced rate agreed on between us.

I find the system works well, and is suitable for town practice, where there is a reliable chemist. I have no reason to believe that my prescriptions are made use of, but I know there is a good deal of promiscuous prescribing done by the chemists. This matter should be taken in hand. It is not only unfair to us, but also a source of danger to the public.—I am, etc.,

Runcorn, May 24th. GEORGE H. ORMSBY, M.R.C.P.I., etc.

DIRECT REPRESENTATION.

SIR,—If doubt existed in the mind of the general practitioner as to the inadequacy of his representation upon the General Medical Council, it surely would be dispelled if he but scanned the remarks of Sir W. Gairdner, Sir C. Nixon, Sir R. Thorne, Dr. Little, and Mr. Carter, who one and all by their action prove that the universities and corporations which they represent take the primary place in their affections, and that the rank and file of the profession are of small moment, albeit the money with which the Council was formed and sustained came not from the coffers of the universities nor the corporations, but was mainly squeezed from the pocket of the general practitioner, who has been taxed to support a Council as valueless to him as the old Parliament of our forefathers. But a radical change is approaching, and instead of one or two additional representatives the whole Council must be made truly representative, or they will suffer the fate of the old packed Parliaments of the past, and be succeeded by some modern system which will jealously guard the interests of the profession at large, and be less wedded to universities and corporations, these collective masses having already more than their share of Parliamentary representation. That the resolution on increased direct representation should be shelved no doubt was a foregone conclusion, But all honour to the seven who supported Mr. Brown's motion. Their names will not be forgotten, and although their number is small, the hour is coming when the genera practitioner will rise up, and as the cloud the size of a man's hand was the first sign of the deluge, so will these few presage the numbers who will follow. The general practitioner must make a supreme effort in his own interests. It is his bounden duty to speedily agitate amongst his brethren at large, and when thoroughly combined place their many grievances before Parliament and secure its mighty aid to extinguish the present qualifying bodies who are nothing but obsolete competitors for the £ s. d. of the poor student, and who care little for him when his siller is extracted. In their place let there be substituted one Government examination, without which no one can be placed upon the *Register*. Let the licensee pay a regular yearly fee for a protection similar to what lawyers have, and the necessity of Defence Unions and other similar bodies will disappear.—I am, etc.,

June 13th, 1899. SENEX.

"ADENO-CARCINOMA" OF THE BREAST.

SIR,—Mr. Harold Stiles in his paper in the BRITISH MEDICAL JOURNAL of June 17th refers to Professor Halsted's recent description of "adeno-carcinoma" of the breast. When Professor Halsted sent me a reprint of his paper some months ago I at once recognised in the beautiful drawings the ringlike masses of epithelial cells which I had myself described seven years ago. In a paper read before the Pathological Section of the British Medical Association at Nottingham in 1892, and published in the JOURNAL for 1892, vol. ii, p. 676, will be found my description of this cancerous tissue, which so closely mimics gland tissue, together with a drawing and microphotograph of it. I found these carcinoma rings in 2 out of 20 cancers of the breast which I examined, but as at that time I was a pathologist rather than a surgeon, I was not able to say anything as to the clinical features of tumours containing such "adenomatous tissue;" but I observe on reading my paper that I found such rings in a recurrent growth, and my statement that I had not been able to find them reproduced in the affected glands shows that the glands were cancerous. I did not propose to call cancers containing such gland-like tissue "adeno-carcinoma" as Professor Halsted has done, because I did not wish to confuse this tissue with a mixture of cancer alveoli and adenoma of the ordinary adenomatous epithelial type, in which the epithelial cells are quite different from those of the carcinoma ring-like masses.

In the same paper I called attention to the frequent presence of lumina amongst the cancer cells in the alveoli in typical scirrhus growths. This condition is of course quite distinct from the large ring-like masses of cancerous epithelium.—I am, etc.,

Bristol, June 20th. CHARLES A. MORTON.

UNIVERSITIES AND COLLEGES.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on June 8th, the President, Sir William Mac Cormac, Bart., K.C., V.O., in the chair.

Diploma of Fellow.—On the recommendation of the Court of Examiners, the Council amended Clause 4, Section 1, of the Regulations for the Diploma of Fellow, to the effect that the first winter session, if spent at a recognised science institution, may be counted in place of one of the three winter sessions at a recognised medical school required for the first examination for the Fellowship of the College.

Memorial from Members of the College.—A draft memorial was received from some of the members endorsing the proposal that power should be obtained to confer the Fellowship of the College upon persons who are not Members, and at the same time asking the Council to include in the proposed supplementary charter some scheme for the representation of Members of the College upon the Council. The Secretary was directed to write in reply that the Council considered it inopportune to introduce more than the first matter in the application.

Honorary Fellowship.—The draft petition and draft charter relating to this were presented to and approved by the Council, with the exception that Members of the College are to be

eligible for the honorary Fellowship, and that the number of Honorary Fellows is never to exceed fifty. It was resolved that a meeting of Fellows and Members should be summoned for Wednesday, July 5th, 1899, at 3 P.M., to consider the draft petition and charter, and that copies of these documents should be supplied to Fellows and Members applying for them.

Examinerships.—Mr. Henry Morris was elected a member of the Court of Examiners. The following examiners were appointed:

Elementary Biology under the Examining Board in England.—Peyton T. B. Beale, Frederick Gymer Parsons, Thomas William Shore, Thomas George Stevens. *Anatomy and Physiology under the Examining Board in England.*—*Anatomy:* Stanley Boyd, William Bruce Clarke, Arthur Robinson, and Arthur Thomson. *Physiology:* John Rose Bradford, George Alfred Buckmaster, and Leonard Erskine Hill. *Anatomy and Physiology for the Fellowship of the College.*—*Anatomy:* James Ernest Lane, Berkeley G. A. Moynihan, Frederick Gymer Parsons, and Alfred Harry Young. *Physiology:* Thomas Grigor Brodie, D'Arcy Power, Ernest Henry Starling, and William Henry Thompson. *Midwifery:* William Radford Dakin, Walter S. H. Griffith, Arthur H. N. Lewers, and Herbert Ritchie Spencer. *Public Health.*—Part I: Arthur Pearson Luff. Part II: Sydney Arthur Monckton Copeman.

UNIVERSITY OF OXFORD.

A NUMBER of the foreign guests who had been present at the Stokes's Jubilee Celebration at Cambridge and at the Centenary of the Royal Institution, were invited to Oxford on June 8th, when the honorary degree of D.C.L. was conferred on some of them. Among these was Dr. Oscar Liebreich, Professor of Therapeutics and Pharmacology in the University of Berlin. In presenting him, the Regius Professor of Civil Law, Dr. H. Goudy, said: Salutamus deinceps virum e finibus Germaniæ insignem. Ille secreta cerebri feliciter rimatus ad ipsa materiæ atoma penetrando phosphorum capitalem Phosphorus et Lucifer ipse clarissimus nobis primo patefecit. Idem acerbissimos animi corporisque dolores impune extinxit

Spargens chlora venena soporiferumque papaver.
Immo somnum insomnibus attulit, mollem, mortique simillimum.

(We next greet a distinguished man from the confines of Germany. He successfully exploring the secrets of the brain by penetrating to the very indivisible elements of matter first revealed to us the phosphorus of the head, himself a most illustrious Phosphor-Lucifer. He also abolished the most bitter pains of mind and body safely, sprinkling pale poisons [chloral] and drowsy poppy. To the sleepless he brought sleep, gentle and like unto death.)

UNIVERSITY OF CAMBRIDGE.

SECOND EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.—The following candidates have satisfied the Examiners:—

Part I. Pharmaceutical Chemistry.—C. Akerman, Cai.; C. B. M. Aldridge, Christ's; C. A. Anderson, B.A., Trin; H. J. Beddow, Christ's; H. J. D. Birkett, Trin.; G. T. Birks, King's; W. F. Buckle, B.A., Cai.; G. V. Bull, B.A., Cai.; S. H. Clarke, Cai.; D. H. W. Cotes-Preedy, Emm.; G. Cowan, King's; W. L. Cripps, Trin.; A. H. Crossley, Cla.; S. Dixon, Trin.; A. B. Dunne, B.A., Queens'; G. G. Ellett, B.A., Cath.; H. Falk, King's; H. N. Fink, B.A., Trin. H.; A. D. Fox, B.A., Emm.; D. H. Fraser, Cai.; H. E. Graham, Jes.; J. E. Hailstone, B.A., H. Selw.; J. M. Hamill, Trin.; L. Harke, B.A., Pemb.; A. F. Heald, Non-Coll.; F. A. Hepworth, Joh.; E. Higson, Magd.; H. F. Horne, King's; A. B. Howitt, Cla.; W. E. Hume, Pemb.; F. A. G. Jeans, Joh.; P. W. Leathart, B.A., Cla.; R. O. Lee, B.A., Emm.; R. Luker, Pemb.; C. G. Martin, B.A., Down.; C. D. Mathias, B.A., Trin.; R. C. Mott, Trin.; W. H. Newton, Emm.; L. Orton, B.A., Joh.; H. B. Owen, Cai.; B. H. Pain, Emm.; N. C. Patrick, B.A., Christ's; O. V. Payne, Joh.; J. E. Pellow, Joh.; D. Pennington, B.A., Cai.; R. N. Poignand, Cai.; J. C. A. Rigby, B.A., Cai.; C. T. Y. Robson, M.A., Joh.; J. Sharples, B.A., Cai.; L. Shingleton-Smith, Joh.; H. Statham, B.A., Christ's; B. L. Thurlow, Cai.; F. C. Trapnell, King's; A. W. Wakefield, B.A., Trin.; L. G. A. West, Joh.; R. G. Wills, Joh.; A. B. Wilson, Pemb.; C. J. Wilson, Christ's; H. W. Wiltshire, Cla.

Part II. Human Anatomy and Physiology.—J. F. Alexander, B.A., Trin.; H. W. Atkinson, B.A., Cai.; R. L. Bell, B.A. Pet.; H. C. Brown, B.A., Emm.; F. Bryan, B.A., King's; W. F. Buckle, B.A., Cai.; F. R. Carroll, B.A., Trin.; S. Child, B.A., Pemb.; H. H. Clarke, B.A., Trin.; L. Courtald, B.A., Trin.; H. A. Cutler, B.A., Cla.; R. S. Drew, B.A., Pemb.; W. H. Fisher, B.A., Emm.; E. H. Harrisson, Cla.; J. P. Hedley, B.A., King's; F. L. Henderson, B.A., Cai.; T. G. M. Hine, B.A., King's; H. C. Hocken, Cla.; H. T. Hodgkin, B.A., King's; W. W. Jeudwine, B.A., H. Selw.; P. A. Lloyd-Jones, B.A., Joh.; W. T. D. Mart, B.A., Joh.; T. M. Neatby, M.A., Joh.; L. Noon, Trin.; H. E. Norton, B.A., Trin.; R. G. Nothwanger, B.A., Joh.; C. de C. Pellier, M.A., Cla.; R. M. Ranking, B.A., Pemb.; R. Rees, B.A., Down; J. C. Rix, B.A., Trin; R. Rolfe, Cla.; C. Roper, B.A., Cai.; E. S. Scott, B.A., Pemb.; F. E. Shipway, B.A., Christ's; H. F. Skrimshire, B.A., Jes.; J. E. B. Snell, B.A., Cai.; R. Spearman, B.A., Cai.; W. H. E. Stewart, B.A., Cai.; E. Weatherhead, Joh.; G. A. Weir, B.A., Trin.; H. C. Williams, B.A., Pemb.; G. R. Wilson, B.A., Trin.; H. M. Wilson, B.A., Trin. H.; H. P. Wiltshire, B.A., Joh.; C. R. Worthington, Cai.; G. A. Wright, Christ's.

FIRST EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.—The following candidates have satisfied the Examiners:

Part I. Chemistry and Physics.—E. D. Anderson, Pemb.; H. B. Atkinson, Trin.; A. L. Baly, Emm.; J. B. Banister, Jes.; J. R. Beale, Cla.; J. W. B. Bean, H. Selw.; A. S. Burgess, Cai.; H. C. Cameron, Joh.; M. A. Cassidy, Cla.; J. W. Chell, Joh.; R. P. Cockin, Cai.; W. I. Cumberlidge, Christ's; G. E. Davidson, Cai.; G. B. Davis, B.A., Corp. Chr.; T. Drysdale, Jes.; L. Dukes, Trin.; T. W. N. Dunn, Cai.; W. G. P. Ellis, M.A., Cath.; T. I. Faulder, B.A., Cla.; C. F. Fothergill, Emm.; E. Garnsey, Cai.; T. R. Glynn, Cla.; J. R. C. Greenlees, Joh.; C. R. F. Hall, Trin.; E. C. Hardwicke, Corp. Chr.; W. Hastings, Christ's; D. Humphrey, Sid. Suss.; F. A. Juler, Trin.; J. C. Lawton-Roberts, Cla.; E. Lloyd, Emm.; G. H. K. Macalister, Joh.; J. T. Macnab, Christ's; M. McPherson, Cla.; H. F. Marris, Cai.; S. H. Nixon, Emm.; S. A. Owen, Trin.; C. E. Palmer, Cai.; C. W. Ponder, Emm.; R. Puttock, Emm.; W. H. Rayner, Trin.; W. H. Robinson, Down.; F. Shingleton-Smith, King's; C. M. Stevenson, Joh.; B. H. Stewart, B.A., Jes.; H. C. Turner, Emm.; W. E. Weber, H. Selw.; A. Wilkin, King's; E. K. Williams, Cai.; R. G. Williams, Cai.; J. K. Willis, Queens'; C. D. Wilson, M.A., Corp. Chr.; W. H. Woodburn, Christ's; F. Worthington, Joh.

Part II. Elementary Biology.—G. D. Alexander, Cai.; E. D. Anderson, Pemb.; H. M. Aviss, Down.; J. G. Back, Trin. H.; A. S. B. Bankart, Trin.; S. Barradell-Smith, Joh.; J. R. Beale, Cla.; J. W. B. Bean, H. Selw.; P. Black, Cai.; A. S. Burgess, Cai.; H. C. Cameron, Joh.; M. A. Cassidy, Cla.; D. A. Chamberlain, Cai.; J. W. Chell, Joh.; R. P. Cockin, Cai.; S. B. Couper, B.A., Cla.; G. L. Cox, Christ's; H. P. Crampton, Cla.; W. I. Cumberlidge, Christ's; N. R. Cunningham, Cai.; H. M. Davies, Trin.; L. G. Davies, Trin.; H. S. Dickson, Christ's; T. Drysdale, Jes.; L. Dukes, Trin.; T. W. N. Dunn, Cai.; W. G. P. Ellis, M.A., Cath.; R. G. Elwell, B.A., Trin.; H. J. A. Evans, Cla.; A. H. Fardon, Christ's; T. I. Faulder, B.A., Cla.; A. T. Field, Emm.; C. F. Fothergill, Emm.; E. Garnsey, Cai.; T. R. Glynn, Cla.; S. Gooding, Joh.; V. W. Hardie, Trin. H.; E. C. Hardwicke, Corp. Chr.; W. Hastings, Christ's; G. Holroyd, Christ's; E. C. Hughes, Cla.; D. Humphrey, Sid. Suss.; C. H. T. Hott, Cai.; R. W. Ironside, Pemb.; C. L. Isaac, Joh.; C. King, Trin.; J. Lambert, Down.; J. C. Lawton-Roberts, Cla.; C. S. Lee, Cai.; E. Lloyd, Emm.; M. J. Logan, Down.; K. Lucas, Trin.; G. H. K. Macalister, Joh.; S. M. Mackenzie, Trin.; J. T. Macnab, Christ's; C. M. Macnaghten, Trin.; M. McPherson, Cla.; E. H. Mayhew, Emm.; S. H. Nixon, Emm.; S. A. Owen, Trin.; C. E. Palmer, Cai.; P. R. Parkinson, Cai.; M. Phillips, Cai.; C. W. Ponder, Emm.; J. M. Postlethwaite, Emm.; H. T. Rich, Pemb.; R. F. Robinson, Trin.; H. Schwann, King's; F. F. Shout, Cai.; K. S. Singh, Pemb.; P. S. Stephens, Trin.; C. M. Stevenson, Joh.; L. St. G. Stubbs, Christ's, H. C. Turner, Emm.; J. D. C. White, M.A., Trin.; J. K. Willis, Queens'; F. Worthington, Joh.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary examinations, and conformed to the by-laws and regulations, have been admitted Fellows of the College:

F. W. Robinson, M.D., C.M.Aberd., F. M. Ogilvie, M.B., B.C.Cantab., L.R.C.P.Lond., A. Gaskell, Surg.R.N., L.R.C.P.Lond., W. C. Wood, M.D., Lond., L.R.C.P.Lond., F. N. Cookson, M.D.Lond., L.R.C.P. Lond., H. J. Scharlieb, M.D., B.S.Lond., L.R.C.P.Lond., S. Copley, L.R.C.P.Lond., Felix B. Carter, M.D.Lond., L.R.C.P.Lond., F. Riley, M.B., B.S.Lond., L.R.C.P.Lond., A. W. Sanders, M.D.Lond., L.R.C.P.Lond., A. R. J. Douglas, M.B., B.S.Lond., L.R.C.P.Lond., A. M. Crabtree, L.R.C.P.Lond., J. T. Hewetson, M.B., C.M.Edin., L.R.C.P.Lond., A. B. Tucker, M.B.Lond., L.R.C.P.Lond., S. H. Berry, M.B.Lond., L.R.C.P.Lond., E. J. Fox., B.Sc.Lond, L.R.C.P.Lond., W. J. Harding, M.B.Lond., L.R.C.P.Lond., G. T. Watson, M.B. and B.C.Camb., L.R.C.P.Lond., J. J. Evans, M.B., C.M.Edin., L.R.C.P. Lond., H. S. Newland, M.B., Ch.B.Adel., L.R.C.P.Lond., M. V. Dee, M.B., C.M., L.R.C.P.Lond., J. Battersby, L.R.C.P.Lond., P. L. Daniel, L.R.C.P.Lond., H. T. H. Williams, M.D.Lond. (Canada), L.R.C.P.Lond., and W. B. Stokes, M.D.Dubl., M.R.C.P.Lond.

Two other gentlemen passed the examination, but not having attained the legal age will receive their diplomas at future meetings of the Council. Twenty-two gentlemen were referred for six months and one for one year.

HOSPITAL AND DISPENSARY MANAGEMENT.

GLOUCESTER GENERAL INFIRMARY.

AT the last meeting of the Gloucester General Infirmary Dr. Batten, the senior physician, tendered his resignation. The chairman stated that the resignation was received with the greatest regret, as Dr. Batten had not only for many years given his medical services to the institution, but also as senior of the staff had taken an active part in the administration of the hospital. He moved the following resolution, which, having been warmly supported by other members of the committee, was adopted unanimously:

"That in accepting Dr. Batten's resignation the committee desire to place on record their deep appreciation of the valuable services rendered by him to this institution for thirty-three years, and also their intention to recommend the governors to ask him to accept the post of Consulting Physician of the infirmary at the earliest opportunity."

THE CITY OF LONDON ASYLUM.

DURING the year 1898 there were 621 patients under treatment in this Asylum, and the average number daily resident was 480, showing a decrease of 7 upon the previous year. There were 149 patients admitted and 103 discharged; of these the recovery-rate amounted to 47.75 per cent., while the death-rate was 8.3 per cent. The number of private patients received in this institution has shown an increase of 33 in twelve months, so that at the close of the year there were no fewer than 112 in the Asylum, and Professor White, the medical superintendent, remarking upon the success of the undertaking, states that he has been obliged to decline many cases for want of space. This, however, will soon be remedied, as the new buildings are rapidly approaching completion, which will permit a further extension of the accommodation for those who cannot pay more than 21s. a week. For such accommodation there is a never-failing demand. Beyond a severe epidemic of influenza, which cost 7 lives the

health of the Asylum was good. It is interesting to note how a vigorous system of immediate isolation seemed to check the extension of the epidemic; full details of this are given in the medical superintendent's report. The education of the nurse, male and female, is continued on the same vigorous lines as before; and Professor White has his class down from King's College for clinical demonstrations during the summer session.

THE RADCLIFFE INFIRMARY, OXFORD.

THE Duke of Marlborough has given, in memory of his grandmother, Frances Anne, Duchess of Marlborough, a donation of £500 towards the cost of providing the new operating theatre of the Radcliffe Infirmary, Oxford, with appliances and equipment of the latest scientific completeness. The operating theatre itself has been erected by funds supplied by Mr. J. H. Mason, of Eynsham Hall, and by a subscription raised some years ago in memory of the Duke's grandfather.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

MAJOR R.A.M.C.—Wanted an exchange to India the coming trooping season; Bombay Presidency preferred. Arrived home December, 1898. Apply, stating terms, to "Wild Heather," care of Messrs. Holt and Co., 3, Whitehall Place, London, S.W.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL I. B. EMERSON, who is serving in the Madras Command, is appointed Officiating Principal Medical Officer, Mandalay District.

Colonel T. O'FARRELL has been selected for appointment as Principal Medical Officer at Malta.

Deputy-Surgeon-General WILLIAM RALPH LANE died at 9, Gloucester Street, S.W., on June 17th, aged 65 years. He was appointed Assistant-Surgeon, December 29th, 1854; Surgeon, January 4th, 1871; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 5th, 1887; and Honorary Deputy-Surgeon-General on retirement, December 31st, 1887. He served with the 1st Battalion of the Scots Guards in the Egyptian war of 1882, and was present at the battle of Tel-el-Kebir, receiving the medal with clasp and the Khedive's bronze star.

It is announced that Major E. M. WILSON, C.M.G., D.S.O., is to be appointed Deputy Assistant-Director of the Army Medical Service at headquarters from October 1st next.

INDIAN MEDICAL SERVICE.

THE following promotions, which have been already announced in the BRITISH MEDICAL JOURNAL, have received the approval of the Queen: *Majors to be Lieutenant-Colonels: Bengal*—F. F. PERRY, S. LITTLE, M.D., G. H. D. GIMLETTE, M.D., C. B. HUNTER, J. C. C. SMITH; *Madras*—W. F. THOMAS, M.D., H. G. L. WORTABET, M.D., E. P. FRENCHMAN, R. JAMES, M.B., S. C. SARKIES, D. S. E. BAIN. *Captains to be Majors: Bengal*—W. H. W. ELLIOT, W. R. CLARK, M.B., G. F. W. BRAIDE, M.B., R. J. MARKS, C. E. SIMDER, M.B., M. A. KER, M.B., A. BUCHANAN, M.D., L. G. FISCHER, M.B., W. VOST, M.B., J. GARVIE, M.B., C. E. L. GILBERT, M.B., C. C. MANIFOLD, M.B., G. B. IRVINE; *Madras*—F. J. CRAWFORD, M.D., D. SIMPSON, M.D., R. ROBERTSON, M.B., T. C. MOORE; *Bombay*—C. H. L. MEYER, M.D., L. F. CHILDE, M.B., H. HERBERT, T. D. C. BARRY.

Surgeon-Lieutenant-Colonel M. D. MORIARTY, M.D., Bengal Establishment, is promoted to be Brigade-Surgeon-Lieutenant-Colonel from July 27th, 1898.

The retirement from the service of the undermentioned officers, already announced in the BRITISH MEDICAL JOURNAL, has been approved by Her Majesty: Lieutenant-Colonels J. SCULLY and D. N. MARTIN, M.D., Bengal Establishment, and C. MALLINS, M.D., Madras Establishment.

Colonel ARTHUR STEPHEN, M.B., Bengal Establishment, has retired from the service, May 19th. He was appointed Assistant Surgeon September 30th, 1867; and Surgeon-Colonel May 19th, 1894. He was in the Abyssinian war of 1868, and has the medal for that campaign.

Lieutenant-Colonel C. G. W. LOWDELL, Bombay Establishment, has also retired from the service, April 20th. His first commission bears date September 30th, 1878; that of Lieutenant-Colonel September 30th, 1898.

MILITIA MEDICAL STAFF CORPS.

SURGEON-LIEUTENANT S. OLIVER resigns his commission June 21st.

MILITIA MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL C. M. MACQUIBBAN, M.D., 3rd Battalion Gordon Highlanders, retires under the provision of Paragraph 81 of the Militia Regulations, 1898, June 15th. He is permitted to retain his rank and uniform.

THE VOLUNTEERS.

SURGEON-MAJOR W. DRAPER, 1st East Riding of Yorkshire Artillery (Western Division Royal Artillery), is promoted to be Surgeon-Lieutenant-Colonel, June 21st.

Mr. MICHAEL G. FOSTER, M.D., is appointed Surgeon-Lieutenant in the 2nd Volunteer Battalion the Royal Fusiliers (City of London Regiment), June 21st.

Surgeon-Lieutenants G. LOWE, M.D., 4th Volunteer Battalion, the Norfolk Regiment, and W. M. GABRIEL, 3rd Volunteer Battalion the Duke of Wellington's West Riding Regiment, are promoted to be Surgeon-Captains, June 21st.

Surgeon-Captain A. T. BRAND, M.D., 2nd Volunteer Battalion, the East Yorkshire Regiment, is promoted to be Surgeon-Major, June 21st.

A board of medical officers is to assemble at the Station Hospital, Rochester Row, on 4th prox., for the purpose of examining medical officers of Volunteer corps of the Home District for proficiency certificates.

FRONTIER HONOURS.

GENERAL surprise has been expressed that, with all the honours given for the frontier campaign, Captain E. V. Hugo, Indian Medical Service, still remains unrewarded. He is the only officer present at the siege of Chakdara still unrewarded, although he was mentioned in dispatches, and at the time his courage and devotion were in everyone's mouth. We trust it is not too late to repair such an omission.

THE MANUAL OF THE ROYAL ARMY MEDICAL CORPS.

SURGEON-CAPTAIN R. R. SLEMAN, A.M.R (Portman Street, W.) writes: The new manual for the Royal Army Medical Corps has recently been published. Considerable alterations and improvements have been adopted in the stretcher drill. No. 4 bearer is now in the rear rank, and acts as a supernumerary as long as the company is in close order. In moving to a flank the stretcher is carried at the slope by No. 2 bearer only. In extended order No. 4 bearer takes post on the opposite side of the stretcher, so that the changing of the numbers is much simplified.

A new method of lifting wounded on stretchers, as suggested by the staff of the Volunteer Ambulance School of Instruction, has been adopted; each squad halts when No. 1 arrives one pace from the patient's head, Nos. 2 and 3 correctly covering in a line with the patient. There is no change in the hand-seat drill. In the wagon drill Nos. 2 and 4 are now on the right of the stretcher.

In the plans of the dressing station and field hospital camp a new operating tent is shown, the length of which is 20 feet, the width 14 feet; this gives far more room than the old pattern bell tent.

Semaphore signalling has been authorised for the R.A.M.C., and will no doubt be most useful in connecting the dressing station with the field hospital and collecting stations and fighting line.

THE ADJUTANCY OF THE ROYAL ARMY MEDICAL CORPS DEPÔT AND TRAINING SCHOOL, ALDERSHOT.

CAPTAIN PARRY, R.A.M.C., has been selected as Adjutant of the Royal Army Medical Corps Depôt, in succession to Major Julian, who is on the the roster for Indian service. Captain Pearse has also been selected as Assistant Instructor, B Company, R.A.M.C.

THE ARMY PURITY AND ARMY HEALTH ASSOCIATIONS.

AN article appears in the *Army and Navy Gazette* of June 10th on the good done by these associations in the control of the prevalence of venereal disease in India. The Army Health Association since its establishment in 1889 obtained the number of 1,277 soldiers between June of that year and November, 1897, who signed the declaration which the Society required. This number of soldiers applies to one station only, Meerut. The report of the Army Health Association for 1897 records good work, although it was difficult and frequently disheartening. After nine years' experience and effort, a decrease of disease (venereal) to the extent of almost one-half had followed the work of the Association from May 7th, 1897, to the end of the year. The efforts of both Associations require the support of medical officers, chaplains, commanding officers, and officers of troops, batteries, and companies.

MEDICAL AND SANITARY REFORM IN INDIA.

THE author of the pamphlet with the above title writes: My pamphlet was written four years ago, and since then very considerable progress has been made in some of the directions indicated as desirable by me, particularly as regards handing over a certain number of the smaller civil stations or districts in each presidency to civil assistant surgeons, many of whom are excellent men. So also the seniors of the Indian Medical Service are gradually waking up to the absolute necessity for improved sanitation and routine scientific work on modern lines. I feel certain the reforms I advocated are as sure to come as the end of the present century. The younger men of the service, supported by many most excellent and scientific seniors, are determined to make a *pakka* health service for India.

The reviewer of my pamphlet remarked I seemed to have small reverence for my seniors, and should remember that some day I would become one of them myself. But I yield to none in respect and loyalty to them when I find them good and efficient men. I cannot respect both active and passive obstruction to the most obviously needed reforms. I do not think your correspondent who declares my proposed reforms to be "perfectly impossible" could possibly have read my pamphlet; I shall be only too pleased if he will do so. I can assure him I have no axe of my own to grind, and no wish to oust anyone from any billet where he does his duty, and that I am a commissioned officer, a pure European, and a "regular" Government servant like himself.

MEDICO-LEGAL.

FOREIGN DEGREES.

PARIS states that he is shortly going to the United States, and wishes to know whether, if he obtains there the degree of M.D., he can place the letters M.D. after his name in this country, and whether he can have the degree registered or placed in the *Medical Directory*.

*** There would be no objection to our correspondent placing the letters M.D. after his name, together with the name of the University granting the degree, and he could no doubt have it appended to his name in the *Directory*. He could not, however, have the degree registered

OBITUARY.

LAWSON TAIT, F.R.C.S.ENG. & EDIN.,

Consulting Surgeon, Birmingham and Midland Hospital for Women.

ROBERT LAWSON TAIT was born in Edinburgh on May 1st, 1845. He received his early education at Heriots Hospital, an institution which he entered at the early age of 7. He received his medical education also in his native town, between 1860 and 1866, and though he never took a degree in the University, he was a brilliant student.

During his student days in Edinburgh, from 1860 to 1866, he worked under the immediate guidance of the late Mackenzie Edwards—a young surgeon of great ability and promise. For some time he acted as assistant to Sir Henry Littlejohn. He was, however, most intimately associated with the late Sir James Simpson, whose pupil he was and whom he assisted in his practice.



While a student he had the pen of a ready writer, and soon after he qualified (L.R.C.P. and L.R.C.S.Edin. 1866) his name began to appear in medical journals at the foot of letters, which seemed from the first to attract attention. Soon after qualifying he visited Dublin and other schools of medicine, and at each place left behind him the memory of unusual powers of observation and expression for so young a man. In 1867 he was appointed House-Surgeon to the Wakefield Hospital, a post previously held by the late Dr. Milner Fothergill. During the three years he spent there he had the opportunity of performing numerous surgical operations, including six ovariotomies. His first ovariotomy was performed on July 29th, 1868, when Mr. Tait was only 23 years of age.

He took an active interest in the public life of the locality, was a frequent contributor to the local press, and made short communications to the medical journals. The restless activity of his intellect drove him then, as all through his career, to the press as the most easy outlet for his energies. In 1870 he became a Fellow of the Edinburgh College of Surgeons, and in September of the same year he took the most momentous step in his career by settling in Birmingham. The manner in which this came about was as follows: Dr. Partridge, now Medical Officer of Health for Stroud, was anxious to leave Birmingham for his native county of Gloucester, and so offered his practice for sale. To him, at his house at the corner of Burbury Street, Lozells Road, came Lawson Tait from Wakefield. It was a family practice in a populous suburb, and after a short introduction was left in Tait's sole charge. On his arrival in Birmingham the newcomer had brought many letters of introduction to members of his own profession and to a few prominent citizens. In a remarkably short time he made himself generally known. He had a wide acquaintance with all the younger men who were making a practice at the time, and at the local medical societies he took a prominent part from the first. He showed a want of respect for age and authority, remarkable even in Birmingham. He never hesitated to controvert the opinion of a senior, or to quote his own experience in opposition to that of another, and he often formulated his views and supported his arguments by startling figures. The fact was he had met many men and visited many schools, and gathered experience at each, which often enabled him to refer to a number of cases much beyond those which would in ordinary course have come under his observation. In a few months he felt his feet, as it were, in Birmingham. The atmosphere, intellectual and social, of the town suited him. He was aggressive and unconventional, and soon won recognition from the leaders of thought in the town as an original thinker who was never afraid to back his opinions and fight for them for all he was worth. He soon found his way to the local newspaper offices, and his connection with the press was ever afterwards kept up, and contributed in no small degree to his success. For such a man the practice at the Lozells was too small. He had not the qualities to make it a success, and his energies longed for a wider field. His next step was to take rooms in the centre of the town, and set up as a consulting surgeon.

He was soon afterwards, on the advice of the late Dr. Heslop, then a leading physician, appointed to lecture on physiology to the ladies class at the Midland Institute. His lectures were most successful, and he made among his class many friends who afterwards served him well. About this time the project of founding a Hospital for Diseases of Women was started. The existing general hospitals were unwilling to make adequate provision for the treatment of such cases, and, as was shown by Tait and others, the mortality for these special cases was alarmingly high. In due time all opposition to the new institution was overcome, and the qualification for the office of surgeon was fixed at the Fellowship of the London College. This was awkward for Tait, as he had only a year or so before become a Member of the London College; but he threw himself into the work, and in a remarkably short time acquired the requisite diploma. The late Mr. T. H. Bartleet, who was closely associated with him at the time, was lavish in his praises as to the ease and rapidity with which Tait prepared himself for this examination. It was just the kind of lesson the profession in Birmingham required at the time to show them that the newcomer was a man of real knowledge and ability. In July, 1871, Mr. Tait was elected a member of the honorary staff, although he was only 26 years of age, and had not been resident in Birmingham more than twelve months. This event was undoubtedly the real commencement of his brilliant surgical career. He remained on the acting staff until 1893, when he was appointed Consulting Surgeon. By his marvellous surgical achievements he has shed lustre on the hospital and given it a world-wide fame.

He probably attained the zenith of his success in the year 1890, when he was selected to deliver the Address in Surgery at the annual meeting of the British Medical Association in

Birmingham. At that time he was Bailiff of Mason College, soon to become the University of Birmingham, and Professor of Gynæcology at Queen's College. All who attended that meeting will remember the prominent part taken by Lawson Tait, in the scientific work of the meeting and in the generous hospitality of the town. In 1892 he succeeded in transferring the medical school of Queen's College to the Mason College, and in common with the other professors he went over to the latter institution. He however did not long remain a Professor of the College of which he had been Bailiff and was a Trustee, as in 1893 he resigned all connection with it. From that time up to his death he took a less prominent part both in his profession and in public affairs. The financial crisis of 1892 apparently affected him seriously, for in the immediately succeeding years all sorts of rumours appeared about him in the press. No great surgical position was ever won more rapidly or lost with such pathetic suddenness. He was to leave Birmingham and settle in London or America, and all sorts of other stories floated about. Certain it is that his private hospital was closed, his collection of art treasures was sold, and his New Forest home and other residences passed into other hands. Lawson Tait, however, still held to Birmingham, and to the end, although he lived at Llandudno where he died, came weekly to his rooms in Newhall Street to see patients. At the Branch meetings he also still was a frequent speaker, and in the Women's Hospital and the Provident Dispensary at Hockley, of which he was to a large extent the organiser, he took an active interest.

Mr. Tait was a man of multifarious activities. Soon after he came to Birmingham he made the acquaintance of George Dawson, the brilliant preacher, lecturer, scholar, and journalist, who dominated the public life of Birmingham in the Seventies. Mr. Tait joined the staff of the *Morning News*, of which George Dawson was editor; and many of the ablest of its leading articles were from his pen. Tait and Dawson were bosom friends until the sudden death of the latter, who powerfully influenced for good Tait's intellectual development. Some six years after Tait came to Birmingham he entered the City Council and was a very active member, and for a time Chairman of the Health Committee. He was a frequent and effective speaker in the council and at public meetings in the city, but his large occupation outside the council work and the many and diverse objects that attracted his attention prevented his ever attaining that position in the public life of Birmingham which he might otherwise have reached. He once stood for a division of the city, in the general election of 1886, but as he was on the unpopular side he was easily defeated by his Unionist opponent.

Mr. Lawson Tait, from the time he settled in Birmingham was an active member of the Birmingham and Midland Counties Branch, of which he was an ex-President. He probably read more papers and exhibited more specimens at its meetings than any other member before his time, and he was always prominent in debate even to the last. He was Secretary of the Section of Obstetric Medicine at the Birmingham meeting in 1872, and attended the annual meeting many times between that date and the meeting in 1890 at Birmingham, when he delivered the Address in Surgery. He served for some years on the Council of the British Medical Association, took an active part in its proceedings, and specially identified himself with questions of medical reform. He was a member of many Branches of the Association, and frequently read papers at their meetings. In this way he became President of the Worcestershire and Herefordshire Branch. For many years he was President of the Medical Defence Union, and raised that Society from small beginnings to a position of considerable importance. In Birmingham he was connected with nearly all the local literary and scientific societies, and occupied the chair of the Medical Institute and the Midland Medical Society. He was one of the founders and an ex-President of the British Gynæcological Society.

Lawson Tait was no ordinary man. To see him once was to remember always his short burly figure, his leonine head, his determined mouth and his masterful expression. Self-reliant, possessed of great abilities, an indomitable will, a dauntless courage, and a consciousness of his own genius, he would have risen to eminence in any profession. He was an excellent companion, a good *raconteur*, a remarkably good conversationalist, and an admirable public speaker. He never attempted eloquence, but for straight plain business talk he was most effective, both in public addresses and in debate. No one could meet him without feeling the influence of his strong individuality, the vigour of his thought, and the originality and freshness of his views. He took part in many fierce controversies, both in the medical and the lay press. He was a born fighter, he revelled in the joy of conflict, and would fling himself with all the ardour of his pugnacious nature into the arena of debate. And when he hit, he hit hard. Yet under this rugged exterior and brusqueness of manner, his friends recognised a large-hearted kindliness. He was passionately fond of animals, and was exceedingly kind to the poor and the afflicted; scores of poor women were admitted into and operated on in his private hospital absolutely free of charge. By his death surgery has lost one of its great masters, whilst those who knew him intimately mourn a large-hearted and generous friend.

We are indebted to Mr. Christopher Martin, who was for many years associated with Mr. Tait as, in turn, his pupil, assistant, partner, and hospital colleague for the following interesting notes, which, among other things, show the chronology of Tait's chief contributions to surgery.

On February 2nd, 1872, he removed an ovary for chronic abscess, the first occasion on which that organ had been deliberately excised for inflammatory disease. On August 1st of the same year he performed for the first time the operation of removal of the uterine appendages for myoma. Both operations were successful, and are landmarks in the history of abdominal surgery. Next year (1873) he was awarded the Hastings gold medal by the British Medical Association for his thesis on The Diseases of the Ovaries. During the same year he performed his first hysterectomy for myoma.

In 1877 he published his book on *Hospital Mortality*, in which he denounced big hospitals for their high death-rate, and advocated the establishment of small cottage hospitals in their place. This led to an angry controversy in the local medical profession. About the same time he published a slender treatise on *The Diseases of Women*. It was also in 1877 that he began to remove the uterine appendages for diseases of the Fallopian tubes. On June 21st he removed his first hæmatosalpinx.

In 1878 he published a first series of 50 ovariotomies, of which no fewer than 19 died. He was at this time operating with the spray and full antiseptic precautions. But even then he was beginning to distrust "Listerism," and to recognise the paramount importance of "scrupulous attention to cleanliness of every kind and in all directions." He now for the first time began to open the abdomen for the treatment of pelvic abscess.

The next year, 1879, was in my opinion his *annus mirabilis*. He performed his first cholecystotomy, removed his first pyosalpinx and hydrosalpinx, described his flap-splitting operation for repair of the perineum, and introduced his method of reposition of the inverted uterus, and also of dilating the cervix by means of continuous elastic pressure.

In 1880 he performed for the first time the operation of hepatotomy, and published his second series of 50 cases of ovariotomy, this time with only 3 deaths. This remarkable result he attributed to the fact that he had adopted the short ligature in place of the clamp for the treatment of the pedicle. He still reluctantly used the carbolic spray and immersed his instruments in carbolic lotion, but he had given up the complicated moist Listerian dressings for the wound, and advocated and used simple dry absorbent Gamgee tissue.

In 1881 he was called by Dr. Hallwright to see a patient who was dying from internal hæmorrhage due to a ruptured tubal pregnancy. Dr. Hallwright suggested to Mr. Tait that he should open the abdomen, ligature the broad ligament, and remove the ruptured tube. Mr. Tait, however, declined to act on this bold suggestion, and the patient died. A *post-mortem* examination of the case convinced him, however, that the operation was perfectly feasible, and he determined to try it in his next case. He performed his first operation for ruptured tubal pregnancy on January 17th, 1883, and afterwards "by a remarkable series of successes placed this proceeding in the front rank of major life-saving operations." About this time he published a work on the diseases of the ovaries—really an expansion of his Hastings prize essay. In 1884 he

recorded his first 1,000 cases of abdominal section. In the following year he astonished the surgical world by publishing a series of 139 consecutive ovariotomies without a death. By this time he had finally abandoned all antiseptic precautions, and trusted to simple soap-and-water cleanliness, segregation of patients, and dry absorbent dressings. He was thus one of the pioneers of aseptic surgery. In 1886 he described for the first time the disease known as diabetic vulvitis.

In 1886 he delivered his epoch-making Ingleby Lectures on Ectopic Gestation. He was also appointed Professor of Gynæcology at Queen's College in 1887.

In 1889 he published the first volume of his big text-book, *The Diseases of Women and Abdominal Surgery*—the second volume is still unpublished. In 1890 he became President of Mason College; delivered the Address in Surgery at the Birmingham meeting of the British Medical Association; and was awarded the Cullen and Liston Memorial Prize by the Edinburgh College of Physicians for his services to medical science. He took a very active part in effecting the transference of the Faculty of Medicine from Queen's College to Mason College—in fact, the successful termination of the negotiations in 1892 was mainly due to his efforts. This transference contributed in an important sense to the ultimate possibility of founding a University of Birmingham.

In the early part of 1893 he began to suffer from symptoms of chronic nephritis, the disease which ultimately killed him. He now gave up nearly all his public appointments, resigned his position as Surgeon to the Hospital for Women and Professor of Gynæcology in the Medical School, and led a semi-retired life in his country residence, eight miles from Birmingham, but in 1894 he published *A General Summary of Conclusions from Four Thousand Consecutive Cases of Abdominal Section*. In 1898 he went to live at Llandudno, coming to Birmingham only once a week to see patients at his rooms, and to perform operations. His last surgical operation in Birmingham, a perineorrhaphy, was performed on May 25th, 1899. On Saturday, June 3rd, he was suddenly taken ill at Droitwich. He was removed to Llandudno, but uræmic symptoms supervened, and he expired on June 13th, 1899, at the early age of 54.

Let me now briefly summarise his surgical achievements:

1. He reduced the mortality of ovariotomy almost to the vanishing point.

2. He introduced numerous new operations, such as removal of the uterine appendages for myoma and for tubal disease, removal of a ruptured tubal pregnancy, drainage of a pelvic abscess by abdominal section, cholecystotomy, hepatotomy, and the flap-splitting method of repairing the perineum.

3. He introduced the plan of cleansing the peritoneum by flushing it with hot water, and of treating peritonitis consecutive to abdominal section with purgatives instead of opium.

4. He demonstrated to the profession most of what is known of the pathology of tubal inflammation and of ectopic gestation.

5. He invented many new, and perfected and simplified many old, surgical instruments. As examples I may mention his hysterectomy clamp, his ovariotomy trocar, his pressure forceps, his myoma screw, his gallstone forceps, his uterine dilators, his repositors for reducing inversion of the uterus, his glass drainage tube, and sucker.

As an operator he was pre-eminent. His operations were performed, without the least appearance of haste, with marvellous rapidity and dexterity. He was seen at his best in a difficult case, such as a bad pyosalpinx, a big hysterectomy, or an ovariotomy with ugly adhesions. Though he encountered appalling difficulties, he proceeded silently, swiftly and undauntedly towards a triumphant issue. He was fertile in expedients, and displayed a prompt resourcefulness in dealing with unexpected and desperate complications. He worked through the smallest possible incision, disturbed the tissues of the wound as little as possible, and ever sought after the quickest and most direct method of attaining his end. He used as few instruments as possible, and these were of the simplest character, for he abominated anything which was finicking or complicated.

We are indebted to Mr. Alban Doran for the following estimate of Mr. Tait's influence as a surgeon:

Tait's special merits as a surgeon cannot be lightly dismissed. He, no doubt, placed too low a value on scientific research: his statistical methods, well fitted for earlier days, when Clay, Spencer Wells, and Keith, had to prove the bare justifiability of ovariotomy, were already antiquated when he so largely employed them; and he, in the opinion of many surgeons of repute, laid far too little stress on after-treatment. Nevertheless, it is easy to recognise that, without doubt, he was a very great surgeon.

Lawson Tait began, as all abdominal surgeons had to begin in the days when he entered into his professional career, by ovariotomy. He advocated a small abdominal incision, and confirmed the superiority of complete intraperitoneal ligature over the clamp. It is not necessary to dwell on his long disputes with other operators, nor on his statistics, nor on his persistent opposition to antiseptics. He relied on his good right hand, an excellent principle for any surgeon, provided that, as in the case of Tait, his right hand be really good. He, on the whole, distrusted hysterectomy, but it is in the surgery of the appendages that he gained the most renown. By this term he understood, as all have since understood, the removal of the ovary and Fallopian tube for diseases due not to new growths, but to inflammation. Though no doubt operative interference for hydrosalpinx, pyosalpinx, and chronic oöphoritis was grossly abused at first, it cannot be denied that Tait threw a bright flood of light literally and figuratively on the nature, course, and treatment of tubo-ovarian inflammation. To understand his views thoroughly it is necessary to study the clear statements which he boldly makes in his *Diseases of Women and Abdominal Surgery*, 1889. The very headings of the pages, "Heavy Mortality of Pyosalpinx," "Pyosalpinx resulting from Uterine Tinkering," etc., are characteristic and most suggestive. Thus the first heading has been gravely disputed, but Tait knew how to act as counsel for the prosecution of a suppurating tube. The second implies the most just surgical censure. We know but too well that it is not only tubes that suffer from therapeutical tinkering and timid palliative measures.

At an early period of his career as an abdominal surgeon Lawson Tait distinguished himself by advancing, in an operative sense, beyond the limits of the female organs. He was an advocate of timely interference in disease of the gall bladder at a date when ovariotomy was hardly generalised and when hospital surgeons were as suspicious of any attempts at operation in the upper part of the abdomen as twenty years earlier they had been suspicious of ovariotomy itself. He carried his principles into practice, and so his name is chronicled in the history of our art as one of the pioneers of the surgery of the liver and gall-bladder. Just thirty years ago Lawson Tait opened up a sinus which discharged through the umbilicus and communicated with a suppurating gall bladder, so that he was enabled to remove some gall stones. Nine years later Dr. Marion Sims boldly performed cholecystotomy on a patient whose health was already impaired by long-standing obstruction of the bile ducts. Relief was immediate, but the patient sank a week later. For Marion Sims Lawson Tait had the deepest admiration, and dedicated to the great American gynæcologist his *Pathology and Treatment of Diseases of the Ovaries* "as an acknowledgment that much of the new work described in it was the outcome of his ingenuity." As an outcome of Sims's ingenuity beyond the area of the uterus and its appendages, Tait successfully performed a cholecystotomy in 1879, one year after Sims's operation. A living authority on hepatic surgery, Mr. Mayo Robson, justly observes that "to Mr. Tait undoubtedly belongs the credit of having popularised the operation with the profession."

Tait's renown and experience caused many others to bring to him patients with abdominal affections which baffled their powers of diagnosis. In 1887 he recorded a large series of operations for cystic collections of fluid in the anterior and inferior part of the abdomen. He treated them, as a rule successfully, by incision and drainage, and believed that the cysts had developed in the urachus. There is reason to suspect that some of these cases were simply encysted dropsies due to tuberculous disease, and their true pathology was in no instance verified by dissection or *post-mortem* examination. Still there can be little doubt that in more than one instance the tumour was urachal. What is more important, Tait established, by the publication of this series,

the correct principles for the treatment of this rare disease. Hence, in the surgery of tumours of the urachus, Tait once more appears as a pioneer whose claims will not be forgotten.

Perhaps the most original and at the same time most valuable innovation which surgery owes to Lawson Tait is the washing of the peritoneum, after an operation, with large quantities of water for the purposes of cleansing and hæmostasis. Many other terms have been applied to this method, but his original contribution on this subject in the third volume of the *British Gynæcological Journal* is named Methods of Cleansing the Peritoneum, and the only other term in this remarkable essay besides "cleansing" is "washing." Whatever it should strictly be called in accordance with the science of hydraulics, this cleansing of the peritoneum has proved of the greatest benefit, and, although it has been much abused and often applied when unnecessary, though harmless, it has been found by later observers to act favourably on the patient in certain ways quite unrecognised by its famous inventor. Tait avowedly claimed cleansing and hæmostasis as the aim of washing of the peritoneum. Within a few years it was found that it was also a process of transfusion. Later, it was shown that when some of the water was left behind in the peritoneal cavity it ensured the rapid removal of poisonous products from the peritoneum. It has further been discovered that the addition of salt greatly increases the transfusing and antiseptic value of the water used for cleansing the peritoneum. Such remarkable developments of a new surgical practice greatly redound to the credit of its inventor. Lawson Tait was, in respect to washing of the peritoneum, once again a bold projector who successfully carried an original design into practice. He did so on the sound surgical principle that the less the surgeon fears the peritoneum and the more thoroughly he cleans it and checks bleeding and oozing, the better it will be for the patient.

Enough has been said to show that Lawson Tait will always be remembered as a bold surgeon of unusual originality. His merits, widely recognised in his lifetime, will not be forgotten after his death, for he made a name for himself in the glorious history of British surgery.

Mr. Tait in 1871 was married to Sybil Anne Stewart, a daughter of the late Mr. William Stewart, solicitor, Wakefield. With this lady, who survives him, very widespread sympathy will be felt in the irreparable loss she has sustained.

Mr. Tait's remains were cremated at Liverpool, and the ashes were interred in the garden of his house at Llandudno.

ROBERT MOIR, M.D., F.R.C.S.EDIN.,

Surgeon-Major, Indian Medical Service (Retired).

THIS able and highly-esteemed officer of the Indian Medical Service died at St. Andrews, N.B., on June 7th, 1899, aged 68 years. He was the eldest son of Dr. David Macbeth Moir, of Musselburgh, the well-known "Delta" of *Blackwood's Magazine*, author of the novel *Mansie Waugh*, a history of ancient medicine, and other works, and a poet of great refinement and feeling. Robert Moir was educated at the Musselburgh Grammar School and Edinburgh Academy, and studied medicine in the University of Edinburgh, and subsequently in Paris. He obtained the Licence of the Royal College of Surgeons, Edinburgh, in 1851, and was admitted to the Fellowship in 1859. He took the degree of M.D. of the Edinburgh University in 1852, the subject of his thesis being Injuries and Diseases of the Vertebræ. He held the office of Resident Physician and Surgeon in the Edinburgh Infirmary, and was appointed to the service of the Honourable East India Company by the Marquis of Dalhousie, who was a friend of his father's, in 1853 in which year he arrived in India.

He served at Dibrugarh in Assam in charge of a Goorka regiment and the civil station until he was sent home on sick furlough in 1858. He was in Assam during the Mutiny. Returning to India in 1860 he was appointed to the civil charge of Haupper in the North-Western Provinces, and subsequently served as Civil Surgeon of Naini Tal and Benares, and Superintendent of the Central Gaol at Agra. Thence he proceeded to Simla, where he obtained the important charge of Joint Civil Surgeon, a coveted appointment then tenable for a period of two years, at the close of which he was posted to the Civil Surgeoncy of the 24th Pergunnahs, Bengal, with the added appointment of Medical Inspector of Emigrants. While holding this charge he was deputed to inquire into the causes of excessive mortality in the gaols of Behar, and officiated for a time as Professor of Midwifery in the Calcutta Medical College. He proceeded on furlough in 1875, and while at home was offered by Sir Richard Temple, then Lieutenant-Governor of Bengal, the appointment of Principal of the Calcutta Medical College and Professor of Medicine. This is one of the prizes of the Bengal Medical Service, and would have been a worthy climax of a most meritorious career; but circumstances occurred which induced him to retire from the service with the rank of Surgeon-Major in June, 1877, and during the remaining twenty-two years of his life he practised in St. Andrews in partnership with his brother, Dr. John Wilson Moir. In this capacity he earned by his great attention and skill a high reputation as a physician and surgeon, and by his amiable disposition, kindly manner, and sympathetic services, he endeared himself to the community of the ancient Scottish burgh. His popularity and the great esteem and regard in which he was held were attested by the numbers who attended his funeral and the visible signs of regret which were manifested on that occasion. Upwards of one hundred beautiful wreaths were placed on his grave.

Robert Moir was a strikingly handsome man. He was gifted with good abilities, which had been developed by an excellent education. He was a man of modest and diffident disposition, and though everything he wrote and did bore the stamp of culture and sense, he was not given to writing or publishing, and limited his intellectual and professional output to the work which it was his duty to perform. To this he devoted himself with diligence and success. His strength and charm arose mainly from his sterling personal character, his kindliness, truthfulness, fidelity, manliness, and courtesy. He was one of those men whom it was not easy to know well, but whom to know well was to esteem and like greatly; and with longer and more intimate acquaintance, esteem and liking increased. He was kind to the poor. He took an immense interest in the St. Andrews Cottage Hospital, and was instrumental in augmenting its scope and efficiency.

Robert Moir's memory will long remain treasured in the recollection of those who knew and worked with him in India, and of numerous patients and friends (for the terms were mostly synonymous in his case) at home who derived benefit and pleasure from his ministrations.

He leaves a widow and family of three sons and three daughters. His eldest son, David Macbeth Moir, M.B., is a captain in the Indian Medical Service, and his youngest son an officer in the Indian Staff Corps.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Professor Serafino Biffi, for many years President of the Società Freniatrica Italiana, and author of numerous contributions to the literature of mental diseases; Dr. A. Ziegler, Surgeon-General of the Swiss Army; Dr. Inverardi, Professor of Obstetric Medicine in the University of Padua; Dr. Franz Groh, sometime Professor of Surgery in the now defunct Medico-Chirurgical Institute of Olmutz, aged 77; Dr. Hugo Weidel, Professor of Chemistry in the University of Vienna; Dr. Alejandro Torres Puig, sometime President of the Spanish Medico-Chirurgical Academy; Dr. Paul Vogelgesang, Medical Superintendent of the Berlin Municipal Institution for Epileptics, aged 41; Dr. Hermann Immermann, Professor of Clinical Medicine in the University of Basel, aged 61; Dr. Josef Aics, a well-known neurologist of Cologne, aged 39; Dr. Franz von Chelius, son and former assistant of the famous Professor of Surgery in the University of Heidelberg; and Dr. Cauterman, sometime President of the Belgian Medical Federation.

BEQUESTS.—The late Alderman R. Farley, of West Bromwich, has bequeathed £1,000 to the endowment fund of the West Bromwich District Hospital. Mr. John Abraham, of Northfield, who died in April last, has left £100 each to the following Birmingham charities: General Hospital, Queen's Hospital, Women's Hospital, Eye Hospital, Skin and Lock Hospital, Ear and Throat Hospital, Children's Hospital, and the General Dispensary.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

PROPER LODGING OR ACCOMMODATION.

IN the case of Warwick *v.* Graham, an important point involving the construction of Section CXXIV of the Public Health Act, 1875, was decided on appeal from the decision of the justices of Workington, by a Divisional Court consisting of Mr. Justice Day and Mr. Justice Lawrance. The section was as follows: "Where any suitable hospital or place for the reception of the sick is provided within the district of a local authority, or within a convenient distance of such district, any person who is suffering from any dangerous infectious disorder, and is without proper lodging accomodation.....may, in a certificate signed by a legally qualified medical practitioner.....be removed by order of any justice to such hospital or place at the cost of the local authority."

It appeared that the respondent Graham and his family, which consisted of seven persons, lived in a four-roomed house. One of his sons, who was suffering from scarlet fever, was kept apart in the parlour on the ground floor, but it was impossible to isolate him, and it was proved that there would be danger of infection to the other people in the house if he continued to occupy the room. The boy was properly nursed and fed, and had adequate medical attendance, and so far as he himself was concerned, had proper accommodation.

The Workington Corporation applied to the justices for an order to remove the boy to the hospital, but the justices held that the words "without proper lodging or accommodation" must be construed with regard to the wants of the infected person and dismissed the application.

On the appeal, however, the Court held that the section was clearly directed to the protection of persons from infection, and not only to the protection of the infected person himself, and that the justices ought to have made an order for the removal of the boy.

VITAL STATISTICS.

THE marriage-rate for 1898 was not included in these statistics (given to T.H.R.) last week. The number of persons married per 1,000 living, according to the quarterly returns of the Registrar-General, was 16.2. This is a slight increase upon the rates for 1896-7, which were 15.8 and 16.0 respectively upon the estimated population of those years.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,695 births and 3,607 deaths were registered during the week ending Saturday last, June 17th. The annual rate of mortality in these towns, which had been 17.7 and 16.4 per 1,000 in the two preceding weeks, rose again to 16.5 last week. The rates in the several towns ranged from 9.0 in Croydon, 9.3 in Cardiff, 11.4 in Brighton, and 11.8 in West Ham, to 20.8 in Halifax, 21.7 in Burnley, 22.0 in Salford, and 24.8 in Manchester. In the thirty-two provincial towns the mean death-rate was 17.4 per 1,000, and was 2.3 above the rate recorded in London, which was only 15.1 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.9 per 1,000; in London the rate was equal to 1.8 per 1,000, while it averaged 2.0 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.0 in Swansea, 3.2 in Burnley, 3.3 in Sheffield, and 4.1 in Manchester. Measles caused a death-rate of 1.2 in Liverpool and 2.8 in Manchester; scarlet fever of 1.3 in Bradford; and whooping-cough of 1.0 in Plymouth and in Salford, 1.3 in Hull, and 1.5 in Gateshead. The mortality from "fever" showed no marked excess in any of the large towns. The 83 deaths from diphtheria in the thirty-three towns included 35 in London, 10 in Sheffield, 6 in Leicester, 5 in Swansea, 4 in Liverpool, and 4 in Leeds. One fatal case of small-pox was registered in Liverpool and one in Hull, but not one in London or in any other of the thirty-three large towns; and only one small-pox patient was under treatment last week in the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had increased from 2,161 to 2,269 at the end of the four preceding weeks, had further risen to 2,280 on Saturday last, June 17th: 262 new cases were admitted during the week, against 229, 260, and 278 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 17th, 1,025 births and 546 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.9 and 18.9 per 1,000 in the two preceding weeks, further declined to 17.9 last week, but was 1.4 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 13.5 in Perth and 17.0 in Edinburgh to 19.6 in Paisley and 21.9 in Aberdeen. The zymotic death-rate in these towns averaged 2.2 per 1,000, the highest rates being recorded in Leith and Glasgow. The 248 deaths registered in Glasgow included 1 from small-pox, 10 from measles, 5 from scarlet fever, 2 from diphtheria, 6 from whooping-cough, 3 from "fever," and 12 from diarrhœa. Three fatal cases of scarlet fever were recorded in Edinburgh, and 2 of diphtheria in Dundee and in Aberdeen.

GLASGOW UNIVERSITY CLUB.—The next dinner of this club will be held at the Trocadero Restaurant, Piccadilly Circus, on Friday, June 30th, at 7 P.M., when Lord Kelvin will take the chair. The guest of the evening will be Professor Sir William Gairdner, K.C.B. Further particulars can be obtained from either of the Honorary Secretaries, Mr. Norman M. MacLehose, 13, Queen Anne Street, Cavendish Square, W., or Mr. James M. Dodds, M.A., Dover House, Whitehall, S.W.

MEDICAL NEWS.

MR. CHARLES WHITE, Honorary Consulting Surgeon to the Warrington Infirmary, who has practised in that town for over 40 years, was recently on the occasion of his seventieth birthday the recipient of a most charming compliment from the medical profession of the town. A deputation consisting of Drs. Gornall, Sherratt, Fox, and Joseph waited upon him on that day and presented him with a piece of silver plate. Dr. Gornall, who made the presentation, in a few well-chosen words expressed the kindly feelings felt by the local profession towards Mr. White, who feelingly acknowledged the gift.

BRUSSELS MEDICAL GRADUATES' ASSOCIATION.—The annual meeting of this Society will take place at the Café Royal, Regent Street, W., on Wednesday, July 5th, at 6.30 P.M. At 7.30 P.M. the members and their friends will dine together, and among the guests of the President and Council are expected the Right Hon. Earl Russell, Dr. Ward Cousins (President-elect of the British Medical Association), Dr. Mitchell Bruce, and Mr. Edmund Owen. Brussels medical graduates wishing to be present at the dinner are requested to communicate with the Honorary Secretary, Dr. Major Greenwood, 243, Hackney Road, N.E.

MEDICAL VACANCIES.

The following vacancies are announced:—

ABERDEEN UNIVERSITY.—Additional Examiner for Graduation in (1) Zoology, (2) Medicine, including Clinical Medicine, and (3) Midwifery. Appointments for each four years. Grants of £30 per annum to Examiners in Zoology and Midwifery and £40 to the Examiner in Medicine. Applications to the Secretary by July 4th.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Appointment for six months. Honorarium, £12 12s. each per quarter, with apartments, board, and washing. Applications, indorsed "House-Physicians," to the Treasurer, Bridewell Hospital, New Bridge Street, E.C.

BIRKENHEAD BOROUGH HOSPITAL.—Visiting House-Surgeon. Salary, £75 per annum, with board, lodging, and washing. Applications to the Chairman of the Weekly Board.

BIRKENHEAD UNION.—Assistant Medical Officer for the Infirmary, Workhouse, and Schools. Salary, £80 per annum, with board, washing, and apartments. Applications, endorsed "Assistant Medical Officer," to the Clerk to the Guardians, 45, Hamilton Square, Birkenhead, by July 3rd.

BIRMINGHAM GENERAL HOSPITAL.—House-Physician. Appointment for one year, but eligible for re-election. Salary, £70 per annum, with residence, board, and washing. Applications to the House-Governor by June 30th.

BIRMINGHAM: MASON UNIVERSITY COLLEGE.—Professorship of Physiology. Applications to the Secretary by June 30th.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board. Applications to the "Chairman of the Committee," by July 15th.

BRADFORD POOR-LAW UNION.—Two Resident Assistant Medical Officers for the hospitals and workhouse: unmarried. Appointments for one year. Salary of senior, £125, and junior £100 per annum, with prescribed rations, apartments, and washing. Applications to the Clerk to the Guardians, Poor-Law Offices, 22, Manor Row, Bradford, before July 3rd.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon; unmarried. Salary, £100 per annum, with board and residence. Applications, endorsed "Dispensary Surgeon," to the Secretary by June 26th. Also Junior House-Surgeon: unmarried. Salary, £50 per annum, with board and residence. Applications, endorsed "Junior House-Surgeon," to the Secretary by June 26th.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street.—Non-resident House-Surgeon. Appointment for six months, but renewable. Salary at the rate of £75 per annum. Applications to the Secretary, 10, Black Lion Street, Brighton, by July 5th.

BRISTOL: UNIVERSITY COLLEGE.—Professorship of Physiology. Applications to the Secretary by July 5th

BURTON-UPON-TRENT, BOROUGH OF.—Medical Officer of Health for the Borough. Salary at the rate of £350 per annum. Applications, endorsed "Medical Officer of Health," to the Town Clerk, Town Hall, Burton-upon-Trent, by June 28th.

CANCER HOSPITAL (FREE), Brompton, S.W.—Two Honorary Assistant Surgeons. Must be F.R.C.S.Eng. Applications to the Secretary by July 8th.

CARDIFF INFIRMARY.—Honorary Pathologist. Applications to the Secretary by July 10th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—(1) House-Surgeon. Board and residence provided. (2) Assistant House-Surgeon. Salary at the rate of £50 per annum. Applications to the Secretary by July 10th and 11th respectively.

COLCHESTER: ESSEX AND COLCHESTER HOSPITAL.—House-Surgeon; unmarried. Salary, £100 per annum, with board, washing, and residence. Applications to the Secretary by July 14th.

DERBYSHIRE ROYAL INFIRMARY.—Honorary Surgeon. Applications to the Secretary, Royal Infirmary, Derby, by June 30th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Junior Resident Medical Officer and Registrar. Salary, £50, with board and washing. Applications to the Committee of Management.

GLASGOW CORPORATION.—Bacteriologist. Salary at the rate of £350 per annum. Applications to the Interim Clerk to the Corporation (Police Department), City Chambers, Glasgow, by June 30th.

GLASGOW: UNIVERSITY OF.—Assistant Examiner. Appointment till December 31st, 1901. Salary, £30 per annum. Applications to the Secretary of the Court, 91, West Regent Street, Glasgow, by July 8th.

GLOUCESTER: COUNTY ASYLUM.—Third Assistant Medical Officer; unmarried, not over 27 years of age. Salary, £105 per annum, with board, lodging, and washing. Applications to the Medical Superintendent by July 7th.

GLOUCESTER: GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Physician. Applications to the Secretary by July 5th.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—(1) Physician to Outpatients; (2) Dental Surgeon. Applications to the Secretary by July 10th.

GREENOCK INFIRMARY.—House-Surgeon. Salary, £60 per annum, with board and residence. Applications to the Secretary, 2, Hamilton Street, Greenock, by July 3rd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—(1) Resident House-Physicians. (2) Assistant Resident Medical Officer. Salary, £50 per annum, with board and residence. Applications to the Secretary by June 27th and July 4th respectively.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—A House-Physician and a House-Surgeon; unmarried. Appointments for six months. Salary in each case £20, with board and residence. Applications to the Secretary.

HUDDERSFIELD INFIRMARY.—Assistant House-Surgeon. Salary, £60 per annum, with board, residence, and washing. Applications to the Secretary.

INVERNESS: NORTHERN INFIRMARY.—House-Surgeon and Dispenser. Salary, £70 per annum, with board, etc. Applications to the Honorary Secretary, 15, High Street, Inverness, by July 15th.

KILBURN PROVIDENT MEDICAL INSTITUTE.—Vacancy on the Medical Staff. Applications to the Secretary, 7, Cavendish Road, Brondesbury, by July 1st.

KING'S COLLEGE, London.—Assistant Physician for Out-Patient Children's Department. Applications to the Secretary.

LANCASHIRE COUNTY ASYLUM, Whittingham.—Locum tenens for four or five months. Not exceeding 30 years of age. Two guineas a week. Applications to the Medical Superintendent.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance. Applications to the Chairman by June 28th.

MANCHESTER: OWENS COLLEGE.—Senior Demonstrator in Physiology. Stipend, £150 per annum, rising to £200. Applications to the Registrar by July 3rd.

MANCHESTER CHILDREN'S HOSPITAL.—Medical Officer. Salary, £180 per annum. Applications to the Secretary, Children's Dispensary, Gartside Street, Manchester, by June 29th.

MANCHESTER COUNTY ASYLUM, Prestwich.—Junior Assistant Medical Officer; unmarried. Salary to commence £125 per annum increasing to £250, with apartments, board, attendance, and washing. Applications to the Superintendent.

MANCHESTER ROYAL INFIRMARY.—Resident Surgical Officer; not less than 25 years of age and unmarried. Appointment for twelve months. Salary, £150 per annum, with board and residence. Applications to the General Superintendent and Secretary by July 6th.

NEW HOSPITAL FOR WOMEN.—Fully qualified medical woman as Senior Assistant to the Out-patient Department for Children. Appointment for two years. Applications to the Secretary, 144, Euston Road, by June 28th.

NORTHAMPTON: BERRYWOOD ASYLUM.—Assistant Medical Officer; unmarried and under 30 years of age. Appointment for five years but eligible for re-election. Salary, £150, increasing to £200, with board, lodging, washing, and attendance. Applications to the Medical Superintendent by July 8th.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead, N.W.—(1) Surgeon. (2) Assistant Physician to Out-patients. (3) Assistant Resident Medical Officer. Appointment for six months. Honorarium at the rate of £60 per annum. Applications to the Secretary at the offices, 41, Fitzroy Square, W., by June 29th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Assistant Resident Medical Officer, eligible for election to the senior post when vacant. Salary at the rate of £50 per annum. Personal application to the Medical Committee on Thursday, July 6th, at 5 o'clock.

OLDHAM INFIRMARY.—(1) Senior House-Surgeon. Salary, £85 per annum. (2) A Junior House-Surgeon. Salary, £70 per annum. Board, residence, and washing in each case. Appointments for one year. Applications to the Honorary Secretary by July 10th.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum, with board, lodging, etc. Eligible for election as Senior House-Surgeon when vacancy occurs. Applications to the secretary before July 6th.

READING: ROYAL BERKS HOSPITAL.—Assistant House-Surgeon. Appointment for six months; eligible for senior post when vacancy occurs. Salary at the rate of £30 per annum, with board, lodging, and washing. Applications to the Secretary by June 30th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Appointment for six months. Salary at the rate of £40 per annum, with furnished apartments, board, and washing. Application to the Secretary by July 4th.

RYDE: ROYAL ISLE OF WIGHT INFIRMARY AND COUNTY HOSPITAL.—House-Surgeon. Salary, £50 per annum, with a fee of £10 10s. for lecturing to the nurses. Applications to the House-surgeon by July 15th.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL.—Assistant Demonstrator of Chemistry. Applications to Dr. James Calvert, Warden, by July 8th.

ST. MARYLEBONE GENERAL DISPENSARY.—Ophthalmic Surgeon. Applications to the Secretary, 77, Welbeck Street, W., by July 1st.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston Road, N.W.—Honorary Physician and Honorary Surgeon. Applications to the Honorary Secretary, Gordon Street, Gordon Square, W.C., by July 3rd.

SEAMEN'S HOSPITAL SOCIETY.—Physician to Out-patients and Physician to In-patients at the Branch Hospital, Royal Victoria and Albert Docks. Appointments for twelve months, but eligible for re-election. Applications to the Secretary, Seamen's Hospital Society, Greenwich, S.E., by July 10th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—(1) House-Surgeon. Salary, £100 per annum. (2) Assistant House-Surgeon. Salary, £50 per annum; board, lodging, and washing provided in each case. Applications for the former to the Secretary by July 5th, and for the latter to the House-Surgeon at once.

STOCKTON-ON-TEES, STOCKTON, AND THORNABY HOSPITAL.—House-Surgeon. Age not to exceed 30 years. Salary, £200 per annum. Applications to the Secretary by June 30th.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon; unmarried. Salary, £120, with furnished apartments, fire, light, and attendance. Applications to the Secretary before July 5th.

WALSALL AND DISTRICT HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to Mr. E. J. Brookes, Chairman, Leicester Street, Walsall, by June 26th.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, washing, and attendance. Applications to the Secretary.

WEST END HOSPITAL FOR NERVOUS DISEASES, Welbeck Street, W.—Medical Registrar (non-resident). Appointment for six months, but eligible for re-election. Honorarium of not less than twenty-five guineas. Applications to the Secretary by June 27th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Honorarium at the rate of £50 per annum, with board, lodging, and washing. Applications to the Chairman of the Medical Committee by July 7th.

MEDICAL APPOINTMENTS.

BENNETT, W. E., F.R.C.S.Eng., appointed Honorary Surgeon to the Royal Orthopædic Spinal Hospital, Birmingham, *vice* C. Warden, M.D.Aberd., F.R.C.S.Edin., appointed Honorary Consulting Surgeon.

BOYER, M., M.B., Ch.B.Edin., appointed Assistant Medical Officer to the Parish of Birmingham Infirmary.

BUCK, A. H., F.R.C.S.Edin., M.R.C.S., L.R.C.P.Eng., appointed Assistant Surgeon to the Sussex County Hospital.

BURDWOOD, J. W., L.F.P.S.G., L.M., M.S.A.Lond., F.R.I.P.H., M.S.I., reappointed Medical Officer of Health for the Bourne Rural Sanitary District.

DASHWOOD, C. E., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Somerby District of the Melton Mowbray Union.

DREW, Douglas, M.D., B.S.Lond., F.R.C.S.Eng., appointed Surgeon to the North-Eastern Hospital for Children, Hackney Road, *vice* H. P. Dean, M.S., F.R.C.S., resigned.

GATENBY, G., M.B., Ch.B.Edin., appointed Assistant Medical Officer at the Waterloo Road Workhouse of the Parish of St. Matthew, Bethnal Green.

HESSEY, J. D., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Cottage Homes of the Hastings Union.

HOLLINGS, C. E., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Weaverthorpe District of the Driffield Union.

KNIGHT, Henry Ernest, M.D.Lond., M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Surgeon to the Rotherham Hospital and Dispensary.

LANGLEY, A. F., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Fifth District of the Blandford Union, and for the Fourth District of the Wimborne and Cranborne Union.

LAW, J., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Sixth District of the Oldham Union, *vice* J. F. Frew, M.B., C.M.Glasg.

LE QUESNE, C. P., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer to the Southampton Dispensary and Provident Medical Institution, *vice* E. Blacker, M.D. Dubl., resigned.

MCDOUGALL, A. H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Third, Fourth, and Fifth Districts of the Parish of Birmingham.

MONTGOMERY, W. P., M.A.Oxon., B.S., and M.B.Lond., F.R.C.S.Eng., appointed Visiting Surgeon to the Manchester Workhouse Infirmary.

MORRISON, J. T. J., M.A., M.B.Cantab., F.R.C.S.Eng., appointed Professor of Forensic Medicine in Mason University College, Birmingham, *vice* R. M. Simon, M.D. Camb.

ORR, Vivian B., M.B., B.S.Melb., appointed Assistant House-Surgeon to the Cancer Hospital, Brompton.

STEWART, C. H., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Sixth District of the South Molton Union, *vice* E. S. Pollock, M.B., B.Ch.Dubl., resigned.

WHEATLEY, A. J., M.D., appointed Medical Officer for the Seventh District of the Bradford Union.

WHITEHEAD, A. L., M.B., B.S.Lond., M.R.C.S., L.R.C.P., appointed an Assistant Surgeon to the Eye and Ear Department of the General Infirmary, Leeds.

WILSON, J. H., M.B., appointed Medical Officer of Health for the Wigan Rural District, *vice* R. S. Pearson, M.R.C.S., L.R.C.P., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. J. B. Ball: The Symptoms of Throat and Nose Affections.

TUESDAY.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Risien Russell: Combined Degeneration of the Spinal Cord (Lantern Demonstration).—**Hospital for Diseases of the** Nervous System, 73, Welbeck Street, W., 4 P.M.—Mr. Cantlie: The Surgery of the Nerves. **Royal College of Physicians of** London, 5 P.M.—Professor J. B. Bradbury: Some Points connected with Sleep, Sleeplessness, and Hypnotics. Croonian Lecture III.

WEDNESDAY.

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr. T. D. Savill: Exfoliative Dermatitis. **Dermatological Society of Great** Britain and Ireland, 20, Hanover Square, 5 P.M. Informal exhibition of cases at 4.30 P.M. **Hospital for Consumption,** Brompton, 4 P.M.—Lecture by Dr. Schorstein.

THURSDAY.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Mr. H. Stansfield Collier: Treatment of Intussusception in young Children. **Charing Cross Hospital,** Post-Graduate Course, 4 P.M.—Dr. Willcocks: Demonstration of Medical Cases. **West London Post-Graduate** Course, West London Hospital, W., 5 P.M.—Dr. W. A. Turner: Demonstration of Nervous Diseases. **Royal College of Physicians of** London, 5 P.M.—Professor J. B. Bradbury: Some Points connected with Sleep, Sleeplessness, and Hypnotics. Croonian Lecture IV. **Central London Throat, Nose,** and Ear Hospital, 5 P.M.—Dr. Dundas Grant: Diagnosis and Treatment of Visible Abnormalities of the Auricle and Meatus.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office order or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

COLLIER.—On June 17th, at Somers, Wimbledon Hill, the wife of S. R. Collier, M.D., of a son.

GEORGE.—On June 15th, at 1, Burton Road, Brondesbury, N.W., the wife of Alfred W George, M.D.Edin., M.R.C.S.Eng., L.R.C.P.Lond., of a son.

SCUDAMORE.—June 7th, at 249, Whitehorse Road, Croydon, the wife of C. G. Scudamore, L.R.C.P., L.R.C.S.Edin., of a son.

MARRIAGES.

ATTFIELD—HERKOMER.—On June 14th, at the Parish Church, Bushey, Herts, by the Rev. G. Montague Hall, assisted by the Rev. James Herbert Harvey, M.A., cousin of the bridegroom, Donald Harvey Attfield, M.A., M.B., son of John Attfield, F.R.S., of Watford, Herts, to Elsa Anna Iole Herkomer, elder daughter of Hubert Herkomer, R.A., of Bushey, Herts.

CRAGGS—FONTANNAZ.—On June 14th, at Jesmond Baptist Church, by the Rev. T. D. Landels, M.A., Robert Francis Craggs, M.D., B.S., of 22, Osborne Road, Newcastle-on-Tyne, to Anita, daughter of the late Léon Adalbert Fontannaz, of Cossonay, Switzerland, and granddaughter of the late Marc Enter, M.D., of Lausanne.

GONIN-WILLETT.—On June 22nd, 1899, at St. Mark's Church, Brighton, by the Rev. Henry Newton, M.A., and the Rev. Alexander Morgan, M.A., Vicar of the parish, Edmund Henri Gonin, M.D., of Towcester, Northamptonshire, eldest son of the late Rev. Pasteur Gonin, and of Mrs. Gonin, of Liverpool Gardens, Worthing, to Mildred Theyre Willett, younger daughter of George Walter Willett, J.P., D.L., of West House, Brighton.

NAIRN—RUSSELL.—On April 8th, 1899, at St. Luke's, Havelock North, New Zealand, by the Rev. Canon S. Hill, Robert Nairn, F.R.C.S., of Hastings, to Mary Cecil, eldest daughter of Captain W. R. Russell, of Flaxmere.

PERSHOUSE—HEDDERWICK-BROWNE.—On June 19th, at St. Mary Abbots, Kensington, by the Rev. Canon Pennefather, D.D., Frank Pershouse, M.R.C.S., L.R.C.P., fourth son of Francis Pershouse, of Chelston Tower, Torquay, to Elsie, only daughter of Mrs. Hedderwick-Browne, of 9, Ladbroke Terrace, Notting Hill Gate.

ROBERTSON—ASTON.—On June 14th, at the Church of the Ascension, Balham, London, by the Rev. S. J. J. Allnutt, Frederick William, M.A., M.B., B.S., son of the late William Alexander Robertson, of Dunard, Dowanhill, Glasgow, and Sandhills, Monkton, Ayrshire, to Hope, third daughter of Charles James Aston, of 3, Lysias Road, Balham, London, S.W.

ROUGHTON—GODFREY.—On June 12th, at St. Peter's, Bayswater, by the Rev. C. L. Acland and the Rev. H. Ramsey, uncles of the bride, the Rev. H. G. Rosedale, vicar, and the Rev. G. Terry, senior curate, Edmund Wilkinson Roughton, B.S., M.D.Lond., F.R.C.S.Eng., of 33, Queen Anne Street, Cavendish Square, son of the late Robert Roughton, R.N., to Ethel Houlton, youngest daughter of Robert Seppings Godfrey, Registrar of the Supreme Court, of 6, Ladbroke Gardens.

SMITH—DU VAL.—On April 1st, at Rockhampton, Queensland, by the Rev. A. H. Julius, Edwin Charles Temple Smith, M.B., M.R.C.S.Eng., of Mount Morgan, son of Henry Smith, of Edgbaston, Birmingham, to Lucy (Dolly) daughter of the late Gerald Du Val of Rusholme, Manchester, England.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—1.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 3.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations,*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30 F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2 o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45 o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, W., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—Tu., 2.30; Th., 2

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30 Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. B. asks to be recommended a private nursing home suitable for a case of subacute rheumatism.

M.D. BRUX. asks to be recommended a home where a patient can be admitted with chronic eczema. She could pay 20s. to 30s. weekly.

M.D. will be glad if anyone, who has recently taken the D.P.H. Lond., will advise him as to the course and place of study most suited to the requirements of the examination.

NEURITIS asks for information as to the treatment for neuritis and rheumatism by iodate of sodium hypodermically; also as to hot air treatment.

VERAX would be glad to know where he could find a description of the method of using Guyon's instillator for injections into the deep urethra, and what are the results in chronic urethritis of the use of protargol.

M.D. (Manchester) wishes to know of any means by which the hair on a young lady patient's upper lip can be removed, or at least rendered less noticeable. He would also be glad to know the best method of removing a small nævus on the bridge of the nose, which had a traumatic origin.

BUNSEN asks for information as to the application of electrolysis to a nævus on the face of an infant aged about 8 months. He says he has a "Bunsen" and also a "Daniel" batteries; the "Bunsen" can be regulated to any strength; he would like to know what strength of current to use, how often, and how?

E. T. M. asks what clinical significance the presence of penicillium glaucum in the urine possesses. The urine of the patient is acid, has a specific gravity ranging from 1018 to 1029, contains no albumen and no sugar. The patient, a man about 44, suffers from headaches, is depressed, and has had slight dyspepsia. There appears to be no organic disease. For about three months he has been a total abstainer, but before that indulged rather too freely in alcoholic beverages, especially beer.

A CASE FOR DIAGNOSIS.

DR. J. C. WALKER (Mevagissey, Cornwall) writes: A. B., aged 42, a working man, has suffered for ten years from severe cerebral headache over the right parietal region. Latterly these have been more severe. Under treatment applied to the attended constipation with nerve tonics (arsenic, strychnine, etc.) the attacks have become less violent, but recur at least weekly. There is no external tenderness of the scalp. The pain comes on in the forenoon and lasts some hours. It is associated with a sensation of burning heat and throbbing of the temporal artery on the same side. The patient is hardly able to afford a consulting fee. I should be glad of any suggestions as to diagnosis and treatment.

ANATOMICAL ATLAS.

A. R. writes to know of an atlas or work giving clear, separate anatomical plates of muscles, nerves, etc., with descriptions, published at a moderate price.

*** Since the appearance of Quain's plates no work exactly of this kind has been published in this country. The work we would recommend is the *Anatomischer Atlas* of Dr. Carl Toldt, published by Urban and Schwarzenberg, Vienna and Leipzig. This work is comparatively inexpensive, very complete, and though only a certain number of the figures are of the full natural size, the others are adequate for every purpose, whether scientific or practical.

TWO CASES OF INTRACTABLE UTERINE HÆMORRHAGE.

DR. J. INGLIS PARSONS (Mayfair) writes: I should like to ask Dr. Purslow whether he tried the galvanic current before proceeding to do vaginal hysterectomy. I have recently had a case of this kind in my wards. The patient, aged 32, had continuous menorrhagia ever since the birth of her first child five years before. I curetted the uterus in the usual way, but so far from stopping the hæmorrhage, it became more profuse. Having arrested some of the worst cases of menorrhagia from fibromyoma with the constant current I determined to give it a trial in this case. The loss has ceased and she is now quite regular and the amount normal. She was able to go about during the treatment; a severe operation, not without danger, has been avoided, and she still retains her uterus and ovaries instead of undergoing an enforced menopause fifteen years before her natural time.

CORONERS AND LEGAL TRAINING.

M.D., C.M.EDIN., asks what legal qualification can be obtained, without being articled, suitable for a coronership, as he is informed that it is almost necessary to have some legal status in order to obtain such appointment? He asks, also, whether there is any book on the subject?

*** The only "legal qualifications" are those of "barrister" and "solicitor." There is no short cut to either. That of barrister can be obtained in about three years, assuming that there is no delay from failure to pass the necessary examinations. Strictly speaking, no legal qualification is necessary, either for a coroner or his deputy; but the possession of one is a great help to a candidate, and the course of study to obtain it most useful in the discharge of the duties of his office. Extensive actual experience of coroner's work, combined with a careful study of the criminal law relating to manslaughter and murder, may be an efficient substitute for a legal training. Attendance at the assizes and at the magistrates' courts when charges of murder and man

slaughter are being heard is most useful. There is no work on the subject, but a good deal can be learned from *Jervis on Coroners*, sixth edition (10s. 6d.), the standard authority on everything relating to coroners. The article Coroner, in the *Encyclopædia of the Laws of England*, may also be consulted.

TREATMENT OF PHTHISIS BY INHALATION.

DR. C. J. EVANS (Northampton) writes: In the obituary notice of the late Dr. Sinclair Coghill of Ventnor, no mention was made of a method of treatment of pulmonary consumption which he adopted, presumably with success, and recommended during some part of his career. I refer to the inhalation of iodine, creosote, thymol, and other similar drugs through a respirator worn for limited periods during the day. When I read the account some years ago I was much fascinated with the idea and the simplicity of the proceeding, and I resolved to give the method a trial in my own practice. This I did for many months and in a number of cases, when phthisis was more prevalent than it is now. Though I watched the effects carefully for some time, I must confess that I failed to find much, if any, improvement in the symptoms in whatever stage of the disease the treatment was commenced. After what I thought a fair trial I gave up the plan with disappointment and regret. My object, however, in writing these few lines is to ascertain from the readers of the BRITISH MEDICAL JOURNAL whether many of them have been led to adopt the same plan of treatment, and if so, whether it has been attended with better results than my own. Now that the treatment of tuberculous diseases is so much in everybody's mind, perhaps I may be favoured with a few replies on the above method in the pages of the JOURNAL.

ANSWERS.

MEDICUS.—We have no information on the subject.

J. A. J.—The opinion of the General Medical Council was expressed in the notice issued to the profession embodying a resolution adopted by the Council on November 24th, 1897, and we do not feel in a position to add to this.

JUSTITIA.—If our correspondent thinks fit he should bring the matter to the notice of the General Medical Council. We have, however, been unable to find the name of the person of whom he complains in the present *Register*.

W. E.—The mineral waters of Badenweiler are too weak for the effective treatment of chronic rheumatism, and a course at Wiesbaden or Wildbad would probably do more good; but Badenweiler is an excellent "after-cure" resort, and its moderate altitude (1,300 feet) renders it suitable for "weak hearts."

SPECIALISTS AND MEDICAL ETIQUETTE

CHOROID.—(1). It is unusual for a practitioner who seeks to confine his practice to diseases of the eye and ear to style himself upon his doorplate an ophthalmic and aural surgeon. Such a doorplate would be too much like an advertisement to be commendable. (2) After calls have been exchanged between the newcomer and old residents, the newcomer should wait for further advances, or he may, if he likes, seek to cultivate the friendship of the older residents by inviting them to his house.

SANATORIA FOR THE OPEN-AIR TREATMENT OF PHTHISIS.

F. M. and M.D. BRUX. will find particulars as to open-air sanatoria in the BRITISH MEDICAL JOURNAL of September 3rd, 1898, p. 667: October 29th, 1898, p. 1,383; November 19th, 1898, p. 1,599; January 28th, 1899, p. 247; and February 4th, 1899, p. 324.

NOTES, LETTERS, Etc.

A DISCLAIMER.

MR. R. G. HOGARTH, F.R.C.S. (Nottingham) writes: I beg to state that the article in the *Nottingham City News* of June 17th, referring to me, was published without my knowledge or consent.

THE HUNTER FUND.

MR. RIVERS WILLSON (Treasurer) (42, Wellington Square, Oxford) writes: Kindly allow me to acknowledge the undermentioned donations to this fund:

	£	s.	d.
Amount previously acknowledged	72	7	3
Dr. Glover, 25, Highbury Place, N.	5	5	0
Victor Horsley, Esq., F.R.S., 25, Cavendish Square, W. ...	5	5	0
George Brown, Esq., 6, Gibson Square, N.	3	3	0
Sir Wm. T. Gairdner, K.C.B., Glasgow	2	2	0
A L.S.A. Who Loves Fair Play	0	5	0
Frank Marsh, Esq., 34, Paradise Square, Birmingham ...	1	0	0
W. E. Wyllys, Esq., Great Yarmouth	1	1	0
A. J. Drew, Esq., Water Hall, Oxford	0	10	6
Dr. Cooke, Plymouth	0	10	0
G. C. H., London, W.	0	10	6
A Liveryman of the Society of Apothecaries	1	1	0
Dr. F. W. Goodbody, 35, Bedford Court Mansions, W.C. ...	1	1	0
Miss Clark, Kentish Town, N.W. (per Geo. Brown, Esq.) ...	0	5	0
Miss Ada M. Browne, 27, Belsize Crescent, Hampstead ...	0	10	6
Staff-Surgeon A. M. French, H.M.S. *Cæsar*	1	0	0
Miss Margaret Orange, M.D., Claybury	0	5	0
T. H. Williams, Esq., Plymouth	0	10	6
J. N. Patterson, Esq., Earleston, Lancs.	0	5	0
W. G. Noble, Esq., The Moorings, Walthamstow	0	10	6
Total	£97	7	3

AMBULANCE SHIPS IN THE BRITISH NAVY.

DR. P. MURRAY BRAIDWOOD (Aylesbury) writes: Under the above heading appears in your issue of May 27th a letter from Mr. H. Beale Collins, a retired R.N. surgeon, approving of the conversion of some of "our old ironclads" into hospital ships. Allow me to direct your attention, as also that of Mr. Beale Collins and other of your readers who are interested in the matter, to a communication of mine on this subject published in the *Lancet*, April 4th, 1896. In that paper the subject is fully discussed. It is impossible to convert a house into a sanitary and properly arranged hospital, and still more difficult to free an ironclad from the subtle carriers of death which congregate between the planks of a steamer. From the paper I refer to you also learn that it would be cheaper to build a steamer specially adapted for hospital purposes than to convert to this end a vessel constructed for a very different object. The *proper* housing at sea of sick and wounded persons seems to me too important a matter to be treated in an offhand manner.

VASOMOTOR RHINITIS EXCITED BY SULPHUROUS ACID.

DR. F. DE HAVILLAND HALL (Wimpole Street) writes: In your issue of May 20th (p. 1260) is described a fatal case of bronchitis arising from exposure to the fumes of sulphur. On May 13th a man consulted me on account of profuse watery discharge from the nose, with attacks of sneezing and feverishness. These symptoms only commenced when he undertook the management of some bleaching works, they cease when he leaves the neighbourhood of these works and recur when he goes back to the works. It is clear therefore that the vasomotor rhinitis is directly dependent upon exposure to the fumes of sulphurous acid, much in the same way as in Mr. Spurway's case acute bronchitis was excited. This is the first instance I have seen of vasomotor rhinitis due to sulphurous acid, and I am wondering whether any treatment will permit of my patient continuing his present occupation.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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BOOKS, ETC., RECEIVED.

Two Lectures on the Temples and Ritual of Asklepios at Epidaurus and Athens. By R. Caton, M.D., F.R.C.P. Reprinted from "Otia Merseiana."

Die Traumen der männlichen Harnröhre. Von Dr. M. Wasiliew. 1 Theil. Berlin: August Hirschwald. 1899. M.4.

Diseases of the Ear, Nose and Throat, and their Accessory Cavities. By S. S. Bishop, M.D., D.C.L., LL.D. Second Edition. Philadelphia: F. A. Davis and Co. 4 dols.

Physiologische Characteristik der Zelle. Von Dr. F. Schenck. Wurzburg: C. Kabitzsch. 1899. M.5.

Selby: A Pathological Morality. By Eppie Frazer. London: John Bale, Sons, and Danielsson. 1899. 7s. 6d.

Appendix XII to the Second Edition of the Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons of England. By S. G. Shattock. London: Taylor and Francis. 1898.

"*" In forwarding books the publishers are requested to state the selling price.

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AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(1) The Serum Diagnosis of Diphtheria.

BRUNO of Vierordt's clinic (*Berl. klin. Woch.*, December 19th, 1898) says that researches into the agglutinating action of diphtheria serum upon the diphtheria bacillus have been few. He has himself investigated from this point of view serums obtained from experimentally infected animals, and from patients suffering from diphtheria. Quite recent broth cultures of the diphtheria bacillus must be used, as old cultures readily show a pseudo-agglutination. It should be remembered that the diphtheria bacillus has a tendency at the commencement of its growth to fall to the bottom of the vessel without any general turbidity of the fluid. This tendency may be overcome by making successive cultures when in the third to the sixth generathe bacillus causes a general turbidity and a diffuse growth in the bouillon. If the reaction is positive a purely passive collection of the bacilli in small masses takes place. The reaction requires a longer time than Widal's serum test owing to the non-motility of the diphtheria bacillus. If the bacilli are too abundant in the hanging drop the reaction is obscured, as they tend to collect in the most dependent part of the drop. After examining the effect of the curative serum upon the diphtheria bacillus, Bruno made use of the serum from 44 diphtheria patients as well as from 12 normal individuals. While some normal serums were without action, others produced agglutination in solutions of 1 in 10 up to 1 in 30, whereas the specific serum produced agglutination up to 1 in 400. The serum from some cases gave the reaction in twenty-four hours. Two cases gave quite negative results on the first and third days of the disease, 10 did not succeed in a dilution above 1 in 30, 31 no longer reacted in a dilution of 1 in 100, and 13 reacted above that dilution. The author then investigated the questions of the specificity and constancy of this reaction. He concludes (1) that the occurrence of agglutination is not constant for all diphtheria cultures and serums, (2) the clinical serum diagnosis is for this reason impossible, (3) the distinction between the true and false diphtheria bacillus is not to be effected by this means, and (4) that pure undiluted diphtheria serum possesses *in vitro* a slight growth-restraining action, but has no bactericidal action on the diphtheria or pseudodiphtheria bacillus.

(2) Ocular Troubles in Diabetes.

DIANOUX (*Annales d'Oculistique*, October 1898) gives the impressions which 23 years of practice have left: (1) As regards the lens loss of transparency may occur, leading surely to cataract, soft or hard, according to the patient's age; he has not noticed variations in vision consentaneously with the evolution of the diabetes. The soft cataract develops exclusively in young people attacked with acute or pancreatic diabetes, and becomes complete in a few months. Rapid cataract in an adolescent should make us suspect diabetes. The grave form of diabetes has not the same action on the lens in the adult, in his experience: and he is doubtful whether in the chronic form cataract is of more frequent occurrence than in elderly people who are not diabetic. For senile cataract in the diabetic operation may be perfectly successful; whereas operation for diabetic soft cataract is frequently followed seven or eight days later by pulmonary apoplexy and death; and in any case the patient rarely survives twelve or fifteen months. (2) Vascular lesions: retinal hæmorrhages in diabetes are found exclusively in old people; the fact of their non-occurrence in the young makes him doubt their direct dependence on the diabetes; he would rather attribute them to arteriosclerosis. By direct examination the hæmorrhages are seen to proceed from small veins or capillaries; he has never seen one originating from an artery. The blood is absorbed in the course of some months, and vision may become normal again. But prognosis is bad; a fatal issue from cerebral softening is ever imminent, though health may be maintained for years. Albuminuric retinitis may be associated with diabetic changes. (3) Central scotoma: the principal symptom is progressive failure of central vision, particularly for reading; with the loss of form vision goes loss of colour vision. As diabetics are often alcoholic and indulge in smoking it is often difficult to attribute the scotoma to the one factor; but Dianoux had seen central scotoma in women and young people who did not take alcohol, but who passed large quantities of sugar. Unlike alcoholic and tobacco scotoma, diabetic scotoma never disappears.

(3) A Source of Lead Poisoning in Newborn Infants.

ROUSSEL (*Loire Médicale*, December 15th, 1898) has found that certain secret remedies used in the treatment of fissures of the nipple contain acetate of lead. In the cases recorded the remedy was known as the "Cosmétique X.," and it was observed that when this was applied to the breast the infant soon began to suffer from colic and constipation. The vomiting of lead poisoning was probably represented by regurgitations which were not distinguishable from those met with in overfed infants. It was quite evident, when the cosmetic was analysed, that the infants were the subjects of lead poisoning. Roussel, therefore, warns medical men against the use of applications the exact composition of which is unknown, in the treatment of mammillary cracks and fissures.

(4) Traumatic Locomotor Ataxy.

TRÜMMER, at the Berliner Gesellschaft für Psychiatrie (*Neurol. Centralblatt*, June, 1898), showed three patients in whom locomotor ataxy followed a severe traumatism. (1) A man, aged 52 years, with no history whatever of syphilis in cutting down a tree was knocked down and injured his left foot. About eight days after the accident weakness and lightning pains began in the left leg, and gradually the typical symptoms of locomotor ataxy developed. Diminution of sensation was more marked in the left leg than in the right. (2) A man fell out of a cart, and struck his back. This was followed by pains in the back and unsteadiness of gait, with gradual development of typical locomotor ataxy. (3) A patient suffered an injury to the arm, and this was followed by the gradual development of locomotor ataxy. That the traumatism bears a causal relation to the tabetic symptoms in such cases cannot be considered proved, but for practical purposes one cannot deny the possibility of a traumatic origin in some cases of locomotor ataxy.

SURGERY.

(5) The Operative Treatment of Prostatic Hypertrophy.

LOHNSTEIN (*Monatsb. ü. d. Krankheiten des Harn-und-sexual Apparates*, Bd. ii, Hft. 2, 1898) holds that Bottini's method of dealing with prostatic hypertrophy, although not generally applicable nor invariably successful, is as a rule less objectionable than any other kind of operative treatment. It is not a very serious or extensive operation, it need not necessitate any prolonged confinement in bed, and it is not followed by the psychical disturbance so frequently observed after castration. The author describes the improvements that have recently been made in the instruments used for incising and cauterising the enlarged prostate, and gives records of 12 cases in which he has practised Bottini's method. This treatment, he has found, is most effectual in cases of complete retention. He is opposed to the view that the troubles caused by prostatic hypertrophy are due to diffused degeneration of the coats of the bladder. Retention is the result, he holds, either of enlargement of the prostate itself or of a swollen and congested condition of the mucous membrane at and about the neck of the bladder, the former indicating Bottini's galvano-caustic operation, the latter castration or resection of the vas. Bottini's operation is the one most frequently indicated. It has the advantage over some other operations that should it fail it leaves no bad results—as, for instance, a persistent fistula or the wasting or complete loss of the testes. It is contraindicated only when the patient is very old and decrepit, and in cases of renal insufficiency.

(6) Greenstick Fractures of the Clavicle.

PLATT (*Medical Chronicle*, October, 1898) presents the first part of a contribution

to the surgery of fractures and dislocations of the upper extremity, based upon an analysis of about 700 cases observed at the Manchester Royal Infirmary. In this part, which deals with fractures of the clavicle and sternum, an analysis is made of 25 cases of incomplete or greenstick fracture of the former bone. This, it is stated, is one of the commonest accidents of childhood, and one which is not infrequently overlooked. The fracture usually starts at the anterior border of the bone in the middle third. After it has extended for a short distance it tends to take a longitudinal direction, to split the bone to a greater or less extent. In most of the cases tabulated by the author the patients were between the ages of 2 and 8 years. The fracture is almost invariably situated at a point between the inner border of the conoid ligament and a point midway between the sternal and clavicular ends of the bone. In the majority of cases it is at or slightly external to the middle of the bone. The injury is due in most instances to indirect violence, the force having been received on the shoulder. The treatment in cases of this kind is usually very simple. If the fragments be prominent, an attempt may be made to push them into proper position by pressure; but if this be done, care should be taken to avoid making the fracture complete. The treatment adopted in all the cases observed by the author consisted in fixing the arm to the side by means of bandages or strapping. An axillary pad can be dispensed with, but it is held advisable to place a thin layer of cotton wool in the axilla to prevent the skin surfaces from coming in contact.

(7) Surgical Treatment of Cancer of Stomach.

Guinard (*Thèse de Paris*, 1898) has prepared a valuable monograph on 302 cases of resection of the stomach, and on a large number of recent reports of that operation. He holds that every new growth of the stomach should be treated by resection as long as that operation is possible and justifiable on the grounds that the general condition of the patient is satisfactory. The mortality of the operation (once very high) is steadily decreasing:

	Date of Report.	Number.	Recovered.	Died.	Per Cent. Mortality.
Kahn ...	1883	27	4	23	85.18
Kramer ...	1885	72	17	55	76.30
Rydygier ...	1885	13	13	30	69.90
McArdle ...	1887	62	27	35	56.40
A. Guinard ...	1891	149	63	86	57.71
Zeller ...	1892	117	54	62	53.00
Halberkant ...	1894	207	114	93	54.40

Wölfler, scrutinising in 1896 the operations of fifteen German surgeons, finds that the mortality of 92 cases earlier than 1888 was 56.4 per cent., whilst in 173, between 1888 and 1896, it was but 31.2 per cent. The author (Urbain Guinard) makes out a mortality of 35.39 per cent. in 291 pyloro-gastric resections within the last eight years. Nor is the certainty of recurrence so constant as might be supposed. Löbker reported 2 patients free from recurrence five and seven years after operation respectively: Von Hacker's reports also give 2 free in one case, 6 in the other eight years. U. Guinard states that 45 out of 131 patients who recovered from resection of the stomach were at least alive at the end of a twelvemonth. He then quotes Krönlein, who has calculated that a case of gastric cancer still operable, but not submitted to resection, will live for about 209 days. Survivorship will clearly improve as surgeons intervene earlier, and become less afraid of cutting well beyond the diseased area. Guinard admits that diagnosis is extremely difficult in the earlier stages of cancer of the stomach. Even when the abdomen is opened by the knife, and the tumour is to be felt and to be seen, it is not always easy to be certain that it is cancer. Histological evidence alone can decide, nor is this easy to obtain under the circumstances. Guinard holds that under two conditions exploratory operation is justified: (1) Distinct modification of gastric chemistry, especially apepsia, and the presence of lactic acid after a test meal; (2) complete failure after careful dietary and medical treatment to keep the weight of the patient's body up to its normal rate, or to restore lost weight. Recent experience has demonstrated that exploratory incision for that condition is void of danger, whilst it too often shows that even resection is impracticable. Out of 75 cases of gastric cancer under the care of Mikulicz, 29 were unfit even for exploration. 17 were found too advanced for excision when an exploratory operation was performed, 21 were submitted to gastro-enterostomy, and 18 only underwent resection. This accords with the experience of other operators of high authority, such as Löbker and Krönlein. In short, it is only a fifth of all cases where symptoms give good reason to believe that cancer of the stomach exists in an early stage, that are amenable to surgical treatment.

(8) The Roentgen Rays in the Diagnosis of Nephrolithiasis.

Ringel (*Centralbl. f. Chir.*, No. 49, 1898) has been led both by laboratory research and by observations on the living subject to the conclusion that the uncertain results attending the use of the Roentgen rays in cases of supposed renal calculus are due to the fact that the transmission of the rays is influenced by the chemical composition of the calculous deposit. Whilst an oxalate calculus forms a well-defined picture, a urate calculus presents but an indistinct outline, and a phosphatic calculus, which like a gall stone transmits the rays, is almost if not quite invisible. The renal calculi which might be discovered by the use of the rays are those least frequently met with. The absence of a shadow, therefore, is no proof that a renal calculus is absent, and this rule will apply even to cases of oxalate calculi, as the outlines of such deposits may be obscured by pus or turbid urine. The application of the Roentgen rays is still more unsatisfactory in cases of vesical calculus, as the author has succeeded only twice in making out by skiagraphy the presence of a stone in the bladder, whilst in several cases of very large stone removed by operation on the living subject or after death no traces were afforded by this method of investigation.

MIDWIFERY AND DISEASES OF WOMEN.

(9) Cæsarean Section versus Symphysiotomy.

Charles (*L'Obstétrique*, November 15th, 1898) compares these two operations, basing his observations on: (1) Leopold's results of 100 Cæsarean sections; (2) Pinard's results of 90 symphysiotomies: (3) his own results of both procedures at the Liége Maternity. At the Dresden Hospital a conjugate diameter of 5½ to 6½ cm. is regarded as an absolute indication for Cæsarean section; from 6½ to 7½ the indication is considered as a relative one. Leopold's results are as follows: 71 conservative Cæsarean sections, 7 maternal deaths (9.8 per cent.), 5 fœtal deaths (7.4 per cent.); 29 Porro operations, 3 maternal deaths (10.3 per cent.), 8 fœtal deaths (27.5 per cent.). Total: 100 Cæsarean sections, 10 maternal deaths (10 per cent.), 13 fœtal deaths (13 per cent.). Pinard's figures show very similar results, namely: 90 symphysiotomies, 10 maternal deaths (11 per cent.), 12 fœtal deaths (13 per cent.). The results of the two operations at the Liége Maternity are: 10 Cæsarean sections, 0 maternal deaths, 0 fœtal deaths; 14 symphysiotomies, 3 maternal deaths (21.5 per cent.), 1 fœtal death (7 per cent.). Charles concludes that symphysiotomy is not a less dangerous procedure than Cæsarean section, as is sometimes supposed, but rather more so.—Washburn (*Boston Med. and Surg. Jour.*, June 30th, 1898), in discussing the relative advantages of these two operations, relates two cases in which he was called upon to do Cæsarean section in country tenements. One was done at night by the light of one kerosene lamp and a candle, in a small crowded room, on a board stretched between two trunks and covered with a boiled sheet. Results were favourable in both cases to both mother and child. He claims that with a complete asepsis the mortality of Cæsarean section should not be over 5 per cent. He concludes that it is a better operation than symphysiotomy on the grounds that (1) it is easier to perform since no special instruments are required, only soft parts are cut through and these are exposed to view, any hæmorrhage is easy to control, and the operation is quickly finished, whilst in symphysiotomy much of the cut part is out of sight; after the point is severed there is still the difficult task of delivering the baby, for which purpose obstetrical forceps are generally needed, and serious tears of the soft parts are likely to result; (2) it is safer as regards

hæmorrhage and injury to adjacent parts, just as safe as far as sepsis is concerned, and it has a less tedious convalescence with no fear of a loose pelvis, though there is slight fear of ventral hernia.

(10) Hydrogen Peroxide in the Treatment of Puerperal Sepsis.

J. N. UPSHUR (*Virginia Med. Semi-Monthly*, November 11th, 1898) treats cases of puerperal sepsis in the following manner: First the interior of the uterus is irrigated with a normal salt solution, then secundines and other retained foreign materials are removed by means of the sharp curette, and then irrigation with the solution repeated. After thoroughly drying with aseptic cotton or gauze hydrogen peroxide is applied to the uterine cavity by means of a small intrauterine syringe. The foam should be removed, and fresh applications made until the cessation of foaming gives positive evidence that the uterine cavity has been thoroughly cleansed. This procedure should be practised daily until the temperature falls to normal and remains at that point. Three illustrative cases are related in which this treatment was employed with success. Upshur believes that the hydrogen peroxide causes a rapid oxidation or super-oxidisation of effete organic matter, thus completing in a very short time what it would take the unassisted process of Nature a dangerously long period to accomplish. It is non-corrosive and non-destructive of healthy tissue.

(11) Puerperal Eclampsia.

BARON AND CASTAIGNE have carried out (*Arch. de Méd. Expér.*, September, 1898) an important series of experiments with a view to proving the fœtal origin of puerperal eclampsia. Within recent years pathologists have come to the conclusion that puerperal eclampsia is not due to maternal, renal, or hepatic diseases, at any rate wholly, but that absorption of toxic products from either the fœtus or its annexæ, as to whether the fœtus or the amnion is most to blame, forms the subject of the writers' investigations. They find that certain substances injected directly into the fœtus or the amnion are rapidly absorbed by the maternal organism, provided the fœtus is living, but much more rapidly from the fœtus than from the amnion. From this it would seem that the fœtus secretes certain toxic substances into the blood and amniotic fluid. What these toxins are is to form the subject of a subsequent investigation. Secondly, if the fœtus be dead, substances injected into either amnion or fœtus do not seem to pass into the maternal circulation. This would seem to throw considerable light upon the various phenomena of eclampsia, and especially as showing that the death of the fœtus is followed by cessation of the convulsive seizure.

(12) Glycosuria in Pregnancy.

SINCE KLEINWÄCHTER (*Zeits. f. Geburtsh. und Gynäk.*, vol. xxxviii, 1898) published 32 cases of glycosuria in women with diseases of the genital tract, and others have written on diabetes insipidus in pregnancy. Brocard (*Semaine Médicale*, November 30th, 1898) reports that he has noted 60 cases of glycosuria in 125 pregnant women. The proportion of sugar in any one case varies greatly according to diet, time of day when the urine is passed, and many other conditions. Strictly speaking it is lactose as well as glucose, and more exceptionally levulose, and even saccharose that are found in these cases, which are thus more safely called diabetes mellitus than glycosuria. Brocard found that purely "alimentary glycosuria" could be produced in certain women by giving them 2 or 3 drachms of grape sugar daily. This might imply imperfect action of the liver, but glycosuria is seen in women with no other evidence of hepatic mischief. Diabetes of pregnancy (or "glycosurie gravidique," as Brocard terms it, though admitting that glucose is always the sugar found in these cases) seems rather due to general disturbance of nutrition. Charrin, in a discussion on Brocard's communication, stated that he did not find "alimentary glycosuria" so frequent as others have stated, in hepatic disease. Matty changes in the parenchyma, common in gestation, did not necessarily mean elimination of sugar.

(13) Diabetes Insipidus and Pregnancy.

VINAY (*Lyon Médical*, November 27th, 1898) publishes two important clinical reports on pregnancy associated with polyuria. The first patient was 32. She kept a farm, and received so violent a mental shock when a flood destroyed her crops that polydipsia set in, followed by characteristic diabetes insipidus. She passed up to 42 pints of urine daily yet continued to menstruate, and became pregnant for the second time. During pregnancy the polyuria abated, falling to under 9 pints. Delivery was normal, the breasts full of milk, and the patient insisted on suckling her child. The urine steadily increased in quantity. She left the lying-in hospital in good health; but double embolic pneumonia set in next day and proved fatal. The second case was of an opposite type. A woman, aged 26, became diabetic during her fifth pregnancy, owing to a fire which destroyed her house during the fourth month. She passed up to 20 pints of almost pure water daily, the solid constituents of the urine being eliminated to the normal extent only. Later she was troubled with vomiting and diarrhœa, losing weight and strength. Labour occurred spontaneously at term. The child was sickly and died at the end of a fortnight. For a time after delivery the patient improved in health. Less urine was excreted and she gained in weight; but phthisis set in, and she died fifteen months after delivery. Vinay refers to cases reported by Bennett, Matthews Duncan, Esterle, Merbach, and Kleinwächter.

(14) The Bacillus Typhosus in a case of Puerperal Infection.

DOBBIN (*Amer. Journ. of Obst.*, August, 1898) enumerates the micro-organisms found in the uterus by various observers in cases of puerperal fever—namely, streptococcus pyogenes, staphylococcus (aureus and albus), bacillus coli communis, gonococcus, bacillus of tetanus, Klebs-Löffler bacillus of diphtheria, diplococcus pneumoniæ of Fraenkel, bacillus proteus, bacillus aërogenes capsulatus, and the anaërobic gas-producer of Lindenthal (the last in cases of physometra). He then relates a case in which, in addition to streptococci and staphylococci, the lochia contained the bacillus typhosus. The clinical aspect of the patient and the course of her disease were characteristic of pyæmia rather than of typhoid fever; hence the author thinks the case was one of mixed infection from without rather than of typhoid fever. He quotes a somewhat similar case from Kühnan, in which, however, illness began six days before labour, and the course of the disease was more suggestive of typhoid. The bacillus typhosus was found in the blood.

THERAPEUTICS.

(15) Treatment of Asthma.

GOLDSCHMIDT (Munich, 1898) closes an essay on this subject with a consideration of the treatment of the affection. He divides it into (1) purely medicinal, (2) the physical, and (3) the inhalation treatment. He attaches great value to the use of morphine in some cases, especially where the attacks are infrequent but pronounced. If morphine is not well borne then chloral may be used in a dose of 2 grams, to be repeated in doses of 0.5 gram every quarter of an hour until sleep is induced. More than 5 grams should not be given in this way. In cases of prolonged asthma with expectoration, iodides combined with expectorants and opium are often useful. Amyl hydrate also acts extremely well, but sulphonal and trional are useless. Stramonium fumigation may be of great value, but sometimes fails. Occasionally antipyrin and quinine may be useful. The attacks return after the chloroform narcosis passes off. Expectoration must be encouraged, and here the iodides are of most service; they may be given over long periods of time. In cases where expectoration is abundant iodides may not only be useless but harmful. Goldschmidt then discusses the value of the compressed air cabinet. This is useful in some of the sequelæ of asthma but not in the actual acute attack, which may indeed be made worse by it. Inhalations are far too little appreciated in asthma. Irritating inhalations which produce cough must be avoided. The author attaches some value to hydrotherapeutic treatment in some cases of asthma. The patient should gradually be accustomed to colder baths of short duration with douches. Even when catarrhal symptoms are present the body may be vigorously sponged with water at 18° C. Warm drinks should be given at the same time. In some cases of permanent asthma baths at 27° C.

with douches at 12° C. may be of service. When these fail vapour baths may be of great value, but they are sometimes followed by untoward symptoms; they should be limited to two in the week. Finally, in case of an acute attack or an exacerbation the treatment is commenced with stramonium fumigation. If this fails, strong stimulation of the skin with hot water should be tried. If these measures have previously proved ineffective, morphine or chloral should be given.

(16) Calomel in Typhoid Fever.

Andrievsky has made in the Russian military hospital of Krasnoie-Sielo a series of therapeutic experiments with the object of determining the value of calomel in typhoid fever (*Sem. Méd.*, December 28th, 1898). In 71 cases he gave calomel in a dose of 30 cg. thrice daily, while for the purpose of comparison he gave quinine in the same doses in 40 other cases. The patients in the first group continued to take the calomel till their evening temperature became normal; this result was obtained after a total amount of the drug varying from 8 to 20 grams had been taken. Stomatitis never occurred, nor was diarrhœa aggravated. Moreover, the disease in all these patients was mild in type, and often aborted. The fever abated more quickly, and the mortality (2.82 per cent.) was less than in the cases treated with quinine. No patient who was put on the calomel treatment within the first week of the illness died. Andrievsky concludes that although calomel is not a specific, it is a most useful remedy in typhoid fever.

(17) The Therapeutic Uses of Suprarenal Gland.

Fr. Robin (*Thèse de Paris*, 1898) records a case presenting all the symptoms of Addison's disease together with tuberculous lesions in which, under the influence of suprarenal medication, all the symptoms, including the bronzing of the skin, disappeared and the patient recovered his strength. The cure has been maintained three years. Fresh glands were given, and a hydro-glycerinated extract of suprarenal juice was administered by hypodermic injection.

(18) Artificial Serum in Puerperal Fever.

Eberhart (*Centralbl. f. Gynäk.*, No. 41, 1898) strongly recommends subcutaneous injections of a 0.9 per cent. solution of table salt in puerperal fever. This treatment proves specially useful in cases where there is more or less constant vomiting. That complication involves great loss of fluid from the tissue and circulation, without corresponding elimination of septic elements. A litre, or about 1 pint 14 ounces, should be injected at one sitting. It is found that the injection acts as a diuretic. In consequence the bacteria and the products of tissue change which they produce are feebly eliminated, and at the same time the septic constituents pass through the renal circulation in as dilute a dose as can be effected by any therapeutic means. Sahli saved a patient where there was uræmia with typhoid symptoms by subcutaneous injections; others have had very good results, especially in France. The great advantage of the subcutaneous injections of artificial serum is that they can be easily made, and are quite practicable for private practice, even when the doctor has no experience in abdominal work. Again they can be managed without an assistant. They are thus, for general reasons, much preferable to intravenous saline injections.

(19) Prevention of Sore Nipples.

Mabbott (*N. Y. Med. Jour.*, September 10th, 1898) describes a simple plan of treatment which he has found highly efficacious. It is the use of lanolin and a nailbrush. Every night at bedtime, beginning four to six weeks before the expected confinement, a small portion of lanolin is thoroughly worked into each nipple with thumb and fingers, special pains being taken to work it into any folds or creases, especially in the case of depressed nipples. The kneading process has the effect of forming the nipple. The second and more important part of the treatment consists in the use of a soft nailbrush every morning to remove the lanolin. The nipple should be brushed with lukewarm water and any mild pure soap, giving it a perfect lathering for three or four minutes; it should then be rinsed in fresh water and dried. The effect is to remove every detachable fragment of epithelium together with any little crusts of dried secretion which may have accumulated and which unless removed act as a protection to the surface of the nipple and keep it tender and delicate. It is claimed that this treatment will almost guarantee against subsequent abrasions and tenderness.

PATHOLOGY.

(20) The Reaction of Syphilitic Blood to Mercury.

Kuperwasser (*Archives des Sciences Biolog. de l'Institut Impér. de Méd. Expér. à St. Petersbourg*, Tome vi, No. 4, 1898), instead of comparing syphilitic and non-syphilitic blood directly, with a view to determining what modifications the former undergoes during the disease—a method which has always yielded negative or contradictory results—has investigated the changes which occur in healthy and syphilitic blood after the administration of mercury. He classifies the white corpuscles, which, according to Ouskoff, all arise from one and the same element, namely, the small mononucleated lymphocyte, into (1) young, (2) mature, and (3) old leucocytas. The writer then shows (1) the blood of healthy people is modified by mercury in the following direction: The proporoion of young leucocytes present is considerably increased and that of the old considerably diminished: (2) the blood of syphilitics reacts to mercury by a considerable diminution in the proportion of young, and a corresponding increase in that of old leucocytes. This reaction is independent of the stage of the disease, and takes place whether there are at the time any syphilitic manifestations or not, and also whether the patient has or has not previously been subjected to specific treatment of mercury and iodides. Those who have undergone treatment by mercury within four months of applying the blood test form the only exception to this rule. In such cases the reaction of syphilitic is replaced by that of healthy blood, possibly because the patient still retains a considerable quantity of mercury, or because under its influence the disease has become so attenuated that the blood gives a normal reaction. Kuperwasser believes that this reaction, based on the observation of 48 cases, will prove to be one of the most certain methods of diagnosing syphilis, and suggests that many disputed points, such as the relation of those diseases called by Fournier "parasyphilitic" to syphilis, might be solved by its general application.

(21) Experimental Inorganic Cardiac Murmurs.

Talma (*Berl. klin. Woch.*, November 21st, 1898) draws attention to some experiments made in his clinic by Van Dorsten. The dogs were narcotised with morphine. The limits of the heart could be accurately ascertained by percussion. The places where murmurs could be heard loudest were localised by means of long pins. It was thus shown that murmurs were best heard over their sites of origin, especially those made in the conus arteriosus. Murmurs originating in the conus were not apt to be confounded for those made in the pulmonary artery. In the experiments the left carotid and right jugular vein were laid bare, and a glass tube placed in the crural artery and one in the femoral vein for the introduction of fluid. It was thus proved that (1) inorganic murmurs were rarely caused by oligæmia, (2) hydræmia and especially marked hydræmic plethora favoured their production, (3) quinine produced a dilatation of the cavities of the heart with cardiac and arterial murmurs closely resembling those found in chlorosis, (4) infrequency of the heart's action due to a marked filling of the cavities of the heart favoured the development of murmurs, and (5) a strengthening of the systole accentuated the murmurs or produced them. The experiments are then given in short detail. Hydræmia or hydræmic plethora was produced by running in warm saline solution into the femoral vein, and oligæmia by bleeding. In several experiments oligæmia was produced first when no murmurs were heard, and then hydræmia when murmurs developed. The action of quinine was such as to lead to a dilatation of the conus arteriosus and left chambers, with a systolic murmur in the conus, or less often at the apex or on both sides. So long as the systole was strong and the cavities dilated an arterio-diastolic murmur could also be heard in the carotids. It was shown that in quinine dilatation there was no tricuspid regurgitation.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(22) Obesity, Gout, and Diabetes.

EBSTEIN (*Deut. med. Woch.*, November 3rd, 1898) discusses the relationship of these three conditions and their exact place in the classification of disease. In all a family predisposition exists. This heredity has been most often noted in the children who most resemble their parents in external appearance. Often in families there exists through many generations a tendency to obesity, when the disease may appear quite early in life notwithstanding moderate living and sufficient exercise. It has been stated that the obese possess a much less power of tissue combustion than others, and that metabolism is diminished. Ebstein does not agree with the first view, but thinks that the second may be correct. Apparently there is a predisposition on the part of the cells in the obese to take up more fat than the cells of healthy individuals. The frequent coexistence of gout and obesity is strongly suggestive of a relationship between these affections. Duckworth drew attention to the early occurrence of obesity in gouty families. On the other hand, lean individuals suffer from gout. If both obesity and gout exist in the same individual, obesity precedes gout. Obesity is widely distributed, whereas gout is more limited as regards the regions in which it prevails. In his own investigations Ebstein discovered inflammatory and necrotic foci in gout where urates crystallised out. These necrotic areas can be experimentally brought about in birds with their uric-acid-containing urine, if their ureters are tied, or if by means of poisons which produce necrosis in the renal parenchyma the excretion of uric acid is diminished. In the ordinary attack of gout there is considerable destruction of nuclein; uric acid is derived from this. If a stagnation occurs of the body fluids which are rich in uric acid there is an attack of gout. Diabetes stands in relation to gout, and gout may accompany obesity. Indeed, all three diseases may follow each other. Diabetes more often than gout may develop in thin individuals, and then usually in its worst forms. Ebstein looks upon these diseases as due to some defect in the protoplasm of the body. It has been shown that diabetics exhale as much carbon dioxide as healthy individuals only when the carbohydrates in the diet are limited. Even if in diabetes there is a suppression of some function of the pancreas, this in itself would exercise a damaging influence upon the protoplasm.

(23) Skin Changes in Gout.

POSPELOFF (*Vratch*, No. 40, 1898) states that in addition to the nodular changes of the skin in gout observed by Garrod on the conchæ of the ear and by Eichhorst on the face, he has observed a macular form of gouty skin eruption. The latter can be seen in three different stages. The first stage consists of disseminated, rusty brown, irregular or dendroid spots, which do not disappear on pressure and are seen chiefly on the shins. Under suitable treatment, and often without it, these spots disappear, but are observed again with each fresh attack of gout. If the original disease persists owing to the patient's habits, we get the second stage of the eruption, which now consists of bluish-violet spots in addition to those of a rusty-brown colour. The spots do not disappear on pressure with the finger, thus indicating an effusion of blood into the skin and cellular tissue. As the blood collects under the horny layer of the epidermis the latter gets soaked and separated and forms a series of large scales with tooth-like margins of the macerated white horny layer. A microscopic examination of an excised piece of skin by direct and by polarised light showed that the violet-coloured and rusty red spots were due not only to a deposit in the corium of blood pigment, but also of amorphous urate of soda and of crystals of uric acid. If the gout increases, its attacks become more frequent, and we then get a general erythema of the affected limb; the reddened skin becomes shiny, sloughs in places, and ulcers are formed; this constitutes the third stage of gouty skin lesions. These appearances, more especially the rusty brown spots of commencing gout, are so characteristic that gout can be diagnosed by them alone—a circumstance deserving the attention, not only of dermatologists, but also of physicians generally.

(24) Tuberculosis Verrucosa Cutis.

COMBY (*Arch. de Méd. des Enf.*, December, 1898) describes some cases of this affection in young children. It was first recognised by Riehl and Paltauf in butchers, cooks, coachmen, and other persons who have to do with animals. The parts affected were as a rule the dorsal surface of the hands, but the palmar aspect was attacked in some cases, and occasionally the wart-like lesions might be seen as high as the elbow. On the palms the lesions were small and very hard and dry. On other parts the wart was situated on a red base and was surrounded by a zone of erythema. The true nature of these warty growths may usually be at once recognised by the fact that a little sanious pus can be squeezed from the centre of the wart which is deeply fissured. Frequently the central wart is surrounded by crusts. The lesions in children are occasionally seen on the feet. Comby observes that the children thus affected have resided with persons suffering from pulmonary phthisis, and attributes the local infection of the skin to the habit of young children of crawling about on the floor where it may be supposed that the infectious sputum has been deposited. The treatment he recommends is the actual cautery, preceded, if the individual lesions are large, by scraping.

(25) Senile Epilepsy.

ROSIER has studied (*Thèse de Paris*, 1898) the question of epilepsy in late life. Trousseau in his clinical lectures described how an elderly man may suddenly fall in what might be looked upon as an apoplectic seizure, but the symptoms do not last very long and on coming round he seems stupid and heavy; the following day no unpleasant result is left. Or the attack may be less severe, consisting merely in slight dizziness and dimness of vision. Such cases have long been looked upon as due to cerebral congestion. In point of fact they are epileptic. There is a difference of opinion as to whether heredity plays any part in such cases, but Féré is quoted as believing that in such cases there is a latent hereditary tendency, and should any influence arise such as prolonged alcoholism, syphilis, or indeed any disease, the result may be an explosion of epilepsy. Even ordinary arterio-sclerosis may induce epileptic seizures when there is such tendency, even though the patient have escaped until late in life. The seizures seem as a rule to be characterised by intellectual failure, and in many instances senile dementia supervenes.

SURGERY.

(26) The Cure of Tuberculous Peritonitis by Laparotomy.

HILDEBRANDT (*Münch. med. Woch.*, Nos. 51 and 52, 1898) gives reasons for rejecting most of the theories which have been advanced to account for the success obtained by laparotomy in this disease, for example, those which ascribe the beneficial effects to the removal of fluids; to the accidental introduction of putrefactive organisms which are supposed to inhibit the growth of the tubercle bacilli; to the effects of light or air on the bacilli directly; to an outpouring of a serum which has bactericidal properties, etc. The author observed the effects of laparotomy on healthy animals (dogs and rabbits) and on those in which he had induced tuberculous peritonitis. In each case the operation was followed: (1) By a short arterial hyperæmia. This was most marked in the serous coat of the small intestine, less so in that of the large, and least of all in that of the stomach and in the parietal peritoneum. (2) By a venous hyperæmia which lasted, in the healthy animals, four to seven days, in the diseased considerably longer. (3) By more or less paresis of the gut. If the air of the room was heated to body temperature, there was less reaction. If the air was excluded altogether, by operating with the body of the animal submerged in normal saline solution heated to body temperature, there was much less vasomotor disturbance and little paresis. Laparotomy was found to be of no use in the early stages of the disease. This might be explained by the fact that cultures taken from the abdomen early in the disease were more virulent than those taken later, that is, there was a

tendency to spontaneous cure. Laparotomy merely assisted this tendency. The best time to operate was after the signs had become distinct, and before the animal began to emaciate. The degree of improvement after operation depended largely on the degree of venous hyperæmia that was induced. This in its turn was an inflammatory phenomenon due chiefly to the irritating effect of the air on the peritoneum. Where air was excluded during operation, there was distinctly less improvement than when the laparotomy was performed in the usual way, though the animal recovered from the immediate effects of the operation more readily.

(27) Symptomatic Varicocele.

Hauser points out the diagnostic importance of varicocele in cases of renal cancer (*Journ. de Méd.*, November 10th, 1898). This had already been noticed by Guyon. In 6 cases of malignant renal disease the latter observed a varicocele, 3 being right and 3 left, and in one of these cases there was no other sign of the renal growth. The author of course points out that varicocele may be present independently of any renal tumour, but under these circumstances it is usually of long standing. On the other hand, the appearance of varicocele in a patient of more advanced years than is usual with this condition should draw attention to the condition of the kidneys, and the side on which the varicocele appears would indicate the kidney affected. The progress of the varicocele is also considerably rapid compared with the idiopathic form. The interpretation of this sign of renal malignant disease is somewhat obscure, but the suggestion offered by Hauser is that the pressure of the growth, and secondarily enlarged glands on the spermatic veins is sufficient to give rise to varicocele. From this it would seem that the occurrence of varicocele in a patient suffering from renal cancer would indicate that the growth was spreading, and therefore its value in considering operative procedure is of importance.

(28) The Method of Reaching the Heart Surgically.

Giordano (*Rif. Med.*, October 15th, 1898) passes in review the various methods proposed for getting at the heart, and concludes that the method selected should be: (1) Speedy, as a few moments may mean the difference between life and death; (2) the opening should be large enough to admit of free manipulation, and to give a good view of the injury; (3) should necessitate as little extra assistance as possible. The anterior and lateral surfaces of the ventricles and sinuses of the heart are accessible from the anterior wall of the thorax. For suture of the ventricles, resection of a single rib (the fourth or fifth) is sufficient, and there is no need to resect any part of the sternum. For the vesicles, it is necessary to resect the third and fourth rib, and make a quadrangular opening reflecting the ribs at their chondro-sternal junction. The posterior surface of the ventricle is accessible from the postero-lateral surface of the thorax.

(29) Operation for Perforated Gastric Ulcer.

Keen and Tinker (*Phil. Med. Journ.*, June 14th, 1898) have collected 78 cases of operation for gastric ulcer, of which the results are as follows: (1) The 78 operations were performed during two years, whereas a similar number of cases collected by Weir and Foote (*New York Med. News*, April 25th and May 2nd, 1896) extended over sixteen years; this shows the advance of the surgery of gastric ulcer. (2) As regards age and sex, there were 61 females and 9 males; in 8 cases the sex is not given. Of the males, all were over 25 and 4 over 40 years of age; of the females, 41 were 25 years old or under, and only 16 over 25; age not given in 4 cases. (3) The site of the perforation was on the anterior wall in 52; posterior wall in 8; near lesser curvature in 31; near cardia in 27; near pylorus in 13. (4) In 9 cases the ulcer was not found; in Weir and Foote's series it was not found in 16 cases. This is due to the operator fearing to separate adhesions; now that this error of technique has been pointed out such cases will diminish in number. (5) The mortality has progressively diminished. In cases operated on within twelve hours after perforation the mortality in Weir and Foote's series was 39.13 per cent.; in Keen and Tinker's series it was 28.57 per cent. before 1896, only 16.66 per cent. after that date. In cases operated on from twelve to twenty-four hours after perforation the mortality was 50 per cent.; from twenty-four to forty-eight hours 55.55 per cent.; and after forty-eight hours 25.31 per cent. This shows the great advantage of operating within the first twelve hours. Keen concludes "that when the profession at large understands that 5 patients out of 6 can be saved by immediate operation the mortality will still further diminish." He warns, however, against neglect of care and thorough antisepsis in the haste to operate.

(30) Craniectomy in Microcephalic Idiocy.

E. Blanc (*Loire Médicale*, December 15th, 1898) gives later details regarding seven cases in which craniotomy was performed for microcephalic idiocy. The first two cases were operated on in 1891, the third in 1893, and the other four since. In all there was most evident and immediate improvement; then the condition became stationary; and finally there was a return to the primitive condition. The flashes of intelligence which had been noted were extinguished, the face became expressionless; signs of excitement reappeared, such as weeping, laughing, inarticulate cries, and convulsions, and walking became difficult and hesitating, as it had been before the operation. All the ground so slowly and painfully gained was lost. Blanc is of opinion that the differences in the results are due to the nature of the microcephalic idiocy. When one has to do with primitive microcephaly (the most frequent form), one cannot expect a permanent good result from surgical intervention, for the arrest in brain development takes place at the fourth month of intrauterine life. When, however, one has to do with post-embryonic or late microcephaly (which is the exception), it is right to expect a better result, and permissible to give a more hopeful prognosis. Blanc is not favourably impressed with Doyen's temporary hemicraniectomy or Jaboulay's mobilisation of the cranial vault. If the microcephaly is secondary, the ordinary procedures are sufficient; if it is primitive, no intervention, however extensive, will be successful. It is not the cranium but the brain that is at fault.

MIDWIFERY AND DISEASES OF WOMEN.

(31) Senile Changes in the Fallopian Tubes.

E. Schnaper (*Centralbl. f. Gynäk.* No. 44, November 5th, 1898) points out that while the senile changes in the uterus and ovaries have been fully investigated, little has been discovered regarding those in the Fallopian tubes. He has been able to find references to these changes only in the researches of Ballantyne and Williams (published in the British Medical Journal) and of Grusdew. He had examined the tubes from 20 women, varying in age from 47 to 90 years. In each case he investigated the structure of the uterine end, of the middle part, and of the abdominal extremity of the tube. He found in the mucous membrane changes very similar to those which occcur in colpitis senilis: there was partial loss of the surface epithelium, more or less marked growth of connective tissue, and a bridging across or complete closure of the lumen of the organ. Unlike Ballantyne and Williams, Schnaper did not find an almost complete withering of the longitudinal musculature of the tube, but there was nearly complete disorganisation of both the circular and longitudinal layers. An ingrowth of the connective tissue splits the musculature up into islands, and there is more or less marked thinning of the wall of the tube. Two neighbouring tubal folds which have lost their epithelial covering in part may become united by their apices, and so give rise to the appearance of glands. In the adventitia of the vessels, just as in the musculature, there is seen a process of growth of granulation tissue followed by shrinking. As a result of these senile changes, it is no longer possible to recognise a clear distinction between the three parts of the Fallopian tube.

(32) Deciduoma Malignum simulating Acute Tuberculosis.

Driessen (*Centralbl. f. Gynäk.*, No. 40, 1898) writes of a woman, aged 34, who was admitted into Professor Treub's wards three months after aborting at the fifth month. The patient had been five times pregnant, and hitherto had never carried a child to term. No history of vesicular mole could be obtained.

The patient was rheumatic, but not syphilitic. The curette was found necessary on the day of admission. Severe hæmorrhage ensued. Within a few days the temperature and pulse rose. Dyspnœa set in, and crepitating rhonchi were detected on auscultation. In less than three weeks the patient died with all the clinical symptoms of acute tuberculosis. There was very careful examination of the viscera after death, both by dissection and with the microscope. The lungs were studded with numerous foci, some as big as an apple. They were of a dark red colour, many breaking down in the middle. In both apices were old, calcified tuberculous nodules. In the posterior part of the uterine wall lay a new growth $1\frac{3}{4}$ inch in diameter. On section it precisely resembled the metastases in the lungs. In the right broad ligament, close to the tube, lay a deposit as big as a cherry. No similar deposits were found in any other of the thoracic or abdominal viscera, and the ovaries were normal. Microscopically the primary uterine growth and the metastases of the lungs proved identical. Histologically they seemed to rank as sarcoma. This paper was read before a Dutch medical society, and an interesting discussion ensued. Veit maintained that there is some unknown pathological condition associated with gestation which is the common origin of vesicular mole and deciduoma malignum. It may cause the development of an innocent mole; it may set up a mole which proves malignant, ending in a deciduoma; or, on the other hand, it may cause the direct appearance of a deciduoma unassociated with a mole. Women may, of course, bear children after being delivered of a vesicular mole. This means that the unknown disease, which ends in this case by developing a benign mole, has undergone cure or disappeared spontaneously before subsequent impregnation. Strutz related a very clear example of this condition. A woman in her fifth pregnancy provoked abortion. Endometritis followed. The curette was used, and the disease was found to be of the glandular type. Shortly afterwards the patient became pregnant, and expelled a vesicular mole. The curette was once more employed, and again the scrapings presented the microscopic appearances of glandular endometritis. One year later the patient was spontaneously delivered of a healthy living female child.

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(33) Apostoli's Treatment of Catarrhal Affections of the Appendages.

MME. KAPLAU-LAPINA (*Annales d'Electrobiol*, September 15th, 1898) records her experience of six years in the electrical treatment of gynæcological affections in a memoir, which commences with a succinct account of the gynæcological applications of electricity according to Apostoli's method. She points out the precautions which must be taken in applying this method, the results which are to be anticipated from it, and also the principal indications for its use. In support of these general considerations she cites 16 cases of catarrhal affections of the uterine appendages, all those which she has come across in the course of her gynæcological practice. In all the results were most satisfactory, and from their study she deduces the following conclusions: (1) The chemical galvanocautery applied to the interior of the uterus or of the vagina by Apostoli's method, and according to the indications laid down by him, is an excellent symptomatic treatment for catarrhal affections of the adnexa complicated with endometritis, and contributes powerfully, though to a variable extent, to their anatomical involution. (2) Although suppurative affections of the appendages, and in part also cystic collections, are above all indicative of surgical treatment, they yet can in some instances be brought under this same electrical manipulation (in this case applied in feeble degree and with all the precautions called for by circumstances) in order to clear up a doubtful diagnosis, and to confirm when requisite the necessity for operative intervention. (3) Appropriate electrical treatment may be applied either tentatively for electro diagnosis or for curative treatment either symptomatic or conducing to anatomical resolution, and can produce very favourable secondary and remote effects, particularly in the facilitation of subsequent conception, which was found to occur in 9 out of the 16 patients thus treated.

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(34) The Treatment of Pelvic Exudations by Juxta-Cervical Elytrotomy.

SPINELLI (*Archiv. Ital. di Ginecol.* (An. 1, No. 4) writes strongly in favour of operating upon such cases when necessary through the vagina. Amongst the indications for elytrotomy the author enumerates pelvic abscesses bulging into the vagina, phlegmons of the broad ligament, periuterine hæmatoceles (which are infective or show no tendency to absorption), perimetritis resisting medical treatment, and collections of fluid in or about the uterine annexa. The operation is contraindicated in cases of loculated peritonitis secondary to perimetritis or salpingitis. The author describes the technique of his operation, which consists broadly of a semicircular transverse incision round the neck of the uterus, through which the collection of fluid is reached. An important point is what the author calls the exteriorisation of the sac, drawing it down to the vaginal wound, and suturing to the edges of the same. The cavity is filled with ichthyolated gauze as a first dressing. In the majority of cases where the indication for elytrotomy is clear, the operation is followed by cure. The author adds a record of 20 cases in which he performed elytrotomy.

THERAPEUTICS.

(35) Protargol and Argonin in Purulent Ophthalmia.

AT a recent meeting of the Section of Pediatrics of the New York Academy of Medicine, Edward S. Peck read a paper on the Advantages of Protargol and Argonin in the Treatment of Purulent Ophthalmia in Infants (*Phil. Med. Journ.*, December 17th, 1898). He said that in the cases treated with these newer salts of silver there had been less ulceration of the cornea, with iris protrusion and imprisonment; the gonococci had disappeared in from two to four weeks, or more quickly than by the older method; there had been an earlier disappearance of the secretion and control of the inflammation; the restoration of the injured cornea and conjunctiva had been more prompt, and the patient had suffered much less. The most effective strength for the argonin solution is 3 per cent., and the solution is best made by placing in a flask ten parts of cold water, adding one part of argonin, and shaking vigorously, after which sufficient boiling water is added to make up the desired strength. It is then strained through gauze. In making the solution of protargol it is best to mix the salt with a little water and glycerine to a paste, and then add sufficient lukewarm water to make a 0.25 per cent. to 2 per cent. solution. The plan of treatment recommended by Peck is as follows: If only one eye be affected, seal up the healthy one, taking care to inspect it every second day. Ice-pledgets are to be continuously applied to the inflamed eye, night and day, until there is positive evidence of diminution in the secretion—a period varying from a few days to two or three weeks. Meanwhile, the eyeball and conjunctival sac are very frequently irrigated with a saturated solution of boric acid. With a large pipette, a 0.5 or 1 per cent. solution of protargol is carried rather forcibly over the whole eye four or more times daily until the secretion diminishes, when a 2 per cent. solution may be used at longer intervals. The disease should be brought under control by such treatment in the course of two or three weeks. The secretion should be examined for gonococci on alternate days, and the eye not considered safe until none of these organisms has been found for a full week. Protargol lends itself readily to the needs of the ophthalmologist, as it is unaffected by being combined with sodium chloride, cocaine, atropine, eserin, etc. It is not decomposed by the albuminous substances found in the secretions from the mucous membranes, and it is the only known silver compound which is not precipitated by dilute hydrochloric acid. Protargol is a silver proteid compound, occurring as a yellowish powder, which is readily soluble in cold or hot water. Both the powder and the solution are stable. Silver nitrate contains 6.35 per cent. of silver, and in this respect it holds an intermediate position between argonin and protargol. The last-mentioned is the richest in metallic silver. Peck said he thought protargol might advantageously be substituted for silver nitrate in the Credé method of prophylaxis against ophthalmia neonatorum. He had put a 10 per cent. solution of protargol in his own eye, and had

found it very much less irritating than a 0.5 per cent. solution of cocaine.

(36) Roentgen Rays in Dermatology.

Albers-Schönberg (*Münch. med. Woch.*, December 6th, 1898) has employed the Roentgen rays during the last few years in the treatment of lupus, chronic eczema, favus, and psoriasis. He does not insist on the curative effect of the rays. A considerable time must elapse before any positive statement can be relied upon with regard to their healing power. The author is chiefly concerned with the clinical aspect of the treatment. In a case of lupus after the first five or six exposures the affected area becomes red, and the temperature of the part is raised; this latter point can be verified both objectively and subjectively. Later the tubercles become enlarged, scabs form which soon separate, leaving a clean ulcerated surface. The infiltration of surrounding parts rapidly disappears. The skin which is ultimately left is smooth and free from all lupoid tissue. No advantage can be gained by increasing the number or length of the exposures, the inflammation and ulceration in these cases is, of course, more severe; and although the latter process does not extend below the rete Malpighii, the process of repair is much delayed. The cases in which this form of treatment has been adopted do not show less likelihood of recurrence than others in which a milder course has been pursued. The treatment of chronic eczema has been very successful. The skin is left with some brown pigmentation, but is otherwise normal. Obstinate cases were selected in which all other treatment had failed. The action of the rays consists in drying up the skin, and then causing it to desquamate. A case of favus of the scalp was successfully treated; the hair was not destroyed.

(37) Skin Eruptions caused by Antipyrin.

Wechselmann (*Deut. med. Woch.*, May 26th, 1898) gives a brief description of the varieties of skin eruptions met with in cases of antipyrin poisoning, and also relates the conditions which he had observed in 5 cases: (1) In a man aged 36, who had suffered from attacks of migraine for several years, and had been in the habit of taking antipyrin pretty freely without medical advice, a vesicular eruption suddenly occurred round the mouth and front part of the tongue; the penis, scrotum, and anus were similarly attacked. The eruption was extremely painful. When the antipyrin was discontinued the patient soon recovered. As an experiment a small dose was again administered, and in an hour and a half the eruption reappeared. (2) A woman, aged 40, had taken antipyrin for migraine. The lips, eyelids, tongue, and dorsal aspect of both hands were attacked with a painful vesicular eruption. On inquiry she admitted having taken antipyrin for her headaches. At a later date she took ½ gr. of antipyrin; this small dose was sufficient to cause an eruption identical in every respect to the former one. (3) A man, aged 62, suffering from diabetes, after taking antipyrin for some time, noticed a hæmorrhagic eruption on the dorsal surface of his left hand; the skin was œdematous. The drug was discontinued, and the eruption immediately began to subside; pigmentation was noticed for a considerable time after the eruption had disappeared. (4) A diabetic man, aged 66, for six years had suffered from a vesicular eruption, which occurred every second year. The parts attacked were the dorsal aspect of both hands, the lower lip, anus, and scrotum. After a short time the vesicles burst, leaving a scale which gradually died away. (5) A man, aged 29, had suffered from periodic attacks of "eczema," which one doctor had called syphilitic. In May, 1893, he took 3 gr. of antipyrin for headache, and in half an hour he began to feel a burning sensation in the perineal region, also between the fingers and on the dorsal aspect of the hands; later the toes became affected. Vesicles formed, and the whole progress of the case coincided with his former attacks of so-called eczema. The patient was advised never to take antipyrin; he had no further skin trouble.

(38) The Administration of Somatose.

Joachim (*Pharm. Zeit.*, No. 87) has found that patients are often unable to prepare solutions of somatose. The best method of preparing it is as follows: Fill a wineglass with cold water, and then add three teaspoonfuls of somatose, which must be sprinkled on the top of the water. The wineglass should be moved as little as possible, so that the somatose remains on the surface of the water. After a few hours the solution is ready for use. The quantity required during the day is best prepared the evening before. The three teaspoonfuls of somatose is sufficient for the day. In the morning a third part may be taken with milk, at lunch, and later at dinner; the remainder should be mixed with soup or porter.

(39) Oil of Gaultheria in Chorea.

Luigi (*Rif. Med.*, November 28th, 1898) has met with considerable success in the treatment of chorea by means of oil of gaultheria used externally. He used from 6 to 10 grams of the oil, either pure or mixed with vaseline, as dressing for the upper and lower limbs, alternately, the limbs being afterwards covered with oiled silk to prevent evaporation. Phenol could be detected in the urine six hours after the oil was applied. In some of the cases the drug was given internally as well. The results were very satisfactory, so that the author recommends its use, especially in cases where the other salicylates are not well tolerated. Moreover, the good effects were not confined to cases where distinctly rheumatic symptoms were present.

PATHOLOGY.

(40) The Bactericidal Effect of Acid Urine on the Course of Cystitis.

Rostoski (*Deut. med. Woch.*, No. 15 and 16, 1898) summarises the conclusions of various observers by saying that ammoniacal urine is not the usual precursor of cystitis. In 73 per cent. of the cases examined by Johannes Müller the reaction of the urine was acid. The commonest course of ammoniacal urine is the proteus vulgaris, the same microorganism is frequently the cause of isolated cases of cystitis. The bacterium coli is, however, by far the commonest cause of cysiitis. According to Rostoski, this bacterium never causes ammoniacal urine. Fresh urine has a bactericidal action on the anthrax, typhoid, and cholera bacilli; this fact suggested to Rostoski the idea of increasing the acidity of the urine, and thus destroying the cause of the cystitis. He found that by giving large doses of camphor or boracic acid the normal acidity of the urine was increased, and that the number of bacteria was decidedly diminished. This method did not, however, succeed in killing the bacteria. The acid urine does not cause so much pain and discomfort as is occasioned by the constant washing out of the bladder.

(41) Microbic Origin of Cholelithiasis.

Gilbert (*Arch. Gén. de Méd.*, September, 1898) first draws attention to the authors who have investigated this subject. Gilbert himself with Dominici and Fournier examined calculi from 70 cases. They found the bacillus coli communis either in a living or dead state in one-third of the cases. This microbe is also known to set up cholecystitis and cholangitis. In the more recent calculi it was living, but in the older ones it was dead. These authors were apparently able to establish that the microbes were present in the bile before the calculi formed. They have also made an experimental study of the subject. Some five years ago they found small green concretions in the bile of a rabbit in which they had set up a cholecystitis by means of the typhoid bacillus. After many investigations they succeeded in obtaining a small but perfect biliary calculus from a dog injected with the B. coli communis, and later they obtained a similar result in the case of a rabbit. Recently Mignot has obtained three small experimental calculi also in animals injected with the colon bacillus. Mignot has been able to perfect his operative technique so as to regularly obtain similar results. Gilbert hopes to be able to produce calculi without the intervention of microbes by the action of chemical irritants upon the walls of the gall bladder. He contends that the development of calculi in animals as the result of microbic inoculation cannot be made to prove that human cholelithiasis is also of microbic origin, and that it gives no indication as to the microbes which might produce cholelithiasis in man. The author looks upon this calculus formation as a defensive mechanism by means of which a baneful agent is rendered powerless. It can only be by means of observations upon man that the causes of cholelithiasis in the human subject can be found out.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(42) The Symptomatology of Tabes.

AT a recent meeting of the New York Academy of Medicine (*Phil. Med. Journ.*, December 17th, 1898) H. M. Thomas presented a statistical study of the cases of tabes examined at the Johns Hopkins Hospital, Baltimore. Of 111 cases presenting more or less complete histories, 106 were whites and 5 negroes. While the negroes represented only 6.39 per cent. of the total number of the males treated there, they formed 27.63 per cent. of the whole number of males treated for syphilis. Only about 9 per cent. of the cases of tabes occurred among women. Thomas's conclusions regarding the relationship of syphilis to tabes are as follows: (1) in a large proportion of cases of tabes there is a history of syphilis; (2) in a not inconsiderable number there is no history of any syphilitic manifestations; (3) in negroes tabes is relatively uncommon, although this race represents a large number of syphilitics; (4) the partial immunity of women is greater than can be satisfactorily accounted for by the relative infrequency of syphilis among them; and (5) apparently syphilis is not the only factor in the development of tabes. The time between the syphilitic infection and the appearance of the initial symptoms of tabes was noted in 47 of the cases. The shortest time was two years, and the longest thirty, or a doubtful forty-two years. Gastric crisis occurred in 9 cases; optic atrophy in 11; eye paralysis in 33; the Robertson pupil in 70. One patient at first suffered from intense pain extending from the penis to the rectum. In two cases the Romberg symptom was marked in spite of blindness. Out of 75 cases in which the sexual power and desire were noted, both were unaffected in only 10 cases. Charcot's joints were observed in 5 undoubted cases, and in 3 others there were suspicious enlargements. In 7 cases showing mental derangement, general paresis was suggested. In the discussion, Allen Starr added 273 cases of tabes, 175 from the Vanderbilt Clinic and 98 from his private practice. The male cases were about ten times more numerous than the females, and the great majority of all the cases developed between the ages of 30 and 40 years. Two developed under the age of 20, and 21 cases after the age of 50. Syphilis was certainly present in 50 per cent., and if the doubtful cases were included this would be increased to 72 per cent. The most frequent symptom was pain; the next, ataxia; next, the bladder disturbance. The knee-jerks were absent in 246 of the 273 cases; the Robertson pupil was present in 184; the Romberg symptom in 229 cases. C. L. Dana said that in his experience he could not recall having seen more than 2 women with tabes. Very few of his cases had developed under 30 or over 50 years of age. The percentage of possible, probable, and certain syphilitic cases of tabes had not exceeded 70. Pain had been the most common initial symptom, and rectal crisis had not been at all uncommon among the early symptoms. It was not uncommon for the early pains of this disease to be prolonged over a period of 10 or 15 years without other symptoms. A sense of fatigue was an interesting early symptom. Sachs said that in his experience the initial symptom in by far the larger number of cases had been the Robertson pupil. In at least three recent cases that comparatively new symptom, hypertonus, had been noted when the other symptoms had been absent or equivocal. Whenever he found that several of the cardinal factors developed at one time he gave an unfavourable prognosis; on the other hand, when the symptoms develop asymmetrically the disease progresses less rapidly. E. D. Fisher had found the rheumatoid pains and the ataxia to be the initial symptoms, closely followed, however, by the Argyll-Robertson pupil. Out of 100 consecutive cases that Joseph Collins had analysed there had been 4 negroes, 2 men and 2 women. There were in all 7 women out of the 100 cases, and 5 of these were under 30 years of age. A definite syphilitic history was elicited in 63 and an indefinite one in 17, so that in 80 per cent. there was a possible relationship between tabes and sexual infectious disorders. A very common symptom had been a giving way of the legs. He was firmly convinced that orthodox and thorough antisyphilitic treatment had not the slightest effect in postponing the appearance of tabes or in mitigating its severity, and this seemed to him a most potent argument against tabes being a para-syphilitic disease.

(43) Diabetes Mellitus.

RUMPF (*Berl. klin. Woch.*, October 24th, 1898) discusses the extent of assimilation and albuminous metabolism in diabetes. He maintains that there are severe cases of diabetes in which the power of using carbohydrates is almost or wholly lost. Details of a case are then given in which, on the addition of carbohydrates to the diet, both the amount of urine and of sugar, as well as the nitrogen, ammonia, and phosphates, were increased. Rumpf has met with three further similar cases. It cannot be assumed, as Seegen believed, that every atom of the starches introduced is to be found in the excretion, but the excretion may exceed the supply in a not inconsiderable degree. In one case the author investigated how albuminous metabolism is effected. The importance of the investigation extending over considerable periods of time is emphasised. The investigation in this case lasted over six weeks, the input and output being carefully estimated. When 36 grams of carbohydrates were provided, the daily average of sugar excretion was 155.7 grams, whereas when there were no carbohydrates supplied the average excretion was 102.7 or 93 grams. The patient had here 26.7 grams more sugar excreted than corresponded to the supply of starches. The result in nitrogenous metabolism in the first period where carbohydrates were supplied, was undoubtedly less favourable than in the second and third periods when no carbohydrates were given. In the fourth period where carbohydrates were supplied, a small portion was assimilated. Later, any nitrogenous saving effect diminished, and in spite of the apparently favourable nitrogenous balance, coma and death rapidly supervened, notwithstanding large doses of sodic bicarbonate and infusion. In the second case, the supply of carbohydrates led to a considerable sugar excretion, which sometimes exceeded and sometimes equalled the supply. In respect to the nitrogenous metabolism, the results as regards the nitrogenous balance were variable. The supply of carbohydrates in severe diabetes does not always spare albuminous metabolism. They do so only when the supply is followed by a partial assimilation. An apparently marked albuminous loss after the withdrawal of the carbohydrates may be explained by the high sugar excretion persisting. In these severe cases of diabetes with deficient powers of assimilation for carbohydrates, bread, milk, etc., must be specially avoided when the sugar excretion becomes greater than should correspond to the carbohydrates supplied.

(44) Syphilitic Dysphagia.

JOURDANET has made a study of the occurrence of prolonged dysphagia as a symptom of syphilis (*Thèse de Lyon*, 1898). Garel has already pointed out that any patient suffering from continued dysphagia in the region of the tonsils should be looked upon as syphilitic. In some cases when the symptom appears early it would seem to be due to primary disease of the tonsil under which circumstances it does not appear to differ from other tonsillar conditions. In other cases of four or five months' duration, dysphagia seems to have a different significance and appears to have some causal relationship with the disease, but what the exact connection is is not quite certain. The symptom may also be present in the tertiary form, and is most marked when gumma or ulceration is present. In these cases it may last many months, but is less intense than when occurring in the secondary period. The author believes that in such cases the cause is compression of nerve filaments by the inflammatory products. As to treatment, there is nothing special. Ordinary antisyphilitic measures are quickly followed by beneficial results.

(45) A Diagnostic Sign in the Initial Stage of Measles.

FINKELSTEIN (*Berl. klin. Woch.*, July 4th, 1898) has met with 5 cases in Heubner's clinic, in which he found the peculiar rash on the mucous membrane of the cheek and lips described by Koplich of New York. The condition has considerable diagnostic importance, as it is usually seen before the rash on the

skin appears, and when the catarrhal symptoms are but slight. The rash consists of bluish-white papules situated on a faintly-reddish background; it may be scattered about the buccal cavity, or may be limited to one or two spots. The presence of this rash in the mouth is important in the differential diagnosis between measles and influenza, and also other febrile conditions found in children. The condition cannot be mistaken for aphthous disease of the mouth.

SURGERY.

(46) Cancer of Pancreas.

Mager (*Wien. med. Presse*, No. 1, 1899) observed this condition in a clerk aged 53. He had suffered from some venereal affection and from articular rheumatism. In August, 1898, his last illness began with paroxysmal pains in the left hypochondrium radiating to the back, with a dull pain between, which increased after a full meal. Rapid emaciation followed. On November 20th, when Mager first examined the patient, he was struck by a distinct slate-grey coloration of the integument, most marked on the face and neck. The sclerotics were white, the mucosa of the mouth and prepuce showed no discoloration. The abdomen was greatly distended and tender, especially on the left hypochondrium. Through the tense walls a tumour could be seen; its lower border was convex, reaching three fingers' breadth below the umbilicus; its upper reached about an inch and a-half above the umbilicus. The tumour ended to the right abruptly, in the line of the nipple, the lower border turning sharply upwards. Over the tumour there was a metallic sound on percussion, differing from the tympanitic resonance all over the rest of the abdomen. There was copper-ground vomit, sour from lactic and not from hydrochloric acid. The fæces were clay-like, mostly slaty in colour like the skin, but in parts quite white. They were freely charged with fat. The patient died in a state of collapse two days later. At the necropsy Landsteiner found fibrous carcinoma of the body and tail of the pancreas, induration and stenosis of the duodenum at its junction with the jejunum, great dilatation of the stomach, scattered masses of fat necrosis in and around the pancreas, chronic emphysema and endarteritis of the aorta. Cancer of the pancreas had been diagnosed, for, though icterus was absent, this negative symptom has already been noted in tumours of the tail or body not involving the head. Stenosis of the duodenum, pylorus, colon, ureters, and even the large vessels in the neighbourhood of a pancreatic tumour have all been observed by previous authors. In Mager's case a deep deposit of pigment cells was found in the rete Malpighii.

(47) Necrosis of Pancreas.

Morian (*Prager med. Woch.*, No. 1, 1899), reports a case in which judging from clinical symptoms, he operated for cholelithiasis. Some coils of intestine exposed during the operation bore small yellow growths which made him suspect that tuberculous peritonitis was the real malady from which the patient was suffering; nevertheless he opened the distended gall bladder. Many calculi were extracted, with much serous fluid. The patient continued to show symptoms of sepsis, as before the operation. On the fourth day a swelling developed in the neighbourhood of the ensiform cartilage; it was punctured without any result. On the fifth day a coffee-ground substance with milk and air escaped suddenly from the opening made into the gall bladder, naturally giving rise to a suspicion of perforation of the gall bladder. The patient lived till a month after the operation. At the necropsy, necrosis of the pancreas was discovered, and a retroperitoneal abscess reached to the psoas. In only 7 cases has pancreatic necrosis been discussed, and only 1 lived; in that instance there was diabetes.

(48) Pancreatic Cyst in Lesser Omentum.

Payr (*Wien. klin. Woch.*, No. 26, 1898) relates a case where the cyst of the pancreas occupied a most unusual position, very puzzling to the operator. The patient was a lad, aged 19, and after a blow in the epigastrium from the handle of a bicycle, a tumour developed in the upper part of the abdomen. On tapping the fluid was found to contain a ferment which saccharised starch. An exploratory incision was made. The cyst was found with the left lobe of the liver forming its capsule above, whilst the stomach lay entirely below it. Payr making out that the two layers of the lesser omentum invested the back and front of the pancreatic cyst, meeting underneath it, to be reflected (in the normal manner) on the back and front of the stomach. Payr considers that acute traumatic pancreatitis had been caused by the injury; a cyst developed on the upper part of the damaged organ, and dissected up the parietal peritoneum till it reached the under surface of the liver; then it insinuated itself between the substance of the under surface of the liver and its closely adherent serous investment, finally reaching the transverse fissure, when it easily opened up the lesser omentum. Not only was that fold traced underneath the cyst, but Payr declares that the liver substance came immediately in apposition with the cyst wall. Extirpation was out of the question, so close were the relations of the cyst: excision and drainage were, therefore, practised, the patient recovering. The pancreatic cyst in this case occupied a position in relation to the peritoneum higher than has ever previously been recorded. It had pushed itself out of the lesser into the greater peritoneal cavity. In Heinricius's case the cyst pushed forward the parietal layer of peritoneum below the descending layer of the transverse meso-colon, so as to lie in the greater and entirely below the lesser cavity. In the great majority of cases of pancreatic cyst the tumour lies in the lesser cavity.

(49) The Pancreas in Congenital Syphilis.

Schlesinger (*Virchow's Archiv*, vol. cliv, December 20th, 1898) is aware of the rarity of syphilitic affections of the pancreas when the disease is acquired. Petersen found that organ specifically affected in 1 subject only out of 88 necropsies on patients who had died with symptoms of tertiary syphilis. On the other hand Birch-Hirschfeld, as long ago as 1875, described syphilitic disease of the pancreas in newborn children and infants. Schlesinger describes 6 such cases from Von Recklinghausen's wards, in which death ensued in every instance, and the viscera were carefully examined. He concludes that in congenital syphilis the pancreas is less often affected than the spleen, liver, bones, and lungs, but more frequently than the thymus, heart, intestine, and other viscera. The organ in question may be attacked very early, even in the fifth month of uterine life, or not till near or after birth. Its diseased condition is not uniformly associated with changes in neighbouring organs, though the duodenum is occasionally involved. Gummata, great and small, are exceptional; this is contrary to the rule in acquired syphilis, where the pancreas, in those rare cases when it is involved, usually contains gummata. Peritoneal adhesions are not rare in congenital cases. The pancreas does not seem much enlarged, but it is always abnormally firm in consistence, so as to feel in typical cases as tough as cartilage. The head is always more affected in this way than the tail. The disease in question is essentially diffuse interstitial pancreatitis. The interacinous tissue increases rapidly, beginning chiefly round the vessels, themselves affected with periarteritis and endarteritis at an early stage. The smaller and the main ducts are but little affected, but the proliferating tissue undergoing sclerotic changes, the glandular elements of the pancreas are soon irretrievably damaged. In all Schlesinger's 6 cases other organs were diseased, and osteochondritis was noted as existing in 4.

MIDWIFERY AND DISEASES OF WOMEN.

(50) The Treatment of Abortion.

Chenevière (*Sem. Méd.*, January 4th, 1899) summarises the history of the treatment of abortion. Thirty years ago it was all expectant; later, with the advent of antiseptics, the use of the curette was advocated for every case. Under the auspices of Winckel a reaction set in about ten years ago, the expectant treatment being again advocated. At the present time the question whether the routine treatment should be expectant or operative—curette or finger—is hotly debated, though all authorities are agreed that (1) the uterus must be evacuated somehow before the patient can be considered to be out of danger, and (2) with symptoms of danger active treatment must be begun. They differ, however, as to the method to be used. Some content themselves with plugging the

uterus and vagina, while others would operate. The operators, again, form two schools: one would use the curette in spite of the cervix being but slightly dilated, the other requires sufficient dilatation for the introduction of the finger and exploration of the cavity. Rapid *versus* gradual dilatation is another disputed point. The writer then gives his own views on these questions. He believes that immediate evacuation of the uterus, generally by means of the curette, is the method of choice in all cases. It is impossible to foretell how and when any case of inevitable or incomplete abortion will terminate, and precious time may be lost by waiting. As a rule the cervix is sufficiently dilated for the curette to be used at once: if not, a few Hegar's dilators can be passed with very little pain, and therefore without an anæsthetic. The fragments of the ovum can be removed by the finger or the curette; by which is largely a matter of individual predilection. The curette is certainly preferable in the first weeks of pregnancy, and is always easier to sterilise than the finger. It has been urged in favour of the finger that digital exploration gives more exact information of the actual state of things than the curette. This is not the case except in the later months, when it may be difficult to decide whether the instrument is in contact with uterine or placental tissue. The finger is much more painful than the curette, and an anæsthetic is often required, necessitating as it does, pressure on the abdominal walls with one hand, and on the perineum with the clenched fingers of the other. If the finger has been used it is always well to finish up with the curette, which is a great prophylactic against hæmorrhagic endometritis; and, finally, a uterine douche should be given in all cases. For late hæmorrhages the curette is the best hæmostatic. If the case has been left, and the cervix closes up, it must be dilated. If the symptoms are urgent the writer dilates rapidly under chloroform, but if there is no great haste he dilates first with laminaria tents, and then further with Hegar's dilators if necessary. In this way an anæsthetic is avoided, which is a great point in private practice, without considering the added risk of the chloroform. The writer therefore advocates the early use of the curette, because (1) it is simple and rapid, (2) it does not, as a rule, require an assistant. From his own experience of 500 cases he is convinced that its dangers (perforation of the uterus, etc.) have been much exaggerated, and that other methods which require either dilatation of the cervix or packing the uterine cavity are by no means free from danger.

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(51) Extrauterine Pregnancy.

MORDECAI PRICE (*University Med. Magazine of Pa.*, July, 1898) states that, in every case of extrauterine pregnancy where the fœtus lives after the rupture, it is owing to its being protected by an unruptured amniotic sac, since the peritoneum would digest a fœtus at any age unless protected from its influence, and the amnion can be demonstrated in every case which has passed the second month. The primary rupture in 99 per cent of all cases, even in those which go to term, is into the peritoneal cavity, and not, as Tait maintains, into the cavity of the broad ligament. This statement rests on the examination of over 200 cases. Price believes that the most dangerous variety—the interstitial—should be recognised and operated on before rupture takes place. In fact, in any form of tubal pregnancy, the operation should be performed as soon as the diagnosis is made. In the early months the operation is simple and the results excellent, but as pregnancy advances, the dangers increase until the period of viability is reached. Since only 8 or 9 recoveries of both mother and child have been recorded, no woman should be allowed to run such risks for so small a chance of a living child. Before the sixth month the placenta is generally easily removed, but from the seventh month on with a living child its removal is generally impossible. In such a case the placenta must be cleaned, the cord cut, and the abdomen closed, or the abdomen can be left open and the placental surface packed with gauze until the placenta comes away. The latter plan was used in the author's case, where both mother and child were saved in the tenth month of pregnancy.

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(52) Acute Inversion of the Uterus following Parturition.

STONE (*Amer. Jour. of Obst.*, August, 1898) relates an instance of this rare complication of labour. The patient, aged 22, a primipara, had been married three years. She was of nervous temperament, and had been treated for vaginismus. Owing to diminution of pains and exhaustion of the patient, delivery was completed by forceps; the cord was round the neck once, and was slipped over the head with difficulty. The perineum was torn, and, while waiting to express the placenta, preparations were made for suturing the perineum. After a few minutes it was noticed that the patient was pale, with a frequent pulse, and that hæmorrhage had started. The placenta was found in the vagina firmly adherent to the inverted uterus, from which it was removed with much difficulty. The cord was of average length. The patient was now out from under the influence of chloroform, and within a few minutes developed the symptoms of profound shock. Unsuccessful attempts were made to reduce the uterus without chloroform. A consultant was sent for, and when he arrived, one hour later, the inverted uterus projected beyond the vulva. The patient was then almost moribund; another futile attempt to reduce the uterus was made, but the patient died soon after. The writer suggests the following points as of importance in the etiology of the case: (1) The nervous condition of the woman, as shown by the previous history of vaginismus; (2) the complete absence of pain during the greater part of the stage of dilatation; (3) the uterine inertia shown in the latter part of the second stage; (4) the difficulty in the removal of the cord from the neck of the child; (5) the adherent placenta.

THERAPEUTICS.

(53) Malarin.

A NEW antipyretic has been prepared by Valentiner and Schwarz (*Therap. Monats.*, No. 10, 1898). Malarin is the citrate formed in the condensation of P. phenetidin with acetophenon. It is prepared by heating equal molecular quantities of these two components. Malarin is a yellowish-white powder, insoluble in cold water; heat causes the powder to dissolve, and it does not reappear on cooling. If the water is neutralised with carbonate of soda the malarin powder is freely soluble. The physiological characteristics have been examined by Schwarz. He found that malarin was only slightly poisonous. A dog weighing 4 kilograms was given 1 gram of malarin daily for five days without showing any sign of intoxication. Schwarz himself took 2 grams without any ill-effect. In guinea-pigs whose temperature has been raised by cerebral puncture the administration of malarin causes a rapid fall to take place. Malarin also lowers the increased body temperature produced by injections of tetrahydro-β-naphtylamin. In these cases convulsions occur, together with the increase of temperature, which end fatally. Malarin in these cases has a powerful effect in diminishing the convulsions, and in several instances actually stopped them, even when a fatal dose of the poison had been given. The convulsions produced by picrotoxin are not influenced by malarin. No clinical records have yet been made of the action of this drug, but, according to Schwarz, it may be used as an antipyretic and antispasmodic.

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(54) Erysipelas Toxins in Leprosy.

AT a meeting of the Medical Section of the New York Academy of Medicine on December 20th (*Phil. Med. Journ.*, December 31st, 1898) H. D. Chapin read a paper in which he gave the results of some experiments in the treatment of leprosy with the toxins of erysipelas. Four cases were subjected to this treatment, which covered a period of seven weeks. The initial dose was 1 minim of Coley's preparation of the toxins of erysipelas and of the bacillus prodigiosus, and this was gradually increased until near the close of the experiment in each case a dose of 22 minims was reached. The temperature usually reached the maximum within three or four hours, and the reaction was sometimes characterised by the occurrence of rigors. Chapin concludes that (1) injections of the toxins of erysipelas have no effect on the course

of leprosy, and (2) the systems may tolerate large and continued injections if the dose is gradually increased. In the discussion P. A. Morrow said that previous experiments in this direction had also proved unsatisfactory, and from existing knowledge of the pathology of leprosy little else could be expected. However, the future may possibly furnish a treatment worthy of the name, and, if so, it would probably be something along the line of serumtherapy. Antileprous serum had been extensively tested in various parts of the world, and the results submitted to the International Leprosy Congress, which decided that the treatment was a failure. Some encouraging results had been obtained with antivenine, both in America and in other countries. Coley spoke of the comparative safety of the toxin treatment, and called attention to the necessity of protecting from infection, during the treatment, all open sloughing areas. This had been emphasised in one of Chapin's cases in which a neglect of proper precautions in this respect had resulted in increased inflammation. In the treatment of malignant disease Coley had given the toxins over long periods without causing deterioration of the general health.

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(55) The Therapeutical Value of Fasting.

Domenicis (*Wien. med. Presse*, No. 18, 1898) has completed a series of experiments on animals and human beings with regard to the value of fasting in treating acute infectious diseases. He is of opinion that within reasonable limits a diminution in the food supply helps the organism to withstand the attacks of microbes better than the opposite system of overfeeding. The author has also included some chronic diseases in his experiments. In pneumonia the careful study of 140 cases showed that the action of bacteria was favoured by alterations in the quality of blood and in peculiarities of the cell protoplasm. Diseases of the alimentary canal proved to be the chief factor in giving rise to these blood changes. The virulence of the poison and also the anatomical lesions in the lung bore a definite proportion to the amount of disease in the intestinal tract. According to the author, improper feeding is a very frequent cause of death in pneumonia, and one which is apt to be overlooked. The chief points, then, in the treatment of pneumonia would be (1) to diminish the quantity of food, (2) to administer antiseptics by the mouth. Renzi follows a similar method of treatment in arthritis.

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(56) Treatment of Hæmatemesis.

Raymond Tripier (*Sem. Méd.*, June 1st, 1898) gives in detail the results of his own investigations into the microscopic anatomy of simple gastric ulceration, especially those forms accompanied by hæmorrhage. Briefly, they go to prove that hæmatemesis arises from primary inflammatory changes in the gastric arteries, leading to their obliteration or thrombosis, and to subsequent necrosis of tissue. He believes that repeated hæmorrhages are due, not to the gradual destruction of one artery after another by the gastric juice, but to a continuation of the same inflammatory process in and round the vessels. The form of superficial ulceration described by Dieulafoy (*v.* Epitome, vol. i, 1898, par. 273) under the name of *exulceratio simplex* is also, in his opinion, due to a primary rupture of a vessel. This explains how, when operations have been undertaken for the arrest of the bleeding, in some cases no ulcerative lesions have been discovered, and why in the intervals between the attacks of hæmatemesis there may be no gastric symptoms whatever. Considering the risk of not being able to find the bleeding point, the writer is unable to agree with Dieulafoy that operation is the best treatment in these cases. Even when the ulcer is easily found, the results of operations for the arrest of gastric hæmorrhage are not very encouraging, the mortality being 66 per cent. The routine medical treatment with astringents, etc., also frequently fails, and Tripier has been led to try a new method of combating hæmatemesis, and has had such success that he thinks it worthy of extensive trial. This consists in the reflex vasoconstrictor action of hot water applied as enemata. The same principle is used when the hands are thrust into hot water as a remedy for epistaxis. He first tried it in a case of recurring melæna, where it was uncertain whether the hæmorrhage was of gastric or duodenal origin; then in a case of alarming intestinal hæmorrhage during typhoid fever, and lastly in an undoubted case of recurrent gastric hæmorrhage, where everybody else was agreed that surgery offered the only chance of life—in all with complete success. It is probable that the method may be equally useful in any hæmorrhage, whether internal, for example, hæmoptysis, or external. The details are as follows: As soon as melæna or hæmatemesis appears, enemata of hot water at 118.5° F. to 122° F. must be given three times a day or oftener if the hæmorrhage continue, with as little disturbance to the patient as possible. For some days feeding should be entirely rectal, and this should be kept up as long as possible after the hæmorrhage has ceased. The enemata, which have the additional advantage of allaying thirst, should be continued morning and evening for eight days at least after the cessation of the hæmorrhage, and once a day until the health is quite restored. Even if the first hæmorrhage is very slight, the treatment should be begun at once, since it might ward off a serious or fatal hæmorrhage of which the first was a forerunner.

PATHOLOGY.

(57) The Blood Corpuscles in Pernicious Anæmia.

Engel (*Wien. med. Woch.*, No. 20, 1898) has examined several case of pernicious anæmia in which Ehrlich's large nucleated embryonic cells were not present. Ehrlich affirms that they are to be found in all cases, but Engel has observed megaloblasts in cases of simple chlorosis. There is a close connection between megaloblasts and normoblasts; if the embryonic origin of the former is true, the latter must also have a similar mode of origin. Redner opposes the view, in which the red umbilicated corpuscles are supposed to be derived from the nucleated red corpuscles; he gives a different explanation founded on the embryonic development of the blood corpuscles as seen in mice and in man. In the earliest period of embryonic development, when no bone tissue or bone marrow has yet appeared, and when the spleen is in its most primitive stage, the blood itself forms the only blood-producing mechanism. The large metrocytes, generation I, are the first to make their appearance; these possess large nuclei. A little later the metrocytes, generation I, give place to the metrocytes, generation II; the latter class are separated into two chief groups—namely, those which contain nuclei and those which are destitute of nuclei; many lose their nuclei by karyolysis. Even now the red marrow and spleen do not share in the construction of blood corpuscles; the liver shows great activity in the manufacture of normoblasts and megaloblasts. At a later date—between four and five months—the metrocytes have disappeared, and now the blood, red marrow, spleen, and liver contain red nucleated cells. A little later the nucleated cells disappear from the blood; the red marrow is now the storehouse of the non-nucleated red corpuscles; thus the direct followers of the embryonic metrocytes multiply in the red marrow. Directly after birth nucleated red corpuscles are solely developed in those bones which permanently contain red marrow. In anæmia the cells of the red marrow generally lose their nuclei; these latter enter the blood stream as lymph corpuscles. The remaining non-nucleated substance restores the colouring matter to the cells, which was partly lost when the nuclei were expelled. In pernicious anæmia the descendants of the metrocytes have lost their karyolytic properties; the nuclei increase in size, instead of being expelled from the cells; the protoplasm also grows larger, and the resulting size and character of the cells found in the red marrow closely resembles the embryonic metrocytes. Sometimes in anæmia the red marrow cells do not expel their nuclei; the latter increase in size, and megaloblasts are found in the blood; the latter, however, are not identical with the large orange-coloured cells in the red marrow, nor with the embryonic metrocytes, generation II. The presence of megaloblasts is a sign that certain pathological changes are taking place in the red marrow rather than a distinctive feature of pernicious anæmia. According to Engel the macrocytes and metrocytes are more characteristic of pernicious anæmia, because they are the direct precursors of the large red marrow cells.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(58) The Relative Importance of Flies and Water Supply in Spreading Disease.

AT a meeting of the Sanitary Club of Buffalo on December 14th (*N. Y. Med. News*, December 31st, 1898) M. A. Veeder, of Lyons, N. Y., read a paper on the relative importance of flies and water supply in spreading disease. From the practical sanitary standpoint, he said, camp diseases can be divided into intestinal and malarial, the former including typhoid and yellow fever, dysentery, and cholera. In camps, malaria is spread almost entirely by water, in intestinal diseases almost entirely by flies. The failure of measures directed to the water supply in the Cuban campaign, he ascribed to this fact. Even now typhoid is rife in Manila and Honolulu. In the recent campaign in Fashoda, although the climate was especially dry, and general conditions as to water supply favourable, typhoid was the greatest scourge of the army. An epidemic of dysentery was cited, taken in hand when 40 cases had developed with 10 deaths, the disease having spread from house to house by short leaps. After measures had been adopted to prevent access of flies, not a single new case developed. The progress of a camp disease by short leaps should suggest that it was borne by flies, while a general dissemination should call attention to the water supply. Flyborne epidemics also follow the direction of the wind. In large cities with general water supplies, free drainage, and absence of privy vaults, water is the great carrier of disease, whereas camps, like small villages, have most to fear from flies. For this reason typhoid is more or less prevalent at all seasons in the cities, usually only in the dry and sultry weather of early autumn in small villages. Veeder strongly condemns the practice of burying typhoid excrement, citing a series of little epidemics that could be traced to a nurse who had followed this method. After the nurse had herself succumbed to the disease, the epidemic ceased. Typhoid bacilli will penetrate to the surface of the soil if buried. Disinfection is necessary, and, on account of its colour, its permanence after evaporation, and efficiency, copper sulphate is to be preferred. In camp, on account of the practical impossibility of diagnosing incipient typhoid, all excreta should be disinfected. The coloration of the ground would show just how far the disinfection had been successful. Volatile disinfectants are not so serviceable as non-volatile. The United States Government plan of furnishing large, portable, watertight tanks for use as sinks is good in theory, but scarcely practical. The Indians avoid sickness by frequently moving their camps. Burial of fæces could be relied upon to afford protection against infection by flies for a few hours. Boiling would render water safe to drink, and, even against malaria, this precaution would afford almost complete immunity, as the conveyance of this disease by mosquitos has been greatly exaggerated. Not only knowledge but discipline is necessary to protect the soldier, and sanitation under the guns of the enemy is a difficult matter.

(59) Gastroptosis.

K. THUE (*Norsk Mag. f. Laegevidensk.*, December 1898) has examined 22 cases of gastroptosis, and finds that the symptoms are, generally speaking, those of nervous dyspepsia. When one meets with the clinical picture of nervous dyspepsia complicated with obstruction, one should always examine into the position of the abdominal organs. Obstruction is an almost constant symptom of gastro-enteroptosis. In the diagnosis of gastroptosis the author has employed electric light, the stomach having been filled with from ¾ to 1 litre of water. In five of the male patients examined, including a boy of 5 years, there was a rachitically-deformed thorax. The female patients, who had also borne children, showed a degree of pendulous abdomen. In 11 cases there was in addition marked nephroptosis. The treatment consisted in the wearing of abdominal belts, the use of aperients, and careful dieting, and occasionally washing out of the stomach.

(60) Hysteria Simulating Intestinal Obstruction.

STRAUSS (*Berl. klin. Woch.*, September 19th, 1898) records the case of a man, aged 29, who during the last eight years had been treated for abdominal troubles at various hospitals in Germany. The patient had suffered from obstinate constipation, distension of the abdomen, and vomiting, sometimes of a fæculent character. The symptoms so closely resembled those of intestinal obstruction that on two occasions a laparotomy was performed. The patient's condition was temporarily improved after each operation, though nothing to account for the abdominal symptoms could be discovered. In January, 1898, the patient was brought to Professor Senator's clinic with symptoms resembling those of intestinal obstruction, but on this occasion no laparotomy was performed. The treatment was by lavage of the stomach, high enemata and purgatives, and action of the bowels was obtained. He continued, however, to suffer from constipation, pains and distension of the abdomen, occasional anorexia, and recurrent attacks of vomiting (never the fæcal vomiting). The quantity of urine passed during the day was above the average, but sometimes there were periods of retention of urine lasting more than twenty-four hours, during which the urinary bladder reached nearly up to the umbilicus. Other symptoms mentioned include left-sided migraine, singultus, dyspnœa, paroxysms of sweating (especially on the left side of the body), and "astasia-abasia." On May 18th, 1898, a sudden change occurred; a typical hysterical fit was followed by nearly complete disappearance of the abdominal symptoms, and by return of the power of walking. Strauss relates also the case of a man, aged 50, who died with symptoms resembling those of cancer of the œsophagus. A bougie could not be made to pass the cardiac orifice of the stomach, and all food taken by the mouth was returned, as if insuperable obstruction existed in the cardiac part of the œsophagus. At the necropsy, however, nothing to account for the obstruction could be found, but a chronic hydrocephalus internus was present. A boy, aged 16, suffering from valvular disease of the heart (mitral reflux) suddenly developed paraplegia and the signs of embolism of the lumbar spinal cord. For several days about half a litre daily of a thin mucous fluid escaped from the paralysed anus, evidently a kind of neuro-paralytic secretion from the mucous membrane of the bowel. Such cases demonstrate that it is possible for grave disturbances of the alimentary canal to have a purely nervous origin.

SURGERY.

(61) Resection of the Gasserian Ganglion.

KEEN AND SPILLER (Extract from the Durante *Festschrift*) deal with the operative treatment and pathology of trigeminal neuralgia, the former reporting 11 cases in which he has removed the Gasserian ganglion, the latter giving in detail the morbid appearances presented by the ganglion in 7 of these cases. The general results of Spiller's researches are: (1) That the medullary substance of the nerve fibres within the ganglion and its branches is immensely swollen, atrophied, or entirely gone, according to the intensity of the disease. (2) That the axis cylinders similarly are markedly degenerated or entirely destroyed. (3) That the cells of the ganglion itself may be so degenerated or atrophied as to excite a doubt, were it not for the occasionally seen nerve cells, whether the observer had really to deal with ganglionic tissue. (4) That the vessels are very distinctly sclerotic. There was in at least one case a decided amount of increase in the connective tissue of the ganglion, which was enough to lead to the alteration being regarded as a distinct sclerosis. Keen, in discussing the indications for operative interference in cases of facial neuralgia, holds that if the disease has lasted for three or four months and cannot be cured by drugs, he would perform a peripheral operation in hope of arresting the peripheral disease and preventing its upward course and final attack on the Gasserian ganglion. Removal of the ganglion, he states, should not be practised till the surgeon has exhausted his resources in peripheral operations, or till a larger surgical experience has shown that the removal of the entire gland will result in a permanent cure,

and an improved surgical technique has greatly lessened the present rate of mortality. There is no question, he believes, that an intracranial operation such as that devised by Hartley and Krause is preferable to Rose's method. Corneal ulceration may be effectually prevented, it is asserted, by sewing the lids together and, after an interval of four or five days by removing the sutures and protecting the eyeball by a Buller's shield, which consists of a watch-glass held in place by means of plaster.

(62) Appendicitis or Epityphilitis?

Küster (*Centralbl. f. Chir.*, No. 50, 1898) protests against the use of the term "appendicitis," which he regards as most unsatisfactory both in meaning and in form. German anatomists do not use the term "appendix" in describing the vermiform process of the cæcum, and are unwilling to adopt a term which in its multiple sense is already generally applied to the small fatty processes met with on the large intestine. The form of the term "appendicitis" is held to be particularly objectionable, as it consists of a Latin word with a Greek ending. Such a term, Küster holds, would be hardly tolerable even if it could not be replaced by another. It is not difficult, however, he states, to find a good substitute. The Greek anatomists, whose definitions were made chiefly on animals which with some few exceptions do not possess a vermiform process, left no term for this structure, but it would have been in accordance with the spirit of the Greek language to have given to it the name of "epityphlon" as indicating a something attached to the outer surface of the cæcum. On these grounds Küster would advocate the substitution of the term "epityphilitis" for that of appendicitis. The former term, which he has long used in his clinical lectures, will, he anticipates, be preferred by those acquainted with Greek to the older and more frequently used term.

(63) The Radical Cure of Hernia.

Bull and Coley (*Annals of Surgery*, November, 1898), who have together operated for the radical cure of hernia in 1,051 cases during the past decade, refer in a paper on this subject to the results of observations based upon a study of 360 cases of relapsed hernia following various methods of operation. They have found that 80 per cent. of these relapses occurred during the first year after operation; 64.5 per cent. during the first six months following operation; while but 11.9 per cent. occurred after a period of two years had elapsed. Of the cases that relapsed after two years 5 occurred between ten and twenty-two years after operation: 7 cases between five and ten years. From these facts the authors think they are justified in concluding in a general way that if a rupture is sound at the end of one year after operation, there is reasonable prospect of permanent cure; while if it remains well for two years the chances of relapse are exceedingly small, though it is not impossible that relapse may occur as late as twenty years after operation.

(64) Reduction of Spinal Curvature.

Ducroquet (*Archiv. di Ortoped.*, An. 15, N. 4) describes a method of reducing deformities of the spine which he has adopted with success. The child is first put lightly under chloroform, and then suspended by the head in a Sayre suspensory apparatus, the toes being free of the ground. No axillary support is used. Suspension alone is sufficient to reduce the deformity considerably; any remaining defect is remedied by the hand, one hand supporting the body in front, the other pressing the deformity behind. As soon as reduction has taken place, a plaster jacket is put on over a thin vest. The child is kept lightly under chloroform the whole time. No ill effects have been noticed under this treatment, which obviously requires less assistance and is much less forcible than Callot's method of reduction. The author prefers "windows" in the jacket to pads for purposes of respiration and abdominal distension.

(65) A Needle in the Heart.

F. J. Shepherd (*Canadian Practitioner*, December, 1898) records the following case: A man, aged about 40, suffering from suicidal mania, got possession of a file and two darning needles, each 2½ inches long. The needles he thrust, as he thought, into his heart, and then drove them home with the end of the file so that they disappeared beneath the skin. Shepherd was sent for in the middle of the night, and found the man writhing in agony on the floor. On examination he saw two punctures in the region of the apex between the fifth and sixth ribs, and an elevation of the skin took place near the one over the apex at every heart beat. Shepherd could distinctly make out with his finger the heads of the two needles, the outer one deeply in and not affected by the heart beats, the inner one apparently firmly fixed into the heart muscle near the apex of the organ, and pushing up the skin at every beat. He immediately cut down on the needles, having to go through the intercostal muscles before reaching them; he then extracted them with a small needle holder. The one fixed in the heart came away with difficulty; the other, which was in the lung, was easily removed. The patient experienced immediate relief; the wounds healed by primary union, and in a couple of days the man was as well as ever. The needle first introduced missed the heart, and the second was firmly imbedded in the left ventricle, but had not penetrated.

MIDWIFERY AND DISEASES OF WOMEN.

(66) Marriage and Heart Disease.

Vinay (*Lyon Médical*, January 8th, 1899) discusses at full, both socially and medically, the question, Should a girl of marriageable age subject to heart disease be allowed to marry? He agrees with Jaccoud, Huchard, and others that matrimony is not to be forbidden when the lesion is compensated and no complication has arisen. But the patient must be reminded that repeated pregnancies will influence the cardiac disease prejudicially. On the other hand, marriage must be forbidden if evident signs of insufficiency have been detected, such as pulmonary congestion, hæmoptysis, and irregular pulse. Most serious, in this respect, is persistent albuminuria with hypertrophied heart, which is certain to involve grave trouble during pregnancy, and to compromise the child's life. Even when a patient is allowed to marry, she must be carefully watched when she becomes pregnant. During gestation some of the worst complications, due to thoracic and renal changes, are very apt to set in unless the patient modifies her habits and her diet. The physician should insist upon repose, milk diet, aperients, and free and frequent dry cupping to the thorax. In this way the tendency of pregnancy to disturb the circulatory equilibrium is counteracted. The physician, directly pregnancy is confirmed, should look out for the first evidences of failure of compensation, such as dyspnœa, palpitation, a tendency to bronchitis, and a pulse which, though it may be regular in rhythm and volume, is clearly too rapid. These are what Vinay terms gravido-cardiac complications.

(67) Extirpation of the Spleen during Pregnancy for Traumatic Rupture.

Savor (*Centralbl. f. Gynäk.*, December 3rd, 1898) puts on record the ninth known case of extirpation of the spleen for traumatic rupture and the first instance in which this operation was carried out during pregnancy. The patient was a 5-para, aged 31. She was in the sixth month of her pregnancy when she was kicked several times in the left side of the abdomen by a drunken man. Great pain in the abdomen followed, and two hours later she was brought into Chrobak's clinic in Vienna. The physical signs and the symptoms were vaguely suggestive of some internal hæmorrhage, but there was no fracture of the ribs and the splenic dulness was not apparently increased. About fifteen hours later there was rapidly increasing anæmia and tympanitic distension along with dulness in the left flank, and Savor, in the unavoidable absence of Chrobak, decided to open the abdomen. Partly fluid, partly clotted blood was found in the peritoneal cavity. The six months' uterus was intact, but a deep tear was discovered in the anterior surface of the spleen. The median abdominal incision was temporarily closed with catch-forceps, and an incision under the left costal margin made; the vessels of the spleen were ligatured and the organ removed. Blood clots were removed and the incisions were closed. The operation lasted one hour and the pulse at the close was 120, not worse than before. Some hours after the operation there were threatenings of abortion, but these passed off, the patient recovered, and

was normally delivered at the full term. The spleen measured 13 × 9½ × 5 cm, and was, therefore, enlarged.

(68) Treatment of Fissure of the Nipple.

MAYGRIER AND BLONDEL (*Bull. et Mém. de la Soc. Obs. et Gyn. de Paris*, November 10th, 1898) report favourably on the use of orthoform for cracked nipples. It belongs to the same chemical family as cocaine, which was tried for the same thing by Hergott. Cocaine has the drawbacks, first, of being apt to produce toxic effects; secondly, of exerting a tendency to suppression of the milk secretion. Indeed, one of the authors has used it for this purpose. Orthoform is a powerful local anæsthetic, whose action is more enduring than that of cocaine, lasting on an average twelve hours. It has no effect, however, when applied to the unbroken skin; and it must be kept continuously applied to the wounded surface. A slight burning sensation is felt for a few seconds when first applied. Orthoform has the further advantage of being antiseptic, so that it does not require sterilising before use. It produces a marked effect in hastening the cicatrisation of the fissures. The authors tried it in forty cases; all, without exception, experienced a more or less marked relief. They employed it in three forms: the powder with a moist dressing, the powder with a dry dressing, and a saturated alcoholic solution. For the first the powder is applied to the fissure and sterilised gauze is placed over it and covered with a piece of protective. For nursing the dressing is removed and the breast wiped with a sterilised compress; when the nursing is finished the whole dressing is put back. The second plan consisted simply in the substitution of dry compresses for the wet. The third plan is to apply a few drops of a saturated solution of orthoform in 80 per cent. alcohol; a dry compress is then placed over it. They found the last plan the best; the analgesia is effected much more quickly, the burning sensation is less and of shorter duration, and to the beneficial action of the orthoform is added that of the alcohol. Cicatrisation was generally complete in four to five days, without any interference with suckling; by other methods cicatrisation takes ten to twelve days even when nursing is suspended.

(69) Uterus Duplex and Abnormal Hairiness.

A. HEGAR (*Beitr. z. Geburtsh. u. Gynäk.*, Band i. p. 111, 1898) describes a girl, aged 16½, who since infancy was abnormally hairy. She was healthy until 14 years old, when anæmia began. Menstruation was slight, and was accompanied by pain. The breasts were atrophic. She was markedly hairy on the face, on the anterior aspect of the thorax and abdomen (masculine in type on the mons veneris and near the umbilicus), and on the thighs, but she was not specially so on the arms or posterior aspect of the trunk. The hairs were anugo-like in character, but of a darker colour. The pelvis was infantile in type. The condition of hæmatometra in a uterus duplex was diagnosed and successfully operated upon. Hegar believes that the hypertrichosis and the uterine malformation were anomalies with a common origin. They were both signs of fœtalism.

(70) Ovariotomy in Pregnancy: Uterine Adhesions.

POZZO (*Archiv. Ital. di Ginec.*, June 30th, 1898) agrees with most authorities that it is safer to remove an ovarian tumour when pregnancy has supervened than to defer the operation till after convalescence from the puerperium. The fear of inducing abortion or premature labour must not deter the operator. Pozzo's patient was 28 years old. At the sixth month of pregnancy she suffered from attacks of peritonitis due to the presence of a cyst of the left ovary. He decided on ovariotomy, not on induction of premature labour. The cyst was of about the size of an adult head; its contents were thick and chocolate-coloured, probably from hæmorrhage. There were adhesions to the parietal peritoneum and to the intestine; and, what is of particular interest, the thick vascular wall of the cyst likewise adhered to the gravid uterus, and was separated from that organ, which had been displaced, and now resumed its normal position. Beyond a little trouble from intestinal distension convalescence from the ovariotomy was uneventful; no uterine contractions set in. The patient was delivered at term of a living child, presenting at the vertex, and the puerperium was normal.

THERAPEUTICS.

(71) The Serum Treatment of Pulmonary Tuberculosis.

G. ZANONI in a recent monograph (*Essais de Serumthérapie Antituberculeuse*—méthode Maragliano—fait à la Clinique Médicale de l'Université de Genève: Geneva. 1898) gives full details of a series of 27 cases of pulmonary tuberculosis treated in Revilliod's clinic at Geneva with Maragliano's "antituberculous" serum. Among these cases, 3 were in the infiltration stage, 10 in the softening, and 14 in the cavitation, stage. In all the cases bacilli were present. The duration of treatment varied from a few weeks to a year and more. Of the cases in the first stage 2 were cured and 1 remained stationary. Of those in the second stage 1 was on the way to recovery, 6 were improved, 2 remained stationary, and 1 had got worse. Of those in the third stage, 2 were on the way to recovery, 4 were improved, 2 remained stationary, and 6 died. Of the total number (27) treated, therefore, there were 3 "on the way to recovery," 12 improved, 5 *in statu quo*, and 7 worse; giving a proportion of 11 per cent. recovering, 44 per cent. improved, 19 per cent. stationary, while 22 per cent. got worse or died. Maragliano's own statistics show a total of 412 cases in 16 per cent. cured, 48 per cent. improved, 25 per cent. stationary, and 8 per cent. in which the patient got worse. Zanoni states that in 47 per cent. of his cases weight increased, in some as much as 5 or 6 kilos. Fever disappeared in 52 per cent. Physical signs almost disappeared in 22 per cent., diminished in 30 per cent., remained stationary or got worse in 24 per cent. Bacilli disappeared in 24 per cent., diminished in number in 41 per cent., remained stationary in 32 per cent. Night sweats in all cases in which distinct improvement was noted. Zanoni attributes the good results solely to the serum; no other special treatment was employed, and the food was the same as that given to other patients.

(72) The Treatment of Tetanus.

VITTORIO ASCOLI, Assistant in Baccelli's clinic in Rome, has recently published a monograph on the treatment of tetanus, especially by Baccelli's method, that is, by hypodermic injections of carbolic acid (reprint from *Bull. della R. Accademia Medica di Roma*, Anno XXIV—1897-98—Fasc. IV). He refers to the summary of cases reported up to last year published in the *Supplemento al Polichnico*, No. 32, 1897, by A. Zeri. The number of cases, collected from Italian, French, German, and Russian literature, included in that summary was 24. Among these there was no instance in which the treatment failed. The injections cause no convenience. The carbolic acid can be injected in doses of 3 to 4 centigrammes of a 2 to 3 per cent. solution. The injections may be given several times in the twenty-four hours. In certain cases a daily amount of 35 centigrammes has been administered without any sign of intolerance being manifested. The tetanic symptoms are always promptly mitigated, provided the remedy is used *largâ manu*: the practitioner must not allow himself to be deterred by the fear of carbolic acid poisoning. Ascoli adds three cases from Baccelli's clinic and several from other sources to those collected by Zeri, making thirty-three in all, with only one death. In the fatal case which occurred in Baccelli's clinic the disease ran a rapid course and the treatment was not sufficiently energetic, the quantity of carbolic acid given being only 23 centigrammes in three days. After a full consideration of the results obtained by serumtherapy in tetanus, Ascoli sums up his conclusions as follows: (1) Statistics show better results from the carbolic acid method than from the use of serum. (2) The carbolic acid must be given hypodermically and in large doses. (3) Under its influence the muscular contraction and spasms diminish in a marked degree. (4) The acid acts in tetanus particularly as an antitoxic and a moderator of the reflex activity of the nerve centres. (5) The energetic local disinfection, combined with the support of the patient's strength, are the cardinal points in the treatment of tetanus. (6) Serum treatment is useful as a preventive, and also in the developed disease when it is possible to apply it early or when the production of toxins is still going on. But the results of this

method, if they cannot be ignored, are neither convincing nor brilliant. Even if it were the most efficacious method, symptomatic treatment must not be neglected. (7) A patient suffering from tetanus must be treated eclectically, regard being had to the wound, to the intensity of the intoxication and its duration, and to the special conditions present in the case. Carbolic acid in large measure fulfils the indications, and is therefore suitable for the majority of cases.—Ziengo (*Gazz. d'Osped. e delle Cliniche*, October 9th, 1898) records a case in which 978 centigrammes of carbolic acid were injected in twenty-seven days. At first morphine was given in a daily dose of 4 to 6 centigrammes as recommended by Baccelli in order to relieve insomnia and hyperæsthesia, but this was soon discontinued, as the carbolic acid alone seemed to fulfil these indications. Slight amelioration was observed on the third day of the treatment; by the twelfth trismus had ceased, and on the twenty-third recovery was complete. This makes 34 cases treated by Baccelli's method, with 1 death. Ascoli gives tables showing the results of the serum method, from which it appears that of 47 cases treated with Tizzoni's serum, 10 died, and of 33 treated with Behring's serum, 13 died.

(73) Treatment of Ophthalmia as met with in South Africa.

In a paper read before the fourth South African Medical Congress J. A. Lea, of Grahamstown, said that he recognised three chief varieties of ophthalmia: (1) Chronic conjunctivitis either primary or following an acute attack, (2) chronic granular ophthalmia, (3) follicular conjunctivitis. The first was best treated by frequently washing out the conjunctival sac with a tepid saturated solution of boracic acid, and then applying to the lids strips of lint made wet with the same solution, used either cold or iced, followed by the occasional application of lanolin. In old and feeble people he preferred to use warm fomentations. When the discharge was yellowish and free he used nitrate of silver of from 5 to 10 gr. to the ounce, which should be washed off again so as not to allow the cornea to be affected; if there were much injection the artificial leech was useful. The solid stick of nitrate of silver was never required. If there were much irritation he gave a pill of morphine, gr. $\frac{1}{32}$, combined with extract of hyoscyamus, grs. 3. Cocaine should not be used on account of its unfavourable action on the cornea. Acute granular ophthalmia he treated in the same way, except that the silver was used in a strength of from 10 to 15 gr. to the ounce. In chronic granular ophthalmia, considering how acetic acid acted upon lymph corpuscles, Lea was led to apply this agent to the lymphatic tissue of trachoma nodules, and he had found very beneficial results follow this mode of treatment. It was applied as follows: A few drops of cocaine are first instilled into both eyes, and the conjunctival sac is washed out with a solution of boracic acid. He then takes a tattooing needle, dips it into the dilute acid, and pricks all visible follicles, dipping the needle into the acid each time before pricking. This was repeated every third or fourth day until no trachoma nodules are visible. He then took a pointed stick of sulphate of copper and applied it to the granulations on the lids, and after waiting for a short time with the lid still everted, he washed off the dissolved copper, special attention being paid to the upper *cul-de-sac* of the conjunctiva, which may easily escape observation. When there was great irritation he found that scarification of the conjunctiva, followed by the application of strips of lint steeped in boracic acid solution, was more effective than anything else. In follicular conjunctivitis he had had the best results by occasionally touching the granulations with lapis divinus or sulphate of copper, and the use of an ointment of sulphate of copper, gr. $\frac{1}{4}$ to $\frac{1}{2}$ to the ounce of lanolin. It was most important to correct any errors of refraction.

(74) Danger of the Nasal Douche.

Lichtwitz (*Internat. Centralbl. f. Laryngol.*, June, 1898) advises that the nasal douche should be used only in cases where there is increased secretion or crust formation—in fact where something has to be removed. The dangers in the use of nasal douches are as follows: (1) Disturbance in the sense of smell due to the action of chemicals on the nasal mucous membrane. (2) Headache. (3) Suppuration in the middle ear.

(75) Somatose in Syphilis.

Fournier (*Journ. des Mal. Cutan. et Syphilit.*, No. 3, 1898) advocates the administration of somatose in cases of secondary syphilis, particularly those in which marked wasting occurs, or profound blood changes. The "syphilis dénutritive secondaire" described by Lavallée (which is characterised by loss of appetite, wasting, loss of body weight, and a feeling of great depression and weakness) seems to be best treated by somatose. Cases also in which the blood shows a decreased percentage of hæmoglobin, associated with vertigo, insomnia, and gastralgia are suitable. These symptoms sometimes resist every kind of treatment. The author showed a case at the Berlin Dermatological Society in which somatose had practically cured the patient after all other remedies had failed. The man was 40 years of age, and suffered from ulceration of the skin in the inguinal region, œdema of the feet, epistaxis, and a purpuric eruption which started in the pharynx, and rapidly spread to the gums and buccal mucous membrane. The case was complicated by mercurial stomatitis and swelling of the tongue. Respiration and deglutition became difficult. Milk caused indigestion, and had to be discontinued. For twenty days the patient was fed on soup and 4 teaspoonfuls of somatose per diem. With this diet the patient gained in strength. He continued to take somatose for several weeks. The syphilitic symptoms abated when the patient began to assimilate more food. The addition of somatose to cow's milk facilitates the digestion of the milk in many other syphilitic conditions. Somatose is best given in small doses of 12 grams. The author has also found somatose to be of use in chlorosis and the anæmia caused by malaria. Its chief use, however, is in cases of mercurial stomatitis, and in conditions producing a diminution in the amount of hæmoglobin.

PATHOLOGY.

(76) Some Conditions necessary for the Spread of Tuberculosis.

Arthur Ransome (*Extrait du Congrès de la Tuberculose*, Paris, 1899, eight years ago, in conjunction with Dreschfeld, found that sputum containing quantities of tubercle bacilli retained its pathogenic properties for months when exposed to the air in a small unhealthy hut, built without a basement on a clay soil; while another sample, exposed in a well-ventilated house built on a sandy soil, and with good sanitary arrangements, lost its virulence completely. In 1894, conjointly with Delépine, he found that over three days' exposure to free ventiation alone was required to disinfect sputum or pure cultures, while a very short time sufficed when they were exposed to air *plus* sunshine. These experiments suggested that there must be some substance in the air of confined spaces which favoured the growth of the bacillus. Ransome has now obtained a liquid containing such a substance: (1) by freezing the expired air both of healthy and phthisical subjects, and (2) by condensing the vapours arising (*a*) from the contaminated soil of a town, (*b*) from a clayey, and (*c*) from a sandy soil. After estimating the free and saline and the albuminoid ammonia contained in these liquids, he thoroughly sterilised them, and then soaked pieces of folded filter paper or of ordinary wallpaper in them. Paper thus treated, whatever the original source of the liquid might be, proved to be an excellent culture medium when inoculated with a pure culture of the tubercle bacillus. Out of 18 specimens, 16 produced more or less vigorous colonies, and, of a second series of 37, only 1 failed to grow even when kept at ordinary temperatures. In the first series a little glycerine was added to the liquid, but in the second equally good growths were obtained on the soaked paper without this addition. These experiments prove conclusively that the tubercle bacillus is a saprophyte as well as a parasite, and that it can grow in the organic matter contained in expired air or in the vapour arising from the soil. They indicate also the nature of the danger of insanitary houses, and how the peril is to be avoided by the disinfecting action of sunlight and fresh air.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(77) Malignant Endocarditis.

Herzog (*Deut. med. Woch.*, November 10th, 1898) gives details of 9 cases of this disease. Six occurred in men and 3 in women. The ages varied from 19 to 50. All the cases terminated fatally. The patients often gave a history of previous rheumatic pains, or of joint pains at the commencement. Swelling of the joints was sometimes found, and even a purulent effusion. In 2 cases traumatism appeared to be the starting point of the infection. In 1 the endocarditis occurred along with malaria, the plasmodia being present in the blood. Often the cause of the disease was quite obscure, the patients being admitted in delirium or coma. The diagnosis from meningitis, uræmia, typhoid fever, may be difficult. The author draws attention to the fact that the malignant endocarditis may be part of a general infection, and that a small wound may be the starting point of the infection. It may also supervene upon other infective diseases. The symptoms during life are variable. Even the clinical evidence of a lesion of the valves may be slight or even wanting. The temperature may show nothing characteristic. In the case of malaria and malignant endocarditis, it could not be stated that the two diseases were in causal connection. Often a chronic parenchymatous nephritis was present, and in one case an acute hæmorrhagic nephritis appeared during the course of the disease. In this case the malignant endocarditis followed upon an attack of acute rheumatism. In 2 cases hemiplegia occurred as the consequence of embolism.

(78) Woillez's Disease.

Carrière contributes an exhaustive article (*Rev. de Méd.*, October, 1898) on Woillez's disease, or idiopathic pulmonary congestion. This is an acute affection of the lungs following rapidly on simple exposure to cold, or in some cases resulting from traumatism, as in falls or blows causing injury to the chest. The symptoms appear from four to seven hours, or even less, after exposure. In some instances quoted by the author twelve to fourteen hours elapsed before the appearance of slight rigors, which, together with the sharp pain in the side, constitute the earliest symptoms. The severe and prolonged rigor which may usher in an acute pneumonia is never observed in this disease. The slight rigors may last three or four hours. The temperature rises fairly rapidly from the beginning, and may soon attain 40.5° C., the pulse being 120 to 130. There is much thirst and complete anorexia. Dyspnœa may be a marked symptom later on, but in the early stages is not severe. There is slight cough, which becomes irritable. Expectoration is slight. When the disease is fully developed the pain in the side becomes more marked. On physical examination the affected side of the chest may appear on inspection increased in size—a fact to which Woillez first drew attention, though it does not seem to be invariable present. Movement seems to be deficient. On palpation vocal fremitus is much diminished as a rule, and on percussion there is some impairment of resonance, but indefinite in outline. There does not seem ever to be actual dulness. Expiration is prolonged, and inspiration somewhat interrupted. The vesicular murmur is distant; in some cases, however, it is increased, assuming the puerile type, a few crepitative and subcrepitative *râles* may be heard. Bronchophony is rare, but a symptom described by Serrand—to which the name echophony has been applied—is present, namely, a form of echo immediately following vocal sounds. The disease appears to consist in an acute unilateral or local pulmonary congestion. Its duration, according to the cases quoted by the author, varies from two to four or five days, and in some instances relapsing. The majority of cases recover, though occasionally the disease may end fatally. Bacteriological examination of the sputa shows the presence of staphylococci, and occasionally pneumococci, of Fraenkel. *Post-mortem* examination simply shows acute congestion of the pulmonary tissue without consolidation. The blood expressed from the lung shows the presence of the same organisms as noted in the sputum, and sections of the organ show the same. Treatment is merely symptomatic; dry cupping and poultices usually relieve the pain rapidly, and quinine may be administered internally.

(79) Malarial Nephritis.

Thayer has studied (*Amer. Journ. Med. Science*, December, 1898) the renal complications in 758 cases of malarial fever treated in the Johns Hopkins Hospital. He found that albuminuria occurs in 46.4 of the cases, and casts in 17.5, and the renal complications are much more frequent in the æstivo-autumnal form of malaria. Actual acute nephritis occurs in 4.7 per cent. of the cases, and thus albuminuria and nephritis, while not so frequently a complication of malaria as of typhoid, scarlet fever, and diphtheria, are yet of very great importance; and it is also probable that many cases of chronic renal disease may be traced to this source.

(80) The Enanthem of German Measles.

Forchheimer contributes an article (*Arch. de Pédiatrie*, October, 1898) on the appearance of the enanthematous eruption of German measles. After drawing attention to the extreme diversity of opinion as to whether there is really such an eruption in this disease or not, the author describes a case occurring in his own family which revealed to him the cause of so much uncertainty of opinion. He was enabled to watch the course of an attack of German measles in one of his own children, aged 11. The boy felt perfectly well at night but in the morning his appetite was poor; he suffered from lassitude, slight soreness of the throat, and there was a slight elevation of temperature. On examination, the tonsils were found slightly reddened, and the glands behind the jaws were enlarged. Two hours later there was a slight rash upon the lower part of the face showing the characteristics of rubella, and examination of the mouth also revealed a markedly rose-red rash on the velum of the palate and uvula, and extending as far as the hard palate. The maculæ were irregular in distribution, not crescentic, and were about the size of large pin heads, and but very slightly elevated above the mucous membrane. Six hours later it had faded markedly, and somewhat later it had disappeared, while the exanthem had developed. From this case the author discovered the fact that the enanthem and exanthem in rubella appear almost simultaneously, but that the former very rapidly disappears. Bearing this fact in view, he looked for it in 22 other cases, in all of which it was present. It would seem, therefore, that previous observers have missed it, for on comparing scarlatina and measles, in both of which there is a well-marked enanthem, it is found that in the case of the former the eruption appears from twelve to twenty-four hours before the rash, and lasts a considerable time, while in measles it appears from three to four hours previous to the exanthem in the form of purplish or bluish papules, crescentic in arrangement, and accompanied by bluish tinge of the tongue. It may last three or four days.

SURGERY.

(81) Recovery from Operation for Typhoid Perforation: Death from the Fever.

Woodward (*Boston Med. and Surg. Journ.*, December 1st, 1898) very properly records a fatal case of typhoid surgery. The patient was a student, aged 18. Towards the end of the second week of fever, severe pain in the iliac region set in, the temperature fell from 103° to 96° in a few hours, whilst the pulse-rate increased. The general condition was bad. On opening the abdomen, a coil of small intestine was seen lying to the right of the incision, thickened, red, and coated for several inches with lymph. Lymph, fæcal matter, and a little milk lay free in the peritoneal cavity. A perforation of the size of a pea was found near the centre of the inflamed intestine opposite the mesenteric insertion. Its edges were freely excised, and it was closed with a double row of Lembert sutures. Several gallons of normal hot solution were then washed through the abdominal cavity, much of the lymph picked off, and the abdomen closed with silkworm-gut sutures, without drainage. The patient was almost moribund. Abundant stimulation, bandaging of the legs, feet, etc., finally established the circulation, and the next

day the patient was conscious, taking nourishment. He lived nine days in a typhoid state, with no local symptoms suggesting peritonitis. The abdominal wound was found ununited and gangrenous at the edges. The peritoneal cavity, however, was quite dry, and the intestines uninflamed with the exception of local dry peritonitis around the damaged coil.—Chauvel (*Journ. des Connaissances Médicales*, October 20th, 1898) publishes an instructive case of non-typhoid perforation cured by prompt operation when, as in Woodward's case, the pulse rose suspiciously. A man received a blow on the abdomen from the heel of a horse. There were no immediate symptoms, but after eight hours the pulse became very rapid. The abdomen was opened on that account. Marked peritonitis was detected; two intestinal perforations were discovered and closed by suture. The patient recovered. Guinard, in a debate on this case, denied that intestinal perforations are ever caused by bursting of the coats of the intestine through the pressure of gas or fæces. His experiments on the cadaver show that this condition could not possibly cause a perforation.

(82) The Surgery of Perforation in Typhoid.

Cushing (*Johns Hopkins Bulletin*, November, 1898) reports 4 cases. In the first perforation occurred at the end of the second week. The abdomen was opened, and the perforation closed by suture; the peritoneum was drained. Three days later a fæcal fistula developed from a second perforation, but closed spontaneously. Seven days later there were more symptoms of perforation. Once more abdominal section was performed, no perforation found; two days afterwards laparotomy was again needed for acute intestinal obstruction caused by adhesions about the second perforation. This obstruction was relieved, and the perforation closed. The patient, a boy aged 9, recovered. The second case occurred in a boy aged 18. Perforation took place in the fifth week. The patient was very ill; laparotomy was undertaken under cocaine anæsthesia. There was general peritonitis and free extravasation of liquid fæces. Three perforations were discovered and sutured; all lay in the ileum. The patient died in four hours. The patient in the third case was a negro, aged 31. After prolonged abdominal symptoms perforation occurred at the end of the fourth week. General streptococcic peritonitis was found, the perforation was sutured, and Douglas's pouch drained with gauze. The patient died at the end of eight hours. The fourth operation was undertaken under an error of diagnosis. Symptoms of perforation set in during the fourth week, the fever had relapsed. The patient was a girl aged 15. Sudden pain seized her, with vomiting and distension. Abdominal section was performed. There was no free fluid in the peritoneum, which was not even injected; the appendix and intestines were free from adhesions. The Peyer's patches in the ileum were swollen and hard, feeling like buttons. The pelvic viscera and lumbar glands, the gall bladder and the great veins of the pelvis and abdomen were apparently free from lesions. No ill-effects followed the operation, and the relapse subsided. The question of when to operate is discussed at length by Harvey Cushing.

(83) Conservative Treatment of Stricture of the Bowel.

At a meeting of the New York County Medical Association, on December 19th (*Phil. Med. Journ.*, December 31st, 1898) J. A. Wyeth reported a number of clinical cases illustrative of the conservative treatment of stricture of the bowel. In the first an excellent result followed the persistent use of bougies of extra length and flexibility, together with daily irrigations of the colon and systematic regulation of the diet and the bowels. Before the introduction of the bougie the patient is placed in the Trendelenburg position, and about one quart of sterile water is introduced into the colon. This causes distension of the gut, and the consequent obliteration of the folds greatly facilitates the insertion of the instrument. Anæsthesia should not be employed, as the patient's sensations are a useful guide to the operator. In another case (one of inoperable carcinoma of the rectum), in a man, aged aged 63, the patient received every morning an injection of two quarts of sterile warm water, and this was allowed to remain for half an hour. At intervals of ten days he was anæsthetised, and caustic potash was applied to the carcinomatous mass. After about four months of this treatment the patient suffered no further inconvenience from his rectal trouble, and, although he was not cured, it was probable that his life would be both prolonged and made comfortable. Wyeth did not think the operation of excision of the rectum for carcinoma held out much hope of success except when the disease was in the incipient stage. He had had a large experience in the treatment of epithelioma with escharotics, especially by Marsden's paste, and he could point to a number of gratifying cures. A patient with carcinoma of the rectum, upon whom he had operated, was exhibited. The disease was far advanced when he first came under observation, and it had been necessary to establish a permanent fæcal fistula. Such a fistula is satisfactory only when there is at the opening a long spur that would so direct the fæcal current that the lower portion of the bowel at the fistulous opening would receive the fæces, and, like the sigmoid flexure under ordinary circumstances, allow them to accumulate there until a wave of peristalsis was excited, and the person thus notified that an evacuation was about to take place. He had formed such a spur by operative procedure, and the spur thus artificially formed had given this patient perfect control over the evacuations.

(84) Splenectomy for Malarial Hypertrophy.

Jonnesco, of Bucharest (*Bull. de l'Acad. de Méd.*, October 25th, 1898) reported that since 1896 he had extirpated the spleen in 23 cases, once for an enormous hydatid cyst, in the other 22 for malarial hypertrophy. The organ was fixed and adherent in all but 3 instances. One patient died from hæmorrhage, 7 others either because their cachexia was too far advanced, or from secondary complications independent of the operation. Except in the cases which were followed by some complication, the operation was invariably followed by a diminution in the toxic quality of the urine, and by the disappearance of the cachexia, and other symptoms of impaludism. Jonnesco concludes that the spleen instead of being a protection against impaludism is the receptacle for the malarial parasite. Its extirpation removes the principal if not the only focus of infection. Leukæmia is, in his opinion, the only absolute contraindication to splenectomy.

MIDWIFERY AND DISEASES OF WOMEN.

(85) Hæmostatic Injections into the Placenta.

At a meeting of the Section on Obstetrics and Gynæcology of the New York Academy of Medicine (*Med. Rec.*, January 14th) Ayers reported that he had been making some experiments with placentæ. It had occurred to him that immediately after delivery of the fœtus and severance of the cord the placenta might be injected with a solution which would check the blood supply, and at the same time prevent decomposition in the placenta for a sufficient length of time to allow of its safe removal subsequently. The placenta had been taken for experiment shortly after delivery in normal cases. The first experiment was with a solution composed of tannin one ounce, salicylic acid three drachms, and boiled water two quarts. This was injected under a pressure attained by elevating the reservoir five feet. The placenta was then kept in a room at a temperature of 70° F., and the first evidence of decomposition was noticed at the end of five days. Other experiments were made with glycerine and tannin, with sodium chloride solution, and with 1.5 per cent. of formaldehyde. With the last named solution decomposition was delayed for nine days, and during this time the placenta maintained much of its normal appearance, It was found in these experiments that if the fluid was injected through the vein, it transuded into all the tissues. The injection could be made in actual practice in the course of five minutes, and it would not pass into the maternal circulation otherwise than by osmotic circulation. The following are the author's conclusions regarding the class of cases treated of in the paper: (1) Operate by the vaginal method only when the fœtus has already perforated the vaginal wall or is suppurating, and is closely pressed against it, and the fœtal head presents; then remove and drain: (2) if the fœtus is living, do an abdominal section as soon as thorough

preparation can be made, starting near the pubes lest the gestation sac should be intraperitoneal; (3) remove the fœtus first and without disturbing the placenta if possible; (4) if the placental circulation is active, ligate the ovarian and uterine arteries before separating the placenta; (5) compress the aorta and bleeding surfaces with gauze; (6) if extraperitoneal, enucleate the gestation sac; (7) if the placenta cannot be removed, stitch the sac to the abdominal wound, dust with salicylic acid, pack with sterilised gauze, and cut the cord close to the placenta, leaving the gauze in the wound; (8) if the placenta must be left, it might be injected with tannin, salicylic acid, or formaldehyde, after which the cord should be cut, the amniotic sac trimmed off, and the wound closed; (9) the secondary operation must depend upon the placental disturbance; (10) if the fœtus is dead, delayed operation is elective; (11) if it has been dead for one month or longer, operate at once without waiting for sepsis; and (12) if it is macerated, remove it immediately.

(86) Precocious Menstruation.

Hofacker (*Centralbl. f. Gynäk.*, No. 41, 1898) has collected 62 cases of this condition. In 1 case the subject menstruated regularly from birth onward. As a rule precocious menstruation is associated with ill-health. Of definite diseases 6 were rachitic, 3 had hydrocephalus, and no fewer than 3 had sarcoma of the ovary, too great a proportion to represent pure coincidence; 5 became pregnant between the ages of 8 and 10. Hofacker's own patient, on whose case this paper was based, was 9 years old. She had menstruated regularly once a month from the end of her first year. The show lasted four days. There was discomfort shortly before it appeared. The height and weight did not exceed the normal standard, but the child was well nourished. The breasts were fully developed, and hair grew freely on the pubes and in the axilla. The labia minora and majora were large. The patient was rachitic. She began to walk when 20 months old. Her power of learning was weak, and she had special difficulty with arithmetic.

(87) Puericulture during Pregnancy.

A. Pinard (*Ann. de Gynéc.*, August, 1898) brings forward additional evidence to prove that maternal rest during pregnancy, especially during the last three months, is beneficial to the offspring. The infants weighed more at birth, and were better developed in these cases than when the mothers had to work up to the hour of their confinement. Bachimont's statistics are quoted, and show an advantage of 300 grams in the infants of mothers who rested in the last three months of pregnancy. The explanation is that under such conditions the gestation goes on to the full term, whereas in the case of working women it is often prematurely interrupted. Anything which tends to force the uterus downwards into the pelvis in the later months will cause a tendency to premature labour; such an influence is work, especially work in the upright posture. For the same reason, the average weight of infants born to women with contracted pelves is greater than that of those born to women with normal pelves. This is proved by Pinard by a reference to the statistics of 100 cases of symphysiotomy for contracted pelvis, in which the average weight of the newborn was 3,350 grams. It is necessary, therefore, for the uterus to remain an abdominal organ in the last weeks of pregnancy if the full term is to be successfully reached.

(88) Vulvo-vaginitis in Children.

Vigerani and Casarini (*La Rif. Med.*, November 29th, 30th, December 1st, 1898) have examined a comparatively small number of children with a view to the bacteriology of this disease. They find that clinically it is often impossible to differentiate between a simple and a gonorrhœal vaginitis. In the simple vaginitis it is common to find a diplococcus which microscopically resembles that of Neisser, but does not stand culture tests. When the Neisser gonococcus was indisputably found it was always after specific contagion either direct or indirect. In the vaginæ of healthy children the authors never found the gonococcus.

THERAPEUTICS.

(89) The Sanatorium Treatment of Tuberculosis.

In the report of the Loomis Sanatorium for Consumption for the year ending November 1st, 1898 (summarised in the *Medical News* of January 7th), Dr. Stubbert, the physician in charge, gives the result of a year's work in the sanatorium, from which it appears that 204 patients had been treated during the year ending November 1st, 1898, 78 of whom were there on November 1st, 1897. The patients are divided into two classes: (1) Those who remained three months or less: (2) those who remained longer. Of the total 204, the number described as "cured" is 28; of this number, 10 are put down in Class 1 and 18 in Class 2, the latter being those who had been there over three months. Dr. Stubbert states that there is far more improvement among the patients during the winter than the summer months, and his experience has shown that his patients "brave with impunity the cold northwest winds," and he has seen 80 patients gather at meals from their cottages day in and day out "without the least detrimental effects." In regard to the use of antituberculous serum, he shows that 27 per cent. of those treated lost the tubercle bacillus, although he does not state that they have been followed after their dismissal from the institution. He says: "I have already examined between 15 and 20 cases treated with serum, and have not found one that redeveloped the disease; all have been enabled to remain in their homes and at their work, and have been away from the sanatorium for periods varying from six months to a year and a half." Of the effects of the United States Government serum of De Schweinitz, he says: "I believe it to be the duty of the profession to continue the clinical administration along this line, since the three apparent effects noted from the use of this serum have been: (1) reduction of temperature, (2) decrease of the bacilli, (3) possible immunity conferred upon patients after returning to their homes." With reference to the use of antistreptococcus serum, he says that it was naturally used in the hope that he could thereby do away with the streptococcus, so that he would then be left to deal with the tuberculous affection alone. With this end in view he employed in 10 patients the Pasteur serum, selecting, of course, only such patients as showed the presence of the streptococci. Judging from the 10 cases given, it caused the disappearance of the streptococci for a time at least, and, though its action was slow, it apparently should leave the way open during the time for a more successful use of the De Schweinitz serum.

(90) Glandulen in Tuberculosis.

Meyer and Scognamiglio (*Suppl. al Policlin.*, January 7th, 1899) reports very satisfactory results in the treatment of phthisis by tabloids of glandulen. Glandulen is prepared from the bronchial glands of the sheep by washing with alcohol, drying, freeing from fat, and pulverising, and then compressed into tabloids with sugar of milk. Each tabloid contains 0.25 gram. of fresh gland substance; of these 1 to 5 are given three times a day. The idea is that just as the glands during life form the first barrier to general infection, so their administration may assist Nature where this barrier is insufficient. The results have been unexpectedly satisfactory, and most of all in pulmonary phthisis; in intestinal tuberculosis they were not so good. Glandulen has been tried in 30 cases of pulmonary phthisis; 6 of these were in the early, 14 in the middle, and 10 in the later stage of the disease. Of the 14 cases, after ten or eleven weeks of treatment the subjective phenomena ceased in all, in 8 the objective as well, and in the remaining 6 the objective signs had more or less diminished. Even in the 10 cases of advanced disease very considerable benefit accrued from the use of the drug.

(91) Pyrantin.

Piutti, of Naples (*Therap. Monat.*, No. 10, 1898) gives a description of pyrantin, a new antipyretic. It is obtained by the action of anhydrous succinic acid on phenetidin. Pyrantin crystallises in shining prisms, which disappear at a temperature of 155°. It is

very slightly soluble in water and ether, but readily soluble in alcohol and acetic acid. Combined with sodium hydrate it forms an easily soluble sweetish salt, which is sold under the name of "soluble pyrantin." The physiological characteristics have been studied by Gioffredi. In cold-blooded animals large doses of pyrantin cause at first an excessive activity, which is soon followed by general paralysis. The cerebrum is paralysed at the outset, whilst the spinal cord is at first stimulated, and later on becomes paralysed. In warm-blooded animals the toxic effect of the drug is less marked. The fatal dose in dogs is 1.25 gram, in rabbits 2.69 grams, in guinea-pigs 3.25 grams for every kilogram of body-weight. At first the reflexes are exaggerated, convulsions occur which are followed by general paralysis, and death respiratory failure. The heart continues to beat for some minutes after respiration has ceased. By the continued administration of small doses no poisonous effects are produced. The blood showed no change in its composition. Small quantities of pyrantin have no effect on the pulse or respiration; large doses cause a slight diminution in the frequency of both. The blood pressure is not influenced by small doses; larger doses, however, cause a fall in pressure amounting to 30 or 40 mm. of mercury. This fall in the blood pressure is caused by dilatation of the peripheral vessels, due to the direct toxic action of the drug on the vessel walls. Small doses of pyrantin have a soothing and antipyretic action on warm-blooded animals. The lowering of the body temperature is caused by an increase in the heat expenditure when small doses are given, and by a diminution in the heat production when large doses are given. The vasodilatation explains the increased loss, whilst the decrease in heat production, according to Gioffredi, is due to the direct influence of the poison on the biochemical processes in the cells. Pyrantin during its passage through the body is split up into two components, succinic acid and phenetidin. The soluble and insoluble forms of pyrantin give the same qualitative results. No clinical observations have yet been made.

(92) Arsenious Acid in Malignant Disease.

AT a meeting of the New York County Medical Association on December 19th (*Phil. Med. Journ.*, December 31st, 1898), J. A. Wyeth reported a case illustrating what might sometimes be accomplished by injections of arsenious acid into carcinoma and sarcoma. He had first used injections of Fowler's solution of arsenic over ten years ago in cases of malignant disease in which the diagnosis had been placed beyond a doubt by independent examinations by several competent microscopists. The inflammatory reaction was sometimes severe, but in some cases it had actually effected a cure. From 5 to 15 drops of this solution are injected into the edges of the neoplasm.

(93) Orthoform Emulsion.

KASSEL (*Therapeut. Monat.* No. 10, 1898) has lately used an emulsion of orthoform 25 parts, and olive oil 100 parts, for laryngeal application. The burning sensation in this case only lasts about a quarter of an hour, and is then succeeded by anæsthesia, which commonly lasts from 24 hours to 3½ days. The feeling of comfort experienced by the patient is remarkable; he is able to eat all kinds of food, and the appetite is greatly increased. The emulsion has not the disagreeable taste in the mouth hat is often experienced after cocaine insufflations. Another advantage over cocaine is that it seldom causes dyspepsia. The anæsthesia lasts much longer than after cocaine. Kasell has employed the emulsion chiefly in cases of tuberculosis. He noticed a distinct diminution in the amount of secretion in cases of ulceration, but otherwise it did not appear to have any local therapeutical value. Patients do not dread the lactic acid treatment if orthoform emulsion is used regularly.

(94) Somatose and Transitory Glycosuria.

RÉNON (*Société Méd. d. Hôpitaux*, June 17th, 1898) showed a case of transitory glycosuria following the administration of somatose. The patient was a woman who was nursing her child. Somatose was given to increase the secretion of milk. The quantity of milk was considerable, and for some time the child continued to take it, but soon the infant ceased to care for the milk. On examination, sugar was found in the urine to the amount of 3 grams per litre. The specific gravity of the urine was 1018. The somatose was discontinued. The urine was soon free of sugar, and the secretion of milk ceased entirely.

PATHOLOGY.

(95) The Endemic Occurrence of Cancer.

R. BEHLA (*Centralbl. für Bakt.*, xxiv, 21-24), after some introductory remarks upon the alleged increase of cancer, a belief he fully shares, gives an account of the distribution of cancer in his native town (Luckau), in which he has practised for more than twenty years. This town (of 5,000 inhabitants) consists of a main body and two suburbs at opposite ends. The main body presents the disease in much the same percentage as most other communities; but while one suburb—built on dry sandy soil—contributes only a few cases, the other suburb, built on reclaimed marshy land, has cancer as a cause in at least 15 per cent. of deaths. The writer gives a plan of this suburb, and has marked each individual house in which well-authenticated cases of cancer have occurred; in some houses as many as three or four have been noted; in one street of thirty-eight houses only eleven have escaped, while in the remaining twenty-seven there have occurred at least 40 cases in twenty-five years. Neither difference in the soil nor in the well water, nor the atmospheric conditions can alone account for this difference in the mortality returns; thus the food alone remains. The inhabitants are mainly farmers and small nurserymen, and their diet is notable for the quantity of uncooked vegetables partaken of—vegetables belonging mainly to the cruciferæ. Behla then refers to certain tumour-like diseases to which many plants, and especially the cruciferæ, are liable, diseases distinctly parasitic and caused by plasmodiophora brassicæ. The vegetables grown in the gardens of the suburb are infested with these growths, and when they rot are not destroyed, but are thrown upon the dunghill or into a neighbouring ditch, or or even allowed to remain in the soil over winter, while the beds themselves are watered with water taken from the aforesaid infected ditch, and the vegetables are scarcely rinsed before being placed upon the table. After referring to the occasional occurrence of a similar parasite—the leydenia gemmipara—in the acetic fluid of cancer cases, Behla asks whether these parasitic diseases of plants may not stand in some relation to carcinoma in man, and strongly urges further studies in plant pathology and lower plant life.

(96) Obliteration of the Aorta.

BRUNNER (*Correspondenz-Blatt für Schweiz. Aerzte*, January 1st, 1899) demonstrated before the Zürich Gesellschaft der Aerzte a preparation illustrating a rare deformity of the aorta. *Post mortem* it was found that the aorta was closed by an oblique membrane below the insertion of the ductus arteriosus. The patient, a man aged 30, came under observation for, and died of, phthisis and extensive lupus. An approximately correct diagnosis (obliteration of the thoracic aorta) was made during life, partly from the enlarged and tortuous arteries which were present in the upper part of the thorax, some pulsating immediately under the skin, partly from the complete absence of pulsation in the femoral arteries. Altogether 105 cases of partial or complete obliteration of the aorta are known. The stenosis has always been situated at the level of, or just above or below, the ductus Botalli, which in most cases was itself obliterated. There has been, as a rule, a very good collateral circulation through the branches going to the trunk from the subclavian arteries, and little or no discomfort has been experienced. The writer's patient was not troubled by it, though a fit of apoplexy which occurred two years before his death was probably due to the high blood pressure in the upper part of the body. The heart in most cases has been greatly enlarged, but in this specimen was normal except for a slight hypertrophy of the left ventricle. Brunner believes, with Skoda, that these cases arise from an abnormal prolongation into the aortic walls of the tissue which goes to form the wall of the ductus Botalli. This hypothesis explains all the varieties of stenosis, and shows that the latter is gradually developed during the first days of independent existence.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(97) Atrophic Gastric Catarrh.

Reichmann (*Berl. klin. Woch.*, November 14th, 1898) refers to cases in which there is discomfort in the abdomen, nausea, and regurgitation of a watery fluid. These symptoms come on in attacks rarely immediately after food, often in the night, and they recur every day, or more frequently every other day, or very seldom at long intervals. The nausea is never very pronounced, and it outlasts the other symptoms. The discomfort is felt in the upper part of the abdomen, and most often in the neighbourhood of the umbilicus. The regurgitation takes place once, or more frequently, some 50 to 60 c.cm. being brought up. The fluid looks like turbid water, but is quite translucent on infiltration. It is generally frothy. It has a raw salty taste, but no smell. The fluid is alkaline, and contains no ptyalin or pepsin, so that it will not digest starchy or nitrogenous matters. The chemical examination would make it appear to consist of a watery secretion of the mucous membrane. These patients are obviously suffering from a complete suppression of the gastric juice (achylia gastrica), so that gastric digestion is in abeyance. This absence of gastric secretion occurs in carcinoma of the stomach, atrophy of the mucous membrane, and secretory gastric neuroses. In the 10 cases referred to by the author the permanent absence of the gastric juice and the long duration of the affection (one to nine years) excluded secretory neuroses or malignant disease. Thus the author looks upon this group of symptoms as undoubtedly in favour of gastritis atrophicans, but the absence of them does not exclude this affection.

(98) Nephro-Typhoid.

J. C. Wilson records the case (*Amer. Journ. Med. Sciences*, December, 1898) of a lad aged 19, of previously good health, and without history of typhoid, but who developed headache and pyrexia, the temperature fluctuating between 102° and 104°. The urine varied in specific gravity from 1010 to 1030, and contained a large quantity of albumen with epithelial and granular casts. There were delirium, vomiting, and slight puffiness under the eyes. There was also some passage of blood *per rectum*. There were no rose spots nor enlargement of the spleen, but Widal's reaction was markedly present. In about six weeks the urine was free from albumen, though still containing a few cells, and the temperature had come down to 99.3°. There was then a return of pyrexia with delirium, reappearance of albuminuria with epithelial and granular casts and blood corpuscles, and a rather copious eruption of typical enteric spots appeared. There was enlargement of the spleen, and the patient suffered from diarrhœa. He subsequently made a good recovery. The writer looks upon this case as distinctly one of enteric fever, though obscure in its diagnosis at first; in this particular instance the kidneys bore the chief brunt of the disease. The case even showed a typical relapse, with reappearance of the kidney lesion. He points out the extreme importance of diagnosis in a case such as this, for if unrecognised it may be the source of danger to others; and in the event of a diagnosis of nephritis only being made, it is conceivable that a patient might have articles of food such as grapes, etc., given to him which might prove extremely injurious. Under these circumstances it would be better to diagnose the case as typhoid, and overlook the nephritis, rather than the converse. The writer also quotes another case seen in consultation, in which acute nephritis was present, but the enlargement of the spleen, diarrhœa, and condition of the tongue were the symptoms that first attracted attention, and pointed to the diagnosis of typhoid. In this case, as in the earlier history of that already mentioned, there was no eruption. Widal's reaction seemed to be negative. Wilson is of opinion that notwithstanding this fact the case was one of typhoid with acute nephritis.

(99) Leukæmia.

Wenzel (*Deut. med. Woch.*, October 20th, 1898) describes a case of leukæmia in a man aged 23. The illness began in August and terminated fatally in November of the following year. The first symptoms noticed were cough, dyspnœa, and a feeling of general weakness; some enlargement of the glands in the neck was also observed. The patient was a well-developed man, the mucous membranes very pale. Under the left sterno-cleidomastoid muscle there was a hard tumour the size of a hen's egg. The lymphatic glands were enlarged all over the body. Moist *râles* were heard all over the chest, but the breath sounds were not altered; the sputum was purulent; no tubercle bacilli were discovered. Heart normal; liver and spleen not enlarged. The patient sweated freely. The sternum was exceedingly tender on percussion. The urine contained albumen; the specific gravity was 1009; no sugar; The daily amount excreted was 1,000 c.cm. The temperature was subnormal. During the progress of the disease the dyspnœa became spasmodic in character, and occasionally there were attacks of stridor. The lymphatic glands increased in size; the liver and spleen became enlarged. At first the proportion of white to red blood corpuscles was 1 in 60; later on the proportion was 1 in 20. A more minute examination showed (1) an increase in the number of both small and large mononuclear leucocytes; (2) a proportionate increase in the eosinophile leucocytes; (3) many neutrophile leucocytes; (4) many polynuclear leucocytes; and (5) leucocytes in different stages of karyokinesis. The staining reagent employed was methylene blue—eosin. The patient died of asphyxia, and the necropsy showed that this was due to enlarged bronchial glands pressing on the trachea and pulmonary artery. On section the glands were bright red in colour, and very hard. No recent investigations throw any light on the cause of this disease. Klebs considers that leukæmia should be included amongst the infectious diseases. Other authorities believe that leukæmia more commonly follows the acute infectious diseases.

(100) The Visible Outlines of the Stomach and Intestines.

Stern (*Centralbl. f. inn. Med.*, October 29th, 1898) confirms the view expressed by Pichler, as to the possibility of seeing the outlines of these organs in respiration. He holds, however, that Pichler underestimates the value of this phenomenon from a diagnostic point of view. Stern contends that in cases of gastroptosis the movement of the smaller curvature of the stomach is visible even in cases where there is no marked wasting. The patient must lie in the horizontal position, and the light must be good. The abdominal walls must not be too thick or too tense, and the stomach and intestines must be at least partially full. The outlines of these organs are naturally less frequently seen than the diaphragm phenomenon, yet they are worthy of attention.

SURGERY.

(101) Retroperitoneal and other Fatty Tumours in Unusual Situations.

Pupovac (*Wien. klin. Woch.*, January 19th, 1899) relates several cases of operation for the removal of fatty tumours in rare situations. The first patient was a boy aged 8. He had a soft swelling as big as a hen's egg on the dorsum of the right hand between the third and fourth metacarpal bones, corresponding to a similar swelling on the palm. By a longitudinal incision along the dorsum the tumour was exposed and enucleated with the palmar portion, a simple prolongation connected with the former by an isthmus. No tendons needed division. In the second case, a lipoma as big as a goose's egg was enucleated from between the flexor profundus and sublimis digitorum by a longitudinal incision between the palmaris longus and the flexor carpi ulnaris. The patient was a woman aged 30. The third patient was a girl, aged 24. She had a tumour of the size of a fist on the right side of the neck, pushing the larynx to the left. The carotid pulsated on the inner side of the tumour. An incision was made from the mastoid process to the sterno-clavicular articulation. The superficial fascia, platysma, and deep fascia were divided. Then it was found that the tumour had greatly displaced the normal parts. The carotid artery and sterno-mastoid muscle were pushed inwards, the pneumogastric nerve was pushed forwards over the tumour, whilst the jugular vein lay externally and a little behind. Fortunately, the

fatty growth was easily shelled out of its thin capsule, in spite of its formidable relations, and the patient made a good recovery. The fourth patient was a woman, aged 54. She had a large tumour on the right side of the abdomen. A long incision was made beginning below the ribs in the axillary line, and running downwards and forwards. On opening the abdominal cavity the tumour was seen to be invested by the posterior parietal peritoneum, the ascending colon being displaced inwards. On incision of the peritoneal capsule the tumour was easily shelled out, but was found to be held down firmly by a broad pedicle internally and posteriorly. The kidney, apparently sound, lay rather below the back of the tumour, with which it was removed, being closely connected with the pedicle, the latter was divided in sections after clamping, and finally ligatured. The ureter was sewn up. The cut edges of the posterior peritoneum were united by suture. After operation urine began to be secreted more freely than before, and recovery was speedy. The tumour with the kidney weighed over $15\frac{3}{4}$ lb. Spencer Wells removed two similar circumrenal tumours (BRITISH MEDICAL JOURNAL, vol. i, 1884, p. 758). Terrillon has collected a large series of retroperitoneal tumours, noting that 13 out of 15 grew on the right side. Péan removed by easy enucleation a lipoma 55 lb. in weight from the mesentery of a woman aged 30. In Karl Schiller's case the mesenteric fatty tumours were multiple, and extended widely back into the retroperitoneal connective tissue, two going as far as the diaphragm. The patient, aged 40, died on the fourteenth day after operation. Pupovac also adds a good bibliography of fatty tumours of the neck, hand, retroperitoneal region, and other unusual localities. Lannois and Bensaude (*Gaz. des Hôpitaux*, 1898, p. 369) exhibited last year before the Paris Société Médicale des Hôpitaux a case of lipoma of an opposite type to that above described. The patient, an adult man, had diffuse and symmetrical fatty growths on the neck, face, nape, and groins. In the groin hypertrophied lymphatics could be felt completely surrounded by fat. In the same patient several lymphatic vessels were indurated, and the spleen was enlarged. The patient was still in the first stage of diffuse lipoma. This often lasts for long; then the second stage begins, characterised by the appearance of leucocytosis, which ultimately becomes marked, though it does not necessarily pass into leukæmia.

(102) Treatment of Indolent Ulcers.

MARCUSE (*Deut. med. Zeit.*, No. 63, 1898) describes a method of treatment for troublesome ulcers of the leg which he has found more efficacious than elastic bandages or sticking plaster. Unna's zinc glycerine glue has a remarkable power of restoring the disordered circulation of the surrounding tissues, and thus aiding in the healing of the ulcers. There are many cases, however, in which Unna's treatment by itself is of no avail. Among these are the large ulcers which have been neglected for a long time and are constantly pouring out a copious secretion. Another variety is the callous ulcer with sharp indurated edges. In order to stop the secretion and improve the vascularity of the ulcer, and particularly the neighbouring tissues, the author has found that the application of wet bandages moistened with Burrow's solution, and subsequently followed by the zinc glycerine glue, has an excellent effect. The composition of the solution is as follows: Alum. pulv., 5.0; plumb. acet., 25.0; aq. distil., 500.0. A more convenient form for use in general practice would be: Alum, 10 parts; plumb. acet., 50 parts; both powders to be well mixed in a litre of water. The application of this lotion is found to have an astringent action on the ulcer without causing dryness. It is antiseptic, and lessens tension and pain. The moist warmth in the case of the callous ulcer has a powerful effect in lessening the induration and improving the general vascularity of the part. The patient should be kept in bed for some weeks. The method of application consists in cutting a large piece of ordinary gauze dressing, so that the skin for several inches round the ulcer is covered. The gauze is moistened with the lotion and then applied, the whole being covered with gutta-percha tissue. After a short time sulphate of lead is precipitated.

(103) Murphy's Button.

JORDAN (*Revue de Chirurgie*, Supplementary Number, 1898) states that in Czerny's clinic at Heidelberg Murphy's button is used in all suitable cases, and that, thanks to this appliance, the duration of an operation on the gastro-intestinal canal may be much diminished. Gastro-enterostomy may, it is asserted, be easily performed in fifteen minutes if the button be applied instead of sutures. The use of the button, the author believes, is free from danger provided attention be paid to contraindications. In his early experience of Murphy's appliance he lost three patients in consequence of perforation, but since he has used sutures instead of the button in the large intestine, he has employed the latter in more than a hundred cases without a single failure. It is important, he points out, to press the two portions of the button closely together. Supplementary sutures will in most cases be found useless. The button, though it may be passed on the seventh or eighth day, is usually retained until about the twentieth day. In Czerny's clinic gastro-enterostomy with Murphy's button has been performed in 83 cases—63 of cancerous and 20 of non-cancerous stenosis of the pylorus—with a mortality of 12.5 per cent.

(104) Removal of Foreign Bodies from the Female Bladder.

PICQUÉ (*Bulletins et Mémoires de la Société de Chirurgie*, No. 28, 1899), in a report of a case in which Rochard successfully removed a hairpin from the bladder of a girl aged 14 by the suprapubic method, states that in dealing with foreign bodies in the bladder it is admissible not to attempt extraction by the urethra if the body be a large one or cannot be crushed, and also if it be irregular in shape and pointed. Such attempts are usually unsuccessful and sometimes dangerous. If a cutting operation be indicated, the bladder, in a very large majority of cases, should be approached from the vagina. Suprapubic cystotomy may however be required, especially in young girls with a narrow vagina and intact hymen, and also in cases in which the foreign body is known to be large, but concerning the nature and form of which no trustworthy information can be obtained. The operation is recommended as much almost for exploratory as for therapeutical purposes. The cystoscope is very useful in many cases of foreign body in the bladder, but fails when illumination is prevented by the large size of the body or by contraction of the vesical cavity.

MIDWIFERY AND DISEASES OF WOMEN.

(105) Lactose as an Oxytocic.

KEIM (*L'Obstétrique*, January 15th, 1899) has made use of lactose in ten labours at or near term, and in one abortion at the second month with retained placenta. He found that this compound always stimulated an inert uterus, but was not efficacious till after complete dilatation of the cervix. As Chauveau has shown, lactose acts only when the muscle has accomplished its work, when a partial consumption of muscular glycogen has occurred. The minimum dose is from between three-quarters of an ounce to an ounce. It is better to repeat small doses than to increase the dose when the effect is not rapid. The compound, in accordance with the principle above noted, acted quickest the more advanced the labour in Keim's cases, and, as might be expected it, it suited multiparæ best. Ten minutes seems the shortest interval, but with a stubborn cervix lactose may take two hours to act. Keim found that lactose did not influence the expulsion of the afterbirth, uterine retraction, or the excretion of milk. In the case of incomplete abortion, lactose acted within an hour. Its action ceased after the retained placenta had come away; therefore Keim considers that a foreign body must occupy the uterus before the compound can act. He proposes to use it for diagnostic purposes in abortion. Should it fail to set up uterine contraction it must be assumed that the uterus is empty and free from retained placenta. Keim extols lactose as free from any poisonous properties, guiltless of compromising the puerperium, and harmless to the fœtus. It also acts on the general muscular system, and so is a tonic as well as an oxytocic.

(106) Hernia of the Ovary.

BERNARD BROWNE (*Trans. Amer. Gyn. Soc.*, vol. xxiii, for 1898) has collected a very complete bibliography of this

condition, and adds two cases cured by abdominal section. He concludes that hernia of the ovary, although not very common, occurs much more frequently than has generally been supposed. Congenital hernia of the ovary is almost invariably associated with and caused by some arrest of development during intrauterine life; it is always inguinal, often double, but when single generally on the left side. It is caused by abnormal descent of the ovaries analogous to the normal descent of the testicles, constituting anomalies rather than diseases, and coinciding usually with other anomalies or the genitals, such as embryonic uterus, uterus unicornis, hermaphroditism, etc. The persistence of Nuck's canal favours the production of congenital hernia of the ovary and so do the size and shape of the ovary, which is at first a long, flat body with its apex pointing towards the canal: another favouring cause is the fact that at the birth of the child the ovaries are yet situated above the ileo-pectineal line, and during the first few months descend into the true pelvis. Since congenital hernia occurs so frequently as a result of arrest of development, and borders so closely on pseudo-hermaphroditism, it is important in all cases that the glands, when removed should be examined microscopically (in Chambers's case the herniated "ovaries" proved to be testicles). The sac in this form of hernia generally contains the ovary and Fallopian tube. It is irreducible, except soon after birth, on account of the adhesions formed and the early closure of the internal ring. Accidental or acquired hernia of the ovary may occur at any of the ordinary terminal openings, in which case it frequently follows a pre-existing intestinal or omental hernia. It is almost always unilateral and more frequent on the right side. It is most apt to occur soon after labour when the abdominal walls are relaxed and the uterus and ovaries lie above the pelvic brim. On that account women who suffer from any form of hernia should be carefully watched before, during, and after their confinements, so as to prevent and rectify any undue strain upon the weak point.

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(107) Disappearance of the Uterus by Super involution.

Porak (*Bull. et Mém. de la Soc. Obst. et Gyn. de Paris*) reports a very unusual case. The patient was a primipara, aged 21. She had a generally-contracted pelvis, the diagonal conjugate diameter measuring 10.5 cm. After a labour of seventy-two hours she was delivered by forceps; the perineum was then found ruptured to the anus, and the external genitals were the seat of sloughs. The patient was very collapsed. Two days after there were sloughs of the vagina and cervix as well as of the vulva. For ten days the patient was in a most critical condition. The temperature went up to 40° C., and for several days cold baths were resorted to at a few hours interval The lochia were offensive, and contained blackish *débris* derived from the cervix. Diarrhœa set in, and albuminuria with scanty urine was shortly associated with delirium followed by coma. Through this valley of the shadow of death the patient passed, however, and slowly improved, leaving the maternity a month after confinement. Five weeks after leaving she reported herself. On making an examination, the vagina was found partly obliterated by adhesions; some of these were easily separated, and the finger reached a *cul-de-sac*. No trace of cervix was present, and, bimanually, the uterus proved to have disappeared completely; this was confirmed by recto-vesical palpation by means of a finger in the rectum and a sound in the bladder. The vagina was denuded of epithelium in a great part of its extent. For some weeks the patient was kept under observation, and it was only by means of continual packing that the vagina was prevented from becoming obliterated by adhesion of its walls. A new lining was therefore made for the vagina by transplanting from the thigh two pieces of skin, 3 and 5 cm. respectively in diameter, and two smaller pieces each 1 cm. in diameter. This procedure was entirely successful, and the reconstituted vagina admitted the finger. When last seen, five months after confinement, sexual relations had been carried on without difficulty. There had been no menstruation during these five months. Porak attributed the disappearance of the uterus to superinvolution, and in the discussion on this paper Doléris took the same view.

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(108) Fœtal Chondrodystrophia.

Axel Johannessen (*Norsk Mag. for Laegevidensk.*, No. 2, 1898) reports very fully the examination of a female infant, 1 month old, with hyperplastic chondrodystrophia, or, as it is more commonly but less correctly called, "fœtal rickets." The infant was atrophic, and died when about 7 weeks old. The internal organs were normal. There was spinal kyphosis; the head was normal, there being no premature ossification of the basis cranii; the ribs were normal, but the clavicles had thickened extremities; the diaphyses of all the long bones were short and thin, while all the epiphyses were much enlarged and deformed, and the freedom of movement of the joints was much diminished. The pelvis was much contracted, the conjugata vera measuring only 6 mm. These points were well demonstrated by means of Roentgen ray photographs, and these are reproduced in the paper.

THERAPEUTICS.

(109) The Thyroid Treatment in Obesity.

Ebstein (*Deut. med. Woch.*, January 14th, 1899) concludes a paper on this subject in which details of 7 cases are given. He never observed any unpleasant effects from the doses used in these cases. As all individuals do not react in the same way to thyroid feeding, small doses must be given at first. After excluding for special reasons 2 of the 7 cases, Ebstein says that in 2 of the remaining 5 there was no loss of weight. In 1 of these cases the lad, aged 17, had shown a tendency to obesity very early, and the author observes that in such cases dietetic treatment also meets with many difficulties. In the second case, that of a man, aged 49, 0.6 gram thyroid gland was taken daily for eight days without any effect. Usually with this dose a diminution in the weight is observed. In the other 3 cases the loss of weight was soon noted. In 1 case in a very fat woman, aged 31, the patient lost 6.5 lbs. in the first week, and 1.5 in the second, but in the third week she gained 1 lb., and then considerable variations were noted. The loss of weight is not due to diuresis. It cannot yet be stated that thyroid feeding is an efficient "anti-fat" treatment. According to Ebstein's opinion, the obese must get rid of superfluous fat by a rational dietetic treatment and suitable habits of life. He thinks that thyroid treatment should be abandoned as an "anti-fat" cure. The harmful effects consist in palpitation, vertigo, anxious feelings, glycosuria, etc. The author maintains that (1) the thyroid treatment of obesity is unsatisfactory; (2) the treatment is not a rational one; and (3) there are methods of treating obesity without it. Finally, the author warns against the adoption of thyroid treatment in obesity without medical advice.

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(110) Protargol in Gonorrhœa.

Colombini, of Barduzzi's Istituto Dermosifilopatico in the University of Siena, speaks well of the effect of protargol in gonorrhœa (reprint from *Atti della R. Accademia dei Fisiocritici*, Serie iv, vol. x, 1898). He keeps at hand a 10 per cent. solution which he prepares by pouring 5 c.cm. of neutral glycerine into a small mortar, and adding to it 10 grams of protargol, stirring up the mixture with a glass rod till a thoroughly homogeneous moist paste is produced. This is next diluted with 95 c.cm. of cold sterilised water, and shaken up till a perfect solution is produced; this solution is kept in a coloured bottle in a dark place. As required, a 0.25 per cent. solution is made by mixing 2½ c.cm. of the standardised solution with 97½ c.cm. of sterilised water; a 0.50 per cent. solution by mixing 5 c.cm with 95 c.cm. of water; a 1 per cent. by mixing 10 c.cm., and a 2 per cent. by mixing 20 c.cm. of the standardised solution with 90 and 80 c.cm. respectively of sterilised water. These solutions he uses as urethral injections according to the stage of the disease. In the acute stage he uses the 0.25 per cent. solution. After making the patient pass water, and washing the glans and prepuce with some antiseptic solution, he first injects a syringeful of protargol in such a way that sufficient room is left for the outflow of the injection; then refilling the syringe (which is made to hold 6 c.cm.) to two-thirds of its capacity, he injects the solution very slowly, blocking the meatus completely so that it may not run out again. The syringe is carefully removed, the

patient being directed to keep the meatus closed with his fingers for fifteen minutes, and not to pass water for an hour. As the inflammation subsides, the strength is gradually increased up to 2 per cent. The solution is injected at the temperature of the air. The first day one injection is given, the next one in the morning, and another in the evening; the third and following days one in the middle of the day as well. The injections are continued for twenty days after the cessation of the discharge, the daily number being gradually diminished to one. Colombini gives details of 21 cases, and sums up that the results were excellent in every respect. The gonococcus quickly disappeared, the subjective phenomena speedily ceased, the discharge was rapidly diminished and modified, and complete recovery occurred without any complication. According to him, it realises the ideal of a remedy for gonorrhœa, curing the disease rapidly and effectually, without the least irritation or undesirable after-effect on the mucous membrane.

(111) Magnesium Sulphate in Dysentery.
W. J. Buchanan gives his experience of the saline treatment of dysentery based on 102 consecutive cases (*Ind. Med. Gaz.*, No. 12, December, 1898). The following is the method of prescribing magnesium sulphate: A saturated solution is generally used. After several trials he has found the following mixture (a saturated solution) to be very suitable for hospital use. It has been used in the majority of the cases treated: ℞, Magnesii sulphatis, ℥ij; acid. sulphurici dil., ℥iij; tinct. zingiberis, ℥iij; aq. ad ℥viij. One ounce of this mixture equals ℥ij of this plain magnesium (or 15 gr. to ℥j of water). This is a saturated solution. For private practice a more elegant and more palatable mixture may be made by using aromatic sulphuric acid, and, say, aqua cinnamomi. The drug is best given, Buchanan believes, in small one-drachm or two-drachm doses every one or two hours (that is, ℥j to ℥ij of the above quoted mixture) of a saturated solution. He recommends it for all very acute cases and for all exacerbations of the chronic form, but it is obvious that to thus give small doses every one or two hours needs better and more skilled nursing than is available in prison or in regimental native hospitals. Hence he has used with safety and success much larger doses at a time—1 ounce of a saturated solution twice a day, half an ounce four times a day, or 2 drachms eight times a day mean the same amount of the magnesium. He believes, however, that the smaller frequently-repeated doses are the surest. It is necessary to secure free gentle purgation. He finds that as long as the stools remain yellow, and loose or soft, the drug should be continued for one or two days after the mucus and blood have entirely disappeared. The quantity may be reduced. As soon as, however, as the stools become thin and watery, the drug should be stopped at once. While thus strongly recommending magnesium sulphate in the treatment of acute dysentery, Buchanan says he must not be understood to say that it will act thus promptly and efficiently in chronic relapsing cases. But he is strongly inclined to believe that if all cases were from the first treated in this way, and care were taken not to discharge the patients from hospital till every trace of mucus had for several days disappeared from the stools, the chronic form would become much less frequent, except in those cases which occur as the terminal episode of malarial or tuberculous cachexias. Moreover, as of all diseases there is none with a greater tendency to relapse than dysentery, very slight causes (chills, errors of diet, etc.) will bring on another attack; and such cases, if neglected, rapidly run into the intractable chronic form. Buchanan has lately treated all chronic cases as follows: Santonin gr.v, if there is any suspicion of entozoa; magnesium in small doses for all exacerbations; and in the intervals olive oil in 2 or 4 drachm doses in milk twice a day. This with a pure milk diet and infinite patience will, he believes, be as good a method of treatment as is known for these very serious cases.

(112) The Treatment of Sciatica.
E. Radzikowsky (*Vratch*, No. 52, 1898) has obtained excellent results by the local application of muriatic acid in a series of cases of sciatica. He proceeded in the following way:—The chief seat of the pains and all the other painful points along the course of the nerve and its branches are marked with a pencil, and a strong solution of muriatic acid applied. During these manipulations and for some hours afterwards the patient is kept in a horizontal position on his stomach. The effect soon showed itself in a great afflux of blood to the parts where the muriatic acid had been rubbed in, the tissues around the congestion being somewhat œdematous. After the operation the patient was usually given a hot bath, which was well borne, and attended by great relief of the pains. As soon as the patient left the bath the parts were wrapped up in a soft, simple dressing. Beyond the formation of vesicles at the seat of application, and in a few cases the presence of an inflammatory condition of the upper layers of the skin, no ill-effects were observed; the vesicles quickly disappeared. The applications were usually repeated on the third, fourth, or fifth day, the average duration of treatment varying from four to thirty-five days. Marked diminution of the pains very frequently followed the first application, and their complete subsidence, even in cases of very old standing, ensued after four to ten applications. In some cases, however, anodynes had to be administered internally at the same time: these cases, as a rule, did not do well. By the treatment described the author claims to have cured many cases of sciatica which had resisted all other treatment. In such cases, where the complaints could be traced to a rheumatic, gouty, or inflammatory origin, the treatment was especially attended by favourable results. Mild cases were treated as out-patients; more severe ones, however, had to be admitted to the hospital.

PATHOLOGY.

(113) Ulcerative Membranous Tonsillitis.
H. de Stoecklin (*Centralbl. für Bakteriol.*, xxiv, 17) records a case having all the characters of diphtheria without presenting Loeffler's bacillus, but instead spirochætes, and bacilli larger than the diphtheria organisms, broad in the centre and tapering towards the extremities, and staining well with methyl violet; with Gram the bacilli stain imperfectly, while the spirochætes are decolorised. The former appear devoid of movement; the spirochætes twist and turn with great rapidity. These organisms evidently correspond to those described by Bernheim, who considers this form of tonsillitis a pathological entity, distinct from diphtheria; if Loeffler's bacillus be present, Bernheim considers that the disease has been grafted upon a true diphtheria. Stoecklin, in conclusion, puts two questions which further clinical and pathological investigation must answer: (1) Is the coexistence of spirochætes and fusiform bacilli constant in and pathognomonic of ulcerative membranous tonsillitis, or are there mixed cases in which the virulent organism of diphtheria is present? (2) if so, what is the frequency of such mixed cases, and how does the presence of fusiform bacilli and spirochætes influence the diphtherial infection, therapeutic measures, and, above all, the prognosis?

(114) Milky Effusions in Serous Cavities.
Ceconi (*Gazz. degli Osped.*, September 18th, 1898), dealing chiefly with milky effusions into the peritoneal cavity, divides them into (1) chylous, where true chyle is found in the cavity due to rupture of chyle ducts and lymphatics. This may be due to injury or to rupture from the pressure of tumours (for example, glands, malignant disease, etc.) on the ducts. Some cases have occurred from violent muscular action, and a certain proportion remain unexplained. (2) Chyliform, where the milkiness is not due to chyle, but to fatty degeneration of cells, and generally due to malignant disease of the serous membrane. The chylous and chyliform may be differentiated by observing the effect of a diet rich in fats. In the chylous variety the fluid extracted after such a diet shows a marked increase in fat, in the chyliform no such change is to be observed. Direct examination of the fluid alone without this diet test is not sufficient to found a differential diagnosis. (3) Mixed chylous and chyliform. (4) Milky effusions containing little if any fat, the milky appearance being due to certain substances of an albuminoid character, probably derived from the serum of the blood.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(115) Congenital Primary Cardiac Hypertrophy.

Simmonds (*Münch. med. Woch.*, January 24th, 1899) after referring to the literature of the subject, relates a case in an infant which died at birth. All the organs of the body were healthy except the heart. The heart itself was greatly enlarged. Its weight was 44 grams, as against the usual weight of 19 to 20 grams in the newly born. The hypertrophy involved pretty equally both ventricles. Unlike the cor bovinum of the adult, the papillary muscles were unaffected. The large vessels, the ductus arteriosus, the foramen ovale, the umbilical vessels, and cardiac valves were quite healthy. There was no evidence of any myomatous formation in the cardiac muscle. The myocardium was quite healthy, with the exception of a few recent hæmorrhages near the surface. The author says that this was an uncomplicated case of primary congenital cardiac hypertrophy. Two explanations are possible: (1) It might be due to a diffuse myomatous development; or (2) it is caused by some unknown circulatory disturbance. Possibly, such disturbance might have been present in early fœtal life, and was absent at birth. At any rate, this case confirms Virchow's statement that cardiac hypertrophy occurring in early infancy may be due to congenital causes.

(116) Renal Disease of Malarial Origin.

Rem-Picci (*Il Policlinico*, May 1st, 1898) says that malaria may give rise not only to simple albuminuria, but also to definite renal lesions. Kidney mischief of malarial origin is not common, and when it occurs is generally to be seen in the spring or autumn of the year, and preferably in young subjects; the severity or mildness of the malarial attack has no influence on the development of the kidney mischief. Usually the kidney trouble is slight, and accompanied by very few symptoms; the nephritis is usually catarrhal, desquamative, or tubular, and in the majority of cases gets better without leaving any trace behind it, but may leave permanent mischief. The type is rather like that met with in scarlet fever. There is also a form which occurs after the malarial fever has disappeared. In rare cases one may have an acute anasarca of malarial origin, without any coexisting albuminuria.

(117) Microbes in Chronic Arthritis Deformans.

Von Dungern and Schneider (*Münch. med. Woch.*, 1898, No. 43) relate the case of a man, aged 45, in Bäumler's clinic at Freiburg. In 1881, when 28 years of age, he suffered from acute rheumatism, which lasted an unusually long time in spite of energetic salicylic treatment, and was accompanied by great frequency of the heart's action and a systolic murmur at the cardiac apex. In 1893 the patient was eight weeks in a hospital suffering from pains in the joints. After this there was a certain degree of persistent stiffness in the back, which gradually increased, and a little over ten months before his admission to the Freiburg Hospital (January, 1897) movements of the head became impossible. On admission the man's head was noted to be fixed in a flexed position, so that the chin was not more than about 2 cm. from the sternum. The result was that the unfortunate patient could look forwards only by extreme action of the superior rectus muscles of the eyeballs, and was unable to open his mouth widely on account of the lower jaw being opposed by the sternum. With the exception of the hip-joints and the small joints of the toes, nearly all the joints of his limbs were affected, the affection consisting in deficient motility, tenderness, periarticular swelling, effusion into the synovial cavities (there was also evidence of wearing away of the articular cartilages in the joints worst affected), and but little thickening of the capsules. The degree of the affection varied in the same joint at different times. With the prolonged rest in the hospital great atrophy of the muscles took place, so that the man looked like a skeleton covered with skin. There was, however, never any electrical reaction of degeneration. Occasionally traces of albumen were found in the urine, but never casts. Bedsores soon appeared. The temperature never rose more than just above 100° F. The patient was delirious from defective nutrition for a considerable time before his death, which took place in February, 1898. At the necropsy the spleen was found slightly enlarged. The stomach was dilated, and the pylorus, though not stenosed, was adherent to the shrivelled gall bladder. Lung and kidneys were natural. In the heart the mitral valve showed old thickening and slight recent endocarditis—possibly connected with the bedsores. The peculiarity of the joint changes consisted in the facts that there were no outgrowths from the synovial membranes—which, however, showed abnormal vascularity and œdema—and that the articular cartilages were nowhere thickened, but in some places worn away. The joint deformity was due to effusion, to muscular atrophy around the joints, and in some cases to subluxation. No bacteria were found in microscopic sections of the affected synovial membranes. Small diplococci were found in the contents of the gall bladder, but none could at first be detected in the contents of the joints. Blaxall's method of staining gave negative results. However, after the articular fluid had been kept some days, diplococci were found in it by Gram's method. The same diplococci grew in cultures made from the contents of all the joints, so also in cultures from the liver and gall bladder, but not from the blood, spleen, or kidneys. These diplococci are quite different from the microbes described by M. Schüller in 1893 as the probable cause of certain chronic joint affections. By local inoculation with cultures of their diplococci the authors produced a similar articular affection in rabbits; but after three months the diplococci could no longer be found in the rabbits' joints. Some other species of microbes were obtained from the patient's joints, but the authors regard the diplococci as the essential cause of the disease. They think that the joints, already predisposed to infection by the former acute rheumatism, were invaded by diplococci from the diseased gall bladder, which they think was the primary source of infection.

SURGERY.

(118) Multiple Gunshot Wounds of Intestine.

Mannaberg (*Beiträge zur klinischen Chirurgie*, Band xx, Heft 2) reports a case, under the care of Wölfler, of extensive wounding by gunshot injury of the small intestine. The patient, a woman, aged 40, had been wounded in the front of the abdomen on the right side, just below the level of the umbilicus, by a single bullet from a revolver discharged at a distance of about three-quarters of a yard. Median laparotomy was performed after an interval of about six hours. When the abdominal cavity had been opened there was a discharge of blood-stained fluid in which were suspended small masses of undigested food, and a large quantity of blood, partly fluid and partly coagulated, was found in the pelvis. On examination of the small intestine, beginning at the cæcum, a portion of the lower part of the ileum, about two yards and a half in extent, was found riddled by gunshot wounds. Of these, which amounted to 17, 16 were perforating wounds, and 1 was simply a grazing wound of the serous coat; of the 16 perforating wounds, 8 were seated on the free convex portion of the intestine, whilst the other 8, which seemed to be wounds of exit, were met with near the attachment of the mesentery. Each of the wounds was closed by a double row of sutures, one row for the mucous and muscular coats, and a superficial row of Lembert sutures for the serous coat. The patient, though much collapsed after the operation, which had lasted over 2½ hours, made a good recovery, and was discharged as quite well after an interval of 5 weeks. The author describes at length the appearances presented by the wounded intestine in this case, and discusses the indications and contraindications of operative treatment in cases of perforating gunshot wound of the abdomen. A short table is given of cases of multiple wounds of the intestine successfully treated by operation. To this may be added a case recently reported by Lambert (*Bulletins et Mémoires de la Société de Chirurgie*, No. 28, 1898), in which nine perforations of the ileum caused by a single bullet were closed by

suturing with good results. The number of intestinal wounds that were sutured by Wölfler exceed those found in any of the other recorded cases. In conclusion, the author insists strongly on the advisability of resorting at once to laparotomy in cases of perforating gunshot wounds of the abdomen, the only contraindications to such treatment being, in his opinion, (1) extreme collapse with rapidly-failing pulse and subnormal temperature; and (2) an absence of any serious symptoms and a complete freedom from any signs of local inflammation in a case that has not come under surgical observation during the first twenty-four hours after the time of injury.

(119) Sudden Dislocations in the Course of Hip-Joint Disease.

KIRMISSON (*Revue d'Orthopédie*, No. 1, 1899) states that in addition to the gradual subluxation so frequently produced in a diseased hip in consequence of pathological change in the head of the femur and the cotyloid cavity, there is another variety of displacement occurring in the course of coxalgia which is really of the nature of an actual and traumatic dislocation. The latter is not due to any marked changes in the articular surfaces, and usually occurs at an early stage of the hip disease and before the development of suppuration. The displacement takes place suddenly, and can be readily and completely reduced like a traumatic dislocation by manipulation. The author reports four cases of this variety of dislocation in association with coxalgia, in each of which the head of the femur had been suddenly displaced on to the dorsum of the ileum. In each case he succeeded after the administration of an anæsthetic in replacing and keeping in its proper position the head of the femur. This complication of coxalgia, which, it is pointed out, is a rare one, may be classed with the dislocations occasionally produced, especially in the hip, during convalescence from some acute general disease. Instances of this form occurring in the course of, or soon after, enteric and rheumatic fever and scarlatina, are described in the same number of the *Revue* by Degez.

(120) Tuberculosis of the Mammary Gland.

HALSTED AND LE COUNT (*Annals of Surgery*, December, 1898) report a case of mammary tuberculosis, and give a detailed review of the literature relating to this disease, from the first description of it by Astley Cooper to a paper published by Ferguson of Chicago in 1898. Tuberculosis of the breast is met with in one or other of two forms: the disseminated nodular or discrete and the confluent, form. The most characteristic features of the disseminated nodular form of the disease are the extreme chronicity of the process and its painless and insidious development, whilst the confluent form is marked by a more acute onset, greater pain, and rapid enlargement of the breast. This latter type of the disease is more common than the disseminated nodular form. In about 75 per cent. of cases it is associated with tuberculous enlargement of the corresponding axillary glands. In many instances the mammary disease was regarded as secondary to the gland affection, but the authors hold that the primary focus in the breast often escapes notice until after the axillary glands have become considerably involved. As in other forms of tuberculosis, softening and suppuration with the formation of fistulæ is the natural and frequent termination of both types of this mammary disease. Spontaneous healing of tuberculous foci in the gland before suppuration takes place seldom, if ever, occurs; and after the cavities have discharged their contents, it is only in exceptional cases that healing follows. The diagnosis of mammary tuberculosis is usually difficult, except in cases in which the disease in the breast is far advanced, or in those in which other organs of the body are the seat of tuberculous disease. In all cases, it is pointed out, a microscopic examination should be made, and the diagnosis based only on the minute structure of the growth or upon the presence of tubercle bacilli. In disseminated nodular or confluent tuberculosis of the mammary gland, early removal of the breast and corresponding axillary glands offers the greatest hope for a speedy and permanent cure. Nothing short of this can assure an eradication of the disease, and the prognosis of such treatment, when the mammary disease is primary, the authors regard as excellent. In secondary tuberculosis of the gland the prognosis, of course, depends upon the seat and extent of the primary lesion. In the discrete nodular form, where the disease is limited to a single focus, the remaining portion of the gland being apparently normal, the removal of the nodule with the adjacent gland tissue will be sufficient, provided the patient can be kept under observation for some time after the operation.

(121) Suppurative Epididymitis after Typhoid Fever.

STRASBURGER (*Münch. med. Woch.* January 3rd, 1899) reports the following case. A shepherd's boy, aged 24, suffered from a bad attack of typhoid fever. Not until the end of five weeks and a-half did the temperature fall to normal. Within a fortnight the patient had a gumboil, numerous furunculi, and a large abscess in the right buttock. All healed after the evacuation of the pus, in which no micro-organisms could be detected. During the third week after complete defervescence, the patient suffered from pain in the right testis and groin. On examination characteristic epididymitis was discovered; the temperature rose to 100.5°, but fell in a few days. The swelling, however, remained stationary till nearly a month after the local complication began; two fluctuating points were noticed on palpating the inflamed epididymis. One was punctured with every precaution, so that examination of the pus might be made; both points were then incised, much thin sanious pus escaping. The incisions were packed with iodoform gauze. Pus escaped for a fortnight, then the wounds began to close. The epididymis adhered to the scrotum, thickened around the fistulæ, and remained tender and hard at several points, but was almost reduced to its normal size. After careful microscopical research, organisms bearing the character of the typhoid bacillus were discovered in the pus from the abscesses in the epididymis. Curschmann has collected 6 reported cases of inflammation of the testicle and epididymis after typhoid, but in none did suppuration occur. Ollivier reports six instances of abscess. Fraenkel has published a case of suppurative epididymitis and prostatitis complicating typhoid. In Girode's case this complication occurred during the third week of a severe attack of the fever. Strasburger discusses the bacteriological aspect of the suppuration of the epididymis.

MIDWIFERY AND DISEASES OF WOMEN.

(122) Congenital Prolapsus and Spina Bifida.

DOLÉRIS (*Bull. et Mém. de la Soc. Obstét. et Gyn. de Paris*, No. 5, 1898) relates the tenth recorded case of congenital prolapse of the uterus and vagina associated with spina bifida. The integuments over the spina bifida were sloughy when first inspected a few hours after birth, so that it leaked whenever the infant cried. The anus was represented by a narrow partition-slit. The vulvar structures were normal, but whenever the infant screamed the vaginal part of the cervix, greatly hypertrophied, elongated, and vascular, protruded from the vulvar cleft. The os externum formed a transverse slit, and there was ectropion of the mucous membrane of the cervical canal. There was also bilateral talipes equino-varus. Three days later, when the infant died, the uterus and vagina were completely prolapsed. At the necropsy the bladder appeared in its normal situation, held up by the urachus and peritoneum. Its walls were hypertrophied. The body of the uterus was well developed and lay deep down in the lowest part of the pelvic cavity. The round ligaments were stout and thick; they ran upwards from the uterus to the internal abdominal ring, where they were lost in the tissue of the peritoneum, as they did not enter the inguinal canal. The broad ligaments were normally developed. The utero-sacral ligaments were modified, like the round ligaments. They were of a silvery white colour, and ran upwards from the uterus, flat against the posterior pelvic wall, to end not by a firm attachment to the lower lumbar vertebræ, but by simply being lost in the tissue of the meso-rectum. That serous fold, on the other hand, was stretched, and there was prolapsus recti. The entire uterus measured 55 mm.—body 15 mm. (or over half an inch), supravaginal part of cervix 12 mm., vaginal portion

28 mm. (or over an inch). On drawing up the prolapsed uterus the vaginal canal was restored to its normal appearance, and measured a little over half an inch in length. Trophic lesions must have played a larger share than intra-abdominal pressure in causing the prolapse. It is remarkable that in the aged, where the reverse is most probably the case, the bladder shares more or less in the prolapse, whilst in this deformed infant it remained entirely in its place.

(123) Rupture of Uterus during Removal of the Placenta.

Dietel (*Centralbl. f. Gynäk.*, April 16th, 1898) was called to a case in which a midwife, and later two medical men, had been engaged in trying to extract the placenta. The labour had quickly and spontaneously ended in the birth of a premature child. First by Credé's method, and later by manual means under anæsthesia, parts of the placenta were removed. Then bleeding set in, and the patient was sent into hospital. A rupture was found in the uterus near the sacral promontory. The abdomen was opened and much blood was found in the cavity. There was a large tear in the right broad ligament. The small intestine was in part torn away from its mesentery and ruptured. Bleeding points were ligatured, and the intestinal laceration closed by Murphy's button; transfusion with saline solution was performed, but the patient sank some hours after the operation. At the necropsy it became evident that during attempts at the removal of the placenta a way had been forced through the uterine wall and right broad ligament into the peritoneal cavity. Evidently the Fallopian tube and mesentery had been mistaken for the cord and placenta. A great part of the placenta was still in the uterine fundus.

(124) Forceps left in Peritoneum.

Morestin (*Vratch*, No. 26, 1898) relates a case illustrating the grave results of overlooking instruments when an abdominal incision is closed. In August, 1894, a woman, aged 29, had both appendages removed for double pyosalpinx. An abscess developed in a suture track and became fistulous. In December, 1894, left parametritis set in, and an incision was made in the iliac fossa. An abscess developed in the cicatrix of the abdominal incision, and on opening, a fæcal fistula developed. Profuse suppuration ensued, and an incision into the lower part of the abscess was made through the vagina, followed by drainage. The patient's health improved for awhile, but urine soon began to pass from the vagina, the abscess having communicated with the bladder. The vesico-vaginal fistula seems to have closed spontaneously; but in March, 1897, urine once more dribbled from the vagina, and one month later a parametric phlegmon developed on the right side and was opened. Not long afterwards an end came to the patient's four years' penance. One day she passed at stool a pressure-forceps 4½ inches long. She showed it to her medical attendant, who found that she was at length restored to perfect health.

(125) An Adult Monotrematous Woman.

Lesser (*Centralbl. f. Gynäk.*, No. 3, 1899) recently showed at the Berlin Obstetrical Society a woman with double uterus, double vagina, and a normal cloaca as in the monotremata and birds, but the bladder, urethra, and meatus were normal, as well as the labia and clitoris. Immediately behind the orifice of the two vaginas, and just in front of the posterior commissure, lay the anal orifice. Neither menstruation nor defæcation seemed unfavourably influenced by the abnormality. The patient was 19 years old; she lived in concubinage, and was syphilitic, but had never been pregnant.

(126) Double Congenital Diaphragmatic Hernia.

Hintz (*Centralbl. f. Gynäk.*, No. 15, April 16th, 1898) exhibited before the Obstetrical Society of Leipzig an infant with double congenital diaphragmatic hernia. It was from a case of labour in a 30 year old 9-para whose other children had been normal. The fœtal heart was clearly heard during pregnancy, and the confinement was natural. The newborn infant seemed normal, but with the cessation of pulsation in the umbilical cord became cyanotic in appearance. Various measures for resuscitation were tried, during the performance of which it was noted that the apex beat was on the right side of the chest. It was believed that the asphyxia was due to pressure upon the lungs from a diaphragmatic hernia, for all other possible causes could be excluded. The necropsy demonstrated the correctness of the diagnosis. The heart was on the right side of the thorax, both lungs were small, much compressed, and contained no air. The whole of the left side of the thorax was occupied by abdominal organs, including stomach, duodenum, small intestine, left lobe of liver, spleen, and the upper end of the left kidney. There was also a smaller right-sided diaphragmatic hernia through which the right hepatic lobe, the transverse colon, some small intestines, and the upper end of the right kidney projected into the thoracic cavity.

THERAPEUTICS.

(127) Intracerebral Injection of Anti-tetanus Serum.

Ombrédanne (*Presse Méd.*, 1898, No. 73) reports a case in which this treatment was adopted with marked success. A boy, 11 years old, fell down and hurt his left knee. The accident was so slight that the mother merely covered the excoriated skin with a piece of plaster. A dry scab soon formed over the part. The patient never recovered his usual health and spirits after the accident. On admission into the hospital there was some stiffness of the masseters and extensors of the spinal column. In a few days the typical symptoms of tetanus developed. The patient was unable to swallow liquids, and every attempt at examination produced an exacerbation of the symptoms. A hypodermic injection of 40 c.cm. of antitetanus serum had no effect. After consultation with Roux, the author determined to try an intracerebral injection. The skin having been thoroughly cleansed with antiseptics, an incision 1 cm. in length was made over both frontal bones at a point 4 cm. from the middle line and 4 cm. above the frontal protuberance. The skull was perforated with a drill in both situations. Meanwhile Roux had prepared a solution of 6 c.cm. from dried serum; half the quantity was injected into the brain substance on each side. The operation was performed with Roux's capillary needle and syringe; the quantity injected could be easily regulated by a screw. The time occupied by the injection was ten minutes on each side. Both wounds were closed with sutures and a little collodion was poured over the edges. The dressing consisted in a pad of absorbent wool moistened with a 1 per cent. sublimation lotion. The next morning the patient continued to have some convulsive seizures: a further subcutaneous injection of 20 c.cm. of serum was administered. An erythematous rash appeared on the trunk and legs twenty-four hours afterwards; this, however, rapidly disappeared. The patient gradually improved, and ten days after the operation he was able to leave his bed. On the twenty-sixth day he left the hospital apparently quite well. The serum used in the intracerebral injection was double the usual strength. In the space of thirty-six hours the equivalent of 72 c.cm. of serum was injected. No psychical disturbance ensued and no hæmaturia.—Heckel and Reznès (*Presse Méd.*, 1898, No. 74) adopted the above treatment in a case of tetanus without success. A porter, aged 18, received some lacerated skin wounds over his back and arms, which were caused by some rusty nails projecting from a parcel that he was carrying on his back. The accident occurred on August 8th and tetanus set in on August 13th with trismus, stiffness of the back, muscles, and legs. On August 14th the frontal bone was drilled on both sides. The site of operation chosen was a point 6 cm. above the outer margin of the orbit. A solution of dried serum with sterilised water was prepared and 2½ c.cm. were injected on the left side, whilst 3½ were injected on the right. The treatment had no effect on the convulsions, and a further hypodermic injection of 20 c.cm. of antitetanus serum was administered. Notwithstanding this energetic treatment the muscular contractions became more frequent and more severe. The temperature rose to 41° C. and the pulse was 140 per minute. The patient died 41 hours after the intracerebral injection and 84 hours after the first clinical manifestation of the disease. The authors insist on the importance of observing the very earliest symptoms of tetanus. The fact

that trismus is an early clinical sign is of itself proof that the bulb has already become affected, and this symptom should therefore be regarded rather as the precursor of death than the commencement of the disease. The plan of treatment as far as our present knowledge of the disease will allow should be as follows: 1. The subcutaneous injection of antitoxin whereby the further development of toxin in the blood is diminished or possibly arrested. 2. The intracerebral injection of antitoxin which prevents the subsequent paralysis of the nerve cells by the toxin. 3. Diminishing the reflex excitability of the patient by isolation, by darkening the room, and preventing any noise or movement of any kind. All food must be given *per rectum*. Morphine, chloral, and chloroform have no effect on the disease and should be given only when the constant muscular contractions cause great pain.

(128) The Physiological Action of Lactophenin.

NAMIREZ (*La Belgique Méd.*, February 2nd, 1899) has investigated the physiological action of lactophenin, which has been recommended as a safe and sure hypnotic (*vide* EPITOME, vol. ii, 1898, par. 448), by experimenting on dogs and rabbits. (1) One of the first results of administering the drug is some loss of consciousness, which even after moderate doses is followed by diminished sensation going on to complete anæsthesia of the skin and mucous membranes, though the nerve trunks retain their irritability. This anæsthetic action is most marked in the extremities, in the anterior half of the back, and in the territory supplied by the trigeminal nerve. At this stage the pupils are dilated, and there are muscular tremors, which increase when voluntary movements are executed. The reflexes are preserved with doses up to 1 gram per kilo. of body weight, but with larger doses are completely abolished, the last to go being the corneal reflex. There is considerable loss of motor power, and the tendency to sleep becomes irresistible. Finally, with still larger doses (2.50 grams per kilo.), death occurs in general convulsions or from cardiac paralysis. (2) The respiratory rhythm is, as a rule, unaffected, but very characteristic is a remarkable increase in the amplitude of the respiratory movements, which constantly follows moderate doses in dogs and rabbits. (3) With moderate doses (not more than 0.50 gram per kilo.) the cardiac systole is increased in force, the frequency remaining unaltered, and the blood pressure usually rises. (4) The temperature invariably falls. In common with all drugs of this class, toxic doses are required to reduce the normal temperature 1° C., though in man febrile temperatures are reduced by it promptly with doses forty or fifty times less powerful. (5) Lactophenin is but slightly toxic. Calculating from the quantities fatal to animals, the writer concludes that a dose of 138½ gr. given by the mouth would be required to endanger the life of a man weighing 154 lbs., and since a dose ten times less is sufficient to produce marked hypnotic effect during the disease, it is evident that this substance will prove to be of great therapeutic value.

(129) Nirvanin.

A NEW local anæsthetic is described by August Luschenburger (*Münch. med. Woch.*, No. 2, 1899). It is said to possess many advantages over cocaine. It is only one-tenth as poisonous as cocaine. Larger quantities of nirvanin can be injected, which is of considerable advantage in more prolonged operations. The maximum dose of cocaine is 0.05 grams, whereas that of nirvanin is 0.55 grams. The author gives tables of 94 operations conducted under the anæsthetic influence of nirvanin; no unpleasant symptoms showed themselves in any of the cases. A radical cure for hernia can be performed, amputations of fingers and toes, removal of necrosed bone, etc. In large operations, such as radical cure of hernia, the maximum dose is never reached; in these cases it is necessary to inject from 80 to 100 c.cm. of fluid, if a solution of cocaine be employed (cocaine 0.1 : 100 aq.); the maximum dose of cocaine would be contained in 50 c.cm.; the same amount of ½ per cent. solution of nirvanin would only contain 0.25 gram, which would be half the maximum dose. The best method of employing nirvanin is to make a 2 per cent. solution with sterilised saline fluid.

(130) Therapeutics of Saline Enemata.

CORNET (*Progrès Médical*, January 21st, 1899) publishes a remarkable case in which Eltz used saline enemata in a case of right hemiplegia following the use of the curette after abortion. As there was trismus, the patient was fed by the rectum. On the sixth day a litre of saline solution (one-half per cent.) was thrown up into the rectum. The whole amount was retained, free diuresis followed, and on the following days the trismus and mental obfuscation disappeared. Every dae the enema was repeated. The urine, which contained albumen before the injections, became normal. The paralysis, however, persisted. Cornet thinks, like Eltz, that the salt acts in some special manner on diaphoresis and diuresis, counteracting uræmia. Thus it seems indicated for nephritis and uræmia in non-surgical cases; the stomach is too torpid to absorb fluid well in these cases. In this atony of the stomach from any cause there is great thirst, which is rapidly and surely relieved by saline enemata. In hæmorrhages, in the hyperæmia of pregnant women, and in all cases where nutrient enemata are needed, saline enemata are advisable.

PATHOLOGY.

(131) Nerve Effects of Cancer.

KLIPPEL has investigated the effects produced by cancer on the neuro-muscular system (*Arch. Gén. de Méd.*, January, 1899). He finds that the toxic effects of cancer early manifest themselves on the nervous system and the muscles, producing certain well-defined symptoms. So far as the muscles are concerned there is a marked hyperexcitability accompanied by wasting, so that there is very marked contraction produced by percussing the muscles. This in itself does not differ, however, from what may be observed in every wasting disease. There is also considerable excitability of the reflexes, and galvanic and faradic response is more or less reduced, and may even entirely disappear, while reaction of degeneration may appear. Microscopically two kinds of change may be found: the fibres may simply be thin and atrophic, the striation persisting: in others there is intrinsic degeneration, the protoplasm being swollen and granular, the nuclei being proliferated, while the connective tissue may be slightly increased in amount. Examination of the nerves generally reveals some degenerated fibres. In some instances the myelin sheath is wavy and irregular, the axis cylinder persisted. In other cases it is fragmented, leaving the sheath of Schwann empty and irregular, with disappearance of the axis, thus resembling the severest forms of neuritis. The cord likewise may show very pronounced lesions; here and there degeneration of the fibres is seen, sometimes single, sometimes in groups. The anterior cornual cells, without being actually destroyed, show very much more degeneration, their prolongations being atrophied, while granules appear both in the protoplasm and in the nucleus. The cord lesions are quite irregular in distribution, there apparently being no attempt to affect any particular column. The writer also points out that tachycardia is frequent, the pulse varying from 100 to 140. Cerebral troubles consist in either a mild form of delirium, which precedes death by a few days, but violent delirium with hallucinations is also observed, and may be followed by apathy. Coma is also an occasional symptom, and presents many analogies with the diabetic form, and acetone may even be found in the urine. The author quotes Klemperer as showing that in this condition there is a diminution of albuminoids, and that probably cancerous coma is merely a manifestation of intense autointoxication.

(132) Localised Tuberculosis of Liver.

M. SIMMONDS (*Centralbl. für Path.*, 1898, Nos. 21-22) describes two cases of this very rare condition, in which he found caseating tumours in the liver. The tuberculous nature of such tumours is open to doubt unless the tubercle bacilli can be demonstrated in them. This the writer has succeded in doing. One of these cases is especially interesting from the extensive destruction of liver tissue by tuberculous tumours, varying in size from that of a pea to that of a goose's egg.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(133) Venous Thrombosis in Phthisis.

Ruge and Hierokles (*Berl. klin. Woch.*, January 23rd, 1899) give the details of 19 cases of venous thrombosis among 1,778 cases of phthisis occurring in Gerhardt's clinic. The percentage was more than 1 in 100, but the authors think that it occurs still more frequently, since the œdema may be slight owing to the establishment of a collateral circulation. Women are more prone than men to venous thrombosis in this as well as other diseases. The thrombosis occurred on an average two to three weeks before death. The left femoral vein was affected three times, and the right once. The left iliac and femoral veins together were thrombosed twice on the right side and once on the left. There was clotting in the right side of the heart on four occasions, and in the right pulmonary artery twice. The left femoral and right saphena veins, the right saphena vein alone, the right and left basilic veins, the left renal vein, the prostatic plexus, and the longitudinal sinus were each affected once. Thrombosis has been recorded in the innominate and deep profunda veins and in the vena cava by other observers. Dodwell reported 20 cases of venous thrombosis in 1,300 cases of phthisis. Virchow attributed such thrombosis chiefly to diminished cardiac force. Intravenous coagulation cannot occur unless some change has taken place in the vessel wall in addition to the retardation of the blood stream, Baumgarten says that fatty changes and desquamation occur in the vascular endothelium in the marasmus produced by such diseases as phthisis. Kuskow found changes in the endothelium in influenza in which disease venous thrombosis has also been known to occur.

(134) Peptonuria in Scarlet Fever.

M. Hemser (*Vratch*, No. 1, 1899) records observations which he has made as to the occurrence of peptonuria in scarlet fever. The following are his conclusions: (1) The urine in scarlet fever very frequently contains peptones; they are usually present in a moderate degree, and are rarely abundant. (2) Hemser confirms the fact, observed by others, that peptonuria is not necessarily associated with albuminuria; both may be present at the same time, but the conditions are independent. (3) In cases complicated with pneumonia, peptones were seldom found in the urine, and if present their appearance was noted on the third day of illness, and they entirely disappeared as soon as the crisis ensued. On this point the author differs from other observers, since it is usually stated that peptonuria occurs in pneumonia as the temperature begins to fall. (4) The severity of the disease has no bearing whatever upon the occurrence of peptonuria. Indeed, according to the author's observations, it is more apt to develop in mild than in severe cases. Hence the prognostic value of peptonuria is doubtful. (5) In view of the statement made by several authors that peptonuria does not always imply that suppuration is taking place in some part of the body, it must be mentioned here that in all the cases referred to by Hemser there was constantly present inflammation of the inner ear and the lymphatic glands with tendency to pus formation. (6) Ervant's test (potassic mercuric iodide) has often failed to produce the characteristic precipitation where peptones were proved to be present in the urine by other tests; on the other hand, it formed a precipitate when peptones could not be detected. (7) Lastly, the author is inclined to discredit Schulter's statement that the production of peptonuria is greatly influenced by high temperature; in his cases no such relation between high temperature and peptonuria could be made out.

(135) Duodenal Ulceration.

Burwinkel (*Deut. med. Woch.*, December 29th, 1898) observes that ulcer of the duodenum is rare when compared with gastric ulcer. If *post-mortem* room experience is alone relied upon there is some danger of the perforating ulcer alone being recognised. The ulcer is mostly single but sometimes multiple, and even associated with gastric ulcer. Burwinkel gives details of 5 cases, all of which recovered, but which he regards as certain examples of duodenal ulcer. The symptoms in these cases presented a great similarity. The author first discusses the relation of (*a*) traumatism and pressure, and (*b*) of tuberculosis to this ulcer. The following points in the diagnosis are then fully dealt with: (1) Melæna; hæmorrhage from intestinal ulceration, whether tuberculous or malignant, could be excluded in these cases. The blood must have come either from the duodenum or stomach. A strong reason against the latter source lay in the profuseness of the hæmorrhage in the absence of blood in the vomit. (2) The site of the pain, which corresponded to the anatomical situation of the duodenum; this pain did not appear until two or three hours after food; it was sometimes slight, and sometimes very severe. (3) Previous dyspeptic symptoms, which appeared periodically, and were marked; the patient's general condition was occasionally considerably disturbed. (4) The age and sex of the patient. In cases of duodenal ulcer the patients are nearly all men, and the average age is a little over 40. In Burwinkel's cases all were men, the eldest being 60 and the youngest 33. The prognosis of duodenal ulcer is serious so far as our present knowledge is concerned; it ends more frequently in death than does gastric ulcer. Two forms must be recognised, namely, the rapidly fatal and the chronic ulcer. The perforating ulcer gives rise to peritonitis, and only occasionally to a localised abscess. Erosion of a large-sized vessel by the ulcer is equally unfavourable. Stenosis of the duodenum has been known to follow. Relapses are frequent. The treatment is the same as that of gastric ulcer.

SURGERY.

(136) The Modern Treatment of Congenital Dislocation of the Hip.

Hoffa, in a pamphlet recently published by Seitz and Schauer, of Munich, discusses the modern treatment of congenital dislocation of the hip, by means of which, he states, cure of this deformity, formerly held to be impossible, can now be practically attained. His own operation consists in the reposition of the abnormally-placed head of the femur previously exposed by the knife into a newly-excavated cotyloid cavity. The steps of this operation are a vertical incision of the skin and soft parts along the anterior border of the great trochanter; free incision of the capsule and exposure of the displaced head of the femur; enlargement by the use of the sharp spoon of the rudimentary cotyloid cavity, so that it is made deep and wide enough to receive the head of the femur; replacing of the head of the femur into the enlarged cotyloid cavity, a step in the operation which in many patients, and especially in those above the age of childhood, is attended with much difficulty, often necessitating forcible extension of the limb, and, occasionally, tenotomy of the adductors. Great importance is attached to the after-treatment, the details of which are here fully described. Hoffa has performed this operation in 200 cases, in 6 of which death was a direct result of the treatment. Whilst advocating his own method, he acknowledges that it cannot restore all the conditions of a sound and normal joint. Shortening of the limb must persist, and a complete range of movements cannot be attained. The condition of the limb with regard to form, disposition, and functional capacity resembles that met with in coxa vara. The advantages to be derived from a successful operation are lengthening of the limb, diminished laxity and mobility of the head of the femur, and improved position and increased activity of the gluteal muscles. The younger the patient the better, Hoffa holds, are the prospects of success from this operation. The best time for its performance is from the third to the eighth years of life. It is contraindicated in subjects beyond the age of 10, on whom in cases of bilateral dislocation Hoffa would remove both femoral heads.

(137) The Operative Treatment of Cancer of the Breast.

Halsted (*Annals of Surgery*, November, 1898) states that the present method of operating for cancer of breast, carried out by himself and his assistants, is even more radical than it was at the time of his first publication on this sub-

ject. Now, in his practice, the supraclavicular region is almost invariably cleaned out, a procedure held to be justified by the fact that extension of the disease to this region occurs in at least 34 per cent. of cases of mammary cancer. It is not necessary in attacking the neck to divide the clavicle. In excision of the supraclavicular tissues a vertical incision is made along the posterior border of the sterno-mastoid muscle, and the junction of the internal jugular and subclavian veins, which is the starting point of the dissection, is thus exposed. The neck, it is stated, can be cleaned out just as thoroughly as the axilla. In the main operation the author now removes the minor as well as the major pectoral muscle. It is likely, he thinks, that in the near future the contents of the anterior mediastinum will be removed at some of the primary operations. Operating for the cure of cancer has been found by the author a very great labour. He never operates on more than one case of cancer of the breast on the same day. The operation, including the toilet of the wound and the grafting, requires from two to four hours with highly-trained and skilful assistants. As the operation is performed in an absolutely bloodless manner, the patient does not suffer from shock. Of 76 patients operated on at the Johns Hopkins Hospital for the removal of mammary cancer more than three years ago, 31 are now living without local recurrence or signs of metastasis. Of 10 patients who died more than three years after the operation, 1 only had a local recurrence. Thus 40 patients (about 52 per cent.) lived more than three years without signs of local or remote recurrence.

(138) Accidental Hernia.

C. Kaufmann (*Correspondenz-Blatt. f. Schweiz. Aerzte*, December 1st, 1898) discusses the question, When is an hernia an accident? which, owing to the local Workmen's Compensation Acts in Switzerland and Germany, has been considerably debated both by surgeons and lawyers in those countries, as it is likely to be in England. (1) The first condition for a claim for compensation to be allowed is the proof of a injury (direct or indirect violence), or, what is the same thing legally, of an exceptional strain occurring during work. The mere fact that the hernia appeared during ordinary work is insufficient. (2) It must be proved that the rupture in the first instance appeared suddenly, and was accompanied by such violent pain that work had to be at once discontinued. This specific pain is always felt most in the neighbourhood of the rings, and there is tenderness to pressure there. (3) The clinical examination of the patient is of great importance, and ought to be undertaken immediately after the accident. Failure to consult the surgeon for some time is suspicious. Incarceration of the hernia is considered in Germany to be constant in every case depending on injury ("hernie de force"), and its absence to exclude accident. This point has not been settled definitely in Switzerland. Many cases are obviously old, and the claims can be rejected at once. In a freshly-acquired accidental hernia the following anatomical relations must be present. The hernia must not be larger than a hen's egg, and must be either interstitial, or project only partially through the external inguinal ring. It must be reducible only by taxis, and must not return spontaneously into the abdominal cavity on lying down. On standing up after reduction it usually does not return except on coughing or straining. There should be no hernia on the other side, and the inguinal ring and canal should barely admit the finger. The simultaneous acquisition of a double hernia, or of a single one with a well-marked hernial predisposition on the other side, makes it unlikely that accident was the cause. Advanced age in a man who has done heavy work for years is also against it. In Switzerland and Germany the courts have decided that a hernia which can be kept up by a truss with certainty takes permanently 10 per cent. off a man's earning power; one which, in spite of truss, precludes heavy work, 15 per cent.; and one with further disadvantages, 20 per cent. A reduction is made in the compensation for existing hernial predisposition, either from the presence of a congenital hernial sac, which can seldom be diagnosed, or from the easily-recognised wide-based conical hernial sac described by Kocher (Epitome, vol. ii, 1898, par. 106). The writer reckons that among the 200,000 artizans in Switzerland, 20 are compensated for hernia as being due to an accident annually, and 92 per cent. of the claims are disallowed as frauds. As a result employers will not now take men into their service without a medical certificate of freedom from hernia and from hernial predisposition.

MIDWIFERY AND DISEASES OF WOMEN.

(139) Chronic Valvular Disease in Pregnancy.

Jess (*Münch. med. Woch.*, October 4th and 11th, 1898) bases his remarks on 29 cases observed in the Kiel medical polyclinic. A slight hypertrophy of the heart muscle during pregnancy is now very generally admitted. A diseased heart in which the compensatory hypertrophy has been carried to its furthest point is not in a position to overcome the increased resistance to the circulation present in pregnancy, and hence dilatation occurs. The dangers encountered during parturition are due to (1) the pains, (2) the mental excitement, and (3) the emptying of the uterus with the consequent fall in blood pressure. This fall in blood pressure may eventually lead to œdema of the lungs and death. Of the 29 cases, 23 were examples of mitral disease (mostly stenosis), 3 of aortic disease, and 3 of combined mitral and aortic disease. From a study of these cases it is obvious that many women with heart disease can get over the dangers of childbearing. There was only 1 fatal case in the 29, and the total number of births was 114. Jess then analyses the recorded cases. Here the death-rate is much higher, because only the severest cases would be admitted into hospital. Leyden says that 40 per cent. of severe cases of heart disease in women die as a result of childbearing. In 3 of the author's cases similar symptoms developed to those seen in the fatal case, but they passed off. In 1 case symptoms of disturbed compensation occurred in each of 10 pregnancies, but they were really only threatening after the last pregnancy. In 3 cases symptoms only appeared in the fourth pregnancy, and in another 2 cases in the sixth pregnancy or later. In 3 cases the patients even said that they were better during pregnancy. Childbearing is borne almost as well by those with perfectly-compensated heart disease as by the healthy, and this was so in 16 of the author's cases. His figures also show that abortion is relatively common in those with heart disease. Thus the author concludes that in slight and well-compensated heart disease childbirth is usually well borne. After repeated pregnancies symptoms may arise. In severe uncompensated valvular lesions, and especially mitral stenosis, childbearing is harmful. The author has not seen any special ill effects in slight aortic disease. He does not agree that marriage must be unconditionally forbidden in heart disease. Where symptoms of valvular disease have existed for some years, marriage must be forbidden, and especially also in women who have to work. The author finally makes some remarks on treatment, and draws attention to the care which must be exercised during parturition in these cases.

(140) Acquired Atresia of the Vagina.

Kummer (*Correspondenz.-Bl. f. Schweiz. Aerzte*, January 1st and 15th, 1899) discusses this condition, which, though rare, has very important consequences. (1) The most common cause is difficult, especially tedious, though not necessarily abnormal, labour. Long continued pressure by the fœtal head is exactly what is required to produce a circular vaginal lesion, and this is the injury most likely to end in complete cicatricial atresia. Besides labour, falling astride, injuries from foreign bodies, burns and scalds, syphilis, vaginal diphtheria, variola and possibly pneumonia, yellow fever and typhus are rarer causes. (2) The site may be anywhere from the vulva to the cervix, but the cicatrix usually begins a short way above the vulva. (3) The most important consequences are those caused by the retained menses. The periods are absent. Hæmatocolpos results with certainty, unless, as sometimes happens, there is a urethro-vaginal fistula, situated above the adhesion, which allows the menstrual fluid to pass *per urethram*. Hypertrophy of the muscular layer of the uterus and tubes follows. Hæmatometra and hæmatosalpinx are probably rarer than is

usually supposed. In a case of Kummer's, diagnosed clinically as salpingo-hæmatometra, laparotomy proved it to be a bilateral hæmatocele. Cases diagnosed clinically must therefore be considered doubtful, and Picado was able to find only 1 case of salpingo-hæmatometra from acquired atresia anatomically proved, though it is not uncommon in congenital cases. Intraperitoneal hæmatocele, on the other hand, is more common than is usually thought. A hæmatosalpinx may burst and produce peritonitis, which may also result from a suppurating hæmatometra. The last named may burst into the intestines. (4) The prognosis as regards cure is bad. As regards life, it depends on the probability of the retained menses becoming infected, and on the possibility of pregnancy, which may occur with a very small fistula. (6) Pregnancy, once established, usually runs a normal course. (7) The treatment falls under two heads: (*a*) When pregnancy is present. Induction of premature labour is difficult and cannot be recommended. Early abdominal hysterectomy has been proposed; others prefer Cæsarean section at term. In the great majority of cases, however, division during labour of any cicatrices which are not torn across by the advancing head and the application of the forceps are successful, and the statistics of this method are by far the most favourable as regards life. (*b*) Without pregnancy. The rare cases of membranous septa offer a fair chance of cure by operation. When the vaginal walls are adherent, even if the cervix can be reached and freed, relapse is the rule, and it is quite impossible to make a roomy vagina. Tapping the retained menses is justifiable only in an emergency. If the cervix cannot be reached, or if relapses take place, laparotomy for removal of the uterus and ovaries becomes necessary: it relieves the patient of the fearful pain at the periods and of the danger of peritonitis.

(141) Thyroid Extract in Uterine Fibroid.

Pelk (New York *Medical News*, January 14th, 1899) writes on the clinical effect of thyroid extract upon fibroid tumours of the uterus. He adds clinical notes of 10 cases. In 1 the treatment had to be discontinued at the end of two weeks, as it caused severe gastric disturbance. In the 9 others the net result in each case has been improvement, the greatest existing in those who took the treatment longest. Its manifestations were: (1) control of the menstrual flow: (2) arrest of the growth and, in some cases, diminution in the size of the tumour and apparently softening of it; (3) disappearance of pain and diminution of tenderness in the growth, and also of the sense of abdominal and pelvic distension, increase of muscular and nervous energy: (4) improvement of general nutrition, shown at first by slight loss and then by return of flesh; improved state of the skin, hair, and nails, and disappearance of anæmia. "Thyroidism" was shown by tachycardia, restlessness and sleeplessness when the drug was taken at bedtime, and, lastly, indigestion.

(142) Chloride of Zinc or Curette in Chronic Metritis?

Delbet (*Annales de Gynéc. et d'Obstét.*, January, 1899) seems determined to rehabilitate the once so popular chemical, and holds that the curette is a far inferior therapeutic agent in chronic metritis. Chloride of zinc never involves any aggravation of any inflammation of the appendages which may complicate metritis, the curette often does so. The curette requires anæsthesia and confinement to bed; the application of chloride of zinc permits the patient, according to Delbet's experience, to go about directly after the injection with impunity. Delbet uses the salt in solution, about 20 per cent., 10 per cent. being too weak and 50 per cent. too strong. About a drachm of the solution is injected by means of an appropriate syringe into the uterine cavity: at the same time the vagina is irrigated with a boracic solution, or with hot water sterilised by previous boiling; then a tampon is applied. At least three injections will be needed, at first at short intervals, two or three days; later about once a week to once a fortnight. The action of the solution is not more destructive to tissues than the use of the curette, and is much less objectionable than the introduction into the uterus of the same salt worked up into a crayon. Atresia of the cervix has frequently followed the use of crayons, but Delbet admits that as yet none of the patients treated by his new method have become pregnant.

THERAPEUTICS.

(143) Injections of Normal Saline Solution in Diabetic Coma.

Roget and Balvay (*Lyon Méd.* January 8th and 15th) report the following case. A man, aged 20, was admitted to hospital on June 3rd, 1898. He had had syphilis and ague, and was addicted to alcohol. Five years before he had remained unconscious for some time after a blow on the head. On July 2nd he had several epileptiform fits. Though anasarca was present, there was no discoverable cardiac or renal lesion. The urine contained a quantity of sugar. On July 23rd he had a fit, with deviation of the head and eyes to the left, and clonic spasms in the face, chiefly on the left side. On August 1st the œdema of the legs extended to the thighs. Slight left facial paralysis; knee-jerks absent, August 2nd, complete coma with epileptiform convulsions. Urine scanty and had to be drawn off by a catheter. He was then treated with injections of normal saline solution, and received in all, between August 4th and 9th, nearly 14 pints, 3½ of which were introduced directly into the veins, and the rest subcutaneously. Besides this he had three enemata containing 17½ fluid ounces each. By these means free diuresis was established, and the kidneys being sound the poisons were probably flushed out through them. As soon as consciousness returned he ate with avidity, and swallowed ten bottles full of alkaline water, containing in all nearly 1½ oz. of sodium carbonate, which doubtless aided the process. On August 16th his condition was as good as it was before the coma appeared. He lived four months, and then died of empyema and phthisis. *Post mortem* the pancreas was found to be partially absent. Towards the end there was pus in the urine, and calculi were found in the pelvis of the kidney, whose substance was found on microscopical examination to be perfectly healthy. The condition of the brain is not noted. The authors have been able to collect 19 cases of diabetic coma treated by saline injections, mostly published in Germany and England; of these only one, a case of Lépine's, recovered from the coma, but few or none appear to have received such copious injections.

(144) Preventive Treatment of Hereditary Syphilis.

Fournier (*Sem. Méd.*, November 30th, 1898) discusses this question: In the event of pregnancy when the father is syphilitic at the stage when the disease may be transmitted, and when the mother is healthy, can medical art intervene to safeguard the child; and, if so, what is the means to be adopted? He considers two classes of cases: (1) when the pregnancy is the first one, supervening shortly after marriage; (2) when several previous pregnancies have resulted disastrously in abortion or in early death of the child. He maintains that the child can be safeguarded by anti-syphilitic treatment of the mother, even when she is healthy. He claims that this treatment is rational, effective for the child, and free from danger to the mother. It is rational, because Porak's experiments have demonstrated that the fœtus *in utero* can be reached by drugs through the placenta. Within forty minutes of the administration of iodide of potassium to the mother Porak found the drug in the urine of the fœtus. It is safe for the mother, as demonstrated by wide experince; he quotes Pinard to the effect that he had not yet come across a case where the mother had suffered. As to the efficacy of the treatment, he does not claim that it will invariably save the child either from death or from syphilis. But that it is a safeguard in the great majority of cases is shown by the results, both with first children when the mother is healthy and the father had syphilis in a transmissible stage at the time of marriage; and also when several preceding pregnancies had resulted disastrously. He recites several cases illustrating this point. Even though cases occur where no good results, he maintains that the attempt should be made; to do nothing is to run the risk of doing harm by compromising the child's health; to intervene is to run the risk of doing no good, and it is better to act uselessly than harmfully. The cardinal points of treatment are, that the treatment should be begun as soon as possible after the onset of pregnancy, and that mercury is

the best drug to administer. It is much superior to iodide of potassium in the prevention of hereditary syphilis; but if the iodide is given in conjunction with mercury, all the better. Inasmuch as it is not an adult, but the fœtus, that is being treated, small doses should be given. The treatment should be continued during the whole time of pregnancy. As to the particular form in which the mercury is given, and as to whether it be given continuously or intermittently, these matters the author thinks may be left to individual discretion and to the idiosyncrasy of the patient.

(145) Malt Soup for Infants.

GREGOR (*Jahrb. f. Kinderheil.*, vol. xlviii, p. 4, 1898) summarises his experiences of malt soup in the feeding of infants at the clinic in Breslau during the last year and a half. The cases selected were mostly those in which former methods of treatment had failed. Chronic intestinal catarrh formed the largest proportion of cases in which malt soup was administered. Gärtner's fat milk and Backhaus's "Kindermilch" were first given a fair trial. Malt soup consists of (1) unboiled milk, derived from the first milking in the morning; (2) flour, (3) Löflund's malt extract, (4) and an 11 per cent. solution of purified carbonate of potash. The soup is made in enamelled saucepans holding from 8 to 10 litres, every litre of soup should have two-thirds of a litre of water at a temperature of 50 to 60° C. added to it. Malt extract 100 grams and 10 c.cm. of the potassium carbonate solution should be mixed together. At the same time 50 grams of flour should be added to one-third part of milk; this must be stirred until the consistency equals that formed by the previous solution. This is next passed through a fine sieve, and the whole well mixed. The soup is then boiled. It takes from 6 to 10 minutes to raise 1 litre of soup (the daily supply for a child) from 50° to boiling point: 8 to 10 litres would take 20 to 30 minutes. In order to avoid excessive boiling the soup is taken off the fire when the temperature reaches 94° C. When ready for use the soup is of a thin, watery consistence, greyish-brown in colour. It has a sweetish taste, and gives an alkaline reaction with litmus paper. The soup is kept in sterilised air-tight bottles: the daily allowance varies from 600 to 900 c.cm. In order to prevent the development of bacteria which may have found their way into the soup during the necessary manipulation, the bottles immediately after being filled are plunged into iced water. Any bacterial invasion is at once indicated by a bitter taste in the food, and the reaction becomes either neutral or faintly acid. The mothers are instructed always to test the soup with litmus paper before feeding the child. If red litmus paper does not turn blue the food is at once thrown away. The soup seldom turns sour even in the hot months of July and August. In the case of young weakly children from 1½ to 3 months old, it is often found necessary to reduce the amount of malt and flour. In children from ¾ to 1¼ year old, instead of one-third milk to two-thirds water, equal parts of milk and malt soup can be given with excellent results. It is found necessary in these cases to reduce the flour to 30 grams, or else the soup gets too thick. In cases where watery and frequent stools occur, but where the body weight remains unaltered, a reduction of the malt and flour is necessary for a time. Rickety children have been very successfully treated with malt soup combined with green vegetables or oatmeal.

(146) Antitoxin Treatment of Tetanus.

KLEINE, of Quincke's clinic (*Deut. med. Woch.*, January 12th, 1899) records two cases of traumatic tetanus which recovered under the use of Behring's tetanus antitoxin. They were both typical examples of tetanus. The first case, in a man aged 50, was one of medium severity, and followed a chronic course. The exact date of the infection could not be ascertained. The first injection of the antitoxin was given a week after the onset of the first symptoms. Forty-eight hours after the injection the neck could be freely moved. Steady improvement then set in, so that the patient was well a week later. Perhaps the delay in the improvement for forty-eight hours was due to the slow absorption of the antitoxin from the subcutaneous tissues. The patient was an elderly, corpulent individual with irregular cardiac action. The other patient was a boy aged 9 years. Although the incubation period was rather prolonged, yet the case was a severe one. The wound was in the foot. Improvement set in twenty-four hours after the third injection at a time when nearly all hope of recovery had been abandoned. In this case the antitoxin appeared to be the sole cause of the recovery. A large urticaria-like eruption appeared on the sixth day after the last injection. The first case received in all 1,000 units, and the second 400, distributed in both cases over three doses. In both cases the comparatively insignificant local lesion was excised. The tetanus bacillus was found in the first case, and mice inoculated with the infected tissue developed tetanus. The inoculation experiments in the second case gave negative results, but here the tissue had been bathed in sublimate solution.

(147) Abdominal Massage in Heart Disease.

HUCHARD (*Sem. Méd.*, July 13th, 1898) insists on the benefit to be derived from massage of the abdomen in affections of the heart. According to Cantru it regulates the blood pressure and lessens venous congestion of all the organs, and particularly of the kidney. This brings about a considerable increase in diuresis. It can be used therefore as a substitute for, or to increase the action of, digitalis.

PATHOLOGY.

(148) Puerperal Fever.

A. CASELLI (*Centralbl. f. Bakt*, XXV, 1) makes a contribution to the etiology of puerperal fever. This contribution has taken the form of an experimental inquiry as to whether pathogenic microbes can for any length of time lie latent in the genital tract, or whether the normally acid vaginal secretion can lessen their virulence and render them harmless. In a series of experiments on rabbits, the writer shows (1) that the streptococcus erysipelatis will, if injected into the non-pregnant uterus, cause rapid death from pyæmia; (2) that the same organism, if injected into the substance of the gravid uterus, will set up abortion, and cause death within a few hours; (3) that the same microbe will give rise to a rapidly fatal pyæmia if introduced into a wound within the vagina; and (4) that if deposited in the healthy and uninjured vagina of a pregnant animal, it will remain latent there for as many as forty-five days, ready to set up an acute pyæmic condition within a few days after parturition, with pelvic suppuration, peri-oöphoritis, and embolic abscesses in distant organs.

(149) Experimental Quinine Amblyopia.

HOLDEN (*Archives of Ophthalmology*, November, 1898) has studied the pathological changes produced by injecting quinine hypodermically in dogs. Although the arteries were constricted no histological changes were noticed in the vessels of the nerve or retina, there being neither thickening of the vessel walls nor proliferation of the endothelium. The pathological process consists in a constriction of the retinal vessels, and particularly of the arteries, followed by a highly albuminous serous exudation into the nerve fibre layer, and a degeneration of the ganglion cells, together with their axis-cylinder processes, which become the centripetal fibres of the optic nerve. These changes were not prevented by the exhibition of nitrite of sodium.

(150) Action of Bacteria on the Photographic Plate.

PERCY FRANKLAND (*Centralbl. f. Bakt.*, xxiv, No. 17) finds that ordinary dish cultures on gelatine or agar-agar—and more especially "streak cultures"—have a distinct action upon the photographic film, even at the distance of half an inch; and that when placed in immediate contact with the film in the dark, definite pictures of the growths may be obtained. This influence, probably due to the evolution of chemical volatile substances, cannot pass through glass; in the case of phosphorescent organisms, however, a distinct action through glass is noticeable. The writer thinks that this action of bacteria on the photographic film may vary in different species, and may thus become of importance in diagnosis. It remains to be seen whether other organised structures, vegetable or animal, can exert a similar influence.

ERRATUM.—The name of the author of a paper on "Nirvanin," abstracted in the EPITOME of February 18th (par. 129) is Luxenburger and not as there printed.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(151) An Early Symptom of Measles.

Meunier draws attention (*Journ. de Méd.*, November 25th, 1898) to a sign of measles which under certain conditions might be of extreme importance. This consists in a marked loss of weight on the part of the child before any other morbid symptom. This was present in 43 out of 45 cases observed, the loss being noticed from the third day of incubation, and becoming more marked on the following days until the appearance of pyrexia and catarrh. It is, therefore, a sign of the pre-contagious period of the disease, and is unaccompanied by any other manifestation. It seems to be independent of the age of the patient or the severity of the subsequent illness. As showing its importance the writer quotes two examples, one in which a child attended a children's party when actually in the contagious stage. It was possible to ascertain at a very early date, by means of weighing, what other cases arose from this source of infection, and by this means and by careful isolation a considerable outbreak was prevented. The second instance was that of a child admitted into hospital with slight Pott's disease. There was no pyrexia or any other morbid sign, but the child was weighed daily as a matter of routine. The third day after admission it began to lose weight, apparently without reason. After two or three days it was deemed advisable to isolate the case, and in due time a typical measles eruption appeared. It was ascertained afterwards that on the same day the patient came into hospital it was exposed to contagion from another case of measles. In consequence of the knowledge of this fact and the prompt measures taken an outbreak of measles was prevented, as no other child in the ward contracted the disease.

(152) Acute Ataxia in Children.

Filatoff (Abstract from the Russian in *Neurol. Centralbl.* February, 1899) divides the acute ataxia of children into four groups: (1) Toxic (for example, following alcohol), which is very rare in children; (2) infectious (for example, post-diphtheritic); (3) neurosis form (for example, hysterical or reflex, and following phimosis, onanism, etc.); and (4) ataxia from central organic disease. Two examples are given of the hysterical form: (*a*) A boy, 11 years of age, after a severe fright lost consciousness, and became ill, being unable to walk or stand next day. Curiously, however, though unable to walk, there was retained the power to execute movements with the lower limbs, and with good muscular force too. Actually, after suggestive faradisation, the power to walk suddenly returned, and the recovery was complete. (*b*) A girl, 10 years of age, suddenly got ill with a form of spastic paresis of the legs; there was atypical foot clonus, and very slight anæsthesia of the leg and of the trunk. In this case there resulted a complete cure also, in about a month. (Neither case is "ataxic" in the ordinary sense.) (*c*) A third case described, is more difficult to explain. After a severe illness with brain symptoms of an obscure kind, the patient exhibited muscular atony and ataxia of both upper and lower extremities, with reeling gait in walking. The reflexes (knee-jerk) were lively; there was a trifling diminution of the electrical irritability of the peronei muscles, and scanning speech. After prolonged observation and examination the author concluded it was a cerebral ailment—but of unknown nature—and after a month's treatment the patient became better, and was discharged.

(153) The Tabetic Foot.

P. Jacob, of Leyden's clinic (*Berl. klin. Woch.*, January 16th, 1899) gives details of a case of tetany in which a skiagraph was obtained of a tabetic foot. The patient, a woman, aged 46, had unmistakable signs of early tabes. The knee-jerk was absent on one side but curiously exaggerated on the other. The right foot appeared shortened, rotated inwards, and markedly bent up. It resembled the so-called Chinese foot. The movement in the tibio-tarsal joint was limited, while that in the other joints of the foot was increased. In the Roentgen photograph the skeleton of the foot seemed to be reduced, especially in the transverse diameter. The boundaries of the small bones were indistinct. The first cuneiform and scaphoid bones were larger and broader than those on the sound side, and were deformed. Thus atrophic and hypertrophic processes in the bones were demonstrated during life by the Roentgen rays. The crumpling up of the foot was due to the changes in the bone and not to any affection of the joints. The tabetic foot is not a simple arthropathy but an osteo-arthropathy. A thickening of the bone on the inner side of the left knee-joint was demonstrated later. The patient had sustained an injury to the foot many years previously, and it would be interesting to know whether tabetic arthropathies or osteo-arthropathies are more likely to occur in joints which have been previously injured.

(154) Expectancy of Life in Syphilis.

Hyde (*Medical Examiner*, April, 1898) comes to the following conclusions on this subject: (1) Inherited syphilis is one of the most fatal of all disorders affecting mankind, and under the most favourable circumstances, apart from abortion, 90 per cent. of children born living subsequently die. (2) Acquired infantile syphilis is rare, and is easily treated, and probably a large proportion of all infants so affected survive. (3) In acquired syphilis in adults between 80 and 90 per cent. escape gummata. The percentage of patients affected with gummata who die is not known, but probably it does not exceed 2 per cent. (4) The expectancy of life is probably not affected by the coincidence of syphilis with other diseases, and the prospect that the patient with acquired syphilis will ever suffer from struma, cancer, or tuberculosis is exceedingly small. (5) The natural evolution of acquired syphilis in untreated cases is not in the direction of a fatal issue, but rather in the line of physical degeneration due to involvement of the nervous system and the bones without affecting the organs essential to life. (6) It is unfair to charge an extra risk for the insurance of syphilitic applicants otherwise in sound health. The syphilitic applicant for life insurance should be examined with a view not so much as to his syphilitic history as to his condition with relation to all the other items making up a satisfactory risk. In other words, if he has a good family history, a sound constitution, excellent habits, and has reached but not passed a satisfactory age, his expectancy of life is probably that of other individuals in similar conditions without added risk on account of syphilis.

SURGERY.

(155) Testes in Inguinal Hernia; Hermaphroditism.

Delagénière, of Tours (*Bull. et Mém. de la Soc. de Chir. de Paris*, January 10th, 1899) has met with a case closely resembling the instance of congenital inguino-ovarian hernia reported before the Obstetrical Society of London in 1879. Delagénière's patient was a big, thin person, aged 27, supposed to be a female. She suffered from hypogastric pains, increased during four or five days every month. The vulvar structures were normal but the hair deficient. The vagina was a blind canal hardly 2 inches long. No uterus nor ovaries could be felt. There was a small hernia in each groin. An abdominal incision was made with the intent of ascertaining if the uterus existed, and then if that organ could be united to the open part of the vagina, but no uterus, tubes, nor broad ligaments could be found. The genital glands lay close to the inguinal rings, and were removed each by an incision in the groin, as they could not easily be drawn towards the middle line. They were examined microscopically and proved to be testicles. The patient recovered. The skeleton and muscular system were masculine, the breasts like those of a girl just before puberty. The hair was rather short for a woman, the walk was like a man's. There was, however, no trace of a beard, and the tastes and occupations were feminine.

(156) Use of Calcined Bone in Bone Repair.

Martini (*Il Policlinico*, August 15th, 1898) compares the results obtained by the replantation of calcined and decalcified bone in the repair of bone cavities. His experiments were carried out on the

crania of rabbits. At corresponding points on each side of the cranial vault two small trephine holes were made. These were replanted, on the one side with decalcified bone, on the other with calcined bone. The material for replantation was taken from the epiphysis of the tibia of a heifer, cut into discs to fit the trephine holes accurately. The calcined discs were calcined in a crucible, the decalcified ones obtained by 10 per cent. hydrochloric acid. Both were afterwards kept in a 1 in 500 alcoholic solution of perchloride of mercury, and afterwards in normal saline solution. The rabbits were killed and examined at intervals of fifteen days up to ten months, and the discs removed together with the surrounding bone and soft parts. These were fixed in alcohol for three days, decalcified in 10 per cent. nitric acid, kept two days in running water, and afterwards hardened in alcohol. After imbedding in celloidin, vertical and horizontal sections were cut, and stained with eosin and a double stain. The differences between the calcined disc and the decalcified disc were as follows: In both cases microscopic examination showed granulation tissue arising from the periosteum over the disc, from the dura mater and from the diploë of the margin of the trephine hole. At the margins of the hole were patches of necrosis, and along with the necrotic process a production of young bony tissue in the medullary cavity and Haversian canals, becoming stratified and mixed with new bone formed from the periosteum and dura. Hence side by side were (1) lacunar absorption of the disc by osteoclasts and granulation tissue, and (2) irregular formation of new bone from the periosteum, the dura and the diploë penetrating the porous mass of the disc. In the case of the calcined disc the granulation tissue develops more bone; in the case of the decalcified disc it develops more into adult connective tissue. The osteogenetic activity of the tissue appears to exhaust itself a short distance from the trephine margin, and can only extend a short distance into the cicatrix which is formed early in the decalcified disc, owing to the absorption of the latter being more rapid than that of the calcined disc. The author therefore concludes that calcined bone is the best material for the repair of bony cavities and trephine holes for the reasons (1) that is physiological, supplying salts of lime to the osteogenetic tissue; (2) it is easily prepared and kept, and capable of rapid sterilisation by heat; (3) it is easily adapted to the cavity, and its porosity favours bony invasion.

(157) The Limitations of Operative Treatment for Varicocele.

Senn (Reprint from *Philad. Med. Journ.*, June 18th, 1898) holds that operative intervention for the cure of varicocele should be restricted to the exceptional cases in which well-marked symptoms warrant such a course. This surgeon, whilst examining nearly 10,000 recruits for military service, took especial pains to investigate varicocele as a cause of disability. The results of this investigation show that varicocele in varying degrees is met with in nearly one out of four men between the ages of 18 and 20 years, and that of itself it seldom gives rise to any noticeable disturbance, and that the patients who apply for treatment do so in consequence of nervous disturbances entirely independent of the enlarged spermatic veins. Operative treatment in many of these cases is held to be superfluous, provided the surgeon can obtain the full confidence of the patient, which is an essential condition of successful non-operative treatment. The author has been led by this extensive study of the pathological and clinical features of varicocele to the conclusion that operations for this disease are performed too frequently at the present time.

(158) Coexistence of Floating Kidney and Appendicitis.

Edebohls (*Centralbl. f. Gynäk.*, No. 40, 1898) publishes some very curious evidence tending to show that chronic inflammation of the vermiform appendix often coexists with floating kidney. His own experience has been almost exclusively among women, only 1 out of over 100 nephrorrhaphies in his practice having been performed on a male subject. The usual operation for appendicitis requires an anterior incision. Edebohls avoids the two wounds by removing the appendix through the incision in the loin made for reaching the kidney. The lumbar incision is made very large, reaching to the crest of the ileum. After the capsule of the kidney has been reached, the peritoneum is opened at the level of the lower end of that organ. The ascending colon is searched for, drawn up, and its longitudinal fibres traced till the appendix is reached. Then the appendix is excised or inverted into the cæcum. The peritoneum is now closed, and the fixation of the kidney effected by means of catgut. Lastly, the lumbar wound is closed without drainage. Edebohls admits that the removal of the appendix from behind is often difficult, but it is feasible and saves the patient from the great disadvantage of two incisions. He relates four cases where he operated as above described. One was singularly complex. The patient was 42, and single. Both kidneys were movable. There was chronic inflammation of the appendix, and the patient also had endometritis and hæmorrhoids. The above double operation was performed on the right side, and the left kidney was also fixed by another lumbar incision. The curette was applied to the uterus, and in conclusion the sphincter ani was dilated as a remedy for the piles.

MIDWIFERY AND DISEASES OF WOMEN.

(159) The Treatment of Post-partum Hæmorrhage.

Bastian (*Rev. Méd. de la Suisse Rom.*, January 20th, 1899), advocates a method of plugging the vagina, which he believes to be effective in all cases. Seizing the cervix with forceps, and pulling the uterus firmly downwards, is a most useful method learned from gynæcological operations. Hermetic closure of the cervical canal by placing one or more pairs of strong pressure forceps on the anterior and posterior lips of the external os is also good practice. Both these procedures have, however, the great disadvantage of being applicable to cases of inertia only, and of being useless in *post-partum* hæmorrhage from any other cause, such as deep lacerations of the vagina or cervix or ruptured varicose veins. Plugging the vagina as usually practised without assistance is useless. Bastian's method consists in introducing a Cusco's bivalve speculum into the vagina, and opening the blades, which should be about 5½ inches long, as widely as possible. The cervix is then plainly seen. Sterilised or iodoform gauze is then introduced, great care being taken to press it firmly against the cervix and the *culs-de-sac*. In this way the uterus is raised into the abdominal cavity, a considerable distance. The plugging is continued methodically until the vulva is reached. The speculum is left in for twelve, and the whole plug for twenty-four, hours. The author has such confidence in his method that, the plugging finished, he leaves the woman without any special attention. Its mechanism is complex. If the hæmorrhage is vaginal, one of the valves of the speculum will compress the bleeding point directly, and the stretching of the vaginal wall is an indirect aid; if cervical, the hæmorrhage is arrested directly by pressure of the plug on the torn flaps and on the trunk of the urterine artery in the base of the broad ligaments, and indirectly by the stretching of the last named by the elevation of the uterus; if from inertia, the last named mechanism is equally effective, and the dense plug closes the external os just as well as pressure forceps. An intrauterine clot then forms and excites the uterus to contract.

(160) Ventrifixation and Pregnancy.

Lapthorn Smith (*Trans. Amer. Gyn. Soc.*, vol. xxiii, 1898) has published a valuable monograph on this subject. In respect to fixing operations and to their relation to pregnancy, he concludes that as far as curing retrodisplacement (either retroflexion or retroversion, or anteflexion with retroversion) is concerned, ventrifixation with two buried silk sutures through the peritoneum and fascia give the most reliable results. Ventrifixation should be reserved for cases in which there are adhesions or diseased and adherent tubes to be removed. When it is expected that pregnancy may follow, some other operation should be chosen, as when the uterus is firmly attached to the abdominal wall and pregnancy follows, trouble of some kind, either pain, miscarriage, or difficult labour requiring obstetrical operations, takes place in about 30 per cent. of the cases, namely, 36 in 148; 75 per cent. went on to normal labour, though in half these cases drag-

ging pains were experienced. Simple suspension of the uterus to the parietal peritoneum sometimes fails, but has the advantage of entailing no inconvenience during future pregnancy and labour. The uterus, therefore, should be suspended rather than fixed to the abdominal wall in all cases in which any part of the ovary is allowed to remain. Intra-abdominal shortening of the round ligaments is also a good operation when pregnancy is probable afterwards, as the ligaments lengthen during gestation. In ventrifixation too much anteversion is to be avoided, but the stitches should be passed near to the top or the fundus. Lapthorn Smith scarifies the uterus and the corresponding surface of the abdominal peritoneum: then he finds only one buried silk suture necessary. Alexander's operation never appears to influence favourably either pregnancy or labour, hence it seems to be the best procedure whenever the uterus and appendages are free from adhesions. Even when there are adhesions, Lapthorn Smith suggests that it may be well to free them after making a very small median incision, and then shorten the round ligaments by Alexander's method, after which the abdomen should be closed.

(161) The Treatment of Dysmenorrhœa and Sterility.

At a meeting of the Royal Gynæcological and Obstetrical Society of St. Petersburg, S. H. Kalinowsky (*Vratch*, No. 52, 1898) described the results which he has obtained in a series of cases of dysmenorrhœa and sterility, due to stenosis of the internal os. After the usual remedies had failed, he adopted the following method: The patient was placed in a recumbent position—in some cases anæsthetics were administered—and by means of a Hegar's dilator (No. 4 or No. 5) the internal os was suddenly dilated. On removal of the dilator two incisions—3 mm. in length and from 1½ to 2 mm. in depth—were made with a Pott's knife on each side of the internal os; then Hegar's No. 9 or 10 was introduced, followed by an injection of a strong solution of iodine into the cavity of the uterus; the exfoliated parts of the mucous membrane being subsequently removed by the curette. After the operation stimulants were given, and the patient was directed to rest for from one to several hours. Then the uterus was drawn down by means of a volsella, and glycerine tampons were introduced into the cavity of the uterus, and left there for forty-eight to sixty hours. The after-treatment consisted in supporting the general health and nutrition and in the use of massage. No unpleasant after-effects were noticed. One hundred cases were subjected to this mode of treatment; in all permanent, complete cure ensued with regard to the disturbance of the menstruation and the pains; 20 of them became pregnant and have had children. In another series of cases, where there was stenosis of the external os, the same treatment was followed by similar results. The author speaks very favourably of the use of the iodine injections into the cavity of the uterus soon after the operation, as it prevents the incised parts from growing together, and later the scars from undergoing excessive formation. Thus permanent patency of the cervical canal, which the author claims to be the aim of operation, is established.

(162) Slackening of Pulse in Normal Puerperium.

Varnier (*Ann. de Gynéc. et d'Obstét.*, January, 1899) believes that he has confirmed Whytt, MacClintock and Blot's observations by careful clinical researches. He publishes a valuable series of pulse curves. Comparing 67 cases of normal pregnancy and puerperium, he demonstrates that the pulse-curve in the 35 subjects in childbed was much lower than the pulse-curve in the remaining 32 who were pregnant. He also prepared and compared charts of 36 patients with normal temperature before and after delivery, where the pulse was also taken under the same conditions. In 26 the pulse-curve was distinctly lower in the puerperium, in 6 there was practically no change, in 4 only the pulse-curve was higher in the puerperium than before delivery. Of course the pulse is easily raised in childbed; not only do well-known complications produce this effect, but getting up for the first time sends the pulse up. The opinions of Blot (*Archives Gén. de Médecine*, 1864) are substantially correct; the fatigue of normal delivery does not raise the pulse, and the slow pulse of an uncomplicated puerperium does not necessarily imply that the particular patient's pulse must have been slow before conception whether through physiological or pathological causes.

THERAPEUTICS.

(163) Epinephrin.

At a meeting of the American Physiological Society (*Boston Med. and Surg. Journ.*, January 26th), J. J. Abel, of Johns Hopkins University, showed a sample of "epinephrin," the active principle of the suprarenal capsule. The substance, which has the formula $C_{17}H_{19}NO_3$, is a greyish powder resembling the alkaloids in a great many of its reactions. The free base prepared at high pressure is not active in affecting the beat of the heart and blood pressure, and its salts are but slightly so; but the free base prepared at low pressure is very active, as are its salts, the benzoate, picrate, and sulphate—the last being most pronouncedly so. Future investigators may experiment with the active principle uncontaminated; the aqueous extracts of former investigators have been mixtures, and therefore uncertain in their action. One source of inconvenience and possible source of error encountered by those who worked with this gland is that the extracts are very prone to become oxidised. The theory that pyrocatechin is removed normally from the blood by the suprarenals, and when not removed oxidised and bronzed the skin, as in Addison's disease, is disproved by the author's work. The glands were carefully examined for pyrocatechin, and none was found.

(164) Action of Suprarenal Extract on the Mammalian Heart.

At the same meeting (*ibid.*), B. Wallace and W. A. Mogt read a communication on this subject. The dog's heart was used in the experiments, and tracings were taken directly from the heart by means of a modified Roy and Adami myocardiograph. It was found that the suprarenal extract stimulates the vagus centre, thus inhibiting the heart. It produces also a direct stimulation of the heart muscle, resulting, when the vagus influence is removed, in an increase in the force and frequency of its beat. Accompanying the heart action there occurs a rise in the systemic blood pressure due to the contraction of the arterioles. The pressure in the pulmonary arteries, however, is not raised, these vessels not being acted upon as are the others.

(165) Suprarenal Extract in Addison's Disease.

Destot (*Lyon Méd.*, 1898, No. 48) relates a case of Addison's disease which was treated with suprarenal extract. Injections of the liquid extract were given with gradually increasing doses. The pigmentation diminished in a remarkable manner. The unfavourable condition of the stomach and bowels, however, made it impossible to continue the treatment. The case ended fatally.

(166) Fever Diet.

Klemperer (*Berl. klin. Woch.*, January 30th, 1899) summarises the various forms of treatment which have been in vogue at different periods in medical history. Hippocrates used to feed his patients on flour soup. A little later it became the fashion to give ordinary diet in cases of fever. In the Middle Ages the patient with fever was starved. In this century Graves in Ireland, and Trousseau in France were among the first to suggest a nourishing diet in fever. In Germany, on the other hand, Senator forbade the use of milk and any nitrogenous food. It was only after Hösslin's reassuring experiments that an increase in fever diet took place. He showed that a liberal diet was in no way harmful to the patient, and that it diminished the loss of weight which invariably followed a feverish attack. The increase in diet had no effect in raising the temperature as was formerly supposed. The author proceeds to state the causes of the increase of nitrogenous excretion in fever: (1) Increased consumption of albuminoid materials, (2) the cast-off cell protoplasm. If the supply of nitrogenous material is increased the expenditure is also increased. Bauer has shown that part of the albuminoid food is retained; this, however, is not used in the reconstruction of the cells, but allays the hunger for albumen manifested by the cell protoplasm. About 2,500 to 2,800

calories are required in order to satisfy the craving for repair in the cell protoplasm. Milk is the best form in which this material can be supplied.

(167) Parachymosin.

Ordinary pepsin preparations, says Bang (*Deut. med. Woch.*, January 19th) contain some rennet ferment. If a solution of such a ferment be digested with 0.2 to 0.4 per cent. HCl at 39° or 40° C. for a short time, and be then neutralised with NaOH, the ferment will be found to be inert. If, however, neutralisation be effected by means of $CaCO_3$, the activity of the ferment can be restored after digestion for weeks. This is owing to the fact that instead of the ordinary chymosin another rennet ferment, which Bang has named "parachymosin," is present. The two ferments can be distinguished by their behaviour towards: (1) Gastric juice. Twenty-four to forty-eight hours' digestion with gastric juice destroys the action of chymosin, and the subsequent addition of $CaCO_3$ has no effect. Parachymosin resists the action of the gastric juice for a longer time, and neutralisation with $CaCO_3$ will restore its activity even after it has been digested for several weeks. (2) Dilution. The length of time needed for chymosin to coagulate milk is inversely proportional to the quantity of ferment present. Diluted parachymosin needs a relatively longer time, and when dilution has reached a certain degree no coagulation will take place at all. (3) $CaCl_2$. If parachymosin be diluted till its action ceases, the addition to the milk of only 0.02 per cent. of $CaCl_2$ will restore its activity. This quantity of $CaCl_2$ has no effect on chymosin. (4) Parachymosin resists a degree of heat which destroys chymosin; on the other hand, it is (5) more easily affected by alkalies. The rennet ferment in the pig, says Bang, consists only of parachymosin, in the calf only of chymosin. In certain fishes (pike) chymosin is also found. In human gastric juice Bang has found parachymosin alone in the few cases he has examined. Further investigation, however, will be necessary before it can definitely be said that chymosin does not occur.

(168) Dionin.

Korte (*Therap. Monat.*, January, 1899) records some clinical results as to the anodyne and narcotic effects of a new morphine derivative prepared at Merck's chemical laboratory in Darmstadt. Dionin is the hydrochlorate of aethylmorphine ($C_{17}H_{21}NO_3HCl+H_2O$). It forms a white crystaline body, which is readily soluble in water and alcohol; the taste is bitter. The author has found the substance very useful in the irritable cough of phthisis and bronchitis. A dose at bedtime gives great relief, and generally secures a good night's rest for the patient. Bronchial asthma is also much relieved by the drug. Dionin can be substituted for morphine, and is in many ways preferable. It does not disturb the digestion nor cause headache in the morning. Dionin is a milder narcotic than morphine, and is decidedly more powerful than codein. Ethyl derivatives are generally more certain in their action than methyl derivatives; this may explain the difference in the narcotic effect that exists between dionin and codein. Dionin loosens the expectoration very markedly. In the treatment of pain dionin is not nearly so reliable as morphine. It has a local effect when injected subcutaneously. The chief value of dionin is in the treatment of irritable cough, especially in phthisis. The troublesome night sweats in tuberculous patients are certainly relieved by the drug. Dionin can be given either in solution or in syrup, as follows: ℞ Dionin 0.3, aq. destil. 20.0; 15 drops to be given three times a day in sugar water. ℞ Dionin 0.5, syrup. simplicis 100.0; 1 teaspoonful to be given at bedtime.

(169) Dangers in Preparing Drugs.

Linde (*Deut. med. Woch.*, No. 34, 1898) records the case of a chemist's assistant who was told to make some cantharides plaster. The patient was boiling cantharides in alcohol, and, although he took every precaution he could to avoid injuring his eyes, the fumes coming from the boiling liquid must have been so saturated with the drug that in a few hours' time he was suffering from blisters on both corneæ. The patient sought medical aid, and on examination it was found that phlyctenular keratitis affected both eyes. Under strict antiseptic precautions the blisters healed in ten days. The second case is that of a man who had suffered from psoriasis for seven years, and subjected himself to a severe treatment with chrysarobin. The strength of the ointment was 1 in 4 with vaseline. The eyes began to be affected eighteen days after the first application of the ointment. There was disintegration of the corneal epithelium, with loss of sensation in the cornea. The patient was also suffering from nephritis. The most probable explanation of this case is that the patient rubbed his eyes whilst some of the ointment was still adhering to his fingers.

PATHOLOGY.

(170) Cirrhosis of Budd.

This forms the subject of a posthumous article by Hanot (*Arch. Gén. de Méd.*, January, 1899), concerning cases in which the liver is enlarged, smooth, and hard, without ascites or splenic hypertrophy, and in which the leading symptoms are those of chronic gastro-intestinal dyspepsia of long standing. The author, who had made a particular study of this condition, was able to follow some of his cases over a considerable period, and was in a position to state that there was no alcoholic history present. These cases sometimes show occasional urobilinuria, and occasionally albumen may also be present, but sugar has not been found. A history of tuberculosis, malaria, and syphilis, as of alcohol, is absent, but there is always one of marked dyspepsia. So soon as the liver reaches a certain degree of enlargement it seems to remain stationary, and there may be intercurrent attacks in which the size of the liver increases, and urobilin appears in the liver with symptoms of perihepatitis, all of which subside in time. The author was of opinion that Budd's original idea was correct, namely, that cirrhosis of the liver may be due to irritation, by absorption of certain products which occur as the result of disordered digestion. With a view to investigating this matter, the author, in collaboration with Boix, carried out certain experiments, and so was able to show that on administering butyric, lactic, and valerianic acids to rabbits the liver showed the lesion of atrophic cirrhosis, and that butyric acid is the most liable to cause cirrhosis, but acetic acid is also very active. In the same way acetone, aldehyde, and oxalic acids were administered. The first tends to produce nephritis, but also acts on the liver, producing connective tissue proliferation affecting both the portal and biliary systems. Aldehyde is less active as a sclerogenic agent, but tends to produce granular degeneration of the cells, while oxalic acid produces marked angio-cholitis and some sclerosis. Histologically portal endophlebitis is present with connective proliferation in the spaces constituting a diffuse hepatitis with a tendency to the monocellular form. The author concluded, therefore, that intestinal autointoxication may result in the absorption by the liver of certain products which, like alcohol, are competent to produce marked connective tissue changes.

(171) Œdema in Bright's Disease.

Reichel (*Centralbl. f. inn. Med.*, October 15th, 1898) refers to the various theories put forward to explain the œdema of Bright's disease. Some six years ago he expressed the opinion that the insufficient functional activity of the kidney led to a physical alteration in the tissues, owing to the retention of toxic substances in the blood; this produced the œdema, and also cardiac hypertrophy as a result of the increased arterial tension. Reichel has now made investigations upon the power of absorption of the tissues in renal patients, and has compared it with that of patients with cardiac disease, as well as with that of healthy individuals. He has infused 50 c.cm. of saline solution in these cases. Renal patients behaved in a very different way to others, inasmuch as a very much longer time—sometimes amounting to eight and ten days—elapsed before all swelling had disappeared. A connection between this delayed absorption and renal œdema would appear to exist. The normal transudation and resorption of the tissue fluids depends on metabolism and the functional activity of the kidneys. Reichel claims to have established by these investigations an alteration in the power of absorption in renal disease, and to have thus obtained experimentally an explanation of the cause of renal dropsy.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(172) Pleural and Pericardial Effusions. Schüle, of Baümler's clinic (*Münch. med. Woch.*, December 20th, 1898), refers to 2 cases with all the signs of fluid in the pleural cavity, but in which a rub was distinctly audible over an area where there was absolute dulness, and from which fluid was obtained by the exploring needle. The rub did not appear to be conducted from other parts; the pleuritic rub is mostly only heard over the site of its production. The author thinks that, notwithstanding the fluid, portions of the lung attached by adhesions must have come in contact with the chest wall. Exploratory puncture may be necessary to clear up such cases. Schüle then discusses the production of physical signs in pericardial effusions. Impaired percussion over the manubrium sterni is very generally looked upon as an early sign of pericardial effusion. The ordinary explanation is that the heart is gradually pushed upwards by the fluid; but this can be shown not to be correct by experiments on the cadaver. If fluid is allowed to run into the pericardial sac, all parts are distended evenly. The dulness over the manubrium commences when 150 c.cm. have been introduced. In the tube-like narrowing of the upper part of the pericardial sac the fluid collects early and pushes aside the lungs. The percussion dulness here may sometimes be due to œdema of the mediastinal tissue. It is only when the dulness extends outside the apex beat that the diagnosis of fluid is certain. When 250 c.cm. of fluid have been run in, the three-cornered dulness commences. Experimentally the distended pericardial sac extends almost exclusively downwards and to the left, and it does not extend so readily to the right. It will not hold more than 700 to 800 c.cm. without it becoming impossible to force water through the aorta in the ventricle.

(173) The Renal Theory of Gout. Critzman (*Archives des Sciences Méd.*, September and November, 1898) discusses the various views as to the pathogeny of gout, and having weighed all the evidence, concludes that the process is most likely as follows: Uric acid is not a normal constituent of the blood, but just before or during an attack of gout it is to be found constantly. At the same time the amount excreted by the kidneys is just as constantly diminished. This never occurs with healthy kidneys, which are capable of excreting several times the normal quantity of uric acid, and in such a case it follows that the renal tissue must be diseased. The realisation that the so-called gouty kidney is the primary cause of gout, and is not secondary to it, gives the key to the right understanding of the whole disease. Take the case of gout in chronic lead poisoning. Luthje and Weintraud have shown that the administration of salts of lead to animals in no way lessens the amount of uric acid excreted by the kidney. This proves that lead alone cannot produce retention of uric acid and uricæmia, and that it does not become pathogenic until it has deranged the kidneys. But this once done uric acid is deficiently excreted, is absorbed into the blood, and saturnine gout is established. However sluggish a metabolism an individual may have, however hereditarily predisposed he may be, with healthy kidneys he can absorb relatively large doses of lead without having an attack of gout. Exactly the same is true of hereditary non-saturnine gout, though here alcoholic is the poison which most often causes the necessary lesion in the kidneys. Alcohol is probably not the only cause. Infectious diseases damage the kidneys in persons predisposed to gout more than in others. Accepting the view, as the writer does, that uric acid is formed in the kidneys chiefly or solely from the decomposition of the nucleins present in the body, it is evident that, given nephritis and consequent retention of uric acid, a diet rich in absorbable nucleins, or the onset of any disease accompanied by leucocytosis, will produce a precipitation of uric acid in the tissues, already weakened in their nutrition by the presence of blood containing toxic substances. Anatomically the renal changes in the later stages of gout, whether they are caused by lead or alcohol, are those of the typical contracted red granular kidney. Now Brault has shown that the primary lesion in this form of nephritis is localised in the convoluted tubes, and it has been proved, chiefly by experiments on birds and reptiles, that it is precisely this part of the renal apparatus which is concerned in the excretion of uric acid. The tubuli contorti may be affected for years before nephritis is clinically evident, and in such a case the existence of gout is sufficient evidence of nephritis, though it may be in a very early stage. Just as there can be no gout without uric acid, with uric acid there can be no gout without chronic nephritis. What has been said about the origin of uric acid explains the contradictory results obtained by different observers with different diets; the important point being, not whether it is animal or vegetable, but the amount of nucleins contained in it.

(174) Ulnar Analgesia: a Diagnostic Sign in General Paralytics. Keraval and Laurent (*Arch. de Neurologie*, February, 1899) give the result of systematic observations on 84 general paralytics and 542 non-paralytic lunatics. The sign elicited by pressure on or pinching of the ulnar nerve at the elbow behind the internal condyle was first observed by Biernacki (1894) as a valuable one in tabes—namely, absence of feeling of pain at the point pressed, as well as along the course of the nerve to its terminations in the little finger and hypothenar eminence. Cramer, following up the pathological relationship of tabes with general paralysis, investigated cases of the latter (*Münch. med. Woch.*, 1895), and found that nearly three-fourths of all general paralytics exhibited marked ulnar analgesia. Baedeker and Falkenberg (*Allgem. Zeitsch. für Psychiatrie*, vol. lii) in 125 general paralytics found that 35 out of 100 males had ulnar analgesia, 7 were doubtful, and 58 showed normal sensibility; while of the 25 9 had the characteristic analgesia, 2 were doubtful, and 14 had normal feeling. Also tabetic general paralytics exhibited the symptom more frequently than non-tabetic paralytics. Keraval and Laurent (*loc. supra cit.*) found that in 84 general paralytics 44 exhibited the analgesic sign, 8 were doubtful, and 32 had normal sensibility. Further, among 542 non-paralytic lunatics of all kinds (mania, melancholia, alcoholic insanity, epileptic insanity, paranoia, etc.), they obtained the following ratios for ulnar analgesia. Dements 87 per cent., idiots 85 per cent., degenerates 40 per cent. (not including paranoia), melancholiacs 32 per cent., paranoiacs 30 per cent., maniacs 19 per cent., alcoholics 10 per cent. Epileptics (20 cases) showed normal feeling in every case.

SURGERY.

(175) Sympathectomy in Epilepsy. Jaboulay and Lannois have made a series of investigations (*Rev. de Méd.*, January 10th, 1899) on sympathectomy in the treatment of epilepsy. They have also collected a large number of cases recorded by different authors which go to show that a certain number of cases seem to be cured, others benefited, and a considerable number unaffected. The first case quoted by the authors is that of a lad, aged 18, who developed epileptic seizures as the result of fright, there being two to eight attacks daily. Jaboulay removed the cervical sympathetic ganglia on the one side, elongated the pneumogastric on the other. There were no subsequent epileptic seizures. The authors point out that the elongation of the pneumogastric may possibly modify the excitability of the lower portions of the encephalon. In some other cases the fits were less frequent and less severe, but did not wholly disappear, while in several others the result was *nil*, so that thus the authors' series of cases correspond with the experience of others. But from this study of the question Jaboulay is inclined to doubt that any good result can accrue from this method, for he was struck by the fact that in those cases in which there was any improvement, and more particularly in cases considered cured (of which the one observed by himself was an instance), there was a strongly marked hysterical element. The authors therefore feel compelled to condemn this form of operative interference in epilepsy, as has already been done for ligature of the

vertebral vessels, all going to show that interference with the cerebral circulation is useless.

(176) Bilateral Cancer of Breast in Male and Female.

ALBERT (*Wien. med. Woch.*, January 7th, 1899) has met with 4 cases of bilateral mammary cancer among several hundred cases of that disease. In 2 he operated. The first patient was 37; she underwent amputation of a cancerous left breast, not ulcerated, with clearing of the axilla. Both the tumour and the axillary glands proved carcinomatous on microscopical examination. As an open wound was left, epidermis was grafted, on Thiersch's principle, from the patient's left thigh. Five months after the operation, a mass as big as a walnut was removed from the cicatrix, but it extended into the deepest layers of the soft parts of the thoracic walls. When the wound was healing, a tumour developed in the right breast, and was removed six weeks after the second operation; the axilla was cleared. About three weeks later a deposit was detected below the left axilla. Operation was impossible, as it clearly extended into the thorax. The patient died with symptoms of pneumonia just ten months after the removal of the left breast. The second patient was 50; a small cancerous tumour developed in the outer upper quarter of the left breast, the skin adhered, yet the tumour had hardly been absorbed over a month. The breast was removed, the axilla cleared. One year and a-half later a small cancer developed in the centre of the right breast, and the gland was removed, the axilla being also cleared. The patient recovered quickly, but no after-history is given. In 2 cases no operation was performed. The patient in one case was a very big woman; her breasts stood prominently forward, owing to infiltrating cancer; the skin was stretched, and bore lenticular malignant deposits. Otherwise the case resembled lymphosarcomatosis of the breast. The last patient was 36. She had allowed a cancer of the right breast to go on for two years, and for five months the left had been involved; the disease seemed most advanced in the gland last attacked; the whole breast formed a tough mass fixed to the pectoralis muscle. Cachexia had not set in.—HANSY (*ibid.*, February 11th, 1899) reports a case in a postman, aged 61, adding two photographs. The patient applied at hospital for a large ulcerated cancer of the left nipple, which had existed about a year, with corresponding disease on the right side; the latter had grown with great rapidity, and ulcerated extensively. Disease was clearly advanced, the growths adhered to deeper structures, especially on the left side, and both axillæ contained masses of hard but painless glands. On September 6th, 1897, the right mamma and the axillary glands on both sides were removed; the ulcer representing the remains of the left gland was scraped out and cauterised. The patient returned to his duty as postman, but died on May 1st, 1898, of cancerous marasmus with symptoms of internal metastases.

(177) A Modification of Kraske's Operation for Cancer of the Rectum.

KEEN (reprint from the *Journ. Amer. Med. Assoc.*, 1898) points out the advantages of a permanent abdominal anus, and of total closure of the sacral end of the rectum, in operations for rectal cancer. In his later operations the author has made a preliminary colotomy in the left groin and, after an interval of about a fortnight, removed the diseased portion of rectum by Kraske's method. He has taken a further step which he thinks is a distinct improvement in rectal surgery. After the removal of the rectum he has completely closed the sacral end of the gut just as one closes the intestine before making a lateral anastomosis. The first advantage of this is that if the closure is a success, neither fæcal matter nor infected mucus can reach the wound, and there is a much better chance of obtaining primary union and preventing a fatal result. Secondly, as the perineal wound is entirely closed, no escape of either fæces or mucus occurs after recovery, and the patient is relieved of the necessity of wearing a napkin. Thirdly, for the same reason, a prolapse is avoided.

(178) Scabies of the Cornea.

SAEMISCH (*Klin. Monatsbl. f. Augenh.*, December, 1898) describes this unique case, the patient being a labourer, aged 19. The left eye presented a spot of keratitis at the centre of the cornea, and vascularised by a leash of vessels; the eye had been painful for about two months. Atropine and fomentations were ordered without improvement, and five days days later red oxide of mercury ointment was applied; this increased the inflammatory condition. Closer examination now revealed a greyish white thready mass occupying the place of the central infiltration in the cornea, and altering its position with the movements of the lids. Part of this thread was removed with forceps, and on examination under the microscope was seen to be a female acarus, together with eight eggs in different stages of development. Atropine and a pressure bandage were applied, the inflammatory symptoms subsided, and the burrow in the cornea healed up. There was nothing to show how the patient came by the acarus.

MIDWIFERY AND DISEASES OF WOMEN.

(179) Posture in Obstetric Operations.

DICKINSON (*Amer. Journ. of Obs.*, December. 1898), in reviewing the various positions adopted for confinements, takes occasion warmly to commend a combination of the Trendelenburg and Walcher positions. The obstetric operations for which it is suitable are high forceps, version, high manual internal rotation for occipito-posterior position, reposition of cord, etc. The combined position is effected as follows:—In maternities the patient is placed on the Trendelenburg incline, and slid upwards till she balances on her sacrum, the legs hanging over. In private practice a plain wooden chair with a flat back, and no rungs between the rear legs, will serve the purpose. The chair is placed on its face across the foot of the bed, the back forming the incline for the Trendelenburg position. A blanket or double sheet is laid along the chair back and may fall over the chair bottom. The patient, when anæsthetised, is placed on the inclined plane in such a manner that the buttocks rest on the upturned back edge of the chair seat, and that they project a little beyond the chair seat towards the operator, so as to give him unimpeded access to the vagina between the rear chair legs. The patient is held in this position by means of a sheet twisted into a rope, and passing behind her neck and in front of the shoulders, while the two ends are made fast to the rear legs of the chair. Each knee is then grasped, and the legs swung outwards until the thighs hang outside of the upturned chair legs. The weight of the lower limbs causes them to drop towards the floor, with the knee lower than the hip. The advantages claimed for this position are that the vulva is at a convenient height for the standing operator; that the direction of the canal formed by the vagina and the cervix, which leads into the uterine cavity, is more direct and more nearly level than that in any other posture, and that it possesses the advantages of the Walcher posture without its disadvantages. As is now well known, the Walcher position causes a lengthening in the conjugata vera, averaging 0.0 cm. (⅝ in.); in addition, the depressed posterior vaginal wall comes nearly in line with the posterior uterine wall, and there is a birth canal which is as straight a cylinder as it ever can be. The objection to the Walcher posture is that the direction of traction is straight towards the floor in pulling a head through the inlet in the axis of the latter. This greatly embarrasses any manœuvre, and calls for muscle on the part of the assistant, who holds back the patient on the precarious edge over which the operator's traction is pulling her. The combination of the Trendelenburg with the Walcher posture levels the birth canal, and does away with the necessity of the operator sitting on the floor or working from beneath in a most uncomfortable predicament.

(180) Protracted Tubal Pregnancy.

GANGITANO (*Rif. Med.*, December 13th, 14th, 1898) records the case of a woman, aged 32, who, after rather profuse periods, ceased menstruating in the early part of September, 1896. Symptoms of pregnancy followed. In July, 1897—that is, ten months after the commencement of the supposed pregnancy, a kind of spurious labour set in, lasting three days, accompanied by abundant loss from the genitals and labour-like pains. The patient could not say whether any membranous

masses were passed or not. In August of the same year the patient was seized with shivering and severe pains in the belly, accompanied by fever, which lasted eight days. In September a discharge (sometimes white, sometimes red or yellow) appeared from the vagina, and the abdomen diminished in size; at the same time her general health improved. In October the regular menstruation reappeared, and the milk, which had been secreted since the spurious labour, disappeared. Lately, some difficulty and pain in urination was present. As meantime the size of the abdomen did not diminish, the patient came to hospital in January, 1898. The abdomen contained a tumour as big as a fœtal head, and situated in the right inferior quadrant. The uterus was slightly anteflexed, and admitted the sound 11 cm.; the cervical canal allowed the finger to pass easily. Ectopic pregnancy was diagnosed, and laparotomy performed on February 4th. The diagnosed was verified—the pregnancy was tubal. The sac was removed, and the patient made an excellent recovery.

(181) Pregnancy in a Double Uterus: Death from Embolism.

Porak (Soc. Obs. et Gyn. de Paris, December 8th, 1898) related the following case. A primipara, aged 22, was admitted into the Maternity, near the full term of pregnancy. The vagina was found to be divided in its whole length by a septum ½ cm. thick; there was no communication between the two canals. In the left vagina was a short permeable cervix, through which the fœtus could be directly felt, covered by its membranes. In the right vagina was a cervix projecting but slightly, and with a partially patulous os, through which no fœtal parts could be felt, the uterine septum intervening. The uterus inclined to the left; in the right iliac fossa was a doughy tumour, differing entirely from a pregnant uterus in its consistency, and the size of a uterus at two to three months. Three weeks later labour began. At every contraction, the little uterus on the right side was found to contract also, when it felt like a pedunculated myoma. Labour proceeded for two days. When the head came down on the perineum it was arrested by a band formed by the lower part of the vaginal septum, the upper part of which had ruptured spontaneously. Porak divided the band between hæmostatic forceps, and later on completed delivery with short forceps. The child was living, a female, weighing 3,550 grams (7 lbs. 13 ozs.). On examining the vagina, the remains of the septum could be felt; and on passing the hand up into the uterus of the left side, it was found to be quite distinct from that on the right; the septum was thick in its lower portion, and thinned out above. The walls of the right uterus were thin, and a distinct groove could be felt on the external surface between the two uteri. The patient's convalescence presented nothing of note for twelve days; on the morning of the thirteenth day she died suddenly. At the necropsy, death was found to be due to pulmonary embolism, derived in all probability from a thrombus in the right hypogastric vein. Microscopic examination of this vein showed a marked endophlebitis with a clot commencing to organise. There was no new formation of vessels in the clot. The vascular lesion dated probably from seven days before death, when the patient's temperature rose to 38° C. In the middle coat of the vein a great number of microbes were found contained in phagocytic cells; they were thought to belong to the group of bacillus coli communis.

(182) Hæmorrhage in Early Tubal Pregnancy.

Orthmann (*Centralbl. f. Gynäk.*, No. 2, 1899) adduces valuable evidence to prove that a rupture of a tubal cyst is liable to be followed by profuse hæmorrhage, even when the laceration is very small and the stage of pregnancy very early. The patient in his case was 30, and had been six times pregnant. On November 12th, 1897, the curette was applied to the uterine cavity after an abortion, and retroversion and right oöphoritis detected. A pessary was applied. On September 17th, 1898, the period was seen for the last time. On October 12th the patient was seized with dragging pains on the right side, vomiting, and syncope. Intraperitoneal hæmorrhage was diagnosed. Abdominal section was performed, and over 5 pints of fluid blood and clot were found in the peritoneal cavity. The right tube, with the ovary, were promptly ligatured and removed. In the isthmus of the tube was a tubal cyst no larger than a hazel nut, with a minute laceration in its posterior wall. Not only is it remarkable that so much blood escaped from so small a hole, but it was also found that it had at first dissected up the peritoneal coat of the tube before bursting through it, so that the tubal canal beyond the cyst was traced running in the clot immediately surrounding the appendages. There had been salpingitis kinking and obstructing the tube, and thus preventing the escape of blood from the ostium.

THERAPEUTICS.

(183) Subcutaneous Injections of Artificial Serum in Typhoid Fever.

Giglioli and Calvo (*Contributo Clinico allo Studio delle Injezioni sottocutanee di Siero Artificiale nella Febra Tifoidea*, Florence, 1899) report the results of a series of trials of subcutaneous injections of artificial serum (physiological solution of chloride of sodium) in a recent epidemic of typhoid fever in the outskirts of Florence. The injections were made on the outer aspect of each thigh alternately, 500 c.cm. of the solution being administered in one injection. Control experiments were made on two persons in good health, in whom the effect of the injections was to produce slight agitation, sweating, an abundant flow of urine, but no marked rise of temperature. Details are given of 18 cases of varying degrees of severity and in various stages of the evolution of the disease. The phenomena of reaction following the injections consisted, generally speaking, in the majority of cases, in a characteristic modification of the thermic curve—gradual rise of temperature to the extent of 3° C., with subsequent fall to normal—slight general depression, sweating, and increased excretion of urine. The authors never observed nausea, vomiting, shivering, or mental excitement noted by other observers, and they think this probably due to the fact that in no single injection did the dose exceed 500 c.cm., while the procedure was carried out slowly with slight pressure, so that absorption could take place in a slow and continuous manner. Immediately after the injection the pulse was always accelerated but was stronger and more regular. In the majority of the cases—even in those of greatest severity, in which the temperature fell but slightly or not at all after the injection—when the reaction had ceased, an improvement in the general condition was noted, but this effect was naturally more marked in cases in which the injections caused a distinct fall of temperature and improvement in the pulse. Summing up their results, the authors say that, while the method is not to be regarded as a specific in typhoid fever, it affords a valuable means of relieving symptoms. In cases in which the disease was relatively mild, and the temperature not too elevated, injections were followed by a marked feeling of relief and a lowering of temperature, which, however, did not become lasting till after several injections had been given. But even in the most favourable cases the authors do not feel justified in stating that the injections were the principal factor in the cure. At most they hastened it, and made it easier. In cases where the temperature was very high and the disease very severe, or in which there were cardiac or nervous complications, the effect was practically *nil*. The authors think, however, that in every case these injections, which are perfectly harmless, might supply a useful means of prognosis, since the intensity of reaction, especially in regard to temperature, varies directly with the intensity of the infection, and may thus be taken as an index of the severity of the disease.

(184) Intracerebral Injections of Antitoxin in Tetanus.

A useful summary of the reports that have appeared on this subject is given in the *University Medical Magazine* (Philadelphia) for February. It is pointed out that the tetanus bacillus remains localised in the part of the body to which it has been introduced, and does not invade other parts. In its development, however, certain extremely poisonous substances are produced, known as the tetanus toxin. This toxin is absorbed into the blood, and thus reaches all parts of the body.

It seems to have been shown experimentally that the tetanus toxin possesses a special affinity for the cells of the cerebrospinal axis, where it is deposited from the blood and becomes fixed; and, further, that the antitoxin remains in the blood, where it is effective in neutralising the toxin, but it is powerless to destroy that which has been deposited in the nerve cells. Wassermann demonstrated that a mixture of tetanus toxin with the brain or spinal cord of a susceptible animal could be injected in a guinea-pig subcutaneously without causing tetanus, while the same quantity of toxin without the admixture of brain or cord invariably produced tetanus that ended fatally. These facts seemed to Roux and Borrel to explain the large percentage of failures in the treatment of tetanus by subcutaneous and intravenous use of the antitoxin, that is, the antitoxin circulating in the blood failed to destroy the toxin, which has become fixed in the brain cells. Accordingly, they treated 45 guinea-pigs in which tetanus had been produced by the intracerebral injections of the serum, and 35 recovered. Of 17 other animals treated by the subcutaneous use of the antitoxin in much larger doses, only 2 lived; 17 tetanised animals which received no antitoxin all died. Naturally some hesitation was felt in employing this method in man on account of the possibility of doing harm; but as the disease is so fatal in itself it seemed justifiable to take this risk. The first case so treated was that of Chauffard and Quénu (*Presse Médicale*, No. 5, 1898). Cases have since been recorded by Garnier (*ibid.*, No. 70, 1898), Ombrédanne (*ibid.*, September 3rd, 1898), Bacaloglu (*Gazette des Hôpitaux*, No. 70, 1898), Robert (*Presse Médicale*, No. 70, 1898), Delmas (*ibid.*, September 17th, 1898), Heckel and Reynès (*ibid.*, September 7th, 1898), Du Hamel (*Médecine Moderne*, August 10th, 1898), Hue (*Journal des Praticiens*, November 19th, 1898), Church (*New York Medical Journal*, December 17th, 1898), Robinson (reported by Rambaud, *ibid.*), Johnson (reported by Rambaud, *ibid.*), and Semple (British Medical Journal, January 7th, 1899). Of these, 13 cases, 6 recovered (those of Chauffard and Quénu, Garnier, Ombrédanne, Du Hamel, Church, and Semple), and 7 died. One case (that of Robinson) died eleven days after the total disappearance of tetanic symptoms, apparently of acute nephritis of toxic origin. The patient had been subjected to a cœliotomy, and developed the first symptoms of tetanus ten days subsequent to the operation. The antitoxin recommended for use in the intracerebral treatment of tetanus is known as "double strength." Ten c.cm. of the antitetanic serum are evaporated to dryness, and the resulting "dried antitoxin" is preserved in sterile, hermetically-sealed bottles. When required for use, the contents of one bottle are dissolved in 5 c.cm. of sterile water, care being observed to avoid contamination. This quantity is administered at one time, one-half in either frontal lobe. In addition to the intracerebral injection, 20 c.cm. of antitoxin should be administered subcutaneously or intravenously daily for a few days. The object of this is to neutralise any tetanus toxin that may be circulating in the blood and thus prevent any further poisoning of the nervous system. The conclusions of Heckel and Reynès may be quoted as expressing the latest views on the subject. Cases of tetanus must be grouped into several classes as far as prognosis is concerned. First, those whose incubation is fourteen days or more, with a temperature below 39° C., with but little dyspnœa, will generally be cured by serumtherapy. In subacute cases running a rapid course, with dyspnœa, irregular pulse, Roux's method will generally be followed by good results if employed before the irregularity of the pulse and frequency of the spasms become too pronounced. In acute cases, beginning in five to seven days, with a temperature over 40° C. with rapid appearance of the spasms, oliguria, hurried breathing and rapid pulse-rate, serumtherapy is to be recommended if used immediately upon the appearance of the trismus. In fulminating cases, which develop within twenty-four hours all therapy is powerless. The cases of internal infection, such as puerperal tetanus, tetanus neonatorum, and the cephalic tetanus of Rose are not favourable cases for treatment. The first essential towards successful treatment is an early diagnosis. At the moment when trismus appears the disease is not in the beginning, but it has already passed through its various phases. It then becomes a question of saturating the brain with the antitoxic serum. The great desideratum is to discover a symptom by means of which a diagnosis may be made before trismus sets in.

(185) Picric Acid in Eczema.

F. Radaeli (*La Settimana Medica*, February 18th) reports the results of a trial of picric acid in different forms of eczema in Pellizzari's clinic in Florence. The affected part was first freed from scabs, etc., the hair cut as short as possible, and the whole region thoroughly washed with boracic acid solution. When the part had been dried, applications of a saturated watery solution of picric acid were made with pledgets of cotton; then a compress wrung out of the same solution was applied, and over this was placed a layer of cotton wool, the thickness of which was proportionate to the abundance of the secretion. The whole was kept in place by a bandage. The dressing was left on for one or two days. The author points out the special convenience of the picric acid dressing in acute eczemas where there is much "weeping," as it does not require frequent changing. On the other hand, the remedy has the disadvantage that it causes great smarting in the parts to which it is applied. This, however, ceases completely in ten or fifteen minutes, giving place to a sense of relief which is mainly due to the cessation of itching. Details are given of a number of cases (acute eczema of scalp, chronic eczema, diffuse acute eczema, eczema impetiginoides of the face, "varicelloid" eczema, etc.), in all of which the results of the picric acid treatment were satisfactory.

(186) Mercurial Injections in Lupus.

Bernstein (*Münch. med. Woch.*, November 15th, 1898) has collected the reported cases of lupus treated by calomel injections. In 37 cases there were positive results, in 10 negative. The dose of each injection was 1 c.cm. of emulsion of calomel in olive oil (1 in 10). Six injections were given in eight days. Deutsch also showed a case at the Vienna Society of Dermatology, February 23rd, 1898, in which injections of grey oil were used for a secondary syphilide in a patient who had also suffered from lupus since childhood. During the treatment the lupus showed considerable improvement.

(187) Koch's New Tuberculin in Lupus.

Krzysztalowicz (*Wien. med. Woch.*, No. 2, 1899) reports 13 cases treated with the new tuberculin; 11 were cases of lupus, 1 had tuberculosis of skin and bones, another tuberculous ulceration of the genitals. The amount injected varied from $\frac{1}{5\,0\,0}$ mg. to 20 mg., and the number of injections from 18 to 51. Constitutional reaction was slight, and local reaction only occurred after large doses. The author concludes that lupus cases improve under this treatment, but are not cured.

PATHOLOGY.

(188) Bacteriology of Chronic Osteomyelitis.

R. Bosquier (*Journ. des Sc. Méd. de Lille*, November 13th, 1898) has had an opportunity of investigating bacteriologically a case of chronic osteomyelitis which had persisted for thirty-nine years. The patient was a woman 46 years of age, with a good family history, who had, when 7 years old, been attacked with acute osteomyelitis of the right tibia following an injury. This terminated in ankylosis of the tibio-tarsal joint. Since then she had had a series of small abscesses. She was operated upon, small abscess cavities in the external malleolus being curetted; a good recovery followed. In the pus the staphylococcus albus was found, but it did not take on colouring matters so readily as usual. It had kept its vitality, for cultures were made from it; but it had not retained its virulence, and notably its pathogenic power was absent, for inoculations into guinea-pigs produced no effect either local or general. The most noteworthy pathological change was a condensing osteitis with small disseminated and encapsuled abscesses. It would seem as if the osseous tissue imprisoned the morbid agent and hindered it from making extensive ravages. There may be that there was some relation between the enfeeblement of the microbe and the mode of defence of the osseous tissue, but one observation is insufficient for drawing conclusions.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(189) Diabetes Insipidus and Hysteria.
Mathieu (*Progrès Médical*, February 18th, 1899) has for long noted that polyuria was very often associated with hysteria. Babinsky made out that diabetes insipidus sometimes meant hysteria itself, all the other and far more familiar symptoms being absent. Suggestion, Mathieu finds, may make the polyuria disappear. A patient under the care of Lancereaux, who passed about 42 pints of urine daily, was cured by small doses of table salt, which Thiroloix had substituted for the phenacetin originally prescribed by Lancereaux without letting the patient know that the medicine had been changed. Gilles de la Tourette, in a discussion on Mathieu's views, did not feel sure that polyuria and its cure by suggestion necessarily implied hysteria. Hayem noted that in diabetes insipidus the total excretion of nitrogen was usually increased. This contra-indicated theories of simulation. Diabetes insipidus usually no doubt appeared in neuropathic subjects, but it could arise from quite different causes. Ehrard had observed that in this polyuria allied to hysteria chlorides were excreted in abnormal proportions. There was no increase in the excretion of urea, indeed that compound was usually diminished in amount in the urine of hysterical women.

(190) Pneumonia due to Mixed Infection.
Rosenthal (*Münch. med. Woch.*, October 18th, 1898) relates an atypical case of pneumonia in a woman. She was thought at first to be suffering from acute bronchitis, but three days later she had to be removed into an asylum as she developed an hallucinatory form of insanity. She died six days later. The lungs, examined in the Erlangen Pathological Institute, showed a lobar pneumonia of the right middle and lower lobes and bronchopneumonic foci in the right upper and left lower lobes. There was also bilateral pleurisy and catarrhal bronchitis. A slight verrucous endocarditis and a slight purulent leptomeningitis were also present, in addition to some other lesions in other organs. In the exudation there were present a short capsulated bacillus, decolorised by Gram's method, and moderately long chains of streptococcus. A few pneumococci were also present. Confirmatory results were obtained by cultivation. The disease was a non-fibrinous pneumonia due to a mixed infection with Friedländer's bacillus and the streptococcus. A streptococcus was also obtained from the purulent meningeal exudation. The author discusses the relation of the mental affection to the acute disease of the meninges and adjacent brain tissue, but without coming to any definite conclusion. Rosenthal finally discusses some of the reported cases of mixed infections in pneumonia. Finkler and Harbitz have chiefly investigated streptococcus pneumoniæ. In his own case Friedländer's bacillus probably accounted for the lobar pneumonia in the right lower lobe. The streptococcus appeared to be placed in the interstitial tissue of the lung, whereas the pneumobacillus and pneumococcus lay inside the alveoli.

(191) The Size, Form, and Position of the Stomach.
G. Rosenfeld (*Centralbl. f. inn. Med.*, January 7th, 1899) records his clinical investigations into this subject. It is customary to describe these features of the stomach in reference to the umbilicus, and yet the position of the latter is not constant. Rosenfeld suggests for this purpose the following lines: One connecting the tips of the tenth ribs, another connecting the highest points of the iliac crests, and a third joining the anterior superior spines. He finds that two-thirds of the lesser curvature of the stomach not only occupies a vertical position, but even slants towards the left; whereas the remaining one-third towards the pyloric region has a horizontal position, or even slopes upwards. Thus the position of the stomach is vertical as regards the cardia, and horizontal in its pyloric portion. The moderately-filled stomach differs from this position in that it is directed more to the front. From this normal position there may be several deviations. Rosenfeld does not believe in gastroptosis without dilatation. The stomach which shows the position of the pylorus and pyloric antrum to be lower than usual is practically always dilated. The different forms of dilatation may take place in a vertical or horizontal direction, or there may be an intermediate form between these two. After discussing the various methods in use for ascertaining the size, shape, and position of the stomach, the author describes his own method—a soft tube charged with shot is introduced into the stomach. It penetrates to the deepest parts. This tube is made visible by the Roentgen rays. Now if air is introduced through the tube, the upper part of the stomach, and then its deeper parts, are distended. As the air offers no resistance to the rays, the whole stomach is shaded out with much sharpness. The lesser curvature and pyloric region may be less distinctly seen, but even this difficulty may be overcome. The examination is not to be recommended when the stomach is full, as too much vomiting is produced.

SURGERY.

(192) Calot's Treatment of Spinal Caries.
Lange of Munich (*Wiener Klinik*, 1 Heft, 1899) holds the opinion that Calot's treatment of Pott's curvature by forcible straightening of the diseased spine is, in the majority of cases, open to serious objection. Certainly such treatment if applied by skilled hands is not attended with much risk to life, and the early results are in most cases decidedly promising; but, the author states, the improvement supposed to be gained by suppressing the curvature will not stand the test of time. The large gap formed by separating the remains of the carious vertebræ is occupied at first by blood or pus, and subsequently, either by tuberculous granulations in weakly subjects or in the most favourable conditions, by fibrous tissue. It has still to be proved, the author holds, that such gap is ever occupied by new bone. The straightened spine may acquire a certain degree of stability in consequence of osseous fusion of the arches and processes of the diseased vertebræ, but the back will always remain very weak at the seat of the old disease, and be subject to fracture from slight injury, and to the risk in such fracture of serious, and it may be fatal, compression of the cord. The condition of a patient whose spine has been straightened with apparently good results is regarded as analogous to that of one who has lost part of the osseous vault of the skull. The only class of cases in which, according to Lange Calot's treatment is indicated is that o angular curvature associated with persistent paralysis of the lower limbs. As there can be no doubt that such a complication of this kind can be effectually relieved by forcible straightening of the spine, it would be well, the author acknowledges, to run the risks both immediate and remote of forcible extension, with the object of freeing the patient from a very distressing condition.

(193) Operative Treatment of Myopia.
Rogman (*Annales d'Oculistique*, January, 1899) gives details of 21 cases. The ages of the patients lay between 14 and 65, 20 being a sort of average. The eyes mostly showed changes at the posterior pole of the eye. The degree of myopia ranged from 14 D with astigmatism to 30 D. The difference in refraction produced by operation has varied between 16 and 26 D, most often 19 or 20 D. Operation has included preparatory discission followed by extraction; in 6 cases a supplementary discission was necessary. In every case the integrity of the hyaloid membrane was maintained. In no case did infection occur or glaucoma follow; in 1 detachment of the retina followed nine months after operation. After operation vision was as good without glasses as it had before been with glasses, and it was doubled by the use of glasses except in 1 case. Myopic changes in the fundus do not seem to have been improved by operation. Discission was done with Bowman's needle, and was followed in four to fourteen days by evacuation of the lens masses through a small corneal incision and by suction with Teale's tube. Rogman thinks highly of the latter procedure.

(194) The Treatment of Tuberculosis of the Bladder.
Horwitz (*Journ. Cut. and Genito-Urinary Dis.*, December, 1898) states that the management of cases of tuberculous

cystitis is most unsatisfactory, and that the prognosis of this affection is always grave. The various mineral waters, buchu, uva ursi, and similar remedies have been found useless, and by disturbing the digestive organ may do harm. Dependence, it is believed, should be placed on antituberculous drugs and urinary antiseptics. The two remedies most valued by the author as antituberculous are guaiacol and creosote. He has frequently noted much benefit from guaiacol, commenced with 3-drop doses and gradually increased to 20 drops. The principal urinary antiseptics which are indicated when the urine contains a large quantity of pus are salol, resorcin, boric acid, salicylic acid, and methylene blue. Such remedies, however, have decided toxic properties, and should not be administered if the kidneys are diseased nor if the quantity of urine excreted be below normal. Salol is regarded as the most valuable of these agents, and the author has of late given methylene blue, in doses of 2 grs., in cases of pyuria, with marked antiseptic effect. Very little dependence, it is asserted, can be placed on injections into the bladder. When the urine is loaded with pus, benefit may be derived from irrigating the bladder twice daily with either a normal salt solution, a saturated solution of boric acid, or a weak solution of salicylate of soda. For this purpose an instrument should not be passed into the urethra, but the bladder should be filled by means of hydrostatic pressure. In discussing the operative treatment of tuberculous cystitis, the author states that he has long abandoned perineal cystotomy, as such operation necessitates long and prejudicial confinement in bed, and may result in a permanent and infected fistula. For these reasons preference is given to the suprapubic route, which, moreover, offers superior advantages to the operator in treating the vesical tuberculosis through the suprapubic incision. If, after the bladder has been opened, an ulcer is discovered, this can be destroyed by means of the curette and the actual cautery. When the suprapubic fistula has once been established the bladder can be irrigated and local treatment carried on through the opening.

(195) Appendicitis Drained by the Rectal Route.

V. Duchamp (*Loire Médicale*, December 15th, 1898) reports a case in which he carried out the procedure recommended by Jaboulay in the treatment of appendicitis. The patient, a boy 13 years old, was suffering from a pelvic peritoneal abscess, which from the history had evidently begun in connection with appendicitis. The abscess was opened by the rectum. Under chloroform the anus was easily dilated, and the anterior wall of the rectum projected into the opening. A hypodermic needle revealed the presence of pus in the projection, consequently a longitudinal incision was made into it, and a large quantity of grumous pus was removed. Two drainage tubes, 8 mm. in diameter and 5 cm. in length, were introduced and fixed to the rectal mucous membrane. Complete recovery followed. There was some diarrhœa on the second day, during which the drainage tubes were expelled.

(196) Chylous Cyst of Mesentery.

Beach (*Boston Med. and Surg. Journ.*, November 17th, 1898) operated on a man, aged 56, a workman, with arcus senilis and atheromatous radials. For six months he had been troubled with dyspeptic symptoms, and once when vomiting he noticed a movable lump in the abdomen. A soft dull mass, as big as a fist, was found above the pubes. On catheterisation, the tumour remained unaltered in size. There had been trouble in micturition. The urine was normal. The mass could be moved from just above the symphysis pubis to a position in the right loin corresponding to that of the right kidney, whilst it could be displaced only a slight distance to the left of the median line. There seemed to be a pedicle springing from the right lumbar region. Langenbuch's incision was made, low down on the right side; the omentum was pushed to the left; then a coil of small intestine presented, with a bulging mesentery that proved to be the mass felt from the outside. This was drawn into the wound and aspirated through a puncture in the mesentery. The contents were 8 ounces of milky-looking fluid, on the surface of which oil globules appeared. The mesentery was divided by an incision at right angles to the intestine and the sac carefully dissected from its attachments. The mesenteric opening was then closed by a continuous silk suture and the abdominal wound closed with silver-wire sutures. Convalescence was speedy. The cyst, of retroperitoneal origin, developed between the mesenteric folds that connected it with the upper part of the small intestine. Its inner surface consisted of vascular connective tissue; its outer coat was made up of fibrous tissue and fat, with many lymph follicles. The cyst probably arose from a dilated lacteal vessel. Rasch and F. S. Eve in this country have described somewhat similar tumours.

MIDWIFERY AND DISEASES OF WOMEN.

(197) Chronic Inversion: Conservative Operation.

Everke [(*Monats. f. Geburts. u. Gynäk.*, January, 1899) treated a case of thirteen years' standing. The inversion was originally caused by a midwife attempting the extraction of the placenta in a normal labour. Reduction was attempted for a year by different well-known methods, then abandoned. At length there was much pelvic pain, and as the patient was now childless she wished for a chance of being able to become pregnant again. The inversion was complete. The catamenia were abundant, lasting eight days. Everke made an abdominal incision. From within, the inversion looked as might be expected, the uterus appeared as a thick-rimmed cup, the appendages passing into its concavity on each side, the anterior part of its brim lying close to the bladder, the posterior part overhanging Douglas's pouch. The uterus was drawn up by two tenacula; then a cut was made into the anterior brim, and extended almost to the bladder. Pressure was made on the fundus from the vagina, but without effect. The posterior part of the brim was then seized with forceps and divided deeply, the incision being extended downwards into the cervix and vagina. Once more pressure on the fundus was made from the vagina; this time the inversion was reduced. The uterus now lay in the pelvis, with a vertical anterior and posterior wound. The former was superficial; it was closed with silk sutures. The posterior incision was deep, involving the uterine cavity and the vagina. A layer of silks, tied inwards, were passed into the edges of the uterine mucosa, including a little of the muscular coat; thus the uterine cavity was closed. Then a deep and a superficial set of silk sutures were passed into the muscular coat and tied on the surface of the uterus, the end of the wound opening the vagina being closed by the same line of sutures. As the uterus was limp it was fixed to the anterior wall by a suture passed three-quarters of an inch below the fundus. The ovaries and tubes seemed quite healthy. The next period after the operation was normal; it lasted four days, with scanty show. Everke believes that the patient may very probably become pregnant again. In discussing this case, Gummert (*ibid.*) related 2 cases of total inversion. In the first it was caused by a midwife dragging on the placenta, and was reduced after some difficulty. The patient, 29, and very stout, recovered. In the second the labour (tenth pregnancy) ended after a few pains; the cord was very short. The patient died before any attempt could be made at reduction, hardly one hour after labour. Leisse reported a total inversion occurring in a girl aged 15, after criminal abortion, though the precise nature of the malpraxis which caused the accident was never ascertained. Reduction immediately after the patient was seen failed; twenty-four hours later it was effected by pressure under ether.

(198) Removal of Inflamed Appendix during Pregnancy.

Toupet and Le Filliatre (*Bull. de la. Soc. Anat. de Paris*, December, 1898) report a successful operation upon a primipara, aged 23, in the fifth month of pregnancy. An acute attack of appendicitis had occurred on February 22nd, 1898, repeated a month later. In spite of rest, ice, etc., the temperature kept rising, and the pulse was 120; the patient's general condition was also very bad. On April 1st the operation was performed. An incision 4 inches long was made along the outer border of the right rectus, the middle corresponding

to MacBurney's spot. The anterior aspect of the cæcum, dull and vascular, came in sight; a small parietal adhesion was broken down. The right ovary and tube were, fortunately, quite normal. Le Filliatre declares that the big gravid uterus pushed forwards the intestine, and so greatly facilitated the operation. The vermiform appendix lay high up, above the level of MacBurney's spot; it was turgid and congested. There were a few soft adhesions, but no abscess. The base of the appendix and its mesentery were tied together with catgut and divided. The exposed mucosa was scraped, and disinfected with the thermo-cautery and strong carbolic solution. The stump was then invaginated by two purse-string sutures. The abdominal incision was closed in two layers, the peritoneum and muscles by catgut, the integument by silkworm gut. On the third day abortion threatened; laudanum and a subcutaneous injection of morphine were given. There was slight jaundice and headache next day; this complication subsided after appropriate treatment. At the end of a month the patient was in good health, and remained well till she was delivered, by forceps, of a living child over 5 lbs. in weight. The abdominal cicatrix was not affected by the increase in size of the uterus for four months after operation, nor by parturition. It remains quite strong, and there is no sign of a hernial protrusion.

(199) Ectopic Gestation occurring Twice in the Same Patient.

Ross (*Amer. Journ. Obstet.*, December, 1898) has for the second time had the unusual experience of operating twice on the same patient for the removal of ectopic-gestation sacs. His previous case was recorded in February, 1896, when he criticised the 10 cases collected by Meyer, and concluded that only 4 of the 10 could be considered proved, the diagnosis in the others being not verified by operation or necropsy. In the present case the first pregnancy occurred in the right tube, and resulted in a tubal abortion, the abdomen at the time of operation being found full of blood. The second pregnancy occurred on the left side. On opening the abdomen the operator found a cyst of the left ovary, which had been mistaken for the gestation sac, and a mass in the tube which had been mistaken for the normal ovary. The surface of the impregnated tube was covered with lymph, and on stripping back this lymph after the specimen had been hardened it showed that the chorionic villi were penetrating the tube wall, which would soon have ruptured. The patient made an uninterrupted recovery.

(200) Fœtal Urine and "Phloridzin-Diabetes" in Pregnancy.

Schaller (*Archiv f. Gynäk.*, vol. lvii, 1899) claims, after careful experimental research, which he publishes in full, that sugar and other organic substances in solution in the liquor amnii are derived from the mother and not from the child. Von Mering showed in 1886 that a glucoside called phloridzin is excreted in the maternal urine during pregnancy, and thus constitutes a kind of diabetes, though no constitutional disturbance is set up, whilst the presence of phloridzin in the urine is associated with diminution in the amount of sugar in the blood, not an increase, as in common diabetes. Schaller denies that there is any sound evidence that the fœtal kidneys regularly secrete urine, and that the urine is regularly passed into the liquor amnii, even during the last days of normal pregnancy. Normally the renal functions of the fœtus begin during parturition, under the influence of the disturbance of the placental circulation set up by labour. Nevertheless, in the great majority of cases no fœtal urine is voided into the liquor amnii. This phenomenon is certainly observed in exceptional instances, probably through disturbances in the circulation of the fœtus itself. The compounds found in the liquor amnii are almost always derived from the maternal circulation, not from the fœtal urine. The fœtal kidneys never act readily till after birth.

(201) Leucocytosis in Pregnancy.

Hibbard and Franklin White (*Journal of Experimental Medicine*, November, 1898) have come to the following conclusions based on observations made in the Boston Lying-in Hospital:—(1) A leucocytosis was present in over three-fourths of the cases in labour, being more frequent and higher in primiparæ; (2) during convalescence the count falls rapidly at first, later more gradually to normal; about the seventh day there is usually a slight rise; (3) the leucocytosis is usually higher in the younger women regardless of the number of the pregnancy; (4) the patients farthest advanced in labour have the highest counts; (5) breast inflammation, even when mild, causes a prompt leucocytosis, hence the blood count has no value in the early diagnosis of breast abscess: (6) the leucocytosis present at the time of labour is due to an increase in the polynuclear cells.

THERAPEUTICS.

(202) The Treatment of Phthisis by Medicated Serum.

Berlioz (*Bull. Gén. de Thérap.*, January 30th, 1899) remarks that it is now known that it is possible to immunise the organism against a disease either by attenuating the virulence of the micro-organism causing it, or by increasing its means of defence. In the case of phthisis the latter object can be attained by fresh air and a liberal diet, but for those who cannot afford the expense a simpler substitute is required. Berlioz believes that he has found this in the administration of medicated serum. The employment of serum in tuberculosis was first introduced by Richet and Héricourt, who injected dog's serum into the peritoneal cavity of tuberculous rabbits in the hope of curing them. Since then several authorities have used in clinical practice the serum of various animals, or even anti-diphtheria serum or normal saline solution hypodermically. Though none have had great success, they have proved that nutrition is improved, strength increased, and weight gained by these means. Berlioz believes that owing to the method of hypodermic administration serum has not been given often or long enough, or in large enough doses. On that account he gives 30 grams of the serum of an ox twice a day *per rectum*. Believing guaiacol to be of real service in phthisis, he adds to this serum 1 per cent. of the soluble phosphite. He has also prepared what he supposes to be a still more powerful serum by adding certain organic glycerine extracts: (1) Extract of liver, on account of this organ's glycogenic, uropoietic, phagocytic, and antitoxic properties; (2) cerebral extract, because Paul has shown it to be fattening, to stimulate nutrition, and to regulate the nervous functions; (3) splenic extract, because its richness in nucleins increases the number of leucocytes and the quantity of bactericidal substances; (4) pulmonary extract, in the hope that it might stimulate the organ attacked to resist. With enemata of this guaiacolated or organo-guaiacolated serum he claims to have obtained excellent results. Increase in weight is almost always evident after a three weeks' course, and may reach remarkable figures; for instance, 8 lbs. 13 ozs. in a fortnight. It is due solely to the action of appetite and to better assimilation, and takes place even when fever is present. The quantity of urea excreted increases greatly. Thus a phthisical patient left to himself emaciates in spite of a sluggish nutrition, but with this treatment grows fat in spite of more rapid metabolism. Expectoration diminishes, and night sweats disappear at the same time. Neither hæmoptysis nor fever are contraindications. The improvement in the pulmonary lesions, not obvious at first, becomes evident if the treatment is continued long enough—that is, for weeks or months. The writer suggests that these enemata might be used with advantage in many other conditions, especially in anæmia and in convalescence from acute diseases.

(203) Intravenous and Subcutaneous Alimentation.

Lilienfeld (*Zeitschr. f. diät. u. physikal. Therapie*, Bd. ii, Hft. 3, 1899) summarises the recent attempts to discover satisfactory substitutes for nutrient enemata, when nourishment *per os* is impossible. According to von Leube, of albuminous substances alkali-albumen and syntonin are alone suitable for subcutaneous injection. Albumoses injected in any quantity act like peptones as foreign bodies, and cause nephritis. As regards carbohydrates, grape sugar is absorbed from the subcutaneous tissues only in small quantities (15 to 20 grams) and in dilute solutions (20 per cent.). When larger quantities, which alone would be of any use, are injected, glycosuria follows, and pain with necrosis of the cel-

lular tissue may result. Most observers agree that hydrocarbons generally remain unabsorbed in the subcutaneous tissue, though quite lately Du Mesnil de Rochemont has claimed to have had good results with the injection of olive oil. The subcutaneous method being on the whole unsatisfactory, the writer has experimented on rabbits as to the possibility of introducing nutriment directly into the circulation by intravenous injection, a method first suggested by Zuntz and von Mering twenty years ago. He found that although a 3 per cent. solution of grape sugar usually produced glycosuria towards the end of or after the experiment, the result was so far favourable that a considerable quanttty of sugar above that excreted in the urine remained at the disphsal of the organism. Thus in 1 case, the experiment lasting 5½ hours, and the rate of injection being 1.6 c.cm. a minute, enough nutriment was stored up to last the animal for more than eight hours after the experiment was terminated. Still better results were obtained by the addition of an alkali to the sugar solution. For instance, solutions of sugar even as strong as 5 per cent. proved of great nutritive value, with the addition of 0.2 per cent. of soda, while with the same sugar solution without the soda most of the sugar was lost in the urine. A 0.01 per cent. addition of ammonia had a similar effect, but was injurious to the animal as a whole, and the addition of a 0.05 solution of HCl caused dyspnœa and nephritis. Levulose in 3 per cent. solutions proved of less value than dextrose. In using albuminous bodies for intravenous injection, great care is necessary in their selection. The injection of syntonin in a solution with grape sugar caused in one case convulsions and death, and in another albuminuria, whereby twice as much albumen was excreted as was introduced. Experiments with solutions of conglutin obtained from a plant called lupine, of the strength of 6 grams in 100 of a 1 per cent. solution, gave excellent results. No albuminuria followed the intravenous introduction of 3.638 grams of albumen. Protogen, a soluble albumen obtained by the action of formalin on serum or egg albumen, gave unfavourable results. Lilienfeld hopes that, now his experiments have conclusively proved the possibility of the assimilation of certain substances, especially alkaline solutions of grape sugar and conglutin when introduced intravenously, the method will be tried for suitable cases in man.

(204) Local Use of Suprarenal Gland in Diseases of the Throat and Nose.

H. L. SWAIN (*New York Med. Journ.*, December 24th, 1898) has used suprarenal gland locally in affections of the nose and throat with results which he considers remarkable. He used the aqueous extract prepared from the dried saccharated glands of sheep. A solution is made by adding about 10 to 20 grains to half a drachm of cold water; when the powder has been thoroughly stirred in, the whole is filtered. The result is a reddish-brown fluid, somewhat redder than but very nearly the colour of good old sherry. This solution is unstable, and will not keep longer than three days, the signs of decomposition being evident by the formation of a deposit. A small amount of alcohol seems to increase its durability. The solution does not mix well with any drugs, and acts best alone. When sprayed on most mucous membranes it gives a sensation of slight warmth or stimulation, and induces immediate blanching by causing contraction of the small blood vessels. When the capsule extract is sprayed on to an inferior turbinate the parts immediately become blanched, and then very gradually contract to a very considerable degree, but only over the area directly moistened. In an occluded nostril a second application allows the spray to reach the deeper portions, and the ultimate effect is to make the passage free. The author thinks the substance useful where it is desired to produce temporary shrinkage, to reduce congestion, and to secure a moderate degree of patency in a nostril. The œdematous hypertrophy of the middle turbinate, such as appears in sneezing catarrh and in asthmatics, seemed to be very favourably affected by the extract. As in the eye so in the nose there are cases in which cocaine will not contract a hypertrophy unless large amounts are used, and sometimes not then. In such cases, if the parts are sprayed thoroughly with capsule extract and a pledget of cotton wet with cocaine laid on after three or five minutes, satisfactory anæsthesia and contraction will be induced. On the septum if cocaine fails to produce the ischæmia requisite for operating, the mucous membrane should be "deluged" with gland extract; then cocaine may be applied, and one can operate even on a "bleeder" with great comfort, sometimes almost bloodlessly. The author has used the gland extract in acute rhinitis, inflammation of the three tonsils—faucial, lingual, and pharyngeal—in pharyngitis, and in laryngitis, and he has been able to abort some of these conditions. Even in quinsy he has succeeded in giving more comfort by spraying with capsule extract, and then applying cocaine, than by any other means. He concludes that we have in the aqueous extract of suprarenal glands a powerful local vaso-constrictor agent and a contractor of erectile tissue, which it is safe to use in very considerable amounts without any dangerous or deleterious effects local or general. These effects can be reproduced in the same individual apparently any number of times without engendering any vicious habit either in the tissue or in the individual. The use of the extract seems rather to increase the effects which may be expected from any given drug which may be used locally after it. In acute congestions it has its widest application and greatest opportunity for good, but in certain chronic conditions of the hay fever type, where œdematous tissue seems prone to develop, it can also be relied upon as a useful adjuvant.

(205) Casein Digestion.

KNOEPFELMACHER (*Wien. klin. Woch.*, No. 45, 1898) has made a series of investigations with regard to the quantitative estimation of the excretion of casein phosphorus in children. He examined the fæces in breast-fed children, and also those who were fed on cow's milk; in the former the proportion of proteid phosphorus to nitrogen was as 1 : 250, in the latter the proportion was 1 : 16. The amount of proteid phosphorus excreted was therefore considerably less in the case of the breast-fed infants than in those fed with cow's milk. With regard to the exact combination in which the N and P are found in the fæces of children fed on cow's milk, the author says that neither casein nor paracasein is present, but that a body of more elaborate chemical composition is found termed "pseudonuclein of paracasein." Our knowledge of casein digestion is yet in its infancy. The important point to settle is, how the phosphoric acid salts in the food are utilised in the construction of the phosphorated albuminoid constituents of cells. Nuclein, nucleo-albumen, and casein are present in the food, and become more important in adult life. Milk contains a large amount of proteid phosphorus. It would be interesting to know how much proteid phosphorus is excreted in the fæces and how much remains in the body.

PATHOLOGY.

(206) Morbid Anatomy of Pulmonary Emphysema.

GINSBURG (Peterburgskajá Dissertazija: *Vratch*, No. 5, 1899) reports the results of an examination of the histological changes in 30 cases of pulmonary emphysema. His conclusions are as follows: (1) The greatest change occurs in the elastic fibres, which are greatly hypertrophied and present also a marked alteration in their reticular arrangement. (2) This is most marked in the alveoli, the small bronchi, however, show the same appearances, though in a less pronounced degree. (3) The change also shows itself both in the shape and direction which the elastic fibres of the lungs present, inasmuch as, instead of being almost straight, they assume a curved, bent, or even folded form. (4) In this condition the elastic fibres are very easily pulled asunder, especially at their terminal edges. (5) Some of the fibres ultimately become distinctly granulated (pointing probably to fatty degeneration) to a marked extent. (6) In none of the cases could the conversion of elastin into elastine mentioned by other observers be proved. (7) There was no atrophy of the unstriped muscular fibres; they either remained quite normal or were very slightly hypertrophied. (8) The statement of other observers that in some cases of emphysema of the lungs the so-called corpora amylacea are met with in the alveoli is confirmed by Ginsburg's investigations.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(207) Asthenic Bulbar Paralysis associated with Multiple Myeloma and Albumosuria.

H. Senator (*Berl. klin. Woch.*, February 20th, 1899) describes a case in which he suggests a causal relationship between asthenic bulbar paralysis and the blood changes due to multiple myeloma. The patient, a woman, aged 36, when first in February, 1897, presented no certain signs of organic disease, except those obtained from an examination of the urine, which was found to contain albumen, casts, and epithelial cells. In March, when she complained of pains in the head, back, and lower extremities, together with a feeling of fatigue, albumosuria was noted for the first time. She complained likewise of difficulty in swallowing, which prevented her eating properly. The paralysis of the tongue gradually increased, so that patient could neither move her tongue about in her mouth nor put it out, and had to be fed with the œsophageal tube. Then she complained that her chin felt as if it were dead and "did not belong to her"; it was found to be quite anæsthetic. There was no distinct lingual atrophy, though fibrillary twitchings seemed often to occur about the middle of the tongue. Knee-jerks were very active. The electrical reactions in the face and lower extremities were normal; in the tongue excitability was diminished, and by direct stimulation with strong currents there was distinct twitching. The paralysis of the tongue diminished somewhat for a few days (April 4th to 7th), during which, therefore, the œsophageal tube had not to be used so often. Otherwise she steadily lost ground. A gangrenous phlegmon appeared in the left gluteal region, and patient died somewhat suddenly on April 8th. Excepting just before death, when there was the phlegmon to account for it, no fever was ever noted, but throughout the illness the pulse was frequent, mostly 90 to 96 in the minute. At the necropsy multiple sarcomatosis of the ribs was discovered. There were patches of broncho-pneumonia in the lower lobes of both lungs. The kidneys showed fatty changes in the epithelium of the tubules, with amyloid disease of some glomeruli. No changes in the nervous system were found which could account for the bulbar paralysis; this evidently therefore belonged to the group of paralyses styled "asthenic" by Jolly, and to which H. Oppenheim first directed general attention in 1887. Such minor defects as were noted in the nervous system in the present case were attributed by Senator to imperfect development. He thinks that the albumose secreted by the kidneys was manufactured in the myelomatous tumours; the renal changes he connects with the abnormal work thus thrown on the kidneys. The severe anæmia produced by the disease may, Senator thinks, have so affected the patient's imperfectly developed nervous system as to produce the symptoms of "asthenic" paralysis. Nervous symptoms have been described in several cases of multiple myeloma. In E. Wieland's case there were cervical rigidity, indistinct speech, etc., which could not be accounted for by an examination of the nervous system. In a case in which no necropsy took place, Stockvis found defective power of speech and swallowing, together with salivation, paralysis of the facial and trigeminus nerves, and paraplegia. Lichtheim and Minnich have shown that organic changes in the nervous system may occur in severe anæmia. Senator thinks that in the present case organic changes might have taken place had the patient lived longer. He refers to a case recorded by L. Laquer, in which the symptoms of asthenic paralysis were ultimately followed by those of progressive muscular atrophy, a disease associated with well-known anatomical changes in the spinal cord. In the discussion which followed Senator's paper, Oppenheim suggested that asthenic paralysis might occur in connection with other tumours and diseases besides multiple myeloma, and Remak alluded to a case associated with Graves's disease.

(208) Multiple Myeloma and Albumosuria.

A. Ellinger (*Deut. Arch. f. klin. Med.*, vol. lxii, p. 255) records the case of a man, aged 45, who was admitted into the Königsberg Clinic with slight jaundice and fever. The fever, which had probably been present for about six weeks, was usually high in the evenings, and remitted or intermitted in the mornings. There was a minute amount of albumen in the urine, which also yielded a weak Gmelin's reaction. In the next few weeks the jaundice diminished, but the fever continued and the anæmia increased. On November 19th, 1897 (about four weeks after admission) albumose of Bence-Jones was found for the first time in the patient's urine; a precipitate formed on heating the urine to 50° to 60° C., but almost completely disappeared on heating further to the boiling point. Two weeks afterwards the progressive anæmia was accompanied by slightly blood-stained sputum, retinal hæmorrhages, and a certain amount of dropsy of the skin, serous cavities, and joints. Microscopic examination of the blood showed diminution of the red cells, but not the typical appearances (according to Ehrlich) of pernicious anæmia. Albumose continued to be found in the urine, together with a trace of albumen; later on a few hyaline casts were present. The man died on December 13th, 1897. At the necropsy the medullary portions of the ribs, sternum, and vertebræ were found to be the site of multiple lymphomatous tumours and diffuse lymphoid infiltration. Some other changes were due to the severe anæmia. A mucous plug could be squeezed out of the common bile duct. There was pulpy enlargement of the spleen. The spinal cord showed grey degeneration of the posterior columns. Ellinger thinks that albumosuria, which has been noted in 6 cases of multiple myeloma, is of great diagnostic importance. The presence of the albumose must not be too closely connected with the fever in such cases, because the fever bears no constant relation to the amount of albumose excreted. Ellinger suggests the advisability of trying arsenic in future cases of multiple myeloma.

(209) Hereditary Antecedents of General Paralysis.

L. Wahl (*Thèse de Paris*, 1898) gives the results of an elaborate investigation concerning the ancestry (direct and collateral) of general paralysis. Lunier (1849) had stated that among the percentage of paralytics were found chiefly individuals who had died of apoplexy, paralysis, epilepsy, or dementia; and that "the hereditary predisposition in general paralysis does not present the same conditions as in insanity." Ball and Regis (1887) in a statistical study of 100 families (general paralytic) found only 5 cases of insanity among the antecedents; whereas Christian found a predominance of cases of insanity, or of "congestive" heredity (for example, alcoholism, hemiplegia, and other paralyses) in the direct line, and both insanity, epilepsy, and general paralysis among collaterals (uncles, aunts, brothers, and sisters). Bechet, however, in an earlier thesis (*Thèse de Paris*, 1897) found that congestive heredity is most frequent, and an insane or vesanic heredity comes next in frequency. He recorded (from various sources) 69 cases of juvenile general paralytics, and found (*a*) that in 17 cases general paralysis existed *per se* in the ancestry or collaterals, and that in 10 cases the parents showed it (namely, father seven times, mother twice, and both parents once). Wahl studied 60 families showing cases of general paralysis, and found among these that 13 had general paralytic parents. Among the collaterals of general paralytics (brothers and sisters) were found such cases as stillbirths and abortions in large proportion, and then, in descending order, infantile convulsions and paralyses, imbecility, and want of mental balance (superior degenerates), and syphilitic, choreic, and generally nervous and feeble children, their frequency being in the order given. Of the descendants of general paralytics the collected records of 260 families give 450 descendants, distributed thus: Stillborn, 108; died in infancy of convulsions, paralysis, meningitis, rickets, athrepsia, 80; living and well, 154: while the others are suffering from idiocy, imbecility, hereditary syphilis, chorea, tabes, and other affections.

SURGERY.

(210) Intestinal Obstruction from Torsion of the Mesentery.

Fabre (*Thèse de Lyon*, 1898) states that this condition is uncommon, and has only found 8 authentic cases in medical literature. He adds 1 more in Delore's

practice. The condition is observed in adult life and age, and is favoured by surfeit and constipation. Torsion of the mesentery is usually due to inflammatory bands or congenital mesenteric fossæ. The immediate cause is the normal movement of the intestine, irregular distension, and emptiness of adjacent coils, gaseous accumulation, or sudden change of attitude on the part of the patient. This accident involves, as a rule, a double strangulation which in partial torsion isolates a coil of small intestine; but in total torsion the whole jejunum and ileum is isolated and changed to a closed cavity. Total torsion is characterised by ascitic effusion, the absence of fæcal vomiting, and circumscribed distension around the umbilicus. When the obstruction is at one point only, that point is generally high up the jejunum, and the abdomen will be retracted. In partial obstruction, Wahl's sign alone is prominent. As for prognosis, obstruction from mesenteric torsion is one of the deadliest conditions of its class. All the 8 cases collected by Fabre ended fatally. Enterotomy is useless; it does not relieve the collapse whilst the tendency to gangrene subsists, and may involve the entire small intestine. The right surgical step is abdominal section and unrolling of the twisted mesentery. In partial torsion, the strangulated coil must be resected if sloughy.

(211) Supra-clavicular Fatty Tumour.

Tuffier (*Rev. de Chir.*, January 10th, 1899) recently removed a large fatty tumour from the supra-clavicular region of a woman, aged 27, who had observed it for six years. It looked before operation like a bulky lipoma proper, but on deep pressure several hard glands were felt in the supra-clavicular fossa. The operation was performed, and in the grooves between the lobules of true fat a large lymphatic gland was discovered, also several cretaceous masses. This tumour supported the new theory that certain fatty growths result from inflammation of lymphatic glands ("lipomatous periadenitis"). Delbet, in a discussion on Tuffier's case, compared tumours of this class to the circumvisceral fatty growths, also due to inflammation. Common lipoma sometimes arose from injuries, in other cases it was congenital. Hartmann noted that the circumvisceral lipomas were anatomically different from the common fatty tumour. The former were ill-circumscribed and tough, the latter well-defined inside the capsule and soft. Lejars had twice seen cases of diffuse "adeno-lipoma" which were clinically malignant. Ricard noted that "adeno-lipoma," even when not circumvisceral, was very different from common fatty tumour. Even when subcutaneous it grew unencapsuled into the tissues of the dermis, so that it would not be enucleated but must be excised. Quénu held that common lipoma was quite a different class of growth from the masses of fat which developed around inflamed organs; the latter was degeneration of tissue rather than new growth. Diffuse lipoma was yet a third class of neoplasm, and Quénu did not admit that it was of inflammatory origin.

(212) Treatment of Tuberculous Arthritis of Hip-joint.

Reynolds, Gibney, and Waterman (*Annals of Surgery*, October, 1898) have made an analysis of 150 cases of morbus coxæ, with the object of ascertaining the results of treatment, whether operative, mechanical, or constitutional. The cases were examined from 5 up to 20 years after leaving hospital. The authors state that there were 107 cures and 11 deaths, the remaining cases being under treatment. No death occurred from operation. Their conclusions are as follows: (1) Hygienic and constitutional treatment exert a powerful influence on the disease; (2) early diagnosis is important; (3) during the acute stage, rest in bed with the usual mechanical appliances is better than ambulatory treatment; (4) during the first stage of the disease absolute immobilisation by fixation and extension is essential; (5) in the second stage, deformity must be corrected and operation resorted to if mechanical means fail after six months' trial; (6) early correction of deformity is advisable with as little force as possible; adduction with flexion is the usual deformity requiring correction; flexion without adduction rarely requires correction; (7) forcible correction followed by fixation should be tried before resorting to osteotomy; (8) when there is absolute ankylosis or only slight motion, and all acute signs have subsided, subtrochanteric osteotomy is indicated, combined, if necessary, with tenotomy, myotomy, or fasciotomy; (9) injection of chemical substances into abscesses and sinuses is not beneficial; (10) when an abscess recurs after repeated aspirations, operative treatment is required, and, if necessary, resection of the joint; (11) the prognosis in young children is better than in adults, because the former often recover with a movable joint, owing to the head of the femur being cartilaginous at that time; (12) treatment should be continued during the convalescent period; (13) atrophy of the limb occurred in 34 of the cured cases, and is due to the severity of the disease; massage and electricity were inferior to active movement in restoring the use of the limb; (14) recurvation of the knee occurred in 11 cases, and should be preventable by proper appliances; it is sometimes caused by traction being made below the knee; (15) deformity was corrected by means of the weight and pulley in bed, forcible stretching, tenotomy, and myotomy. When these methods failed, femoral osteotomy was resorted to. Position must be maintained after osteotomy for six to twelve months to avoid relapse.

(213) Fatal Intestinal Obstruction by Uterine Fibroids.

Luys (*Bulletins de la Société Anat. de Paris*, December, 1898) states that a woman, aged 57, was admitted into Le Dentu's wards with symptoms of intestinal obstruction. She was extremely fat, and the thick abdominal walls were tense and firm through tympanitic distension of the abdomen. Hence diagnosis of the cause of obstruction was impossible. Just as preparations were being made for abdominal section, the patient died. At the necropsy a bulky, pedunculated, subperitoneal fibromyoma of the uterus was discussed. It was twisted on its pedicle, and pressed firmly on the sigmoid flexure, which was much flattened out in consequence. No other cause of obstruction could be detected.

MIDWIFERY AND DISEASES OF WOMEN.

(214) Operation for Strangulated Hernia in Pregnancy.

Sintenis (*Centralbl. f. Gynäk.*, No. 9, 1899) reports a bad case where he was suddenly called upon to operate in a small village in Livonia, the patient being too ill to be removed to Dorpat. She was in the fourth month of pregnancy, and 33 years of age. For several years she bore a reducible or partly reducible hernia in the right groin. Four days before the operation violent local pains set in and radiated over the abdomen. For three days no motion had passed, and sickness was frequent. All the other symptons of strangulated hernia were present, with great tympanitis. Except a friend to give chloroform Sintenis had no assistant. The sac contained 2 drachms of fœtid pus, and a coil of small intestines 10 inches long tightly gripped by the neck of the sac, but not dull on its surface, which showed nothing worse than a few ecchymoses. The neck of the sac scarcely admitted the tip of the forefinger. It was enlarged about one-third of an inch, then the gut was reduced, the sac excised, and radical closure of the hernia effected. Opiates were given for two days, then the bowels were opened by an enema. The temperature never exceeded 101.5°. The wound healed by second intention. The patient was safely delivered at term. A year later Sintenis examined the patient, whose child was saved at birth, and was quite healthy. The cicatrix of the operation wound was quite strong and unstretched. Sintenis notes that there was a diagnostic exploration under the anæsthetic on the day before, and the patient was also two hours under chloroform on the day of operation, and likewise suffered from severe shock. Yet not the slightest threat of abortion was observed.

(215) Craniotomy.

Hennes (*Inaugural Dissertation*, Halle, 1898) analyses 125 cases of craniotomy in the obstetrical practice of Halle University. They amounted to 1.29 per cent. of the total number of births. In 27 labours the child submitted to perforation was alive; 99 of the children were dead, including one pair of twins, making two perforations in one case. In 80 cases the operation was performed for narrow pelvis; in 40 cases the after-

coming head was perforated, because manual extraction was impossible, owing to narrow pelvis, size of the fœtal skull, or incomplete dilatation of the os. In the remainder the head presented, the child being alive in 65 cases. The reason for operation was contracted pelvis, rupture or threatened rupture of the uterus, high temperature, physometra, eclampsia, or exhaustion of the mother. The mortality of the patients was 8 per cent., the deaths being due to eclampsia, rupture of the uterus, sepsis, and cardiac failure. In one case only was it clearly due to prolonged narcosis and operative measures.

(216) Craniotomy, Cæsarean Section, and the Patient.

Stepkowsky (*Centalbl. f. Gynäk.*, No. 9, 1899) publishes a case in reference to these operations and their relation to the patient's safety, and also her natural desire for children. A woman, aged 25, in good general health, had been delivered three times by craniotomy. The pelvis seemed rachitic, but there was no evidence of active rickets. The pelvic measurements allowed of craniotomy at term, and Stepkowsky determined on the induction of premature labour at the end of the eighth month; but the patient insisted that she would only submit to that operation which gave the best chance of saving the child. On that account he decided upon Cæsarean section after the membranes had ruptured. He performed the typical operation, cutting in the median line of the anterior uterine wall. He has had such good results following that incision that he has no intention of adopting the transverse incision through the fundus, which seems to offer no special advantage. Both mother and child recovered.

(217) Pelvic Kidney threatening Dystocia: Vaginal Nephrectomy.

Cragin (*Trans. Amer. Gyn. Soc.*, vol. xxiii, 1898) publishes a case where a patient, aged 25, was pregnant eight and a half months; both her two previous labours had been difficult. An elastic tumour behind the cervix greatly reduced the internal conjugate. After incision of the vaginal wall the tumour was tapped and found to be a distended left kidney fixed beneath the promontory of the sacrum, and with its hilum directed upwards and to the right. Vaginal nephrectomy was decided upon, as the congenitally displaced kidney was hydronephrotic, and hence more or less completely obstructed, and even when tapped lay much in the way of the fœtus. Urine was secreted in abundance. The ureter and renal vessels were clamped at the hilum; the kidney was then cut away and the clamp replaced by ligatures. A narrow strip of gauze was carried up through the wound in the vagina and pressed firmly against the pedicle. Labour pains set in and could not be checked; seventeen hours after the operation a well-formed female child was delivered with ease. The convalescence of the mother was uneventful and the development of the child satisfactory. Cragin gives a short note of 5 other cases of dystocia from a kidney displaced in the pelvis, the original reports being written by Kohl, Hüter, Fischel, Runge, and Albers-Schonberg.

THERAPEUTICS.

(218) The Hypodermic Injection of Silver Nitrate over the Course of the Vagi in the Treatment of Pulmonary Consumption.

In a preliminary report on this subject (published in the *Boston Medical and Surgical Journal* of February 9th) T. J. Mays says that about twelve years ago it occurred to him that the lung lesions found in pulmonary consumption do not represent the primary morbid changes in this disease, and that they are part of a series of superficial manifestations fundamentally dependent on a neurotic basis, in which the vagi are seriously implicated. Further study has gone far, he says, to substantiate the correctness of his original impression, and has led to the conviction that a rational therapeusis of this most formidable affection naturally rests on a nervous pathology. Hence his armamentarium in the treatment of phthisis has for some years consisted principally of nervous stimulants, like strychnine, electricity, phenacetin, etc. More recently he began giving local attention to the vagi in the region of the neck by massaging, kneading them, and compressing them through the overlying textures. These measures seemed to be of benefit as far as the cough, expectoration, and oppression in the chest were concerned, but it soon became evident that their influence was not far-reaching enough to be of decided value. About this time he learned of the usefulness of vagus stretching in severe cough associated with exophthalmic goitre, and also in epilepsy, and thought of testing this procedure in the treatment of phthisis, when it appeared to him that probably the subcutaneous introduction of some active although conservative irritant, like nitrate of silver, immediately over the course of the nerves in the neck, might furnish the stimulus necessary to arouse them out of their abnormal condition. An effort was made to carry out the idea, and it was found that from 4 to 7 minims, of a 2½ per cent. solution of pure silver nitrate (Merck's) answered the purpose best in the greatest number of instances, although several cases required as much as 5 minims of a 5 per cent. solution to bring about the desired inflammatory reaction. The point selected for its administration is immediately over, or slightly behind, the pulsating carotid artery in the region of the neck, midway between the angle of the lower jaw and the clavicle. Other parts along the artery have also been chosen. In order to avoid puncturing the carotid artery or its neighbouring jugular vein it is important to lift the skin between the thumb and forefinger of the left hand and introduce the needle just under the elevated skin. The silver solution alone produces considerable local pain immediately after its introduction, and in order to avoid this it is very necessary to precede it with an injection of 5 minims of a 2½ per cent. solution of cocaine hydrochlorate. The following plan has thus far been found most practical for the introduction of these agents: Inject the cocaine solution; detach the syringe from the needle and let the latter remain in the puncture. Wash out the syringe with water, draw the silver solution into the syringe, attach the latter to the needle, and throw in the required amount. The local visible effects of the injections show themselves in nodular, sometimes in diffuse, swelling, and in redness and pain. Small abscesses have occurred about a dozen times, and a slough once in about 300 injections, and two of these were produced by using too strong a solution of silver in the early stages of the experiment. The number of injections required depends on circumstances. As a rule it is a good plan to begin by giving one injection on the side of the neck on which the affected lung is situated. In a week or ten days this may be repeated. As a rule it seems best to concentrate the injections on the affected side, and to give an occasional one on the opposite side. During the last five months Mays has used nitrate of silver injections in 40 cases of phthisis which were treated longer than a month, and which may be divided into incipient (7), advanced (18), and far advanced (15) cases. Cough and expectoration improved in a marked degree not only in the incipient and advanced cases, but in the great majority of the far advanced cases. Dyspnœa and oppression in the chest were relieved. Many of the patients slept better. Appetite was improved in most of the patients, in many to a marked extent. The general strength was greatly benefited in most of the incipient and advanced cases, and also in a number of the far advanced ones. In many of the incipient and in some of the advanced cases there was noticed a rapid improvement in the physical signs. The injections had a most beneficial effect on the weight, particularly in the incipient and advanced cases. The deductions which, in the author's opinion, may be drawn from this limited experience with the silver nitrate injections are (1) That their best results are obtained in incipient cases, both in regard to the symptoms and physical signs of phthisis; (2) that in most of the advanced cases of this disease they have a good and in some instances exceptional influence on the symptoms and physical signs; and (3) that in the great majority of the far advanced cases they ameliorate the cough, expectoration, and some other symptoms temporarily, but have little or no influence on the local condition of the lungs. He believes that there is much reason for expecting that when this method, even in its present undeveloped state, is combined with other good hygienic, dietetic and medicinal treatment, the practical benefit will be much greater. He thinks also that the silver

injections may play an important part in the therapeutics of asthma, chronic bronchitis, and in the prephthisical stage in the young which is indicated by loss in weight, anæmia, etc., thus verifying the practice of Graves, who more than fifty years ago advised the employment of setons beneath the clavicle at the age of puberty whenever phthisis was apprehended.

(219) Chrysarobin and Pyrogallic Derivatives.

At the last Dermatological Congress in Strassburg Kromayer (*Therapeut. Monat.*, January, 1899) introduced several new drugs: (1) Pyrogallic derivatives: Engallol=pyrogallic monoacetate, a yellowish brown fluid of syrupy consistence; lenigallol=pyrogallic triacetate, a white powder insoluble in water. (2) Chrysarobin derivatives: Lenirobin = Chrysarobintetraacetate; eurobin= chrysarobintriacetate, a reddish yellow powder insoluble in water. (3) Resorcin derivative: Euresol=resorcinmonoacetate, a thick honey-coloured fluid. Kromayer wished to substitute insoluble drugs for the soluble. The latter have been found to be far too irritating when applied to the skin for any length of time. The new insoluble derivatives are found to have an equally beneficial effect, and can be applied for any length of time without causing irritation. Bottstein has given them an extensive trial. Lenigallol was prepared in the form of an ointment with unguent. zinci; the strength varied from 3 to 30 per cent. Engallol was used either pure or in combination with saligallol (pyrogallic disalicylate) āā, and eurobin in fluid form (eurobin 2.0, engallol 10.0, acetone 10.0). The ointment was made up with unguent. zinci and undiluted euresol to the strength of 5 per cent. Lenigallol was found to be a very value able application in eczema in all its forms. It caused considerable pain when applied to old varicose ulcers; the results however were good. The author found that the treatment of eczema was most successful when the strength of the ointment was gradually increased from 3 to 20 per cent.; this is opposed to Kromayer's view. Chronic eczemas which had lasted for years disappeared in a few weeks. In cases where the eczema affected both sides of the body, one side was treated with zinc oxide ointment, whilst the other had lenigallol, the disease disappeared more rapidly under the influence of the latter. Lenigallol has one disadvantage when used in a concentrated form, it is apt to leave patches of black pigment on the skin; this point must be borne in mind when the face is affected. This discoloration is less marked on the head where a 20 per cent. lenigallol ointment can be applied in cases of psoriasis of the scalp without affecting the colour of the hair. Bottstein has little praise to give engallol; nevertheless some good results were obtained in lupus erythem. Eurobin was very efficacious in psoriasis, the irritability was much less than when chrysolobin was used. Most success in the treatment of skin diseases has so far been achieved by lenigallol and eurobin.

(220) Formalin in Whooping-cough.

Howard S. Olliphant (*New York Med. Journ.*, March 4th) has for the past year been experimenting with a solution of formalin in the treatment of whooping-cough. From his experience he is fully convinced that formalin is as much a specific for this disease as mercury is for syphilis or quinine for malaria. He is thoroughly persuaded that the infection remains local, and that the systemic effects are incidental, and result from the exhausting cough peculiar to the disease. When fever is present it is due to some coincident inflammatory action rather than to the specific germ of the disease. This idea, he says, is fully borne out by the rapid disappearance of all symptoms of pertussis after the formalin treatment, which consists purely of local applications. When this treatment was used, the duration of the severest cases was less than a week, and several cases after three applications were cured. After the third application to the throat marked improvement was observed, and in one case a complete cure. Free emesis follows each application, thereby dislodging the germs as well as destroying them. In the first case he treated by this method the vomiting was so severe that the mother became alarmed. The solution was used diluted. Out of 20 cases treated with this remedy, not one failed to be cured in less than eight days. The author warns against too strong a solution being used in cases of young and debilitated children, but he does not give the exact strength of the solution which he employed.

(221) The Treatment of Tetanus.

Kollmann (*Münch. med. Woch.*, February 28th, 1899) relates 3 cases of tetanus not treated with the antitoxin. (1) A man, aged 56, developed the first symptoms twelve days after a slight injury to the left thumb. Morphine was used subcutaneously and chloral by the mouth in large doses. After a prolonged illness lasting nearly two months the patient recovered. (2) A child, aged 10, was stung by a bee, and eight days later the first symptoms of tetanus were noted. No other wound of any kind could be found. The treatment consisted in bromide and chloral. Death took place on the fifth day of the disease. (3) A woman had an ulcer of the leg. Difficulty in swallowing first appeared, and then the characteristic symptoms of tetanus. Death occurred on the fourth day. Cases II and III were very severe, and would in the author's opinion have died, even if treated with antitoxin. The mode of infection was very exceptional in Case II, and in Case III the disease was apparently conveyed by a bandage left in contact with dust. Case I was of moderate severity only.—Möller (*ibid.*) relates a case in a boy, aged 15, who had a punctured wound of the foot. Thirteen days later the disease was fully developed. Morphine was given at first, and 28 c.cm. of antitoxin (Höchst) were injected on the next day. There was a temporary improvement for seven hours, but the patient died suddenly five hours later.—Paul Werner (*ibid.*) describes a case in a lad aged 17. Six days after a crushing of the finger-nail the first symptoms appeared. Some suppuration had occurred in the wound. Three days after the onset the wound was laid open and disinfectants applied. On the fourth day of the disease 31.5 c.cm. of antitoxin (Höchst) were injected, but the patient died on the following day. The antitoxin was here used too late. Some temporary improvement followed its administration, but this could not be attributed with certainty to it. Tetanus bacilli were obtained in pure culture from the wound.

(222) Treatment of Acute Mercurial Poisoning.

Fiocco (*Rif. Med.*, No. 38, 1899), having tried all the usual remedies for this disease, without any improvement, had recourse to subcutaneous injections of a physiological solution of chloride of sodium, followed by energetic massage for four days. The improvement was rapid and lasting, no second injection was required, and no other treatment practised beyond slight disinfection of the mouth.

PATHOLOGY.

(223) Brain Cells in Acute Alcoholism.

Dana (*Quart. Journ. of Inebriety*, January, 1899) has studied 10 cases (during the past two years), the brains being investigated by the Nissl method of staining with methyl-violet: (*a*) Patients who died of alcoholism with all the symptoms of meningitis showed on necropsy simple congestion of the membranes (pia arachnoid), with some œdema in its texture; (*b*) microscopic examination rarely showed any migration of leucocytes or anything approaching encephalitis; (*c*) the larger (pyramidal and giant) nerve cells showed pigmentation to an intense degree, the pigment being diffused through the cell body; (*d*) the cytoplasm showing various degrees of degeneration (fatty and granular); (*e*) the cell body generally was shrunk, and the nucleus partially so; (*f*) pericellular nuclei had proliferated, and were freely present in the pericellular sacs. (In cases where death was due to exhaustion the shrinkage of cells was marked.) The author compares these lesions with those found in death from sunstroke with high fever and delirium (namely, distinct and general pigmentation of larger cortical cells of rapid or even sudden development), and with cases of pernicious anæmia (where the pigmentation affects both small and large nerve cells). The appearances in alcoholism, though similar to these, are yet distinct, as specified above, and indicate serious nutritive changes in the cerebral cells from the direct toxic effect of the alcohol.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(224) Post-Influenzal Spastic Paralysis. Michaelis, of Senator's clinic (*Deut. med. Woch.*, February 16th, 1899) reports a case which terminated in recovery. He first refers to 5 recorded cases of myelitis following upon influenza, and in 1 of these cases the disease accorded with the symptom complex of spastic spinal paralysis. His own patient was a lad aged 13, who had influenza in February, 1897. When he got up he found that he could not walk. The legs were stiff, and clonic spasm occurred first in the right and then in the left leg. There were no sensory symptoms and no affection of the rectum or bladder. He was admitted in May, 1897. He could not walk unless supported, and the gait was spastic-paretic. The reflexes were much exaggerated, but there was no foot clonus. The patient was treated for four to five weeks with potassic iodide, warm baths, and galvanism. Considerable improvement occurred. In February, 1898, the motor power was but little impaired and sensation was unaffected. The spasm was gradually disappearing, but the left patellar reflex was still exaggerated. In July he was well. The author concludes that the seat of the lesion was in the dorsal cord, and that the increased reflex irritability was due to disease in the pyramidal tracts. Michaelis then discusses the relation of the disease to influenza, and points to the great number of nervous affections following this disease. In the absence of other causes he would attribute the spinal paralysis here to influenza. The prognosis of the nervous sequelæ of influenza is good. The recovery here precludes the idea of a severe lesion in the spinal cord. Michaelis thinks that the disease was due to a circumscribed inflammatory lesion or to a purely functional toxic disturbance.

(225) Renal Typhoid Fever. Rostoski, of v. Leube's clinic (*Münch. med. Woch.*, February 14th, 1899) refers to the occurrence of albuminuria in typhoid fever. In 346 cases treated in the clinic, albuminuria was noted in 205, or in 59.2 per cent. In 37 of these 205 cases there were, besides the albuminuria, signs of nephritis present, namely, hyaline and epithelial casts. There are some very rare cases in which, setting aside the relatively high fever, the diagnosis of an acute idiopathic nephritis is suggested, until splenic enlargement, a rash, and the continued fever subsequently show the case to be one of typhoid fever. Rostoski then refers to recorded cases of so-called renal typhoid, and gives the details of two such cases: (1) A patient was admitted with severe headache and bronchitis. The urine contained blood, albumen, and epithelial casts. A few days later the characteristic rash and diarrhœa appeared. Widal's reaction gave a positive result. In this case the acute nephritis passed into the chronic disease. (2) A woman, aged 26, was admitted with urine containing blood and albumen, and subsequently epithelial casts. About three weeks after the commencement of the disease Widal's reaction was obtained, and two days later typhoid bacilli were cultivated from the urine. Five days afterwards the patient had severe abdominal pain, with vomiting, and moderate collapse. On the next day the whole of the abdomen was exquisitely tender. A little later an impaired percussion note was made out over the ileo-cæcal region, due, as it was thought, to a localised serous peritonitis. The patient gradually improved, and subsequently made a good recovery. The case was very obscure at first. The presence of an acute nephritis was only recognised 13 days after the onset of the disease. The diagnosis from tuberculosis, malignant endocarditis, and sepsis was very difficult. It was only when Widal's reaction was found in the fourth week of the disease that the nature of the case became obvious. The temperature was not characteristic, but the spleen was enlarged. The signs of peritonitis appeared about the fiftieth day, shortly after the administration of a clyster; previously there had been no intestinal symptoms. The patient also recovered from this complication. The author expresses the opinion that in every case of nephritis which might be classed as idiopathic, but which has a high temperature, the urine should be examined for typhoid bacilli, and the blood tested for Widal's reaction.

(226) Progressive Ossifying Myositis. Missim has made an extensive study of of this interesting condition (*Journ. de Méd.*, February 25th, 1898, and *Nouv. Icon. de la Salpêtrière*, 1898). The author finds the condition is much more common in the Anglo-Saxon race than in others. Thus, of 51 cases, 2 only occurred in France, the remainder in England or Germany. The condition is characterised by the deposit of osseous material in the connective tissue of the muscles, in the tendons, aponeuroses, and ligaments. It is found especially in children, but may appear in adult life. The beginning is variable, sometimes being altogether chronic, at other times more acute, and accompanied by febrile reaction. In the first case it is insidious, and the only indication is the formation of a painless tumour having at first a slightly boggy feeling, subsequently becoming firm and lastly fibrous, and finally osseous. In many instances we may discover by accident one or more tumours of this nature in the child. In the more acute cases there may be some pain at the seat of tumour formation, and the tissues are hot, and may show distension of their vessels. The subcutaneous tissue is œdematous, and soon there appears a diffuse boggy semi-fluctuating infiltration which similarly ends by becoming bony hard. The whole muscle may be involved in this manner, at other times the belly only, the tendons remaining free. This condition may appear without recognisable cause; in other cases there may be history of a fall or some traumatism, or a preceding attack of rheumatism. The muscles of the back, particularly of the neck, are the most liable to attack. The long muscles of the back may form a single bony mass; later, the deltoid, the teres, and the pectoralis major may all be involved. As a result, the head becomes fixed, possibly to one side; ankylosis of the shoulder-joint, with immobility of the scapulæ and vertebral column may follow. Even the muscles of the upper and forearm may be affected with ankylosis of the elbow; similarly the muscles of the lower limbs may be involved from above downwards, especially those on the posterior aspect, with ankylosis of the head and knee. Lastly, the masseters and pterygoids may succumb, resulting in immobility of the jaw. The appearance of the patient is striking, as he is converted into an immovable block, and it is possible to raise him up as one would a wooden figure by the head. The ossified muscles are somewhat irregular in outline, showing depressions and elevations covered by a pallid thickened skin, which has lost all mobility by reason of subcutaneous adhesion to the underlying tissues. At the same time, the internal functions appear to be unaffected, and there is no alteration in intelligence. The facial muscles appear to escape. The duration extends over many years, and death seems to be due to some intercurrent affection, particularly tubercle.

SURGERY.

(227) The Surgery of the Biliary Passages. Alessandri (*Il Policlinico*, February 15th, 1899) in the first of a series of papers on this subject, discussing the origin of biliary calculi, inclines to the view that they are generally formed round a nucleus in the gall bladder, this nucleus being frequently of bacterial origin, usually the coli bacillus. Some gall stones when carefully washed showed a branched nucleus indicating an origin in the intrahepatic biliary canals. The author discusses the various modes of obstruction arising from the presence of gall stones. The duodenal portion of the ductus choledochus is the site of election when obstruction occurs, 67 per cent. of the cases occurring at that place. Muscular spasm of the duct above the foreign body may help in fixing it *in situ*. No constant relation exists between the size of the calculus and the clinical symptoms; hence it is impossible from a consideration of these, to say whether the stone will pass or not. Biliary obstruction is generally associated with a certain amount of infection of the biliary passages, varying from a simple catarrh (the most common) up to a severe purulent angiocholitis. In cases where the stone ulcer-

ates through, cicatricial stenosis of the duct may be left behind. As to the relation between gall stones and cancer, the most recent statistics (those of Löbker) show that out of 172 cases operated upon 17 showed epithelioma of the gall bladder.

(228) Cancer of Pancreas: Exploratory Incision.

Northrup and Herter (*Amer. Journ. Med. Sciences*, February, 1899) publish a case, adding an instructive study of the fat absorption. The patient, aged 46, was a coachman, and had never been out of employment. His father had died of "cancer of the throat;" he himself was robust and muscular. When in good health, weighing over 15½ st., he began to feel pains in the back, attributed to exposure on the box. Five months later, when he had lost 40 lbs. in weight, he entered hospital. The pains caused insomnia, and there were dyspeptic symptoms ascribed to previous dosing with iodide of potassium. Cancer of the stomach was suspected; the patient was instructed to wash out his stomach daily. A month later diarrhœa set in, and was never effectually checked. Four months afterwards he appeared very cachetic. Under chloroform a tumour was detected just above the umbilicus, almost in the middle line and slightly movable; at least it could be dragged a little to the right. It was round and sharply circumscribed. Carcinoma of the head of the pancreas was diagnosed. The loss of fat in the fæces was found, on careful research, to be greatly in excess of that which normally occurs: the motions were soft, pasty, and grey. The lesion was not considered to be gastric, as the tumour was hardly movable, and did not sway with respiratory movements. McCash made an exploratory incision, and discovered a mass shaped like a very thick pancake. It involved the head and middle portion of the pancreas, and included so many vessels that removal was out of the question. The patient recovered from the operation, the wound apparently healing well; he was then closely watched, and the total consumption and excretion of fats tested by experiment. He died about thirteen months after the first attack of pains in the back, but no necropsy was permitted.

(229) Operation for Pus in Gall Bladder in Typhoid Fever.

Morris (*New York Medical Journal*, January 28th, 1899) operated in a very unusual case of typhoid infection with primary focus in the gall bladder. A young gentleman, aged 26, had been suddenly seized, forty-eight hours before Morris was called in, with a sharp pain below the right inferior costal margins, which rapidly extended as an acute general peritonitis; the temperature was 102°, but no rigors were observed. No motion had been passed. A swelling was detected at the site of the gall bladder, and the peritonitis seemed most intense at that point. On operating, the gall bladder was found distended with thick, tenacious, yellow pus and greenish mucus. There was much coagulated lymph on the peritoneum around the gall bladder, which was drained. On the third day after operation the temperature rose to 106°. The bowels had not as yet acted; two high enemata of Epsom salts brought away abundant liquid motions, and the dangerous symptoms subsided, to be followed by a typical course of typhoid fever, ending in recovery in about four weeks. A biliary fistula remained, which, three months after the operation, was closing spontaneously.

(230) Resection of Second Division of Trigeminus.

Fraenkel (*Centralbl. f. Chir.* Nov. 9, 1899) describes a method of resecting the superior maxillary nerve at the base of the cranium, which, he states, he has practised with very satisfactory results on the living subjects. This operation, however, which consists in opening the antrum of Highmore and perforating both the posterior and the anterior wall of this cavity differs very little from that devised by Carnochan, except in the preliminary division of the soft parts. The author exposes the facial surface of the maxilla by dividing the mucous membrane of the mouth, and dissecting upwards and outwards the soft parts of the cheek. The method is thus an intra-buccal one and has the advantage of leaving the surface of the cheek free from scar. The opening in front of the antrum is formed by raising a flap of bone and mucous membrane, which, after resection of the nerve, can be replaced. The difficulty in obtaining a clear view of the posterior wall of the antrum, which seems to be a decided disadvantage of this operation, may, it is stated, be overcome by using a strong light with a frontal reflector.

MIDWIFERY AND DISEASES OF WOMEN.

(231) Partus Serotinus.

Löwy (*Wien. klin. Woch.*, February 23rd, 1899) reports what he believes to be a genuine case of delayed labour. A married woman, aged 20, menstruated for the last time on September 15th, and the confinement was expected at the beginning of July at the latest. Instead of this no pains appeared until August 9th, and then only after a blow on the abdomen. The pains dilated the os fully, but had no effect on the child, which presented in the first position. Cranioclasm was performed, and even then considerable force was required to extract the body. The size of the child bore out the calculation made as to the length of the pregnancy. Without the brain and blood lost during craniotomy, and without the meconium which had been passed, it weighed nearly 15½ lbs. (7,000 grams), and measured 25⅜ inches (64 cm.) in length. These measurements correspond to those of a well-developed child 6 to 9 months old. As the true conjugate was slightly contracted to 4 inches (10 cm.), in the two following pregnancies labour was induced in the thirty-sixth week by the introduction of bougies, and a living child was born in each case. In the last, however, much difficulty was experienced in bringing on the pains, it being necessary to pass bougies, gradually increasing in size, on seven consecutive days. This great tolerance on the part of the uterus probably explains the long retention of the ovum. In the third case the child was a large one, and if pregnancy had continued craniotomy would probably have been again required.

(232) Double Ovariotomy in Hydatidiform Molar Pregnancy.

Kingman (*Boston Med. and Surg. Journ.*, February 23rd, 1899) operated on a case of bilateral ovarian cystic disease on a woman, aged 23, in the third month of pregnancy. He had quite recently performed a precisely similar operation, and pregnancy went on to term. The removal of both ovaries have no immediate physiological effect. The uterus at the operation was found evidently gravid but of strange softness; the veins in the broad ligaments were not nearly so dilated as is usual in pregnancy complicated by cystic disease. A few hours later the patient passed a large clot; next morning a semi-solid mass, looking like boiled tapioca, presented at the vulva. It was found to be an ordinary hydatidiform mole. Convalescence was rapid and uneventful. In the previous case, where there was a living fœtus, the vessels in the broad ligament were of enormous calibre. In this instance the contrary was observed. The dilatation of the vessels in such cases concerns the pregnancy rather than the tumour.

(233) Male Hermophrodite Married as a Wife.

Blondel (*Bull. et Mém. de la Soc. Obstét. et Gynéc. de Paris*, January 12th, 1899) reports very fully the case of a wife, aged 45, who was found to be a true male. When 19, she declined an offer on the plea that her period had never appeared. When 44, a widower, aged 60, married her, considering that the certainty of sterility was an advantage. Complete connection was impossible, but there were frequent emissions from a pair of ducts just below the clitoris and in front of the urinary meatus. The fluid was prostatic, without sperm cells. The subject was muscular, without beard, and with very small nipples. The clitoris was 1½ inch in length when flaccid. A deep groove ran from its glans to the urethra. The labia majora were very large, and their integument resembled that of a scrotum. In the right labium a well-developed testicle could clearly be felt; the head and tail of the epididymis and the spermatic cord were easily defined. The left testis was atrophied. Neither could be reduced into the external ring. Six months before Blondel examined her she had a bad accident and a double inguinal hernia developed, it was said, and caused great pain; a truss was ap-

plied. It seemed evident that the testicles descended then, and not earlier. Between the labia was a narrow vulvar orifice, with a normal fourchette and a structure very like a hymen. The vulvar orifice ended in a blind pouch hardly an inch deep. There appeared to be a distinct prostate, which could be acted upon at will by the levatores prostatæ. The subject was, in fact, a male hermaphrodite with complete hypospadias and a uterus masculinus.

(234) The Exanthemata as Factors in producing Pelvic Disorders.

J. W. Hyde (*Amer. Journ. Obstet.*, November, 1898) adduces 9 cases to show that the exanthemata tend to produce pelvic disorders. These were all cases in which pelvic disease developed prior to marriage. In 7 instances the exanthem was scarlet fever, and in the remaining 2, measles. With regard to the measles cases, it would seem that in both the fever permanently arrested the menses by setting up uterine catarrh. The scarlet fever was followed by endometritis in one instance, by vaginitis in 3 cases (in one causing vaginismus, in another labial adhesion and menstrual retention, and in the third difficulty in urination), and in 3 instances by pelvic peritonitis.

(235) Parietal Taken for Intra-Abdominal Tumour.

Glantenay and Fresson (*Bull. de la Soc. Anat. de Paris*, December, 1898) relate an important case where a well-known operator was about to undertake what he believed to be an ovariotomy. He found, however, that the tumour lay in the parietes. The mistake was detected during the process of enucleation, which was effected without difficulty. The tumour weighed 14 lb. 5 oz., and appeared to be a fibroma much softened by degenerative changes, for which reason it seems that it had been taken for a fluctuating ovarian tumour. The patient, a woman aged 54, had only noticed it for two years.

(236) Pessary 32 Years in Vagina.

Blondel (*Bull. et Mém. de la Soc. Obstét. et Gynéc. de Paris*, January 12th, 1899) removed with very great difficulty an old fashioned cup pessary 2⅕ inches diameter from the vagina of a very old woman who had suffered for some time from abundant fœtid sanious vaginal discharge. It made a deep grove in the vaginal mucous membrane. In an attempt to seize the free edge of the instrument the forceps was broken. At length a piece was chipped out. A segment of the groove then exposed was found full of fungating tissue and very lacerable. By aid of a curved needle Blondel passed a stout silk thread into the breach and over the outer side of the instrument. He then was able to draw it down, carefully detaching the adherent tissue bit by bit. Thus the pessary was at length drawn out without a hole being made into the rectum or bladder, though the groove seemed to extend to the rectal mucous membrane. There was a little hæmorrhage after the operation. The patient went away and was no more heard of. She was 68 years old and the pessary had been introduced when she was 36, four years after her last confinement.

THERAPEUTICS.

(237) Sodium Cinnamate in Pulmonary Tuberculosis.

At a meeting of the Section of Medicine of the New York Academy of Medicine on January 17th (*Med. Record*, February 4th, 1899), Alfred Mann read a paper on the management of pulmonary tuberculosis. The treatment especially considered depended upon the intravenous injection of aqueous solutions of sodium cinnamate—a substance which, according to the author, could be safely injected into the blood current, and which became located in the diseased areas and inhibited the action of the bacilli. The first change produced by the injections was an increase in the number of white corpuscles in the blood, and this took place especially in the eosinophiles. This augmentation of the number of leucocytes was noticeable within a few hours after the injection; it reached the maximum in twenty-four hours, and nearly disappeared within forty-eight hours. The capillaries of the affected areas became dilated and crowded with leucocytes. These leucocytes next began to gather about the tuberculous foci, forming a dense wall around the infected areas. After a time this was sufficiently pronounced to become visible to the naked eye. After a month or two new blood vessels sprang up, granulations began to form, and, as the necrotic material composing the tuberculous mass was absorbed, granulation tissue took its place. Finally, the diseased area was replaced by a connective tissue scar. The whole process may be summed up by saying that the treatment substituted for the tuberculous process an active inflammation, the result of which was cicatrisation. The subjective symptoms were those commonly observed in persons improving under general hygienic and climatic treatment, except that the favourable signs appeared more quickly. Small cavities, owing to the formation of cicatricial tissue about them and the subsequent contraction, were entirely obliterated, and even very large ones might be surrounded by dense connective tissue, with a smooth dry lining of the same tissue. The fevers and night sweats in favourable cases disappeared in the course of two or three weeks, and a general feeling of well-being and increased strength was noted. One of the earliest signs of improvement was a change in the expectoration to muco-purulent or mucoid expectoration, and a diminution in its quantity. The course of treatment usually extended at least over three months, but five months to a year might be required in some cases. The following details were given as to preparation and dosage. The original preparation was an emulsion of yolk of egg, containing water and cinnamic acid ground up finely, and rendered alkaline by sodium carbonate, which was added gradually in several small portions. It was found, however, that the injection of the acid mixture caused rigors. The fineness of the emulsion was a matter of great importance. Subsequently aqueous solutions of pure sodium cinnamate were used in strengths of 1 and 5 per cent. It was absolutely necessary to begin with 1 or 2 minims only of a 1 per cent. solution, especially in severe or hæmorrhagic cases, or when the patient was very weak. The dose is increased gradually from one-hundredth of a grain to one-fourth or one-third of a grain. This latter dose should seldom be exceeded. The injections are repeated at intervals of forty-eight hours usually, but for convenience they may be given two or three times a week in somewhat larger doses. It is very important to use only perfectly pure preparations. With regard to technique, the hands of the operator, the skin at the point of injection, and the instruments should all be carefully sterilised. Usually the median basilic or cephalic vein in one or the other arm was selected. By encircling the arm some distance above the elbow with an elastic bandage the vein was rendered prominent, and its walls became tense. The needle was then plunged slantingly through the skin into the wall of the vein. If immediately after the injection and before withdrawing the needle, the bandage was loosened, there would not be a drop of blood on the surface when the needle was withdrawn. The needle points should be kept very fine and well polished, and if this was done the pain from the injection was less than from an ordinary hypodermic injection. An aseptic dressing should be kept over the site of the puncture for a few hours. Details are given of two cases in which the treatment was followed by satisfactory results, and reference was made to others which the author had not been able to follow sufficiently long to allow of a definite statement being made as to their condition. The method was said to be unsuitable for cases in the last stages of the disease with large cavities and high fever, as there was not enough normal lung tissue left to allow of cicatrisation, and still give sufficient breathing space.

(238) Mercurial Suppositories in Hæmorrhoids.

J. Klewtzow (*Vratch*, No. 7, February 25th, 1899) finds the use of calomel in the form of a suppository very beneficial in cases of hæmorrhage due to piles. He tried it on himself and in a series of cases, mostly of old standing, and the results were highly satisfactory. He claims that it immediately arrests the bleeding, lessens the frequency and chances of its occurrence, and greatly reduces the size of the hæmorrhoids (probably by inducing contraction of the muscular walls in the vessels), and hence the subsidence of the pains on

defæcation and movement. Altogether not more than from 12 to 15 suppositories were used in a single case, 1 suppository being daily introduced into the rectum, and left there for twelve or twenty-four hours according as the condition of the case demanded.

(239) Cosaprin and Phesin.

Rosen (*Therap. Monats.*, March, 1899) reports the results of a trial of cosaprin and phesin, which are derivatives of antifebrin and phenacetin, the group SO_3 being introduced in the hope of rendering them less toxic. The experiments of v. Vámossy and Fenyvessy showed that while 1 gram of phenacetin killed a healthy rabbit in seventy-six minutes, 3 grams of phesin produced no obvious ill-effect; and that while ½ gram of antifebrin killed a rabbit in an hour, 6 grams of cosaprin produced no morbid symptoms. Phesin is a brownish, odourless powder, of a salt and slightly caustic taste; cosaprin a greyish white, odourless powder, very slightly salt. Both drugs have the advantage of being readily soluble in water, the reaction of the solution being slightly acid. Rosen has now given both cosaprin and phesin in 50 carefully observed cases in Mendelsohn's clinic. They were well borne in every case, and no toxic symptoms were observed, although comparatively large doses were given (up to 1½ drachm in the twenty-four hours). The larger doses were often followed by profuse sweating, but this was beneficial only in the rheumatic affections for which they were given. In acute muscular rheumatism and influenza both phesin and cosaprin gave good results in relieving the pain, 15 grains being given every two hours. Cosaprin was preferable to phesin since it is tasteless, and phesin in solution looks like ink. In facial neuralgia 45 to 77 grains a day proved serviceable. Chronic rheumatism was unaffected by them, and their antipyretic effect is too slight to be of practical value.

(240) Bromoform in Whooping Cough.

Cohn (*Therapeut. Monat.*, January, 1899) has treated whooping cough with bromoform for the last six years. Some cases were remarkably benefited, whilst others were not affected by the drug. This uncertainty in action may be due to the fact that Ritter's bacillus is not always present in cases of whooping cough, and that sometimes the disease is due to a mixed infection. The poisonous effects of the drug must be strenuously guarded against. The practice of giving it in drop form is not safe, the child either gets a very full dose or else a very small one. The amount cannot be accurately measured in this manner. The author has given the drug in the following manner, and has never seen any unpleasant symptoms follow. Bromoform, 0.5-1 or 2.0 dissolved in rectified spirit and gum arabic equal parts, 5.0-10 or 20.0, aq. destill. 100.0, syrup aurantii 20.0. The dose is one teaspoonful. This emulsion keeps well. It is important that bromoform should be dissolved in equal quantities of alcohol in order to prevent particles sticking to the sides of the glass. This mixture is then rubbed up with ten times the quantity of gum arabic. The water is added gradually. The emulsion should be made as rapidly as possible in order to prevent the bromoform from volatilising. Syrupus aurantii diminishes the sickly taste of bromoform and gum arabic.

PATHOLOGY.

(241) The Supratonsillar Fossa as the Starting Point of Infection.

Donald R. Paterson (*Laryngoscope*, July, 1898) brings forward evidence to show that the supratonsillar fossa may serve as the entrance point for various pathogenic organisms. This fossa is a space occasionally found just above the tonsil between the pillars of the fauces at the apex of the interstitium; it is, like the recess of Risenmüller, a vestige of the second visceral cleft, the extent of both depending upon the growth of lymphoid tissue. The opening of the fossa is partly bounded by the plica triangularis, changes in which may convert the outlet into a narrow opening to an almost closed-in sac. The part of the tonsil nearest the fossa differs somewhat from the rest of the gland in that the lymphoid tissue forms a very loose open network communicating with wide crypts and lacunæ on its surface, which is ridged as if covered with columnæ carneæ and musculi papillares. In the interstices between these ridges plugs are often formed from which tonsilloliths originate; the author states that the majority of tonsilloliths rise in this way and not in crypts of the tonsil. With regard to acute lacunar tonsillitis, he points out that it generally affects the upper part of the gland first, subsequently spreading downwards, and asserts that it may often be caused to abort by turning the contents out of the supratonsillar fossa, and thoroughly swabbing its surface with 1 in 40 carbolic acid. The supratonsillar origin of this affection is confirmed by the fact that repeated attacks leading to a hypertrophy of the fibrous with atrophy of the adenoid tissue end by leaving a roomy fossa with a comparatively wide outlet in relation to a tonsil possessing but little glandular tissue; in this condition spontaneous cure may be considered to have occurred, and attacks of tonsillitis are things of the past. Peritonsillitis can also be traced to causes arising within the fossa, while infection starting in its deepest portion may spread to the cellular tissue of the neck and the deep muscles, producing the characteristic posture. The author attributes the rarity of lacunar inflammation of the lingual and pharyngeal tonsils to the absence of a nest of infection such as the supratonsillar fossa. In this space also may arise septic pharyngitis, and that less serious affection, pharyngomycosis; in it the author has frequently demonstrated the leptothrix together with chalky or gritty deposit, and the treatment of the pharynx has not succeeded till the fossa has been cleared out as well. Finally, the fossa is said to be a frequent site of invasion by tubercle bacilli; tuberculous nodules have been demonstrated in it, and tuberculous cervical glands have not been successfully treated until the fossa has been opened up and drained.

(242) Lesions in the Central Nervous System in Delirium Tremens.

Ewing (*Arch. of Neurology and Psychopathology*, No. 3, 1898) contributes an interesting study based on 2 fatal cases (males aged 25 and 29 respectively) of typical delirium tremens following upon prolonged alcoholic indulgence and intoxication of six and twelve weeks respectively. The temperature rose before death to 104° and 105° in the two cases. As terminal complications there occurred a slight catarrhal pneumonia in one case, and an acute renal degeneration in the other. Necropsies made six and twelve hours after death; tissues preserved in Lang's fluid (Hg. ic chloride 5 grams, Na. chloride 6 grams, acetic acid 5 grams, water 100 grams); and stained with Nissl's methylene-blue method. Lesions nearly identical in the two cases. (1) Bulbo-spinal large motor cells. These presented extreme destruction of the "chromatic granules" of Nissl (chromatolysis). No normal cells anywhere; a few cells presented. (2) A faint trace of chromatic bodies at the peripheries of the cell bodies, the rest being destroyed. In many cells, especially the cranial nuclei, in addito (3) advanced chromatolysis, the cell outlines were irregular and ragged; and (4) considerable areas within the cell were almost colourless and transparent. Yellowish granular pigment was rarely seen in these cells. In badly altered cells (5) the nuclei were displaced eccentrically, and even projected from the cell border. (6) The remnants of the disintegrated chromatic bodies appeared as a uniform powder or dust scattered throughout the cell bodies, or arranged into a powdery network, or all remnants were absent. The Purkinje cells (7) showed partial destruction of the chromatic bodies, which were usually thin, ragged, and dusty-granular, or absent; this deficiency being most marked at the apical and based ends, and not about the nuclei. (8) In the cortical pyramidal cells the chromatic bodies were markedly bleached, sometimes coarsely granular and indistinct. (9) Throughout the central nervous system the dilatation of capillaries was striking. In the first case (the patient was said not to have been sober for three months) the chromatolysis was usually more complete than in the second. The above lesions in the ganglion cells are comparable with, but more marked than, those found after acute experimental alcoholic poisoning in animals. The violent nervous symptoms observed are attributed in large measure to the cellular lesions revealed by the above method (nutritive lesions in the cell body) of Nissl.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(243) Pulmonary Actinomycosis.

Sabrazès and Cabanès have made an extensive study of pulmonary actinomycosis (*Rev. de Méd.*, January 10th), and according to them the pulmonary form occurs in from 12 to 15 per cent. of cases of actinomyces in general. The lungs may be invaded primarily or secondarily. The primary lesion may be in the œsophagus, posterior mediastinum, or even the abdomen, more rarely in the trachea or the cervical cellular tissue. In other cases a primary broncho-pleural actinomycosis may be present. The process is essentially ulcerative, and three stages are described — broncho-pulmonary, pleural, and fistulous. The actinomycotic lung shows on section numbers of small abscess cavities and large tracts of fibrous tissue, not unlike caseating tubercle. In the cavity wall small yellow bodies may be seen in great numbers which are the nodules of actinomyces. The sclerosis seems to spread from the vessels; tubercle is a rare association. A very rare form of the disease consists in actinomycotic infection in which the mycelium does not show the club-like swellings, and in which there is no tendency to the formation of yellow grains. Sometimes the beginning of the disease is acute and the progress rapid. The authors quote a case in which the history was of six months' duration only. Much more frequently it extends over years. Its onset is extremely insidious, and it is a considerable time before local lesions in the lung can be ascertained. As a rule, the apex is unaffected; the lateral and posterior portions of the lung are the parts usually affected, but Lindt and Israel are quoted as describing cases in which the apex was affected, but in these there was reason to suppose there was coexistent tubercle. After a time the process spreads to the pleura, the two layers of which become adherent by inflammatory exudations and small subpleural abscesses are formed. As the disease goes on, the patients are troubled by incessant cough, loss of weight, and severe pain. The sputa are so extremely fœtid that pulmonary gangrene may be diagnosed. Sometimes, on the other hand, they are milky white, almost like brain pulp, due, according to Israel, to the large amount of fatty cells which they contain; occasionally they may be streaked with blood or rusty, but whatever their appearance, they do not seem to contain elastic tissue, from the fact that the sclerotic process is so extensive and early. The presence of the organism can usually be demonstrated. When the disease has reached the chest wall, there is often considerable extension into the pericardium, abdomen, and other organs. Externally there now appears a boggy red swelling with considerable surrounding œdema, though sometimes the swelling is extremely hard. Exploration with a needle rarely shows the presence of fluid, the glutinous pus being usually found containing yellow grains. On its way to the surface, the disease, as might be expected, produces severe bone lesions affecting the ribs or the vertebræ. Internal treatment is unsatisfactory, but good results have been obtained by administration of iodide of potash and eucalyptus. When the thoracic wall is affected, surgical interference is necessary, though here again treatment is often disappointing, but the authors are able from personal experience to state that the patient treatment of the disease by clearing out dead tissue and necrotic bone and scraping the surface of the diseased tissues, and even the application of the thermo-cautery may be followed by subsidence of the disease and the disappearance of the actinomyces from the sputum.

(244) Albuminuria in Diabetes.

Maragliano (*Gazz. degli Osped.*, March 5th, 1899), in a clinical lecture on a case of diabetes, discusses the phenomenon of albuminuria in relation to diabetes. Its frequency has been estimated at 40 per cent. of the cases by Stokvis; various other estimates have been made; the variations are accounted for by the inclusion or exclusion of cases where a minute trace of albumen has been observed. The significance of albuminuria depends largely on its cause; it may be merely functional, due to stasis, or to special alterations in the kidney of a diabetic character, or to ordinary nephritic inflammations; obviously the prognosis differs as the nature of the cause varies. The statement that when albumen appears then sugar disappears, if there is any truth in it, is to be explained by the fact that as the polyuria and glycosuria decrease under treatment, so albuminuria appears owing to the much slighter degree of dilution, a large quantity of water sufficing to mask the presence of a small quantity of albumen, which becomes apparent when the urine is less diluted.

(245) Hypertrophic Cirrhosis in Several Members of one Family.

Hasenlever (*Berl. klin. Woch.*, November 7th, 1898) records cases of hypertrophic cirrhosis of the liver, with chronic jaundice and large spleen, affecting two daughters and one son of the same parents. The eldest patient, aged 24, is still living. The second one, aged 22, died at the commencement of 1898 after profuse hæmorrhage from the stomach. The third patient, aged 18, is living. All three were poorly developed for their age, and were doubtless examples of Hanot's hypertrophic cirrhosis, similar to the cases described by Gilbert and Fournier and others. Alcohol as a cause of the disease could be excluded, but there were some facts pointing to the probability of hereditary syphilis. The house where the family lived was moist, but it is doubtful whether this can be brought into any etiological connection with the disease. Marchand in 1896 suggested that the diffuse connective tissue growth in livers affected with congenital syphilis might later in life give rise to a true hypertrophic cirrhosis. Hasenlever suggests that in his three cases congenital syphilis was really the cause of the hepatic disease, but that the backward development of the patients was due to the cirrhosis, and thus only indirectly to the syphilis. The mother and father of the patients are both living, and have three healthy children besides the patients. Three other children died in early childhood, and the mother has had one abortion. Microscopic examination of the liver of the second patient showed the cirrhotic process to be chiefly of unilobular distribution. No great increase of bile canaliculi was noted, but here and there canaliculi filled with pigment could be observed in the fibrous tissue. In the hepatic cells was much yellow and brown pigment.

(246) Paraplegia and Embolism of the Abdominal Aorta.

Heiligenthal (*Berl. klin. Woch.*, February 20th, 1899) gives the case of a woman with old valvular disease of the heart, who was suddenly seized with complete paraplegia of the lower extremities. The pulse could be felt in neither femoral artery, and both superficial and deep reflexes were abolished. Severe spontaneous pains were complained of in the lower limbs, although in both these limbs anæsthesia was complete. Death occurred twelve hours after the onset of the symptoms. At the necropsy the heart showed great stenosis of the mitral valve, and the abdominal aorta was found closed by an embolus lodged at its bifurcation. After careful microscopic examination of the spinal cord Heiligenthal has come to the conclusion that the aortic embolism in the present case did not give rise to circulatory disturbance in the lumbar spinal cord. On the other hand, two areas of softening were found, due doubtless to embolism of one of the central arteries of the cord. Independently of these lesions the ganglion cells showed changes which Heiligenthal believes are connected with the injury to the peripheral neurons caused by the anæmia of the lower extremities. He explains the occurrence of these changes (Nissl's method of staining) in the ganglion cells by von Lenhossek's hypothesis, according to which a disturbance of nutrition must occur in every motor nerve cell which can receive central or peripheral stimuli, but for some reason or other cannot pass on the stimuli which it receives.

SURGERY.

(247) Wounds of the Peritoneal Portion of the Rectum.

Quénu (*Rev. de Chir.*, January, 1899) points out that in cases of wound of the rectum, it is very important with regard to prognosis and treatment to determine

as soon as possible whether the abdominal cavity has or has not been penetrated. To a collection of 35 previously recorded cases of penetrating wound of the peritoneal portion of the rectum, this surgeon adds one under his own care in which laparotomy was performed with good results. Notwithstanding the facilities afforded by the use of the rectoscope in exploration of the rectum, it is very difficult to make out whether the wound has penetrated or not, especially if the examination be made soon after the receipt of injury, and before there are any indications of abdominal mischief. The author advocates laparotomy both in cases in which there can be no doubt as to penetration, and also in doubtful cases in which there are some signs of commencing peritonitis. In 6 of the 36 collected cases laparotomy was performed, four times with success twice with fatal results, the mortality being thus 33.3 per cent. Of 29 patients on whom laparotomy was not performed 24 died, the mortality being 82 per cent. In describing the details of his treatment of a wound extending from the rectum into the peritoneal cavity, the author insists on the importance of prompt laparotomy, of elevation of the patient's pelvis during the operation on an inclined table, of free exposure of the interior of the pelvis by upward displacement of the small intestines, of careful examination of the bladder and sigmoid flexure, which might also be involved in the injury, and of prolonged and thorough cleansing of the abdominal lining and contents by warm artificial serum. The duration of the operation and the chief difficulty will, as a rule, vary according to the seat of the penetrating wound. Whilst such a wound of the sigmoid flexure may be readily and speedily closed by a double row of sutures, it will be found a very laborious task to reach and close an opening situated at the bottom of the retro-vesical pouch. Much of this difficulty, it is thought, might be overcome by elevation of the anterior wall of the rectum by means of a carefully-distended elastic bag.

(248) Pylorectomy.

Finney (*Johns Hopkins Hospital Bulletin*, December, 1898) reports a case where a patient, about 50 years old, presented symptoms of pyloric cancer. For two days previous to operation the stomach was irrigated, and for twenty-five hours the patient was fed only by the rectum. A hard scirrhous mass was found about the pylorus, which was removed without difficulty, except that the duodenum was very adherent to the head of the pancreas, and there was some difficulty in arresting hæmorrhage after its separation. By dividing through the duodenum the growth was removed with about one-third of the stomach; several enlarged mesenteric glands were dissected away. The duodenum was grafted into the stomach, Halsted's mattress-suture being used, and the abdomen was closed without drainage. Four months later the patient was in excellent health. The second patient was 56 and had similar symptoms. The omentum was strongly adherent and had to be largely excised. Four glands were removed. Nearly two-thirds of the stomach were removed. The growth extended chiefly along the lesser curvature; a V-shaped piece was taken out. This greatly facilitated coaptation of the duodenum to the remains of the stomach after the cut edges of the V-shaped piece had been sewn up. The intestine was united by a simple circular suture. Halsted's dilatable rubber-bags were used whilst the suture was applied. The patient died of double lobar pneumonia on the fifth day.

(249) Acquired Deformities of the Toes.

Kirmisson (*Revue d'Orthopédie*, March, 1899) publishes 17 cases to support his opinion that deformities of the toes, such as hallux valgus and hammer toe, are due more frequently to pathological than to mechanical causes. Hammer toe, this surgeon states, is occasionally observed in a slight degree in infants, and the most exaggerated forms of this distortion are more prevalent amongst the poor, who are usually badly and loosely shod, than amongst those who wear tight boots. The author's cases indicate the frequent association of deformities of the toes with certain general morbid conditions, amongst which rheumatism plays a prominent part. The importance of mechanical causes is not ignored, but such conditions of causation, it is pointed out, are often wanting or must be regarded as quite accessory. Excluding the exceptional cases in which deformity of the toes is of congenital origin, or due, like genu valgum, to imperfect ossification, the author holds that in an immense majority of cases of deviation of the toes, the deformity may be attributed to some general cause either acting, like rheumatism, on the involved articular surfaces, or, like some general nervous disorder, on the muscles of the affected extremity, so as to cause their retraction. In some cases the joints and muscles may be simultaneously affected.

(250) Congenital Imperforate Anus.

Lejars (*Bull. et Mém. de la Soc. de Chir. de Paris*, December 21st, 1898) operated on an old patient of Péan's, a young girl of 14. Born with imperforate anus, an artificial anus was made in the groin two days later. At the end of two years Péan opened up a normal anus, but he failed to close the artificial orifice. Numerous attempts to do so made the patient's childhood miserable, yet at 14 she was well and robust. Most of the fæces passed through the groin, but occasionally they passed freely from the normal anus, so that the rectum was clearly patulous. In February, 1898, Lejars attempted to close the anus in the groin. He fancied that he dissected off the intestinal mucous membrane, and that he also stripped up a wide area of the muscular coat; the more superficial layers were treated in a similar manner. The layers thus dissected up were carefully sutured separately, the skin being sewn up with particular care. Unfortunately fæces burst open the sutures at the end of a fortnight. Then he found that what he took for dilated sigmoid was a vast cavity, the gut opening into its deepest part, whilst it opened superficially on to the skin. He had not touched any part of the gut. In July Lejars made a free incision, then excised and curetted the subparietal adventitious pouch, opened the peritoneum, and drew out the whole segment of the sigmoid flexure which bore the artificial orifice. This aperture was wide, and he found it hard to do a good lateral enterorrhaphy without dangerous occlusion of the lumen of the gut. The mucosa was united with continuous catgut, and the serous coat sewn over it with fine silk. Then the layers of the parietes were sutured separately. Five months later the patient was in perfect health, free from all discomfort, and the iliac wound had healed completely.

(251) Blennorrhœas not caused by the Gonococcus.

Axenfeld (*Deut. med. Woch.*, November 3rd, 1898) calls attention to the fact that while the majority of blennorrhœas are caused by the gonococcus, cases not infrequently occur in the etiology of which other organisms are concerned—for example: (1) Diplococci, which are morphologically indistinguishable from gonococci, and are frequently found like them within the cells, but which do not decolorise by Gram's method, and grow like staphylococci on ordinary media at the temperature of the room. Attacks of blennorrhœas caused by these "pseudo-gonococci" are, as a rule, milder and shorter in duration than the ordinary form. (2) Pneumococci. The diagnosis may be made by microscopic examination alone. The cornea in these cases is seldom affected, and recovery is rapid, sometimes by a sort of crisis. The incubation period in infants has not yet been determined, in adults it is about four days. (3) The bacillus of Koch-Weekes may set up an acute conjunctivitis, but it is rarely met with. The small size of the bacilli which decolorises with Gram is characteristic. (4) Axenfeld has seen two cases of conjunctivitis caused by the B. coli communis. The condition resembled that of a moderately severe gonococcal blennorrhœa, but in each case remained one-sided. (5) He has also had one case (in a child 5 days old) of double diphtheritic affection of the conjunctiva, with infiltration of one cornea, which quickly improved after antotixin was injected. The cornea, it is to be noted, improved much less rapidly than the conjunctiva, a fact which may be explained by Coppez's observation that the cornea is not affected by the diphtheria bacillus directly, but by accompanying pyogenic organisms. (6) The author has also seen two instances of well-marked blennorrhœa in which no bacteria were found at all. These he ascribes to chemical irritation.

MIDWIFERY AND DISEASES OF WOMEN.

(252) Hernia of Fallopian Tube.

Wiart (*Bull. de la Soc. Anatom. de Paris*, January, 1899) discovered this condition after death in the body of a female infant 6 months old. There was no external sign of any kind of rupture, the child was hydrocephalic, and free from any malformation. On opening the abdomen the uterus was found strongly deflected to the left, and looking towards the internal ring. The left ovary, lying in the iliac fossa, nearly touched the internal ring at its anterior extremity. The tube and round ligament were engaged in this orifice, and both attached to it by a short mesentery common to both. The right ovary and tube were normally situated. On dissection from the front a little sac was found in the left inguinal canal, projecting from the external ring. In the sac lay the tube, completely bent on itself, and attached to the sac throughout by a short mesentery. In Wiart's case, 1897, the tube had no such mesentery, but lay free, dragging after it its mesosalpinx. Schultz (*Thèse de Paris*, 1897) has collected 12 cases of inguinal hernia of the tube. Wiart notes that this thirteenth case is the second found in an infant. Demoulin operated a month or two ago on a fourteenth case. The tube adhered to the sac; on traction the ovary could be pulled along the canal and on to the surface of the wound.

(253) Twin Pregnancy in Tubal Sac.

White of Boston (*Boston Med. and Surg. Journ.*, October 20th, 1898) reports a case where a woman, married eighteen years, bore two children within three years of married life, and then remained barren for thirteen years. Suddenly the period ceased, and was replaced for three months by bloody discharge and coagula almost constant; the patient complained of weakness, nausea, and severe sacral pain. For a fortnight she took to her bed. The uterus lay to the right; in the left fornix was a mass of the size of a tangerine orange behind the base of the broad ligament. The mass was smooth, and did not fluctuate. The uterine cavity measured 2¾ inches. Extrauterine pregnancy was correctly diagnosed. Abdominal section was performed, and the mass was found to be the enlarged abdominal end of the left Fallopian tube. This was removed without rupture, a ligature having been placed on the distal side of the ovary. Recovery was rapid. The tumour was hardened, and on section a separate fœtus was found in each half. The specimen has been preserved.

(254) Hemicephalic, Ectromelic, Exomphalic Fœtus.

Coronado (*Habana Medica*, vol. i, No. 5, December, 1898) read before the Academia de Ciencias of Habana the account of a case of deformed fœtus born under peculiar circumstances. The parents were young; the father was a Spaniard, the mother a Cuban. They were in Manzanillo during the bombardment, and the mother was much alarmed by the falling of a shell near to her on the fifth day of the sixth month of her pregnancy. She noted at the time the absence of fœtal movements, nevertheless abortion did not occur. She was afterwards removed in a small boat to Habana, where she became reassured, for the fœtal movements were felt again, and her medical attendant heard the fœtal heart. But on the twenty-fourth day of the same month labour pains set in, and the child was found presenting by the breech. The delivery was soon effected, but the heart did not long continue to beat. It was seen that the fœtus was hemiectromelic, and had a marked eventration. The author apparently connects together the fright sustained during the bombardment and the defect of ossification of the cranium and limbs of the fœtus, a conclusion scarcely warranted by the details, not to mention the known facts of embryology.

(255) Abortive Ovum discharged Three Days after Normal Labour.

Porak (*Bull. et Mém. de la Soc. Obstét. et Gynéc. de Paris*, January 12th, 1899) publishes a remarkable instance of true two-yolk twin pregnancy, with early arrest of development of one ovum and disappearance of the fœtus. Compared with one-yolk twin gestation and acardiac monstrosity in one of the embryos, this condition is very rare. The patient, aged 32, was a 5-para. Labour at term occurred on January 5th this year, and a live female child, weighing over 7 lbs., was delivered spontaneously. The placenta weighed weighed over 1 lb. 3 oz.; the cord was inserted into its margin. As the patient's temperature went up and the uterus seemed to be bulky it was explored on the third day. A clot filled the cervix; at the internal os membranes seemed to present. The body of the uterus was pressed down; then the structure like fœtal membrane was easily extracted by means of the fore finger and middle finger. The pulse and temperature fell and the patient soon recovered. The body removed from the uterus was clearly an ovum, apparently unruptured. No trace of a fœtus or cord remained, but there was atrophied placental tissue. This second ovum must have ceased to develop about the second month.

(256) Prolapse of Inverted Uterus; Reduction after Fifteen Years.

Silberstein (*Monats. f. Geburts. u. Gynäk.*, October, 1898) records a rare case where a woman, aged 70, had gone about for fifteen years with the uterus inverted, and it had recently become prolapsed. Just as the vaginal mucous membrane was altered in the fashion well known in all cases of chronic prolapse, so the endometrium of the inverted uterus was at first unrecognisable Silberstein succeeded in reducing the inversion. He notes that 3 cases of prolapse of the chronically inverted uterus were recorded in the last century, whilst only 3 have been described since 1800—namely, Barker's and Schröder's cases, and, lastly, the well-known instance in McClintock's experience, where the inversion was due to a fibroid.

THERAPEUTICS.

(257) The Power of Absorption in Childhood.

W. Jakubowitsch (*Medizinskoje Obosrenje*, January, 1899) reports the results of a series of experiments made with the view of determining the conditions which influence the process of absorption in children. He arrives at the following conclusions: (1) If food, either in a solid or in a liquid form, be introduced into the stomach immediately after the latter had been carefully washed out, the result is that absorption from the mucous surface of that organ takes place, contrary to general expectation, far less vigorously than before the stomach had been subjected to this treatment. (2) During the existence of a high temperature, either of a continued or intermittent character, the absorbent power of the stomach and rectum is considerably retarded. (3) The age of the child, as such, does not in any way, either at a normal or at an elevated temperature, influence the process by which absorption from the mucous membrane ensures. There is, however, at least one exception to this statement. Clinically it had often been proved that during the period of suckling, absorption, and especially from the rectum, varying of course with each individual child, is on the whole much slower than at a somewhat more advanced age, say, after one year and a half; and it has more than once been ascertained, that at the age of from 2 to 5 years no mucous membrane of the body is so susceptible to quick absorption as that of the rectum. (4) It is noteworthy that with the approach of death absorption from the rectum is absolutely *nil*, a fact which might aid in forming the prognosis of a given case. (5) The author has convinced himself that solutions of iodide of potassium applied to the skin are not absorbed, provided, of course, that the latter is in a normal uninjured condition.

(258) Toxic Symptoms from Hydrastis Canadensis.

F. Miodowski (*Berl. klin. Woch.*, January. 30th, 1899) describes the following case: A man, about 65 years of age, was ordered to take twenty drops of the liquid extract of hydrastis canadensis three times daily on account of bronchitis with copious expectoration. He had taken, as he said, two doses, the last one at bedtime. Soon afterwards he experienced difficulty of breathing, which caused him to get up and walk about the room. The symptoms, however grew worse, and when Miodowski arrived he found the patient sitting up with his body bent forward, and his

hands grasping the arms of the seat. His face was livid, and his eyes wandered anxiously around the room. Respiration was quick, with powerful action of the auxiliary muscles of respiration. With inspiration *râles* could be heard, even from a distance, and expiration was accompanied by a whistling sound. The pulse was small, soft, easily compressible, and slow. The patient's forehead was covered with cold sweat. No dulness could be found on percussion of the lungs, but by auscultation there was (fine and medium) crepitation all over, especially on the left side, where also bronchial breathing could be heard at places. The heart sounds, owing to the pulmonary sounds, could hardly be distinguished at first, but later on became more distinct. They were pure, but slowed. The cardiac apex-beat could not be felt. After the use of stimulants (ether, wine, coffee, mustard paper, etc.) improvement gradually took place; the respiration became slower, with less crepitation and whistling, the pulse became stronger and more regular, and the sensorium clearer, so that patient could answer questions. As no cardiac murmurs could be heard during the attack, and as the patient was otherwise a strong man, Miodowski thinks the drug caused the symptoms by inducing cardiac weakness with secondary congestion and œdema of the lungs. This explanation agrees with the results obtained by Fellner in experiments on animals.

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(259) Bleeding in Pneumonia.

Drago (*Rif. Med.*, March 4th, 1899) pleads for a more extended use of bleeding in pneumonia, and reports briefly 5 cases of pneumonia in which it was practised. The depletive and depurative action of bleeding is most likely to be beneficial in the stage of engorgement, but may also be useful in the later period of hepatisation. The author would also recommend its use in other infective fevers, as he has observed benefit follow from "natural bleeding" in the course of typhoid and certain atypical infective fevers. The epistaxis which frequently occurs in typhoid is from this point of view beneficial. No statement is made as to the amount of blood withdrawn, but as several bleedings were practised, probably only a small amount was taken. Digitalis was freely used in addition. Of the 5 cases reported, 1 died.

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(260) Sugar and Muscular Fatigue.

Prantner and Stowasser (*Centralbl. f. inn. Med.*, February 18th, 1899) say that the value of sugar in muscular exertion now rests on a sound physiological basis. After referring to the researches of other observers they record experiments made upon themselves. The authors preferred muscular exercise which brought into action the muscles of the upper extremities, and even of the trunk and legs, rather than the efforts required in the use of Mosso's ergograph. Thirty grams of grape sugar was taken in weak tea. In order to avoid any possible effect of suggestion, the tea was sweetened with 25 grams dulcin, when the sugar was not added. The work was commenced ten minutes after taking the sweetened drink. The authors both worked simultaneously, so that the results could be compared. The one taking the sugar always showed a distinctly increased power of work, and often the increase was considerable. In a second group of experiments the authors worked with Gaertner's ergostat until they were thoroughly tired; they then drank the tea containing sugar, and commenced the first-named kind of work. Here the effect of the sugar was remarkable. In a third group of experiments the proteid metabolism was estimated during the time of the administration of the sugar and the performance of the muscular exercise. The chief result of the experiments was to show that the addition of even a small quantity of sugar to the diet acted as albumen saving. Thus the rapid strengthening action of sugar deserves attention not so much for those who are regularly engaged in hard manual labour as for those who have a single muscular task to perform, or who, already tired, have to complete such an effort. Elaborate tables are appended giving the figures upon which the paper is based.

PATHOLOGY.

(261) Toxicity of the Blood in Epilepsy.

C. A. Hertes, of New York (*Journal of Nervous and Mental Disease*, February, 1899) in order to find actual evidence for or against the belief in the "toxicity" of the blood of epileptics, investigated 14 cases of epilepties at Craig Colony. Samples of blood were drawn off (by venesection) from each patient at varying times—for example, the day of the seizure, and on other days in the interparoxysmal period, etc. All the patients had been subject to *haut mal* for some years. The samples of blood were defibrinated, and small quantities injected subcutaneously into rabbits, 5 c.cm. per minute being the rate of injection. In this way varying quantities (5½ to 11 c.cm. per kilog. of body weight, and more) were injected. In 12 cases the blood of the patients seemed to have about the same toxicity on rabbits as normal blood. Only one case showed a high and exceptional toxicity of the blood: this was an epileptic with prolonged headache, habitually an overfeeder at meals, with a congested face and conjunctivæ. Ten c.cm. of his serum was fatal to the rabbit in 45 minutes. (Experiments on a dog and on a Java monkey gave results similar to those obtained with normal human blood.) The symptoms most generally found with the rabbits were: contracted pupils, a few tonic and clonic spasms, some dyspnœa and cyanosis. With increase of the injection there supervened drowsiness, increased cyanosis and failure of respiration, and death. *Post-mortem* examinations revealed the usual appearances of intravascular clotting (recent thrombi) in the heart, and pulmonary veins; or more widely throughout. The conclusions were that while the toxicity of the blood is not appreciably increased in epileptics (except, perhaps, at "congestive" periods with a rapid recurrence of fits), the results vary slightly, and, on the whole, within limits quite like those in healthy (non-epileptic) cases. Whereas *per contra* the blood is markedly and intensely toxic in cases (known from experiments of others) of uræmia with convulsions, scarlet fever, and pneumonia. For future investigations it is advised: (1) That the rate of infusion into rabbits should be at the slow rate of 2 c.cm. per minute, and the infusion should be stopped when the first indications of involuntary spasm appear. The minimum injection to cause death not immediately but in from 12 to 36 hours should be determined; and this should be repeated on several rabbits, and the mean lethal period determined. (3) Where the toxicity of the blood shows a decided increase it would be best to determine this, particularly in monkeys, as in these animals intravenous coagulation seems not to be set up by human blood. (4) The toxicity of the defibrinated blood should also be determined for guinea-pigs by subcutaneous (not intravenous) injection, after the manner suggested by Uhlenhuth working with Brieger.

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(262) The Bacteriological Diagnosis of Typhoid Fever.

Piorkowski (*Berl. klin. Woch.*, February 13th, 1899) makes a preliminary communication upon this subject. He had previously pointed out a method of distinguishing between the typhoid and colon bacilli by means of media containing urine. The colon colony has a sharp outline, whereas the typhoid colony sends out from all sides fine processes. As 48 hours were required for this appearance to develop Piorkowski has been searching for a medium on which the growth would be more rapid. Lately he has employed the following: ½ per cent. peptone and 3.3 per cent. gelatine is made up with normal urine collected during two days. This is heated for an hour and is then filtered without the aid of heat. Tubes are filled and sterilised at 100° C. for 15 minutes. The sterilisation is repeated for 10 minutes on the following day. After 20 hours' growth at 22° C. the colon colony looks round, yellowish, and finely granular, whereas the typhoid colony presents a thread-like appearance, the threads radiating from a centre. Impression specimens from plates containing both kinds of colonies present a characteristic appearance. Stab cultures of the B. coli show a thick growth extending along the line of the stab and also over the surface, whereas the growth of the typhoid bacillus was more translucent and did not spread over the surface. The author says that in the case of four typhoid stools so examined, the diagnosis could be made in 20 hours at a time when Widal's reaction was not present.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(263) Glycosuria in Cholelithiasis.
Kausch (*Deut. med. Woch.*, February 11th, 1889) has examined the histories of 85 patients admitted into Mikulicz's clinic with gall stone disease during the past eight years and in only one case was glycosuria present. Even here it is not certain whether the glycosuria was really dependent upon the cholelithiasis, but it appeared very probable. In one group, embracing by far the largest number of cases, the urine was examined only once for sugar, and probably Trommer's test was alone employed. In a second group of 9 cases the whole urine for twenty-four hours was tested, as well as other samples, and Trommer's test was not the only one employed. In a third group 6 cases were investigated for alimentary glycosuria, and in none was sugar found in the urine. The author then criticises the views of Exner, who found glycosuria in nearly all cases of gall stone disease. He also discusses at length the value of the various tests for sugar, and he appears to think that some source of error must have crept into Exner's observations. Kausch holds that the old view is the correct one, which represents the occurrence of glycosuria in cholelithiasis without hepatic disease as exceptionally rare.

(264) Acute Myxœdema, with Tachycardia, Glycosuria, Melæna, Mania, and Death.
Osler, of Johns Hopkins University (*Journal of Nervous and Mental Disease*, February, 1899) shows that acute myxœdema may occur as a temporary condition in goitre, giving rise to a group of symptoms which, so far, seem not to have been recorded. The case illustrating this is that of a man, aged 31, with no special tendency to nervous disorders, of previous good and vigorous health, not addicted to drink, and free from syphilis, a hard worker, and married. Height, 5ft. 8in.; weight, 145lbs., The illness commenced in October, 1896, when his wife noticed he was increasingly rapidly in size, so that in two months he had to get new suits of clothes. The following month his weight was 182lbs., the size of the abdomen leading even to a suspicion of dropsy. At first healthy, he now became irritable in disposition, sleepless and restless. At times between October, 1897, and January, 1898, he had attacks of diarrhœa—stools dark-coloured, abundant, and at times almost involuntary. He now became weak, prostrate, left off work on medical advice, and was sent away for rest. Here he grew worse, suffering from insomnia, restlessness, and incipient delusions of imaginary enemies. The skin was very dry and harsh, the face bloated and almost purple like a drunkard's, slight exophthalmos. Lineæ atrophicæ formed about the abdomen and flanks. With rest in bed the delusions disappeared, but the bloated, puffy condition of the face, hands, and body generally persisted. Lymphatic glands not enlarged. Pulse frequent (average over 120 per minute); heart sounds clear, no *bruit*; apex beat a little outside mammillary line. No enlargement of liver or spleen. Appetite good; no nausea or vomiting; stools generally watery and blood-tinged. Fine slight tremor of fingers; knee-jerks present, and sensation not disturbed. Temperature normal; urine free from albumen or casts. Later, he grew more dull and apathetic, developed glycosuria and marked albuminuria with granular casts, and passed three or four thin blood-stained stools a day. In March the temperature rose, and kept between 103° and 103.5° F.; the frequency of the pulse increased, and he became actively delirious. The infiltration of the skin now rapidly diminished. He was given thyroid extract, and after taking it for two days became maniacal in conduct and obscene in language; making attempts to get out of bed, though really too weak to succeed. The tachycardia, glycosuria, and albuminuria continued; he now developed visual hallucinations. He thus sank, and died of exhaustion. The clinical picture, says Osler, does not conform to any one disease, the closing symptoms being like those seen in the toxæmia of acute exophthalmic goitre complicated with mania. A necropsy could not be obtained. "It seems most rational to suppose that in this case there was a perversion of the function of the thyroid gland, resulting in a toxæmia, which presented some of the features of myxœdema and some of Graves's disease with mania"—somewhat analogous to a case reported by Lloyd, in which, however, the disease lasted only a few days.

(265) Hyperidrosis Spinalis Superior.
Kaposi (*Wien. klin. Woch.*, 1899, No. 10) showed at the Vienna Medical Society a boy, aged 15, with a curious disorder in the secretion of sweat. Nothing remarkable in the family history; no history of past illnesses. He presented some kyphoscoliosis of the cervico-dorsal spine, and his skull was suggestive of hydrocephalus. His nose and ears were cyanotic and cool. His internal organs were fairly healthy. When he was only a year old his mother noticed abnormal sweating on his nose. Between his first and his eighth year other portions of his body became successively affected with the unnatural sweating in the following order—upper lip, forehead, inner part of the eyebrows, chin, neck, trunk as far down as the sixth rib, and the arms as far as the wrists. During the last seven years the hyperidrosis had not spread beyond these parts. The hyperidrosis on the affected parts of the body was almost continuous in cold weather. The sweating was diminished when the patient was warm from walking and in the summer. A cold bath induced sweating, but not a hot bath. When the patient lay covered up in bed the sweating only occurred on the nose and eyebrows. A hot bath seemed to prevent sweating for half an hour. The sweating from pilocarpin commenced on the areas of hyperidrosis. Atropine stopped the sweating. If one arm was rendered anæmic by pressure the sweating did not occur on the anæmic area, even after a pilocarpin hypodermic. Kaposi thinks that in the present case there was a condition of hydromyelia present, and that abnormal irritability of the vasomotor centres of the upper dorsal and lower cervical regions, possibly also of higher regions of the nervous system, might be the cause of the hyperidrosis.

SURGERY.

(266) Mesenteric Tumours, Solid and Cystic.
Bégouin (*Rev. de Chir.*, March and July, 1898, February, 1899) has published a valuable monograph on this subject. Much in respect to cysts will be found in F. S. Eve's paper on Mesenteric Cysts (*Med. Chir. Trans.*, vol. lxxxi, 1898, p. 51). Bégouin relates how Koeberlé found his cases of solid mesenteric tumours irremovable; Spencer Wells and Homans both operated a second time, taking courage and removing the tumour; Péan extirpated a mesenteric lipoma weighing 44 lbs. in 1871. The tumour remains a grave matter as far as surgery is concerned. In 36 fairly reported cases of solid mesenteric tumours extirpation was effected in 29, with only 14 recoveries. Out of the 15 deaths, shock was reported as the cause in no fewer than 8; though Bégouin includes under the 8 several where the patient survived the operation for from thirty to fifty-eight hours; 4 died of peritonitis between the third and seventh day; fœtid diarrhœa caused death in 3 cases, possibly in 4. The physiology of this complication, against which the surgeon must clearly be on his guard, has been disputed. Bégouin traces it to gangrene of the mucous membrane of the adjacent intestine, a purely pathological condition, due to damage during enucleation. Sloughing of a whole segment of intestine was not detected in any of these cases that died from or with fœtid diarrhœa. But Bégouin notes that in Demons's case, which was reported as dying from "shock" thirty-six hours after operation, sloughy patches were found on the intestine opposite the divided mesentery. In 2 of the fatal peritonitis cases a perforation was found on the wall of the intestine adherent to the marsupialised capsule of the tumour. Bégouin has experimented on dogs in order to make sure of the effects of division of mesentery on intestine. He concludes that the surgeon must make his incisions parallel to the principal mesenteric vessels, and above all preserve intact the line of vascular anastomotic loops which come close to the intestinal attachment of the mesentery. But if the separated segment of intestine looks suspiciously livid or white, resection is indicated. Bégouin concludes his

monograph (February, 1899) with valuable tables and a very complete index of references.

(267) Lymphosarcoma of Mesentery.

Herzog (*Jour. Amer. Med. Assoc.* February 11th, 1899) recalls a case of this disease, with a successful operation, in a boy aged 5 (*Annals of Surgery*, July, 1897). He there tabulated 57 cases of solid mesenteric tumours, 10 being sarcomatous. He now records an eleventh case of sarcoma. The patient was a physician aged 62. He had been subject to diabetes six years previously; it subsided under Carlsbad treatment. Recently, weakness and enlargement of the abdomen were observed, without jaundice or hæmorrhages. There was much ascites, and atrophic cirrhosis of the liver was diagnosed. The urine was free from sugar, albumen, and casts. The abdomen was stopped, the fluid was of the type seen in chylous ascites, specific gravity 1012, with much albumen and 2 per cent. sugar. Large tumour-masses could now be felt. The patient rapidly lost strength and died. At the necropsy a large lymphosarcoma of the mesentery was discovered, with metastases in the pancreas, omenta, gall bladder, pleuræ, and the lymphatic glands of the bronchi, posterior mediastinum, lumbar and left inguinal regions. The liver was cirrhotic; this complication was the cause of the ascites. The presence of chyle seemed due to pressure of lymphosarcomatous glands on the thoracic duct. The sugar in the ascitic fluid was possibly derived from the pancreas, which was deeply involved. The cirrhosis of the liver seemed to be a secondary change due to toxins; it had come on late, and the patient was not intemperate.

(268) Enterotomy for Ileo-cæcal Cancer.

Bacaloglu and Paguez (*Bull. et Mém. de la Soc. Acad. de Paris*, January, 1899) report a case in which the surgeon was obliged to undertake an operation both necessary yet unsatisfactory in a case where the entire large intestine was obstructed. Diagnosis was difficult. The patient was a blacksmith, aged 40, very subject to dyspeptic symptoms, especially on rising. He also had general hyperæsthesia and nightmares. But, as he was avowedly intemperate, all these symptoms were at first attributed to alcohol. Suddenly violent vomiting and tympanites set in. Enemata brought away a little fæces and flatus at first, but after a couple of days nothing passed from the rectum, and on washing out the stomach a great quantity of fœtid fluid came away. Then resistance was detected in the right iliac fossa. Abdominal section was performed, and cancer of the cæcum detected. What was taken for the end of the ileum was fixed to the left groin, a lumbar enterectomy being undertaken, the bowel not being opened till a day later. For several days the vomiting ceased, but the patient suffered intolerably from thirst. Liquid fæces passed very freely from the artificial anus. At the end of the week the patient died after a rise of temperature. There was no peritonitis and no perforation; the stomach and small intestine were extremely distended. The obstruction was due to epithelioma of the ileo-cæcal valve. Then a remarkable condition was detected. The coil of intestine which had been opened proved to lie within 6 feet of the pylorus. As it adhered firmly to the cæcum, it had been mistaken at the operation for the termination of the ileum. The small intestine below the artificial anus was distended with fæces. The patient had died of thirst and inanition, due to the escape of quantities of fluid containing material which otherwise would have been assimilated.

(269) Enterostomy in Peritonitic Paralysis.

Van Arsdale (*Annals of Surgery*, January, 1899) suggests that in order to establish free drainage of the intestinal canal in grave forms of peritonitis complicated with paralysis, it might be advisable to make one or more openings in the distended intestine, care being taken by packing that the discharges from these openings be prevented from coming into contact with the peritoneum or the external wound. Three cases of acute septic peritonitis are recorded, in which this treatment was followed by good results. In two of these cases the inflammatory mischief had been set up by appendicitis. It is also suggested that if in any case of acute peritonitis treated by laparotomy, the distension and paralysis of the bowel be not complete, it might be found beneficial to leave some distended intestine in the external abdominal wound, and to suture it there, so that at any subsequent time if the bowels be not moved, or if the symptoms of septic absorption continue, artificial openings may be readily made. In a discussion on this paper at a recent meeting of the New York Surgical Society, Abbe stated that he had resorted to enterostomy in 6 or 8 cases as a secondary procedure, but never with success. When the intestine was opened, a limited quantity of fluid would usually escape. His experience of such treatment had been similar to that of a number of English surgeons who had written on the subject. The escape of fæces and gas is usually limited to kinks in the intestine.

(270) A Case of Syphilitic Reinfection.

Casalmi (*Rif. Med.*, August 26th, 1898) reports a case of syphilitic reinfection occurring in a prostitute who was at the time suffering from syphilis. The patient, aged 24, was admitted into hospital on October 31st, 1896, with a tuberculous papule over the left superciliary region, and moist tubercles at the left labial angle, and also on the vulva; the inguinal and cervical glands were enlarged. On November 13th injections of corrosive sublimate (1 centigram) were tried, but had to be abandoned after 10 had been given owing to intolerance; they, however, caused the disappearance of the moist papules. On December 3rd a primary syphilitic sore was noted on the internal surface of the upper lip. On January 9th, 1897, a syphilitic rose ola appeared. Injections of salicylate of mercury (5 centigrams) were given every five days, and xv gr. of pot. sod. every day. Under this treatment the lesions speedily improved, and on February 24th the patient was discharged cured as far as any external manifestation of syphilis was concerned.

MIDWIFERY AND DISEASES OF WOMEN.

(271) Ectopic Gestation: Operation late in Pregnancy.

Boissard (*Bull. de la. Soc. d'Obstét. de Paris*, January 19th, 1899) describes two successful operations, classed as "abdominal," though the primary seat of gestation, tubal or otherwise, can hardly be proved late in pregnancy. The first patient was 29; the last period occurred on March 15th, 1898. Abdominal section was performed on October 27th, as sudden pain and tension of the sac set in. The sac was incised, and a living fœtus extracted; the edges, which bled very freely, were sewn to the abdominal wound; they were so thin and soft that some of the placental tissue had to be included. The cavity was packed with iodoform gauze. A week later there was high temperature; the placenta began to putrefy, notwithstanding two irrigations of the sac daily. The fœtid odour disappeared, and the temperature fell immediately after irrigation with oxygenated water (10 volumes to 1 litre or 1.7 pint). But there was much suppuration; an attempt to detach the placenta on the twenty-eighth day set up hæmorrhage, and renewed plugging was required. On the forty-fifth day the placenta came away. Seventy-seven days after operation a small fistulous tract remained. The second patient was 35, the last period occurred on January 19th, 1898. Abdominal section was performed on November 7th. A macerated fœtus, weighing 4lbs., was extracted. The front of the sac was freely excised to allow of thorough plugging with iodoform gauze, and the edges were sewn to the abdominal wound. High temperature and fœtor followed, disappearing as in the other case when irrigation with oxygenated water was practised. On the fifteenth day detachment of the placenta was attempted, but hæmorrhage was worse than even in the first case, and intravenous injection of serum was found necessary, as well as plugging of the sac. The placenta came away eleven days later. The sutures began to come away in the discharges, and the sac took long to close. Eighty-five days after the operation a fistulous tract still remained.

(272) Hydrorrhœa 3 Months; Fœtus Outside Membranes.

Dubrisay (*Bull. de la Soc. d'Obstét. de Paris*, February 16th, 1899) observed very chronic hydrorrhœa in a woman aged 29. Her period ceased after June 27th, 1898, and she became pregnant for the third time. The previous preg-

nancies had been normal. On October 30th water began to dribble away from the vagina. The uterus felt as if in the middle of the fourth month, the os externum was open, the os internum closed; on pressing up the foetus, which could be felt anteriorly, some liquor amnii came away. Uterine contractions had set in, but ceased after rest. Much fluid escaped—about 80 grammes daily; on one occasion, January 18th, 255 grammes came away. The fœtal heart was audible on November 10th. On February 13th the patient was taken with strong labour pains. Dubrisay found the breech and trunk delivered when he arrived, the head being retained in the vagina. The child, a male, weighing a little over 3½ lbs., was apparently dead, but after insufflation, etc., it began to cry out well. It was placed in a *couveuse* and fed with a wet nurse's milk, and was doing well three days later, when the case was reported. The placenta was delivered spontaneously 2½ hours after the child. Half an hour later the patient felt faint, blood trickled away from the vagina, and there was clearly uterine inertia. Clots were cleared out and hot water injected into the uterus. Subcutaneous injections of ergotine and artificial serum soon improved the patient's condition. The placenta weighed 9 ounces, and bore a detached cotyledon; the cord branched into two divisions inserted in the centre of the membranes. The most unusual feature, however, was the amniotic cavity, which appeared as a little cap or cupola in the middle of the placenta, and was not 3 inches in diameter. Thus the fœtus had lain for long in the uterine cavity outside the membranes. In the present case the hydrorrhœa had continued for 110 days; in Tarnier's it lasted 88 days, Maygrier's 58 days, and Bar's one month. In all these cases the placenta had grown extensively around the borders of the membranes which had undergone atrophy, the placenta hypertrophying as the fœtus developed.

(273) Tubal Abortion and Pelvic Hæmatocele.

Brodowski (*Monats. f. Geb. u. Gyn.*, October, 1898) publishes a case of great interest in relation to the question of complete and incomplete tubal abortion and its proper treatment. A woman, aged 33, had an opening made through the vagina to allow of the escape of a retrouterine hæmatocele; she had missed two menstrual periods. A few days later she died of peritonitis. At the necropsy a fœtal sac was found in the left tube. This tubal sac was unruptured, but the ovum was surrounded by clots, and the blood in Douglas's pouch had run there out of the ostium of the tube. This was a good instance of incomplete tubal abortion without expulsion of the ovum from the tube. The right ovary was congenitally absent, so that external migration of the ovum must have occurred. An abscess lay in the folds of the right broad ligament, and communicated with Douglas's pouch. The temperature was 104° when the hæmatocele was opened, and the vaginal incision was preferred just on that account.

(274) Uterine Fibroids and Albuminuria.

Hubert (*Thèse de Bordeaux*, 1898), after investigating cases where albumen was discovered in the urine of patients subject to uterine myoma, found that it was usually due to compression of the ureter by the tumour, with or without renal lesions. Albuminuria alone, in a patient subject to fibroid, did not necessarily imply nephritis. Other symptoms of the latter must be detected before its diagnosis is confirmed, scanty, or excessive secretion, casts, and especially the more general signs of Bright's disease, œdema, headaches, nausea and vomiting, and cardiac disturbance. In short, functional albuminuria without renal lesions is an indication for removal of a uterine fibroid, whilst albuminuria with evidence of Bright's disease is as formal a contraindication.

THERAPEUTICS.

(275) The Treatment of Catarrhal Ulcers of the Large Intestine.

Richter (*Therap. Monats.*, March, 1899) maintains that great success has followed the treatment of gastric ulcers by the direct application of drugs to their surface while the stomach is empty, and has now applied the same principle to the treatment of ulcers of the large intestine. He believes that the reason why these so frequently resist all treatment for months, while gastric ulcers may heal in a few weeks, is that the usual method of administering medicines does not allow them to come into direct contact with the ulcerated surfaces in the intestine. Now, it may be taken for granted that the greater part of the remains of the food taken one day is present in the large intestine the next morning (within 9 to 11 hours). The necessary astringent should therefore be given in the early morning *per os*, the upper part of the digestive tract being then comparatively empty, and at the same time the contents of the large intestine should be flushed out by irrigation. Breakfast should be postponed for a time, so that the astringent does not lose its power by becoming mixed with a quantity of chyme. Another method is to give the astringent a short time before the evening meal, the large intestine being cleared at the same time. It is not such a good procedure as the first, since there is then always a quantity of chyme above the ileo-cœcal valve, which dilutes the astringent, and renders it less effective. If there is any suspicion of the small intestine being involved, an aperient, preferably castor oil, should first be given to clear it, and then when the bowels are open an enema to clear out the large intestine. Richter employs tannalbin and subnitrate of bismuth as astringents, but prefers a decoction of bilberries, the tannin containing colouring matter of which Winternitz supposes penetrates into the epithelium and tissues of the intestinal mucosa. By this method Richter has obtained excellent results, patients who had resisted every other treatment for months having been cured in a few weeks. Naturally, it is equally applicable to simple non-ulcerative catarrhs of the small or large intestine, especially those which are not characterised by atony and obstinate constipation.

(276) Heroin.

Strube (*Berl. klin. Woch.*, 1898, No. 45) says that heroin (diacetate of morphine) has been used extensively in the Berlin University Clinic, and the results have, on the whole, been satisfactory. Experiments on rabbits, dogs, and cats, show that heroin is a narcotic. Large quantities cause tetanic convulsions very similar to those seen in morphine poisoning. Small doses have a powerful effect on respiration; the narcotic influence is less marked. Heroin is more certain in its action than codeine. The experiments on animals, which were corroborated by Professor Dreser, indicated the therapeutical value of the drug. Cases of dyspnœa from various causes, and also irritable cough, were successfully treated by heroin. Inflammatory conditions of lungs and air passages, in which the cough and dyspnœa were due to excessive secretion, appeared to be specially relieved by this drug. Cases of phthisis were considerably benefited by a prolonged course of heroin. Bronchial asthma was also treated. The drug was adminstered in doses of 0.005 gram in the form of pills; a single dose never exceeded 0.01 gram, and the daily amount reached 0.025 gram. Heroin was also taken in powders of 0.005 gram, with white sugar. Heroin is a fine white powder, slightly bitter in taste. It is not very soluble in water, but by the addition of a few drops of acetic acid it is readily dissolved. Lately oxylate of heroin has been manufactured, which is very soluble in water. With regard to the action of the drug, clinical experience is in harmony with physiologiological experiment. A dose of 0.005 to 0.01 gram causes a diminution in the frequency of respiration, and a marked alleviation of the cough; slight drowsiness is also produced. The drug does not relieve pain. In conclusion, the author states that heroin can replace morphine and codeine in all cases of irritable cough without producing unpleasant narcotic effects.

(277) Artificial Respiration in Landry's Paralysis.

Greene, Wilson, and Rothrock (reprint from *Philadelphia Med. Journ.*, December 3rd, 1898) report the following case of Landry's paralysis. A woman, aged 20, suddenly became "light-headed" on September 27th. Becoming worse, she was admitted to hospital on September 30th. At that time her temperature was 102° F., and her pulse 120. Extreme general weakness, with pain and rigidity in the legs. Bowels constipated, and a large mass of impacted fæces in the descending colon. This was removed by the fingers and ene-

mata. Urine contained a large amount of indican, but was otherwise normal. On October 1st complete paralysis of both legs. Knee-jerks absent. Sensation normal. By October 2nd the paralysis had spread upwards, and the respiratory muscles were involved. At midnight, as she was cyanosed, partially unconscious and gasping for breath, artificial respiration was resorted to, with inhalations of oxygen and injections of strychnine and atropine. On October 3rd, in the intervals of consciousness, she could speak in a faint whisper. Reflexes lost, faradic excitability retained. By October 9th she could move the toes of the right foot, and deglutition and speech were normal. The temperature had fallen to 98° F., the pulse to 96. No marked muscular atrophy, no R.D., sphincter normal. At night she would sleep naturally, unless artificial respiration was suspended, when the cervical accessory muscles would contract spasmodically, cyanosis appeared, and she would try to cry out for help. In spite of this improvement she died suddenly on November 12th, life having been prolonged by continuous artificial respiration, chiefly Sylvester's method, for forty-one days. *Post mortem* the lungs were only partially distended with air, the heart was contracted, and the stomach dilated. Microscopically the brain and cerebellum proved to be normal except for general congestion. A few of the neuraxons in the medulla were moniliform. The spinal cord was intensely congested, red and white blood cells being found all through the anterior horns. There were a few normal nerve cells in the posterior horns and vesicular columns, but most of these, and still more those in the anterior and postero-lateral groups were extremely degenerated. No tract degeneration. The optic, pneumogastric, and phrenic nerves appeared normal, but there were bundles of degenerated fibres in the cervical sympathetic, median, intercostal, and sciatic nerves. These results leave no doubt that this case was one of intense ascending parenchymatous anterior poliomyelitis, probably of central and extravascular origin, the peripheral nerve lesions being secondary. Its development was probably brought about by an acute autointoxication of intestinal origin. After analysing the reported cases, Greene concludes that it is very doubtful whether any of them were without some morbid changes, demonstrable by present methods. If any such do occur, or in cases with milder lesions, the results of treatment in this case justify the belief that it might be possible to tide over the period of toxæmia and so save the patient's life. Besides artificial respiration, oxygen should be inhaled freely, a saline solution injected into the circulation, and calomel given internally, with copious enemata.

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(278) Ichthyol in Pulmonary Tuberculosis. W. Schiele (*St. Petersburger med. Woch.*, No. 8, March 4th, 1899) urges the more general use of ichthyol in the treatment of pulmonary tuberculosis. Even in advanced cases he is disposed to regard such treatment as very advantageous, since marked and rapid improvement in the condition of the patient followed its administration in every case. The beneficial action of the drug is, in the opinion of the author, probably due, first, to its recognised power in arresting the destruction of proteid substances in the human body; secondly, to its valuable antiseptic properties. The author does not vaunt it as a specific, nor does he depreciate the value of hygienic and dietetic treatment; however, he thinks that in cases where the latter mode, or what may be still better termed the modern mode of treatment, cannot be carried out, the administration of ichthyol in a suitable combination with some expectorant such as liquor. ammon. anisat., aq. laurocerasi, etc.; and under special circumstances, with the addition of morphine, will give as satisfactory results as the condition of the individual case may allow. Amongst the advantages of the drug are, according to the author (1) that the organism is soon brought under its influence; (2) that it is followed by no ill after-effects such as vomiting, catarrh, etc.; (3) that it may be rendered as little disagreeable to take as possible. These reasons make it preferable to creosote; moreover, as experience has taught, the administration of the latter drug in the case of greatly debilitated patients, and especially when the disease is already far advanced, is not unattended by substantial danger to life. The author concludes by saying that it remains still to be proved whether ichthyol exercises its influence directly upon the diseased lungs, or whether its influence is one of a general character.

PATHOLOGY.

(279) Congenital Immunity to Syphilis. "Congenital immunity to syphilis and the so-called law of Profeta" forms the subject of a paper by George Ogilvie (*Brit. Journ. Derm.*, February and March). Profeta declared that a healthy child born of a syphilitic mother could be suckled by her, or by a syphilitic wet nurse, with impunity, whether the syphilitic infection of the mother had taken place previous to conception, or during gestation, and that no transmission of syphilis between the mother and the child was possible. The compass of this law has recently been considerably extended, and it is now generally formulated as follows: "The healthy offspring of syphilitic parents are immune to syphilitic infection." Ogilvie critically reviews the literature of the subject and discusses the clinical evidence. He sums up his conclusions in the following propositions: (1) No facts exist to prove that paternal syphilis ever confers immunity, partial or complete, upon the offspring, no matter whether at the time of procreation the father is actually syphilitic or has become immune to syphilis by previous disease. (2) No facts exist to prove that maternal syphilis in its tertiary stage confers immunity, partial or complete, upon the offspring, or that the mother's immunity to syphilis acquired by previous disease is ever hereditarily transmitted to her child. (3) It seems certain that mothers syphilitic before delivery rarely communicate the disease to their offspring in extra-uterine life. Such contamination has been observed in some cases of post-conceptional syphilis. Whether it ever occurs in preconceptional syphilis we do not know. In preconceptional syphilis two circumstances co-operate towards this result: (*a*) That it is exceptional for mothers with preconceptional syphilis, who gave birth to healthy viable children, to present infectious lesions after delivery, from which the child's infection could be derived; (*b*) that infection by nursing, after the first year, from a woman's infection is altogether exceptional. In post-conceptional syphilis also two points have to be taken into consideration: (*a*) That post-conceptional syphilis is relatively rare; (*b*) that acquired syphilis appearing in the child after the second month of life may, in not a few instances, have been mistaken for congenital syphilis, simply because the mother's syphilis dated back to a period previous to her delivery. These circumstances (says Ogilvie), taken together with the effect of timely and appropriate treatment, may explain, to a certain extent at least, the child's apparent immunity from infection by its mother. Whether this explanation is altogether sufficient, or whether we have to recur to the supposition of immunity to syphilis in the child, he is unable to say. This could be finally settled only by the comparison of large numbers of observations, which are at present unobtainable. If secondary syphilis in the mother confers immunity *in utero* on the child which escapes intrauterine infection, such immunity appears to be neither constant nor lasting. To explain the so-called "exceptions" by the late period of pregnancy at which the mother's infection takes place is a hypothesis not altogether consistent with the clinical evidence which it is meant to explain. Particular stress is laid upon this point by Hochsunger. But Finger's table of 50 cases of post-conceptional syphilis seems, on the other hand, to demonstrate that intrauterine infection of the fœtus may take place before the secondaries of the mother appear. There is no apparent reason why the same should not apply to immunisation, in particular if it is due to toxins, which in all probability would be present in the circulation before the appearance of the skin eruption. On the whole Ogilvie concludes that the child's intrauterine immunisation by its mother's secondary syphilis is an interesting and ingenious theory not abundantly supported by facts. That such immunisation seems to take place in some acute infectious diseases, either *in utero* or by suckling, does not materially enhance its probability with regard to syphilis.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(280) Endocarditis.

Harbitz (*Deut. med. Woch.*), February 23rd, 1899) divides endocarditis into infective and non-infective: (1) Infective endocarditis includes the cases set up by micro-organisms. In 43 cases of this kind, 17 were due to the streptococcus, 5 to the pneumococcus, 8 to the staphyloccus, and 3 to other microbes. The remaining 10 were examples of the healed disease. These cases could be thus further subdivided: (*a*) Those which run the course of a rapidly-developing pyæmia, with high fever. At the necropsy there are found a diphtheroid deposit on the valves, ulcerative and necrotic processes in their substance, multiple abscesses in the skin, heart muscle, spleen, kidneys. The endocarditis represents one of the many localisations of the specific virus, which is mostly the pyogenic staphylococcus. (*b*) Those in which the endocarditis predominates and appears to be the chief focus of the disease. The disease may last for months. Renal complications are frequently present. Small warty and larger polypoidal excrescences are found on the valves. Ulceration is absent, and the lesions look older. The excrescences are found to swarm with microbes; yet there are no secondary abscesses, the numerous infarcts being white and firm. All transitional states between these two subgroups may be noted. In 16 cases belonging to the second subgroup the streptococcus was found in 9 and the pneumococcus in 4. This more chronic and relatively benign type of infective endocarditis has hardly received the attention which it deserves. It has also been taken for rheumatic endocarditis. Three illustrative cases are given in full. Harbitz gives his reasons for looking upon the 10 cases above referred to as healed. In one case cultures of the staphylococcus were obtained from 5 c.cm. of the blood two weeks before death, yet after death no microbes could be grown from the valves. (2) Non-infective endocarditis. In 6 cases of rheumatic endocarditis the author found no microbes. In 9 fatal cases of tuberculosis, excrescences were found on the valves, but no growth could be obtained from them. Harbitz looks upon it as very doubtful whether the tubercle bacillus causes endocarditic processes. In cases of Bright's disease and carcinoma, in which there was endocarditis, no microbes were found.

(281) Movable Kidney in Children.

It is usually supposed that this affection is rare in children. Comby, however (*Journ. de Méd.*, February 25th, 1899) shows that it is much more frequent than would be expected, as in a comparatively short time he was able to collect 18 cases in his own practice. Of these 16 occurred in female children and 2 in males. The symptoms do not attract much attention, and thus the condition may escape observation. It may be found at any age from birth to late childhood. As regards the causation of this condition there is very little to be said. The author has been able to observe heredity in some instances. The usual causes of movable kidney in the adult are of course absent in the child. On the other hand the author throws out as a suggestion that gastro-intestinal troubles so common in children may have considerable influence in causing dislocation of the kidney; that in fact the distension of the intestine by gas may have very much the same mechanical result as tight lacing, traumatism, etc., in the adult, and that under these conditions ptosis of the abdominal organs, kidneys included, may come about. As has already been said, the symptoms are not striking, and it is therefore only by systematic physical examination that the condition may be diagnosed. The author points out that in cases of doubt a purgative should be administered, as he has frequently found that scybala are a cause of error in diagnosis. The prognosis is apparently good, the writer suggesting proper abdominal support until conditions of growth are enabled to obviate renal displacement.

(282) The Diagnostic Value of Tuberculin.

Max Beck, of Koch's Institute (*Deut. med. Woch.*, March 2nd, 1899) says that the diagnostic value of tuberculin is not nearly as widely recognised and used as it should be, chiefly on account of the unnecessary fear of the spread of the tuberculosis to other organs. That this fear is groundless is shown by the number of cases which have been injected in Koch's Institute. Veterinary surgeons have long regarded tuberculin as a most reliable diagnostic agent. The researches of Bang showed how widespread bovine tuberculosis is. The error in the tuberculin diagnosis is due to an insufficient examination of the slaughtered animals or to too advanced tuberculosis. Eber, in using 0·5 c.cm. tuberculin in animals, states that a temperature of 40° C. or over must be regarded as a certain reaction, and that a temperature between 39.5° and 40° C. must be looked upon as a doubtful reaction. Bang denies that there is any real danger of the spread of tuberculosis in diseased animals after the use of tuberculin. Most veterinary surgeons agree that most animals will not react to tuberculin on the days following the first injection. Koch has, however, pointed out that if larger doses are used the animals will react. Max Beck injected 11 tuberculous animals with 10 c.cm. tuberculin nine days after the first injection, and the reaction was positive in 8, doubtful in 2, and only negative in 1. In Koch's Institute patients who were willing have been systematically injected with tuberculin. Not less than 1 mg. is used in adults, and a rise of temperature of 0.5° is looked upon as a reaction. Errors in diagnosis are rare. Febrile patients are not injected. A single injection of 3 or 5 mg. usually gives an uncertain result. The author then analyses in detail some 2,137 cases which have been thus injected; he excludes 295 cases of undoubted phthisis in which injections were made during the early part of the period of six years covered by these statistics. In 1,154, or 54 per cent., the diagnosis was made by means of the tuberculin injections. Tuberculin is the most delicate means of recognising tuberculosis. When a patient reacts, the presence of a tuberculous focus, however small, in the bronchial glands, lungs, or other organs must be assumed. Small foci may heal, but the disease often spreads. Hence the importance of the early recognition of the disease.

(283) Painful Paralysis in Children.

Bertrand has recently published his observations on this condition (*Thèse de Paris*, 1898), of which the following are the features. It generally affects an upper extremity, which is found unexpectedly in a condition of complete paralysis. There is no anæsthesia. The least movement is extremely painful, and makes the child cry loudly. In those cases where a history is obtainable from the parents, the statement is generally made that it came on suddenly and unexpectedly. As is natural, some acute affection of the joints is suspected, but careful examination fails to reveal any such lesion. After twenty-four or forty-eight hours the pain seems less marked, and passive movements can be carried out without much distress. In a few days the child appears to be able to use his arm as usual. The sudden character of the onset and the extreme pain are the striking features. At present we are ignorant of the pathology of such cases, and apparently the prognosis is favourable.

SURGERY.

(284) Resection of the Cervical Sympathetic in Epilepsy.

Jonnesco (*Centralbl. f. Chir.*, No. 6, 1899), who in the course of the past two years and a-half, has performed complete or partial resection of the cervical sympathetic on 61 patients, gives the indications, results, and extent of this operation in cases of epilepsy, exophthalmic goître, and glaucoma. In the treatment of the first and second diseases, it is held that nothing short of complete resection of the three cervical ganglia with the intercommunicating branches on both sides, is likely to be of real and lasting service. In epilepsy, in order to establish a state of cerebral congestion, it is necessary to remove all the nerves that excite contraction of the vessels of the brain, and in exophthalmic goître it is only by complete bilateral resection that the surgeon can attack the centres of the sympathetic supply to the eye and thyroid gland, and of the accelerating cardiac nerves. The operation, which was first performed

by the author, and a description of which may be found in the Epitome of March 13th, 1897, is stated to be free from serious risk. Of 42 patients on whom total resection of the cervical sympathetic was performed on both sides, 6 subsequently died from causes not in any way due to the operation. With the view of preventing the bad results of any accidental injury to other structures during the delicate dissection necessary for exposing the ganglia, it is held to be advisable to operate at first on one side of the neck, and to allow an interval of about eight days to transpire before repeating the operation on the opposite side. The author reports that of 10 patients suffering from exophthalmic goitre, in whom this operation was performed, 6 were cured, and the remaining 4 considerably relieved. The good results, beginning with sinking of the eyeball and improvement of general health, occur slowly after the operation, and are not well manifested until after after an interval of some months from the date of operation. It is only in primary forms of this disease that resection of the sympathetic is likely to do any good. In secondary forms in which removal of the thyroid is usually attended with good results, Jonnesco's operation is not indicated except perhaps as an accessory measure. In only 18 out of 45 cases of epilepsy treated by this method has sufficient time passed since the date of operation to permit of any definite conclusions. Of these 18 patients, 10, it is asserted, have been cured. The longest period of complete freedom from attacks is two years, and the shortest period six months. In 2 cases the operation failed to give any relief. The cases in which this treatment seems most likely to be followed by good results are those of recent epilepsy with or without mania, of gastro-intestinal reflex epilepsy, and of anæmic or toxic epilepsy. In his treatment of glaucoma the author removes only the superior cervical ganglion. In 4 out of 8 cases the operation was followed by excellent results with regard both to improvement of sight and relief of pain. In the other 4 cases—2 of chronic irritative glaucoma, 1 of simple chronic and 1 of acute glaucoma—the sight was not improved by this treatment.

(285) Early Operation in Cancer of the Stomach.

Landouzy (*Bull. de l'Acad. de Méd.*, No. 10, 1899) advocates early surgical intervention in cases of cancer of stomach, and strongly urges physicians to take into consideration the good results that have been obtained by the operative treatment of this disease. Medical treatment, he holds, fails even to be a palliative in such cases, whilst surgical intervention not only affords much relief, but also, if applied at an early stage of the disease, may result in complete cure. There are, it is stated, twenty instances on record of patients who have survived without recurrence the removal of gastric tumours proved to be malignant after intervals varying from four to eight years. The author's views as to the advisability of operative interference, even in cases of extensive gastric cancer, are supported by the results of operation performed by Faure in November, 1898, in which about three-fifths of the stomach were removed for epithelioma. The patient—a woman aged 41—recovered speedily from the effects of the operation, and after an interval of four months remained in good health and had increased in weight. The prognosis in this case, however, cannot be regarded as favourable since at the time of the operation, which had been delayed for some months, the perigastric glands were affected. Had surgical treatment been applied before extension of the disease beyond the stomach, radical cure might, the author thinks, have been assured.

(286) Removal of the Transverse Colon.

Schwijzer (*St. Paul Med. Journ.*, March, 1899) reports a case of removal of the whole transverse colon with partial resection of the pancreas and large curvature of the stomach for carcinoma. In the course of the operation, which lasted three hours, both the superior and inferior mesenteric veins were torn. The rents in these vessels were closed by lateral sutures. As the lower edge of the stomach was intimately connected with the growth in the transverse colon, it was found necessary to resect a portion of the greater curvature, but only the muscular coat was removed, the mucous membrane being left intact along almost the whole length of this dissection. The removal of the affected portion of pancreas proved to be the most critical portion of the operation, and it was at this stage that the mesenteric veins were wounded. The divided ends of the ascending and descending colon were fixed together by a continuous double suture of silk. The patient—an adult male—made a speedy recovery, and after an interval of four months was feeling well and free from pain, and had gained 25 lbs. in weight. The author contends that although any attempt at the removal of intestinal cancer is, as a rule, contra-indicated when the growth has passed beyond the limits of the primarily affected bowel, operative interference was justified in this patient by the extreme severity of the symptoms. Before the operation he suffered much from local pain, distressing constipation, with frequent attacks of cramp, greatly disturbed rest at night, chronic septic fever, anorexia, and great mental depression. When seen two months later he was free from pain, defæcation was free, both pulse and temperature were normal, the appetite was good, and the mental condition greatly improved.

(287) Nephrectomy with Total Removal of the Ureter for Papilloma.

Le Dentu and Albarran (*Bull. de l'Acad. de Méd.*, No. 9, 1899) record a case of papilloma of the ureter in which, after a diagnosis had been made by means of the cystoscope, total removal of the affected duct and also of the corresponding kidney was successfully performed. The patient, a man aged 33, had suffered from frequent attacks of renal colic, for the relief of which nephrotomy was performed without any good result. On examination of the parts removed at the second and radical operation, there was found to be hydronephrosis of the kidney due to ureteral obstruction caused by two papillomatous growths, one situated about three-quarters of an inch below the renal pelvis, the other at the lower end of the ureter and close to its vesical orifice. This, the authors state, is the first recorded instance of a positive diagnosis of papilloma of the ureter in the living subject, and also of the performance of nephrectomy and total ureterectomy for new growth, deliberately undertaken in accordance with the results of clinical observation.

MIDWIFERY AND DISEASES OF WOMEN.

(288) Treatment of Abortion.

Drejer (*Norsk. Mag. for Laegevidensk.*, No. 3, March, 1899) discusses the treatment of abortion in connection with 100 cases which he met with in his private practice between the years 1893 and 1897. When abortion is imminent rest both material and moral is recommended; in this way the miscarriage may be avoided. Five or six days in bed is the length of time usually considered sufficient, for if the hæmorrhage has not stopped in that time it will be very difficult to prevent the abortion, and if it have ceased the pregnancy will now continue uninterruptedly. He thinks little of internal remedies, save perhaps opium, which aids cure by procuring rest. He does not believe in the vaginal plug, regarding it as usually quite useless. If the removal of the ovum is indicated by circumstances, it is best carried out by means of the fingers or of instruments. The manual method is always preferable. It may be done by expression, and this fatigues the patient very little. This is indicated when the os has a diameter of about 4 cm., and when the ovum is in great part detached and in the cervical canal. In 15 cases this plan was followed, and in 12 the ovum was thus delivered, but in 3 only pieces came away, and the rest had to be removed by the finger. If expression fail, two fingers are to be introduced into the uterus, and the ovum or parts of it at once taken away. In abortion, just as in labour, everything should be removed at once. The finger is generally to be preferred to the curette. Drejer is strongly opposed to the use of all kinds of ovum forceps. The results of treatment were that 99 women recovered fully; 1 patient, in whom curettage took place after six weeks of blood loss, died from weakness twenty days later, but without the development of fever.

(289) The Treatment of Leucorrhœa.

T. Landau (*Deut. med. Woch.*, March 16th, 1899) suggests the use of cultures of the yeast plant in some cases of

leucorrhœa, especially those due to a chronic gonorrhœa. During the last six months he has employed it in 40 cases. In more than half the cases all the trace of the leucorrhœa disappeared after one or two applications, even where it had existed in spite of other treatment for months or even years. In another group of cases the leucorrhœa disappeared, but eventually returned. In a few cases there was considerable improvement, and in a few there was none. Landau uses a culture of yeast in some fermentable fluid, and injects some 10 to 20 c.cm. into the vagina. A tampon is introduced, and allowed to remain for twenty-four hours. No unpleasant effects were noticed except in two patients, in whom it produced a sensation of itching. This was overcome by a soda injection. The injection of the yeast was repeated in two or three days, the treatment lasting from one to several weeks. The author has never injected it into the cervix, and still less into the uterus. He would explain the action of the yeast by (1) the mechanical expulsion of the microbes producing the leucorrhœa due to the overgrowth of the yeast; (2) the depriving these microbes of the necessary nutrient substances; or (3) the action of the products of the yeast plant. Landau thinks that yeast injections might be useful in some cases of cystitis with alkaline fermentation of the urine.

(290) Saline Solution in Septicæmia after Abortion.

Ostermayer (*Centralbl. f. Gynäk.*, No. 12, 1899) relates how a very bad case of septicæmia was successfully treated by small subcutaneous injections continued for a fortnight. The patient was 26, and it transpired that her husband had induced abortion. Ostermayer was called in on November 25th last autumn for last autumn for metrorrhagia. On the 27th a rigor set in; the curette being used, much placental and decidual tissue was removed, with old clot. A few days later jaundice was observed, then toothache with periostitis of the adjacent part of the upper jaw. On December 8th the periosteum was incised and pus let out. General erythema and high temperature and pulse were next observed. By December 14th the patient was in a desperate condition; 300 grams of a 0.9 per cent. saline infusion was injected into the cellular tissue of the right infraclavicular fossa. On the 15th she was very ill; another injection was given. The patient then began to improve. Vomiting and diarrhœa, which had been severe, ceased, and the pulse, which on the 14th was too feeble and rapid to count, dropped to 108 and was strong. Urine began to be freely secreted. From the 16th to the 20th two subcutaneous injections of the saline solution were given daily. The last, once daily, were given on the 21st and 22nd. The pulse was about 100, the temperature 98° to 100°; the erythema had nearly disappeared. By December 21st the patient was quite well. Ostermayer notes that the first infusion, injected on the evening of the 14th, was not absorbed till the following morning, yet temporary good effects were already observed. After the 18th the infused solution was absorbed within three hours.

(291) Incision of Fundus in Cæsarean Section.

Cryzewicz (*Centralbl. f. Gynäk.*, No. 12, 1899) has operated twice, making the incision along the fundus (Fritsch's operation), and in one case he had already performed Cæsarean section with the old or "classical," that is to say, the usual vertical anterior incision; 15 cases of "Fritsch's operation" have already been undertaken and reported, exclusive of a few others where it was thought wise to amputate the uterus, that is, to end with a Porro's operation. Only 1 mother was lost. Braun and Everke oppose the fundal incision as likely to be followed by more hæmorrhage, and as causing a liability to intestinal adhesions, more serious than the parietal adhesions following the vertical incision. Cryzewicz has already had experience of 8 "classical" Cæsarean sections and 3 "Porro's." He denies the validity of the two objections. In 1 of his "Fritsch's operations" there was much atony of the uterus after the suture of the wound in the fundus. He pressed the fundus, after Credé's principle. Big clots escaped at once from the vagina, but only a drop or two oozed through the fundal wound between the sutures. Some more were applied. He had several times pressed the fundus during his "classical" cases, and declares that ten times as much blood oozed through the vertical wound. Besides, he observes, the hæmorrhage in any form of Cæsarean section depends far more on atony of the uterus than on the direction in which the vessels are divided. He once opened the uterus by the vertical incision, where there was hydramnion, yet the child was very heavy. The uterine wall was extremely thin from distension. After the emptying of its contents, the uterus fell in till it looked like a tobacco pouch; nothing would make it contract, so Porro's operation had to be performed in order to stop the hæmorrhage. As for the second objection to the fundal incision, Cryzewicz believes that omental or even intestinal adhesions are less likely to interfere with the evolution of the uterus in a future pregnancy than close parietal cicatricial tissue. In his own case, where he had already operated and made a vertical wound in the uterus, it was found connected with the parietal cicatrix by very tough adhesions, much stretched, but fortunately not very vascular. These elongated adhesions might well involve future difficulties. On detaching the placenta he felt, in the anterior uterine wall, a deep groove in which his forefinger could lie easily without stretching the bordering structures. On further scrutiny it was seen that only the part of the muscular wall immediately under the serous coat had united. Not a single silk applied at the first operation could be traced. The operator noted that in both of his two "Fritsch's" cases the fundal incision showed no tendency to inversion of its edges after suture. Both his patients were rachitic dwarfs, both recovered, but the child in the second case (where the "classical" operation had previously been performed) had atresia ani, and died when a day old. The placenta was anterior in both cases, and in both it proved hard to separate, a piece of membrane being certainly left behind in one case. Cryzewicz, in conclusion, urges that when membrane is thus retained it can most easily come away with its discharges when the wound is at the fundus and the anterior uterine wall intact.

THERAPEUTICS.

(292) Salicylate of Methyl.

Among recently introduced drugs salicylate of methyl seems to be one likely to prove of considerable use, and Schoull contributes an article on the indications for its use (*Journ. de Méd.*, March 10th, 1899). It is more particularly in the articular manifestations of rheumatism that it is successful, especially as a means of relieving pain, which disappears very rapidly under its administration, much more so than with salicylate of soda. The swelling of the joints is somewhat longer in disappearing as is also the temperature, and salicylate of soda seems in this instance more efficacious. It is therefore proposed to administer the two salicylates together under which circumstances the similar dose of the soda salt can be employed. Schoull has also employed a combination of salicylate of methyl and antipyrin and has thus obtained some surprising results in the reduction both of the pain and temperature. The author points out that the amount of urine should be watched during the administration of this drug. Salicylate of methyl is also of extreme advantage in subacute and chronic rheumatism, in which cases it presents a marked superiority over the soda salt. The same may be said of gouty arthritis. In certain other infective conditions as gonorrhœa, syphilis, and erythema nodosum, the effects, though good, are not so striking. The writer quotes Roger as having obtained very good results in the arthritic complications of eruptive fevers, especially scarlet fever, in which the action of antipyrin, salicylate of soda, or salophen is slight. The drug is also efficacious in neuralgia, sciatica, some forms of neuritis, and herpes zoster, and lightning pains of tabes. Schoull has also tried salicylate of methyl in cases of orchitis from mumps and with remarkable results, all the symptoms disappearing in two days. Even in cases of epididymitis the effects are very favourable. The treatment of mumps itself by salicylate of methyl has been tried by Picard of Troyes with considerable success.

(293) Spare Diet in the Treatment of Aneurism of the Aorta.

Laache (*Norsk. Mag. for Laegevidensk.*, No. 2, February, 1899) refers to the

possible good effects of low diet in the treatment of aneurysm of the aorta as carried out by Tufnell and Bellingham, and in a modified way by Oertel. In the case of a man, 48 years old, suffering from aneurysm of the aorta, parsimonious diet was tried in association with the taking of the iodide of sodium in increasing doses, and the external application of ice over the chest. After resting for six months he felt so much better that he returned to his work, but after overworking he had again to undergo the treatment. Again the distressing symptoms disappeared, again he returned to his occupation, and again he overexerted himself, this time with a fatal result. The illness had lasted five years. At the necropsy the greater part of the aneurysm was found to be obliterated and filled with old brownish black blood. There was a history of syphilis. The diet allowed was about half that normally taken by a man weighing 60 kilos. Under it the weight diminished from 64 kilos. to 52.5 kilos., but the patient's strength increased.

(294) Muscular Work.

DESTREE (*Quart. Journ. of Inebriety*, January, 1899) records a series of experiments, which are an extension of those published by Hermann Frey, on the power of doing muscular work after partaking of small (measured) doses of alcohol. The apparatus used is Mosso's ergograph, and the work is that done by the middle finger of the right hand in lifting weights of from 2 to 5 kilograms (generally the former) at stated short intervals (ten, twenty, or thirty minutes) after taking the alcohol, which is in the form of (*a*) pure ethyl alcohol diluted with water; or (*b*) beer. It is found that generally speaking the alcohol (1) diminishes the subjective feeling of fatigue, hence work appears easier; (2) there is an actual initial increment of work performed under its influence by fresh or but slightly fatigued muscle; (3) this period of enhanced muscular power, however, rapidly passes away, in many cases twenty to thirty minutes after its ingestion; within this period enhanced work may be carried out; towards its close fatigue sets in, and rapidly becomes marked. This fatiguing or paralysing effect with diminution of work continues to increase, so as to counterbalance and neutralise the previous increment of work in the early period. Experiments were also made with caffeine (tea and coffee) and kola. These show that there is also an initial period of stimulation during which more work can be done. This initial stimulation, however, is not so marked, and is more prolonged; it is not followed by rapid exhaustion of the muscle (as against the action of alcohol). The experiments are several in number, and undertaken both by the author and others; and they serve partly to confirm Frey's observations, and also to modify and extend them. The author considers the "sense of fatigue" as a valuable indication which informs the organism (like a safety valve) that the limits of healthy working are being reached, and that overstimulation should be avoided. One of the evil effects of alcohol is in dulling this sensibility, lulling the organism into a false feeling of freshness and security, and producing overexhaustion with consequent weakness or paralysis thereby.

(295) The Introduction of Serum into the Circulation.

FRIEDENTHAL AND LEWANDOWSKY (*Berl. klin. Woch.*, March 20th, 1899) discuss whether there are any albuminous bodies which can be introduced more or less directly into the circulation. A nutrient preparation thus used must be easily assimilated, non-poisonous, and free from bacteria. A natural solution of albumen such as exists in blood serum can be so treated as to answer these conditions. Blood serum can be kept sterile. The reason that blood serum has not been used for therapeutic purposes is on account of (1) its poisonous properties and (2) the doubt as to its being assimilated. It has long been known that the injection of blood serum from one species of animal into the circulation of another species produces poisonous symptoms. The authors find that these poisonous properties can be completely removed by heating the serum up to 55° or 60° C. Such inactive serum from rabbits has been injected by them into other animals without any poisonous symptoms, whereas the control animals injected with an active serum died. The authors therefore suggest the use of serum heated up to 58° or 60° C. for two hours. The serum then becomes slightly opalescent. From their experiments the authors conclude that as much as 99 per cent. is absorbed. Thus in exceptional cases in which such methods of feeding seem to be indicated, they hold that this heated serum may be used. The subcutaneous method should be employed, as the intravenous and intraperitoneal methods are hardly applicable to man.

(296) The Indirect Treatment of Hepatic Cirrhosis.

CARDARELLI (*Rif. Med.*, March 11th, 1899) deals chiefly with the treatment by milk diet, of which he speaks highly. In the cases in which it does good, the urine increases in quantity, the urea increases, and the uroerythrin disappears. These good effects may not be seen all at once; they may be delayed, especially where there is much abdominal tension. Small quantities (half a litre or even less) should be given at first. If milk cannot be borne, large doses (40 to 50 grams) of lactose may be given in weak broth. To test the power of absorption, the author recommends an enema containing 5 to 6 grams of salicylate of soda, which may be looked for in the subsequent urine. The most reliable indication for paracentesis abdominis where there is ascites is the quantity and quality of the urine and the presence of œdema of the lower extremities. In performing paracentesis, the author prefers the gradual method of extraction by Southey's tubes.

(297) Orthoform in Laryngitis.

ORTHOFORM derived from cocaine, over which it has several advantages, has been tried as an interlaryngeal application by Ducray (*Thèse de Lyon*, 1898). After having studied the excellent results obtained by its use in ulcerative stomatitis, tuberculous ulceration of the mouth, and certain affections of the nasal fossæ, the author shows that its application in tuberculous laryngitis is followed by relief of pain, thus rendering alimentation more satisfactory. The best method of application is in the form of powder, 10 to 20 centigrams being insufflated. If, however, a liquid application be desired, it is possible to make an emulsion consisting of 1 part orthoform and 4 parts olive oil, or a chloral hydrate of orthoform may be employed in the form of a 10 per cent. solution in water, which may be painted on with a brush.

PATHOLOGY.

(298) Changes in the Nerve Cells in Infantile Diarrhœa.

MÜLLER AND MANICATIDE (*Deut. med. Woch.*, March 3rd, 1899) have made some interesting observations on this subject in Professor Heubner's clinic. It was only by the help of Nissl's method of staining that the minute alterations in the nerve cells were able to be demonstrated. The central nervous system was examined in 7 cases of infants under 3 months old: fever was present in 5 cases, and in 2 death took place without any appearance of fever; in 3 cases the infants had been ill for some time; the rest, however, had short illnesses. The examination was conducted from two to six hours after death in order to obviate any *post-mortem* changes which might take place in the nerve cells. Changes in the brain and spinal cord were found in all cases. Cells showing various degrees of degeneration were seen in close proximity to one another; the different stages in the morbid process could be accurately determined. The first abnormality described was an irregular distribution of Nissl's corpuscles; this was dependent upon a process of disintegration affecting either the whole of the cell body, or else portions in the neighbourhood of the nucleus or the periphery of the cell. Concurrently with this disintegration process, the corpuscles either diminish in size or else enlarge; they become either paler or darker than normal, and they often lose their polygonal form. In more advanced cases the corpuscles disappear entirely, and their place is taken by a fibrillary network containing a clear substance in its meshes. In the cells showing marked changes the nuclei were darker than normal, and the nucleoli were enlarged. The presence of fever appears to have no influence on the degree or form of the lesion. There also appears to be no connection between the severity or duration of the illness and the character of the degeneration in the nervous system.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(299) Psychoses due to Coprostasis.

Soelder draws attention to a series of symptoms (*Jahr. f. Psych.*, 1898) which clinically present themselves in the form of acute delirium, and in which, on *post-mortem* examination, there is found cerebral congestion, œdema and degeneration of muscles in varying amount, parenchymatous degeneration of the kidneys, but, above all, coprostasis in the large intestine. The author records six cases, all occurring in young women or girls. These symptoms come on in from 8 to 14 days, and death is due to cardiac paralysis. In addition to the changes already mentioned there is pulmonary congestion, and sometimes secondary lesions of the mucous membrane of the colon. The psychical symptoms consist in alterations of consciousness, difficulty of speech and muscular excitation, restlessness, delirium, headache. Cardiac failure is an early and dangerous symptom. There is an absence of any other causation, as in all cases the bodily and mental health was perfect previous to the onset of symptoms. There is no pyrexia, and the condition of the urine negatives renal disease. The author's view as to the causation of this condition is that it is due to auto-intoxication from fæcal accumulation. As to treatment he suggests the administration of calomel and copious enemata.

(300) Gouty Tonsillitis.

The rheumatic origin of tonsillitis is generally accepted, but Le Clerc points out (*Journ. de Méd.*, January 25th, 1899) that in very many instances an acute tonsillitis may be of gouty origin as well. He quotes one case in particular in which the beginning of an attack of gout was always preceded by a severe tonsillitis, which subsided so soon as the articular manifestations supervened. The same condition has been noticed by Rendu and Lécorché, who noticed similar cases. On the other hand, the throat manifestations of gout are apt to be irregular. The author's conclusions are that gouty tonsillitis is a distinct clinical entity; that it is a precursor of gout; that its characters consist in intense congestion and œdema involving the soft palate; that its duration may extend from some hours to three days; that treatment seems to have very little effect, but that it subsides on the appearance of arthritis.

(301) The Differential Diagnosis of Typhoid from Acute Tuberculosis.

Carlo Bareggi (*Gazz. degli Osped.*, March 12th, 1899) finds that at the hospital in Milan during the last 30 years, typhoid fever had been mistaken for acute tuberculosis 52 times, and tuberculosis for typhoid 90 times. Widal's test is not always accurate, and is troublesome. The author advocates a simpler method, which consists in observing the behaviour of 20 or 30 drops of blood drawn from the fingers of the patient into a small test tube, and allowed to remain at rest for twenty-four hours. When the resulting coagulum is observed, it is found that in typhoid hardly any serum is formed, the clot is not retracted. In tuberculosis there is marked retraction of the clot from the sides of the tube, and abundant formation of serum.

(302) Hæmorrhagic Necrosis of the Pancreas.

R. Morian (*Münch. med. Woch.*, March 14th, 1899) records the case of a woman, aged 44, with a good previous history, excepting that in the preceding year she is said to have had a short attack of biliary colic with jaundice. On April 2nd, 1898, she suddenly became ill with vomiting and severe pains in the abdomen. The vomit was green and the fæces natural. The urine was bilious, and free from albumen or sugar. There was slight fever. On the fourth day Morian was called in, and found the patient jaundiced and cyanosed, with dry tongue, superficial breathing, and a pulse of 112. The abdomen was distended, and its walls soft. The region of the gall bladder was tender, though the gall bladder itself could not be distinctly felt. On April 9th some gall stones were removed by operation, and a cholecystotomy was performed. An irregular intermittent fever, however, persisted, together with other constitutional symptoms. On April 20th an abscess in the right elbow-joint was opened. On April 22nd some of the contents of the stomach were evacuated by the cholecystostomy wound, and a day or two afterwards dulness and bronchial breathing were noted at the base of the left lung. The patient died on April 29th, exactly four weeks from the commencement of the illness. *Post-mortem* examination showed hæmorrhagic necrosis of the greater portion of the pancreas (the head only of the gland remaining healthy), with multiple patches of fat necrosis in the omentum and peripancreatic tissue. The blood vessels were not diseased. The spleen was double its natural size. Morian considers the case a typical example of pancreatic necrosis as described by Körte, in which the sudden commencement of the symptoms can simulate cholelithiasis, peritonitis (from perforation), and intestinal obstruction. If the patient lives long enough, a retro-peritoneal abscess and septic symptoms mostly occur. In a very few cases the necrotic pancreas is got rid of spontaneously by the bowel, or artificially by an operation wound. A tumour may be felt at the level of the umbilicus, separated from the liver and lying behind the stomach and colon. The urine at first usually contains no sugar. Disseminated fat-necrosis may be present. Of eleven patients which have been operated on as yet, only one recovered, and this one afterwards suffered from severe diabetes. Two complete recoveries are known to have occurred spontaneously after the evacuation of necrotic pancreatic tissue by the bowel had been confirmed by microscopic examination. The presence of gall stones in the present case made the diagnosis particularly difficult.

SURGERY.

(303) Operative Treatment of Intussusception.

Oderfeld (*Centralbl. f. Chir.*, No. 10, 1899) states that in the operative treatment of irreducible intussusception resection of the whole of the involved portion of intestine has given better results than enterostomy and anastomosis. Such treatment, however, cannot be carried out when the invagination has descended far down into the pelvis, and the invaginated portion of intestine can be felt in the rectum. In cases of this kind the surgeon would very probably resort to what is here termed the Barker-Rydygier operation, which, indeed, has been regarded in such circumstances as the only rational alternative. This procedure, however, the author has found in practice both difficult and dangerous. The preliminary suturing of the external to the invaginated portion of the intestine at the neck or upper extremity of the tumour is much complicated by the presence of a mass of compressed mesentery, and in the subsequent stages consisting in longitudinal incision of the outer tube or sheath, in division of the inner and middle tubes, and in the apposition by sutures of their cut margins, the exposure of the wounded parts to the contact of fæcal matter and to microbic infection render it impossible to fulfil the strict requirements of modern abdominal surgery. These objections have led the author to devise an operation, the advantages of which have been proved by successful application to the human subject in one instance, and by numerous experiments in the laboratory. The successive stages of this method are: Effective temporary occlusion by long clamps of the intestinal canal just above and below the neck of the invagination; resection of the intervening portion of the intestine; release of a momentary removal of the lower clamp of the invaginated portion of the intestine, which is allowed to slope down towards the anus; and finally, bringing together by circular suture or other means the divided portions of the intestinal canal.

(304) Treatment of Varicose Ulcer.

Laplace (*Therap. Gaz.*, September, 1898) maintains that the rational treatment of varicose ulcers of the leg should be that of radical cure of the varicose veins, which are the primary cause of the condition. When the superficial veins are enlarged without distension of the saphenous veins, the former are ligatured at the point of entrance into the saphenous and popliteal veins. As these two veins drain the whole of the venous circulation, the ligature results in obliteration of the superficial veins.

In cases of large masses of veins, not affecting the saphenous vein above the knee, the author recommends Schede's method, which consists in making a circular incision about 2 inches below the knee, separating the veins as they present themselves, and ligaturing them with catgut. Local treatment of the ulcer should be done at the same time. The edges should be freely removed, and the surface scraped. The wound should then be kept constantly aseptic. Thiersch grafts may be used in some cases.

(305) The Surgical Treatment of Brain Syphilis.

FRIEDLAENDER AND SCHLESINGER report a case (*Mitteilung. aus den Grenzgebieten der Mediz. und Chirurg.*, vol. iii, No. 2, 1898) in which a gumma was removed from the lower part of the central gyri. The interest lies in the fact that an almost isolated paralysis of the tongue was present, indicating a lesion of the lowest fourth of the anterior central gyrus (similar to that part shown by Horsley and Beevor in the brain of the orang-utang to be connected with tongue movements). After the operation there ensued a one-side hemiplegia; and on the paralysed side there was delayed sensation of pain for about three weeks after operation. This phenomenon is explained as summation of irritation; and is interesting because of its possibility of occurrence without spinal or peripheral lesions, which had hitherto been its almost invariable accompaniment, and these interesting questions (for example of a vasomotor representation in the cortex) are discussed. The indications for surgical treatment are summed up as follows: (1) Symptoms indicating a tumour of slow development, accessible and small, when anti-syphilitic treatment has failed. (2) Progress of symptoms in spite of such treatment, when danger to life exists. (3) Jacksonian epilepsy supervening after treatment, even though other symptoms of tumour may have disappeared. The contra-indications are (1) symptoms of basal or extensive spinal syphilis; (2) great loss of strength, lardaceous degeneration and other complications of vital organs.

(306) Treatment of Congenital Hip Displacement.

LORENZ (*Berl. klin. Woch.*, January 16th, 1899) recommends the bloodless treatment of congenital displacement of the hip by a method analogous to the manipulative treatment of talipes. Previous to reduction the head of the femur is manipulated by downward displacement and abduction to 90°. It is then fixed in the abducted position. The adductor muscles, if offering resistance, are stretched till their fibres rupture. This is, in the author's opinion, preferable to tenotomy. Reduction is afterwards effected over the posterior margin of the acetabulum, which is the part of the socket best developed. The limb is then maintained in the straight position by means of a screw extension apparatus. The best age for operation is under 7 years, but Lorenz has had good results at 14 years. The older cases are liable to paralysis of the sciatic nerve and other accidents. In intractable cases he advises tenotomy of the hamstring tendons, and extension before effecting reduction.

(307) Hæmaturia from Vesical Varices.

HOBEIKA has made a study of this form of hæmaturia (*Thèse de Lyon*, 1898). The condition is evidently rare, and the diagnosis somewhat uncertain. Hæmaturia appears spontaneously and without apparent cause. It is independent of catheterisation, is painless, and may take place without the knowledge of the patient. Exploration by the sound or *per rectum* does not give any information. There is no sensation of tenesmus and no dysuria as a rule. Should this be present, it seems to be due rather to clots of blood obstructing the internal urethral orifice. The passage of blood continues during micturition. It is intimately mixed with the whole mass of urine. There may be only one attack at a time, but occasionally it is sufficiently grave and severe as to give rise to alarm. There may at the same time be varicocele or hæmorrhoids, which serve as an indication of a possible source of hæmaturia. Injections of water, hot or cold, and the avoidance of all vesical congestion are indicated.

(308) Hernia: Sloughy Cæcum: Foreign Body.

CARLE (*Lyon Médical*, January 29th, 1899) observed this complication in a woman, aged 66, subject for three years to a reducible right inguinal hernia. Bilious vomiting set in on November 20th, and ceased in twenty-four hours. The hernia became irreducible and painful. At the end of a week, when admitted into hospital, loose motions and flatus passed. The skin over the rupture was red and œdematous. Inflamed epiplocele was diagnosed, and an operation was performed on November 28th. On opening the sac a quantity of fluid fæces escaped, with a mass as big as a walnut composed of chestnut husks glued together. A portion of intestine, with an ulcerated perforation as big as a franc piece was then detected. It proved to be the fundus of the cæcum. The appendix was free and healthy. The ulcerated tissue around the perforation was excised, and the latter closed with a continuous Lembert suture. The intestine was reduced, and a plug of gauze and a drainage tube applied to the wound. A month later the patient was quite well. The treacherous mildness of the clinical symptoms and the absence of inflammation of the appendix were remarkable features in this case.

MIDWIFERY AND DISEASES OF WOMEN.

(309) Alexander's Operation.

O. SEMB (*Norsk. Mag. for Laegevidensk.*, No. 1, January, 1899) points out that, after having been nearly abandoned by most operators on account of technical difficulties, Alexander's operations has in the last five or ten years begun to take its right place in gynæcology. Semb avoids as much as possible the opening of the inguinal canal; only when the ligament is very feebly developed or when it has already divided into small fibres within the canal ought the latter to be opened into, and even then as little as is sufficient. It must be carefully isolated from the ilio-inguinal nerve, otherwise troublesome neuralgias are apt to follow. After the operation a Hodge pessary is worn for three weeks. It is to be employed only in cases of movable retroflexion after treatment by pessaries and directed against the metritis has been unsuccessfully tried. When there is prolapse of the uterus or vagina complicated with retroflexion, it is of great value as an auxiliary operation along with colporrhaphy and perineorrhaphy. Semb has operated in 12 cases. In 1 the operation had to be abandoned, as the ligament divided in the canal and was broken during the traction. In 1 there was recurrence after eight days, and in 1 after two months in consequence of a new pregnancy. The other 9 cases were exempt from recurrence, and in 1 of them there was a normal pregnancy and labour. The operation will take the place of ventral and vaginal fixation.

(310) Ventrifixation of Uterus: an After-History.

NOBLE (*Amer. Gen. and Obstet. Journ.*, March, 1899) recently exhibited before the Philadelphia Obstetrical Society a specimen of the adhesion bands formed in a case of ventral hysteropexy for procedentia. It appears that the material employed for the sutures was infected, and perimetritis and cellulitis resulted. Pus issued from the abdominal wound about a fortnight after operation. Noble naturally expected that very extensive adhesions would develop between the uterus and the abdominal wall, and as the patient was young he foresaw trouble in case of future pregnancy. A small hernia developed at the site of the sinus, which remained for a time after the abscess. On opening the abdomen, instead of an extensively adherent uterus, two string-like bands of adhesion were found connecting the fundus with the parietes. Hence even severe suppurative inflammation and subsequent cicatrisation are not necessarily sufficient to ensure permanent ventral fixation.

(311) The Roentgen Rays for Fœtus Papyraceus.

BOUCHACOURT (*L'Obstét.*, March 15th, 1899) has found, after submitting two specimens of fœtus papyraceus to the Roentgen rays, that the skeleton shows no sign of absorption even when the soft parts have almost disappeared. The thoracic cage suffers most in the intra-uterine crushing process which causes this condition, the ribs and clavicles usually breaking as in the case of injuries in a crowd. One of Bouchacourt's specimens was expelled three days after the delivery at term of a child 7 lbs. in

weight. It came away with a clot during a vaginal injection, and was at first taken for a decolorised clot or a torn fragment of the cervix, but the detection of some pieces of bone led to a more correct diagnosis, finally confirmed by the radiograph. That appliance is specially useful for fœtus papyraceus which is not suitable for dissection. It may settle, by showing very clearly the state of development of the bones, at what stage the fœtus perished, a matter sometimes of medico-legal importance.

(312) Chloride of Zinc or Curette?

Laroyenne (*Lyon Méd.*, March 19th, 1899), like Delbet (Epitome, February 25th, 1899, par. 142), seems to prefer the older remedy. Swabbing the cervix answers well in advanced cervical metritis with ectropion. An eschar forms, and on its falling off the Nabothian follicles appear uninjured. There is no fear of atresia. In cervical endometritis, causing discomfort from profuse tenacious discharge, the curette or liquid caustic does not effect a permanent cure. Crayons of the chloride, on the contrary, prove highly efficacious. But the old clumsy, thick crayon is objectionable, a very thin piece, about $\frac{1}{16}$ inch thick and $\frac{1}{2}$ inch long, is sufficient. Three or four applications at a few days' interval are required. There need be no fear of stricture. Laroyenne has found the crayon far superior to electrolysis and the curette in the palliative treatment of uterine fibroids. After dilatation of the cervix with Hegar's instruments, a crayon of suitable thickness and length is passed into the uterine cavity, and kept well above the os internum, as the cervix must not be cauterised. A porte crayon, not a forceps, must be used. Smart pain follows for a few hours after operation, the bleeding ceases for a time, sometimes altogether, provided that the uterine cavity is not very much dilated. In such a case the crayon is dangerous, since it may run into a bend of the uterine wall, often very sinuous in such cases. Antiseptic intrauterine injections are needed before the introduction of the crayon. When the curette has been used for fibroma or fungous endometritis, the crayon is dangerous. Swabbing with deliquescent chloride, followed immediately by irrigation, is, on the other hand, safe and effective.

(313) The Fœtus at Term in Extrauterine Pregnancy.

Pinard (*Gazz. d. Hôp.*, March 16th, 1899) raised, at the Académie de Médecine, March 14th, an interesting discussion on the fœtus late in ectopic gestation. He diagnosed abnormal pregnancy in a woman six months advanced, and waited till term. On Christmas Day he opened the sac and extracted from it a live fœtus. The edges of the sac were sewn to the edges of the abdominal incision. The placenta was allowed to eliminate itself, and came away entirely by March 1st. The fœtus weighed over 6½ lbs. at birth and 10½ lbs. when the report was read. Guéniot asked Pinard if the child, in cases where he had operated at term, was always still in the extrauterine sac. Pinard replied that in the 2 cases where he found the fœtus free in the peritoneal cavity it was dead. Guéniot removed a live child, weighing 6 lbs., from the peritoneal cavity. It began to fail after birth, and died in a fortnight with an abscess around the jaw. The placenta had become grafted on the intestine, and hence, in Guéniot's opinion, the source of infection.

(314) Fatal Interstitial Gestation.

Opitz (*Centralbl. f. Gynäk*, No. 12, 1899) recently exhibited two uteri showing this rare condition. Both patients were moribund when operated upon, and in both cases the tube and the adjacent cornu, but not the whole uterus, were removed. Neither recovered. The decidua had been shed in one case; in the second, it was found after death in perfect preservation, and was attached not only to the uterine wall but also to a considerable part of the cervical canal. The limits of Müller's ring could not be detected.

THERAPEUTICS.

(315) Heroin.

Leo (*Deut. med. Woch.*, March 23rd, 1899) discusses the value of this new derivative of morphine introduced by Dreser. Heroin has a particular action on the respiratory centres, lessening the frequency but increasing the depth of the breathing. Leo has employed it in many cases during the past few months. Dreser recommended a dose of from 0.01 to 0.005 gram, but the author has seen unpleasant results such as giddiness, nausea, and once even fainting after 0.01 gram, so that he does not give more than 0.005 gram at a time. The narcotic action of heroin is much less than that either of morphine or codeine. Thus in sciatica, trigeminal neuralgia, cardialgia, including the pain due to gastric ulcer and muscular rheumatism, it either did not relieve the pain or did so only momentarily. In the same way its action in allaying cough is only slight. The author found its action exceptionally satisfactory in the various forms of dyspnœa. It increased the duration of inspiration and the amount of air taken in. Dreser recommended it in the different forms of air hunger. Leo has himself employed it in 2 cases of uræmic dyspnœa, 8 cases of marked empysema, 15 cases of chronic bronchitis without obvious emphysema, and 5 cases of bronchial asthma. Only in 1 case of emphysema and 2 of chronic bronchitis was no good effect noted. Its action was almost magical in some cases. After one or two powders the patients were able to sleep in the recumbent posture. The author gives details of illustrative cases. When the drug was discontinued in emphysema and chronic bronchitis the symptoms mostly returned but in many cases there was an interval of from eight to fourteen days. Sometimes the expectoration became more difficult after the use of heroin, and for this the author combined it with potassic iodide. The author says that it is to be expected with confidence that heroin will be permanently found to be a valuable remedy in diseases accompanied by dyspnœa.—Eulenburg (*Deut. med. Woch.*, March 23rd, 1899) has used a 2 per cent. solution of heroin hydrochlorate for subcutaneous injection, the single dose being from 0.25 to 0.5 c.cm. of this solution, or 0.005 to 0.01 gram of the solid. Thus the doses of heroin are less than those of morphine. Only on two occasions has the author used more than the above-named doses. Once he injected 0.02 gram in a patient accustomed to morphine, and once 0.012 in a woman with sciatica. In both cases unpleasant symptoms arose; thus in only exceptional cases should 0.01 gram be given in a single dose, and it should only be gradually increased. The action of heroin in allaying cough and in diminishing attacks of asthma and dyspnœa is more rapid when given by subcutaneous injection than by the mouth. Eulenburg thinks that it possesses a more marked narcotic and antineuralgic action than is attributed to it by Leo. He has found it of more special value in those long accustomed to the use of morphine. It is even possible that heroin may be of service in cases of the morphine habit. The hydrochlorate of heroin can also be given by the mouth, and here the single dose should not exceed 0.005 to 0.01 gram. Although the poisonous dose of heroin has been shown experimentally to be 100 times the therapeutic dose, yet it is undesirable to exceed 0.03 gram until more information is at hand. Finally the author refers to the restrictions which should be put on the sale of heroin.

(316) Subcutaneous Administration of Egg Yolk in Malnutrition.

Muggia (*Sem. Méd.*, xviii, p. 230) says that egg yolk may be injected subcutaneously, instead of lecithin, in cases of malnutrition in children. The injection is prepared by mixing the yolk of a fresh egg with one third of its weight of physiological sodium. The mixture is stirred with a glass rod in a previously sterilised vessel, and is then strained through absorbent gauze. The initial dose of the solution is 1 c.cm.; the injections are made in the buttocks or lumbar region. There is no local or general reaction provided the injection was made aseptically. Some gentle massage is practised after the injection. The quantity injected each time may be increased up to 10 c.c., but this amount should never be exceeded. The duration of the treatment depends upon the condition of the patient. The number of injections should not be less than 20. This treatment is said to increase the weight of the child, the number of red corpuscles also becomes multiplied. Improvement takes place more rapidly than when lecithin is employed.

(317) The Limits of Usefulness of Diphtheria Antitoxin.

Dönitz (*Arch. internat. de Pharmacodynamie*, vol. v, fasc. 5 and 6, 1899) has studied this question experimentally. The method employed was to inject a known quantity of a standard

sterilised broth culture of the diphtheria bacillus, the lethal dose of which for rabbits per kilo had been determined experimentally, into the marginal vein of one ear, and into the corresponding vein of the other side varying amounts of a standard antitoxin. Intravenous injections are necessary in exact experiments, as it is never possible to know how quickly the toxin or antitoxin is absorbed, or how much remains behind at the site of the injection. The following were the results: (1) A given multiple of the minimum fatal dose of the toxin can be neutralised by a corresponding multiple of the antitoxin. In other words, toxin and antitoxin react on one another as an acid to a base, and neutralisation requires definite chemical proportions, provided that both are simultaneously introduced into the veins. (2) Ten minutes after the injection of the toxin the minimum fatal dose has entered into combination with the toxophile tissues, but so loosely that it can be again extracted and neutralised by comparitively small quantities of antitoxin. Still, with the time which has elapsed between the injection of the poison and the serum, the quantity of serum required to neutralise the toxin increases rapidly. (3) This condition lasts about half an hour, and then rather suddenly the combination becomes stable, and after 45 minutes even an enormous dose of antitoxin, by which is meant one 500 times as large as that originally required, equalling one immunising unit per gram of body weight, and corresponding to 20,000 units for a child weighing 20 kilos, is powerless to loosen the toxin from the tissues. These figures apply only to poisoning with a dose of toxin 15 times larger than the smallest fatal. (4) If the dose be 60 times larger it is impossible to save the animal, however large a quantity of antitoxin is employed, after 14 minutes, and even after 2 minutes the minimum fatal dose has vanished from the blood. (5) With smaller doses, on the other hand, only 7 times larger than the smallest fatal, the animal can be saved as late as 1 to 1½ hour after the introduction of the toxin, and when they are only 1½ time larger, after 6 or even 8 hours. (6) Similar experiments with tetanus toxin and antitoxin proved that recovery was possible when the injection of antitoxin was delayed for 20 hours after the injection of toxin. This more favourable result, which is exactly the opposite to what is found in practice, may be explained by (*a*) the conditions in clinical diphtheria being much more favourable than they are when the toxin is introduced intravenously, and (*b*) by diphtheria being usually diagnosed before the toxin has firmly combined with the tissues, while in tetanus, when the symptoms are defined, the toxin is already fixed. This would explain the failure of the method of Roux and Borrel, which consists in injecting the antitoxin intracranially.

(318) Naphthalin in the Treatment of Ulcers. H. J. Takowlew (*Vratch*, No. 4, February 4th, 1899) says that observations extending over several years have convinced him that naphthalin possesses very great therapeutic powers in promoting the healing of extensive sores and ulcers of the skin. The special benefits are particularly obvious in cases of chronic ulcer of the leg. The irregularly-shaped ulcer, with its profuse discharge and ragged edges, is rapidly converted into a healthy ulcer, the base of which becomes covered with healthy granulations. Inflammation and œdema of the surrounding skin also subside. The beneficial effects are usually marked after the first week of treatment, being manifested by the diminution of the discharge, the change in aspect of the ulcer, and by new granulations. Takowlew, who has employed this drug for the last four years, recommends the following method of application. A piece of cotton-wool corresponding to the size of the ulcer is first dipped for a few minutes in an antiseptic lotion; then naphthalin is spread on it and put on the sore parts; over this a piece of gutta-percha tissue is placed and the whole secured by a bandage, care being taken that the parts previous to application have been bathed, washed, and carefully cleaned. At first the bandage is changed after eight or ten days; later it may be left for a longer period. The advantages of this treatment are summed up as follows: (1) It greatly expedites the healing process; (2) it does not irritate the parts with which it comes in contact; (3) it is easily to be handled; (4) the expense trifling; and (5) a point of very great importance, it prevents putrefaction of the discharges.

PATHOLOGY.

(319) Trauma and Tuberculosis. Urban (*Münch. med. Woch.*, March 14th, 1899) discusses the part played by trauma in the causation of tuberculosis. He maintains that traumatism is of importance as an accessory cause. As examples of small wounds becoming infected with the tubercle bacillus Urban cites tuberculous lesions developing upon the fingers of washerwomen, the tuberculous warts of pathologists, and very probably lupus. The infection of large wounds is almost unknown. It is difficult to estimate directly the part played by injury without an external wound. This is especially true of joint and vertebral tuberculosis. If an animal is infected with tuberculous material and then a bone is fractured or a joint injured, the fracture never shows any evidence of a tuberculous lesion about it, but the joint does. These results, however, are not entirely applicable to the case of man. The development of acute tuberculosis after an operation is important. This has been known to occur after scraping a lupus lesion or after an operation upon a tuberculous focus in a bone or after the forcible movement of a tuberculous and perhaps ankylosed joint. Urban gives details of a striking case of the last named. He then refers to forcible straightening in caries of the spine in this respect, and adds that some untoward results have already been recorded. Old tuberculous foci may long remain quiescent and then break out into activity owing to some external cause. Such old lesions may of course contain living tubercle bacilli. Usually however in practice either no apparent tuberculous lesion has existed before the injury or there has been tuberculosis of the lungs or lymphatic glands. The author thinks that here a minute local tuberculous lesion has probably been present before the injury, and a small hæmorrhage or bruising of tissue or rupture of the capsule has given rise to its further development. Urban, referring to the medico-legal aspect, cites a case in which a tuberculous lesion developed in the foot some time after an injury. Here pain was complained of from the time of the injury and the patient was at first thought to be simulating disease.

(320) Pigmentary Cirrhosis with Diabetes. W. Anschütz (*Deut. Arch. f. klin. Med.*, vol. lxii, p. 411) records a case of this rare affection in a man, aged 53. There was a history of excessive beer drinking; no evidence of syphilis; jaundice was said to be present thirteen years before death. Diabetes, ascites, and wasting occurred in the last months of life. On admission to the Halle Hospital, May 20th, 1897, there was no jaundice, but there was bronzing of the skin, with hypertrophic cirrhosis of the liver, enlargement of the spleen, ascites, and sugar in the urine. The glycosuria was found to be intermittent; fatty stools were noted; the liver appeared to be getting smaller. At the end there was an effusion into the left pleural cavity. Death occurred on July 1st, 1897. The necropsy showed hypertrophic cirrhosis of the liver and cirrhosis of the pancreas. The aorta was much sclerosed. The internal organs were extraordinarily pigmented, even in comparison to the skin; they were, in fact, of a mahogany-brown colour. Anschütz gives a most careful and elaborate review of the literature of the subject. In the present case he considers that the diabetes was due to the pancreatic disease, and that the pathological anatomical changes in the pancreas and liver were due to the deposition of pigment in these organs. This theory explains why the pigmentary changes clinically preceded the hepatic cirrhosis and diabetes. The extreme degree of the hæmochromatosis may be judged by the fact that the liver was found to contain nearly a hundred times more than the normal amount of iron. [It may be remarked, by the way, that the kidney contained very little iron in comparison to the other organs.] It is probable that the hepatic and pancreatic cells in this disease take up pigment with abnormal facility, and that in this process they damage themselves, with the result that a mixture of cell degeneration and connective tissue increase takes place. What the cause is of the hæmatolysis, which gives rise to the hæmochromatosis, remains a problem which cannot be answered.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(321) Cardiac Arrhythmia observed by the Roentgen Rays.

AUG. HOFFMANN (*Deut. med. Woch.*, April 13th, 1899) says that the movements of the heart as observed with the aid of the Roentgen rays have received little attention. They can mostly be readily seen, especially in the lower third of the left border of the heart. The observation of irregular cardiac action is specially interesting, as it is possible to see how the different cardiac contractions take place. The author says that he has had on several occasions the opportunity of seeing the arrhythmia in the well-marked Roentgen picture. The most frequent forms of cardiac irregularity are the pulsus bigeminus and the pulsus alternans. It may be difficult to recognise the kind of arrhythmia present if the alternate and unequal beats do not reach the radial artery. Sometimes the cardiac impulse cannot be seen or felt, and even auscultation may not reveal the very diminished alternate contractions. The author relates an illustrative case in a man aged 26. Here the apex beat could not be seen or felt. The pulse was 78. Fourteen days later the pulse was 40. Even with the phonendoscope, the beat, which could not be felt at the wrist, was only represented by a very feeble sound. By means of the Roentgen rays, this very weak contraction was readily recognised, as the movements of the left lower border of the heart could be easily seen. A sphygmographic tracing of the pulse gave no indication of the dropped beat. Thus the case might have been looked upon as one of bradycardia. A few days later the pulse was 80 again.

(322) Sudoral Typhoid.

JACCOUD devotes a clinical lecture (*Journ. de Méd.*, March 10th, 1899) to the diagnosis of a particular form of typhoid which is of somewhat rare occurrence, and which presents many exceptional features. The case was that of a man aged 26, admitted into hospital on the fourth day of an acute illness which had begun suddenly apparently without prodroma by repeated rigors, intense headache, and general cramp. The next day the pyrexia continued, together with sore throat and diarrhœa. On the third day there was considerable cough and dyspnœa; on the fourth day the evening temperature reached 39 8° C.; the diarrhœa continued, and auscultation showed the presence of general bronchitis. On admission the appearance of the patient was that of some severe illness. There were large red patches of a uniform character over the upper part of the trunk and the sides of the neck, as well as some very small raised papules, strongly suggestive of scarlet fever, and taking into consideration the sore throat one had to consider this diagnosis. On the other hand, by the sixth day it was quite evident from the course of the temperature that the scarlatinal element could be eliminated. The diagnosis according to the author lay between typhoid fever and a severe form of influenza, but Jaccoud decided that the former was the correct diagnosis, basing his opinion on the fact that when he examined the patient he observed a clammy sweat, though at the same time the temperature was lowered. This same writer drew attention on a former occasion to this particular group of symptoms occurring in some cases of typhoid, namely, sweating. This case also showed large red livid patches, some being hæmorrhagic, in the gluteal region, and it must be borne in mind that such an eruption is not unknown influenza, especially in certain epidemics, but in the form of typhoid under consideration the remission in the temperature was coexistent with an aggravation of the general state of the patient, and the appearance of sweats could not be attributed to influenza. This remission of temperature was a point of considerable importance in Jaccoud's opinion, as indicating typhoid. There were, however, in this particular case some anomalous symptoms wherein the case differed from others described by the author. For instance, the early appearance of bronchitis on the fourth day, a phenomenon which is usually much later and only slight in amount, while the sweats appeared late about the fifth or sixth day instead of the first or second, and that they maintained their intensity instead of decreasing, as is usually observed. Another somewhat unusual character was the marbled appearance of the skin of the thighs and abdomen, which showed lines of a somewhat intense red crossing one another in the form of a network. In the case under consideration the diagnosis was supported by the subsequent events, as there were intense cephalic symptoms, intestinal hæmorrhage, etc. As pointed out by Jaccoud in 1884 this particular form of typhoid is indigenous in Southern Italy. Its incubation is of about ten days' duration, and hence it is occasionally imported to Paris. The writer, however, points out that there is a Parisian imitation of the disease, which in point of fact is liable to show certain anomalies very much as is described above. In the typical form the invasion is absolutely sudden in that a single and prolonged rigor with a rapid rise in temperature, and followed by an abundant and prolonged stage of sweating. The temperature then falls to normal, but without any amelioration in the patient's condition. There is on the contrary an intensely severe headache which prevents sleep, and lasts about a week. On the second day there is a similar attack of pyrexia, and the face often presents the appearance of measles, a fact which, if unknown to the medical attendant, may cause an error in diagnosis, as it so closely resembles that disease and also typhus. In this way four or five days may pass with intermittence of pyrexia followed by remittent temperature, together with intense perspiration. Later on the bronchitic and abdominal phenomena of a more purely enteric character appear, together with the typhoid exanthem. It is a curious fact, however, that constipation rather than diarrhœa is a feature in these cases. Intestinal hæmorrhage is common, but as a rule not severe. The duration of these cases is as a rule long—fifty, sixty, or even ninety days—and the prognosis is, usually speaking, favourable. From this description it will be seen that the diagnosis of malaria is perhaps that which, of all others, may occur first to one's mind, especially in persons coming from certain parts of Italy. The administration of quinine, however, in such cases is without the least effect, and should it have been prescribed on a mistaken assumption that the case is malarial, the fact of its being inefficacious should call for a reconsideration of the case. The author points out that the only treatment for such cases is one of general principles, as there is nothing that calls for any special method.

(323) Myositis Ossificans Progressiva.

LYDER NICOLAYSEN (*Norsk. Mag. f. Laegevidensk.*, April, 1899) has met with a case of this rare disease in a girl 4½ years of age, belonging to a healthy family. Soon after her birth it was noticed that the two great toes were abnormally short. During two years she developed normally, but thereafter she began to suffer from stiffness in the right shoulder and back, and this condition had gone on increasing, till now she is unable to do anything for herself. She has had no infectious maladies, has had no pain in the back or limbs, and has shown no intellectual retardation. She is of normal height for her age, hangs her head slightly forwards and to the left, and keeps her mouth open but is able to close it without difficulty. A great part of the musculature of the back, spine, and shoulders is completely ossified, the two scapulæ are quite fixed, and there is left-sided scoliosis. The latissimus dorsi, teres major, and pectoralis major are nearly completely ossified up to their insertion into the humerus, but on the left side the pectoralis major is little affected. The movements of the arms are therefore much restricted, those least interfered with being abduction. The thumbs, like the great toes, were relatively small.

SURGERY.

(324) Operation for Gall Stones.

DELAGÉNIÈRE, of Le Mans (*Rev. de Gynéc. et d'Obstét.*, January-February, 1899) believes that cholecystotomy, as usually performed, is open to numerous objections. When the gall bladder is opened the forceps may fail to grasp the calculi, yet inflict damage on the adjacent structures. The crushing of calculi by pressure on the duct in which they are impacted, or the use of a needle

thrust through the walls of the duct to split them, are processes which seem clumsy surgery. Delagénière exposes the gall bladder thoroughly, and raises the edge of the liver as high as possible with a retractor. Then the peritoneum is guarded with a compressor or sponge, and the fundus of the gall bladder opened. The incision is enlarged with scissors along the left aspect of the gall bladder, till the calculi to be removed are reached. A Kocher's forceps is placed on each side of the incision; the two will draw the deeper parts well towards the abdominal wound. The duct may be cut open almost to its termination in a bad case. In certain instances a large calculus in the lower part of the duct must be cut upon directly or through the duodenum. A direct localised incision is more likely to make a stricture than an incision made along the whole canal. When the calculi are extracted Delagénière closes the long incision in the duct and gall bladder with a running suture of very fine silk. Interrupted sutures should be applied after every third point of entry of the long suture. In order to establish a biliary fistula, about half an inch of the incision at its end on the fundus of the gall-bladder is left open. The peritoneum is then sutured all round the opening in the fundus, a little of the flaccid wall of the bladder being drawn forward first, so that the serous membrane is not fixed actually to the edges of the opening. A hole is next made in the right rectus muscle, and the free piece of the wall of the gall bladder drawn into it, the edges of the opening in the bladder being sewn to the edges of the hole in the muscle. Another button-hole is made in the skin over the hole in the rectus, and a drainage tube passed through it into the gall bladder. The abdominal incision (which lies to the right of the artificial track of the drainage tube) is closed. In about ten days the fistula may be sewn up, the wound in the bladder and duct being healed.

(325) Treatment of Hypertrophy of the Prostate.

Meyer (*New York Med. Record*, Jan. 14th, 1899) gives the results of 12 cases in which Bottini's galvano-cautery was used for prostatic hypertrophy. Six cases were cured; two improved; two died from other causes, one died from the operation as an immediate and one as a remote cause of death. The "cured" cases comprise (1) cases where the catheter can be dispensed with and where no residual urine is found after voluntary micturition; (2) cases where some residual urine is found if the patient micturates without any desire to, and when after injecting liquid into the bladder this is all passed by the patient naturally. Meyer considers the operation the best for hypertrophied prostate, whether due to hyperplasia of connective tissue or to an adenomatous condition. He recommends it when self-catheterisation becomes necessary, considering the risks of the latter greater than those of the operation. In cases of soft and easily bleeding prostates previous ligature of the vasa deferentia is recommended. This causes shrinking of the veins and consequently less danger of thrombosis and pulmonary embolism at the second operation. At the operation the cuts with the galvano-caustic knife should be made slowly with the knife at a white heat in a filled bladder, not at a red heat with an empty bladder as performed by Bottini. The posterior cut in the median line is the most important, and three or four cuts should be made at different places as determined by previous cystoscopy. The dangers of the operation are sepsis, pyæmia, and pulmonary embolism and these dangers increase with the size and vascularity of the prostrate. Hence, Meyer advises early operation as giving a better chance of success.

(326) Pleurotomy in Gangrene of Lung.

Lejars (*Bull. et Mém. de la Soc. Méd. des Hôpitaux de Paris*, March 9th, 1899) operated in October, 1898, on a patient aged 51, under the care of Fernet, in the Hôpital Beaujon. Symptoms of gangrene of the right apex followed a violent chill which he took when in his stables. Fernet diagnosed the condition. Lejars made a gently-curved incision along the subclavicular fossa from the anterior border of the axilla to the border of the sternum. The greater and lesser pectorals were divided: then about 2 inches of the second, third, and fourth ribs were resected. The layers of the adjacent pleura now exposed were found adherent. The lung was incised and a cavity discovered large enough to admit a fist. From it was extracted a fœtid mass of filamentous tissue. The cavity was cleaned by injecting hot water sterilised by boiling, and two big drainage tubes were passed deeply into it. The skin wound was closed, except around the tubes, and dressed with iodoform gauze. The patient did fairly well, his expectorations being free from fœtor, till just a calendar month after the operation, when symptoms of gangrene again set in, and the edges of the skin wound opened up. Within a fortnight death occurred. Both lungs were found freely infiltrated with tubercle. This change seems to have developed after the operation; the opened cavity seemed to be healing.

(327) A Probable Source of Danger in Operations for the Radical Cure of Hernia.

Bayer (*Centralbl. f. Chir.*, No. 7, 1899) reports a case in which, after an operation for the radical cure of a reducible inguinal hernia in a man aged 22, there was a high temperature (101° F.) on the following day, and cough with blood-stained expectoration. On examination of the chest, circumscribed dulness with bronchial breathing could be made out at the base of the right lung. The temperature gradually sank until the eighth day, when the condition of the lung was quite normal. The operation wound healed by first intention. This attack, which is regarded as undoubtedly due to hæmorrhagic infarction of the right lung, is attributed by the author to partial thrombosis of the spermatic plexus of veins set up in the dissection of the hernial sac. Induration of the plexus, it is stated, is occasionally observed after an operation for radical hernia; but in most instances this disappears without exciting any serious mischief. This case, the author suggests, seems to indicate a hitherto unsuspected source of danger in operations for radical cure, and indicates the necessity in such operations for great care and gentleness in separating the spermatic veins from the hernial sac.

MIDWIFERY AND DISEASES OF WOMEN.

(328) The Early Diagnosis of Pregnancy.

Richard v. Braun-Fernwald (*Wien. klin. Woch*, March 9th, 1899) after discussing the value of the different signs of pregnancy, decides that Hegar's sign is the most reliable hitherto described. This consists in an abnormal thinness, softness, and compressibility of the lower segment of the uterus, or that part above the insertion of the sacro-uterine ligaments, the bimanual examination being carried out with one finger in the rectum. Even with this sign pregnancy can rarely be diagnosed before the end of the second month. Considering the importance of being able to do so, the writer has been investigating the subject in G. Braun's clinic since 1894. He finds that the most important early sign of pregnancy is a change, not only in the consistence, but also in the shape of the body of the uterus, one side being thicker than the other. So early as the end of the first month one side may be double as thick as the other. For descriptive purposes the writer names the two unequal divisions "horns," though this is not the usual meaning of the word. Not only is the one "horn" thicker and more prominent than the other, but it is softer, the smaller one generally having a consistence approaching that of the non-pregnant uterus. The soft prominent "horn" encroaches on the smaller beyond the middle line, and at the junction of the two there is a distinct longitudinal groove; at the same time the fundus often appears to be saddle-shaped, the shallow depression lying nearer the smaller "horn." A bimanual examination is required, and it is recommended that two fingers should be in the vagina and be held as widely separated as possible, so that one rests on the larger, the other on the smaller horn. The most probable explanation of the inequality in the two halves of the uterus is that the ovum usually becomes fixed more on one side than on the other, in which case the sulcus would correspond to the margin of the ovum, though it may be possibly a phenomenon caused by uterine contraction. The inequality is so striking that the larger "horn" may be mistaken by the inexperienced for a small myoma. The writer has diagnosed a number of cases by this sign, and has proved that

he was correct by keeping them under observation. With practice he claims that pregnancy can be diagnosed early with a great degree of certainty. The earliest time either he or his colleague, Hübl, made a correct diagnosis by this sign was three days after one period had been missed. By this sign also it is possible to make sure, when hæmorrhage has occurred in the early months of pregnancy, whether abortion has taken place or not. If the sign is positive the ovum is still there, if negative it has escaped. Its absence, when other signs clearly point to pregnancy, would point to the probability of extrauterine fœtation.

(329) The Relics of Old Tubal Pregnancy.

DESGUIN (*Bull. de la Soc. Belge de Gynéc. et d'Obstét.*, vol. x, No. 1, 1899) reports 2 cases where this condition had existed, and where an operation was undertaken later on. In the first, a previous operation (already reported) had been performed in December, 1897, seven months after uterine abortion. A three months' fœtus was extracted from an extra-uterine sac, which was "marsupialised." Prolonged drainage was needed. Desguin operated in January, 1899, for the cure of a hernia of the old cicatrix. The most remarkable appearance observed when the peritoneum was opened was the total absence of adhesions, excepting a few about the ovary. The fœtal sac had developed in the right tube, which had undergone a curious change, its sac had atrophied, and it was free from adhesions, but was divided into two pieces, the canal at the severed cords being quite closed. The outer segment still showed its ostium, and retained its mesosalpinx. The second patient was a woman aged 40. In March, 1898, she had a total abortion, and repeatedly sought the advice of different doctors, refusing operation till severe local pain induced her to consent. In February last Desguin did an abdominal section. To his surprise, the abortion had left very little traces behind. The involved organs were relatively free, even the ovary bore but a few small shreds of lymph. The uterus was bulky and tough, but not adherent. Most important was the condition of the affected tube. No trace of the original lesion was to be found save an organised clot of the size of a haricot bean in the canal of the tube, about its inner third. Desguin believed that the pains from which the patient suffered were not due to the abnormal pregnancy; he thought good, however, to remove the appendages. He feels certain, on the other hand, that a large proportion of tubal abortions pass unobserved, and that Nature in many cases is capable of putting the parts back to something nearer their original condition than we can attain by operation.

(330) Treatment of Pelvic Hæmatocele.

C. MARIANI (*Gazz. d. Osp.*, April 23rd, 1899) records two cases of pelvic hæmatocele successfully treated by marsupialisation of the sac. In the first the tumour was situated in front of the uterus. It was the case of a woman 32 years of age who had given birth to one child at the beginning of her married life about twelve years previously. The symptoms were obscure, but abdominal section was performed, when it was found that there was an elastic non-fluctuating tumour of the size of two fists in front of the uterus from which, on puncturing, sanguinolent fluid escaped. Attempts were made to remove it, but these had to be stopped on account of great hæmorrhage, so the sac was simply plugged with gauze, and the patient, who was much collapsed, put back to bed. Some days later the sac was emptied of its contents (amorphous matter, blood, and the bones of a four months' fœtus), and the woman made a good recovery. In the second case the diagnosis of extrauterine pregnancy as the cause of the hæmatocele was not so clear even after operation; but it was probable, for there had been the expulsion from the uterus of a pseudo-decidua. The hæmatocele was situated behind the uterus, and it was operated on by the vaginal route. About a litre of altered blood was washed out, and then the margins of the sac were stitched to the vaginal roof (marsupialisation), and the cavity plugged with gauze. Three weeks later the vaginal opening had quite closed, and recovery was complete.

(331) Trophic Bladder Affections after Gynæcological Operations.

MIRABEAU (*Centralbl. f. Gynäk.*, No. 11, 1899) finds that vesical trouble after vaginal and abdominal operations on the uterus and ovaries may be due to another cause besides the passage of a ligature into the cavity of the bladder, or the rupture of a parametric abscess or contraction of inflammatory deposit near the bladder. In two cases he detected, by aid of the cystoscope, a definite lesion. The mucous membrane was extremely pale, although the marked irritability had suggested acute inflammation of that layer. There was at the same time great œdema of the mucosa of the trigone, with bullæ, such as have been seen already in cases of œdema of the bladder from other causes. The entire mucosa was much thinner than normal, so that the trabeculæ of the muscular coat could be clearly defined. The vessels showed signs of being unusually small. The first patient was 33 years of age; she had undergone a vaginal operation six months previously for diseased appendages. For six weeks she had felt great pain whenever the bladder became moderately full, and after micturition it never felt empty. There was, it is admitted, a small mass of exudation behind the bladder and immediately above the vaginal scar. No trace of any ligature, or of the opening of any abscess cavity could be detected in the bladder. The second case, aged 35, had suffered from uterine fibroid, and panhysterectomy was performed, the appendages also being removed. Very soon after recovery the patient began to suffer from dysuria, just as in the first case, it being impossible for her to allow the bladder to get nearly full. She was carefully examined with the cystocope five months after the operation. No trace of any foreign body or calculus around a ligature could be found, but the mucosa displayed all the appearances above noted, just as in the first case. The urine in the first patient was never bloody and only occasionally turbid; in the second it seemed quite healthy. Mirabeau insists that these vesical changes are purely atrophic, and due to the ligature of vessels supplying the bladder. Physic and washing out the cavity of the bladder are useless for this troublesome result of a gynæcological operation. Massage of the hypogastrium, iodoform-glycerine tampon, and warm sitz baths proved of benefit in the first case. The second refused to submit to any treatment.

THERAPEUTICS.

(332) Treatment of Diabetic Coma.

HERZOG (*Berl. klin. Woch.*, April 3rd, 1899) refers to the treatment by large doses of alkalies, as first recommended by Stadelmann. The alkali may be given by the mouth, by clyster, by subcutaneous infusion, or by intravenous transfusion. Administration by the rectum or by subcutaneous infusion can be readily carried in practice. The recorded cases show that the improvement produced by this treatment is mostly only a passing one. The alkaline treatment presupposes a coma due to acid intoxication. After referring to recorded cases, Herzog relates 2 cases which he treated by subcutaneous infusion of alkalies: (1) A woman, aged 50, was under treatment for a diffuse perityphlitis when she developed coma. The urine contained 4 per cent. sugar, and also albumen. One litre of 0.6 per cent. salt solution was infused. The pulse improved, but the patient died. (2) A man, aged 26, had suffered for two years from symptoms of diabetes, and was also the subject of granular kidney and a right pyelonephritis, as was shown by the necropsy. Twelve hours after the onset of the coma he received a camphor injection, and a litre of 0.6 salt solution was infused. Two hours later 200 c.cm. of a 5 per cent. sodic bicarbonate solution was administered by clyster. Four hours later a litre of 3 per cent. solution of sodic bicarbonate was given by subcutaneous infusion. Considerable improvement followed, but the patient ultimately died of increasing collapse. Neither of these cases were examples of uncomplicated diabetes. In the second case the improvement was certainly due to the alkaline treatment. The object is to increase the alkalies in the body upon the first threatening of coma. Herzog prefers subcutaneous infusion to intravenous transfusion. Clysters can be given in addition to the infusion. Finally attention is drawn to the possible dangers of the alkaline treatment in cases where large doses are given, and yet the urine does not become alkaline. Diarrhœa,

palpitation, and even blood-stained urine may appear.

(333) Injections of Arseniate of Iron in Malaria.

Valvassori-Peroni (*Bollet. Assoc. Sanitar. Milan.*, April, 1899, No. 2) speaks highly of hypodermic injections of the arseniate of citrate of iron and ammonia in the treatment of malaria in children. He gives as many as 30 to 50 injections in the course of the treatment, in the gluteal region. After the first 2 or 3 injections the children made no complaint, and no bad effects, either local or general, were observed. In several of the cases this treatment succeeded after quinine had been tried without good effect. No digestive intolerance was observed when the drug was given in this hypodermic manner. The doses given corresponded to 0.5 mg. of arsenious acid and 24.5 cg. of citrate of iron, and an injection was given once every two or three days.

(334) Chloralbacid.

Fleiner (*Münch. med. Woch.*, January 3rd, 1899) has investigated the therapeutic action of this combination of chlorine with albumen in cases of gastric disease. He first gave it in cases of gastric carcinoma with no free hydrochloric acid. It was used in doses of 1 gram given immediately after washing out the stomach in the morning and also before the midday and evening meals. It was found that when tabloids were employed concretions were apt to form in the stomach, and that in cases of chronic gastric catarrh with anachlorhydria the tablets passed out with the stools. The preparations hitherto used by Fleiner were insoluble in water or hydrochloric acid, but soluble in weak alkalies and alkaline mineral waters. A soluble sodium salt was then introduced, which was given in doses of 1 to 2 grams in powder and later in tablets. No unpleasant effect was noted. Given in 7 cases of carcinoma of the stomach, 22 of chronic gastritis, and 5 of anæmic dyspepsia where free hydrochloric acid was absent, its action was favourable. The subjective symptoms were diminished and the appetite improved. In some cases dilute acids, in others chloralbacid acted best. The latter was preferable when the appetite was diminished and absorption delayed. Chloralbacid acts on the intestine as well as on the stomach, and it is most useful in atonic affections where there is loss of appetite, diminished HCl secretion, abnormal amounts of organic acids, and deficient intestinal absorption with constipation. Fleiner looks upon chloralbacid as a new therapeutic agent worthy of general use. It is not simply a drug, but owing to its composition it holds an intermediate position between the so-called nutrient salts and the nutritive preparations.

(335) Hydrotic and Antihydrotic Remedies and the Number of Leucocytes in the Blood.

Bohland (*Centralbl. f. inn. Med.*, April 15th, 1899) describes the investigations carried out by Weidner Edelstein and himself upon healthy and neurasthenical individuals. A definite diet was given, and baths and any marked muscular exertion were avoided. No other agent was given during the period of observation except the one whose action was to be tested, Among the antihydrotic remedies, atropine, camphoric acid, tannic acid, picro-toxin, ergot, potassic tellurate, infusion of salvia, agaricin, menthol, and sulphonal, were examined. It was found that quinine must be placed among agents diminishing the number of leucocytes. The experiments showed that the antihydrotic agents lead to a decrease in the number of leucocytes in the blood. It was found more difficult to investigate the action of the hydrotics. Among those examined were sodic salicylate, pilocarpin, antifebrin, antipyrin, phenacetin, liq. ammon. acet., ammonium carbonate, Dover's powder, morphine, and others. It was proved with certainty that hydrotic agents possess a positive chemotaxis or increase the number of leucocytes in the blood. Experiments were also made upon animals. The authors investigated the question as to whether the hyper- or hypoleucocytosis was evenly distributed throughout the vascular system, or whether a hyperleucocytosis of the peripheral vessels was accompanied by a hypoleucocytosis of the central vessels, and *vice versâ*. They conclude that these processes are due to an unequal distribution of the leucocytes in the peripheral and central vascular systems. Bohland adopts the view that in fever where the leucocytes pass into the peripheral circulation the cause of this hyperleucocytosis is the presence of toxins. In the case of antihydrotics the leucocytes and toxins pass into the central vascular system, and the toxins are excreted by the intestine and kidneys.

(336) Antistreptococcic Serum in Puerperal Septicæmia, Septic Cellulitis, Post-operative Sepsis, and Erysipelas.

W. L. Robinson (*Virginia Med. Semi-Monthly*, March 10th, 1899) believes that in puerperal septicæmia the streptococcus pyogenes is in the great majority of cases the microbe doing the deadly work, and that, therefore, the use of the antistreptococcic serum is indicated, especially as the disease, although primarily local, soon involves the surrounding tissues, and the blood teems with the microbes. The reported failures he ascribes either to the delayed use of the serum, inadequate dose, or the existence of other microbes as the causative agents. In 7 puerperal cases recovery followed the employment of the serum in all; but in 1 in which there appeared to be both sapræmia and septicæmia the recovery was slow. In septic infection after operation (hysterectomy for cancer in 2 cases and removal of pus tubes and ovaries in 1), three doses of the serum were in each instance followed by recovery. In 2 cases of septic cellulitis of the hand, in 1 of gunshot wound of the ankle, and in 2 of erysipelas, the like good results were obtained. The remedy was given in doses of 10 c.cm. repeated every eight, twelve, or twenty-four hours.

(337) Oxycamphor.

R. Jacobson, of Senator's clinic (*Berl. klin. Woch.*, April 17th, 1899) records his clinical investigations into the action of oxycamphor in the treatment of dyspnœa. At first it was used in the form of a powder in 0.5 gram doses, but later, owing to its instability, in a 50 per cent. alcoholic solution (oxaphor). Oxycamphor consists of camphor in which an atom of hydrogen has been replaced by a hydroxyl group. It has not the characteristic action upon the heart which camphor possesses, but it diminishes the irritability of the respiratory centre. Ewald first employed it with good effect in cases of dyspnœa. Jacobson has himself used it in 5 severe and 4 slight cases of pulmonary disease, in 5 cases of cardiac disease, and in 4 cases of renal disease. In only 1 of the cases of pulmonary disease was no effect noted, and in another only an occasional good result was obtained, whereas in the remaining 7 cases oxycamphor was employed with success. In all the cases of cardiac disease except one a good effect was noted, and the same satisfactory result was present in the 4 renal cases. In 4 other cases of dyspnœa in which the drug was used by Senator a beneficial action was observed. In 2 cases nausea and vomiting followed its administration, but in one of these cases it was subsequently well borne. In another case the patient showed an aversion to oxycamphor. In 2 cases it appeared to gradually lose its antidyspnœic action. Jacobson concludes that oxycamphor is a valuable remedy in the symptomatic treatment of dyspnœa in cases of lung, heart, and kidney disease.

PATHOLOGY.

(338) Cystic Goitre with Amœbæ.

Merkens (*Berl. med. Woch*, April 3rd, 1899) describes the contents of a fluctuating cyst in the left lobe of the thyroid of a man, aged 36, who had suffered from a congenital goitre which increased in size during the last weeks before the operation. The cyst was filled with a white matter (not pus) which, on microscopic examination, was found to contain a few leucocytes, a kind of bacillus, and a considerable number of oval and globular cells supposed to be amœbæ. The nucleus of these cells could not be seen in fresh preparations, but became visible on the addition of acetic acid. At the ordinary incubator temperature the cells remained a long time alive, but died quickly on exposure to the temperature of the room. During a few minutes after taking specimens from the incubator amœboid movements and a pulsating vacuole could be observed. The organisms increased in number on albuminous media, and became encapsuled when the cultivation was allowed to get dry.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(339) Alimentary Glycosuria.

STRAUSS of v. Noorden's clinic (*Berl. klin. Woch.*, March 27th, 1899) first refers to the difference of views as regards glycosuria following upon the consumption of sugar or starch. With the object of finding out whether there is any difference between the alimentary glycosuria after sugar or starch, he made investigations upon persons who showed a tendency to glycosuria after starchy food stuffs by administering equivalent quantities of grape sugar and of starchy matters. Thus, individuals who developed glycosuria after 100 grams of grape sugar were given a corresponding amount of white bread or rice. Strauss also investigated whether this glycosuria could be induced in alcoholics and in the febrile state. In 8 out of 11 such cases glycosuria after sugar or starch could be produced; 4 of the 8 were alcoholics, 1 was an imbecile, and 3 were patients with pneumonia. In 6 further cases in the febrile state glycosuria appeared after sugar but not after starch, but this was due to special reasons. In those with a limited predisposition, the glycosuria following the use of sugar persisted longer than that after starch. In individuals predisposed to alimentary glycosuria the toleration of starchy matters gradually became less after the administration of abundant carbohydrates. Alcoholics, so long as they are under the influence of alcohol, are very prone to glycosuria. In 4 cases of chronic alcoholism, glycosuria followed the use of a mixed diet after a fresh bout of drinking. In one patient who had lost the tendency to glycosuria after a carbohydrate diet without sugar, the glycosuria could be made to return temporarily after large doses of alcohol. The differences between glycosuria after sugar and starch are of a gradual nature. A careful distinction must be drawn between individuals who develop alimentary glycosuria after sufficient causes, and those who are permanently prone to it owing to defective powers of assimilating carbohydrates.

(340) Post-epileptic Albuminuria.

P. GALANTE has made a series of observations to determine this condition in 16 epileptics (*Journal of Mental Science*, April, 1899) conducted with the trichloracetic acid methods in warm solution as recently proposed by Reale, and regarded by some as the most sensitive of all methods. All the subjects (14 males and 2 females) were young and vigorous, without evidence of cardiac or vascular disease. In 6 there was more or less dementia, 2 were idiots, 5 imbeciles, and the other two had occasional attacks of delirium with hallucinations. Quantitative analysis was made by Scherer's method as modified by Reale. The chief results were as follows: (1) Albumen was constantly found in the urine after epileptic seizures. The maximum amount found was gr. 2 per cent., the minimum gr. 0.05 per cent. (2) The duration of the albuminuria was various—from four to eight hours, sometimes twelve or more. (3) In some cases the progressive diminution in the elimination of the albumen was suspended for a time. In these cases the quantity of the urine increased (polyuria), while its specific gravity became notably diminished, which suggests that a diuretic action has been set up by the urea which had accumulated in the blood, or which had been produced by excess of muscular action during convulsions. (4) The amount of albuminuria increased after the convulsive attacks, and thereafter gradually diminished. (5) The more violent seizures were in general followed by more considerable albuminuria, but a series of attacks did not lead to a like increase. (6) In two attacks of simple vertigo which supervened in one patient who was occasionally liable to delirium no albuminuria occurred. (7) The amount of indican varied with that of albumen, diminishing *pari passu* with the latter. The author explains this albuminuria (1) by renal stasis, secondary to the initial tonic stage of the fit, and to the dyspnœa of the second stage; (2) by cerebral excitation produced by temporary stasis in the intracranial circulation; (3) by excitation similarly produced in the bulb (albuminuric centre of Claude Bernard); (4) by the toxic action produced on the renal epithelium by the increased metabolic nitrogenous products (urea, etc.), and by increase of toxic products from the intestine; (5) by the intense muscular contraction with temporary rise of temperature. The concurrence of several of these constituted the causal factor in the albuminuria.

(341) Pharyngeal Hyperæmia.

ATTENTION has been drawn to hyperæmia of the pharynx by Garel and J. Charles (*Thèse de Lyon*, 1898) as an indication of albuminuria or glycosuria. On examining the buccal cavity one is struck by the appearance of intense congestion of a raspberry colour of the pharynx. It is uniform in its extent, involving the posterior wall, pillars, tonsils, soft palate, and uvula. Sometimes this congestion is sharply marked off at the division between the buccal and pharyngeal cavities, showing a distinct line of demarcation. At other times the buccal and pharyngeal mucosæ are both involved. Another striking character is that the mucous membrane is swollen but is not apparently œdematous, appearing rather to be thickened. It is more apparently over the pillars of the fauces that this character is marked, the posterior pillar especially appearing enormously enlarged, and there may be such degree of swelling that the introduction of a laryngeal mirror is almost impossible, and when, in addition to this, it is noted that the pharyngeal reflex is greatly increased, it follows that laryngeal examination is attended with extreme difficulty. There is also frequently a thick deposit of mucus to be observed covering the pharyngeal surface. In very many of these cases albuminuria and glycosuria are present. It is not surprising to find such cases have, perhaps for months, been under the care of throat specialists and all known methods of medication had been applied, but as a rule without examination of the urine. The duration may extend over weeks or even months.

(342) Central Pneumonia Discovered by the Radioscope.

G. VARIOT AND G. CHICOTOT (*Journ. de Clin. et de Thérap. Inf.*, vol. vii., p. 151, March 9th, 1899) describe the case of a girl, aged 9½ years, who had been ill for five days, who had slight pain at the base of the thorax, loss of appetite, cough, furred tongue, and some diarrhœa. There was an evening temperature of 39.6° C. Percussion and auscultation practised with great care gave negative results on both sides of the chest. The presence of labial herpes, however, and the temperature, suggested central pneumonia, especially as the respiration was not specially quickened. The next day the temperature fell to 38° C., and the next day to 37° C. Then the use of the Chabot-Villar tube was called in to aid the diagnosis by radioscopy. It was seen quite clearly that in the middle of the right lung was a zone of opacity about the size of a five-franc piece. This was doubtless a pneumonic patch in process of regression.

SURGERY.

(343) Acute Traumatic Pneumothorax.

MATAS (*Annals of Surgery*, April, 1899) discusses the treatment of acute traumatic pneumothorax, such term being applied to a sudden admission of air into the normal and healthy pleural cavity as the result either of accident or of deliberative purpose in the course of an operation on the chest. This complication of a wound of the thorax is often a source of great peril to the patient as it may cause great shock with cyanosis and other signs of defective oxygenation of the blood, culminating in many instances, especially when a large opening has been made in the pleura, in death. By a careful and extensive study of this subject the author has been led to the conclusion that while the serious phenomena met with in acute traumatic pneumothorax vary in intensity according to individuals and circumstances, and in some cases are so slight that they may be disregarded, it is the duty of every surgeon whenever he is about to undertake an operation on the chest or neighbouring region which might involve the pleura, to assume that sudden admission of air into the pleural cavity is inevitable and that he must be prepared to meet the evil effects of acute atelectasis. It is acknowledged that the most certain way of preventing the evil effects of atmo-

spheric distension of the pleural cavity would be to obliterate it, at least in patches, by fastening the lung to the parietal pleura by adhesions, and thus prevent collapse of this organ when the chest is opened. Pleural adhesions, however, are the result of some form of infection and in the majority of cases in which efforts to obtain such adhesions are made septic conditions exist, and contamination in some form takes place. Matas holds that the procedure that promises the most benefit in preventing pulmonary collapse in operations on the chest is artificial inflation of the lung and rhythmical maintenance of artificial respiration by means of a tube in the glottis directly connected with a bellows. The best means hitherto used for inflating the lung in cases of acute traumatic pneumothorax are, he believes, a bellows devised by Fell by which air is passed through an O'Dwyer's intubation tube inserted, as in cases of diphtheria, into the glottis.

(344) The Radical Treatment of Simple Gastric Ulcer.

TRICOMI (*Rif. Med.*, February 3rd, 4th, 5th, 6th, 1899) draws a parallel between the treatment of hernia and that of ordinary gastric ulcer, and just as nowadays hernia is treated radically with success, so, Tricomi urges, should gastric ulcer be, in properly selected cases. By radical treatment the author means gastro-enterostomy, which is the best operation in his opinion. The mortality of gastric ulcer varies according to statistics from 50 to 8 per cent., when treated in the ordinary way. The author has collected 50 cases where surgical treatment has been applied in the course of gastric ulcer (not for complication—for example, perforation, but as a radical treatment) 21 out of the 50 were operated upon by the author himself; there were 5 deaths in the 50 cases. Operation is indicated when rational and long-continued medical treatment has failed, when the pain on vomiting is very severe, where there is frequent hæmatemesis, much wasting, gastrectasia, adhesive perigastritis (especially if anterior), when there exists a swelling in the epigastric region in the relation to the stomach, or lastly if the disease incapacitates the patient from work. These indications apply to the disease in its ordinary course; in the special complications which may occur at any moment most surgeons would agree to operate. Of the author's 21 cases 19 were cured by the operation. In 7 cases the ulcer was found in the lesser curvature and 6 in the posterior; in 5 in the pylorus, and in 3 in the anterior parietes. In 15 cases there was a previous history of hæmatemesis.

(345) Hair Balls in Stomach.

SCHLESINGER AND O'HARA (*Wien. med. Woch.*, No. 7, 1899) report a case of "tricho bezoar," or hair ball in the stomach, successfully removed by gastrotomy. The patient was 22, and had a painful tumour in the left flank. Three attacks of violent pain set in without any vomiting; the swelling was then found to be larger, and the operation was performed. The stomach was opened, and a mass weighing 2 lbs. was removed. It consisted of closely felted hair. Only after the operation was it found out that the girl was accustomed to bite the end of her hair when a child. Hair balls are common amongst cattle and mad dogs, both given to licking of their fur. Schulten found in literary records 7 cases which underwent operation, and 9 where there was no operation; thus "tricho-bezoar" is rare in man. Most of the patients were women: one believed that swallowing hair was good for the voice; another that it cleaned the tongue; another habitually moistened cow hair, with which she worked, with her mouth. The mass may lie for many years in the stomach without causing any bad symptoms. It has been known to weigh over 5 lbs. Sometimes the hair on the periphery of the mass is darker than it originally was when on the patient's head; but whether through gastric juice or physic is uncertain. Sometimes part or all of the mass passes into the intestine, and is discharged at stool. Diagnosis is possible when a movable tumour is detected in the region of the stomach and a history of hair biting is obtained. Whilst sometimes the hair does no harm, as a rule it sets up great gastric irritation, and about half the cases under observation died of perforative peritonitis. Hence operation should follow diagnosis. Schreiber describes a case where a mass found in the stomach was made up of vegetable fibres ("phyto-bezoar").

(346) Sloughing of Hernial Sac: Intestine Strangulated in the Perforated Skin.

THÉVELIN (*Rev. Méd.*, Louvain, December 10th, 1898) reports a remarkable case where a young woman, suffered from neglected pelvic cellulitis. An abscess developed; it burst above the right groin, and a little fæcal matter escaped, so that the intestine was clearly involved from the first. The fistulous tracts which had formed closed within six months, but a huge hernia developed, its sac ultimately hanging down to the middle of the thigh. At length, in June, 1898, an attack of abdominal pain, vomiting, and distension set in. Thévelin found that the skin of the fundus of the sac had sloughed away, so that the upper part of the sac formed a great wound, bearing the orifice of two fistulous tracts, which freely discharged the contents of the intestine. The wound was suitably dressed and actually granulated well; the intestinal fistulæ closed spontaneously, and, contrary to all expectation, the patient was quite well two months after the strangulation was relieved. The sac was still very large, and supported by a bandage secured to the patient's shoulders.

MIDWIFERY AND DISEASES OF WOMEN.

(347) The Value of the Alexander Operation.

RONCAGLIA (*Ann. di Ostet. e Ginec.*, March, 1899) gives the results of 58 cases in which the Alexander operation of shortening the round ligaments was employed. Cases of movable retroversio-flexion of the uterus during the sexual life of the patient he thinks ought always to be cured, and the method of treatment most efficacious and most free from danger he looks upon as the one named after Alexander and Adams. He has obtained information regarding the after-history of most of his 58 patients, and finds that in all save one the uterus was normally anteverted after periods varying from 6 months to 9 years, and that the women were able to do hard work. Further, 8 normal pregnancies and labours had occurred in 6 of the women; 1 had had a premature labour of a macerated fœtus, 2 had aborted, and 3 others were now pregnant, 2, 3½, and 5 months respectively. It has, however, to be noted that in 6 only of all the 58 was the Alexander operation the sole means of treatment used; in all the others the shortening of the round ligaments was preceded by curretting, or amputation of the cervix, or perineorrhaphy, or anterior colporrhaphy, or by several of these operations combined. This simply means that mobile retroversio-flexion of the uterus rarely occurs alone, but is usually accompanied by endometritis, perineal laceration, and uterovaginal prolapse. The performance of the operation by the vaginal route is not accepted as an improvement by Roncaglia. It has been urged in its favour that it permits the operator at one sitting to do, say, a perineorrhaphy and the shortening of the ligaments; but there is no reason why the patient should not be operated upon *per vaginam* and then he placed on the back and have the ligaments shortened. It has also been said that it avoids the external cicatrices; but these are not very evident and in most cases soon are covered with hair or are indistinguishable from old striæ gravidarum.

(348) Ovarian Pregnancy.

KOUWER (*Rev. de Gynéc. et de Chir. Abd.*, March-April, 1899) reports a case, which, if the drawings and the interpretation of the appearances seen in the affected ovary be accurate, would certainly represent a genuine instance of ovarian pregnancy in an early stage. The patient was 31. Fourteen months after her last confinement she missed a period and suffered from sharp pains in the right side of the abdomen for several weeks. Repeated attacks of faintness, with escape of a little blood from the uterus, occurred. At length sudden collapse and other prominent symptoms of intraperitoneal hæmorrhage set in. The abdomen was opened, much blood was found in the peritoneum; and the right ovary, forming a tumour of the size of a large walnut, was removed. The leaking came from a small hole in the tumour, which was found to form a sac containing a macerated fœtus over 4½ inches

long. The inner wall of the sac was lined with a tissue which was found on microscopic examination to be chorion. The hole whence the bleeding proceeded did not communicate with the cavity of the sac, but opened into a placental sinus. Graafian follicle tissue was found in the sac wall around the part which was in contact with the rest of the ovary. In the drawings the ostium of the Fallopian tube is represented as normal and quite distinct from the fœtus-bearing ovary; but Kouwer does not refer to any possibility of a previous tubal abortion and adhesion of the extruded ovum to the ovary.

(349) Fœtal Nutrition.

BACHIMONT (*Thèse de Paris*, 1898) has investigated the influence on fœtal nutrition of work and rest on the part of the pregnant woman. His results show that the weight of the child of a woman who has rested during her pregnancy is greater than that of a woman who has worked up to the time of her confinement; and that the more arduous the mother's work, the less is the child's weight. He gives the following table:

A.—*Primiparæ.*

	No. of Cases.	Average Age of Mother.	Average Weight of Child.
		Years	Grms
Having worked standing till confinement	322	25 5/12	2,931
Having worked sitting till confinement	241	22 8/12	3,085
Having rested 2 or 3 months before confinement	298	22 1/12	3,291
Having rested more than 3 months before confinement	199	22 5/12	3,255

B.—*Multiparæ.*

	No. of Cases.	Average Age of Mother.	Average Weight of Child.
		Years	Grms
Having worked standing till confinement	523	28 10/12	3,116
Having worked sitting till confinement	443	29 1/12	3,289
Having rested 2 or 3 months before confinement	301	27 1/12	3,457
Having rested more than 3 months before confinement	234	26 11/12	3,457

(350) Hymeneal Cysts.

MARCHESI (*Gazz. d. Osp.*, April 23rd, 1899) describes two cysts of the hymen, one the size of a nut, the other that of a cherry, the former from a multipara of 38, the latter from a nullipara of 25. In the latter case there had been some interference with the act of coitus. The lining membrane in the one case was stratified pavement epithelium, in the other cylindrical (one layer). Marchesi concludes that the cysts had a different origin: the one with stratified epithelium, coming from closure of a crypt of the hymeneal mucous membrane; the other, with cylindrical epithelium, from the blocking of a vaginal gland.

(351) The Use of the Angiotribe in Gynæcology.

BILHAUT (*Ann. de Chir. et d'Orthopéd.*, February, 1899) has used Doyen's angiotribe with perfectly satisfactory results in two hysterectomies for fibroids. The broad ligaments can thus be quickly crushed so thoroughly as to give complete hæmostasis; in this way the time occupied in operating is lessened and the danger diminished, while the suffering caused by the retention of clamps is entirely avoided. In a case of ovariotomy Bilhaut got equally good results as in the hysterectomies.

THERAPEUTICS.

(352) Plague Serum as a Therapeutic Agent.

W. SYMMERS, of Cairo, gives a record of experiments made to determine the therapeutic efficacy of plague serum (*Centralb. f. Bakt.*, April 15th, 1899), carried out at the Serum Institute at Abbasieh, in Egypt. Cultures were made from the bacilli of bubonic plague obtained from Bombay, and experiments tried on guinea-pigs, white rats and mice, and horses. Cultures on agar or on bouillon were found to possess little virulence, and it was necessary to pass the bacilli through white mice before sufficient virulence could be obtained. Cultures from these were then made in neutral bouillon or agar-agar, and measured qualities injected into horses, generally into the subcutaneous tissues of the neck. Local swelling and inflammation extending to the glands, and slight (febrile) rise of temperature followed, but in no case was there much constitutional disturbance. After repeated injections of sterilised bouillon or agar cultures at a temperature of 60° C., or of the living bacilli—sometimes as many as fifteen injections being given—the jugular vein was opened and the blood thus withdrawn was centrifugalised and serum obtained. The minimal fatal dose of live cultures being separately determined, quantities of serum were now mixed with these, and the mixture was injected into the peritoneal cavity of white rats. It was found that serum from the horse treated with live cultures gave but feeble antitoxic power, while the horse treated with sterilised agar cultures furnishes the strongest serum, and of this a quantity equal to ¼ c.cm. was sufficient to preserve white rats against the minimal fatal dose of the bacillus, smaller quantities of the serum proved insufficient. From all the experiments made it was concluded that the antitoxic power of the sera was about equal to that obtained by Yersin at the Pasteur Institute, and comparable to the sera of cholera and of enteric fever previously prepared by Symmers himself at the British Institute of Preventive Medicine. On the whole it appears the sera in the present experiments did not have a sufficiently high antitoxic value to warrant any hope of their being of therapeutic use in an actual epidemic of plague. It was suggested that for the latter purpose more virulent bacilli should be employed and that the injections of cultures thereof should be carried out in large quantities and for longer times on horses, under which conditions a more effective antitoxic serum might probably be obtained to serve the purposes of practical treatment in actual cases of plague.

(353) Treatment of Stomatitis in Children.

GÖPPERT (*Jahb. f. Kinderheil.*, January, 1899) says that local anodynes are much needed in the treatment of stomatitis. Siefert and others employ a 2 per cent. solution of cocaine for infants. It is not advisable to allow parents at home to use solutions of cocaine, however weak they may be: the same remark would apply to holocaine and eucaine. The author has employed aneson and orthoform as local anæsthetics. Aneson is a solution of acetonchloroform made from Vámossy's prescription by Hoffmann-La Roche and Co. in Basel. The drug has been extensively used in Buda-Pesth on account of its anæsthetic and non-poisonous characters. One advantage possessed by aneson over cocaine is that mould fungi do not form in the solution. The anæsthetic properties of orthoform are well known, but Neumayer was the first to employ it in a case of severe ulcerative stomatitis in an adult. The author has treated 15 cases of aphthous stomatitis with aneson and 5 with orthoform. Both drugs appear to have much the same anæsthetic effect. In one case orthoform was more effective than aneson; this was due to the fact that the mother found it easier to blow the orthoform powder into the mouth than to paint the gums with aneson. In treating a case of stomatitis 25 grams of aneson is required; if the case is a serious one 50 grams. The cost would be from 1.75 to 2.70 m. The amount of orthoform required would be 3 to 5 grams, and the cost would come to 2 m.; in addition, however, an insufflator is necessary. Aneson is a little more difficult to apply than orthoform; the taste of the former, however, is preferable. Aneson must be applied with a piece of cotton wool on the end of a probe; the mucous membrane must be dabbed gently, and the patches of ulceration must never be rubbed. The solution should contain 8 to 10 grams of aneson for the first application in order to ensure thorough anæsthetisation. The meal must be given five to ten minutes after the last application. Orthoform must be blown into the mouth with an insufflator ten to twenty minutes before meals.

(354) Peroxide of Hydrogen as an Antiseptic.

TOUCHARD (*Bull. Gén. de Therap.*, March 8th, 15th, and 23rd) advocates the use of peroxide of hydrogen as an antiseptic and hæmostatic, and is of opinion that this drug has not yet taken the place in surgery which it deserves. It causes rapid hæmostasis on the capillary circulation, and has a temporary action on middle-sized arteries. Its action appears to be a vasoconstrictor one. The bactericidal power of peroxide was

proved by submitting to its action the bacillus subtilis, the bacilli of Loeffler and Friedlaender, the bacterium termo, and other microbes, and also the fungus of trichophyton tonsurans and oidium albicans. All these organs were destroyed by the peroxide. The author concludes that it is one of the most powerful of bactericidal agents, and one which can be procured chemically pure at a moderate price. It is especially useful in all microbic affections of the mouth and throat, such as diphtheria and aphthous stomatitis, etc. It may also be used in general surgery, otology, and dentistry with success.

(355) Rectal Feeding.

Jacobs (*Festschrift Lazarus*, 1899) refers to the value of this treatment, especially in desperate cases of gastric ulcer with hæmorrhage. A girl, aged 18, was admitted on October 8th shortly after having vomited blood. The amount of blood brought up immediately before admission and within the next twenty-four hours was calculated to be 1,800 c.cm. Rectal feeding was exclusively adopted, four nutrient enemata being given daily. Each enema contained 300 c.cm. milk, 2 eggs, half a bottle of red wine, 5 drops of tr. opii, and a little salt. On October 14th she again vomited 700 c.cm. blood after having taken half a litre of iced milk in teaspoonful doses; 250 c.cm. blood was also vomited on the 19th. The nutrient enemata were reduced to two in the day on account of pain in the abdomen. On November 3rd she brought up 50 c.cm. clear fluid, and again on the 4th 200 c.cm. sour-smelling fluid, which contained hydrochloric and lactic acids. On the 9th half a litre of milk was given, and on 16th some solid food. The rectal feeding was discontinued on the 19th. This method of feeding had to be exclusively relied upon for thirty-two days. On the twenty-sixth day of this feeding the patient vomited so much fluid as to suggest that it must have found its way into the stomach by antiperistalsis. The author also refers to another case of early phthisis in which the vomiting was so persistent as to necessitate rectal feeding. In this case a little animal charcoal was once introduced with the enema, and some particles of it were ultimately found in the vomit. In this case rectal feeding extended over thirty-four days, including a short period in which feeding by the mouth was tried in vain. As in the first case the enemata were almost wholly absorbed. The author finally refers to the experimental evidence on the subject of antiperistalsis.

(356) The Schott Method in Heart Disease.

Charles L. Greene (reprint from the *Journ. of the Amer. Med. Assoc.*, October 15th, 1898) gives the result of a study of Schott's method of treatment by baths and simple resisted movements, extending over a period of four years, and embracing nearly 100 cases. The cases more especially adapted to the treatment are those of mitral disease, particularly regurgitation, even when much advanced and slightly uncompensated, if neither arterio-sclerosis nor myocarditis are present. In exophthalmic goitre, in cases of functional irregularity, of neurasthenia, of anæmia, and of chronic rheumatism, he also found it useful. He did not get good results from the baths in aortic stenosis or regurgitation. These he preferred to treat by simple rest and resisted movements. In aneurysm, marked arterio-sclerosis, chronic myocarditis, and chronic Bright's disease, he considers the baths to be distinctly dangerous and harmful, though here, also, the movements may be beneficial. In considering the effect of the treatment, it is necessary to bear in mind the results to be aimed at: (1) the heart must be rested and strengthened, and its own cell metabolism and circulation improved; (2) the peripheral resistance lessened; (3) the general venous engorgement and failure in metabolism overcome. The direct effects of the baths, shortly stated, are as follows: (1) a fleeting sense of oppression and dyspnœa (only rarely seen); (2) a feeling of exhilaration and well-being; (3) a slowing of the pulse accompanied by a fuller and stronger beat; (4) a brightening of the skin, nails, and mucous membranes, indicating relief of cyanosis and freer capillary circulation; (5) secondary reduction of pulse tension with maintenance of a lower rate: (6) great reduction in the cardiac area, most marked primarily in the right heart. The effect of the movements is almost precisely similar, but is not so long maintained. The author considers that if the cases be carefully selected and strictly supervised, the beneficial results are really remarkable, the shrinkage of the heart during the bath being very distinct, and not due simply, as has been asserted, to the deeper breathing induced by the bath. He thinks, however, that it is possible to overestimate the value of the treatment, and advises that it should be considered one of the weapons with which to combat such diseases, others being the use of digitalis and strychnine, walking on the flat, or in certain cases hill climbing.

PATHOLOGY.

(357) Pathological Anatomy of Rabies in Man.

At a meeting of the Society of Neuropathology and Psychiatry at Moscow (November 20th, 1898) S. Tchernischeff records the microscopic examination of a fatal case of rabies (*Archives de Neurologie*, April, 1899). The conclusions are as follows: In the dorsal and lumbar regions of the spinal cord there were intense hyperæmia of the vessels in the white substance, and especially in the grey matter, with an infiltration of the perivascular spaces by lymphoid elements. In sections prepared after the method of Bousch there were several small black agglomerations at the periphery of the white substance, as well as a pigmentary degeneration of the cells of the anterior cornua and of Clarke's columns. In preparations stained with basic aniline dyes numerous cells of the anterior cornua and of Clarke's columns seemed deformed and altered, presenting a chromatolysis diffuse or in spots, and marginal or perinuclear. The nucleus was displaced towards the periphery, deprived of its membrane, and it sometimes stained more intensely than the cell body itself. In certain cells the processes were broken. All these changes were more marked in the cervical enlargement and in the bulb. In the depths of the floor of the fourth ventricle there were small hæmorrhages. The lesions were less prounced in the bulb, the cerebral cortex, and the basal ganglia, while the cerebellum and the isthmus cerebri were the least affected.

(358) Micro-organisms in Strangulated Hernia.

Catellani (*Rif. Med.*, November 25th-26th, 1898) has examined the fluid contained in the sacs of 12 cases of strangulated hernia. In 8 of the cases no micro-organisms were found. All these cases recovered. In the 4 remaining cases the bacterium coli was found, and gave pure cultivations except in one case where no culture could be made, although the bacteria were found in the liquid of the sac when examined directly after operation; this case recovered, but the other 3 died. In each of the 4 cases there were appreciable intestinal lesions. No other organism except the bacterium coli was found.

(359) Tubercle Bacilli in Butter.

Rabinowitsch (*Deut. med. Woch.*, January 5th, 1899) first refers to the previous investigations into this subject, and then reports a research carried out in Koch's Institute. In 80 specimens previously investigated by the author tubercle bacilli were never found, but in 28 per cent. a bacillus resembling the tubercle bacillus. As a considerable discrepancy thus existed between the investigations of other observers and those of the author, 15 more samples were examined in May last. Only two of the samples came from the same place, and both of these contained living and virulent tubercle bacilli. This led to a further examination of samples coming really from the same source, but distributed in different places, and in 70 per cent. genuine tubercle bacilli were found. A further investigation, undertaken in October, of butter from the same source yielded 100 per cent. positive results, whereas samples obtained from another distributing firm showed no tubercle bacilli. The butter was melted at 32° to 36° C., centrifugalised, and the fat free deposit and lowermost layer of fluid injected into animals. Thus it was found that one considerable butter firm was distributing butter containing the tubercle bacillus. The author would explain the difference between the results of these researches and those of other observers by supposing that the samples of butter collected from different places really came from a single source. When samples are obtained from different sources the tubercle bacillus is rarely found in butter.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(360) Fermentation in the Stools of Sucklings.

CALLOMON, in a preliminary communication (*Centralbl. f. inn. Med.*, March 4th, 1899) refers to his investigations into the early fermentation of the stools, with abundant formation of carbon dioxide. An investigation was made into the utilisation of the various carbohydrates, both soluble and insoluble, in the intestines of these infants. Both milk as well as various carbohydrate foods were examined. Nearly all the infants were in the first year of life, the exceptions being 3 infants who were ill-developed. A careful record was kept of the weight by means of curves. In 314 experiments the stools of 21 infants were examined. Under normal conditions a distinct early fermentation of the above-named kind may take place. When carbohydrates, mostly given in a soluble form, were employed, there was no distinct early fermentation in a series of cases, yet in others it was marked. The variations amounted to between 10 and 55 and 30 and 100 c.cm. per gram of solid substance. These variations often occurred not less in the feeding with a prepared soup as with pure milk in the same healthy or diseased child. The diagnostic value of the fermentation test thus gives rise to great and even insuperable difficulties. The possibility of making it useful depends unconditionally upon the finding a normal diet such that the occurrence of early fermentation reveals pathological states; but the difficulty of finding such a diet is very great.

(361) Infantile Tuberculosis.

LYDER NICOLAYSEN (*Norsk. Mag. for Laegevidensk.*, No. 10 October, 1898) finds that out of 4,186 children examined 8.3 per cent. were found clinically to be tuberculous. Of 184 tuberculous children treated in the Policlinic 38.5 per cent. were scrofulous, 25.5 per cent. had osseous and articular tuberculosis, 25.5 per cent. had pulmonary phthisis, 7.6 per cent. peritonitis, and 2 per cent. meningitis. Of 83 tuberculous children treated in the pædiatric service 39.7 per cent. had osseous and articular tuberculosis, 7.7 phthisis pulmonalis, 24 per cent. were scrofulous, 4.7 per cent. suffered from peritonitis, and 3.6 per cent. from meningitis. Nicolaysen concludes that infantile tuberculosis is characterised by a special localisation in the glands and by the frequency of osseous and articular tuberculosis and of cases of meningitis.

(362) Suffocating Laryngitis in Croup.

SEVESTRE, who has already drawn attention to this subject, contributes a further article (*Journ. de Méd.*, March 10th, 1899) pointing out the extreme importance of being prepared for this symptom in measles. He also shows that it is not in the most severe cases of measles only that we may be confronted with this grave complication, as quite recently he has had under his care several cases of laryngitis occurring in mild cases of measles. As in his former cases, it is usually at the beginning of the attack and even before the appearance of the exanthem that the larynx is liable to become actually inflamed. Some of these cases may be mistaken for ordinary laryngismus stridulus, but an important difference is that the latter does not present the ingravescent and constant character found in measles, and even although there may be some relaxation in the severity of the symptoms, the patient will still show aphonia or marked hoarseness. Suffocating laryngitis usually occurs in young patients, mostly under 3 years of age, and a curious fact noticed by the author is that there have been certain nervous manifestations such as convulsions or ordinary laryngismus stridulus previous to the onset of measles. A point of great importance is to examine the pharynx and soft palate for the peculiar red-pointed exanthem present in many cases of measles. The presence of oculo-nasal catarrh is also of great assistance. As to treatment, the writer suggests mustard baths and diffusive stimulants, also antipyrin and other nerve sedatives. He has found in some cases that intubation becomes necessary, and may be the means of saving the patient's life, and that it presents very many advantages over tracheotomy, the secondary complications such as bronchopneumonia being less likely to prove troublesome. Another point borne out by the author's recent experiences is that relapses must be guarded against.

(363) Hysterical Blue Œdema.

D. C. LÉON (*Thèse de Paris*, 1899, No. 173) recalls the fact that Sydenham drew attention to a peculiar character of hysterical œdema, namely, that it often is hard, or, at all events, does not pit to pressure like the plastic œdema of Bright's disease, etc. Charcot, in 1889, separated the blue œdema from the white œdema of hysterical persons. The former he regarded as a special variety of the latter, and as accompanied by a lowering of the local temperature, sometimes as much as 2° to 5° C. In a girl, aged 17, with hysterical contracture of the left foot, the lower part of the limb became swollen and cyanosed. This was accompanied by dryness and coldness of the skin of the affected part, and by spontaneous pains and hyperæsthesia. The phenomena disappeared spontaneously after about a month, when the patient became affected with convulsive seizures. Later on they reappeared for a time though in a slighter form. In the case of another girl, aged 17, a surgeon, thinking that the fibula was diseased, made two long incisions; only a little blood but no pus came away, and afterwards undoubted hysterical phenomena manifested themselves. In a girl, aged 22, the fingers and back of one hand were affected, and there was anæsthesia with some contracture. Charcot also was able to obtain an artificial "blue œdema" by suggestion, and cause it to disappear in the same way. One of Charcot's typical cases was that of a sailor, and the affection undoubtedly, therefore, may occur in men though more rarely than in women. The extremity of a single limb (upper limb usually) is the part generally affected. There is, however an arthralgic form, in which the region of a joint is chiefly affected. The hysterical mammary form is rarer, and probably connected with an emotion or a special fixed idea. Sometimes the swelling has a sharply-defined margin above a segment of a limb, but more usually the transition from the œdematous part to the unaffected part is gradual. Puncture of the affected region does not give rise to a great flow of lymph as it usually does in cases of ordinary œdema. Hysterical blue œdema must be distinguished from acute inflammatory affections, and from Raynaud's disease and erythromelalgia of Weir-Mitchell. The treatment may be general (hydrotherapy) and local (massage, electricity). Léon adds that, narrowly allied as the affection is to hysteria, it should be, and is in reality, benefited by suggestion. He describes the case of a girl, aged 17, where treatment by suggestion, disguised under the form of magnetism, seemed to have a decidedly beneficial action in removing the "blue œdema."

SURGERY.

(364) "Retroperitoneal Lymph Cyst" or Psoas Abscess?

STREHL (*Deut. Zeit. f. Chir.*, March, 1899) brings forward a case of great interest in association with another published by Narath (*Langenbeck's Archiv*, vol. l), where a fluctuating tumour in the front of the thigh in a girl, aged 20, was termed a "retroperitoneal lymph cyst," on the strength of the facts that she was free from tubercle, that she showed no lameness and no evidence of spinal caries, that the clear fluid was like that seen in many cysts and not like pus, and that the cyst wall seemed made up of lymphatic tissue with granulation tissue and giant cells. A somewhat desperate operation was undertaken successfully. In order to reach the "cyst wall" the deep femoral artery and vein and the circumflexa ilii were divided and tied. The cavity reached well up under the crural arch to the lower lumbar vertebræ, and cords of soft tissue ran across it between opposite sides of the cyst. The patient recovered. Strehl's case was in a youth, aged 20. He had fallen on his right knee in February, 1896, and it inflamed. He lay in hospital for five months with the knee extended. Notwithstanding appropriate treatment the knee never became normally movable. During this term of rest a swelling developed in the opposite thigh below the left groin. On the

strength of the absence of any further evidence of spinal disease, and the belief that the inflammation of the right knee was purely traumatic, a Narath's "retroperitoneal lymph cyst" was diagnosed. Von Eiselsberg of Königsberg made a vertical incision over the swelling. Over a pint and a-half of clear fluid escaped. The inner wall of the cyst showed a cord passing across the cavity, and the operator found that the cavity passed under the crural arch high up into the pelvis. A sound could reach the level of the left kidney. The cyst was filled with iodoform glycerine, and closed. The fluid was clearly what is seen in old abscesses, and a piece of "cyst wall" excised was made up of granulation tissue freely mixed with the most characteristic giant cells. Microscopically it tallied with the description given by Narath of sections of the "cyst wall" in his case. Neither "cyst wall" could be enucleated from its surroundings, though a piece was snipped off in each case for examination. In conclusion, both were simply psoas abscesses, and the cases show how authorities and industrious clinical and pathological observers, may be so deceived by assumptions so as to take a well known and common malady for a new and remarkable affection.

(365) Operative Treatment of Hydatid Cysts.

POSADAS (*Rev. de Chir.*, March, 1899) advocates in cases of non-suppurating hydatids, extirpation of the true cyst and its contents, and immediate closure, without drainage, of the wound in the outer or adventitious membrane. In a case of hydatid cyst of the liver, for instance, the author would expose the true cyst by incision of the hepatic structures, and of the adventitia, and then, if the tumour be not a very large one, would remove it intact, and without withdrawing the contained fluid by puncture. In a cyst larger than the egg of an ostrich it would be necessary to withdraw a portion of the hydatid fluid. After removal of the hydatid cyst the walls of the pericystic pouch fall together, and the cavity previously occupied by the tumour is effaced in consequence of the pressure of the surrounding viscera. The incisions in the liver and the adventitia having been closed by sutures, the external wound in the abdominal wall is now sutured without any attempt to drain the seat of operation. In cases of suppurating hydatid it is necessary after removal of the tumour to establish drainage, and if adhesions have not already been established, to shut off the suppurating cavity in the liver from the rest of the abdomen. Puncture, aspiration, and injection into the cyst of antiseptic or parasiticide solutions ought, it is held, to be regarded as obsolete methods of treatment in cases of hydatids.

(366) Volvulus of Sigmoid Flexure: Three Operations.

MILTON FOOTE (*Boston Med. and Surg. Journ.*, March 9th, 1899) operated three times on a deaf-mute of defective intellect, aged 22. Symptoms of obstruction set in at the end of January, 1898. The abdomen was distended by two great air-spaces lying side by side in the epigastric, umbilical, and hypogastric regions. They could be easily mapped out, as their percussion notes were slightly different. Volvulus of the sigmoid flexure was diagnosed and discovered on abdominal section. It was necessary to puncture the gut with a trocar to allow some of the air to escape before it could be drawn through the incision. After the loops had been untwisted the fæces and gas were squeezed down into the rectum, at the same time that irrigation was carried on from below, until the bowel was empty. There was a partial rupture of the muscular fibres in an oblique direction, across the descending limb of the involved gut, close above the constriction. This and the trocar wound were closed with fine silk. On June 6th, 1898, this operation had to be repeated. On January 1st, 1899, subacute obstruction and high temperature being present, a third abdominal section was undertaken. The sigmoid flexure had twisted as before; it contained only a moderate amount of gas and fæcal matter. The ascending and descending limbs of the bowel were adherent, by fresh fibrin, at the point of crossing. There were also old adhesions between the omentum and the cicatrices of the previous incisions. A second abdominal incision was made as for an appendicitis, and the descending portion of the sigmoid flexure was stretched smoothly across the lower part of the abdominal cavity, and stitched to the parietal peritoneum close to the anterior superior spine of the right ilium. It was hoped, in this way, to prevent a fourth recurrence of the volvulus. Recovery was rapid, and the patient was doing well two months after the third operation.

(367) The Operative Treatment of Myopia.

SCHEFFELS (*Klin. Monatsbl. f. Augen.*, October, 1898) gives the details of ten cases on which he has operated during the last 4½ years, and in which a perfectly clear pupil was obtained. The two following cases will serve as examples. Case I. Girl of 17, right eye 20 D. Fundus: Temporal conus, 1½ time the breadth of the disc; decrease of pigment in the circumpapillary choroid: parallactic displacement of the retinal vessels to nasal side. Operations: January 20th, 1894, discission; on January 26th, linear extraction; February 20th, discission; March 15th, pupil perfectly clear. In February, 1898, a fine after-cataract formed and was needled on April 21st, 1898; two days later pupil again quite clear. Vision: January 19th, 1894, − 20 D. = $\frac{5}{5}$, Nieden 1 at 5 cm.; March 15th, 1894, + 0.5 D. = $\frac{5}{20}$, Nieden 1 at 25 to 35 cm., with + 4 D.; April 25th, 1898, Em. $\frac{5}{20}$, Nieden 1 at 25 to 35 cm., with + 4 D.; thus, after 4 years, refraction was lessened about 0.5 D.; ophthalmoscopically, no change. Case II.—Youth of 13½; right eye 14 D. Fundus: slight temporal conus, albinotic. Operations: August 15th, 1894, discission; August 23rd, linear extraction; September 20th, pupil clear, and has remained so. Vision: August 14th, 1894 − 14 D. = $\frac{5}{5}$, Nieden 1 at 7 cm.; September 20th, + 3 D.sp. ⌒ + 1 D.cy. = $\frac{5}{5}$, Nieden 6 at 25 to 30 cm., with + 6 D.sp. ⌒ + 1 D.cy.; May 1st, 1898, + 1.5 D. ⌒ + 1 D.cy. = $\frac{5}{5}$, Nieden 1 at 25 to 30 cm. with + 5 D. ⌒ + 1 D.cy. Thus after three and a-half years there was a decrease in the hyperopia of 1.5 D; ophthalmoscopic picture unaltered. From these and the other examples one sees that vision was not only improved, but went on improving. In six out of the ten cases secondary cataract formed and required needling at dates varying from three months to four years after the original operation. Discission was always done through the sclera. As regards the question of the increase or progress of the myopia after operation, in eight of the ten cases the hyperopia decreased with the lapse of time, in two it remained unchanged. In 3 cases the operated eye could be compared with the unoperated. In one the operated eye showed no decrease in refraction, while the unoperated became more myopic (advancing from 10D. to 12D.). In another case the refraction of the operated eye decreased by about 2D. in 2¾ years, while in the unoperated eye the myopia increased from −8 to −11D. In the third the refraction of the operated eye diminished 1D., in the non-operated the myopia increased from 12D. to 14D. Thus in four-fifths of these cases operation did not prevent an increase in the length of the eye. This fact need not deter from operating, and Scheffels thinks operative interference, properly carried out and in suitable cases, of great value to many who have to earn a livelihood.

MIDWIFERY AND DISEASES OF WOMEN.

(368) The Female Organs and the Thyroid Gland.

DE VOOGT (*Centralbl. f. Gynäk.*, No. 12, 1899) observed, in August, 1897, a girl, aged 15, with bronchocele. Iodide of potassium and iodothyrin proved of no benefit. In March, 1898, the patient complained of hæmorrhages. In exploring De Voogt detected an ovarian tumour. He operated, and it proved to be a dermoid cyst containing the usual dermal growths, with cortical cerebral substance and true ganglion cells. The operation, however, has not influenced the bronchocele. The thyroid growth coincided in date of appearance with the onset of the catamenia. It must be noted that one ovary remains. Mendes de Leon had under treatment a case of habitual abortion, endometritis, and bronchocele with exophthalmos. The curette was freely used. Both the endometritis and thyroid disease passed away, the patient afterwards bore a child at term, and the thyroid affection never returned. A more definite case had uterine fibroid with bronchocele. Within a month after hysterectomy the thyroid gland began to diminish, and a

few years later was almost reduced to its normal size. Veit, in a discussion on the above cases, said that they were inconclusive. De Voogt's certainly required a longer history, whilst in researches of this kind ordinary enlargement of the thyroid body and Graves's disease must be very carefully distinguished.

(369) The Menopause and Heart Disease.

HOSSKIEWITZ (*La Gynécologie*, April 12th, 1899), after five years' observation, finds that a functional cardio-vascular neurosis appears at the menopause in certain women. This neurosis is very dangerous when organic disease of the heart already exists, being one of the most frequent causes of asystolism. Patients with arterio-sclerosis without valvular lesions resist best the unfavourable influence of the menopause, when aortic insufficiency is aggravated. The same ill-effect is seen in mitral disease. Dilatation of the chambers or of the aorta, tachycardia, and irregular pulse, have been noted in these patients, but not in any direct proportion to the degree of arterial sclerosis present. The cardiac neurosis of the menopause comes in fits between the periods, and is usually improved by the appearance of show. They are, like all the other phenomena of the menopause, aggravated by overwork, violent emotion, and all debilitating influences.

(370) Brain Presentation in Labour.

BÖRNER (*Centralbl. f. Gynäk.*, No. 47, 1898) relates a case of unusual malformation, where breech presentation was diagnosed. After the rupture of the membranes the child died. At delivery it was found that the entire skullcap was wanting through failure of development. Contrary to the rule, as seen in the common and anencephalous monster, the brain was well developed. There were no other malformations. As in cases of anencephalus, the subject was strong-limbed and muscular. Very naturally, the hemispheres felt to the touch like nates. Unfortunately, no microscopical preparations of the brain could be obtained, nor was it even incised. Brosin, in a discussion on Börner's paper, denied that a normal brain could withstand uterine pressure, especially during labour. He suspected that in this case the cerebrum mostly consisted of connective tissue with but little nerve substance.

(371) Vaccine Infection of the Vulva.

MAILLEFERT (*Münch. med. Woch.*, May 2nd, 1899) relates the following exceptional case in a woman, aged 26, who was seven months pregnant. The left labium majus and minus were much swollen, the latter projecting across the middle line and forming a swelling as large as a walnut. There were three vesicles on the inner surface of the left labium majus and one on the corresponding surface of the labium minus. Much pain was complained of, but there was no fever. The following history was obtained. Eleven days previously the patient's youngest child had been vaccinated, and had developed three large pustules. Linen rags soaked in oil were used as a dressing for the arm. The patient subsequently applied one of these rags to her vulva, as she was suffering from much vaginal discharge. This rag had only been rinsed out in water before being used. On the next day she complained of pain. The swelling did not disappear until the vesicles burst. The severe local infection was partly due to the patient being pregnant. The vaccine used for the child also seems to have been very active. The author has not been able to find another case on record exactly like the above one.

(372) Perforation of the Uterus.

R. RISS, (*Marseille Médicale*, April 1st, 1899) reports a fatal case of uterine perforation following abortion at three and a half months. In order to remove the membranes, which did not at once come away, the midwife in attendance had inserted the douche tube into the uterus and tried to wash them out. Since she was unsuccessful and since great hæmorrhage followed, she sent her patient into hospital, where signs of acute peritonitis soon developed, and death followed thirty-six hours after the occurrence of the miscarriage. At the necropsy a fundal perforation of the uterus was found, and it was concluded, from the absence of any motive for criminal abortion or of any other possible cause, that this must have been produced by the douche tube.

(373) A Laminaria Tent in the Bladder.

H. MORESTIN (*Bull. Soc. Anat. de Paris*, p. 130, February, 1899) records the case of a woman who had as the result of a labour terminated by embryotomy a condition of nearly complete obliteration of the vagina by cicatricial adhesions along with a vesico-vaginal fistula. The vaginal canal was so narrow that only the little finger could be introduced, and as a preliminary means of treatment it was ordered that a laminaria tent be introduced. The student to whom its introduction was entrusted unfortunately passed it into the urethra, and only discovered his mistake the next day when on endeavouring to extract it from the urethra the string broke, and the tent slipped into the upper part of the urethra, where it remained fixed. Urine escaped by the vagina. The foreign body was removed by urethral section by the vaginal route, and an attempt was made at the same time to close the vesico-vaginal fistula.

THERAPEUTICS.

(374) Aleuronat in Infant Feeding.

HEIM (*Jahrb. f. Kinderheil.*, January, 1899) has employed the new albuminoid food with great success during the last few years. The author objects on theoretical grounds to the prevalent system of giving diluted cow's milk. He points out that diluted cow's milk falls far short of the necessary requirements of the organism when compared with human milk. The process of dilution, in fact, reduces the amount of albumen to about one-half, the fat to one-third, and sugar to one-fourth. The nourishment in many cases is insufficient, and the addition of aleuronat to the diluted milk increases its nutritive value. The plan of treatment usually consists in giving an infant 1 week old aleuronat in addition to cow's milk. The food is prepared by mixing one part of aleuronat with two parts of fine oatmeal; the mixture is strained through a cloth, and has a slimy consistency. After the third month the food is given in the form of a milk pap with undiluted milk but only twice daily. The daily allowance of meal rises from 15 grams to 45 grams; this gives an addition of 6 to 16 grams of proteid per diem. The annual cost of the food would come to 20 m. The food is easily digested, and the small quantity of starch it contains is readily assimilated (some physiological experiments in animals conducted by Kormanth in Vienna prove that the addition of aleuronat aids the digestion of starch). The fine granular character of aleuronat acts mechanically in splitting up the casein of cow's milk. This rich albuminoid food was particularly useful in the case of newborn infants. The author gives an instance in which a child fed on aleuronat doubled its weight in three months, whereas a breast-fed infant the same age took three months and twenty days to acomplish a similar increase in weight. Another child with an initial weight of 3,000 grams lost 225 grams after a severe illness, and took twenty-two days to recover this loss. The infant doubled its initial weight in three months, and thrived better than a breast-fed child, who had lost 180 grams, and in the thirtieth week has only added 185 grams to its original weight. Another experiment was undertaken with two children who weighed exactly the same at birth; one of them was fed on the breast whilst the other was given cow's milk and aleuronat. After two weeks the infant fed on aleuronat had already exceed the other one in weight, and after six months it weighed 400 grams more than the breast-fed child. Aleuronat has much the same nutritive value as somatose. The author found that aleuronat had the power of increasing the secretion of human milk. The moderate price of this food brings it well within reach of the poorer classes. The increase of albumen appears to have no evil effects.

(375) Drawbacks of Orthoform.

IN a discussion on orthoform before the Paris Société de Dermatologie (*La Presse Médicale*, April, 1899, No. 30, p. 149), Brocq pointed out that when used in solution it gave rise to redness and irritation of the skin, associated at times with severe pruritus. As an ointment it produced, at the end of forty-eight hours to three days, a very pruritic eruption. In an out-patient adult an orthoform ointment (1 in 40) applied to the face led to intense redness and infiltration; it took twenty

days for the latter to disappear. Orthoform powder applied to a fissure of the vulvar region gave rise to great tumefaction of the labia minora, with redness and weeping about the adjacent parts of the thighs, and accompanied by symptoms of a general intoxication, namely, infiltrated nodular lesions, as hard as cartilage, about the forehead, trunk, and limbs. Thibierge stated that Epstein of Breslau had observed vomiting, collapse, a lowering of the temperature, and persistent pains after the administration of orthoform by the mouth.

(376) The Serum Treatment of Tetanus.

F. Blumenthal and Jacob, of Leyden's clinic (*Berl. klin. Woch.*, December 5th, 1898), in a preliminary communication, state that the subcutaneous and intravenous injection of tetanus antitoxin has certainly not produced very satisfactory results. Thus the idea arose of introducing the remedy into the organs which are the main seat of the disease. As the tetanus poison is chiefly manufactured in the central nervous system, Roux and Borell, after trephining, injected the antitoxin directly into the nervous tissue in rabbits, mice, and guinea-pigs with success. These investigators did not use large animals, and they expressed themselves very cautiously about its further application. Independently, Blumenthal and Jacob conceived the idea of introducing the antitoxin by the method of dural infusion devised by Jacob. Goats were injected with many times the lethal dose of tetanus toxin, and as soon as the first symptoms appeared the antitoxin was injected into the subarachnoid space. The goats received 1,000 to 2,500 times the dose needed to neutralise the poison in the test tube. The results were quite negative. The presence of the antitoxin was demonstrated in the subarachnoid tissue and organs some hours after death. In a control animal the cerebro-spinal fluid contained little tetanus toxin. After these negative results the authors then trephined a goat, and a few days later injected tetanus toxin into the thigh. At the first symptom of tetanus 2,000 times the dose of antitoxin was injected into the brain. The animal died of tetanus sixteen hours after the injection. The authors do not believe that much can be expected of Roux and Borell's method when applied to man; 7 out of 8 cases so treated have died, and the eighth case was an example of the more chronic tetanus.

(377) Endovenous Injections of Quinine in Malarial Pneumonia.

Intaglietta (*Rif. Med.*, January 17th, 1899) records the case of a man, aged 19, suffering from severe pneumonia, probably of malarial origin. When first seen the patient was subicteric, respiration shallow and 38 per minute, pulse 120, temperature 106.5°; cough, with blood-stained expectoration; almost unconscious; biliary vomiting and occasional twitching. The right lung showed signs of pneumonia. The spleen and liver were each enlarged, the former excessively so. Two grams of a solution of bichloride of quinine were given hypodermically every two hours, and inf. digitalis in the intervals. Some slight lowering of the fever followed, but otherwise no marked improvement, and after four days of this treatment—14 grams having been given—the boy being almost moribund, an endovenous injection of 60 cgr. of quinine was given. Good effects were speedily noticed, and after a second injection steady improvement set in, and convalescence was satisfactorily accomplished.

(378) The Prevention of Hereditary Syphilis.

Fournier (*Sem. Méd.*, November 30th, 1898) formulates the following rules with regard to the prevention of hereditary syphilis: (1) Whenever the fœtus is threatened with syphilis of paternal origin, it may frequently be prevented by treating the mother during her pregnancy, however healthy she may be herself. (2) The essential part of the treatment is mercury. Iodides are not nearly so efficacious. (3) The particular preparation of mercury chosen must depend on the case, but other things being equal, Fournier prefers the green protiodide. (4) It must be remembered that the fœtus, and not the mother, is being treated, hence small doses are sufficient in the author's experience ($\frac{1}{10}$ gr.). (5) To be of use the drug must be begun as early in the pregnancy as possible, and continued to its termination. Before the fifth month the treatment usually succeeds, if begun later it almost always fails. (6) Success in the treatment of the fœtus through the mother is so common that it is the duty of every practitioner to apply it. The child will not only probably be carried to term, but when born will be perfectly healthy and never show any signs of syphilis. Naturally other complications—hydrocephalus, hydrammion, diseased placenta—are prevented at the same time.

(379) Hæmatin and Hæmoglobin Preparations.

V. Starck (*Deut. med. Woch.*, December 22nd, 1898) says that the absorption of hæmatin in the form of hæmoglobin crystals, hæmol, and hæmogallol has been chiefly investigated by Kobert and his pupils. The author has adopted two different methods of ascertaining the behaviour of hæmatin in the body. He caused three guinea-pigs to fast almost completely for three days: he then gave 100 grams of hæmatogen to the first, hæmoglobin syrup containing 15 grams of hæmoglobin to the second, and a corresponding amount of iron in the form of syr. ferri oxidat. to the third. They were then killed shortly after having had a small meal of hay, and only in the third was there any sign of active iron absorption from the duodenum. The negative result cannot be taken as proof of the absence of iron, as hæmatin does not give a direct iron reaction. Hæmoglobin is split up in the stomach into hæmatin and coagulated albumen, whereas the hæmatin itself should be absorbed. After subcutaneous injection of hæmoglobin solutions iron can be proved microscopically to exist in the leucocytes and connective tissue cells, whereas hæmatin injected may remain apparently unaltered in the tissues for seven weeks or so. V. Starck then relates his experiments in support of this view. The iron-yielding value of hæmoglobin or hæmatin given by the mouth cannot be looked upon as considerable. If iron is to be administered in this way, a solution of hæmoglobin should be given subcutaneously. Methæmoglobin acts in the same way as oxyhæmoglobin, as the author's experiments also show. The fasting state does not increase the absorption. A subcutaneous injection of 1 to 2 c.cm. of a 2 to 10 per cent. solution of methæmoglobin does not cause any reaction in man. This subcutaneous treatment is only adoped in special cases. The hæmaglobin syrup of Pfeuffer and the hæmotogen of Hommel certainly increase the appetite. Hæmalbumen and hæmoglobin preparations cannot be looked upon as blood substitutes such as they have been described. Starck does not deny all value to the hæmoglobin preparations, but he warns against overestimating them.

PATHOLOGY.

(380) Leukæmia.

Löwit has investigated cases of leukæmia (*Centralbl. f. Bakt.*, March 13th, 1899) which he believes support the idea of the disease being of a parasitic nature, as he finds the presence of what he takes to be sporozoa. In the blood taken from peripheral capillaries he has discovered a form of amœba which he calls amœba leucæmiæ magna, which seems to multiply in the corpuscles with the formation of spores, these latter being found in considerable numbers in the hæmogenic organs. In lymphæmia these parasites are found less abundantly, and after death the hæmopoietic organs seem to contain a form of amœba differing somewhat from the preceding, being more frequently intracellular, and even at times intranuclear. He has given the name hæmamœba lukæmia vivax. In some cases both forms seems to be present. It would seem that infection can be transmitted to certain animals possessing predisposition, and the author states that such animals inoculated from a patient—the subject of chronic leukæmia—will develop that disease in the course of a few days with, first of all, multiplication of the leucocytes, and subsequently considerable alteration in their characters, while the amœba already mentioned may be discovered constantly in fresh preparations of the blood. Examination of the hæmopoietic organs also demonstrates the presence of the organism, but not so abundantly as in the blood. Later on the hæmopoietic organs become enlarged. Infection may be transmitted from such an animal to another. As yet it has been found impossible to isolate and culture the organism outside the body, doubtless because we are so far ignorant of its special conditions of growth.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(381) Renal Hæmorrhage in Influenza.

A. KOEPPEN (*Centralb. f. inn. Med.*, May 6th, 1899) says that visceral hæmorrhages are not very uncommon in severe influenza such as are seen in hæmorrhagic meningitis and encephalitis, hæmorrhages from the uterus, intestines, throat and larynx, nose. Renal hæmorrhage is very rare. The author relates a case in a man, aged 30, who during an epidemic of influenza presented the usual symptoms of the disease. The urine which became darker in colour as the attack progressed contained a small quantity of albumen, red and white blood cells, and blood casts. There was no alkaptan, phenol, melanogen, or indican present. Sugar was absent. The dark colour was undoubtedly due to the admixture of altered blood. In a second case in a man of 40 some albumen was also found as well, red and white blood cells, and blood casts. Both these patients had been taking salipyrin, but the author gives his reasons for not assigning the hæmorrhage to this cause. He thinks that the hæmorrhage was due to the injurious effects of toxic products, but there was no other evidence of a hæmorrhagic nephritis. Koeppen then adds some remarks upon the diazo reaction, which was well marked in both these cases. He also refers to 4 other cases in which the same reaction was present, though in slight degree. The above cases are too few in number to base conclusions upon. In the first 2 cases the disease was severe and the reaction marked, whereas in the last 4 mild cases the reaction was slight and rapidly disappeared.

(382) Typhoid, Meningitis, and Meningism.

MARAGLIANO (*Gazz. degli. Osped. e dell. Clin.*, April 16th, 1899), discussing the occurrence of meningiform symptoms in typhoid and other diseases, points out that the survival of a patient who has presented meningeal symptoms does not exclude the possibility of anatomical lesion, for several cases which macroscopically have exhibited no lesion have, microscopically examined, shown perivascular changes, the initial manifestations of inflammation. Lumbar puncture is of value in excluding meningism (that is, what has been called pseudo-meningitis, such as occurs in relation to teething or other peripheral excitant), but cannot prove it. If the puncture shows an increase of pressure this is evidence of something more than mere meningism. Of course bacteriological examination of the cerebro-spinal fluid is important, but tuberculous meningitis may exist without the tubercle bacillus being found in the fluid. When true meningitic symptoms occur in the course of typhoid it is nearly always fatal (8 out of 10 of the author's cases). Of the 8 fatal cases none showed purulent meningitis, whilst the one which manifested this did not die. For those cases of typhoid which show meningeal symptoms without any evidence of meningitis, as revealed by increased pressure or other changes in the rachidian fluid, the author prefers the old term "cerebral typhoid."

(383) Tabes after Traumatism.

TRÖMMER (*Berl. klin. Woch.*, February 13th, 1899) reports 2 cases which were in Jolly's clinic: (1) A man, aged 42, had a crushing injury of the left foot in November, 1894. Previous to this he was quite well, and there was no history of syphilis. Pains in the foot and paræsthesia were soon complained of, and eight weeks later there was some difficulty in micturition and impairment of the genital functions. Nine months later he suffered from the characteristic pains in the legs, and in 1896 the tabes wes following its ordinary course. On admission the pupils were unequal, and the light reflex was lost. There were no knee-jerks. Ataxic symptoms were present chiefly on the left side. The sensory symptoms were also more marked on the left side, and especially in the foot. There was no evidence of hysteria in this case. It appeared to belong to the rare cases of traumatic tabes, but subsequently it was ascertained that the patient's wife had been twice in an asylum, and now showed a loss of the light reflex. (2) A man, aged 44, fell on his legs, and especially the right one, in 1892. Lightning pains followed. The symptoms were most marked on the right side. In 1894 he presented well-marked symptoms of tabes. Later there was a moderate degree of dementia with loss of memory. There were, however, scars on the penis in this case. Before tabes can be certainly stated to be traumatic there must be (1) an absence of other causes, (2) a casual relationship as regards time, (3) a commencement of the symptoms on the injured side, and (4) a sufficient injury. Thus if a patient with no history of syphilis, exposure to cold, or other possible cause, develop shortly after a severe injury symptoms of tabes starting in the injured part, it must be looked upon as a case of traumatic tabes.

(384) Enlargement of the Liver in Pneumonia.

MALIN (*Gazz. degli Osped.*), April 2nd, 1899) draws attention to the frequent occurrence of enlargement of the liver in the course of lobar pneumonia. According to Gilbert and Grenet, this enlargement is constant in children, whilst it never occurs in old people. The author's experience does not corroborate this, as far as old people are concerned, and his experience with children is not sufficient to allow conclusions to be safely drawn. The enlargement, when it occurs, is probably due partly to direct infection, but chiefly stasis due to impeded circulation, and should therefore direct attention to the state of the heart as far as treatment is concerned.

SURGERY.

(385) Entrance of Air into Veins and Heart during Operation.

STERNBERG (*Centralbl. f. Chir.*, No. 11, 1899) reports two cases of entrance of air through the veins into the heart during an operation for the removal of tumours above the clavicle. The first patient was a woman aged 68, thin and anæmic, the heart and lungs seemed normal. As a malignant adenoma of the right lobe of the thyroid was being detached from the deep fascia behind the clavicle, a short, loud hissing sound was heard. A very loud gurgle accompanying each heart sound was detected by the stethoscope. The inspirations were very superficial, the pulse 65 for a few minutes, but there were no further bad symptoms, and the patient soon breathed well. The cardiac gurgling ceased within a few minutes. The external jugular vein had been torn. The wound was plugged. The patient died of pneumonia on the fifteenth day. The second patient was a woman aged 55, robust, and with normal heart's action. A large adenoma of the right lobe was being detached from its deep connections, when a rhythmical, gentle sucking noise was heard, contrasting strongly with the far feebler sound of the patient's natural breathing. Symptoms of syncope set in. The apex of the heart beat violently against the thorax, and at each systole a very loud splashing and gurgling sound could be heard, whilst the normal cardiac sounds were absent. This gurgling murmur was plainly audible to bystanders at a short distance; indeed, the much feebler murmur in the first case was audible from without when complete silence was observed. This second patient was in great peril for a few minutes: artificial respiration faradisation, and massage of the heart were tried, and at length she revived. After recovering from the anæsthetic the heart's action became irregular for a time. Faradisation set it right. The patient recovered from the operation.

(386) Radical Cure of Hernia.

MAYO (*Annals of Surgery*, January, 1899) gives the results of 204 cases operated upon by himself and his brother. The cases comprised 164 inguinal with 5 known relapses, 16 femoral with no known relapse, 7 umbilical with 1 relapse, 8 ventral with no known relapse, 9 post-operative with 1 relapse. In no case was the relapse complete. In this series 1 case of incarcerated femoral hernia in an insane patient died of external wound infection; 1 case of inguinal hernia died of bronchopneumonia and 1 of uræmia; both the latter cases having healed before death. The author is of opinion that the skin is generally over prepared and that the irritation and soddening thus caused favour wound infection. He therefore only prepares the skin on the morning of operation. Mayo thinks much ingenuity is wasted in making buttresses, etc., out of the peritoneum, which is a structure incapable of keeping back the protrusion. The object should be to prevent the mem-

brane insinuating itself between the muscular and aponeurotic structures, thus preventing union of the real retentive agents. The real cure of hernia lies in the management of the muscular and aponeurotic structures, so as to divide the resulting scar tissue into different planes, and to protect each part with sound tissue. These principles are carried out in Bassini's operation, which the author thinks the best for inguinal hernia. In cases complicated with undescended testicle he recommends burying the testicle behind the muscles, thus leaving the abdominal wall unbroken and placing the testicle out of danger. Relapsing hernia is generally due to direct protrusion and does not follow the cord. In small femoral hernias the author uses three purse string sutures, one at the internal ring, the second a third of an inch outside it, the third at the external opening. In large hernias the external ring is divided upwards and outwards, separating the iliac part of the fascia lata from Poupart's ligament. Mattress sutures are then passed through the latter, catching the pectineus fascia with the inner sutures and the iliac fascia lata with the outer sutures. After drawing these tight the lower fascia is passed under Poupart's ligament, which acts as flap and can be sutured to the tissues below by its lower edge. In umbilical hernia if the recti muscles are not too far separated they should be cut back upon and then united in the middle line. If the separation is too great the umbilicus and sac should be freely removed and the aponeurotic structures cleared for 2 inches on each side. Two overlapping flaps are thus made and sutured by silver wire mattress sutures. The author advises rest in bed with limited diet for one or two weeks before operation. In old men with large inguinal hernias, raising the foot of the bed for a week before and a week after the operation will accustom the abdomen to the presence of the hernial contents before reposition, and after operation causes less strain on the sutures.

(387) Intestinal Invagination in a Child.

O. VANDERLINDEN (*Belgique Méd.*, No. 9, 1899) records the case of a boy, aged 3 years, who, after an attack of diarrhœa, developed symptoms of intestinal occlusion, which had existed six days. In the left iliac fossa was to be felt an elongated globular mass, and by the rectum there was perceived a round body occupying the lumen of the intestine. Notwithstanding the low state in which the child was the abdomen was opened, when it was found that the tumour was constituted by the invagination of the descending colon into the sigmoid flexure. The invagination could not be undone, so about 35 cm. of intestine were resected. The child died of collapse nineteen hours later, and at the necropsy it was found that the sutures had held, and that fæcal matters had already passed. The case is reported not on account of its rarity, but in order to emphasise the necessity for early operative interference. The cause of the invagination seems to have been the diarrhœa associated with the presence of numerous lumbricoid worms in the intestine.

(388) Operative Treatment of Relapsing Typhlitis.

A. W. MININ (*Vratch*, No. 5, February, 1899) calls attention to the fact, which is so often overlooked in practice, that in many instances of so-called typhlitis the affection is in reality due to some appendicular mischief, and thus represents a condition that might under favourable circumstances be greatly relieved by a timely operation. He reports the case of a man, aged 24, in whom no fewer than four attacks had occurred in the period of eighteen months. After the subsidence of the last attack and during a period of perfect freedom from all symptoms the author performed laparotomy and removed the diseased appendix, which was found to be adherent to the lower surface of the cæcum, and partly entirely obliterated and partly converted into a cystic sac containing a dark, thick fluid. Within a comparatively short period the patient made a complete recovery and had so far remained free from further relapses. As regards the technique of the operation, the same incision was employed as for ligaturing the iliac artery, but with the difference that in Minin's case the incision had to be extended for several centimetres further upwards in order to expose the vermiform appendix, which is often difficult to find. In conclusion, the author mentions the following indications as justifying surgical interference: (1) The patient's expressed wish for radical treatment. (2) His being the subject of frequent successive attacks. (3) The author agrees with Kümmel's suggestion as to the time of operating, and regards the occurrence of a third attack as calling for surgical interference. (4) The operation should be undertaken during a period of quiescence following an attack.

MIDWIFERY AND DISEASES OF WOMEN.

(389) Urinary Toxicity in Pregnancy.

LABADIE-LAGRAVE, BOIX, AND NOË (*Arch. Gén. de Méd.*, May, 1899) have investigated this subject during the whole course of normal pregnancy. Their object was to ascertain when the toxicity became altered, and how soon after delivery there was a return to the normal. From an investigation into 5 cases it was shown that the toxicity diminished about six weeks after the cessation of menstruation. From another series of 26 observations it is concluded that the poisons in the urine diminish during normal pregnancy. From another 11 cases it became obvious that the toxicity returned to the normal in two months after delivery. The authors have not investigated here the effect of lactation upon urinary toxicity. In 2 cases of tubal pregnancy the toxicity was also diminished. In intercurrent disease the toxicity may increase. The authors have particularly noted a normal or even increased toxicity to coincide with urobilinuria. They refer to the possible value of observations on toxicity in diagnosis. Pregnancy is almost certain if the urine be found to possess less than the normal toxicity, and especially if the estimated figure is the same or even lower 15 days later, and *vice versâ*, provided that other causes be excluded. In early pregnancy and tubal gestation this sign may be of value. Chlorosis, hysteria, tuberculosis, etc., may be sources of error. The conclusions are that the urotoxic coefficient is diminished to 0.46 six weeks after the commencement of normal pregnancy, and that it remains at about 0.2 from the third month onwards. It increases during the first month after delivery, and attains the normal at the end of two months.

(390) The Uterine Wound in Cæsarean Section.

EVERKE (*Wien. med. Woch.*, No. 51, 1898) who has performed Sänger's conservative Cæsarean section twenty-five times, observed that of 18 patients that recovered 5 have already become pregnant again. He disapproves of the transverse incision along the fundus; the wound in that case heals badly, as the vascular supply is interfered with by the sutures, secondary infection is very probable, and there is a greater chance of visceral adhesions than when the incision is longitudinal, facing the parietes. The most essential point in Cæsarean section is accurate and safe union by suture of the longitudinal incision. Everke lost 3 cases of Sänger's operation from secondary infection; in all the wound was found gaping, so that the peritoneal cavity was infected from the uterus. Speedy union of the uterine wound is therefore of the first importance. This must be effected by three layers of sutures, so that the edges are kept together as closely as possible in spite of atony or contractions of the uterine muscular tissue. Everke lays stress on passing a deep layer of sutures the ends of which are brought out into the uterine cavity and tied there against the decidua. Then a middle set, and afterwards a more superficial set, are passed into the muscular coat and tied on the surface of the uterus. Thus rapid union of the deepest part of the wound seems assured, so that later on secondary infection from the uterine contents is prevented. Everke further maintains that the uterine scar is firmest when these sutures are passed—an important matter, since so many patients who recover become pregnant again.

(391) Deciduoma Malignum and Lung Infection.

NEUMANN (*Wien. med. Woch.*, No. 51, 1898) explored a woman who suffered from metrorrhagia in childbed after normal labour. The curette showed that malignant deciduoma had developed; the uterus was therefore extirpated. Six months after the labour the patient died with lung symptoms—diffuse bronch-

itis, muco-purulent expectoration, resonance at first normal, later with localised dull areas, and impaired vocal resonance; also pleural friction at certain points. Fever set in towards the end, no doubt from secondary infection. The lungs were full of metastatic deposits. The deciduoma sprang from the epithelium of the chorion, and some of its cells entered the maternal circulation owing to the proximity of the syncytium to the vessels. As Eirmann has shown, the lungs are often and very soon infected—in 50 per cent. of the cases. Hence pulmonary symptoms following convalescence from labour or abortion require special watching; the clinical history, especially if the uterus has been removed, makes diagnosis of lung infection easy. Neumann, in dwelling on the clinical phenomenon of transference of morbid elements from the uterus to the lungs, suggests that the slight attacks of hæmoptysis seen occasionally in pregnant women with lungs previously sound represent infarcts from emboli made up of placenta cells.

(392) Fatal Chorea in Pregnancy.

Backhaus (*Centralbl. f. Gynäk.*, No. 16, 1899) led an instructive discussion on chorea in pregnancy at the February meeting of the Leipzig Obstetrical Society. The patient under his observation was 21. She had suffered from scarlet fever and anæmia, but never from articular pains or palpitations before the present illness. Menstruation had been normal. She was single, and in the ninth month of her first pregnancy when seen by Backhaus at the end of January. Fœtal movements had first been felt at the beginning of last October. At the end of that month she was frequently attacked—especially after going upstairs—with violent tremors in the shoulders and arms. The fits of trembling spread to the hands, knees, and head. After Christmas they became very frequent, and the patient often bit her tongue. Backhaus observed that the attacks were clearly choreic. The right side, the features, and the upper extremities were the most affected. There was a slightly-increased area of cardiac dulness, and the first sound was not clear at the apex. Labour was induced, and when pains set in the choreic trembling became so violent that ether had to be given and the child was turned and delivered. It was 18 inches long, and died on the fourth day. After awaking from the anæsthetic the patient's condition grew worse than before. Morphine was of little benefit. Delirium set in, and the patient only lay quiet when profound exhaustion was reached. Death occurred towards the end of the second day, after a rise of temperature to over 102°. At the necropsy recent warty endocarditis was found on the mitral and tricuspid valves. The ventricles were a little dilated, the pia mater hyperæmic. There were traces of broncho-pneumonia in the lower lobes of the lungs. The genital tract was free from morbid appearances. Backhaus noted that chorea was specially pernicious in pregnancy. In the usual form the mortality was but 5 per cent., whilst 30 per cent. of patients with chorea gravidarum succumbed. As chorea in the non-gravid adult was admittedly graver than in childhood, strict statistical comparisons would be instructive. Induction of abortion or premature labour is only indicated under special circumstances. An important discussion followed the reading of this case. Zweifel agreed that artificial interruption of the labour was not indicated; in 4 cases in his experience it was not practised. Donat read notes of a bad case where abortion was induced and the chorea was cured after delivery. Sänger believed in two forms of chorea gravidarum, one closely resembling chorea in the child, and therefore mild, the other very severe. This latter, however, seemed associated with sepsis, and he suspected this to be the case with Backhaus's patient. Sänger declared that the milder form ceased after artificial termination of the pregnancy. He also dwelt on menstrual chorea, and spoke of an hysterical schoolmistress, aged 32, who had been subject for years to violent chorea, seized with tonic and clonic convulsions at every period. Severe pains in the right ovary coincided with the fits. Fifteen years ago, when that operation was held justifiable for neurosis, the ovaries were removed; they were very small, and bore no follicles, and small myomata were found in the uterus. The fits ceased at once and had never returned.

(393) Hernia of Ovary: Oophorectomy in an Infant.

Beckett (*Amer. Gynec. and Obstet. Jour.*, October, 1898) was consulted by a practitioner about an infant, aged 11 weeks, who showed symptoms of strangulated hernia. When it was about 2 months old the parents first noted a swelling in the right inguinal region; they were able to reduce it till on the day before Beckett was called in. He failed to reduce the hernia under chloroform, so opened the sac and found that it contained an enlarged cystic ovary and the corresponding Fallopian tube. The ovary was about as large as in the same organ in a normal condition in the adult. Beckett removed the herniated structures, and closed the wound after Macewen's method; it healed by first intention. The child weighed only 8½ lbs. when the operation was performed; it was bottle-fed and had suffered from dyspepsia and constipation. After the removal of the ovary and tube its health underwent great improvement. [Compare Hooper May's case of hernia of the ovary in a child 7 months old, British Medical Journal, May 28th, 1898, p. 1,389.]

THERAPEUTICS.

(394) Dionin.

Fromme (*Berl. klin. Woch.*, April 3rd, 1899) speaks highly of dionin in the treatment of the morphine habit. The gradual lessening of the amount of morphine taken must be strictly distinguished from a total withdrawal. An agent is required to lessen the symptoms attending the total withdrawal. Cocaine as a substitution agent may induce a habit worse than the morphine craving, Codeinum phosphoricum has been found useful in the treatment of morphinomania. Fromme has tried dionin, which is an ethyl derivative of morphine, and has found it superior to peronin (benzyl morphine) or codeine (methyl morphine). The dose of dionin, according to v. Mering is 0.015 to 0.03 grams subcutaneously, and 0.03 to 0.06 grams by the mouth. Trial of the dose must be made in each case, as some require a larger and some a smaller dose. The dose may be diminished in two or three days. Dionin produces no euphoria, and consequently it can be discontinued easily. Too small doses must be avoided at first, and the drug must be continued until the symptoms due to the withdrawal of morphine have disappeared. These symptoms are chiefly noted during the first four or five days. Dionin does away with the obstinate sleeplessness and the anxiety attending it. The effect of too large a dose is a feeling of weariness. The author warmly recommends dionin in the treatment of the morphine habit.

(395) Methyl Salicylate in Rheumatism.

Schmoll (*Correspondenz-Bl. f. Schweiz. Aerzte*, February 1st, 1899) has tried the method first proposed by Linossier and Lannois (*see* Epitome, vol. ii, par. 270, 1896 and vol. ii, par. 35, 1897) in 20 cases, and confirms the statements made as to its utility. He finds that the ester of salicylic acid when applied to the skin over a painful joint and covered with guttapercha tissue is really absorbed and quickly appears in the urine as salicylate of sodium. The larger the amount applied the greater is the percentage found in the urine. For the smaller joints 2½ to 3 grams is sufficient, for the larger 5 grams may be necessary. The effect is generally evident clinically in five to six hours, but was noticed in one case as soon as one and a-half hour after its application. As a rule it does not irritate the skin in any way. The great advantage is the absence of all the unpleasant symptoms which are inseparable from the internal administration of salicylic acid. A ringing in the ears has been reported in one case only, and this is very remarkable, as the ester is excreted as sodium salicylate. It is contraindicated during the first few days of acute articular rheumatism, owing to the difficulty of applying it to the inflamed joints, but is the "*médicament de choix*" in all subacute and chronic cases.

(396) Intracerebral Injections of Antitoxin in Tetanus.

Julliard (*Rev. Méd. de la Suisse Rom.*, April 20th, 1899) reports the case of a young man who was accidentally wounded by a shot gun. The discharge entered chiefly at the lower part of the right buttock, where there was a single

aperture in the skin the size of a two-franc piece. There were also apertures caused by scattered shots over the posterior and internal surface of the right thigh. Two days afterwards the parts were swollen and tender, and there was a foul-smelling discharge. The general condition was good, there being no rise of temperature. The offensive smell continued in spite of antiseptics, and on the evening of the sixth day trismus and dysphagia set in. Next day there was opisthotonos and retention of urine. Pulse 130; no rise of temperature; no cough or signs of pulmonary trouble. Eighteen hours after the onset of tetanic symptoms the patient was put under ether, and trephined 3 cm. above the left frontral eminence. A syringe was then thrust through the dura mater into the cerebral substance for 1½ cm., and 2 c.cm. of antitetanus serum injected into the left frontal lobe. The injection was made very slowly, and lasted seven minutes. A second given twenty minutes later introduced 2 c.cm of serum into the right frontal lobe. The spasms, which had ceased while the patient was under ether, returned as soon as he came round, and he died sixteen hours after the operation. *Post mortem* it was found that the injections had caused no lesion to the cerebral substance, and had been completely absorbed. There was acute miliary tuberculosis, evidently starting from caseous bronchial glands, and a left subacute pleurisy, with miliary tubercles scattered over the pleura, and miliary infiltration of the left upper lobe. All the lung tissue was congested, and the spleen was covered with miliary tubercles. Julliard thinks this unsuspected miliary tuberculosis may have had something to do with the failure of the treatment employed for the tetanus.

(397) Roentgen Rays in Lupus.

Albers reports two cases of lupus treated in this way (*Fortschritte auf den Gebiete der Roentgenstrahlen*, Part 1, 1899). Both were severe cases of lupus of the face, one aged 20 the other 48. In the younger case eight months' application of the rays caused a cure. The other case after six months' treatment was cured except as regards ulceration inside the nose. The author warns against using too powerful rays on account of dermatitis. The healthy skin was protected by sheets of lead.

(398) Action of Disinfectants on the Plague Bacillus.

Schültz (*Archiv. des Scien. Biol. de l'Institut. Impér. de Méd. Expér. à St. Pétersbourg*, Tome vi, No. 5, 1898) finds that perchloride of mercury has a most powerful action in destroying the plague bacillus, but its strength depends on the medium in which the bacilli are contained. To disinfect clothes, etc., they must be thoroughly soaked with the perchloride solution, and this fact does away with its practical usefulness to a large extent. The addition of hydrochloric acid increases its disinfecting action still further. Though formalin in solution is 20 times less powerful than perchloride of mercury, in the form of gas it becomes a most reliable disinfectant, and owing to the disadvantages of corrosive sublimate is the best for furniture, clothes, etc., especially as it injures them in no way, and does not affect their colour. Phenol is a less active disinfectant. Parachlorophenol is four times more powerful than ordinary phenol. The bacilli remain virulent after desiccation for 34 days, but are killed by exposure to a temperature of 60° C. in 15 minutes.

(399) The Disinfecting Power of Sublimate.

Ottaviano (*Rif. Med.*, December 20th-23rd, 1898) has experimentally examined the action of sublimate solutions on various pyogenic organisms. He finds that only the conversion of sublimate into some chemically insoluble substance completely abolishes its disinfecting action. Solutions in good drinking water have the same disinfecting power as those in distilled water. On the other hand the addition of chloride of sodium rather weakens the power. The more recent the solutions the more powerful they are. The same species of organism resists the action of the sublimate differently according to its surroundings (*provenienza*). Sublimate is not an active, that is, rapid disinfectant, solutions 1-1000 killed staphylococci in cultures only after 3-5 hours, and in pus much longer (13-16) hours); 2-100 killed in cultures after 2-3 hours, in pus after (11-13 hours). Hot solutions (40° C.) act much more quickly. 1-100 sol. killed staphylococci in 45 min. Similar results were obtained with B. coli and streptococcus.

PATHOLOGY.

(400) Typhoid Bacillus in Bone Marrow.

Busch (*Ziet. f. Hygiene. u. Infectionskr.*, vol. xxviii, pt. 3) reports the case of a woman, aged 24, who had a typical attack of enteric fever, with enlarged spleen, diarrhœa, roseola rash, and delirium. Widal's reaction gave a negative result. Typhoid bacilli were, however, found in the blood taken from the roseola rash. The patient died on the ninth day. At the *post-mortem* examination the typical ulcers in the ileum were present. Portions of the red marrow were taken from the femur and some of the ribs, these were examined bacteriologically. Cultivations were made on agar. Small opaque colonies appeared twenty-four hours after inoculation. Stained preparations under the microscope closely resembled typhoid bacilli. The diagnosis was verified by inoculations on whey and milk, which caused no cloudiness or clotting; also grape sugar showed no tendency to ferment. Pfeiffer's experiment gave a positive result. The agglutination test gave a positive result. The question whether the sequelæ of typhoid are caused by the specific bacillus alone or by a mixed infection with other bacteria is a point of importance in the pathology of this disease. The typhoid bacillus has frequently been demonstrated in cases where suppuration has occurred in various parts of the body, also in periostitis, osteomyelitis, empyema, and diseases of the testicle and thyroid gland and abscess of Bartolini's gland. Bacilli were found in the marrow of the ribs and sternum in a case reported by Quincke in 1894. His researches show that the marrow contains the greatest number of bacilli during the first week of the disease, and that at this time the bactericidal cells are few. Later on the bacilli decrease in numbers, and there is a proportionate increase in their antagonists. Busch says that in many infectious diseases, including typhoid, the yellow marrow is changed into red. Bactericidal bodies are developed in the red marrow. The activity in the marrow is probably chiefly instrumental in producing immunity in the organism. The post-typhoidal bone diseases may be due to the retention of bacilli in the marrow after the rest of the body has become immune. The bone marrow should always be examined in *post-mortem* examinations on patients who have died of typhoid fever.

(401) Poliomyelitis Anterior Acuta.

Bülow-Hansen and F. Harbitz (*Norsk. Mag. for Laegevidenskaben*, November, 1898) have been able to examine *post mortem* 2 cases of poliomyelitis anterior. The subjects were brothers, aged 5 and 4 years; a third brother had an aborted form of the same disorder. The malady began with gastro intestinal symptoms, to which, however, those of myelitis were soon added, death following on the seventh and fifth day respectively, in both from arrest of respiration. In one of the cases there was also bronchopneumonia. Microscopically, there was found hyperæmia with infiltration of round cells of the whole spinal cord, but especially of the anterior part of the grey matter, and particularly in the cervical portion. There was also an extensive degeneration of the ganglion cells of the grey substance, especially of the anterior and lateral horns. Even the medulla oblongata was affected, there being an inflammatory centre in one of the roofs of the vagus. These changes were looked upon as due to inflammatory processes starting in the blood vessels. Bacteriological examination of the spinal cord gave negative results. Nevertheless, the authors are of opinion that the disease is of an infectious or an infectio-toxic nature, and they base their view on the numerous experiments in which the disease has been produced in animals by the injection of different bacteria and their toxins. There is, perhaps, a secondary inflammation due to a primary focus situated in the intestine or elsewhere. In regard to their cases, Bülow-Hansen and Harbitz believe that perhaps the starting-point was the intestinal affection, without at the same time thinking that in other instances there might not be other points of invasion—for example, throat or lungs.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(492) The Roentgen Rays in Incipient Phthisis.

AT the sixteenth annual meeting of the American Climatological Association held in New York City, May 9th, 10th, and 11th, 1899, Francis H. Williams, of Boston, read a paper on Roentgen Ray Examinations in Incipient Pulmonary Tuberculosis (New York *Med. Record*, May 13th). In 45 adults examined with the *x* rays, he had ascertained that the averge excursion of the diaphragm on the left side was 2½ inches and on the right side about 1½ inch more. He had been impressed with the association of rheumatism and tuberculosis. In 5 cases the *x*-ray examination had given notice of changes in the lungs before the physical signs. If the area of increased density was much below the surface of the lung, as, for instance, in a central pneumonia, its presence would not be recognised by auscultation and percussion, but its shadow would be seen on the *x*-ray screen as surely as though this area were more superficial. By careful experimentation he had demonstrated that a lung the seat of pneumonia or tuberculosis offered ten times more resistance to the *x*-rays than did a healthy lung. The diagnosis of tuberculosis was not made by the *x*-rays alone, but in some instances it had certainly given early notice of a departure of the lung from the normal, and this intimation, taken in connection with the history and rational symptoms, afforded a valuable basis for an early diagnosis. In cases of pulmonary tuberculosis the *x* rays showed the apex of the lung darkened and the excursion of the diaphragm shortened. He had made more than 2,000 examinations of the thorax with the *x* rays and had never seen any injury result therefrom. In the discussion Frederick I. Knight of Boston said that in his experience many months often elapsed after evidence of the initial catarrh of a tuberculosis before it was possible distinctly to recognise pathological changes in the lung by the alteration of the percussion note. J. E. Stubbert said that the fluoroscopic screen was far more accurate and convenient than the fluoroscope. He had yet to see an incipient case of tuberculosis that could not be accurately diagnosticated by the *x* rays. Examination by the *x* rays was especially useful in cases in which tuberculous foci were scattered throughout the lungs, a class of cases in which the physical signs were apt to be equivocal. Williams, in reply, said that the illustrative cases that he had reported had been for the most part those in which consolidation had been demonstrated by the *x* rays, although not even moist *râles* could be heard on auscultation. Emphysema could be recognised easily and certainly with the aid of the *x* rays.

(493) The Great-toe Reflex: a New Diagnostic Sign in Disease of the Spinal Cord.

J. BABINSKI (*Société de Biolog. de Paris*, February, 1896) announced a new clinical symptom observed by him to be characteristic if not pathognomonic of lesions affecting the pyramidal tract of the spinal cord. It consisted in the fact that the normal plantar reflex, namely, flexion of the great toe followed by flexion of the other toes, was replaced by an extension of the great toe followed by that of the other toes, during conditions of disease affecting the pyramidal tract, and which he described as Le Phénomène des Orteils (*La Presse Médicale*, July 27th, 1898). Apparently this phenomenon of reflex extension of the toes is not obtained in functional disease (hysterical, flaccid, or spastic paraplegies), which gives this sign a further value in differential diagnosis. James Collier (*Brain*, Spring, 1899) gives the records of an extensive series of observations made to elicit the presence and diagnostic value of this sign in 500 patients, namely, 100 adults at a general hospital, all free from spinal or nervous disease, 100 children at the hospital in Great Ormond Street, and 300 cases of nervous diseases at the National Hospital, Queen Square. The general conclusions arrived at were as follows: (1) In infants the plantar reflex is naturally of the extensor type, and continues as such till the child is able to walk (between the second and third years), but in feeble children, and especially in rachitic children, this may be delayed till the fourth year. (2) In cases of total transverse lesion of the spinal cord the plantar reflex may be entirely absent, but if present the reflex takes the form of sluggish extension of the toes (3 cases). The cord lesions in these cases were at about the mid-dorsal segments of the cord. (3) In 36 cases of myelitis, including partial compression-paraplegia, 34 showed the extension response on both sides. (4) In 36 cases of organic hemiplegia, 28 showed it in the paralysed limb, while the sound limb gave the normal flexor response, and 3 cases gave the extension sign on both sides. (5) Six cases of Friedreich's disease, and 3 each of syringomyelia and amyotrophic lateral sclerosis, all gave the extensor response. (6) Out of 40 cases of epilepsy, 38 exhibited the normal or flexor response in the periods free from fits; but immediately after fits, especially severe fits, the extensor response could be elicited, and was found to last a few minutes. Where convulsions were unilateral the extensor response could be elicited only on the convulsed side. (7) In 16 cases of cerebral tumour not involving apparently the pyramidal tracts, the responses obtained were of the normal flexor type, and the same was the case in three instances of cerebellar tumour. (8) In 35 cases of functional nervous disease the flexor response was obtained in 28, while in the remaining 7 it was abolished (hence the value of the extension response as indicative of organic disease in the pyramidal tract). (9) In 10 cases of paralysis agitans the normal flexor phenomenon was obtained, though sluggish. (10) In 28 cases of tabes dorsalis, 5 gave rise to irregular and uncertain movements, 11 showed an absence of the plantar reflex, while 9 gave the normal type of flexor response. (11) In 15 cases of peripheral neuritis, 6 exhibited no reflex, while 9 gave a slight response of the flexor type. (12) In 20 cases of chorea, and including 3 cases of Huntington's chorea, a normal flexor response was obtained in every case. (13) Finally, in cases of neurasthenia and of sciatica the normal plantar reflexes were obtained. It is pointed out by both Babinski and Collier that in strychnine poisoning the normal flexor response may be gradually replaced by an extensor response in proportion as the reflex excitability of the cord rises and the cerebral control is diminished; and that a similar condition, but of more lasting and persistent character, occurs in tetanus. As recovery comes on the normal type of flexor response takes its place in both these affections.

(494) Epigastric Analgesia in Tabes.

PITRES has drawn attention (*Journ. de Méd.*, January 25th, 1899) to a symptom of tabes which has not hitherto been much described, namely, epigastric analgesia. We are familiar with the extreme degree of agony, amounting in some cases to collapse, following a blow on the epigastric region. It would seem, however, that in some pathological condition this is completely absent, so that the epigastric region can be violently compressed or struck without the least feeling of discomfort. This is often the case in hysteria, as occurred at St. Médard, where those affected with convulsions used to strike each other with paving stones or bars on the pit of the stomach. But hysteria is not the only condition in which it is found, as it is present also in certain organic lesions such as general paralysis, disseminated sclerosis, and above all in tabes dorsalis, in which its occurrence is relatively frequent. Thus, Pitres has found epigastric sensation considerably diminished in 22 out of 50 cases, and completely absent in 9. This does not appear to be accompanied by any special sensory alteration nor loss of the skin or abdominal reflexes, nor even with gastric crises. The only functional alteration which appeared with any frequency was loss of sensation of hunger. It is difficult to explain this loss of epigastric sensation. An analogous condition is probably testicular analgesia, loss of sensation in the breast, bladder, urethra, and rectum. It is possible that all these conditions are the result of visceral neuritis similar to the peripheral neuritis which has recently been recognised in the tabes as the cause of so much alteration of special senses and general sensation.

SURGERY.

(495) The Surgery of the Heart.

PODREZ, of Kharkoff (*Rev. de Chir.*, May, 1899) holds that the results of recent

scientific research favour the anticipation of a brilliant future for the surgery of the heart. Clinical experience has shown that wounds of this organ are not so grave as is generally supposed, and that recovery may follow even a wound extending into one of its cavities. The fact that a serious penetrating wound of the heart is not invariably fatal, and that in many of the fatal cases death does not occur until after a considerable interval, indicate the probability of favourable results from prompt surgical intervention. Death in most instances of fatal heart injury is due to hæmorrhage, which, though arrested for a time, occasionally after two or more intermissions, by syncope, finally overcomes the obstructions caused by the contraction of the cardiac wall and the presence of a clot. The survival of the patient for weeks or even months after a penetrating wound will not remove all dread of such issue, as several cases have been recorded showing that arrest of hæmorrhage, in spite of renewal of the pulse, ought not to lead the medical attendant to rely too implicitly on an expectant plan of treatment. The most urgent danger, however, in cases of penetrating wounds of the heart, especially those of the ventricles, is shock due not so much to anæmia as to direct irritation and disturbance of the wounded organ. This condition of shock, it is held, should be treated not by the application of stimulants, but by prompt intervention of the surgeon in enlarging the wound in the pericardium, in removing clots from this sac, in exploring the injured heart, and in closing the wound of its wall by suture. By such treatment the patient is guaranteed against recurrence of hæmorrhage, and against shock and other fatal complications. Another but less frequent cause of death in cases of wounded heart is the entry of air into the wound and consequent gaseous embolism. The recognition of this condition is regarded as one of great importance, as it explains the cause of death in those cases of fatal injury to the heart in which there is an absence of shock, of hæmorrhage, and of other special phenomena of this lesion. Surgical intervention, the author holds, is indicated just as much in simple wound of the pericardium as in an injury involving both this membrane and the wall of the heart. The prognosis of wound of the pericardium is very grave, and, it is stated, the functions of the heart cannot be properly performed until after complete closure of the opening. Reference is made to the results of some recent experiments made by Bode, which show that the action of the heart is not influenced by manual pressure, and that puncture by a needle usually causes a temporary and localised arrest of the muscular contractions, which result, however, is not observed if the heart has been enfeebled by hæmorrhage. Thus in applying a suture to a wound of the heart the muscular movements may be arrested for a time in some cases, and remain uninfluenced in others. When the ends of the thread are drawn together and tied, the action of the heart is not disturbed. After the wound in the cardiac wall has been closed, the activity of the heart, it is stated, always improves. The author acknowledges that the surgical treatment of heart injuries may be attended by serious and, indeed, insurmountable difficulties. In most cases the patient is in a condition of extreme collapse, and unable to tolerate an anæsthetic. It may be found necessary to interrupt the operation in order to restore vitality, and death may occur before the wound in the heart has been sutured. The technical difficulties are also very great. The region in which the surgeon must work in order to avoid wounding the left pleural sac is a contracted one, and its limits vary much in different subjects. The author recommends a flap of the thoracic wall, including the left half of the lower extremity of the sternum and the third, fourth, fifth, and sixth costal cartilages. There may be much difficulty, on account of abundant effusion of blood, in recognising the different structures in the anterior mediastinum, and exposing to view the wounds in the pericardium and heart. The author, in insisting on great care in making a correct diagnosis before exposing and opening the pericardium for a supposed wound of the heart, points out that an increased area of dulness may be due to cardiac hypertrophy and not to effusion of blood. This article concludes with a full report of a remarkable case treated by the author, the subject of which—a girl aged 16—recovered from a gunshot wound of the heart, the wounded organ having been freely exposed and manipulated, with the object, which, however, was not attained, of discovering the bullet.

(496) Treatment of Rupture of the Quadriceps Tendon.

Lejars (*Bull. et Mém. de la Soc. de Chir.*, April 11th, 1899) reports a case of rupture of the tendon of the quadriceps femoris which was successfully treated by suture. A vertical incision 4 inches in length, having been made in front of the thigh, and a large collection of blood removed, the edges of the completely divided tendon were brought together by catgut sutures. The external wound was completely closed, and no attempt made at drainage. The patient—a stout man, aged 48 years—was kept in bed for twenty-three days after the operation, and was discharged on the thirty-fifth day. This treatment has resulted, the author states, in complete restoration of the functions of the injured limb, the patient being now able to walk without a limp. The tendon is perfectly reconstituted, and the leg can be moved freely and forcibly. There is no difference in the condition of the two thighs, with the exception that the original one is slightly smaller than the other.

(497) A Long-Retarded Recurrence of Mammary Cancer.

Heurtaux (*Arch. Prov. de Chir.*, No. 2, 1899) publishes a case of sudden development of multiple and scattered cancerous growths in a woman, aged 77, who in the year 1868 had been relieved of carcinoma of the left breast by removal of the whole of the affected gland, together with the fatty and lymphatic contents of the corresponding axilla. After an interval of a little more than thirty years, the patient, who during this time had remained healthy and free from recurrence of the malignant disease, came again under the author's care, presenting a number of small nodular growths of recent date and simultaneous development about the old cicatrices on the left side of the chest and in the left axilla, and also in the left pectoralis major muscle, the left pleura, and the spinal column. One of these growths, after removal, presented under the microscope decidedly typical characters of carcinoma. This eruption of scattered nodules resembled in every respect the metastatic and disseminated recurrence of malignant disease that has been frequently observed during the first or second year after removal of a cancerous breast. This case, the author points out, differs from the usual form of recurrence after a long interval in the fact that the growths observed in his patient were multiple and disseminated, and thus indicative of a metastatic infection, and that the disease did not return in the form of a single growth localised in an organ the anatomical structure of which would predispose it to cancer. An instance of this kind would, he thinks, tend to demonstrate that even in a subject liable to contract cancerous disease, and certainly possessing the malignant germ, the evolution of the disease will depend on certain accessory and special conditions the nature of which still remains unknown.

MIDWIFERY AND DISEASES OF WOMEN.

(498) Acute Torsion of Uterus by Myoma.

Micholitsch (*Zeitschr. f. Geburts. u. Gynäk.*, vol. xl, Part ii, 1899) records the case of a woman, aged 58, who was brought into hospital in a state of collapse. She was almost pulseless, covered with cold perspiration, and in intense pain. She had been taken in the middle of the night with violent abdominal cramp, which had woke her up. She had had during the past two or three years frequent, though much milder, attacks of abdominal pain. A tumour had been detected in the course of another illness fifteen years previously. There was no sickness; motions passed; an umbilical hernia existed, but it was painless and reducible. The tumour reached to the hypochondria. Internal intestinal obstruction was suspected, but the presence of a tumour, firm and movable laterally, with extremely tender soft masses detected on vaginal exploration, made Wertheim, the operator, suspect that the troubles originated in the genito-urinary tract. A firm body could be felt through the anterior wall of the rectum, and from its relation to the cervix seemed to be the body of the uterus There was general peritonitis, quite recent plainly evident at the

operation. The uterus, attached by a short thick pedicle near the right cornu to a very large fibro-myoma, was twisted from left to right, 180° through the rotation of the tumour. Uterus, ovaries, and tubes were greatly swollen and deeply congested. The ovaries were full of hæmorrhagic areas. The broad ligaments were also the seat of extensive hæmorrhage. The round ligaments were tightly twisted around the junction of the body of the uterus and its cervix, strangulating the latter. There were no adhesions, old or new, in the pelvic region, the torsion, in fact, was quite recent. The bladder was not implicated. Retroperitoneal hysterectomy was performed with the greatest ease, as the process of strangulation had prepared the parts for section with little loss of blood. Only one ligature was needed for each broad ligament, that fold being much thinned and bloodless. As for the cervix, it was extremely elongated, and as thin as a lead pencil. It was divided, and the peritoneum sewn over its cut surface. The umbilical hernia was excised, and there was no further trouble. Micholitsch observes that this was an unusually acute case of torsion of the uterus. One of similar severity has recently been described by Johannovsky, but only 3 or 4 of the 33 cases collected by B. S. Schultze were as acute. The author discusses the mechanism of this kind of torsion at some length.

(499) Conservative Gynæcology.

BOSSI, of Genoa (*La Gynéc.*, April 15th, 1899) writes in strong terms against the reckless operating practised and advocated by many authorities for chronic affections of the uterus and appendages. These diseases do not even necessarily entail sterility, whilst wholesale removal of appendages and hysterectomy not only ensure a previously assumed barrenness, but may also be followed by more pain than fell to the lot of the patient before surgical interference. Bossi tabulates 280 cases of a kind hitherto condemned to sterility and to castration, which he has succeeded in curing by conservative measures, conception following cure:

Nature of the Operation.	No. of Cases.	Indication.	Sterility before Operation.		Pregnancy after Operation.		
			Absolute.	Relative.	Within 6 Months	6 to 12 Months.	Over 1 Year.
Curette and drainage of uterine cavity	108	Endometritis and salpingitis from various causes	21	37	64	30	14
Division of cervix, curette, and drainage	59	Congenital or cicatricial stenosis of cervix, endometritis or salpingitis from various causes	44	15	27	8	9
Division of cervix, curette; Wreit's stem pessary	36	Stenosis of cervix, with extreme flexion, endometritis, and salpingitis	33	3	6	22	8
Excision of cervix, curette, drainage	42	Parenchymatous cervicitis; endometritis, salpingitis	11	31	14	18	10
Emmet's operation, curette, drainage	35	Deep lesions of cervix, endometritis, and salpingitis	—	35	19	7	9

The conservative operations in the first column are all well known, and many have been rejected by those who do not scruple to remove the uterus or appendages. The above results show that those organs can be saved by these despised "minor" procedures. By "relative sterility" Bossi signifies cases where the patient had been pregnant before the advent of the local disease. He further warns gynæcologists against total amputation of the cervix, popular with some operators before the days of more radical methods. It is often followed by extreme local changes entailing much suffering and permanent sterility. Bossi simply excises the diseased or hypertrophied parts of the cervix, so that after cicatrisation it may be reduced to its normal condition.

(500) Acardiacus with "Cyclops" Deformity.

OPITZ (*Centralbl. f. Gynäk.*, No. 12, 1899) brought before the Berlin Obstetrical Society in January an unusual type of acardiac monster, though variations seem infinite in this form of monstrosity. The trunk was fat, and there were rudiments of both legs, the left arm, and the outer genitals. The greater part of the intestine lay in a large umbilical hernial pouch. On the upper aspect of the trunk lay a flaccid body which contained the eyes, fused into one, and the rudiments of a mouth. Acardiacus is always associated with one-yolk twin pregnancy. Opitz exhibited with the above specimen a common placenta and amnion from a one-yolk twin pregnancy. The umbilical cords were not intertwined or united, but had a velamentous insertion close to each other. Over an inch from the opposite border of the placenta was a "placenta succenturiata" as big as the palm of the hand. It received blood from both umbilical vessels, and could be injected from either.

(501) "Breaking Nipple-strings:" Non-development of one Mammary Gland.

VINAY (*Lyon Méd.*, December 11th and 18th, 1898) exhibited before a medical society a young married woman, delivered twelve days previously, whose left breast was absolutely undeveloped. No trace of glandular tissue could be felt; the nipple and areola lay against the ribs; hence the patient was like an Amazon. The mother declared that the "nipple strings had been broken" by the nurse shortly after this young woman had been born. Vinay strongly deprecates meddling with an infant's breast. If the child's nipple happens to be swollen it should be dressed with a weak sublimate lotion. Carbolic acid is objectionable in infancy; it seems a true poison at that age. A female infant's breasts require especial attention for obvious reasons. Delore, in discussion, declared that gentle expulsion of the contents of the infant's breast was needed when there was swelling. Vinay strongly opposed this opinion, and Marduel stated that he had seen numerous cases of abscess in the infant breast, due to meddling by nurses, and had never seen that affection in infants who had been left alone.

THERAPEUTICS.

(502) Treatment of Consumption by Air and Light.

C. F. GARDINER, of Colorado Springs, read a paper at the annual meeting of the American Climatological Association held at New York City on May 9th, 10th, and 11th entitled: On the Treatment of Consumption by Air and Light in Colorado (New York *Med. Record*, May 13th). He said that air was the first requisite in the cure. Air and light differed widely in their character and purity in various localities. The air should be pure, it should be dry and thin in order to increase chest expansion, it should be cool in order to act as a stimulant, and it should contain a considerable portion of ozone. These properties were to be found in the air of Colorado. The chemical intensity of the light in that State, as compared with that in the East, could be strikingly demonstrated by exposing a photographic plate under as nearly as possible identical conditions in the two localities. He had made a severe test of the climate of Colorado on several patients during that part of the year when the weather was most inclement, namely, from September to April. He had practised medicine several years on a ranch and knew something of that kind of life. He had become convinced that it was all that a man in good health could do to eat and digest the food furnished in such places. Moreover the life was too rough, and there was too much exertion for the average pulmonary invalid. He favoured life in a tent, the latter to be 18 feet high, 16 feet in diameter at the base, and having a 5-foot wall. The average tent became very foul when closed up, and hence special precautions should be taken so to construct the tent as to secure proper ventilation. As far as possible persons suffering from consumption should live outdoors all of the twenty-four hours. In discussing the paper W. L. R. Phillips, of the Weather Bureau, Washington,

D.C., said he thought the value of light in the treatment of consumption had not received its share of attention. While it was true that pulmonary patients had recovered in high altitudes, he felt that they had done so under great disadvantages, and that the cure was to be largely attributed to the light in such localities. In his opinion there had been experiments made showing that light increased the hæmoglobin in the blood and very materially improved the general health of consumptives. In reply to E. O. Otis of Boston, Gardiner replied that the average case in Colorado could be kept out five and a-half hours a day all through the winter, and this length of time could be materially extended if the patient could be properly controlled.

(503) Schleich's Infiltration Anæsthesia.

Trzebicky (*Wien. med. Woch.*, No. 13, 1899) reports a series of 181 operations conducted under Schleich's method of local anæsthesia. The list of operations includes many formidable ones and is as follows: excision of dermoid and sebaceous cysts, 18; excision of tumours (excluding carcinoma), 33; operations on glands, 44; resections of rib, 10; radical operations for hernia, 36; laparotomies, some with resection of gut, 19; gastrostomies, 3; gastro-enterostomy, 1; jejunostomies, 2; cholecystotomy, 1; cystotomy, 1; radical operation for hydrocele, 1; castrations for hypertrophied prostate, 3; varicocele, 1; circumcision, 1; paronychia, 1; abscesses, 2; foreign bodies, 4; carbuncle, 1; and numerous teeth extractions. The solution employed was cocaine hydrochlor. 0.1, morphine hydrochlor. 0.02, sodium chlorate 0.2, aqua 100.0. The quantity used varied from 5 c.cm. to 65 c.cm., the average in most operations being 30 to 40 c.cm. In nearly all cases the results were good and the operations painless. In 5 cases only it was found necessary to resort to chloroform during the operation. The object of the method is to render the whole field of operation œdematous, and as the skin is the most painful part requires most attention. In removing tumours and glands the subjacent tissues must also be anæsthetised. The duration of anæsthesia was sufficient for operations lasting an hour. This method is not suitable for operations on carcinoma, or for trephining or removal of bones.

(504) Artificial Serum Injections in the Treatment of the Insane.

It is well known to alienists that the feeding of sitiophobic and deluded insane patients is a problem of great practical importance. De Boeck (*Journ. of Ment. Sci.*, April, 1899) recommends on physiological grounds the injection of a normal solution of chloride of sodium in these cases. The patient lies prone on the bed, and, the buttocks being now well washed with aseptic boracic acid solution, a fine trocar is plunged deeply into the muscular tissue of the buttock. The trocar is connected with an india-rubber tube, to the other end of which a funnel or bottle is attached, and from the latter the sterilised normal salt solution is allowed gradually to pass through the tube into the intermuscular tissue of the buttock. The solution should be of a temperature between 37° and 40° C., and it should be slowly run into the tissues in quantities of about half a litre (in English measure about a pint) at a time. If œdema occurs another spot for the injection must be chosen. In one case—a female lunatic suffering from excitement and refusing to take food—the injection of 500 grams of the solution (200 in the morning and 300 in the afternoon) daily for two days improved the patient so far that her excitement subsided, she consented to take food in the ordinary way, and was able to sleep well. In another case, which ended fatally in a month from melancholia with exhaustion of the brain, it was found that the viscera of the patient, as revealed by the necropsy, had lost very little in weight, the patient having been during this period kept alive by injections. It is pointed out that abundant water given to the patient allows him to utilise the food materials stored in the body tissues—as fat, carbohydrate, etc.—and at the same time helps to eliminate the metabolic products of tissue activity, the non-elimination of which is known to be attended by serious toxic symptoms.

(505) Aspidium Spinulosum in Treatment of Tapeworm.

Lauren (*Therapeut. Monat.*, April, 1899) introduces this new drug in the treatment of tapeworm as a result of his investigations with aspidium spinulosum in 1896 in the Pharmaceutical Institute of Berne University. It is well known that the stem of the root of filix mas contains intercellular glands which hold a greenish secretion; when sections of the root are preserved in glycerine, crystals are formed which are soluble in ether. The anthelmintic properties of the drug are probably due to this secretion. Similar glands are very likely present in other ferns used in the treatment of tapeworm—for example, aspidium rigidum used in Mexico, or aspidium marginal used in North America. The therapeutical value of the aspidium spinulosum has not been previously studied, although Poulsson had made an extract with ether. In Finland, where tapeworm is common, the aspidium spinulosum is used more frequently than filix mas, the former being a more common variety in this region. The author had large quantities of spinulosum sent to him which he cleaned and made into a powder. He made an extract with ether by placing 830 grams of the dried powder in Soxhlet's apparatus; in this manner 83 grams of a thin brown fluid was drawn off. The author was suffering from tapeworm himself at the time, so he took 4 grams of the extract, which was followed in two hours' time by some ol. ricini. In an hour and a half a large bothriocephalus latus was discharged with its head, the worm was 8 metres long. There were no unpleasant after-effects, and the author was able to continue his work next day. The extract was given to 5 patients by Schumann in Helsingfors. In 4 the bothriocephalus latus was present, and in one the tænia mediocanellata. Each patient was given a glass of aperient water the day before, and the man with tænia was starved for two days before taking the extract. A dose of 3 grams was given in capsule form, and an hour and a half after a glass of aperient water. In the 4 cases with bothriocephalus latus the entire worm came away with the head, but in the tænia case there were only segments discharged. The results of these cases show that the etherised extract of aspidium spinulosum is just as efficacious as the filix mas. The author examined an extract prepared by a chemist in Junga Finland, which was sold in large quantities; he found that it contained the aspidium spinulosum. This extract can be obtained from E. Merck, in Darmstadt, and also from Koponen, in Junga, Finland.

PATHOLOGY.

(506) Recent Research on the Gonococcus.

In 1885 Podrez pointed out that acute gonorrhœa varied considerably in the manner in which it subsided, and that this might be due in some way to the gonococcus. Gonococci are found both intra- and extracellular, but the latter position, it was thought, might be caused by irregularity in the mode of preparation. Drobny (*Archiv für Derm. und Syph.*, October, 1898), in order to test this, proceeds as follows: He discards the first drop of pus, and with a fresh drop smears carefully-cleansed cover glasses, staining one by Gram's method and the other with Pick-Jacobsohns's solution. The latter consists of a solution of 15 drops of Ziehl-Neillsen's carbol-fuchsin and 8 drops of a saturated solution of alcoholic methylene blue in 20 c.cm. of distilled water. Specimens are placed in this for 3 or 5 seconds, washed, dried and mounted in oil of bergamot or Canada balsam. By this method the protoplasm of the pus corpuscle is stained rose, the main substance blue, epithelium red, mucous cells and mucus violet. All micro-organisms are blue except the gonococci, which are stained black or blue black. By this means Drobny confirms the view that gonococci are often extracellular, and when so the course of the urethritis is more severe and complicated than when they are within the cells. Out of 77 cases 27 had complications, such as lymphangitis, balanitis, prostatitis, and rheumatism, and in all these cases free gonococci were found. Drobny insists (1) that examination of the pus must be undertaken at the commencement of the disease, (2) that the course of the disease depends on the intra- or extracellular position of the gonococci. He thinks it possible that the extracellular position of the cocci may be due to paralysis of the leucocytes by toxins, thereby rendering them incapable of surrounding the cocci.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(507) Diabetes complicated by Peripheral Neuritis.

H. M. WERSILOW (*Klinitzisky Journal*, vol. i, part 1, January, 1899), on an analysis of the clinical records furnished by various writers and of 8 additional cases observed by himself, bases the following description of symptoms: (1) Diabetic neuritis is mainly met with in patients beyond middle age, especially in those who have led a sedentary life, and it seems that both sexes are equally liable. (2) Some writers maintain that the affection is directly due to an excess of sugar in the blood; this view, however, is rejected by the author for the following reasons. In many of his cases the amount of sugar in the urine has either been comparatively small or the urine was on several occasions found to be quite free from sugar (diabetes intermittens). Moreover, the character of the symptoms is in no way altered if the sugar be caused, either by the administration of suitable remedies or by strict diet, to disappear entirely from the urine. Hence the writer concludes that there exists no actual relation between the amount of sugar present and the involvement of the nervous system. The same remark applies to the quantity of urine daily voided by the patient. (3) In all the cases recorded the diabetic symptoms were of old standing and were marked long before any derangement of the nervous system became manifest. (4) The affection is mainly confined to the peripheral nerves, and of these again the crural, sciatic, axillary, occipital, and trigeminal nerves are most frequently attacked, and that usually in the order named. (5) The pains are characterised by their sudden onset, by their intensity, and by the periodicity of their nature; the paroxysms sometimes occur as often as several times a day, and may continue for some hours, leaving the patient quite exhausted after their disappearance. The paroxysmal character, however, is not always maintained throughout the course of the disease, and the pains ultimately become permanent. (6) Marked loss of sensibility soon shows itself in the parts affected, the muscles supplied by the same nerves exhibiting at the same time, in a more or less advanced degree, the well-known signs of degeneration and atrophy. (7) From a differential diagnostic point of view, it is noteworthy that the affection of the muscles is commonly symmetrical, and that the posterior layers of muscles are less frequently attacked than the anterior. (8) Some muscles seem to exhibit a special proclivity to this so-called atrophic diabetic paresis, as, for instance, the anterior and inner crural muscular groups, etc. (9) The response both to the faradic and to the galvanic current is distinctly diminished, and the tendon reflexes are lost, probably owing to involvement of the spinal cord. (10) According to their respective symptoms the author recognises four forms of diabetic neuritis: (*a*) the neuralgic motor; in this variety the paralytic signs chiefly prevail, and it is the most common; (*b*) the pure neuralgic variety, in which pain described as intense or violent, shooting or tearing, appears to be the most prominent sign, while the motor phenomena are slight or entirely absent; (*c*) the pure motor form, which is the rarest variety; and lastly (*d*) the ataxic variety (pseudotabes). In these cases the sensory symptoms, such as hyperæsthesia, numbness, formications in the feet, etc., are usually present and well marked, the knee-jerks lost; the pupils, however, appear normal, and react both to light and accommodation, the motor power for coarse movements being on the whole but little affected, signs which fully distinguish it from true locomotor ataxia. The prognosis is generally favourable both as regards life and restoration of function and power of the affected muscles, good results having followed the application of massage, galvanic current, and hot baths.

(508) Acute Ataxia.

THE existence of acute ataxia is questioned by several neurologists. Huyghe collected a good deal of evidence in support of its existence (*Thèse de Lyon*, 1898). He applies this name to a form of tabes characterised by a very rapid onset end evolution beginning as a rule with severe motor symptoms without any premonitory period, and generally speaking with very slight sensory alteration. Should sensory symptoms appear later they are as a rule slight. Difficulty of walking, the signs of Romberg, Westphal, and Argyll-Robertson are all present, together with other ocular symptoms such as diplopia and paralysis of the third nerve. In some cases there is marked subsidence of the disease, several of the symptoms disappearing altogether, and even should some remain the condition of the patient is generally speaking satisfactory; only occasionally is there tendency to continuance and a fatal result. The characteristic of this disease is that in the course of a couple of months the patient has reached the condition which is only attained in the ordinary form after several years. As in ordinary tabes the majority of these cases are syphilitic, but contrary to what one usually finds purely antisyphilitic treatment is of use.

(509) Œsophagitis and Peri-œsophagitis Phlegmonosa.

HUISMANN (*Deut. med. Woch*, April 27th, 1899) relates a case in a man who was admitted with œsophageal obstruction, and who died suddenly with symptoms of great dyspnœa. Shortly before death there was impaired percussion at both bases, with weak breathing and also sub-cutaneous emphysema in the neck. At the necropsy there were adhesions and other signs of old tuberculous disease at both apices. Opposite the lower cervical vertebra there was a cavity containing purulent masses which extended downwards in the posterior mediastinum as far as the bifurcation of the trachea. The posterior wall of the upper part of the œsophagus was much thickened. About 3 c.cm. below the larynx there was a narrowing of the lumen of the œsophagus about 2 c.cm. in length. The œsophageal and pharyngeal mucous membrane was intact. Near the lower border of the cricoid cartilage there was a spindle-shaped purulent infiltration in the submucosa, and another focus of infiltration was present in the upper part of the œsophagus. The nature of the disease was not clear during life, nor yet the causation after death. An obstruction was encountered 18 c.cm. from the teeth. This affection of the œsophagus is often caused by the rupture of a peri-œsophageal suppuration into the outer layers of the œsophagus. Limited abscesses have been found in the œsophageal wall in phthisis. It is probable that the phlegmon began in the upper part of the retro-œsophageal tissue, and involved the œsophagus secondarily. The bronchial mucous membrane was intact, so that it must be supposed that the gas in the subcutaneous tissue was developed in the suppurating cavity. A phlegmonous œsophagitis can heal after rupture in the lumen of the gullet, and a diverticulum may result. Only surgical treatment can be really efficient, but the diagnosis has not yet been made during life. The great pain caused in passing a tube, and the varying levels of the obstruction, might suggest the presence of this form of œsophageal disease.

SURGERY.

(510) Cyst of the Urachus.

FERGUSON (*Philadelphia Med. Journ.*, April 15th, 1899) adds one more instance of this rare disease to the series already described last year in the *Med.-Chir. Trans.*, vol. lxxxi, p. 301, *Deut. med. Woch.*, January 20th, 1898, Sup., p. 10, and the *Trans. Amer. Assoc. of Obstet. and Gynec.*, vol. x, 1898. Ferguson's patient was a man, aged about 47. A swelling had recently been observed in the hypogastrium, which was painful, and the man was inconvenienced by frequent desire to micturate. The swelling reached to two inches above the umbilicus. Under chloroform it appeared globular. The wall of the cyst was reached just under the deep fascia of the abdominal parietes, and at first seemed to be a distended bladder. The contents, on aspiration, proved to be watery. The lower portion of the cyst extended deeply into the pelvis, and enucleation of that portion was clearly impossible. The anterior part was laid freely open to the umbilicus. Nearly four quarts of fluid escaped. The whole inner wall or secreting surface of the cyst could, it was now found, be peeled off, except at the umbilical region, where digitations penetrated into the abdominal wall, blending intimately with other tissues. The outer wall of the posterior part of

the cyst was now folded forward and stitched together at the level of the abdominal wound and excised. The stitches of necessity included the parietal peritoneum which invested the back of the cyst. This line of suture left a sulcus on each side, representing the reflection of the lateral part of the cyst on to the parietes. Each sulcus was closed by a running suture. The superficial layers of the parietes were closed separately, and as a pocket was left around the umbilicus where the inner wall could not be detached, that pocket was drained with iodoform gauze. After a week or two antiseptic dressings were discontinued, so as to allow the sinus near the umbilicus to become infected, and thus cause the destruction of the secreting surface. The track was then packed, and it closed in two months. Three months later the cicatrix was firm at the umbilicus, and there was no urinary fistula.

(511) Polyadenomata of the Large Intestine.

QUÉNU AND LANDEL (*Rev. de Chir.*, April, 1899) deal at considerable length with a form of adenoma of the large intestine, differing in many respects from the much more frequent form of solitary polypus observed usually in a young subject, and regarded as an absolutely benign affection. In the form described by the authors under the name of polyadenomata of the large intestine, and known to surgeons in this country by the names of multiple adenoma of the colon and rectum, and of disseminated polypi, the adenomatous growths are multiple and abundant, and are not confined to the rectum, but are scattered along the whole of the inner surface of the large intestine, as far, in some instances, as the ileo-cæcal valve. Attention is directed to the frequent coexistence of this affection with intestinal cancer. In no fewer than 20 out of 42 cases of polyadenomata of the large intestine, collected by the authors, the patient suffered also from cylindrical epithelioma. The malignant complication was almost always of much later date than the adenomatous affection, and due very probably to a cancerous degeneration of one or more of the polypoid growths. No period of life affords exemption from this affection. It is met with most frequently in subjects between the ages of 16 and 30 years, and of the subjects of 37 cases in which the sex was mentioned, 23 were males. The prognosis of well-marked cases of this affection is grave on account not only of its frequent association with cancer, but also of the abundant and persistent diarrhœa, the continuous loss of blood, and the severe abdominal pains which are its usual symptoms. Hitherto very little good has been done by either medical or surgical treatment. Removal of the rectal growths by the anus affords but temporary benefit. The disease persists in the higher part of the intestine, and the growths are removed at the seat of operation. The authors suggest that a free removal of growths from the rectum, and the establishing of an entero-anastomosis between the lower part of the ileum and the sigmoid flexure, might offer the best chances of success.

(512) Cancer of Pancreas.

TOLOT (*Lyon Médical*, March 19th, 1899) reports a case of cylindrical epithelioma confined to the body of the pancreas. The patient was an adult male, subject for a year to a pulsating tumour in the epigastrium, with a distinct souffle, but no expansion as in aortic aneurysm. There was cachexia, not advanced at the date of death—vomiting was absent. Icterus was not observed till a few days before the patient's decease; the urine was then mahogany-coloured, without bile-pigment reaction. The gall bladder was not dilated. At the necropsy the body of the pancreas was found to be the seat of cancer. It adhered to the stomach near the cardiac end, the coats, except the mucous membrane, being infected. The head of the pancreas was quite healthy. In the liver were large metastatic foci, not the small spots, like candle-grease stains, often seen in association with pancreatic tumours. The seat of the tumour explained the absence of any symptoms of compression of the biliary ducts. The growth had originated in the excretory ducts of the pancreas.

(513) Treatment of Chronic Urethritis.

JANET (*Revue de Thérapeutique*, December, 1898) describes three forms of chronic urethritis: (1) Urethritis preceding the invasion of gonococci, which may be infectious or non-infectious. The non-infectious form is met with in people of rheumatic or strumous disposition; also in sexual excess, abuse of alchohol, or cycling. This may become chronic owing to the deep penetration of the microbes into the epithelial layers and *cul-de-sacs* of the glands of the urethra or prostate. (2) Chronic urethritis succeeding an invasion of gonococci, the most common form. (3) Chronic urethritis due to diseases of the bladder, ureters, or kidneys. The treatment of these conditions comprises injection, irrigation, instillation of ointments, bougies, dilatation and endoscopic treatment. Janet prefers the irrigation treatment and uses solution of sublimate (1 in 20,000 to 1 in 10,000); silver nitrate (1 in 1,000 to 1 in 5,000); protargol (1 in 1,000 to 1,500); sulphate of zinc, chloride of zinc, ichthyol, boracic acid (4 in 100). Instillations may also be done with silver nitrate, copper sulphate, or protargol. For ointments he uses creolin, silver nitrate, or copper sulphate 1 to 5 grams, lanolin 95 grams, olive oil 5 grams. Finger's formula is also useful: iodide of potassium 5 grams, metallic iodine 1 gram, lanoline 95 grams, olive oil 5 grams. These ointments can be smeared on a sound or bougie and introduced into the urethra. Janet uses a grooved ground slightly curved at the end. If the urethra is very sensitive he uses an ointment of lanolin 20 grams, vaseline 10 grams, borate of soda 0.6 gram to smear the bougie. Janet remarked that the object of treatment is not so much to stop the discharge as to bring the urethra into a normal condition and so prevent stricture. For deep infiltration discovered by the endoscope Janet employs dilatation and massage of the urethra and prostate. Endoscopic treatment he reserves for localised lesions such as urethral polypi, hypertrophy of the veru montanum, etc.

MIDWIFERY AND DISEASES OF WOMEN.

(514) Tuberculosis and Pregnancy.

MARAGLIANO (*Gazz. degli Osped. e delle Clin.*, May 7th, 1899), discussing this subject, first considers the influence of tuberculosis on pregnancy, which he refers to the obstetric physicians, then proceeds to discuss the influence of pregnancy on tuberculosis. Authorities differ so much with regard to the changes induced in the healthy maternal organism by pregnancy, that one cannot find trustworthy data upon which to found an opinion. Any of the more or less normal complications of pregnancy, for example, vomiting, which lessens the power of resistance of the organism to tubercle, are *ipso facto* deleterious to the spread of a latent tuberculosis. It is doubtful if they could start tuberculosis of themselves. Certain symptoms due to mechanical causes may be induced by pregnancy in tuberculosis, for example, hæmoptysis, especially about the fifth month. Again, the diminished diaphragmatic movement may exercise an influence of a beneficial character when the pulmonary lesions are not very extensive. Parturition itself is constantly harmful to the spread of tuberculosis since it favours pulmonary congestion. In fibroid phthisis this bad effect is considerably lessened by the presence of the fibroid tissue. The author evidently believes that the perfect counsel to follow in these cases would be to interrupt the pregnancy whenever, as in the earlier months, a tuberculous focus is discovered, no matter how circumscribed it may be.

(515) The Pulse in Pregnancy and the Puerperium.

AUDEBERT of Toulouse (*France Méd.*, No. 20, p. 317, May 19th, 1899) has carefully investigated the pulse in 50 women during pregnancy and the puerperium, excluding cases in which the temperature rose above 37.8° C. During pregnancy the pulse-rate was higher than what it normally is outside the gravid state; it was from 85 to 88 per minute, instead of 75. During the eight or ten days before delivery it rose in one-third of the cases to 90 or 92. In the puerperium a slowing of the pulse was constant when the pregnancy and labour had been normal. This slowing was very marked during the first three or four days of the lying-in period, the average being 67. From the fourth to the eighth day it was 75, and from the eighth to the twelfth about 80. The

minimum was rare on the first day; usually it occurred on the second or third, and Audebert never found it less than 60, although other observers have recorded 40 and even 30. In some cases this physiological slowing of the pulse does not occur. Lactation does not serve to explain these exceptions, neither do prolonged resting in pregnancy nor the premature induction of labour. Excessive duration of labour, however, has a distinct effect: thus in a primipara delivered after 45 hours, not only was there no slowing, but the rate, which had been 100, rose to 120. The length of labour also probably accounts for the fact that the slowing is less marked in primiparæ than in multiparæ. Albuminuria also plays an important part; in 11 albuminuric women the average rate was 84 before and 76 after confinement. These observations were communicated to the Obstetrical Society of France at its meeting of April 7th and 8th.

(516) Tumours of the Round Ligament.

WEBER (*Monats. f. Gebürts. u. Gynäk.*, May, 1899) contributes a valuable paper on this rare class of tumour, chiefly of interest because it lies in the groin, the region of hernial and other swellings not always easy of diagnosis. He reports 3 new cases. In the first the tumour was a fibroma lymphangiectodes of the form and shape of a kidney. The patient was 58, and had been subject for three years to what was taken for left inguinal hernia. The tumour extended into the labium. At the operation no hernia was found, the tumour was easily enucleated out of its fibrous capsule, and the upper and unaffected portion of the round ligament made a good pedicle. The second patient was a young girl; the tumour was as large as a fœtal head, and converted the left inguinal canal into a big cavity reaching from the anterior superior iliac spine to the pubes. There were really two tumours, detected by palpation before the operation; the more anterior was a large soft mass, myomatous, but undergoing malignant degeneration; the other tumour was a pure myoma, very firm. Large veins entered the larger and softer tumour, and made enucleation very troublesome. The patient recovered. The third tumour, of the size of a large almond, lay in the wall of a large hernial sac, which was excised successfully; the hernia was apparently congenital. The tumour was a fibromyoma. Weber adds a good table of reference to the literature of tumours of the round ligament.

(517) Uncontrollable Vomiting: Induction of Abortion: Tubal (?) Pregnancy Discovered.

POLLOSSON (*Lyon Médical*, April 9th, 1899) was called in at the end of last December to a woman, aged 31, who had previously been four times pregnant, bearing all the children to term; delivery was in every case normal. The last period before the fifth pregnancy was on November 17th. Vomiting set in at the end of December; the pulse remained slow, but emaciation was extreme and hardly any urine was excreted. The abdomen was lax, and a tumour the size of an orange filled the pelvis. The cervix was continuous with this tumour, which had the form and consistence of the uterus. On February 3rd, 1899, the cervix was dilated. The uterine cavity was found empty, but the finger detected a rent in the anterior wall, which communicated with a cavity containing the fœtus and the placenta in the second month of development. This cavity was found to be neither the bladder nor the peritoneum; it was lined with a smooth membrane resembling the inner wall of a hydrosalpinx. The cavity and the uterus were separately packed with iodoform gauze. The vomiting ceased, and twelve days after the operation the patient seemed well. Pollosson believed that the fœtal sac was tubal, and that if diagnosis of tubal pregnancy had been made an abdominal section would have been undertaken. He considered that in certain cases anteuterine collections of pus, etc., might be reached through the uterus. The laceration was, he thought, made during the process of dilatation.

THERAPEUTICS.

(518) Sanose.

BIEGENTHAL (*Therap. Monat.*, April, 1899) describes a new food made of casein and albumose. It has been used with success in feeding infants and invalids. The latest scientific work (Salkowski and Röhmann) on the relative value of the different forms of albumen, tends to show that casein must be placed in the first rank. Heubner said in January, 1899, "that the researches of Röhmann have clearly shown that casein is far more important in the case of general nutrition than any of the other proteid substances contained in milk. The cause of this difference is due to the fact that casein contains a certain amount of phosphorus which is indispensable to the growth of the cell nucleus." Sanose has been used extensively in the Göttingen clinic, and Schreiber and Waldvogel say that the food is readily absorbed. It has no taste, and patients take it willingly. Ebstein recommends it in diabetes. Sanose is made from milk—4 parts are pure casein, and 1 part pure albumose. It has been shown experimentally that on the addition of albumose the casein is held in solution in the form of fine flakes. If nutrose (the soluble sodium salt of casein) be dissolved in hot water, sanose swims on the top, and after cooling, it is separated by the addition of acetic acid. Both preparations are dissimilar in appearance. The casein in the nutrose solution is in thick and obviously indigestible clots, in the sanose solution on the other hand the casein is finely divided, and therefore more easily digested. This action of albumose has been specially studied by Schreiber and Waldvogel. They found that the addition of albumose rendered cow's milk more digestible. This beneficial effect is said to be caused by layers of albumose becoming interposed between the casein molecules. Waldvogel fed a child 4 months old, suffering from tuberculosis, with "Kindermilch." The infant at once began to have diarrhœa, and lost flesh rapidly. The addition of casein-albumose to the "Kindermilch" immediately stopped the diarrhœa, and the patient began to gain weight. The difference in the amount of nitrogen absorbed is shown in the following table:

	Nitrogen introduced.	Nitrogen excreted in fæces	Nitrogen excreted in urine in
Kindermilch and case in albumose	18.544	1.26	1,800 ccm., 9.31
Kindermilch alone	15.602	2.17	1,580 ccm., 9.21

The child took the mixture of milk and albumose very well. This case was apparently an unsatisfactory one for the new preparation, as the infant was much emaciated. The result, however, was excellent. One of the disadvantages in giving peptonised foods is that, if sufficient quantities are given for any length of time, diarrhœa and stomach irritation are sure to supervene. This specially applies to Denaeyer, Liebig, and Koch's peptones, and Antweiler's albumose and somatose. The course of the diarrhœa in the case of somatose is due to the presence of certain salts contained in the peptone extracted from meat, such as sodium chloride, chloride of calcium, and phosphates. This peculiar intestinal irritation does not take place in cases fed on sanose. Sanose is not formed by a chemical combination of casein with albumose, but it is rather a mechanical mixture of these two substances. Some authorities affirm that the intestinal irritation above referred to is due to an over-dose of albumose; this is undoubtedly true in some cases; the fact, however, remains that the addition of casein neutralises this effect. Laboratory and clinical experiments agree in showing that the best results are obtained with four-fifths casein and one-fifth albumose.

(519) Treatment of Catarrh and Ulceration of Intestine.

RICHTER (*Therap. Monat.*, March, 1899) has employed the method of direct application of astringent remedies in cases of ulceration of the intestine. The marked success attending this form of treatment in ulcers of the stomach induced the author to apply similar methods in lesions of the large bowel. The extreme chronicity of ulcers of the large intestine is probably due to the fact that the remedies employed are not allowed sufficient time to act on the diseased surface. The plan adopted in ulcers of the stomach is to give bismuth when the organ is empty, so that the drug may be deposited on the ulcer,

and so protect it from irritation. A similar plan should be adopted in treating catarrh or ulceration of the bowels. A large enema of warm water must be given before the administration of the drug, and it is also important to keep the stomach empty. The treatment should begin in the morning before breakfast. The astringent remedy is taken by the mouth, and the large bowel is simultaneously washed out with warm water. It is important to delay the breakfast for some time after giving the medicine, so that the bowel is free of chyme. The author has treated several patients who had suffered for months from ulceration, and had taken various remedies without success. The chief drugs employed were tannin, bismuth subnitrate, and a decoction of bilberries recommended by Winternitz; the latter remedy appears to be very efficacious; its curative effect is due to the tannic acid it contains. The diet must be carefully regulated, and all mechanical, chemical, or thermic irritants must be carefully avoided. The treatment should be repeated in the evening before dinner. The intestine must again be washed out with warm water. The remedy is not so efficacious in the evening on account of the presence of large quantities of chyme, which have been collecting during the day. If the ulceration affects the small intestine a dose of ol. ricini is given before the astringent. Cases of atony of the bowel, due to impaction of fæcal matter, are greatly benefitted by this treatment, and also cases of constipation alternating with diarrhœa. This form of treatment is equally successful in simple catarrh of the bowel.

(520) The Rest Treatment of Phthisis.

K. F. ANDVORD (*Norsk. Mag. f. Laegevidensk*, p. 654, May, 1899) emphasises the importance of a knowledge of the causes of phthisis. He refers to the tendency of the disease to come on when the system is worn out with overwork, psychical or physical, or after blood loss or exhausting maladies; to the preference which tuberculous processes show to begin in the most anæmic and least nourished parts of organs; to the weak state of the heart in phthisis; and to the feebleness or fatigue of the nervous and circulatory systems which exists in the earliest period of the malady, a defect of harmony, congenital or acquired, in the trophic and vasomotor systems, perhaps of neuropathic origin. Hence in the treatment of phthisis there is great importance in economising the nervous force of the organism, and especially of the heart. This is done by getting the patient to live night and day in a pure atmosphere, to avoid all physical and psychical effort, and to take plenty of healthy food. Special stress is laid by Andvord upon the rest treatment, which is indicated always except in the rather chronic and apyretic forms where pulmonary gymnastics will have a beneficial effect. He insists upon the necessity for judging each case upon its merits, before deciding whether the sedative or stimulating line of therapeutics is to be adopted. Rest, even perhaps rest in bed, is indicated in most of the acute and febrile states, in cases of hæmorrhage, and of pectoral pains, and irritating cough.

(521) Treatment of Burns by Injection of Artificial Serum.

AZZARELLO (*Giorn. Ital. delle Mal. Ven. e della Pelle*, 1891, fasc. ii) divides the theories of the causes of death from burns into four classes: (1) Death from shock or extreme pain; (2) embolism, thrombosis, and destruction of the blood elements; (3) pyæmic infection through the burnt surface; (4) poisons formed by the action of heat on the tissues, or auto-intoxication from deficient excretion by the skin. The author, by experimenting upon dogs and rabbits, claims to have shown that the intoxication theory is the correct one. A chloroformed animal died in the same time, and with the same symptoms as one not anæsthetised. Also, section of the nerves supplying the burnt part causes no alteration in the effect of the burns. Again, bodies of animals burnt to death failed to show any embolism, thrombosis, or great destruction of blood corpuscles. The rapidity of death was too great for the action of bacteria to be the cause. On the other hand, blood from burnt animals and extracts of burnt tissues were toxic to other animals, and caused death with symptoms similar to those of the burnt animal. Injection of large quantities of artificial blood serum subcutaneously appeared to save life in several cases.

(522) Naphthalan.

ROHLEDER (*Sonder-Abdr. aus Monatshefte f. praktische Dermatolog.*, Band XXVII, 1898) has employed naphthalan in a variety of cutaneous and venereal diseases. This is a greenish-black substance of the consistence of ointment; its reaction is neutral; its melting point 65° to 70° C., so that it remains solid in the hottest summer. It does not stain linen. It is obtained from a species of crude naphtha and is chemically closely related to tar. Mixed with olive oil and gum arabic it forms an emulsion with water, and is completely soluble in chloroform and ether, and slightly so in oil. (1) In all forms of eczema, except in the most acute stages, naphthalan is an excellent application. It is especially useful in chronic and traumatic eczema. (2) In psoriasis improvement was always observed. (3) It has a reducing action of nearly the same intensity as ichthyol and sulphur, and may be tried in all cases where these are applicable. (4) It is a useless application in soft and hard chancres and in gonorrhœa. In the last-named disease it was tried dissolved in oil. (5) Rectal suppositories containing from 5 to 10 per cent. of naphthalan seems to have a favourable influence on catarrhal prostatitis.

(523) The Treatment of Optic Neuritis after Influenza.

WINGENROTH (*Klin. Monatsbl. f. Augen.*, March, 1899) expresses a strong opinion in favour of mercurial inunction in influenzal optic neuritis, the ordinary measures, such as local bloodletting, pilocarpine injections, sod. salicylate, etc., giving much inferior results. He details three cases. In the first vision in the left eye became reduced to "hand movements," movements of the eye were painful and there was marked papillitis. Treatment (April 15th), pilocarpin injections, blisters on left temple, sod. sal.; April 29th, V = $\frac{1}{10}$ − 4 D (excentric), large central negative scotoma; May 10th, V = $\frac{1}{10}$; May 20th, V = $\frac{1}{5}$, scotoma less dense; May 27th, V = $\frac{2}{3}$. Then the sight went back and papilla became whiter, especially its outer half. Galvanisation and strychnine had no effect. June 30th inunction course, 2 gr. morning and evening; July 8th, V = $\frac{2}{3}$ − 4 D; July 23rd, $\frac{1}{1}$, and disc of a better colour, vision same six weeks later. In the second case a four weeks' inunction course brought vision from $\frac{3}{10}$ to normal, and in the third case it was materially improved. The mercury can be pushed so long as the body weight does not decrease.

PATHOLOGY.

(524) Fœtal Rickets and Lymphangiectasic Elephantiasis.

F. CARUSO (*Archivio di Ostet. e Ginec.*, Ann. 6, p. 193, April, 1899) makes a contribution to fœtal pathology in his report on a case of deformity of the skeleton and subcutaneous tissue in a 7-months fœtus. It was the product of the sixth pregnancy of a well-formed healthy woman, 27 years of age. Her first three gestations ended in abortions at the third month, her fourth in a premature labour at the seventh month, and her fifth at the full term. From the fifth month of her present pregnancy she had noticed very rapid enlargement of the abdomen. Labour came on about the end of the six month, and after the rupture of the membranes more than three litres of liquor amnii came away. The fœtus was deadborn. The course of the puerperium was interfered with by the formation of an abscess in the right labium majus. The fœtus, a male, had a large head, small and contorted limbs, with enlargement of the epiphyses, spina bifida in the lumbo-sacral region, and a condition of lymphangiectatic elephantiasis of the back of the head and spine, especially marked in the region of the neck. There was dorso-lumbar lordosis and lumbar kyphosis. The microscopic examination of the bones of the limbs showed complete absence of true osseous tissue, with in its place an osteoid structure, and no break in the continuity of the periosteum and perichondrium between the diaphysis and epiphysis. The changes of fœtal syphilis in the bones were absent. There was also a double harelip. The association of fœtal rickets and cystic distension of the lymphatic spaces of the subcutaneous tissue Caruso has found noted only once in literature—namely, in a case described by Otto in 1841.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(525) Hysterical Fever.

H. DIPPE (*Deut. Arch. f. klin. Med.*, 1899, vol. lxiv, p. 212) reports the case of a woman, aged 43, who as a girl had had hysterical attacks at the menstrual periods. These attacks likewise occurred after her marriage, with varying frequency. In November, 1896, she by accident received a blow in the hypogastric region, and afterwards suffered from fever with morning remissions. There was great tenderness in the right lower part of the abdomen, and all the medical men who saw the case agreed that there was some suppurative process going on. Physical examination, however, gave no definite signs, and the patient's nervous condition was peculiar. From the beginning of January, 1897, hysterical attacks—crying, groaning, sighing, convulsions, unconsciousness—complicated the matter. In the latter half of January there was decided improvement; the fever ceased, the abdominal pain became less, and the hysterical symptoms subsided. The patient, however, had become much weaker, and, when all the bad symptoms recommenced at the beginning of February, an operation was decided on. The temperature was specially high after her removal to a surgical ward, and on the day preceding the operation it reached 42° C (107.6° F.). Professor Doederlein opened the abdomen on February 10th, 1897, and to everyone's astonishment found all the organs normal. However, the vermiform appendix—which contained some fæcal fragments—and both ovaries were removed. The result of the operation was wonderful. Fever, pains, and hysterical attacks ceased. The patient, who was told that the pus had been removed, recovered rapidly, had a good appetite, and was able to leave the hospital in three weeks. Since this time the patient has remained well. The oöphorectomy has caused relatively very little trouble—partly, perhaps, because, in consequence of a chronic uterine disorder, she loses a little blood which is enough to satisfy her. Since the operation there have only been slight manifestations of hysteria. Dippe considers the fever as the most interesting phenomenon in the case. No deception was possible. The rises of temperature were evidently not a consequence of convulsive attacks, for they occurred quite independently. According to Boulay's article on hysterical fever, the case would fall under the heading "hysterical pseudo-peritonitis." A case published by Mary Putnam-Jacobi is very similar to Dippe's. In many respects, also, Sarbo's case is analogous. Both Boulay and Sarbo think that the existence of hysterical fever can be no longer doubted, for the suggestion of fever (Debove) has been repeatedly successful in raising the temperature, and the power of the nervous system to influence the temperature has been proved by experiments.

(526) Angina Pectoris.

FR. SAMBERGER (*Sbornik Klinicky [Bohemian Archives of Clinical Medicine]*, Vol. 1, Fasc. 1, 1899) presents statistics of angina pectoris as seen in the Czech Policlinic of Prague from 1895 till October, 1898. The number of cases was 73. Comparing his statistics with those of other observers, the author arrives at the following conclusions: (1) Angina pectoris is not rare in outpatient practice; (2) men are more frequently attacked than women (64.4 per cent. to 35.6 per cent.); (3) persons of middle age and over are much more predisposed (72.6 per cent. of patients were over 40); (4) a large number of patients are compelled to seek medical advice more often in winter than in summer; (5) various writers assert that the disease is most frequently seen in wealthy persons who fare sumptuously and do little physical work. Samberger contradicts this; his patients belonged almost exclusively to the class of poor working people, and from this he infers that angina pectoris attacks without regard to rank or occupation; (6) as regards prognosis, his experience is also opposed to what is generally taught. Most writers contend that true angina pectoris (that is, combined with anatomical lesion of the heart, fatty degeneration sclerosis of the coronary arteries, etc.), generally ends sooner or later in sudden death, and that recovery is a rare exception. Samberger on the other hand has found that this statement holds good only of patients in whom angina is combined with aortic insufficiency. Among the other cases there was only a single patient who died suddenly after the disease had lasted three years. Most of them after treatment recovered sufficiently to undertake laborious work; a few were completely cured, and in only three cases did no improvement take place. Of these one was a drinker and a great smoker, another suffered from pleurisy, while in the third arteriosclerosis went on developing, aortic insufficiency was produced, and the patient died suddenly.

(527) Pathological Conditions in the Nose and Asthma.

THIS question formed the subject of discussion at the meeting of the American Laryngological Association held in Chicago on May 22nd to May 24th (*Philadelphia Med. Journ.*, June 3rd). H. L. Swain of New Haven said asthma meant a hyperæsthesia of the bronchial lining with a resulting explosion of energy. In addition, some other structure was diseased, irritations of which set up the bronchial spasm, a condition called the neurotic habit. The nose was only one of many diseased sites which could produce an asthmatic attack. It might arise from some intranasal irritation. Certain irritations applied to certain nerve fibres would produce congestion and chronic inflammation with swelling and watery discharge. Then came soaking of the tissues, œdematous changes and polypi. In many of these cases of hyperæsthetic mucosa there seemed to be all over the body a thinness or flabbiness of the blood-vessel walls and a vasomotor responsiveness which made the explosions possible. This character of vessel wall might be the inherent peculiarity of the neurotic subject. Such a theory would explain the headache, asthma, neuralgia, etc., which at the start were only vasomotor spasms. Later, by continued distension of the vessels their walls became permanently stretched and flabby, and thus organic lesions were possible. In general the ethmoid or middle turbinate changes in all these cases were hypertrophic and confined to the mucosa. Septal spurs and bends tended to keep up the middle turbinate disease and increase the possibility of pressure. Repeated irritations gradually led to vascular relaxation and the occurrence of œdematous tissue. In turn came contact areas and areas of pressure. With the latter present the initiative of the asthmatic attack was easy if at the same time the bronchial apparatus was also diseased or susceptible.—Fletcher Ingals, of Chicago, had found that a spray containing 3 per cent. of cocaine and 5 per cent. of soda nitrite would often relieve apparently by a reduction of the sensitiveness of the bronchial mucosa.—F. H. Bosworth, of New York, believed that the whole question turned upon the integrity of the respiratory function of the nose. The bronchi were only air conductors, but there was an intimate relation between their mucosa and that of the nares. In asthma the condition was one of vasomotor paresis, not of muscular spasm. Behind the polypi the polypoid degeneration and the œdematous hypertrophy was an ethmoiditis. The great indication for treatment was to relieve the ethmoiditis, to relieve the intracellular pressure by breaking down the honeycomed mass. A radical operation was necessary; it was not enough merely to remove the polypus; the eggshell-like ethmoid must be uncapped. Points of contact should also be eliminated, not so much because of their pressure there exerted, but because they encroached upon the lumen of the nares. In his own experience cutting forceps were unsatisfactory. He used rounded and oval burrs from one-sixteenth to one-quarter of an inch in diameter, driven by power. They should burr down, stop, use the burr as probe, revolve it again until all the thin trabeculæ were broken down and free drainage was established. He had never had any bad results in following the above rules. He formerly held that if cocaine applied to the nose did not relieve an asthmatic attack, it was useless to do any intranasal operation, but later experience had led him to modify this view. Purulent ethmoiditis did not cause asthma, but inflammatory disease did. Many colds in the head were doubtless acute ethmoiditis.—J. N. Mackenzie

said the primary cause of asthma was not confined to any special peripheral organ, but resided in the individual as a whole. The area of nerve explosion depended on the seat of the local pathological process. Irritations might come from a peripheral organ as the nose, a distant organ as the uterus, or from a general dyscrasia, as gout. On this theory mere contact areas and pressure points were of no value. Nasal cough might arise in atrophic states of the organ. Final explanation was not to be sought in nasal or bronchial abnormalities, for all the theories thus far advanced failed to conform to the requirements of a local hypothesis. All polypoid degeneration was not due to an ethmoiditis, as was evidenced by both clinical and pathological observation. As to treatment, he had no difficulty with the forceps. It was useless to temporise, and they must curette, burr, and gouge freely.

SURGERY.

(528) Treatment of Exstrophy of the Bladder.

G. Nové-Josserand (*Rev. Mens. d. Mal. de l'Enf.*, June, 1899) describes a case of vesical exstrophy in a boy, aged 5½ years, treated by implantation of the ureters into the intestine. The vesical ectopia had its characteristic appearances; a tumour in the hypogastric region, the size of a mandarin orange, covered with reddened non-ulcerated mucous membrane, and showing the openings of the two ureters; complete epispadias, and a 3-centimetres' separation of the symphysis pubis; split scrotum and a right-sided inguinal hernia. Resection of the bladder was performed, and a piece measuring 4 square centimetres, and containing the openings of the two ureters, were alone retained and surrounded with sterilised gauze. Median laparotomy was next done, and the sigmoid flexure brought to the surface and incised. The trigone of the bladder carrying the ureters was then fixed into the intestinal wound and sutured in position. The incisions of both operations were then closed, but on account of the separation of the pubic bones the lower part could not be brought quite into apposition, and consequently had to be plugged temporarily. Recovery was complete. After the first night rectal micturition was fully established; at first there was some incontinence, but in a week there were only from six to ten stools daily, some of which contained urine alone, but most showed both urine and fæces. There was no diarrhœa and no sign of renal trouble. The method employed (that of Tuffier) although long in duration (2½ hours) has the advantage over Maydl's plan that it does not open into the peritoneum in the region of the vesical mucous membrane: in this way asepsis is easier of attainment. Now, three months after the operation, the child is in good health, the rectum acts perfectly as a urinary reservoir, there is continence, and the bowels move on an average once every three hours.

(529) Peripheral Nerve Transplantation.

Peterson (*Amer. Journ. of Med. Sci.*, April, 1899) publishes a case in which the sciatics of a dog were successfully transplanted between the severed ends of the median and ulnar nerves of a man. In consequence of a deep wound of the wrist, the right hand had been rendered almost quite useless. There was absolute anæsthesia in the palmar surface, over all the digits, and the inner surface of the thumb. The ulnar side of the hand, also, was quite anæsthetic. On the dorsal surface the skin was anæsthetic over the entire distal half of the first three digits, over the ulnar half of the proximal part of the third digit, and over the entire surface of the little finger, and a corresponding area as far as the wrist. Three months after the date of operation the grip of the hand was strong and the patient could use it for chopping wood. Sensation was complete over the entire dorsal surface, excepting the third phalanges of the second, third, and fourth fingers. The only remaining anæsthetic areas of the palmar surface were over the second and third phalanges of the third and fourth fingers, and the third phalanx of the little finger. The author gives an analysis of this, together with 19 other recorded cases of peripheral nerve transplantation, and sums up the results of his investigations in the following general conclusions: (1) Transplantation of a peripheral nerve segment to bridge over a gap between the two ends of a resected nerve is a legitimate surgical procedure; (2) under favourable conditions at least partial and at times complete restoration of sensation and motion may be expected to follow the operation; (3) regeneration of the degenerated peripheral end is due to downgrowths from the axis cylinder of the central end; (4) from the slowness of this process the longer the time after operation the more favourable will be the results; (5) sensation may return very early after operation, and, as a rule, precedes return of motion: (6) this rapid return of sensation is not due to downgrowth of axis cylinders or to conductivity of the transplanted fragment, but must be explained by collateral nerve supply; (7) in many cases very early return of motion after transplantation may be due to vicarious movements of other muscles than those formerly paralysed, and not to a regeneration of the latter's nerve supply.

(530) Osteomalacia in Males.

Ringel (*Beiträge zur klin. Chirurgie*, vol. xxiii, Pt. 2, 1899) reports a fourth case of mollities ossium in a man. He first noticed certain reports of mollities in female children, by Rehn, Elben and Bury, but it has been suggested that one or more were really instances of severe rachitis; mollities in man has been noticed by Bouley and Hanot (age of patient 29), Ellis (age 50), and Koppins (age 17, an idiot). Ringel reports a new case where the disease was not diagnosed during life. The patient, a waiter aged 25, when first observed, was under observation for eleven years. He came from a district where mollities does not prevail, and applied for relief from acute dyspepsia, in June, 1886. A month later he began to complain of pains in the extremities. During the next few years angular curvature of the spine developed slowly. A plaster apparatus was applied to the thorax. By 1891 this deformity became severe, yet he was not bedridden till the middle of 1896. Then the deformity of the thorax was extreme, though the other parts of the skeleton were almost free from disease. Hæmatemesis occurred and recurred in the spring of 1897. The patient died of perforation of a gastric ulcer on April 10th, 1897. The peritoneal cavity was found full of fluid, including the contents of the stomach. There was extreme kypho scoliosis bending the patient almost double. The sternum was bent into the form of an S. The right humerus was also bent, at its lower third, into an acute angle. The pelvic bones were quite soft, so that by pressing on the ossa innominata the pelvic brim could be made narrower. The cranial bones were softened and extremely vascular. The bones of the lower extremities seemed free from disease. The genital tract was normal. It was found that the urine contained 0.5 per cent. of sugar during the patient's life, but had always been free from albumen. No search for excess of phosphates had ever been made; during life the spinal curvature had been attributed to tuberculous spondylitis. Kauffmann has already shown that in non-puerperal osteomalacia in women the vertebræ, pelvis and cranium are successively attacked, the rapid softening and bending of the femora and tibiæ being more specially a symptom of the puerperal form. To the former type mollities in the male must naturally be allied, and clinical evidence thus appears just what might have been expected.

MIDWIFERY AND DISEASES OF WOMEN.

(531) Antistreptococcic Serum in Puerperal Sepsis.

At the recent meeting of the American Gynæcological Society (*Phil. Med. Journ.*, June 3rd) the report of the Committee on the use of antistreptococcic serum in puerperal sepsis was presented. It began with a summary of Marmorek's work and reviewed the entire literature, domestic and foreign, to April 1st, 1899. The serum had been used in France by twenty-seven observers in 214 cases; in Germany by one observer in 15 cases, and in Great Britain and America in 125 cases. In these 354 cases there were 20.6 per cent. deaths, not an encouraging result. But in analysing the reports it should be remembered that they were based upon the most severe cases. Such reports would naturally tend to give an exaggerated mortality. In the personal experience of the members of the Committee, Williams has observed 23 cases, Pryor 15, and Fry 7, in all Doederlein's tube was used in obtaining specimens for bacteriological examination, hence there could be no doubt as to the accuracy

of this part of the work. Williams had 91 cases of puerperal fever, but of these only 23 were due to the streptococcus, as shown by the bacteriological test. Of these 16 were pure streptococcus, 2 were mixed with anaërobic organisms, and 5 with other organisms. None had peritonitis, all had endometritis, and 3 had pyemia with abscesses. There was but one death out of the 23 cases, and in 6 cases the temperature fell immediately after the douche. Pryor's work showed 15 cases with one death. He also practised sterilisation of the pelvis. Fry reports 7 cases with 2 deaths. One case of these died from other causes than the infection, but died while under treatment. Still, it can scarcely be included in the statistics. Williams treated all of his cases with a single large intrauterine douche of sterile salt solution, immediately after taking the culture from the uterine cavity, his further treatment consisting in the administration of large doses of strychnine and whisky, if indicated by the general condition of the patient. Pryor opened the posterior *cul de sac*, and then tightly packed the pelvis with large quantities of iodoform gauze, believing that by this means he could practically isolate the uterus, and thereby prevent the extension of the infection to the peritoneum. At the same time he gave large quantities of normal salt solution, either subcutaneously or by the bowels. Fry treated all his cases by the intrauterine douche until bacteriological confirmation of his diagnosis. Then all further local treatment was stopped and the antistreptococcus serum was administered. Each of these observers had obtained apparently good results by their individual efforts, and Fry believed that the serum had had a markedly beneficial effect upon some of his patients. A possible explanation of the discrepancy between the mortality-rate of these observers and of other workers in the same field lay in the fact that the other reports were based on the observation of certain selected severe cases instead of upon cases taken consecutively. The use of the curette was contraindicated, as it too often serves to break down the wall of protective leucocytes which had been thrown up Nature. It was an absolutely useless practice in the virulent forms of infection in which the streptococcus was already within the lymphatics of the muscularis of the uterus, and in many cases converted an attack from a mild course to a most severe one. The conclusions of the Committee were as follows: (1) A study of the literature shows 354 cases of puerperal infection with a mortality of 20.6 per cent. When the streptococci were positively demonstrated the mortality was 33 per cent. (2) Marmorek's claim that his antistreptococcic serum will cure puerperal infection is not thus far sustained. (3) Experimental work has cast grave doubts upon the efficiency of the work demonstrating that a serum which is obtained from a given streptococcus may protect that animal from that organism, but is absolutely inefficient against another streptococcus. Thus the number of serums that may be prepared is only limited by the number of varieties of the streptococcus that may exist. (4) Thus far, the only definite result of Marmorek's work is the development of a method by which the virulence of streptococci may be increased to an almost inconceivable extent. (5) Personal experience of the Committee has shown that the mortality of streptococcus endometritis if not interfered with is something less than 5 per cent., and that such cases tend to recover if Nature's work is not undone by too energetic interference locally. (6) We unhestatingly condemn curettement and total hysterectomy in streptococcus infection after full term, and attribute a part of the excessive mortality in the literature to the former operation. (7) In puerperal infections a portion of the uterine lochia should be removed by Doerderlein's tube for bacteriological examination, and an intrauterine douche of from 4 to 5 litres of sterile salt solution given just afterwards. If the infection be due to streptococci the uterus should not be touched again, and the patient be given large doses of alcohol and strychnine if necessary. If the infection be due to other organisms repeated douchings and even curettement may be necessary. (8) If the infection extends towards the peritoneal cavity, and in cases gravely septicæmic Pryor's method of isolating the uterus by packing the pelvis with iodoform gauze may be of service. (9) The experience of one of the members of the Committee seems to show that it has no deleterious effect upon the patient, and therefore it may be tried if desired. The report adds that the Committee find nothing in the literature, clinical or experimental, or in their own experience to indicate that its employment may markedly improve the general results in the treatment of the condition.

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(532) Rupture of Symphysis Pubis at Labour.

PUECH (*Gaz. des Hôpitaux*, June 1st, 1899) reports a case of this accident where the patient was attended solely by a midwife. She was 23, labour pains came on at term, the membranes rupturing at the beginning. A day later, as the labour lingered, the midwife placed the patient across the bed, with the feet pressed against a chair. Within a few minutes, as she was bearing down during a uterine contraction, she felt a sensation of something snapping in the hypogastrium; the pain was intense. A male child of medium size was delivered. No antiseptics were used during or after this labour. Six days afterwards, as the pain over the pubes was very severe, and all movements of the lower extremities impossible. Vailhé of Montpellier was called in. The abdomen showed no signs of peritonitis, but the pubes was so tender that careful examination was not possible. Any attempt to flex the thigh caused great agony. By the nineteenth day the patient was very ill, the midwife had attempted to make her walk, a rigor had occurred, the temperature rose to 103°, and a phlegmon developed over the pubes. Puech examined her a week later. A large phlegmon in the shape of a cocked hat lay above the pubes; its highest points extended to four fingers' breadth above the symphysis, and lay a little to the left of the middle line; its base formed two horns extending over the horizontal rami of the ossa pubis, behind which it could be traced. Puech never distinctly felt any separation of the symphysis, but was certain that it had occurred. The phlegmon softened and was incised a little to the left of the middle line; then a large cavity full of pus was opened and drained. Recovery was rapid. Two months after delivery the patient could walk with ease. The abscess represented suppuration of the prevesical connective tissue, the pus filling the cave of Retzius. The injury to the pubes, indicated by the snapping sensation during the final pain, and the complete subsequent lameness, had caused the local infection, favoured by the absence of antiseptic precautions. The lochia remained fœtid for several weeks.

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(533) Triplets, consisting of a Double Monster and a Single Child.

G. W. THOMPSON (*Indian Med. Journ.*, April, 1899) records an extraordinary case of the birth of united fœtus consisting of two heads, four arms, and four legs, and two bodies united by the thoraces. The sex was female, and the weight was 4 pounds. Such cases are not unknown, but what made the occurrence quite peculiar was the birth of a single male child along with the monstrosity; the single child was born first, was stillborn, and had a separate placenta and membranes. The united twins breathed for twelve minutes. There was *post-partum* hæmorrhage and shock, but the mother ultimately recovered. The labour was at the seventh month.

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(534) Double Uterus and Vagina with Cloaca in Adult.

LESSER (*Zeitschr. f. Geburtsh. u. Gynäk.*, vol. xl, Part 2, 1899) describes a case which appears to come under the class uterus didelphys with cloaca. A well-developed girl, aged 19, was under treatment for secondary syphilis. She had menstruated, without trouble, from 15, and had never suffered any pain or discomfort. She was, on the other hand, aware that the anus opened abnormally; the bowels acted normally and painlessly. The labia, clitoris, and urinary meatus were normal. Behind the meatus were the openings of the two vaginæ, separated by a thin septum. The hymen was intact on the left side only. Posteriorly another thin septum divided the vaginal from the anal orifice, which lay between the vaginæ and the posterior commissure. The anal mucocutaneous surface showed the usual folds, radiating towards the calibre of the rectum. The integument over the normal site of the anus was pigmented. Lesser, Gusserow, and Martin carefully explored the pelvis, and found that the vaginæ were double throughout, and

that there were two distinct uteri, the right lying a little higher and more externally than the left. Olshausen commented on this case as very unusual. In atresia ani vaginalis the rectum opens into the vagina itself. In Lesser's case the anus lay immediately behind the hymens, not above them; the perineum had developed entirely behind the anus.

THERAPEUTICS.

(535) Soluble Argonin in Gonorrhœa.

Jellink (*Wien. med. Woch.*, No. 5, 1899) describes a new preparation of argonin, called "Argonin L." The disadvantages of the older argonin recommended by Jadassohn were its difficulty of solution and the ease with which it decomposed. The new argonin is easily soluble in cold water and can be kept in solution for several months without decomposing. Also it contains 10 per cent. of silver instead of 4.2 per cent. The writer uses a one per cent. solution for cases of both anterior and posterior urethritis. Cases of anterior urethritis were treated by injections thrice daily and retained for five minutes. Posterior urethritis was treated by instillation with Ultzmann's syringe. After disappearance of the gonococci, astringent injections of zinc sulphate were used, but the patients had also three injections weekly of the argonin. Frequent examinations of the urine were made and the absence of gonococci and threads demonstrated. Other patients were treated with the old argonin and the results showed the superiority of the new argonin.

(536) Ununited Fracture treated by Thyroid Extract.

Galland (*Loire Méd.*, Ann. 18, April 15th, 1899) notes a case of fracture of the upper third of the left femur in a man, aged 53, in which, notwithstanding various operative procedures, there was absence of consolidation after a year. An apparatus was adapted to the limb by means of which he was able to walk about, and about five tabloids of thyroid extract daily were given for a month. Two months later the consolidation was complete. Blanc attributes part of the cure at least to the thyroid extract.

(537) Antitoxin in Epilepsy and Erysipelas.

Hessler (*Indiana Med. Journ.*, November, 1898) noticed a case in asylum practice in which a chronic epileptic with from 45 to 70 severe convulsions per month was attacked with erysipelas of the face. He recovered, and it was found that the convulsions had practically ceased. Hessler therefore gave hypodermic injections of erysipelas antitoxin in the case of an epileptic of a hopeless and chronic type, who was having from one to four convulsions a day. A marked diminution in the number of the fits followed the injections; but after a time the effect seems to have worn off. Three other patients similarly treated were benefited, but on account of the cost of the remedy the treatment was finally abandoned. No evil effects were observed at any time, and the injections were made under strict aseptic precautions.

(538) Treatment of Acne.

Saalfeld (*Therap. Monats.*, October, 1898) uses a special apparatus for the combination of the steam and alcoholic soap treatments of acne. The apparatus consists of a funnel with double walls large enough to admit the face. The interval between the two walls of the funnel is filled with hot water; an outer coat of asbestos surrounds the funnel, except at the lower part, which is heated by a spirit lamp. The apex of the funnel leads to a steam inhaler, in which the alkaline alcoholic solution of soap is placed. The patient places his face in the funnel, and the steam and soap solution act on the skin. The temperature is regulated by a thermometer on the top of the funnel. A temperature of 55° C. on this thermometer indicates 44°C. inside the funnel, and this is easily borne. The treatment is applied daily for periods of five to fifteen minutes. The author claims good results in acne vulgaris and acne indurata.

(539) Powdered Silver Nitrate in Antral Empyema.

Fein (*Archiv. f. Laryngologie*, Bd. ix, Hft. 1) uses powdered nitrate of silver in cases of old-standing suppuration in the antrum. The powder is ejected in a fine cloud from a special form of powder blower, and so covers the whole surface with a thin layer of the drug. The writer has found it useful in checking the discharge, and in improving other symptoms in chronic cases. No bad effects are caused excepting a slight burning sensation after the application.

PATHOLOGY.

(540) Infection with Organisms through Bugs and Leeches.

P. Mühling (*Centralbl. für Bacteriol.*, xxv., No. 20), investigating this question experimentally, took the anthrax bacillus as the most convenient test-organism. (1) Bugs can be made to imbibe the bacillus if they be applied to the site of inoculation, or if made to suck the blood of an animal saturated with that microbe, and seem none the worse for it, while the microbes themselves would appear to retain their virulence. The bite of such an infected insect is, however, non-virulent unless the creature be crushed at the site of its bite, when typical anthrax is set up. An infection is, however, more easily produced if bacilli have become entangled (which they may readily do) among the fine hairs with which the creature is beset. (2) The leech, like the bug, will imbibe the bacillus without harm to itself, but the microbe is destroyed within 24 hours in its alimentary tract. As the chances of a leech being crushed in the act of sucking are practically *nil*, and as the flow of blood from the bite can well wash away any bacteria that may have been introduced into the wound by the mouth of the worm, the risk of infection by leech-bite may almost be neglected.

(541) Leptothrix Cellulitis.

Max v. Arx (*Correspondenz-Bl. f. Schweiz. Aerzte*, March 15th and April 1st, 1899) reports 4 cases, proving, as he believes, that the leptothrix buccalis, which is usually supposed to be a harmless saprophyte, may, under certain circumstances, give rise to a clinically distinct variety of cellulitis of the neck. Other bacteria, including staphylococci and diplococci, were present in the tissues, but he picks out the leptothrix as the specific cause, partly owing to the anatomical and clinical characters differing from those of ordinary cellulitis of pyogenic origin, and partly to the odour of decaying teeth emitted by the pus. The affection begins insidiously as a periostitis round the deepest part of the fang of a carious tooth, generally a lower molar. In this stage the progress is slow, and a small, hard, and not very painful swelling may exist for months at the margin of the inferior maxilla. From the first this periostitis is of a septic necrotic character, and gives rise to a scanty amount of pus of a peculiar characteristic grey colour, and having the fœtid penetrating smell of carious teeth. Directly the pus is enabled to escape owing to the fibrillary necrosis of the periosteum, the first and chronic stage passes into the second and acute. A diffuse infiltration of stony hardness spreads from the condyles of the jaw to the clavicles, and beyond the middle line of the neck. The skin is red, but the diagnosis from erysipelas is easy, and it never becomes covered with bullæ. The external appearances differ but little from those of an ordinary deep cervical abscess, but in leptothricosis the tense swelling is due more to putrefaction and the production of a quantity of gas than to pus. Hence there is generally subcutaneous emphysema, and a crackling sound may be obtained on palpation. An acute abscess rapidly comes to a head and bursts either internally or externally, and in the latter case recovery follows. A leptothrix cellulitis is, on the contrary, an exceedingly dangerous malady, and unless promptly incised is inevitably fatal, more from general infection and cardiac paralysis than from local extension. The process may extend from the neck to the mediastinum, the pleura, the pericardium, and the peritoneum. The pain is severe, but less than in angina Ludovici. The temperature rises to 102° or 105° F., the pulse to 120 or 140. The air of the room, however well ventilated, is extremely offensive. In the later stages extreme dyspnœa and cyanosis are invariably present. Anatomically the fibrous and serous tissues are the first to undergo molecular necrosis. However ill-defined the external swelling may be, in the deeper parts the diseased tissues, owing to their grey-black colour, contrast sharply with the healthy.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(542) Congenital Atheroma.

DURANTE contributes an interesting account of the occurrence of marked atheroma in a child (*Bull. de la Soc. Anat.*, January, 1899). The patient was a child apparently born at 7 months, and admitted about a fortnight after birth with general œdema, redness of the skin, some periumbilical lymphangitis. Death was due to peritonitis. On *post-mortem* examination, besides inflammation of the peritoneum, apparently from umbilical infection, the organs showed no lesion. The thymus was small and pale. There was no pericarditis; the heart did not show any lesion, and the valves were healthy. On the other hand the pulmonary artery showed a hard condition of its walls, with here and there patches of considerable density, such as one is accustomed to see in the senile aorta. Several of these plaques broke on being doubled. The internal surface of the vessel was white, but smooth. The aorta did not show much change to the naked eye, though it gave the sensation of being unduly rigid. On microscopical examination the myocardium appeared healthy, as did also the pericardia and endocardia. The pulmonary artery, on the other hand, showed in the deeper portions of the tunica media a marked degree of fatty degeneration and calcareous infiltration. This was most evident in the inner portion of the coat, while in the outer the muscle fibres seemed fairly healthy. In other portions of the vessel the middle coat showed mere fatty degeneration of the cells, and here and there invaded the neighbouring cells of the inner coat. Nowhere was the intima found to be ulcerated. Examination of the aorta showed a similar change, but in a very slight degree. In neither instance was there any appearance of endarteritis. The writer points out that, although atheroma and calcareous degeneration may be met with at any age, the interest in this case consists in the fact that it was apparently congenital, as the lesion was too marked to have developed in the short time that the child lived. Moreover, the fact that there was no endocarditis almost precluded the idea of there having been any post-natal infection. Unfortunately no details as to the health of the parents could be ascertained, but it might be surmised that possibly one or both was syphilitic.

(543) Bulbar Paralysis without Anatomical Changes.

SCHÜLE (*Münch. med. Woch.*, March 29th, 1899) describes the case of a woman, aged 53, who was admitted into the Freiburg Hospital, under Professor Bäumler, on August 30th, 1897. The illness commenced in February, 1897, with pains in the arms and legs. Bulbar symptoms commenced in May, and were well marked in June, 1897. The patient had a nasal tone of voice and difficulty in swallowing; fluids often came back by the nostrils. Weakness in the legs was noticed in August, and was followed by a paresis of the arms. Owing to pulmonary catarrh and swelling in the arms and legs the patient had kept to her bed since June. Pupils reacted normally. Deep reflexes were present; sphincters and sensation not affected; mental condition natural. There was a feeble but troublesome cough. On September 4th, 1897, sudden violent dyspnœa occurred, and death followed in three hours. A necropsy was made and the nervous system was examined macroscopically and microscopically, with practically negative results. In the medulla oblongata were a few small hæmorrhages, which were evidently of quite recent occurrence, and could have had no causal connection with the patient's seven months' illness. Jolly, Oppenheim, Strümpell, etc., have described a kind of bulbar paralysis without anatomical changes, which has been termed "asthenic bulbar paralysis," because the symptoms were markedly increased by fatigue. Other observers speak of "asthenic ophthalmoplegia," etc. This "fatigue symptom" was not present in Schüle's case, and moreover it may probably sometimes be found in cases associated with decided anatomical changes. Schüle thinks the importance of this "fatigue symptom" must not be over-estimated in classifying cases.

(544) Progressive Ossifying Myositis.

A. WEIL AND J. MISSIM (*Nouv. Inconogr. de la Salpêtrière*, Nos. 2-6, 1898) conclude a minute analysis and study of 51 published cases, including personal observations, and arrive at the following conclusions, which sum up the work in their monograph: (1) Progressive ossifying myositis is an affection of the entire locomotor system. It is characterised by the deposit of osseous masses in the connective tissue of muscles, in the tendons, aponeuroses, ligaments, and bones. (2) Anatomically the disease presents three stages: (*a*) stage of embyonic infiltration, (*b*) stage of fibrous induration, and (*c*) stage of ossification. Clinically these three periods are less distinct, and intermix somewhat with one another. (3) Myositis ossificans can show itself at an advanced age, but it is, above all, frequent in childhood. (4) It is more frequent among boys than among girls, in the proportion of 3 to 1. (5) The German and Saxon races are more predisposed to it than others. (6) The disease seems to proceed from a lesion of the nervous centres, and constitutes a special trophic disturbance of the process of ossification. (7) The onset of the malady appears under two distinct forms—namely, acute and with slight febrile onset or chronic. (8) The disease commences generally in the neck or upper part of the back. (9) It brings about secondarily an atrophy of the muscles, and it causes an ankylosis of the articulations in a position regulated by the action of those muscles which are the first to be attacked. (10) There are some muscles which are frequently invaded by the ossifications (back, neck, and chest), others are rarely affected (abdominal walls), and some only exceptionally (facial muscles of mimicry, pharynx, etc.). Finally, certain muscles are never affected—for example, heart, diaphragm, and sphincters. (11) The affection presents a thickening of the whole connective tissue system of the locomotor apparatus. (12) It progresses by acute advances, interrupted by slower and longer stages of advance. Traumatism plays a certain part in the determining the outbreak of such advances. (13) Progressive ossifying myositis is often accompanied by a congenital anomaly (microdactylia, absence of phalanges, ankylosis of fingers). (14) The medical treatment is *nil*: surgical treatment at the beginning is not attended by permanent results, as recurrence of the bony growths is the rule.

(545) Acute Non-Suppurative Encephalitis.

FLATAU, of Oppenheim's Poliklinic (*Berl. klin Woch.*, May 1st, 1899) relates the 4 following cases, all of which terminated in recovery. (1) A woman who had passed through an illness regarded as influenza, developed some weakness in the legs, especially the left, and difficulty in speech. Clonic spasm was also noted in the left facial area. There was some disturbance of sensation in the lower branch of the fifth nerve. In a very short time considerable improvement was noted. The author looks upon the symptoms as due to an irregular patch of inflammation in the pons. (2) A patient was seized with giddiness and a feeling of numbness in the legs. Eight days later, when examined, she presented a conjugate deviation of the eyes to the right. She could not move the eyeballs to the left beyond the middle line. There was slight paralysis in the left face. There was also a slight right hemiparesis. The author refers the illness to an encephalitic lesion in the left half of the pons, on a level with the fifth, sixth, and seventh nerves. The case ended in recovery. (3) A man aged 33 had an attack of faintness. This was followed by complete right ptosis and weakness of the abducens on both sides. There was slight swaying when the eyes were closed. It was an example of the hæmorrhagic poliencephalitis of Wernicke. Recovery followed. The fourth case occurred in a boy aged 7, after a fall upon the back of the head. A few days later there was a limitation of movement in all the ocular muscles. There was also double ptosis. There was some paresis in the lips, and weakness in the left leg. Here there was a lesion in the central grey matter of the Sylvian aqueduct and of the third and fourth ventricles. There was some doubt as to the nature of this case. There were some slight symptoms present before the fall. Perhaps the fall was due to vertigo. The probable diagnosis was a traumatic poliencephalitis. The case ended in complete recovery.

(546) Bitemporal Hemianopsia Associated with Diabetes Insipidus.

SPANBOCK AND STEINHAUS (*Deut. med. Woch.*, No. 52, 1898) record a case in which this condition was found. Some 50 cases of temporal hemianopsia have, they say, been recorded, in 11 of which polyuria was noted as a symptom. Examination, however, shows that in 6 of these cases the presence of diabetes insipidus was not demonstrated clinically, and in 3 others the hemianopsia was only one of several symptoms pointing to extensive cerebral lesion. In the tenth (Barry's case) there was left-sided amaurosis with right-sided hemianopsia. Only the eleventh (David's) was a case of almost typical temporal hemianopsia with which there was shown to be diabetes insipidus associated. The author's own case was that of a woman aged 33. When 19 years old she contracted syphilis. In 1893 (aged 32) patient began to lose flesh. In September, 1894, she suffered from thirst and polyuria, and in November, 1894, came to the authors. Apart from some loss of flesh and the polyuria, a quickening of the pulse rate was the only abnormality found in the general condition. After correcting 2.0 D of myopia V = $\frac{2}{3}$ in both eyes. The fundi were normal, pupil reactions active, typical bitemporal hemianopsia, fields of vision for colours, in the unaffected halves, normal; 6 to 7½ litres of urine were passed daily; specific gravity, 1003-1002; no albumen or sugar. Potassium iodide was given in large doses, and mercury-sozo-iodol injected. One month later the fields of vision were normal, and by the end of the second month the polyuria had ceased, and the pulse rate was normal. The patient had remained well since. The chiasma and the floor of the fourth ventricle near the vagus nucleus were evidently the parts affected in this case. The authors regard the occurrence of diabetes insipidus with bitemporal hemianopsia as merely accidental.

SURGERY.

(547) Castration with Excision of the Vesiculæ Seminales and Vas Deferens for Tuberculosis.

PRINCESS GUÉDROYTZ DE BÉLOSÉROFF (*Rev. Méd. de la Suisse Rom.*, March and April 20th, 1899) discusses the question of operating for tuberculous disease of the testicle. One school is opposed to any operation, the other would operate in every case where the other viscera are not obviously involved. There can be no doubt that free removal as for malignant disease is the correct treatment, since it is now certain that tuberculosis is often primarily localised in the genitalia. Thus Reclus found that though the tuberculosis was general and pulmonary in twenty out of thirty necropsies, it was confined to the genitalia in the other ten. Simple castration is often quite inadequate, as the vas deferens and the seminal vesicle may be already involved. Ullmann of Vienna was the first to excise the vesiculæ seminales for tuberculosis in 1889, castration having been performed a month before, when it was seen that the vas deferens was also diseased, but Roux of Lausanne, in 1890, first devised and performed the complete operation of excising the testicle, vas deferens, and seminal vesicle at one sitting. Roux divides the operation into two stages: (1) The testicle is removed and with it any diseased skin. The vas deferens is separated from the other constituents of the cord, which are ligatured and cut, and gentle traction is made on it until 6 or 7 centimetres have been freed. It is divided obliquely as high up as possible and the skin incision is closed. (2) The patient is then placed in the lithotomy position. An incision 4 inches long and a little more than an inch from the middle line on the left side is made, passing backwards by the side of the anus and ending just behind the level of the coccyx. Through this the prostate and anterolateral surface of the rectum are reached easily after dividing some of the anterior fibres of the levator ani. The left index finger in the rectum then hooks the seminal vesicle downwards, and a loop of silk is passed round it as it appears in the bottom of the wound. It is then completely freed by peeling off all the surrounding connective tissue with the finger. The vesicle is then brought out together with the remains of the vas, the obliquely cut end of which proves that none has been left behind. The final step is to remove the vesicle by dividing its neck flush with the prostate and suturing the mucosa, the muscular layer, and the surrounding tissues separately. The perineal wound is sutured, and a bougie is passed for a few days. The writer has experimented on the cadaver in order to compare Roux's operation with those devised by others. There are three chief methods: (1) Excision of the vesicles by an inguinal incision; (2) by a sacral incision as in Kraske's or Rydigier's operation for excision of the rectum; (3) by a perineal incision. The first is very difficult to perform, in the second the lesion of the bone is a needless complication, and in the third though several incisions have been proposed none give so much room as Roux's without undue injury to the levator ani. A comparison of the twenty cases operated on by different surgeons which the writer has collected proves also that Roux's method gives the best results, some of his patients being alive and in perfect health three to six years afterwards.

(548) Hepatorrhaphy.

POMARA (*Gazz. degli Osped. e dell. Clin.*, April 16th, 1899) records the case of a child, aged 14, who was stabbed in the middle of the epigastric region immediately below the xiphoid process. Free hæmorrhage occurred, with vomiting of food. Syncope occurred. The hæmorrhage still continuing laparotomy was performed; it was then seen that the anterior surface of the left lobe of the liver was wounded to the extent of 1½ cm. The cavity was well cleared of clots, and the lacerated liver united by catgut sutures. The capsule and peritoneum were sewed up with catgut, and the skin with silk. The operation lasted forty minutes. The subsequent progress of the case was satisfactory, and the patient went home perfectly well on the eleventh day.

(549) Congenital Invagination of Bladder into Ureter.

CARREL (*Lyon Méd.*, May 7th, 1899) reports a case of phlegmonous inflammation of the right lumbar and iliac region in a man, aged 34. Forty-eight hours before he applied for relief vomiting set in after straining, then lumbar pain with hæmaturia followed. There was a history of right epididymitis; otherwise the patient seemed free from antecedent disease. A long incision was made, and a great quantity of fœtid pus, mixed with gas, escaped. The patient died twenty-four hours later. Double hydronephrosis was discovered. The left kidney was little affected, the right reduced to a thin shell full of pus, and communicating with a large circumrenal abscess which had burst and caused the phlegmon. The left ureter, a little dilated, opened normally into the bladder. The right was so dilated and tortuous as to look like small intestine. Close to the vesical orifice its canal contained a soft tumour 2½ inches long. This tumour, which looked like a coil of intestine, was a portion of the vesical mucous membrane invaginated into the ureter. The uretero-vesical orifice, of normal width, lay on the lateral part of the invaginated mucosa. The bladder was greatly thickened by old inflammation, so was the prostate and each epididymis. The ureter was free from stricture, but there was phimosis and adherent prepuce.

(550) Ptosis of Transverse Colon.

TUFFIER (*Bull. et Mém. de la Soc. de Chir. de Paris*, April 18th, 1899) exhibited last April before the Surgical Society of Paris on a "clinical evening" a man who had been subject to a tumour in the right iliac fossa which sometimes disappeared entirely. Intermittent attacks of obstruction occurred. The tumour was due to ptosis of the transverse colon. Accordingly that portion of the large intestine was fixed by "colopexy," and all the patient's troubles disappeared. Brun observed this condition in a child during an operation for appendicitis. This condition has been termed "congenital megalo-colon." Michaux has observed ptosis of the transverse colon twice in the patient's with pyosalpinx.

(551) Nephrotomy for Anuria.

BROCA (*Progrès Médical*, May 13th, 1899) reports a case, under Chavanaz of Bordeaux, in which a woman suffered from anuria due to uterine cancer. After phlebotomy and some injections of serum the albuminuria disappeared, to reappear a few days later with symptoms of uræmia. The right kidney bulged in the right hypochondrium. Chavanaz opened it by a lumbar incision, establishing a fistulous tract. The uræmic symptoms passed off and the patient

lived for five months, succumbing to the cancer. The left kidney was atrophied.

MIDWIFERY AND DISEASES OF WOMEN.

(552) Forehead Presentation.

I. RONSSE (*Belgique Médicale*, No. 20, May 18th, 1899) describes a case of forehead presentation in a 10-parous woman, 43 years of age. She was brought into the Ghent Maternity after about twenty-four hours of labour. A midwife had given her ergot, and a medical man had made attempts at delivery with forceps and craniotomy. The labia majora were œdematous. Through the dilated os the finger came immediately upon a large wound of the hairy scalp, situated directly over the frontal bones. The anterior fontanelle was to the right of the middle line and posterior; the glabella and root of the nose were to the front and left. The fœtal head was movable above the pelvic inlet, and there was narrowing of the pelvis of the first degree (conj. diagonalis = 10.5 cm.). As the fœtus was dead (absence of fœtal heart, presence of meconium in the liquor amnii) embryotomy was performed. The cranium was perforated with the middle blade of Tarnier's basiotribe, but this broke. Then Braun's cranioclast was used; the internal blade was easily introduced as far as the occipital foramen, and the external was applied over the face as far as the chin. Extraction was quickly carried out. The infant, a male, weighed 6 kilos. Recovery was rapid and complete.

(553) Fæcal Fistula after Pelvic Operation,

KRUSEN (*Amer. Gynec. and Obstet. Journ.*, March, 1899) operated on a bad case of pyosalpinx in a woman aged 32. The sigmoid flexure and anterior wall of the rectum were firmly adherent to the purulent mass, and the serous coat was torn in two places and immediately repaired with silk sutures. A gauze drain was introduced. Flatus passed and the bowels were opened on the second day. On the third fæcal staining of the gauze was noticed; by the sixth the fæces passed entirely through the abdominal wound. On the seventeenth day the original incision was enlarged, the intestines and omentum separated, and an opening large enough to admit a finger was found 4 inches above the anus. The rectum was freed from the surrounding adhesions and relaxed as much as possible to prevent undue tension on the sutures. An assistant introduced his finger into the rectum, a large rubber tube was introduced through the anus, grasped with the forceps, and carried above the opening in the rectum into the sigmoid flexure. The sutures were introduced with great difficulty, and the edges of the opening brought together as accurately as possible. The sigmoid flexure had to be loosened and held relaxed with a provisional suture. The omentum was drawn down and used to separate the pelvic from the abdominal cavity. A twist of iodoform gauze and a rubber drainage tube was passed into the pelvis, and the abdominal incision closed. The rectal tube was allowed to remain in position till the bowels acted. A very slight amount of fæcal matter came through the abdominal incision for two or three days, but this soon ceased entirely, and the subsequent course of recovery was uneventful.

(554) Papilloma of the Fallopian Tube.

CHIRCHOFF (*La Gynécologie*, April 15th, 1899, from the *Gazette Clinique de Botkin*, No. 42 to 44, 1898) reports a case under his personal observation. The patient was 41, regular, and had borne two children and aborted once. The last confinement occurred five years before observation. She seems to have suffered from an attack of pelvic inflammation at some distant period. She now felt pains, as during that past illness, in the hypogastric, inguinal, and sacral regions, and there was, as before, feverishness. An elastic, painless fixed tumour of the size of an orange lay in the left fornix; it was very adherent to the left border of the uterus. Higher up in the right fornix was another and a somewhat smaller tumour, more movable, and separated from the uterus by a deep groove. Intraligamentous ovarian tumour was, very naturally, diagnosed, and the tumours were removed. The right tumour was simply a multilocular broad ligament papillomatous cystoma, presumably ovarian. There was a similar growth on the left side; on its surface lay the Fallopian tube, its canal narrowed, and the uterine end blocked. The ostium, however, gaped widely, and from it protruded a pedunculated papillomatous mass. Chirchoff gives reasons for believing that the tube was the primary seat of papilloma in that case. Some papillomatous masses on the surface of the ovarian (?) cyst seemed directly derived from the tubal growths.

(555) Slow Progress of Cancer of Body of Uterus.

ODEBRECHT (*Centralbl. f. Gynäk.*, No. 21, 1899) recently exhibited at Berlin a uterus enlarged to the size of a fœtal head through cancer of its body. He had removed it by abdominal section after the malignant change had existed for at least five years and four months, a possibly unique case in the history of gynæcology. Odebrecht saw the patient first when uterine hæmorrhage had set in and had continued for nearly a year. She was then 54, and had not menstruated for seven years. There was then no distinct change in the uterus. He did not see her again till at the end of four and a-half years. The bleeding had continued all the while. The operation was then performed, with good results. Odebrecht maintains that the hæmorrhage must have been due to cancer from the first.

(556) A Free Body in the Peritoneal Cavity.

RINDFLEISCH of Königsberg (*Virchow's Archiv*, vol. clv, Pt. 2, 1899) found in the body of a woman aged 57 a hard irregular mass of the size of a goose's egg. It lay in the right iliac fossa. The patient had died from chronic heart disease with ascites. The upper part of the right ureter and the renal pelvis were dilated, and it seemed probable that the hard body had pressed on the ureter. There was an interstitial myoma of the size of a hazel-nut in the anterior wall of the uterus. This made the observer suspect what was the origin of the free body, and his suspicion proved correct, as on examination plain muscle cells were detected in its interior, though the exterior was chiefly calcified material blended with white fibre and remarkable groups of hæmatoidin crystals. In short, the body must have been a detached pedunculated myoma. Stern recently removed a completely detached myoma as big as a fœtal head by operation. In other cases the free body proved to be a lithopædion, an ovarian tumour twisted off its pedicle, an ectopic fœtus expelled from its sac, or a lipoma developed from an appendix epiploica.

THERAPEUTICS.

(557) The Treatment of Diabetes.

GUIRANNA (*La Clin. Mod.*, An. 5, n. 19) speaks very highly of a diet of fresh vegetables in the treatment of diabetes. In bad cases he finds much benefit derived from an exclusive diet of fresh vegetables for a few days, but in ordinary cases a mixed diet is sufficient. The vegetables recommended are endive, cabbage, French beans, artichokes, and in general all green vegetables. Peas and beans, provided they be fresh, may be taken in small quantities ($\frac{1}{4}$ kg.). The author also allows fruits in moderation. The only saccharine substance allowable is levulose, from 50 to 200 gr. a day. Probably the reason why green vegetables are tolerated so well is because the starch is converted into levulose and not dextrose. The objection to saccharin and dulcein as sweetness is that they do not represent a food, but a foreign body in the organism and being of the aromatic series, and as such non-assimilable, only increase the amount, already copious enough, of waste products in the body. The author has no great faith in drugs, but thinks certain mineral waters, alkalies, massage and baths more useful.

(558) Itrol and Actol.

SCHILL (*Therap. Monats.*, April, 1899) summarises the chief therapeutical value of these silver salts. In the treatment of the acute stage of gonorrhœa Wesler begins with (sol. itroli 0,025 : 200 D. in vitr. flav.) the fluid is injected into the urethra 4 times a day. A little later on the strength can be increased—sol. itroli 0,03—0,04—0,05 : 200 (this would correspond to 1 : 8,000—4,000). The patient first urinates and begins by injecting half a syringeful, the amount may gradually be increased until one syringeful has been injected. The fluid must be retained for some minutes in the urethra. Solutions of itrol readily decompose when brought into contact

with organic material; it is therefore necessary to wash out the syringe with hot water before using it, and also to pour the silver solution in a clean vessel. In the consulting room Wesler uses a concentrated solution 0.25 : 1,000, which he dilutes with warm water. There is no burning or smarting pain either during the injection or after it. He has never met with cases of œdema, hæmaturia, or retention following the use of the silver salts. Wesler has treated 50 cases. It is important to commence treatment as early as possible in order to prevent the gonococci from implicating the deeper parts of the mucous membrane. Schill has employed this remedy during the last year, and has treated 100 cases. He gives some practical rules to be observed in the treatment: (1) Itrol injections are to be commenced as soon as possible; (2) they should be carried out four or five times a day; (3) The syringe should contain 6 to 8 c.cm.; (4) the fluid must remain 10 minutes in the urethra after the latter has been cleansed by half a syringeful of the injection; (5) the strength of the injection at the beginning should not exceed 0.02 : 200. The solution must always be lukewarm. Recent researches by Credé have shown that colloidal silver can be used with success in cases of septic peritonitis, and also in those cases where it is intended to guard the healthy peritoneum from septic products. The silver is given in the form of a pill. Each pill contains 0.05 argent. colloid, with an equal quantity of sugar of milk and a little glycerine. Colloidal silver forms 1 to 25 solution with serum. It is, therefore, easily dissolved, and comes into direct contact with the micro-organisms. It is sufficient to give 4 pills, but 10 will not produce poisonous effects. The drug was used in 16 laparotomies; 15 of the cases made a good recovery, 1 case died five weeks after the operation from acute phthisis, after the wound had completely healed. At the *post-mortem* examination there was no sign of peritonitis, the silver had been completely absorbed; no trace of it could be found in the lymphatic glands. The ointment of colloidal silver is of great service in chronic septic conditions. The ointment was used with success in an epidemic of cerebro-spinal meningitis by Schirmer; 30 grams of Credé's ointment was rubbed in every third day. The silver salts have been extensively used in veterinary surgery. Their power depends chiefly on their antiseptic properties.

(559) Euchinin in Whooping-cough.

Cassel (*Therap. Monats.*, April, 1899) has found this drug of great value in certain cases of whooping-cough. Euchinin is made by the action of chlorcarbonate of aethyl on quinine. It has the following formula:

$$CO\langle \begin{matrix} OC_2H_5 \\ OC_{20}H_{23}N_2O \end{matrix}$$

Euchinin appears in the form of delicate white needles, having a melting point of 95° C. It is with difficulty dissolved in water, but is freely soluble in alcohol, ether, or chloroform. When in solution it has a basic reaction with litmus paper, and forms crystallisable salts with acids. Euchinin is tasteless, but after remaining some time on the tongue it has a slightly bitter taste; this is completely hidden by adding some sugar. Noorden has shown the therapeutic value of the drug in various feverish conditions; he also demonstrated its harmless quality. According to his experience 1.5 to 2 gr. of euchinin have the same effect as 1 g. of quinine in reducing the temperature. In 15 cases of whooping-cough he found it had a beneficial effect in 12; the 3 failures showed no reaction to quinine either. Overlach has confirmed Noorden's views; but he finds it unnecessary to increase the dose of euchinin. The drug has been lately used in the treatment of malaria by Pietro Conti and Giuseppe Panegrossi with good results. This new remedy is made by Zimmer and Co. in Frankfurt. It has a great advantage over quinine in not causing headache or tinnitus. The author has treated 18 cases of whooping-cough, the ages ranging between 10 months and 9 years. He began with small doses at first, as the remedy had not previously been tried very extensively. Children from 4 to 7 years were given 0.3 g. per diem; one infant aged 1½ was given 0.15. The drug appeared to be quite harmless, and was consequently increased 0.5 to 1 g. per diem, the daily quantity never exceeded 1 g. The drug could be given for weeks without doing harm. It was prescribed in water sweetened with sugar. The author divides his cases into two great classes: (1) Those in which no fever or other complication occurs; (2) Those suffering from capillary bronchitis or fever. Euchinin has a markedly beneficial effect in Class 1, but has practically no effect in Class 2. Euchinin cannot claim to be a specific remedy, but certain cases are undoubtedly benefited, chiefly those in which there is no rise of temperature. The author gives curves showing the length of the illness, the period occupied by treatment, and the daily amount of euchinin given.

PATHOLOGY.

(560) Chemotaxic Action of Toxins upon Leucocytes.

Bohland (*Centralbl. f. inn. Med.*, April 29th, 1899) discusses the action of the toxins of the typhoid and colon bacilli upon leucocytosis. It has been certainly proved that there is a diminution of leucocytes in the blood in typhoid fever. This hypo-leucocytosis mostly lasts as long as the fever. Bohland and Steinhaus have made the following experiments upon rabbits. The number of leucocytes were first estimated after the animals had been fasting for twelve hours. Then a solution of the toxins of the typhoid bacillus was injected, and the number of leucocytes counted in specimens of blood taken from the ear ten, twenty, thirty, and sixty minutes after the injection. In 8 out of 10 experiments a diminution of the leucocytes was observed in ten to fifteen minutes, and it reached its height in twenty to thirty minutes. In 1 of the remaining 2 experiments, there was no diminution of the leucocytes owing to the small amount of toxin injected, and in the other the diminution was only noted after a temporary increase. Thus the toxins of the typhoid bacillus exercise a negative chemotaxic action. In 11 similar experiments with the toxins of the bacillus coli communis an increase in the number of leucocytes was observed varying from 12 to 74 per cent. Thus here there was a positive chemotaxic action. Nine observations were made with the blood serum obtained from typhoid patients. In 6 uncomplicated cases there was a very distinct negative chemotaxis action. The author thinks that if the positive chemotaxis can be proved for the colon bacillus obtained from various sources, it may serve as an additional means of distinguishing between the typhoid and colon bacillus. Hypoleucocytosic occurring in typhoid fever may be assigned to the circulation of the toxins in the blood. If a secondary infection occurs then this negative chemotaxic action may disappear owing to other tovins being present. This fact alone impairs the value of the test.

(561) The Spleen in Syphilis.

C. Bruhns (*Deut. Arch. f. klin. Med.*, 1899, vol. lxiv, p. 451) in 60 cases of recent syphilis found only four times an undoubted enlargement of the spleen yielding to specific treatment; he also found splenic enlargement twice in 4 cases of malignant syphilis. From his own and other observations it appears that in early stages of syphilis enlargement of the spleen can only seldom be made out with certainty. At present, therefore, the condition of the spleen does not help one to draw any conclusions regarding diagnosis or treatment.

(562) Ulcerative Stomatitis.

Guizzetti (*Archiv. per le Sc. Med.*, vol. xxiii, No. 1) has examined bacteriologically and histologically three cases of ulcerative stomatitis (in two of which death occurred), and he finds there is the closest resemblance both histologically and bacteriologically between ulcerative stomatitis and noma; the chief difference being in the extension of the disease and in the presence of spirilla. Both diseases differ from other gangrenous ulceration in the marked zone of necrosis close to the living tissue, in the line of transition between the gangrene and the living tissue, and in the layer of living tissue which immediately surrounds the dead area. Frühwald's bacillus is not the cause of the disease. The evidence as regards the pathogenic power of the spirilla is doubtful; they seem more plentiful in bad cases. The same applies to the bacilli met with at the edge of the growth. The author was unable to find any definite specific bacillus.

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